

Practical Insight Into CMMI

Tim Kasse, Artech House, 2004, 328 pp., \$85 (book).

Practical Insight Into CMMI highlights a systems engineering approach to capability maturity model-integrated (CMMI), making the software industry methodology a model for process improvement that causes focus to appear in the design process. This book benefits organizations that are just beginning to develop a process improvement initiative and want to utilize the most complete and robust model available today. It is for organizations that require an engineering discipline for their managers and system developers. It emphasizes the use of multidisciplined teams to develop complex systems.

Kasse uses systems engineering, software engineering and process improvement ideas to stress business oriented results. Process improvement is based on CMMI to enable project leaders to better manage and control through project planning and monitoring. Special significance is stressed in the discussion on achieving CMMI levels four and five, where the enterprise expects real benefits and return on investment from the continuous improvement process. Project leaders are equipped to manage risk, quality and supply sources through the CMMI approach.

Kasse makes CMMI easy to understand with his practical examples and provides users of this model a path to success. This book is essential reading for anyone who has been charged to implement CMMI.

John J. Lanczycki
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Design of Experiments With Minitab

Paul G. Mathews, ASQ Quality Press, 2005, 520 pp., \$68 member, \$80 list (book and CD-ROM).

Design of Experiments With Minitab uses version 14 of Minitab to demonstrate graphical and statistical data analyses and design of experiments (DoE). Minitab was chosen as the statistical analysis software to accompany the text because of its broad user base, ease of use and reasonable price. Readers running another statistical analysis software package will still find the DoE explanations relevant, although the specific menu commands and mouse clicks will of course vary in another package.

The book is organized into chapters that cover the fundamentals of graphical data presentation, descriptive statistics, inferential statistics, DoE language and concepts, experiments for one-way and multiway classifications, advanced analysis of variance topics, linear regression, and two-level factorial and fractional factorial and response-surface experiments. Also included is a handy appendix. The accompanying CD-ROM contains practical example problem data referred to in the text, chapter problems, classroom exercises and labs, among other things.

This book is appropriate for a college course in DoE, as well as for use by statisticians and DoE professionals. Although the book contains a few references to calculus, in most cases alternative methods based on simple algebra

are also presented. The use of Minitab 14, although not absolutely a requirement, will further enhance Mathews' approach, since the material is strongly built around the integration of Minitab 14 in learning DoE.

This book is highly recommended for all engineers and statisticians heavily involved in implementing DoE, especially those using Minitab, and university libraries supporting statistics, statistical process control, DoE and engineering curriculum.

Dale Farris
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Oakland on Quality Management

John S. Oakland, Butterworth-Heinemann, 2004, 475 pp., \$95 (book).

Oakland on Quality Management is about how to manage in a total quality way and is structured around a model for quality management based on "four P's and three C's." It deals with improving performance through better planning and management of people and processes. This core needs to be surrounded by commitment to quality, communication of the quality message and recognition of the need to change the culture to create total quality.

This extensively extended version of Oakland's *Total Quality Management* features major changes and new material on process management, quality management systems, HR management, performance measures, partnerships and resources, and innovation and learning.

The total framework of the book emphasizes the leadership component and the importance of focusing on design. Many short illustrative case descriptions are included to reflect upon concepts and current understanding. Unfortunately, the terminology sometimes is unclear. For example, the concepts of quality and total quality as well as quality management and total quality management (TQM) are used more or less interchangeably.

However, this is a good book overall based on a lot of experience for emphasizing TQM to directors and managers, students and teachers.

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Development of FDA-Regulated Medical Products

Elaine Whitmore, ASQ Quality Press, 2004, 224 pp., \$32 member, \$40 list (book).

In *Development of FDA-Regulated Medical Products: Prescription Drugs, Biologics and Medical Devices*, Whitmore offers positive and discerning text on the development and management of products in a regulated industry. Her insightful advice and ability to summarize complex and lengthy processes offer readers a unique perspective on dynamic processes within a complex industry.

The book is split into three sections with the first dedicated to bringing the reader up to speed on today's Food and

Drug Administration (FDA). The agency has changed considerably as a result of Congressional mandates. The second section presents the challenges and struggles of selling regulated products and covers principles such as human factors, design controls for medical devices, safety and efficacy of drugs tested in clinical trials, the use of risk analysis and the impact of managed care.

The third part of the book is unique regarding its analysis and insight into the management of a company's most prized possession—its pipeline. This third section is the primary focus of the book. It is outstanding, offers the reader a fresh perspective and brings some sanity to the world of research and development.

Whitmore has also addressed the needs of the reader through additional sections including a list of abbreviations, a glossary, descriptions and internet addresses of resources and organizations, and an index. The many tables and figures provide further insight into industry practices and also present the reader with a comprehensive overview of the definitions, issues and practices that exist and must be followed in the healthcare products field.

In the medical products field the knowledge base is extensive, rapidly changing and at times complex. In light of these challenges, Whitmore has designed the layout and format of the book to address these needs. The book is a very solid contribution to the field and will benefit every level of reader in a positive manner.

Frank Pokrop
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The Competitive Edge

Joseph J. McHugh, Authorhouse, 2004, 92 pp., \$13.95 (book).

In this very brief handbook, *The Competitive Edge: The Eight Efficiency Factors for Continuous Improvement*, McHugh outlines what he believes to be the eight required efficiency factors that will assist any organization in moving toward increased competitiveness and continuous improvement.

Interestingly, quality and customer satisfaction are not among the factors listed. McHugh points out these two items are intentionally omitted, as they are a given in today's global economy. The author further states that any organization that does not understand these two basic premises is not an organization ready to apply the eight efficiency factors.

The book is basically divided into brief chapters, each of which discusses one of the eight factors: human resources, equipment, outsourcing, nonvalue added costs, materials, environment, advancing technologies and manufacturing costs.

Throughout the book, these ideas are discussed as if they are fairly straightforward to implement. In the outsourcing chapter, government is encouraged to consider as follows: "First, I propose that governments hire proven managerial talent, talent that will encourage productivity changes similar to business initiatives." I don't think there is anyone who would disagree with this statement, but it's

certainly easier said than done.


I believe the true market for this book is upper management. While there are no specific "how-to's" to implementing the eight efficiency factors, I believe this book would help that market support its management strategy.

Linda Cubalchini-Travis
Simi Valley, CA

RECENT RELEASES

Bioterrorism and Food Safety, Barbara Rasco and Gleyne Bledsoe, CRC Press, 2005, 415 pp., \$195.95 (book).

Andy and Me: Crisis and Transformation on the Lean Journey, Pascal Dennis, Productivity Press, 2005, 183 pp., \$19.95 (book).

The Quality Toolbox, second edition, Nancy Tague, ASQ Quality Press, 2005, 584 pp., \$35 member, \$44 list (book). 

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