

Table of Contents

Invited Talk

The Preacher at Arrakeen	1
<i>Jim Rumbaugh</i>	

Metamodeling

An Action Semantics for MML	2
<i>José M. Álvarez, Tony Clark, Andy Evans, Paul Sammut</i>	
The Essence of Multilevel Metamodeling	19
<i>Colin Atkinson, Thomas Kühne</i>	
Mapping between Levels in the Metamodel Architecture	34
<i>José M. Álvarez, Andy Evans, Paul Sammut</i>	

Activity Diagrams

An Execution Algorithm for UML Activity Graphs	47
<i>Rik Eshuis, Roel Wieringa</i>	
Timing Analysis of UML Activity Diagrams	62
<i>Li Xuandong, Cui Meng, Pei Yu, Zhao Jianhua, Zheng Guoliang</i>	
UML Activity Diagrams as a Workflow Specification Language	76
<i>Marlon Dumas, Arthur H.M. ter Hofstede</i>	

OCL

On Querying UML Data Models with OCL	91
<i>D.H. Akehurst, B. Bordbar</i>	
OCL as a Specification Language for Business Rules in Database Applications	104
<i>Birgit Demuth, Heinrich Hussmann, Sten Loecher</i>	

A Formal Semantics for OCL 1.4.....	118
<i>María Victoria Cengarle, Alexander Knapp</i>	

Architecture and Patterns

Refactoring UML Models	134
<i>Gerson Sunyé, Damien Pollet, Yves Le Traon, Jean-Marc Jézéquel</i>	

UML Support for Designing Software Systems as a Composition of Design Patterns	149
<i>Sherif M. Yacoub, Hany H. Ammar</i>	

Integrating the ConcernBASE Approach with SADL	166
<i>Valentin Crettaz, Mohamed Mancona Kandé, Shane Sendall, Alfred Strohmeier</i>	

Analysis and Testing

The Message Paradigm in Object-Oriented Analysis	182
<i>Frank Devos, Eric Steegmans</i>	

A UML-Based Approach to System Testing	194
<i>Lionel Briand, Yvan Labiche</i>	

Performance and Databases

UML Modelling and Performance Analysis of Mobile Software Architectures	209
<i>Vincenzo Grassi, Raffaella Mirandola</i>	

Extending UML for Object-Relational Database Design	225
<i>E. Marcos, B. Vela, J.M. Cavero</i>	

Invited Talk

Understanding UML – Pains and Rewards	240
<i>Werner Damm</i>	

Graph Transformations

A Formal Semantics of UML State Machines Based on Structured Graph Transformation	241
<i>Sabine Kuske</i>	
A Visualization of OCL Using Collaborations	257
<i>Paolo Bottoni, Manuel Koch, Francesco Parisi-Presicce, Gabriele Taentzer</i>	
Rule-Based Specification of Behavioral Consistency Based on the UML Meta-model	272
<i>Gregor Engels, Reiko Heckel, Jochen Malte Küster</i>	

Real-Time and Embedded Systems

A New UML Profile for Real-Time System Formal Design and Validation .	287
<i>L. Aprville, P. de Saqui-Sannes, C. Lohr, P. Sénac, J.-P. Courtiat</i>	
Representing Embedded System Sequence Diagrams as a Formal Language	302
<i>Elizabeth Latronico, Philip Koopman</i>	
Scenario-Based Monitoring and Testing of Real-Time UML Models	317
<i>Marc Lettrari, Jochen Klose</i>	

Associations and Ontology

Semantics of the Minimum Multiplicity in Ternary Associations in UML ..	329
<i>Gonzalo Génova, Juan Llorens, Paloma Martínez</i>	
Extending UML to Support Ontology Engineering for the Semantic Web ..	342
<i>Kenneth Baclawski, Mieczyslaw K. Kokar, Paul A. Kogut, Lewis Hart, Jeffrey Smith, William S. Holmes, Jerzy Letkowski, Michael L. Aronson</i>	
On Associations in the Unified Modelling Language	361
<i>Perdita Stevens</i>	

Statecharts

iState: A Statechart Translator	376
<i>Emil Sekerinski, Rafik Zurob</i>	
Specifying Concurrent System Behavior and Timing Constraints Using OCL and UML	391
<i>Shane Sendall, Alfred Strohmeier</i>	
Formalization of UML-Statecharts	406
<i>Michael von der Beeck</i>	

Invited Talk

UML for Agent-Oriented Software Development: The Tropos Proposal	422
<i>John Mylopoulos, Manuel Kolp, Jaelson Castro</i>	

Components

A UML Meta-model for Contract Aware Components	442
<i>Torben Weis, Christian Becker, Kurt Geihs, Noël Plouzeau</i>	
A Specification Model for Interface Suites	457
<i>E.E. Roubtsova, L.C.M. van Gool, R. Kuiper, H.B.M. Jonkers</i>	

Use Cases

Against Use Case Interleaving	472
<i>Pierre Metz, John O'Brien, Wolfgang Weber</i>	
Estimating Software Development Effort Based on Use Cases - Experiences from Industry	487
<i>Bente Anda, Hege Dreiem, Dag I.K. Sjøberg, Magne Jørgensen</i>	

Workshops and Tutorials

Workshops and Tutorials at the UML 2001 Conference	503
<i>Heinrich Hussmann</i>	

Author Index	509
--------------------	-----

UML 2001 - The Unified Modeling Language. Modeling
Languages, Concepts, and Tools
4th International Conference, Toronto, Canada,
October 1-5, 2001. Proceedings
Gogolla, M.; Kobryn, C. (Eds.)
2001, XIV, 514 p., Softcover
ISBN: 978-3-540-42667-7