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Preface

These are the proceedings of the International Workshop on Programming Multi-Agent Systems (ProMAS 2012), the tenth of a series of workshops. Over the last decade, the ProMAS workshop series has provided a venue for state-of-the-art research in programming languages and tools for the development of multi-agent systems. ProMAS aims to address both theoretical and practical issues related to developing and deploying multi-agent systems. It has provided a forum for the discussion of techniques, concepts, requirements and principles central to multi-agent programming technology, including the theory and application of agent programming languages, the specification, verification and analysis of agent systems, and the implementation of social structures in agent-based systems. Many of these concepts and techniques have subsequently found widespread application in agent programming platforms and systems.

For the tenth edition of ProMAS, we received 14 submissions which were reviewed by members of the Program Committee. Of these papers, ten were accepted for presentation during the workshop and included in this proceedings volume after being improved by the authors based on the reviewers’ comments and discussion at the workshop. We are pleased to be able to present proceedings with high-quality papers covering a wide range of topics in multi-agent system programming languages, including language design and efficient implementation, agent communication, and robot programming.

In addition to regular papers, this volume includes six papers from the Multi-Agent Programming Contest 2012 (MAPC). The practical experience with non-trivial problems provided by the Multi-Agent Programming Contests has been invaluable in improving some of the best-known platforms for multi-agent programming. The paper from Michael Köster, Federico Schlesinger, and Jürgen Dix presents the contest organization and the main results. The following papers are from the participants and report their specific strategies and results.

We would like to thank the ProMAS Steering Committee for giving us the opportunity to organize this workshop. We also want to express our gratitude to the Program Committee members and additional reviewers, to the participants of the workshops, and especially to the authors for their original contributions. We thank the organizers of the AAMAS conference for hosting and supporting the organization of the ProMAS workshops since the first edition in 2003.

We hope the ProMAS community continues to contribute to the design of programming languages and tools that are both principled and at the same time practical for “industrial-strength” multi-agent systems development.

February 2013

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