

Cmmi For Development Lines For Process Integration And Product Improvement Sei Series In Software Engineering

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It is your definitely own times to sham reviewing habit. in the middle of guides you could enjoy now is **Cmmi For Development Lines For Process Integration And Product Improvement Sei Series In Software Engineering** below.

Agile Manufacturing Systems - K Hans Raj 2011-12-17
Agility has become very important for the industries today as the lifetimes of the products are continuously shrinking. This book provides an excellent opportunity for updating understanding of agile methods from the design, manufacturing and business process perspectives, whether one is an industrial practitioner, academic researcher engineer or business graduate student. This volume is a compilation of various important aspects of agility consisting of systemic considerations in manufacturing, agile software systems, agile business systems, agile operations research, flexible manufacturing systems, advanced manufacturing systems with improved materials and mechanical behavior of products, agile aspects of design, clean and green manufacturing systems, environment, agile defence systems.

Handbook of Research on Software Engineering and Productivity Technologies: Implications of Globalization

- Ramachandran, Muthu 2009-08-31

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

Product-Focused Software Process Improvement - Pekka Abrahamsson 2015-11-28

This book constitutes the refereed proceedings of the 16th International Conference on Product-Focused Software Process Improvement, PROFES 2015, held in Bolzano, Italy, in December 2015. The 18 revised full papers presented together with 10 short papers and 18 workshop papers were carefully reviewed and selected from 50 submissions. The papers are organized in topical sections on lessons learned from industry-research collaborations; instruments to improve the software development process; requirements, features, and release management; practices of modern development processes; human factors in modern software development; effort and size estimation validated by professionals; empirical generalization; software reliability and testing in industry; workshop on processes, methods and tools for engineering embedded systems; workshop on human factors in software development processes; and workshop on software startups: state of the art and state of the practice.

Software Process Improvement and Management: Approaches and Tools for Practical Development - Fauzi, Shukor

Sanim Mohd 2011-11-30

Over the past decade, there has been an increase in attention and focus on the discipline of software engineering. Software engineering tools and techniques have been developed to gain more predictable quality improvement results. Process standards such as Capability Maturity Model Integration (CMMI), ISO 9000, Software Process Improvement and Capability determination (SPICE), Agile Methodologies, and others have been proposed to assist organizations to achieve more predictable results by incorporating these proven standards and procedures into their software process. *Software Process Improvement and Management: Approaches and Tools for Practical Development* offers the latest research and case studies on software engineering and development. The production of new process standards assist organizations and software engineers in adding a measure of predictability to the software process. Companies can gain a decisive competitive advantage by applying these new and theoretical methodologies in real-world scenarios. Researchers, scholars, practitioners, students, and anyone interested in the

field of software development and design should access this book as a major compendium of the latest research in the field.

Knowledge Management - Murray E. Jennex 2008-01-01

Provides comprehensive, in-depth coverage of all issues related to knowledge management, including conceptual, methodological, technical, and managerial issues. Presents the opportunities, future challenges, and emerging trends related to this subject.

Data Science and Intelligent Systems - Radek Silhavy 2021-11-16

This book constitutes the second part of refereed proceedings of the 5th Computational Methods in Systems and Software 2021 (CoMeSySo 2021) proceedings. The real-world problems related to data science and algorithm design related to systems and software engineering are presented in this papers. Furthermore, the basic research' papers that describe novel approaches in the data science, algorithm design and in systems and software engineering are included. The CoMeSySo 2021 conference is breaking the barriers, being held online. CoMeSySo 2021 intends to provide an international forum for the discussion of the latest high-quality research results

Software Product Lines - Robert Nord 2004-08-18

This book constitutes the refereed proceedings of the Third International Software Product Line Conference, SPLC 2004, held in Boston, MA, USA in August/September 2004. The 18 revised full technical papers presented together with a keynote abstract and summaries of panels, tutorials, and workshops were carefully reviewed and selected for inclusion in the book. Organized in sections on business, architecture, and quality assurance, the papers address topics ranging from how to start a software product line in a company, to case studies of mature product lines and the technology used, to test strategies of product lines, to strategies and notations for creating product line architectures, and to the importance of binding times in creating product lines.

The Barn Door is Open - Serge Alfonse 2020-10-08

The Barn Door Is Open: Frameworks and Tools for Success and Fulfillment in the Workplace is a business book, a playful and humorous read, an intelligent metaphorical and philosophical tale anchored in the tools and techniques of innovative and proven management frameworks. Readers will not only find its teachings entertaining and inspirational, but will benefit from its lessons and tools by applying them to their personal lives. This book integrates the subjects and tools of Lean and Lean Transformation, mindfulness, conflict resolution, Theory of Constraints, project management, Agile, Six Sigma, change management, and corporate culture transformation into one easily digestible reference.

Improving Software Development Productivity - Randall W. Jensen 2014-03-10

In *Improving Software Development Productivity*, legendary software engineering expert Dr. Randall Jensen introduces a proven quantitative approach to achieving high productivity through management support, the ability to communicate, and technology. Jensen demonstrates how to measure organizational capacity and productivity, and use that information to build more accurate estimates and schedules -- and, more broadly, to improve many facets of developer and team performance. Students will learn to quantitatively predict the productivity impact of management decisions related to personnel and management style, development environment, product constraints, technology, development systems, and more.

Systems and Software Variability Management - Rafael Capilla 2013-06-12

The success of product line engineering techniques in the last 15 years has popularized the use of software variability as a key modeling approach for describing the commonality and variability of systems at all stages of the software lifecycle. Software product lines enable a family of products to share a common core platform, while allowing for product specific functionality being built on top of the platform. Many companies have exploited the concept of software product lines to increase the resources that focus on highly differentiating functionality and thus improve their competitiveness with higher quality and reusable products and decreasing the time-to-market condition. Many books on product line engineering either introduce specific product line techniques or include brief summaries of industrial cases. From these sources, it is difficult to gain a comprehensive understanding of the various dimensions and aspects of software variability. Here the editors address this gap by providing a comprehensive reference on the notion of variability modeling in the context of software product line engineering, presenting an overview of the techniques proposed for variability modeling and giving a detailed perspective on software variability management. Their book is organized in four main parts, which guide the reader through the various aspects and dimensions of software variability. Part 1 which is mostly written by the editors themselves introduces the major topics related to software variability modeling, thus providing a multi-faceted view of both technological and management issues. Next, part 2 of the book comprises four separate chapters dedicated to research and commercial tools. Part 3 then continues with the most practical viewpoint of the book presenting three different industry cases on how variability is managed in real industry projects. Finally, part 4 concludes the book and encompasses six different chapters on emerging research topics in software variability like e.g. service-oriented or dynamic software product lines, or variability and aspect orientation. Each chapter briefly summarizes "What you will learn in this chapter", so both expert and novice readers can easily locate the topics dealt with. Overall, the book captures the current state of the art and best practices, and indicates important open research challenges as well as possible pitfalls. Thus it serves as a reference for researchers and practitioners in software variability management, allowing them to develop the next set of solutions, techniques and methods in this complicated and yet fascinating field of software engineering.

ROI of Software Process Improvement - David F. Rico 2004
An indispensable addition to any project manager, software engineering or computer science bookshelf, this book presents the only broad-ranging economic analysis of major international SPI methods and the first large-scale economic analysis of mandatory U.S. government standards.

The Strategic Role of Software Customization - Matthias Bertram 2016-06-30

Matthias Bertram aims to develop a deeper understanding of software customization and its strategic role for software product management. Drawing on the conceptual foundation of the resource-based view of the firm, such as resources, capabilities, and dynamic capabilities, the author conducts two qualitative investigations: the first within vendor and customer firms to develop an in-depth understanding of the value of software customization as well as the vendor resources and capabilities necessary to successfully provide software customization and the second on the vendor's dynamic capabilities necessary to generate temporary competitive advantage from software customization in product management activities.

Software Product Lines in Action - Frank J. van der Linden 2007-06-10

Software product lines represent perhaps the most exciting paradigm shift in software development since the advent of high-level programming languages. Nowhere else in software engineering have we seen such breathtaking improvements in cost, quality, time to market, and developer productivity, often registering in the order-of-magnitude range. Here, the authors combine academic research results with real-world industrial experiences, thus presenting a broad view on product line engineering so that both managers and technical

specialists will benefit from exposure to this work. They capture the wealth of knowledge that eight companies have gathered during the introduction of the software product line engineering approach in their daily practice.

Cybersecurity: Engineering a Secure Information Technology Organization - Dan Shoemaker 2014-01-29

Software is essential and pervasive in the modern world, but software acquisition, development, operation, and maintenance can involve substantial risk, allowing attackers to compromise millions of computers every year. This groundbreaking book provides a uniquely comprehensive guide to software security, ranging far beyond secure coding to outline rigorous processes and practices for managing system and software lifecycle operations. The book opens with a comprehensive guide to the software lifecycle, covering all elements, activities, and practices encompassed by the universally accepted ISO/IEEE 12207-2008 standard. The authors then proceed document proven management architecture and process framework models for software assurance, such as ISO 21827 (SSE-CMM), CERT-RMM, the Software Assurance Maturity Model, and NIST 800-53. Within these models, the authors present standards and practices related to key activities such as threat and risk evaluation, assurance cases, and adversarial testing. Ideal for new and experienced cybersecurity professionals alike in both the public and private sectors, this one-of-a-kind book prepares readers to create and manage coherent, practical, cost-effective operations to ensure defect-free systems and software. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Service Orientation - Paul R. Allen 2006-04-13

An accessible introduction to service orientation, showing how it works and highlighting the benefits it can deliver.

Computational Science and Its Applications - ICCSA 2019 - Sanjay Misra 2019-06-28

The six volumes LNCS 11619-11624 constitute the refereed proceedings of the 19th International Conference on Computational Science and Its Applications, ICCSA 2019, held in Saint Petersburg, Russia, in July 2019. The 64 full papers, 10 short papers and 259 workshop papers presented were carefully reviewed and selected from numerous submissions. The 64 full papers are organized in the following five general tracks: computational methods, algorithms and scientific applications; high performance computing and networks; geometric modeling, graphics and visualization; advanced and emerging applications; and information systems and technologies. The 259 workshop papers were presented at 33 workshops in various areas of computational sciences, ranging from computational science technologies to specific areas of computational sciences, such as software engineering, security, artificial intelligence and blockchain technologies.

Security and Quality in Cyber-Physical Systems Engineering - Stefan Biffl 2019-11-09

This book examines the requirements, risks, and solutions to improve the security and quality of complex cyber-physical systems (C-CPS), such as production systems, power plants, and airplanes, in order to ascertain whether it is possible to protect engineering organizations against cyber threats and to ensure engineering project quality. The book consists of three parts that logically build upon each other. Part I "Product Engineering of Complex Cyber-Physical Systems" discusses the structure and behavior of engineering organizations producing complex cyber-physical systems, providing insights into processes and engineering activities, and highlighting the requirements and border conditions for secure and high-quality engineering. Part II "Engineering Quality Improvement" addresses quality improvements with a focus on engineering data generation, exchange, aggregation, and use within an engineering organization, and the need for proper data modeling and engineering-result validation. Lastly, Part III "Engineering Security Improvement" considers security aspects concerning C-CPS engineering, including engineering organizations' security assessments and engineering data management, security concepts and technologies that may be leveraged to mitigate the manipulation of engineering data, as well as design and run-time aspects of secure complex cyber-physical systems. The book is intended for several target groups: it enables computer scientists to identify research

issues related to the development of new methods, architectures, and technologies for improving quality and security in multi-disciplinary engineering, pushing forward the current state of the art. It also allows researchers involved in the engineering of C-CPS to gain a better understanding of the challenges and requirements of multi-disciplinary engineering that will guide them in their future research and development activities. Lastly, it offers practicing engineers and managers with engineering backgrounds insights into the benefits and limitations of applicable methods, architectures, and technologies for selected use cases.

Software Process Change - Qing Wang 2006-07-25

This book constitutes the refereed proceedings of the First joint International Software Process Workshop and the International Workshop on Software Process Simulation and Modeling, SPW/ProSim 2006. The 34 revised full papers presented together with 4 keynote addresses are organized in topical sections on process tailoring and decision-support, process tools and metrics, process management, process representation, analysis and modeling, process simulation modeling, process simulation applications, and experience report.

TSP--leading a Development Team - Watts S. Humphrey 2006
Watts Humphrey, inventor of CMM, PSP, & TSP provides team leaders with a whole new way of leading an effective development team.

Software Product Lines - Robert L. Nord 2004-07-30

This book constitutes the refereed proceedings of the Third International Software Product Line Conference, SPLC 2004, held in Boston, MA, USA in August/September 2004. The 18 revised full technical papers presented together with a keynote abstract and summaries of panels, tutorials, and workshops were carefully reviewed and selected for inclusion in the book. Organized in sections on business, architecture, and quality assurance, the papers address topics ranging from how to start a software product line in a company, to case studies of mature product lines and the technology used, to test strategies of product lines, to strategies and notations for creating product line architectures, and to the importance of binding times in creating product lines.

CMMI - Mary Beth Chrissis 2003

This single volume comprises the full, official book version of the CMMI, the much-anticipated follow-up to the Capability Maturity Model.

Project Management Success with CMMI - James Persse 2007-06-25

Use CMMI to Improve Project Management Efficiency, Effectiveness, and Accountability The Capability Maturity Model Integration (CMMI) Maturity Level 2 offers powerful, end-to-end tools for improvement throughout your organization. In *Project Management Success with CMMI*, James Persse demonstrates exactly how to apply CMMI Level 2 to virtually any project, program, or process. User friendly, concise, and easy to follow, this book helps you implement all seven CMMI Level 2 process areas; customize CMMI for your unique projects and organization; and achieve powerful, quantifiable results. The author takes a practical approach to the business and operational needs of project management, carefully linking the realities of business and technical projects with CMMI recommendations. Drawing on his unsurpassed CMMI field experience, Persse presents case studies, anecdotes, and examples—all designed to illuminate what works and what doesn't. Persse introduces the substance and intention of all seven CMMI Level 2 process areas. For each area, he shows how to define goals, implement best practices, understand issues of sizing and scope, and avoid pitfalls and misinterpretations. He is also the first to explain how CMMI can integrate with the tools and skills of the Project Management Institute's Project Management Body of Knowledge, improving the effectiveness of both. Coverage includes Understanding project management as value management Planning projects and structuring expectations Monitoring and controlling projects Managing requirements, configurations, and supplier agreements Implementing effective measurement and analysis Assuring process and product quality *Project Management Success with CMMI* is an invaluable resource for anyone responsible for managing projects, programs, or processes—including those who are new to CMMI and project management. The book's companion Web site (www.prenhallprofessional.com/title/0132333058) contains an extensive library of downloadable CMMI project

management resources corresponding to each of the seven CMMI process areas.

Software Product-Family Engineering - Frank van der Linden 2004-05-24

This book contains the proceedings of the 5th International Workshop on Product Family Engineering, PFE-5. This workshop was held in Siena, Italy, November 4-6, 2003. This workshop was the fifth in the series, with the same subject, software product family engineering. These workshops have been held initially irregularly about every 18 months since 1996. Since 1999 the workshop has been held every second year in the fall. The proceedings of the second, third and fourth workshops were published as Springer LNCS volumes 1429, 1951 and 2290. The workshops were organized within co-operation projects of European industry. The first two were organized by ARES (Esprit IV 20.477) 1995-1999; this project had 3 industrial and 3 academic partners, and studied software architectures for product families. Some of the partners continued in the ITEA project if99005 ESAPS (1999-2001). ITEA is the software development programme (?! 2023) within the European Eureka initiative. ITEA projects last for 2 years, and ESAPS was succeeded by CAFÉ (ITEA if00004) for 2001-2003 and FAMILIES (ITEA if02009). This fifth workshop was initially prepared within CAFÉ and the preparation continued in FAMILIES. As usual Henk Obbink was the workshop chair, and Linda Northrop and Sergio Bandinelli were the co-chairs.

CMMI for Development - Mary Beth Chrissis 2011-03-08

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.

Practical Support for Lean Six Sigma Software Process Definition - Susan K. Land 2012-04-25

Practical Support for Lean Six Sigma Software Process Definition: Using IEEE Software Engineering Standards addresses the task of meeting the specific documentation requirements in support of Lean Six Sigma. This book provides a set of templates supporting the documentation required for basic software project control and management and covers the integration of these templates for their entire product development life cycle. Find detailed documentation guidance in the form of organizational policy descriptions, integrated set of deployable document templates, artifacts required in support of assessment, organizational delineation of process documentation.

Maintenance Management in Network Utilities - Juan F

Gómez Fernández 2012-02-22

In order to satisfy the needs of their customers, network utilities require specially developed maintenance management capabilities. Maintenance Management information systems are essential to ensure control, gain knowledge and improve decision making in companies dealing with network infrastructure, such as distribution of gas, water, electricity and telecommunications. Maintenance Management in Network Utilities studies specified characteristics of maintenance management in this sector to offer a practical approach to defining and implementing the best management practices and suitable frameworks. Divided into three major sections, Maintenance Management in Network Utilities defines a series of stages which can be followed to manage maintenance frameworks properly. Different case studies provide detailed descriptions which illustrate the experience in real company situations. An introduction to the concepts is followed by main sections including:

- A Literature Review: covering the basic concepts and models needed for framework design, development and implementation.
- Framework Design and Definition: developing the basic pillars of network utilities maintenance management framework.
- Performance Evaluation & Maturity: focusing on the reliability concept and maturity models from different viewpoints.

By establishing basic foundations for creating and maintaining maintenance management strategies, Maintenance Management in Network Utilities acts a practical handbook for all professionals in these companies and across areas such as network development, operations management and marketing.

CMMI for Acquisition - Brian Gallagher 2011-03-04

CMMI® for Acquisition (CMMI-ACQ) describes best practices for the successful acquisition of products and services. Providing a practical framework for improving acquisition processes, CMMI-ACQ addresses the growing trend in business and government for organizations to purchase or outsource required products and services as an alternative to in-house development or resource allocation. Changes in CMMI-ACQ Version 1.3 include improvements to high maturity process areas, improvements to the model architecture to simplify use of multiple models, and added guidance about using preferred suppliers. CMMI® for Acquisition, Second Edition, is the definitive reference for CMMI-ACQ Version 1.3. In addition to the entire revised CMMI-ACQ model, the book includes updated tips, hints, cross-references, and other author notes to help you understand, apply, and quickly find information about the content of the acquisition process areas. The book now includes more than a dozen contributed essays to help guide the adoption and use of CMMI-ACQ in industry and government. Whether you are new to CMMI models or are already familiar with one or more of them, you will find this book an essential resource for managing your acquisition processes and improving your overall performance. The book is divided into three parts. Part One introduces CMMI-ACQ in the broad context of CMMI models, including essential concepts and useful background. It then describes and shows the relationships among all the components of the CMMI-ACQ process areas, and explains paths to the adoption and use of the model for process improvement and benchmarking. Several original essays share insights and real experiences with CMMI-ACQ in both industry and government environments. Part Two first describes generic goals and generic practices, and then details the twenty-two CMMI-ACQ process areas, including specific goals, specific practices, and examples. These process areas are organized alphabetically and are tabbed by process area acronym to facilitate quick reference. Part Three provides several useful resources, including sources of further information about CMMI and CMMI-ACQ, acronym definitions, a glossary of terms, and an index.

Speed, Data, and Ecosystems - Jan Bosch 2017-01-06

As software R&D investment increases, the benefits from short feedback cycles using technologies such as continuous deployment, experimentation-based development, and multidisciplinary teams require a fundamentally different strategy and process. This book will cover the three overall challenges that companies are grappling with: speed, data and ecosystems. Speed deals with shortening the cycle time in R&D. Data deals with increasing the use of and benefit from the massive amounts of data that companies collect. Ecosystems

address the transition of companies from being internally focused to being ecosystem oriented by analyzing what the company is uniquely good at and where it adds value.

CMMI Distilled - Dennis M. Ahern 2008-05-01

CMMI® (Capability Maturity Model® Integration) is an integrated, extensible framework for improving process capability and quality across an organization. It has become a cornerstone in the implementation of continuous improvement for both industry and governments around the world. Rich in both detail and guidance for a wide set of organizational domains, the CMMI Product Suite continues to evolve and expand. Updated for CMMI Version 1.2, this third edition of CMMI® Distilled again provides a concise and readable introduction to the model, as well as straightforward, no-nonsense information on integrated, continuous process improvement. The book now also includes practical advice on how to use CMMI in tandem with other approaches, including Six Sigma and Lean, as well as new and expanded guidance on preparing for, managing, and using appraisals. Written so that readers unfamiliar with model-based process improvement will understand how to get started with CMMI, the book offers insights for those more experienced as well. It can help battle-scarred process improvement veterans, and experienced suppliers and acquirers of both systems and services, perform more effectively. CMMI® Distilled is especially appropriate for executives and managers who need to understand why continuous improvement is valuable, why CMMI is a tool of choice, and how to maximize the return on their efforts and investments. Engineers of all kinds (systems, hardware, software, and quality, as well as acquisition personnel and service providers) will find ideas on how to perform better. The three authors, all involved with CMMI since its inception, bring a wealth of experience and knowledge to this book. They highlight the pitfalls and shortcuts that are all too often learned by costly experience, and they provide a context for understanding why the use of CMMI continues to grow around the world.

CMMI for Development - Mary Beth Chrissis 2011

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.

Systems product line engineering handbook - AFIS
2016-01-21

A Product Line is a set of products with common elements and variable features. Including Product Lines in an

overall development strategy tailored to the commercial and/or industrial context delivers significant benefits: products that are more suitable, reduction in cost, shorter development timescales, quality improvement, etc. This work, *Systems Product Line Engineering*, brings together a summary of the state-of-the-art with lessons learnt from industrial experience in implementing Product Lines of various kinds, in terms of marketplace, number of applications, degree of variability, etc. It is resolutely practical, and is intended to complement existing Systems Engineering manuals; indeed, it adopts the same process structures. It includes:

- Definitions and examples: Product Line, Product Lines organizations, Product Line Engineering,
- Processes, from needs analysis through to disposal,
- Systems Engineering methods, particularly Model-Based Product Line Systems Engineering,
- Organization: development in silos, development in platforms,
- Implementation strategies and management processes.

This work is intended for practitioners: engineers, project managers, instructors, researchers, students and developments of systems that fit into this approach. Elected IncoSE Product of the Year 2015.

Software Process Improvement and Capability

Determination - Tanja Woronowicz 2013-05-21

This book constitutes the refereed proceedings of the 13th International Conference on Software Process Improvement and Capability Determination, SPICE 2013, held in Bremen, Germany, in June 2013. The 21 revised full papers presented and 7 short papers were carefully reviewed and selected from numerous submissions. The papers are organized in topical sections on process quality; medical device software processes; design and use of process models; studies of software development; agile development; IT service management; assessment for diagnosis.

Software Process Improvement and Capability

Determination - Antonia Mas 2017-09-08

This book constitutes the refereed proceedings of the 17th International Conference on Software Process Improvement and Capability Determination, SPICE 2017, held in Palma de Mallorca, Spain, in October 2017. The 34 full papers presented together with 4 short papers were carefully reviewed and selected from 65 submissions. The papers are organized in the following topical sections: SPI in agile approaches; SPI in small settings; SPI and assessment; SPI and models; SPI and functional safety; SPI in various settings; SPI and gamification; SPI case studies; strategic and knowledge issues in SPI; education issues in SPI.

Professional Team Foundation Server - Jean-Luc David 2007-02-12

As the most important component of Microsoft's Visual Studio(r) 2005 Team System, Team Foundation Server is the central integration point that provides a collaborative environment for every member of a team, regardless of role. Since Team Foundation Server is so tightly interwoven with the rest of Team System, the authors have decided to present you with an invaluable resource that covers both, so that you may learn to set up and administer Team Foundation Server in order to effectively use the whole Team System toolset effectively. Three Microsoft Team System MVPs cover how to plan a Team System deployment, complete a software project, and everything in between. They show you how to handle real-world challenges and tackle the tasks and scenarios that encompass the entire software development lifecycle. What you will learn from this book

- How to implement IT governance such as Sarbanes-Oxley
- How to work with mixed environments (including Java and .NET)
- How to set up the product for large distributed environments
- How and why to take multiple lifecycles into consideration when deploying and using Team System
- How to create custom development tools and administer and customize work items
- How to monitor your team project metrics using SQL Server Reporting Services

Who this book is for: This book is for project managers, IT administrators, and anyone whose role consists of administering Team Foundation Server on a daily basis, running a software project, setting up users, or handling security. Wrox Professional guides are planned and written by working programmers to meet the real-world needs of programmers, developers, and IT professionals. Focused and relevant, they address the issues technology professionals face every day. They provide examples, practical solutions, and expert education in new technologies, all designed to help

programmers do a better job.

Project Management - an Artificial Intelligent (Ai)

Approach - Kim Hin David HO 2020-08-04

This book is a novel treatment of modern project management from artificial intelligence (AI), entailing data analytics, neural networks, fuzzy logic, genetic algorithms; and data visualisation deploying agent based modelling for the knowledge based urban development (KBUD). The book can be adopted by design engineers, urban planners, project managers, quantity and real estate developers, architects and scholars. Chapter 1 discusses that the traditional statistical method, which needs a priori parametric knowledge of linear or non-linear functions between the input and output variables. Neural networks do not need such information to predict future possible outcomes. Chapter 2 reiterates that new private office and residential supply like in Hong Kong depend on current market prices, relative to the replacement or building costs. The market should equate prices with replacement costs that include the cost of land. Prices and costs may diverge because of lags and delays in the building process. Chapter 3 discusses the specific tasks to be planned to develop life cycle models and metrics to analyse technology and innovation. Such models can look into life cycle cost analysis (LCA). Chapter 4 draws attention to the trend that in a highly volatile world, the best point estimate of classical DCF model is not a reliable indication of investment worth. The fuzzy discounted cash flow (DCF) model offers a natural and intuitive way, based on a set of fuzzy inputs. The fuzzy net present value (NPV) for an office-cum-retail development is so estimated to provide the approximated evaluation of investment worth. Chapter 5 discusses the fuzzy tactical asset allocation (FTAA) model, incorporating intuitive decision making into the direct real estate project (asset) allocation process, from the expert investor perspective. The FTAA model improves the efficiency of asset allocation, adopting fuzzy set theory and fuzzy optimization theory. Chapter 6 reiterates that today's city planners see the KBUD strategy as a new form of urban renewal for industrial cities. Planners believe KBUDs bring economic, technological progress and sustainable socio-spatial order to the contemporary city. Chapter 6 addresses the need for an urban design criterion that aids in efficient land use planning for KBUDs.

Applied Software Product Line Engineering - Kyo C. Kang 2009-12-22

Over the last decade, software product line engineering (SPLE) has emerged as one of the most promising software development paradigms for increasing productivity in IT-related industries. Detailing the various aspects of SPLE implementation in different domains, *Applied Software Product Line Engineering* documents best practices with regard to system development. Expert contributors from academia and industry come together and focus on core asset development, product development, and management, addressing the process, technical, and organizational issues needed to meet the growing demand for information. They detail the adoption and diffusion of SPLE as a primary software development paradigm and also address technical and managerial issues in software product line engineering. Providing an authoritative perspective of the latest research and practice in SPLE, the text: Presents in-depth discussions and many industry / case studies Covers applications in various domains including automotive, business process management, and defense Organized according to the organizational, process, and technical aspects of software product lines within an organization Provides the expertise of a distinguished panel of global contributors Ever-increasing global competition coupled with a fragile world economy means that the pressure is on for software engineers and software process improvement professionals to find ways to meet the needs of expanding markets—with greater efficiency and effectiveness. This book arms readers with the insight needed to harness the power of SPLE to increase productivity, reduce time to market, and to handle the growing diversity in the quickly evolving global marketplace.

Commerce Business Daily - 2001

Touch of Class - Bertrand Meyer 2009-08-28

This text combines a practical, hands-on approach to programming with the introduction of sound theoretical

support focused on teaching the construction of high-quality software. A major feature of the book is the use of Design by Contract.

Your Customers' Perception of Quality - Baboo Kureemun
2011-04-25

Providing the insight and tools needed to improve the perception your customers have about the quality of your product or service, *Your Customers' Perception of Quality: What It Means to Your Bottom Line and How to Control It* introduces a ground-breaking model for measuring the impact of quality perception on your bottom line. Allowing you to look

Software Process Improvement and Capability

Determination - Antanas Mitasiunas 2014-10-13

This book constitutes the refereed proceedings of the 14th International Conference on Software Process Improvement and Capability Determination, SPICE 2014, held in Vilnius, Lithuania, in November 2014. The 21 revised full papers presented together with 6 short papers were carefully reviewed and selected from 49 submissions. The papers are organized in topical sections on developing process models for assessment; software process and models; software models and product lines; assessment; agile processes; processes improvement and VSE.