Rapid Development Taming Wild Software Schedules

Widely considered one of the best practical guides to programming, Steve McConnell's original CODE COMPLETE has been helping developers write better software for more than a decade. Now this classic book has been fully updated and revised with leading-edge practices—and hundreds of new code samples—illustrating the art and science of software construction. Capturing the body of knowledge available from research, academia, and everyday commercial practice, McConnell synthesizes the most effective techniques and must-know principles into clear, pragmatic guidance. No matter what your experience level, development environment, or project size, this book will inform and stimulate your thinking—and help you build the highest quality code. Discover the timeless techniques and strategies that help you: Design for minimum complexity and maximum creativity Reap the benefits of collaborative development Apply defensive programming techniques to reduce and flush out errors Exploit opportunities to refactor—or evolve—code, and do it safely Use construction practices that are right-weight for your project Debug problems quickly and effectively Resolve critical construction issues early and correctly Build quality into the beginning, middle, and end of your project

Presents the capabilities and features of new ideas and concepts in the information systems development, database, and forthcoming technologies. Provides a representation of topnotch research in all areas of systems analysis and design and databases.

Human resources management is essential for any workplace environment and is deemed most effective when a strategic focus is in place to ensure that people can facilitate that achievement of organizational goals. But, effective human resource management also contains an element of risk management for an organization which, as a minimum, ensures legislative compliance. Human Resources Management: Concepts, Methodologies, Tools, and Applications compiles the most sought after case studies, architectures, frameworks, methodologies, and research related to human resources management. Including over 100 chapters from professional, this three-volume collection presents an in-depth analysis on the fundamental aspects, tools and technologies, methods and design, applications, managerial impact, social/behavioral perspectives, critical issues, and emerging trends in the field, touching on effective and ineffective management practices when it comes to human resources. This multi-volume work is vital and highly accessible across the hybrid domain of business and management, essential for any library collection.

Learn the principles of good software design, and how to turn those principles into great code. This book introduces you to software engineering — from the application of engineering principles to the development of software. You'll see how to run a software development project, examine the different phases of a project, and learn how to design and implement

programs that solve specific problems. It's also about code construction — how to write great programs and make them work. Whether you're new to programming or have written hundreds of applications, in this book you'll re-examine what you already do, and you'll investigate ways to improve. Using the Java language, you'll look deeply into coding standards, debugging, unit testing, modularity, and other characteristics of good programs. With Software Development, Design and Coding, author and professor John Dooley distills his years of teaching and development experience to demonstrate practical techniques for great coding. What You'll Learn Review modern agile methodologies including Scrum and Lean programming Leverage the capabilities of modern computer systems with parallel programming Work with design patterns to exploit application development best practices Use modern tools for development, collaboration, and source code controls Who This Book Is For Early career software developers, or upper-level students in software engineering courses

This revealing book is about software development, the developers themselves, and how their work is organized and managed. The latest original research from Australia, Europe, and the UK is used to examine the differences between the image and reality of work in this industry. Chapters also cover issues surrounding the management of 'knowledge work and workers' and professionals in order to expose some of the problems of the management of software development work and workers.

Corporate and commercial software-development teams all want solutions for one important problem—how to get their high-pressure development schedules under control. In RAPID DEVELOPMENT, author Steve McConnell addresses that concern head-on with overall strategies, specific best practices, and valuable tips that help shrink and control development schedules and keep projects moving. Inside, you'll find: A rapid-development strategy that can be applied to any project and the best practices to make that strategy work Candid discussions of great and not-so-great rapid-development practices—estimation, prototyping, forced overtime, motivation, teamwork, rapid-development languages, risk management, and many others A list of classic mistakes to avoid for rapid-development projects, including creeping requirements, shortchanged quality, and silver-bullet syndrome Case studies that vividly illustrate what can go wrong, what can go right, and how to tell which direction your project is going RAPID DEVELOPMENT is the real-world guide to more efficient applications development.

Data structure and software engineering is an integral part of computer science. This volume presents new approaches and methods to knowledge sharing, brain mapping, data integration, and data storage. The author describes how to manage an organization's business process and domain data and presents new software and hardware testing methods. The book introduces a game development framework used as a learning aid in a software engineering at the

university level. It also features a review of social software engineering metrics and methods for processing business information. It explains how to use Pegasys to create and manage sequence analysis workflows.

Advanced approaches to software engineering and design are capable of solving complex computational problems and achieving standards of performance that were unheard of only decades ago. Handbook of Research on Emerging Advancements and Technologies in Software Engineering presents a comprehensive investigation of the most recent discoveries in software engineering research and practice, with studies in software design, development, implementation, testing, analysis, and evolution. Software designers, architects, and technologists, as well as students and educators, will find this book to be a vital and in-depth examination of the latest notable developments within the software engineering community.

Although software development is one of the most complex activities carried out by man, sound development processes and proper project management can help ensure your software projects are delivered on time and under budget. Providing the know-how to manage software projects effectively, Introduction to Software Project Management supplies an accessible introduction to software project management. The book begins with an overview of the fundamental techniques of project management and the technical aspects of software development. This section supplies the understanding of the techniques required to mitigate uncertainty in projects and better control the complexity of software development projects. The second part illustrates the technical activities of software development in a coherent process—describing how to customize this process to fit a wide range of software development scenarios. Examines project management frameworks and software development standards, including ESA and NASA guidelines, PRINCE2®, and PMBOK® Addresses open source development practices and tools so readers can adopt best practices and get started with tools that are available for free Explains how to tailor the development process to different kinds of products and formalities, including the development of web applications Includes access to additional material for both practitioners and teachers at www.spmbook.com Supplying an analysis of existing development and management frameworks, the book describes how to set up an open-source tool infrastructure to manage projects. Since practitioners must be able to mix traditional and agile techniques effectively, the book covers both and explains how to use traditional techniques for planning and developing software components alongside agile methodologies. It does so in a manner that will help you to foster freedom and creativity in assembling the processes that will best serve your needs.

I highly recommend this book for anyone who's ever tried to implement RUP on a small project. Pollice and company have demystified and effectively scaled the process while ensuring that its essence hasn't been compromised. A must-have for any RUPster's library! Chris Soskin, Process Engineering Consultant, Toyota Motor SalesDo you want to

improve the process on your next project? Perhaps you'd like to combine the best practices from the Rational Unified Process (RUP) and from agile methodologies (such as Extreme Programming). If so, buy this book! Software Development for Small Teams describes an entire software development project, from the initial customer contact through delivery of the software. Through a case study, it describes how one small, distributed team designed and applied a successful process. But this is not a perfect case study. The story includes what worked and what didn't, and describes how the team might change its process for the next project. The authors encourage you to assess their results and to use the lessons learned on your next project. Key topics covered include: Achieving a balance between people, process, and tools; recognizing that software develo

The ever changing nature of information makes the job of managing software development notoriously difficult. Dynamic Software Development: Managing Projects in Flux eases the burden by defining the principles, practices, skills, and techniques needed to manage a dynamic development environment. At a hands-on level, the text helps managers define t

Business Intelligence (BI) software development is an iterative and agile process. In most corporations however, BI solutions are being implemented using the standard "waterfall" life-cycle development methodology. This book discusses why this is a mistake and offers a methodology for success in BI software implementations.

This new book from Steve McConnell, author of the software industry classic Code Complete, distills hundreds of companies'-worth of hard-won insights into an easy-to-read guide to the proven, modern Agile practices that work best. In this comprehensive yet accessible overview for software leaders, Steve McConnell presents an impactful, action-oriented prescription--covering the practical considerations needed to ensure you reap the full benefits of effective Agile: Adopt the individual Agile tools suited to your specific organization Create high-performing, autonomous teams that are truly business-focused Understand the ground truth of Scrum and diagnose your teams' issues Improve coherence of requirements in an iterative environment Test more effectively, and improve quality Lead your organization through real-world constraints including multi-site teams, large projects, industry regulations, and the need for predictability Whether you are a C-level executive, vice president, director, manager, technical leader, or coach, this no-nonsense reference seamlessly threads together traditional approaches, early Agile approaches, modern Agile approaches, and the principles and context that underlie them all--creating an invaluable resource for you, your teams, and your organization. Provides information about the new lightweight software development methodology.

"This book provides integrated chapters on software engineering and enterprise systems focusing on parts integrating requirements engineering, software engineering, process and frameworks, productivity technologies, and enterprise

systems"--Provided by publisher.

This book includes carefully selected papers presented at the 10th International Conference on Knowledge, Information and Creativity Support Systems (KICCS 2015), which was held in Phuket, Thailand, on November 12–14, 2015. Most of the papers are extended versions with the latest results added, representing virtually all topics covered by the conference. The KICCS 2015 focus theme, "Looking into the Future of Creativity and Decision Support Systems", highlighted the field's growing complexity and called for deeper, insightful discussions about the future, complemented with an exposition of current developments that have proven their value and usefulness. As such, the book addresses topics concerning future-oriented fields of research, such as anticipatory networks and systems; foresight support systems; and relevant newly emerging applications, exemplified by autonomous creative systems. It also focuses on cognitive and collaborative aspects of creativity.

Today, software engineers need to know not only how to program effectively but also how to develop proper engineering practices to make their codebase sustainable and healthy. This book emphasizes this difference between programming and software engineering. How can software engineers manage a living codebase that evolves and responds to changing requirements and demands over the length of its life? Based on their experience at Google, software engineers Titus Winters and Hyrum Wright, along with technical writer Tom Manshreck, present a candid and insightful look at how some of the world's leading practitioners construct and maintain software. This book covers Google's unique engineering culture, processes, and tools and how these aspects contribute to the effectiveness of an engineering organization. You'll explore three fundamental principles that software organizations should keep in mind when designing, architecting, writing, and maintaining code: How time affects the sustainability of software and how to make your code resilient over time How scale affects the viability of software practices within an engineering organization What trade-offs a typical engineer needs to make when evaluating design and development decisions

Project managers, technical leads, and Windows programmers throughout the industry share an important concern--how to get their development schedules under control. Rapid Development addresses that concern head-on with philosophy, techniques, and tools that help shrink and control development schedules and keep projects moving. The style is friendly and conversational--and the content is impressive.

This book constitutes the refereed proceedings of the First International Conference on Software Process, held in Minneapolis, MN, USA, in May 2007. The 28 revised full papers presented together with the abstracts of two keynote addresses cover process content, process tools and metrics, process management, process representation, analysis and modeling, experience report, and simulation modeling.

Rapid DevelopmentMicrosoft Press

How to make sure your next important project isn't your last.Equip yourself with SOFTWARE PROJECT SURVIVAL GUIDE. It's for everyone with a stake in the outcome of a development project--and especially for those without formal software project management training. That includes top managers, executives, clients, investors, end-user representatives, project managers, and technical leads.Here you'll find guidance from the acclaimed author of the classics CODE COMPLETE and RAPID DEVELOPMENT. Steve McConnell draws on solid research and a career's worth of hard-won experience to map the surest path to your goal--what he calls one specific approach to software development that works pretty well most of the time for most projects. Nineteen chapters in four sections cover the concepts and strategies you need for mastering the development process, including planning, design, management, quality assurance, testing, and archiving. For newcomers and seasoned project managers alike, SOFTWARE PROJECT SURVIVAL GUIDE draws on a vast store of techniques to create an elegantly simplified and reliable framework for project management success.So don't worry about wandering among complex sets of project management techniques that require years to sort out and master. SOFTWARE PROJECT SURVIVAL GUIDE goes straight to the heart of the matter to help your projects succeed. And that makes it a required addition to every professional's bookshelf.

This book contains the refereed proceedings of the 13th International Conference on Agile Software Development, XP 2012, held in Malmö, Sweden, in May 2012. In the last decade, we have seen agile and lean software development strongly influence the way software is developed. Agile and lean software development has moved from being a way of working for a number of pioneers to becoming, more or less, the expected way of developing software in industry. The topics covered by the selected full papers include general aspects of agility, agile teams, studies related to the release and maintenance of software, and research on specific practices in agile and lean software development. They are complemented by four short papers capturing additional aspects of agile and lean projects.

In this book, we have hand-picked the most sophisticated, unanticipated, absorbing (if not at times crackpot!), original and musing book reviews of "Rapid Development: Taming Wild Software Schedules." Don't say we didn't warn you: these reviews are known to shock with their unconventionality or intimacy. Some may be startled by their biting sincerity; others may be spellbound by their unbridled flights of fantasy. Don't buy this book if: 1. You don't have nerves of steel. 2. You expect to get pregnant in the next five minutes. 3. You've heard it all.

"This book provides information on different styles of instructional design methodologies, tips, and strategies on how to use technology to facilitate active learning and techniques to help faculty and researchers develop online instructional and teaching materials. It enables libraries to provide a foundational reference for researchers, educators, administrators,

and others in the context of instructional systems and technology"--Provided by publisher.

No matter how much instruction you've had on managing software requirements, there's no substitute for experience. Too often, lessons about requirements engineering processes lack the no-nonsense guidance that supports real-world solutions. Complementing the best practices presented in his book, Software Requirements, Second Edition, requirements engineering authority Karl Wiegers tackles even more of the real issues head-on in this book. With straightforward, professional advice and practical solutions based on actual project experiences, this book answers many of the tough questions raised by industry professionals. From strategies for estimating and working with customers to the nuts and bolts of documenting requirements, this essential companion gives developers, analysts, and managers the cosmic truths that apply to virtually every software development project. Discover how to: • Make the business case for investing in better requirements practices • Generate estimates using three specific techniques • Conduct inquiries to elicit meaningful business and user requirements • Clearly document project scope • Implement use cases, scenarios, and user stories effectively • Improve inspections and peer reviews • Write requirements that avoid ambiguity

This title was first published in 2001. Based on research and practical experience, this text highlights the contributory factors leading to project failure. The buisiness-IT culture gap, information politics, escalating commitment, the problem of high investment and low return, and accountability for failure are all covered.

This practical handbook on software project success and survival explains how to confront five important issues involved in all software projects--people, politics, process, project management, and tools.

This book provides a comprehensive overview of the field of software processes, covering in particular the following essential topics: software process modelling, software process and lifecycle models, software process management, deployment and governance, and software process improvement (including assessment and measurement). It does not propose any new processes or methods; rather, it introduces students and software engineers to software processes and life cycle models, covering the different types ranging from "classical", plan-driven via hybrid to agile approaches. The book is structured as follows: In chapter 1, the fundamentals of the topic are introduced: the basic concepts, a historical overview, and the terminology used. Next, chapter 2 covers the various approaches to modelling software processes and lifecycle models, before chapter 3 discusses the contents of these models, addressing plan-driven, agile and hybrid approaches. The following three chapters address various aspects of using software processes and lifecycle models within organisations, and consider the management of these processes, their assessment and improvement, and the measurement of both software and software processes. Working with software processes normally involves various tools, which are the focus of chapter 7, before a look at current trends in software processes in chapter 8 rounds out the book. This book is mainly intended for graduate students and practicing professionals. It can be used as a textbook for courses and lectures, for self-study, and as a reference guide. When used as a textbook, it may support courses and lectures on software processes, or be used as complementary literature for more basic courses, such as introductory courses on software engineering or project management. To this end, it includes a wealth of examples and case studies, and each chapter is complemented by exercises that help readers gain a better command of the concepts discussed.

bull; Renowned software expert Steve McConnell presents his latest thoughts on the condition of the software engineering profession bull; Helps software developers regain the sight of the big-picture reasons why their jobs matter bull; A thinking man's guide to the current state of

software

Often referred to as the "black art" because of its complexity and uncertainty, software estimation is not as difficult or puzzling as people think. In fact, generating accurate estimates is straightforward—once you understand the art of creating them. In his highly anticipated book, acclaimed author Steve McConnell unravels the mystery to successful software estimation—distilling academic information and real-world experience into a practical guide for working software professionals. Instead of arcane treatises and rigid modeling techniques, this guide highlights a proven set of procedures, understandable formulas, and heuristics that individuals and development teams can apply to their projects to help achieve estimation proficiency. Discover how to: Estimate schedule and cost—or estimate the functionality that can be delivered within a given time frame Avoid common software estimation mistakes Learn estimation techniques for you, your team, and your organization * Estimate specific project activities—including development, management, and defect correction Apply estimation approaches to any type of project—small or large, agile or traditional Navigate the shark-infested political waters that surround project estimates When many corporate software projects are failing, McConnell shows you what works for successful software estimation.

A guide to doing socially positive work in the context of business.

Software Development and Professional Practice reveals how to design and code great software. What factors do you take into account? What makes a good design? What methods and processes are out there for designing software? Is designing small programs different than designing large ones? How can you tell a good design from a bad one? You'll learn the principles of good software design, and how to turn those principles back into great code. Software Development and Professional Practice is also about code construction—how to write great programs and make them work. What, you say? You've already written eight gazillion programs! Of course I know how to write code! Well, in this book you'll re-examine what you already do, and you'll investigate ways to improve. Using the Java language, you'll look deeply into coding standards, debugging, unit testing, modularity, and other characteristics of good programs. You'll also talk about reading code. How do you read code? What makes a program readable? Can good, readable code replace documentation? How much documentation do you really need? This book introduces you to software engineering—the application of engineering principles to the development of software. What are these engineering principles? First, all engineering efforts follow a defined process. So, you'll be spending a bit of time talking about how you run a software development project and the different phases of a project. Secondly, all engineering work has a basis in the application of science and mathematics to real-world problems. And so does software development! You'll therefore take the time to examine how to design and implement programs that solve specific problems. Finally, this book is also about human-computer interaction and user interface design issues. A poor user interface can ruin any desire to actually use a program; in this book, you'll figure out why and how to avoid those errors. Software Development and Professional Practice covers many of the topics described for the ACM Computing Curricula 2001 course C292c Software Development and Professional Practice. It is designed to be both a textbook and a manual for the working professional.

Agile development practices have been widely adopted in a variety of organizations, yet only a few tools are available to help make the practical process of managing agile teams less painful and more successful. HP Agile Manager is a purpose-built SaaS-based Agile planning tool. HP Agile Manager provides a simpler, smarter way to manage collaborative development. Liran Tal provides a practical, concise approach to using Agile Manager in a variety of settings to better plan, conduct, and manage software releases within development teams. His step-by-step approach will

show you how to plan your product's features, streamline the agile sprint process, work with user stories, and track defects throughout the development process. Agile Manager can work for small startups, mid-sized teams, as well as scale up for bigger organizations as a cost-effective and flexible tool to apply agile techniques to improve your software development process.

Traditional software development methods struggle to keep pace with the accelerated pace and rapid change of Internet-era development. Several "agile methodologies" have been developed in response -- and these approaches to software development are showing exceptional promise. In this book, Jim Highsmith covers them all -- showing what they have in common, where they differ, and how to choose and customize the best agile approach for your needs.KEY TOPICS:Highsmith begins by introducing the values and principles shared by virtually all agile software development methods. He presents detailed case studies from organizations that have used them, as well as interviews with each method's principal authors or leading practitioners. Next, he takes a closer look at the key features and techniques associated with each major Agile approach: Extreme Programming (XP), Crystal Methods, Scrum, Dynamic Systems Development Method (DSDM), Lean Development, Adaptive Software Development (ASD), and Feature-Driven Development (FDD). In Part III, Highsmith offers practical advice on customizing the optimal agile discipline for your own organization.MARKET:For all software developers, project managers, and other IT professionals seeking more flexible, effective approaches to developing software.

A handbook for game development with coverage of both team management topics, such as task tracking and creating the technical design document, and outsourcing strategies for contents, such as motion capture and voice-over talent. It covers various aspects of game development.

This book constitutes the refereed proceedings of the 7th International Conference on Product-Focused Software Process Improvement, PROFES 2006, held in Amsterdam, June 2006. The volume presents 26 revised full papers and 12 revised short papers together with 6 reports on workshops and tutorials. The papers constitute a balanced mix of academic and industrial aspects, organized in topical sections on decision support, embedded software and system development, measurement, process improvement, and more.

Provides a variety of ideas, techniques, and strategies for effective software development.

Few books in computing have had as profound an influence on software management as Peopleware . The unique insight of this longtime best seller is that the major issues of software development are human, not technical. They're not easy issues; but solve them, and you'll maximize your chances of success. "Peopleware has long been one of my two favorite books on software engineering. Its underlying strength is its base of immense real experience, much of it

quantified. Many, many varied projects have been reflected on and distilled; but what we are given is not just lifeless distillate, but vivid examples from which we share the authors' inductions. Their premise is right: most software project problems are sociological, not technological. The insights on team jelling and work environment have changed my thinking and teaching. The third edition adds strength to strength." — Frederick P. Brooks, Jr., Kenan Professor of Computer Science, University of North Carolina at Chapel Hill, Author of The Mythical Man-Month and The Design of Design "Peopleware is the one book that everyone who runs a software team needs to read and reread once a year. In the quarter century since the first edition appeared, it has become more important, not less, to think about the social and human issues in software develop¿ment. This is the only way we're going to make more humane, productive workplaces. Buy it, read it, and keep a stock on hand in the office supply closet." —Joel Spolsky, Co-founder, Stack Overflow "When a book about a field as volatile as software design and use extends to a third edition, you can be sure that the authors write of deep principle, of the fundamental causes for what we readers experience, and not of the surface that everyone recognizes. And to bring people, actual human beings, into the mix! How excellent. How rare. The authors have made this third edition, with its additions, entirely terrific." —Lee Devin and Rob Austin, Co-authors of The Soul of Design and Artful Making For this third edition, the authors have added six new chapters and updated the text throughout, bringing it in line with today's development environments and challenges. For example, the book now discusses pathologies of leadership that hadn't previously been judged to be pathological; an evolving culture of meetings; hybrid teams made up of people from seemingly incompatible generations; and a growing awareness that some of our most common tools are more like anchors than propellers. Anyone who needs to manage a software project or software organization will find invaluable advice throughout the book.

Maximizing ROI on Software Development explains how to execute best quality software development and testing while maximizing business value. It discusses Applied ROI in the context of methodologies such as Agile and Extreme Programming, and traditional methodologies including Six Sigma, the Capability Maturity Model (CMM), Total Cost of Ownershi

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