

Cmmi And Six Sigma

"In this book, I have found answers to key questions and misconceptions about the relationship between Six Sigma and the Capability Maturity Model Integration [CMMI]...Among my key takeaways is that the relationship between Six Sigma and CMMI exemplifies one of the principles of S4/IEE: CMMI provides process infrastructure that is needed to support a successful Six Sigma strategy." --Forrest W. Breyfogle III, CEO, Smarter Solutions, Inc. "Finally, a book that bridges the software and hardware process tool set there have been hardware and software engineers who for one reason or another have not communicated their process methods. And so, myths formed that convinced the hardware community that CMMI was only for software and likewise convinced the software community that Six Sigma was only for hardware. It is both refreshing and thought provoking to dispel these myths." --Jack Ferguson, Manager, SEI Appraisal Program, Software Engineering Institute CMMI and Six Sigma represent two of the best-known improvement initiatives. Both are designed to enhance work quality and thereby produce business advantages for an organization. It's a misconception that the two are in competition and cannot be implemented simultaneously. Practitioners originally trained in either CMMI or Six Sigma are now finding that the two initiatives work remarkably well together in the pursuit of their common goal. CMMI® and Six Sigma: Partners in Process Improvement focuses on the synergistic, rather than competitive, implementation of CMMI and Six Sigma. While the authors concentrate on the interoperability of CMMI and Six Sigma, they also recognize that organizations rarely implement only these two initiatives. Accordingly, the discussion turns to the emerging realm of "multimodel" process improvement and strategies and tactics that transcend models to help organizations effectively knit together a single unified internal process standard. Whether you work in the defense industry, for a commercial organization, or for a government agency—wherever quality and efficiency matter—you'll find this book to be a valuable resource for bridging process issues across domains and building an improvement strategy that succeeds.

CMMI® for Services (CMMI-SVC) is a comprehensive set of guidelines to help organizations establish and improve processes for delivering services. By adapting and extending proven standards and best practices to reflect the unique challenges faced in service industries, CMMI-SVC offers providers a practical and focused framework for achieving higher levels of service quality, controlling costs, improving schedules, and ensuring user satisfaction. A member of the newest CMMI model, CMMI-SVC Version 1.3, reflects changes to the model made for all constellations, including clarifications of high-maturity practices, alignment of the sixteen core process areas, and improvements in the SCAMPI appraisal method. The indispensable CMMI® for Services, Second Edition, is both an introduction to the CMMI-SVC model and an authoritative reference for it. The contents include the complete model itself, formatted for quick reference. In addition, the book's authors have refined the model's introductory chapters; provided marginal notes clarify the nature of particular process areas and to show why their practices are valuable; and inserted longer sidebars to explain important concepts. Brief essays by people with experience in different application areas further illustrate how the model works in practice and what benefits it offers. The book is divided into three parts. Part One begins by thoroughly explaining CMMI-SVC, its concepts, and its use. The authors provide robust information about service concepts, including a discussion of lifecycles in user environments, outline how to start using CMMI-SVC, explore how to achieve process improvements that last, and offer insights into the relationships among process areas. Part Two describes generic goals and practices, and then details the complete set of twenty-four CMMI-SVC process areas, including specific goals, specific practices, and examples. The process areas are organized alphabetically by acronym and are tabbed for easy reference. Part Three contains several useful resources, including CMMI-SVC-related references, acronym definitions, a glossary of terms, and an index. Whether you are new to CMMI models or are already familiar with one or more of them, this book is an essential resource for service providers interested in learning about or implementing process improvement.

Going beyond the usual how-to guide, Lean Six Sigma Secrets for the CIO supplies proven tips and valuable case studies that illustrate how to combine Six Sigma's rigorous quality principles with Lean methods for uncovering and eliminating waste in IT processes. Using these methods, the text explains how to take an approach that is all about improving IT performance, productivity, and security—as much as it is about cutting costs. Savvy IT veterans describe how to use Lean Six Sigma with IT governance frameworks as COBIT and ITIL, and warn why these frameworks should be considered starting points rather than destinations. This complete resource for CIOs and IT managers provides effective strategies to address the human element that is so fundamental to success and explains how to maximize the voice of your customers while keeping in touch with the needs of your staff. And perhaps most importantly—it provides the evidence needed to build your case to upper management. Supplying you with the tools to create real value for your employees, Lean Six Sigma Secrets for the CIO provides the understanding required to manage your IT operations with unique effectiveness and efficiency in service of the bottom line.

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 to 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.

Partners in Process Improvement (paperback)

CMMI-ACQ

Six Sigma Software Development

A Roadmap for Excellence

Just Enough Process Improvement

Guidelines for Improving the Acquisition of Products and Services

CMMI® for Development (CMMI-DEV) describes best practices for the development and maintenance of products and services across their entire lifecycle. By integrating essential bodies of knowledge, CMMI-DEV provides a single, comprehensive framework for organizations to assess their development and maintenance processes, implement improvements, and measure progress. 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-r.

Today, technology has become too much a part of overall corporate success for its effectiveness to be left to chance. The stakes are too high. Fortunately, the idea of 'quality management' is being reinvigorated. In the last decade process programs have become more and more prevalent. And, out of all the available options, three have moved to the top of the chain. These three are: The 9001:2000 Quality Management Standard from the International Standards Organization; The Capability Maturity Model Integration from the Software Engineering Institute; and Six Sigma, a methodology for improvement shaped by companies such as Motorola, Honeywell, and General Electric. These recognized and proven quality programs are rising in popularity as more technology managers are looking for ways to help remove degrees of risk and uncertainty from their business equations, and to introduce methods of predictability that better ensure success. Process Improvement Essentials combines the foundation needed to understand process improvement theory with the best practices to help individuals implement process improvement initiatives in their organization. The three leading programs: ISO 9001:2000, CMMI, and Six Sigma—amidst the buzz and hype—tend to get lumped together under a common label. This book delivers a combined guide to all three programs, compares their applicability, and then sets the foundation for further exploration. It's a one-stop-shop designed to give you a working orientation to what the field is all about.

Innovations and Advances in Computer Sciences and Engineering includes a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computer Science, Software Engineering, Computer Engineering, and Systems Engineering and Sciences. Innovations and Advances in Computer Sciences and Engineering includes selected papers from the conference proceedings of the International Conference on Systems, Computing Sciences and Software Engineering (SCSS 2008) which was part of the International Joint Conferences on Computer, Information and Systems Sciences and Engineering (CISSE 2008).

Process Improvement and CMMI for Systems and Software provides a workable approach for achieving cost-effective process improvements for systems and software. Focusing on planning, implementation, and management in system and software processes, it supplies a brief overview of basic strategic planning models and covers fundamental concepts and appr

Capacity Maturity Model Integration, Quality Techniques, and Agile Manufacturing in Management

CMMI® for Development

The Certified Six Sigma Master Black Belt Handbook

Quality Management and Six Sigma

A Process Improvement Approach, Second Edition

International Standards and Global Guidelines, Second Edition

Abstract: "Organizations that endeavor to improve their processes often find themselves juggling many approaches to achieve that improvement. To be most effective, all improvement initiatives selected should be implemented in an integrated fashion, not as layered or stovepiped efforts. This document focuses on the joint use of two popular improvement initiatives: Capability Maturity Model Integration (CMMI) and Six Sigma. Successfully implementing CMMI and Six Sigma together requires an understanding of the relationships between the two. This report contains a brief summary of each initiative and then outlines the connections between frameworks commonly used in Six Sigma and the CMMI process areas. Coupling this knowledge with a conscious strategy enables an organization to create tactical plans and specific mappings to support implementation. Example strategies and tactics that organizations have used to integrate these initiatives are also provided."

Proven techniques for improving software and process quality with Six Sigma This practical, in-depth guide explains how to apply Six Sigma to solve common product and process improvement challenges in the software and IT industry. Six Sigma Software Quality Improvement covers Define, Measure, Analyze, Improve, and Control (DMAIC), Lean Six Sigma, Design for Six Sigma (DFSS), and Define, Measure, Analyze, Design, and Verify (DMADV). Featuring more than 20 success stories from Motorola, IBM, Cisco, Seagate, Xerox, Thomson Reuters, TCS, EMC, Infosys, and Convergys, the book offers first-hand accounts of corporate Six Sigma programs and explains how these companies are successfully leveraging Six Sigma for software process and quality improvement. The success stories reveal how: Motorola minimized business risk before changing business-critical applications TCS improved fraud detection for a global bank Infosys improved software development productivity for a large multinational bank IBM reduced help desk escalations and overhead activities EMC improved development productivity Motorola realized significant cost avoidance by streamlining processes and project documentation Xerox achieved high-speed product development Seagate reduced application downtime and improved availability to 99.99% Cisco successfully reinvented its Six Sigma program Convergys injected Six Sigma into the company's DNA Thomson Reuters' Six Sigma program gathered significant momentum in a short time Six Sigma was successfully applied in many other projects for defect reduction, cycle time reduction, productivity improvement, and more

Written by experienced process improvement professionals who have developed and implemented computer based systems in organizations around the world, interpreting the CMMI®: A Process Improvement Approach, Second Edition provides you with specific techniques for performing process improvement. Employing everyday language and supported by real world examples, the authors describe the fundamental concepts of the CMMI model, covering goals, practices, architecture, and definitions, and provide a structured approach for implementing the concepts of the CMMI into any organization. They discuss getting started in the process improvement effort, as well as how to continue on to high maturity. They walk you through the myriad of charts and graphs involved in statistical process control and offer practical recommendations. They also provide information on blending different process improvement initiatives into organizational programs (including agile development), and in this edition include more in-depth information. The authors distill the knowledge gained in their combined 70 years of experience in project management, software engineering, systems engineering, metrics, quality assurance, appraisals, training, process improvement, and team building. Whether you are new to process improvement or an experienced professional, this volume will save you time wasted on false starts, false promises by marketers, and failed deadlines. The authors have been responsible for successfully implementing process improvement in several different organizations. This book is based on real-life experience, not on academic theories. It provides workable solutions to inherent challenges such as appropriate roles and responsibility, resistance to change, and meaningful documentation, thus transforming CMMI concepts into practical applications.

Spanish (Castilian) language edition of "Continual service improvement" (2007, ISBN 9780113310494). On cover & title page: ITIL

7 CMMI Process Areas (Adobe Reader)

CMMI for Services

CMMI Survival Guide

Leaner Six Sigma

Take a Quality Ride

CMMI-ACQ® (Capability Maturity Model® Integration for Acquisition) 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. Modeled after CMMI®, Second Edition, which documented CMMI for Development, this book is the definitive reference for the current release of CMMI for Acquisition (version 1.2). In addition to the entire CMMI-ACQ model, the book includes tips, hints, cross-references, and other author notes to help you understand, apply, and find more information about the content of the acquisition process areas. The authors also have added two chapters to illustrate the application of CMMI-ACQ in industry (a case study from General Motors) 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. Finally, two separate chapters describe special acquisition needs in a government environment and real experiences with CMMI-ACQ from industry. Part Two first describes generic goals and generic practices, and then, in twenty-two sections, details each of the CMMI-ACQ process areas, including specific goals, specific practices, and examples. These process areas are organized alphabetically by process area acronym to facilitate quick reference. Part Three provides several useful references, including sources for further information about CMMI and CMMI-ACQ, acronym definitions, a glossary of terms, and an index.

Taking you beyond the Capability Maturity Model® to the integrated world of systems and software, this comprehensive resource presents CMMI- Version 1.2 in a manner that is easy to comprehend by higher-level managers and practitioners alike. Written by a world-renowned expert in the field, the book offers a clear picture of the activities an organization would be engaged in if their systems and software engineering processes were based on CMMI. "

The assessment of risk management techniques provides the crucial applications and benefits to all of society. By analyzing the current trends and techniques used to assess and mitigate risks, safer processes can be used for all professional fields, as well as society as a whole. Novel Six Sigma Approaches to Risk Assessment and Management is a vital scholarly resource that provides an in-depth examination on innovative Six Sigma methods for risk mitigation initiatives. Featuring an array of relevant topics such as project management, production scheduling, information systems security, and agricultural planning, this is an ideal reference book for professionals, academicians, students, and researchers interested in detailed research on recent advancements in the management of risk in all fields.

Lean Manufacturing, also called lean production, was originally created in Toyota after the Second World War, in the reconstruction period. It is based on the idea of eliminating any waste in the industry, i.e. any activity or task that does not add value and requires resources. It is considered in every level of the industry, e.g. design, manufacturing, distribution, and customer service. The main wastes are: over-production against plan; waiting time of operators and machines; unnecessary transportation; waste in the process itself; excess stock of material and components; non value-adding motion; defects in quality. The diversity of these issues will be covered from algorithms, mathematical models, and software engineering by design methodologies and technical or practical solutions. This book intends to provide the reader with a comprehensive overview of the current state, cases studies, hardware and software solutions, analytics, and data science in dependability engineering.

Guidelines for Process Integration and Product Improvement

CMMI and Six Sigma

Includes Discussion on CMMI, Lean Six Sigma, Agile and SEMAT's Essence Framework

Guidelines for Superior Service

Proceedings of First International Conference on Emerging Trends in Mechanical Engineering

CMMI Distilled

"In this book, I have found answers to key questions and misconceptions about the relationship between Six Sigma and the Capability Maturity Model Integration [CMMI]...Among my key takeaways is that the relationship between Six Sigma and CMMI exemplifies one of the principles of S4/IEE: CMMI provides process infrastructure that is needed to support a successful Six Sigma strategy." --Forrest W. Breyfogle III, CEO, Smarter Solutions, Inc. "Finally, a book that bridges the software and hardware process tool set. To date, there have been hardware and software engineers who for one reason or another have not communicated their process methods. And so, myths formed that convinced the hardware community that CMMI was only for software and likewise convinced the software community that Six Sigma was only for hardware. It is both refreshing and thought provoking to dispel these myths." --Jack Ferguson, Manager, SEI Appraisal Program, Software Engineering Institute CMMI and Six Sigma represent two of the best-known process improvement initiatives. Both are designed to enhance work quality and thereby produce business advantages for an organization. It's a misconception that the two are in competition and cannot be implemented simultaneously. Practitioners originally trained in either CMMI or Six Sigma are now finding that the two initiatives work remarkably well together in the pursuit of their common goal. CMMI® and Six Sigma: Partners in Process Improvement focuses on the synergistic, rather than competitive, implementation of CMMI and Six Sigma—with synergy translating to "faster, better, cheaper" achievement of mission success. Topics range from formation of the value proposition to specific implementation tactics. The authors illustrate how not taking advantage of what both initiatives have to offer puts an organization at risk of sinking time, energy, and money into "inventing" a solution that already exists. Along the way they debunk a few myths about Six Sigma applications in software. While the authors concentrate on the interoperability of Six Sigma and CMMI, they also recognize that organizations rarely implement only these two initiatives. Accordingly, the discussion turns to the emerging realm of "multimodel" process improvement and strategies and tactics that transcend models to help organizations effectively knit together a single unified internal process standard. Whether you work in the defense industry, for a commercial organization, or for a government agency—wherever quality and efficiency matter—you'll find this book to be a valuable resource for bridging process issues across domains and building an improvement strategy that succeeds.

A comprehensive reference manual to the Certified Six Sigma Master Black Belt Body of Knowledge and study guide for the CSMBMB exam. 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 relationships to each other, and their 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.

Millions of dollars are spent annually on process improvement initiatives that too frequently fall short of their goals. Due at least in part to this situation, today many are turned off and have tuned out when it comes to the multitude of process and performance improvement approaches along with their related hype and buzzwords. Agile, CMMI, Kanban, Lean, Six Sigma, Lean Six Sigma, PSP, and TSP to name just a few. Drawing on decades of process improvement experience, author Paul E. McMahon explains why we are facing these problems and how you can get yourself and your organization back on track focused on the things that matter most to both your own personal performance and your organization's performance. This book discusses many popular improvement approaches including the CMMI, Lean Six Sigma, and Agile Retrospectives; it highlights fifteen (15) fundamentals common to all successful improvement efforts where sustainable high value performance improvements are achieved, and it shares a vision (and an actual example that holds promise) of a simple "thinking framework" that can help counter the patterns that may be holding you and your organization back from the sustainable high performance you seek. Paul also shares real examples from his consulting experiences, a personal performance improvement experience, and stories from high performing athletes and musicians to help you think about performance improvement outside-the-box.

Applying Design for Six Sigma to Software and Hardware Systems

Lean Six Sigma

Novel Six Sigma Approaches to Risk Assessment and Management

Integrated IT Performance Management

CMMI, Six Sigma, and ISO 9001

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In order to maximize IT resources and justify IT expenditures, CIO's and other IT managers must be able to identify meaningful metrics and explain them in a way that management can understand. The Business Value of IT: Managing Risks, Optimizing Performance, and Measuring Results solves this problem by providing practical answers to these questions: What does IT contribute to the business? Why should we care about IT governance? How can we best measure IT performance? How do we mitigate the risks associated with change? Leading consultants Michael D. Harris, David E. Herron, and Stasia Iwanicki share their real-world experiences to explain how you can demonstrate IT's value, and potentially find extra value you didn't know your IT organization creates. They also show how to apply risk management to process improvement and avoid unintended consequences of process improvement programs. The text provides the understanding required to discover the processes necessary to: prioritize your organization's IT activities. identify alternative measurement frameworks, and evaluate the best approaches to outsourcing. Many IT organizations have successfully implemented the techniques described in this book to increase their business value. This work identifies the organizational and cultural obstacles you need to remove to get started along the same path.

An easily-digestible and fully updated view of CMMI for practitioners as well as executives, managers and the simply curious.

This proposal constitutes an algorithm of design applying the design for six sigma thinking, tools, and philosophy to software design. The algorithm will also include conceptual design frameworks, mathematical derivation for Six Sigma capability upfront to enable design teams to disregard concepts that are not capable upfront, learning the software development cycle and saving development costs. The uniqueness of this book lies in bringing all those methodologies under the umbrella of design and provide detailed description about how these methods, QFD, DOE, the robust method, FMEA, Design for X, Axiomatic Design, TRIZ can be utilized to help quality improvement in software development, what kinds of different roles those methods play in various stages of design and how to combine those methods to form a comprehensive strategy, a design algorithm, to tackle any quality issues in the design stage.

A hybrid methodology, Lean Six Sigma (LSS) is designed to accommodate global challenges and constraints by capitalizing on Six Sigma and Lean Thinking. LSS incorporates best practices from programs such as the International Organization for Standardization (ISO), Capability Maturity Model, and Total Quality Management. International Lean Six Sigma practitioners must understand the dynamics of LSS, along with its cultural aspects and regulations. Lean Six Sigma: Integrating Standards and Global Guidelines, Third Edition provides the understanding and tools to ensure that organizational tasks and activities are being performed to the best of their process capabilities. It defines continuous improvement as activities that support and empower environments to make flexible decisions that lead to ongoing improvement and effectiveness.

Coverage includes: New global LSS standards International Implementation of process improvement programs New international LSS applications International Lean Six Sigma areas of competency The book defines many of the terms popularized by process improvement programs, such as center of excellence and business transformation. It documents these practices and explains how to perform future activities in accordance with the recorded practices.

Exploring international approaches to Lean Six Sigma, it details the new ISO Standard for Six Sigma and also addresses the role of project management in LSS. Illustrating the synergies between Lean and Six Sigma and how they partner with other process improvement programs and initiatives, this book is an ideal study guide for those preparing to take the LSS Black Belt certification exam.

Making Lean Six Sigma Easier and Adaptable to Current Workplaces

Process Improvement and CMMI for Systems and Software

CMMI Distilled: A Practical Introduction to Integrated Process Improvement, Third Edition

Project Management Success with CMMI

Behind the Mask

Interpreting the CMMI (R)

Since Six Sigma has had marked success in improving quality in other settings, and since the quality of software remains poor, it seems a natural evolution to apply the concepts and tools of Six Sigma to system development and the IT department. Until now however, there were no books available that applied these concepts to the system development p

Since the 1980s, Lean and Six Sigma have been used independently to make existing processes better, faster and more cost effective. For almost twenty years, countless companies have embraced the power of blending the two process improvement methodologies. This has resulted in major financial successes throughout the world, but no one denies that we have learned a lot in the last two decades. Just in time to meet the challenges we will experience in 2020, and beyond, SSD Global Solutions has introduced Leaner Six Sigma (LSS). LSS makes the concepts and tools within these two popular methodologies easier and quicker to understand. Regardless, if you plan to take an industry-standard exam or simply want to apply critical-thinking and problem-solving models to your daily life, this book helps you rapidly navigate your path. Originally, to steer our way through traditional Six Sigma, it was necessary to understand complicated statistics. Then, with Lean, the heavy emphasis on manufacturing made it difficult to apply theories to the service sector. After the book was published and Six Sigma became widespread, many of the core concepts still involved understanding historical references. Fast-forward, we now have spreadsheet-based calculators and programs that build charts and graphs in a couple of clicks. Many "Best Practices" have been established which allows for process improvements without re-inventing the wheel. Over the years, talented subject matter experts and practitioners have discovered useful shortcuts to make Lean Six Sigma, Leaner. This groundbreaking work shows how LSS reduces the learning curve for those unfamiliar with quality initiatives. It streamlines the fundamentals for students wanting to take exams in Lean, Six Sigma or Lean Six Sigma. LSS also provides the mature Lean Six Sigma practitioner, innovative techniques to explain Lean Six Sigma theories to the new user. Lean Six Sigma has served us well, but it is time to utilize all the lessons learned and software tools available today. It is time to embrace next-generation thinking with Leaner Six Sigma! Terra Vanzant Stern, PhD is also the author of Lean and Agile Project Management: How to Make Any Project Better, Faster, and More Cost Effective.

CMMI and Six SigmaPartners in Process ImprovementPearson Education

If you are in search of real-world practical scenarios of IT performance management practices, with a desire to obtain examples of strategic directives, accountabilities, outcomes, and performance measures for managing IT services, with an interest toward how performance management integrates with strategic and operational management, then Intergrat

15 Fundamentals for Higher Performance in Software Development

Innovations and Advances in Computer Sciences and Engineering

CMMI Distilled

Lean Manufacturing and Six Sigma

The Realities of Implementing a Quality Management System

Partners in Process Improvement

The CMMI provides a framework for process improvement spanning the life cycle of a product or service, from conception through delivery and maintenance. Widely and beneficially adopted around the world, the size and apparent complexity of the framework have nonetheless been daunting to some organizations. That need not be so. With a proper guide to help navigate around unknown dangers, potential pitfalls, and false paths, you too, can realize substantial business value from a successful CMMI implementation. This book is such a guide, full of the real-life examples to ease your way, and written in a lighter style to ease your reading. The CMMI® Survival Guide is an effective resource for multiple readerships. If you are just now considering a process improvement program, with the CMMI among your options, the authors' discussion of relevant issues will enhance your business case right from the start. If you have already decided to implement the CMMI, the authors' practical knowledge will help you make the most of your efforts. Even if you are well into a CMMI implementation but are stuck, or going around in circles, the authors' valuable advice will help you regain your direction. If you work in a smaller or resource-strapped organization, you will particularly benefit from the authors' description of alternative paths to process improvement—approaches that are more incremental or agile, and less intensive, than what you might imagine for a CMMI implementation. The authors draw on their extensive experience working with diverse organizations, and on the CMMI tools, techniques, and templates developed for those organizations. Whatever your background or need, the CMMI® Survival Guide will help you survey the CMMI territory, consult possible road maps, learn from other CMMI explorers, weigh the benefits of hiring a living guide, and even consider whether the trip is right for you.

The Practical, Example-Rich Guide to Building Better Systems, Software, and Hardware with DFSS Design for Six Sigma (DFSS) offers engineers powerful opportunities to develop more successful systems, software, hardware, and processes. In Applying Design for Six Sigma to Software and Hardware Systems, two leading experts offer a realistic, step-by-step process for succeeding with DFSS. Their clear, start-to-finish roadmap is designed for successfully developing complex high-technology products and systems that require both software and hardware development. Drawing on their unsurpassed experience leading Six Sigma at Motorola, the authors cover the entire project lifecycle, from business case through scheduling, customer-driven requirements gathering through execution. They provide real-world examples for applying their techniques to software alone, hardware alone, and systems composed of both. Product developers will find proven job aids and specific guidance about what teams and team members need to do at every stage. Using this book's integrated, systems approach, marketers, software professionals, and hardware developers can converge all their efforts on what really matters: addressing the customer's true needs. Learn how to Ensure that your entire team shares a solid understanding of customer needs Define measurable critical parameters that reflect customer requirements Thoroughly assess business case risk and opportunity in the context of product roadmaps and portfolios Prioritize development decisions and scheduling in the face of resource constraints Flow critical parameters down to quantifiable, verifiable requirements for every sub-process, subsystem, and component Use predictive engineering and advanced optimization to build products that robustly handle variations in manufacturing and usage Verify system capabilities and reliability based on pilots or early production samples Master new statistical techniques for ensuring that supply chains deliver on time, with minimal inventory Choose the right DFSS tools, using the authors' step-by-step flowchart If you're an engineer involved in developing any new technology solution, this book will help you reflect the real Voice of the Customer, achieve better results faster, and eliminate fingerpointing. About the Web Site The accompanying Web site, sigmaexperts.com/dfss, provides an interactive DFSS flowchart, templates, exercises, examples, and tools.

"The perfect addition to your reference library, this book offers solid, how-to advice on how to overcome numerous obstacles while successfully implementing your quality management system." Richard Bechtold, PhD, President, Abridged Technology. "Getting started is the hardest thing. In my professional experience with CMMI, Susan Hinkle has been the only person I've ever seen to successfully take companies from 0 to maturity level 2 and capability level 3 in a year." Joanne O'Leary, Lead Appraiser. For many organizations, the time, effort, cost, and culture shock associated with implementing a Quality Management System can be overwhelming. With that in mind, I am hoping to share some of my successes so you can borrow ideas, and avoid some of the pitfalls I stumbled upon. This book includes several informative sections such as the 'make or buy' decision, cultural change, deciding what system to implement and when, and return on investment which you may find exceedingly useful in your decision making and learning. The intent of this book is to explain the realities of what you could encounter when implementing a Quality Management System, and to discuss the things other books and consultants might not necessarily tell you. This book is intended for use by small commercial and government organizations outside the realms of IT, software development and systems engineering.

"The process improvement framework such as Capability Maturity Model (CMM) can help develop the maturity of a software development organization over time to achieve predictable and repeatable process performance, however, in the absence of a methodology for process performance measurement, ongoing data-oriented process improvement is hard to institutionalize. For organizations following CMMI, this makes navigating their way through higher-level process management and optimization activities called forth in CMMI Level 4 and Level 5 especially challenging. Altogether, this constitutes a major stumbling block for software organizations striving for higher process improvement in an organization. Six-Sigma introduces tremendous process measurability through its statistical error-control focus and compelling tools and techniques that have strong applicability to software development. Six-Sigma focus on data and metrics married with the CMMI coverage of all aspects of software development through its Process Areas can together provide a powerful process

control and improvement framework. A CMMI and Six-Sigma hybrid framework has been presented as a means of achieving software development performance and productivity improvements through statistical error control. Such a hybrid CMMI and Six Sigma framework provides not just greater guidance and rigor in certain areas than CMMI alone but also an inherent flexibility by making an extensive toolset available for use in a wide variety of scenarios. This integrated framework demonstrates that CMMI and Six Sigma are highly complementary and are capable of adding greater value when used in conjunction with each other. This is partly because together they address the weaknesses that may become apparent when either framework is used alone. Six Sigma answers the 'how' for areas where CMMI only provides the 'what'. Conversely, CMMI provides the overall vision and roadmap that is lacking from individual Six Sigma improvements. It is hoped that this will serve as a blueprint for an implementation of CMMI that makes use of relevant Six Sigma tools and techniques"--Abstract.

Lean Six Sigma Secrets for the CIO

Process Improvement Essentials

A Practical Introduction to Integrated Process Improvement

Managing Risks, Optimizing Performance and Measuring Results

CMMI for Development

Six Sigma Software Quality Improvement

If you do not measure, you do not know, and if you do not know, you cannot manage. Modern Quality Management and Six Sigma shows us how to measure and, consequently, how to manage the companies in business and industries. Six Sigma provides principles and tools that can be applied to any process as a means used to measure defects and/or error rates. In the new millennium thousands of people work in various companies that use Modern Quality Management and Six Sigma to reduce the cost of products and eliminate the defects. This book provides the necessary guidance for selecting, performing and evaluating various procedures of Quality Management and particularly Six Sigma. In the book you will see how to use data, i.e. plot, interpret and validate it for Six Sigma projects in business, industry and even in medical laboratories.

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.

A new edition of this title is available, ISBN-10: 0321461088 ISBN-13: 9780321461087

This book provides useful solutions for organizations to become more competitive both domestically and globally, and thus achieve competitive advantage. To this end, it reviews the Capability Maturity Model Integration (CMMI) in industry that achieved significant results. However, it should be noted that product manufacturing requires appropriate product quality, which should never be forgotten. As such, the book considers The Six Sigma technique approach, which is one of the most well-known techniques used in organizations. It also discusses the agile manufacturing (AM) approach, which has received a lot of attention from organizations due to the growth of technology, rapid changes in customer needs and demands, and increased information exchange.

Practical Insight Into CMMI

A Guide for Utilizing Six Sigma in Achieving CMMI Maturity Goals

Relationships Between CMMI and Six Sigma

Choosing the Best Quality Tools for a Non-manufacturing Environment: ISO 9001:2000, CMMI, Or Six Sigma

Software Design for Six Sigma

An Integrated Six-sigma and CMMI Framework for Software Process Improvement