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Shaoying Liu · Zhenhua Duan (Eds.)

Structured Object-Oriented Formal Language and Method

Third International Workshop, SOFL+MSVL 2013
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Revised Selected Papers

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Preface

Both formal methods and conventional software engineering techniques face various challenges; they must be properly integrated to establish more effective technologies for future software engineering. 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 second SOFL workshop held in Kyoto in 2012, the 3rd International Workshop on SOFL+MSVL (SOFL+MSVL 2013) is jointly organized by the Shaoying Liu research group at Hosei University, Japan, and the Zhenhua Duan 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 formal specification, specification-based testing, specification pattern, modeling checking, specification animation, simulation, application of SOFL, and supporting tools for SOFL or MSVL. Each submission is rigorously reviewed by two Program Committee members on the basis of technical quality, relevance, significance, and clarity, and 13 papers were accepted for publication in the workshop proceedings. The acceptance rate is approximately 59 %.

We would like to thank the ICFEM 2013 organizers for supporting the organization of the workshop, all of the Program Committee members for their great efforts and cooperation in reviewing and selecting papers, and our postgraduate students for their help. We would also like to thank all of the participants for attending presentation sessions and actively joining discussions at the workshop. Finally, our gratitude goes to Alfred Hofmann and his team for their continuous support in the publication of the workshop proceedings.

January 2014

Shaoying Liu
Zhenhua Duan

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