

IN THIS CHAPTER

- » Describing different approaches to managing a project
- » Comparing the project manager and Scrum master roles
- » Benefitting from Project
- » Exploring the software interface
- » Finding help in Project

Chapter **1**

Project Management, MS Project, and You

Welcome to the world of computerized project management with Microsoft Project. If you've never used project management software, you're entering a brave new world.

Everything you used to do with handwritten to-do lists, sticky notes, word processors, and spreadsheets magically comes together in Project. However, this transition doesn't come in a moment, and you need a basic understanding of what project management software can do to get you up to speed. If you've used previous versions of Project, the overview in this chapter can refresh your memory and ease you into a few of the new Project features.

Even if you're a seasoned project manager, this chapter provides the foundation for how to work with Project.

Project Management Evolution

The profession of project management has evolved significantly in the past 20 years. As a profession project management is more respected and more in demand than ever. Organizations depend on project managers to drive change and deliver value. There is widespread recognition that project management skills aren't just for professional full-time project managers; they can be used by anyone who manages projects as part of their job, even if they aren't in a project management role.

With the rapid growth of technology and technology-driven projects, the way we manage projects has evolved. When Microsoft Project was first released in 1984, projects were plan-driven, meaning that we tried to plan out everything that would happen, in detail, up front. Then we would execute based on that plan. That approach works when you can define the project scope and requirements up front, such as engineering or construction projects. We call this a *waterfall approach* because the completion of one phase leading to the start of another looks like a waterfall, as shown in Figure 1-1.

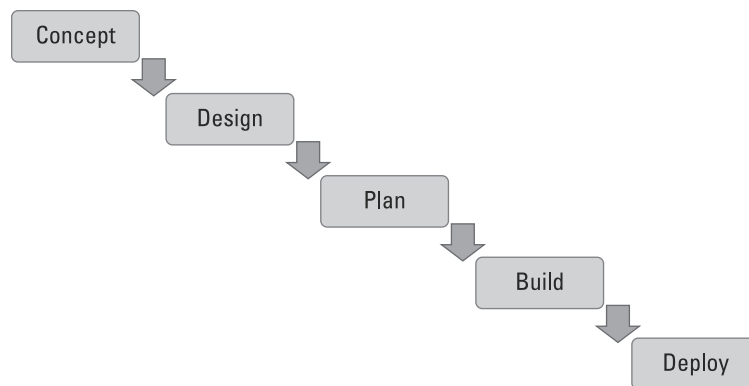


FIGURE 1-1:
Waterfall
approach.

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As the pace of technological growth accelerated, the waterfall approach was no longer effective for technology development projects. By the time you had planned and executed a two-year technology project, the technology had changed, and the end result was already out of date. Therefore, a new approach to managing technology projects evolved.

In early 2001 an approach called *Agile project management* was created. Agile is a mindset that is documented in the Agile Manifesto. It starts with four values:

- » Individuals and interactions over processes and tools
- » Working software over comprehensive documentation
- » Customer collaboration over contract negotiation
- » Responding to change over following a plan

Note there is less emphasis on following a plan, and change is expected. This is very different than managing construction projects where following the plan is paramount. There are also 12 principles that are documented in the Manifesto. You can find the Agile Manifesto here: <https://agilemanifesto.org>.

Over time project practitioners have recognized that the type of project you are managing determines the project management practices you should employ. For scope that is stable and can be well-defined up front, a waterfall approach is appropriate. For scope that is not well defined or can evolve based on feedback and market changes, an agile approach (also known as an *adaptive* approach) is appropriate. To make things more interesting, there are many projects with some deliverables that can be well defined and other deliverables that can't — for these projects a hybrid approach that incorporates aspects of waterfall and adaptive approaches is best.

As project management practices have evolved, so has Microsoft Project. This version of Project allows you to set up Gantt charts that are resource loaded to manage well-defined scope and Task Boards to manage evolving scope, all in one glorious piece of software. To keep things simple, I use Parts 1 through 4 to talk about how set up and manage a Waterfall Project and I use Part 5 to show you how to set up and lead an Agile Project. For those of you who work on hybrid projects, you can use both waterfall and Agile functionalities.

Project does use the term Agile. Projects with evolving scope that use adaptive approaches are called Sprints Projects.

What's in a Name: Projects, Project Management, and Project Managers

In this book, a project is defined as a unique venture undertaken to produce distinct deliverables, products, or outcomes. In the context of a project, a *deliverable* is an individual component or item that meets the requirements of the project, such as a design document or a prototype.

Project management is the practice of organizing and managing project variables to meet the project outcomes and mission. Some of the variables we work with are listed in Table 1-1.

TABLE 1-1

Project Variables

Variable	Description
Scope	The work needed to produce the deliverables, products, or outcomes for the project.
Time	The duration required to complete the project work.
Cost	The funds required to complete the project.
Resources	The people, equipment, material, supplies, and facilities needed to accomplish the project.
Change	<i>Product</i> change refers to the features and functions of a product. <i>Project</i> change refers to changes in schedule, cost, or resources.
Risk	Uncertainty associated with the scope, time, cost, resources, stakeholders, or environment that can threaten the completion of any aspect of the project.
Stakeholder	A person who can affect, or who is affected by, the project, either positively or negatively.
Environment	The location, culture, or organization in which the project occurs.

Project managers and Scrum masters

Projects that use waterfall approaches generally have a project manager who creates the master plan for a project and ensures that it is implemented successfully. A project manager uses technical, business, and leadership skills to manage the completion of tasks and keep the schedule on track. Project teams can be small, mid-size, or very large.



TIP

A truly professional project manager may have a degree in project management or a professional certification. For example, if you see the initials *PMP* beside a name, that person has been certified as a Project Management Professional by the Project Management Institute, the leading global organization establishing project management standards and credentials.

A Scrum master is usually found on projects that use Agile approaches. A Scrum master assists the team in following Agile processes and delivering the work. Teams are optimized at 6 to 10 members.

We look at the roles of project managers and Scrum masters in the following sections.

The role of the project manager

The project manager is the person who ensures that aspects of the project are integrated and assumes hands-on responsibility for successes as well as failures.

The project manager manages these essential pieces of a project:

- » **Leadership:** Documents the project vision in a charter. Facilitates negotiations, problem-solving, and decision-making activities.
- » **Scope:** Defines and organizes all work to be done in order to meet the project objectives and create deliverables.
- » **Quality:** Identifies, manages, and controls requirements. Establishes a process for quality management and control and ensures it is sufficient and followed.
- » **Schedule:** Develops the schedule, by working with Project, including the tasks, relationships, duration, and timing involved to achieve the project objectives.
- » **Resources:** Assigns resources and tracks their activities on the project as well as resolves resource conflicts and build consensus. Working with resources also involves managing physical resources such as materials and equipment.
- » **Cost:** Estimates project costs and applies those estimates across the schedule to create a time-phased budget.
- » **Stakeholder Engagement:** Notifies appropriate *stakeholders* (everyone who has a legitimate stake in its success) of the project status. Facilitates communication with internal and external stakeholders.
- » **Uncertainty:** Establishes a system to identify, analyze, respond to, and track project risks and issues. Guides the team in working with uncertainty, ambiguity, complexity, and volatility.

Managing a project requires overseeing all its variables to ensure that the project goals are accomplished on time, within the limits of the budget, and using the assigned resources while also addressing risks, managing change, and satisfying stakeholders.

The role of the Scrum master

A Scrum master is a servant leader. Servant leaders are focused on supporting their teams, rather than directing them. They educate and support team members in maintaining alignment with Agile practices.

A Scrum master engages in these activities and behaviors:

- » **Leadership:** Practices servant leadership. Motivates the team. Provides coaching and mentoring to team members as needed.
- » **Scope:** Works with the product owner to communicate the priorities in the project backlog.
- » **Schedule:** Facilitates sprint planning, demonstrations, and daily stand-up (or scrum) meetings.
- » **Resources:** Protects the team from outside interference. Removes barriers or impediments so team members can accomplish work.
- » **Process:** Helps the team and other stakeholders understand and follow agile processes. Works with the team to improve team dynamics and the processes used to create and deliver value.
- » **Risk:** Reduces uncertainty by experimenting with different solutions, building prototypes, and providing demonstrations to relevant stakeholders throughout the project.



TIP

A *product owner* determines the vision and scope for the project, makes decisions about the product, and establishes priorities. Where necessary, they interact with external stakeholders to understand needs and then communicate those needs to the team.

You can see that project managers and Scrum masters both use their skills and knowledge to accomplish the project work. The approach is different with the project manager providing more direct oversight and accountability for the outcomes, whereas the Scrum master operates as a supportive role for team members, empowering and enabling them to accomplish the work.

In a hybrid project you may see a project manager for the overall project with a Scrum master working on software development aspects of the project. You might also see the project manager adapting more of the servant leadership behaviors while still maintaining overall accountability for the project. Ultimately, the best approach is one that works in your environment.

Regardless of the approach, having software to help organize and structure the work makes managing the project and leading the team less daunting. That's where Project can help.

Introducing Microsoft Project

Microsoft Project is a scheduling tool that helps you organize, manage, and control the variables identified in the preceding section. In this book, I show you how to use Project to organize and manage your work, create realistic schedules, and optimize your use of resources.

Take a moment to look at some of the wonderful ways in which Project can help you organize, manage, and control your project:

- » **Use built-in templates to get a head start on your project.** Project *templates* are prebuilt plans for a typical business project, such as commercial construction, an engineering project, a new product rollout, software development, or an office move.
- » **Organize your project by phase, deliverable, geography, or any other method.** The outline format allows you to progressively elaborate the information in greater granularity depending on how detailed you want your plan to be.
- » **Determine costs by your chosen method.** Examples are time period, resource type, deliverable, or cost type.
- » **Organize resources by resource type.** Level your resources to avoid overallocation, or determine the impact on the duration of a task based on a change in resources.
- » **Calculate costs and timing based on your input.** You can quickly calculate what-if scenarios to solve resource conflicts, maintain costs within your budget, or meet a deliverable deadline.
- » **Use views and reports with the click of a button.** A wealth of information is now available to you — and those you report to. You no longer have to manually build a report on total costs to date to meet a last-minute request from your boss.
- » **Set up a Sprints Project.** Run a project with a backlog, a Task Board, sprints, and other adaptive practices.
- » **Manage complex algorithms** (that you couldn't even begin to figure out on your own) to complete such tasks as leveling resource assignments to solve resource conflicts, filtering tasks by various criteria, modeling what-if scenarios, and calculating the dollar value of work performed to date.



REMEMBER

No matter how cool the tool, you have to take the time to enter meaningful data. Great software doesn't ensure great outcomes; it only makes them easier to achieve.

Getting to Know You

The file you create in Project is a *schedule model*. It's a model because it models what you think will happen given what you know at the time. However, for ease of reference, I just refer to it as a schedule. The schedule has a plethora of data about various aspects of your project as well as graphical representations of that information.



REMEMBER

Some people refer to the project schedule as the project plan. In reality, the project plan *contains* the project schedule — plus information such as the budget, work breakdown structure, project life cycle, risk management plan, and many other ingredients necessary to effectively manage a project.

When you first open Project, you see several options for starting a new project, as shown in Figure 1-2.

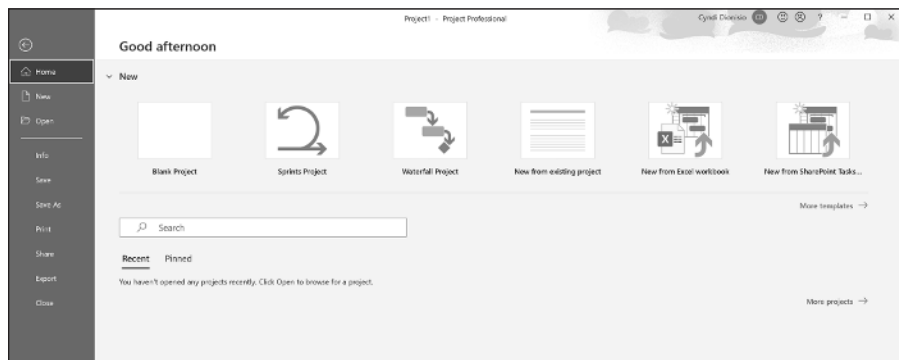


FIGURE 1-2:
What you see
when you
open Project.

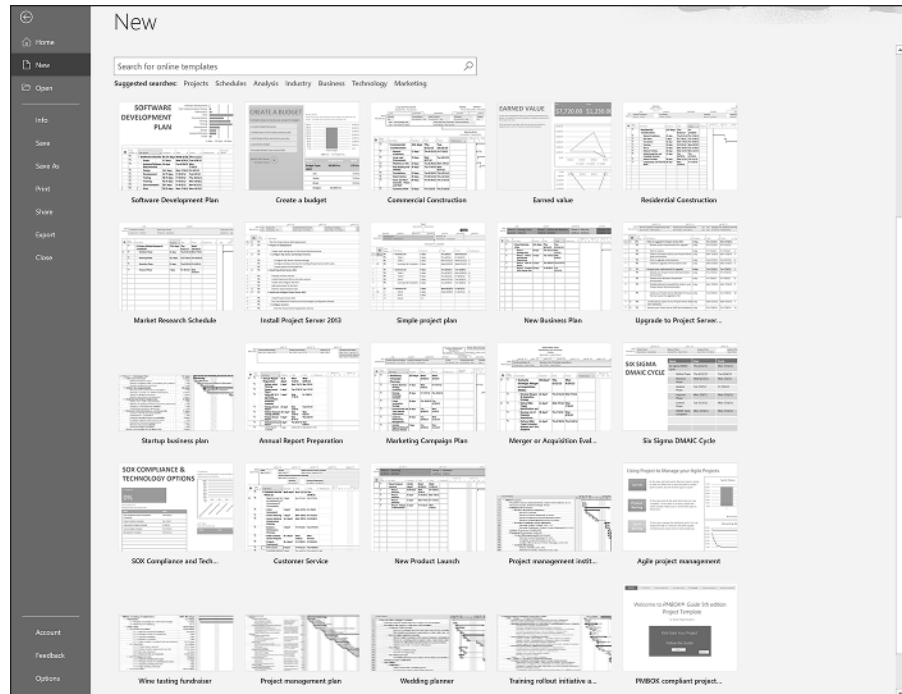
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You can open a blank project, create a new project from an existing project, or create a new project by importing information from Microsoft Excel or SharePoint. You can also take advantage of premade templates for common project types, such as these examples:

- » Residential construction
- » Software development
- » New product launch
- » Merger or acquisition evaluation

If you don't see the template you need, you can click **More Templates** and, as you can see in Figure 1-3, a whole host of options appears. You can also search for online templates by entering keywords in the Search box.

FIGURE 1-3:
Project
templates.



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For purposes of this discussion, I assume that you're starting with a new, blank project.

When you open a new project, you see the Quick Access toolbar, a few Ribbon tabs, the Ribbon, the Timeline, a pane with a sheet and a chart, and the status bar, as shown in Figure 1-4.

In Figure 1-4, you see Gantt Chart view. (I discuss views in Chapter 6.) For now, here's an overview of the major elements in Project (refer to Figure 1-4):

- » **Quick Access toolbar:** The Quick Access toolbar, above and to the left of the Ribbon, is onscreen at all times and in all views.
- » **Ribbon tabs:** The Ribbon tabs organize commands based on a particular type of activity. For example, if you're working with resources, you'll likely find the command or setting you want on the Resource tab.

TIMELINE

RIBBON

RIBBON TABS

QUICK ACCESS TOOLBAR

TOOL GROUP

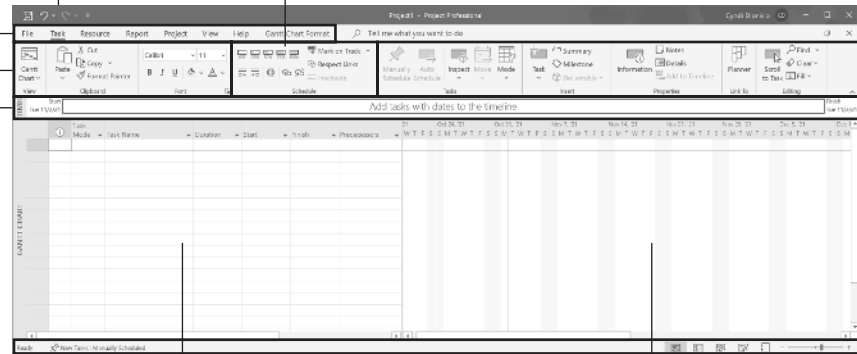


FIGURE 1-4:
A blank project.

SHEET

STATUS BAR

CHART

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- » **Ribbon:** The Ribbon provides easy access to the most commonly used tools and commands. When you change tabs, the available tools on the Ribbon change.
- » **Group:** A *group* is a set of related commands or choices on the Ribbon. For example, to update the percent complete for a task, first find the formatting information you need in the Schedule group on the Task tab of the Ribbon.
- » **Timeline:** The Timeline provides an overview of the entire project — a graphical view of the project from start to finish. You have the option of showing the Timeline or hiding it.
- » **Sheet:** Similar to a spreadsheet, the sheet displays the data in the project. The default fields change depending on the Ribbon tab you're working in. You can customize the columns and fields in the sheet to meet your needs.
- » **Chart:** The chart is a graphical depiction of the information on the sheet. Depending on the view or Ribbon tab that's displayed, you might also see a bar chart depicting the duration of a task or a resource histogram showing resource usage.
- » **Status bar:** The status bar, at the bottom of the Project window, has information on views and zoom level on the right, and information on how newly entered tasks are scheduled on the left.

Navigating Ribbon tabs and the Ribbon

Each of the Ribbon tabs in Project shows different options on the Ribbon. In this section, I provide an overview of each Ribbon tab and of the Ribbon and the Quick Access toolbar. I elaborate on various functions and commands on the Ribbon in later chapters.

Each Ribbon tab has a different group of controls or functions. You can navigate from one tab to another by clicking on the tab name.

The first tab on the left is the File Ribbon tab. After you click this tab, you see the Backstage view with the Navigation pane down the left side, as shown in Figure 1-5.

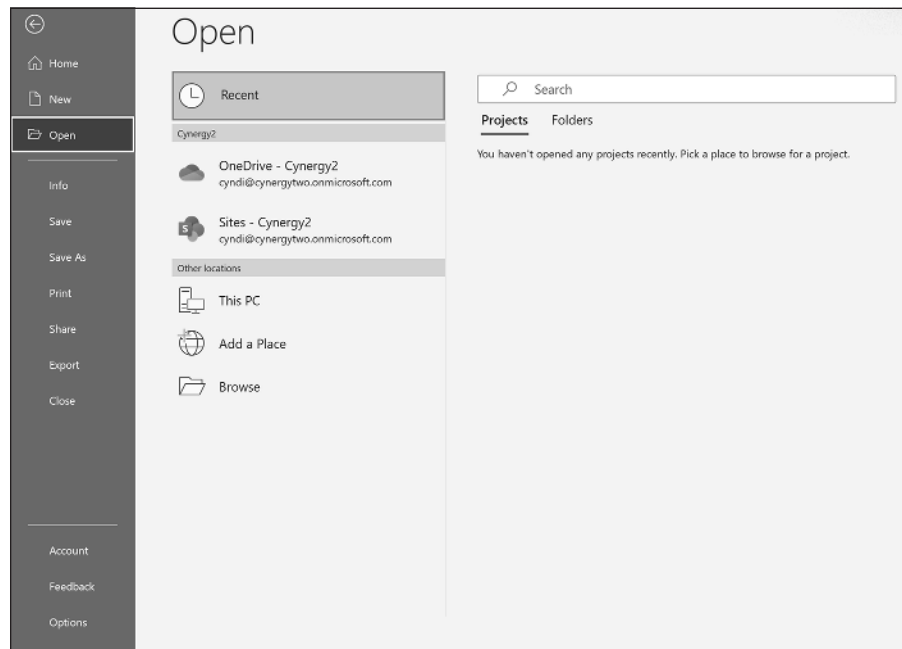


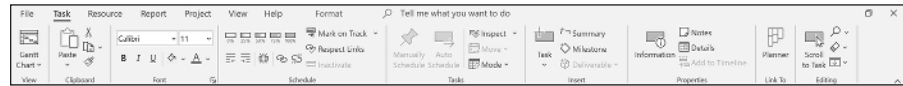
FIGURE 1-5:
Backstage view
with the
Navigation pane.

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The File tab puts you into Backstage view, where you find choices for working with files and changing options. For example, you can create a new project, open an existing project, save your current project, or print your current project. From Backstage view, you can also share, export, or close your current project. If you're feeling adventurous, you can click Options and customize the Ribbon and the Quick Access toolbar.

The Task Ribbon tab is where you spend a lot of your time in Project. As you can see in Figure 1-6, on the far left side of the Task Ribbon tab is the View group. The default view is Gantt Chart view. It shows the task information and the chart that displays a bar chart representing the duration of each task.

FIGURE 1-6:
The Task
Ribbon tab.



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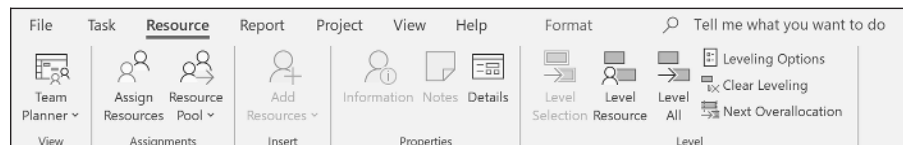
In addition to Gantt Chart, you can choose these views:

Calendar	Network Diagram
Resource Sheet	Resource Usage
Resource Form	Resource Graph
Task Usage	Task Board
Task Form	Task Sheet
Team Planner	Timeline
	Tracking Gantt

You may recognize some of the groups of commands on the Task Ribbon tab. For example, the Clipboard and Font groups are standard in many Windows applications. Other groups, such as Schedule and Tasks, are specific to a particular view — in this case, Gantt Chart view. Look for the Gantt Chart Tools above the Format tab when you see the Task Ribbon tab in Gantt Chart view. In other views, you see different tools above the Format tab.

The Resource Ribbon tab, shown in Figure 1-7, helps you organize resources, such as assigning and leveling resources across tasks. In Project, resources include people, equipment, material, locations, and supplies. You can assign costs and calendars to resources. (I talk more about resources in Chapter 7.)

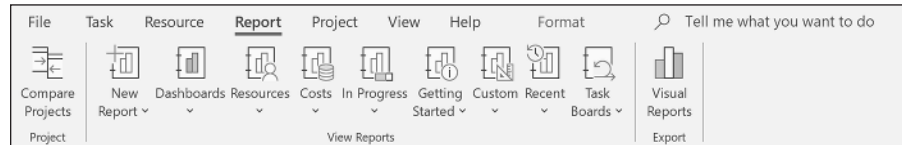
FIGURE 1-7:
The Resource
Ribbon tab.



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The Report Ribbon tab, shown in Figure 1-8, is where you can create reports on resources, costs, or progress, or put them all together in a dashboard report. You can create a report that compares your current status to previous versions of your project. I tell you all about reports, including how to customize and export your reports, in Chapter 18.

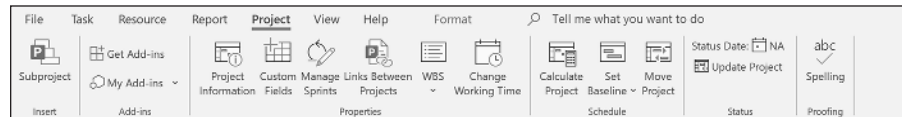
FIGURE 1-8:
The Report
Ribbon tab.



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On the Project Ribbon tab, shown in Figure 1-9, you find commands to help you manage your project as a whole, rather than by task or resource. For example, you can enter or change the project start and finish dates and the baseline. If you need to change working time or add a subproject, this is the place to do it. You can also manage sprints from this Ribbon tab.

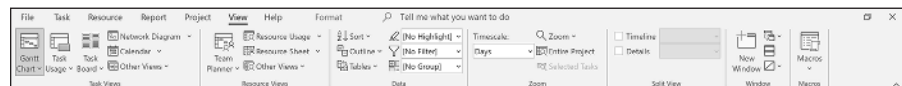
FIGURE 1-9:
The Project
Ribbon tab.



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The View Ribbon tab, shown in Figure 1-10, lets you see some standard views. Examples are Task views, such as Gantt Chart, Task Usage, and Task Board. You can also check out Resource views, such as Resource Sheet or Team Planner. You can use the View Ribbon tab to look at information sorted by date or a specific period. This tab also lets you see the entire project, show or hide the Timeline, and set the timescale you see.

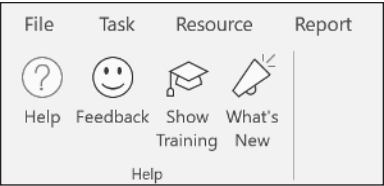
FIGURE 1-10:
The View
Ribbon tab.



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The Help Ribbon tab, shown in Figure 1-11, lets you open a Help pane, provide feedback, and access training. It has a pane that highlights what's new. The Help function in the Help Ribbon tab opens a pane on the right side of the window. You can enter keywords and you will get several explanations with hyperlinks. Find the topic that reflects what you are looking for and click the link. Information in the Help pane often comes with a graphic and step-by-step instructions you can follow.

FIGURE 1-11:
The Help
Ribbon tab.



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The Format Ribbon tab, shown in Figure 1-12, has commands that help you present your schedule, such as text styles, Gantt chart styles, and column settings. This image also shows a pushpin on the far right of the Ribbon. This pins the Ribbon to your display, keeping it open and visible. If your Ribbon is closed, click on any tab and look in the lower-right corner of the Ribbon to see the pushpin. Click on the pushpin to keep your Ribbon open.

The upward-facing arrow (^) on the far-right side of a Ribbon (as shown in Figure 1-10) hides the Ribbon. This gives you more real estate on your screen.

FIGURE 1-12:
The Format
Ribbon tab.



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Displaying more tools



TIP

The Quick Access toolbar, which appears onscreen at all times, initially contains the Save, Undo, and Redo buttons. You can customize the Quick Access toolbar by clicking the down arrow at the right end of the toolbar and clicking the option you want to hide or display. Figure 1-13 shows the list of commands you can choose from.

If you don't see the option you want, click More Commands near the bottom of the menu to display the Quick Access Toolbar category in the Project Options dialog box. This shows you a full list of commands you can add.

The nifty *Timeline* tool shows the entire scaled time span of the project. To show the Timeline, go to the View Ribbon tab (shown in Figure 1-10), locate the Split View group, and then click the check box that says Timeline. You can add tasks or milestones to the Timeline. You can also copy the Timeline and paste it into reports or other presentations. To hide the Timeline, uncheck the Timeline box. You can also work with the Timeline by right-clicking to insert tasks, copy the Timeline, change the font, or view detailed information. Figure 1-14 shows the Timeline with summary tasks and milestones.



FIGURE 1-13:
Customizing the
Quick Access
toolbar.

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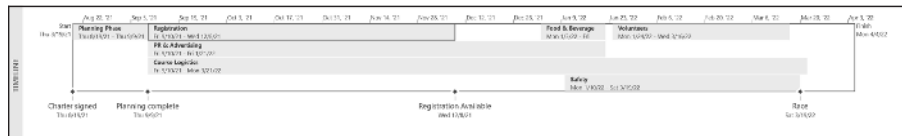


FIGURE 1-14:
The Timeline.

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The status bar, shown in Figure 1-15, sits at the bottom of the project, to indicate whether your tasks are manually or automatically scheduled. (Read more on this topic in Chapter 2.) The status bar also lets you move quickly to some of the most popular views, such as Gantt, Task Usage, Team Planner, Resource Sheet, and Reports. You can also adjust the time scale from a high-level, time scaled view to a detailed time-scaled view with the View slider, on the far-right end of the status bar. I talk more about views in Chapter 6.

FIGURE 1-15:
The status bar.



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Tell Me What You Want to Do

In previous versions of Microsoft Office, there was a Help function. That went away for a while, but now it is back as a Ribbon tab. Both the Help button on the Help Ribbon tab and the Tell Me What You Want to Do feature, found next to the Format tab, can provide assistance.



TIP

The Tell Me What You Want to Do feature will actually do what you ask it to, such as insert a milestone or highlight critical tasks.