



Springer

Call for Papers

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Important Dates

Intent to submit	2 April 07
Paper submission	4 June 07
Notification	6 Aug. 07
Camera-ready version	1 Oct. 07

Software and Systems Modeling



Theme Issue:

Model-Based Systems Engineering with SysML, UML, and OWL

Although system modeling has been an important part of systems engineering since its inception more than a half-century ago, during the last decade systems engineers have significantly increased their use of model-driven development technologies to evolve a new discipline of *Model-Based Systems Engineering* (MBSE). MBSE differs from traditional systems engineering, which is sometimes characterized as document centric, in that it emphasizes a central system model that captures system requirements and design decisions that fulfill them. In addition to serving as a knowledge repository for systems engineering work artifacts, the system model can also be executed to drive system simulations to validate trade studies and design decisions. When properly implemented MBSE has proven effective in improving the quality and the efficiency of systems engineering processes.

MBSE is a rapidly evolving engineering discipline, and modeling languages, methods, and tools are advancing in parallel to support it. The modeling languages that support MBSE include: UML (Unified Modeling Language), the software engineering standard; SysML (Systems Modeling Language), a UML profile customized for systems engineering; and OWL (Web Ontology Language), the semantic web standard for ontologies. Systems engineering methods and tools are being updated to support these modeling languages and their work products, so that models can play a unifying role in systems engineering processes.

MBSE has already demonstrated a positive impact on large-scale systems engineering projects. While there is already a large body of work to report upon, a large amount of work remains to be completed if this new discipline is to achieve its potential. The [Journal of Software and Systems Modeling](#) (SoSyM) therefore invites original, high-quality submissions for its theme issue on “Model-Based Systems Engineering with SysML, UML, and OWL” to appear in Q4 2007/Q1 2008, focusing on topics related to MBSE, including:

- **modeling languages**
e.g., experience reports about applying SysML, UML, OWL or other modeling languages on systems engineering projects; modeling language design and implementation issues

General Author Information

- **methods and processes**
e.g., experience reports about applying model-driven methods for systems engineering projects;
model-driven method design and implementation issues
- **modeling tools**
e.g., experience reports about using modeling tools on systems engineering projects;
modeling tool design and implementation issues

Making a submission

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- Papers must be written in a scientifically rigorous manner with adequate references to related work.
 - Submitted papers must not be simultaneously submitted in an extended form or in a shortened form to other journals or conferences. It is however possible to submit extended versions of previously published work if less than 75% of the content already appeared in a non-journal publication, or less than 40% in a journal publication. Please see the [SoSyM Policy Statement on Plagiarism](#) for further conditions.
 - Submitted papers do not need to adhere to a particular format or page limit, but should be prepared using font “Times New Roman” with a font size no smaller than 11 pt, and with 1.5 line spacing. Please consult the [SoSyM author information for submitting papers](#).
 - Each paper will be reviewed by at least three reviewers.

Further information

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- Communicate your intent to submit a paper by emailing the [Theme Issue Editors](#) the following information before the Intent to Submit deadline : Title, Authors, and an Abstract.
 - Prepare your submission with either Word or LaTeX using [Word and LaTeX templates](#). Possible submission formats are:
 - Word (.doc, without macros)
 - Rich Text Format (.rtf)
 - PostScript (.ps, special fonts must be embedded)
 - PDF (saved as readable in version 5.0 or later)
 - Submit your work using the online submission system [manuscript central](#):
 - In step 1, select “Special Section Paper” as the manuscript type and select “Dr. Bernhard Rumpe” as the “Editor-in-Chief” (EIC).
 - In step 4, add “Cris Kobryn” (+ [email address](#)) or “Brian Willard (+ [email address](#)) as an editor and choose “Designate as Preferred Editor”.
 - In step 5, make sure field “Cover Letter” includes the line: “Submission for Theme Issue on MBSE”.

If you have any questions or require additional information about this special theme issue, please contact the editors at the following email address:

editors@ModelBasedSystemsEngineering.com