

Eclipse Rich Client Platform 2nd Edition

Android hat hierzulande die einstige Vorreiterstellung von Apple längst geknackt. Bei den Smartphones liegt das Betriebssystem von Google weit vorn, und auch bei den Tablets holt Android zugig auf. Zeit also, sich mit der App-Entwicklung für Android zu beschäftigen! Dieses Buch wendet sich an Leser, die die Programmierung von Android-Apps von Grund auf lernen und auf professionellem Niveau betreiben möchten. Es richtet sich an Java-Entwickler und Leser mit Kenntnissen in einer anderen objektorientierten Sprache.

Covering Eclipse's new capability for building graphical user interfaces with version 3.0, the Standard Widget Toolkit (SWT) and JFace, this guide demonstrates how these award-winning tools have received broad support for creating desktop applications. Theory and practical examples reveal how to build GUIs that combine the look and feel of native interfaces with the platform independence of Java. This guide also shows how SWT makes use of the widgets provided by the operating system and describes how these components can be associated with events, containers, and graphics. With this knowledge, programmers can build fully featured user interfaces that communicate directly with the underlying platform. JFace's ability to simplify and organize the process of GUI design is then demonstrated, enabling developers to modify and adapt components, and separate their information from their appearance.

In *Monitoring Adaptive Spoken Dialog Systems*, authors Alexander Schmitt and Wolfgang Minker investigate statistical approaches that allow for recognition of negative dialog patterns in Spoken Dialog Systems (SDS). The presented stochastic methods allow a flexible, portable and accurate use. Beginning with the foundations of machine learning and pattern recognition, this monograph examines how frequently users show negative emotions in spoken dialog systems and develop novel approaches to speech-based emotion recognition using hybrid approach to model emotions. The authors make use of statistical methods based on acoustic, linguistic and contextual features to examine the relationship between the interaction flow and the occurrence of emotions using non-acted recordings several thousand real users from commercial and non-commercial SDS. Additionally, the authors present novel statistical methods that spot problems within a dialog based on interaction patterns. The approaches enable future SDS to offer more natural and robust interactions. This work provides insights, lessons and inspiration for future research and development, not only for spoken dialog systems, but for data-driven approaches to human-machine interaction in general.

The convenience of online shopping has driven consumers to turn to the internet to purchase everything from clothing to housewares and even groceries. The ubiquity of online retail stores and availability of hard-to-find products in the digital marketplace has been a catalyst for a heightened interest in research on the best methods, techniques, and strategies for remaining competitive in the era of e-commerce. *The Encyclopedia of E-Commerce Development, Implementation, and Management* is an authoritative reference source highlighting crucial topics relating to effective business models, managerial strategies, promotional initiatives, development methodologies, and end-user considerations in the online commerce sphere. Emphasizing emerging research on up-and-coming topics such as social commerce, the Internet of Things, online gaming, digital products, and mobile services, this multi-volume encyclopedia is an essential addition to the reference collection of both academic and corporate libraries and caters to the research needs of graduate-level students, researchers, IT developers, and business professionals. .

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

In his friendly, easy-to-understand style, the bestselling author of *Java 2 For Dummies* shows developers how to get up to speed fast on this popular Java IDE Eclipse, an open source product originally developed by IBM, has an estimated 500,000 users—a 45 percent market share among Java IDEs Shows Java developers how to maximize programming productivity with Eclipse, covering all the basics as well as advanced techniques such as using Ant, developing new Eclipse plug-ins, and working with Javadoc JAR files

The two volume set, CCIS 262 and 263, constitutes the refereed proceedings of the International Conference, MulGraB 2011, held as Part of the Future Generation Information Technology Conference, FGIT 2011, in conjunction with GDC 2011, Jeju Island, Korea, in December 2011. The papers presented were carefully reviewed and selected from numerous submissions and focus on the various aspects of multimedia, computer graphics and broadcasting.

Computational kinematics is an enthralling area of science with a rich spectrum of problems at the junction of mechanics, robotics, computer science, mathematics, and computer graphics. The present book collects up-to-date methods as presented during the Fifth International Workshop on Computational Kinematics (CK2009) held at the University of Duisburg-Essen, Germany. The covered topics include design and optimization of cable-driven robots, analysis of parallel manipulators, motion planning, numerical methods for mechanism calibration and optimization, geometric approaches to mechanism analysis and design, synthesis of mechanisms, kinematical issues in biomechanics, balancing and construction of novel mechanical devices, detection and treatment of singularities, as well as computational methods for gear design. The results should be of interest for practicing and research engineers as well as Ph.D. students from the fields of mechanical and electrical engineering, computer science, and computer graphics.

This book constitutes the refereed proceedings of the 3rd International ICST Conference on IT Revolutions, held in Cordoba, Spain in March 2011. The 20 revised full papers presented were carefully reviewed and selected from numerous submissions. They are grouped in topical sections on eGreen energy, smart buildings, health and ambient assisted living, smart environments and user experience, grid and cloud computing, eLearning.

More than ten million people have downloaded BIRT (Business Intelligence and Reporting Tools) from the Eclipse web site, and more than one million developers are estimated to be using BIRT. Built on the open source Eclipse platform, BIRT is a powerful report development system that provides an end-to-end solution—from creating and deploying reports to integrating report capabilities in enterprise applications. ζ The first in a two-book series about this exciting technology, BIRT: A Field Guide to Reporting, Third Edition, is the authoritative guide to using BIRT Report Designer, the graphical tool that enables users of all levels to build reports, from simple to complex, without programming. ζ This book is an essential resource for users who want to create presentation-quality reports quickly. The extensive examples, step-by-step instructions, and abundant illustrations help new users develop report design skills. Power users can find the information they need to make the most of the product's rich set of features to build sophisticated and compelling reports. ζ Readers of this book learn how to Design effective corporate reports that convey complex business information using images, charts, tables, and cross tabs Build reports using data from multiple sources, including databases, spreadsheets, web services, and XML documents Enliven reports with interactive features, such as hyperlinks, tooltips, and highlighting Create reports using a consistent style, and, drawing on templates and libraries of reusable elements, collaborate with other report designers Localize reports for an international audience The third edition, newly revised, adds updated examples, contains close to 1,000 new and replacement screenshots, and covers all the new and improved product features, including Result-set sharing to create dashboard-style reports Data collation conforming to local conventions Using cube data in charts, new chart types, and functionality Displaying bidirectional text, used in right-to-left languages Numerous enhancements to cross tabs, page management, and report layout With a variety of interactive learning features and user-friendly pedagogy, the Third Edition provides a comprehensive introduction to programming using the most current version of Java. Throughout the text the authors incorporate an "active learning approach" which asks students to take an active role in their understanding of the language through the use of numerous interactive examples, exercises, and projects. Object-oriented programming concepts are developed progressively and reinforced through numerous Programming Activities, allowing students to fully understand and implement both basic and sophisticated techniques. In response to students growing interest in animation and visualization the text includes techniques for producing graphical output and animations beginning in Chapter 4 with applets and continuing throughout the text. You will find Java Illuminated, Third Edition comprehensive and user-friendly. Students will find it exciting to delve into the world of programming with hands-on, real-world applications!New to the Third Edition:-Includes NEW examples and projects throughout-Every NEW copy of the text includes a CD-ROM with the following: *programming activity framework code*full example code

from each chapter*browser-based modules with visual step-by-step demonstrations of code execution*links to popular integrated development environments and the Java Standard Edition JDK-Every new copy includes full student access to TuringsCraft Custom CodeLab. Customized to match the organization of this textbook, CodeLab provides over 300 short hands-on programming exercises with immediate feedback.Instructor Resources: Test Bank, PowerPoint Lecture Outlines, Solutions to Programming Activities in text, and Answers to the chapter exercisesAlso available:Java Illuminated: Brief Edition, Third Edition (ISBN-13: 978-1-4496-3202-1). This Brief Edition is suitable for the one-term introductory course.

Eclipse Rich Client PlatformAddison-Wesley Professional IBM® Content Navigator provides a unified user interface for your Enterprise Content Management (ECM) solutions. It also provides a robust development platform so you can build customized user interface and applications to deliver value and an intelligent, business-centric experience. This IBM Redbooks® publication guides you through the Content Navigator platform, its architecture, and the available programming interfaces. It describes how you can configure and customize the user interface with the administration tools provided, and how you can customize and extend Content Navigator using available development options with sample code. Specifically, the book shows how to set up a development environment, and develop plug-ins that add an action, service, and feature to the user interface. Customization topics include implementing request and response filters, external data services (EDS), creating custom step processors, and using Content Navigator widgets in other applications. This book also covers mobile development, viewer customization, component deployment, and debugging and troubleshooting. This book is intended for IT architects, application designers and developers working with IBM Content Navigator and IBM ECM products. It offers a high-level description of how to extend and customize IBM Content Navigator and also more technical details of how to do implementations with sample code.

Recent rapid globalisation of manufacturing industries leads to a drive and thirst for rapid advancements in technological development and expertise in the fields of advanced design and manufacturing, especially at their interfaces. This development results in many economical benefits to and improvement of quality of life for many people all over the world. Technically speaking, this rapid development also create many opportunities and challenges for both industrialists and academics, as the design requirements and constraints have completely changed in this global design and manufacture environment. Consequently the way to design, manufacture and realise products have changed as well. The days of designing for a local market and using local suppliers in manufacturing have gone, if enterprises aim to maintain their competitiveness and global expansion leading to further success. In this global context and scenario, both industry and the academia have an urgent need to

equip themselves with the latest knowledge, technology and methods developed for engineering design and manufacture. To address this shift in engineering design and manufacture, supported by the European Commission under the Asia Link Programme with a project title FASTAHEAD (A Framework Approach to Strengthening Asian Higher Education in Advanced Design and Manufacture), three key project partners, namely the University of Strathclyde of the United Kingdom, Northwestern Polytechnical University of China, and the Troyes University of Technology of France organised a third international conference. This book constitutes the refereed proceedings of the 42nd German Conference on Artificial Intelligence, KI 2019, held in Kassel, Germany, in September 2019. The 16 full and 10 short papers presented together with 3 extended abstracts in this volume were carefully reviewed and selected from 82 submissions. KI 2019 has a special focus theme on "AI methods for Argumentation" and especially invited contributions that use methods from all areas of AI to understand, formalize or generate argument structures in natural language.

Eclipse and the Rich Client Platform (RCP) together form a leading development platform. It provides a lightweight software component framework based on plug-ins. In addition to allowing Eclipse to be extended using other programming languages, it provides the key to the seamless integration of tools with Eclipse. The RCP gives Eclipse its modularity: Eclipse employs plug-ins in order to provide all of its functionality on top of (and including) the RCP, in contrast to some other applications where functionality is typically hard-coded. RCP apps are platform independent: they can be built for all major operating systems such as Windows, Linux, and Mac from a single code base. And the RCP provides a professional look and feel for applications. Practical Eclipse Rich Client Platform Projects is a clear and technical guide for Eclipse developers to help them enhance their knowledge and achieve their goals quickly. The book explains the technical concepts easily and in an engaging way. The text provides plenty of source code and images as learning aids. Several practical projects and case studies are included.

Google Android dominates the mobile market, and by targeting Android, your apps can run on most of the phones and tablets in the world. This new fourth edition of the #1 book for learning Android covers all modern Android versions from Android 4.1 through Android 5.0. Freshly added material covers new Android features such as Fragments and Google Play Services. Android is a platform you can't afford not to learn, and this book gets you started. Android is a software toolkit for mobile phones and tablets, created by Google. It's inside more than a billion devices, making Android the number one platform for application developers. Your own app could be running on all those devices! Getting started developing with Android is easy. You don't even need access to an Android phone, just a computer where you can install the Android SDK and the emulator that comes with it. Within minutes, Hello, Android gets you creating your first working application: Android's version of "Hello, World." From there, you'll build up a more substantial example: an Ultimate Tic-Tac-Toe game. By gradually adding features to the game, you'll learn about many aspects of Android programming, such as creating

animated user interfaces, playing music and sound effects, building location-based services (including GPS and cell-tower triangulation), and accessing web services. You'll also learn how to publish your applications to the Google Play Store. This fourth edition of the bestselling Android classic has been revised for Android 4.1-4.3 (Jelly Bean), 4.4 (KitKat), and Android 5.0 (Lollipop). Topics have been streamlined and simplified based on reader feedback, and every page and example has been reviewed and updated for compatibility with the latest versions of Android. If you'd rather be coding than reading about coding, this book is for you.

The NetBeans Platform is the world's only modular Swing application framework, used by very large organizations in mission-critical scenarios, such as at Boeing and Northrop Grumman, as well as in the financial sector and in the oil/gas industry. For these large customers in enterprises who are increasingly interested in Maven and OSGi, the book will have particular relevance. The Definitive Guide to NetBeans™ Platform 7 is a thorough and authoritative introduction to the open-source NetBeans Platform, covering all its major APIs in detail, with relevant code examples used throughout. Provides a completely updated definitive guide to the NetBeans Platform, using the latest APIs, coding patterns, and methodologies. Focuses strongly on business features in an application, since Oracle's customers are particularly interested in business-related aspects. For example, how to use OSGi, how to add authentication/security, how to monetize from a modular application. The original German book on which this title is based was well received. The NetBeans Platform Community has put together this English translation, which covers the latest NetBeans Platform 7 APIs. With an introduction by known NetBeans Platform experts Jaroslav Tulach and Tim Boudreau, this is the most up-to-date book on this topic at the moment. All NetBeans Platform developers will gain something from this book, because several topics in the book have not been documented anywhere else.

The Eclipse environment solves the problem of having to maintain your own Integrated Development Environment (IDE), which is time consuming and costly. Embedded tools can also be easily integrated into Eclipse. The C/C++ CDT is ideal for the embedded community with more than 70% of embedded developers using this language to write embedded code. Eclipse simplifies embedded system development and then eases its integration into larger platforms and frameworks. In this book, Doug Abbott examines Eclipse, an IDE, which can be vital in saving money and time in the design and development of an embedded system. Eclipse was created by IBM in 2001 and then became an open-source project in 2004. Since then it has become the de-facto IDE for embedded developers. Virtually all of the major Linux vendors have adopted this platform, including MontaVista, LynuxWorks, and Wind River. *Details the Eclipse Integrated Development Environment (IDE) essential to streamlining your embedded development process *Overview of the latest C/C++ Developer's Toolkit (CDT) *Includes case studies of Eclipse use including Monta Vista, LynuxWorks, and Wind River

The two-volume set LNCS 5592 and 5593 constitutes the refereed proceedings of the International Conference on Computational Science and Its Applications, ICCSA 2009, held in Seoul, Korea, in June/July, 2009. The two volumes contain papers presenting a wealth of original research results in the field of computational science, from foundational issues in computer science and mathematics to advanced applications in

virtually all sciences making use of computational techniques. The topics of the fully refereed papers are structured according to the five major conference themes: computational methods, algorithms and scientific applications, high performance technical computing and networks, advanced and emerging applications, as well as information systems and information technologies. Moreover, submissions from more than 20 workshops and technical sessions contribute to this publication. These cover topics such as geographical analysis, urban modeling, spatial statistics, wireless and ad hoc networking, logical, scientific and computational aspects of pulse phenomena in transitions, high-performance computing and information visualization, sensor network and its applications, molecular simulations structures and processes, collective evolutionary systems, software engineering processes and applications, molecular simulations structures and processes, internet communication security, security and privacy in pervasive computing environments, and mobile communications.

This book gives a detailed introduction into the Eclipse platform and covers all relevant aspects of Eclipse RCP development. Every topic in this book has a content section in which the topic is explained and afterwards you have several exercises to practice your learning. You will be guided through all relevant aspects of Eclipse 4 development using an comprehensive example which you continue to extend in the exercises. You will learn about the new programming concepts of Eclipse 4, e.g. the application model, dependency injection, CSS styling, the renderer framework, the event system and much more. Proven Eclipse technologies like SWT, JFace viewers, OSGi modularity and services, data binding, etc. are also covered in detail. This book requires a working knowledge of Java and assumes that you are familiar in using the Eclipse IDE for standard Java development. It assumes no previous experience of Eclipse plug-in and Eclipse RCP development.

Flexible Rails is a unique, application-based guide for using Ruby on Rails 2 and Adobe Flex 3 to build rich Internet applications (RIAs). It is not an exhaustive Ruby on Rails or Flex reference. Instead, it is an extensive tutorial in which the reader builds multiple iterations of an interesting RIA using Flex and Rails together. Author Peter Armstrong walks readers through eleven iterations in which the sample application—pomodo—is variously built, refactored, debugged, sliced, diced and otherwise explored from every conceivable angle with respect to Ruby on Rails and Adobe Flex. The book unfolds both the application and the Flex-on-Rails approach side-by-side. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

Eclipse Rich Ajax Platform (RAP) is an innovative toolkit for developing applications that will run as rich clients as well as web applications. Eclipse Rich Ajax Platform is the first book on the new Eclipse RAP, and it introduces the required RCP and OSG/i concepts used by Eclipse RAP. This firstPress title demonstrates the functionality and benefits of Eclipse RAP as well as shows the sweet spots of RAP, especially focusing on single sourcing RCP and web applications, which can be a huge cost saver. This book also covers possible issues that might prevent you from successfully deploying RAP. Describes Eclipse RAP concepts and its underlying technology Explains key features of RAP Shows case studies where RAP works and where it won't

Professional Java Native Interfaces takes a solutions-based approach in showing how SWT/JFace works, discussing each common component, providing useful, practical

ideas, tips and techniques to make the Java developers' work easier. The author provides relevant and timely examples, both stand-alone applications and smaller code snippets that readers can incorporate into their own code. To provide a truly real-world quality, the author builds an email/ftp client sample application to show readers how to combine everything into a presentable Java native UI application.

Dynamic Business Process Formation fuses practical needs with theoretical input to present important research innovations in supporting Instant Virtual Enterprises (IVEs). This new organization type brings a combination of business dynamism and explicit business process structure to domains where on-the-fly formation of well-organized business networks is required to deal with the complexity of new products or services under high time pressure. This book contains the main results of the IST CrossWork project, and, importantly, looks beyond the boundaries of this project and sources input from related projects and general trends in collaborative enterprises and the automotive industry. Both the business and technical aspects of Virtual Enterprise coordination are covered within the modular structure of the book, which enables readers from different backgrounds to benefit from the book according to their interests.

Eclipse has established itself as a dominant force in the application-development space. Key to the success of Eclipse is the ability of developers to extend its functionality using plug-ins. This new edition of Eclipse: Building Commercial-Quality Plug-ins is the definitive, start-to-finish guide to building commercial-quality Eclipse plug-ins, with an emphasis on adding the sophistication and polish that paying customers demand. The book provides both a quick introduction to using Eclipse for new users and a reference for experienced Eclipse users wishing to expand their knowledge and improve the quality of their Eclipse-based products. Revised to take advantage of pure Eclipse 3.1 and 3.2 APIs, this widely praised bestseller presents detailed, practical coverage of every aspect of plug-in development and specific solutions for the challenges developers are most likely to encounter. All code examples, relevant API listings, diagrams, and screen captures have been updated. Some Eclipse concepts--such as actions, views, and editors--have not changed radically, but now have additional functionality and capabilities. Other areas, such as the Eclipse plug-in infrastructure, have changed drastically due to the Eclipse shift towards an OSGi-based infrastructure. This edition is fully updated to address these new advances for Eclipse developers. Includes a quick introduction to Eclipse for experienced Java programmers Serves as a systematic reference for experienced Eclipse users Introduces all the tools you need to build Eclipse and Rational plug-ins Explains the Eclipse architecture and the structure of plug-ins and extension points Offers practical guidance on building Eclipse user interfaces with SWT and JFace Shows how to use change tracking, perspectives, builders, markers, natures, and more Covers internationalization, help systems, features, and branding This book is designed for anyone who wants a deep understanding of Eclipse, and every experienced developer interested in extending Eclipse or the Rational Software Development Platform.

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.

Learn how to implement a DSL with Xtext and Xtend using easy-to-understand examples and best practices

About This Book Leverage the latest features of Xtext and Xtend to develop a domain-specific language. Integrate Xtext with popular third party IDEs and get the best out of both worlds. Discover how to test a DSL implementation and how to customize runtime and IDE aspects of the DSL

Who This Book Is For This book is targeted at programmers and developers who want to create a domain-specific language with Xtext. They should have a basic familiarity with Eclipse and its functionality. Previous experience with compiler implementation can be helpful but is not necessary since this book will explain all the development stages of a DSL.

What You Will Learn

- Write Xtext grammar for a DSL;
- Use Xtend as an alternative to Java to write cleaner, easier-to-read, and more maintainable code;
- Build your Xtext DSLs easily with Maven/Tycho and Gradle;
- Write a code generator and an interpreter for a DSL;
- Explore the Xtext scoping mechanism for symbol resolution;
- Test most aspects of the DSL implementation with JUnit;
- Understand best practices in DSL implementations with Xtext and Xtend;
- Develop your Xtext DSLs using Continuous Integration mechanisms;
- Use an Xtext editor in a web application

In Detail Xtext is an open source Eclipse framework for implementing domain-specific languages together with IDE functionalities. It lets you implement languages really quickly; most of all, it covers all aspects of a complete language infrastructure, including the parser, code generator, interpreter, and more. This book will enable you to implement Domain Specific Languages (DSL) efficiently, together with their IDE tooling, with Xtext and Xtend. Opening with brief coverage of Xtext features involved in DSL implementation, including integration in an IDE, the book will then introduce you to Xtend as this language will be used in all the examples throughout the book. You will then explore the typical programming development workflow with Xtext when we modify the grammar of the DSL. Further, the Xtend programming language (a fully-featured Java-like language tightly integrated with Java) will be introduced. We then explain the main concepts of Xtext, such as validation, code generation, and customizations of runtime and UI aspects. You will have learned how to test a DSL implemented in Xtext with JUnit and will progress to advanced concepts such as type checking and scoping. You will then integrate the typical Continuous Integration systems built in to Xtext DSLs and familiarize yourself with Xbase. By the end of the

book, you will manually maintain the EMF model for an Xtext DSL and will see how an Xtext DSL can also be used in IntelliJ. Style and approach A step-by step-tutorial with illustrative examples that will let you master using Xtext and implementing DSLs with its custom language, Xtend.

A Hands-On Guide to Equinox and the OSGi Framework In OSGi and Equinox: Creating Highly Modular Java™ Systems , three leading experts show developers—for the first time—exactly how to make the most of these breakthrough technologies for building highly modular dynamic systems. You'll quickly get started with Eclipse bundle tooling, create your first OSGi-based system, and move rapidly to sophisticated production development. Next, you'll master best practices and techniques for creating systems with exceptional modularity and maintainability. You'll learn all about OSGi's Declarative Services and how to use them to solve a wide variety of real-world problems. Finally, you'll see everything that you've learned implemented in a complete case study project that takes you from early prototype through application delivery. For every Eclipse developer, regardless of previous experience, this book Combines a complete hands-on tutorial, online sample code at every step, and deep technical dives for working developers Covers the OSGi programming model, component development, OSGi services, Eclipse bundle tooling, server-side Equinox, and much more Offers knowledge, guidance, and best practices for overcoming the complexities of building modular systems Addresses practical issues ranging from integrating third-party code libraries to server-side programming Includes a comprehensive case study that goes beyond prototyping to deliver a fully refined and refactored production system Whatever your application, industry, or problem domain, if you want to build state-of-the-art software systems with OSGi and Equinox, you will find this book to be an essential resource.

SYNER-G, a multidisciplinary effort funded by the European Union, allowed the development of an innovative methodological framework for the assessment of physical as well as socio-economic seismic vulnerability and risk at urban and regional level. The results of SYNER-G are presented in two books both published by Springer, the present and a second one, entitled "SYNER-G: Typology Definition and Fragility Functions for Physical Elements at Seismic Risk: Buildings, Lifelines, Transportation Networks and Critical Facilities"(*), which provides a comprehensive state-of-the-art of the fragility curves, an alternative way to express physical vulnerability of elements at risk. In this second volume of SYNER-G, the focus has been on presenting a unified holistic methodology for assessing vulnerability at systems level considering interactions between elements at risk (physical and non-physical) and between different systems. The proposed methodology and tool encompasses in an integrated fashion all aspects in the chain, from hazard to the vulnerability assessment of components and systems and to the socio-economic impacts of an earthquake, accounting for most relevant uncertainties within an efficient quantitative simulation scheme. It systematically integrates the most advanced fragility functions to assess the vulnerability of physical assets for buildings, utility systems, transportation networks and complex infrastructures such as harbours and hospitals. The increasing impact due to interactions between different components and systems is treated in a comprehensive way, providing specifications for each network and infrastructure. The proposed socio-economic model integrates social vulnerability into the physical systems modelling approaches providing to decision makers with a dynamic platform to capture post disaster emergency issues like shelter demand and health impact decisions. Application examples at city and regional scale have provided the necessary validation of the methodology and are also included in the book. The present volume, with its companion volume on fragility functions, represent a significant step forward in the seismic vulnerability and risk assessment of complex interacting urban and regional systems and infrastructures. These volumes are not only of interest to scientists and engineers but also to the insurance industry, decision makers and practitioners in the sector of civil protection and seismic risk

management. (*) Ptilakis K, Crowley E, Kaynia A (eds) (2014) SYNER-G: Typology definition and fragility functions for physical elements at seismic risk, Series: Geotechnical, Geological and Earthquake Engineering 27, ISBN 978-94-007-7872-6, Springer Science+Business Media, Dordrecht.

Pro NetBeans IDE 6 Rich Client Platform Edition is the second Apress book to cover the agile, open source NetBeans IDE platform. The book focuses on the new features of NetBeans 6 as well as what has changed since NetBeans 5.5, empowering you to be a more effective and productive developer. Enables you to click and use any of the Java Swing and other desktop Java graphical user interface (GUI) APIs available in Java SE 6 or prior Covers working with rich client platform features available in NetBeans for building web-based application front ends Shows you the web-tier development plug-ins available including JSF, Struts Action Framework 2.0, and JRuby for bringing the Ruby on Rails feature set to Java via NetBeans For building back-end, server-side Java applications, pick up Pro NetBeans IDE 5.5 Enterprise Edition, which is based on APIs found in the Java EE 5. What you'll learn Easily install and set up your NetBeans IDE platform environment, and organize your projects Use the NetBeans source editor, code compiler, refactoring, software development, profiler, collaboration, database, and debugger tools Develop your Java Swing application for your desktop from start to finish Deploy your Java Swing or other GUI application using Java Web Start features embedded in NetBeans Build rich client applications using NetBeans plug-in module tools/features from start to finish Extend your NetBeans IDE wish list to building Struts 2 and even JRuby (Ruby on Rails) based Java web application front ends Who this book is for Intended for Java developers of varying skill who may or may not be familiar with NetBeans IDE or Java IDEs in general.

This book constitutes the refereed proceedings of the First International Conference on Computer Science, Engineering and Information Technology, CCSEIT 2011, held in Tirunelveli, India, in September 2011. The 73 revised full papers were carefully reviewed and selected from more than 400 initial submissions. The papers feature significant contributions to all major fields of the Computer Science and Information Technology in theoretical and practical aspects.

Java programmers know how finicky Java can be to work with. An omitted semi-colon or the slightest typo will cause the Java command-line compiler to spew pages of annoying error messages across your screen. And it doesn't fix them--that's up to you: fix them, compile again, and hope that nothing goes wrong this time. Eclipse, the popular Java integrated development environment (IDE) provides an elegant and powerful remedy for this common, frustrating scenario. It doesn't just catch your errors before you compile, it also suggests solutions. All you need to do is point and click. And it's free--what could be better? Still, if you're like most programmers, mastering a new technology--no matter how productive it will make you in the long run--is going to take a chunk out of your productivity now. You want to get up to speed quickly without sacrificing efficiency. O'Reilly's new guide to the technology, Eclipse, provides exactly what you're looking for: a fast-track approach to mastery of Eclipse. This insightful, hands-on book delivers clear and concise coverage, with no fluff, that gets down to business immediately. The book is tightly focused, covering all aspects of Eclipse: the menus, preferences, views, perspectives, editors, team and debugging techniques, and how they're used every day by thousands of developers. Development of practical skills is emphasized with dozens of examples presented throughout the book. From cover-to-cover, the book is pure Eclipse, covering hundreds of techniques beginning with the most basic Java development through creating your own plug-in editors for the Eclipse

environment. Some of the topics you'll learn about include: Using Eclipse to develop Java code Testing and debugging Working in teams using CVS Building Eclipse projects using Ant The Standard Widget Toolkit (SWT) Web development Developing Struts applications with Eclipse From basics to advanced topics, Eclipse takes you through the fundamentals of Eclipse and more. You may be an Eclipse novice when you pick up the book, but you'll be a pro by the time you've finished.

The open source JavaFX platform offers a Java-based approach to rich Internet application (RIA) development—an alternative to Adobe Flash/Flex and Microsoft Silverlight. At over 100 million downloads, JavaFX is poised to be a significant player. Written by a JavaFX engineer and developer, this book is one of the first on the JavaFX platform to give you the following: The fundamentals of JavaFX scripting on desktop and mobile platforms Examples of RIAs using JavaFX Graphics Media and animation using JavaFX See how JavaFX gives you dynamic Java effects in your RIA development.

The Definitive Guide to Eclipse Rich Client Development In Eclipse Rich Client Platform, Second Edition, three Eclipse Rich Client Platform (RCP) project leaders show how to use Eclipse 3.5 (“Galileo”) to rapidly deliver cross-platform applications with rich, native-feel GUIs. The authors fully reveal the power of Eclipse as a desktop application development platform; introduce important new improvements in Eclipse 3.5; and walk through developing a full-featured, branded RCP application for Windows, Linux, Mac, and other platforms—including handheld devices and kiosks. Drawing on their extensive experience, the authors cover building, refining, and refactoring prototypes; customizing user interfaces; adding help and software management features; and building, branding, testing, and shipping finished software. They demonstrate current best practices for developing modular and dynamically extensible systems, using third-party code libraries, packaging applications for diverse environments, and much more. For Java programmers at all levels of experience, this book Introduces important new RCP features such as p2, Commands, and Databinding Thoroughly covers key RCP-related technologies such as Equinox, SWT, JFace, and OSGi Shows how to effectively brand and customize RCP application look-and-feel Walks through user interface testing for RCP applications with SWTBot Illuminates key similarities and differences between RCP and conventional plug-in development Hands-on, pragmatic, and comprehensive, this book offers all the real-world, nontrivial code examples working developers need—as well as “deep dives” into key technical areas that are essential to your success.

Pervasive healthcare is an emerging research discipline, focusing on the development and application of pervasive and ubiquitous computing technology for healthcare and wellness. Pervasive healthcare seeks to respond to a variety of pressures on healthcare systems, including the increased incidence of life-style related and chronic diseases, emerging consumerism in healthcare, need for empowering patients and relatives for self-care and management of their health, and need to provide seamless access for healthcare services, independent of time and place. Pervasive healthcare may be defined from two perspectives. First, it is the development and application of pervasive computing (or ubiquitous computing, ambient intelligence) technologies for healthcare, health and wellness management. Second, it seeks to make healthcare available to anyone, anytime, and anywhere by removing locational, time and other

restraints while increasing both the coverage and quality of healthcare. This book proposes to define the emerging area of pervasive health and introduce key management principles, most especially knowledge management, its tools, techniques and technologies. In addition, the book takes a socio-technical, patient-centric approach which serves to emphasize the importance of a key triumvirate in healthcare management namely, the focus on people, process and technology. Last but not least the book discusses in detail a specific example of pervasive health, namely the potential use of a wireless technology solution in the monitoring of diabetic patients. The two-volume set LNCS 9952 and LNCS 9953 constitutes the refereed proceedings of the 7th International Symposium on Leveraging Applications of Formal Methods, Verification and Validation, ISoLA 2016, held in Imperial, Corfu, Greece, in October 2016. The papers presented in this volume were carefully reviewed and selected for inclusion in the proceedings. Featuring a track introduction to each section, the papers are organized in topical sections named: statistical model checking; evaluation and reproducibility of program analysis and verification; ModSyn-PP: modular synthesis of programs and processes; semantic heterogeneity in the formal development of complex systems; static and runtime verification: competitors or friends?; rigorous engineering of collective adaptive systems; correctness-by-construction and post-hoc verification: friends or foes?; privacy and security issues in information systems; towards a unified view of modeling and programming; formal methods and safety certification: challenges in the railways domain; RVE: runtime verification and enforcement, the (industrial) application perspective; variability modeling for scalable software evolution; detecting and understanding software doping; learning systems: machine-learning in software products and learning-based analysis of software systems; testing the internet of things; doctoral symposium; industrial track; RERS challenge; and STRESS. The official concise reference to Frequently Asked Questions about the Eclipse development environment.

Presents instructions for creating Android applications for mobile devices using Java.

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