

# **The 17<sup>th</sup> Workshop on Domain-Specific Modeling**

<http://www.dsmforum.org/events/DSM19>

SPLASH

20 October 2019

Athens, Greece

# Objectives

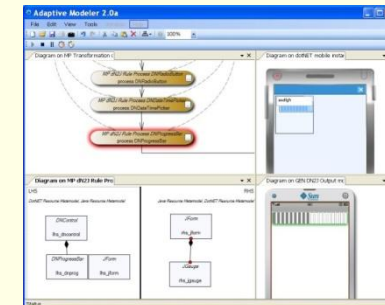
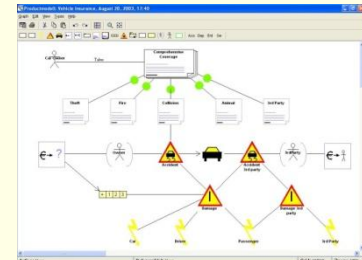
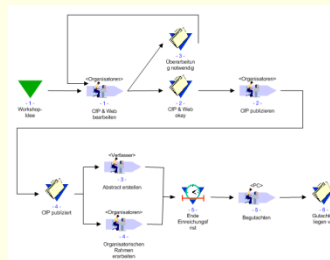
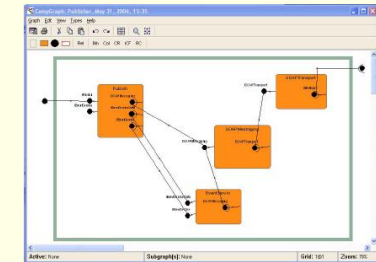
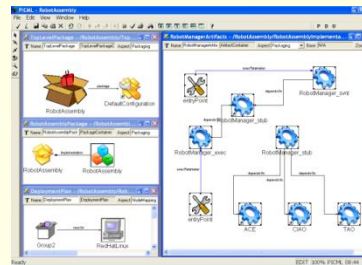
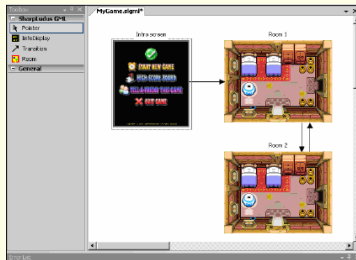
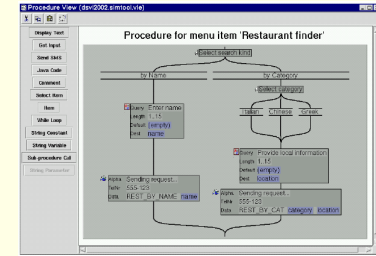
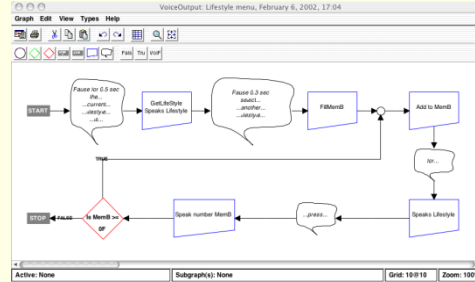
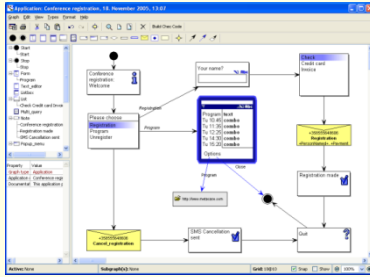
- Intensive collaborative sessions with group work
- Attempt to discuss, share and solve challenging problems
- See others' work, DSM languages, tools etc.
- Have something to report to community
- Have fun!

# About DSM workshops

- BOF at OOPSLA'00
- First DSVL workshop at OOPSLA'01
- 17<sup>th</sup> DSM workshop – second 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

- 9 submissions
- 21 authors
- Accepted            6 papers  
                             1 demo

# DSM'19 PC

- Ankica Barisic, NOVA-LINCS, Portugal
- Christian Berger, University of Gothenburg, Sweden
- Maicon Bernardino, PUCRS, Brazil
- Erwan Bousse, TU Wien, Austria
- Marco Brambilla, Politecnico di Milano, Italy
- Ruth Breu, University of Innsbruck, Austria
- Javier Luis Canovas Izquierdo, IN3-UOC, Spain
- Verislav Djukic, Djukic Software, Germany
- Steven Kelly, MetaCase, Finland
- Juan de Lara, Universidad Autonoma de Madrid, Spain
- Ileana Ober, University Toulouse 3, France
- Naoyasu Ubayashi, Kyushu University, Japan

## **Organizing committee:**

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

# Schedule and format

- 09:00 – Overview and introductions
- 09:30 – Keynote: Industry talk
- 10:30 – Break
- 11:00 – Paper presentations: Language engineering
- 12:30 – Lunch
- 14:00 – Paper presentations: Experience reports & demo
- 15:00 – Group work, Topic selection
- 15:30 – Break
- 16:00 – Group work
- 17:00 – Group work reporting
- 17:30 – Closing



# Keynote: Industry talk

- A mosaic of models as the driver for Domain-Specific Modeling in the Robotics Industry
  - by Anastasia Mavrommati  
MathWorks



# Program

- 9:00 Introduction
- 09:30 Industry talk: A mosaic of models as the driver for Domain-Specific Modeling in the Robotics Industry  
- Keynote by Anastasia Mavrommati, MathWorks
- 10:30 Coffee break
- 11:00 Methodology to develop Domain Specific Modeling Languages  
S. Roy Chaudhuri, S. Natarajan, A. Banerjee, V. Choppella
- 11:20 A Constraint Modeling Framework for Domain-Specific Languages  
P. Pschorn, P. de Assis, A. Morgenstern, T. Kuhn
- 11:40 A Meta-Metamodel for Dynamic Constraint Feedback in Modeling Languages  
M. Bunting, J. Sprinkle
- 12:00 ModelFlow: Towards Reactive Model Management Workflows  
B. Sanchez, D. Kolovos, R. Paige
- 12:30 Lunch at Restaurant

# Program

- 14:00 Mind the Gap: Lessons Learned from Translating Grammars between  
MontiCore and Xtext  
M. Dalibor, N. Jansen, J. Kästle, B. Rumpe, D. Schmalzing,  
L. Wachtmeister, A. Wortmann
- 14:20 Experience Report on the Development of a Specialized Multi-Views  
Multi-Stakeholders Model-based Engineering Framework  
G. Le Guernic
- 14:40 Mutation Testing for DSLs: Tool Demo  
P. Gómez-Abajo, E. Guerra, J. de Lara, M. Merayo
- 15:00 Group work topic selection
- 15:30 Coffee break at Break area
- 16:00 Group work  
All
- 17:00 Group work reporting
- 17:30 Closing

# Publishing results

- Workshop web-site: [www.dsmforum.org/dsm19/](http://www.dsmforum.org/dsm19/)
  - Presentation slides
  - Workgroup results
  - Photos
- Twitter: #dsm2019
- Papers: ACM DL