

# Eclipse Model to Text (M2T) 0.8 Release Review

May 30, 2007

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## Introduction

- Only the JET component of M2T is being release in 0.8.0
- The M2T JET component has moved from the Modeling Framework Technologies (EMFT) incubator project.
- M2T is in an incubating project
- M2T JET has not used the Parallel IP process

# Features

- M2T JET 0.8.0 Highlight Features
  - Include compiler backward support for the EMF JET compiler
  - A template editor

## Non-Code Aspects

- Project downloads include documentation. Documentation is also published on Eclipse.org
- Localization/Externalization
  - All strings are externalized
  - Translation enablement tests were conducted and passed
- Recently published JET articles:
  - <http://www.ibm.com/developerworks/opensource/library/os-ecl-jet/>
  - [http://www.ibm.com/developerworks/rational/library/07/0109\\_peter\\_son/](http://www.ibm.com/developerworks/rational/library/07/0109_peter_son/)

# APIs

- M2T JET API statement
  - All API are provisional, however every effort is made to maintain backward compatibility of:
    - JET tag libraries (org.eclipse.jet.taglib)
    - JET XPath functions (org.eclipse.jet.xpath)
    - JET compiled templates (org.eclipse.jet)
- M2T JET follows Eclipse API guidelines:
  - <http://www.eclipse.org/articles/article.php?file=Article-API-Use/index.html>

## API details

- 6 extension points
- 9 public Java packages
- Usage details described in doc plug-in (in Javadoc)
- Unit tests available in CVS and executed on every build
- JET itself serves as the exemplary client for all APIs

# Architectural Issues

- M2T JET Overview
  - JET is a template engine for traversing models and generating artifacts (files, folders, projects) from these models by evaluating templates
  - Key JET dependencies:
    - Eclipse platform, particularly OSGi and Resources frameworks
    - JDT – JET generates Java source; JDT compiles it.
    - EMF – amongst others, JET traverses EMF-based models

# Architectural Issues - Extensibility

- Key extension points
  - Loading and accessing meta-models:
    - Out of the box: EMF, XML and Eclipse workspace
    - Extensible to: Any meta-model having a well-defined spanning sub-tree.
  - Template tag libraries
    - Out-of-the-box: 4 tag libraries, including ~50 tags
    - Extensibility: Extension point, Java interfaces and abstract classes
  - XPath functions
    - Out-of-the-box: XPath 1.0 functions + 20 extras
    - Extensibility: Extension point and Java interfaces



## Architectural Issues – Room for improvement

- There have been a number of requests for fewer dependencies on full Eclipse.
- Possible ‘reduced’ environments and expected degradations in capabilities if this is pursued:
  - RCP – possible degradations: no compilation, fewer available tags
  - Equinox – possible degradations: above + no UI
  - OSGi (other than Equinox) – possible degradations: above + no extension point support
  - Java 1.4 or later – possible degradations: above + no dynamic linking to templates.

## End-of-Life

- No API was removed this release
- Deprecations
  - It is anticipated that refactorings to allowing JET to run in environments less than full Eclipse will result in some API removal and breaking changes in the 1.0 release.
  - In anticipation of this refactoring, components that are substantially independent were moved to a new plug-in, `org.eclipse.jet.core`. Any methods that are candidates for future removal are marked as deprecated, and replacement APIs are proposed in the deprecation comment.

# Bugzilla

- Statistics from July 1, 2006 through May 30, 2007
  - 110 reports created
    - 14 enhancements
    - 96 defects
  - 89 of these were resolved this release
- M2T 0.8.0 includes
  - 5 enhancements
  - 99 bug fixes

# Standards

- W3C XPath 1.0 recommendation
  - Consideration will be given to adopting the recently published 2.0 recommendation in a future release

# UI Usability

- An accessibility assessment was conducted as part of the release on the M2T JET component
  - No outstanding bugs exist
- The JET Editor has yet to be assessed for accessibility

# Schedule

- Followed Eclipse Europa (+1) milestone schedule

# Communities

- Responsiveness to newsgroups and bugzilla
  - New postings are reviewed daily
  - Current newsgroup volume is ~5 messages daily
- EclipseCon 2007 short talk and demo
  - Demo in particular was well attended and well received.
- In the process of encouraging contributions from the community

# IP Issues

- The project leadership certifies that:
  - About files and licenses are in place and correct
  - All contributions have been committed according to Eclipse foundation IP Policy
  - No significant non-committer contributions were made
  - Provider field is Eclipse.org
  - Copyright notices are correct
  - No third-party logos, trademarks, fonts, images or similar are included in the distribution
  - IP log for distributed components (M2T JET) is up-to-date



# Project Plan

- M2T 0.9 – fall 2007
  - Plan details not yet posted
  - Integrate other M2T components
    - xPand – resolve IP issues (ANTLR 3.0)
    - MTL – new development
    - Integration – M2T invocation API
    - Shared components – establish and use these.
- M2T 1.0 – In sync with Ganymede
  - Plan details not yet posted
  - Key goal: Exit incubation