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 fore 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
    - 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

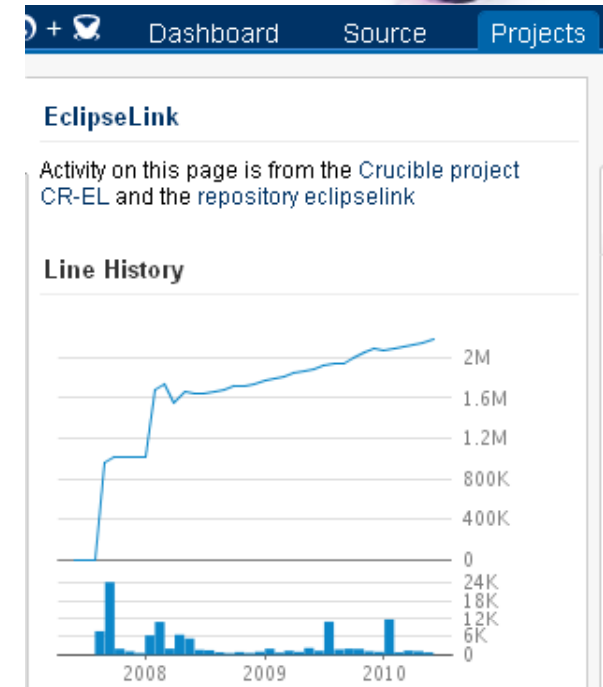# *EclipseLink 2.1.0 New Features (cont'd)*

- 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

EclipseLink

Activity on this page is from the Crucible project CR-EL and the repository eclipselink

Line History

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)

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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

- 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 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*
    - *1st Milestone: Dec 16th 2009*
    - Originally Planned for: June 24th 2010
    - Currently planned for: June 23th 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

    - Release Review communication channel

  - eclipselink-users@eclipse.org

- Eclipse Bugzilla

  - RT

  - Product: EclipseLink