



ICMT 2014

7th International Conference on Model Transformation

Co-located with STAF 2014, End of July 2014, York (UK)



Call for Papers

Modeling is a key element in reducing the complexity of software systems during their development and maintenance. Model transformations are essential for elevating models from documentation elements to first-class artifacts of the development process. Transformations also play a key role in analyzing models to reveal conceptual flaws or highlight quality bottlenecks and in integrating heterogeneous tools into unified tool chains.

Model transformation includes approaches such as: model-to-text transformation, e.g., to generate code or other textual artifacts from models; text-to-model transformations, e.g., to derive models from structured text such as legacy code; and model-to-model transformations, e.g., to normalize, weave, analyze, optimize, simulate, and refactor models, as well as to translate between modeling languages.

Model transformation encompasses a variety of technical spaces, including modelware, grammarware, dataware, and ontoware, a variety of model representations, e.g., based on different types of graphs, and a variety of transformation paradigms including rule-based transformations, term rewriting, and manipulations of objects in general-purpose programming languages.

The study of model transformation includes foundations, structuring mechanisms, and properties, such as modularity, composability, and parameterization of transformations, transformation languages, techniques, and tools. An important goal of the field is the development of high-level model transformation languages, providing transformations that are amenable to higher-order model transformations or tailored to specific transformation problems.

The efficient execution of model queries and transformations by scalable transformation engines on top of large graph data structures is also a key challenge in different application scenarios. Novel algorithms as well as innovative (e.g. distributed) execution strategies and domain-specific optimizations are sought in this respect.

To comply with software engineering best practices, methodologies and tools are required to integrate model transformation into existing development environments and processes. ICMT is the premier forum for researchers and practitioners from all areas of model transformation. This year's edition of ICMT will feature, among peer-reviewed papers, a keynote held by *Jean Bézivin*.

Topics

Topics of interest include, but are not limited to:

- Transformation paradigms and languages
 - graph rewriting, tree rewriting, attribute grammars
 - rule-based, declarative, imperative, and functional
 - textual, graphical
 - model queries, pattern matching
 - transformation by example/demonstration
 - modularity, reusability, and composition
 - comparison of transformation languages
 - theoretical foundations
- Transformation algorithms and strategies
 - bidirectional transformation
 - incremental transformation
 - scalability and optimization
 - higher-order transformation
 - transformation chains
 - non-functional aspects of transformations
- Development of transformations
 - specification,
 - verification and validation (incl. testing, debugging, termination, confluence, metrics)
 - evolution
 - development processes
 - tool support
 - benchmarking of transformation engines
- Applications and case studies
 - refactoring
 - aspect weaving
 - model comparison, differencing, and merging
 - model analysis
 - model synchronization and change propagation
 - co-evolution of models, metamodels, and transformations
 - round-trip/reverse/forward engineering
 - industrial experience reports and empirical studies

Submission Guidelines

All contributions will be subject to a rigorous selection process by the international Program Committee, with an emphasis on originality, practicality and overall quality. Papers should clearly indicate their contributions with respect to previous work. Each paper will be reviewed by at least 3 committee members. All submissions should follow the LNCS format, be in PDF, and should include the authors' names, affiliations and contact details. The submission web site is:

<https://www.easychair.org/account/signin.cgi?conf=icmt2014>



Two kinds of submissions are sought:

- Research papers: Up to 15 pages long.
- Tool demonstration papers: Up to 7 pages long.

Tool demonstration papers should describe novel and state-of-the-art tools or report on novel features of existing tools, related to model transformation. Submissions should consist of two parts. The first part, no more than 7 pages, should describe the tool presented (please include the URL of the tool if available). This part will be included in the proceedings. The second part, no more than 5 pages, should explain how the demonstration will be carried out, including screen dumps and examples. This part will not be included in the proceedings, but will be evaluated.

As in previous editions of ICMT, we intend to publish proceedings in the Springer LNCS series. Moreover, a special issue with a selection of the best papers from the conference will be published in the Journal on Software and Systems Modeling (Springer).

Important Dates

Abstract submission	<i>January 28, 2014</i>
Paper submission	<i>February 4, 2014</i>
Notification of acceptance	<i>March 11, 2014</i>
Camera-ready version due	<i>April 11, 2014</i>
Conference dates	<i>July 21-25, 2014</i>

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