The 12th Workshop on Domain-Specific Modeling

http://www.dsmforum.org/events/DSM12

SPLASH

22 October 2010

Tucson, Arizona, USA

Objectives

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

About past workshops

- BOF at OOPSLA'00
- First DSVL workshop at OOPSLA'01
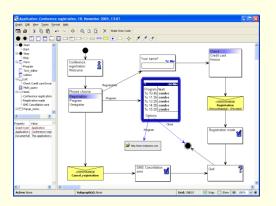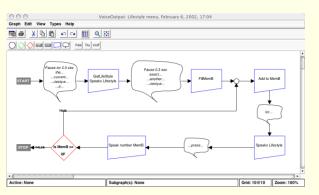
  …

- 11th DSM workshop at SPLASH'11

- Special issues on Domain-Specific Modeling
  - Journal of Visual Languages and Computing, Vol. 15., 3-4, 2004
  - IEEE Software, Jul/Aug, 2009
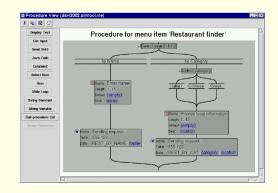 - Software and Systems Modeling, to appear soon

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!
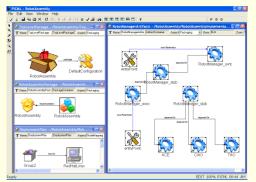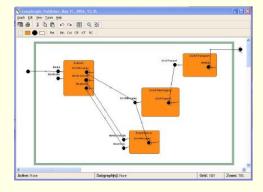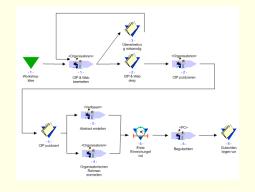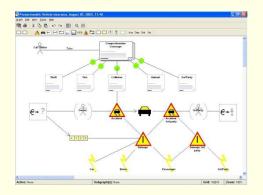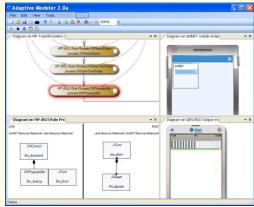- Often aims at generation of full production code

Some demonstrated languages

About submissions and review

- 18 submissions
- 46 authors
- 11 countries
- 3 reviews/paper
- 12 accepted

PC
- Pierre America, Philips
- Robert Baillargeon, Sodius
- Peter Bell, General Assembly
- Peter Clarke, Florida International University
- Davide Di Ruscio, University of L'Aquila
- Scott Douglas, Air Force Research Labs
- Abhishek Dubey, Vanderbilt University
- Brandon Eames, Sandia National Laboratories
- James Hill, Indiana University-Purdue University Indianapolis
- Ethan Jackson, Microsoft
- Jürgen Jung, DHL
- Steven Kelly, MetaCase
- Heiko Kern, University of Leipzig
- Philip Langer, Vienna University of Technology
- Shih-Hsi Liu, California State University, Fresno
- Pedro Molina, icinetic
- Louis Rose, University of York
- Bernhard Rumpe, RWTH Aachen University
- Keng Siau, Missouri University of Science and Technology
- Massimo Tisi, INRIA
- Tuure Tuunanen, University of Jyväskylä
- Markus Völter, independent consultant
- Alan Wegmann, EPFL

Schedule and format

- 08:30 – Overview and introductions
- 08:50 – Paper presentations: Semantics
- 09:30 – Paper presentations: Cases
- 10:00 – *Break*
- 10:30 – Paper presentations: Cases
- 10:45 – Paper presentations: Extending Languages
- 12:00 – *Lunch (and group photo)*
- 13:40 – Paper presentations: Research Directions
- 14:30 – Group work topic selection, group work
- 15:00 – *Break*
- 15:30 – Group work continues
- 16:40 – Group work reporting and discussion
- 17:00 – Wrap-up and closing

Publishing results

■ Workshop web-site
  – www.dsmforum.org/events/DSM12
  – Papers
  – Presentations
  – Workgroup results
  – Photos

■ Twitter: #dsm12

■ ACM DL, bibliography dbs

Program 1/3: Semantics & cases

8:30   Introduction

Semantics

8:50   Towards xMOF: Executable DSMLs based on fUML
        Tanja Mayerhofer, Philip Langer and Manuel Wimmer

9:10   Proactive Modeling: Auto-Generating Models From Their
        Semantics and Constraints
        Tanumoy Pati, Dennis Feiock and James Hill

Cases

9:30   The RPG DSL: a case study of language engineering using MDD for
        Generating RPG Games for Mobile Phones
        Eduardo Marques, Valter Balegas, Bruno Barroca, Ankica Barisic and Vasco Amaral

9:45   Domain Specific Modeling for Operations Research Simulation in a
        Large Industrial Context
        David Lugato, Marc Palyart and Christophe Engelvin

10:00   Break

10:30   The United States of a Meta-model build with MyDraft - An agile
        model-driven cloud-based platform for data-oriented rich web
        applications
        Michel Zam, Gilles Dodinet and Geneviève Jomier

Program 2/3: Extending Languages

Extending Languages

10:45 EA Anamnesis: Towards an approach for Enterprise Architecture rationalization
Georgios Plataniotis, Sybren de Kinderen and Henderik A. Proper

11:05 UML4COP: UML-based DSML for Context-Aware Systems
Naoyasu Ubayashi and Yasutaka Kamei

11:25 DSMLs for Enterprise Architecture Management - Review of Selected Approaches
Heiko Kattenstroth

11:45 Heterogeneous Multi-core Systems: UML Profiles vs. DSM Approaches
David McKean and Jonathan Sprinkle

12:00 Lunch

Program 2/3: Future

Research Directions

13:40 Design Considerations for a Cyber-Physical Testing Language on the Example of Autonomous Driving
Christian Berger

14:00 ESEML - Empirical Software Engineering Modeling Language
Bruno Cartaxo, Ítalo Costa, Dhiego Martins, André Santos, Sergio Soares and Vinicius Garcia

14:15 Domain-Specific Languages for Composing Signature Discovery Workflows
Ferosh Jacob, Adam Wynne, Yan Liu, Nathan Baker and Jeff Gray

14:30 Groups work topic selection, group work

15:00 Break

15:30 Groups work

16:40 Group work reporting and discussion

17:00 Wrap-up and closing