The journal on Software and Systems Modeling Matures

Robert France · Bernhard Rumpe

1 About this special issue

The year 2012 marks the tenth year of circulation for the Journal on *Software and Systems Modeling* (SoSyM). To celebrate this anniversary, we asked two members of the editorial board, Gregor Engels and Jon Whittle, to put together this Special Issue of papers that present expert perspectives on software and system modeling research and practices. Gregor and Jon have done an excellent job of compiling this issue that reflects the broad and diverse body of work covered by SoSyM. We greatly appreciate their effort in putting together this issue. Their introduction to the Tenth Anniversary Special Issue follows our editorial. In the remainder of our editorial, we will give an overview of the SoSyM's 10-year history.

2 In the beginning

In the early to mid 1990s, the plethora of object-oriented methods were drew attention to the many modeling notations and languages used by the methods. Ivar Jacobson, around 1995, made the following observation: "Each method at this time has a book, a principal author, called "guru", and the first roughly 50 pages explain method and notation". The many "semantically-similar" but syntactically different modeling notations and languages that existed at the time motivated standardization efforts that dominated the attention of

R. France
Colorado State University, Fort Collins, Colorado, USA
e-mail: france@cs.colostate.edu

B. Rumpe (✉)
RWTH Aachen University, Aachen, Germany
e-mail: Bernhard.Rumpe@sosym.org

the modeling community in the late 1990s and early 2000s. For example, clouds (from the Booch method) vanished and boxes remained to describe classes in class diagrams. In the late 1990s, the Unified Modeling Language (UML) emerged as the de facto modeling notation standard. Gregor Engels noted around 2000 that, among other benefits, "it becomes much easier to follow scientific presentations due to their use of a well-known notation". Given the growing awareness of the important role that models can play in the development of software-intensive systems, it is not surprising that a part of the software engineering research community decided to organize forums that focused on software and system modeling concerns. In 1998, Jean Bezivin and Pierre-Alain Muller started the series of UML conferences with the UML workshop held in Mulhouse, France. In 1999, we (Robert France and Bernhard Rumpe) ran the second edition as an IEEE-CS sponsored UML conference in Colorado, USA. These early meetings laid the foundation for what has become a successful annual conference series. In 2005, it was decided to rename the conference "MODELS", to reflect the broadening of the conference scope to include other modeling languages used in the development of software-intensive systems (e.g., Alloy, Simulink/MATLAB, state machines in various forms).

At the second UML conference in 1999, discussions started on creating a journal for disseminating high-quality papers on modeling and use of models in software development. If memory serves us well, Pierre-Alain Muller came up with the idea and it was strongly backed by Jean Bezivin. With their backing, we proceeded to plan for the creation of the journal. The first issue of SoSyM was published in September 2002, 3 years after we initiated the planning process. That issue included an Expert Voice article by Michael Jackson, appropriately titled "Some Basic Tenets of Description". We held our first editorial board meeting on October 2nd

2002 at the UML conference in Dresden (see picture with the signed back cover of issue 1).
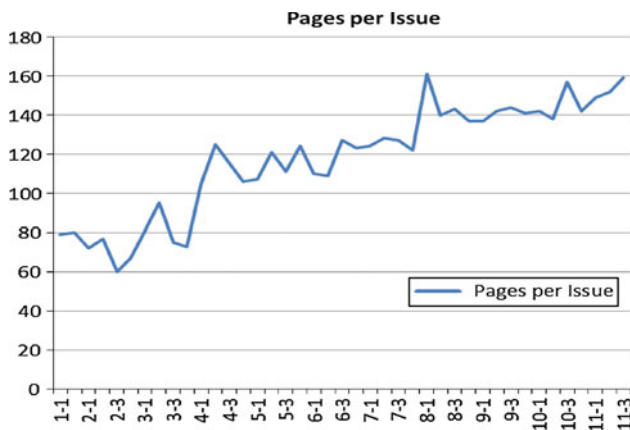
3 Ten years on by the numbers

SoSyM is a quarterly journal, that is, only four issues are published each year. In the following, we highlight some of the numbers that provide some indication of the volume of work published in SoSyM over 10 years:

- Regular papers published: 95
- Special section papers published: 97
- Theme section papers published: 23
- Editorials published: 31
- Guest editorials published: 27
- Expert's voice papers published: 31
- Discussion/overview papers published: 4
- Total papers published: 308 papers

We have observed a steady increase of papers published in each issue (see chart below). This was done to facilitate timely publication of the steady stream of excellent papers that are being accepted. The rate at which new papers are submitted has also increased over the years. To reduce the load on the editorial board, we have steadily increased the number of members on the editorial board from 41 in 2002 up to 62 editors in 2012.

The acceptance rates, according to Manuscript Central (the online system we use to manage the reviewing and publication processes), are given below:

- Regular papers: 18.2 %
- Special section papers: 41.5 %
- Theme section papers: 39.6 %
- Total: 28.6 %

4 Special and theme issues

SoSyM has published 23 special issues that consist primarily of best papers from established conferences, including the UML/Models conference series, and four theme issues that focus on a particular modeling concern. The special and theme issues covered topics on the UML, object-oriented information systems, graph transformations, formal methods in modeling, visual modeling, model transformation, traceability, model-based interoperability and related topics and are a vital part of SoSyM.

5 Looking ahead

The modeling community continues to grow and we are confident that the journal will continue to play a vital community development role. We expect to see sustained research effort in areas related to modeling, meta-modeling,

model-transformation, tooling, and methodologies. While we have made significant progress on modeling challenges, including those discussed in our 2007 paper (R. France, B. Rumpe: Model-Driven Development of Complex Software: A Research Roadmap. In: Future of Software Engineering 2007 at ICSE. Minneapolis, pg. 37–54, IEEE, May 2007), a significant amount of work still remains to be done. We can expect that as new software domains emerge, and current domain evolve, modeling approaches will have to evolve to remain relevant. Thus, we are confident that SoSyM will continue to receive a steady stream of high-quality papers from the community.

To enhance SoSyM's role in the community we plan to start a new section that will contain "industry voice" papers that provide expert perspectives on industrial applications of modeling techniques, methods, and processes. It is important that modeling research be driven by industry problems and that consideration be given to real-world development concerns. This new section will help connect research in academia with industry system development concerns. The editors of this new section are Tony Clark, Gabor Karsai, and Roel Wieringa.

6 Closing remarks

On behalf of the community, we would like to thank all the people who helped to put this journal together. We would like to thank the editors, the special issue editors, the authors, the reviewers, the readers, the Springer staff, and in particular the assistant editors Geri Georg and Martin Schindler, who have provided indispensable assistance. Please visit our website, where we have named the numerous persons that we are not able to list here.

Further information:

- Site for regular updates (six a year): http://tech.groups. yahoo.com/group/sosym-announcement/.
- Current information/planned issues old editorials/list of editors and reviewers/industry voice/etc: http://www. sosym.org.