Welcome to EXE 2017

3rd International Workshop on Executable Modeling
September 18, 2017, Austin, Texas

Organizers:

Tanja Mayerhofer  
TU Wien, Austria

Philip Langer  
EclipseSource, Austria

Ed Seidewitz  
nMeta, USA

Jeff Gray  
University of Alabama, USA

Erwan Bousse  
TU Wien, Austria
Context: Executable Modeling

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
Aim of the Workshop

- 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
  - Automation techniques for the development of model execution tools
  - Evolution in the context of executable modeling
  - Verification of semantic conformance
    - Case studies and experience reports on the successful or failed adoption of executable modeling
    - Tracing model executions and analyzing model execution traces
  - Customization of executable modeling languages and model execution tools
  - Composition, extension, and reuse of executable modeling languages and model execution 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 approaches for the development of executable modeling languages, model execution, and execution-based model analysis
9:15 – 10:30 Session 1: Keynote (Chair: Tanja Mayerhofer)
Towards an Open-Source MDE Tooling Infrastructure for the Internet of Things
Juergen Dingel

10:30 – 11:00 Coffee Break

11:00 – 12:30 Session 2: Paper Presentations (Chair: Jeff Gray)
Create and Play your Pac-Man Game with the GEMOC Studio (Tool Demonstration)
Dorian Leroy, Manuel Wimmer, Erwan Bousse, Benoit Combemale, Wieland Schwinger

Executing Models by Filmstripping: Enhancing Validation by Filmstrip Templates and Transformation Alternatives
Nisha Desai, Martin Gogolla, Hilken Frank

Executing Robot Task Models in Dynamic Environments
Kai Adam, Arvid Butting, Oliver Kautz, Bernhard Rumpe, Andreas Wortmann

Discussion
Program

12:30 – 14:00 Lunch Break

14:00 – 15:30 Session 3: Paper Presentations (Chair: Erwan Bousse)

Towards one Model Interpreter for Both Design and Deployment
Valentin Besnard, Matthias Brun, Philippe Dhaussy, Frédéric Jouault, David Olivier, Ciprian Teodorov

Simulation Framework for Executing Component and Connector Models of Self-Driving Vehicles
Filippo Grazioli, Evgeny Kusmenko, Alexander Roth, Bernhard Rumpe, Michael von Wenckstern

Consistency Recovery in Interactive Modeling
Juri Di Rocco, Davide Di Ruscio, Marcel Heinz, Ludovico Iovino, Ralf Lämmel, Alfonso Pierantonio

Discussion
Program

15:30 – 16:00 Coffee Break

16:00 – 17:30 Session 4: Panel Discussion (Chair: Ed Seidewitz)

Executable Modeling for Hardware, Software and Cyber-Physical Systems

Benoit Combemale, University of Toulouse
Taylor Riche, National Instruments
Cortland Starrett, One Fact Inc
Hans Vangheluwe, University of Antwerp and McGill University
Statistics about Submissions

Acceptance Rate: 75% accepted papers

Number of Submissions per Country:
- Austria: 6
- France: 2
- Germany: 3
- Italy: 0
Program Committee

Francis Bordeleau  Tony Clark  Peter Clarke  Benoit Combemale
Jonathan Corley  Juan de Lara  Julien Deantoni  Thomas Degueule
Juergen Dingel  Martin Gogolla  Dimitris Kolovos  Nicholas Matragkas
Marjan Mernik  Zoltan Micskei  Richard Paige  Alessandro Romero
Jesús Sánchez Cuadrado  Markus Scheidgen  Bran Selic  Cortland Starrett
Eugene Syriani  Jérémie Tatibouët  Massimo Tisi  Simon Van Mierlo
Andreas Wortmann
Publication of Resources

Pre-proceedings
  ● Pre-workshop version of papers are available at http://www.modelexecution.org/exe2017

Post-proceedings
  ● Revised papers will be published on CEUR: http://ceur-ws.org
  ● Deadline for camera-ready versions: October 13th
  ● Submission system: https://easychair.org/conferences/?conf=exe2017

Presentations
  ● Will be available at http://www.modelexecution.org/exe2017
  ● Please send a copy of your slides to exe2017@modelexecution.org
Post-Proceedings: Camera-Ready

Instructions for camera-ready versions

- Page limit: +1 page
  - Research papers and experience reports: 7 pages
  - Tool demonstrations: 4 pages

- IEEE format
  - Remove footer + header (page numbers, copyright notice, etc.)
  - Use emphasizing capitalized style for paper titles
  - Add at least three keywords
  - Embed all fonts

- Indicate paper type as subtitle (“(Experience Reports)” / “(Tool Demonstration)”)
9:15 – 10:30 Keynote (Chair: Tanja Mayerhofer)
Towards an Open-Source MDE Tooling Infrastructure for the Internet of Things
Juergen Dingel
Session 2

11:00 – 12:30 Session 2: Paper Presentations (Chair: Jeff Gray)
20 minutes per paper (15 minutes presentation + 5 minutes discussion)

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Session 4

16:00 – 17:30 Session 4: Panel Discussion (Chair: Ed Seidewitz)

Executable Modeling for Hardware, Software and Cyber-Physical Systems

Panelists:
- Benoit Combemale, University of Toulouse
- Taylor Riche, National Instruments
- Darius Silingas, No Magic
- Cortland Starrett, One Fact Inc
- Hans Vangheluwe, University of Antwerp and McGill University
Workshop Closing
Feedback

Any Feedback on EXE 2017?

Organization, Topics, Program, AOB?
## Thanks to All Supporters

### Program Committee
- Francis Bordeleau
- Jonathan Corley
- Juergen Dingel
- Marjan Mernik
- Jesús Sánchez Cuadrado
- Eugene Syriani
- Andreas Wortmann

- Tony Clark
- Juan de Lara
- Martin Gogolla
- Zoltan Micskei
- Markus Scheidgen
- Jérémie Tatibouët

- Peter Clarke
- Julien Deantoni
- Dimitris Kolovos
- Richard Paige
- Bran Selic
- Massimo Tisi

### Authors & Presenters
- Kai Adam
- Arvid Butting
- Juri Di Rocco
- Filippo Grazioli
- Oliver Kautz
- David Olivier
- Wieland Schwinger
- Andreas Wortmann

- Valentin Besnard
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- Erwan Bousse
- Nisha Desai
- Hilken Frank
- Ludovico Iovino
- Ralf Lämmel
- Alexander Roth
- Michael von Wenckstern

### Keynote Speaker
- Juergen Dingel

### MODELS Organizers
- Don Batory
- Michalis Famelis
- Sahar Kokaly
Thank You!