EclipseLink 1.1 Release Re-Review

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Project Overview

- Complete persistence framework that is both comprehensive and universal

- Will run in any Java Environment

  - OSGi, Java EE, Java SE, Spring Framework

- 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)

EclipseLink 1.1 Re-review

- Original Release Review approved
  - Feb 11th 2009

- Re-Review: March 11th 2009
  - The only change from the previous review is the removal of the JPA 2.0 preview API Jar (javax.persistence_2.0_preview.jar)

Project Overview (cont'd)

- Key Contributions
  - Oracle Corp: Initial Code base came from Oracle TopLink (900K LOC)
    - 2 Project Leads + 25 Committers
  - Sun Microsystems: Contributed to initial source contribution
    - 1 committer
  - Other contributors
    - TmaxSoft, Adam Bien, Markus Karg, Ingres, New York City Payroll
    - Numerous bugs filed by non-committers
- Project home page: http://www.eclipse.org/eclipselink

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: Planned March 2009
    - 1.1.1 Release: Galileo release train 2009
    - 2.0 Release: Planned Summer 2009
  - Monthly Milestone builds.

(2.1) EclipseLink 1.1 New Features

- DBWS

  - New in EclipseLink 1.1

  - Provides simplified means of access to relational data through Web Services

  - Based on JAX-WS2.0 specification.

  - Metadata-driven runtime.

  - DBWSBuilder utility provides simple default means of retrieving metadata and generating Web Service artifacts

    - Support provided for RDBMS Tables (C/R/U/D access), SQL and Stored Procedures.

  - Ability to fully customize the database access and XML mapping of the data

(2.1) EclipseLink 1.1 New Features

- JPA
  - New features
    - Support for Table per Class Inheritance
    - Support 1:M without a backpointer or relation table
  - Maintain JPA 1.0 compliant (since EclipseLink 1.0)
    - 100% TCK pass rate
  - 142 bugs fixed in EclipseLink 1.1 (Foundation and JPA)
- SDO
  - SDO 2.1.1 and SDO 2.1 Compliant
    - 100% TCK pass rate
  - 60 bugs fixed in EclipseLink 1.1 (SDO)
- MOXy
  - 18 bugs fixed in the MOXy component

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
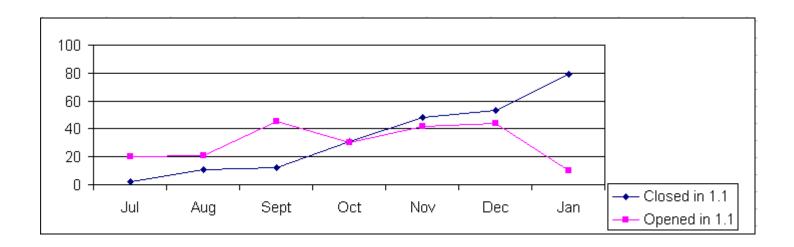   - Various DBs, Various App Servers

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

Project Health (cont'd)

- Bugs
  - 236 bug/enhancements Closed in 1.1
    - Average 40 bugs closed per month

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 question 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 presentation 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

  - 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 with 10 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
- New CQs for 1.1
  - 2505 - Java Servlet 2.4.0
  - 2702 - OSGI Compendium 4.1.0
  - 2740 - Java API for XML Web Services 2.0.0
  - 2884 - SDO 2.1.1
- 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

- 2.0 Release

  - Plan to introduce new fully functional meta data

    - 1.0 and 1.1 supports partial solution.

  - Will begin migration story from old meta data

    - Deprecate meta-data
    - Discontinue in a future release

Schedule

- EclipseLink 1.1
  - *Start date: July 13th*
  - *1st Milestone: Aug 13th*
  - Originally planned for: Early December
  - 1st Revised Plan: February 16th
    - *2nd revised plan:* March 11th 2009
  - Features Originally Planned:
    - Partial JPA 2.0 functionality
    - DBWS using JAX-WS
    - New Fully functional metadata
  - Features Being Included
    - New JPA features
      - Table per Class inheritance, unidirectional one to Many mapping
    - DBWS using JAX-WS
    - SDO 2.1.1

Future Scheduling

- EclipseLink 1.1.1
  - June 2009 - Galileo release train

- EclipseLink 2.0
  - Summer 2009
  - Major functionality: JPA 2.0

Feedback

- Newsgroup: eclipse.technology.eclipselink

- Mailing lists:

    - eclipselink-dev@eclipse.org

        - Release Review communication channel

    - Eclipselink-users@eclipse.org

- Eclipse Bugzilla

    - RT

    - Product: EclipseLink