ATL (ATLAS Transformation Language) is a model transformation language and toolkit. In the field of Model-Driven Engineering (MDE), ATL provides ways to produce a set of target models from a set of source models.

Developed on top of the Eclipse platform, the ATL Integrated Environment (IDE) provides a number of standard development tools (syntax highlighting, debugger, etc.) that aims to ease development of ATL transformations. The ATL project includes also a library of ATL transformations.

**Principles**

- A **model transformation** is the automatic creation of target models from source models.
- Model transformation is not only about M1 to M1 transformations (e.g. promotion from M1 to M2).

![Diagram showing the ATL overview](https://example.com/atlas_diagram.png)

**ATL Overview**

- Source models and target models are distinct:
  - **Source** models are **read-only** (they can only be navigated, not modified)
  - **Target** models are **write-only** (they cannot be navigated)
- The language is a **declarative-imperative hybrid**
  - A declarative rule specifies:
    - a source pattern to be **matched** in the source models
    - a target pattern to be created in the target models for each match during rule application
  - An imperative rule is basically a procedure
    - It can contain a declarative target pattern or an action block (i.e. a sequence of statements) or both
- Recommended programming style: **declarative**

**ATL Tools**

- **Execution Engine**:
  - Virtual machine,
  - ATL to bytecode compiler,
- **Integrated Development Environment (IDE) for**:
  - Editor with syntax highlighting and outline,
  - Execution support with launch configurations,
  - Source-level debugger

**Team**

http://www.sciences.univ-nantes.fr/лина/ATLAS/
http://www.sciences.univ-nantes.fr/лина/atl/

**Other Tools**

http://www.eclipse.org/gmt/am3/
http://www.eclipse.org/gmt/amw/
http://www.eclipse.org/gmt/modisco/