

## Preface

The second Workshop on Model Driven Engineering Tools<sup>1</sup> (MDETools'18) was held on October 15, 2018 in Copenhagen, Denmark, in collaboration with the ACM/IEEE 21st International Conference on Model Driven Engineering Languages and Systems<sup>2</sup> (MODELS'18). The high-level goal of the MDETools workshop is to support the effective development, maintenance, dissemination, and use of high-quality MDE tools and supporting material. To this end, the workshop has the following objectives:

- Facilitate the determination of the state-of-the-art in MDE tools through comparative evaluations of existing tools by identifying comparison criteria, use cases, and evaluation procedures,
- discuss strengths, weaknesses of tools, together with opportunities for improvements, reuse, and “cross-fertilization”,
- identify relevant industrial trends, opportunities and challenges and how they can be leveraged or dealt with, and
- collect best practices for the development, distribution, and maintenance of MDE tools and any supporting material.

## Challenge problem

To facilitate the comparison of tools the workshop again featured a challenge problem submission category. This year, the challenge problem was given in form of a simulation environment in Unity 3D<sup>3</sup> one of the leading 3D game and animation development tools. In the environment, a rover (modeled after NASA's Mars Exploration Rovers) drives a random path. The challenge was to use an MDE tool to develop the software necessary to allow a second rover to follow the first while staying at a safe distance. No constraints were put on either the tool used or the language that any of the development artifacts were expressed in. Communication with the simulation (to, e.g., obtain position information of both rovers or issue commands to the second rover) was realized via TCP sockets.

## Program

The workshop received a total of twelve submissions — five in the research category and seven in the challenge problem category. The workshop program included a keynote presentation, presentations of four research papers, presentations of six submissions to the challenge problem and a panel discussion. The keynote entitled “Developing a Modeling Tool Someone Wants to Use: Challenges, trends and solutions for how to develop modeling tools that people actually can and want to use” was given by Mattias Mohlin from HCL Technologies,

<sup>1</sup> <https://mdetools.github.io/mdetools18>

<sup>2</sup> <http://www.modelsconference.org>

<sup>3</sup> <https://unity3d.com>

Sweden. Mattias has been involved with the development and industrial use of modelling tools for over 20 years.

### **Acknowledgements**

We thank Mattias Mohlin for his contributions to the success of the workshop and for sharing his expertise. We also gratefully acknowledge the work of Michal Pasternak on the implementation of the Unity simulation used for the challenge problem; Michal also provided user support. Finally, we thank the MODELS'18 Workshop Chairs, Regina Hebig and Thorsten Berger, for their support and the MDETools'18 Program Committee for their invaluable reviewing work.

The MDETools'18 Co-Organizers

Mojtaba Bagherzadeh (Queen's University, Canada)

Francis Bordeleau (Ecole de Technologie Superieure and Cmind, Canada)

Juergen Dingel (Queen's University, Canada)

Michalis Famelis (University of Montreal, Canada)

Antonio Garcia-Dominguez (Aston University, UK)

Raquel Araujo de Oliveira (Universite Toulouse III, France)

Ernesto Posse (Gatineau, Canada)

Ed Seidewitz (Model Driven Solutions, USA)

Bran Selic (Malina Software Corporation, Canada)