Transformation Languages Tailored To Your Needs

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Abstract:

Model-Driven Engineering (MDE) treats models as prime artfacts. Modelling at appropriate levels of abstraction, using appropriate modelling formalisms allows one to reduce accidental complexity. At the very heart of MDE are model transformations. The diversity of today's model transformation languages makes it hard to compare their expressiveness and to exchange, re-use, and interoperate transformation model. We de-construct model transformation languages into a small set of building blocks. These primitives can then be used to re-construct existing model transformation languages as well as rapidly design new ones. In this talk, I introduce T-Core, a set of primitives for model transformation. Combining T-Core with a scheduling (programming or modelling) language enables the design of complete model transformation languages. The presented framework enables building custom model transformation languages tailored to specific transformation problems.

Biography:

Eugene Syriani holds a B.Sc. in Mathematics and Computer Science from McGill University and will defend his Ph.D. in Software Engineering shortly. He is a member of the Modeling, Simulation, and Design Lab directed by Prof. Hans Vangheluwe. His academic work is sponsored by the Natural Sciences and Engineering Research Council of Canada. His current research interests are Model Transformation, Model-driven Engineering, and Simulation-based Design. He is in particular interested in the engineering of model transformation languages. His contribution in the field resides in the engineering of model transformation languages, following multi-paradigm modelling principles. He has developed a framework for producing transformation languages tailored for the specific needs, based on T-Core. He also has over five years of industry experience in different service-oriented software companies in Montreal, Canada.