This book is intended to help shed some practical light on how companies can use process to help promote and achieve project management success. The term project management success can, of course, mean many different things. The definition will vary from company to company, and this can be particularly true for technology companies. The nature of their work, their industrial focus, their size, the makeup of different customer bases—all of these contribute to how a project is viewed, managed, and in the end deemed successful. And so this book will begin with a look at what the domains of project management typically entail, what performance factors are typically pursued, and what measures (or perceptions) usually shape the picture of success.

But first, I offer a few quick words about the process center of this book, the Capability Maturity Model Integration (CMMI), and about the book itself.

The Purpose of This Book

This book explains how the Capability Maturity Model Integration, specifically CMMI-DEV, version 1.2, can be used to foster project management success in technology development shops. More specifically, I discuss how the seven Process Areas defined for Maturity Level 2 particularly address the needs of project management in shops large and small.

This book—and I have kept its focus condensed to the realm of project management—is not intended as a full-bore explanation of all 22 Process Areas in CMMI. Nor is it positioned as a tome on process improvement or what might be called the art of project management. This book takes a practical approach to the business and operational
needs of project management, illustrates these against the recommendations contained under CMMI Maturity Level 2, and then describes ways and methods of realizing these recommendations in your organization.

If you read through this book carefully, I hope that in the end you’ll be able to better appreciate four factors relevant to CMMI, process improvement, and project management:

1. The general requirements for project management success
2. The general scope and purpose of CMMI
3. The structure, use, and benefits to be derived from CMMI Maturity Level 2
4. The complementary relationship that can exist between CMMI and project management bodies of knowledge such as the Project Management Body of Knowledge (PMBOK) by the Project Management Institute (PMI).

The Audience for This Book

This book has been designed for two distinct but related audiences: project managers and process managers. Both of these groups should find value in the ways that CMMI can contribute to the management of technology projects and connect with specific project management disciplines, as well as how it can support environments in which these disciplines have not yet been introduced.

Project Managers

If you are a project manager, you may come to this book with a Project Management Professional (PMP) certification or you may not. You may be certified by the American Management Association (AMA). You might have no formal credentials but possess solid management and organizational skills. You might work in a formalized environment—one supported by long-standing methods and practices. Or you might operate in a more freeform culture, one with a get-up-and-go approach to doing business. Whatever the situation, project managers remain the driving force behind the coordinated execution of project work in any enterprise, so this book is written especially to address the issues that surround that mission.
The intention of the book is to introduce you to what might be new techniques and management strategies founded in CMMI, not as a total or complete project management solution, but rather as a foundation for growing a capable and effective project management program that can help you better achieve your tactical goals and objectives.

**Process Managers**

This book is also intended for process managers. In the technology industries, the term *process manager* has been floating around more and more lately (and that’s a positive thing), but unlike project managers, process managers’ roles and requirements have yet to be solidly defined. They can vary widely from shop to shop. However, the generic function should be recognized. The process manager is the person in an organization who manages that organization’s process program and is generally responsible for the way it is implemented, measured, and maintained. And while there is a PMP designation for project managers, there is no similar designation for process managers. You might assign to the position a Six Sigma black belt, an ISO auditor, or a CMMI lead appraiser, but those are all individual designations. Whoever takes on the role takes on an important responsibility. Process managers serve at the strategic level of operations; the programs they maintain define how their organizations work. And so this book should be of interest to process managers, particularly with regard to their role in supporting project development and management activities.

The methods and process disciplines we discuss in this book, based on CMMI (and related from time to time to the PMI’s PMBOK), can be shaped and tailored to form an evolving process program, or they can be borrowed and trimmed to extend existing process programs. An appreciation for how CMMI can contribute to project management success, within a PMBOK environment or even as a PMBOK alternative, will serve process managers well.

**How This Book Is Organized**

This book is organized into three general sections.

In the first two chapters, we look at the overall structure of CMMI, explore its focus and purpose, and discuss how one slice of the model—the view from Maturity Level 2—can be used to augment successful
project management in a technology shop. We also begin to relate the seven Process Areas typically found at Level 2 to the Knowledge Areas and Process Groups of the PMI’s PMBOK.

Then, in Chapters 3 through 9, we discuss the Specific Goals and Specific Practices of the following seven Process Areas with a view toward implementation for project control:

- Project Planning
- Project Monitoring & Control
- Requirements Management
- Configuration Management
- Supplier Agreement Management
- Measurement & Analysis
- Process & Product Quality Assurance

In Chapter 10, we look at the Generic Goals and Generic Practices designed to support these Level 2 Process Areas.

Finally, in Chapter 11, we discuss how to integrate the functions and operations of Maturity Level 2 into a well-founded project management program, one based on the principles of process improvement, one built to coexist within the framework of the PMBOK, or one that can be used by project managers outside of, or as an alternative to, the PMBOK.

Let’s begin with an overview of process itself and the case that can be built about the relationship between process and project management success.