4th International Workshop on Models@run.time

Nelly Bencomo¹, Gordon Blair¹, Robert France², Freddy Muñoz³, and Cédric Jeanneret⁴

¹ Computing Department, Lancaster University, UK
(nelly,gordon)comp.lancs.ac.uk
² Computer Science Department, Colorado State University, USA
france@cs.colostate.edu
³ IRISA, INRIA, Equipe Triskell, Rennes, France
fmunoz@irisa.fr
⁴ Department of Informatics, University of Zurich, Switzerland
jeanneret@ifi.uzh.ch

Abstract. The 4th edition of the workshop Models@run.time was held at the 12th International Conference on Model Driven Engineering Languages and Systems (MODELS). The workshop took place in the city of Denver, Colorado, USA, on the 5th of October 2009. The workshop was organised by Nelly Bencomo, Robert France, Gordon Blair, Freddy Muñoz, and Cédric Jeanneret. It was attended by at least 45 people from more than 10 countries. In this summary we present a synopsis of the presentations and discussions that took place during the 4th International Workshop on Models@run.time.

Keywords: runtime adaptation, MDE, reflection, abstraction.

1 Introduction

The Models@run.time workshop series provides a forum for exchange of ideas on use of models to support software runtime adaptation. The workshops target researchers from different communities, including researchers working on model-driven software engineering, software architectures, computational reflection, adaptive systems, autonomic and self-healing systems, and requirements engineering. This edition of the workshop successfully brought together researchers from different communities: At least forty-five (45) people from nineteen (19) countries attended the workshop. In this workshop we took advantage of the experience gained in previous editions and focused the discussions on the topic: “Raising the abstraction level”.

In response to the call for papers, sixteen (16) papers were submitted, of which four (4) papers and two (2) tool demonstrations were accepted. Additionally, six (6) papers were invited for poster presentations. Each submitted paper was reviewed by at least 3 program committee members. The papers presented during the workshop are published in a workshop proceedings [1]. Two papers were selected as the best papers. Extended and improved versions of these two papers are published in this post workshop proceedings.
2 Workshop Format and Session Summaries

The workshop activities were structured into presentations, poster, and discussion sessions. In the opening presentation, Robert France set the context of the workshop by summarizing the major results from past workshop editions, presenting the theme of the fourth edition of the workshop “Raising the abstraction level”, outlining the path to follow during the workshop, and announcing the publication of the special issue on the topic published by IEEE Computer in October 2009 [2]. The opening presentation was followed by the papers and posters sessions.

In the paper sessions four (4) papers and two (2) demonstrations were presented. Authors presented their papers in a 20 minutes time slot, which included five minutes for questions and discussion. Geri George and Franck Fleurey chaired these presentations. In the poster session, six authors presented their work to the workshop attendees.

All presentations were done during the morning to allow enough time for discussion. In the afternoon, the workshop participants formed three groups, where each group was charged with discussing a particularly relevant topic. At the end of the workshop, each group selected a representative who presented the questions raised in the group, and the conclusions reached by the group. More details about the discussion session can be found in section 3. The four (4) paper presentations and the two (2) demos were divided into the following two paper sessions:

Session 1: The use of Computational Reflection

- Generating Synchronization Engines between Running Systems and Their Model-Based Views, Hui Song, Yingfei Xiong, Franck Chauvel, Gang Huang, Zhenjiang Hu, and Hong Mei.
- Demo: Leveraging Models From Design-time to Runtime. A Live Demo, Brice Morin, Olivier Barais, Jean-Marc Jézéquel and Grégory Nain.

Session 2: Configuration Management

- Evolving Models at Run Time to Address Functional and Non-Functional Adaptation Requirements, Andres J. Ramirez and Betty H.C. Cheng.
- Demo: Models at Runtime: Service for Device Composition and Adaptation, Nicolas Ferry, Vincent Hourdin, Stephane Lavirotte, Gaetan Rey, Jean-Yves Tigli, and Michel Riveill.

The following posters were displayed and presented to the workshop attendees.