

Table of Contents

Keynote Address I

Model Driven Development for Distributed Real-Time and Embedded Systems	1
<i>Douglas C. Schmidt</i>	

Process

Activity Diagram Patterns for Modeling Quality Constraints in Business Processes	2
<i>Alexander Foerster, Gregor Engels, Tim Schattkowsky</i>	
UML4SPM: A UML2.0-Based Metamodel for Software Process Modelling	17
<i>Reda Bendraou, Marie-Pierre Gervais, Xavier Blanc</i>	
Realizing Model Driven Security for Inter-organizational Workflows with WS-CDL and UML 2.0	39
<i>Michael Hafner, Ruth Breu</i>	

Product Families, Reuse

Code Generation from UML Models with Semantic Variation Points	54
<i>Franck Chauvel, Jean-Marc Jézéquel</i>	
Composing Domain-Specific Languages for Wide-Scope Software Engineering Applications	69
<i>Jacky Estublier, German Vega, Anca Daniela Ionita</i>	
Model Typing for Improving Reuse in Model-Driven Engineering	84
<i>Jim Steel, Jean-Marc Jézéquel</i>	

State/Behavioral Modeling

UML Vs. Classical Vs. Rhapsody Statecharts: Not All Models Are Created Equal	97
<i>Michelle L. Crane, Juergen Dingel</i>	
Evaluating the Effect of Composite States on the Understandability of UML Statechart Diagrams	113
<i>José A. Cruz-Lemus, Marcela Genero, M. Esperanza Manso, Mario Piattini</i>	

Computing Refactorings of Behavior Models 126
Alexander Pretschner, Wolfgang Prenninger

Aspects

Dynamic Secure Aspect Modeling with UML: From Models to Code 142
Jan Jürjens, Siv Hilde Houmb

Performance Analysis of UML Models Using Aspect Oriented Modeling
 Techniques 156
Hui Shen, Dorina C. Petriu

Domain Models Are Aspect Free 171
Friedrich Steimann

Design Strategies

Representing and Applying Design Patterns: What Is the Problem? 186
Hafedh Mili, Ghizlaine El-Boussaidi

Properties of Stereotypes from the Perspective of Their Role in Designs . . 201
Miroslaw Staron, Ludwik Kuzniarz

A Modeling and Simulation Based Approach to Dependable System
 Design 217
Miriam Zia, Sadaf Mustafiz, Hans Vangheluwe, Jörg Kienzle

Model Transformations

Extending Profiles with Stereotypes for Composite Concepts 232
Dick Quartel, Remco Dijkman, Marten van Sinderen

Transformation from CIM to PIM: A Feature-Oriented
 Component-Based Approach 248
Wei Zhang, Hong Mei, Haiyan Zhao, Jie Yang

Weaving Executability into Object-Oriented Meta-languages 264
Pierre-Alain Muller, Franck Fleurey, Jean-Marc Jézéquel

Keynote Address II

Domain-Specific Modeling: No One Size Fits All 279
Juha-Pekka Tolvanen

Model Refactoring

Refactoring OCL Annotated Class Diagrams 280
Slaviša Marković, Thomas Baar

Replicators: Transformations to Address Model Scalability	295
<i>Jeff Gray, Yuehua Lin, Jing Zhang, Steve Nordstrom, Aniruddha Gokhale, Sandeep Neema, Swapna Gokhale</i>	

Simplifying Transformations of OCL Constraints	309
<i>Martin Giese, Daniel Larsson</i>	

Quality Control

Lessons Learned from Automated Analysis of Industrial UML Class Models (An Experience Report)	324
<i>Betty H.C. Cheng, Ryan Stephenson, Brian Berenbach</i>	

Reliability Prediction in Model Driven Development	339
<i>Genáína N. Rodrigues, David S. Rosenblum, Sebastian Uchitel</i>	

Model-Based Scalability Estimation in Inception-Phase Software Architecture	355
<i>Steve Masticola, Andre Bondi, Mark Hettish</i>	

MDA I

Explicit Platform Models for MDA	367
<i>Dennis Wagelaar, Viviane Jonckers</i>	

Integrated Model-Based Software Development, Data Access, and Data Migration	382
<i>Behzad Bordbar, Dirk Draheim, Matthias Horn, Ina Schulz, Gerald Weber</i>	

Invited Presentation I: Lessons Learned, New Directions, and Migration Plans for Model-Driven Development of Large Scale Software Based Systems	397
<i>Michael J. Marich, Haig F. Krikorian</i>	

Automation I

Concepts for Comparing Modeling Tool Architectures	398
<i>Colin Atkinson, Thomas Kühne</i>	

Scenario Construction Tool Based on Extended UML Metamodel	414
<i>Michał Śmiałek, Jacek Bojarski, Wiktor Nowakowski, Tomasz Straszak</i>	

Invited Presentation II: Experiences in Applying Model Based System Testing Generation	430
<i>Marlon Vieira</i>	

UML 2.0

The Impact of UML 2.0 on Existing UML 1.4 Models 431
Julie A. Street, Robert G. Pettit IV

Towards UML2 Extensions for Compact Modeling of Regular Complex
 Topologies 445
Arnaud Cuccuru, Jean-Luc Dekeyser, Philippe Marquet, Pierre Boulet

Using UML 2.0 Collaborations for Compositional Service Specification ... 460
*Richard Torbjørn Sanders, Humberto Nicolás Castejón,
 Frank Alexander Kraemer, Rolv Bræk*

Industrial Experience

Model-Driven Engineering in a Large Industrial Context — Motorola
 Case Study 476
Paul Baker, Shiou Loh, Frank Weil

Using a Domain-Specific Language and Custom Tools to Model a
 Multi-tier Service-Oriented Application — Experiences and Challenges .. 492
Marek Vokáč, Jens M. Glattetre

Invited Presentation III: The Architects’ Workbench — Research in
 the Trenches 507
Doug Kimelman

Crosscutting Concerns

Uniform Support for Modeling Crosscutting Structure 508
Maria Tkatchenko, Gregor Kiczales

Modeling Crosscutting Services with UML Sequence Diagrams 522
Martin Deubler, Michael Meisinger, Sabine Rittmann, Ingolf Krüger

A Formal Enforcement Framework for Role-Based Access Control
 Using Aspect-Oriented Programming 537
Jaime Pavlich-Mariscal, Laurent Michel, Steven Demurjian

Modeling Strategies I

A Domain Model for System Dynamic Reconfiguration 553
D’Arcy Walsh, Francis Bordeleau, Bran Selic

Exceptional Use Cases 568
Aaron Shui, Sadaf Mustafiz, Jörg Kienzle, Christophe Dony

MDA II

Modeling Turnpike Frontend System: A Model-Driven Development Framework Leveraging UML Metamodeling and Attribute-Oriented Programming	584
<i>Hiroshi Wada, Junichi Suzuki</i>	

Simplifying Autonomic Enterprise Java Bean Applications Via Model-Driven Development: A Case Study	601
<i>Jules White, Douglas C. Schmidt, Aniruddha Gokhale</i>	

Automation II

Automated Invariant Maintenance Via OCL Compilation	616
<i>Kurt Stirewalt, Spencer Rugaber</i>	

SelfSync: A Dynamic Round-Trip Engineering Environment	633
<i>Ellen Van Paesschen, Wolfgang De Meuter, Maja D'Hondt</i>	

UML for Document Modeling: Designing Document Structures for Massive and Systematic Production of XML-based Web Contents	648
<i>Alejandro Bia, Jaime Gómez</i>	

Modeling Strategies II

Metamodel Reuse with MOF	661
<i>Xavier Blanc, Franklin Ramalho, Jacques Robin</i>	

Modeling the User Interface of Multimedia Applications	676
<i>Andreas Pleuß</i>	

An Ontology-Based Approach for Evaluating the <i>Domain Appropriateness</i> and <i>Comprehensibility Appropriateness</i> of Modeling Languages.....	691
<i>Giancarlo Guizzardi, Luís Ferreira Pires, Marten van Sinderen</i>	

Workshops, Tutorials and Panels

Workshops at the MODELS 2005 Conference	706
<i>Jean-Michel Bruel</i>	

Tutorials at the MODELS 2005 Conference.....	715
<i>Gianna Reggio</i>	

Panels at the MODELS 2005 Conference	719
<i>Siobhán Clarke</i>	

Author Index	721
---------------------------	-----



<http://www.springer.com/978-3-540-29010-0>

Model Driven Engineering Languages and Systems
8th International Conference, MoDELS 2005, Montego
Bay, Jamaica, October 2-7, 2005, Proceedings
Briand, L.; Williams, C. (Eds.)
2005, XVI, 724 p., Softcover
ISBN: 978-3-540-29010-0