



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!

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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.

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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.

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:
<http://projectassistants.com/MS-Project-exercise-file-downloads>
- 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.

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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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.

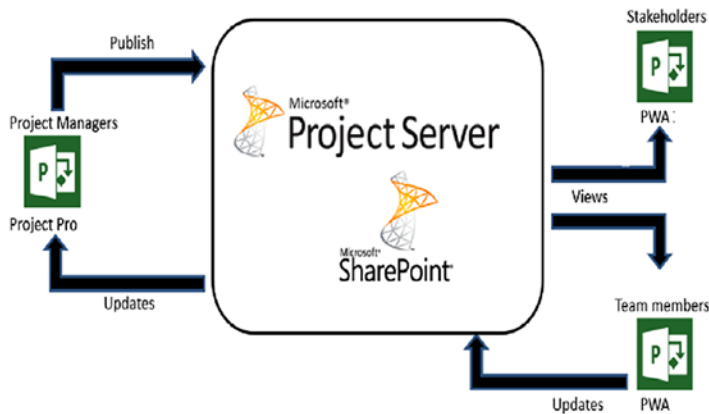


Figure 1-1. Microsoft Project 2019 components

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.

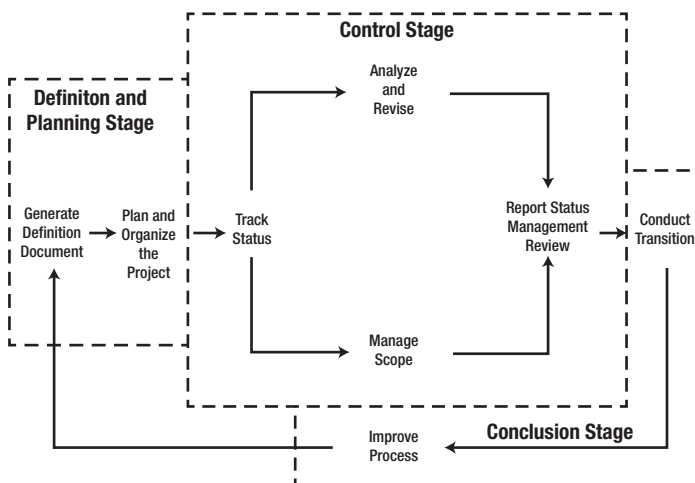


Figure 2-1. *The project management process*

- **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.