

**Joint Proceedings of the**  
**12th Educators Symposium**  
**(EduSymp 2016)**

**and the**

**3rd International Workshop on**  
**Open Source Software for**  
**Model Driven Engineering**  
**(OSS4MDE 2016)**

**held at MODELS'16**

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## Preface – EduSymp 2016

The 12th Educators Symposium at MODELS 2016 (EduSymp 2016) aimed at addressing the challenges, techniques and best practices involved in teaching modeling technologies to various stakeholders.

Nowadays, models play a major role in understanding business needs, in requirements elicitation, and in software development. To facilitate these activities, in the past decades many modeling languages such as URN (for requirements), BPMN (for business process modeling) and the UML (for software development) were introduced both in the academia and in practice. Nevertheless, the use of these models and modeling languages is limited. Educating the new generation and providing new educational resources for teaching modeling and Model Driven Engineering is the main goal of the EduSymp.

The proceedings of EduSymp2016 include four papers (out of eight submissions). They aim to solve specific problems, expressed by the following research questions:

- how to properly implement the learning outcomes?
- how to evaluate class diagrams written by novice modelers?
- how to collect case studies for teaching MDE?
- how to design a course on Domain Specific Languages and Model Driven Software Development?

Other than the four papers, the EduSymp 2016 has hosted a keynote titled “Teaching Modeling at the time of disillusionment from code generation to model management” provided by Prof. Alfonso Pierantonio and a tool demo providing a technical solution on how to ease the process of teaching and practicing OCL.

We would like to thank the members of the Program Committee of the EduSymp2016 for their insightful reviews, as well as the invited speakers and authors for their contributions to an exciting program.

The EduSymp 2016 co-chairs

Henry Muccini, University of L’Aquila, Italy

Gunter Mussbacher, McGill University, Canada

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## Preface – OSS4MDE 2016

The third Workshop on Open Source Software (OSS) for Model Driven Engineering (OSS4MDE'16) was held on October 3rd, 2016 in Saint-Malo, France, in collaboration with the ACM/IEEE 19th International Conference on Model Driven Engineering Languages and Systems (MODELS'16). The workshop program included two keynote presentations, presentations of five research papers, a tool showcase, and a panel discussion.

The keynote entitled "Challenges in using models for communication" was given by Anders Eriksson from SAAB, Sweden and allowed to start the workshop with an industrial feedback on why OSS is important. Jordi Cabot, from Universitat Oberta de Catalunya gave the second keynote entitled "Wanna see your OSS project succeed? Nurture the community". The talk addressed the difficulty of an OSS project to grow and progress, and how studying the community itself can help.

The end of the morning was dedicated to five research paper presentations: "CHESS: an open source methodology and toolset for the development of critical systems", was presented by Silvia Mazzini; "Run-time Monitoring of a Rover: MDE Research with Open Source Software and Low-cost Hardware", was presented by Nicolas Hili; "From Document-Based to Model-Based System and Software Engineering", was presented by Thibaud Thomas; "Usable Design Space Exploration in AutoFOCUS3", was presented by Sebastian Voss; and "OSS-based Collaborative Model for R&T: Lessons Learned and Future Challenges", was presented jointly by Benoît Combemale and Philippe Krief. These talks illustrate the broad topics related to OSS4MDE.

The Tools showcase, in the form of short presentations and discussion on status and plans for a range of open source MDE tools, allowed us to get some updates on: AutoFocus3 (Sebastian Voss, fortiss), Papyrus (Sebastien Gerard, CEA), Papyrus-RT (Ernesto Posse, Zeligsoft), Papyrus For Information Modeling (Philip Langer, EclipseSource), EMF Compare (Philip Langer, EclipseSource), and xtUML (Cortland Starrett, One Fact).

The final session was joint with the Educators Symposium and was dedicated to open source tools and education. Discussion was lively and focussed on the role of tools in teaching modeling; it concluded with the observation that there is a real need for better platforms and support for sharing teaching material and for coordinating initiatives in the teaching community.

### Acknowledgements

We thank Anders Eriksson, Jordi Cabot, and the five presenters in the tools showcase, who agreed to share their expertise and insight so generously and help to make the workshop a success. Moreover, we are grateful to the MODELS'16 Workshop Chairs, Houari Sahraoui and Manuel Wimmer for their support. The Educators Symposium organizers, Gunter Mussbacher and Henry Muccini, deserve thanks for the pleasant collaboration and for the great experience of sharing a session with them. Last, but not least, we thank the OSS4MDE'16 Program Committee for their invaluable reviewing work and the authors for submitting their work.

### The OSS4MDE'16 Co-Organizers

Francis Bordeleau (Ericsson, Canada)	Jean-Michel Bruel (University of Toulouse, France)
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