Microsoft Project 2010

Build exactly the skills you need. Learn at the pace you want.

Carl Chatfield, PMP, and Timothy Johnson, MCP
Microsoft® Project 2010 Step by Step

Carl Chatfield
Timothy Johnson
Contents at a Glance

<table>
<thead>
<tr>
<th>Part 1</th>
<th>Simple Scheduling</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A Guided Tour of Project</td>
<td>2</td>
</tr>
<tr>
<td>2 Creating a Task List</td>
<td>22</td>
</tr>
<tr>
<td>3 Setting Up Resources</td>
<td>54</td>
</tr>
<tr>
<td>4 Assigning Resources to Tasks</td>
<td>72</td>
</tr>
<tr>
<td>5 Formatting and Sharing Your Plan</td>
<td>92</td>
</tr>
<tr>
<td>6 Tracking Progress on Tasks</td>
<td>122</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part 2</th>
<th>Advanced Scheduling</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Fine-Tuning Task Details</td>
<td>140</td>
</tr>
<tr>
<td>8 Fine-Tuning Resource Details</td>
<td>178</td>
</tr>
<tr>
<td>9 Fine-Tuning Assignment Details</td>
<td>188</td>
</tr>
<tr>
<td>10 Fine-Tuning the Project Plan</td>
<td>210</td>
</tr>
<tr>
<td>11 Organizing Project Details</td>
<td>232</td>
</tr>
<tr>
<td>12 Tracking Progress on Tasks and Assignments</td>
<td>256</td>
</tr>
<tr>
<td>13 Viewing and Reporting Project Status</td>
<td>278</td>
</tr>
<tr>
<td>14 Getting Your Project Back on Track</td>
<td>298</td>
</tr>
</tbody>
</table>
## Contents at a Glance

### Part 3  Special Subjects

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Applying Advanced Formatting and Printing</td>
<td>316</td>
</tr>
<tr>
<td>16</td>
<td>Customizing Project</td>
<td>344</td>
</tr>
<tr>
<td>17</td>
<td>Sharing Project Information with Other Programs</td>
<td>370</td>
</tr>
<tr>
<td>18</td>
<td>Consolidating Projects and Resources</td>
<td>396</td>
</tr>
</tbody>
</table>

### Part 4  Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A Short Course in Project Management</td>
<td>431</td>
</tr>
<tr>
<td>B</td>
<td>Roadmap for Developing Your Project and Project Management Skills</td>
<td>439</td>
</tr>
<tr>
<td>C</td>
<td>Using the Practice Files if Connected to Project Server</td>
<td>443</td>
</tr>
<tr>
<td>D</td>
<td>Using <em>Microsoft Project 2010 Step by Step</em> in a Classroom: Suggestions for Instructors</td>
<td>447</td>
</tr>
<tr>
<td></td>
<td><strong>Glossary</strong></td>
<td>451</td>
</tr>
<tr>
<td></td>
<td><strong>Index</strong></td>
<td>459</td>
</tr>
</tbody>
</table>
# Contents

Introducing Microsoft Project 2010 ................................................................. xv
New Features ................................................................................................. xv
Let’s Get Started! ......................................................................................... xvii
Modifying the Display of the Ribbon ............................................................... xix
  Dynamic Ribbon Elements ........................................................................... xx
  Changing the Width of the Ribbon ............................................................... xx
  Adapting Exercise Steps .............................................................................. xxiv
Features and Conventions of This Book ........................................................... xxv
Using the Practice Files .................................................................................. xxvii
  Your Companion eBook ............................................................................. xxviii
Getting Help ................................................................................................... xxix
  Getting Help with This Book and Its Practice Files ................................... xxix
  Getting Help with Project 2010 ................................................................. xxix

## Part 1  Simple Scheduling

### 1  A Guided Tour of Project 3

- Introducing Project ..................................................................................... 5
- The Backstage: Managing Files and Setting Options ............................... 7
  - Templates: Avoid Reinventing the Wheel .................................................. 10
- The Ribbon and Tabs: Finding the Features You Want ............................ 10
- Views: Working with Schedule Details the Way You Want ..................... 15
- Key Points .................................................................................................. 20

### 2  Creating a Task List 23

- Creating a New Project Plan ...................................................................... 24
  - Project Management Focus: Project Is Part of a Larger Picture. ........ 24
- Entering Task Names .................................................................................. 27
  - Project Management Focus: Defining the Right Tasks for the Deliverable . . . 29

What do you think of this book? We want to hear from you!
Microsoft is interested in hearing your feedback so we can continually improve our books and learning resources for you. To participate in a brief online survey, please visit: microsoft.com/learning/booksurvey
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entering Durations</td>
<td>30</td>
</tr>
<tr>
<td>Project Management Focus: How Do You Come Up with Accurate Task Durations?</td>
<td>33</td>
</tr>
<tr>
<td>Entering a Milestone</td>
<td>34</td>
</tr>
<tr>
<td>Organizing Tasks into Phases</td>
<td>35</td>
</tr>
<tr>
<td>Project Management Focus: Top-Down and Bottom-Up Planning</td>
<td>36</td>
</tr>
<tr>
<td>Linking Tasks</td>
<td>37</td>
</tr>
<tr>
<td>Switching Task Scheduling from Manual to Automatic</td>
<td>43</td>
</tr>
<tr>
<td>Setting Nonworking Days</td>
<td>46</td>
</tr>
<tr>
<td>Checking the Plan’s Duration</td>
<td>49</td>
</tr>
<tr>
<td>Documenting Tasks and the Project Plan</td>
<td>50</td>
</tr>
<tr>
<td>Key Points</td>
<td>53</td>
</tr>
</tbody>
</table>

### 3 Setting Up Resources                                             55

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting Up Work Resources</td>
<td>56</td>
</tr>
<tr>
<td>Equipment Resource Considerations</td>
<td>57</td>
</tr>
<tr>
<td>What Is the Best Way to Enter Resource Names?</td>
<td>59</td>
</tr>
<tr>
<td>Entering Resource Capacity</td>
<td>59</td>
</tr>
<tr>
<td>Entering Resource Pay Rates</td>
<td>60</td>
</tr>
<tr>
<td>Project Management Focus: Getting Resource Cost Information</td>
<td>62</td>
</tr>
<tr>
<td>Adjusting Working Time for Individual Resources</td>
<td>63</td>
</tr>
<tr>
<td>Setting Up Cost Resources</td>
<td>67</td>
</tr>
<tr>
<td>Documenting Resources</td>
<td>68</td>
</tr>
<tr>
<td>Key Points</td>
<td>71</td>
</tr>
</tbody>
</table>

### 4 Assigning Resources to Tasks                                    73

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assigning Work Resources to Tasks</td>
<td>74</td>
</tr>
<tr>
<td>The Scheduling Formula: Duration, Units, and Work</td>
<td>81</td>
</tr>
<tr>
<td>Controlling Work When Adding or Removing Resource Assignments</td>
<td>82</td>
</tr>
<tr>
<td>Project Management Focus: When Should Effort-Driven Scheduling Apply?</td>
<td>88</td>
</tr>
<tr>
<td>Assigning Cost Resources to Tasks</td>
<td>88</td>
</tr>
<tr>
<td>Key Points</td>
<td>91</td>
</tr>
</tbody>
</table>
5 Formatting and Sharing Your Plan 93
Customizing the Gantt Chart View .................................................. 94
Customizing the Timeline View ..................................................... 101
Pan and Zoom the Gantt Chart View from the Timeline View ............ 104
Drawing on a Gantt Chart ............................................................. 104
Copying Views ............................................................................. 106
Printing Views ............................................................................ 109
Customizing and Printing Reports ................................................ 115
Key Points ...................................................................................... 121

6 Tracking Progress on Tasks 123
Saving a Project Baseline ............................................................... 124
Tracking a Project as Scheduled ................................................... 128
Entering a Task’s Completion Percentage ...................................... 129
Entering Actual Values for Tasks .................................................. 132
Project Management Focus: Is the Project on Track? ................. 136
Key Points ...................................................................................... 137

Part 2 Advanced Scheduling

7 Fine-Tuning Task Details 141
Adjusting Task Relationships ......................................................... 142
Setting Task Constraints ............................................................... 147
Interrupting Work on a Task ........................................................ 153
Adjusting Working Time for Individual Tasks ............................ 155
Changing Task Types .................................................................. 158
Assignment Units, Peak, Peak Units, and the Scheduling Formula .... 159
Task Types and Effort-Driven Scheduling .................................... 163
Entering Deadline Dates ............................................................... 163
Entering Fixed Costs .................................................................... 165
Setting Up a Recurring Task ........................................................ 167
Viewing the Project’s Critical Path .............................................. 170
Scheduling Summary Tasks Manually .......................................... 172
Inactivating Tasks ........................................................................ 175
Key Points ...................................................................................... 177
8 Fine-Tuning Resource Details 179
  Setting Up Resource Availability
  to Apply at Different Times .............................................. 179
  Entering Multiple Pay Rates for a Resource ....................... 183
  Setting Up Pay Rates to Apply at Different Times .................. 184
  Setting Up Material Resources ........................................... 186
  Key Points ........................................................................ 187

9 Fine-Tuning Assignment Details 189
  Delaying the Start of Assignments ....................................... 189
  Applying Contours to Assignments ..................................... 192
  Applying Different Cost Rates to Assignments ..................... 196
  Assigning Material Resources to Tasks ............................... 198
    Variable Consumption Rates for Material Resources ......... 199
  Viewing Resource Capacity ................................................. 200
  Adjusting Assignments in the Team Planner View ............... 203
  Key Points ........................................................................ 208

10 Fine-Tuning the Project Plan 211
  Examining Resource Allocations over Time ......................... 211
    Project Management Focus: Evaluating Resource Allocation .... 212
  Resolving Resource Overallocations Manually ..................... 217
  Leveling Overallocated Resources ...................................... 220
  Checking the Project’s Cost and Finish Date ....................... 227
  Key Points ........................................................................ 230

11 Organizing Project Details 233
  Sorting Project Details ....................................................... 234
  Grouping Project Details ................................................... 238
  Filtering Project Details ..................................................... 242
  Customizing Tables ........................................................... 248
    Create Custom Fields Quickly ........................................ 251
  Customizing Views ............................................................ 251
  Key Points ........................................................................ 254

12 Tracking Progress on Tasks and Assignments 257
  Updating a Baseline ............................................................ 258
  Saving Interim Plans .......................................................... 262
Tracking Actual and Remaining Values for Tasks and Assignments .............263
Entering Actual Costs Manually ..........................................................269
Tracking Timephased Actual Work for Tasks and Assignments ..................269
Project Management Focus: Collecting Actuals from Resources ..............273
Rescheduling Incomplete Work .........................................................274
Key Points .....................................................................................277

13 Viewing and Reporting Project Status .................................................279
Identifying Tasks that Have Slipped ......................................................280
Project Management Focus: Is Variance Ever a Good Thing? .................281
Project Management Focus: Getting the Word Out ..................................286
Examining Task Costs ..................................................................287
Examining Resource Costs .................................................................290
Reporting Project Cost Variance with a Stoplight View .........................293
Key Points .....................................................................................297

14 Getting Your Project Back on Track .......................................................299
Troubleshooting Time and Schedule Problems .....................................300
Reduce Task Durations by Assigning Resource Overtime Hours ..............306
Troubleshooting Cost and Resource Problems .....................................307
Troubleshooting Scope-of-Work Problems ..........................................311
Key Points .....................................................................................314

Part 3 Special Subjects

15 Applying Advanced Formatting and Printing ..........................................317
Formatting a Gantt Chart View .............................................................318
Formatting a Timeline View .................................................................324
Formatting a Network Diagram View ....................................................327
Formatting a Calendar View .................................................................331
Printing Views: Advanced Options ......................................................334
Printing Reports: Advanced Options ....................................................339
Key Points .....................................................................................342
16 Customizing Project

Sharing Custom Elements Between Project Plans ............................................ 346
Recording Macros ......................................................................................... 351
Editing Macros .............................................................................................. 356
Customizing the Ribbon and Quick Access Toolbar ..................................... 362
Key Points ...................................................................................................... 368

17 Sharing Project Information with Other Programs

Copying Project Data to Other Programs ....................................................... 372
Opening Other File Formats in Project ......................................................... 377
Saving to Other File Formats from Project .................................................. 381
  Working with File Formats from Previous Versions of Project .................. 386
Generating Visual Reports with Excel and Visio ........................................... 386
Guided Tour: Synchronizing Task Lists Between Project and SharePoint (Project Professional only) .............................................................. 391
Key Points ...................................................................................................... 395

18 Consolidating Projects and Resources

Creating a Resource Pool ............................................................................... 398
  Creating a Dedicated Resource Pool .......................................................... 404
Viewing Assignment Details in a Resource Pool ........................................... 404
Updating Assignments in a Sharer Plan ....................................................... 406
Updating a Resource’s Information in a Resource Pool ................................. 408
Updating All Plans’ Working Times in a Resource Pool ................................ 411
Linking New Project Plans to a Resource Pool ............................................. 413
Opening a Sharer Plan and Updating a Resource Pool ................................... 416
Consolidating Project Plans ......................................................................... 420
Creating Dependencies Between Projects ................................................... 423
Key Points ...................................................................................................... 428

Part 4 Appendices

A A Short Course in Project Management

Understanding What Defines a Project .......................................................... 431
The Project Triangle: Viewing Projects in Terms of Time, Cost, and Scope .... 432
Time, Cost, and Scope: Managing Project Constraints .................................. 435
Managing Your Projects with Project ............................................................ 438
What do you think of this book? We want to hear from you!
Microsoft is interested in hearing your feedback so we can continually improve our books and learning resources for you. To participate in a brief online survey, please visit:

microsoft.com/learning/booksurvey
Acknowledgments

The authors would like to thank our families for their patience and encouragement while we wrote this book. From Carl: *merci* big brothers Butch and George. From Tim: *khawp jai* Ratsamy (Mimi), Brian, and Brenda. The authors also wish to acknowledge and thank our technical reviewer, Thuy Le, PMP, EPM Solutions Architect at Microsoft, and Project program manager Adrian Jenkins, for their timely and valuable feedback and responses to our technical questions.

Finally, we thank our project editor, Rosemary Caperton, and our content editor, Susan McClung, for their outstanding work.
Microsoft Project 2010 is a powerful program that helps you plan and manage a wide range of projects. From meeting crucial deadlines and budgets to selecting the right resources, Project 2010 offers easier and more intuitive experiences to help you be more productive and realize better results. You can use Project to:

- Create project plans at the level of detail that’s right for your project. Work with summary data initially or shift to a more detailed approach when it’s convenient. Control what tasks Project can schedule automatically or that you’ll schedule manually.
- Manage tasks, costs, work, and resources at whatever level of detail is appropriate for your project’s needs.
- See your project plan data in a variety of views. Apply grouping, highlighting, sorting, and filtering to see your data the way that you want.
- Track and manage your project plan throughout project execution.
- Collaborate and share data with others in your organization using a variety of productivity applications.
- Use resource pools, consolidated projects, and cross-project links to extend your project management focus across multiple projects.

Project 2010 builds on previous versions to provide powerful project management tools. This introduction provides an overview of new features that we explore throughout the book.

**New Features**

If you’re upgrading to Project 2010 from a previous version, you’re probably most interested in the differences between the old and new versions and how they will affect you. The following sections list new features you will want to be aware of, depending on the version of Project you are upgrading from.
If You Are Upgrading from Project 2007

If you have been using Project 2007, you might be wondering what new features and interface changes Microsoft has added to its desktop project management application. The list of new features includes the following:

- **The Microsoft Office Fluent interface (the “ribbon”)** No more hunting through menus, submenus, and dialog boxes. This new interface organizes all the commands that most people use in a new way, making them quickly accessible from tabs at the top of the program window.

- **The Backstage view** Finally, all the tools you need to work with your files are accessible from one location.

- **Manually scheduled tasks** Begin creating tasks with whatever information (numeric or text data) you may have, and don’t worry about automatic scheduling of tasks until you’re ready. Manually scheduled tasks are not affected by changes in duration, start or finish dates, dependencies, or other issues that otherwise would cause Project to reschedule a task. You can then switch individual tasks or an entire project plan from manual to automatic scheduling.

- **Timeline view** Create a visually compelling “project at a glance” view that includes just the summary tasks, tasks, and milestones that you choose. Easily copy the Timeline view as a graphic image to paste into other applications.

- **Better pasting to Excel and Word** Paste Project data into Excel or Word and preserve the column headings and outline structure of your Project data.

- **Customizable ribbon** Create your own tabs and groups to suit the way you work.

- **Custom fields** Just start typing a numeric value, date value, or text string into the rightmost column in a table, and Project will identify the right data type.

- **AutoFilter improvements** Use Microsoft Excel–like filtering, as well as sorting and grouping, right from AutoFilter arrows on column headings.

- **Save as PDF or XPS** Create PDF or XPS format documents directly from Project.

- **Team Planner view (Project Professional only)** Perform actions like reassigning a task from one resource to another with simple dragging in the Team Planner view.

- **Inactivate tasks (Project Professional only)** Disable (but don’t delete) selected tasks from a project plan so they have no effect on the overall schedule but can be reactivated later if you need them.
● **SharePoint Task List integration (Project Professional only)** Publish and synchronize tasks between Project and a new type of Microsoft SharePoint list called a Project Task List.

**If You Are Upgrading from Project 2003**

In addition to the features listed in the previous section, if you’re upgrading from Project 2003, you’ll want to take note of the new features that were introduced in Project 2007. The 2007 upgrade included several new and improved features, including the following:

- **Visual reports** Export Project task, resource, or assignment details to Excel or Visio in a highly structured graphical format.

- **Change highlighting** See what values changed throughout a project plan immediately after you make a change to a calculated task, resource, or assignment value.

- **Cost resources** Assign this special type of resource to tasks to accrue categories of costs you wish to track, like travel or entertainment. Cost resources have no effect on the scheduling of tasks to which they are assigned.

- **Task Inspector pane** Called the Task Driver pane in Project 2007, the Task Inspector pane shows you details that affect the scheduling of a selected task.

- **Multi-level Undo** Back out of a series of actions when you need to.

- **Calendar working time exceptions** Record not just the date, but also an explanation of a resource or project calendar working time exception.

**Let’s Get Started!**

We’ve been working with Project since it debuted for Windows, and each version has offered something that made project planning and management a little easier. Project 2010 is a substantial update for desktop project management, and we look forward to showing you around.
Modifying the Display of the Ribbon

The goal of the Microsoft Office working environment is to make working with Office documents, including Microsoft Project plans, Microsoft Word documents, Microsoft Excel workbooks, Microsoft PowerPoint presentations, Microsoft Outlook e-mail messages, and Microsoft Access database tables, as intuitive as possible. You work with an Office document and its contents by giving commands to the program in which the document is open. All Office 2010 programs organize commands on a horizontal bar called the ribbon, which appears across the top of each program window whether or not there is an active document.

Commands are organized on task-specific tabs of the ribbon, and in feature-specific groups on each tab. Commands generally take the form of buttons and lists. Some appear in galleries. Some groups have related dialog boxes or task panes that contain additional commands.

Throughout this book, we discuss the commands and ribbon elements associated with the program feature being discussed. In this topic, we discuss the general appearance of the ribbon, things that affect its appearance, and ways of locating commands that aren’t visible on compact views of the ribbon.

See Also  For detailed information about the ribbon in Microsoft Project, see the section “The Ribbon and Tabs: Finding the Features You Want,” in Chapter 1, “A Guided Tour of Project.” For information about customizing the ribbon and other parts of the Project interface, see Chapter 16, “Customizing Project.”

Tip Some older commands no longer appear on the ribbon but are still available in the program. You can make these commands available by adding them to the Quick Access Toolbar. For more information, see the section “Customizing the Ribbon and Quick Access Toolbar,” in Chapter 16, “Customizing Project.”
Dynamic Ribbon Elements

The ribbon is dynamic, meaning that the appearance of commands on the ribbon changes as the width of the ribbon changes. A command might be displayed on the ribbon in the form of a large button, a small button, a small labeled button, or a list entry. As the width of the ribbon decreases, the size, shape, and presence of buttons on the ribbon adapt to the available space.

For example, when sufficient horizontal space is available, the buttons on the Task tab of the Project program window are spread out and you’re able to see more of the commands available in each group.

*The Task tab of the Project program window at 1280 pixels wide.*

If you decrease the width of the ribbon, small button labels disappear and entire groups of buttons hide under one button that represents the group. Click the group button to display a list of the commands available in that group.

*The Task tab of the Project program window at 800 pixels wide.*

When the window becomes too narrow to display all the groups, a scroll arrow appears at its right end. Click the scroll arrow to display hidden groups.
Changing the Width of the Ribbon

The width of the ribbon depends on the horizontal space available to it, which in turn depends on these three factors:

- **The width of the program window** Maximizing the program window provides the most space for ribbon elements. You can resize the program window by clicking the button in its upper-right corner or by dragging the border of a non-maximized window.

  **Tip** On a computer running Windows 7, you can maximize the program window by dragging its title bar to the top of the screen.

- **Your screen resolution** Screen resolution is the size of your screen display expressed as pixels wide × pixels high. The greater the screen resolution, the greater the amount of information that will fit on one screen. Your screen resolution options depend on your monitor. At the time of writing, possible screen resolutions range from 800 × 600 to 2048 × 1152. In the case of the ribbon, the greater the number of pixels wide (the first number), the greater the number of buttons that can be shown on the ribbon, and the larger those buttons can be.

  On a computer running Windows 7, you can change your screen resolution from the Screen Resolution window of Control Panel.
You set the resolution by dragging the pointer on the slider.

- **The density of your screen display** You might not be aware that you can change the magnification of everything that appears on your screen by changing the screen magnification setting in Windows. Setting your screen magnification to 125% makes text and user interface elements larger on screen. This increases the legibility of information, but it also means that less fits onto each screen.

On a computer running Windows 7, you can change the screen magnification from the Display window of Control Panel.
You can choose one of the standard display magnification options or create another by setting a custom text size.

The screen magnification is directly related to the density of the text elements on screen, which is expressed in dots per inch (dpi) or points per inch (ppi). (The terms are interchangeable, and in fact, they are both used in the Windows dialog box in which you change the setting.) The greater the dpi, the larger the text and user interface elements appear on screen. By default, Windows displays text and screen elements at 96 dpi. Choosing the Medium - 125% display setting changes the dpi of text and screen elements to 120 dpi. You can choose a custom setting of up to 500% magnification, or 480 dpi, in the Custom DPI Setting dialog box.

You can choose a magnification of up to 200% from the lists or choose a greater magnification by dragging across the ruler from left to right.
Modifying the Display of the Ribbon

See Also  For more information about display settings, refer to Windows 7 Step by Step (Microsoft Press, 2009), Windows Vista Step by Step (Microsoft Press, 2006), or Windows XP Step by Step (Microsoft Press, 2002) by Joan Lambert Preppernau and Joyce Cox.

Adapting Exercise Steps

The screen images shown in the exercises in this book were captured at a screen resolution of 1280 × 800, at 100% magnification, and the default text size (96 dpi). If any of your settings are different, the ribbon on your screen might not look the same as the one shown in the book. For example, you might see more or fewer buttons in each of the groups, the buttons you see might be represented by larger or smaller icons than those shown, or the group might be represented by a button that you click to display the group’s commands.

When we instruct you to give a command from the ribbon in an exercise, we do it in this format:

- On the Project tab, in the Properties group, click Project Information.

If the command is in a list, we give the instruction in this format:

- On the View tab, in the Data group, click Tables and then click Cost.

The first time we instruct you to click a specific button in each exercise, we display an image of the button in the page margin to the left of the exercise step.

If differences between your display settings and ours cause a button on your screen to look different from the one shown in the book, you can easily adapt the steps to locate the command. First, click the specified tab. Then locate the specified group. If a group has been collapsed into a group list or group button, click the list or button to display the group’s commands. Finally, look for a button that features the same icon in a larger or smaller size than that shown in the book. If necessary, point to buttons in the group to display their names in ScreenTips.

If you prefer not to have to adapt the steps, set up your screen to match ours while you read and work through the exercises in the book.
Features and Conventions of This Book

This book has been designed to lead you step by step through many of the tasks you’re most likely to want to perform in Microsoft Project Professional 2010 or Microsoft Project Standard 2010. If you start at the beginning and work your way through all the exercises, you will gain enough proficiency to be able to create and work with a wide range of Project features. However, each topic is self contained. If you have worked with a previous version of Project, or if you completed all the exercises and later need help remembering how to perform a procedure, the following features of this book will help you locate specific information:

- **Detailed table of contents** Search the listing of the topics and sidebars within each chapter.
- **Chapter thumb tabs** Easily locate the beginning of the chapter you want.
- **Topic-specific running heads** Within a chapter, quickly locate the topic you want by looking at the running heads at the top of odd-numbered pages.
- **Glossary** Look up the meaning of a word or the definition of a concept.
- **Detailed index** Look up specific tasks and features in the index, which has been carefully crafted with the reader in mind.

You can save time when reading this book by understanding how the Step by Step series shows exercise instructions, keys to press, buttons to click, and other information.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>SET UP</td>
<td>This paragraph preceding a step-by-step exercise indicates the practice files that you will use when working through the exercise. It also indicates any requirements that you should attend to or actions that you should take before beginning the exercise.</td>
</tr>
<tr>
<td>CLEAN UP</td>
<td>This paragraph following a step-by-step exercise provides instructions for saving and closing open files or programs before moving on to another topic. It also suggests ways to reverse any changes you made to your computer while working through the exercise.</td>
</tr>
<tr>
<td>1</td>
<td>Numbered steps guide you through hands-on exercises in each topic, as well as procedures in sidebars and expository text.</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Important</td>
<td>This paragraph points out information that you need to know to complete a procedure.</td>
</tr>
<tr>
<td><strong>Convention</strong></td>
<td><strong>Meaning</strong></td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td>This paragraph describes information that merits special attention.</td>
</tr>
<tr>
<td><strong>See Also</strong></td>
<td>This paragraph directs you to more information about a topic in this book or elsewhere.</td>
</tr>
<tr>
<td><strong>Tip</strong></td>
<td>This paragraph provides a helpful hint or shortcut that makes working through a task easier.</td>
</tr>
<tr>
<td><strong>Ctrl+G</strong></td>
<td>A plus sign (+) between two keys means that you must press those keys at the same time. For example, “Press Ctrl+G” means that you should hold down the Ctrl key while you press the G key.</td>
</tr>
<tr>
<td><strong>Bold</strong></td>
<td>In exercises that begin with SET UP information, bold type displays text that you should type; the names of program elements, such as buttons, commands, windows, and dialog boxes; and files, folders, or text that you interact with in the steps.</td>
</tr>
<tr>
<td><strong>Bold italic</strong></td>
<td>Terms that are defined in the Glossary are formatted this way.</td>
</tr>
</tbody>
</table>
Using the Practice Files

Before you can complete the exercises in this book, you need to copy the book’s practice files to your computer. These practice files, as well as other information, can be downloaded from the book’s detail page, located at:

http://go.microsoft.com/fwlink/?Linkid=191765

Display the detail page in your Web browser and follow the instructions for downloading the files.

**Important** The Microsoft Project 2010 program is not available from this Website. You should purchase and install that program before using this book.

The following table lists the practice files for this book.

**Note** The same set of practice files works with both Microsoft Project Professional 2010 and Microsoft Project Standard 2010. Differences between the two editions of Project are explained where needed throughout the book.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>File</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1: A Guided Tour of Project</td>
<td>Guided Tour_Start.mpp</td>
</tr>
<tr>
<td>Chapter 2: Creating a Task List</td>
<td>(no initial practice file)</td>
</tr>
<tr>
<td>Chapter 3: Setting Up Resources</td>
<td>Simple Resources_Start.mpp</td>
</tr>
<tr>
<td>Chapter 4: Assigning Resources to Tasks</td>
<td>Simple Assignments_Start.mpp</td>
</tr>
<tr>
<td>Chapter 5: Formatting and Sharing Your Plan</td>
<td>Simple Formatting_Start.mpp</td>
</tr>
<tr>
<td>Chapter 6: Tracking Progress on Tasks</td>
<td>Simple Tracking_Start.mpp</td>
</tr>
<tr>
<td>Chapter 7: Fine-Tuning Task Details</td>
<td>Advanced Tasks A_Start.mpp</td>
</tr>
<tr>
<td></td>
<td>Advanced Tasks B_Start.mpp</td>
</tr>
<tr>
<td>Chapter 8: Fine-Tuning Resource Details</td>
<td>Advanced Resources_Start.mpp</td>
</tr>
<tr>
<td>Chapter 9: Fine-Tuning Assignment Details</td>
<td>Advanced Assignments A_Start.mpp</td>
</tr>
<tr>
<td></td>
<td>Advanced Assignments B_Start.mpp</td>
</tr>
<tr>
<td>Chapter 10: Fine-Tuning the Project Plan</td>
<td>Advanced Plan_Start.mpp</td>
</tr>
<tr>
<td>Chapter 11: Organizing Project Details</td>
<td>Advanced Organizing_Start.mpp</td>
</tr>
<tr>
<td>Chapter 12: Tracking Progress on Tasks and Assignments</td>
<td>Advanced Tracking A_Start.mpp</td>
</tr>
<tr>
<td></td>
<td>Advanced Tracking B_Start.mpp</td>
</tr>
<tr>
<td></td>
<td>Advanced Tracking C_Start.mpp</td>
</tr>
<tr>
<td></td>
<td>Advanced Tracking D_Start.mpp</td>
</tr>
<tr>
<td>Chapter 13: Viewing and Reporting Project Status</td>
<td>Reporting Status_Start.mpp</td>
</tr>
</tbody>
</table>
Your Companion eBook

The eBook edition of this book allows you to:

- Search the full text
- Print
- Copy and paste

To download your eBook, please see the instruction page at the back of this book.
Getting Help

Every effort has been made to ensure the accuracy of this Microsoft Press book. If you run into problems please contact the appropriate source, listed in the following sections, for help and assistance.

Getting Help with This Book and Its Practice Files

The practice files referred to throughout this book are available as Web downloads. For more information, see “Using the Practice Files,” at the beginning of this book.

If your question or issue concerns the content of this book or its practice files, please first consult the book’s errata page, which can be accessed at:

http://go.microsoft.com/fwlink/?Linkid=191765

This page provides information about known errors and corrections to the book. If you do not find your answer on the errata page, send your question or comment to Microsoft Press Technical Support at:

mspinput@microsoft.com

Getting Help with Project 2010

If your question is about Microsoft Project 2010, not about the content of this book or its practice files, please search Microsoft Support or the Microsoft Knowledge Base at:

http://support.microsoft.com

In the United States, Microsoft software product support issues not covered by the Microsoft Knowledge Base are addressed by Microsoft Product Support Services. The Microsoft software support options available from Microsoft Product Support Services are listed at:

http://support.microsoft.com/gp/selfoverview/
Chapter at a Glance

Create a list of resources, page 56.

Enter resource cost rates, page 60.

Change a resource’s capacity to perform work, page 59.

Add notes about resources, page 68.

Change a resource’s working time, page 63.
3 Setting Up Resources

In this chapter, you will learn how to:

✔ Set up basic resource information for the people who work on projects.
✔ Adjust the maximum capacity of a resource to do work.
✔ Set up cost information for work resources.
✔ Change a resource’s availability for work.
✔ Enter cost resource information for financial tracking.
✔ Record additional information about a resource in a note.

Microsoft Project 2010 supports three types of resources. These are work resources, as well as two special-purpose resources: cost and material. Briefly, here is how to think about the three resource types:

- **Work resources** include the people and equipment needed to complete the tasks in a project.
- **Cost resources** represent a financial cost associated with a task that you need to account for. Examples include categories of expenses like travel, entertainment, and so on.
- **Material resources** are consumables that you use up as the project proceeds. For example, a construction project might need to track steel or concrete as it is used throughout the project.

In this chapter you will set up work and cost resources. Material resources are described in Chapter 8, “Fine-Tuning Resource Details.”

In this chapter, you will set up the work and cost resources that you need to complete the new book launch at Lucerne Publishing. Effective resource management is one of the most powerful advantages of using Project instead of task-focused planning tools, such as paper-based organizers. You do not need to set up resources and assign them
to tasks in Project; however, without this information, you might be less effective in managing your schedule. Setting up resource information in Project takes a little effort, but the time is well spent if your project is primarily driven by time or cost constraints (and nearly all projects are driven by one, if not both, of these factors).

**Practice Files** Before you can complete the exercises in this chapter, you need to copy the book’s practice files to your computer. A complete list of practice files is provided in “Using the Practice Files” at the beginning of this book. For each exercise that has a practice file, simply browse to where you saved the book’s practice file folder.

**Important** If you are running Project Professional, you may need to make a one-time setting change. This helps ensure that the practice files you work with in this chapter do not affect your Project Server data. For more information, see Appendix C, “Using the Practice Files if Connected to Project Server.”

### Setting Up Work Resources

Work resources are the people and equipment that do the work of the project. Project focuses on two aspects of work resources: their availability and their costs. Availability determines when specific resources can work on tasks and how much work they can perform, and costs refer to how much money will be required to pay for those resources.

Some examples of work resources are listed in this table.

<table>
<thead>
<tr>
<th>Work Resource</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual people identified by name.</td>
<td>Jun Cao; Zac Woodall</td>
</tr>
<tr>
<td>Individual people identified by job title or function.</td>
<td>Publisher; Contract specialist</td>
</tr>
<tr>
<td>Groups of people who have common skills. (When assigning such interchangeable resources to a task, you might not be concerned about who the individual resource is so long as they have the right skills.)</td>
<td>Copyeditors; Typesetters</td>
</tr>
<tr>
<td>Equipment.</td>
<td>Offset lithography press</td>
</tr>
</tbody>
</table>
Equipment Resource Considerations

In Project, you set up people and equipment resources in exactly the same way; they are both examples of work resources. However, you should be aware of important differences in how you can schedule these two work resources. Most people resources have a working day of typically 8 and usually no more than 12 hours, but equipment resources might have much more varied capacities for work, ranging from short durations (followed by maintenance) to around the clock without interruption. Moreover, people resources might be flexible in the tasks they can perform, but equipment resources tend to be more specialized. For example, a content editor for a book project might also act as a copyeditor in a pinch, but a desktop copy machine cannot replace a printing press.

You do not need to track every piece of equipment that will be used in your project, but you might want to set up equipment resources when

- Multiple teams or people might need a piece of equipment to accomplish different tasks simultaneously, and the equipment might be overbooked.
- You want to plan and track costs associated with the equipment.

Consider these issues if your projects involve equipment resources.

Project can help you make smarter decisions about managing work resources and monitoring financial costs.

In this exercise, you enter the names of several people resources.

SET UP Start Project if it’s not already running.

You need the Simple Resources_Start project plan located in your Chapter03 practice file folder to complete this exercise. Open the Simple Resources_Start project plan, and then follow these steps.

1. On the File tab, click Save As.

   Project displays the Save As dialog box.

2. In the File name box, type Simple Resources, and then click Save.

   Tip You can instruct Project to automatically save the active project plan at predefined intervals, such as every 10 minutes. On the File tab, click Options. In the Project Options dialog box, click Save, select the Auto Save Every check box, and then specify the time interval you want.

You will use the Resource Sheet view to enter the initial list of resources for the new book launch project.

4. Click the cell directly below the Resource Name column heading.

5. Type Jun Cao, and press the Enter key.

Project creates a new resource.

6. On the next empty rows in the Resource Name column, enter the following names:

Sharon Salavaria
Toby Nixon
Toni Poe
Zac Woodall

When you create a new work resource, Project assigns it 100% Max. Units by default.

These are all individual people. You can also have a resource that represents multiple people. You’ll enter such a resource next.

7. In the Resource Name field, below the last resource, type Copyeditors, and then press Enter.
What Is the Best Way to Enter Resource Names?

In Project, work resource names can refer to specific people (Sharon Salavaria) or to specific job titles, such as Publisher or Contract Specialist. Use whatever naming convention makes the most sense to you and to those who will see your project plan information. The important questions are: who will see these resource names, and how will they identify the resources? The resource names that you choose will appear both in Project and in any resource information shared from Project. For example, in the default Gantt Chart view, the name of the resource appears next to the bars of the tasks to which that resource is assigned.

A resource might refer to somebody who is already on staff or to a position to be filled later. If you have not yet filled all the resource positions required, you might not have real people’s names to enter. In that case, use descriptive placeholder names or job titles when setting up resources in Project.

Entering Resource Capacity

The Max. Units field represents the maximum capacity of a resource to accomplish any task. Specifying that a resource has 100% \textit{maximum units} means that 100 percent of that resource’s working time is available to work on assigned tasks in the project plan. Project will alert you if you assign the resource to more tasks than they can accomplish at 100% maximum units (in other words, if the resource becomes \textit{overallocated}). 100% is the default Max. Units value for new resources.

For a resource that represents not a specific person, but a category of interchangeable people with a common skill set, you can enter a larger Max. Units value to indicate the number of available people. Entering a Max. Units setting such as 800% for such a resource means that you can expect that eight individual people who all belong to that resource category will be available to work full time every workday.

In this exercise, you adjust the Max. Units values to indicate one resource that represents multiple people, and another resource whose capacity to work in this project plan is less than full time.

1. Click the \textbf{Max. Units} field for the \textit{Copyeditors} resource.
2. Type or select \textbf{400\%}, and then press Enter.

\textbf{Tip} When you click a numeric value in a field like Max. Units, up and down arrows appear. You can click these to display the number you want, or simply type the number in the field.
Next you’ll update the Max. Units value for Sharon Salavaria to indicate that she works half time.

3. Click the **Max. Units** field for *Sharon Salavaria*, type or select **50%**, and then press Enter.

<table>
<thead>
<tr>
<th>resource name</th>
<th>type</th>
<th>material</th>
<th>initials</th>
<th>group</th>
<th>max.</th>
<th>std. rate</th>
<th>exc. rate</th>
<th>usoc</th>
<th>Prio’d</th>
<th>base calendar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Joon Cho</td>
<td>Work</td>
<td>J</td>
<td></td>
<td>100%</td>
<td>$0.00/hr</td>
<td>$0.00/hr</td>
<td>$0.00</td>
<td>Prio’d</td>
<td>Standard</td>
</tr>
<tr>
<td>2</td>
<td>Sharon Salavaria</td>
<td>Work</td>
<td>S</td>
<td></td>
<td>50%</td>
<td>$0.00/hr</td>
<td>$0.00/hr</td>
<td>$0.00</td>
<td>Prio’d</td>
<td>Standard</td>
</tr>
<tr>
<td>3</td>
<td>Toby Nixon</td>
<td>Work</td>
<td>T</td>
<td></td>
<td>100%</td>
<td>$0.00/hr</td>
<td>$0.00/hr</td>
<td>$0.00</td>
<td>Prio’d</td>
<td>Standard</td>
</tr>
<tr>
<td>4</td>
<td>Toni Rose</td>
<td>Work</td>
<td>T</td>
<td></td>
<td>100%</td>
<td>$0.00/hr</td>
<td>$0.00/hr</td>
<td>$0.00</td>
<td>Prio’d</td>
<td>Standard</td>
</tr>
<tr>
<td>5</td>
<td>Zac Woodell</td>
<td>Work</td>
<td>Z</td>
<td></td>
<td>100%</td>
<td>$0.00/hr</td>
<td>$0.00/hr</td>
<td>$0.00</td>
<td>Prio’d</td>
<td>Standard</td>
</tr>
<tr>
<td>6</td>
<td>Copycatcher</td>
<td>Work</td>
<td>C</td>
<td></td>
<td>100%</td>
<td>$0.00/hr</td>
<td>$0.00/hr</td>
<td>$0.00</td>
<td>Prio’d</td>
<td>Standard</td>
</tr>
</tbody>
</table>

**Tip** If you prefer, you can enter maximum units as partial or whole numbers (.5, 1, 4) rather than as percentages (50%, 100%, 400%). To use this format, on the File tab, click Options. In the Project Options dialog box, click the Schedule tab. In the Show assignment units as a box, click Decimal.

With these changes to Max. Units, Project will identify these resources as being overallocated when their assigned work exceeds their capacities. You will work with resource overallocation in Chapters 8 and 9.

### Entering Resource Pay Rates

Almost all projects have some financial aspect, and cost limits the scope of many projects. Tracking and managing cost information allows the project manager to answer such important questions as the following:

- What is the expected total cost of the project based on our task durations and resource assignments?
- Are we using expensive resources to do work that less expensive resources could do?
- How much money will a specific type of resource or task cost over the life of the project?
- Are we spending money at a rate that we can sustain for the planned duration of the project?

You can enter standard rates and costs per use for work and material resources, as well as overtime rates for work resources. Cost resources do not use pay rates and are described later in this chapter.
When a work resource has a standard pay rate entered and is assigned to a task, Project calculates the cost of the assignment. Project does so by multiplying the assignment’s work value by the resource’s pay rate—both using a common increment of time (such as hours). You can then see cost per resource, cost per assignment, and cost per task (as well as costs rolled up to summary tasks and the entire project plan). You will assign resources to tasks in Chapter 4, “Assigning Resources to Tasks.”

Project handles overtime expenses differently. Project will apply the overtime pay rate only when you specifically record overtime hours for an assignment. You will find more information about working with overtime in Chapter 14, “Getting Your Project Back On Track.” Project does not automatically calculate overtime hours and associated costs because there’s too great a chance that it would apply overtime when you did not intend it. In the new book launch project plan, Jun Cao’s working schedule provides a good example. In the next exercise, you will set up a working schedule of 10 hours per day, four days per week for Jun. This is still a regular 40-hour workweek, even though 2 hours per day could be mistaken for overtime with the normal assumption of an 8-hour day.

In addition to or instead of cost rates, a resource can include a set fee that Project accrues to each task to which the resource is assigned. This is called a cost per use. Unlike cost rates, the cost per use does not vary with the task’s duration or amount of work the resource performs on the task. You specify the cost per use in the Cost/Use field in the Resource Sheet view.

In this exercise, you enter standard and overtime pay rates for work resource.

1. In the **Resource Sheet**, click the **Std. Rate** field for *Jun Cao*.
2. Type **42** and press Enter.

   Jun’s standard hourly rate of $42 appears in the Std. Rate column. Note that the default standard rate is hourly, so you did not need to specify cost per hour.

3. In the **Std. Rate** field for *Sharon Salavaria*, type **1100/w** and press Enter.

   Sharon’s weekly pay rate appears in the Std. Rate column.
4. Enter the following standard pay rates for the given resources:

<table>
<thead>
<tr>
<th>Resource Name</th>
<th>Standard Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toby Nixon</td>
<td>2700/w</td>
</tr>
<tr>
<td>Toni Poe</td>
<td>Leave at 0 (Toni is the book author and you're not tracking her rate-based costs in this project plan)</td>
</tr>
<tr>
<td>Zac Woodall</td>
<td>55</td>
</tr>
<tr>
<td>Copyeditors</td>
<td>45</td>
</tr>
</tbody>
</table>

As you can see, you can enter pay rates with a variety of time bases—hourly (the default), daily, weekly, and so on. In fact, you can enter pay rates in all the increments of time for which you can enter task durations—from minutes to years.

Next, you will enter an overtime pay rate for one of the resources.

5. In the **Overtime Rate** field for Jun Cao, type **67**, and then press Enter.

**Tip** If you work with a large number of resources who have the same standard or overtime pay rates, you can set up Project to apply these pay rates automatically whenever you add a new resource. You do this in the Advanced tab of the Project Options dialog box, which is accessible from the File tab.

---

**Project Management Focus: Getting Resource Cost Information**

Work resources can account for the majority of costs in many projects. To take full advantage of the extensive cost management features in Project, the project manager would ideally know the costs associated with each work resource. For people resources, it might be difficult to obtain such information. In many organizations, only senior management and human resource specialists know the pay rates of all resources working on a project, and they might consider this information confidential. Depending on your organizational policies and project priorities, you might not be able to track resource pay rates. If you cannot track resource cost information and your project is constrained by cost, your effectiveness as a project manager might be reduced, and the sponsors of your projects should understand this limitation. If you do include cost details in your project plan and this is considered sensitive information, consider requiring a password to open such project plans. To set a password, click the File tab, and then click Save As. In the Save As dialog box, click Tools and then click General Options.
Adjusting Working Time for Individual Resources

Project uses different types of calendars for different purposes. In Chapter 2, “Creating a Task List,” you modified the project calendar to specify nonworking days for the entire project. In this exercise, you will focus on the resource calendar. A resource calendar controls the working and nonworking times of an individual resource. Project uses resource calendars to determine when work for a specific resource can be scheduled. Resource calendars apply only to work resources (people and equipment), not to material or cost resources.

When you initially create resources in a project plan, Project creates a resource calendar for each work resource. The initial working time settings for resource calendars exactly match those of the project calendar, which by default is the Standard base calendar. The Standard base calendar is built into Project and accommodates a default work schedule from 8 A.M. to 5 P.M., Monday through Friday, with an hour off for lunch each day. If all the working times of your resources match the working time of the project calendar, you do not need to edit any resource calendars. However, chances are that some of your resources will need exceptions to the working time in the project calendar—such as

- A flex-time work schedule
- Vacation time
- Other times when a resource is not available to work on the project, such as time spent training or attending a conference

Tip  If you have a resource who is available to work on your project only part time, you might be tempted to set the working time of the resource in your project to reflect a part-time schedule, such as 8 A.M. to 12 P.M. daily. However, a better approach would be to adjust the availability of the resource as recorded in the Max. Units field to 50%, as you did for the previous exercise for the resource named Sharon Salavaria. Changing the unit availability of the resource keeps the focus on the capacity of the resource to work on the project rather than on the specific times of the day when that work might occur. You set the maximum units for a resource in the Resource Sheet view.

Changes that you make to the project calendar are reflected automatically in resource calendars derived from the same project calendar. For example, in Chapter 2, you specified a nonworking day for a staff morale event, and Project rescheduled all work to skip that day.

In this exercise, you specify the working and nonworking times for individual work resources.

   The Change Working Time dialog box appears.
2. In the **For calendar** box, click *Toby Nixon*.

   Toby Nixon’s resource calendar appears in the Change Working Time dialog box. Toby has told you he will not be available to work on Thursday and Friday, January 19 and 20, because he plans to attend a book industry conference.

3. On the **Exceptions** tab in the **Change Working Time** dialog box, click in the first row directly below the **Name** column heading and type *Toby attending a conference*.

   The description for the calendar exception is a handy reminder for you and others who may view the project plan later.

4. Click in the **Start** field and type or select **1/19/12**.

5. Click in the **Finish** field, type or select **1/20/12**, and then press the Enter key.

   **Tip** Alternatively, in the calendar you can first select the date or date range for which you want to create an exception, and then enter the exception name. Project will insert the Start and Finish dates automatically based on your selection, and then press the Enter key.

---

Every work resource calendar is based on the project calendar; the default project calendar is the Standard base calendar.
Project will not schedule work for Toby on these dates.

**Tip** To set up a partial working time exception for a resource, such as a portion of a day when a resource cannot work, click Details. In the Details dialog box, you can also create recurring exceptions to the resource’s availability.

To conclude this exercise, you will set up a “4 by 10” work schedule (that is, 4 days per week, 10 hours per day) for a resource.

6. In the **For** box, click Jun Cao.

7. When prompted to save the resource calendar changes that you made for Toby Nixon, click **Yes**.

8. Click the **Work Weeks** tab in the **Change Working Time** dialog box.

9. Click [Default] directly under the **Name** column heading, and then click **Details**.

Next, you will modify the default working week days and times for Jun Cao.

10. Under **Selected Day(s)**, select **Monday** through **Thursday**.

These are the weekdays Jun can normally work.

11. Click **Set day(s) to these specific working times**.

Next you’ll modify Jun’s regular daily schedule for the days she normally works.

12. In row 2, click **5:00 PM** and replace it with **7:00 PM**, and then press Enter.

Finally, you will mark Friday as a nonworking day for Jun.

13. Click **Friday**.

14. Click **Set days to nonworking time**.

Now Project can schedule work for Jun as late as 7 P.M. every Monday through Thursday, but it will not schedule work for her on Fridays.

15. Click **OK** to close the **Details** dialog box.
You can see in the calendar in the Change Working Time dialog box that Fridays (as well as Saturdays and Sundays) are marked as nonworking days for Jun Cao.

16. Click **OK** to close the **Change Working Time** dialog box.

Because you have not yet assigned these resources to tasks, you don’t see the scheduling effect of their nonworking time settings. You will observe this in Chapter 4.

**Tip** If you find that you must edit several resource calendars in a similar way (to handle a night shift, for example), it may be easier to assign a different base calendar to a resource or collection of resources. This is more efficient than editing individual calendars, and it allows you to make project-wide adjustments to a single base calendar if needed. For example, if your project includes a day shift and a night shift, you can apply the Night Shift base calendar to those resources who work the night shift. You change a base calendar in the Change Working Time dialog box. For collections of resources, you can select a specific base calendar directly in the Base Calendar column on the Entry table in the Resource Sheet view.
Another type of resource that you can use in Project is the cost resource. You can use a cost resource to represent a financial cost associated with a task in a project. While work resources (people and equipment) can have associated costs (hourly rates and fixed costs per assignment), the sole purpose of a cost resource is to associate a particular type of cost with one or more tasks. Common types of cost resources might include categories of expenses you’d want to track on a project for accounting or financial reporting purposes, such as travel, entertainment, or training.

Cost resources do no work and have no effect on the scheduling of a task. The Max. Units Standard and Overtime pay rates and Cost/Use fields do not apply to cost resources. After you assign a cost resource to a task and specify the cost amount per task, you can then see the cumulative costs for that type of cost resource, such as total travel costs in a project.

The way in which cost resources generate cost values differs from that of work resources. When you assign a work resource to a task, the work resource can generate a cost based on a pay rate (such as $40 per hour for the length of the assignment), a flat per-use cost (such as $100 per assignment), or both. You set up such pay rates and cost per use amounts once for the work resource, as you did in the section “Entering Resource Pay Rates” earlier in this chapter. However, you enter the cost value of a cost resource only when you assign it to a task. You can do so in the Cost field of the Assign Resources dialog box or in the Cost field of the Task Form with the Cost detail shown.

Lucerne Publishing maintains a profit and loss (P&L) sheet for every book it publishes. Travel is a major expense incurred in a book launch.

In this exercise, you’ll set up a cost resource.

1. In the Resource Sheet, click the next empty cell in the Resource Name column.
2. Type Travel and press the Tab key.
3. In the Type field, click Cost.

You will assign a cost resource in Chapter 4.
Documenting Resources

You might recall from Chapter 2 that you can record any additional information about a task, resource, or assignment in a note. For example, if a resource has flexible skills that can help the project, it is a good idea to record this in a note. In that way, the note resides in the project plan and can be easily viewed or printed.

In this exercise, you enter resource notes relevant to the new book launch project. In Chapter 2, you entered a task note via the Notes button on the Task tab of the Properties group. You can enter resource notes in a similar way (via the Notes button on the Resource tab of the Properties group) but in this exercise, you’ll use a different method. You’ll use the Resource form, which allows you to view and edit notes for multiple resources more quickly.

In this exercise, you’ll enter notes in the Resource Form.

1. In the Resource Name column, click Toby Nixon.
2. On the Resource tab, in the Properties group, click the Details button.

Tip You can also click Details, Resource Form on the View tab of the Split View group.

The Resource Form appears below the Resource Sheet view.
In this type of split view, details about the selected item in the upper view (a resource, in this case) appear in the lower view. You can quickly change the selected resource name in the upper view by clicking directly on a name, using the up arrow or down arrow keys, or by clicking Previous or Next in the Resource Form.

The Resource Form can display one of several details; initially it displays the Schedule details. Next you’ll switch it to display the Notes details.

3. Click anywhere in the **Resource Form**.

4. On the **Format** tab, in the **Details** group, click **Notes**.

   **Tip** You can also right-click in the gray background area of the Resource Form and, in the shortcut menu that appears, click **Notes**.

   The Notes details appear in the Resource Form.

5. In the **Notes** box, type **Toby worked on launch campaigns for Toni Poe’s previous two books**.

   Notice that as soon as you started typing the note, the Previous and Next buttons changed to **OK** and **Cancel**.

6. Click **OK**.

   In the Resource Sheet view, a note icon appears in the Indicators column.
7. Point to the note icon that appears next to Toby’s name in the Resource Sheet.

The note appears in a ScreenTip. For notes that are too long to appear in a ScreenTip, you can double-click the note icon to display the full text of the note. You can also see more of long notes in the Resource Form or in the Resource Information dialog box.

To conclude this exercise, you’ll add a note for one more resource.

8. In the Resource Form, click Previous to shift the focus to Sharon Salavaria and display her details.

   Tip You can also click on Sharon’s name in the Resource Sheet view above the Resource Form.

9. In the Notes box, type Sharon’s standard pay rate is adjusted for her half-time work schedule. Then click OK.

Finally, you’ll close the Resource Form.
10. On the **Resource** tab, in the **Properties** group, click the **Details** button. The Resource Form is closed, leaving the Resource Sheet displayed. In this exercise, you’ve entered notes for some resources. This information is unique to those resources.

**CLEAN UP** Close the Simple Resources file.

**Key Points**

- Recording resource information in your project plans helps you better control who does what work when and at what costs.
- Work resources (people and equipment) perform the work in a project.
- Cost resources account for the types of expenses that you may wish to track across a project.
Symbols and Numbers
100% Complete command (Task tab), 130
50% Complete command (Task tab), 131

A
Actions list, 83–87
   accessing, 83, 161
   changing assignment values, 162
   increasing task durations, 85
active view
   overview, 6
   sorting considerations, 234
   View label, 6
   View shortcuts, 6
   Zoom slider, 6
actual costs, 227, 269
actual values for tasks
   collecting from resources, 273
   timephased, 258, 269–73
   tracking progress, 125, 132–36, 258, 263–68
Add Tasks To Timeline dialog box, 101
Add To Timeline command (Task tab), 103
Advanced Plan Properties dialog box, 228
ALAP constraint type, 148
All Programs command (Start menu), 108, 384
All Subtasks command (View tab), 174, 288, 421
allocations, resource. See resource allocations
ASAP constraint type, 148, 163
Assign Resources dialog box
   adjusting resource assignments, 83
   assigning cost resources, 89
   assigning material resources, 198
   assigning resources to recurring tasks, 169–70
   assigning work resources, 75–76, 78–80, 89
   closing considerations, 15
   depicted, 11
   linking project plans, 415
   removing work resources, 84
   Replace button, 217
   resolving resource overallocations, 217
   troubleshooting problems, 304–305, 310
   Units field, 217
   updating assignments in sharer plans, 406–407
   updating resource pool, 417–18
Assignment group (Format tab)
   Information, 191, 193, 197
   Notes button, 195
Assignment Information dialog box
   accessing, 191
   applying contours, 193
   applying different cost rates, 197
   delaying start of assignments, 191
   resolving resource overallocations, 217
   Units field, 217
   updating actual work values, 268
assignment notes
   defined, 50
   pasting graphic images, 372
   resource notes and, 195
Assignment Reports dialog box, 117
assignment units, 158–59
assignments. See resource assignments
Assignments group (Resource tab)
   Assign Resources, 11, 75, 169, 198, 304, 406, 417
   Resource Pool, 402, 415–16, 418
Auto Schedule command (Task tab), 43–45
AutoFilters
   accessing, 235
   applying, 243–45
   functionality, 243
   troubleshooting problems and, 308

B
Background Color button, 98, 327
Backstage view
   displaying, 8, 52
   Help pane, 313
   managing files, 7–10
   Print Preview option, 110, 335, 341
   project summary tasks, 96
   setting options, 7–10
Bar Styles dialog box
   accessing, 14, 320
   formatting Calendar view, 332–33
   formatting Gantt bars, 95, 319–23
Bar Styles group (Format tab)
   Critical Tasks check box, 172
   Format, 99
   Slack check box, 172
base calendars
creating, 155
defined, 46
Standard, 63, 155
updating working times in resource pools, 411–13
baseline costs, 227
baseline plans
baseline costs, 227
cautions overwriting values, 261
for projects, 124–27
purpose, 258
saving interim plans, 262–63
updating, 258–62
bottom-up planning, 36
Box command, 331
Box Styles dialog box, 328, 330–31
Browse dialog box, 354
Budget Cost report, 289

C
Calendar tab (Tools menu), 170
Calendar view
filtering support, 243
formatting, 331–33
functionality, 13
calendars. See specific types of calendars
callouts, displaying tasks as, 103
Change Working Time dialog box
Create New Calendar option, 155
creating working time exception, 46–48
Exceptions tab, 64
specifying working/nonworking times, 63
updating resource information, 408–10
updating working times, 411–13
Work Weeks tab, 65, 156
Clipboard group (Task tab)
Copy, 374, 376
Copy Picture dialog box, 107, 286, 354
functionality, 11
Close command (File tab), 8
colors
adjusting for Gantt bars, 96
adjusting for milestones, 96, 99
changing for task bars, 327
formatting Timeline view, 327
predefined styles, 14, 96–98
Columns group (Format tab)
Custom Fields, 293
Insert Column, 250
columns, manipulating in tables, 250
commands, defined, 6
confirmation messages, 355
consolidating project plans, 420–23
constraints
categories of, 147
entering deadline dates, 163–65
removing, 152
setting for tasks, 147–52
types of, 148
consumption rates, 199
contours, applying to resource assignments, 192–96
Copy command (Task tab), 374, 376
Copy group (Format tab), 108
Copy Picture dialog box
copying views, 107
recording macros, 354
reporting project status, 286
Copy Timeline command (Format tab), 108
copying
data to other programs, 372–76
GIF image files, 107
views, 106–09
cost rates, changing, 196–97
cost resources
accruing to project costs, 166
assigning to tasks, 88–90
costs incurred with, 88
defined, 55
going information, 62
setting up, 67
Cost table
accessing, 133, 167, 196, 228
copying project data, 374
entering actual costs manually, 269
examining resource costs, 290–92
examining task costs, 287–88
reporting project cost variance, 295
troubleshooting problems, 307, 312
costs, project. See project costs
Create New Base Calendar dialog box, 155
critical path
defined, 170, 228
highlighting, 302
project finish date and, 228
viewing, 170–72
Critical Task filter, 243
Ctrl+F key combination, 352
Ctrl+G key combination, 160, 302, 352
current costs, 227
Current Selection group (Format tab), 103
Custom AutoFilter dialog box, 244
Custom Fields dialog box, 293–95
custom fields, creating, 251
Custom Reports dialog box, 339, 341
Custom tab, 367
customizing
filters, 243, 245–46
Gantt Chart view, 94–101
fields, creating custom

Max. Units values, 181–82
Quick Access toolbar, 362–67
reports, 115–20
ribbon interface, 362–67
tables, 248–51
Timeline view, 101–103
views, 251–54, 346

Data group (View tab). See also Filter button (View tab); Tables command (View tab)

Group By button, 238, 240
Highlight, 302, 306
Outline, 173–74, 201, 214, 288, 421
Sort, 12, 236, 292
data maps, 377
Data Template Definition dialog box, 329–30
Data Templates dialog box, 329
deadline dates, 163–65, 305
dedicated resource pools, 404
Define Group Interval dialog box, 241
Define New View dialog box, 252
deliverables
defined, 431
defining tasks for, 29
Detail Gantt view
accessing, 171
free slack in, 172
Gantt Chart view and, 318
viewing critical path, 171
viewing tasks with variance, 281
Details button (Resource tab), 68, 71
Details command (View tab)
accessing Task Form, 77
functionality, 19
viewing assignments in resource pools, 405
Details dialog box, 156
Details group (Format tab)
Actual Work, 265
Add Details, 265, 293
Baseline Work, 290
displaying work values, 216
Notes, 69
Remaining Availability check box, 201
Work check box, 201, 307
Details Styles dialog box, 293
Display As Callout command (Format tab), 103
Document Export Options dialog box, 339
documentation
copying views for, 106
for project plans, 50–53
for tasks, 50–53

Drawing command (Format tab)
accessing, 105
functionality, 104
Properties, 105
Text Box, 105
Drawings group (Format tab), 105–106
durations. See also actual values for tasks
abbreviating, 30
accurate, 33
assigning overtime hours, 306
checking, 49–50
critical path and, 170
entering, 30–33
in project triangle model, 299, 433
increasing for tasks, 85
managing project constraints, 435–37
recurring tasks, 170
summary tasks, 35, 173
task scheduling formula, 81, 158
troubleshooting formula, 300–306

Editing group (Task tab), 96, 107, 145–46
editing macros, 356–62
e-mail messages, copying views for, 106
Enterprise Project Management (EPM), 4, 444–46
Entire Project command (View tab)
consolidating project plans, 422
scheduling summary tasks, 173
viewing critical path, 171, 226
entry bar (formula bar), 7
Entry table
accessing, 248
as default, 235
copying project data, 373
modifying, 248
task ID numbers, 38
viewing project tasks, 340
EPM. See Enterprise Project Management (EPM)
equipment resources, setting up, 57–58
Excel worksheets. See Microsoft Excel
Existing Tasks command (Format tab), 101
Exit command (File tab), 9
export maps, 377, 382–83
Export Wizard, 383–84

FF task relationship. See finish-to-finish (FF) task relationship
fields, creating custom, 251
file formats
from previous versions, 386
legacy files, 383
opening other, 377–82
saving to other, 382–86
task lists in other, 377
File tab. See also Project Options dialog box
Close, 8
displaying Backstage view, 8, 52
Exit, 9
Help, 9
Info, 8, 348
New, 7–8, 25, 400
Open, 7–9, 400
Print, 8, 110
Recent, 8
Save, 7–8
Save & Send, 8, 338
Save As, 8, 10, 95, 286
files
managing, 7–10
opening, 9
Filter button (View tab)
Clear Filter, 284, 289
Display AutoFilter, 235
functionality, 243, 285
Incomplete Tasks, 312
Late Tasks, 281
More Filters dialog box, 245, 283, 285, 288
Slipped/Late Progress, 281
Slipping Tasks, 281
Filter Definition dialog box, 245–46
filter indicator, 245
filtering
for delayed/slipping tasks, 281
global templates and, 346
project details, 242–48
visual reports, 387
finish date, project, 228, 302
Finish No Earlier Than (FNET) constraint type, 148
Finish No Later Than (FNLT) constraint type, 148
finish-to-finish (FF) task relationship, 38, 142
finish-to-start (FS) task relationship, 38, 142
fixed consumption rates, 199
fixed costs
assigning to tasks, 167
defined, 166
determining accrual methods, 166
elements of, 166
fixed-duration task type, 158, 194
fixed-unit task type
as default, 158
assigning material resources, 198
defined, 87
fixed-work task type, 158
float (slack), 171
Fluent user interface. See ribbon interface
FNET constraint type. See Finish No Earlier Than
(FNET) constraint type
FNLT constraint type. See Finish No Later Than
(FNLT) constraint type
Font Color button, 327
Font group (Format tab)
Background Color button, 327
Font Color button, 327
Italic, 326
Font group (Task tab), 11
Format Bar dialog box, 99
Format Bar Styles button (Format tab), 14–15
Format Drawing dialog box, 105
Format group (Format tab)
Bar Styles, 332
Box Styles, 328
Gridlines, 100, 323
Layout, 154, 324
Text Styles button, 324
Format tab. See also Details group (Format tab);
Format group (Format tab)
Assignment group, 191, 193, 195, 197
Bar Styles group, 99, 172
Columns group, 250, 293
Current Selection group, 103
Drawings group, 105
Font group, 326–27
functionality, 11
Gantt Chart Style group, 14, 96
Insert group, 101
label changes, 17
Show/Hide group, 95, 422
Text group, 324–25
formatting
Calendar view, 331–33
Gantt Chart view, 95–101, 318–24
Network Diagram view, 327–31
task names visually, 98–100
Timeline view, 324–27
Tracking Gantt view, 318–23
formula bar (entry bar), 7
Formula dialog box, 7
free slack, 171–72
FS task relationship. See finish-to-start (FS)
task relationship
G
Gantt bars
attaching text boxes to, 106
customizing Gantt Chart view, 94–101
defined, 93
for recurring tasks, 169
for summary tasks, 174
identifying task slippage, 283–84
nonworking time and, 131
scrolling to tasks, 96
**Gantt Chart Style group (Format tab)**
Format Bar Styles button, 14–15
More button, 14, 96
**Gantt Chart view**
accessing, 127, 168, 172
adjusting resource assignments, 83
applying Schedule table, 172
as default view, 94
assigning material resources, 198
assigning work resources, 77, 80–81
changing task default settings, 86
changing timescale, 104
components, 94
copying, 106–109
copying project data, 373
creating project dependencies, 424
customizing, 94–101
deadline indicators, 164
depicted, 19
drawing considerations, 104–106
filtering project details, 243–46
formatting, 95–101, 318–24
Gantt bars, 93
highlighting critical path, 302
orange vertical line, 26
overview, 15, 318
pan and zoom controls, 104
pasting graphic images, 372
Print Preview option, 110
printing, 109–15
printing options, 334–39
project summary tasks, 95
recording macros, 353
rescheduling incomplete work, 275
ScreenTips in, 214, 260
scrolling, 104
sharing custom elements, 348
splitting tasks, 196
task relationships, 38, 40
task scheduling and, 27
troubleshooting problems, 306, 309–310
updating assignments in sharer plans, 406
viewing project tasks, 340
viewing resource names, 59
**Gantt Chart with Timeline view**, 15, 94, 342
**GIF image files**
copying, 107
editing macros, 356, 360
macro names, 352
recording macros, 355
global templates
defined, 346
elements supported, 346–47
project plans and, 346–47
storing macros, 352
**Go To command/dialog box**
adding to Quick Access toolbar, 363
shortcut keys and, 160, 302, 352
**Gridlines command (Format tab)**, 100, 323
**Group Definition dialog box**, 240–41
grouping project details, 238–42
groups (ribbon interface), 6, 346

**H**
Help command (File tab), 9
Hide Subtasks command (View tab), 201, 214
highlighting
critical path, 302
defined, 243
**HTML. See Hypertext Markup Language (HTML)**
hyperlinks to tasks, 51
**Hypertext Markup Language (HTML)**, 372

**I**
import maps, 377, 383
Import Wizard, 378–81
Inactivate command (Task tab), 176, 313
Indent Task command (Task tab), 36–37
Info command (File tab), 8, 348
Insert Column command (Format tab), 250
Insert group (Format tab), 101
Insert group (Project tab), 421
Insert group (Task tab)
Milestone, 34
Summary, 37
Task button, 168
Insert Hyperlink dialog box, 51
Insert Project dialog box, 421
interim plans, saving, 262

**L**
lag time, 142–44
Late/Overbudget Tasks Assigned To filter, 289
Late Tasks filter, 281
Layout button (Format tab), 154, 324
lead time, 142–44
legacy files, 383
Level group (Resource tab), 223
Level Resources dialog box, 220
Leveling Gantt view, 226, 318
leveling, resource. See resource leveling
Link Tasks command (Task tab), 39–40, 45
linking
drawn objects, 104
project plans to resource pools, 403, 413–15
tasks, 37–42
tasks between projects, 423–28

M
macros
editing, 356–62
naming conventions, 352
recording, 351–56
security considerations, 355
storing, 352
Macros dialog box, 355, 357, 360
Macros group (View tab)
Macros dialog box, 355, 357, 360
Record Macro dialog box, 352
Stop Recording, 354
maps, import/export, 377, 382–83
manually scheduling tasks, 30–34
Mark On Track button (Task tab), 134
master projects, defined, 420
material resources
assigning to tasks, 198–99
defined, 55, 186
setting up, 186–87
variable consumption rates, 199
Max. Units field
examining resource allocations, 211
functionality, 59–60, 74, 179, 181
resource calendars and, 63
MCTS. See Microsoft Certified Technology Specialist (MCTS)
menus, tabs as replacements, 7
MFO constraint type. See Must Finish On (MFO) constraint type
Microsoft Certified Technology Specialist (MCTS), 440
Microsoft Excel
as editable format, 286
AutoFill handle, 196
AutoFilters, 243
copying project data to, 372–76
generating visual reports, 386–91
opening file format from, 377–82
Paste Special feature, 372
PivotChart feature, 387
PivotTable feature, 387, 389
Resource Cost Summary report, 293
saving supported formats, 382
Microsoft Project 2010. See Project 2010
Microsoft Project Document Object, 372
Microsoft Project Server, 443–44
Microsoft Project User Group (MPUG), 440
Microsoft SharePoint, synchronizing task lists, 391–95
Microsoft Visual Basic for Applications (VBA), 351, 356–62
Microsoft Word, 372–76
Milestone command (Task tab), 34
milestones
adding to Timeline view, 102–103
adjusting colors, 96, 99
defined, 34
entering, 34
formatting indicator, 99
on Gantt charts, 93
marking tasks as, 35
mini-toolbars, 7, 98
Mode command (Task tab), 45
More button (Format tab), 14, 96
More Filters dialog box
Cost Overbudget, 288
functionality, 245, 285
Late/Overbudget Tasks Assigned To, 289
Slipping Tasks, 284
More Groups dialog box, 240
More Tables dialog box, 248–50
More Views dialog box, 226, 252
MPUG. See Microsoft Project User Group (MPUG)
MSO constraint type. See Must Start On (MSO) constraint type
Multiple Baselines Gantt view, 318
Must Finish On (MFO) constraint type, 148, 163
Must Start On (MSO) constraint type
cautions using, 149
defined, 148
negative slack and, 152
My Commands group (Custom tab), 367

N
naming conventions
for macros, 352
for resource pools, 401
navigating in Gantt Chart view, 104
negative slack, 152
Network Diagram view
filtering support, 243
formatting, 327–31
functionality, 327
task relationships, 38
New command (File tab)
creating project plans, 25, 400
functionality, 7–8
New Window command (View tab), 12, 423
nonworking days, 46–48, 131
Notepad, 372, 384–85
notes. See specific types of notes

OLAP. See Online Analytical Processing (OLAP)
OLE objects, 372
ongoing operations, defined, 431
Online Analytical Processing (OLAP), 387
Open command (File tab)
creating resource pools, 400
functionality, 7–9
opening
files, 9
other file formats, 377–82
resource pools, 409, 414
sharer plans, 416–19
Options command (File tab). See Project Options
dialog box
Organizer feature
accessing, 348
Calendars tab, 348–50
depicted, 348
functionality, 347–48
Outline command (View tab)
All Subtasks, 174, 288, 421
Hide Subtasks, 201, 214
Outline Level 1, 173, 288
overallocations (resources)
defined, 212
evaluating, 212
resolving, 216–20
Overbudget Resources report, 292
Overbudget Tasks report, 289
overhead hours, assigning, 306
OvertimeRate field, 62
Overview Reports dialog box, 116

Page Setup dialog box, 114, 119, 335–37
pan controls, 104
passwords, setting, 62
Paste Special feature, 372
pasting data. See copying
pay rates
applying at different times, 184–85
multiple, 183–84
PDF format, 286, 337–38
peak units, 158–59
people resources. See work resources

phases. See also summary tasks
bottom-up planning, 36
defined, 36
organizing tasks into, 35
top-down planning, 36
pivot diagrams, 331
Planning Wizard, 313
PMI. See Project Management Institute (PMI)
predecessor tasks, 37, 142–44
presentations, copying views for, 106
Print command (File tab), 8, 110
Print Preview window
Backstage view, 110, 335, 341
Gantt Chart view, 110
Multiple Pages option, 110, 113
Page Right option, 113
Page Setup option, 114
Print Specific Dates option, 111
Settings option, 111
Timeline view, 110
viewing reports, 115–16
zoom controls, 337
printing
reports, 115–20, 339–42
views, 109–15, 334–39
product scope, defined, 29
Project 2010
active view, 6
editions supported, 4
interface components, 6–7
starting, 5
project baseline, saving, 124–27
project calendars. See also base calendars
functionality, 46
global templates and, 346
project costs
checking, 227–30
examining resource costs, 290–93
examining task costs, 287–90
in project triangle model, 299, 434
managing project constraints, 435–37
reporting variance in, 293–96
troubleshooting problems, 307–311
project dependencies, creating, 423–28
project details
filtering, 242–48
grouping, 238–42
sorting, 234–38
project duration. See durations
project finish date, 228, 302
Project Information dialog box
checking plan duration, 49–50
checking project finish dates, 229–30
creating project plans, 26
depicted, 229
Project learning communities, 439–40
Project Management Institute (PMI), 441

Project Options dialog box
accessing, 254
applying pay rates automatically, 62
breaking task/assignment relationships, 273
changing default view, 94
cross-project links, 428
Customize Ribbon tab, 364–67
default start/end dates, 152
displaying entry bar, 7
entering actual costs manually, 269
functionality, 9
grouping project details, 239
honoring relationships over constraints, 152
identifying tasks on critical path, 172
Quick Access Toolbar tab, 362–63
rescheduling incomplete work, 276
Trust Center dialog box, 377–78, 385–86
Work Is Entered In box, 272

project plans
assigning resources, 73
automating task scheduling, 43–45
breaking link with resource pools, 403
checking cost/finish date, 227–30
checking duration, 49–50
consolidating, 420–23
copying views, 106–109
creating, 24–27, 400
customizing Gantt Chart view, 94–101
customizing reports, 115–20
customizing Timeline view, 101–103
data considerations, 93
documenting, 50–53
drawing on Gantt charts, 104–106
entering durations, 30–33
entering milestones, 34
entering task names, 27–29
evaluating resource allocations, 212–17
examining resource allocations, 211–12
Gantt charts and, 94
global templates and, 346–47
leveling resource allocations, 154, 217, 220–26
linking to resource pools, 413–15
linking tasks, 37–42
organizing tasks into phases, 35
printing reports, 115–20
printing views, 109–15
resolving overallocations, 217–20
saving project baselines, 125
setting nonworking days, 46–48
sharing custom elements, 346–51
storing macros, 352
updating baselines, 259
viewing resource capacity, 200–202

project scope
defined, 29
in project triangle model, 299, 434
managing project constraints, 435–37
task durations and, 30
troubleshooting problems, 311–14
viewing resource capacity, 200–202

Project Server, 443–44
Project Statistics dialog box, 50, 282

project status
examining resource costs, 290–93
examining task costs, 287–90
identifying task slippage, 280
identifying variance, 281–86
reporting, 286
reporting variance in project costs, 293–96

Project Summary Task (Format tab), 95, 422

Project tab. See also Properties group (Project tab);
Reports group (Project tab)
functionality, 11
Insert group, 421
Schedule group, 126, 261–63
Status group, 128, 275

project tracking
actual values for tasks/assignments, 125, 132–36, 263–68
as scheduled, 128–29
completion percentage for tasks, 125, 129–32
considerations, 123
remaining values for tasks/assignments, 263–68
rescheduling incomplete work, 274–76
saving interim plans, 262–63
saving project baseline, 124–27
timephased actuals, 258, 269–73
updating baseline plans, 258–62

project triangle model, 299, 432–35
projects, defined, 3, 431–32
Properties dialog box, 52
Properties group (Project tab). See also Project Information dialog box
Change Working Time, 46, 63, 155, 408, 410–13
Task Notes, 51, 68
Properties group (Resource tab)
Details button, 68, 71
Information, 181, 184
Properties group (Task tab)
Add to Timeline, 103
Information, 39, 145, 150, 152, 157, 159
Q

Quick Access toolbar
adding commands, 363
customizing, 362–67
overview, 6
removing commands, 364

R

Recent command (File tab), 8
Record Macro dialog box, 352–53
recording macros, 351–56
Recurring Task Information dialog box, 168, 170
recurring tasks, setting up, 167–70
remaining costs, 227
remaining values for tasks, 263–68
Rename dialog box, 365–67
renumbering tasks, 234
Replace Resource dialog box, 310
Reports dialog box
accessing Overbudget Resources report, 292
accessing Slipping Tasks report, 286
displaying available reports, 115, 339
Reports group (Project tab)
Budget Cost report, 289
Overbudget Resources report, 292
Overbudget Tasks report, 289
Project Summary report, 286
Reports dialog box, 115, 117, 286, 292, 339
Resource Cost Summary report, 293
Slipping Tasks report, 286
Visual Reports, 286, 289, 293, 387–91
reports/reporting
customizing, 115–20
derefined, 339
functionality, 115
generating in Excel, 386–91
global templates and, 346
printing, 115–20, 339–42
project status, 286
stoplight reports, 293–96
variance in project costs, 293–96
viewing, 115–16
Visio visual reports, 331, 386–91
Reset button, 367
resource allocations
evaluating, 212–17
examining over time, 211–12
leveling, 154, 217, 220–26
resolving overallocations, 217–20
viewing in resource pools, 404–405
resource assignments. See also tasks
adjusting, 83, 203–208
applying contours to, 192–96
applying different cost rates, 196–97
assigning cost resources, 88–90
assigning work resources to tasks, 74–81, 89–90
controlling work with, 82–87
delaying start of, 191
editing values, 194–95
to recurring tasks, 169–70
removing work resources, 84
starting at specific times, 192
tracking actual/remaining values, 263–68
tracking timephased actuals, 269–73
updating in sharer plans, 406–407
variable consumption rates, 199
viewing capacity, 200–202
viewing in resource pools, 404–405
resource availability/capacity
defined, 212
entering, 59–60
setting up, 179–83
viewing, 200–202
resource calendars
adjusting working time for tasks, 155
defined, 63
examining resource allocations, 211
Max. Units field, 63
work resources and, 63
resource costs, examining, 290–93
Resource Form
documenting resources, 68
Notes details, 69
Task Form and, 78
viewing assignments in resource pools, 405
Resource Graph view, 217, 221
resource groups
grouping project details, 238–42
sorting project details, 234–38
Resource Information dialog box
customizing Max. Units values, 181–82
entering different pay rates, 185
entering multiple pay rates, 183–84
resource leveling
delaying, 217
for overallocated resources, 220–26
functionality, 222
split tasks and, 154
Resource Leveling dialog box, 223–26
resource management. See also specific types of resources
adjusting working time individually, 63–66
assigning resources, 73
collecting actuals, 273
cost information, 62
documenting resources, 68–71
entering fixed costs, 165–67
entering resource capacity, 59–60
entering resource names, 59
entering resource pay rates, 60–62
grouping information, 238–42
Max. Units field, 59
saving project baseline, 125
setting up work resources, 56
sorting data, 234–38
troubleshooting problems, 307–11
types of resources, 55
resource notes
assignment notes and, 195
defined, 50
entering, 68–71
pasting graphic images, 372
Resource Pool command (Resource tab)
Share Resources, 402, 415
Update Resource Pool, 416, 418
resource pools
benefits, 399
breaking link with project plans, 403
creating, 398–403
dedicated, 404
functionality, 398
linking project plans, 413–15
naming conventions, 401
opening, 409, 414
troubleshooting problems, 416
updating information in, 408–10, 416–19
updating working times in, 411–13
viewing assignment details, 404–405
Resource Sheet view
accessing, 180, 222, 235
copying project data, 374
creating resource pools, 401
depicted, 17
documenting resources, 69
Entry table, 235
examining resource costs, 290
grouping information, 239
leveling resources, 222
linking project plans, 414
Resource Form, 68
Resource Information dialog box, 183
setting up cost resources, 67
setting up material resources, 186–87
setting up resources, 57–58
sorting, 235
Std. Rate field, 61
troubleshooting problems, 307
Resource tab. See also Assignments group
(Resource tab)
functionality, 11
Level group, 223
Properties group, 68, 71, 181, 184
Resource Usage view
depicted, 18
evaluating resource allocation, 213, 215
examining resource costs, 293
functionality, 18, 192
hiding assignment details, 339
linking project plans, 414
Next Overallocation button, 216
resolving resource overallocations, 219
ScreenTips in, 214
scrolling horizontally, 215
tracking timephased work, 273
viewing assignments in resource pools, 404–405
viewing resource capacity, 201
Resource Views group (View tab). See also
Resource Sheet view
Other Views, 217
Resource Usage, 18, 201, 404
Team Planner, 203
viewing other views, 20
Respect Links command (Task tab), 42
ribbon interface
as toolbar replacement, 7
customizing, 362–67
finding features, 11–15
group divisions, 6
overview, 6
S
Save & Send command (File tab), 8, 338
Save As command (File tab)
editable formats, 286
functionality, 8, 10, 95
Save command (File tab), 7–8
saving
interim plans, 262–63
project baseline, 124–27
to other file formats, 382–86
Schedule group (Project tab), 126,
261–63
Schedule group (Task tab)
100% Complete, 130
50% Complete, 131
Inactivate, 176, 313
Indent Task, 36–37
Link Tasks, 39–40, 45
Mark on Track button, 134–35
Respect Links, 42
Split Task, 153
Update Tasks, 129, 134–35, 359
Schedule table, 172
scheduling formula, 81, 158–59
ScreenTips
assignment dates, 214
calendar details, 158
describing work contours, 194
displaying date values in, 195, 271
displaying progress, 131
in Gantt Chart view, 214, 260
notes displaying in, 51, 70
splitting tasks, 153
viewing constraint details, 150
Scroll to Task command (Task tab), 96, 107, 145–46
scrolling in Gantt Chart view, 104
security considerations, 355
Selected Tasks command (View tab), 426
Set Baseline dialog box
accessing, 261
controlling baseline updates, 262
depicted, 126
saving interim plans, 263
SF task relationship. See start-to-finish (SF) task relationship
Share Resources dialog box
creating resource pools, 402–403
linking project plans, 415
troubleshooting problems, 416
SharePoint, synchronizing task lists, 391–95
sharer plans
consolidating information in, 403
defined, 398
opening, 416–19
troubleshooting problems, 416
updating assignments in, 406–407
updating working times in resource pools, 411–13
shortcut menus, accessing, 7
Show/Hide group (Format tab), 95, 422
Simple Tracking Start project plan, 126
slack (float), 171
Slipped/Late Progress filter, 281
Slipping Tasks filter, 281, 286
SNET constraint type. See Start No Earlier Than (SNET) constraint type
SNLT constraint type. See Start No Later Than (SNLT) constraint type
Sort dialog box
functionality, 12, 236–38
re-sorting resources by ID, 292
sorting project details, 234–38
Split Task command (Task tab), 153
Split View group (View tab)
Details, 19, 77, 306, 405
Timeline check box, 16–17, 49, 306, 327
SS task relationship. See start-to-start (SS) task relationship
Standard base calendar, 63, 155
Start menu
All Programs, 108, 384
starting Project 2010, 5
starting Project 2010, 5
Start No Earlier Than (SNET) constraint type
defined, 148
usage examples, 149–50, 167
Start No Later Than (SNLT) constraint type, 148
start-to-finish (SF) task relationship, 38, 142
start-to-start (SS) task relationship, 38, 142, 147
Statistics dialog box, 301
Status bar
functionality, 7
highlighting support, 243
Zoom In/Out controls, 217
Status group (Project tab), 128, 275
Std. Rate field, 61–62
Stop Recording command (View tab), 128, 275
Stoplight reports, 293–96
storing macros, 352
subprojects, defined, 420
subtasks
creating, 36–37
defined, 35
deleting, 313
reports and, 339
successor tasks, 37, 142–44
Summary command (Task tab), 37
Summary table
accessing, 235
depicted, 235
modifying, 248
summary tasks. See also phases
adding to Timeline view, 102
creating, 37
defined, 35
deleting, 313
displaying, 95
displaying as callouts, 103
inactivating, 176
linking, 41
on Gantt charts, 93, 95
reports and, 339
scheduling, 35, 172–75
Switch Windows command (View tab), 348, 350, 406
synchronizing task lists, 391–95
Table Definition dialog box, 249–50
tables
copying data to other programs, 373–76
creating, 248–50
customizing, 248–51
defined, 248
global templates and, 346
manipulating columns, 250

**Tables command (View tab).** See also Cost table
Entry table, 127
More Tables, 248
Summary table, 235
Variance, 281, 284
Work table, 133, 264, 290

**tabs (ribbon interface)***
as menu replacements, 7
finding features, 11–15
overview, 6

**task bar, changing colors, 327**

**task calendars, 155–58**

**task costs, examining, 287–90**

**task durations.** See durations

**Task Form***
assigning work resources, 77–78
changing task default settings, 86
depicted, 19
editing values, 19
Resource Form and, 78
scheduling formula, 82
troubleshooting problems, 307
viewing task types, 159

**Task Information dialog box***
applying calendars to tasks, 157
applying constraints to tasks, 150
changing task relationships, 145–46
changing task types, 162
entering deadline dates, 165
entering notes in, 51
linking tasks, 39
manipulating lead/lag times, 143–45
marking tasks as milestones, 35
removing constraints, 152
sharing custom elements, 351
viewing task types, 159

**Task Inspector pane***
constraint details, 151
functionality, 144
scheduling details, 146

**task lists***
in other file formats, 377
synchronizing, 391–95

**task names***
entering, 27–29
making visible, 103
reformatting visually, 98–100

**task notes***
accessing, 50
assignment notes and, 195
entering, 50
pasting graphic images, 372

**Task Notes command (Project tab), 51, 68**

**Task Range filter, 243**

**task relationships***
adjusting, 142–47
creating, 39
critical path and, 170
defined, 38, 142

**Task report, 340**

**Task Report dialog box, 341**

**task scheduling***
am automatic, 30
constraints and, 148, 163
critical path and, 170
effort-driven, 87–88, 158, 163
entering deadline dates, 163–65
identifying potential conflicts, 174
manual, 25, 30
presentation style and, 98
recurring tasks, 170
rescheduling incomplete work, 274–76
saving project baseline and, 125
scheduling formula, 81, 158–59
setting nonworking days, 46–48
split tasks and, 154
summary tasks, 35, 172–75
switching, 43–45
tracking progress, 128–29
troubleshooting problems, 300–306

**Task Sheet view***
accessing, 126, 167, 228, 248
applying Schedule table, 172
creating tables, 248–50
examining task costs, 287–88
functionality, 18
identifying task slippage, 284
stoplight reports and, 293

**Task tab.** See also **Properties group (Task tab); Schedule group (Task tab)**

**Clipboard group, 11, 107, 286, 354, 374, 376**

**Editing group, 96, 107, 145–46**

**Font group, 11**

**functionality, 11**

**Insert group, 34, 37, 168**

**Tasks group, 43–45, 144**

**View group, 11, 171, 198**

**task types***
changing, 158–63
effort-driven scheduling and, 158, 163
fixed-duration, 158, 194
fixed-unit, 87, 158, 198
fixed-work, 158
viewing, 159

**Task Usage view***
accessing, 160, 264
adding columns to, 160
comparing baseline and scheduled work, 290
examine resource costs, 293
functionality, 19, 160, 190, 192
hiding assignment details, 339
tracking timephased work, 273
vertical divider bar, 264
viewing variances for assignments, 286, 290

Task Views group (View tab)
Calendar, 13, 332
Gantt Chart button, 13, 19, 127, 168, 172, 259
Network Diagram, 328
Other Views, 20, 126, 167, 226, 248, 252
Task Usage, 160, 264
tasks. See also resource assignments; summary tasks
Actions button, 83
adjusting working time, 155–58
assigning cost resources to, 88–90
assigning fixed costs to, 167
assigning material resources to, 198–99
assigning work resources to, 74–81, 89–90
associating costs with, 166
bottom-up planning, 36
changing default settings, 86
completion percentages, 125, 129–32
controlling work calculations, 82–87
on critical path, 171
defined, 23, 27
defining for deliverables, 29
documenting, 50–53
entering actual values, 125, 132–36
entering deadline dates, 163–65
filtering project details, 242–48
on Gantt charts, 93
grouping project details, 238
hyperlinking to information, 51
identifying slippage, 280
inactivating, 175–76
increasing durations for, 85
interrupting work, 153–54
linking, 37–42
linking between projects, 423–28
marking as milestones, 35
organizing into phases, 35
predecessor, 37
reactivating, 176
recurring, 167–70
removing working resources from, 84–85
renumbering, 234
rescheduling incomplete work, 274–76
resource leveling and, 154, 221
selecting quickly, 160
setting constraints, 147–52
setting nonworking days, 46–48
sorting project details, 234–38
splitting into segments, 154, 196
successor, 37
top-down planning, 36, 173
tracking actual/remaining values, 263–68
tracking timephased actuals, 269–73
updating baselines, 259

Tasks group (Task tab)
Auto Schedule, 43–45
Inspect, 144
Mode, 45

Team Planner view, 203–208, 217
templates
creating project plans, 25
global, 346
sources of, 10
viewing available, 10
text boxes
attaching to Gantt bars, 106
attaching to timescale, 106

Text group (Format tab), 324–25
Text Styles button (Format tab), 324–25
time considerations. See durations
Timeline view
adjusting horizontal divider, 102
checking plan duration, 49
copying, 106–109
customizing, 101–103
formatting, 324–27
functionality, 16, 101, 104
hiding, 17, 327
pan and zoom controls, 104
Print Preview option, 110
printing, 109–15, 337–39
timephased fields
functionality, 125
peak units, 158–59
tracking actuals, 258, 265–73
timescale
attaching text boxes to, 106
changing in Gantt Chart view, 104
contouring assignments, 193
graphing allocations against, 217

Timescale box (View tab)
adjusting, 16
Days, 208, 215, 218
Months, 202, 215
Thirds of Months, 353
Weeks, 206, 217, 260, 272, 282, 302, 323

Timescale dialog box (Gantt Chart view), 131
toolbars
Quick Access toolbar, 6, 362–67
ribbons as replacements, 7
Tools menu, 170
top-down planning, 36, 173
total slack, 171
Tracking Gantt view
- accessing, 13, 259
- formatting, 318–23
- Gantt Chart view and, 318
- identifying task slippage, 282
- updating baselines, 259–60
- viewing tasks with variance, 281

tracking projects. See project tracking

Tracking table, accessing, 133

troubleshooting problems
- cost and resources, 307–311
- resource pools, 416
- scope-of-work issues, 311–14
- sharer plans, 416
- time and resource, 300–306

Trust Center dialog box, 377–78, 385–86

U
- underallocation (resources), 212
- Uniform Resource Locator (URL), 392
- units of work (scheduling formula), 81, 158–59
- Update Project dialog box, 128, 275
- Update Resource Pool command (Resource tab), 416, 418
- Update Tasks dialog box
  - accessing, 129
  - editing macros, 359
  - entering actual values for tasks, 134–35
- URL. See Uniform Resource Locator (URL)
- Usage table, 213

V
- variable consumption rates, 199
- variance. See also troubleshooting problems
  - defined, 257
  - examining resource costs, 290–93
  - examining task costs, 287–90
  - identifying, 281–86
  - reporting for project costs, 293–96

Variance table
- accessing, 127, 284
- identifying task slippage, 284
- viewing tasks with variance, 281

VBA. See Microsoft Visual Basic for Applications (VBA)
- VBA Editor, 357–62
- View Definition dialog box, 252–53

View group (Task tab)
- functionality, 11
- Gantt Chart, 198
- other views, 171

View label, 6
- View shortcuts, 6
- View tab. See also Data group (View tab); Resource Views group (View tab); Split View group (View tab); Task Views group (View tab); Zoom group (View tab)
  - functionality, 11–12
  - Macros group, 352, 354–55, 357, 360
  - New Window, 12
  - Sort, 12
  - Split View group, 306
  - Window group, 348, 350, 401, 406, 423

View toolbar, 16

views
- applying in views, 248
- copying, 106–109
- customizing, 251–54, 346
- customizing Gantt Chart view, 94–101
- customizing Timeline view, 101–103
- defined, 15
- filtering support, 243
- global templates and, 346
- grouping information, 238–42
- printing, 109–115, 334–39
- reports and, 339

Visio visual reports, 331, 386–91
- Visual Basic for Applications (VBA). See Microsoft Visual Basic for Applications (VBA)

visual reports
- Budget Cost report, 289
- Excel supported, 387
- Resource Cost Summary report, 293
- status-focused, 286

Visual Reports dialog box
- Budget Cost report, 289
- generating reports, 387–91
- Resource Cost Summary report, 293
- status-focused reports, 286

W
- WBS. See Work Breakdown Structure (WBS)
- Window group (View tab)
  - Arrange All, 401
  - New Window, 12, 423
  - Switch Windows, 348, 350, 406

WordPad, 108, 372

Work Breakdown Structure (WBS), 328–29

work resources
- adjusting assignments, 83–87
- adjusting time for, 63–66
- applying pay rates at different times, 184–85
- assigning to tasks, 74–81, 89–90
controlling work calculations, 82–87
costs incurred with, 88
defined, 55, 211
entering names, 59
equipment resources, 57–58
examining resource allocations, 211
multiple pay rates, 183–84
resource calendars and, 63
setting nonworking days, 46–48
setting up, 56
updating working times in resource pools, 411–13

Work table
accessing, 133
changing details in, 264, 268
components, 133
displaying work variance, 290
work units (scheduling formula), 81, 158–59

X
XML format, 382
XPS format, 286, 337–38

Z
zoom controls
accessing on View toolbar, 16
in Print Preview window, 337
in Timeline view, 104
on Status bar, 217
Zoom dialog box, 354
Zoom group (View tab). See also Timescale box (View tab)
Entire Project, 171, 173, 226, 422
Gantt Chart view, 16
Selected Tasks, 426
Zoom, 357
Zoom slider, 6