BOOK REVIEWS

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Better Software Project Management: A Primer for Success

Marsha D. Lewin CCP, CMC, FIMC (Wiley, New York; 2002; ISBN 0-471-39555-2) $68

REVIEWED BY CHARLES E. DAY

In this book, Marsha Lewin draws on her 30-plus years of experience with software project management in both private and public sectors. She uses her knowledge of technology, people, business processes, and leadership and organization as well as her previous writings to successfully document the fundamentals of managing software and system-related projects: planning and oversight of resources, budgets, people, quality control, and risk management.

The larger and more visible the project, the greater the need for the techniques and lessons contained in this primer. While the author's intended audience is principally managers of small and medium-sized projects, managers of larger systems development efforts may find useful guidance as well.

The approach outlined, and followed rigorously, is to provide a set of practical tools for use in managing work efforts. This "managerial tool kit" can be used to select reports and planning aids according to the needs of each project. Picking and choosing among the tools is left up to the reader and becomes a truly customized art form for successfully implementing systems-related projects.

Getting Started

Lewin's principles of project management are adapted from Milton D. (Mickey) Rosenau, Jr. and his Triple Constraints model, which incorporates three principal variables: quality of software, budget or cost of implementing systems, and schedule or length of implementation. She adds a fourth variable, risk factors, to create the "Quadruple Constraints" model. She also uses the Waterfall Life-Cycle model—initiation, analysis, design, selection, modification, implementation, and review—to review the traditional steps in project management.

What do you do when you inherit responsibility for managing a software project for the first time? Panic, yes, but then you can turn to this book to learn the sort of questions that you need to answer. For example, What are the business and other needs the project must satisfy? How are the needs ranked? What exactly should a project manager do? You are given a quick-start tutorial on such practices as assembling a team, organizing the players, monitoring the work effort, and replanning as you go. In addition, sample charts that model how you can assess schedule and cost issues relative to goals are helpful for getting started or freshly retrained in thinking about software project management structurally.

Mastering the Process

Lewin explains her Quadruple Constraints model in detail and describes how to satisfy the model by addressing the performance problems that often arise in the areas of communications, technological changes, programming, resource availability, personnel, cost, scope, integration, and schedule. The ability to deal with issues such as project and user politics, setting reasonable expectations, and documenting project activities is a critical element of good project management, no matter the type of project. Beware! Small projects contain perils. Excellent graphic illustrations of the "V" and "spiral" software development methodologies convey the revolving nature of project management.

Planning the Project

Project managers will be particularly interested in the details on RFPs and

the project plan development aids to be found in the book's appendixes. Lewin loads a detailed discussion of project planning with good tips for build-versus-buy decisions, sample task and project control worksheets, and strategies for good communication of plans. I particularly like the inclusion of setting implementation standards, which all too often gets overlooked. This information, along with the prerequisite bar charts, network diagrams, critical path identification graphs, and scheduling slack time complete the stock of must-know primer tools.

If you want a refresher training course on the techniques of cost estimation, this book will do just fine. You'll get the parametric, the experienced-based estimating, and the caveat estimator tutorial as well. And, of course, you can't leave this discussion without solid advice on factoring in and planning risk.

Leadership

The author revisits the fundamentals of organizing and leading teams and places emphasis on use of the Internet which, for example, allows the creation of virtual teams and access to resources. I found discussion of progressive leadership styles, especially for forward-thinking and enlightened leaders, to be limited, but Lewin draws on practical experience of what has worked with technical teams to date.

Monitoring

Getting and staying in control of project work is a major theme throughout the book. The types of reports used, as well the extent of monitoring activities can vary a lot, and Lewin offers an array of choices, including program schedules, progress-reporting forms, and tracking mechanisms. She is eloquent in presenting a robust program-architecture chart for multiple projects and also touches on such things as cost monitoring, creepy-crawly changes, and communicating and publicizing project activities.

Completion

The book concludes with a section on the orderly completion of projects. Your next, perhaps more challenging software project management assignment, will benefit from your review of what succeeded and what lessons you learned, as well as your consultation with sponsors to make certain they agree with your assessment of the project's success.

Summary

This excellent documentation of standards and step-by-step actions for project control and management of teams applies to more than just strictly technical managers and projects. The tool kit inputs and the philosophies for quantifying expectations and for monitoring and controlling progress appropriately are fundamental management practices and would serve even the non-technical manager and consultant well on any assignment that has the word *computer* or *software* in it. Well done!

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