Welcome to EXE 2016

2nd International Workshop on Executable Modeling
October 3, 2016, Saint-Malo, France

Organizers:

Tanja Mayerhofer  Philip Langer
TU Wien, Austria  EclipseSource, Austria

Ed Seidewitz  Jeff Gray
nMeta, USA  University of Alabama, USA
Context

Potentials of executable modeling

● Provide abstractions of complex system behavior
● Allow performance of early analyses of complex system behavior
● Provide support for design, comprehension, discovery, validation, and verification of system behavior

Challenges of executable modeling

● Lack of maturity of techniques and tooling for executable modeling
● Limited experience with executable modeling in software development industry
Aim

- Highlight potentials and challenges of executable modeling
- Assess and advance the state-of-the-art in executable modeling
- Bring together researchers and practitioners working in executable modeling
- Exchange recent results, ideas, opinions, and experiences
- Coordinate research efforts
Topics

• Engineering methods for executable modeling languages
  • Model execution tools
  • Case studies and experience reports on the adoption of executable modeling
    • Empirical investigations and evaluations of model execution tools
    • Executable modeling in education
  • Automation techniques for the development of model execution tools
    • Evolution in the context of executable modeling
    • Semantic conformance
  • Customization of executable modeling languages and model execution tools
  • Composition, extension, and reuse of executable modeling languages and tools
    • Integration of executable modeling languages and programming languages
    • Semantics-aware model transformations and code generation
  • Scalability of model execution and execution-based model analysis
    • Execution of partial and underspecified models
  • Model execution in the presence of non-determinism and concurrency
    • Surveys and benchmarks of different executable modeling approaches
Program

9:15 – 10:30 Keynote (Chair: Ed Seidewitz)
   Executable Modeling: Retrospective and Prospective
   Stephen Mellor

10:30 – 11:00 Coffee Break

11:00 – 12:30 Session 2 (Chair: Philip Langer)
   Defining Semantic Variations of Diagrammatic Languages Using Behavioral Programming and Queries
   Michael Bar-Sinai, Gera Weiss and Assaf Marron

   Concurrency-Aware Executable Domain-Specific Modeling Languages as Models of Concurrency
   Florent Latombe, Xavier Crégut and Marc Pantel

   Interactive Debugging for Extensible Languages in Multi-Stage Transformation Environments
   Domenik Pavletic and Kim Haßlbauer
Program

12:30 – 14:00 Lunch Break

14:00 – 15:30 Session 3 (Chair: Tanja Mayerhofer)

xtUML: Current and Next State of a Modeling Dialect (Experience Report)
Cortland Starrett

Local Optimizations in Eclipse QVTc and QVTr Using the Micro-Mapping Model of Computation
Edward Willink

SimQRI: A Query-Oriented Tool for the Efficient Simulation and Analysis of Process Models (Tool Demonstration)
Christophe Ponsard, Quentin Boucher and Gustavo Ospina

Resource Analysis and Automated Verification For The Thirty Meter Telescope Using Executable SysML Models (Invited Talk)
Nerijus Jankevicius
15:00 – 15:30 Coffee Break

16:00 – 17:30 Session 4 (Chair: Jeff Gray)
   Leveraging Executable Language Engineering for Domain-Specific Transformation Languages (Position Paper)
   *Erwan Bousse, Manuel Wimmer, Wieland Schwinger and Elisabeth Kapsammer*

   On the Executable Nature of Models (Position Paper)
   *Eric Cariou, Olivier Le Goaer and Franck Barbie*

16:30 – 17:30 Plenary Discussion
You have …
… a question that is still unanswered?
… a thought or idea to share?
→ Write it down for the plenary discussion or post it at

Statistics about Submissions

Acceptance Rate

- 60% accepted papers

Number of Submissions per Country
- Austria: 9
- Belgium: 6
- Canada: 3
- France: 4
- Germany: 4
- Israel: 1
- Lithuania: 10
- UK: 0
- US: 0

Number of Submissions per Organization Type
- Industry: 4
- Non-Academic Research: 1
- University: 10
Program Committee

Colin Atkinson  Francis Bordeleau  Jordi Cabot  Tony Clark
Peter Clarke  Benoit Combemale  Julien Deantoni  Juergen Dingel
Martin Gogolla  Timothy Lethbridge  Nicholas Matragkas  Marjan Mernik
Zoltan Micskei  Richard Paige  Alessandro Romero  Bernhard Rumpe
Jesús Sánchez Cuadrado  Markus Scheidgen  Bran Selic  Cortland Starrett
Eugene Syriani  Jérémie Tatibouët  Massimo Tisi  Mark Van Den Brand
Hans Vangheluwe

Belgium  Brazil  Canada  France  Germany  Hungary  Slovenia  Spain  The Netherlands  UK  US
Publication of Resources

Pre-proceedings
● Pre-workshop version of papers are available at http://www.modelexecution.org/exe2016

Post-proceedings
● Revised papers will be published on CEUR: http://ceur-ws.org
● Deadline for camera-ready versions: November 4th (instructions will follow)
● Submission system: https://easychair.org/conferences/?conf=exe2016

Presentations
● Please send a copy of your slides to exe2016@modelexecution.org