Proceedings of the
7th International Workshop on Graph Based Tools
(GraBaTs 2012)

Preface

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This volume contains the pre-proceedings of GraBaTs 2012, the 7th International Workshop on Graph Based Tools. GraBaTs 2012 is held as a workshop co-located with ICGT 2012, the 6th International Conference on Graph Transformation. This workshop continues the GraBaTs series of workshops that serve as a forum for researchers and practitioners interested in the development and application of practical graph-based tools. Previous workshops were held in 2002 (Barcelona, Spain), 2004 (Rome, Italy), 2006 (Natal, Brazil), 2008 (Leicester, UK), 2009 (Zurich, Switzerland), and 2010 (Enschede, The Netherlands). The format of the workshop varied over the years. In most issues (as in the current one), papers were presented and collected in workshop proceedings. In 2008/2009, GraBaTs was held as a tool transformation contest, which took place in 2010/11 as a separate event (TTC) co-located with the TOOLS conference.

A wide variety of graph-based tools have emerged, including e.g. tools for visual languages, model driven development (editing, analysis, simulation, and transformation of models), data analysis, pattern recognition, software evolution, and efficient graph algorithms. In all of these areas, tools are developed that retrieve, store, transform, and display graphs. It is the purpose of this workshop to survey the state of the art of graph-based tools, bring together developers of graph-based tools in different application fields and to encourage new tool development cooperations.

This year we received 17 submissions (15 regular and 2 short papers). From these, 8 submissions (7 regular papers and 1 short paper) were accepted for being presented at the workshop and for being included into the GraBaTs proceedings. Most of the accepted papers deal with different aspects of model transformations such as graph pattern matching, code generation, domain-specific model transformations, and triple graph grammars. The following papers were selected for the final post-proceedings:

- Gray Box Coverage Criteria for Testing Graph Pattern Matching
  Martin Wieber, Andy Schürr

- Adding Rule-Based Model Transformation to Modelling Languages in MetaEdit+
  Simon Van Mierlo and Hans Vangheluwe

- ModGraph – Generating Executable EMF Models
  Sabine Winetzhammer

- Integration of Triple Graph Grammars and Constraints
  Stephan Hildebrandt, Leen Lambers, Basil Becker and Holger Giese

- Visual Modeling and Analysis of EMF Model Transformations Based on Triple Graph Grammars
  Claudia Ermel, Frank Hermann, Jürgen Gall and Daniel Binanzer

- EMorF – A tool for model transformations
  Lilija Klassen and Robert Wagner

- ReConNet – A Tool for Modeling and Simulating with Reconfigurable Place/Transition Nets
  Marvin Ede, Kathrin Hoffmann, Gerhard Oelker, Julia Padberg

- Rooted Graph Programs
  Christopher Bak and Detlef Plump

We are grateful to Arend Rensink, who enriched the GraBaTs program by his invited talk:

- Graph Transformation, Check; And Now What?
  Arend Rensink

  Abstract. The graph transformation community can certainly claim some success in turning its concepts into usable tooling, for instance in the context of domain-specific modelling and model transformation. However, how can we further extend our scope? What are necessary steps in cementing these successes and reaching into new application areas?

  In this talk I will indicate some potential directions for graph transformation-related tool development to go: quantitative aspects, reactive components, planning. Mostly this involves hooking up into other tool sets, with different strengths. Part of the issue also involves standardisation: but what to standardise on? Do we revive GXL, should we look to Eclipse instead, or is there another answer?

We would like to thank the members of the Program Committee and the external reviewers for their excellent work. We are also indebted to the members of the ICGT organization committee who provided outstanding support for running the GraBaTs workshop smoothly.

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September 2012
Christian Krause, Bernhard Westfechtel
PC chairs of GraBaTs 2012

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