EclipseLink 2.2.0 Release Review - Helios Proposed Release Date: Jan 18th 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, 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
        - 2.2.0 Proposed release: Jan 18th 2011
    - Monthly milestone builds on multiple streams

EclipseLink 2.2.0 New Features

- Performance
  - Several improvements on all components
  - Added a Performance Monitor goal to provide detailed profiling and monitoring information in a mutli-threaded server environment.

- JPA

  - Support for MAXDB database

  - Support to allow for non- cacheable relationships.

  - Enable discovery of persistence unit classes in OSGi with Gemini

  - Support the automatic addition of additional query criteria to queries

  - MBean Support for multiple servers(WLS, Jboss, WebSphere, Glassfish)

  - Support for generating database indexes

  - Support for ON DELETE CASCADE to automatically removes the dependent rows.

  - Support for partitioning Entity data simultaneously across different Datasources

  - 160 bugs fixed in Foundation and JPA components

EclipseLink 2.2.0 New Features (cont'd)
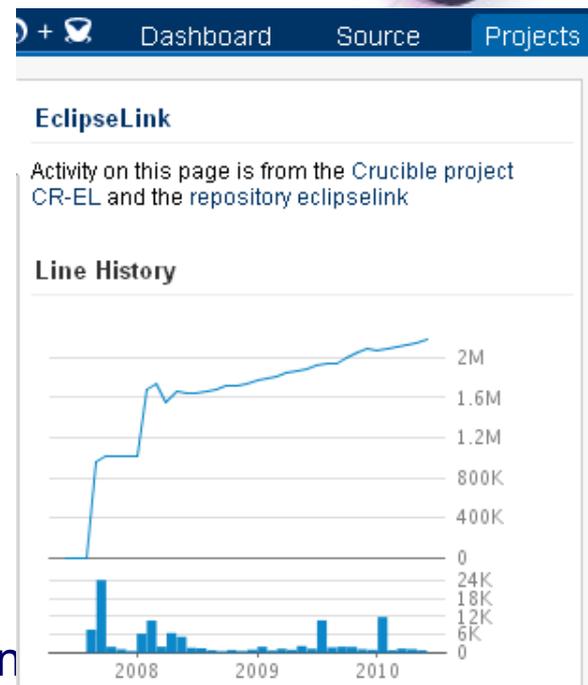
- **MOXy**
  - MOXy JAXB extensions available as annotations
  - JAXB and MOXy annotations available through eclipselink-oxm.xml
  - Full MOXy support available through Dynamic Persistence
- **SDO**
  - Server support for WebSphere & Jboss
- **DBWS**
  - Support DBWSBuilder-generated JAX-WS Provider on JRockit
  - Support for Eclipse WTP Dynamic Web Project structure
- **101 Bugs fixed in EclipseLink (MOXy, SDO, DBWS)**

Project Health

- Active Code Base
    - Average 3134 file commits / month
- Testing
    - JUnit test cases for regression testing
    - Continuous build
        - Run every half hour (if code changes)
        - Compile and Smoke tests
    - 44,000 tests run nightly on Eclipse Foundation
        - 1,000 more than for 2.1.
- 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

    - approx 260 bug/enhancements Closed in 2.2.0

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, ….

    - 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://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

- 2.2.0 Release

    - No new features are being deprecated

Schedule

- EclipseLink 2.2.0

  - *Start date: June 2010*

  - Originally Planned for: Dec 8th 2010

  - Currently planned for: Jan 18th 2010

- Next release: EclipseLink 2.3.0

  - Summer 2011

  - http://wiki.eclipse.org/EclipseLink/Development/2.3

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