

Proceedings of the Third International Workshop on Model-driven High-level Programming of Embedded Systems (SLA++P) 2008

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Preface

This report contains the proceedings of the Third International Workshop on *Model-driven High-level Programming of Embedded Systems (SLA++P)*. SLA++P is a workshop dedicated to synchronous languages and the model-driven high-level programming of reactive and embedded systems. Firmly grounded in clean mathematical semantics, synchronous languages have been receiving increasing attention in industry ever since they emerged in the 80s. Lustre, Esterel, Signal are now widely and successfully used to program real-time and safety critical applications, from nuclear power plant management layer to Airbus flight control systems. At the same time, model-based programming is making its way in other fields of software engineering too, often involving cycle-based synchronous paradigms.

The purpose of the SLA++P workshop is to bring together researchers and practitioners who work in the field of languages and tools for the model-driven development of embedded applications, both in hardware and software. The workshop is not limited to synchronous approaches but open to other engineering design approaches with strong semantical foundations providing a way to go from a high-level description to provable executable code.

After SLAP 2002 in Grenoble, SLAP 2003 in Porto, SLAP 2004 in Barcelona, SLAP 2005 in Edinburgh, SLAP 2006 in Vienna, the revised SLA++P 2007 edition of the workshop series in Braga intended to cover a wider range of programming models than previously done. This corresponds to the current interest in component programming for large scale embedded systems, the link between simulation tools (a la Simulink/StateFlow) and compiler tools (a la Scade), languages for describing the system and its environment, integrated tools for both compilation and simulation, etc. This SLA++P 2008 issue in Budapest confirms this thematic opening.

These proceedings contain five full papers, covering various aspects of the topics of the workshop: programming languages, execution platforms, and compilation.

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Design¹, and INRIA, the National Institute for Research in Computer Science and Control².

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¹ <http://www.artist-embedded.org>

² <http://www.inria.fr>