

The 16th Workshop on Domain-Specific Modeling

<http://www.dsmforum.org/events/DSM16>

SPLASH

30 October 2016

Amsterdam, Netherlands

Objectives

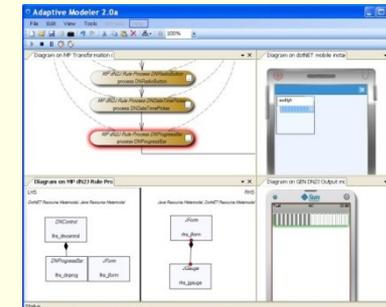
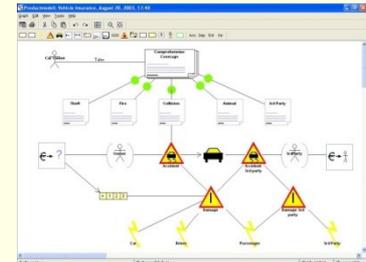
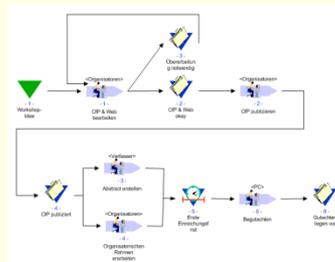
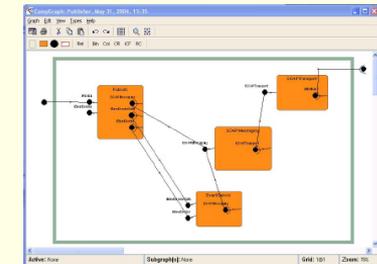
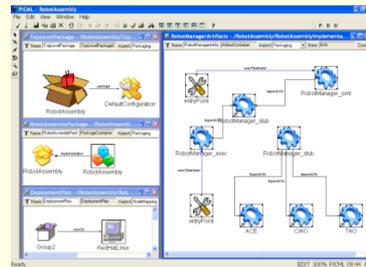
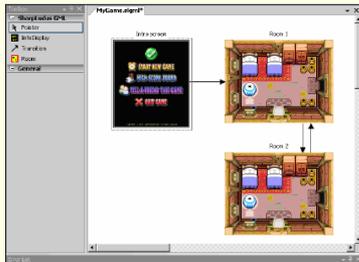
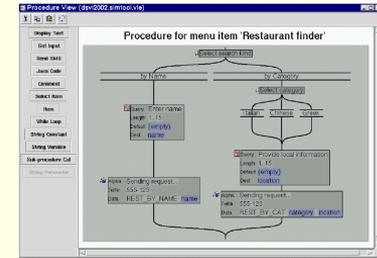
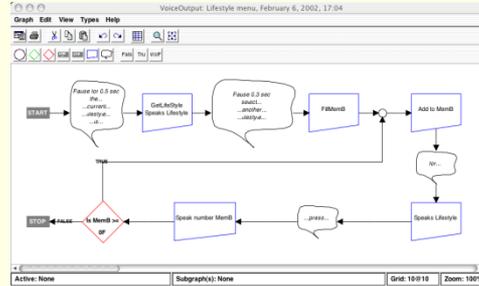
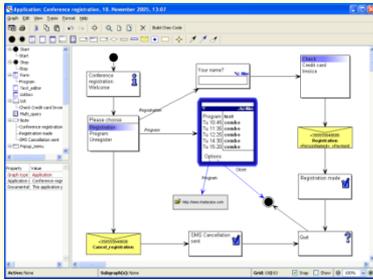
- Intensive collaborative sessions with group work and panel
- Attempt to discuss, share and solve challenging problems
- See others' work, DSM languages, tools etc.
- Have something to report to community
- Have fun!

About past workshops

- BOF at OOPSLA'00
- First DSVL workshop at OOPSLA'01
- 16th DSM workshop - first time outside North America
- Special issues on Domain-Specific Modeling
 - Journal of Visual Languages and Computing, Vol. 15., 3-4, 2004
 - IEEE Software, Jul/Aug, 2009
 - Software & Systems Modeling, Volume 13, Issue 1, 2014



Some demonstrated languages



What is Domain-Specific Modeling

- Captures domain knowledge (as opposed to code)
 - Uses domain abstractions
 - Applies domain concepts and rules as modeling constructs
 - Narrow down the design space
 - Focus on single range of products
- Lets developers design products using domain terms
 - Apply familiar terminology
 - Solve the RIGHT problems!
 - Solve problems only ONCE!
- Often aims at generation of full production code

About submissions

- 11 submissions
- 30 authors
- From 11 countries
- Accepted
 - 5 papers
 - 1 position paper
 - 3 demos

DSM'16 PC

- Ankica Barisic, Universidade Nova de Lisboa, Portugal
- Christian Berger, University of Gothenburg, Sweden
- Maicon Bernardino, PUCRS, Brazil
- Marco Brambilla, Politecnico di Milano, Italy
- Javier Cánovas, UOC, Spain
- Tony Clark, Sheffield Hallam University, UK
- Jonathan Corley, University of West Georgia, US
- Steven Kelly, MetaCase, Finland
- Thomas Kühne, Victoria University of Wellington, New Zealand
- Juan de Lara, Universidad Autonoma de Madrid, Spain
- Tanja Mayerhofer, Vienna University of Technology, Austria
- Mark Minas, Universität der Bundeswehr München, Germany
- Gabriele Taentzer, Philipps-Universität Marburg, Germany
- Dragos Truscan, Åbo Academi, Finland
- Naoyasu Ubayashi, Kyushu University, Japan
- Sean Whitsitt, Aztera, US
- Tao Yue, Simula Research Laboratory, Norway

Organizing committee:

- Juha-Pekka Tolvanen, MetaCase
- Matti Rossi, Aalto University School of Business
- Jonathan Sprinkle, University of Arizona
- Jeff Gray, University of Alabama

Schedule and format

- 08:30 – Overview and introductions
- 09:05 – Paper presentations
- 11:30 – Tool demos
- 12:15 – Lunch
- 13:30 – Panel: Industrial use of DSM
- 14:50 – Group work
- 17:00 – Group work reporting and discussion
- 17:20 – Closing

Panel: Industrial Use of Domain-Specific Modeling

■ Panelists:

Niels Brouwers

Software Architect, Altran

Robert Hendriksen

Software Architect at SoLayTec and Sioux

Gökhan Kahraman

Team Leader, ASELSAN A.S

Jeroen Kouwer

Software Engineering Consultant, Thales

Publishing results

- Workshop web-site
 - www.dsmforum.org/events/DSM16
 - Papers
 - Presentation slides
 - Panel summary
 - Workgroup results
 - Photos
- Twitter: #dsm16
- ACM DL, post-proceedings
 - Instructions send later

Program

- 8:30 Introduction
- 9:05 Run-time Code Generators for Model-level Debugging in Domain-specific Modeling Verislav Djukic, Aleksandar Popovic and Zhenli Lu
- 9:25 A DSL-based Approach for Elasticity Testing of Cloud System Michel Albonico, Amine Benelallam, Jean-Marie Mottu and Gerson Sunyé
- 9:45 DesignScript: a domain specific language for architectural computing Robert Aish and Emmanuel Mendoza
- 10:00 Break
- 10:30 Model-Driven Separation of Concerns for Service Robotics Kai Adam, Arvid Butting, Robert Heim, Oliver Kautz, Bernhard Rumpe and Andreas Wortmann
- 10:50 Improving Maintenance by Creating a DSL for Configuring a Fieldbus Mathijs Schuts and Jozef Hooman
- 11:10 CPAL: High-Level Abstractions for Safe Embedded Systems Nicolas Navet and Fejoz Loïc
- 11:30 ...

Program

- 11:30 Demo: A Safe Autonomous Vehicle Trajectory Domain Specific Modeling Language For Non-Expert Development
Matt Bunting, Yegeta Zeleke, Kennon McKeever and Jonathan Sprinkle
- 11:45 Demo: Applying Test-Driven Development for Creating and Refining Domain-Specific Modeling Languages and Generators
Juha-Pekka Tolvanen
- 12:00 Demo: Instance Modeling Assisted by an Optional Meta Level
Riccardo Solmi
- 12:15 Lunch
- 13:30 Panel: Industrial Use of Domain-Specific Modeling
Niels Brouwers, Robert Hendriksen, Gökhan Kahraman, Jeroen Kouwer
- 14:50 Group work topic selection
- 15:10 Break
- 15:40 Group work
- 17:00 Group work reporting and wrap-up
- 17:20 Closing