

Uml Distilled Applying The Standard Object Modelling Language Object Technology Series

"One of the great things about the book is the way the authors explain concepts very simply using analogies rather than programming examples—this has been very inspiring for a product I'm working on: an audio-only introduction to OOP and software development." —Bruce Eckel "...I would expect that readers with a basic understanding of object-oriented programming and design would find this book useful, before approaching design patterns completely. Design Patterns Explained complements the existing design patterns texts and may perform a very useful role, fitting between introductory texts such as UML Distilled and the more advanced patterns books." —James Noble Leverage the quality and productivity benefits of patterns—without the complexity! Design Patterns Explained, Second Edition is the field's simplest, clearest, most practical introduction to patterns. Using dozens of updated Java examples, it shows programmers and architects exactly how to use patterns to design, develop, and deliver software far more effectively. You'll start with a complete overview of the fundamental principles of patterns, and the role of object-oriented analysis and design in contemporary software development. Then, using easy-to-understand sample code, Alan Shalloway and James Trott illuminate dozens of today's most useful patterns: their underlying concepts, advantages, tradeoffs, implementation techniques, and pitfalls to avoid. Many patterns are accompanied by UML diagrams. Building on their best-selling First Edition, Shalloway and Trott have thoroughly updated this book to reflect new software design trends, patterns, and implementation techniques. Reflecting extensive reader feedback, they have deepened and clarified coverage throughout, and reorganized content for even greater ease of understanding. New and revamped coverage in this edition includes Better ways to start "thinking in patterns" How design patterns can facilitate agile development using eXtreme Programming and other methods How to use commonality and variability analysis to design application architectures The key role of testing into a patterns-driven development process How to use factories to instantiate and manage objects more effectively The Object-Pool Pattern—a new pattern not identified by the "Gang of Four" New study/practice questions at the end of every chapter Gentle yet thorough, this book assumes no patterns experience whatsoever. It's the ideal "first book" on patterns, and a perfect complement to Gamma's classic Design Patterns. If you're a programmer or architect who wants the clearest possible understanding of design patterns—or if you've struggled to make them work for you—read this book.

Second Edition of the UML video course based on the book Applying UML and Patterns. This VTC will focus on object-oriented analysis and design, not just drawing UML.

Software architecture is a primary factor in the creation and evolution of virtually all products involving software. It is a topic of major interest in the research community where pronusmg formalisms, processes, and technologies are under development. Architecture is also of major interest in industry because it is recognized as a significant leverage point for manipulating such basic development factors as cost, quality, and interval. Its importance is attested to by the fact that there are several international workshop series as well as major conference sessions devoted to it. The First Working IFIP Conference on Software Architecture (WICSAI) provided a focused and dedicated forum for the international software architecture community to unify and coordinate its effort to advance the state of practice and research. WICSA 1 was organized to facilitate information exchange between practising software architects and software architecture researchers. The conference was held in San Antonio, Texas, USA, from February 22nd to February 24th, 1999; it was the initiating event for the new IFIP TC-2 Working Group on Software Architecture. This proceedings document contains the papers accepted for the conference. The papers in this volume comprise both experience reports and technical papers. The proceedings reflect the structure of the conference and are divided into six sections corresponding to the working groups established for the conference.

The Definitive Refactoring Guide, Fully Revamped for Ruby With refactoring, programmers can transform even the most chaotic software into well-designed systems that are far easier to evolve and maintain. What's more, they can do it one step at a time, through a series of simple, proven steps. Now, there's an authoritative and extensively updated version of Martin Fowler's classic refactoring book that utilizes Ruby examples and idioms throughout—not code adapted from Java or any other environment. The authors introduce a detailed catalog of more than 70 proven Ruby refactorings, with specific guidance on when to apply each of them, step-by-step instructions for using them, and example code illustrating how they work. Many of the authors' refactorings use powerful Ruby-specific features, and all code samples are available for download. Leveraging Fowler's original concepts, the authors show how to perform refactoring in a controlled, efficient, incremental manner, so you methodically improve your code's structure without introducing new bugs. Whatever your role in writing or maintaining Ruby code, this book will be an indispensable resource. This book will help you

- * Understand the core principles of refactoring and the reasons for doing it
- * Recognize "bad smells" in your Ruby code
- * Rework bad designs into well-designed code, one step at a time
- * Build tests to make sure your refactorings work properly
- * Understand the challenges of refactoring and how they can be overcome
- * Compose methods to package code properly
- * Move features between objects to place responsibilities where they fit best
- * Organize data to make it easier to work with
- * Simplify conditional expressions and make more effective use of polymorphism
- * Create interfaces that are easier to understand and use
- * Generalize more effectively
- * Perform larger refactorings that transform entire software systems and may take months or years
- * Successfully refactor Ruby on Rails code

"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

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.

The 8th International Conference on Reliable Software Technologies, Ada-Europe 2003, took place in Toulouse, France, June 18–20, 2003. It was sponsored by Ada-Europe, the European federation of national Ada societies, and Ada-France, in cooperation with ACM SIGAda. It was organized by members of Adalog, CS, UPS/IRIT and ONERA. Toulouse was certainly a very appropriate place for this conference. As the heart of the European aeronautic and space industry, it is a place where software development leaves no place for failure. In the end, reliability is a matter of human skills. But these skills build upon methods, tools, components and controlled practices. By exposing the latest advances in these areas, the conference contributed to fulfilling the needs of a very demanding industry. As in past years, the conference comprised a three-day technical program, during which the papers contained in these proceedings were presented, along with vendor presentations. The technical program was bracketed by two tutorial days, when attendees had the opportunity to catch up on a variety of topics related to the field, at both introductory and advanced levels. On Friday, a workshop on "Quality of Service in Component-Based Software Engineering" was held. Further, the conference was accompanied by an exhibition where vendors presented their reliability-related products.

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

Activity theory is a way of describing and characterizing the structure of human activity of all kinds. First introduced by Russian psychologists Rubinshtein, Leontiev, and Vigotsky in the early part of the last century, activity theory has more recently gained increasing attention among interaction designers and others in the human-computer interaction and usability communities (see, for example, Gay and Hembrooke, 2004). Interest was given a significant boost when Donald Norman suggested activity-theory and activity-centered design as antidotes to some of the putative ills of "human-centered design" (Norman, 2005). Norman, who has been credited with coining the phrase "user-centered design," suggested that too much attention focused on human users may be harmful, that to design better tools designers need to focus not so much on users as on the activities in which users are engaged and the tasks they seek to perform within those activities. Although many researchers and practitioners claim to have used or been influenced by activity theory in their work (see, for example, Nardi, 1996), it is often difficult to trace precisely where or how the results have actually been shaped by activity theory. In many cases, even detailed case studies report results that seem only distantly related, if at all, to the use of activity theory. Contributing to the lack of precise and traceable impact is that activity theory, despite its name, is not truly a formal and proper theory.

Users can dramatically improve the design, performance, and manageability of object-oriented code without altering its interfaces or behavior. "Refactoring" shows users exactly how to spot the best opportunities for refactoring and exactly how to do it, step by step.

UML Distilled A Brief Guide to the Standard Object Modeling Language Addison-Wesley Professional

This second edition provides updates to the UML and is the best resource for quick, no-nonsense explanations of using UML. The major strength is its short, concise presentation of the essentials of UML and where it fits within the software-development process.

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

"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.

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.

The first edition of "Extreme Programming Explained" is a classic. It won awards for its then-radical ideas for improving small-team development, such as having developers write automated tests for their own code and having the whole team plan weekly. Much has changed in five years. This completely rewritten second edition expands the scope of XP to teams of any size by suggesting a program of continuous improvement based on: five core values consistent with excellence in software development; eleven principles for putting those values into action; and, thirteen primary and eleven corollary practices to help you push development past its current business and technical limitations. Whether you have a small team that is already closely aligned with your customers or a large team in a gigantic or multinational organization, you will find in these pages a wealth of ideas to challenge, inspire, and encourage you and your team members to substantially improve your software development.

This innovative book recognizes the need within the object-oriented community for a book that goes beyond the tools and techniques of the typical methodology book. In Analysis Patterns: Reusable Object Models, Martin Fowler focuses on the end result of object-oriented analysis and design—the models themselves. He shares with you his wealth of object modeling experience and his keen eye for identifying repeating problems and transforming them into reusable models. Analysis Patterns provides a catalogue of patterns that have emerged in a wide range of domains including trading, measurement, accounting and organizational relationships. Recognizing that conceptual patterns cannot exist in isolation, the author also presents a series of "support patterns" that discuss how to turn conceptual models into software that in turn fits into an architecture for a large information system. Included in each pattern is the reasoning behind their design, rules for when they should and should not be used, and tips for implementation. The examples presented in this book comprise a cookbook of useful models and insight into the skill of reuse that will improve analysis, modeling and implementation.

The international conference on Advances in Computing and Information technology (ACITY 2012) provides an excellent international forum for both academics and professionals for sharing knowledge and results in theory, methodology and applications of Computer Science and Information Technology. The Second International Conference on Advances in Computing and Information technology (ACITY 2012), held in Chennai, India, during July 13-15, 2012, covered a number of topics in all major fields of Computer Science and Information Technology including: networking and communications, network security and applications, web and internet computing, ubiquitous computing, algorithms, bioinformatics, digital image processing and pattern recognition, artificial intelligence, soft computing and applications. Upon a strength review process, a number of high-quality, presenting not only innovative ideas but also a founded evaluation and a strong argumentation of the same, were selected and collected in the present proceedings, that is composed of three different volumes.

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

Explains how to leverage Java's architecture and mechanisms to design enterprise applications and considers code modularity, nonduplication, network efficiency, maintainability, and reusability.

The 9th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing, held in Phuket Thailand on August 6 – 8, 2008 is aimed at bringing together researchers and scientist, businessmen and entrepreneurs, teachers and students to discuss the numerous fields of computer science, and to share ideas and information in a meaningful way. This publication captures 20 of the conference's most promising papers, and we impatiently await the important contributions that we know these authors will bring to the

field.

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.

This title contains standards and guidelines for creating UML diagrams that are concise and easy to understand.

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 his pioneering 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

Now widely adopted as the de facto industry standard and sanctioned by the Object Management Group, the Unified Modeling Language (UML) is a notation all software developers need to know and understand. However, the UML is a big language, and not all of it is equally important. The award-winning first edition of UML Distilled was widely praised for being a concise guide to the core parts of the UML and has proved extremely successful in helping developers get up and running quickly. UML Distilled, Second Edition, maintains the concise format with significantly updated coverage of use cases and activity diagrams, and expanded coverage of collaborations. It also includes a new appendix detailing the changes between UML versions. Written for those with a basic understanding of object-oriented analysis and design, this book begins with a summary of UML's history, development, and rationale and then moves into a discussion of how the UML can be integrated into the object-oriented development process. The primary author profiles the various modeling techniques in the UML--such as use cases, class diagrams, and interaction diagrams--and describes the notation and semantics clearly and succinctly. He also outlines useful non-UML techniques such as CRC cards and patterns. These descriptions are made even more relevant with a collection of best practices based on the primary author's experience and a brief Java programming example demonstrating the implementation of a UML-based design. With this tour of the key parts of the UML, readers will be left with a firm foundation upon which to build models and develop further knowledge of the Unified Modeling Language. Praise for the First Edition " UML Distilled is a recipient of the prestigious 1997 Software Development Magazine Productivity Award in the Books category. Addison-Wesley congratulates authors Martin Fowler and Kendall Scott for their outstanding work." "This book is a godsend. It is packed with solid advice presented in a concise and highly readable way. The essence of the notations is explained very well indeed but the author goes beyond this to give very clear insights into the application of UML techniques."--Jennifer Stapleton, Vice President Technical, British Computer Society " UML Distilled is well written, knowledgeable about both systems development and UML, and disarmingly honest." -- Robert L. Glass, The Software Practitioner (March 1998) " UML Distilled proves that you can say a lo ...

Up until a few years ago there were over 150 different modelling languages available to software developers. This vast array of choice however, only served to severely hinder effective communication. Therefore, to combat this, every methodologist and many companies agreed to speak the same language, hence the birth of the unified modelling language (UML). The UML offers a means to communicate complex information in a simple way using visual modelling; i.e. drawing diagrams to create a model of a system. This fully revised edition, based on a training course given by the author, coincides with the release of UML version 2 by the standard body, the Object Management Group, and covers the significant changes that have occurred since its release. It also includes material on life cycle management, examining the way the UML can be used to control and manage projects and the UML systems engineering profile.

For the last two decades, IS researchers have conducted empirical studies leading to a better understanding of the impact of Systems Analysis and Design methods in business, managerial, and cultural contexts. SA&D research has established a balanced focus not only on technical issues, but also on organizational and social issues in the information society..This volume presents the very latest, state-of-the-art research by well-known figures in the field. The chapters are grouped into three categories: techniques, methodologies, and approaches.

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.

Gathering customer requirements is a key activity for developing software that meets the customer's needs. A concise and practical overview of everything a requirement's analyst needs to know about establishing customer requirements, this first-of-its-kind book is the perfect desk guide for systems or software development work. The book enables professionals to identify the real customer requirements for their projects and control changes and additions to these requirements. This unique resource helps practitioners understand the importance of requirements, leverage effective requirements practices, and better utilize resources. The book also explains how to strengthen interpersonal relationships and communications which are major contributors to project effectiveness. Moreover, analysts find clear examples and checklists to help them implement best practices.

When carefully selected and used, Domain-Specific Languages (DSLs) may simplify complex code, promote effective communication with customers, improve productivity, and unclog development bottlenecks. In *Domain-Specific Languages*, noted software development expert Martin Fowler first provides the information software professionals need to decide if and when to utilize DSLs. Then, where DSLs prove suitable, Fowler presents effective techniques for building them, and guides software engineers in choosing the right approaches for their applications. This book's techniques may be utilized with most modern object-oriented languages; the author provides numerous examples in Java and C#, as well as selected examples in Ruby. Wherever possible, chapters are organized to be self-standing, and most reference topics are presented in a familiar patterns format. Armed with this wide-ranging book, developers will have the knowledge they need to make important decisions about DSLs—and, where appropriate, gain the significant technical and business benefits they offer. The topics covered include: How DSLs compare to frameworks and libraries, and when those alternatives are sufficient Using parsers and parser generators, and parsing external DSLs Understanding, comparing, and choosing DSL language constructs Determining whether to use code generation, and comparing code generation strategies Previewing new language workbench tools for creating DSLs

This book constitutes the thoroughly refereed post-proceedings of the 9th International Conference on Real-Time and Embedded Systems and Applications, RTCSA 2003, held in Tainan, Taiwan, in February 2003. The 28 revised full papers and 9 revised short papers presented were carefully reviewed and selected for inclusion in the book. The papers are organized in topical sections on scheduling, networking and communication, embedded systems and environments, pervasive and ubiquitous computing, systems and architectures, resource management, file systems and databases, performance analysis, and tools and development.

Social scientists, whether earnest graduate students or tenured faculty members, clearly know the rules that govern good writing. But for some reason they choose to ignore those guidelines and churn out turgid, pompous, and obscure prose. Distinguished sociologist Howard S. Becker, true to his calling, looks for an explanation for this bizarre behavior not in the psyches of his colleagues but in the structure of his profession. In this highly personal and inspirational volume he considers academic writing as a social activity. Both the means and the reasons for writing a thesis or article or book are socially structured by the organization of graduate study, the requirements for publication, and the conditions for promotion, and the pressures arising from these situations create the writing style so often lampooned and lamented. Drawing on his thirty-five years' experience as a researcher, writer, and teacher, Becker exposes the foibles of the academic profession to the light of sociological analysis and gentle humor. He also offers eminently useful suggestions for ways to make social scientists better and more productive writers. Among the topics discussed are how to overcome the paralyzing fears of chaos and ridicule that lead to writer's block; how to rewrite and revise, again and again; how to adopt a persona compatible with lucid prose; how to deal with that academic bugaboo, "the literature." There is also a chapter by Pamela Richards on the personal and professional risks involved in scholarly writing. In recounting his own trials and errors Becker offers his readers not a model to be slavishly imitated but an example to inspire. Throughout, his focus is on the elusive work habits that contribute to good writing, not the more easily learned rules of grammar and punctuation. Although his examples are drawn from sociological literature, his conclusions apply to all fields of social science, and indeed to all areas of scholarly endeavor. The message is clear: you don't have to write like a social scientist to be one.

This volume contains mainly the revised versions of papers presented at the workshop '98, "Beyond the Notation", that took place in Mulhouse, France on June 3-4, 1998. We thank all those that have made this possible, and particularly all the people in Mulhouse that worked hard to make this meeting a success, with such a short delay between the announcement and the realization. We are specially grateful to Nathalie Gaertner, who put in a tremendous amount of effort in the initial preparation of the workshop. We were pleasantly surprised of the quality of the submitted material and of the level of the technical exchanges at the Mulhouse meeting. More than one hundred attendees, from about twenty different countries, representing the main actors in the UML research and development scene, gathered in Mulhouse for two full study days. We would like to express our deepest appreciation to the authors of submitted papers, the editorial committee for this volume, the program committee for the initial workshop, the external referees, and many others who contributed towards the final contents of this volume. April 1999 Jean Bézivin Pierre-Alain Muller

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.

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

"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, interactive overview, and timing diagrams."--P. [4] of cover.

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.

This book constitutes the refereed proceedings of workshops held at the 30th International Conference on Conceptual Modeling, ER 2011, in Brussels, Belgium, in October/November 2011.

The 31 revised papers presented with 9 posters and demonstrations for the workshops and the 6 papers for the industrial track were reviewed and selected.

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