The Project Managers Guide to Microsoft Project 2019

Covers Standard, Professional, Server, Project Web App, and Office 365 Versions

Gus Cicala

Apress
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To all the Zen masters of project management who strive for the promise of “delivering the future into the present” one day at a time through their mastery of the arts and science of our profession:

• May your patience with the reality of the present enable you to craft the expected project outcomes through a skillful re-synching of the revised plan with the passionless and relentless unfolding of reality.

• May you always have a keen awareness and unconditional acceptance of what “is.”

• May the winds of unfavorable variances be always at your back, propelling your project to deliver the transformational benefits for our species and the wider universe.

• May you be bestowed with a wealth of resilience and an abundance of composure that inspires your stakeholders to consistently accept the new realities of the present.

• May you prevail despite the ongoing resistance from those who desperately grasp for the unwelcome and unexpected past to be controlled and maybe even attempt to rewrite that unforgiving history to align to the ever-elusive and now long lost original baseline.

...Namaste!
Table of Contents

About the Author ....................................................................................................................xvii

Acknowledgments ..................................................................................................................xix

Part I: Introduction to Project Management ................................................................. 1

Chapter 1: Introduction ........................................................................................................ 3

Learning Objectives for This Chapter .................................................................................... 3

1.1 Using This Guide .............................................................................................................. 4

   Downloading Exercise Files Used in This Book .............................................................. 5

1.2 High-Level Overview of Microsoft Project 2019 .......................................................... 7

Chapter 2: Understanding Project Management Concepts ........................................... 9

Learning Objectives for This Chapter .................................................................................... 9

2.1 What Is Project Management? ........................................................................................ 10

   What Makes a Project a Project? ...................................................................................... 11

   What Defines a Successful Project? ................................................................................ 12

   The Project Management Process .................................................................................. 12

   The Four Principles of Effective Project Managers ....................................................... 14

   Project Management Tools ............................................................................................. 15

   Advantages and Disadvantages of Using Project Management Software Tools ........... 15

   Conclusion ....................................................................................................................... 15

2.2 The Importance of Methodology to Project Management ......................................... 16

2.3 Project Phases and the Project Lifecycle ..................................................................... 17

   Project Phase Deliverables .............................................................................................. 17

   Characteristics of the Project Lifecycle ........................................................................ 18

   Representative Project Lifecycles .................................................................................. 20

2.4 Project Stakeholders and Organizational Influences .................................................. 21

   Organizational Influences .............................................................................................. 23
# TABLE OF CONTENTS

2.5 Project Processes .......................................................................................................................... 24
2.6 Process Groups .............................................................................................................................. 24
End of Chapter Quiz Questions ........................................................................................................ 25

Chapter 3: Introduction to Microsoft Project 2019 ........................................................................... 31
  Learning Objectives for This Chapter ............................................................................................... 31
  3.1 How Microsoft Project 2019 Handles Data ................................................................................. 32
  3.2 The Ribbon in Microsoft Project 2019 ......................................................................................... 34
  3.3 Navigating in Microsoft Project 2019 Views ............................................................................. 37
    Familiarizing Yourself with the Microsoft Project 2019 Screen .................................................. 37
  3.4 Help Options in Microsoft Project 2019 ..................................................................................... 46
  3.5 Finding the Right Information .................................................................................................... 47
    Selecting a View ............................................................................................................................. 48
    Display the Information You Want ............................................................................................... 59
    Using the View Bar ....................................................................................................................... 60
    Timeline View .............................................................................................................................. 62
    Calendar View .............................................................................................................................. 64
    How Microsoft Project 2019 Uses Data ....................................................................................... 65
End of Chapter Quiz Questions ........................................................................................................... 67

Part II: Project Definition .................................................................................................................. 73

Chapter 4: Understanding Project Definition .................................................................................... 75
  Learning Objectives for This Chapter ............................................................................................... 75
  4.1 Defining Your Project and Understanding the Definition Process ........................................... 75
    Defining a Project Definition Document ..................................................................................... 76
    The Anatomy of a Definition Document ...................................................................................... 76
    Backing into Project End Dates ................................................................................................... 78
  4.2 Initiating a Project ....................................................................................................................... 78
    Inputs to Initiation ......................................................................................................................... 78
    Tools and Techniques for Initiation .............................................................................................. 79
    Outputs from Initiation ................................................................................................................. 80
### Table of Contents

#### 4.3 Planning the Scope of a Project
- Inputs to Scope Planning
- Tools and Techniques for Scope Planning
- Outputs from Scope Planning

#### 4.4 Scope Definition
- Inputs to Scope Definition
- Tools and Techniques for Scope Definition
- Outputs from Scope Definition

#### 4.5 Scope Verification
- Inputs to Scope Verification
- Tools and Techniques for Scope Verification
- Outputs from Scope Verification
- End of Chapter Quiz Questions

### Chapter 5: Defining Your Project Using Microsoft Project 2019
- Learning Objectives for This Chapter

#### 5.1 Creating a New Project
- Blank Project
- New from Existing Project
- Project Templates
- Excel Workbooks
- SharePoint Tasks List

#### 5.2 Providing Project Information

#### 5.3 Setting File Properties

#### 5.4 Setting Local Calendar Information
- Calendar Options
- Adding a Holiday to the Project Base Calendar

#### 5.5 Project Definition Review Exercise

- End of Chapter Quiz Questions
TABLE OF CONTENTS

Part III: Project Task Planning ................................................................. 117

Chapter 6: Developing a Work Breakdown Structure ............................... 119

Learning Objectives for This Chapter ................................................... 119

6.1 Creating a Project Work Plan ............................................................ 120
   Project Planning Summary ............................................................... 120
   Referencing the Project Definition Document to Start Your Work Plan ...... 121
   Methodologies and Planning ............................................................ 121
   Determining How the SOW Summary Schedule Was Built .................... 122
   Starting a Plan with a New Task Outline ......................................... 122
   Defining Activities ............................................................................ 122
   Creating a Work Breakdown Structure (WBS) for Deliverables ............... 123

6.2 Determining Logical Relationships of Tasks in Your WBS .................... 126
   Task Dependencies ........................................................................... 126
   Activity Sequencing .......................................................................... 127
   The Critical Path ............................................................................... 128
   The Critical Path As an Estimate ...................................................... 130
   Estimating the Duration of Activities .............................................. 130
   Schedule Development ...................................................................... 132
   Determining Resource Requirements .............................................. 134
   Avoiding Over-allocation with Load Leveling .................................... 135
   Optimizing the Plan .......................................................................... 136
   The Baseline and Project Manager Accountability ................................ 137

6.3 Resource Planning and Acquisition .................................................. 138
   Resource Planning ........................................................................... 138
   Staff Acquisition ................................................................................ 139

6.4 Team Development ........................................................................... 140

6.5 Cost Estimating and Budgeting ......................................................... 141
   Cost Estimating ............................................................................... 141
   Cost Budgeting ................................................................................. 142

End of Chapter Quiz Questions ............................................................... 143
# Table of Contents

**Chapter 7: Building a Work Breakdown Structure with Microsoft Project 2019**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Objectives for This Chapter</td>
<td>149</td>
</tr>
<tr>
<td>7.1 Building the Work Breakdown Structure</td>
<td>150</td>
</tr>
<tr>
<td>Determining the Primary Goal and Creating the Project Shell</td>
<td>150</td>
</tr>
<tr>
<td>Determining the Project’s Sub-goals</td>
<td>152</td>
</tr>
<tr>
<td>Organizing the Project</td>
<td>153</td>
</tr>
<tr>
<td>Entering Project Tasks</td>
<td>154</td>
</tr>
<tr>
<td>7.2 Modifying and Editing the WBS</td>
<td>160</td>
</tr>
<tr>
<td>Alternate Methods for Adding New Tasks to Your WBS</td>
<td>160</td>
</tr>
<tr>
<td>Moving a Task in Your Task List and Cutting/Pasting a Summary Task</td>
<td>162</td>
</tr>
<tr>
<td>Using the Task Summary Name Field</td>
<td>164</td>
</tr>
<tr>
<td>Viewing Outline Numbers</td>
<td>165</td>
</tr>
<tr>
<td>Bringing in a Task List from Excel</td>
<td>167</td>
</tr>
<tr>
<td>Import Outlook Tasks Dialog Box</td>
<td>173</td>
</tr>
<tr>
<td>7.3 Creating Task Dependencies</td>
<td>174</td>
</tr>
<tr>
<td>Setting Task Dependencies</td>
<td>174</td>
</tr>
<tr>
<td>Alternate Ways to Link Tasks</td>
<td>177</td>
</tr>
<tr>
<td>Establishing Other Types of Dependencies</td>
<td>181</td>
</tr>
<tr>
<td>Determining the Proper Order of Tasks in a Project</td>
<td>184</td>
</tr>
<tr>
<td>7.4 Task Types and Scheduling</td>
<td>187</td>
</tr>
<tr>
<td>Determining Task Types</td>
<td>188</td>
</tr>
<tr>
<td>7.5 Estimating Task Size</td>
<td>192</td>
</tr>
<tr>
<td>7.6 Manual Task Scheduling</td>
<td>195</td>
</tr>
<tr>
<td>Manually Scheduling New Tasks</td>
<td>195</td>
</tr>
<tr>
<td>Top-Down Summary Tasks</td>
<td>197</td>
</tr>
<tr>
<td>Respect Links</td>
<td>198</td>
</tr>
<tr>
<td>Inactive Tasks</td>
<td>198</td>
</tr>
<tr>
<td>7.7 Task Planning Review Exercise</td>
<td>200</td>
</tr>
<tr>
<td>End of Chapter Quiz Questions</td>
<td>202</td>
</tr>
</tbody>
</table>
# Chapter 8: Managing Project Resources and Assignments

## Learning Objectives for This Chapter

8.1 Defining Project Resource Types with Microsoft Project 2019

8.2 Assigning Resources to Tasks

8.3 Cost Planning with Microsoft Project

8.4 Constraints

8.5 Resource and Assignment Review Exercise

---

### 8.1 Defining Project Resource Types with Microsoft Project 2019

- Viewing Resources in the Resource Sheet

### 8.2 Assigning Resources to Tasks

- Assigning a Resource to a Task
- Interrupting Work on a Task
- Team Planner
- Modifying Assignments When Work Is the Basis for Your Schedule
- The Effect of Effort-Driven Scheduling
- Modifying Assignments When Assignment Units Is Set
- Using Smart Tags to Simplify Making Changes
- Viewing Your Resource Assignments

### 8.3 Cost Planning with Microsoft Project

- Determining Costs in Microsoft Project
- Alternate Cost Rate Tables
- Adding Fixed Cost to a Task
- Displaying Cost over Time, by Task (Or Phase)
- Displaying Cost over Time, by Resource

### 8.4 Constraints

- Applying Constraints to Tasks in a Project Scheduled from the Project Start Date
- Entering Task Constraints
- Setting Task Constraints
- Deadline Dates
- An Alternative to Deadline Dates

### 8.5 Resource and Assignment Review Exercise

---

# Chapter 9: Using Microsoft Project 2019 to Optimize the Plan

## Learning Objectives for This Chapter

9.1 Completing the Plan

---

---

---
9.2 Identifying the Critical Path ........................................................................................................... 266
  Network Diagram ................................................................................................................................. 266
9.3 Adding Recurring Tasks and Using Task Calendars .......................................................................... 270
  Adding Occurrences to a Recurring Task and Adding Resource Assignments to Them .......... 273
9.4 Managing Resource Workloads and Resolving Resource Over-allocations ............................... 276
  Viewing Resource Workloads and Task Assignments ................................................................. 276
  Resolving Resource Over-allocations ............................................................................................... 279
  Task Leveling vs. Resource Leveling ............................................................................................... 285
9.5 Setting the Project Baseline ............................................................................................................ 288
  Applying the Baseline Table ............................................................................................................. 289
  Setting the Project Baseline ............................................................................................................ 290
  Viewing Baseline Information ......................................................................................................... 291
  Multiple Baselines ........................................................................................................................... 293
  Capturing Interim Plans ................................................................................................................... 295
  Clearing a Baseline ............................................................................................................................ 297
  Protect-Saved Baselines .................................................................................................................... 298
9.6 Communicating the Project Plan (Introduction) ............................................................................ 299
  Taking a Picture of Your Gantt Chart ............................................................................................... 299
9.7 Optimizing the Plan Review Exercise ............................................................................................... 301
  End of Chapter Quiz Questions ......................................................................................................... 301

Part IV: Enterprise Project Management ............................................................................................. 307

Chapter 10: Creating Enterprise Projects ............................................................................................ 309
  Learning Objectives for This Chapter ............................................................................................... 309
  10.1 How Microsoft Project 2019 Communicates with Project Server 2019 and Project Online ... 310
  10.2 Publishing a Project to Microsoft Project Server 2019 ............................................................ 312
    Setting Up Access to Project Server from Project Professional ................................................... 312
    Creating a New Enterprise Project ................................................................................................. 315
    Creating a New Project with the Save As Method ......................................................................... 319
    Creating a New Project in Project Web App .................................................................................. 322
    Creating a New Project from a Template ...................................................................................... 326
# TABLE OF CONTENTS

**Creating a New Project Template** ................................................................. 328  
**Publishing a Project to Project Server 2019** ................................................. 330  
**Safely Exiting Microsoft Project 2019 When Connected to Project Server** ........ 332  
**Working with Published Projects Off the Network** .................................... 333  
**Managing the Local Project Cache** .............................................................. 338  
**10.3 Enterprise Resource Management** ....................................................... 341  
  **Classifying Resources** ............................................................................... 342  
  **Using Team Builder** .................................................................................. 343  
  **Additional Team Builder Functionality** ....................................................... 346  
  **Generic Resources** ................................................................................... 347  
**10.4 Working with Multiple Projects: Inter-project Dependencies** ................. 348  
  **Showing an Inter-project Dependency** ....................................................... 348  
  **Creating a Consolidated Project** ............................................................... 355  
**10.5 Program Management** ........................................................................... 360  
  **Master Projects** ....................................................................................... 360  
  **Program Viewing Within the Project Center** ............................................. 360  
  **End of Chapter Quiz Questions** ................................................................. 362  

**Chapter 11: Monitoring and Controlling—The Project Manager’s Functions** ...... 367  
**Learning Objectives for This Chapter** ......................................................... 367  
**11.1 Project Execution—Background** ............................................................ 368  
  **What Is Project Control?** .......................................................................... 368  
  **Progress Tracking** ................................................................................... 369  
**11.2 Tracking with Microsoft Project 2019** .................................................... 374  
  **Tracking Options in Microsoft Project 2019** ........................................... 374  
  **Track Progress: Tracking Dates vs. Tracking Work** .................................. 378  
**11.3 Entering Actual Progress Information** .................................................. 379  
  **Using the Update Tasks Dialog Box** ......................................................... 379  
  **Ways to Track Other Than Using Update Tasks** ....................................... 385  
  **Rescheduling the Remaining Work in Your Project** ................................... 389  
  **Viewing Progress Lines** ........................................................................... 394  
  **End of Chapter Quiz Questions** ............................................................... 399
# Chapter 12: Using Project Web App for Tracking

Learning Objectives for This Chapter ................................................................. 405

12.1 Publishing Project Assignments to Team Members ........................................ 406

12.2 The Project Web App Home Page .................................................................. 407
   Viewing Your Home Page ................................................................................. 408
   The Project Center ............................................................................................ 411
   Adding an Alert .................................................................................................. 414
   My Queued Jobs ................................................................................................. 417

12.3 Tracking Progress Using Project Web App ...................................................... 418
   Displaying My Tasks and My Timesheets .......................................................... 420
   Timesheet Page .................................................................................................. 426
   Task Time Approval ........................................................................................... 431
   End of Chapter Quiz Questions ......................................................................... 434

# Chapter 13: Other Features in Project Web App .................................................. 439

Learning Objectives for This Chapter ................................................................. 439

13.1 Organizing and Viewing Information in Project Web App ............................... 440
   Overview of Project Server Security .................................................................. 441
   Project Web App Views ..................................................................................... 441

13.2 Web-Based Projects ....................................................................................... 442
   Project Center ..................................................................................................... 442

13.3 Team Builder .................................................................................................. 450

13.4 Resource Engagements .................................................................................. 452
   Checking Assignment Attributes ....................................................................... 452

13.5 Resource Engagements from the Project Manager’s End ................................. 454
   Creating Requests Using the Task and Engagement Inspectors ....................... 454
   Manually Creating Requests ............................................................................ 462

13.6 The Resource Manager’s End ........................................................................ 464

13.7 Returning to the Project Manager’s View ....................................................... 470

13.8 From a Portfolio Analysis Perspective ............................................................. 470
   Request Reminders ............................................................................................ 472
**TABLE OF CONTENTS**

13.9 Managing Non-project Time .................................................................................................................. 473
   Creating Resource Engagements to Manage Non-project Time ................................................................. 474
13.10 Resource Center ...................................................................................................................................... 477
13.11 Conclusion on Resource Engagements .................................................................................................. 482
13.12 Risks, Issues, Deliverables, and Documents ......................................................................................... 483
   Project Sites .............................................................................................................................................. 484
13.13 Project Details Page ............................................................................................................................... 487
   Issues ......................................................................................................................................................... 488
   Risks ......................................................................................................................................................... 494
   Editing Issues and Risks ........................................................................................................................... 497
   List Management ...................................................................................................................................... 499
   Documents ............................................................................................................................................... 506
   End of Chapter Quiz Questions ................................................................................................................... 513

**Chapter 14: Variance Analysis, Plan Revision, and Project Communication ...... 517**

Learning Objectives for This Chapter ........................................................................................................... 517

14.1 Variance Analysis ..................................................................................................................................... 518
   Overview of Variance ................................................................................................................................. 518
   Types of Variances .................................................................................................................................... 518
   Interpreting Variances ............................................................................................................................... 520
14.2 Plan Revision and Scope Management ................................................................................................... 524
   Preserving the Integrity of the Plan ............................................................................................................... 524
   Getting Concurrence .................................................................................................................................. 525
   Why Plans Should Be Revised ..................................................................................................................... 525
   Aggressive Revision .................................................................................................................................... 526
   Strategies for Plan Recovery ....................................................................................................................... 526
   The Foundations of Change Control ........................................................................................................... 527
14.3 Project Communication Principles ......................................................................................................... 530
   The Elements of a Meaningful Status Report ............................................................................................... 530
   Project Communications Planning ............................................................................................................... 531
   Administrative Closure ............................................................................................................................... 533
   End of Chapter Quiz Questions ................................................................................................................... 534
# Table of Contents

## Chapter 15: Presenting Project Information with Microsoft Project 2019

Learning Objectives for This Chapter ................................................................. 537

15.1 Communication Options ............................................................................. 538
   Options with the Gantt Chart View ................................................................. 538
   Using Bar Styles to Change the Appearance of the Gantt Chart ..................... 539
   Analyzing Variances in Your Project with Microsoft Project 2019 ................... 546
   Comparing the Baseline to Actual Data ......................................................... 547

15.2 Using Tables, Filters, Views, and Groups in Microsoft Project 2019 .......... 548
   Selecting the Right View .................................................................................. 549
   Customizing Tables ......................................................................................... 554
   Filtering Project Information .......................................................................... 561
   Sorting Project Information ............................................................................ 571
   Grouping Project Information ......................................................................... 573
   Defining Custom Views ................................................................................... 576

15.3 Defining and Using Custom Fields ............................................................. 579
   The Organizer and Sharing Custom Objects .................................................. 585

15.4 Communicating Project Information .......................................................... 589
   Exploring Preconfigured Reports .................................................................. 589
   Creating a New Report .................................................................................... 605
   Customizing Reports ....................................................................................... 609
   Getting Started ............................................................................................... 619
   Sharing Project Information ............................................................................ 622

15.5 Exporting Project Information .................................................................... 628
   Visual Reports ................................................................................................. 628
   End of Chapter Quiz Questions ...................................................................... 639

**Conclusion: The Human Touch** ...................................................................... 645

Index .................................................................................................................... 647
About the Author

Gus Cicala is the founder and CEO of Project Assistants, an Inc. 500 company founded in 1996. Project Assistants focuses on best practices, proven technology, and highly trained consultants in order to help companies optimize their business strategy. Gus and his team deliver process, technology, and people-based solutions across many industry verticals in the United States and Western Europe and have been awarded Silver Competency in project and portfolio management by Microsoft. Gus specializes in Microsoft Project Server and online deployment, training, application development, and portfolio management consulting. He is a certified Microsoft Cloud and Office 365 partner.
I would like to acknowledge and thank everyone who played an important role in the development and publication of this book:

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I am grateful and blessed for your dedication, commitment, and valuable contributions to our success.
PART I

Introduction to Project Management
CHAPTER 1

Introduction

- Using This Guide
- A High-Level Overview of Microsoft Project 2019

Learning Objectives for This Chapter

At the end of the chapter, the reader should be able to:

- Navigate this text and download the exercise files
- Describe the key components of the Microsoft Project 2019 solution

This guide will introduce you to the project manager’s perspective on the latest version of Microsoft Project, Microsoft Project 2019. This set of software tools supports the management of all projects across an organization, or enterprise project management (EPM).

EPM requires that accurate planning and scheduling information flow from the project manager to the technical experts doing the actual work of the projects, as well as the executives making resource commitments and strategic decisions for the organization. Effective EPM allows organizations to better meet portfolio commitments and achieve their goals. The process begins with the project manager, using a variety of tools described in this manual.

Project Assistants has been providing project management theory and Microsoft Project training material for our training courses since the release of Microsoft Project version 3 in 1993. Prior to the release of Microsoft Project 2013, we were surprised that we could not find a work for purchase that provided hands-on training exercises for Microsoft Project on the desktop as well as the enterprise features used in Microsoft Project Professional and Project Web App. We had a responsibility to provide this content to our clients, so we decided to convert our own content into a formal, cohesive guide.
CHAPTER 1  INTRODUCTION

This text was created to serve as that comprehensive reference and training guide, assembling content and best practices honed over many years of Microsoft Project and general project management training.

Our debut was *Project Management Using Microsoft Project 2013*, and this is now our third edition, with improvements made along the way.

1.1 Using This Guide

Many training guides on technology are primarily manuals on features and functions of the software. The goal of this book is to show why those features and functions are important from a project management theory standpoint and then demonstrate how to effectively leverage that value. When used cover to cover, this text serves as a comprehensive guide to running a project from initiation to closeout with guides along the way for how to use Microsoft Project to facilitate that. This guide can also be used as preparatory material for Microsoft Exam 74-343.

The information in this book was selected based on our 20+ years of project management and Microsoft Project consulting experience. In selecting the features and functions to be covered, we selected a middle-of-the-road approach that deliberately glosses over simple topics that are assumed to be known by the reader. A more difficult decision was faced when determining which advanced features (such as earned value management) to cover in a book of this nature. The features chosen for coverage in this book represent the interests of most organizations with which we have interacted.

There is no need to follow the order in which the material is presented. For example, you may want to start with the overview on “Navigating in Microsoft Project 2019 Views,” since knowing where to find information is the foundation to unlocking the powerful potential of the tool.

If you are skipping around the book, note that the features are demonstrated in great detail the first time through to take out any guesswork, so if you get stuck, you can always refer back to the first section that covers that feature. Also, many of the exercises build on each other, so you may have to start back on earlier chapters if you’d like your exercise files to be up to date.

This text covers Microsoft Project 2019 Standard, Microsoft Project 2019 Professional, Microsoft Project Server 2019, Microsoft Project Web App 2019 (PWA), and Microsoft Project Online 2019 for Office 365. This text is presented in the context of what a project manager needs to know. As a result, features not relevant to a project manager,
such as the Project Server administrator functions, are not covered. Everything in this book is usable in Microsoft Project Professional, and all but Part 4 “Enterprise Project Management” applies to Microsoft Project Standard as well.

Microsoft offers an off-premises hosted version of Microsoft Project that is referred to as Microsoft Project Online. This tool is part of the Microsoft Office 365 hosted solution family of products that is intended for organizations that wish to reap the benefits of using this technology in a software-as-a-service (SaaS) environment. From the perspective of a project manager using Microsoft Project, the vast majority of the features and functions remain unchanged. When the Microsoft Project Professional and PWA features are covered, nuances related to the use of these features in Project Online will be pointed out. Similarly, there are limited differences between Project Server hosted on premises and Project Online hosted off premises, so they are also highlighted in Part 4 chapters as they come up, rather than in a stand-alone chapter.

The exercise files use a standardized style to explain how to navigate the ribbon. The ribbon is what we call the tabulated menu bar that Microsoft has been using since the release of Microsoft Project 2010. All commands are in bold and italics, and subcategories of the ribbon are separated by colons. When it says, for example, **Task:View:Resource Usage View**, that means “Go to the Task tab in the ribbon, then under the subcategory labeled View, you will find the Resource Usage View.”

**Downloading Exercise Files Used in This Book**

To use the exercise files in this book, you will need to download and potentially unzip them, depending on your browser and method of download.

These files are available for free on Project Assistants’ web site and can be re-downloaded at any time. To download them

- Go to our updates and materials web page:
  

- Click “Register” and fill in the appropriate information.

- You will receive an e-mail with a download link for the compressed exercise file.

- Once the file is downloaded, unzip the exercise files to a location of your choice.
Our updates and materials web page will also host any news regarding significant corrections, updates to the text, or modifications to the supporting exercise files: https://projectassistants.com/ms-project-updates/.

If you have any questions about downloading and using the exercise files, please contact Project Assistants at info@projectassistants.com.

If you are an instructor who needs access to the answer key for the end of chapter quizzes, please e-mail your request with a copy of your proof of purchase and a copy of your teaching credentials to the author: GusCicala@projectassistants.com.

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**Note** The hands-on exercise files that you download were designed to show month-day format without the year. Before you begin, you may want to change the default date to drop the year from the display. To do so, navigate to *File: Options*, choose *General*, then choose the *Date Format* dropdown. Choose “1/28.”

If you prefer to see the year in schedule dates, you may have to widen the date columns to include the year in the display.

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Project Assistants offers a full spectrum of Microsoft Project training solutions that can be customized to reflect your organization’s unique needs. Please visit our web site to learn more about our training offerings: http://projectassistants.com/solutions-type/training

Additionally, we offer the ability to license a Microsoft Word version of this volume that can be modified, by you or us, for your specific training needs.

Please contact us to learn more about our training solutions and material licensing options:

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1.2 High-Level Overview of Microsoft Project 2019

Microsoft Project 2019 is a set of integrated software applications that together provide the tools needed for enterprise project management (EPM). The three basic components are presented in the following figure.

![Diagram of Microsoft Project 2019 components]

Figure 1-1. Microsoft Project 2019 components

Note: For Office 365 the server is referred to as “Project Online”

Notes:

- If you are using Microsoft Project 2019 Standard (instead of Microsoft Project 2019 Professional), this diagram does not apply, as Microsoft Project Standard cannot connect to Microsoft Project Server.

- If you are using Office 365, the Microsoft Project Server/SharePoint environment is collectively referred to as Project Online.

If using Microsoft Project Server/Project Online, the EPM process begins with a project manager developing a project plan using Microsoft Project 2019 Professional. This version supports EPM by optionally connecting with Project Server 2019 when starting Microsoft Project 2019 Professional.

The project is sent to a server running Microsoft Project Server 2019, in a process called “publishing” the project. Once the project is published, it becomes available to other parts of the organization.

Assignments for team members are sent to team members who may receive an automatic e-mail notification that they have new or changed assignments to view.
Team members can view their assignments and report progress on those tasks using a web-based tool called Microsoft Project Web App. When they update the task status, the project manager can view those updates using Project Web App and approve or reject them. Once approved, the information automatically updates the project plan itself, freeing the project manager to focus on the effects of those updates.

The potential weak link in any such system is, of course, the quality and usefulness of the actual project plans that are shared with the rest of the project and management teams.

As with all Microsoft applications, there are multiple ways to do many tasks. Rather than cover every possible method, we will recommend the best practice in each area and list alternatives with brief directions for their use.
CHAPTER 2

Understanding Project Management Concepts

- What Is Project Management?
- The Importance of Methodology
- Project Phases and the Project Lifecycle
- Project Stakeholders and Organizational Influences
- Project Processes

Learning Objectives for This Chapter

At the end of the chapter, the reader should be able to:

- Define the basic definition of project management and how project management fits into the environment in which projects typically occur
- Describe the common attributes of a successful project
- Describe the most common type of projects and the typical lifecycle methodologies that are employed to deliver project results
- Understand the importance of the role of project stakeholders and how organizational influences impact the success or failure of projects
- Describe the five (5) major process groups that comprise the overall project management process flow
2.1 What Is Project Management?

Project management is an organized set of people, processes, and procedures working together to provide on-time, on-budget delivery of stated objectives with high quality and satisfied sponsors. It achieves this while still taking into consideration that any successful team effort relies on treating people with respect.

Project management as we know it first appeared in World War II as a tool for construction and logistics. The need for enormous amounts of materiel for the invasion of Europe and the vast distances of the Pacific Ocean fostered the development of new ways of planning and scheduling military operations. These approaches were clearly successful, but required practitioners to manage enormous amounts of data—with no electronic help, no less.

After the success of these methods in the war, companies such as DuPont and Remington Arms (which was owned by DuPont) experimented with using them in the civilian sector. Since then, the tools and philosophy of project management have been widely used in both the public and private sectors of our global economy.

Reasons for adopting project management tools and techniques usually include some or all of the following:

- Internal and external competition
- Pervasiveness of multi-discipline projects
- Increasingly complex projects
- Customer demands
- Technological change

Basically, organizations see project management as a way to do things better, faster, and cheaper. It’s an incredibly powerful tool—when it’s used well. So how do you use it well?

The Project Management Institute (PMI) was founded in 1969 to promote professionalism in project management. They’ve collected and constantly updated project management best practices—what works and what doesn’t—over many thousands of projects into a record called the “Guide to the Project Management Body of Knowledge” (PMBOK Guide). This guide has been accepted by the American National Standards Institute (ANSI) as the US standard for project management.
Modern project management includes adapting the general principles in the PMBOK Guide to fit an organization’s specific situation. No single approach could possibly fit all industries and organizations on our diverse planet.

What Makes a Project a Project?

Textbook definitions of projects vary, but they all include the following features:

- A project is goal-oriented, producing a unique deliverable or set of deliverables.
- A project consists of connected, related activities.
- A project has limited duration, which means projects are typified by a predefined schedule and usually tied to a specific end date.
- A project has elements of uniqueness.
- Projects are defined by three constraints which must be managed: time, cost, and scope (work content) of the project.

The modern philosophy of project management includes

- An emphasis on the organizational support needed for project management (both philosophical and systems support)
- The artistic and scientific aspects of management which project managers have to bring to the table
  - **Art** – Team management, reward/punishment, and management style
  - **Science** – Scope, risk, quality, cost, and time management systems
  - **Both** – Communication, resource, integration, and contract management
- Specific knowledge, skills, tools, and techniques that are useful for managing projects
- A focus on meeting the needs of the client/customer (internal and external)
What Defines a Successful Project?

A project is deemed successful when the objectives of the sponsor are met. It is important to meet with the sponsor very early in the project to understand their goals and objectives, which should be documented in a project definition document (e.g., project charter or statement of work). Some characteristics of a successful project are

- On time
- On budget
- High quality
- Fulfilled objectives
- Satisfied customers
- Achieved outcomes

To achieve these characteristics, project management must follow a process, be supported by a methodology, and have quality assurance to continue improving the process and the methodology.

The Project Management Process

There are three major stages in the project management process, each stage including several individual processes.

Figure 2-1. The project management process
• **Definition and Planning**
  - **Definition** – Documents the overall project objectives, scope, approach, schedule, budget, resources, deliverables, and completion criteria
  - **Planning and Organization** – Provides the detailed roadmap that will be used to guide the project team when constructing the final deliverables

• **Control**
  - **Tracking** – Collects information from the team to assist the project manager in assessing actual progress
  - **Analysis** – Highlights any deviations from the original plan against current progress
  - **Revision** – Makes any necessary plan modifications to steer the project back on course
  - **Scope Management** – Provides an orderly means of modifying the original project definition
  - **Status Reporting and Management Reviews** – Ensures that all relevant project stakeholders are kept apprised of all key project information

• **Conclusion**
  - **Providing Feedback/Continuous Improvement** – Instills quality in the process of project management

Though we’ve focused on the technical aspects of project management up to this point, the last few processes emphasize another aspect crucial to being successful: the people.

Since the project manager is responsible for client satisfaction, clearly stating expectations and constantly managing those expectations is an important skill in avoiding disappointment and dissatisfaction, from both project team members and customers.
Effective project managers are often blessed with a broad range of competencies from intellectual to interpersonal to technical and judgmental. It is this unique package of skills that provides the effective project manager with an integrated, situational approach to successful management that cannot be readily documented and shared in a text on the topic.

The Four Principles of Effective Project Managers

Effective project managers recognize four essential truths which are found in all projects. These key project principles are

- **Principle 1** – If you don’t know where you’re going, you probably won’t get there.
  
  **Application** – Set an effective project objective, developed with the input of the client(s) and project team members.

- **Principle 2** – If you fail to plan, you plan to fail.
  
  **Application** – Learn and use the available planning techniques developed by previous project managers and thinkers about project management.

- **Principle 3** – If you catch problems early, they are easier to solve.
  
  **Application** – Proactively look for trouble, with an eye toward managing problems, rather than being victimized by them.

- **Principle 4** – People and politics are the biggest variables in every project.
  
  **Application** – Remember to make time to focus attention on people issues, both internal to the team and external.

Effective project managers are comfortable operating in the “gray area,” even if they have come from a technical environment where hard and fast answers may be considered the norm.