



# Acceleo 0.8.0 Galileo Simultaneous Release

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Release Review : June 10, 2009

**Communication Channel** : `eclipse.modeling.m2t` newsgroup

**Process Documentation** :

[http://www.eclipse.org/projects/dev\\_process/development\\_process.php](http://www.eclipse.org/projects/dev_process/development_process.php)

**Project Plan** : [http://www.eclipse.org/projects/project-plan.php?](http://www.eclipse.org/projects/project-plan.php?planurl=http://www.eclipse.org/modeling/m2t/acceleo/project-info/plan.xml&component=Acceleo)

[planurl=http://www.eclipse.org/modeling/m2t/acceleo/project-info/plan.xml&component=Acceleo](http://www.eclipse.org/modeling/m2t/acceleo/project-info/plan.xml&component=Acceleo)



# Galileo Release Highlights

- First release at Eclipse
  - Define a code generator with the OMG MOF Model-To-Text Language (MTL)
  - Eclipse Editor to define a code generator, with completion, error detection
  - Run and debug a code generation in Eclipse
  - Package a module as an Eclipse plug-in or as a standalone application
  - Core feature compliance level of the MOF Model-To-Text Language
  - Text explicit mode : first acceleo syntax support
- Quality of APIs
  - The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
  - All non-API code in “internal” packages
- End of Life Issues
  - None
- Committer Diversity
  - 3 Committers from Obeo, and 2 individual committers



# IP Issues

The about files and use licenses are in place as per the Guidelines to Legal Documentation.

CQ 2518 - The Content includes items that have been sourced from the OMG MTL 1.0 specification : <http://www.omg.org/spec/MOFM2T/1.0/>

All other 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 is no significant contribution in this first release.



# IP Issues

All contribution Questionnaires have been completed

The "provider" field of each plugin is set to "Eclipse Modeling Project"

The "copyright" field of each plugin is set to the copyright owner

Any third-party logos or trademarks included in the distribution (icons, logos, etc) have been licensed under the EPL

The M2T IP log is located at (foundation generated for modeling.m2t)

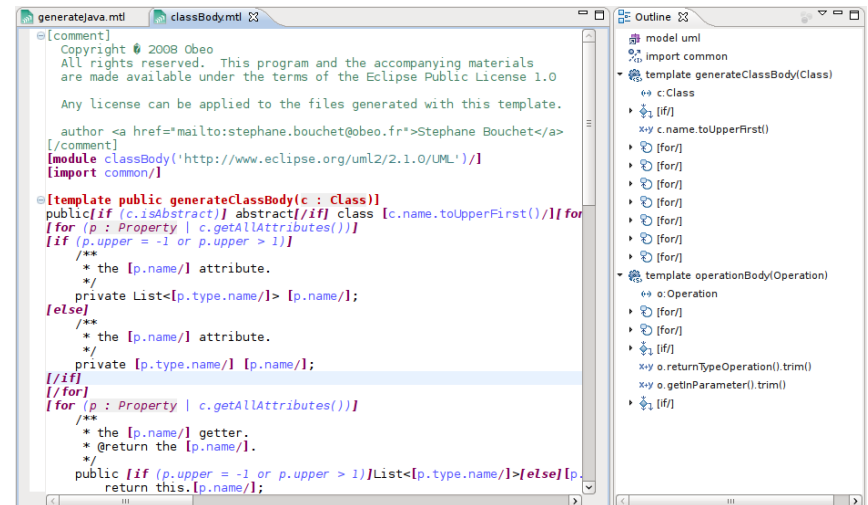
[http://www.eclipse.org/projects/ip\\_log.php?projectid=modeling.m2t](http://www.eclipse.org/projects/ip_log.php?projectid=modeling.m2t)

An Acceleo Manual IP log also exists at (same content)

<http://www.eclipse.org/modeling/m2t/acceleo/eclipse-project-ip-log.csv>

# Acceleo

- Template Editor Features
- Smart Completion on Syntax Constructs, on Scripts and Meta-model
- Open Declaration and Search References
- Running and debugging modules, Java Standalone API to run modules
- Module UI – Create automatically a Popup Action to Generate
- Dynamic templates, user code, Jmerge support (@generated)
- Create templates from an example



```

generatejava.mtl  classBody.mtl
[comment]
Copyright © 2008 Obeo
All rights reserved. This program and the accompanying materials
are made available under the terms of the Eclipse Public License 1.0
Any license can be applied to the files generated with this template.

author <a href="mailto:stephane.bouchet@obeo.fr">Stephane Bouchet</a>
[/comment]
[module classBody('http://www.eclipse.org/uml2/2.1.0/UML')]
import common/

[template public generateClassBody(c : Class)]
public [if (c.isAbstract)] abstract [if] class [c.name.toUpperFirst()] [if]
[for (p : Property | c.getAllAttributes())]
[if (p.upper = -1 or p.upper > 1)]
/**
 * the [p.name/] attribute.
 */
private List<[p.type.name]/> [p.name/];
[else]
/**
 * the [p.name/] attribute.
 */
private [p.type.name/] [p.name/];
[if]
[/for]
[for (p : Property | c.getAllAttributes())]
/**
 * the [p.name/] getter.
 * @return the [p.name/].
 */
public [if (p.upper = -1 or p.upper > 1)] List<[p.type.name]/> [else] [p.
return this.[p.name/];
  
```

Outline

- model uml
  - import common
  - template generateClassBody(Class)
    - c:Class
      - [if]
      - [for]
      - [for]
      - [for]
      - [for]
      - [for]
      - [for]
    - template operationBody(Operation)
      - o:Operation
        - [for]
        - [for]
        - [if]
        - [for]

# Non-Code Aspects

- Unit tests
  - 260 unit tests launched on every build
  - Code coverage is about
    - 70 % of the code generation engine
    - 60 % of the compiler
  
- Code quality
  - Checkstyle activated on each distinct plug-in
  - EclEmma used on a regular basis to improve test coverage
  - Yourkit used on a regular basis to improve performances
  - Javadoc represents more than 30% of the source code lines



# APIs

- Metamodel definitions and corresponding implementations are considered APIs.
- Non-API classes are separated from the exposed API through an "internal" package.
- Commitment to provide stand-alone code generation
- API Tooling is activated on all plugins to mark exceptions within the exposed API



# Documentation

- **Acceleo Plug-ins Features Overview**

This document provides an overview of the user-visible features of the Acceleo plug-ins which make it easy to develop and run Acceleo modules inside Eclipse

- **Acceleo Tutorials**

- Create a new module
- Create a new plug-in to launch the module

- **Basic Examples**

- UML to Java
- Ecore to Python

- **Basic Page on the Eclipse Wiki <http://wiki.eclipse.org/Acceleo>**



# Bugzilla



## Acceleo

		Status				
		NEW	RESOLVED	VERIFIED	CLOSED	Total
Severity	blocker	.	.	.	.	<u>0</u>
	critical	.	<u>2</u>	.	.	<u>2</u>
	major	<u>1</u>	<u>1</u>	.	.	<u>2</u>
	normal	<u>12</u>	<u>32</u>	<u>1</u>	.	<u>45</u>
	minor	<u>1</u>	<u>2</u>	.	.	<u>3</u>
	enhancement	.	<u>3</u>	.	.	<u>3</u>
	Total	<u>14</u>	<u>40</u>	<u>1</u>	<u>0</u>	<u>55</u>

- Note : these figures are subjects to change as the whole team is in the process of fixing bugs until the final release (this snapshot has been taken on May 28, 2009)



## Tool usability

- Localization : integrated into Babel

## Standards

- This implementation of Acceleo is based on the OMG MOF Model-To-Text Standard.

## End of Life

- There are no specific end of life concerns for this release.



# Communities

- Talks have been given on the following events:
  - Eclipse Summit Europe 2008  
Eclipse MTL : a Real Standard Alternative for Code Generation
  - EclipseCon 2009  
A Standard Alternative for Code Generation : Acceleo MTL
- Activity on the M2T newsgroup ([eclipse.modeling.m2t](mailto:eclipse.modeling.m2t))
  - 12 threads on Acceleo and MTL from June 2008 to May 2009

# Schedule

- Since the feature freeze our commitment was to follow the EMF and the MDT OCL builds as closely as possible.

## 0.8.0 Release Plan

- ✓ M4: 2009-01-29
- ✓ M5: 2009-02-05
- ✓ M6: 2009-18-03
- ✓ M7: 2009-05-05
- ✓ RC1: 2009-05-19
- ✓ RC2: 2009-05-26
- RC3: 2009-06-02
- RC4: 2009-06-06
- 0.8: 2009-06-24



## Project plan

- Advanced feature compliance level of the MOF Model-To-Text language
- Macro support
- Code explicit mode : second acceleo syntax support
- Workflow facilities for acceleo
- Full compatibility with QVTo and ATL
- Full traceability information : View to show all the related elements between the code and the model
- Simplify OCL with a better tool support

<http://www.eclipse.org/projects/project-plan.php?planurl=http://www.eclipse.org/modeling/m2t/acceleo/project-info/plan.xml&component=Acceleo>



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