

Customer Centered Products Creating Successful Products Through Smart Requirements Management

The Second Edition features new content, examples, methods, techniques, and best practices Assurance Technologies Principles and Practices is based on the assertion that safety is not a cost, but an excellent investment. According to the authors, more than sixty percent of problems in complex systems arise from incomplete, vague, and poorly written specifications. In keeping with the authors' passion for safety, the text is dedicated to uniting the gamut of disciplines that are essential for effective design applying assurance technology principles, including system safety, reliability, maintainability, human engineering, quality, logistics, software integrity, and system integration. Readers familiar with the first edition of this text will recognize all the hallmarks that have made it a classic in its field. The Second Edition features a host of new examples, methods, techniques, and best practices to bring the text fully up to date with the state of the art in assurance technology. Much new content has been added as well, including four new chapters: Managing Safety-Related Risks Statistical Concepts, Loss Analysis, and Safety-Related Applications Models, Concepts, and Examples: Applying Scenario-Driven Hazard Analysis Automation, Computer, and Software Complexities The text begins with an introduction and overview of assurance technology. Next, readers are provided with fundamental statistical concepts. The chapters that follow explore in depth the approaches and disciplines that make up assurance technology applications. Each chapter is organized into major phases-design, manufacturing, test, and use phase-that help readers understand both how and when to apply particular measures. Throughout the text, readers discover detailed examples that prepare them to manage real-world challenges. References and further reading are provided at the end of each chapter leading to more in-depth discussion on specialized topics. With its extensive use of examples and highly structured approach, this is an excellent course book for students in industrial engineering, systems engineering, risk engineering, and other assurance technology domains. Design and system engineers as well as safety professionals will find the material essential in troubleshooting complex projects and ensuring product, process, and system safety.

DepCoS – RELCOMEX is an annual series of conferences organized by the Institute of Computer Engineering, Control and Robotics (CECR), Wrocław University of Technology, since 2006. Its idea came from the heritage of the other two cycles of events: RELCOMEX Conferences (1977 – 89) and Microcomputer Schools (1985 – 95) which were then organized by the Institute of Engineering Cybernetics, the previous name of CECR. In contrast to those preceding meetings focused on the conventional reliability analysis, the DepCoS mission is to develop a more comprehensive approach to computer system performability, which is now commonly called dependability. Contemporary technical systems are integrated unities of technical, information, organization, software and human resources. Diversity of the processes being realized in the system, their concurrency and their reliance on in-system intelligence significantly impedes construction of strict mathematical models and calls for application of intelligent and soft computing methods. The submissions included in this volume illustrate variety of problems that need to be explored in the dependability analysis: methodologies and practical tools for modeling, design and simulation of the systems, security and confidentiality in information processing, specific issues of heterogeneous, today often wireless, computer networks, or management of transportation networks. "I spend much time helping organizations capture requirements and even more time helping them recover from not capturing requirements. Many of them have gone through some motions regarding requirements as if they were sleepworking. It's time to wake up and do it right-and this book is going to be their alarm clock." -Jerry Weinberg, author of numerous books on productivity enhancement "In today's complex, fast-paced software development environment, collaboration-the intense peer-to-peer conversations that result in products, decisions, and knowledge sharing-is absolutely essential to success. But all too often, attempts to collaborate degenerate into agonizing meetings or ineffectual bull sessions. Ellen's wonderful book will help you bridge the gap-turning the agony of meetings into the ecstasy of effective collaboration." -Jim Highsmith, a pioneer in adaptive software development methods "Requirements by Collaboration presents a wealth of practical tools and techniques for facilitating requirements development workshops. It is suitable-no, essential reading-for requirements workshop facilitators. It will help both technical people and customer representatives participate in these critical contributions to software success." -Karl Wieggers, Principal Consultant, Process Impact, author of Software Requirements "The need for this particular book, at this particular time, is crystal clear. We have entered a new age where software development must be viewed as a form of business problem solving. That means direct user participation in developing "requirements," or more accurately, in jointly working the business problem. That, in turn, means facilitated sessions. In this book, Ellen Gottesdiener provides a wealth of practical ideas for ensuring that you have exactly the right stuff for this all-important area of professional art." -Ronald G. Ross, Principal, Business Rule Solutions, LLC, Executive Editor, www.BRCommunity.com "Gottesdiener's years of software development experience coupled with her straight-forward writing style make her book a perfect choice for either a senior developer or a midlevel project manager. In addition to her technical experience, her knowledge of group dynamics balance the book by educating the reader on how to manage conflict and personality differences within a requirements team-something that is missing from most requirements textbooks...It is a required "handbook" that will be referred to again and again." -Kay Christian, ebusiness Consultant, Conifer, Colorado "Requirements by Collaboration is a "must read" for any system stakeholder. End users and system analysts will learn the significant value they can add to the systems development process. Management will learn the tremendous return they may receive from making a modest time/people investment in facilitated sessions. Facilitators will discover ways to glean an amazing amount of high-quality information in a relatively brief time." -Russ Schwartz, Computer System Quality Consultant, Global Biotechnology Firm "In addition to showing how requirements are identified, evaluated, and confirmed, Ellen provides important guidance based on her own real-world experience for creating and managing the workshop environment in which requirements are generated. This book is an engaging and invaluable resource for project teams and sponsors, both business and IT, who are committed to achieving results in the most productive manner possible." -Hal Thilmony, Senior Manager, Business Process Improvement (Finance), CiscoSystems, Inc. "Project managers should read this book for assistance with planning the requirements process. Experienced facilitators will enrich their knowledge. New facilitators can use this book to get them up to speed and become more effective in less time." -Rob Stroober, Competence Development Manager and Project Manager, Deloitte & Touche Consultdata, The Netherlands "While many books discuss the details of software requirement artifacts (for example, use cases), Ellen's new book zeros in on effective workshop techniques and tools used to gather the content of these artifacts. As a pioneer in requirements workshops, she shares her real-life experiences in a comprehensive and easy-to-read book with many helpful examples and diagrams." -Bill Bird, Aera Energy LLC "Requirements by Collaboration is absolutely full of guidance on the most effective ways to use workshops in requirements capture. This book will help workshop owners and facilitators to determine and gain agreement on a sound set of requirements, which will form a solid foundation for the development work that is to follow." -Jennifer Stapleton, Software Process Consultant and author of DSDM: The Methodin Practice "This book provides an array of techniques within a clear, structured process, along with excellent examples of how and when to use them. It's an excellent, practical, and really useful handbook written by a very experienced author!" -Jean-Anne Kirk, Director DSDM Consortium and IAF Professional Development "Ellen has written a detailed, comprehensive, and practical handbook for facilitating groups in gathering requirements. The processes she outlines give the facilitator tools to bring together very different perspectives from stakeholders elegantly and with practical, useable results." -Jo Nelson, Principal, ICA Associates, Inc., Chair, IAF (2001-2002) Requirements by Collaboration: Workshops for Defining Needs focuses on the human side of software development--how well we work with our customers and teammates. Experience shows that the quality and degree of participation, communication, respect, and trust among all the stakeholders in a project can strongly influence its success or failure. Ellen Gottesdiener points out that such qualities are especially important

when defining user requirements and she shows in this book exactly what to do about that fact. Gottesdiener shows specifically how to plan and conduct requirements workshops. These carefully organized and facilitated meetings bring business managers, technical staff, customers, and users into a setting where, together, they can discover, evolve, validate, verify, and agree upon their product needs. Not only are their requirements more effectively defined through this collaboration, but the foundation is laid for good teamwork throughout the entire project. Other books focus on how to build the product right. Requirements by Collaboration focuses instead on what must come first--the right product to build.

The key principle of systems engineering is that an aircraft should be considered as a whole and not as a collection of parts. Another principle is that the requirements for the aircraft and its subsystems emanate from a logical set of organized functions and from economic or customer-oriented requirements as well as the regulatory requirements for certification. The resulting process promises to synthesize and validate the design of aircraft which are higher in quality, better meet customer requirements and are most economical to operate. This book is more of a how and a why guide rather than a what guide. It stresses systems engineering is an integrated technical-managerial process that can be adapted without sacrificing quality in which risk handling and management is a major part. It explains that the systems view applies to both the aircraft and the entire air transport system. The book emphasizes that system engineering is not an added layer of processes on top of the existing design processes; it is the glue that holds all the other processes together. The readership includes the aircraft industry, suppliers and regulatory communities, especially technical, program and procurement managers; systems, design and specialty engineers (human factors, reliability, safety, etc.); students of aeronautical and systems engineering and technical management; and government agencies such as FAA and JAA.

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.

New for the third edition, chapters on: Complete Exercise of the SE Process, System Science and Analytics and The Value of Systems Engineering The book takes a model-based approach to key systems engineering design activities and introduces methods and models used in the real world. This book is divided into three major parts: (1) Introduction, Overview and Basic Knowledge, (2) Design and Integration Topics, (3) Supplemental Topics. The first part provides an introduction to the issues associated with the engineering of a system. The second part covers the critical material required to understand the major elements needed in the engineering design of any system: requirements, architectures (functional, physical, and allocated), interfaces, and qualification. The final part reviews methods for data, process, and behavior modeling, decision analysis, system science and analytics, and the value of systems engineering. Chapter 1 has been rewritten to integrate the new chapters and updates were made throughout the original chapters. Provides an overview of modeling, modeling methods associated with SysML, and IDEF0 Includes a new Chapter 12 that provides a comprehensive review of the topics discussed in Chapters 6 through 11 via a simple system – an automated soda machine Features a new Chapter 15 that reviews General System Theory, systems science, natural systems, cybernetics, systems thinking, quantitative characterization of systems, system dynamics, constraint theory, and Fermi problems and guesstimation Includes a new Chapter 16 on the value of systems engineering with five primary value propositions: systems as a goal-seeking system, systems engineering as a communications interface, systems engineering to avert showstoppers, systems engineering to find and fix errors, and systems engineering as risk mitigation The Engineering Design of Systems: Models and Methods, Third Edition is designed to be an introductory reference for professionals as well as a textbook for senior undergraduate and graduate students in systems engineering. Dennis M. Buede, PhD, has thirty-nine years' experience in both the theoretical development and engineering application of systems engineering and decision-support technologies. Dr. Buede has applied systems engineering methods throughout the federal government. He has been a Professor at George Mason University and Stevens Institute of Technology, and is currently President of Innovative Decisions, Inc. He is a Fellow of the International Council on Systems Engineering (INCOSE). William D. Miller is an Executive Principal Analyst at Innovative Decisions, Inc. and Adjunct Professor at the Stevens Institute of Technology. Mr. Miller has forty-two years' experience as an engineer, manager, consultant, and educator in the conceptualization and engineering application of communications technologies, products and services in commercial and government sectors. He is a 48-year member of the IEEE, the former Technical Director of INCOSE and the current Editor-in-Chief of INSIGHT.

This book gives a comprehensive overview on Software Product Management (SPM) for beginners as well as best practices, methodology and in-depth discussions for experienced product managers. This includes product strategy, product planning, participation in strategic management activities and orchestration of the functional units of the company. The book is based on the results of the International Software Product Management Association (ISPMA) which is led by a group of SPM experts from industry and research with the goal to foster software product management excellence across industries. This book can be used as textbook for ISPMA-based education and as guide for anybody interested in SPM as one of the most exciting and challenging disciplines in the business of software. Hans-Bernd Kittlaus is the Chairman of ISPMA and owner and managing director of InnoTivum Consulting, Germany. Samuel Fricker is Board Member of ISPMA and Professor at FHNW, Switzerland.

This volume constitutes the refereed proceedings of the International Conferences, FGCM and DCA 2012, held as part of the Future Generation Information Technology Conference, FGIT 2012, Kangwondo, Korea, in December 2012. The papers presented were carefully reviewed and selected from numerous submissions and focus on the various aspects of grid and distributed computing, industrial environment, safety and health, and computer graphics, animation and game.

Advances in Design examines recent advances and innovations in product design paradigms, methods, tools and applications. It presents fifty-two selected papers which were presented at the 14th CIRP International Design Seminar held in May 2004. This book will be bought by postgraduate and senior undergraduate students studying product design. It will also be of interest to researchers and practitioners working in the field of product design.

Easy steps to effectively promoting a business on the Internet (without costing a fortune).

The Requirements Engineering HandbookArtech House

The six-volume set LNCS 8579-8584 constitutes the refereed proceedings of the 14th International Conference on Computational Science and Its Applications, ICCSA 2014, held in Guimarães, Portugal, in June/July 2014. The 347 revised papers presented in 30 workshops and a special track were carefully reviewed and selected from 1167. The 289 papers presented in the workshops cover various areas in computational science ranging from computational science technologies to specific areas of computational science such as computational geometry and security.

Offering telecom service providers a survival strategy based on customer-centered marketing, this forward-looking resource helps strategic planners and managers assess their company's market potential and target desirable segments successfully.

Project Management is designed to appeal to undergraduate and postgraduate students studying project management on a business degree. It provides a comprehensive overview of project management practice, while carefully balancing the unique aspects of project management curricula with the more general business skills, including quality, risk, teams, and leadership. The text includes a wide range of cases to connect the academic principles and the complexity of real-life projects. The text is also supported by web-based multiple choice questions, as well as in-text exercises and examples to illustrate the concepts and ideas throughout the book. Also available is a companion website with extra features to accompany the text, please take a look by clicking below - <http://www.palgrave.com/business/gardiner/home.htm>

This comprehensive resource provides systems engineers and practitioners with the analytic, design and modeling tools of the Model-Based Systems Engineering (MBSE) methodology of Integrated Systems Engineering (ISE) and Pipelines of Processes in Object Oriented Architectures (PPOOA) methodology. This methodology integrates model based systems and software engineering approaches for the development of complex products, including aerospace, robotics and energy domains applications. Readers learn how to synthesize physical architectures using design heuristics and trade-off analysis. The book provides information about how to identify, classify and specify the system requirements of a new product or service. Using Systems Modeling Language (SysML) constructs, readers will be able to apply ISE & PPOOA methodology in the engineering activities of their own systems.

Marketing for Entrepreneurs, 2nd Edition provides insights, strategies, and tips on how to apply entrepreneurial marketing concepts to increase the chances of venture success. The text focuses on how marketing can be used to find, evaluate, and exploit the right venture opportunity. It then walks students and professionals through the various phases and steps of the marketing process, highlighting specifically what is unique to and effective for entrepreneurial pursuits. Key Features Practical Application: Each chapter is written to allow readers to readily apply the concepts to their individual ventures. Unique Focus: The author looks beyond the "4Ps" to address forces in the external marketing environment. Comprehensive Coverage: This book provides everything aspiring entrepreneurs need to know about leveraging marketing in the development and promotion of new products and services, including opportunity assessment, research, understanding customers and competitors, branding, pricing, and creating a market plan. Pedagogical Highlights Entrepreneurial Marketing Spotlights illustrate how successful entrepreneurs use contemporary marketing techniques, providing real-life examples for readers. Entrepreneurial Exercises encourage readers to apply what they have learned, promoting deeper understanding and retention. Key Takeaways summarize material covered in the chapter, allowing students time to review before advancing in the text

Requirements engineering is the process by which the requirements for software systems are gathered, analyzed, documented, and managed throughout their complete lifecycle. Traditionally it has been concerned with technical goals for, functions of, and constraints on software systems. Aurum and Wohlin, however, argue that it is no longer appropriate for software systems professionals to focus only on functional and non-functional aspects of the intended system and to somehow assume that organizational context and needs are outside their remit. Instead, they call for a broader perspective in order to gain a better understanding of the interdependencies between enterprise stakeholders, processes, and software systems, which would in turn give rise to more appropriate techniques and higher-quality systems. Following an introductory chapter that provides an exploration of key issues in requirements engineering, the book is organized in three parts. Part 1 presents surveys of state-of-the-art requirements engineering process research along with critical assessments of existing models, frameworks and techniques. Part 2 addresses key areas in requirements engineering, such as market-driven requirements engineering, goal modeling, requirements ambiguity, and others. Part 3 concludes the book with articles that present empirical evidence and experiences from practices in industrial projects. Its broader perspective gives this book its distinct appeal and makes it of interest to both researchers and practitioners, not only in software engineering but also in other disciplines such as business process engineering and management science.

Ongoing advancements in modern technology have led to significant developments in artificial intelligence. With the numerous applications available, it becomes imperative to conduct research and make further progress in this field. Artificial Intelligence: Concepts, Methodologies, Tools, and Applications provides a comprehensive overview of the latest breakthroughs and recent progress in artificial intelligence. Highlighting relevant technologies, uses, and techniques across various industries and settings, this publication is a pivotal reference source for researchers, professionals, academics, upper-level students, and practitioners interested in emerging perspectives in the field of artificial intelligence. Creating Breakthrough Products describes the new forces driving product development that companies must master if they want to lead and innovate. It is a step-by-step guide to the new ideal in product development.

A Volume of the Business Analysis Essential Library Series Learn how the business analyst works collaboratively with the project manager and other core team members to create plans that customize elicitation activities to the unique needs of the project. The author presents techniques used by successful business analysts and defines key business analysis terms. Examine the principles and practices for pragmatic, effective requirements elicitation and learn how to work collaboratively with project members and other core team members. Discover the steps necessary to create customized elicitation activities for the unique needs of each project.

In recent years, entrepreneurs and SMEs have been forced to adapt to a rapidly changing, increasingly globalized world, an evolution that has had a profound impact on marketing strategies. This timely volume identifies the many new opportunities available to entrepreneurs and SMEs in the global marketplace, and offers tactical and strategic marketing approaches to help them succeed in the modern business world.

"Jobs to be Done is highly organized and expertly crafted...Company leaders looking for ways to institutionalize innovation are sure to find it here." --Foreword Reviews Let your CUSTOMERS drive innovation. Successful innovation doesn't begin with a brainstorming session--it starts with the customer. So in an age of unlimited data, why do more than 50% of new products fail to meet expectations? The truth is that we need to stop asking customers what they want . . . and start examining what they need. First popularized by Clayton Christensen, the Jobs to be Done theory argues that people purchase products and services to solve a specific problem. They're not buying ice cream, for example, but

celebration, bonding, and indulgence. The concept is so simple (and can remake how companies approach their markets)--and yet many have lacked a way to put it into practice. This book answers that need. Its groundbreaking Jobs Roadmap guides you through the innovation process, revealing how to: * Gather valuable customer insights * Turn those insights into new product ideas * Test and iterate until you find success Follow the steps in Jobs to Be Done, and you'll arrive at solutions that are both original and profitable. Project Requirements: A Guide to Best Practices gives project managers tools they can assimilate and apply easily to improve project success rates, reduce development costs, reduce rework, and accelerate time to market. Based on experience and best practices, this valuable reference will help you: • Clarify real requirements before you initiate project work • Improve management of project requirements • Save time and effort • Manage to your schedule • Improve the quality of deliverables • Increase customer satisfaction and drive repeat business Project Requirements: A Guide to Best Practices provides project managers with a direct, practical strategy to overcome requirements challenges and manage requirements successfully.

As the first to focus on the issue of Data Warehouse Requirements Engineering, this book introduces a model-driven requirements process used to identify requirements granules and incrementally develop data warehouse fragments. In addition, it presents an approach to the pair-wise integration of requirements granules for consolidating multiple data warehouse fragments. The process is systematic and does away with the fuzziness associated with existing techniques. Thus, consolidation is treated as a requirements engineering issue. The notion of a decision occupies a central position in the decision-based approach. On one hand, information relevant to a decision must be elicited from stakeholders; modeled; and transformed into multi-dimensional form. On the other, decisions themselves are to be obtained from decision applications. For the former, the authors introduce a suite of information elicitation techniques specific to data warehousing. This information is subsequently converted into multi-dimensional form. For the latter, not only are decisions obtained from decision applications for managing operational businesses, but also from applications for formulating business policies and for defining rules for enforcing policies, respectively. In this context, the book presents a broad range of models, tools and techniques. For readers from academia, the book identifies the scientific/technological problems it addresses and provides cogent arguments for the proposed solutions; for readers from industry, it presents an approach for ensuring that the product meets its requirements while ensuring low lead times in delivery.

This book constitutes the refereed proceedings of the First International Conference on Digital Human Modeling, DHM 2007, held in Beijing, China in July 2007. The papers thoroughly cover the thematic area of digital human modeling, addressing the following major topics: shape and movement modeling and anthropometry, building and applying virtual humans, medical and rehabilitation applications, as well as industrial and ergonomic applications.

It was 1999 when Extreme Programming Explained was first published, making this year's event arguably the 7th anniversary of the birth of the XP/Agile movement in software development. Our fourth conference reflected the evolution and the learning that have occurred in these exciting 7 years as agile practices have become part of the mainstream in software development. These pages are the proceedings of XP Agile Universe 2004, held in beautiful Calgary, gateway to the Canadian Rockies, in Alberta, Canada. Evident in the conference is the fact that our learning is still in its early stages. While at times overlooked, adaptation has been a core principle of agile software development since the earliest literature on the subject. The conference and these proceedings re- force that principle. Although some organizations are able to practice agile methods in the near-pure form, most are not, reflecting just how radically innovative these methods are to this day. Any innovation must coexist with an existing environment and agile software development is no different. There are numerous challenges confronting IT and software development organizations today, with many solutions pitched by a cadre of advocates. Be it CMM, offshoring, outsourcing, security, or one of many other current topics in the industry, teams using or transitioning to Extreme Programming and other agile practices must integrate with the rest of the organization in order to succeed. The papers here offer some of the latest experiences that teams are having in those efforts. XP Agile Universe 2004 consisted of workshops, tutorials, papers, panels, the Open Space session, the Educators' Symposium, keynotes, educational games and industry presentations.

This textbook is about three key aspects of system design: decision making under uncertainty, trade-off studies and formal risk analyses. Recognizing that the mathematical treatment of these topics is similar, the authors generalize existing mathematical techniques to cover all three areas. Common to these topics are importance weights, combining functions, scoring functions, quantitative metrics, prioritization and sensitivity analyses. Furthermore, human decision-making activities and problems use these same tools. Therefore, these problems are also treated uniformly and modeled using prospect theory. Aimed at both engineering and business practitioners and students interested in systems engineering, risk analysis, operational management, and business process modeling, Tradeoff Decisions in System Design explains how humans can overcome cognitive biases and avoid mental errors when conducting trade-off studies and risk analyses in a wide range of domains. With generous use of examples as a common thread across chapters this book. "This book provides an excellent road map for designing and producing competitive products."

"This book is not only of practical value. It's also a lot of fun to read." Michael Jackson, The Open University. Do you need to know how to create good requirements? Discovering Requirements offers a set of simple, robust, and effective cognitive tools for building requirements. Using worked examples throughout the text, it shows you how to develop an understanding of any problem, leading to questions such as: What are you trying to achieve? Who is involved, and how? What do those people want? Do they agree? How do you envisage this working? What could go wrong? Why are you making these decisions? What are you assuming? The established author team of Ian Alexander and Ljerka Beus-Dukic answer these and related questions, using a set of complementary techniques, including stakeholder analysis, goal modelling, context modelling, storytelling and scenario modelling, identifying risks and threats, describing rationales, defining terms in a project dictionary, and prioritizing. This easy to read guide is full of carefully-checked tips and tricks. Illustrated with worked examples, checklists, summaries, keywords and exercises, this book will encourage you to move closer to the real problems you're trying to solve. Guest boxes from other experts give you additional hints for your

projects. Invaluable for anyone specifying requirements including IT practitioners, engineers, developers, business analysts, test engineers, configuration managers, quality engineers and project managers. A practical sourcebook for lecturers as well as students studying software engineering who want to learn about requirements work in industry. Once you've read this book you will be ready to create good requirements!

This book is a practical guide to understanding the web page design and usability factors needed for the eShelf - the online store shelf. The authors help you learn how to create a conceptual framework for your web design that is targeted to the individual consumer and the basic rules of managing the customer relationship.

Explains the principles of systems engineering in simple, understandable terms and describes to engineers and managers how these principles would be applied to the development of commercial aircraft.

This book presents a portfolio of concepts, methods, models, and tools supported by real life case studies from various corners of the globe providing insights into the management of knowledge in the construction industry.

Learn how to attract and keep successful software professionals Software Engineering Quality Practices describes how software engineers and the managers that supervise them can develop quality software in an effective, efficient, and professional manner. This volume conveys practical advice quickly and clearly while avoiding the dogma that surrounds the software profession. It concentrates on what the real requirements of a system are, what constitutes an appropriate solution, and how you can ensure that the realized solution fulfills the desired qualities of relevant stakeholders. The book also discusses how successful organizations attract and keep people who are capable of building high-quality systems. The author succinctly describes the nature and fundamental principles of design and incorporates them into an architectural framework, enabling you to apply the framework to the development of quality software for most applications. The text also analyzes engineering requirements, identifies poor requirements, and demonstrates how bad requirements can be transformed via several important quality practices.

The trusted handbook?now in a new edition This newly revised handbook presents a multifaceted view of systems engineering from process and systems management perspectives. It begins with a comprehensive introduction to the subject and provides a brief overview of the thirty-four chapters that follow. This introductory chapter is intended to serve as a "field guide" that indicates why, when, and how to use the material that follows in the handbook. Topical coverage includes: systems engineering life cycles and management; risk management; discovering system requirements; configuration management; cost management; total quality management; reliability, maintainability, and availability; concurrent engineering; standards in systems engineering; system architectures; systems design; systems integration; systematic measurements; human supervisory control; managing organizational and individual decision-making; systems reengineering; project planning; human systems integration; information technology and knowledge management; and more. The handbook is written and edited for systems engineers in industry and government, and to serve as a university reference handbook in systems engineering and management courses. By focusing on systems engineering processes and systems management, the editors have produced a long-lasting handbook that will make a difference in the design of systems of all types that are large in scale and/or scope.

You CAN Turn Around A Failing Project! Poor project results are all too common and result in dissatisfied customers, users, and project staff. With countless people, goals, objectives, expectations, budgets, schedules, deliverables, and deadlines to consider, it can be difficult to keep projects in focus and on track. How to Save a Failing Project: Chaos to Control arms project managers with the tools and techniques needed to address these project challenges. The authors provide guidance to develop a project plan, establish a schedule for execution, identify project tracking mechanisms, and implement turnaround methods to avoid failure and regain control. With this valuable resource you will be able to: • Identify key factors leading to failure • Learn how to recover a failing project and minimize future risk • Better analyze your project by defining proper business objectives and goals • Gain insight on industry best practices for planning

Competitive Success: How Branding Adds Value explains how companies can realize substantial competitive advantages and gains in financial and perceptible value if they develop a brand-centric philosophy. It describes the latest brand frameworks, emphasizing their practical applications. The book presents a comprehensive review of the entire brand spectrum, including: Brand strategy Implementation Customer/brand insight Resource allocation Performance measurement

The CE Conference series is organized annually by the International Society for Productivity Enhancement (ISPE) and constitutes an important forum for international scientific exchange on concurrent and collaborative enterprise engineering. These international conferences attract a significant number of researchers, industrialists and students, as well as government representatives, who are interested in the recent advances in concurrent engineering research and applications. Concurrent Engineering Approaches for Sustainable Product Development in a Multi-Disciplinary Environment: Proceedings of the 19th ISPE International Conference on Concurrent Engineering contains papers accepted, peer reviewed and presented at the annual conference held at the University of Applied Sciences in Trier, Germany, from 3rd-7th of September 2012. This covers a wide range of cutting-edge topics including: Systems Engineering and Innovation Design for Sustainability Knowledge Engineering and Management Managing product variety Product Life-Cycle Management and Service Engineering Value Engineering

This book systematically identifies the lack of methodological support for development of requirements and software architecture in the state-of-the-art. To overcome this deficiency, the QuaDRA framework is proposed as a problem-oriented approach. It provides an instantiation of the Twin Peaks model for supporting the intertwining relationship of requirements and software architecture. QuaDRA includes several structured methods which guide software engineers in quality- and pattern-based co-development of requirements and early design alternatives in an iterative and concurrent manner.

The Essential Persona Lifecycle: Your Guide to Building and Using Personas offers a practical guide to the creation and use of personas, which can help product designers, their team, and their organization become more user focused. This book is for people who just need to know what to do and what order to do it in. It is completely focused on practical tools and methods, without much explanation on why the particular tool or method is the right one. The book discusses the five phases of persona lifecycle: Family planning — Basic ideas and a few tools that will help one get organized Conception and gestation — Step-by-step instructions to move from assumptions to completed personas Birth and maturation — Strategic techniques to get the right information about ones personas out to ones your teammates at the right time Adulthood — Specific tools that will ensure that ones personas are used by the right people at the right times and in the right ways during the product development cycle Lifetime achievement and retirement — Basic ideas and a few tools to you measure the success of the persona effort and prepare for the next one Practical and immediately applicable how-to reference guide for building and using personas – from planning, creating, launching, evaluating, and determining ROI Invaluable guide that gives you a quick reference for incorporating personas into a product development process Features all the essential how-to material from its parent book, The Persona Lifecycle, as a quick, at your fingertips companion

The Third International Conference on Product Focused Software Process Improvement (PROFES 2001) continued the success of the PROFES'99 and PROFES 2000 conferences. PROFES 2001 was

organized in Kaiserslautern, Germany, September 10-13, 2001. The PROFES conference has its roots in the PROFES Esprit project (<http://www.ele.vtt.fi/profes/>), but it quickly evolved into a full fledged general purpose conference in 1999 and since then it has gained wide spread international popularity. As in previous years, the main theme of PROFES 2001 was professional software process improvement (SPI) motivated by product and service quality needs. SPI is facilitated by software process assessment, software measurement, process modeling, and technology transfer and has become a practical tool for quality software engineering and management. The conference addresses both the solutions found in practice as well as relevant research results from academia. The purpose of the conference is to bring to light the most recent findings and results in the area and to stimulate discussion between the researchers, experienced professionals, and technology providers for SPI.

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