

Introduction to Enterprise Project Management

Throughout this book, you will see that Enterprise Project Management (EPM; also called *Enterprise Portfolio Management*) is made up of two components: philosophy and tool. Although the book is primarily technical in nature, it is impossible to separate the technology from the environment in which it works. This software is not a “magic bullet” that will solve all process problems. Although it is great software, it has limitations, and the primary one is that it is only as good as the processes that surround the tool.

Why We Wrote This Book

The Sams Publishing *Unleashed* series is intended for both beginner and intermediate audiences. The primary purpose of this book is to provide knowledge to the reader of the capabilities of Microsoft Office Project Server 2007, a robust EPM software application. It does not provide a step-by-step cookbook answer but rather provides the logic and approach that should be used for implementing a complex project management software product. Unlike other server products, EPM requires extensive knowledge of the project management domain and the business goals to install and configure it in the most optimal manner.

Much of the material covered in this book is simple enough for a beginner to understand but it also allows you to grow with the book as more advanced topics are covered. The intermediate user will find that the material is new and interesting and provides practical tips, tricks, and guidelines based on this team’s experience of hundreds of successful EPM installations and implementations for thousands of users.

This book is comprehensive enough to be a source of powerful and meaningful information but is not meant to be a “cradle-to-grave” guide of all things possible with this software. It does need to fit in a briefcase or next to your desk!

The team is excited to offer you the opportunity to get into the consultants’ heads and get some practical and real-world examples on how to plan, install, configure, deploy, and manage an EPM implementation.

How This Book Is Organized

This book is divided into six parts designed to be of interest to a wide variety of readers. Some of the chapters focus on planning and organization, whereas others focus on technology details. The following information should help you decide which chapters are important for your role.

Part I—Initiating Microsoft Office Project Server 2007 Implementation

Part I is an introduction to the software application and to the philosophy of approach to EPM. It is intended for all audiences to provide context for successfully planning and managing the EPM environment.

Chapter 1, “Enterprise Project Management Overview,” describes enterprise thinking and what it takes to be successful with deployment of a software tool. The tool is not a magic bullet that will solve all problems regarding people, process, and environment.

Chapter 2, “Understanding Microsoft Office Project Server 2007 as an Enterprise Project Management Solution,” is an overview of the major features of the EPM tool and how these features are integrated within the tool.

Chapter 3, “Initiating Your EPM Implementation,” discusses what you should do and understand before beginning your EPM implementation planning. In addition to reviewing organizational factors and processes that you need to consider, the chapter details business justification, scope development, and obtaining authority to proceed as necessary steps before starting the planning process.

Part II—Planning Your Microsoft Office Project Server 2007 Implementation

Part II discusses what your business and IT staff must do to properly plan and prepare for the implementation. Chapters in this part detail organizational processes and roles, Project Server 2007 architecture, and the technical design of the solution integrating your business processes.

Chapter 4, “Planning the Organizational Processes and Roles,” helps the reader approach the implementation of this tool realistically by first understanding the key focus areas. In addition, you will understand how Project Server 2007 features and functions address the main usage scenarios, the planning of Project Server 2007 users and roles, planning project phases to be integrated into the solution, planning the actual deployment of the tool, migration planning, development of operational policies and processes, and finalizing and communicating implementation scope.

Chapter 5, “Understanding Microsoft office 2007 Project Server Architecture,” provides the high-level view of the software components, the solution architecture, and considerations for scalability and security.

Chapter 6, “Designing the Enterprise Project Management Solution Architecture Details,” provides an in-depth look at design requirements that must be considered when planning an EPM implementation.

Part III—Implementing Microsoft Office Project Server 2007

Part III discusses the steps necessary for implementing Microsoft Office Project Server 2007. The intended audience for the chapters in this part are members of the implementation team.

Chapter 7, “Installing Microsoft Office Project Server 2007,” focuses on the high level steps and checklists, as well as useful references to already existing materials for installing Microsoft Office Project Server 2007. In addition, it provides a post-installation validation checklist that verifies the success of the installation—a crucial step prior to configuring the solution.

Chapter 8, “Configuring Your EPM Solution,” provides an introduction to configuring the solution as well as reminds the implementation team to revisit business requirements to ensure that the solution addresses the key user needs and functionality.

Chapter 9, “Configuring Security Model Settings,” addresses the security options and capabilities of the software. This important chapter helps the reader create a security model that is both robust and flexible so that it does not require a great deal of administrative time to maintain.

Chapter 10, “Configuring Enterprise Custom Fields,” describes the core configuration elements of the software. Configuration models vary from organization to organization based on the complexity of the setup and the needs of the business. This chapter discusses the options available for the user.

Chapter 11, “Configuring Resources Attributes and Resource Pool,” discusses the details of configuring the resource breakdown structure and configuring the resource pool, including resource types, matching skill sets, and synchronizing with Active Directory.

Chapter 12, “Configuring Calendars,” explains the various settings and functionality of the Enterprise Global calendars and design considerations for various ways to configure the solution.

Chapter 13, “Configuring Task and Time Management Settings,” explains the difference in the functionality of task and time management and the configuration options available to your organization to best fit your business model and processes.

Chapter 14, “Standardizing Microsoft Office Project Professional 2007 Global Settings,” discusses ways to standardize views, tables, toolbars, forms, maps, and other elements across your organization.

Chapter 15, “Configuring the Microsoft Office Project Web Access 2007 Interface,” details the configuration options for the look and feel elements of the web-based Project Server 2007 component, Project Web Access.

Chapter 16, “Configuring Operational Policies,” provides details for configuring and handling alerts and reminders, enterprise settings, server-side event handlers, Active Directory synchronization, project workspace management, and provisioning settings.

Chapter 17, “Configuring Reporting and Analysis,” explains how an organization can set up views of the data and reports to meet the needs of different users of the system. The data within the system can be depicted in an almost limitless variety of views and report types and formats.

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Chapter 18, “Validating the EPM Configuration and Business Processes,” stresses the importance of performing thorough testing of all the system components and configuration to ensure that the system produces the expected results. Special attention must be paid to the roles and permissions, the security model, and the business and operational processes that surround this software. This chapter also includes several validation checklists to help guide users through this process.

Part IV—Using Microsoft Office Project Server 2007

Part IV covers the functionality and usage of Project Server 2007, once implemented, and is intended for all types of system users based on the functions they perform in their organization.

Chapter 19, “Using Microsoft Office Project Server 2007,” includes an overview of Project Server 2007 components and then discusses at a high level the functionality and solution components that would generally be used by the default user groups, such as executives, project managers, resource managers, and so on.

Chapter 20, “Allocating Resources for Work Assignments in Microsoft Office Project Server 2007,” explains the creation, management, and use of various resource-related functionality and the various methods for viewing resource allocation.

Chapter 21, “Creating and Managing Proposals and Activity Plans,” introduces the new features of Project Server 2007—proposals and activity plans—and their application and use by various members of the team.

Chapter 22, “Creating and Managing Projects Using Project Professional 2007,” provides a high-level overview and use of Microsoft Office Project Professional, introducing the project life cycle.

Chapter 23, “Creating Project Dependencies Using Master Projects, Deliverables, and Project Workspaces,” describes the program-level functionality and creation of project dependencies and links.

Chapter 24, “Reporting and Approving Time and Task Progress in Project Web Access,” describes the capabilities provided in the system and the various methods that can be used to measure project progress. The chapter includes information regarding entry and approval of project progress.

Chapter 25, “Managing Projects Using Project Center in Project Web Access,” helps users understand how to use the software to manage projects and view various statistics.

Chapter 26, “Managing Resources Using Resource Center in Project Web Access,” helps users understand how to use the software to manage resources and view information about them.

Chapter 27, “Microsoft Office Project Server 2007 Collaboration,” introduces the collaborative features and functions of Project Server 2007 and describes the capabilities of the system to help the project teams with day-to-day management of their projects and project artifacts.

Chapter 28, “Modifying Your Project Workspace,” discusses in more depth the customization options available to users for customizing the Windows SharePoint Services (WSS) 3.0 project workspace. This chapter reviews the majority of the features and functions of project workspaces and provides some useful examples on best ways to improve team efficiency and information sharing through the use of WSS 3.0.

Chapter 29, “Reporting and Analysis,” provides details on the reporting methods that are available to help users reach the data in Project Server 2007.

Chapter 30, “Using Microsoft Office 2007 Applications with Microsoft Office Project Server 2007,” describes the features of the software that allow integration between this software and other Microsoft Office software, such as Outlook, Excel, and Visio.

Chapter 31, “Closing Projects in the EPM Solution,” discusses the last step of a project life cycle and the important process steps that must be taken to formally close the project and learn from your experiences.

Part V—Project Server Administration Maintenance and Operations

Part V is intended for system administrators and IT staff and includes technology details for successfully managing and troubleshooting the solution.

Chapter 32, “Microsoft Office Project Server 2007 Administration,” reviews all the settings and options available to system administrators under Server Settings.

Chapter 33, “WSS Central Administration,” provides a high-level overview of all the features related to Project Server 2007 available under Windows SharePoint Services Central Administration website.

Chapter 34, “Queue Management,” describes the purpose of the queue (a new feature in Project Server 2007) and how project managers can use the queue to manage their work and system administrators can use the queue to troubleshoot potential system problems and bottlenecks.

Chapter 35, “Server Maintenance and Configuration Management,” provides a technical description of the server components and the typical maintenance activities that should be set up for proper management of the servers and the data they contain.

Chapter 36, “Backup and Recovery,” reviews typical backup and recovery strategies and disaster recovery options available for Project Server 2007.

Chapter 37, “Troubleshooting Tools,” discusses various tools available to system administration to help troubleshoot problems.

Chapter 38, “Capacity Planning,” provides information on how to plan for and monitor growth of the system as usage of the software expands through the organization. It addresses different methods of system management as well as ongoing support requirements.

Part VI—Integration and Customization

Part VI includes customization options available for Project Server 2007 and is intended for software developers or users with programming skills and background.

Chapter 39, “Integrating the Enterprise with Microsoft Servers,” provides an overview of many Microsoft servers, their usage, and integration options available to create the most efficient and robust solution for your business needs.

Chapter 40, “Extending WSS 3.0 Project Workspace Through Code,” discusses customization options for WSS project workspaces that require programming involvement and more in-depth knowledge of the system back end.

Chapter 41, “Understanding Project Server Interface,” explains the purpose of the Project Server Interface and how integration and functionality have been improved compared to the previous interface, Project Data Service.

Chapter 42, “Using Server-Side Events in Project Server 2007,” provides an overview of server-side events and information and examples for event handling.

Chapter 43, “Understanding Workflow,” discusses the workflow features of Project Server 2007 and how you can create simple workflows with a minimum amount of customization.

Chapter 44, “Customizing and Creating Web Parts,” provides methods for customizing existing web parts as well as creating new ones to address your specific business needs.

Chapter 45, “VBA and the Project Guide,” begins with an overview and comparison of Visual Basic for Applications (VBA) and Visual Studio for Office, continuing into details for creating macros, viewing and editing VBA code, debugging, and understanding the Project Server 2007 object model.

Chapter 46, “Reporting Customization,” explores the methods and features available for customizing Project Server–integrated reporting capabilities, concentrating on the OLAP cube extension and SQL Reporting Services reports.

Who Should Read This Book

This book is intended to be a comprehensive guide to the implementation and use of Microsoft Office Project Server 2007. As such, portions of this book will be of more interest to one set of users than another. The following information should help readers determine which parts are most applicable to their needs.

Business Managers and Leaders

Leadership within the organization should pay special attention to Part I, Part II, Part III, and Part V. These components will help you understand how this product can be used to help your organization, and will also help you understand the features that will be of most direct benefit to you. They will help you to sponsor and plan a successful deployment of the software and enable you to understand the evolutionary aspects of creating and refining the data within the system. The software is intended to support good project

and portfolio management processes, and it will not be effective if effective processes are not in place.

Project and Resource Managers

This book is also intended to provide essential guidance and instruction for project and resource managers. The people in these positions play key roles in the success of the implementation and ongoing operation of Microsoft Project Server 2007. If performing one of these roles, you must familiarize yourself with the capabilities of the system. It is important that you can perform your role effectively within the system. In addition, given the enterprise focus and collaborative nature of the system, it is critical that you understand how to perform these roles in relation to the other roles being performed in the system.

There is content in the book especially targeted and useful to those performing a resource manager role. Especially in matrix organizations, this role needs to be performed well to effectively plan, manage, and deliver projects using Microsoft Project Server 2007. Resource management can ultimately determine whether a project is delivered as planned. To that end, the resource manager's knowledge of the features of the system, and how to best interact with the project manager, project team members, and other project participants is critical.

Project managers and resource managers represent two of the most important roles in both successfully delivering projects and in effectively managing them using Microsoft Project Server 2007. The material contained in this book provides guidance and key insights into enhancing and maximizing effectiveness and increasing the likelihood of a successful outcome in these areas. Project and resource managers provide the key planning, scheduling, and resource data that are the foundational details for all the information in Microsoft Office Project Server 2007. They also manage, and keep current, all of this detail during the operational life cycle of a project. Parts I and IV will be the most useful sections for project and resource managers.

Project Server Administrators

Because the application administration capabilities of this product are extensive, Project Server administrators will find most parts of this book useful. They need to be familiar with the administrative capabilities, but also will find that they are better able to deal with the end users of the tool if they understand the various user roles and how they interact with the software. Even the parts focused on customization will help administrators understand the product limitations. Part V is intended for this user role and will help Project Server Administrators understand all the options they have in managing a solution.

Technologists and Implementers

Technologists and implementers bring a new and exciting role to Project Server 2007 EPM. They do more than install, enhance, configure, and maintain the system components; they aid in the definition of the Enterprise Project Management solution of an organization.

Implementers are the Project Server experts who supply in-depth knowledge of configuration and technology. The best implementers understand the discipline of project management and how it interacts with business processes. Technologists' responsibilities range from development of the system architecture to development of software and web interfaces and integration with or management of the databases. Each of these roles will find useful material throughout the book, especially in Parts II and III.

Special Features of This Book

Included with this book is a CD that contains all the written content of the book plus several additional features that we hope you will find useful. The additional materials include:

- ▶ **Electronic Content**—This entire book in Adobe's Portable Document Format (.PDF) for fast and easy topic search and reference
- ▶ **Checklists**—Project Server 2007 pre-installation, installation, installation validation, and configuration checklists in Adobe's Portable Document Format (.PDF) for easy access and printing
- ▶ **Technical Configuration Template**—Template you can print and use for documenting your system's technical configuration
- ▶ **Source Files**—Explore select source files while following along in the book to use them for experimenting on your own
- ▶ **Trial Software**—Install additional project management schedule audit tool—QuantumPM Schedule Editor (QSA)
- ▶ **Product Demos**—View pre-recorded demos on WBS and Earned Value Management tools that integrate with Project 2007

Terms Included in This Book

Microsoft Office Project Server 2007, Microsoft Office Project Professional 2007, and Microsoft Office Project Web Access 2007 are the official product names for the EPM solution. Although these names describe the product throughout this book, you will also see the products referenced by shortened versions of their names. The server product is generally referenced simply as Project Server 2007, or Project Server; the desktop tool often is referred to as Project Professional; and the web interface is typically abbreviated as Project Web Access or PWA.

Enterprise Project Management (EPM) is another name that Microsoft has chosen to describe the entire set of products in the software package.

NOTE

For a detailed explanation of EPM philosophy and EPM tools, see Chapter 1.

EPM is also used in many contexts to mean Enterprise Portfolio Management and Enterprise Program Management. Unfortunately, the terms are often used interchangeably, and this causes considerable confusion and long, philosophical arguments about the “correct” use of the terms. For purposes of this book, the authors have chosen to stay with the definition used by Microsoft for its product. We do, however, offer the following definitions for the terms *project*, *program*, and *portfolio* in the hope that these definitions will assist the reader in understanding the intent of the configuration options found throughout the book.

- ▶ **Project**—According to Harold Kerzner, in *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*, a project is a series of activities that have a specific objective, defined start/end dates, and funding limits, and that consume resources. Using this definition, it is easy to see how most of an organization’s resources (outside a regular operational context) are focused toward project work. Microsoft’s EPM product, however, has also enabled organizations to “projectize” operational work as administrative projects so that true resource utilization is possible.
- ▶ **Program**—There are many definitions and uses of this term in the project management context. The differences vary by organization and individual. There are so many definitions that it is difficult to provide a definition. For purposes of this context, however, a *program* is a grouping of projects related to each other in some manner. The relationship can be organizational or functional, or it might refer to a group of projects that have been subdivided for ease of execution. Any and all of these relationships can be managed and depicted with the EPM software.
- ▶ **Portfolio**—Portfolio management moves project and program management to the enterprise level. The concept has received a great deal of attention in recent years from many organizations, including software developers and standards bodies. The authors of this book define *portfolio management* as the ongoing and proactive planning, execution, and control of the future of an enterprise. It is revolutionary and is based on a continuous improvement model. In the context of the EPM tool, portfolio management enables the organization to oversee and manage its projects, programs, and operational activities.