Preface

Based on the Net.ObjectDays tradition of bringing together researchers from academia and industry on the one hand and system architects, developers, and users from industry and administration on the other hand, this year's conference took an international research perspective, so that we see the first volume of Net.ObjectDays main conference proceedings published in the Springer Lecture Notes in Computer Science series. This volume consists of 16 papers carefully selected in a rigorous reviewing process by an international program committee; to provide a concise overview, these papers are briefly described.

In the Languages and Models session, Beate Ritterbach proposes a new language element for object-oriented programming languages that supports arbitrary value types. In her contribution *Support for Value Types in an Object-Oriented Programming Language* she describes the corresponding keywords, syntax, and consistency checks, thereby giving an impression of the look and feel of value types from an application programmer's perspective. Walter Binder and Jarle Hulaas look at portable CPU accounting and control in Java, which is based on program transformation techniques. In their paper *Self-accounting as Principle for Portable CPU Control in Java* periodically the threads of an application component aggregate the information of their respective CPU consumption within a shared account; scheduling functions make sure applications do not exceed their allowed CPU share.

The Agents and Semantic Web session features the use of Semantic Web technology in a particular application domain as well as in agent communication. Robert Tolksdorf and Elena Paslaru in their paper *Organizing Knowledge in a Semantic Web for Pathology* investigate the organization of knowledge in pathology based on Semantic Web technology. The system introduced combines text and image information and offers advanced content-based retrieval for diagnosis and teaching. Matthias Jöst, Matthias Merdes, and Rainer Malaka in their contribution *Listening to Agents – Transparent Representation and Presentation of Agent Communication in Mobile Systems* look at agent communication in mobile systems. In particular, they introduce an XML-based ontology for mobile multi-agent systems as well as a uniform mechanism for transforming agent communication into a format readable by human users.

In a session on Software Processes, Ander Altuna1 et al. in their paper *Co-operative and Distributed Configuration* look at multi-component product configuration based on Semantic Web technologies. In their contribution *Micro-measurements for Dynamic Aspect-Oriented Systems* Michael Haupt and Mira Mezini introduce a first step towards a benchmark suite for dynamic aspect oriented programming. Schahram Dustdar and Stephan Haslinger in *Testing of Service-Oriented Architectures – A Practical Approach* look at automated testing of service-oriented applications, and they provide a case study in the telecommunications domain. Kai Blankenhorn and Mario Jeckle (†) introduce *A UML*

Profile for GUI Layout for expressing GUI layout information, which allows for modeling the static representation of graphical user interfaces.

In the Software Product Lines session, Valentino Vranic in his contribution *Reconciling Feature Modeling: A Feature Modeling Metamodel* aims at providing an integration of feature modeling approaches based on a meta-model. Periklis Sochos, Ilka Philippow, and Matthias Riebisch in *Feature-Oriented Development of Software Product Lines: Mapping Feature Models to the Architecture* provide an analysis on the state of the art of feature-oriented software product line methodologies, focusing on the linkage between feature models and architecture. The use of the pattern paradigm in managing software product line variability is introduced by Jürgen Meister, Ralf Reussner, and Martin Rohde in *Managing Product Line Variability by Patterns*. It is shown how the management of product line variabilities can be improved by introducing a pattern-based architecture and an associated pattern language to complement it. The Software Architectures session looks at frameworks for component specification and nomadic desktop computing. Sven Overhage proposes *UnSCom: A Standardized Framework for the Specification of Software Components*, which provides the basis for development, discovery, and composition of components. Stefan Paal, Reiner Kammüller, and Bernd Freisleben introduce *A Cross-platform Application Environment for Nomadic Desktop Computing*. This paper proposes an approach to nomadic desktop computing based on dynamically deploying and executing personalized applications on the desktop system. A cross-platform application environment is presented that automatically adapts itself to a nomadic desktop application by enabling the execution and migration of applications across heterogeneous desktop computers.

In an industry case study, Rainer Burkhardt and Volker Gruhn report on *Agile Software Engineering: A New System for an Expanding Business Model at SCHUFA*, a large financial institution in Germany. The paper discusses how agile process elements and model-driven technologies can be combined in order to achieve a lightweight, flexible and incremental software engineering process. In a visionary paper, Oliver Imbusch, Falk Langhammer, and Guido von Walter introduce *Ercatons: Thing-Oriented Programming* as an emerging programming model that aims at overcoming some of the limitations of current practice in software development.

Finally, we thank the Business Process Technology research group at the Hasso Plattner Institute, including Hilmar Schuschel and Mirko Schulze, for their help during the reviewing process and Arnd Schnieders for the preparation of the camera-ready copy of this Springer LNCS volume. We acknowledge the excellent cooperation with Alfred Hofmann of Springer and his colleagues in the preparation of this volume.

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