

Specification Document Example

Competitive Engineering documents Tom Gilb's unique, ground-breaking approach to communicating management objectives and systems engineering requirements, clearly and unambiguously. Competitive Engineering is a revelation for anyone involved in management and risk control. Already used by thousands of project managers and systems engineers around the world, this is a handbook for initiating, controlling and delivering complex projects on time and within budget. The Competitive Engineering methodology provides a practical set of tools and techniques that enable readers to effectively design, manage and deliver results in any complex organization - in engineering, industry, systems engineering, software, IT, the service sector and beyond. Elegant, comprehensive and accessible, the Competitive Engineering methodology provides a practical set of tools and techniques that enable readers to effectively design, manage and deliver results in any complex organization - in engineering, industry, systems engineering, software, IT, the service sector and beyond. Provides detailed, practical and innovative coverage of key subjects including requirements specification, design evaluation, specification quality control and evolutionary project management Offers a complete, proven and meaningful 'end-to-end' process for specifying, evaluating, managing and delivering high quality solutions Tom Gilb's clients include HP, Intel, CitiGroup, IBM, Nokia and the US Department of Defense The Security Content Automation Protocol (SCAP) is a suite of specifications that standardize the format and nomenclature by which security software products communicate software flaw and security configuration information. SCAP is a multi-purpose protocol that supports automated vulnerability checking, technical control compliance activities, and security measurement. This report defines the technical composition of SCAP Vers. 1.0 as comprised of 6 specs: eXtensible Configuration Checklist Description Format, Open Vulnerability and Assessment Language, Common Platform Enumeration, Common Configuration Enumeration, Common Vulnerabilities and Exposures, and Common Vulnerability Scoring System and their interrelationships. Illustrations. The book contains: The context of requirements engineering and software estimation; activities of requirements engineering, including elicitation, analysis, documentation, change management and traceability; description of various methodologies that can be used for requirements elicitation and analysis; contents of the software requirements specification document; functional and technical size estimation methods, estimation by analogy and expert estimation; detailed estimation based on work breakdown structure; do's and don'ts related to requirements and estimation; tools and resources that can be used for requirements and estimation; scenarios, examples, case studies and exercises.

The Internet has generated a large amount of information that is created and shared between individuals and organizations. Because of the amount of information flying through cyberspace, the time to locate and digest the information increases exponentially, but the question of what information can be shared and how to share it remains unsolved. Advances in Electronic Business, Volume 2 explores the semantic web and intelligent web services, two methods created to help solidify the meaning and relationship of data, and explains how they relate to business processes. Professionals, policy-makers, academics, researchers, and managers in IT, business, and commerce will find this book useful in understanding the semantic web and intelligent web services impact on e-commerce.

This book constitutes the refereed post-proceedings of the 12th International Workshop on Design, Specification, and Verification of Interactive Systems, DSV-IS 2005. The 20 revised full papers, 1 keynote paper, and 4 summaries of group discussions are organized in topical sections on teams and groups, sketches and templates, away from the desktop, migration and mobility, analysis tools, model-based design processes and tools, and group discussions.

Your one-stop, comprehensive guide to commercial doors and door hardware from the brand you trust Illustrated Guide to Door Hardware: Design, Specification, Selection is the only book of its kind to compile all the relevant information regarding design, specifications, crafting, and reviewing shop drawings for door openings in one easy-to-access place. Content is presented consistently across chapters so professionals can find what they need quickly and reliably, and the book is illustrated with charts, photographs, and architectural details to more easily and meaningfully convey key information. Organized according to industry standards, each chapter focuses on a component of the door opening or door hardware and provides all options available, complete with everything professionals need to know about that component. When designing, specifying, creating, and reviewing shop drawings for door openings, there are many elements to consider: physical items, such as the door, frame, and hanging devices; the opening's function; local codes and standards related to fire, life safety, and accessibility; aesthetics; quality and longevity versus cost; hardware cycle tests; security considerations; and electrified hardware requirements, to name a few. Until now, there hasn't been a single resource for this information. The only resource available that consolidates all the door and hardware standards and guidelines into one comprehensive publication Consistently formatted across chapters and topics for ease of use Packed with drawings and photographs Serves as a valuable study aid for DHI's certification exams If you're a professional tired of referring to numerous product magazines or endless online searches only to find short, out-of-date material, Illustrated Guide to Door Hardware: Design, Specification, Selection gives you everything you need in one convenient, comprehensive resource.

There are many books on Software Engineering, and many books on .NET, but this is the first to bring them together; The authors use an extended case study, with each chapter building on the previous one, involving readers at every stage; By the end the reader has created a really cool working imaging application while learning best practices of software development in .NET

Offers an equitable set of contract provisions for the administration of public agreements in order to achieve both economy and accuracy in project specifications. Focuses on "front end documents" which consist of instructions to bidders, bid bonds and other contracts covered in Division I of the CSI Technical Specifications. Contains standards for six states: California, Alaska, Nevada, Ohio, Pennsylvania and Wisconsin. Includes sample forms, a style guide as well as special legal requirements regarding public projects.

Construction Specifications Writing Principles and Procedures John Wiley & Sons

Author Linda Timms goes beyond the standard consulting guide to bring you constructive reliable advice for delivering effective, complete, professional functional specs on time.

Filled with plain English, real-world examples, hints and tips, SAP: How to Write a Report Functional Specification provides the secrets you need to make a daunting task

achievable. Whether you are a SAP project team member seconded from the business, unsure where to start with documenting business requirements a support analyst dealing with change requests and new requirements an offshore analyst/consultant wanting to up your game, get recognition for top quality work, and stand out from the crowd anyone fresh out of a SAP academy or training course, wanting to transition smoothly into a valuable project team member a graduate with one of the big management consulting firms wanting focussed reliable advice to help build your consulting career a junior consultant wanting to make a name for yourself as a professional productive "good" SAP resource an experienced consultant wanting to refresh your knowledge and maybe kick some bad habits a business analyst looking to move into the SAP arena a manager or team lead tasked with reviewing and signing off functional specs a project manager wanting to bring in best practices a technical analyst wanting to understand the functional side of SAP requirements SAP: How to Write a Report Functional Specification is a comprehensive guide, including a free downloadable functional specification template that will have you producing polished, high-caliber, valuable report specifications in no time!

Software documentation forms the basis for all communication relating to a software project. To be truly effective and usable, it should be based on what needs to be known. Agile Documentation provides sound advice on how to produce lean and lightweight software documentation. It will be welcomed by all project team members who want to cut out the fat from this time consuming task. Guidance given in pattern form, easily digested and cross-referenced, provides solutions to common problems. Straightforward advice will help you to judge: What details should be left in and what left out When communication face-to-face would be better than paper or online How to adapt the documentation process to the requirements of individual projects and build in change How to organise documents and make them easily accessible When to use diagrams rather than text How to choose the right tools and techniques How documentation impacts the customer Better than offering pat answers or prescriptions, this book will help you to understand the elements and processes that can be found repeatedly in good project documentation and which can be shaped and designed to address your individual circumstance. The author uses real-world examples and utilises agile principles to provide an accessible, practical pattern-based guide which shows how to produce necessary and high quality documentation.

This book provides an introduction to program specification, illustrating the advantages it confers upon the software development process. Covering all three major specification languages (Larch, VDM, and Z), the book discusses specification in general, the abstraction process, the mathematical tools required, and the main formal methods.

System Assurance teaches students how to use Object Management Group's (OMG) expertise and unique standards to obtain accurate knowledge about existing software and compose objective metrics for system assurance. OMG's Assurance Ecosystem provides a common framework for discovering, integrating, analyzing, and distributing facts about existing enterprise software. Its foundation is the standard protocol for exchanging system facts, defined as the OMG Knowledge Discovery Metamodel (KDM). In addition, the Semantics of Business Vocabularies and Business Rules (SBVR) defines a standard protocol for exchanging security policy rules and assurance patterns. Using these standards together, students will learn how to leverage the knowledge of the cybersecurity community and bring automation to protect systems. This book includes an overview of OMG Software Assurance Ecosystem protocols that integrate risk, architecture, and code analysis guided by the assurance argument. A case study illustrates the steps of the System Assurance Methodology using automated tools. This book is recommended for technologists from a broad range of software companies and related industries; security analysts, computer systems analysts, computer software engineers-systems software, computer software engineers- applications, computer and information systems managers, network systems and data communication analysts. Provides end-to-end methodology for systematic, repeatable, and affordable System Assurance. Includes an overview of OMG Software Assurance Ecosystem protocols that integrate risk, architecture and code analysis guided by the assurance argument. Case Study illustrating the steps of the System Assurance Methodology using automated tools.

Including examples and case studies throughout, this book explains the important features of understanding, analyzing, and managing a customer's requirements for building a quality, cost-effective software engineering system. It provides a comparative study of various requirements analysis methods and CASE tools.

The goal of requirements engineering is to develop a requirements specification document that contains all the true needs of the system, with no inconsistency or ambiguity, with technical feasibility, and organized in a manner that is easy to understand. This proceedings volume is organized to reflect the three foci identified in the call for papers: recommendations of and for practitioners, research results ripe for exploitation, and research with long-term goals. No index. Acidic paper. Annotation copyright by Book News, Inc., Portland, OR.

"If the purpose is to create one of the best books on requirements yet written, the authors have succeeded." —Capers Jones Software can solve almost any problem. The trick is knowing what the problem is. With about half of all software errors originating in the requirements activity, it is clear that a better understanding of the problem is needed. Getting the requirements right is crucial if we are to build systems that best meet our needs. We know, beyond doubt, that the right requirements produce an end result that is as innovative and beneficial as it can be, and that system development is both effective and efficient. Mastering the Requirements Process: Getting Requirements Right, Third Edition, sets out an industry-proven process for gathering and verifying requirements, regardless of whether you work in a traditional or agile development environment. In this sweeping update of the bestselling guide, the authors show how to discover precisely what the customer wants and needs, in the most efficient manner possible. Features include The Volere requirements process for discovering requirements, for use with both traditional and iterative environments A specification template that can be used as the basis for your own requirements specifications Formality guides that help you funnel your efforts into only the requirements work needed for your particular development environment and project How to make requirements testable using fit criteria Checklists to help identify stakeholders, users, non-functional requirements, and more Methods for reusing requirements and requirements patterns New features include Strategy guides for different environments, including outsourcing Strategies for gathering and implementing requirements for iterative releases "Thinking above the line" to find the real problem How to move from requirements to finding the right solution The Brown Cow model for clearer viewpoints of the system Using story cards as requirements Using the Volere Knowledge Model to help record and

communicate requirements Fundamental truths about requirements and system development

The most comprehensive PMP Exam study package on the market Prepare for the demanding PMP certification exam with this Deluxe Edition of our PMP: Project Management Professional Exam Study Guide, Fourth Edition. Featuring a bonus workbook with over 200 extra pages of exercises, this edition also includes six practice exams, over two hours of audio on CD to help you review, additional coverage for the CAPM (Certified Associate in Project Management) exam, and much more. Full coverage of all exam objectives in a systematic approach, so you can be confident you're getting the instruction you need for the exam Bonus workbook section with over 200 pages of exercises to help you master essential charting and diagramming skills Practical hands-on exercises to reinforce critical skills Real-world scenarios that put what you've learned in the context of actual job roles Challenging review questions in each chapter to prepare you for exam day Exam Essentials, a key feature in each chapter that identifies critical areas you must become proficient in before taking the exam A handy tear card that maps every official exam objective to the corresponding chapter in the book, so you can track your exam prep objective by objective Featured on the CD SYBEX TEST ENGINE: Test your knowledge with advanced testing software. Includes all chapter review questions and bonus exams. ELECTRONIC FLASHCARDS: Reinforce your understanding with flashcards that can run on your PC, Pocket PC, or Palm handheld. AUDIO INSTRUCTION: Fine-tune your project management skills with more than two hours of audio instruction from author Kim Heldman. Also on the CD, you'll find the entire book in searchable and printable PDF. Study anywhere, any time, and approach the exam with confidence.

This book describes a methodology for enabling interoperability of systems by modeling information such that it can be queried, stored and exchanged between systems in a system independent way. It is based on the use of formalized natural languages and provides guidance on the modeling of definitions, knowledge and requirements as well as modeling of individual products and processes.

Shelf category: Software Engineering Mastering the Requirements Process Suzanne Robertson & James Robertson Delivering the software that your customer really wants. "Mastering the Requirements Process and the Volere specification template are real breakthroughs. They introduce the beginnings of science to a domain which had, up till now, been ruled by craft." Tom DeMarcolt is widely recognized that incorrect requirements account for up to 60% of errors in software products, and yet the majority of software development organizations do not have a formal requirements process. Many organizations appear willing to spend huge amounts on fixing and altering badly-specified software, but seem unwilling to invest a much smaller amount to get the requirements right in the first place. This is a book for those who want to get the right requirements. Mastering the Requirements Process sets out an industry-tested process for gathering and verifying requirements. It provides the techniques and insights for discovering precisely what the customer wants and needs. "Mastering the Requirements Process shows, step by step, template by template, example by example, one well-tested way to assemble a complete, comprehensive requirements process." Gerald Weinberg The specification template in this book provides the basis for your own requirements specifications. It guides you to the correct specification content as each part of the process reveals different aspects of the products functionality and properties. This book shows you how to make the requirement measurable and testable. By providing a measurement a fit criterion for each requirement, the requirements analyst can describe precisely what the customer wants, the designer can construct a product that exactly matches the requirement, and the tester can determine whether or not the final solution satisfies the requirement. "The Robertsons" concept of fit criteria is all by itself worth the investment of your time to read the whole book. Fit criteria and the allied discipline of quality gateways enable you to build requirement sets that are measurable, provably correct and testably complete." Tom DeMarco Features: 7 The Volere requirements process completely specified with a rigorous and detailed model. 7 A specification template that can be used as the basis for your own requirements specifications. 7 The requirements shell used for bringing rigor, tracability and completeness to requirements. 7 Checklists to help identify stakeholders, users, non-functional requirements and more. 7 Trawling techniques for eliciting requirements. 7 How to exploit use cases to determine the best product to build. 7 Reusing requirements and requirements patterns. 7 Examples showing how the techniques and templates are applied in real-world situations. 7 Accessible style, fully cross-referenced, numerous diagrams. The Authors: Suzanne Robertson is a leading figure in the world of systems analysis and requirements modeling. She is the roving ambassador for the British Computer Society's Reuse Group and is on organizing committees for the International Conference on Software Reuse and Object Technology. James Robertson brings the experience of working and consulting on requirements with several hundred companies to this book. When his busy seminar schedule permits, James advises companies on how to adapt to a world where requirements are paramount. Suzanne and James are principals of the Atlantic Systems Guild, an international think-tank producing numerous books and seminars that are among the most successful in the software industry. Visit Addison Wesley Longman on the World Wide Web at: <http://www.awl-he.com/computing/http://www.com/cseng/> Barcode Back of Jacket

Although aviation is among the safest modes of transportation in the world today, accidents still happen. In order to further reduce accidents and improve safety, proactive approaches must be adopted by the aviation community. The International Civil Aviation Organization (ICAO) has mandated that all of its member states implement Safety Management System (SMS) programs in their aviation industries. While some countries (Australia, Canada, members of the European Union, New Zealand) have been engaged in SMS for a few years, it's just now emerging in the United States, and is non-existent in most other countries. This timely and unique book covers the essential points of SMS. The knowledgeable authors go beyond merely defining it; they discuss the quality management underpinnings of SMS, the four pillars, risk management, reliability engineering, SMS implementation, and the scientific rigor that must be designed into proactive safety. This comprehensive work is designed as a textbook for the student of aviation safety, and is an invaluable reference tool for the SMS practitioner in any segment of aviation. The authors introduce a hypothetical airline-oriented safety scenario at the beginning of the book and conclude it at the end, engaging the reader and adding interest to the text. To enhance the practical application of the material, the book also features numerous SMS in Practice commentaries by some of the most respected names in aviation safety.

0 e This is the proceedings of the first annual symposium of the Safety-critical Systems Club (The Watershed Media Centre, Bristol, 9-11 February 1993), which provided a forum for exploring and discussing ways of achieving safety in computer systems to be used in safety-critical industrial applications. The book is divided into three parts, which correspond with the themes of the three days of the symposium. The first - Experience from Around Europe - brings together information on developments in safety-critical systems outside the UK. The second - Current Research - consists of papers on large projects within the UK, which involve collaboration between academia and industry, providing techniques and methods to enhance safety. The final part - Achieving and Evaluating Safety - explores how methods already in use in other domains may be applied to safety, and examines the relationships between safety and other attributes such as quality and security. The papers identify the current problems and issues of interest in the field of safety-critical software-based systems, and provide valuable up-to-date material for those in both academia and industry. The academic will benefit from information about current research complimentary to his own, and the industrialist will learn of the technologies which will soon be available and where to find them.

"This book is aimed at researchers and practitioners involved in designing and managing complex multimedia information systems"--Provided by publisher.

This book is the final outcome of the Eurographics Workshop on Design, Specification and Verification of Interactive Systems, that was held in Bonas, from June 7 to 9, 1995. This workshop was the second of its kind, following the successful first edition in Italy in 1994. The goal of this ongoing series of meetings is to review the state of the art in the domain of tools, notations and methodologies supporting the design of Interactive Systems. This acknowledges the fact that making systems that are friendlier to the user makes the task ever harder to the designers of such systems, and that much research is still

needed to provide the appropriate conceptual and practical tools. The workshop was located in the Chateau de Bonas, in the distant countryside of Toulouse, France. This location has been selected to preserve the quiet and studious atmosphere that was established in the monastery of Santa Croce at Bocca di Magra for the first edition, and that was much enjoyed by the participants. The conversations initiated during the sessions often lasted till late at night, in the peaceful atmosphere of the Gers landscape.

This volume contains the proceedings of two recent conferences in the field of electronic publishing and digital documents: – DDEP 2000, the 8th International Conference on Digital Documents and Electronic Publishing, the successor conference to the EP conference series; and – PODDP 2000, the 5th International Workshop on the Principles of Digital Document Processing. Both conferences were held at the Technische Universität München, Munich, Germany in September 2000. DDEP 2000 was the eighth in a biennial series of international conferences organized to promote the exchange of novel ideas concerning the computer production, manipulation and dissemination of documents. This conference series has attempted to reflect the evolving nature and usage of documents by treating digital documents and electronic publishing as a broad topic covering many aspects. These aspects have included document models, document representation and document dissemination, dynamic and hyperdocuments, document analysis and management, and wide-ranging applications. The papers presented at DDEP 2000 and in this volume reflect this broad view, and cover such diverse topics as hypermedia structure and design, multimedia authoring techniques and systems, document structure inference, typography, document management and adaptation, document collections and Petri nets. All papers were refereed by an international program committee.

1 In a number of recent presentations – most notably at FME'96 – one of the foremost scientists in the field of formal methods, C.A.R. Hoare, has highlighted the fact that formal methods are not the only technique for producing reliable software. This seems to have caused some controversy, not least amongst formal methods practitioners. How can one of the founding fathers of formal methods seemingly denounce the field of research after over a quarter of a century of support? This is a question that has been posed recently by some formal methods skeptics. However, Prof. Hoare has not abandoned formal methods. He is reiterating, albeit more radically, his 1987 view that more than one tool and notation will be required in the practical, industrial development of large-scale complex computer systems; and not all of these tools and notations will be, or even need be, formal in nature. Formal methods are not a solution, but rather one of a selection of techniques that have proven to be useful in the development of reliable complex systems, and to result in hardware and software systems that can be produced on-time and within a budget, while satisfying the stated requirements. After almost three decades, the time has come to view formal methods in the context of overall industrial-scale system development, and their relationship to other techniques and methods. We should no longer consider the issue of whether we are “pro-formal” or “anti-formal”, but rather the degree of formality (if any) that we need to support in system development. This is a goal of ZUM'98, the 11th International Conference of Z Users, held for the first time within continental Europe in the city of Berlin, Germany.

Biannually since 1994, the European Conference on Product and Process Modelling in the Building and Construction Industry has provided a review of research, given valuable future work outlooks, and provided a communication platform for future co-operative research and development at both European and global levels. This volume, of special interest to

This book constitutes the refereed proceedings of the 10th International Conference of Z Users, ZUM'97, held in Reading, UK, in April 1997. The volume presents 18 revised full papers together with three invited presentations by internationally leading experts. The papers are organized into topical sections on real-time systems, tools, logic, system development, reactive systems, refinement, and applications. Also a select Z bibliography by Jonathan Bowen is added. All in all, the book competently reports the state-of-the-art in research and advanced applications of the Z notation.

The Software Cost Reduction (SCR) research project introduced a new approach to specifying requirements for real-time embedded systems. The principles were applied in the development of the Software Requirements of the A-7E Aircraft, as an example of the use of the approach. The system software requirements specification document comprises the first product in a series of products which the SCR methodology produces. The methodology is intended to be adaptable for various types of systems. Specification properties which it supports include: (1) conciseness, (2) preciseness, (3) aids to completeness, (4) avoidance of redundancy, (5) descriptions of all externally visible behavior, (6) ease of change, (7) good reference tool, (8) record of fundamental assumptions which might otherwise be only implicit, (9) record of responses to error conditions, (10) specification of constraints on the system, and (11) separation of concerns; that is, a division of the information into distinct, independent parts. This volume presents twelve case studies that use RAISE - Rigorous Approach to Industrial Software Engineering - to construct, analyse, develop and apply formal specifications. The case studies cover a wide range of application areas including government finance, case-based reasoning, multi-language text processing, object-oriented design patterns, component-based software design and natural resource management. By illustrating the variety of uses of formal specifications, the case studies also raise questions about the creation, purpose and scope of formal models before they are built. Additional resources and complete specifications for all of the case studies and the RAISE tools used to process them, are available on the World Wide Web. This book will be of particular interest to software engineers, especially those responsible for the initial stages of requirements engineering and software architecture and design. It will also be of interest to academics and students on advanced formal methods courses.

This book provides a comprehensive approach to studying the principles and design of biomedical devices as well as their applications in medicine. It is written for engineers and technologists who are interested in understanding the principles, design and applications of medical device technology. The book is also intended to be used as a textbook or reference for biomedical device technology courses in universities and colleges. It focuses on the functions and principles of medical devices (which are the invariant components) and uses specific designs and constructions to illustrate the concepts where appropriate. This book selectively covers diagnostic and therapeutic devices that are either commonly used or that their principles and design represent typical applications of the technology. In this second edition, almost every chapter has been revised—some with minor updates and some with significant changes and additions. For those who would like to know more, a collection of relevant published papers and book references is added at the end of each chapter. Based on feedback, a section on “Common Problems and Hazards” has been included for each medical device. In addition, more information is provided on the indications of use and clinical applications. Two new areas of medical device technology have been added in the two new chapters on “Cardiopulmonary Bypass Units” and “Audiology Equipment.”

We live in an age of electronic interconnectivity, with co-workers across the hall and across the ocean, and managing meetings can be a challenge across multiple time zones and cultures. This makes documenting your projects more important than ever. In *Technical Documentation and Process*, Jerry Whitaker and Bob Mancini provide the background and structure to help you document your projects more effectively. With more than 60 years of combined experience in successfully documenting complex engineering projects, the authors guide you in developing appropriate process and documentation tools that address the particular needs of your organization. Features Strategies for documenting a project, product, or facility A sample style guide

