Eclipse-MDT “MoDisco” Project
An extensible MDE framework dedicated to software modernization
(in the Helios Eclipse Simultaneous Release - 2010)

Software Modernization
Changing markets; Merging, acquiring and/or diversifying existing legacy systems; Getting a faster time to market; Shrinking budgets; Increasing compliance and compatibility; Integrating new technologies. With all these challenges, how can you stay focused on growth, productivity and innovation in order to create added value within your organization? As such modernization projects face with both technologies combination and various modernization scenarios, model-driven approaches and tools offer the required abstraction level in order to design and build-up mature, flexible and efficient solutions.

What Is MoDisco?
MoDisco provides an extensible model-driven reverse engineering framework to support various software modernization use-cases:
- **Quality Assurance**: verifying the system according to provided requirements (detection of anti-patterns, computation of metrics, etc)
- **Documentation**: extraction of information from it to understand a given aspect (structure, behavior, persistence, data-flow, etc)
- **Improvement**: transformation of an existing system to integrate better coding norms or use more efficient design patterns.
- **Migration**: transformation of an existing system to change a component, the framework, the language or its architecture.

MoDisco Components
- **Metamodels** to describe existing systems (KDM, SMM, Java™, XML, etc)
- **Associated discoverers** to automatically create models of these systems
- **Generic tools** to understand and transform these complex models (model browser, discovery manager & workflow, query & facet manager, converters, etc)
- **Use-cases** to illustrate how MoDisco can concretely support modernization processes (e.g. combining Java & UML2)

Contact Us
Please use the project’s forum in priority
Partner websites:
- AtlanMod Team http://www.emn.fr/x-info/atlanmod
- MIA-Software http://www.mia-software.com/

Providers:
- AtlanMod Team (INRIA & EMN)
- MIA-Software (SODIFRANCE)

The 3 Modernization Phases
- **Describing** the information extracted out of the artifacts of this system
- **Understanding** the extracted information in order to take the better modernization decisions
- **Transforming** this information into new artifacts facilitating the modernization (metrics, document, generated code…)

Related Projects
- Eclipse-M2M ATL: http://www.eclipse.org/m2m/atl/
- Eclipse-GMT AMW: http://www.eclipse.org/gmt/amwe/