

Preface

The complexity of modern software systems, time-to-market pressures, and the need for high quality software are current challenges faced by the software industry. To address these challenges, model-driven engineering (MDE) advocates the elevation of models into the center of the development process. Models provide abstractions over the system to be developed, while also providing enough detail to automate the development of implementation artifacts and to perform early software analysis. In this context, executable models become more and more important. They provide abstractions of a system's behavior and constitute the basis for performing early analyses of that behavior. The ability to analyze a system's behavior early in its development has the potential to turn executable models into important assets of a model-driven software development process. Despite the potential benefits of executable models, there are still many challenges to solve, such as the lack of maturity in the definition of and tooling for executable modeling languages, and the limited experience with executable modeling in much of the software development industry.

The International Workshop on Executable Modeling (EXE) has been founded as a forum for researchers and practitioners to discuss these and other challenges of executable modeling, propose potential solutions, and assess and advance the state of the art. This first edition has been held as a full-day event of the ACM/IEEE 18th International Conference on Model Driven Engineering Languages and Systems (MODELS) on September 27th, 2015 in Ottawa, Canada. Out of eleven submission, six contributions were accepted after a rigorous review process in which each paper was reviewed by three to four members of the program committee. The accepted contributions cover two main topics, namely the topic of executable modeling with UML, and the topic of techniques for developing executable modeling languages and accompanying tooling. The workshop's program comprised a keynote by Francis Bordeleau from Ericsson Canada on "Why and Where Do We Need Model Execution?", the presentations of the accepted papers, and an open discussion session. In the discussion session, the workshop attendees formed four breakout groups, each one discussing a dedicated topic. The following four topics have been discussed in the groups: (1) adoption of executable modeling in practice, (2) executable UML, (3) execution semantics, and (4) analysis methods for executable models. In the end of the discussion session, the breakout groups jointly reported on their discussion results. The results of the discussion groups, as well as the slides of all presentations are available at the website of EXE 2015: <http://www.modelexecution.org/exe2015>. The EXE 2015 workshop was very well received in the MODELS community and attracted 65 participants, who turned the workshop into a lively and successful event.

We thank the organizers of MODELS 2015 for giving us the opportunity to organize the EXE 2015 workshop as part of MODELS 2015. Our special thanks go to the general chair of MODELS 2015 Timothy Lethbridge (University of Ottawa, Canada), and the workshops chairs Abdelwahab Hamou-Lhadj (Concordia University, Montreal, Canada) and Emilio Insfran (Universitat Politècnica de València, Spain), who have been extraordinarily supportive in the workshop organization. Furthermore, we thank the authors of all submitted papers for choosing the EXE workshop as venue for publishing their research results. Many thanks go to all presenters of the accepted papers and the many participants who contributed to the open discussion and shared their experiences. We also warmly thank Francis Bordeleau for providing a very inspiring keynote talk. Lastly, we thank the reviewers and the members of the program committee for their timely and high-quality reviews, and for their help in selecting the papers for the workshop program.

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Workshop Organizers

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