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How to Deal with your IT Legacy: What is Coming up in MoDisco?

by Hugo Bruneliere, Jordi Cabot and Grégoire Dupé

The Eclipse-MDT MoDisco open source project is part of the Indigo Eclipse Simultaneous Release. Here we describe how MoDisco can play a role in the evolution of (legacy) software, focusing on the latest project news.

MoDisco is an official Eclipse-MDT project, devoted to the Model-Driven Reverse Engineering (MDRE) of IT systems, which has already been successfully applied to the software evolution and modernization of many industrial legacy systems.

We believe that dealing with legacy systems is one of the main challenges of the software industry today. Indeed, we see increasing numbers of “revolutionary” technologies popping up which create tensions with all the “old-fashioned” existing systems which are still relevant and used within companies: to be able to adopt the new, you need to get rid of the old (or at least hide it).

Having a better understanding of legacy systems in order to document, maintain, improve or migrate them is not an easy task but is a key requirement in many companies. MoDisco intends to facilitate the process by offering a reusable and extensible model-based framework that facilitates the creation of reverse engineering solutions for software understanding, evolution and modernization. Relying on different Model Driven Engineering (MDE) technologies provided in Eclipse, all based on the Eclipse Modeling Framework (EMF), it provides a set of concrete components that can be combined efficiently to tackle this important issue.

The MoDisco open source initiative started in 2006 when the AtlanMod Team (Inria, Ecole des Mines de Nantes & LINA) and Mia-Software (Sodifrance Group) were working together in the context of the IST-FP6 MODELPLEX European project. AtlanMod created the MoDisco project in Eclipse-GMT (Generative Modeling Technologies, which acted at the time as an incubator for modelling prototypes), and several experimental components were then developed and contributed. Mia-Software quickly started contributing to the project and officially joined MoDisco in 2008. Since then, the MoDisco community grew pro-
The use of mobile devices is very widespread. Mobile devices are communication tools that give users access to different computing services and are generally equipped with various sensors. Many applications take advantage of these attributes and consequently some new uses have emerged. The portability and precise positional information offered by modern mobile GIS means that they are far more user-friendly than traditional devices. However, there is still much scope for the development of ‘good practices’ in the use of mobile GIS, for example the best fit of needs or more natural interactions still requires much work.

In order to accelerate the development of these ‘good practices’, we propose through the MOANO project (Modèles et Outils pour Applications NOMades de découverte de territoire - ‘Models and Tools for Pervasive Applications focusing on Territory Discovery’) to allow end-users to build their own mobile GIS and evolve them over time using a dedicated modelling environment. Botany was chosen as our investigated field since botanists need mobile