

The Unified Modeling Language Reference Manual Paperback Addison Wesley Object Technology

Topological UML Modeling: An Improved Approach for Domain Modeling and Software Development presents a specification for Topological UML® that combines the formalism of the Topological Functioning Model (TFM) mathematical topology with a specified software analysis and design method. The analysis of problem domain and design of desired solutions within software development processes has a major impact on the achieved result of developed software. While there are many tools and different techniques to create detailed specifications of the solution, the proper analysis of problem domain functioning is ignored or covered insufficiently. The design of object-oriented software has been led for many years by the Unified Modeling Language (UML®), an approved industry standard modeling notation for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system, and this comprehensive book shines new light on the many advances in the field. Presents an approach to formally define, analyze, and verify functionality of existing processes and desired processes to track incomplete or incorrect functional requirements Describes the path from functional and nonfunctional requirements specification to software design with step-by-step creation and transformation of diagrams and models with very early capturing of security requirements for software systems. Defines all modeling constructs as extensions to UML®, thus creating a new UML® profile which can be implemented in existing UML® modeling tools and toolsets

This book contains a range of essays on topics in the emerging field of "constitutional political economy". This field of enquiry is strongly associated with the name of James M. Buchanan whose research program has been the point of departure for this field. The essays are a selection of those written by colleagues and researchers in the field to honor Buchanan on the occasion of his 80th birthday. They cover a wide range of topics but fall primarily into two sets: one set dealing with methodological aspects of the c.p.e. approach; the other dealing with specific applications in a variety of policy areas, ranging from 'economic transformation' to monetary policy regimes to health care. One particular issue in the methodological area relates to the model of motivation used - and more especially, the role of 'morality' in economic and political behavior. The five essays on this topic make up one of the sections of the book, and justify reference to the issue in the volume's title.

Do Unified Modeling Language rules make a reasonable demand on a users capabilities? How frequently do you track Unified Modeling Language measures? Does the Unified Modeling Language task fit the client's priorities? Who will be responsible for making the decisions to include or exclude requested changes once Unified Modeling Language is underway? What are your current levels and trends in key measures or indicators of Unified Modeling Language product and process performance that are important to and directly serve your customers? How do these results compare with the performance of your competitors and other organizations with similar offerings? Defining, designing, creating, and implementing a process to solve a business challenge is the most valuable role... In EVERY company, organization and department. Unless you are talking a one-time, single-use project within a business, there should be a process. Whether that process is managed and implemented by humans, AI, or a combination of the two, it needs to be designed by someone with a complex enough perspective to ask the right questions. Someone capable of asking the right questions and step back and say, "What are we really trying to accomplish here? And is there a different way to look at it?" For more than twenty years, The Art of Service's Self-Assessments empower people who can do just that - whether their title is marketer, entrepreneur, manager, salesperson, consultant, business process manager, executive assistant, IT Manager, CxO etc. - they are the people who rule the future. They are people who watch the process as it happens, and ask the right questions to make the process work better. This book is for managers, advisors, consultants, specialists, professionals and anyone interested in Unified Modeling Language assessment. All the tools you need to an in-depth Unified Modeling Language Self-Assessment. Featuring 691 new and updated case-based questions, organized into seven core areas of process design, this Self-Assessment will help you identify areas in which Unified Modeling Language improvements can be made. In using the questions you will be better able to: - diagnose Unified Modeling Language projects, initiatives, organizations, businesses and processes using accepted diagnostic standards and practices - implement evidence-based best practice strategies aligned with overall goals - integrate recent advances in Unified Modeling Language and process design strategies into practice according to best practice guidelines Using a Self-Assessment tool known as the Unified Modeling Language Scorecard, you will develop a clear picture of which Unified Modeling Language areas need attention. Included with your purchase of the book is the Unified Modeling Language Self-Assessment downloadable resource, which contains all questions and Self-Assessment areas of this book in a ready to use Excel dashboard, including the self-assessment, graphic insights, and project planning automation - all with examples to get you started with the assessment right away. Access instructions can be found in the book. You are free to use the Self-Assessment contents in your presentations and materials for customers without asking us - we are here to help.

"This book manages to cover 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 Nauburg, 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 Note 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

Logic, Language, and Analysis

Fowler
 Pattern-Oriented Software Architecture, On Patterns and Pattern Languages
 Advanced Methodologies and Technologies in Network Architecture, Mobile Computing, and Data Analytics
 Effective Practices for eXtreme Programming and the Unified Process

An Improved Approach for Domain Modeling and Software Development

More than 300,000 developers have benefited from past editions of UML Distilled. This third edition is the best resource for quick, non-nonsense insights into understanding and using UML 2.0 and prior versions 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.

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 Telecomm 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

The Unified Modeling Language is the new official OMG standard for object-oriented modeling languages. This volume contains papers presented during the 1st GROOM-workshop on the Unified Modeling Language (UML). GROOM (Grundlagen objektorientierter Modellierung) is a working group of the Gesellschaft für Informatik (GI), the German Society of Computer Science. The papers are presented in three chapters as follows: UML vs. other approaches - business process modeling and applications - technical aspects and concepts. Researchers and practitioners interested in object-oriented software development, analysis, and design of software systems, and standardization efforts in the field of object technology will benefit from this volume.

*Watch, listen, and learn as Grady Booch carefully describes key UML concepts with over 200 dynamic animated figures.*Cyber Classroom includes a fully-searchable electronic version of the classic The Unified Modeling Language User Guide, the full text of the UML specification documents, PLUS a UML dictionary with over 600 hyperlinked terms *Also includes a Video Introduction to the UML by Grady Booch, over 300 practice questions to test your knowledge, hyperlinking, full-text searching, and more BONUS: Second CD-ROM includes fully searchable electronic version of The Unified Modeling Language Reference Manual.The worlds most authoritative UML training CD-ROM Now you can learn UML from the original designers: Grady Booch, James Rumbaugh, and Ivar Jacobson This training course includes the UML Multimedia Cyber Classroom CD-ROM, plus Rumbaugh/Jacobson/Boochs masterful The Unified Modeling Language Reference Manual.UML Multimedia Cyber Classroom CD-ROM*Over 300 practice questions to test your knowledge *200+ multimedia UML diagrams animate every key UML concept.*Expert insight straight from the original designers of UML applications *Find it fast CD-ROM includes fully-searchable copy of The Unified Modeling Language User Guide100% COMPREHENSIVE, 100% AUTHORITATIVE an expert UML modeler, including concepts, syntax, modeling techniques, and more. *Modeling: Fundamental principles and rationale*UML: Overview, conceptual model, architecture & development lifecycle*Classes: Basic & Advanced*Relationships: Basic & Advanced*Common Mechanisms*Diagrams, Class Diagrams, and Object Diagrams*Interfaces, Types, & Roles*Packages & Instances*Interactions & Interaction Diagrams*Use Cases & Use Case Diagrams*Activity Diagrams*Events & Signals*State Machines*Processes & Threads*Time & Space*Statechart Diagrams*Architectural Modeling: Components, Deployment & Collaborations*Patterns & Frameworks*Systems & Models*Hundreds of terms and concepts defined in detail-by the object-oriented modeling experts who created them*Large collection of 2-color UML diagrams, extensively annotated*Expert insight into UML views designed to help you integrate UMLs key constructs into a unified whole*Detailed reference guides to the UML metamodel, notation, and standard extensions*Learn modeling hands on-then apply it to a series of increasingly complex, real-world problems Rational Software Corporation and one of the original designers of the UML:Technical requirements: Windows 95/98, Windows NT 4.x, Windows 2000Internet Explorer (Included)20 MB disk space32 MB RAMCD-ROM driveSound card support

Learning UML

Software Abstractions

Writing Effective Use Cases

The Road to the Unified Software Development Process

The Unified Modeling Language

4th International Conference, Toronto, Canada, October 1-5, 2001. Proceedings

The practice of enterprise application development has benefited from the emergence of many new enabling technologies. Multi-tiered object-oriented platforms, such as Java and .NET, have become commonplace. These new tools and technologies are capable of building powerful applications, but they are not easily implemented. Common failures in enterprise applications often occur because their developers do not understand the architectural lessons that experienced object developers have learned. Patterns of Enterprise Application Architecture is written in direct response to the stiff challenges that face enterprise application developers. The author, noted object-oriented designer Martin Fowler, noticed that despite changes in technology--from Smalltalk to CORBA to Java to .NET--the same basic design ideas can be adapted and applied to solve common problems. With the help of an expert group of contributors, Martin distills over forty recurring solutions into patterns. The result is an indispensable handbook of solutions that are applicable to any enterprise application platform. This book is actually two books in one. The first section is a short tutorial on developing enterprise applications, which you can read from start to finish to understand the scope of the book's lessons. The next section, the bulk of the book, is a detailed reference to the patterns themselves. Each pattern provides usage and implementation information, as well as detailed code examples in Java or C#. The entire book is also richly illustrated with UML diagrams to further explain the concepts. Armed with this book, you will have the knowledge necessary to make important architectural decisions about building an enterprise application and the proven patterns for use when building them. The topics covered include - Dividing an enterprise application into layers - The major approaches to organizing business logic - An in-depth treatment of mapping between objects and relational databases - Using Model-View-Controller to organize a Web presentation - Handling concurrency for data that spans multiple transactions - Designing distributed object interfaces

This book presents the collected writings of OMT guru Dr James Rumbaugh. These articles encompass the development, refinement, and current state of OMT. The first book to cover Agile Modeling, a new modeling techniquecreated specifically for XP projects eXtreme Programming (XP) hascreated a buzz in the software development community-much likeDesign Patterns did several years ago. Although XP presents amethodology for faster software development, many developers findthat XP does not allow for modeling time, which is critical because that a project meets its proposed requirements. They havealso found that standard modeling techniques that use the UnifiedModeling Language (UML) often do not work with this methodology. Inthi innovative book, Software Development columnist Scott Amblerpresents Agile Modeling (AM)-a technique that he created formodeling XP projects using pieces of the UML and Rational's UnifiedProcess (RUP). Ambler clearly explains AM, and shows readers how to incorporate AM, UML, and RUP into their development projects withthe help of numerous case studies integrated throughout the book. AM was created by the author for modeling XP projects-anelement lacking in the original XP design The XP community and its creator have embraced AM, which shouldgive this book strong market acceptance

Companion Web site at www.agilemodeling.com features updates.links to XP and AM resources, and ongoing case studies about agilemodeling. 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.

A Reference for the Rest of Us

UML 2.0 in a Nutshell
 A Practical Guide to SysML
 A Brief Guide to the Systems Modeling Language
 APPLYING UML & PATTERNS 3RD EDITION
 The Unified Modeling Language has become the industry standard for the expression of software designs. The Java programming language continues to grow in popularity as the language of choice for the serious application developer. Using UML and Java together would appear to be a natural marriage, one that can produce considerable benefit. However, there are nuances that the seasoned developer needs to keep in mind when using UML and Java together. Software expert Robert Martin presents a concise guide, with numerous examples, that will help the programmer leverage the power of both development concepts. The author ignores features of UML that do not apply to Java programmers, saving the reader time and effort. He provides direct guidance and points the reader to real-world usage scenarios. The overall practical approach of this book brings key information related to Java to the many presentations. The result is an highly practical guide to using the UML with Java.
 "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.

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.

Explore the fundamental concepts behind modern, object-oriented software design best practices. Learn how to work with UML to approach software development more efficiently.In this comprehensive book, instructor Károly Nystöczor helps to familiarize you with the fundamentals of object-oriented design and analysis. He introduces each concept using simple terms, avoiding confusing jargon. He focuses on the practical application, using hands-on examples you can use for reference and practice. Throughout the book, Károly walks you through several examples to familiarize yourself with software design and UML. Plus, he walks you through a case study to review all the steps of designing a real software system from start to finish. Topics include: - Understanding software development methodologies- Choosing the right methodology: Waterfall vs. Agile- Fundamental object-orientation concepts: Abstraction, Polymorphism and more- Collecting requirements- Mapping requirements to technical descriptions- Unified Modeling Language (UML)- Use case, class, sequence, activity, and state diagrams- Designing a Note-Taking App from scratchYou will acquire professional and technical skills together with an understanding of object-orientation principles and concepts.

After completing this book, you'll be able to understand the inner workings of object-oriented software systems. You will communicate easily and effectively with other developers using object-orientation terms and UML diagrams. About the AuthorKároly Nystöczor is a veteran mobile developer and instructor. He has built several successful iOS apps and games--most of which were featured by Apple--and is the founder at LEAKKA, a software development, and tech consulting company. He's worked with companies such as Apple, Siemens, SAP, and Zen Studios.Currently, he spends most of his days as a professional software engineer and IT architect. In addition, he teaches object-oriented software design, iOS, Swift, Objective-C, and UML. As an instructor, he aims to share his 20+ years of software development expertise and change the lives of students throughout the world. He's passionate about helping people reveal hidden talents, and guide them into the world of startups and programming. You can find his courses and books on all major platforms including Amazon, Lynda, LinkedIn Learning, Pluralsight, Udemy, and iTunes.

The Systems Modeling Language

UML and Object-Oriented Design Foundations

The Unified Modeling Language Reference Manual

Visual Modeling with Rational Rose 2002 and UML

Modeling, Analysis, Design

SysML Distilled

In **Software Abstractions** Daniel Jackson introduces an approach to software design that draws on traditional formal methods but exploits automated tools to find flaws as early as possible. This approach -- which Jackson calls "lightweight formal methods" or "agile modeling" -- takes from formal specification the idea of a precise and expressive notation based on a tiny core of simple and robust concepts but replaces conventional analysis based on theorem proving with a fully automated analysis that gives designers immediate feedback. Jackson has developed Alloy, a language that captures the essence of software abstractions simply and succinctly, using a minimal toolkit of mathematical notions. This revised edition updates the text, examples, and appendices to be fully compatible with Alloy 4.

Object-Oriented Design with UML and Java provides an integrated introduction to object-oriented design with the Unified Modeling Language (UML) and the Java programming language. The book demonstrates how Java applications, no matter how small, can benefit from some design during their construction. Fully road-tested by students on the authors' own courses, the book shows how these complementary technologies can be used effectively to create quality software. It requires no prior knowledge of object orientation, though readers must have some experience of Java or other high level programming language. This book covers object technology; object-oriented analysis and design; and implementation of objects with Java. It includes two case studies dealing with library applications. The UML has been incorporated into a graphical design tool called ROME, which can be downloaded from the book's website. This object modelling environment allows readers to prepare and edit various UML diagrams. ROME can be used alongside a Java compiler to generate Java code from a UML class diagram then compile and run the resulting application for hands-on learning. This text would be a valuable resource for undergraduate students taking courses on O-O analysis and design, O-O modelling, Java programming, and modelling with UML. * Integrates design and implementation, using Java and UML * Includes case studies and exercises * Bridges the gap between programming texts and high level analysis books on design

The Systems Modeling Language (SysML) extends UML with powerful systems engineering capabilities for modeling a wider spectrum of systems and capturing all aspects of a system's design. SysML Distilled is the first clear, concise guide for everyone who wants to start creating effective SysML models. Drawing on the author's experience at Lockheed Martin and NASA, Lenny Delligatti illuminates SysML's core components and provides practical advice to help you create good models and good designs. Delligatti begins with an easy-to-understand overview of Model-Based Systems Engineering (MBSE) and an explanation of how SysML enables effective system specification, analysis, design, optimization, verification, and validation. Next, he shows how to use all nine types of SysML diagrams, even if you have no previous experience with modeling languages. A case study running through the text demonstrates the use of SysML in modeling a complex, real-world sociotechnical system. Modeled after Martin Fowler's classic UML Distilled, Delligatti's indispensable guide quickly teaches you what you need to know to get started and helps you deepen your knowledge incrementally as the need arises. Like SysML itself, the book is method independent and is designed to support whatever processes, procedures, and tools you already use. Coverage includes Why SysML was created and the business case for using it Quickly putting SysML to practical use What to know before you start a SysML modeling project Essential concepts that apply to all SysML diagrams SysML diagram elements and relationships Diagramming block definitions, internal structures, use cases, activities, interactions, state machines, constraints, requirements, and packages Using allocations to define mappings among elements across a model SysML notation tables, version changes, and sources for more information

John Hunt's book guides you through the use of the UML and the Unified Process and their application to Java systems. Key topics focus explicitly on applying the notation and the method to Java. The book is clearly structured and written, making it ideal for practitioners. This second edition is considerably revised and extended and includes examples taken from the latest version of Rational Rose and Together. Considers how Agile Modelling fits with the Unified Process, and presents Design Patterns Self contained - covers both the Unified Process and UML in one book Includes real-world case studies Written by an experienced author and industry expert Ideal for students on Software Engineering courses

The Complete UML Training Course

Perspective on Modeling from the Journal of Object-Oriented Programming

UML 2 and the Unified Process

UML for Java Programmers

UML 2001 - The Unified Modeling Language. Modeling Languages, Concepts, and Tools

Pattern-Oriented Software Architecture, A Pattern Language for Distributed Computing

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.

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 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.

"Unified Modeling Language (UML), Unified Process (UP), and other information modeling methods are addressed in this scholarly consideration of the analysis, design, and development of web-based and enterprise applications. The most current research on conceptual, theoretical, and empirical issues of modeling for online business and static information is provided."

The Unified Software Development Process

A Practical Approach

Unified Modeling Language Reference Manual/ 2nd Edn

Technical Aspects and Applications

Guide to the Unified Process featuring UML, Java and Design Patterns

Practical Object-Oriented Analysis and Design

"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 A hyperlinked version of the book in Adobe Reader format on CD-ROM, an excellent resource for browsing or searching the text for specific information 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.

This guide will help readers learn how to employ the significant power of use cases to their software development efforts. It provides a practical methodology, presenting key use case concepts.

Software patterns have revolutionized the way developers think about how software is designed, built, and documented, and this unique book offers an in-depth look of what patterns are, what they are not, and how to use them successfully The only book to attempt to develop a comprehensive language that integrates patterns from key literature, it also serves as a reference manual for all pattern-oriented software architecture (POSA) patterns Addresses the question of what a pattern language is and compares various pattern paradigms Developers and programmers operating in an object-oriented environment will find this book to be an invaluable resource

A Practical Guide to SysML: The Systems Modeling Language is a comprehensive guide to SysML for systems and software engineers. It provides an advanced and practical resource for modeling systems with SysML. The source describes the modeling language and offers information about employing SysML in transitioning an organization or project to model-based systems engineering. The book also presents various examples to help readers understand the OMG Systems Modeling Professional (OCSMP) Certification Program. The text is organized into four parts. The first part provides an overview of systems engineering. It explains the model-based approach by comparing it with the document-based approach and providing the modeling principles. The overview of SysML is also discussed. The second part of the book covers a comprehensive description of the language. It discusses the main concepts of model organization, parameters, blocks, use cases, interactions, requirements, allocations, and profiles. The third part presents examples that illustrate how SysML supports different model-based procedures. The last part discusses how to transition and deploy SysML into an organization or project. It explains the integration of SysML into a systems development environment. Furthermore, it describes the category of data that are exchanged between a SysML tool and other types of tools, and the types of exchange mechanisms that can be used. It also covers the criteria that must be considered when selecting a SysML. Software and systems engineers, programmers, IT practitioners, experts, and non-experts will find this book useful. *The authoritative guide for understanding and applying SysML *Authored by the foremost experts on the language *Language description, examples, and other reference guide included

Pattern Enterpr Applic Arch

UML and the Unified Process

Learning UML 2.0

UML International Workshop ... : Selected Papers

Unified Modeling Language

The Unified Modeling Language User Guide

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.

Thoroughly updated and fully compliant with Rational Rose 2002, the latest release of the industry's most popular software modeling tool, this edition contains simplified, useful case studies and helps the reader understand the core concepts of modeling and how to use UML effectively.

The Unified Modeling Language Reference Manual(Addison-Wesley Professional)

Conquer your fear and anxiety learning how the concepts behind object-oriented design apply to the ABAP programming environment. Through simple examples and metaphors this book demystifies the object-oriented programming model. Object-Oriented Design with ABAP presents a bridge from the familiar procedural style of ABAP to the unfamiliar object-oriented style, taking you by the hand and leading you through the difficulties associated with learning these concepts, covering not only the nuances of using object-oriented principles in ABAP software design but also revealing the reasons why these concepts have become embraced throughout the software development industry. More than simply knowing how to use various object-oriented techniques, you'll also be able to determine whether a technique is applicable to the task the software addresses. This book: div Shows how object-oriented principles apply to ABAP program design Provides the basics for creating component design diagrams Teaches how to incorporate design patterns in ABAP programs What You'll Learn Write ABAP code using the object-oriented model as comfortably and easily as using the procedural model Create ABAP design diagrams based on the Unified Modeling Language Implement object-oriented design patterns into ABAP programs Reap the benefits of spending less time designing and maintaining ABAP programs Recognize those situations where design patterns can be most helpful Avoid long and exhausting searches for the cause of bugs in ABAP programs Who This Book Is For Experienced ABAP programmers who remain unfamiliar with the design potential presented by the object-oriented aspect of the language

Object-Oriented Design with ABAP

Understanding Object-Oriented Programming and the Unified Modeling Language

UML Distilled

Agile Modeling

A Brief Guide to the Standard Object Modeling Language

Topological UML Modeling

The eagerly awaited Pattern-Oriented Software Architecture (POSA) Volume 4 is about a pattern language for distributed computing. The authors will guide you through the best practices and introduce you to key areas of building distributed software systems. POSA 4 connects many stand-alone patterns, pattern collections and pattern languages from the existing body of literature found in the POSA series. Such patterns relate to and are useful for distributed computing to a single language. The panel of experts provides you with a consistent and coherent holistic view on the craft of building distributed systems. Includes a foreword by Martin Fowler A must read for practitioners who want practical advice to develop a comprehensive language integrating patterns from key literature.

From cloud computing to data analytics, society stores vast supplies of information through wireless networks and mobile computing. As organizations are becoming increasingly more wireless, ensuring the security and seamless function of electronic gadgets while creating a strong network is imperative. Advanced Methodologies and Technologies in Network Architecture, Mobile Computing, and Data Analytics highlights the challenges associated with creating a strong network architecture in a perpetually online society. Readers will learn various methods in building a seamless mobile computing option and the most effective means of analyzing big data. This book is an important resource for information technology professionals, software developers, data analysts, graduate-level students, researchers, computer engineers, and IT specialists seeking modern information on emerging methods in data mining, information technology, and wireless networks. This book provides an excellent overview of Ivar Jacobson's work on the Unified Software Development Process.

OMT Insights

Systems Engineering with SysML/UML

Object-Oriented Design with UML and Java