EclipseLink 2.4.0 Release Review - Juno
Proposed Release Date: June 22nd 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, NoSQL, 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 Release Feb 22 2011
    - 2.3.0 Release: June 22 2011 - Indigo
    - 2.4.0 Release: June 22 2012
  - Monthly milestone builds on multiple streams

EclipseLink 2.4.0 New Features

- Performance

  - Several performance improvements on all components

- JPA

  - JPA-RS

  - Multi tenant Data – Table per tenant

  - MetadataSource support for PU Properties

  - Database Change Event Cache Invalidation

  - Cache indexes

  - 135 bugs fixed in Foundation and JPA components

- NoSql

  - New component in 2.4.0 to support NoSql Datasources

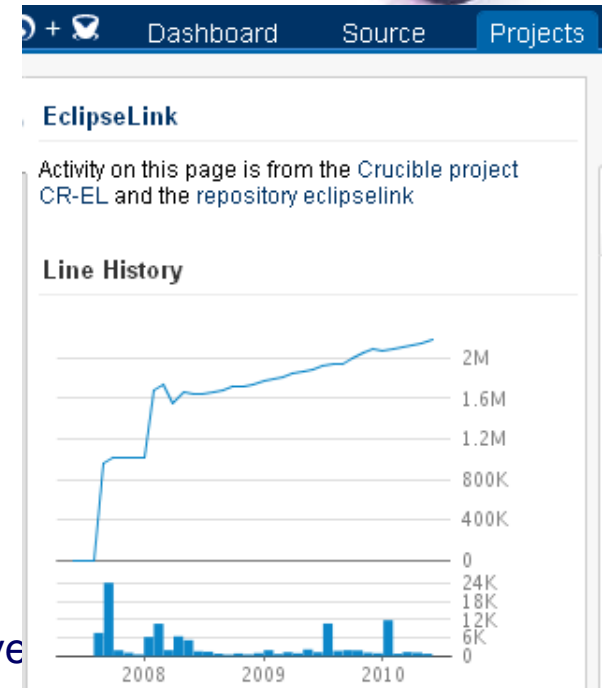# *EclipseLink 2.4.0 New Features (cont'd)*

- MOXy

    - Object-JSON Mapping support

    - JAXB RI compatible functionality

    - Creation of RESTful services using MOXy & JPA

- **DBWS**

    - Parse DDL to extract database metadata.

    - Batch SQL operations

    - Non-associative PL/SQL collections

    - PL/SQL scalar argument types

    - Handle mix of PL/SQL and advanced JDBC types withing a stored procedure/function

- 100 Bugs fixed in EclipseLink (MOXy, SDO, DBWS)

Project Health

- Active Code Base

  - Average 3000 file commits / month

- Testing

  - JUnit test cases for regression testing

  - Continuous build

    - Run every half hour (if code changes)
    - Compile and Smoke tests

  - 59,000 tests run nightly on Eclipse Foundation serve

    - 14,000 more than for 2.3.

- Additional Testing

  - Additional configurations run regularly on Oracle servers

    - Several different DBs, Several Different App Servers, Different VMs
    - 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 200 bug/enhancements Closed in 2.4.0

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 14 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://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

- 2.4.0 Release
  - No new features are being deprecated

Schedule

- EclipseLink 2.4.0

    - *Start date: Feb 2012*

    - Originally Planned for: Winter 2011

    - Currently planned for: June 22nd 2012

- Next release: EclipseLink 2.5.0

    - Winter 2012

    - http://wiki.eclipse.org/EclipseLink/Development/2.5

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