

## Architecture-Driven Modernization Standards Roadmap

The Object Management Group (OMG) Architecture-Driven Modernization (ADM) Task Force is developing a set modernization standards. Current work involves building a Knowledge Discovery Meta-model (KDM) to facilitate the exchange of existing systems meta-data for various modernization tools. Subsequent standards will address analysis, visualization, refactoring and transformation related standards. The following package descriptions provide an ADM Task Force Standards Road Map.

### **RFP #1: ADM: Knowledge Discovery Meta-Model Package (KDM)**

The KDM Package establishes an initial meta-model that allows modernization tools to exchange application meta-data across applications, languages, platforms and environments. This initial meta-model provides a comprehensive view of application structure and data, but does not represent software below the procedural level. The KDM was adopted in 2006.

### **RFP #2: ADM: Abstract Syntax Tree Meta-Model (ASTM)**

This ASTM Package builds upon the KDM Package in order to represent software below the procedural level. This effort will allow the KDM to fully represent applications and facilitate the exchange of granular meta-data across multiple languages. The ASTM establishes the foundation for subsequent analysis, visualization and transformation standards. Adoption is scheduled in 2008.

### **RFP #3: ADM: Analysis Package**

The Analysis Package creates a standard that facilitates the examination of structural meta-data with the intent of deriving behavioral meta-data about systems. This behavioral meta-data may take the form of business rules or other aspects of a system that are not part of the structure of the system, but are rather semantic derivations of that structure and the data. The RFP will be issued in December 2007.

### **RFP #4: ADM: Software Metrics Package (SMM)**

The focus of the Software Metrics Package is to derive metrics from the KDM that can describe various system attributes. These metrics convey technical, functional and architectural issues for the data and the procedural aspects of the applications of interest. These metrics support planning and estimating, ROI analysis and the ability of analysts to maintain application and data quality. The task force envisions gaining validation for the metrics package by working with industry and academic resources. Adoption is scheduled in early 2008.

### **RFP #5: ADM: Visualization Package**

The Visualization Package focuses on ways to depict application meta-data stored within the KDM. This may include any variety of views as may be appropriate or useful for planning and managing modernization initiatives. Examples include the use of graphs or charts, metric summaries or standardized development models. There is no target date for this work.

### **RFP #6: ADM: Refactoring Package**

The Refactoring Package defines ways in which the KDM can be used to refactor applications. This includes structuring, rationalizing, modularizing and in other ways improving existing applications without redesigning those systems or otherwise deriving model-driven views of those systems. Work on the Refactoring Package RFP will begin in 2008.

### **RFP #7: ADM: Transformation Package**

The Transformation Package defines mappings between the KDM and ASTM and target models. This standard defines the mappings and transformations that may occur between existing applications and top down, target models. Development paradigms may vary, but will include MDA as a target. This standard will complete ADM task force efforts in providing a transformational bridge between existing systems and target architectures. Work on an RFP will likely begin in 2008.