1. "SharenGo Java Legacy Reverse-Engineering" Use Case: Install & Execute

"SharenGo Java Legacy Reverse-Engineering" is a complete use case, part of the MoDisco component use cases [1] [2], which has been designed and developed in order to build business models from SharenGo Java source files [3].

The development of this use case has been realized by the Argia-Engineering company [4].

Within this document, we will present how to install and execute the "SharenGo Java Legacy Reverse-Engineering" use case in order to produce a model that conforms to the Sharengo metamodel from concrete SharenGo Java source files.

1.1. Overview

This use case is directly available from the use case download section (Zip format) or from the MoDisco CVS repository (use case sources) [5].

The project corresponding to the use case is divided into two distinct parts:

- A sample Java legacy project (ARGIA-LegacyCode/)

- The use case (ARGIA-Reengineering/)

1.2. Dependencies

You must have the Java Abstract Syntax Discovery Tool installed into your workspace. This generic tool is available from the MoDisco Tool Box section [6].

There are no other dependencies over ATL since the transformations are launched programmatically and all the required libraries are provided (and embedded) within the use case.

1.3. Installation

You simply have to download and import into your development workspace the sample legacy project and the re-engineering use case (see previous sections).

1.4. Organization

The use case project is organized as follow:

- *src/*: the source folder.

- *LegacyRepository/*: the target folder of the AST (Abstract Syntax Tree) model's discovery step.

- *MetaModels/*: the metamodels folder that contains the Java abstract syntax tree metamodel and the business metamodel named SharenGo.

- *Transformations/*: the ATL transformation folder that contains two ATL files; the main one, *JavaAST2SharengoMM.atl*, contains the transformation module and the *JavaASTLib.atl* one contains a set of helpers (i.e. an ATL library) which are used in the main transformation.

1.5.   How to launch this use case

In order to launch the "SharenGo Java Legacy Reverse-Engineering" use case, you just have to right-click over the *src/org.sharengo.pragmatic.reengineering/Main.java* file and then select *Run As -> Java Application*.

This main application launches successively the discovery of the AST models and the ATL transformation for understanding those models and creating the SharenGo business model.

The output of the use case execution is directly located within the root folder: its name is *result.xmi*.

References

[1] The Eclipse/GMT **MoDisco** Component: http://www.eclipse.org/gmt/modisco/

[2] **MoDisco** Use Cases: http://www.eclipse.org/gmt/modisco/useCases/

[3] **SharenGo** Group: http://www.sharengo.org

[4] **Argia-Engineering** Company: www.argia-engineering.fr

[5] Download the **Sharengo Java Legacy Reverse-Engineering** Use Case:
http://www.eclipse.org/gmt/modisco/useCases/JavaLegacyRE/#download

[6] The **Java Abstract Syntax** discovery tool, **MoDisco Toolbox**:
http://www.eclipse.org/gmt/modisco/toolBox/JavaAbstractSyntax/