The aim of the Transformation Tool Contest (TTC) series is to compare the expressiveness, the usability and the performance of graph and model transformation tools along a number of selected case studies. A deeper understanding of the relative merits of different tool features will help to further improve graph and model transformation tools and to indicate open problems.

This contest was the sixth of its kind, following the successful edition of 2011 [7]. For the fourth time, the contest was co-located with the international conference on model transformation (ICMT [1]). Teams from the major international players in the development and use of model transformation tools have participated in an online setting as well as in a physical, two-day workshop.

In order to facilitate the comparison of transformation tools, our program committee had selected three challenging case studies via single blind reviews:

- the Flowgraphs case [3], for which eventually six solutions were accepted,
- the Class Diagram Restructuring case [4], for which eventually two solutions were accepted,
- the Petri-Nets to Statecharts case [2], for which eventually five solutions were accepted.

All accepted solutions to these case studies consist of a paper and the actual solution artifacts. Each case study solution (tool, project files, documentation) was made (and remains) available for review and demonstration via SHARE [6].

TTC 2013 involved open (i.e., non-anonymous) peer reviews in a first round. The purpose of this round of reviewing was that the participants gained as much insight into the competitor’s solutions as possible and also to raise potential problems.

Besides the presentations of the submitted solutions, the workshop also comprised a live contest. That contest involved a set of tasks for modeling the execution semantics of a subset of the Business Process Model and Notation (BPMN) 2.0 standard as in-place transformations. The challenge included proper starting and termination of processes, execution of primitive tasks based on token games and the handling of parallel gateways. In addition to the rule-based modeling of the execution semantics of BPMN, we asked the contestants to use their specification for (i) manual and batch execution of processes and (ii) a state space generation and basic analysis of temporal properties. The live contest case was authored by Christian Krause, based on work by Van Gorp et al [5]. At the time of writing, there are no papers related to the TTC 2013 live contest solutions.

This EPTCS volume contains the TTC 2013 papers that have undergone a second round of single blind reviews by Program Committee members. Committee members were asked to check whether papers had taken into account the suggestions for improvement that were raised during the (pre-)workshop discussions. For more details (such as reference solutions for the case studies, testcases and online forum discussions), please consult the TTC 2013 website [2].

Of particular interest to the community of theoretical computer scientists may be our observation that the Petri-Nets to Statecharts case involves theoretical challenges that could not be solved by the TTC 2013 participants. We invite the interested reader to contact the case authors concerning the open challenges on Verification Support (cf., Section 5.2.1 in [2]).

As organizers of TTC 2013, we have been supported by the following steering committee members:

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1 See [http://share20.eu/](http://share20.eu/)

Richard Paige (University of York, United Kingdom)
Arend Rensink (University of Twente, The Netherlands)
Bernhard Schätz (Technical University Munich, Germany)
Albert Zündorf (University of Kassel, Germany)

The submissions for this volume have gone through a thorough two-step reviewing process. Therefore, special thanks to the TTC 2013 program committee members:

- Harrie Jan Sander Bruggink (University of Duisburg-Essen, Germany)
- Christian Krause (Hasso-Plattner-Institut, Germany)
- Ralf Lämmel (University of Koblenz-Landau, Germany)
- Sonja Maier (Bundeswehr University Munich, Germany)
- Bart Meyers (University of Antwerp, Belgium)
- Anantha Narayanan (Vanderbilt University, Nashville, Tennessee)
- Richard Paige (University of York, United Kingdom)
- Arend Rensink (University of Twente, The Netherlands)
- Louis Rose (University of York, United Kingdom)
- Bernhard Schätz (Technische Universität München, Germany)
- Gabriele Taentzer (University of Marburg, Germany)
- Pieter Van Gorp (Eindhoven University of Technology, The Netherlands)
- Gergely Várro (Budapest University of Technology and Economics, Hungary)
- Jurgen Vinju (Universiteit van Amsterdam, The Netherlands)
- Bernhard Westfechtel (University of Bayreuth, Germany)
- Albert Zündorf (University of Kassel, Germany)

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