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
  - 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

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