

EMF Compare 0.8.0 Ganymede Simultaneous Release

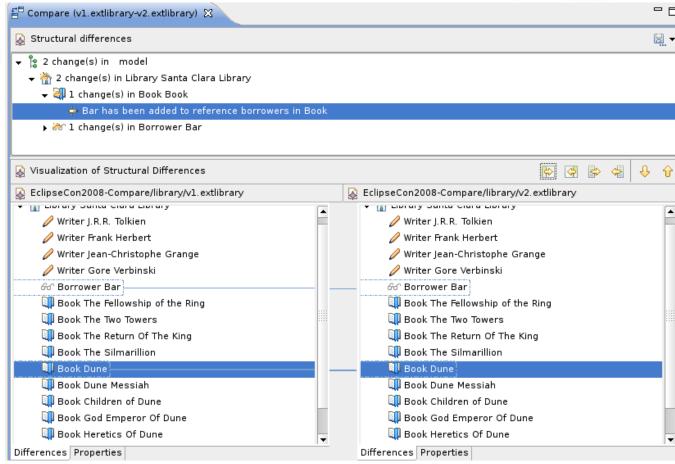
June 16th, 2008





EMF Compare (Incubation)

- model:
 - differencing
 - merging
- team API integration
- diff export
- extensibility







What is EMF Compare?

- EMF Compare is an EMFT component providing « out of the box » model comparison and merging capabilities.
- It provides integration with the Team API and works with both CVS and SVN implementations.
- This component primary focus is to provide an extensible framework
 - To provide the same level of functionnalities on models than the diff/patch tools on text files.
 - To compare, merge and synchronize domain models
 - To develop using the standard model implementations (UML, Ecore...)
 - To produce history and evolution reports.
 - To test and evaluate new comparison algorithms coming from the academic research.





0.8.0 features and non code aspects

- Features
 - 3 way Comparison (detecting conflicts)
 - Merge support
 - Differencing Export
 - Extensibility on match/diff/merge
 - Performance enhancements
- Unit tests
 - 161 unit tests launched on every build
 - Code coverage is about 30% of the diff and 50% of the match core.
- Non-regression tests
 - Comparison with results and expected results on 15 different models
- Code quality
 - Checkstyle activated on each distinct plug-in
 - Javadoc represents more than 50% of the source code lines





APIs

- Metamodels definition and corresponding implementations are considered APIs. Every plugin provides its API through an « api » prefixed package.
- Core services
 - DiffService / MergeService
 - MatchService
 - Generic implementations (GenericMatchEngine, GenericDiffEngine)
 - Export diff model
- Utility classes in org.eclipse.emf.compare
 - ModelUtils
- Commitment to provide stand-alone diff and match features (JAR used without Eclipse)
- Non-API classes and extension points are marked as « internal » through the id or package name.





APIs (provisionning)

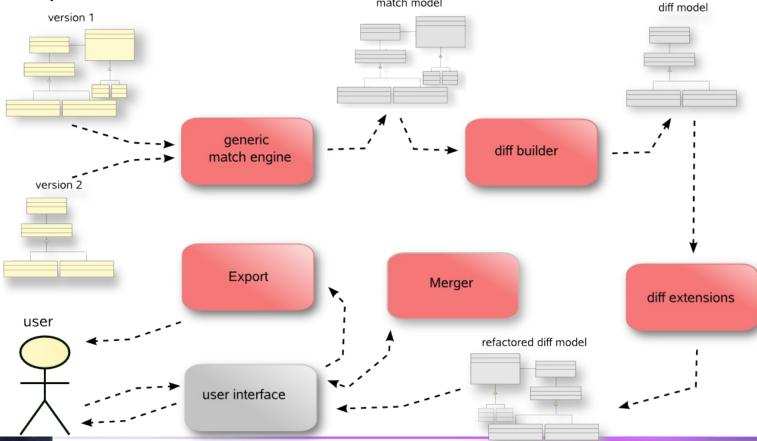
- UI classes extensibility is not finalized. Clients are not expected to extends the UI classes yet.
- diff_extension in org.eclipse.emf.compare.diff
- org.eclipse.emf.compare.internal.team.handler extension point
 - Used to fix issues with the Subversive Team implementation, not considered as finalized yet.





Architectural Issues

Since its begining the EMF Compare component has been designed so that every part of the process is extensible (represented with red boxes below)





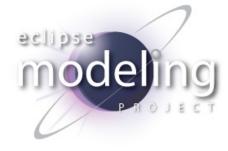




- User tutorials
 - Setting up and using the EMF compare component
 - Comparing and merging XML Files
- Developer tutorials
 - Adding new actions to the export menu
 - Customizing the diff process
 - Domain model Synchronization with EMF Compare
- Examples
 - Library diff to HTML export
 - Domain model synchronization with EMF Compare
 - Creating differences representations dedicated to UML
- FAQ on the Eclipse Wiki http://wiki.eclipse.org/EMF_Compare



Bugzilla



	NE/	N RESOL	VED VERIF	ED total
criti	cal -	1	1	2
ma	jor 1	3	3	7
norn	nal 8	8	5	21
mir	or 3	2	2	7
enhanceme	ent 2	3	3	8
to	otal 14	. 17	14	

Note: these figures are subjects to change as the whole team is in the process of fixing bug until the final release (this snapshot has been taken on May 14, 2008)





Tool usability

- EMF Compare is tightly integrated with org.eclipse.compare support and as such provides the same user interface.
- Localization
 - French, Dutch and German translations integrated into Babel

Standards

 No standard exists concerning the model comparison though EMF Compare works nicely with any standard-based metamodel (UML®...)

End of Life

As this is the first release there are no specific end of life concerns.





Communities

- Talks have been given on the following events:
 - EclipseCon 2007 Model Comparison Panel
 - Eclipse Summit Europe 2007 EMF Compare One Year Later
 - EclipseCon 2008 An Update on EMF Compare
- Activity on the EMFT newsgroup
 - 55 threads from June 2007 to May 2008
- Planet Eclipse
 - about 1 update a month
- Articles
 - « EMF Compare : vie d'un projet Eclipse » in « Programmez! » Feb 2008
 - « Comparing XML files » in « Programmez! » June 2008





Schedule

Since the feature freeze our commitment was to follow the EMF builds as closely as possible.

0.8 Release Plan

✓ M4: 2007-01-10

✓ M5: 2008-02-13

√ M6: 2008-04-04

✓ M7: 2008-05-06

RC1: 2008-05-16

RC2: 2008-05-23

RC3: 2008-05-30

RC4: 2008-06-06

0.8: 2008-06-13

IP Issues

- About files and licenses in place and sent to EMO
- No dependency on external JAR's or libs.
- The contributions to this release has been recorded in bugzilla:
 - **196438**
 - **226565**







- Graduating from Incubation status
- Patch/Changeset for model differences
- UI Extensibility and reuse
- Graphical modeler integration proof of concept
- Remote proxy resolving
- DiffExtension API stabilization

