Eclipse Modeling Framework Second Edition

This book constitutes revised selected papers from the Second International Workshop on Modelling to Program, M2P 2020, held in Lappeenranta, Finland, in March 2020. The 10 papers presented were thoroughly reviewed and selected from 24 submissions. The papers provide a discussion on novel approaches to programming based on modelling approaches such as model-driven development (MDE, MDA, MDD) and conceptual-model programming and their future developments. The topics of the papers include notions of models that can be understood and used as programs, models-at-runtime, advanced conceptual modelling, conceptual-model programming, modelling foundation, transformation of models to programs, model suites/ensembles for programmers, modelling as the first step to programming and its revisions, advanced model-driven programming and software modernisation, modelling in applications.

This volume contains the proceedings of the twenty-second International Conference on Medical Informatics Europe MIE 2009, that was held in Sarajevo, Bosnia and Herzegovina, from 30 August to 2 September 2009. The scientific topics present in this proceedings range from national and trans-national eHealth roadmaps, health information and electronic health record systems, systems interoperability and communication standards, medical terminology and ontology approaches, and social networks to Web, Web 2.0, and Semantic Web solutions for patients, health personnel, and researchers. Furthermore, they include quality assurance and usability of medical informatics systems, specific disease management and telemedicine systems, including a section on devices and sensors, drug safety, clinical decision support and medical expert systems, clinical practice guidelines and protocols, as well as issues on privacy and security. Moreover, bioinformatics, biomedical modeling and simulation, medical imaging and visualization and, last but not least, learning and education through medical informatics systems are parts of the included topics.

The importance of databases and information systems to the functioning of 21st century life is indisputable. This book presents papers from the 13th International Baltic Conference on Databases and Information Systems, held in Trakai, Lithuania, from 1- 4 July 2018. Since the first of these events in 1994, the Baltic DB&IS has proved itself to be an excellent forum for researchers, practitioners and PhD students to deliver and share their research in the field of advanced information systems, databases and related areas. For the 2018 conference, 69 submissions were received from 15 countries. Each paper was assigned for review to at least three referees from different countries. Following review, 24 regular papers were accepted for presentation at the conference, and from these presented papers the 14 best-revised papers have been selected for publication in this volume, together with a preface and three invited papers written by leading experts. The selected revised and extended papers present original research results in a number of subject areas: information systems, requirements and ontology engineering; advanced database systems; internet of things; big data analysis; cognitive computing; and applications and case studies. These results will contribute to the further development of this fast-growing field, and will be of interest to all those working with advanced information systems, databases and related areas.

This book presents the proceedings of two conferences, the 37th and 38th in the WoTUG series; Communicating Process Architectures (CPA) 2015, held in Canterbury, England, in August 2015, and CPA 2016, held in Copenhagen, Denmark, in August 2016. Fifteen papers

were accepted for presentation at the 2015 conference. They cover a spectrum of concurrency concerns: mathematical theory, programming languages, design and support tools, verification, multicore infrastructure and applications ranging from supercomputing to embedded. Three workshops and two evening fringe sessions also formed part of the conference, and the workshop position papers and fringe abstracts are included in this book. Fourteen papers covering the same broad spectrum of topics were presented at the 2016 conference, one of them in the form of a workshop. They are all included here, together with abstracts of the five fringe sessions from the conference.

Heuristische und wissensbasierte Sicherheitsprüfung von Softwareentwicklungsartefakten basierend auf natürlichsprachlichen Informationen

Databases and Information Systems VIII

Semantische Technologien im Entwurf mechatronischer Systeme

9./10. Dezember 2010 in Paderborn

Eclipse IDE kurz & gut

Computer-Aided Design of User Interfaces VI

20th International Conference, DAMDID/RCDL 2018, Moscow, Russia, October 9–12, 2018, Revised Selected Papers

This book constitutes the refereed proceedings of the 13th International Baltic Conference on Databases and Information Systems, DB&IS 2018, held in Trakai, Lithuania, in July 2018. The 24 revised papers presented were carefully reviewed and selected from 69 submissions. The papers are centered around topics like information systems engineering, enterprise information systems, business process management, knowledge representation, ontology engineering, systems security, information systems applications, database systems, machine learning, big data analysis, big data processing, cognitive computing.

bull; Shows how EMF unifies three important technologies: Java, XML, and UML bull; Provides a comprehensive overview of the EMF classes including a complete quick reference for all the classes and methods in the EMF 1.1 API bull; Includes examples of many common framework customizations and programming techniques

Das Forschungsprojekt „Entwurfstechnik Intelligente Mechatronik" (ENTIME) soll die Innovationskraft des modernen Maschinenbaus stärken. Das Buch präsentiert die in diesem Rahmen entwickelte fachgebietsübergreifende Entwurfstechnik, die auf Basis semantischer Technologien den effektiven Zugriff auf bestehende Lösungen unterschiedlichster Lieferanten ermöglicht. Lösungselemente sind realisierte und bewährte Lösungen – Baugruppen, Module, Softwarebibliotheken etc. – zur Erfüllung einer Funktion eines zu entwickelnden Systems. Unternehmen greifen mithilfe der sematischen Technologien auf Lösungen von Lieferanten zurück und vermarkten ihre Erzeugnisse wiederum als Lösungen für weitere Unternehmen in der Kette. Dadurch kann die Effizienz der Produktentstehungsprozesse und die Qualität der Produkte

maßgeblich gesteigert werden. Das Buch unterstützt darüber hinaus Unternehmen bei der Nutzbarmachung dieser Konzepte.

Sicherheitslücken können bei softwareintensiven Informationssystemen zu großen Schäden führen und hohe Wartungskosten verursachen. Um Sicherheitslücken nachhaltig zu reduzieren, müssen sie schon frühzeitig und kontinuierlich während der Softwareentwicklung identifiziert werden. Hierbei müssen die Artefakte aus den verschiedenen Phasen des Softwareentwicklungsprozesses berücksichtigt werden. Sie spezifizieren das Informationssystem in Form von Anforderungen, Modellen und Quelltext. Dabei nutzen sie eine Vielzahl natürlichsprachlicher Informationen. Im Rahmen dieser Arbeit wird untersucht, wie sich natürlichsprachliche Informationen aus den Entwicklungsartefakten nutzen lassen, um potentielle Sicherheitslücken automatisch zu identifizieren. Hierzu wird eine Sicherheitsprüfung basierend auf Bewertungsheuristiken und strukturiertem Sicherheitswissen vorgestellt. Die Eignung des Prüfverfahrens wird anhand einer Fallstudie für die Anforderungs-, Entwurfs- und Implementierungsphase des Softwareentwicklungsprozesses gezeigt. Die Arbeit ergänzt mit dem vorgestellten Prüfverfahren andere qualitätssichernde Methoden der Softwareentwicklung.

Entwicklung von prozessorientierten Informationssystemen fuer die industrielle Dienstleistungsbeschaffung

Principles, Techniques, and Practice

Handbook of Service Description

A Developer's Guide

Model-Driven Software Engineering in Practice

Rich Clients mit dem Ecplipse 4.2 SDK

HDI2010 – Tagungsband der 4. Fachtagung zur "Hochschuldidaktik Informatik"

This open access book provides an overview of the dissertations of the five nominees for the Ernst Denert Award for Software Engineering in 2019. The prize, kindly sponsored by the Gerlind & Ernst Denert Stiftung, is awarded for excellent work within the discipline of Software Engineering, which includes methods, tools and procedures for better and efficient development of high quality software. An essential requirement for the nominated work is its applicability and usability in industrial practice. The book contains five papers describing the works by Sebastian Baltes (U Trier) on Software Developers' Work Habits and Expertise, Timo Greifenberg's thesis on Artefaktbasierte Analyse modellgetriebener Softwareentwicklungsprojekte, Marco Konersmann's (U Duisburg-Essen) work on Explicitly Integrated Architecture, Marija Selakovic's (TU Darmstadt) research about Actionable Program Analyses for Improving Software Performance, and Johannes Späth's (Paderborn U) thesis on Synchronized Pushdown Systems for Pointer and Data-Flow Analysis – which actually won the award. The chapters describe key findings of the respective works, show their

relevance and applicability to practice and industrial software engineering projects, and provide additional information and findings that have only been discovered afterwards, e.g. when applying the results in industry. This way, the book is not only interesting to other researchers, but also to industrial software professionals who would like to learn about the application of state-of-the-art methods in their daily work.

The rise of intelligence and computation within technology has created an eruption of potential applications in numerous professional industries. Techniques such as data analysis, cloud computing, machine learning, and others have altered the traditional processes of various disciplines including healthcare, economics, transportation, and politics. Information technology in today's world is beginning to uncover opportunities for experts in these fields that they are not yet aware of. The exposure of specific instances in which these devices are being implemented will assist other specialists in how to successfully utilize these transformative tools with the appropriate amount of discretion, safety, and awareness. Considering the level of diverse uses and practices throughout the globe, the fifth edition of the Encyclopedia of Information Science and Technology series continues the enduring legacy set forth by its predecessors as a premier reference that contributes the most cutting-edge concepts and methodologies to the research community. The Encyclopedia of Information Science and Technology, Fifth Edition is a three-volume set that includes 136 original and previously unpublished research chapters that present multidisciplinary research and expert insights into new methods and processes for understanding modern technological tools and their applications as well as emerging theories and ethical controversies surrounding the field of information science. Highlighting a wide range of topics such as natural language processing, decision support systems, and electronic government, this book offers strategies for implementing smart devices and analytics into various professional disciplines. The techniques discussed in this publication are ideal for IT professionals, developers, computer scientists, practitioners, managers, policymakers, engineers, data analysts, and programmers seeking to understand the latest developments within this field and who are looking to apply new tools and policies in their practice. Additionally, academicians, researchers, and students in fields that include but are not limited to software engineering, cybersecurity, information technology, media and communications, urban planning, computer science, healthcare, economics, environmental science, data management, and political science will benefit from the extensive knowledge compiled within this publication.

Computer-Aided Design of User Interfaces VI gathers the latest experience of experts, research teams and leading organisations involved in computer-aided design of user interactive applications. This area investigates how it is desirable and possible to support, to facilitate and to speed up the development life cycle of any interactive system: requirements engineering, early-stage design, detailed design, deelopment, deployment, evaluation, and maintenance. In particular, it

stresses how the design activity could be better understood for different types of advanced interactive ubiquitous computing, and multi-device environments.

Model-Driven Engineering (MDE) aims to raise the level of abstraction in software system specifications and increase automation in software development. Modelware technological spaces contain the languages and tools for MDE that software developers take into consideration to model systems and domains. Ontoware technological spaces contain ontology languages and technologies to design, query, and reason on knowledge. With the advent of the Semantic Web, ontologies are now being used within the field of software development, as well. In this thesis, bridging technologies are developed to combine two technological spaces in general. In particular, this thesis focuses on the combination of modelware and ontoware technological spaces. Subsequent to a sound comparison of languages and tools in both spaces, the bridging technologies are used to build a common technological space, which allows for the hybrid use of languages and the interoperable use of tools.

Eclipse Plug-ins

WoTUG-37 & WoTUG-38

New Trends in Intelligent Software Methodologies, Tools and Techniques

Practice Meets Foundations

Bridging Technological Spaces

SCCharts - Language and Interactive Incremental Compilation

Databases and Information Systems

Modellgetriebene Entwicklung befasst sich mit der Erstellung kompletter Softwaresysteme aus Modellen. Das Buch stellt einen praxisorientierten Leitfaden für modellgetriebene Entwicklung dar und richtet sich dabei an Architekten, Entwickler sowie technische Projektleiter. Obwohl die Model-Driven Architecture (MDA) der OMG einen hohen Stellenwert bei den Betrachtungen einnimmt, betrachtet das Buch auch allgemeine Aspekte modellgetriebener Entwicklung. Das Buch ist dreigeteilt in eine Einführung, einen praktischen Leitfaden mit einem ausführlichen Fallbeispiel sowie zusätzliche Kapitel, die bestimmte Aspekte der Thematik genauer beleuchten.

This book constitutes thoroughly revised and selected papers from the 4th International Conference on Model-Driven Engineering and Software Development, MODELSWARD 2016, held in Rome, Italy, in February 2016. The 17 thoroughly revised and extended papers presented in this volume were carefully reviewed and selected from 118 submissions. They are organized in topical sections named: modeling languages, tools and architectures; methodologies, processes and

platforms; applications and software development.

Databases and information systems are the backbone of modern information technology and are crucial to the IT systems which support all aspects of our everyday life; from government, education and healthcare, to business processes and the storage of our personal photos and archives. This book presents 22 of the best revised papers accepted following stringent peer review for the 11th International Baltic Conference on Databases and Information Systems (Baltic DB&IS 2014), held in Tallinn, Estonia, in June 2014. The conference provided a forum for the exchange of scientific achievements between the research communities of the Baltic countries and the rest of the world in the area of databases and information systems, bringing together researchers, practitioners and Ph.D. students from many countries. The subject areas covered at the conference focused on big data processing, data warehouses, data integration and services, data and knowledge management, e-government, as well as e-services and e-learning.

BrunoBuchberger This book is a synopsis of basic and applied research done at the various re search institutions of the Softwarepark Hagenberg in Austria. Starting with 15 coworkers in my Research Institute for Symbolic Computation (RISC), I initiated the Softwarepark Hagenberg in 1987 on request of the Upper Aus trian Government with the objective of creating a scienti?c, technological, and economic impulse for the region and the international community. In the meantime, in a joint e?ort, the Softwarepark Hagenberg has grown to the current (2009) size of over 1000 R&D employees and 1300 students in six research institutions, 40 companies and 20 academic study programs on the bachelor, master's and PhD level. The goal of the Softwarepark Hagenberg is innovation of economy in one of the most important current technologies: software. It is the message of this book that this can only be achieved and guaranteed long term by "watering the root", namely emphasis on research, both basic and applied. In this book, we summarize what has been achieved in terms of research in the various research institutions in the Softwarepark Hagenberg and what research vision we have for the imminent future. When I founded the Softwarepark Hagenberg, in addition to the "watering the root" principle, I had the vision that such a technology park can only prosper if we realize the "magic triangle", i.e. the close interaction of research, academic education, and business applications at one site, see Figure 1.

Modellierung, Integration und Analyse von Ressourcen in Geschäftsprozessen
Second International Workshop, M2P 2020, Lappeenranta, Finland, March 10-12, 2020, Revised

Selected Papers
Medical Informatics in a United and Healthy Europe
Eclipse Modeling Framework
Model-Driven Engineering and Software Development
Eclipse Modeling Project

The Handbook of Service Description introduces an in-depth overview of service description efforts. The book also highlights the recent Unified Service Description Language (USDL) in detail and discusses its methods. The Handbook of Service Description is the normative scientific reference for the upcoming standardization of the Unified Service Description Language (USDL). Complete documentation is included. The Handbook of Service Description is designed for those working in the service science industry as a reference book. Advanced-level students focused on computer science, engineering and business will also find this book a valuable asset. EMF: Eclipse Modeling Framework Dave Steinberg Frank Budinsky Marcelo Paternostro Ed Merks Series Editors: Erich Gamma • Lee Nackman • John Wiegand The Authoritative Guide to EMF Modeling and Code Generation The Eclipse Modeling Framework enables developers to rapidly construct robust applications based on surprisingly simple models. Now, in this thoroughly revised Second Edition, the project's developers offer expert guidance, insight, and examples for solving real-world problems with EMF, accelerating development processes, and improving software quality. This edition contains more than 40% new material, plus updates throughout to make it even more useful and practical. The authors illuminate the key concepts and techniques of EMF modeling, analyze EMF's most important framework classes and generator patterns, guide you through choosing optimal designs, and introduce powerful framework customizations and programming techniques. Coverage includes • Defining models with Java, UML, XML Schema, and Ecore • NEW: Using extended Ecore modeling to fully unify XML with UML and Java • Generating high-quality code to implement models and editors • Understanding and customizing generated code • Complete documentation of @model Javadoc tags, generator model properties, and resource save and load options • NEW: Leveraging the latest EMF features, including extended metadata, feature maps, EStore, cross-reference adapters, copiers, and content types • NEW: Chapters on change recording, validation, and utilizing EMF in stand-alone and Eclipse RCP applications • NEW: Modeling generics with Ecore and generating Java 5 code About the Authors Dave Steinberg is a software developer in IBM Software Group. He has worked with Eclipse

and modeling technologies since joining the company, and has been a committer on the EMF project since its debut in 2002. Frank Budinsky, a senior architect in IBM Software Group, is an original coinventor of EMF and a founding member of the EMF project at Eclipse. He is currently cochair of the Service Data Objects (SDO) specification technical committee at OASIS and lead SDO architect for IBM. Marcelo Paternostro is a software architect and engineer in IBM Software Group. He is an EMF committer and has been an active contributor to several other Eclipse projects. Before joining IBM, Marcelo managed, designed, and implemented numerous projects using Rational's tools and processes. Ed Merks is the project lead of EMF and a colead of the top-level Modeling project at Eclipse. He holds a Ph.D. in Computing Science and has many years of in-depth experience in the design and implementation of languages, frameworks, and application development environments. Ed works as a software consultant in partnership with itemis AG.

Mithilfe von Eclipse können Rich-Client-Anwendungen sowohl für Windows und Linux als auch für Mac OS X programmiert werden. Die neue Version setzt natürlich wieder auf die bewährte OSGi-Implementierung Equinox auf, basiert im Vergleich zum Vorgänger (Eclipse RCP 3.x) jedoch erstmals vollständig auf Dependency Injection. Darüber hinaus verwaltet e4 sein komplettes Applikationsmodell nun in Form des neuen deklarativ definierten Workbench-Modells, auf das man bei Bedarf über Code zur Laufzeit zugreifen kann. Im Umfeld der Benutzeroberflächen setzt e4 nach wie vor auf das bewährte Gespann SWT und JFace, bietet jedoch außerdem die Möglichkeit, mithilfe von CSS das Layout feingranular anzupassen. An professionelle Softwareentwickler gerichtet, geben die Autoren mit diesem Werk einen Überblick über das Eclipse SDK 4.1 mit e4. Das Buch richtet sich an Einsteiger sowie Umsteiger von Eclipse 3.x und zeigt die Möglichkeiten der Rich-Client-Plattform an anschaulichen Beispielen. Es enthält eine Einführung in die Materie und bietet im weiteren Verlauf einen Überblick über alle relevanten Themen, um eine Eclipse-RCP-Anwendung auf Basis von e4 zu programmieren und auszuliefern. Schritt für Schritt führen Marc Teufel und Jonas Helming die Leser an die verschiedenen Themen und neuen Features in e4 heran: - Grundlagen: Entwicklungsumgebung aufsetzen, erste e4-Awendungen in zehn Minuten - Aufbau einer e4-Anwendung im Detail - OSGi/Equinox - Workbench-Modell - Programmiermodell: Dependency Injection, Services, OSGi Declarative Services - Eclipse Application Services - SWT, JFace, XWT, Data Binding - CSS Styling - Deployment, Build, Auslieferung der Anwendung.

Eclipse ist eine benutzerfreundliche, freie Entwicklungsumgebung (IDE), mit der die Anwendungsentwicklung dank vieler Werkzeuge zum Design, zum Modellieren und Testen

vereinfacht wird. Dieser Band richtet sich an Java-Entwickler und gibt in knapper Form einen Überblick über zentrale Konzepte von Eclipse wie z.B. Views, Editoren und Perspektiven. Darüber hinaus wird erläutert, wie man Java-Code mit Hilfe von Tools wie Ant und JUnit integrieren kann. Das Buch bietet darüber hinaus Tipps und Tricks bei der Arbeit mit der IDE, ein Glossar Eclipse-typischer Begriffe sowie eine Auswahl nützlicher Plug-ins. Das Buch wurde für die dritte Auflage komplett überarbeitet und basiert auf der Version Eclipse 4.3.

Hagenberg Research

EMF

A Domain-Specific Language (DSL) Toolkit

Encyclopedia of Information Science and Technology, Fifth Edition

Ernst Denert Award for Software Engineering 2019

Multiagent Systems, second edition

Modelling to Program

Producing a commercial-quality plug-in means going above and beyond the minimal requirements needed to integrate with Eclipse. It means attending to all those details that contribute to the "fit and polish" of a commercial offering. This comprehensive guide covers the entire process of plug-in development, including all the extra steps needed to achieve the highest quality results. Building on two internationally best-selling previous editions, Eclipse Plug-ins, Third Edition, has been fully revised to reflect the powerful new capabilities of Eclipse 3.4. Leading Eclipse experts Eric Clayberg and Dan Rubel present detailed, practical coverage of every aspect of plug-in development, as well as specific, proven solutions for the challenges developers are most likely to encounter. All code examples, relevant API listings, diagrams, and screen captures have been thoroughly updated to reflect both the Eclipse 3.4 API and the latest Java syntax. In addition, Clayberg and Rubel have completely revamped their popular Favorites View case study, reworking much of its content and recreating its code from scratch. The authors carefully cover new functionality added to existing Eclipse features, such as views and editors, and fully explain brand-new features such as Commands, GEF, and PDE Build. This extensively revised edition Thoroughly covers Eclipse's new preferences Illuminates the powerful new Eclipse Command Framework, which replaces Eclipse's older Action Framework Presents extensive new discussions of using commands with views and editors Introduces Mylyn, the new task-focused interface that reduces information overload and simplifies multi-tasking Contains an all-new chapter on using the Graphical Editing Framework (GEF) to build dynamic, interactive graphical user interface elements Walks you step by step through the entire PDE Build process Shows how to create update sites with p2, which replaces Eclipse's old Update Manager This book is designed for every experienced developer interested in extending the Eclipse platform, the Rational Software Development Platform, or any other platform that supports Eclipse plug-ins. Safety-critical systems are a subclass of reactive systems, a dominating class of computer systems. Such systems control

airbags in cars, flaps of aircrafts, or pace makers. Software for these systems must be reliable. Hence, a language and tooling is needed that allows to build and maintain reliable software models. Furthermore, a reliable compiler is required to obtain decent machine-understandable and executable code from highly abstract models. This thesis presents SCCharts, a Statecharts-based visual and synchronous modeling language for specifying and designing safety-critical software systems and for deriving their implementations. http://www.sccharts.com

This book constitutes the refereed proceedings of the 10th International Conference on Entertainment Computing, ICEC 2011, held in Vancouver, Canada, in October 2011, under the auspices of IFIP. The 20 revised long papers, 18 short papers and 24 poster papers and demos presented were carefully reviewed and selected from 94 initial submissions. The papers cover all main domains of entertainment computing, from interactive music to games, taking a wide range of scientific domains from aesthetic to computer science. The papers are organized in topical sections on story, active games, player experience, camera and 3D, educational entertainment, game development, self and identity, social and mobile entertainment; plus the four categories: demonstrations, posters, workshosp, and tutorial.

Lesbare, wartbare und zuverlässige Tests entwickelnStubs, Mock-Objekte und automatisierte FrameworksEinsatz von .NET-Tools inkl. NUnit, Rhino Mocks und Typemock Isolator Unit Testing, richtig durchgeführt, kann den Unterschied ausmachen zwischen einem fehlgeschlagenen Projekt und einem erfolgreichen, zwischen einer wartbaren Code-Basis und einer, die niemand freiwillig anpackt, zwischen dem Nach-Hause-Kommen um 2 Uhr nachts oder zum Abendessen, selbst noch kurz vor dem Release-Termin. Roy Osherove führt Sie Schritt für Schritt von einfachen Tests zu Tests, die wartbar, lesbar und zuverlässig sind. Er geht danach auf die Grundlagen des Interaction Testings ein und stellt schließlich bewährte Vorgehensweisen für das Schreiben, das Verwalten und das Warten der Unit Tests in echten Projekten vor. Darüber hinaus werden auch fortgeschrittene Themen behandelt wie Mocks, Stubs und Frameworks wie etwa Typemock Isolator und Rhino Mocks. Sie werden eine Menge zu fortgeschrittenen Testmustern und zur Testorganisation, zum Arbeiten mit Legacy Code und auch zu untestbarem Code erfahren. Und Sie lernen Werkzeuge kennen, die Sie beim Testen von Datenbanken und anderen Technologien brauchen werden. Alle Beispiele sind mit Visual Studio in C# geschrieben, so dass die Beispiele insbesondere für .NET-Entwickler nützlich sind. Aber auch für Programmierer anderer Sprachen wird das Buch von großem Nutzen sein, da die Prinzipien des Unit Testings für andere Sprachen dieselben sind. Roys Blog finden Sie auf ISerializable.com. Aus dem Inhalt: Verwenden eines Test-Frameworks (NUnit)Grundlegende TestattributeStubs zum Auflösen von AbhängigkeitenInteraction Testing mit Mock-ObjektenTesthierarchie und OrganisationDie Säulen guter TestsIntegration von Unit Testing in das UnternehmenUmgang mit Legacy Code

Entertainment Computing - ICEC 2011

Eclipse 4

Analysis and Correctness of Algebraic Graph and Model Transformations

USDL and Its Methods

10th International Conference, ICEC 2011, Vancouver, BC, Canada, October 5-8, 2011, Proceedings

Techniken, Engineering, Management

Communicating Process Architectures 2015 & 2016

IBM® Rational® Application Developer for WebSphere® Software V7.0 (for short, Rational Application Developer) is the full function Eclipse 3.2 based development platform for developing JavaTM 2 Platform Standard Edition (J2SETM) and Java 2 Platform Enterprise Edition (J2EETM) applications with a focus on applications to be deployed to IBM WebSphere Application Server and IBM WebSphere Portal. Rational Application Developer provides integrated development tools for all development roles, including Web developers, Java developers, business analysts, architects, and enterprise programmers. Rational Application Developer is part of the IBM Rational Software Delivery Platform (SDP), which contains products in four life cycle categories: - Architecture management, which includes integrated development environments (Application Developer is here) - Change and release management - Process and portfolio management - Quality management This IBM Redbooks® publication is a programming guide that highlights the features and tooling included with Rational Application Developer V7.0. Many of the chapters provide working examples that demonstrate how to use the tooling to develop applications, as well as achieve the benefits of visual and rapid application development. This publication is an update of Rational Application Developer V6 Programming Guide, SG24-6449. This book consists of six parts: - Introduction to Rational Application Developer - Develop applications - Test and debug applications - Deploy and profile applications - Team development - Appendixes

Automatic layout is an important tool for the efficient use of graphical models in a model-driven engineering (MDE) context. Since the 1980s, research on graph layout methods has led to a multitude of different approaches, and several free software libraries for graph layout are available. However, today's practically relevant MDE tools hardly reflect this diversity. This thesis aims to support the use of automatic graph layout in such tools. A special focus is on the requirements of data flow models, where constraints on the positioning of ports and the routing of hyperedges pose additional challenges. These constraints are approached with extensions of the layer-based graph layout method. Furthermore, we discuss an infrastructure for managing collections of layout algorithms, allowing to flexibly specify layout configurations. These concepts are implemented in an open-source project based on Eclipse, an extensible platform that is well-known as a Java IDE and also hosts a large number of MDE tools. The presented contributions allow to integrate high-quality automatic layout into these tools with low effort.

Achieve Breakthrough Productivity and Quality with MDD and Eclipse-Based DSLs Domain-specific languages (DSLs) and model-driven development (MDD) offer software engineers powerful new ways to improve productivity, enhance quality, and insulate systems from rapid technological change. Now, there's a pragmatic, start-to-finish guide to creating DSLs and using MDD techniques with the powerful open source Eclipse platform. In Eclipse Modeling Project, Richard C. Gronback illuminates both the principles and techniques software professionals need to master, offering insights that will be invaluable to developers working with any tool or platform. As coleader of the Eclipse Modeling Project, Gronback is singularly well-positioned to demonstrate DSLs and MDD at work in Eclipse. Gronback systematically introduces each of the Eclipse technologies that can be used in DSL and MDD development. Throughout, he introduces key concepts and technologies in the context of a complete worked example and presents new best practices and never-before published techniques. He also covers Eclipse projects discussed in no other book, including Query/View/Transformation (QVT) and the Graphical Modeling Framework (GMF)—a project the author personally leads. Eclipse Modeling Project gives software practitioners all the knowledge they need to explore the remarkable potential of DSLs and MDD—and includes coverage of Why a model-based approach enables the rapid customization of high-quality solutions within the product line paradigm How the Eclipse Modeling Project's capabilities can be used to efficiently create new DSLs Powerful techniques for developing DSL abstract syntax, graphical notation, and textual syntax How to build Model-to-Model (M2M) and Model-to-Text (M2T) transformations—including

a powerful new M2M implementation of the Object Management Group's QVT Operational Mapping Language (OML) Efficiently packaging and deploying DSLs with Eclipse Complete reference sections for the Graphical Editing Framework (GEF), GMF runtime and tooling, QVT OML, Xpand, and more

IBM® Rational® Application Developer for WebSphere® Software v7.5 (Application Developer, for short) is the full function Eclipse 3.4 based development platform for developing JavaTM Standard Edition Version 6 (Java SE 6) and Java Enterprise Edition Version 5 (Java EE 5) applications with a focus on applications to be deployed to IBM WebSphere Application Server and IBM WebSphere Portal. Rational Application Developer provides integrated development tools for all development roles, including Web developers, Java developers, business analysts, architects, and enterprise programmers. Rational Application Developer is part of the IBM Rational Software Delivery Platform (SDP), which contains products in four life cycle categories: - Architecture management, which includes integrated development environments - Change and release management - Process and portfolio management - Quality management This IBM RedbooksTM publication is a programming guide that highlights the features and tooling included with Rational Application Developer v7.5. Many of the chapters provide working examples that demonstrate how to use the tooling to develop applications, as well as achieve the benefits of visual and rapid application development. This publication is an update of Rational Application Developer V7 Programming Guide, SG24-7501.

Funktionale Sicherheit nach ISO 26262 in der Konzeptphase der Entwicklung von Elektrik/Elektronik Architekturen von Fahrzeugen

Proceedings of MIE 2009

Model Driven Engineering and Ontology Development

Graph Layout Support for Model-Driven Engineering

13th International Baltic Conference, DB&IS 2018, Trakai, Lithuania, July 1-4, 2018, Proceedings

Selected Papers from the Thirteenth International Baltic Conference, DB&IS 2018

Second Edition

This book discusses how model-based approaches can improve the daily practice of software professionals. This is known as Model-Driven Software Engineering (MDSE) or, simply, Model-Driven Engineering (MDE). MDSE practices have proved to increase efficiency and effectiveness in software development, as demonstrated by various quantitative and qualitative studies. MDSE adoption in the software industry is foreseen to grow exponentially in the near future, e.g., due to the convergence of software development and business analysis. The aim of this book is to provide you with an agile and flexible tool to introduce you to the MDSE world, thus allowing you to quickly understand its basic principles and techniques and to choose the right set of MDSE instruments for your needs so that you can start to benefit from MDSE right away. The book is organized into two main parts. The first part discusses the foundations of MDSE in terms of basic concepts (i.e., models and transformations), driving principles, application scenarios, and current standards, like the well-known MDA initiative proposed by OMG (Object

Management Group) as well as the practices on how to integrate MDSE in existing development processes. The second part deals with the technical aspects of MDSE, spanning from the basics on when and how to build a domain-specific modeling language, to the description of Model-to-Text and Model-to-Model transformations, and the tools that support the management of MDSE projects. The second edition of the book features: a set of completely new topics, including: full example of the creation of a new modeling language (IFML), discussion of modeling issues and approaches in specific domains, like business process modeling, user interaction modeling, and enterprise architecture complete revision of examples, figures, and text, for improving readability, understandability, and coherence better formulation of definitions, dependencies between concepts and ideas addition of a complete index of book content In addition to the contents of the book, more resources are provided on the book's website http://www.mdse-book.com, including the examples presented in the book.

Defining a formal domain ontology is considered a useful, not to say necessary step in almost every software project. This is because software deals with ideas rather than with self-evident physical artefacts. However, this development step is hardly ever done, as ontologies rely on well-defined and semantically powerful AI concepts such as description logics or rule-based systems, and most software engineers are unfamiliar with these. This book fills this gap by covering the subject of MDA application for ontology development on the Semantic Web. The writing is technical yet clear, and is illustrated with examples. The book is supported by a website.

The new edition of an introduction to multiagent systems that captures the state of the art in both theory and practice, suitable as textbook or reference. Multiagent systems are made up of multiple interacting intelligent agents—computational entities to some degree autonomous and able to cooperate, compete, communicate, act flexibly, and exercise control over their behavior within the frame of their objectives. They are the enabling technology for a wide range of advanced applications relying on distributed and parallel processing of data, information, and knowledge relevant in domains ranging from industrial manufacturing to e-commerce to health care. This book offers a state-of-the-art introduction to multiagent systems, covering the field in both breadth and depth, and treating both theory and practice. It is suitable for classroom use or independent study. This second edition has been completely revised, capturing the tremendous developments in multiagent systems since the first edition appeared in 1999.

Sixteen of the book's seventeen chapters were written for this edition; all chapters are by leaders in the field, with each author contributing to the broad base of knowledge and experience on which the book rests. The book covers basic concepts of computational agency from the perspective of both individual agents and agent organizations; communication among agents; coordination among agents; distributed cognition; development and engineering of multiagent systems; and background knowledge in logics and game theory. Each chapter includes references, many illustrations and examples, and exercises of varying degrees of difficulty. The chapters and the overall book are designed to be self-contained and understandable without additional material. Supplemental resources are available on the book's Web site. Contributors Rafael Bordini, Felix Brandt, Amit Chopra, Vincent Conitzer, Virginia Dignum, Jürgen Dix, Ed Durfee, Edith Elkind, Ulle Endriss, Alessandro Farinelli, Shaheen Fatima, Michael Fisher, Nicholas R. Jennings, Kevin Leyton-Brown, Evangelos Markakis, Lin Padgham, Julian Padget, Iyad Rahwan, Talal Rahwan, Alex Rogers, Jordi Sabater-Mir, Yoav Shoham, Munindar P. Singh, Kagan Tumer, Karl Tuyls, Wiebe van der Hoek, Laurent Vercouter, Meritxell Vinyals, Michael Winikoff, Michael Wooldridge, Shlomo Zilberstein
This title includes a number of Open Access chapters. Model-driven engineering (MDE) is the automatic production of software from simplified models of structure and functionality. It mainly involves the automation of the routine and technologically complex programming tasks, thus allowing developers to focus on the true value-adding functionality that the system needs to deliver. This book serves an overview of some of the core topics in MDE. The volume is broken into two sections offering a selection of papers that helps the reader not only understand the MDE principles and techniques, but also learn from practical examples. Also covered are the following topics: • MDE for software product lines • Formal methods for model transformation correctness • Metamodeling with Eclipse eCore • Metamodeling with UML profiles • Test cases generation This easily accessible reference volume offers a comprehensive guide to this rapidly expanding field. Edited by experienced writers with experience in both research and the practice of software engineering, Model-Driven Engineering of Information Systems: Principles, Techniques and Practice is an authoritative and easy-to-use reference, ideal for both researchers in the field and students who wish to gain an overview to this important field of study.
Effektiver Austausch von Lösungswissen in Branchenwertschöpfungsketten

Model-Driven Engineering of Information Systems
Rational Application Developer V7 Programming Guide
Selected Papers from the Eleventh International Baltic Conference, DB&IS 2014
Towards the Combination of Model-Driven Engineering and Ontology Technologies
Modellgetriebene Softwareentwicklung
Data Analytics and Management in Data Intensive Domains

Ulrike Golas extends a mathematical theory of algebraic graph and model transformations for more sophisticated applications like the specification of syntax, semantics, and model transformations of complex models. Based on M-adhesive transformation systems, model transformations are successfully analyzed regarding syntactical correctness, completeness, functional behavior, and semantical simulation and correctness.

The integration of AI with software is an essential enabler for science and the new economy, creating new markets and opportunities for a more reliable, flexible and robust society. Current software methodologies, tools and techniques often fall short of expectations, however, and much software remains insufficiently robust and reliable for a constantly changing and evolving market. This book presents 54 papers delivered at the 20th edition of the International Conference on New Trends in Intelligent Software Methodology Tools, and Techniques (SoMeT_21), held in Cancun, Mexico, from 21⊡23 September 2021. The aim of the conference was to capture the essence of a new state-of-the-art in software science and its supporting technology and to identify the challenges that such a technology will need to master, and this book explores the new trends and theories illuminating the direction of development in this field as it heads towards a transformation in the role of software and science integration in tomorrow⊡s global information society. The 54 revised papers were selected for publication by means of a rigorous review process involving 3 or 4 reviewers for each paper, followed by selection by the SoMeT_21 international reviewing committee. The book is divided into 9 chapters, classified by paper topic and relevance to the chapter theme. Covering topics ranging from research practices, techniques and methodologies to proposing and reporting on the solutions required by global business, the book offers an opportunity for the software science community to consider where they are today and where they are headed in the future.

Mit der 4. Tagung zur Hochschuldidaktik Informatik wird eine Reihe fortgesetzt, die ihren Anfang 1998 in Stuttgart unter der Überschrift "Informatik und Ausbildung" genommen hat. Seither dienen diese Tagungen den Lehrenden im Bereich der Hochschulinformatik als Forum der Information und des Diskurses über aktuelle didaktische und bildungspolitische Entwicklungen im Bereich der Informatikausbildung. Aktuell zählen dazu insbesondere Fragen der Bildungsrelevanz informatischer Inhalte und der Herausforderung durch eine stärkere Kompetenzorientierung in der Informatik. Die eingereichten Beiträge zur HDI 2010 in Paderborn veranschaulichen unterschiedliche Bemühungen, sich mit relevanten Problemen der Informatikdidaktik an Hochschulen in Deutschland (und z. T. auch im Ausland) auseinanderzusetzen. Aus der Breite des Spektrums der Einreichungen ergaben sich zugleich Probleme bei der Begutachtung. Letztlich konnten von den zahlreichen Einreichungen nur drei die Gutachter so überzeugen, dass sie uneingeschränkt in ihrer Langfassung akzeptiert wurden. Neun weitere Einreichungen waren trotz Kritik überwiegend positiv begutachtet worden, so dass wir diese als Kurzfassung bzw. Diskussionspapier in die Tagung aufgenommen haben.

This book constitutes the refereed proceedings of the 20th International Conference on Data Analytics and Management in Data Intensive Domains, DAMDID/RCDL 2018, held in Moscow, Russia, in October 2018. The 9 revised full papers presented together with three invited papers were carefully reviewed and selected from 54 submissions. The papers are organized in the following topical sections: FAIR data infrastructures, interoperability and reuse; knowledge representation; data models; data analysis in astronomy; text search and processing; distributed computing; information extraction from

text.

Databases and Information Systems X

Proceedings of the 20th International Conference on New Trends in Intelligent Software Methodologies, Tools and Techniques (SoMeT_21)

Ein Vorschlag auf Basis der Blockchain

Rational Application Developer V7.5 Programming Guide

4th International Conference, MODELSWARD 2016, Rome, Italy, February 19-21, 2016, Revised Selected Papers

The Art of Unit Testing

Integrierte Entwicklung und Ausführung von Prozessen in dezentralen Organisationen