



## *EclipseLink 2.1.0 Release Review - Helios*

*Proposed Release Date: June 23rd 2010*

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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, 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 30<sup>th</sup>, 2007
- Initial Source Drop – Aug 23<sup>rd</sup>, 2007
- Major releases
  - 1.0 release July 9<sup>th</sup> 2008
  - 1.1 Release: March 11<sup>th</sup> 2009
  - 1.2.0 Release: Oct 23<sup>rd</sup> 2009
  - 2.0.0 Release: Dec 10<sup>th</sup> 2009
  - 2.1.0 Release: June 23<sup>rd</sup> 2010 - Helios release train
- Monthly milestone builds on multiple streams

# *EclipseLink 2.1.0 New Features*



- Performance
  - Several improvements on all components
- JPA
  - Support for NetWeaver Application Server
  - JPA Query Extensions
  - Enhanced Fetch Group Support
    - Nested relationships, LoadPlan, sparse merge
    - New FUNC Keyword in JP QL
    - Relax parsing restrictions
  - Dynamic Persistence
    - Support for mapping without static classes
  - 155 bugs fixed in Foundation and JPA components

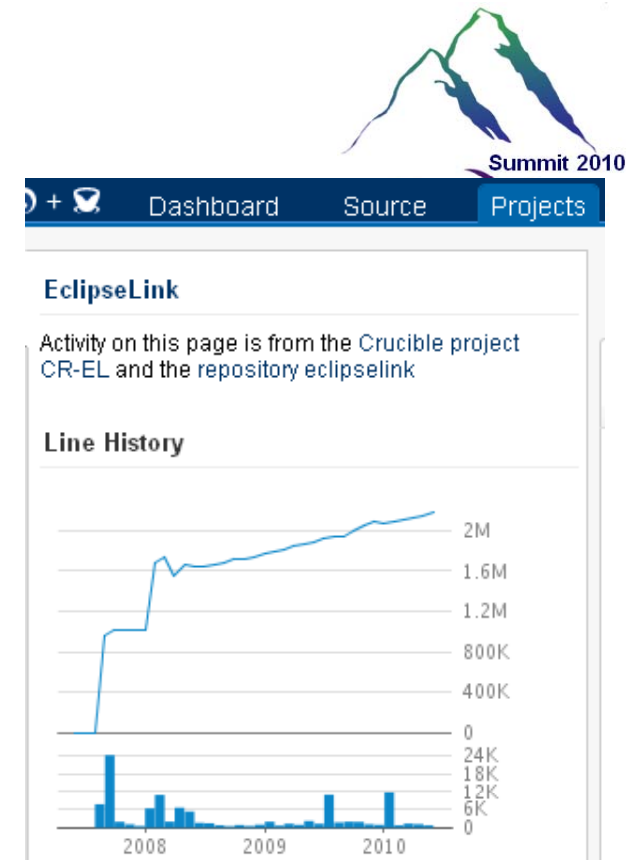
## *EclipseLink 2.1.0 New Features (cont'd)*



- MOXy
  - JAXB 2.2 Compliant
  - Enhanced eclipselink-oxm.xml support
  - Support for Array properties
  - Dynamic persistence
- SDO
  - Server support for WebSphere & Jboss
- DBWS
  - Support DBWSBuilder-generated JAX-WS Provider on JRockit
  - Support for Eclipse WTP Dynamic Web Project structure
- 93 Bugs fixed in EclipseLink (MOXy, SDO, DBWS)

# Project Health

- Active Code Base
  - Average 125 svn commits / month
  - Average 2760 files / month
- Testing
  - JUnit test cases for regression testing
  - Continuous build
    - Run every half hour (if code changes)
    - Compile and Smoke tests
  - 43,000 tests run nightly on Eclipse Foundation servers
    - 20,000 more than for 2.0.
- Additional Testing
  - Additional configurations run regularly on Oracle servers
    - Several different DBs, Several Different App Servers
    - 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 260 bug/enhancements Closed in 2.1.0

# 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
  - 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, ....
  - <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 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 12 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 3<sup>rd</sup> Party jars) dual licensed under EPL and EDL
  - All 3<sup>rd</sup> party dependencies are approved
- New CQs for 2.1.0
  - JAXB API
    - JAXB 2.2 API - CQ3670
    - JAXB 2.2 RI - CQ3671
    - JAXB 2.2 XJC - CQ3673
- Community Contributions
  - 7 Contributions in 2.1.0 listed in IPLog
- 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
- 1.2.0 Release
  - Deprecation of some native persistence unit properties addressed in JPA 2.0
- 2.0.0 Release
  - No EclipseLink features are being discontinued

# Schedule



- EclipseLink 2.1.0
  - *Start date: Nov 2009*
  - *1<sup>st</sup> Milestone: Dec 16<sup>th</sup> 2009*
  - Originally Planned for: June 24<sup>th</sup> 2010
  - Currently planned for: June 23<sup>th</sup> 2010
  - Features Being Included
    - JAXB 2.2
    - Nesting Fetch Groups
    - Dynamic Persistence
    - JPQL extensions
- Next release: EclipseLink 2.2.0
  - Fall 2010
  - <http://wiki.eclipse.org/EclipseLink/Development/2.2>

# Feedback



- Newsgroup:  
`http://www.eclipse.org/newsportal/thread.php?group=eclipse.rt.eclipselink`
- Mailing lists:
  - [eclipselink-dev@eclipse.org](mailto:eclipselink-dev@eclipse.org)
    - Release Review communication channel
  - [eclipselink-users@eclipse.org](mailto:eclipselink-users@eclipse.org)
- Eclipse Bugzilla
  - RT
  - Product: EclipseLink