

Integrating Agile Development In The Real World

CMMI® for Development (CMMI-DEV) describes best practices for the development and maintenance of products and services across their lifecycle. By integrating essential bodies of knowledge, CMMI-DEV provides a single, comprehensive framework for organizations to assess their development and maintenance processes and improve performance. Already widely adopted throughout the world for disciplined, high-quality engineering, CMMI-DEV Version 1.3 now accommodates other modern approaches as well, including the use of Agile methods, Lean Six Sigma, and architecture-centric development. CMMI® for Development, Third Edition, is the definitive reference for CMMI-DEV Version 1.3. The authors have revised their tips, hints, and cross-references, which appear in the margins of the book, to help you better understand, apply, and find information about the content of each process area. The book includes new and updated perspectives on CMMI-DEV in which people influential in the model's creation, development, and transition share brief but valuable insights. It also features four new case studies and five contributed essays with practical advice for adopting and using CMMI-DEV. This book is an essential resource—whether you are new to CMMI-DEV or are familiar with an earlier version—if you need to know about, evaluate, or put the latest version of the model into practice. The book is divided into three parts. Part One offers the broad view of CMMI-DEV, beginning with basic concepts of process improvement. It introduces the process areas, their components, and their relationships to each other. It describes effective paths to the adoption and use of CMMI-DEV for process improvement and benchmarking, all illuminated with fresh case studies and helpful essays. Part Two, the bulk of the book, details the generic goals and practices and the twenty-two process areas now comprising CMMI-DEV. The process areas are organized alphabetically by acronym for easy reference. Each process area includes goals, best practices, and examples. Part Three contains several useful resources, including CMMI-DEV-related references, acronym definitions, a glossary of terms, and an index.

Covers important concepts, issues, trends, methodologies, and technologies in quality assurance for model-driven software development.

A major benefit of Additive Manufacturing (AM) is a faster timeline from design to fabrication. As AM has matured to be able to create functional prototypes and end-use products, the ability to quickly fabricate physical hardware iterations without associated tooling costs and lead times is now possible. Software companies have embraced iterative-based product development processes (PDP) such as Agile. Iterative development has allowed for the validation of innovative and untried solutions, fueling the rapid speed of software development. However, within complex hardware industries, like automotive and aerospace, almost all companies instead follow a Waterfall or Phase-Gate PDP. Large capital costs, along with the aforementioned lengthy tooling and supplier lead times, make the control and predictability of a Phase-Gate process appealing. However, the trade-off is a process where the final content gets decided near the beginning of a multi-year timeline, often translating to product launches with soon-to-be stale technologies. Within the context of automotive, this thesis explores how leading edge technology could continue development in a parallel Agile process. Though the use of AM, the new technology could be integrated later into a Phase-Gate process with minimal schedule risk or cost. This process keeps the strict one-way review gates for the more stable components, while allowing greater flexibility for innovative features that could benefit from further iteration. I use Design Structure Matrix theory to simulate the performance and schedule of this proposed PDP. I then discuss the implications of this new PDP architecture and its benefits for complex hardware industries in general.

The Fit open source testing framework brings unprecedented agility to the entire development process. Fit for Developing Software shows you how to use Fit to clarify business rules,

express them with concrete examples, and organize the examples into test tables that drive testing throughout the software lifecycle. Using a realistic case study, Rick Mugridge and Ward Cunningham--the creator of Fit--introduce each of Fit's underlying concepts and techniques, and explain how you can put Fit to work incrementally, with the lowest possible risk. Highlights include Integrating Fit into your development processes Using Fit to promote effective communication between businesspeople, testers, and developers Expressing business rules that define calculations, decisions, and business processes Connecting Fit tables to the system with "fixtures" that check whether tests are actually satisfied Constructing tests for code evolution, restructuring, and other changes to legacy systems Managing the quality and evolution of tests A companion Web site (<http://fit.c2.com/>) that offers additional resources and source code

To provide the necessary security and quality assurance activities into Internet of Things (IoT)-based software development, innovative engineering practices are vital. They must be given an even higher level of importance than most other events in the field. Integrating the Internet of Things Into Software Engineering Practices provides research on the integration of IoT into the software development life cycle (SDLC) in terms of requirements management, analysis, design, coding, and testing, and provides security and quality assurance activities to IoT-based software development. The content within this publication covers agile software, language specification, and collaborative software and is designed for analysts, security experts, IoT software programmers, computer and software engineers, students, professionals, and researchers.

Every business in every industry today must be nimble/agile. Being Agile takes a critical look at what it means to be nimble/agile in any organization or context. Joseph goes beyond simply applying a methodology or framework from software development and provides a perspective for being agile in any organization. In his critical analysis of the agile movement Joseph identifies the misuses of the word agile in the software industry that have contributed to confusion and misconceptions. He pushes deep into the principles that support agility in any organization. Gain a solid foundation in the principles that make agile successful and learn how to apply them to your context. Not just theory, each chapter includes a study guide to help you immediately improve your agility and in your organization. Being Agile examines:

- Agile misconceptions, refining your understanding
- How context affects your ability to be agile
- Being agile with projects vs products (it isn't the same)
- How to determine your Agility Horizon.
- The impact of organizational culture on agility
- The critical role of leaders in becoming agile

The book culminates with five core practices from the agile movement that anyone can apply in any context to improve effectiveness.

For any software developer who has spent days in "integration hell," cobbling together myriad software components, Continuous Integration: Improving Software Quality and Reducing Risk illustrates how to transform integration from a necessary evil into an everyday part of the development process. The key, as the authors show, is to integrate regularly and often using continuous integration (CI) practices and techniques. The authors first examine the concept of CI and its practices from the ground up and then move on to explore other effective processes performed by CI systems, such as database integration, testing, inspection, deployment, and feedback. Through more than forty CI-related practices using application examples in different languages, readers learn that CI leads to more rapid software development, produces deployable software at every step in the development lifecycle, and reduces the time between defect introduction and detection, saving time and lowering costs. With successful implementation of CI, developers reduce risks and repetitive manual processes, and teams receive better project visibility. The book covers How to make integration a "non-event" on your software development projects How to reduce the amount of repetitive processes you perform when building your software Practices and techniques for using CI effectively with your

teams Reducing the risks of late defect discovery, low-quality software, lack of visibility, and lack of deployable software Assessments of different CI servers and related tools on the market The book's companion Web site, www.integratebutton.com, provides updates and code examples.

This open access book constitutes the proceedings of the 19th International Conference on Agile Software Development, XP 2018, held in Porto, Portugal, in May 2018. XP is the premier agile software development conference combining research and practice, and XP 2018 provided a playful and informal environment to learn and trigger discussions around its main theme – make, inspect, adapt. The 21 papers presented in this volume were carefully reviewed and selected from 62 submissions. They were organized in topical sections named: agile requirements; agile testing; agile transformation; scaling agile; human-centric agile; and continuous experimentation.

For those considering Extreme Programming, this book provides no-nonsense advice on agile planning, development, delivery, and management taken from the authors' many years of experience. While plenty of books address the what and why of agile development, very few offer the information users can apply directly.

Is your organization moving to Scrum? Are you new to project management and your developers use Scrum? Have you moved to Scrum but you find something lacking? Then this book is for you. Integrating Agile Scrum into the Waterfall Process provides a step-by-step implementation. This book can be used to learn what is expected in each product development phase, what documents are to be created, team member's responsibilities, along with practical, real world, suggestions, and hints to better manage people and process. Now your continually released products can come out on time, on budget, and with the features customers want. Changes need to be made to an existing Waterfall process when organizations incorporate Scrum and move their project development from a sequential environment to an iterative one. By realigning Waterfall to flow into and support the Scrum framework, continuously released products can be effectively and efficiently managed. Waterfall and Scrum frameworks are complementary. Waterfall provides an excellent model for managing a product through its life cycle. Waterfall does not identify best practices for managing the development process;--Scrum does. Integrating Agile Scrum into the Waterfall Process has been designed for a Project Manager, a Product Owner, a ScrumMaster, or anyone else involved with Product Lifecycle Management.

Software Development is moving towards a more agile and more flexible approach. It turns out that the traditional "waterfall" model is not supportive in an environment where technical, financial and strategic constraints are changing almost every day. But what is agility? What are today's major approaches? And especially: What is the impact of agile development principles on the development teams, on project management and on software architects? How can large enterprises become more agile and improve their business processes, which have been existing since many, many years? What are the limitations of Agility? And what is the right balance between reliable structures and flexibility? This book will give answers to these questions. A strong emphasis will be on real life project examples, which describe how development teams have moved from a waterfall model towards an Agile Software Development approach.

Human-Centered Software Engineering: Bridging HCI, Usability and Software Engineering From its beginning in the 1980's, the field of human-computer interaction (HCI) has been a multidisciplinary arena. By this I mean that there has been an explicit recognition that distinct skills and perspectives are required to make the whole effort of designing usable computer systems work well. Thus people with backgrounds in Computer Science (CS) and Software Engineering (SE) joined with people with backgrounds in various behavioral science disciplines (e. g. , cognitive and social psychology,

anthropology) in an effort where all perspectives were seen as essential to creating usable systems. But while the field of HCI brings individuals with many background disciplines together to discuss a common goal - the development of useful, usable, satisfying systems - the form of the collaboration remains unclear. Are we striving to coordinate the varied activities in system development, or are we seeking a richer collaborative framework? In coordination, Usability and SE skills can remain quite distinct and while the activities of each group might be critical to the success of a project, we need only insure that critical results are provided at appropriate points in the development cycle. Communication by one group to the other during an activity might be seen as only minimally necessary. In collaboration, there is a sense that each group can learn something about its own methods and processes through a close partnership with the other. Communication during the process of gathering information from target users of a system by usability professionals would not be seen as something that gets in the way of the essential work of software engineering professionals.

This book examines the possibilities of incorporating elements of user-centred design (UCD) such as user experience (UX) and usability with agile software development. It explores the difficulties and problems inherent in integrating these two practices despite their relative similarities, such as their emphasis on stakeholder collaboration. Developed from a workshop held at NordiCHI in 2014, this edited volume brings together researchers from across the software development, UCD and creative design fields to discuss the current state-of-the-art. Practical case studies of integrating UCD in Agile development across diverse contexts are presented, whilst the different futures for UCD and other design practices in the context of agile software development are identified and explored. *Integrating User Centred Design in Agile Development* will be ideal for researchers, designers and academics who are interested in software development, user-centred design, agile methodologies and related areas.

This book constitutes the thoroughly refereed post-proceedings of the Second International Workshop on Rapid Integration of Software Engineering Techniques, RISE 2005. The book presents 19 revised full papers together with the abstract of a keynote paper. Among the topics addressed are modelling safety case evolution, practical approaches in model mapping, context-aware service composition, techniques for representing product line core assets for automation, formal development of reactive fault-tolerant systems, and more.

In his study, Mahdi Derakhshanmanesh builds on the state of the art in modeling by proposing to integrate models into running software on the component-level without translating them to code. Such so-called model-integrating software exploits all advantages of models: models implicitly support a good separation of concerns, they are self-documenting and thus improve understandability and maintainability and in contrast to model-driven approaches there is no synchronization problem anymore between the models and the code generated from them. Using model-integrating components, software will be easier to build and easier to evolve by just modifying the respective model in an editor. Furthermore, software may also adapt itself at runtime by transforming its own model part.

"This book investigates the integration of security concerns into software engineering practices, drawing expertise from the security and the software engineering community; and discusses future visions and directions for the field of secure software engineering"--Provided by publisher.

Get past the myths of testing in agile environments - and implement agile testing the RIGHT way. * * For everyone concerned with agile testing: developers, testers, managers, customers, and other stakeholders. * Covers every key issue: Values, practices, organizational and cultural challenges, collaboration, metrics, infrastructure, documentation, tools, and more. * By two of the world's most experienced agile testing practitioners and consultants. Software testing has always been crucial, but it may be even more crucial in agile environments that rely heavily on repeated iterations of software capable of passing tests. There are, however, many

myths associated with testing in agile environments. This book helps agile team members overcome those myths -- and implement testing that truly maximizes software quality and value. Long-time agile testers Lisa Crispin and Janet Gregory offer powerful insights for three large, diverse groups of readers: experienced testers who are new to agile; members of newly-created agile teams who aren't sure how to perform testing or work with testers; and test/QA managers whose development teams are implementing agile. Readers will learn specific agile testing practices and techniques that can mean the difference between success and failure; discover how to transition 'traditional' test teams to agile; and learn how to integrate testers smoothly into agile teams. Drawing on extensive experience, the authors illuminate topics ranging from culture to test planning to automated tools. They cover every form of testing: business-facing tests, technology-facing tests, exploratory tests, context-driven and scenario tests, load, stability, and endurance tests, and more. Using this book's techniques, readers can improve the effectiveness and reduce the risks of any agile project or initiative.

The organization pursuing digital transformation must embrace new ways to use and deploy integration technologies, so they can move quickly in a manner appropriate to the goals of multicloud, decentralization, and microservices. The integration layer must transform to allow organizations to move boldly in building new customer experiences, rather than forcing models for architecture and development that pull away from maximizing the organization's productivity. Many organizations have started embracing agile application techniques, such as microservice architecture, and are now seeing the benefits of that shift. This approach complements and accelerates an enterprise's API strategy. Businesses should also seek to use this approach to modernize their existing integration and messaging infrastructure to achieve more effective ways to manage and operate their integration services in their private or public cloud. This IBM® Redbooks® publication explores the merits of what we refer to as agile integration; a container-based, decentralized, and microservice-aligned approach for integration solutions that meets the demands of agility, scalability, and resilience required by digital transformation. It also discusses how the IBM Cloud Pak for Integration marks a significant leap forward in integration technology by embracing both a cloud-native approach and container technology to achieve the goals of agile integration. The target audiences for this book are cloud integration architects, IT specialists, and application developers.

Software engineering has surfaced as an industrial field that is continually evolving due to the emergence of advancing technologies and innovative methodologies. Scrum is the most recent revolution that is transforming traditional software procedures, which has researchers and practitioners scrambling to find the best techniques for implementation. The continued development of this agile process requires an extensive level of research on up-to-date findings and applicable practices. *Agile Scrum Implementation and Its Long-Term Impact on Organizations* is a collection of innovative research on the methods and applications of scrum practices in developing agile software systems. The book combines perspectives from both the academic and professional communities as the challenges and solutions expressed by each group can create a better understanding of how practice must be applied in the real world of software development. While highlighting topics including scrum adoption, iterative deployment, and human impacts, this book is ideally designed for researchers, developers, engineers, practitioners, academicians, programmers, students, and educators seeking current research on practical improvements in agile software progression using scrum methodologies. The rules and practices for Scrum—a simple process for managing complex projects—are few, straightforward, and easy to learn. But Scrum's simplicity itself—its lack of prescription—can be disarming, and new practitioners often find themselves reverting to old project management habits and tools and yielding lesser results. In this illuminating series of case studies, Scrum co-creator and evangelist Ken Schwaber identifies the real-world lessons—the successes and failures—culled from his years of experience coaching companies in agile project management.

Through them, you'll understand how to use Scrum to solve complex problems and drive better results—delivering more valuable software faster. Gain the foundation in Scrum theory—and practice—you need to: Rein in even the most complex, unwieldy projects Effectively manage unknown or changing product requirements Simplify the chain of command with self-managing development teams Receive clearer specifications—and feedback—from customers Greatly reduce project planning time and required tools Build—and release—products in 30-day cycles so clients get deliverables earlier Avoid missteps by regularly inspecting, reporting on, and fine-tuning projects Support multiple teams working on a large-scale project from many geographic locations Maximize return on investment!

This book explores the application of agile and lean techniques, originally from the field of software development and manufacturing, to various aspects of education. It covers a broad range of topics, including applying agile teaching and learning techniques in the classroom, incorporating lean thinking in educational workflows, and using team-based approaches to student-centred activities based on agile principles and processes. Demonstrating how agile and lean ideas can concretely be applied to education, the book offers practical guidance on how to apply these ideas in the classroom or lecture hall, as well as new concepts that could spark further research and development.

Computer Architecture/Software Engineering

Many organizations that have improved process maturity through Capability Maturity Model Integration (CMMI®) now also want greater agility. Conversely, many organizations that are succeeding with Agile methods now want the benefits of more mature processes. The solution is to integrate CMMI and Agile. Integrating CMMI® and Agile Development offers broad guidance for melding these process improvement methodologies. It presents six detailed case studies, along with essential real-world lessons, big-picture insights, and mistakes to avoid. Drawing on decades of process improvement experience, author Paul McMahon explains how combining an Agile approach with the CMMI process improvement framework is the fastest, most effective way to achieve your business objectives. He offers practical, proven techniques for CMMI and Agile integration, including new ways to extend Agile into system engineering and project management and to optimize performance by focusing on your organization's unique, culture-related weaknesses.

This book contains the refereed proceedings of the 17th International Conference on Agile Software Development, XP 2016, held in Edinburgh, UK, in May 2016. While agile development has already become mainstream in industry, this field is still constantly evolving and continues to spur an enormous interest both in industry and academia. To this end, the XP conference attracts a large number of software practitioners and researchers, providing a rare opportunity for interaction between the two communities. The 14 full papers accepted for XP 2016 were selected from 42 submissions. Additionally, 11 experience reports (from 25 submissions) 5 empirical studies (out of 12 submitted) and 5 doctoral papers (from 6 papers submitted) were selected, and in each case the authors were shepherded by an experienced researcher. Generally, all of the submitted papers went through a rigorous peer-review process.

"This book provides the research and instruction used to develop and implement software quickly, in small iteration cycles, and in close cooperation with the customer in an adaptive way, making it possible to react to changes set by the constant changing business environment. It presents four values explaining extreme programming (XP), the most widely adopted agile methodology"--Provided by publisher.

The three-volume set LNCS 9186, 9187, and 9188 constitutes the proceedings of the 4th International Conference on Design, User Experience, and Usability, DUXU 2015, held as part of the 17th International Conference on Human-Computer Interaction, HCI

2015, in Los Angeles, CA, USA, in August 2015, jointly with 13 other thematically similar conferences. The total of 1462 papers and 246 posters presented at the HCII 2015 conferences were carefully reviewed and selected from 4843 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The total of 132 contributions included in the DUXU proceedings were carefully reviewed and selected for inclusion in this three-volume set. The 61 papers included in this volume are organized in topical sections on design thinking, user experience design and usability methods and tools, DUXU management and practice, emotional and persuasion design, and storytelling, narrative and fiction in DUXU.

Lean Software Development: An Agile Toolkit Adapting agile practices to your development organization Uncovering and eradicating waste throughout the software development lifecycle Practical techniques for every development manager, project manager, and technical leader Lean software development: applying agile principles to your organization In *Lean Software Development*, Mary and Tom Poppendieck identify seven fundamental "lean" principles, adapt them for the world of software development, and show how they can serve as the foundation for agile development approaches that work. Along the way, they introduce 22 "thinking tools" that can help you customize the right agile practices for any environment. Better, cheaper, faster software development. You can have all three—if you adopt the same lean principles that have already revolutionized manufacturing, logistics and product development. **Iterating towards excellence: software development as an exercise in discovery** Managing uncertainty: "decide as late as possible" by building change into the system. **Compressing the value stream: rapid development, feedback, and improvement** Empowering teams and individuals without compromising coordination **Software with integrity: promoting coherence, usability, fitness, maintainability, and adaptability** How to "see the whole"—even when your developers are scattered across multiple locations and contractors Simply put, *Lean Software Development* helps you refocus development on value, flow, and people—so you can achieve breakthrough quality, savings, speed, and business alignment.

Overview and Goals The agile approach for software development has been applied more and more extensively since the mid nineties of the 20th century. Though there are only about ten years of accumulated experience using the agile approach, it is currently conceived as one of the mainstream approaches for software development. This book presents a complete software engineering course from the agile angle. Our intention is to present the agile approach in a holistic and comprehensive learning environment that fits both industry and academia and inspires the spirit of agile software development. Agile software engineering is reviewed in this book through the following three perspectives: | The Human perspective, which includes cognitive and social aspects, and refers to learning and interpersonal processes between teammates, customers, and management. | The Organizational perspective, which includes managerial and cultural aspects, and refers to software project management and control. | The Technological perspective, which includes practical and technical aspects, and refers to design, testing, and coding, as well as to integration, delivery, and maintenance of

software products. Specifically, we explain and analyze how the explicit attention that agile software development gives these perspectives and their interconnections, helps it cope with the challenges of software projects. This multifaceted perspective on software development processes is reflected in this book, among other ways, by the chapter titles, which specify dimensions of software development projects such as quality, time, abstraction, and management, rather than specific project stages, phases, or practices.

Best practices for managing projects in agile environments—now updated with new techniques for larger projects Today, the pace of project management moves faster. Project management needs to become more flexible and far more responsive to customers. Using Agile Project Management (APM), project managers can achieve all these goals without compromising value, quality, or business discipline. In *Agile Project Management, Second Edition*, renowned agile pioneer Jim Highsmith thoroughly updates his classic guide to APM, extending and refining it to support even the largest projects and organizations. Writing for project leaders, managers, and executives at all levels, Highsmith integrates the best project management, product management, and software development practices into an overall framework designed to support unprecedented speed and mobility. The many topics added in this new edition include incorporating agile values, scaling agile projects, release planning, portfolio governance, and enhancing organizational agility. Project and business leaders will especially appreciate Highsmith's new coverage of promoting agility through performance measurements based on value, quality, and constraints. This edition's coverage includes:

- Understanding the agile revolution's impact on product development
- Recognizing when agile methods will work in project management, and when they won't
- Setting realistic business objectives for Agile Project Management
- Promoting agile values and principles across the organization
- Utilizing a proven Agile Enterprise Framework that encompasses governance, project and iteration management, and technical practices
- Optimizing all five stages of the agile project: Envision, Speculate, Explore, Adapt, and Close
- Organizational and product-related processes for scaling agile to the largest projects and teams
- Agile project governance solutions for executives and management
- The "Agile Triangle": measuring performance in ways that encourage agility instead of discouraging it
- The changing role of the agile project leader

UNISCON 2009 (United Information Systems Conference) was the third conference in the series that is based on the idea to pool smaller but highly interesting scientific events on information systems into one large conference. Here, people from different scientific backgrounds can present their research results, share their ideas and discuss future trends in these various areas. UNISCON 2009 was held in Sydney, Australia in the University of Western Sydney, Campbelltown Campus. In 2009 the following scientific events were held under the umbrella of UNISCON 2009: th – 8 International Conference on Information Systems Technology and Its Applications (ISTA 2009) th – 8 International Workshop on Conceptual Modelling Approaches for e- Business (eCOMO 2009) – Second Workshop on Model-Based Software and Data Integration (MBSDI 2009) We received 115 papers for the three events. Papers were submitted from over 25 countries. After a rigorous review process, 39 papers were accepted as full papers and 14 papers as short papers for presentation at the conference and published in

these proceedings. In addition to the above three events, we also organized a Doctoral Consortium to provide a forum for doctoral students to get feedback from experts in the area about their research projects.

Integrating CMMI and Agile Development Case Studies and Proven Techniques for Faster Performance Improvement Pearson Education

Agile development methodologies may have started life in IT, but their widespread and continuing adoption means there are many practitioners outside of IT—including designers—who need to change their thinking and adapt their practices. This is the missing book about agile that shows how designers, product managers, and development teams can integrate experience design into lean and agile product development. It equips you with tools, techniques and a framework for designing great experiences using agile methods so you can deliver timely products that are technically feasible, profitable for the business, and desirable from an end-customer perspective. This book will help you successfully integrate your design process on an agile project and feel like part of the agile team. Do good design faster by doing just enough, just in time. Use design methods from disciplines such as design thinking, customer-centered design, product design, and service design. Create successful digital products by considering the needs of the end-customer, the business, and technology. Understand the next wave of thinking about continuous design and continuous delivery.

The four-volume set LNCS 8517, 8518, 8519 and 8520 constitutes the proceedings of the Third International Conference on Design, User Experience and Usability, DUXU 2014, held as part of the 16th International Conference on Human-Computer Interaction, HCII 2014, held in Heraklion, Crete, Greece in June 2014, jointly with 13 other thematically similar conferences. The total of 1476 papers and 220 posters presented at the HCII 2014 conferences were carefully reviewed and selected from 4766 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The total of 256 contributions included in the DUXU proceedings were carefully reviewed and selected for inclusion in this four-volume set. The 66 papers included in this volume are organized in topical sections on design theories, methods and tools; user experience evaluation; heuristic evaluation; media and design; design and creativity.

This book constitutes the refereed proceedings of the 7th International Conference on Extreme Programming and Agile Processes in Software Engineering, XP 2006, held in Oulu, Finland, June 2006. The book presents 16 revised full papers together with 6 experience papers, 12 poster papers and panel summaries, organized in topical sections on foundation and rationale for agile methods, effects of pair programming, quality in agile software development, and more.

It's time to extend the benefits of Scrum—greater agility, higher-quality products, and lower costs—from individual teams to your entire enterprise. However, with Scrum's lack of prescribed rules, the friction of change can be challenging as people struggle to break from old project management habits. In this book, agile-process revolution leader Ken Schwaber takes you through change management—for your organizational and interpersonal processes—explaining how to successfully adopt Scrum across your entire

organization. A cofounder of Scrum, Ken draws from decades of experience, answering your questions through case studies of proven practices and processes. With them, you'll learn how to adopt—and adapt—Scrum in the enterprise. And gain profound levels of transparency into your development processes. Discover how to: Evaluate the benefits of adopting Scrum in any size organization Initiate an enterprise transition project Implement a single, prioritized Product Backlog Organize effective Scrum teams using a top-down approach Adapt and apply solutions for integrating engineering practices across multiple teams Shorten release times by managing high-value increments Refine your Scrum practices and help reduce the length of Sprints

Being a certified bibliophile and a professional geek, I have more shelf space devoted to books on software methods than any reasonable human should possess. *Balancing Agility and Discipline* has a prominent place in that section of my library, because it has helped me sort through the noise and smoke of the current method wars. --From the Foreword by Grady Booch This is an outstanding book on an emotionally complicated topic. I applaud the authors for the care with which they have handled the subject. --From the Foreword by Alistair Cockburn The authors have done a commendable job of identifying five critical factors--personnel, criticality, size, culture, and dynamism--for creating the right balance of flexibility and structure. Their thoughtful analysis will help developers who must sort through the agile-disciplined debate, giving them guidance to create the right mix for their projects. --From the Foreword by Arthur Pyster

*Agility and discipline: These apparently opposite attributes are, in fact, complementary values in software development. Plan-driven developers must also be agile; nimble developers must also be disciplined. The key to success is finding the right balance between the two, which will vary from project to project according to the circumstances and risks involved. Developers, pulled toward opposite ends by impassioned arguments, ultimately must learn how to give each value its due in their particular situations. *Balancing Agility and Discipline* sweeps aside the rhetoric, drills down to the operational core concepts, and presents a constructive approach to defining a balanced software development strategy. The authors expose the bureaucracy and stagnation that mark discipline without agility, and liken agility without discipline to unbridled and fruitless enthusiasm. Using a day in the life of two development teams and ground-breaking case studies, they illustrate the differences and similarities between agile and plan-driven methods, and show that the best development strategies have ways to combine both attributes. Their analysis is both objective and grounded, leading finally to clear and practical guidance for all software professionals--showing how to locate the sweet spot on the agility-discipline continuum for any given project.* 0321186125B10212003

Deliver Better Games Faster, On Budget—And Make Game Development Fun Again! Game development is in crisis—facing bloated budgets, impossible schedules, unmanageable complexity, and death march overtime. It's no wonder so many development studios are struggling to survive. Fortunately, there is a solution. Scrum and Agile methods are already revolutionizing development outside the game industry. Now, long-time game developer Clinton Keith shows exactly how to successfully apply these methods to the unique challenges of game development. Keith has spent more than fifteen years developing games, seven of them with Scrum and agile methods. Drawing on this unparalleled expertise, he shows how teams can use Scrum to deliver games more efficiently, rapidly, and cost-effectively; craft games that offer more

entertainment value; and make life more fulfilling for development teams at the same time. You'll learn to form successful agile teams that incorporate programmers, producers, artists, testers, and designers—and promote effective collaboration within and beyond those teams, throughout the entire process. From long-range planning to progress tracking and continuous integration, Keith offers dozens of tips, tricks, and solutions—all based firmly in reality and hard-won experience. Coverage includes Understanding Scrum's goals, roles, and practices in the context of game development Communicating and planning your game's vision, features, and progress Using iterative techniques to put your game into a playable state every two to four weeks—even daily Helping all team participants succeed in their roles Restoring stability and predictability to the development process Managing ambiguous requirements in a fluid marketplace Scaling Scrum to large, geographically distributed development teams Getting started: overcoming inertia and integrating Scrum into your studio's current processes Increasingly, game developers and managers are recognizing that things can't go on the way they have in the past. Game development organizations need a far better way to work. Agile Game Development with Scrum gives them that—and brings the profitability, creativity, and fun back to game development.

Today, even the largest development organizations are turning to agile methodologies, seeking major productivity and quality improvements. However, large-scale agile development is difficult, and publicly available case studies have been scarce. Now, three agile pioneers at Hewlett-Packard present a candid, start-to-finish insider's look at how they've succeeded with agile in one of the company's most mission-critical software environments: firmware for HP LaserJet printers. This book tells the story of an extraordinary experiment and journey. Could agile principles be applied to re-architect an enormous legacy code base? Could agile enable both timely delivery and ongoing innovation? Could it really be applied to 400+ developers distributed across four states, three continents, and four business units? Could it go beyond delivering incremental gains, to meet the stretch goal of 10x developer productivity improvements? It could, and it did—but getting there was not easy. Writing for both managers and technologists, the authors candidly discuss both their successes and failures, presenting actionable lessons for other development organizations, as well as approaches that have proven themselves repeatedly in HP's challenging environment. They not only illuminate the potential benefits of agile in large-scale development, they also systematically show how these benefits can actually be achieved. Coverage includes:

- Tightly linking agile methods and enterprise architecture with business objectives
- Focusing agile practices on your worst development pain points to get the most bang for your buck
- Abandoning classic agile methods that don't work at the largest scale
- Employing agile methods to establish a new architecture
- Using metrics as a “conversation starter” around agile process improvements
- Leveraging continuous integration and quality systems to reduce costs, accelerate schedules, and automate the delivery pipeline
- Taming the planning beast with “light-touch” agile planning and lightweight long-range forecasting
- Implementing effective project management and ensuring accountability in large agile projects
- Managing tradeoffs associated with key decisions about organizational structure
- Overcoming U.S./India cultural differences that can complicate offshore development
- Selecting tools to support quantum leaps in productivity in your organization
- Using change

management disciplines to support greater enterprise agility

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