EclipseLink 1.2.0 Release Review

Proposed Release Date: October 14th 2009

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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

  - J2EE Connector Architecture (JCA): EIS

  - Service Data Objects (SDO)

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: Feb 2009
    - 1.1.2 Release: Galileo release train 2009
    - **1.2.0 Release: Planned October 14th 2009**
    - 2.0.0 Release: Planned November 24th 2009
  - Monthly Milestone builds.

EclipseLink 1.2.0 New Features

- JPA

  - JPA 2.0 preview functionality based on Proposed Final Draft

  - Maintain JPA 1.0 compliant (since EclipseLink 1.0)

    - 100% TCK pass rate

  - Many bugs fixed in EclipseLink 1.2.0 (Foundation and JPA)

    - 129 bugs fixed

  - Dynamic Persistence supporting JPA and native ORM with runtime or XML mappings without needing a class (.java or .class)

EclipseLink 1.2.0 New Features

- MOXy
  - JAXB 2.1 Compliant implementation
  - Extended support for externalized (XML) mapping
  - 162 bugs fixed in the EclipseLink MOXy
- SDO
  - SDO 2.1.1 and SDO 2.1 Compliant
    - EclipseLink 1.1.0 is the Reference Implementation of SDO 2.1.1
  - Many bugs fixed in EclipseLink SDO

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
- Bugs
    - 330 bug/enhancements Closed in 1.2.0

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 questions 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 presentations 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
    - JPA 2.0 Reference Implementation (JSR 317)
    - SDO 2.1.1 Reference Implementation (JSR 235)

  - 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 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 IP approved for the 1.2.0

- New CQs for 1.2.0
  - JAXB 2.1.12 – CQ's: 3007, 3428, 3429
  - JAX-WS 2.1 – CQ 3030
  - JPA 2.0 Draft– CQ 3004
  - Validation API – CQ 3435

- Community Contributions
  - 11 Bugs 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

Schedule

- EclipseLink 1.2.0
    - *Start date: July 13th*
    - *1st Milestone: Aug 13th*
    - Planned for: Oct 14th, 2009
    - 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
- Next release: EclipseLink 2.0
    - End of November
    - JPA 2.0 Reference Implementation release for inclusion in Java EE 6.0

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