

UML 2 0 In A Nutshell (In A Nutshell (O'Reilly))

The complexity of most real-time and embedded systems often exceeds that of other types of systems since, in addition to the usual spectrum of problems inherent in software, they need to deal with the complexities of the physical world. That world—as the proverbial Mr. Murphy tells us—is an unpredictable and often unfriendly place. Consequently, there is a very strong motivation to investigate and apply advanced design methods and technologies that could simplify and improve the reliability of real-time software design and implementation. As a result, from the first versions of UML issued in the mid 1990’s, designers of embedded and real-time systems have taken to UML with vigour and enthusiasm. However, the dream of a complete, model-driven design flow from specification through automated, optimised code generation, has been difficult to realise without some key improvements in UML semantics and syntax, specifically targeted to the real-time systems problem. With the enhancements in UML that have been proposed and are near standardisation with UML 2. 0, many of these improvements have been made. In the Spring of 2003, adoption of a formalised UML 2. 0 specification by the members of the Object Management Group (OMG) seems very close. It is therefore very appropriate to review the status of UML as a set of notations for embedded real-time systems - both the state of the art and best practices achieved up to this time with UML of previous generations - and where the changes embodied in the 2.

Covering the breadth of a large topic, this book provides a thorough grounding in object-oriented concepts, the software development process, UML and multi-tier technologies. After covering some basic ground work underpinning OO software projects, the book follows the steps of a typical development project (Requirements Capture - Design - Specification & Test), showing how an abstract problem is taken through to a concrete solution. The book is programming language agnostic - so code is kept to a minimum to avoid detail and deviation into implementation minutiae. A single case study running through the text provides a realistic example showing development from an initial proposal through to a finished system. Key artifacts such as the requirements document and detailed designs are included. For each aspect of the case study, there is an exercise for the reader to produce similar documents for a different system.

Object-oriented analysis and design (OOAD) has over the years, become a vast field, encompassing such diverse topics as design process and principles, documentation tools, refactoring, and design and architectural patterns. For most students the learning experience is incomplete without implementation. This new textbook provides a comprehensive introduction to OOAD. The salient points of its coverage are:

- A sound footing on object-oriented concepts such as classes, objects, interfaces, inheritance, polymorphism, dynamic linking, etc.
- A good introduction to the stage of requirements analysis.
- Use of UML to document user requirements and design.
- An extensive treatment of the design process.
- Coverage of implementation issues.
- Appropriate use of design and architectural patterns.
- Introduction to the art and craft of refactoring.
- Pointers to resources that further the reader’s knowledge.

All the main case-studies used for this book have been implemented by the authors using Java. The text is liberally peppered with snippets of code, which are short and fairly self-explanatory and easy to read. Familiarity with a Java-like syntax and a broad understanding of the structure of Java would be helpful in using the book to its full potential.

This comprehensive guide has been fully revised to cover UML 2.0, today’s standard method for modelling software systems. Filled with concise information, it’s been crafted to help IT professionals read, create, and understand system artefacts expressed using UML. Includes an example-rich tutorial for those who need familiarizing with the system.

Learning UML 2.0

Modeling with UML

Verification and Validation for Quality of UML 2.0 Models

International School on Formal Methods for the Design of Computer, Communication, and Software Systems, SFM-RT 2004. Revised Lectures

User Stories Applied

UML Bible

This practical new book provides much-needed, practical, hands-on experience capturing analysis and design in UML. It holds the hands of engineers making the difficult leap from developing in C to the higher-level and more robust Unified Modeling Language, thereby supporting professional development for engineers looking to broaden their skill-sets in order to become more saleable in the job market. It provides a laboratory environment through a series of progressively more complex exercises that act as building blocks, illustrating the various aspects of UML and its application to real-time and embedded systems. With its focus on gaining proficiency, it goes a significant step beyond basic UML overviews, providing both comprehensive methodology and the best level of supporting exercises available on the market. Each exercise has a matching solution which is thoroughly explained step-by-step in the back of the book. The techniques used to solve these problems come from the author’s decades of experience designing and constructing real-time systems. After the exercises have been successfully completed, the book will act as a desk reference for engineers, reminding them of how many of the problems they face in their designs can be solved. Tutorial style text with keen focus on in-depth presentation and solution of real-world example problems Highly popular, respected and experienced author

Uses friendly, easy-to-understand For Dummies style to help readers learn to model systems with the latest version of UML, the modeling language used by companies throughout the world to develop blueprints for complex computer systems Guides programmers, architects, and business analysts through applying UML to design large, complex enterprise applications that enable scalability, security, and robust execution Illustrates concepts with mini-cases from different business domains and provides practical advice and examples Covers critical topics for users of UML, including object modeling, case modeling, advanced dynamic and functional modeling, and component and deployment modeling

The popular Unified Modeling Language (UML) is both a language and notation developed by the Object Management Group (OMG) used to design and create specifications for software systems. With the recent release of version 2.0 UML, the OMG has started the OMG-Certified UML Professional Program to provide an objective measure of UML knowledge. As a certified UML professional a developer has an important credential to present to employers and clients. Certification also benefits companies looking for skilled UML practitioners by giving them a basis for making hiring and promotion decisions. UML 2 Certification Guide is the only official study guide to passing the new UML exams. This book systematically covers all of the topics covered in the exams, and has been carefully reviewed by the OMG. The book begins by assuming only a basic knowledge of UML and then progresses far enough to allow a reader to pass both the fundamental and the intermediate level exams. Along the way the book also covers topics that are not in introductory books on UML but that are necessary to pass the exams. Tim Weilkiens is considered one of the top ten experts on UML, and both authors have extensive experience training developers to successfully take the exams. The official certification resource Assumes a basic knowledge of UML so that you can focus immediately on the exams Written by two authors known for their skill as trainers, consultants, and developers Developed systematically to enable you to master all exam topics—without exception Covers the use of UML for applications, as required by the exams, both inside and outside of the realm of software development Includes a practice exam, glossary, list of books, and website information

With its clear introduction to the Unified Modeling Language (UML) 2.0, this tutorial offers a solid understanding of each topic, covering foundational concepts of object-orientation and an introduction to each of the UML diagram types.

UML for Real

UML 2 For Dummies

Language, Concepts, Methods

An Introduction to Object-Oriented Modeling

UML 2. 0 in Action

Real Time UML Workshop for Embedded Systems

With a new name and a new focus on CORBA, database drivers, and Microsoft Back Office applications, Inprise/Borland Delphi is enjoying a resurgence, with a growing user base of programmers who use Delphi for rapid development of enterprise computing applications. Not to rest on success, the latest version of Delphi, Version 5, includes further expansion and refinement of the 3-tier application framework introduced in Delphi 4 and has resulted in a prize-winning product. Delphi in a Nutshell is the first concise reference to Borland/Inprise Delphi available. It succinctly collects all the information you need in one easy-to-use, complete, and accurate volume that goes beyond the product documentation itself. Delphi in a Nutshell starts with the Delphi object model and how to use RTTI (Run Time Type Information) for efficient programming. The rest of the book is the most complete Delphi Pascal language reference available in print, detailing every language element with complete syntax, examples, and methods for use. The book concludes with a look at the compiler, discussing compiler directives in depth.

This book presents the revised versions of nine invited lectures presented by leading researchers at the fourth edition of the International School on Formal Methods for the Design of Computer, Communication, and Software Systems, SFT 2004, held in Bertinoro, Italy, September 2004. SFM 2004 is devoted to real-time systems. The lectures presented cover formal models and languages for the specification, modeling, analysis, and verification of time-critical systems, the expressiveness of such models and languages, as well as supporting tools and related applications in different domains. The book offers a unique and comprehensive state-of-the-art survey on real-time systems. Researchers and advanced students will appreciate the book as a valuable source of reference and a systematic guide to the use of formal methods for the specification, analysis, and verification of real-time systems.

A practical guide to the OCL (part of the UML 1.1 standard of the OMG), this title is designed for software architects, designers, and developers. The authors' pragmatic approach and illustrative use of examples help application developers to quickly get up to speed with this important object modeling technique.

This book constitutes the thoroughly refereed post-proceedings of 11 international workshops held as satellite events of the 9th International Conference on Model Driven Engineering Languages and Systems, MoDELS 2006, in Genoa, Italy, in October 2006 (see LNCS 4199). The 32 revised full papers were carefully selected for inclusion in the book. They are presented along with a doctoral and an educators' symposium section.

Use Case Driven Object Modeling with UML Theory and Practice

Understanding System Development with UML 2.0

Fast Track UML 2.0

Object-Oriented Analysis and Design

The Art of Modeling Software Systems Demonstrated through Worked Examples and Solutions

The Unified Modelling Language Reference Manual

"This book manages to convey the practical use of UML 2 in clear and understandable terms with many examples and guidelines. Even for people not working with the Unified Process, the book is still of great use. UML 2 and the Unified Process, Second Edition is a must-read for every UML 2 beginner and a helpful guide and reference for the experienced practitioner." --Roland Leibundgut, Technical Director, Zuehlke Engineering Ltd. "This book is a good starting point for organizations and individuals who are adopting UP and need to understand how to provide visualization of the different aspects needed to satisfy it." --Eric Naiburg, Market Manager, Desktop Products, IBM Rational Software This thoroughly revised edition provides an indispensable and practical guide to the complex process of object-oriented analysis and design using UML 2. It describes how the process of OO analysis and design fits into the software development lifecycle as defined by the Unified Process (UP). UML 2 and the Unified Process contains a wealth of practical, powerful, and useful techniques that you can apply immediately. As you progress through the text, you will learn OO analysis and design techniques, UML syntax and semantics, and the relevant aspects of the UP. The book provides you with an accurate and succinct summary of both UML and UP from the point of view of the OO analyst and designer. This book provides Chapter roadmaps, detailed diagrams, and margin notes allowing you to focus on your needs Outline summaries for each chapter, making it ideal for revision, and a comprehensive index that can be used as a reference New to this edition: Completely revised and updated for UML 2 syntax Easy to understand explanations of the new UML 2 semantics More real-world examples A new section on the Object Constraint Language (OCL) Introductory material on the OMG's Model Driven Architecture (MDA) The accompanying website provides A complete example of a simple e-commerce system Open source tools for requirements engineering and use case modeling Industrial-strength UML course materials based on the book

Concise and easy-to-understand guidelines and standards for creating UML 2.0 diagrams.

* Examples are easy to understand; diagrams aren't overly busy. * Written in user-friendly style author is known for. * Condensed, distilled presentation of the UML Superstructure document will get you up to speed with UML 2.0.

For nearly ten years, the Unified Modeling Language (UML) has been the industry standard for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system. As the de facto standard modeling language, the UML facilitates communication and reduces confusion among project stakeholders. The recent standardization of UML 2.0 has further extended the language's scope and viability. Its inherent expressiveness allows users to model everything from enterprise information systems and distributed Web-based applications to real-time embedded systems. In this eagerly anticipated revision of the best-selling and definitive guide to the use of the UML, the creators of the language provide a tutorial to its core aspects in a two-color format designed to facilitate learning. Starting with an overview of the UML, the book explains the language gradually by introducing a few concepts and notations in each chapter. It also illustrates the application of the UML to complex modeling problems across a variety of application domains. The in-depth coverage and example-driven approach that made the first edition of The Unified Modeling Language User Guide an indispensable resource remain unchanged. However, content has been thoroughly updated to reflect changes to notation and usage required by UML 2.0. Highlights include: A new chapter on components and internal structure, including significant new capabilities for building encapsulated designs New details and updated coverage of provided and required interfaces, collaborations, and UML profiles Additions and changes to discussions of sequence diagrams, activity diagrams, and more Coverage of many other changes introduced by the UML 2.0 specification With this essential guide, you will quickly get up to speed on the latest features of the industry standard modeling language and be able to apply them to your next software project.

Sams Teach Yourself UML in 24 Hours

For Agile Software Development

The Unified Modeling Language Reference Manual

Fundamental and Intermediate Exams

Delphi in a Nutshell

UML 2 Certification Guide

A detailed and practical book and eBook walk-through showing how to apply UML to real world development projects

System developers have used modeling languages for decades to specify, visualize, construct, and document systems. The Unified Modeling Language (UML) is one of those languages. UML makes it possible for team members to collaborate by providing a common language that applies to a multitude of different systems. Essentially, it enables you to communicate solutions in a consistent, tool-supported language. Today, UML has become the standard method for modeling software systems, which means you're probably confronting this rich and expressive language more than ever before. And even though you may not write UML diagrams yourself, you'll still need to interpret diagrams written by others. UML 2.0 in a Nutshell from O'Reilly feels your pain. It's been crafted for professionals like you who must read, create, and understand system artifacts expressed using UML. Furthermore, it's been fully revised to cover version 2.0 of the language. This comprehensive new edition not only provides a quick-reference to all UML 2.0 diagram types, it also explains key concepts in a way that appeals to readers already familiar with UML or object-oriented programming concepts. Topics include: The role and value of UML in projects The object-oriented paradigm and its relation to the UML An integrated approach to UML diagrams Class and Object, Use Case, Sequence, Collaboration, Statechart, Activity, Component, and Deployment Diagrams Extension Mechanisms The Object Constraint Language (OCL) If you're new to UML, a tutorial with realistic examples has even been included to help you quickly familiarize yourself with the system.

UML is an industry standard specification for modelling, visualizing, and documenting software projects. This title covers all aspects of the UML including the use of the UML, diagramming notation, the object constraint language (OCL), and profiles.

UML, the Universal Modeling Language, was the first programming language designed to fulfill the requirement for "universality." However, it is a software-specific language, and does not support the needs of engineers designing from the broader systems-based perspective. Therefore, SysML was created. It has been steadily gaining popularity, and many companies, especially in the heavily-regulated Defense, Automotive, Aerospace, Medical Device and Telecomms industries, are already using SysML, or are planning to switch over to it in the near future. However, little information is currently available on the market regarding SysML. Its use is just on the crest of becoming a widespread phenomenon, and so thousands of software engineers are now beginning to look for training and resources. This book will serve as the one-stop, definitive guide that provide an introduction to SysML, and instruction on how to implement it, for all these new users. *SysML is the latest emerging programming language--250,000 estimated software systems engineers are using it in the US alone! *The first available book on SysML in English *Insider information! The author is a member of the SysML working group and has written sections of the specification *Special focus comparing SysML and UML, and explaining how both can work together

Systems Engineering with SysML/UML

The Application Developer's Guide to Object-Orientation and the UML

A Project-based Tutorial

Learning UML

UML 2.0 Pocket Reference

UML @ Classroom

This new book is the definitive primer for UML, and starts with the foundational concepts of object-orientation in order to provide the proper context for explaining UML.

The acclaimed beginner's book on object technology now presents UML 2.0, Agile Modeling, and the latest in object development techniques.

Learn UML, the Unified Modeling Language, to create diagrams describing the various aspects and uses of your application before you start coding, to ensure that you have everything covered. Millions of programmers in all languages have found UML to be an invaluable asset to their craft. More than 50,000 previous readers have learned UML with Sams Teach Yourself UML in 24 Hours. Expert author Joe Schmuller takes you through 24 step-by-step lessons designed to ensure your understanding of UML diagrams and syntax. This updated edition includes the new features of UML 2.0 designed to make UML an even better modeling tool for modern object-oriented and component-based programming. The CD-ROM includes an electronic version of the book, and Poseidon for UML, Community Edition 2.2, a popular UML modeling tool you can use with the lessons in this book to create UML diagrams immediately.

Offers comprehensive coverage of all major modeling viewpoints Provides details of collaboration and class diagrams for filling in the design-level models

Theory and Practice

The Object Constraint Language

A Practical Guide to Object-oriented Development

Pocket Reference

Models in Software Engineering

The Unified Modeling Language User Guide

Scott Ambler, author of Building Object Applications that Work, Process Patterns, and More Process Patterns, has revised his acclaimed first book, The Object Primer. Long prized in its original edition by both students and professionals as the best introduction to object-oriented technology, now this book is completely up-to-date with new material in every chapter. There are also new chapters on good OO programming techniques and OO software testing. All modeling notation has been rewritten in UML notation. Review questions at the end of each chapter allow readers to test their newly acquired knowledge. In addition, the author takes time to reflect on the lessons learned over the past few years by discussing the proven benefits and drawbacks of the technology. This is the perfect book for any software development professional or student seeking an introduction to the concepts and terminology of object technology.

The first of two UML works written by the creators of UML, this book introduces the core 80 percent of UML, approaching it in a layered fashion and providing numerous examples of its application.

"If you are a serious user of UML, there is no other book quite like this one. I have been involved with the UML specification process for some time, but I still found myself learning things while reading through this book-especially on the changes and new capabilities that have come with UML." -Ed Seidewitz, Chief Architect, IntelliData Technologies Corporation The latest version of the Unified Modeling Language-UML 2.0-has increased its capabilities as the standard notation for modeling software-intensive systems. Like most standards documents, however, the official UML specification is difficult to read and navigate. In addition, UML 2.0 is far more complex than previous versions, making a thorough reference book more essential than ever. In this significantly updated and expanded edition of the definitive reference to the standard, James Rumbaugh, Ivar Jacobson, and Grady Booch-the UML's creators-clearly and completely describe UML concepts, including major revisions to sequence diagrams, activity models, state machines, components, internal structure of

classes and components, and profiles. Whether you are capturing requirements, developing software architectures, designing implementations, or trying to understand existing systems, this is the book for you. Highlights include: Alphabetical dictionary of articles covering every UML concept Integrated summary of UML concepts by diagram type Two-color diagrams with extensive annotations in blue Thorough coverage of both semantics and notation, separated in each article for easy reference Further explanations of concepts whose meaning or purpose is obscure in the original specifications Discussion sections offering usage advice and additional insight into tricky concepts Notation summary, with references to individual articles An enhanced online index available on the book's web site allowing readers to quickly and easily search the entire text for specific topics The result is an indispensable resource for anyone who needs to understand the inner workings of the industry standard modeling language.

Thoroughly reviewed and eagerly anticipated by the agile community, *User Stories Applied* offers a requirements process that saves time, eliminates rework, and leads directly to better software. The best way to build software that meets users' needs is to begin with "user stories": simple, clear, brief descriptions of functionality that will be valuable to real users. In *User Stories Applied*, Mike Cohn provides you with a front-to-back blueprint for writing these user stories and weaving them into your development lifecycle. You'll learn what makes a great user story, and what makes a bad one. You'll discover practical ways to gather user stories, even when you can't speak with your users. Then, once you've compiled your user stories, Cohn shows how to organize them, prioritize them, and use them for planning, management, and testing. *User role modeling: understanding what users have in common, and where they differ* Gathering stories: user interviewing, questionnaires, observation, and workshops Working with managers, trainers, salespeople and other "proxies" Writing user stories for acceptance testing Using stories to prioritize, set schedules, and estimate release costs Includes end-of-chapter practice questions and exercises *User Stories Applied* will be invaluable to every software developer, tester, analyst, and manager working with any agile method: XP, Scrum... or even your own home-grown approach.

UML 2 and the Unified Process

Formal Methods for the Design of Real-Time Systems

A Desktop Quick Reference

Modeling, Analysis, Design

UML and C++

UML in Practice

This textbook mainly addresses beginners and readers with a basic knowledge of object-oriented programming languages like Java or C#, but with little or no modeling or software engineering experience - thus reflecting the majority of students in introductory courses at universities. Using UML, it introduces basic modeling concepts in a highly precise manner, while refraining from the interpretation of rare special cases. After a brief explanation of why modeling is an indispensable part of software development, the authors introduce the individual diagram types of UML (the class and object diagram, the sequence diagram, the state machine diagram, the activity diagram, and the use case diagram), as well as their interrelationships, in a step-by-step manner. The topics covered include not only the syntax and the semantics of the individual language elements, but also pragmatic aspects, i.e., how to use them wisely at various stages in the software development process. To this end, the work is complemented with examples that were carefully selected for their educational and illustrative value. Overall, the book provides a solid foundation and deeper understanding of the most important object-oriented modeling concepts and their application in software development. An additional website offers a complete set of slides to aid in teaching the contents of the book, exercises and further e-learning material.

More than 300,000 developers have benefited from past editions of UML Distilled . This third edition is the best resource for quick, no-nonsense insights into understanding and using UML 2.0 and prior versions of the UML. Some readers will want to quickly get up to speed with the UML 2.0 and learn the essentials of the UML. Others will use this book as a handy, quick reference to the most common parts of the UML. The author delivers on both of these promises in a short, concise, and focused presentation. This book describes all the major UML diagram types, what they're used for, and the basic notation involved in creating and deciphering them. These diagrams include class, sequence, object, package, deployment, use case, state machine, activity, communication, composite structure, component, interaction overview, and timing diagrams. The examples are clear and the explanations cut to the fundamental design logic. Includes a quick reference to the most useful parts of the UML notation and a useful summary of diagram types that were added to the UML 2.0. If you are like most developers, you don't have time to keep up with all the new innovations in software engineering. This new edition of Fowler's classic work gets you acquainted with some of the best thinking about efficient object-oriented software design using the UML--in a convenient format that will be essential to anyone who designs software professionally.

"Since its original introduction in 1997, the Unified Modeling Language has revolutionized software development. Every integrated software development environment in the world--open-source, standards-based, and proprietary--now supports UML and, more importantly, the model-driven approach to software development. This makes learning the newest UML standard, UML 2.0, critical for all software developers--and there isn't a better choice than this clear, step-by-step guide to learning the language." --Richard Mark Soley, Chairman and CEO, OMG If you're like most software developers, you're building systems that are increasingly complex. Whether you're creating a desktop application or an enterprise system, complexity is the big hairy monster you must manage. The Unified Modeling Language (UML) helps you manage this complexity.

Whether you're looking to use UML as a blueprint language, a sketch tool, or as a programming language, this book will give you the need-to-know information on how to apply UML to your project. While there are plenty of books available that describe UML, Learning UML 2.0 will show you how to use it. Topics covered include: Capturing your system's requirements in your model to help you ensure that your designs meet your users' needs Modeling the parts of your system and their relationships Modeling how the parts of your system work together to meet your system's requirements Modeling how your system moves into the real world, capturing how your system will be deployed Engaging and accessible, this book shows you how to use UML to craft and communicate your project's design. Russ Miles and Kim Hamilton have written a pragmatic introduction to UML based on hard-earned practice, not theory. Regardless of the software process or methodology you use, this book is the one source you need to get up and running with UML 2.0. Russ Miles is a software engineer for General Dynamics UK, where he works with Java and Distributed Systems, although his passion at the moment is Aspect Orientation and, in particular, AspectJ. Kim Hamilton is a senior software engineer at Northrop Grumman, where she's designed and implemented a variety of systems including web applications and distributed systems, with frequent detours into algorithms development. This book presents the analysis, design, documentation, and quality of software solutions based on the OMG UML v2.5. Notably it covers 14 different modelling constructs including use case diagrams, activity diagrams, business-level class diagrams, corresponding interaction diagrams and state machine diagrams. It presents the use of UML in creating a Model of the Problem Space (MOPS), Model of the Solution Space (MOSS) and Model of the Architectural Space (MOAS). The book touches important areas of contemporary software engineering ranging from how a software engineer needs to invariably work in an Agile development environment through to the techniques to model a Cloud-based solution.

APPLYING UML & PATTERNS 3RD EDITION

UML Distilled

Software Engineering with UML

A Brief Guide to the Standard Object Modeling Language

Design of Embedded Real-Time Systems

UML 2.0 in a Nutshell

A practical approach to enhancing quality in software models usingUML Version 2.0 "Despite its increasing usage, many companies are not taking thebest advantage of UML and, occasionally, individuals haveexperienced frustration in applying its standards. Perhaps this isbecause they have not yet read this book!" -From the Foreword by Prof. Brian Henderson-Sellers This book presents a practical checklist approach to enhancing thequality of software models created with the Unified ModelingLanguage (UML) Version 2.0. The foundation for quality is set bythe discussion on the nature and creation of UML models. This isfollowed by a demonstration of how to apply verification andvalidation checks to these models with three foci: syntacticalcorrectness, semantic meaningfulness, and aesthetic symmetry. Thequality work is carried out within three distinct yet relatedmodeling spaces: * Model of problem space (MOPS) * Model of solution space (MOSS) * Model of background space (MOBS) Readers can then choose a specific quality approach according totheir roles in their projects. Verification and validation checks are also organized according tothese three modeling spaces, making it easier for the reader tofocus on the appropriate diagrams and quality checks correspondingto their modeling space. In addition, a major element of thispublication is the Strengths, Weaknesses, Objectives, and Traps(SWOT) analysis. This analysis is performed on each UML diagram,enabling readers to fully comprehend these diagrams, theiradvantages and limitations, and the way in which they can be usedin practical projects for modeling. A consistent case study of the Lucky Insurance System is providedthroughout the chapters to illustrate the creation of good qualityUML diagrams, followed by application of quality checks to them.With its emphasis on quality in UML-based projects, this book is anessential resource for all quality professionals, including qualityanalysts, process consultants, quality managers, test designers,and testers.

This book presents a variant of UML that is especially suitable for agile development of high-quality software. It adjusts the language UML profile, called UML/P, for optimal assistance for the design, implementation, and agile evolution to facilitate its use especially in agile, yet model based development methods for data intensive or control driven systems. After a general introduction to UML and the choices made in the development of UML/P in Chapter 1, Chapter 2 includes a definition of the language elements of class diagrams and their forms of use as views and representations. Next, Chapter 3 introduces the design and semantic facets of the Object Constraint Language (OCL), which is conceptually improved and syntactically adjusted to Java for better comfort. Subsequently, Chapter 4 introduces object diagrams as an independent, exemplary notation in UML/P, and Chapter 5 offers a detailed introduction to UML/P Statecharts. Lastly, Chapter 6 presents a simplified form of sequence diagrams for exemplary descriptions of object interactions. For completeness, appendixes A–C describe the full syntax of UML/P, and appendix D explains a sample application from the E-commerce domain, which is used in all chapters. This book is ideal for introductory courses for students and practitioners alike.

Diagramming and process are important topics in today's software development world, as the UML diagramming language has come to be almost universally accepted. Yet process is necessary; by themselves, diagrams are of little use. Use Case Driven Object Modeling with UML - Theory and Practice combines the notation of UML with a lightweight but effective process - the ICONIX process - for designing and developing software systems. ICONIX has developed a growing following over the years. Sitting between the free-for-all of Extreme Programming and overly rigid processes such as RUP, ICONIX offers just enough structure to be successful.

This practical book by two industry leaders continues to be a self-teaching guide for software analysts and developers. This revised edition teaches readers how to actually "do" object-oriented modeling using UML notation as well as how to implement the model using C++. The authors introduce all of the basic object-oriented fundamentals necessary so readers can understand and apply the object-oriented paradigm. FEATURES Teaches readers to build an object-oriented application using C++ and make the right trade-off decisions to meet business needs. Exposes a number of the myths surround object-oriented technology while focusing on its practicality as a software engineering tool. Gives readers a "recipe or step-by-step guide to do all of the steps of object-oriented technology. Provides a practical approach to analysis, design, and programming in the object-oriented technology. NEW TO THE SECOND EDITION Gives a practical approach for the development of use cases as part of object-oriented analysis. Provides greater coverage of UML diagramming. Introduces key C++ libraries that provide important functionality, supporting implementation of an object-oriented model in C++. Improved coverage of dynamic behavior modeling, implementation of the state model, and class projects.

Workshops and Symposia at MoDELS 2006, Genoa, Italy, October 1-6, 2006, Reports and Revised Selected Papers

A Pragmatic Introduction to UML

Precise Modeling with UML

The Object Primer

Practical Object-Oriented Analysis and Design

Agile Model-Driven Development with UML 2.0

Larman covers how to investigate requirements, create solutions and then translate designs into code, showing developers how to make practical use of the most significant recent developments. A summary of UML notation is included Globe-trotting travelers have long resorted to handy, pocket-size dictionaries as an aid to communicating across the language barrier. Dan Pilone's UML 2.0 Pocket Reference is just such an aid for on-the-go developers who need to converse in the Unified Modeling Language (UML). Use this book to decipher the many UML diagrams you'll encounter on the path to delivering a modern software system. Updated to cover the very latest in UML, you'll find coverage of the following UML 2.0 diagram types: Class diagrams Component diagrams* Sequence diagrams* Communication diagrams* Timing diagrams* Interaction Overview diagrams* Package diagrams* Deployment diagrams* Use case diagrams Composite structure diagrams* Activity diagrams* Statechart diagrams* * New or expanded coverage in this edition Also new in this edition is coverage of UML's Object Constraint Language (OCL). Using OCL, you can specify more narrowly the functionality described in a given diagram by recording limits that are the result of business rules and other factors. The UML 2.0 Pocket Reference travels well to meetings and fits nicely into your laptop bag. It's near impossible to memorize all aspects of UML, and with this book along, you won't have to.

The Elements of UML(TM) 2.0 Style