

Teneo 0.8.0 Ganymede Simultaneous Release Graduation Review

May 16th, 2008



Ganymede Release Talking Points

Features of this Release

- Generation of (in-memory) JDO and Hibernate Mappings on the basis of ecore models
- Full coverage of JPA specification
- Extensive automatic JPA annotation generation
- Support for JPA annotations in the Model as Eannotations for manual override of default behavior
- Support for JPA model annotations in separate xml for manual override of default behavior
- Advanced Relational Resource Implementations
- Support for most (if not all) EMF Features
- Support for many XML Schema Constructs



Ganymede Release Talking Points

Features of this Release

- Support for Dynamic EMF Models
- Support for persisting Ecore Models
- Support and integration with GMF
- Implementation of Extension Mechanism for easy override of parts of Teneo
- Support for the EJB3 EntityManager



Teneo

Teneo is a database persistency solution for EMF using JPOX/JDO 2.0 or Hibernate.

It supports automatic creation of EMF to Relational Mappings and the related database schemas.

The solution contains a runtime layer to support specific EMF features. EMF Objects can be stored and retrieved using advanced queries (HQL or JDOQL).

EMF resource implementations are provided for integration with EMF Editors.

The persistence logic and mapping can be controlled using EJB3/JPA-like annotations. Most of the EJB3/JPA mapping standard is supported.

Non-Code Aspects

- Change Management
 - Every change Teneo is described by at least one bugzilla or update post on the newsgroup
 - The Release Notes presents all the bugzillas implemented in a given build: <http://www.eclipse.org/modeling/emft/news/relnotes.php?project=teneo&version=HEAD>
- Non-code aspects:
 - Documentation is updated with every build
 - Tutorials are available for EMF Library Example, Eclipse editor, GMF integration and dynamic EMF
 - Many mapping examples are included in the documentation



Non-Code Aspects

- 150 JUnit Tests
 - Run on 3 different scenarios (496 test cases)
 - Testing on 2 different databases
 - Every published feature has a test case covering it
 - Solved bugzillas have a test case
 - All junit tests are implemented as integration tests with full test data creation and manipulation



APIs

- The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- The api of Teneo is mainly the generated relational mapping.
- Mapping results have been stable with minor changes over time
- Options have always been provided to provide backwards compatibility
- Java™ api changes have been minimal since one year
- Teneo 0.8.0 supports both EMF 2.3 and EMF 2.4 and both Eclipse 3.3 and Eclipse 3.4

Architectural Details, Usability, End-of-Life

- Architectural Details
 - Teneo 0.8.0 is based on EMF 2.3/2.4, it requires a 5.0 JVM or greater
- Usability
 - Teneo is very un-intrusive
 - Teneo operates behind the scenes. Except for some initialization code the developer talks to standard EMF or the standard Orm tool.
 - The documentation has continuously been updated, new tutorials have been added in the past few months.
- End-of-Life Issues
 - Support for EMF 2.2 and Eclipse 3.2 is on-an-as-need basis
- Committer Changes
 - New committers: Shaun Smith (Oracle), Stephan Eberle (Geensys)



Bugzilla

- The past 2 years 266 bugs have been solved
- Currently 10 bugzillas are open, of these 3 bugzilla's are bugs, the others are feature requests
- There are no p1 or p2 bugzillas open

Standards and UI Usability

- Standards
 - Support for standard EMF (and the standards supported by EMF)
 - Follows the JDO and the EJB3/JPA standard
- UI Usability
 - Teneo only has a minimal ui, so not relevant

Schedule

- Teneo uses a continuous build approach
- Every 2-3 weeks a new build which solves all outstanding bugs
- No due dates were missed

Communities

- Teneo is a very active component on the EMFT newsgroup
- 1981 posts on the EMFT newsgroup are related to Teneo of a total of 5392
 - `eclipse.technology.emft`
- Teneo is being used by many different EMF users in different environments: web service, web application to rich client application.
- Teneo has been presented on both EclipseCon 2007 and EclipseCon 2008
- Relation to other Eclipse Projects (other than EMF):
 - Teneo is currently being integrated with EclipseLink and EMFT CDO
 - Teneo integrates with GMF

IP Issues

- The about files and use licenses are in place as per the Guidelines to Legal Documentation.
 - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
 - There have been no significant contributions
 - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.



IP Issues

- The Teneo component leadership verifies that (cont.)
 - All Contribution Questionnaires have been completed.
 - The "provider" field of each plug-in is set to "Eclipse.org".
 - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
 - Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
 - Any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- The Teneo IP log will be created using the toolset which will be provided by the Eclipse Foundation.



Project Plan – future features

- Teneo EclipseLink integration
- Teneo CDO integration
- Further support for standard and orm-specific JPA annotations
- JPA Annotated Java code generation
- Extend Ecore Tools to support annotating models with JPA annotations



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Graduation: Active Community

- Active Community of diverse and global user base
 - 2000 newsgroup posts in 2 years
- Integration with both CDO and GMF
- Committers from three organisations
- More than 250 bugzillas filed and solved

Graduation: Open and Transparent

- Very responsive support on newsgroup, open discussions and reactions on proposals from users
- More than 250 bugzillas filed and solved
 - Discussions within bugzillas
- Planned features are published in the documentation
- Clear test-all approach, uses standard

Graduation Review: The Eclipse Way

- Active Community of diverse and global user base
- Project Materials are all available to the public
- Follow IP-policy (approval for use of jdo jar files, for example)
- Long talks on both EclipseCon 2007 and 2008
- Integrates with other Eclipse projects: EMF, GMF, EMFT CDO (under development), EclipseLink (under development)
- Frequent/Continuous builds (every 2-3 weeks)
- Every build solves all outstanding bugs-bugzillas
- Builds are automatically tested in multiple scenarios, test cases are run on different databases
- Committer Diversity: Independent Consultant, Oracle, Geensys



Graduation Review: Technical Architecture

- See also earlier slide on Teneo
- Runtime architecture:

