The 18th Workshop on Domain-Specific Modeling

http://www.dsmforum.org/events/DSM21
https://2021.splashcon.org/home/dsm-2021

SPLASH
18 October 2021
Virtual (Chicago)
Objectives

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

- BOF at OOPSLA’00
- First DSVL workshop at OOPSLA’01
- 10th DSM workshop at SPLASH’11
- 18th DSM workshop – first virtual workshop
  - Discord + Zoom
  - Twitter: #dsm2021

- 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
- Lets people design using domain terms
  - Apply familiar terminology
  - Solve the RIGHT problems!
  - Solve problems only ONCE!
- Often aims at generation of production code
About submissions

- 9 submissions
- Accepted 6 papers
  - 22 authors
- Papers focus on
  - cases and experiences
  - verification and validation
- ACM DL
  - Account details at Discord
DSM’21 PC

- Ankica Barisic, Université Côte d’Azur, INRIA, France
- Loli Burgueño, Open University of Catalonia, Spain
- Huseyin Ergin, Ball State University, USA
- Steven Kelly, MetaCase, Finland
- Hourieh Khalajzadeh, Monash University, Australia
- Juan de Lara, Autonomous University of Madrid, Spain
- Henrik Lönn, Volvo Technology, Sweden
- Ramin Tavakoli Kolagari, TH Nuremberg, Germany
- Naoyasu Ubayashi, Kyushu University, Japan
- Mert Özkaya, Yeditepe University, Turkey

Organizing committee:
- Jeff Gray, University of Alabama, USA
- Matti Rossi, Aalto University School of Business, Finland
- Jonathan Sprinkle, Vanderbilt University, USA
- Juha-Pekka Tolvanen, MetaCase, Finland
Schedule and format

- 09:00 – Overview and introductions
- 09:20 – Paper presentations: Cases
- 10:20 – Break
- 10:50 – Paper presentations: V&V, tooling
- 11:50 – Discussion
- 12:10 – Closing
Program

9:00  Introduction

Papers on cases and experiences
9:20  MOLEGA: Modeling Language for Educational Card Games
     Kaylynn Borror, Eric Rapos

9:40  PrintTalk: a Constraint-based Imperative DSL for 3D Printing
     Jef Jacobs, Jens Nicolay, Christophe De Troyer, Wolfgang De Meuter

10:00 Industrial Experiences With the Evolution of a DSL
      Mathijs Schuts, Marco Alonso, Jozef Hooman

10:20  Break
Program

Papers on verification and validation, tooling

10:50  Co-designing DSL Quality Assurance Measures for and with Non-programming Experts
       Holger Borum, Christoph Seidl, Peter Sestoft

11:10  Integration of Modeling and Verification for System Model Based on KARMA Language
       Jie Ding, Michael Reniers, Jinzhi Lu, Guoxin Wang, Lei Feng, Dimitris Kiritsis

11:30  Differential-FORMULA: Towards a Semantic Backplane for Incremental Modeling
       Qishen Zhang, Daniel Balasubramanian, Tamas Kecskes, Janos Sztipanovits

11:50  Discussion and summary
Publishing results

- Workshop web-site: www.dsmforum.org/dsm21/
  - Presentation slides
  - Photo
- Twitter: #dsm2021
- Papers: ACM DL