

An Extensible Platform For Specification Of Integrated

The focus in development methodologies of large and complex software systems has switched in the last two decades from functional issues to structural issues; this holds for both the object-oriented and the more recent component-based software engineering paradigms. Formal methods have been applied successfully to the verification of medium-sized programs in protocol and hardware design for quite a long time. However, their application to the development of large systems requires more emphasis on specification, modeling and validation techniques supporting the concepts of reusability and modifiability, and their implementation in new extensions of existing programming languages like Java. This state-of-the-art survey presents the outcome of the 9th Symposium on Formal Methods for Components and Objects, held in Graz, Austria, in November/December 2010. The volume contains 20 revised contributions submitted after the symposium by speakers from each of the following European IST projects: the FP7-IST project AVANTSSAR on automated validation of trust and security of service-oriented architectures; the FP7-IST project DEPLOY on industrial deployment of advanced system engineering methods for high productivity and dependability; the ESF-COST Action IC0701 on formal verification of object-oriented software; the FP7-IST project HATS on highly adaptable and trustworthy software using formal models; the FP7-SST project INESS on an integrated European railway signalling system; the FP7-IST project MADES on a model-driven approach to improve the current practice in the development of embedded systems; the FP7-IST project MOGENTES on model-based generation of tests for dependable embedded systems; as well as the FP7-IST project MULTIFORM on integrated multi-formalism tool support for the design of networked embedded control systems.

This book presents a set of recent advances that involve the areas of multimedia, IoT, and web technologies. These advances incorporate aspects of clouds, artificial intelligence, data analysis, user experience, and games. In this context, the work will bring the reader the opportunity to understand new possibilities of use and research in these areas. We think that this book is suitable for students (postgraduates and undergraduates) and lecturers on these specific topics. Professionals can also benefit from the book since some chapters work with practical aspects relevant to the industry.

The two-volume set LNCS 8547 and 8548 constitutes the refereed proceedings of the 14th International Conference on Computers Helping People with Special Needs, ICCHP 2014, held in Paris, France, in July 2014. The 132 revised full papers and 55 short papers presented were carefully reviewed and selected from 362 submissions. The papers included in the first volume are organized in the following topical sections: accessible media; digital content and media accessibility; 25 years of the Web: weaving accessibility; towards e-inclusion for people with intellectual disabilities; the impact of PDF/UA on accessible PDF; accessibility of non-verbal communication; emotions for accessibility (E4A), games and entertainment software; accessibility and therapy; implementation and take-up of e-accessibility; accessibility and usability of mobile platforms for people with disabilities and elderly persons; portable and mobile platforms for people with disabilities and elderly persons; people with cognitive disabilities: AT, ICT and AAC; autism: ICT and AT; access to mathematics, science and music and blind and visually impaired people: AT, HCI and accessibility.

In this book, internationally recognized experts in philosophy of science, computer science, and modeling and simulation are contributing to the discussion on how ontology, epistemology, and teleology will contribute to enable the next generation of intelligent modeling and simulation applications. It is well understood that a simulation can provide the technical means to display the behavior of a system over time, including following observed trends to predict future possible states, but how reliable and trustworthy are such predictions? The questions about what we can know (ontology), how we gain new knowledge (epistemology), and what we do with this knowledge (teleology) are therefore illuminated from these very different perspectives, as each expert uses a different facet to look at these challenges. The result of bringing these perspectives into one book is a challenging compendium that gives room for a spectrum of challenges: from general philosophy questions, such as can we use modeling and simulation and other computational means at all to discover new knowledge, down to computational methods to improve semantic interoperability between systems or methods addressing how to apply the recent insights of service oriented approaches to support distributed artificial intelligence. As such, this book has been compiled as an entry point to new domains for students,

scholars, and practitioners and to raise the curiosity in them to learn more to fully address the topics of ontology, epistemology, and teleology from philosophical, computational, and conceptual viewpoints.

9th International Conference, MoDELS 2006, Genova, Italy, October 1-6, 2006, Proceedings

Second European Conference, ECMDA-FA 2006, Bilbao, Spain, July 10-13, 2006, Proceedings

2nd Workshop on Computation: Theory and Practice, Manila, The Philippines, September 2012, Proceedings

Second International Conference, SLE 2009, Denver, CO, USA, October 5-6, 2009 Revised Selected Papers

Philosophical Foundations for Intelligent M&S Applications

5th European Conference, ECMDA-FA 2009, Enschede, The Netherlands, June 23-26, 2009, Proceedings

An Extensible Platform for Specification of Integrated Languages for Model Management
An Extensible Component & Connector Architecture Description Infrastructure for Multi-Platform Modeling
Shaker Verlag GmbH

This book constitutes the thoroughly refereed post-conference proceedings of the Second International Conference on Software Language Engineering, SLE 2009, held in Denver, CO, USA, in October 2009. The 15 revised full papers and 6 revised short paper presented together with 2 tool demonstration papers were carefully reviewed and selected from 75 initial submissions. The papers are organized in topical sections on language and model evolution, variability and product lines, parsing, compilation, and demo, modularity in languages, and metamodeling and demo.

This book constitutes the refereed proceedings of the 8th International Conference on Model Driven Engineering Languages and Systems (formerly the UML series of conferences), MoDELS 2005, held in Montego Bay, Jamaica, in October 2005. The 52 revised full papers and 2 keynote abstracts presented were carefully reviewed and selected from an initial submission of 215 abstracts and 166 papers. The papers are organized in topical sections on process modelling, product families and reuse, state/behavioral modeling, aspects, design strategies, model transformations, model refactoring, quality control, MDA automation, UML 2.0, industrial experience, crosscutting concerns, modeling strategies, as well as a recapitulatory section on workshops, tutorials and panels.

The 7th edition of the European Conference on Model-Driven Architecture Foundations and Applications (ECMDA-FA 2009) was dedicated to furthering the state of knowledge and fostering the industrialization of Model-Driven Architecture (MDA) and Model-Driven Engineering (MDE). MDA is an initiative proposed by the Object Management Group for platform-generic systems development; MDA is one of a class of approaches under the umbrella of MDE. MDE and MDA promote the use of models in the specification, design, analysis, synthesis, deployment, and evolution of complex software systems. It is a pleasure to be able to introduce the proceedings of ECMDA-FA 2009. ECMDA-FA 2009 addressed various MDA areas including model transformations, modelling language issues, modelling of behavior and time, traceability and scalability, model-based embedded systems engineering, and the application of model-driven development to IT and networking systems. ECMDA-FA 2009 focused on engaging key European and international researchers and practitioners in a dialogue which will result in a stronger, more efficient industry, producing more reliable software on the basis of state-of-the-art research results. ECMDA-FA is a forum for exchanging information, discussing the latest results and arguing about future developments of MDA and MDE. Particularly, it is one of the few venues that engages both leading academic researchers and industry practitioners, with the intent of creating synergies.

Statutory Instruments

Model Driven Engineering Languages and Systems

Domain-Specific Languages in Practice

Principles and Applications

Designing Connected, Pervasive, Media-Rich Systems

Applications, Concepts and Technologies

The accessible, non-technical guide to applying and benefiting from blockchain technology. Blockchain has grown at an enormous rate in a very short period of time. In a business context, blockchain can level the playing field between small and large organisations in several ways: Exact copies of the immutable, time-stamped data is held by all parties, all transactions can be viewed in real time, data blocks are cryptographically linked, all raw materials are traceable and smart contracts ensure no middle-men, ease of audit and reduced friction. The trust, transparency, security, quality and reduced costs of blockchain make it a game-changing technology that crosses sectors, industries and borders with ease. Even though the technologies are ready for adoption, businesses remain largely unaware of their full potential and effective implementation. End users require accurate and up-to-date information on the practical applications of blockchain — Commercializing Blockchain provides it. A practical and easy-to-understand guide to blockchain, this timely book illustrates how this revolutionary technology can be used to transform governments, businesses, enterprises and entire communities. The author draws from his experience with global retailers, global technology companies, UCL Centre for Blockchain technologies, the government of the UK, Retail Blockchain Consortium and many other sources to present real-world case studies on the use and benefits of blockchain. Topics include financial transactions, tokenisation, identity management, supply chain transparency, global shipping and freight, counterfeiting and more. Provides practical guidance for blockchain transactions in business operations Provides practical guidance for blockchain transactions in business operations Demonstrates how blockchain can add value and bring increased efficiency to commercial operations Covers all of the essential components of blockchain such as traceability, provenance, certification and authentication Requires no technical expertise to embrace blockchain strategies Commercializing Blockchain: Strategic Applications in the Real World is ideal for enterprises seeking to develop and deploy blockchain technology, particularly in areas retail, supply chain and consumer goods.

This book is the one-and-only guide to begin envisioning and developing true peer-to-peer applications using the Groove framework.

First series, books 1-43, includes "Notes on U.S. reports" by Walter Malins Rose.

The book summarizes key concepts and theories in trusted computing, e.g., TPM, TCM, mobile modules, chain of trust, trusted software stack etc, and discusses the configuration of trusted platforms and network connections. It also emphasizes the application of such technologies in practice, extending readers from computer science and information science researchers to industrial engineers.

9th International Symposium, FMCO 2010, Graz, Austria, November 29 - December 1, 2010

12th International School on Formal Methods for the Design of Computer, Communication and Software Systems, SFM 2012, Bertinoro, Italy, June 18-23, 2012. Advanced Lectures

Handheld Computing for Mobile Commerce: Applications, Concepts and Technologies

Formal Methods for Model-Driven Engineering

The Telecommunications Illustrated Dictionary, Second Edition

Cases Argued and Decided in the Supreme Court of the United States

This book presents 11 tutorial lectures by leading researchers given at the 12th edition of the International School on Formal Methods for the Design of Computer, Communication and Software Systems, SFM 2012, held in Bertinoro, Italy, in June 2012. SFM 2012 was devoted to model-driven engineering and covered several topics including modeling languages; model transformations, functional and performance modeling and analysis; and model evolution management.

Digital image processing, an integral part of microscopy, is increasingly important to the fields of medicine and scientific research. This book provides a unique one-stop reference on the theory, technique, and applications of this technology. Written by leading experts in the field, this book presents a unique practical perspective of state-of-the-art microscope image processing and the development of specialized algorithms. It contains in-depth analysis of methods coupled with the results of specific real-world experiments. Microscope Image Processing covers image digitization and display, object measurement and classification, autofocus, and structured illumination. Key Features:

Detailed descriptions of many leading-edge methods and algorithms In-depth analysis of the method and experimental results, taken from real-life examples Emphasis on computational and algorithmic aspects of microscope image processing Advanced material on geometric, morphological, and wavelet image processing, fluorescence, three-dimensional and time-lapse microscopy, microscope image enhancement, MultiSpectral imaging, and image data management This book is of interest to all scientists, engineers, clinicians, post-graduate fellows, and graduate students working in the fields of biology, medicine, chemistry, pharmacology, and other related fields. Anyone who uses microscopes in their work and needs to understand the methodologies and capabilities of the latest digital image processing techniques will find this book invaluable.

Presents a unique practical perspective of state-of-the-art microscope image processing and the development of specialized algorithms Each chapter includes in-depth analysis of methods coupled with the results of specific real-world experiments Co-edited by Kenneth R. Castleman, world-renowned pioneer in digital image processing and author of two seminal textbooks on the subject

Diverse learners with exceptional needs require a specialized curriculum that will help them to develop socially and intellectually in a way that traditional pedagogical practice is unable to fulfill. As educational technologies and theoretical approaches to learning continue to advance, so do the opportunities for exceptional children. Special and Gifted Education: Concepts, Methodologies, Tools, and Applications is an exhaustive compilation of emerging research, theoretical concepts, and real-world examples of the ways in which the education of special needs and exceptional children is evolving. Emphasizing pedagogical innovation and new ways of looking at contemporary educational practice, this multi-volume reference work is ideal for inclusion in academic libraries for use by pre-service and in-service teachers, graduate-level students, researchers, and educational software designers and developers.

This book constitutes the refereed proceedings of the 11th International Conference on Model Driven Engineering Languages and Systems, MoDELS 2008, held in Toulouse, France, during September 28-October 3, 2008. The 58 revised full papers presented were carefully reviewed and selected from 271 submissions. The book also contains three keynote speeches and contributions to workshops, symposia, tutorials and panels at the conference. The papers are organized in topical sections on Model Transformation: Foundations; Requirements Modeling; Domain-Specific Modeling; Model Transformation: Techniques, Composition and Analysis of Behavioral Models; Model Comprehension; Model Management; Behavioral Conformance and Refinement; Metamodeling and Modularity; Constraints; Model Analysis; Service-Oriented Architectures; Adaptive and Autonomic Systems; Empirical Studies; Evolution and Reverse Engineering; Modeling Language Semantics; Dependability Analysis and Testing; Aspect-Oriented Modeling; Structural Modeling; and Embedded Systems.

8th International Conference, MoDELS 2005, Montego Bay, Jamaica, October 2-7, 2005, Proceedings

4th European Conference, ECMDA-FA 2008, Berlin, Germany, June 9-13, 2008, Proceedings

Microscope Image Processing

Federal Register

Commercializing Blockchain

The Object Constraint Language (OCL) has proven to be a valuable ingredient for the specification of UML models. It allows to formulate logical propositions for models that typically cannot be expressed in the visual modeling paradigms of UML. A similar textual ingredient is required for the imperative specification of behavior in certain applications of UML, most prominently Executable UML models and model transformation. There is no such imperative language in the UML standard, but there are several candidates for such a language that are based on OCL for expressions. One of them is ImperativeOCL, which is part of the OMG Query, Views, Transformations (QVT) standard. However, the embedding of OCL into several of these languages is what we call a non-modular embedding. Such a non-modular embedding results in problems w. r. t. to language semantics and/or sets up obstacles for the reuse of existing OCL tools and instruments. In our work we therefore define requirements for a modular embedding of OCL into an imperative language. We introduce our language SOIL (Simple OCL-based Imperative Language) which embeds OCL in a modular way. We provide an informal description of SOIL as well as a formal definition of the language syntax and semantics, and prove its consistency and type safety. We describe applications of our approach in two fields: first, the extension of the UML-based Specification Environment (USE) by an imperative language and, second, the development of the model transformation tool XGenerator2 that has been successfully applied in several eGovernment projects. Our work makes three major contributions. First, we provide a critical review of the embedding of OCL into existing programming languages. Second, we provide a simple but already useful OCL-based imperative language with a sound and formal semantics that can be implemented out of the box using existing OCL engines. Third, our work contributes a general guideline for a safe embedding of OCL into other languages.

From fundamental physics concepts to the World Wide Web, the Telecommunications Illustrated Dictionary, Second Edition describes protocols, computer and telephone devices, basic security concepts, and Internet-related legislation, along with capsule biographies of the pioneering inventors who developed the technologies that changed our world. The new edition offers even more than the acclaimed and bestselling first edition, including: Thousands of new definitions and existing definitions updated and expanded Expanded coverage, from telegraph and radio technologies to modern wireline and mobile telephones, optical technologies, PDAs, and GPS-equipped devices More than 100 new charts and illustrations Expanded appendices with categorized RFC listings Categorized charts of ITU-T Series Recommendations that facilitate online lookups Hundreds of Web URLs and descriptions for major national and international standards and trade organizations Clear, comprehensive, and current, the Telecommunications Illustrated Dictionary, Second Edition is your key to understanding a rapidly evolving field that, perhaps more than any other, shapes the way we live.

missions in fact also treat an envisaged mutual impact among them. As for the 2002 edition in Irvine, the organizers wanted to stimulate this cross-pollination with a program of shared famous keynote speakers (this year we got Sycara, - ble, Soley and Mylopoulos!), and encouraged multiple attendance by providing authors with free access to another conference or workshop of their choice. We received an even larger number of submissions than last year for the three conferences (360 in total) and the workshops (170 in total). Not only can we therefore again claim a measurable success in attracting a representative volume of scienti?c papers, but such a harvest allowed the program committees of course to compose a high-quality cross-section of worldwide research in the areas covered. In spite of the increased number of submissions, the Program Chairs of the three main conferences decided to accept only approximately the same number of papers for presentation and publication as in 2002 (i. e. , around 1 paper out of every 4-5 submitted). For the workshops, the acceptance rate was about 1 in 2. Also for this reason, we decided to separate the proceedings into two volumes with their own titles, and we are grateful to Springer-Verlag for their collaboration in producing these two books. The reviewing process by the respective program committees was very professional and each paper in the main conferences was reviewed by at least three referees.

"This book looks at theory, design, implementation, analysis, and application of handheld computing under four themes: handheld computing for mobile commerce, handheld computing research and technologies, wireless networks and handheld/mobile security, and

handheld images and videos"--Provided by publisher.

Computers Helping People with Special Needs

14th International Conference, ICCHP 2014, Paris, France, July 9-11, 2014, Proceedings, Part I

Modern Embedded Computing

Software Language Engineering

Special Protein Molecules Computational Identification

Formal and Practical Aspects of Domain-Specific Languages: Recent Developments

This book is a printed edition of the Special Issue "Special Protein Molecules Computational Identification" that was published in IJMS. Software engineering for complex systems requires abstraction, multi-domain expertise, separation of concerns, and reuse. Domain experts rarely are software engineers and should formulate solutions using their domain's vocabulary instead of general purpose programming languages (GPLs). Successful integration of domain-specific languages (DSLs) into a software system requires a separation of concerns between domain issues and integration issues while retaining a loose enough coupling to support DSL reuse in different contexts. Component-based software engineering (CBSE) increases reuse and separation of concerns by encapsulating functionalities in components. Components are GPL artifacts, which raises accidental complexities. Model-driven engineering (MDE) abstracts from GPLs by lifting models to primary development artifacts. Models can be abstract and better comprehensible by using domain vocabulary instead of a GPL. They can be platform-independent and translated into GPLs for different target platforms. Component & connector (C&C) architecture description languages (ADLs) combine CBSE and MDE to compose of architectures from component models. We present concepts for engineering software systems with exchangeable component behavior languages. The concepts are realized in a software architecture modeling infrastructure that comprises modeling languages to develop applications based on C&C software architectures with exchangeable component behavior DSLs. It supports transformations from platform-independent to platform-specific software architectures and compositional code generation. With this, it enables domain experts to (re-)use the most appropriate component behavior DSL and facilitates composition of domain solutions through encapsulation in components.

The fourth edition of the European Conference on Model-Driven Architecture – Foundations and Applications (ECMDA-FA 2008) was dedicated to furthering the state of knowledge and fostering the industrialization of the model-driven architecture (MDA) methodology. MDA is an initiative proposed by the Object Management Group (OMG) for platform-generic software development. It promotes the use of models in the specification, design, analysis, synthesis, deployment, and evolution of complex software systems. ECMDA-FA 2008 focused on engaging key European and international researchers and practitioners in a dialogue which will result in a stronger, more scientific industry, producing more reliable software on the basis of state-of-the-art research results. ECMDA-FA is a forum for exchanging information, discussing the latest results and arguing about future developments of MDA. It is a pleasure to be able to introduce the proceedings of ECMDA-FA 2008. ECMDA-FA addresses various MDA areas including model management, executable models, concrete syntaxes, aspects and concerns, validation and testing, model-based systems engineering, model-driven development and service-oriented architectures, and the application of model-driven development. There are so many people who deserve warm thanks and gratitude. The fruitful collaboration of the Organization, Steering and Program Committees and the vibrant community led to a successful conference: ECMDA-FA 2008.

obtained excellent results in terms of submissions, program size, and attendance. The Program Committee accepted, with the help of additional reviewers, research papers and industry papers for ECMDA-FA 2008: We received 87 submissions. Of these, a total of 31 were accepted including 21 research papers and 10 industry papers. We thank them for the thorough and high-quality selection process.

This book will introduce the reader to SOAP and serve as a comprehensive reference to both experienced and new developers in the area. Only one other book completely dedicated to SOAP is currently on the market, and it has strong sales because no other information is available. SE Using SOAP will capture more readers than the competition because it provides real-world examples and troubleshooting with complete data conversion information. The emphasis will be on getting started fast instead of reading through white paper-style theory in hopes of finding applicable information. By reading this book and working through the examples, the reader will be well versed in SOAP and its applications immediately. SE Using SOAP includes difficult to find information on how SOAP works with different languages and protocols including Visual Basic.NET, Visual Basic 6, C#, XML, HTTP, SDL, DISCO, COM, SQL Server, plus much more. Also covers how to work with PDAs, an ever-growing need in the data transfer market.

with JetBrains MPS

An Extensible Component & Connector Architecture Description Infrastructure for Multi-Platform Modeling

Special Edition Using Microsoft .NET Enterprise Servers
Trusted Computing

Special and Gifted Education: Concepts, Methodologies, Tools, and Applications

Theory and Practice of Model Transformations

Modern embedded systems are used for connected, media-rich, and highly integrated handheld devices such as mobile phones, digital cameras, and MP3 players. All of these embedded systems require networking, graphic user interfaces, and integration with PCs, as opposed to traditional embedded processors that can perform only limited functions for industrial applications. While most books focus on these controllers, Modern Embedded Computing provides a thorough understanding of the platform architecture of modern embedded computing systems that drive mobile devices. The book offers a comprehensive view of developing a framework for embedded systems-on-chips. Examples feature the Intel Atom processor, which is used in high-end mobile devices such as e-readers, Internet-enabled TVs, tablets, and net books. Beginning with a discussion of embedded platform architecture and Intel Atom-specific architecture, modular chapters cover system boot-up, operating systems, power optimization, graphics and multi-media, connectivity, and platform tuning. Companion lab materials compliment the chapters, offering hands-on embedded design experience. Learn embedded systems design with the Intel Atom Processor, based on the dominant PC chip architecture. Examples use Atom and offer comparisons to other platforms Design embedded processors for systems that support gaming, in-vehicle infotainment, medical records retrieval, point-of-sale purchasing, networking, digital storage, and many more retail, consumer and industrial applications Explore companion lab materials online that offer hands-on embedded design experience

This book comprises the refereed proceedings of the Workshop on Computation: Theory and Practice (WCTP)-2012, held in Manila, The Philippines, in September 2012. The workshop was organized by the Tokyo Institute of Technology, the Institute of Scientific and Industrial Research-Osaka University, the University of the Philippines Diliman, and De La Salle University-Manila and was devoted to theoretical and practical approaches to computation. The 22 revised full papers presented in this volume were carefully reviewed. They deal with biologically inspired computational modeling, programming language theory, advanced studies in networking, and empathic computing.

The MODELS series of conferences is the premier venue for the exchange of -novative technical ideas and experiences focusing on a very important new technical discipline: model-driven software and systems engineering. The expansion of this discipline is a direct consequence of the increasing significance and success of model-based methods in practice. Numerous efforts resulted in the invention of concepts, languages and tools for the definition, analysis, transformation, and verification of domain-specific modeling languages and general-purpose modeling language standards, as well as their use for software and systems engineering. MODELS 2010, the 13th edition of the conference series, took place in Oslo, Norway, October 3-8, 2010, along with numerous satellite workshops, symposia and tutorials. The conference was fortunate to have three prominent keynote speakers: Ole Lehrmann Madsen (Aarhus University, Denmark), Edward A. Lee (UC Berkeley, USA) and Pamela Zave (AT&T Laboratories, USA). To provide a broader forum for reporting on scientific progress as well as on experience stemming from practical applications of model-based methods, the 2010 conference accepted submissions in two distinct tracks: Foundations and Applications. The primary objective of the first track is to present new research results dedicated to advancing the state-of-the-art of the discipline, whereas the second aims to provide a realistic and verifiable picture of the current state-- the practice of model-based engineering, so that the broader community could be better informed of the capabilities and successes of this relatively young discipline. This volume contains the final version of the papers accepted for presentation at the conference from both tracks.

This SpringerBrief discusses the uber eXtensible Micro-hypervisor Framework (uberXMHF), a novel micro-hypervisor system security architecture and framework that can isolate security-sensitive applications from other untrustworthy applications on commodity platforms, enabling their safe co-existence. uberXMHF, in addition, facilitates runtime monitoring of the untrustworthy components, which is illustrated in this SpringerBrief. uberXMHF focuses on three goals which are keys to achieving practical security on commodity platforms: (a) commodity compatibility (e.g., runs unmodified Linux and Windows) and unfettered access to platform hardware; (b) low trusted computing base and complexity; and (c) efficient implementation. uberXMHF strives to be a comprehensible, practical and flexible platform for performing micro-hypervisor research and development. uberXMHF encapsulates common hypervisor core functionality in a framework that allows developers and users to build custom micro-hypervisor based (security-sensitive) applications (called "uberapps"). The authors describe several uberapps that employ uberXMHF and showcase the framework efficacy and versatility. These uberapps span a wide spectrum of security applications including application compartmentalization and sandboxing, attestation, approved code

execution, key management, tracing, verifiable resource accounting, trusted-path and on-demand I/O isolation. The authors are encouraged by the end result - a clean, barebones, low trusted computing base micro-hypervisor framework for commodity platforms with desirable performance characteristics and an architecture amenable to manual audits and/or formal reasoning. Active, open-source development of uberXMHF continues. The primary audience for this SpringerBrief is system (security) researchers and developers of commodity system software. Practitioners working in system security deployment mechanisms within industry and defense, as well as advanced-level students studying computer science with an interest in security will also want to read this SpringerBrief.

11th International Conference, MoDELS 2008, Toulouse, France, September 28 - October 3, 2008, Proceedings

Practical Security Properties on Commodity Computing Platforms

OTM Confederated International Conferences CoopIS, DOA, and ODBASE 2003 Catania, Sicily, Italy, November 3-7, 2003 Proceedings

Theory and Practice of Computation

First International Conference, ICMT 2008, ETH Zürich, Switzerland, July 1-2, 2008, Proceedings

Reusing OCL in the Definition of Imperative Languages

This book constitutes the refereed proceedings of the First International Conference on Theory and Practice of Model Transformations, ICMT 2008, held in Zurich, Switzerland, in July 2008. The 17 revised full papers presented were carefully reviewed and selected from 54 submissions. The scope of the contributions ranges from theoretical and methodological topics to implementation issues and applications. The papers include different issues related with: process and engineering of model transformations; model transformations supporting concurrency and time; matching and mapping within model transformation rules; language support for model transformation reuse and modularity; and correctness and analysis of model transformations.

This book covers several topics related to domain-specific language (DSL) engineering in general and how they can be handled by means of the JetBrains Meta Programming System (MPS), an open source language workbench developed by JetBrains over the last 15 years. The book begins with an overview of the domain of language workbenches, which provides perspectives and motivations underpinning the creation of MPS. Moreover, technical details of the language underneath MPS together with the definition of the tool's main features are discussed. The remaining ten chapters are then organized in three parts, each dedicated to a specific aspect of the topic. Part I "MPS in Industrial Applications" deals with the challenges and inadequacies of general-purpose languages used in companies, as opposed to the reasons why DSLs are essential, together with their benefits and efficiency, and summarizes lessons learnt by using MPS. Part II about "MPS in Research Projects" covers the benefits of text-based languages, the design and development of gamification applications, and research fields with generally low expertise in language engineering. Eventually, Part III focuses on "Teaching and Learning with MPS" by discussing the organization of both commercial and academic courses on MPS. MPS is used to implement languages for real-world use. Its distinguishing feature is projectional editing, which supports practically unlimited language extension and composition possibilities as well as a flexible mix of a wide range of textual, tabular, mathematical and graphical notations. The number and diversity of the presented use-cases demonstrate the strength and malleability of the DSLs defined using MPS. The selected contributions represent the current state of the art and practice in using JetBrains MPS to implement languages for real-world applications.

"This book presents current research on all aspects of domain-specific language for scholars and practitioners in the software engineering fields, providing new results and answers to open problems in DSL research"--

This book constitutes the refereed proceedings of the Second European Conference on Model Driven Architecture - Foundations and Applications, ECMDA-FA 2006, held in Bilbao, Spain, in July 2006. The 30 revised full papers presented - 18 papers from the foundations track and 12 from the applications track - were carefully reviewed and selected from 78 submissions. The papers are organized in topical sections on integration, applicatoins of transformations, applications of MDA, process, model consistency, model management, transformation, ontologies, re-engineering, tools and profiles, tool generation, constraints, model management and transformations.

The uber eXtensible Micro-Hypervisor Framework

Distributed Computing and Artificial Intelligence, Special Sessions, 15th International Conference

Formal Methods for Components and Objects

Special Edition Using SOAP

Model Driven Architecture - Foundations and Applications

Special Edition Using Groove 2.0

This book presents the outcomes of the 15th International Conference on Distributed Computing and Artificial Intelligence, held in Toledo (Spain) from 20th to 22nd June 2018 and hosted by the UCLM, and which brought together researchers and developers from industry, education and the academic world to report on the latest scientific research, technical advances and methodologies. Highlighting multi-disciplinary and transversal aspects, the book focuses on the conferences Special Sessions, including Advances in Demand Response and Renewable Energy Sources in Smart Grids (ADRESS); AI-Driven Methods for Multimodal Networks and Processes Modeling (AIMPM); Social Modelling of Ambient Intelligence in Large Facilities (SMALF); Communications, Electronics and Signal Processing (CESP); Complexity in Natural and Formal Languages (CNFL); and Web and Social Media Mining (WASMM).

Special Edition Using Microsoft .NET Enterprise Servers helps readers understand each of the ten .NET Enterprise Servers from a design and operation standpoint. This book provides readers with the information necessary to architect a complete solution, using real-world examples to show how each of the different servers fits an organization's needs. The book goes beyond mere planning and architecture, and helps managers and administrators understand the core day-to-day administrative requirements of each server. Essentially, this book is designed to cover the portions of these products that are used every day, effectively making it ten small books in one.

This book constitutes the refereed proceedings of the 9th International Conference on Model Driven Engineering Languages and Systems (formerly UML conferences), MoDELS 2006. The book presents

51 revised full papers and 2 invited papers. Discussion is organized in topical sections on evaluating UML, MDA in software development, concrete syntax, applying UML to interaction and coordination, aspects, model integration, formal semantics of UML, security, model transformation tools and implementation, and more.

During the last few years, software evolution research has explored new domains such as the study of socio-technical aspects and collaboration between different individuals contributing to a software system, the use of search-based techniques and meta-heuristics, the mining of unstructured software repositories, the evolution of software requirements, and the dynamic adaptation of software systems at runtime. Also more and more attention is being paid to the evolution of collections of inter-related and inter-dependent software projects, be it in the form of web systems, software product families, software ecosystems or systems of systems. With this book, the editors present insightful contributions on these and other domains currently being intensively explored, written by renowned researchers in the respective fields of software evolution. Each chapter presents the state of the art in a particular topic, as well as the current research, available tool support and remaining challenges. The book is complemented by a glossary of important terms used in the community, a reference list of nearly 1,000 papers and books and tips on additional resources that may be useful to the reader (reference books, journals, standards and major scientific events in the domain of software evolution and datasets). This book is intended for all those interested in software engineering, and more particularly, software maintenance and evolution. Researchers and software practitioners alike will find in the contributed chapters an overview of the most recent findings, covering a broad spectrum of software evolution topics. In addition, it can also serve as the basis of graduate or postgraduate courses on e.g., software evolution, requirements engineering, model-driven software development or social informatics.

Strategic Applications in the Real World

Recent Developments

Model-Driven Architecture - Foundations and Applications

Special Topics in Multimedia, IoT and Web Technologies

Statutory instruments

Ontology, Epistemology, and Teleology for Modeling and Simulation