Available online at www.sciencedirect.com
SCIENCE DIRECT®
Electronic Notes in Theoretical Computer Science
ELSEVIER
Electronic Notes in Theoretical Computer Science 137 (2005) 1–3
www.elsevier.com/locate/entcs

Preface

This volume contains papers presented at International Workshop on Meta-Models and Schemas for Reverse Engineering (ateM 2004) that was held in Delft, Netherlands on November 12, 2004. The second ateM-Workshop was was focused on the integration of Reverse Engineering and Model Driven Engineering. It was held as part of the 11th International Working Conference on Reverse Engineering (WCRE-04).

1 Motivation

The theme for this workshop was the exploration of topics related to the integration of model driven engineering (MDE) and reverse engineering. The 2004 ateM workshop aimed to build both on the themes raised in the 2003 ateM workshop as well as the increasing prominance of the model-driven development (MDD) and model-driven engineering (MDE) research communities.

The emphasis of MDE is on "bridges" between Technological Spaces (TSs), on reuse and integration of various bodies of knowledge developed by different research communities. Examples of technological spaces include Grammarware, with BNF as a possible representative, Documentware and XML, Dataware and SQL, Modelware and UML, etc. In each space, the concepts of model, metamodel and transformation each have a different realization. For example, the distinction model/metamodel, which leads to the M1 and M2 levels in the metamodeling pyramid, also exist in other technological spaces: fact/schema, program/grammar, document/schema, view/viewpoint, etc.

While MDE may be a candidate for the next important paradigm in software engineering, it is unlikely to succeed if reverse engineering issues are neglected. Although the importance of metamodels, schemas, and grammars has been well understood in the reverse engineering community for a long time, as yet the study of meta-models etc. have not been put under a com-

doi:10.1016/j.entcs.2005.04.034

mon umbrella. Explicitly defined metamodels, schemas, and grammars allow reverse engineering tools to be adaptable and interoperable. Making M2-level artifacts explicit also allow the use of transformation languages suited to the representation selected (e.g., TXL or ASF+SDF in the Grammarware TS; XSLT or XQuery in Documentware; Grok in Graphware; SQL in Dataware; ATL, UMLX and QVT in Modelware, etc.).

While the harmonious integration of reverse engineering and MDE appears very promising, it also raises many research issues. The purpose of the ateM workshop is to bring researchers from different communities to study the use of meta technologies in the context of reverse engineering. This year the theme of the workshop will be the integration of Reverse Engineering and Model Driven Engineering.

2 The Workshop

Authors were invited to submit position papers on topics related to the intersection of reverse engineering and meta-modelling. After a round of reviewing by the program committee, the organizers selected seven of the submissions for presentation at the workshop. Unfortunately, one of the papers was withdrawn at the last minute when the authors were unable to attend for personal reasons. There were six papers presented, organized into two sessions, plus an introductory overview talk given by Jean-Marie Favre to set the stage.

The authors of the six papers were then invited to submit a revised and expanded version of their papers that would take into account both the original reviewers' comments as well as the results of the discussions during the workshop. Again, these papers were commented by the other authors to provide a stronger clarification of similarities and differences. The revised papers are included in this proceedings.

The theme for the first session was *industrial perspectives on meta-modelling, transformations, and model-driven development.* The speakers in this session were *Anthony Cleve*, who spoke on "Co-transformations in Information System Reengineering"; *Jens Knodel*, who spoke on "An Efficient Migration to Model-driven Development (MDD)" and *Mika Karaila*, who spoke about "Meta-information in Visual Language Reuse and Reverse Engineering — An Industrial case study".

The theme for the second session was on *modelling abstraction in tools to support reverse engineering and meta-modelling.* The speakers in this session were *Ralf Lämmel*, who spoke about "The Amsterdam Toolkit for Language Archaeology", *Jean-Marie Favre*, who spoke about "Using Meta-Model Transformation to Model Software Evolution", and *Dean Jin*, who spoke about

"Factbase Filtering Issues in an Ontology-Based Reverse Engineering Tool Integration System".

3 Workshop Organization and Acknowledgements

The workshop was organized by Andreas Winter (University of Koblenz, Germany), Jean-Marie Favre (University of Grenoble, France), and Michael Godfrey (University of Waterloo, Canada).

We, the organizers, would like to thank the program committee who reviewed the submissions and provided useful feedback to the authors:

- Jean Bézivin, University of Nantes, France
- Stéphane Ducasse, University of Berne, Switzerland
- Jeff Gray, University of Alabama at Birmingham, USA
- Reiko Heckel, University of Paderborn, Germany
- Rainer Koschke, University of Bremen, Germany
- Ralf Lämmel, CWI, The Netherlands
- Tom Mens, University of Mons-Hainaut, Belgium
- Hausi Mller, University of Victoria, Canada
- Tarja Systa, Tampere University of Technology, Finland
- Juha-Pekka Tolvanen, Metacase, Finland
- William Ulrich, Co-chair of the OMG ADM Tactical Strategy Group, USA.

We also thank our authors for their papers and interesting talks, and our participants for intensive and valuable discussions. Our thanks also goes to the organizers of WCRE 2004 for accepting ateM 2004 as part of the conference program and Michael Mislove for agreeing to publish the ateM 2004 post-proceedings in Elsevier Electronic Notes in Theoretical Computer Science.

Jean-Marie Favre
University of Grenoble, France

Mike Godfrey
University of Waterloo, Canada

Andreas Winter
University of Koblenz-Landau, Germany