

Preface

Practical software development requires effective but simple development methods with efficient tool support. How to achieve such methods and support still remains a challenge for the formal methods and software engineering research communities. The development of the Structured Object-Oriented Formal Language (SOFL) over the last two decades has shown some possibilities of achieving effective integrations to build practical formal techniques and tool support for requirements analysis, specification, design, inspection, review, and testing of software systems. SOFL integrates data flow diagram, Petri nets, and VDM-SL to offer a graphical and formal notation for writing specifications; a three-step approach to requirements acquisition and system design; specification-based inspection and testing methods for detecting errors in both specifications and programs; and a set of tools to support modeling and verification. Meanwhile, the Modeling, Simulation and Verification Language (MSVL) is a parallel programming language developed over the last decade. Its supporting tool MSV has been developed to enable us to model, simulate, and verify a system formally. The two languages complement each other.

Following the success of the previous SOFL workshops, the 5th International Workshop on SOFL+MSVL (SOFL+MSVL 2015) was jointly organized in Paris by Shaoying Liu's research group at Hosei University, Japan, and Zhenhua Duan's research group at Xidian University, China, with the aim of bringing industrial, academic, and government experts and practitioners of SOFL or MSVL to communicate and to exchange ideas. The workshop attracted 22 submissions on modeling, specification, verification, model checking, testing, debugging, transformation, and algorithms. Each submission was rigorously reviewed by two or three Program Committee members on the basis of technical quality, relevance, significance, and clarity, and 15 papers were accepted for publication in the workshop proceedings. The acceptance rate is approximately 68 %.

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