An Overview of Model Transformation Mechanisms

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Abstract

Transformation techniques are needed in several application fields; compilers, schema and data transformations, document processing and generative programming are only a few well-known examples.

In the recent period the attention is increasingly focusing to the application of transformations to heterogeneous kinds of models in: Enterprise Models, Business Models, Ontology Models can be transformed in order to ease the Interoperability of enterprises software applications.

In this tutorial will be presented an overview of formalisms and paradigms for transformations specification (e.g. Term and Graph Rewriting Systems, String Replacement Systems etc.) and will be shown the basic mechanisms and properties of them; furthermore will be presented some examples of tools and languages developed to provide higher-level support for the implementation of transformations showing their relations with the theoretical formalisms.