



# ATL 3.1 Helios Simultaneous Release

ATL PMC

Planned Review Date: 2010-06-11

Communication channel:

<news://news.eclipse.org/eclipse.modeling.m2m>

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# Overview

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- Non-code Aspects
- Testing and Packaging
- Community & Support
- Intellectual Properties
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# Introduction



- ATL: ATLAS Transformation Language
- ATL is a language and a Virtual Machine dedicated to model transformation
- ATL is an Eclipse Model-to-Model (M2M) component, inside of the Eclipse Modeling Project (EMP)
- ATL has been moved from GMT to M2M in 2007





## Features (Core)

- A syntax adapted to Model To Model transformation
  - Hybrid (Declarative and Imperative)
  - Model navigation using OCL
- A Virtual Machine
  - Executes ATL transformations pre-compiled into low-level transformation-specific bytecode
  - Provides execution environment for any transformation language
    - The M2M QVT Relational project is based on the ATL Virtual Machine

[http://wiki.eclipse.org/M2M/Relational\\_QVT\\_Language\\_\(QVTR\)](http://wiki.eclipse.org/M2M/Relational_QVT_Language_(QVTR))

<http://www.eclipse.org/m2m/atl/usecases/QVT2ATLVM/>

# Features (IDE)

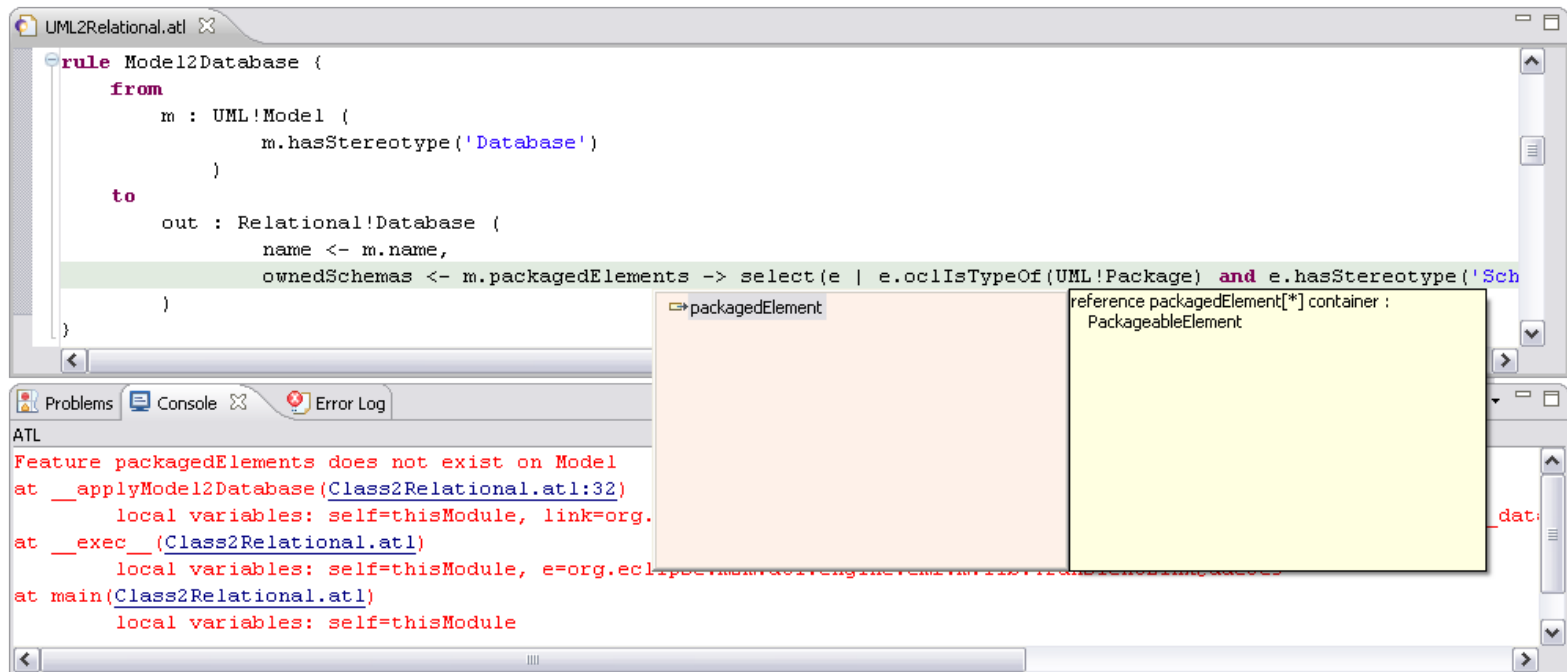


- Eclipse based IDE

- Project nature and builder
- Perspective, wizards
- Debugger, profiler
- Execution console

- ATL Textual editor

- Syntax color
- Code assist
- Code folding
- Outline





## *Non-code aspects*

- Wiki-based FAQ, User Guide, Developer Guide
  - All informations have been merged into the ATL wiki
  - Conversion to the ATL doc plugin, thanks to Mylyn WikiText
  - Allows users to easily contribute and improve documentation
- ATL Help plugin
  - API Javadoc
  - ATL User Guide (synchronized with ATL wiki)
  - ATL Developer Guide (synchronized with ATL wiki)
- Web site
  - ATL Transformation Zoo
  - 100+ scenarios, with contributions from the community
  - Complete use cases (20+, with contributions from the community)
  - Articles



## Testing and Packaging

- ATL uses the Modeling Project Releng system to build and promote versions
  - Will soon move to Hudson
- Each new build is tested with Eclipse 3.6, 3.5, 3.4, 3.3, 3.2
- ATL is integrated into the Helios train since November 2009
- A non-regression test suite checks that the engine still executes correctly existing transformations
  - Reuse of ATL Transformation Zoo
  - Resulting models are compared using EMF Compare
  - Non-regression evaluated for parsing, compilation, execution

# Community and support



- Newsgroup: very active community, more than 1500 threads in 2009, 650 in 2010

- EclipseCon 2008, 2009 : tutorial

<http://www.eclipsecon.org/2009/sessions?id=511>

- Publications about ATL:

<http://www.eclipse.org/m2m/atl/publication.php>

- Bugzilla:

		<b>Status</b>				
		NEW	ASSIGNED	RESOLVED	CLOSED	Total
<b>Severity</b>	blocker	.	.	<u>1</u>	.	<u>1</u>
	major	<u>1</u>	<u>1</u>	<u>5</u>	<u>1</u>	<u>8</u>
	normal	<u>11</u>	.	<u>48</u>	<u>2</u>	<u>61</u>
	minor	<u>1</u>	.	<u>2</u>	.	<u>3</u>
	enhancement	<u>2</u>	.	<u>5</u>	.	<u>7</u>
	Total	<u>15</u>	<u>1</u>	<u>61</u>	<u>3</u>	<u>80</u>





## *IP Issues*

- All plugins contain appropriate about and license files
- IP process followed
- A third-party library is used: antlr 3.0
  - IPzilla CQ 1548
  - Use of the matching ORBIT library for build
- (Automatic) IP Log available at  
[http://www.eclipse.org/projects/ip\\_log.php?projectid=modeling.m2m.atl](http://www.eclipse.org/projects/ip_log.php?projectid=modeling.m2m.atl)
- Released under EPL

# Project Plan



- <http://www.eclipse.org/projects/project-plan.php?projectid=modeling.m2m>
- Future developments
  - Modularity
  - Graphical transformations
  - Current matching overview
  - Documentation, examples and tutorials improvement