Covers Microsoft Project 2010 Professional Companion Web Site

Elaine Marmel

Microsoft Project 2010 Bible

Manage your projects more effectively

Plan, implement, track, and analyze

Harness Project Server and Project Web App

The book you need to succeed!
Project 2010 Bible

Elaine Marmel

Wiley Publishing, Inc.
To my brother and sister-in-law, Jim and Mariann Marmel, who always believe in me, and to the memories of my mother Susan Marmel (1914-2003) and my father Harry Marmel (1914-1985), who always made me feel loved and cherished.
About the Author

Elaine Marmel is President of Marmel Enterprises, LLC, an organization that specializes in technical writing and software training. Elaine has an MBA from Cornell University and worked on projects to build financial management systems for New York City and Washington, D.C. This prior experience provided the foundation for Marmel Enterprises, LLC to help small businesses implement computerized accounting systems.

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No man (or woman) is an island, and this book is the product of the efforts of several people. Thank you, Kyle Looper, for your support and for making things smooth and easy and for having faith in me. Thank you, Rebecca Huehls, for keeping me on track and keeping me sane, and for keeping the manuscript readable. Thank you, Brian Kennemer, for trying to keep me technically accurate. And last, but not least, my thanks also go to the Web site team at Wiley for producing the companion Web site for this book.
Managing projects can be as exciting as scheduling the next space shuttle or as mundane as planning routine production-line maintenance. A project can be as rewarding as striking oil or as disastrous as the maiden voyage of the Titanic. Projects can have budgets of $5 or $5,000,000. One thing that all projects have in common, however, is their potential for success or failure — the promise that if you do it right, you’ll accomplish your goal.

Why You Need This Book

Microsoft Project is a tool for implementing project management principles and practices that can help you succeed. That’s why this book provides not only the information about which buttons to press and where to type project dates but also the conceptual framework to make computerized project management work for you.

How this book is designed

This book strives to offer real-world examples of projects from many industries and disciplines. You’ll see yourself and your own projects somewhere in this book. A wealth of tips and advice show you how to address, control, and overcome real-world constraints. The book is designed to work for you in two ways:

- **As a tutorial.** You can use Project 2010 Bible as a linear tool to learn Project — from the ground up.
- **As a reference.** You can put it on the shelf and use it as your Project reference book, to be pulled down as needed — for advice, information, and step-by-step procedures.

Either way, this book will enrich your Microsoft Project experience and make you a better project manager.

Whom this book is for

Project management software is unlike word processing or spreadsheet software; many of you may have come to project management software never having used anything quite like it before. You may also have used earlier versions of Project or other project management software.

- **If you’re new to project management:** This book is for you. The early chapters explain the basic concepts of computerized project management and what it can do for you so that you have a context in which to learn Project.
Introduction

- If you're experienced with project management: This book is also for you. It explains what's new in the latest version of Project and shows you techniques for using the software that you may not have considered before.

You will benefit most from this book if you have at least a basic understanding of the Windows environment, have mastered standard Windows software conventions, and are comfortable using a mouse. But beyond that, you need only the desire to succeed as a project manager, which this book will help you do.

The Special Features of This Book

To help you maximize your use of this book, I’ve included many special features in its design and conception. The following sections show you how they work.

Formatting conventions

To streamline your learning experience, I’ve used the following formatting conventions:

- Text you're asked to type: When you're asked to enter text into a Project schedule, for example, it appears in **boldface**.
- When using the mouse: A click indicates a left mouse-button click and right-click indicates a right mouse-button click. Double-click designates two quick, successive clicks of the left mouse button.
- Keystroke combinations: These look like this: Alt+Tab. Hold down the first key and, without letting it go, press the second key.
- Menu commands: These are shown with the command arrow — for example, Choose File ➤ Open.
- New terms: When a new term or concept is introduced, it appears in *italics*.

Margin icons

Throughout the book, I’ve included special icons in the margins to call your attention to added information, shortcuts and advice, warnings about potentially disastrous courses of action, the new features of Project 2010, references to additional wisdom, and what you’ll find on the Web site that accompanies this book. Here’s how they look:

**Note**
The Note icon signals additional information about a point under discussion or background information that may be of interest to you.

**Tip**
A tip is a bit of advice or a hint to save you time and indicate the best way to get things done.
Introduction

**Sagacious Sidebars**

Sidebars, such as this one, are departures into background details or interesting information. They’re designed so that you may read around them if you’re in a hurry to accomplish a specific task.

When you have the time for a more comprehensive approach to the subject, however, the concepts that you find in sidebars may prove invaluable — providing the context and depth necessary to achieve a fuller understanding of Project’s functions.

**New Feature**

This icon highlights a new feature in Project 2010.

**Cross-Reference**

This helpful icon clues you in to sources of additional information on a topic under discussion. It points to another chapter or a specific heading elsewhere in the book.

**On The Web Site**

The Web site icon flags useful software and templates that you’ll find on this book’s companion Web site. Appendix A introduces you to all the materials on the site.

**How This Book Is Organized**

This book is organized in the same way you will use Microsoft Project: It begins with some basic concepts and progresses through the features that you need to build a typical schedule and then track its progress. The later chapters provide more advanced information for customizing Project, using it in workgroup settings, and taking Project online.

**Part I: Project Management Basics**

Part I of the book explains the basic project management concepts and terminology that you’ll need to learn Project. In Chapter 1, you take a look at the nature of projects themselves, how Microsoft Project can help you control them, and the life cycle of a typical project. In Chapter 2, you get your first glimpse of the Project software environment.

**Part II: Getting Your Project Going**

Here’s where you learn about the type of information that Project needs in order to do its job. In Chapter 3, you begin to build your first schedule and add tasks in an outline structure. In Chapter 4, you assign timing and construct timing relationships among those tasks. In Chapter 5, you begin assigning people and other resources to your project. This chapter is also where you learn to determine how these resources add costs to a project and how to handle issues such as overtime and shift work.
Part III: Getting Information about Projects
Before your project is ready for prime time, you need to tweak some things, just as you check spelling in a word-processed document. Chapter 6 explains how to view that information to gain perspective on your project, and Chapter 7 helps you to manipulate and customize views to make them work for you. Chapter 8 shows you how to make your project schedule look more professional by formatting the text and modifying the appearance of chart elements. In Chapter 9, you explore the power of generating reports on your projects for everyone from management to individual project team members.

Part IV: Refining Your Project
The two chapters in this part delve into the tools that Project provides to resolve conflicts in your schedule. Chapter 10 explores resolving conflicts in the timing of your schedule so that you can meet your deadlines. Chapter 11 considers the issue of resolving resource conflicts, such as overworked people and underutilized equipment.

Part V: Tracking Your Progress
Here’s where you get the payoff for all your data entry and patient resolution of problems in your schedule. After you set your basic schedule and the project begins, you can track its progress and check data on your status from various perspectives. Chapter 12 gives you an overview of the tracking process. Chapter 13 shows you how to track progress on your individual tasks and view that progress in various ways. Chapter 14 shows you ways you can review the progress of your project. Chapter 15 gives advice and methods for analyzing your progress and making adjustments as needed to stay on schedule and within your budget.

Part VI: Advanced Microsoft Project
Part VI provides advice and information to make your use of Microsoft Project easier. Learn about customizing the Project environment in Chapter 16. Chapter 17 provides information on macros, which are simple programs that enable you to record and automatically play back series of steps that you use frequently, saving you time and effort. Chapter 17 also introduces how to use VBA and VBScript to customize Project so that it works the way you work. Chapter 18 deals with importing and exporting information into and out of Project. Importing information from other software can save you the time and expense of reentering existing data.

Part VII: Working in Groups
Most projects worth the effort of tracking in Project aren’t done by a single person; workgroups, teams, and committees often form a day-to-day working project team. Chapter 19 shows you how to set up multiple projects to run concurrently or to consolidate smaller projects into larger schedules and includes ways to use Windows SharePoint Services to collaborate in basic ways. In
Chapters 20 through 24, you learn how to plan, implement, and manage projects using Project, Project Web Access, and Project Server, Microsoft’s Web-based project-managed solution.

**Part VIII: Appendices**

Appendix A covers what you find on this book’s companion Web site, which contains links to trial software, timesaving templates, and links to other sites of interest in the project management world — including sites for partners of Microsoft Project. Appendices B–D provide resources and additional materials to make your work easier.

Appendix E, a glossary at the end of the book, contains many specifically project management–related terms and concepts that have evolved over time. These terms are defined when they are first used in the book, but you may want to look them up at a later date. Use this handy alphabetical listing to do so.
Part I

Project Management Basics

IN THIS PART

Chapter 1
The Nature of Projects

Chapter 2
Exploring the Microsoft Project Environment
Everybody does projects. Building a tree house is a project; so is putting a man on the moon. From the simplest home improvement to the most complex business or scientific venture, projects are a part of most of our lives. But exactly what is a project, and what can you do to manage all its facets?

Some projects are defined by their randomness. Missed deadlines, unpleasant surprises, and unexpected problems seem to be as unavoidable as the weekly staff meeting. Other projects have few problems. Nevertheless, the project that goes smoothly from beginning to end is rare. Good planning and communication can go a long way toward avoiding disaster. And although no amount of planning can prevent all possible problems, good project management enables you to deal with those inevitable twists and turns in the most efficient manner possible.

In this chapter, you begin exploring tools and acquiring skills that can help you become a more efficient and productive project manager. The goal of this chapter is to provide a survey of what a project is, what project management is, and how Microsoft Project 2010 fits into the picture.

Understanding Projects

When you look up the word project in the dictionary, you see definitions that include words and phrases such as “plan” and “concerted effort.” A project in the truest sense isn’t a simple, one-person endeavor to perform a task. By this definition, getting yourself dressed — difficult though that task might seem on a Monday morning — doesn’t qualify as a project.
A project is a series of steps that are typically performed by more than one person. In addition, a project has the following characteristics:

- **A project has a specific and measurable goal.** You know you have finished the project when you have successfully met your project goal.

- **Projects have a specific time frame.** The success of a project is often measured by how successfully the project has been completed within the amount of time allotted to it.

- **Projects use resources.** Resources aren’t just people; resources can include money, machinery, materials, and more. How well these resources are allocated and orchestrated is another key measure of a project’s success or failure.

- **All projects consist of interdependent, yet individual, steps called tasks.** Rarely does any piece of a project exist in a vacuum. If one task runs late or over budget, it typically affects other tasks, the overall schedule, and the total cost of the project.

Projects can last for weeks, months, or even years. By their nature, projects are dynamic; they tend to grow, change, and behave in ways that you can’t always predict. Consequently, you, as a project manager, have to remain alert to the progress and vagaries of your projects or you’ll never reach your goals. Documentation and communication are your two key tools for staying on top of a project throughout its life.

**Exploring project management**

*Project management* is a discipline that examines the nature of projects and offers ways to control their progress. Project management attempts to organize and systematize the tasks in a project to minimize the number of surprises that you may encounter.

Project management and project managers attempt to balance project goals and objectives against the amount of time and money available to complete a project, focusing on the following key areas:

- Budgeting
- Scheduling
- Managing resources
- Tracking and reporting progress

**Note**

There are tasks to accomplish before a project begins, such as determining if the project is one that should be undertaken, identifying the project’s stakeholders and gaining their support, and ensuring that everyone involved in the project understands its goals and objectives. While this book focuses on the use of Microsoft Project to manage a project, the Project Management Institute (PMI) offers books and education classes on all aspects of project management.

To manage these aspects of projects, certain tools have evolved over the years. Some of these are conceptual, such as the critical path; others involve specific formats for displaying project organization and progress, such as a Gantt Chart. The following sections introduce some key project management concepts and tools.
Critical path and slack

The critical path identifies the series of tasks in a project that must be completed on time for the overall project to stay on schedule. For example, suppose you’re planning a going-away party at your office and have three days to plan the party. The following table lists some of the tasks involved and indicates their time frames.

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signing the good-bye card</td>
<td>Three days</td>
</tr>
<tr>
<td>Ordering food</td>
<td>One day</td>
</tr>
<tr>
<td>Reserving a room</td>
<td>One hour</td>
</tr>
<tr>
<td>Buying a good-bye gift</td>
<td>One day</td>
</tr>
</tbody>
</table>

The shortest task, reserving a room, takes only one hour. Assuming that plenty of rooms are available for holding the party, you can, in theory, delay reserving the room until the last hour of the third day. Delaying this task doesn’t cause any delay in holding the party — as long as you accomplish this task by the end of the longest task, which is getting everyone to sign the good-bye card. Therefore the task of reserving a room isn’t on the critical path. However, you can’t delay the task of signing the good-bye card, which is projected to take three days to accomplish, without delaying the party. Therefore the card-signing task is on the critical path. (Of course, this example is very simple; typically, a whole series of tasks that can’t afford delay form an entire critical path.)

The following points further define and clarify these concepts:

- **The critical path changes as the project progresses.** Remember that a critical path is a means of identifying tasks that have no leeway in their timing to ensure that they don’t run late and affect your overall schedule. Knowing where your critical path tasks are at any point during the project is crucial to staying on track. Figures 1.1 and 1.2 show the same schedule — first with all tasks displayed and then filtered to show only the tasks that are on the critical path.

**Cross-Reference**

See Chapter 7 to find out how to filter for only critical tasks and to see more information about changing the view of your project.

- **Slack**, also called float, is the amount of time that you can delay a task before that task moves onto the critical path. In the preceding example, the one-hour-long task — reserving a room — has slack. This task can slip a few hours, even a couple of days, and the party will still happen on time. However, if you wait until the last half-hour of the third day to reserve a room, that task will have used up its slack and it then moves onto the critical path.
Durations and milestones

Most tasks in a project take a specific amount of time to accomplish. Tasks can take anywhere from five minutes to five months. The length of time needed to complete a task is called the task’s duration. You should always try to break the long tasks in a project into smaller tasks of shorter duration so you can track their progress more accurately. For example, break a five-month-long task into five one-month tasks. Checking off the completion of the smaller tasks each month reduces the odds of a serious surprise five months down the road — and makes you feel as though you’re getting something done.

Some tasks, called milestones, have no (0) duration. Milestones are merely points in time that mark the start or completion of some phase of a project. For example, if your project involves designing a new brochure, the approval of the initial design might be considered a milestone. You can assign a duration to the process of routing the design to various people for review, but assigning a length of time to the moment when you have everyone’s final approval is probably impossible. Therefore this task has a duration of 0 — that is, approval of the design is a milestone that simply marks a key moment in the project.
Fixed-duration tasks and resource-driven schedules

Some tasks take the same amount of time — no matter how many people or other resources you devote to them. Flying from San Francisco to New York is likely to take about five hours, regardless of how many pilots or flight attendants you add. If your project requires a test on a mixture of two solvents that must sit for six hours to react, you can’t speed up the reaction by adding more solvent or by hiring more scientists to work in the laboratory. These tasks have a fixed duration, meaning that their timing is set by the nature of the task.

On the other hand, the number of available resources can affect the duration of some tasks. For example, if one person needs two hours to dig a ditch, adding a second person will likely cut the time in half. The task still requires two hours of effort, but two resources can perform the task simultaneously. Tasks whose durations are affected by the addition or subtraction of resources are called resource-driven tasks.
Note
In real-world projects, this calculation is seldom so exact. Because people have different skill levels and perform work at different speeds, two people don’t always cut the time of a task exactly in half. In addition, the more people you add to a task, the more communication, cooperation, and training may be involved — each of which requires time. Microsoft Project handles additional assignments of resources strictly as a mathematical calculation, but you can still use your judgment of the resources that are involved to modify this calculation.

Diagrams that aid project management
Gantt Charts, network diagrams, and work breakdown structures (WBSs) are tools of project management that have evolved over many years. These tools are simply charts that you can use to track different aspects of your project. Figure 1.3 shows a Microsoft Project Gantt Chart, and Figure 1.4 shows a Microsoft Project network diagram. Figure 1.5 shows a typical WBS; although Microsoft Project does not include a WBS chart as one of its standard views.

FIGURE 1.3
The Gantt Chart bars represent timing of the tasks in a project.
Chapter 1: The Nature of Projects

**FIGURE 1.4**
The network diagram resembles a flow chart for work in a project.

**FIGURE 1.5**
The work breakdown structure chart reminds you of a typical company’s organization chart.
Part I: Project Management Basics

Tip
You can purchase an add-on product, WBS Chart Pro to create a WBS chart from a Microsoft Project file. On this book’s Web site, you’ll find a link to WBS Chart Pro.

Before people used computers to manage their projects, managers drew these charts by hand. Any self-respecting project war room had a 10-foot network diagram, WBS, or Gantt Chart tacked to the wall. By the end of the project, this chart was as marked up and out of date as last year’s appointment calendar. Thankfully, project management software makes these charts easier to generate, update, and customize.

A Gantt Chart represents the tasks in a project with bars that reflect the duration of individual tasks. Milestones are shown as diamond shapes.

Cross-Reference
You can find out more about the elements of a Gantt Chart in Chapter 2. For this chapter’s purposes, you simply need to know that a Gantt Chart enables you to visualize and track the timing of a project.

Network diagrams, on the other hand, don’t accurately detail the timing of a project. Instead, a network diagram shows the flow of tasks in a project and the relationships of tasks to each other. Each task is contained in a box called a node, and lines that flow among the nodes indicate the flow of tasks.

Note
In Project 98 and prior versions of Project, network diagrams were called PERT charts. PERT stands for Program Evaluation and Review Technique. The Special Projects Office of the U.S. Navy devised this method for tracking the flow of tasks in a project when it was designing the Polaris submarine in the late 1950s.

The U.S. defense establishment uses the WBS as its primary tool for managing projects and describes the WBS in Military Standard (MIL-STD) 881B (25 Mar 93) as follows: “A work breakdown structure is a product-oriented family tree composed of hardware, software, services, data and facilities . . . [It] displays and defines the product(s) to be developed and/or produced and relates the elements of work to be accomplished to each other and to the end product(s).”

Note
MIL-STD 881B was superseded by MIL-HDBK 881A, 30 July 2005. The foreword of the newer document states that there were “no substantive changes in work breakdown structure definition.” The full text is available on many Department of Defense sites (for example, http://dcarc.pae.osd.mil/881handbook/881a.pdf).

On the Web
Project doesn’t contain a PERT chart view. However, on the companion Web site for this book, you can find a link to PERT Chart EXPERT, a program that converts the information in any Project file to a PERT view.
Dependencies
The final project management concept to master is dependencies. The overall timing of a project isn't simply the sum of the durations of all tasks, because all tasks in a project don't usually happen simultaneously. For example, in a construction project, you must pour the foundation of a building before you can build the structure. You also have to enclose the building with walls and windows before you lay carpeting. In other words, project managers anticipate and establish relationships among the tasks in a project. These relationships are called dependencies. Only after you have created tasks, assigned durations to them, and established dependencies can you see the overall timing of your project.

Cross-Reference
Chapter 4 covers the kinds of dependencies you can assign in Project.

Managing projects with project management software
Many people manage projects with stacks of to-do lists and colorful hand-drawn wall charts. They scribble notes on calendars in pencil, knowing — more often than not — that those dates and tasks will change over time. They hold numerous meetings to keep everyone in the project informed. People have developed these simple organizational tools because projects typically have so many bits and pieces that no one can possibly remember them all.

To manage a project effectively, you need a set of procedures. Project management software automates many of these procedures. With project management software, you can do the following:

- **Plan up front**: By preplanning the various elements of your project, you can more accurately estimate the time and resources that are required to complete the project.
- **View your progress**: By examining your progress on an ongoing basis from various perspectives, you can see whether you’re likely to meet your goal.
- **Recognize conflicts**: By identifying time and resource conflicts early, you can try out various what-if scenarios to resolve them before the project gets out of hand.
- **Make adjustments**: You can make adjustments to task timing and costs, and automatically update all other tasks in the project to reflect the impact of your changes.
- **Generate professional-looking reports**: You can create reports on the status of your project to help team members prioritize and to help management make informed decisions.

Cross-Reference
To effectively manage projects with many participants (often based in many locations), consider using Project 2010 in conjunction with its companion server product, Project Server. Using Project Server and Project 2010, you can manage projects in a Web-based environment, simplifying collaboration. For more details, see Chapters 20 through 24. You also can take advantage of Microsoft SharePoint Foundation features to collaborate on projects; see Chapter 19 for details.
What’s required of you

Many people contemplate using project management software with about as much relish as they contemplate having surgery. They anticipate hours of data-entry time before they can get anything out of the software. To some extent, that vision is true. You have to provide a certain amount of information about your project for any software to estimate schedules and generate reports, just as you have to enter numbers for a spreadsheet to calculate a budget or a loan-payback schedule.

On the other hand, after you enter your basic project information into Microsoft Project, the ongoing maintenance of that data is far easier than generating handwritten to-do lists that become obsolete almost immediately. In addition, the accuracy and professionalism of the reports you generate with Project can make the difference between a poorly managed project and a successful one. As with a quarterly budget that you create with spreadsheet software, Project performs its calculations automatically after you enter the data. In addition, using Project enables you to spot potential problems — and test alternative solutions — quickly and easily.

So, exactly what do you have to do to manage your project with Microsoft Project? To create a schedule in Microsoft Project, you must enter the following information about your tasks:

- Individual task names
- Task durations
- Task dependencies

To track the costs of these tasks, you add certain information about resources, including the following:

- The list of human and material resources and their costs for both standard and overtime hours
- The assignment of resources to specific tasks

To track a project over its lifetime, you need to enter the following information:

- Progress on tasks
- Changes in task timing or dependencies
- Changes in resources — that is, resources that are added to or removed from the project
- Changes in resource time commitments and costs

How Microsoft Project can help

Even though you still must enter a great deal of information into your project schedule, Microsoft Project has ways to make that job easier:

- **Project templates**: If you often do similar types of projects, you can create project templates with typical project tasks already in place; you can then modify the templates for individual projects. Project comes with templates to help you get started.
On the Web
You can take advantage of some sample project templates — representing a cross-section of typical industries and project types — on this book’s companion Web site.

- **Automate repeated tasks**: If you have tasks that recur throughout the life of your project, such as weekly meetings or regular reviews, you can create a single repeating task; Project duplicates it for you at the appropriate interval.

- **Import existing task lists**: You can create projects from tasks that you’ve set up in Outlook, or you can use Excel to start your project and then easily import the spreadsheet into Project. You also can use a Task List on a SharePoint site to collaboratively create a list of tasks for a project — and then import those tasks into Project. Or you can start the project itself in Project and then make the tasks available on a SharePoint site so others can modify and update the list; you can then synchronize any changes with the Project file.

Cross-Reference
See Chapter 18 for more information about starting projects in Outlook and Excel and then moving them into Project 2010. See Chapter 19 for information on using Project and SharePoint to collaborate.

- **Advanced reporting and analytical capabilities**: Project provides a series of text and visual reports. Project prepares the text reports and sends your project data to Visio or Excel to prepare visual reports.

- **Consolidate projects**: You can divide projects into smaller pieces that team members can use to enter and track progress. By tracking progress with this method, no individual person has to enter an overwhelming amount of data. Also, your people feel more accountable and involved in the project.

Cross-Reference
See Part VII of this book, “Working in Groups,” for detailed information about working in groups in Project 2010 alone, in conjunction with SharePoint, or in conjunction with Project Server.

- **Compare projects**: You can compare any two projects, but the power of this feature becomes apparent when you save various versions of the same project and then compare to highlight the differences.

Cross-Reference
See Chapter 14 for details on comparing projects.

- **Macros**: You can take advantage of Microsoft Visual Basic to build macros that automate repetitive tasks, such as generating weekly reports.

Cross-Reference
See Chapter 17 for more information about using macros to speed your work.
The Life Cycle of a Project

Projects typically consist of several phases. Understanding the nature of each phase can help you relate the features of Microsoft Project to your own projects.

Identifying your goal and the project’s scope

Before you can begin to plan a project, you have to identify the goal, which isn’t always as obvious as it sounds. Various participants may define a project’s goal differently. In fact, many projects fail because the team members are unwittingly working toward different goals. For example, is the team’s goal to perform a productivity study or to actually improve productivity? Is the outcome for your project to agree on the final building design, or is it to complete the actual construction of the building? As you analyze your goal and factor in the perspectives of other team members, make sure that your project isn’t just one step in a series of projects to reach a larger, longer-term goal.

To identify your goal, you can communicate in various ways, such as meetings, e-mail, and conference calls — and, if your organization uses SharePoint, you can communicate using SharePoint tools such as task lists, issues, and risks. But the people with whom you communicate are more important than the method you use to communicate. You should conduct a dialogue at various levels (from management through front-line personnel) that gets ideas on the table and answers questions. Take the time to write a goal statement and circulate it among the team members to make sure that everyone understands the common focus of the project.

Note

Be careful not to set a long-range goal that is likely to change before the project ends. Smaller projects or projects that have been divided into various phases are more manageable and more flexible.

Cross-Reference

See Chapter 20 for tips on avoiding pitfalls during project planning.

After you understand your goal, you should also gather the information that you need to define the project’s scope. This endeavor may take some research on your part. The scope of a project is a statement of more specific parameters or constraints for its completion. The constraints of a project usually fall within the areas of time, quality, and cost, and often they relate directly to project deliverables.

The following are sample goal and scope statements:

Project A:

- **Goal**: To locate a facility for our warehouse.
- **Scope**: By October 15, to find a modern warehouse facility of approximately 5,200 square feet, with a lease cost of no more than $3,000 per month, in a location that is convenient to our main office.
Project B:

- **Goal:** To launch a new cleaning product.
- **Scope:** Includes test-marketing the product, designing packaging, and creating and launching an advertising campaign. The launch must be completed before the end of the third quarter of 2010 and can cost no more than $750,000.

Notice that the second scope statement designates major phases of the project (conducting test marketing, designing packaging, and creating an ad campaign). This statement provides a starting point for planning the tasks in the project. In fact, you may eventually decide to divide this project into smaller projects such as conducting test marketing, designing packaging, and launching an advertising campaign. Writing the scope of the project may encourage you to redefine both the goal and the scope needed to make the project more manageable.

**Tip**

Keep your goal and scope statements brief. If you can’t explain your goal or scope in a sentence or two, your project may be overly ambitious and complex. Consider breaking up a large project into smaller projects.

Writing a simple goal and scope statement ensures that you’ve gathered key data — such as deliverables, timing, and budget — and that you and your team agree on the focus of everyone’s efforts. These activities are likely to occur before you ever open a Microsoft Project file.

**Planning**

When you understand the goal and scope of a project, you can begin to work backward to determine the steps you need to take to reach the goal. Look for major phases first, and then break each phase into a logical sequence of steps.

Planning for resources is one aspect of planning the entire project. Resources can include equipment of limited availability, materials, individual workers, and groups of workers. Don’t forget to take into account various schedule issues such as overtime, vacations, and any resources shared among projects. Time, money, and resources are closely related: You may be able to save time with more resources, but resources typically cost money. You need to understand the order of priority among time, quality, and money.

**Note**

There’s truth to the old joke: Time, budget, or quality — pick two. Devoting resources (which usually become costs) to a project schedule can decrease the time but can also cause loss of quality control. Extending the time can improve quality but usually causes resource conflicts and added costs. Microsoft Project helps you see the trade-offs among these three important criteria throughout the life of your project.

Planning is the point at which you begin to enter data in Microsoft Project and see your project take shape. Figure 1.6 shows the Gantt Chart view of an initial Microsoft Project schedule.
Part I: Project Management Basics

**FIGURE 1.6**
The outline format of a Project schedule clearly shows the various phases of your project. Dependencies among tasks have not yet been established; every task starts at the same time, which isn’t always possible.

Revising

Most of the time, you send an initial project schedule to various managers or co-workers for approval or input so you can refine the schedule based on different factors. You can use the reporting features of Microsoft Project and the collaboration features of SharePoint (if your organization uses it) to generate several drafts of your plan.

Cross-Reference

Chapter 9 explains more about the reports that are available in Project; Chapter 19 describes how to use SharePoint with Project.

Be prepared to revise your plan after everyone has a chance to review it. You may want to create and save multiple Project files to generate what-if scenarios based on the input you receive. Seeing your plans from various perspectives is a great way to take advantage of Project’s power.