

# Report on the ASE 2012 Workshop on Comparison and Versioning of Software Models (CVSM 2012), Essen, September 3, 2012

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In model-driven development processes, models are being evolved over a longer period of time. Tools are thus needed which can manage versions, compare them, measure their (dis)similarity, merge different models into one, etc. This need has triggered a lot of research into appropriate algorithms, interfaces and tool architectures in the last ten years. While many basic questions have been answered and many prototypes of tools have been implemented, it remains unclear which concepts and architectures have found their way into practical application. Arguably, good model versioning tools still seem to be unavailable in many practical contexts. Existing prototypes appear to have been used mainly by “innovators” or “early adopters” of the new technology. The extent in which state-of-the-art tools are meeting, or not meeting, practical requirements and the reasons of any deficiencies are not well documented. This workshop has aimed at collecting and consolidating experience gained in this new technology, at distinguishing unresolved from solved questions, at identifying reasons why questions have remained unsolved, and at identifying new technical challenges which emerged after first practical applications.

The call for position papers has in particular invited papers describing practical experience and benchmarks, commercial use cases etc. which enable different approaches to be compared. Further information can be found at the home page of the Workshop <http://pi.informatik.uni-siegen.de/CVSM2012>.

The workshop was attended by more than 20 participants. After the welcome session, the workshop has split into 3 parallel working groups, which

addressed the following topics:

**WG 1 Conceptual Foundations:** definitions of notions fundamental for this field: difference, models, edit operations on models etc.

**WG 2 Tools:** tool architectures, GUI design, supported paradigms etc.

**WG 3 Benchmarks:** performance benchmarks, challenges, test cases, etc.

The most immediate results were obtained by WG 3: a plan was developed to start a community process to define standard benchmarks, challenges, test cases, etc. which can be used to evaluate the different approaches and algorithms and to make them comparable. The process was planned to have the following phases:

Phase 1: collecting benchmark proposals. To this end, it is planned to issue a call for benchmark proposals soon and to discuss and evaluate these proposals at the next CVSM workshop, which was planned to be co-located with the GI conference Software Engineering 2013 in Aachen.

Phase 2: under the assumption that the call for benchmark proposals leads to acceptable benchmarks, a call for evaluations based on these benchmarks will be issued. Another workshop was tentatively planned for late 2013.

The workshop participants decided to publish revised versions of their position papers in the newsletter of the German SIG for software engineering with GI, Softwaretechnik-Trends.