

Objectives :

- Being able to use ATL efficiently
- Build solutions using all ATL capabilities

Our assets :

- Training made by ATL specialists
- Many practical exercises

Duration : 2 days

Audience : architects, developers

Pre-requisites : Skills on Eclipse. Modeling and MDA approach

1 - Presentation of the MDA approach and ATL

- MDA approach and metamodels
- Use cases of model transformation
- Overview of the Eclipse Modeling Project and EMF
- Presentation of ATL and its community
- AMMA platform

Exercises :

- Discovery of the ATL website and its useful documents

2 - First ATL transformations

- ATL syntax overview
- Model requesting with OCL
- Configuring and running transformations
- Meta-modeling with EMF
- ATL editor
- Injectors/extractors

Exercises :

- Design and implementation of a complete transformation

3 - Detailed ATL syntax

- Datatype
- OCL expressions
- ATL Helpers
- ATL Rules
- ATL Queries
- Lazy rules

Exercises :

- Exercises on OCL

- Development of an object to relational transformation

4 - Optimisation of the engine usage

- ATL architecture
- ATL compiler
- Virtual machine
- Model handlers
- Transforming several models
- Tricks
- Using the debugger

Exercises :

- Development of a model merging transformation
- Debugging of previous transformations

5 - Advanced features

- Refining
- Upperimposition
- Rules inheritance
- ResolveTemp utilisation

Exercises :

- Model transformation for applying automatically Design Patterns
- Model refactoring to simulate a methodology change
- EMF Compare usage to compare changes

6 - Integration of ATL in the software development process

- Ant tasks usage
- Using ATL on command line
- Acceleo and ATL usage
- Choosing between a M2M and a M2T solution
- Success Stories and References on ATL

Exercises :

- Chaining transformation with Ant
- Launching a model transformation with Java
- Comparison between PIM → code and PIM → PSM → code