WP3 - Model Engineering

*D3.2.d “Global Model Management Traceability Extension “*

Hugo Bruneliere (INRIA)

MODELPLEX Interim Review, Brussels (Belgium),
27th of March 2009
Yesterday: Contemplative
D3.2.d - Context

Yesterday: Contemplative

Today: Towards automation (Model Transformation)
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Today & Tomorrow: Declarative Model Correspondences (Model Weaving + Model Transformation)
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Tomorrow: Managing global modeling resources in MDE-oriented development of complex software systems (Global Model Management + Model Weaving + Model Transformation)
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Today: Towards automation (Model Transformation)

Today & Tomorrow: Declarative Model Correspondences (Model Weaving + Model Transformation)

Tomorrow: Managing global modeling resources in MDE-oriented development of complex software systems (Global Model Management + Model Weaving + Model Transformation)

Need for Traceability
The **AM3** GMM Prototype
- Available from *Eclipse.org*

**Megamodeling:** represent references to models and relationships between them as models (called *megamodels*)
- Similar to a metadata repository on involved modeling artifacts

**Generic & extensible solution applied to Traceability:**
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Generic & extensible solution applied to **Traceability**:

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Generic & extensible solution applied to Traceability:

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<td>• Tool Interoperability</td>
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<td></td>
<td></td>
<td>• Etc</td>
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Subset of the overall MDPE process: UML2 to AnyLogic

Simplified view

Legend:
- Extraction
- Model-to-model transformation

Demo…
D3.2.d (Global Model Management Traceability Extension)

**Description:**
- **Outline**
  - This report describes an extension of the Global Model Management (GMM) prototype, developed within Task 2.1, providing support for traceability: building and storage of cross-DSL and model-to-model transformation traces as well as corresponding models within the GMM environment.
- **Main objective**
  - Provide a generic and extensible traceability support, based on model-to-model transformation and model weaving, directly integrated within the GMM prototype

**Achievements:**
- Automated Traceability Support in M2M transformation with ATL
  - Based on a Higher-Order Transformation (HOT) and model weaving
- Generic Inter-Model Navigation Support
  - Directly applicable to traceability
- Integration of these features to the GMM prototype

**Due date**
- Month 28 (December 2008)

**Delivered date**
- Month 28 (December 2008)

**Contributors**
- INRIA