

First International Workshop on Model-Driven Software Migration (MDSM 2011)

March 1, 2011 in Oldenburg, Germany

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Preface

Welcome to the First International Workshop on Model-Driven Software Migration (MDSM 2011), March 1, 2011 in Oldenburg, Germany.

Model-driven software development (MDSM) and software migration are two different approaches that had been under research separately. In recent years, researchers found interesting analogies between both fields.

In software engineering, one of the key principles is abstraction, that is, focusing only on the important aspects while fading-out details. Model-driven software development (MDSM) aims at modeling these important aspects at different levels of abstraction. This allows to design software starting with the “big picture” (abstract level) and approach more concrete levels by adding details to the models until the system is implemented (concrete level).

Software migration aims at converting an old system (legacy system) into a new technology without changing functionality. This implies understanding, how the legacy system is working. For this purpose, legacy code must be leveraged into a higher level of abstraction in order to focus only on the important aspects.

At this point, model-driven software development and software migration meet. Migration projects can benefit from the vision of MDSM by abstracting legacy systems (reverse engineering), transform them and implement the migrated system (forward engineering).

However, both fields of research are not yet entirely understood. Neither is the combination of both fields examined very well.

MDSM 2011

The MDSM workshop brought together researchers and practitioners in the area of model-driven approaches supporting software migration to present and discuss state-of-the-art techniques as well as real-world experiences to stimulate further model-driven migration research activities.

The scope of the MDSM workshop included, but was not restricted to, the following topics:

- Modeling languages, query languages and transformation languages
- Domain Specific Languages for software migration
- Model-integration in repositories
- Model-driven architecture reconstruction or migration
- Model-driven code migration
- Software migration by transforming legacy code
- Model-driven software renovation
- Tools and methods for model-driven migration
- Design patterns for model-driven software migration
- Experience reports

The MDSM workshop was held during the CSMR 2011 main conference on March 1, 2011. The full-day workshop consisted of three thematically grouped sessions:

- one 90 minutes project session, presenting latest research projects in the field of model-driven software migration
- two 90 minutes paper sessions containing paper presentations with plenty of time for discussions.

The proceedings contain the papers and project presentations presented at MDSM 2011. For regular papers, we received eight submissions, from which we accepted four papers based on a rigorous reviewing process. Each paper was reviewed by four program committee members. In addition, we invited three projects in the field of model-driven software migration to present their work and to submit a 2 pages summary of their project.

Organizers

Workshop Chairs

- Wilhelm Hasselbring, Christian-Albrechts-Universität zu Kiel, Germany
- Andreas Fuhr, Universität Koblenz-Landau, Germany
- Volker Riediger, Universität Koblenz-Landau, Germany

Program Committee

- Andy Schürr, Technische Universität Darmstadt, Germany
- Anthony Cleve, Institut National de Recherche en Informatique et en Automatique (INRIA) Lille, France
- Bernhard Rumpe, Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen, Germany
- Dragang Gasevic, Athabasca University, Canada
- Eleni Stroulia, University of Alberta, Canada
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- Harry Sneed, Central European University Budapest, Hungary & Universität Passau, Universität Regensburg, Germany
- Heinz Züllighoven, Universität Hamburg, Germany
- Jaques Klein, Université du Luxembourg
- Jorge Ressoa, Universität Bern, Switzerland
- Jürgen Ebert, Universität Koblenz-Landau, Germany
- Klaus Krogmann, Karlsruhe Institute of Technology, Germany

- Rainer Gimnich, IBM Frankfurt, Germany
- Rocco Oliveto, Università degli Studi di Salerno, Italy
- Romain Robbes, Universidad de Chile, Chile
- Steffen Becker, Universität Paderborn, Germany
- Tudor Girba, Universität Bern, Switzerland

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