Microsoft Project Managment

Chapter٢: Creating a Task List

(Second part)

Linking Tasks:

Most projects require tasks to be performed in a specific order. For example, the task of writing a chapter of a book must be completed before the task of editing the chapter can occur. These two tasks have a finish-to-start relationship (also called a ***link*** or a ***dependency***), which has two aspects:

- The second task must occur after the first task; this is a **sequence**.
- The second task can occur only if the first task is completed; this is a **dependency**.

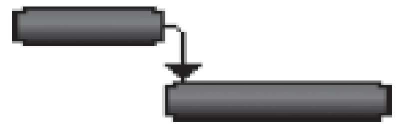
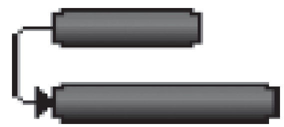
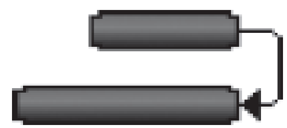
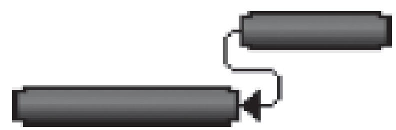
Linking Tasks:

In Project, the first task (“write the chapter”) is called the ***predecessor*** because it precedes tasks that depend on it. The second task (“edit the chapter”) is called the ***successor*** because it succeeds, or follows tasks on which it is dependent.

Any task can be a predecessor for one or more successor tasks. Likewise, any task can be a successor to one or more predecessor tasks.

Although this might sound complicated, tasks can have one of only four types of task relationships.

Linking Tasks:

This task relationship	Means	Looks like this in the Gantt chart	Example
Finish-to-start (FS)	The finish date of the predecessor task determines the start date of the successor task.		A book chapter must be written before it can be edited.
Start-to-start (SS)	The start date of the predecessor task determines the start date of the successor task.		Ordering prepress and ordering paper are closely related, and they should occur simultaneously.
Finish-to-finish (FF)	The finish date of the predecessor task determines the finish date of the successor task.		Tasks that require specific equipment must end when the equipment rental period ends.
Start-to-finish (SF)	The start date of the predecessor task determines the finish date of the successor task.		The time when the print run is scheduled determines when a binder selection task must end.

Linking Tasks:

Task relationships appear in several ways in Project, including the following:

- In the Gantt Chart and Network Diagram views, task relationships appear as the lines connecting tasks.

- In tables, such as the ***Entry table***, task ID numbers of predecessor tasks appear in the Predecessor fields of successor tasks. (You might need to drag the vertical divider bar to the right to see the Predecessor column.)

Linking Tasks:

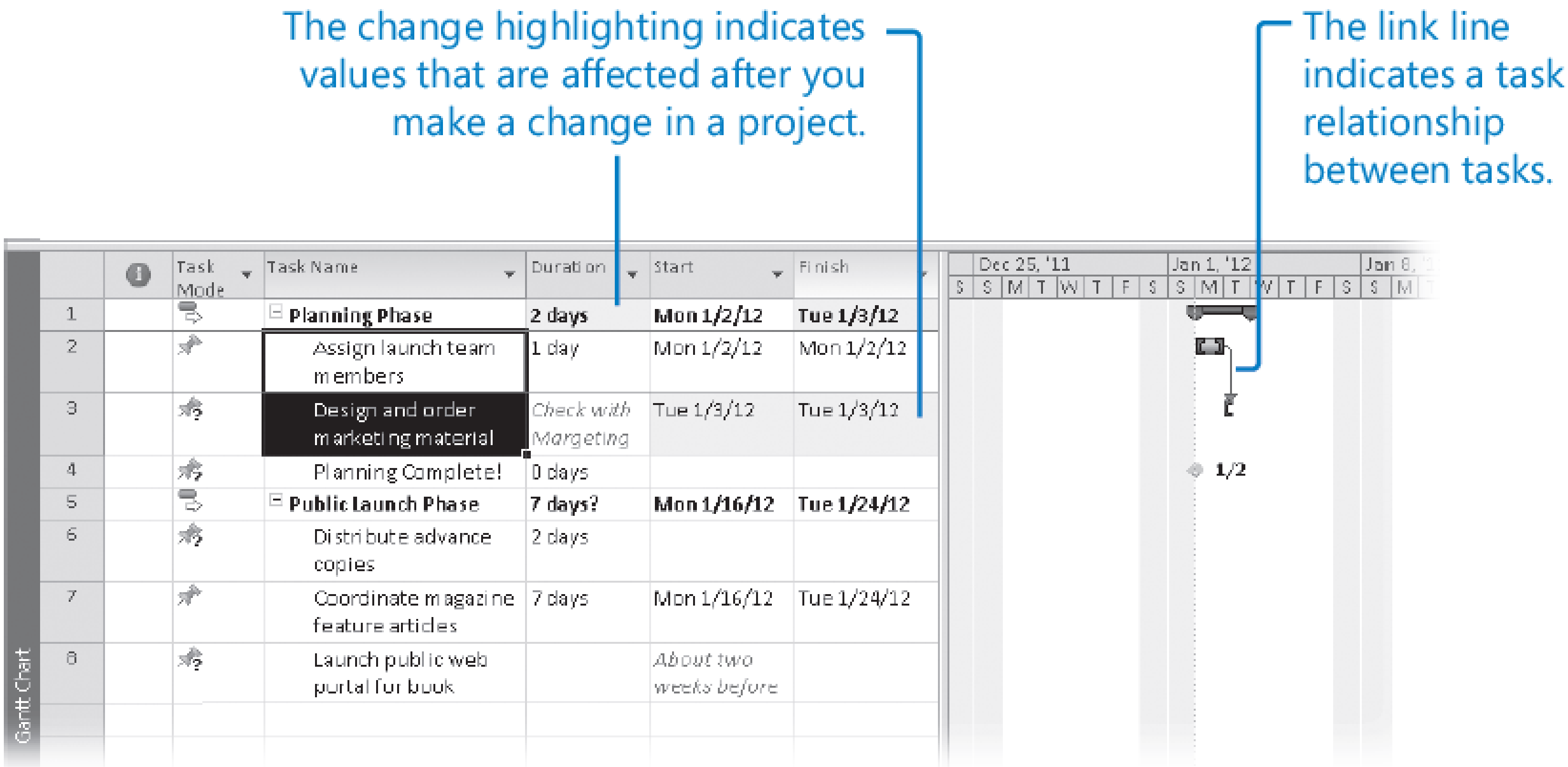
We are use different methods to create links between several tasks, thereby creating finish-to-start relationships.

First, you'll create a finish-to-start dependency between two tasks.

1. Select the names of tasks 2 and 3.

2. On the **Task** tab, in the **Schedule** group, click **Link Tasks**.

Linking Tasks:



Tasks 2 and 3 are linked with a finish-to-start relationship. Note that task 3 previously had no start or finish date, but by making it a successor of task 2, you gave Project enough information to give task 3 a start date: January 3, the next working day following the end of task 2.

Linking Tasks:

Tip To unlink tasks, select the tasks you want to unlink, and then click **Unlink Tasks** in the **Schedule group** on the **Task tab**.

Next, link tasks 3 and 4 using a different means:

3. Select the name of task 4, Planning complete!
4. On the Task tab, in the Properties group, click Information.

   The Task Information dialog box appears.
5. Click the Predecessors tab.

Linking Tasks:

6. Click the empty cell below the **Task Name** column heading, and then click the down arrow that appears.

7. On the **Task Name** list, click *Design and order marketing material*.

8. Click **OK** to close the **Task Information** dialog box.

Linking Tasks:

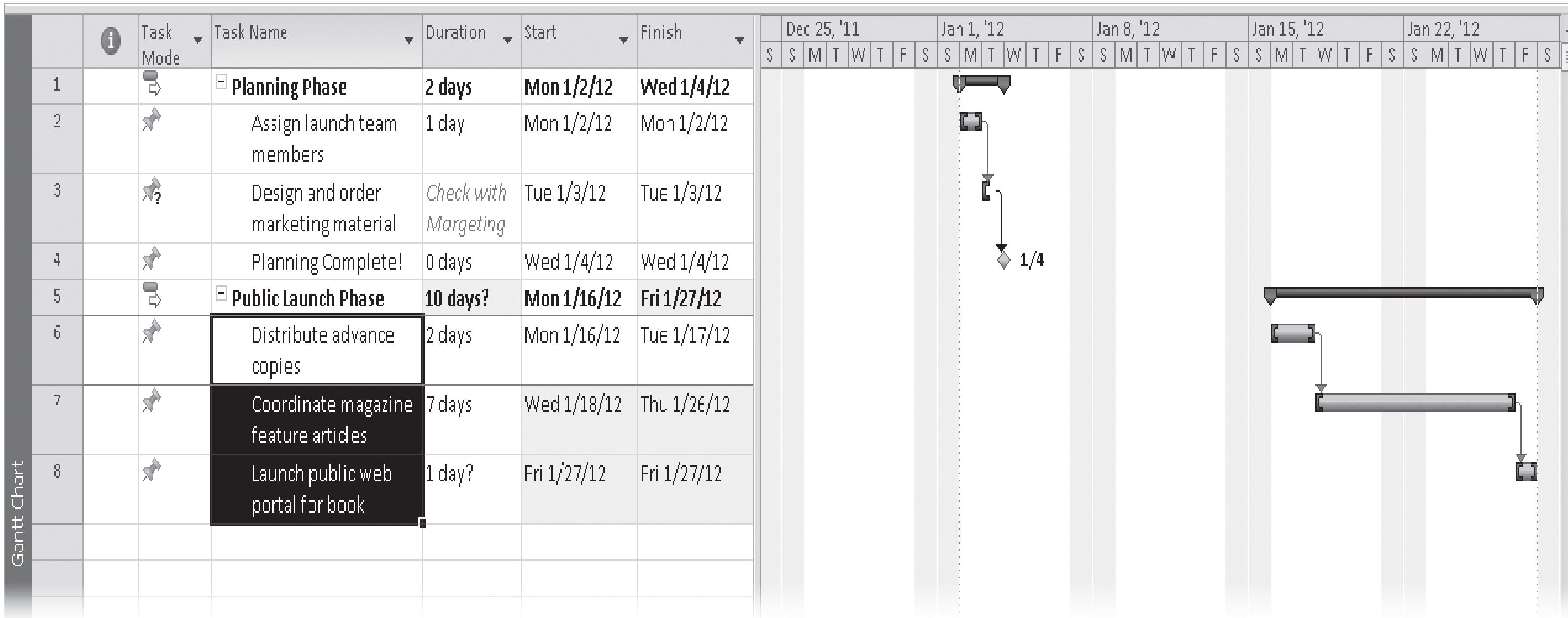
Tip Recall that any task can have multiple predecessor tasks. One way you can specify additional predecessor tasks is to add them on the **Predecessors tab** of the **Task Information** dialog box. For finish-to-start relationships (the default link type), the predecessor with the later finish date will determine the start date of the successor task.

Next you'll link all the subtasks under Public Launch Phase in one action.

9. Select the names of tasks 6 through 8.

10. On the **Task** tab, in the **Schedule** group, click **Link Tasks**. Tasks 6 through 8 are linked.

Linking Tasks:



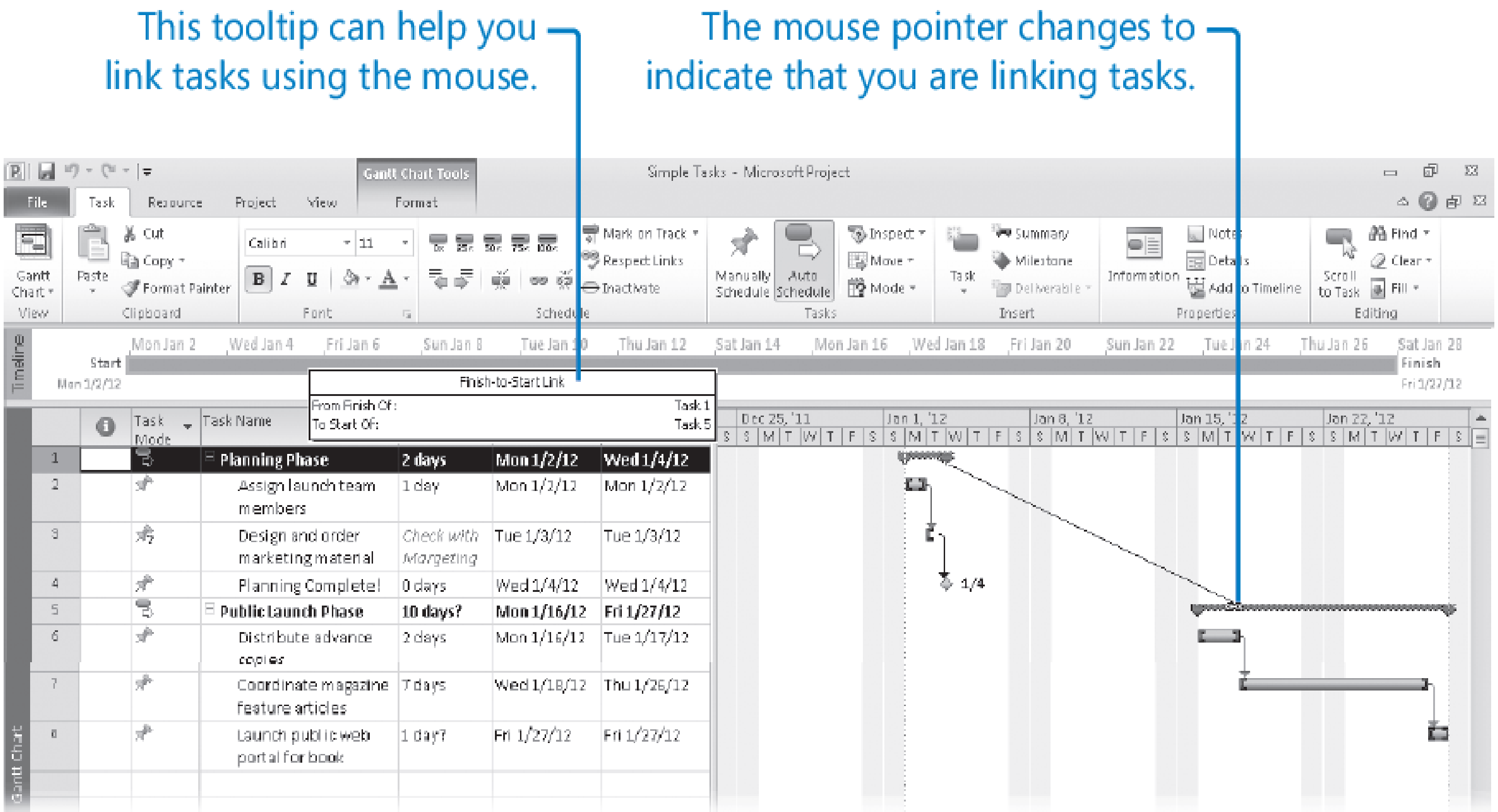
	Task Mode	Task Name	Duration	Start	Finish
1		**Planning Phase**	**2 days**	**Mon 1/2/12**	**Wed 1/4/12**
2		Assign launch team members	1 day	Mon 1/2/12	Mon 1/2/12
3		Design and order marketing material	*Check with Margeting*	Tue 1/3/12	Tue 1/3/12
4		Planning Complete!	0 days	Wed 1/4/12	Wed 1/4/12
5		**Public Launch Phase**	**10 days?**	**Mon 1/16/12**	**Fri 1/27/12**
6		Distribute advance copies	2 days	Mon 1/16/12	Tue 1/17/12
7		Coordinate magazine feature articles	7 days	Wed 1/18/12	Thu 1/26/12
8		Launch public web portal for book	1 day?	Fri 1/27/12	Fri 1/27/12

There are several ways of linking tasks, and you'll use one more to link the two phases of the new book launch plan.

11. In the chart portion of the Gantt Chart view, point the mouse pointer at the Gantt bar for **task 1**, *Planning Phase*, and then click and drag to the Gantt bar for **task 5**, *Public Launch Phase*.

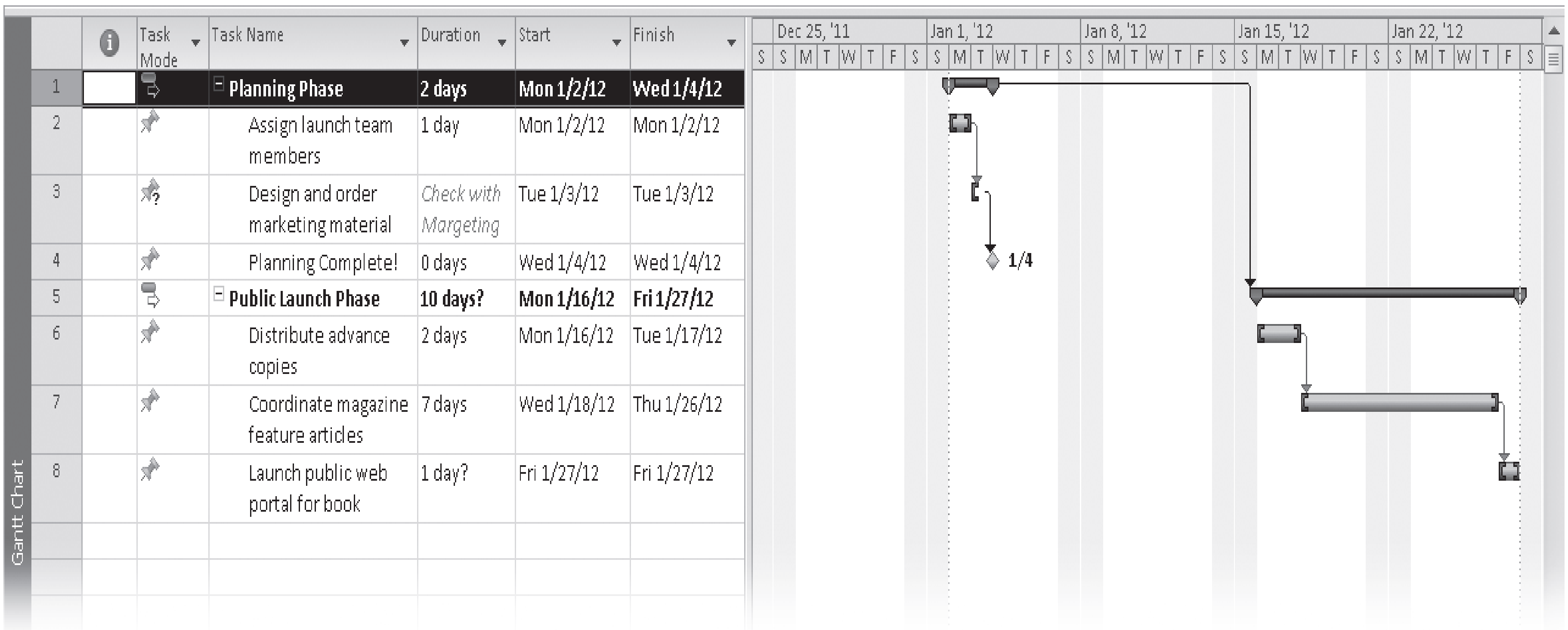
Linking Tasks:

When the mouse pointer is over task 5, note the link line and icon that appear. Release the mouse pointer.



Linking Tasks:

The summary tasks 1 and 5 are linked with a finish-to-start relationship.

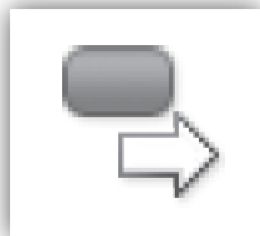


So far, you've used three different techniques to link tasks.

Linking Tasks:

Tip When working with summary tasks, you can either link summary tasks directly (as you did previously), or link the latest task in the first phase with the earliest task in the second phase. The scheduling result is the same in either situation, but it's preferable to link the summary tasks to better reflect the sequential nature of the two phases. Under no circumstances, however, can you link a summary task to one of its own subtasks. Doing so would create a **circular scheduling problem**, so Project doesn't allow it.

Switching Task Scheduling from Manual to Automatic:



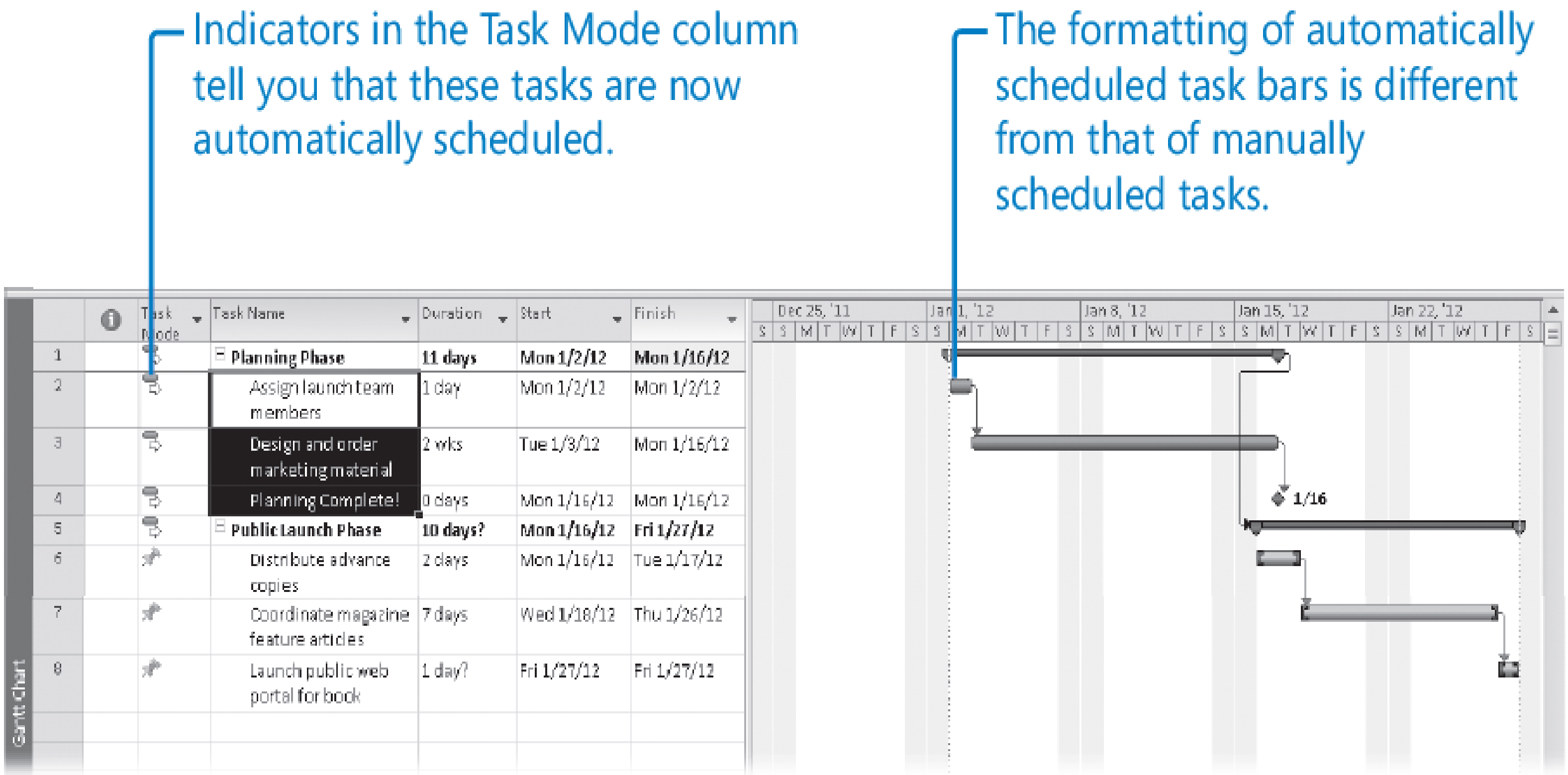
1. Select the names of tasks 2 through 4.

These tasks are currently set to be manually scheduled, as indicated by the push-pin indicator in the **Task Mode** column.

2. On the **Task** tab, in the **Tasks** group, click **Auto Schedule**.

Project switches these tasks to be automatically scheduled.

Switching Task Scheduling from Manual to Automatic:

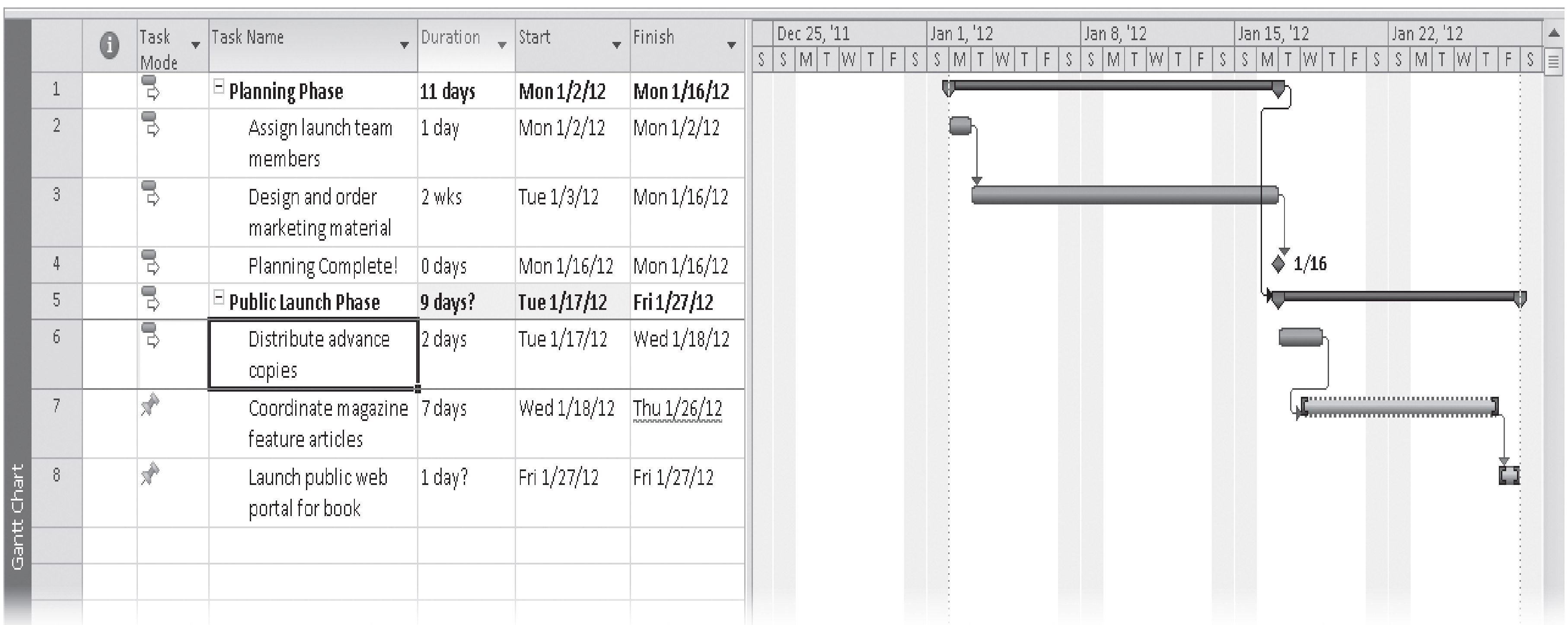


Project changes the Task Mode icons and formatting of the tasks' Gantt bars to indicate that they are now automatically scheduled.

Switching Task Scheduling from Manual to Automatic:

3. Select the name of task 6, *Distribute advance copies*.

4. On the **Task** tab, in the **Tasks** group, click **Auto Schedule**.



	Task Mode	Task Name	Duration	Start	Finish
1		**Planning Phase**	**11 days**	**Mon 1/2/12**	**Mon 1/16/12**
2		Assign launch team members	1 day	Mon 1/2/12	Mon 1/2/12
3		Design and order marketing material	2 wks	Tue 1/3/12	Mon 1/16/12
4		Planning Complete!	0 days	Mon 1/16/12	Mon 1/16/12
5		**Public Launch Phase**	**9 days?**	**Tue 1/17/12**	**Fri 1/27/12**
6		Distribute advance copies	2 days	Tue 1/17/12	Wed 1/18/12
7		Coordinate magazine feature articles	7 days	Wed 1/18/12	Thu 1/26/12
8		Launch public web portal for book	1 day?	Fri 1/27/12	Fri 1/27/12

Switching Task Scheduling from Manual to Automatic:

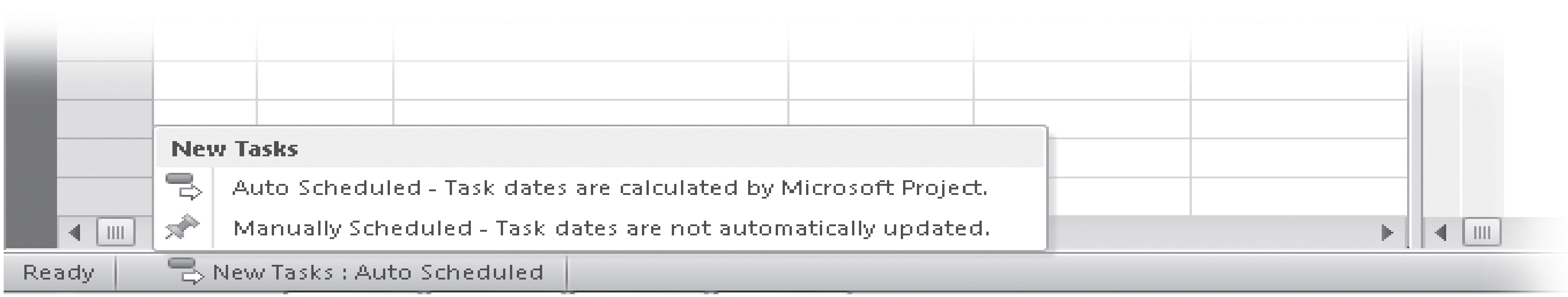
In the same way, tasks 7 and 8 are converted into scheduled tasks automatically:

5. Select the names of task 7 and 8.

6. On the **Task** tab, in the **Tasks** group, click **Auto Schedule**.

7. On the **Task** tab, in the **Tasks** group, click **Mode** and then click **Auto Schedule**.

Tip You can also toggle the scheduling mode by clicking the New Tasks status bar text and then picking the other scheduling mode.



Switching Task Scheduling from Manual to Automatic:

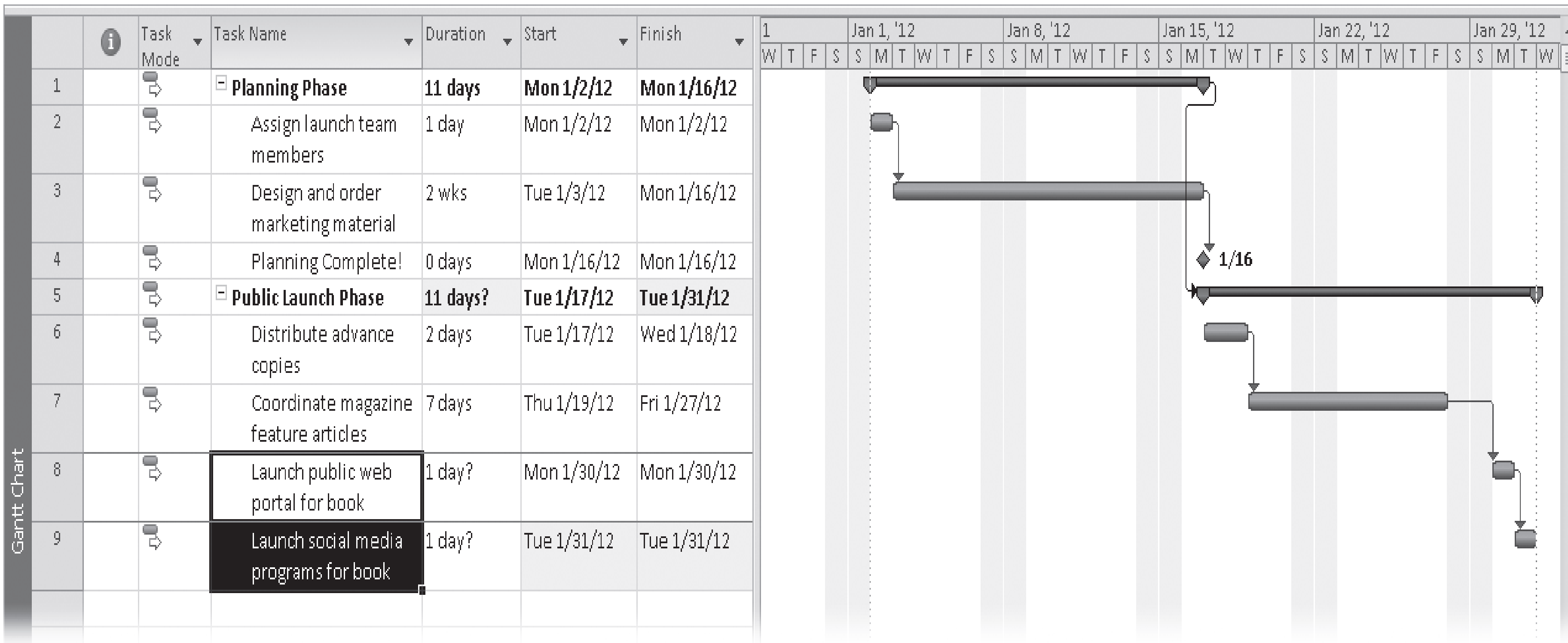
To see automatic scheduling in action, you'll add a new task to the project plan.

8. In the **Task Name** field, below task 8, type **Launch social media programs for book** and then press Enter. Project adds the new task to the plan. By default, it is not linked to any other task and is scheduled to start at its summary task's start date. To end this exercise, you'll link it to another task.

9. Select the names of tasks 8 and 9.

10. On the **Task** tab, in the **Schedule** group, click **Link Tasks**.

Switching Task Scheduling from Manual to Automatic:



	Task Mode	Task Name	Duration	Start	Finish
1		Planning Phase	11 days	Mon 1/2/12	Mon 1/16/12
2		Assign launch team members	1 day	Mon 1/2/12	Mon 1/2/12
3		Design and order marketing material	2 wks	Tue 1/3/12	Mon 1/16/12
4		Planning Complete!	0 days	Mon 1/16/12	Mon 1/16/12
5		Public Launch Phase	11 days?	Tue 1/17/12	Tue 1/31/12
6		Distribute advance copies	2 days	Tue 1/17/12	Wed 1/18/12
7		Coordinate magazine feature articles	7 days	Thu 1/19/12	Fri 1/27/12
8		Launch public web portal for book	1 day?	Mon 1/30/12	Mon 1/30/12
9		Launch social media programs for book	1 day?	Tue 1/31/12	Tue 1/31/12

Project links the two tasks. Notice that the duration of the Public Launch Phase summary task was updated automatically from 10 to 11 days.

Setting Nonworking Days:

In this section we introduces calendars, the primary means by which you control when each task and resource can be scheduled for work in Project. Here we will only work with the project calendar

The ***project calendar*** defines the general working and nonworking time for tasks.

You want to indicate that Thursday, January 19, will be a nonworking day for your organization.

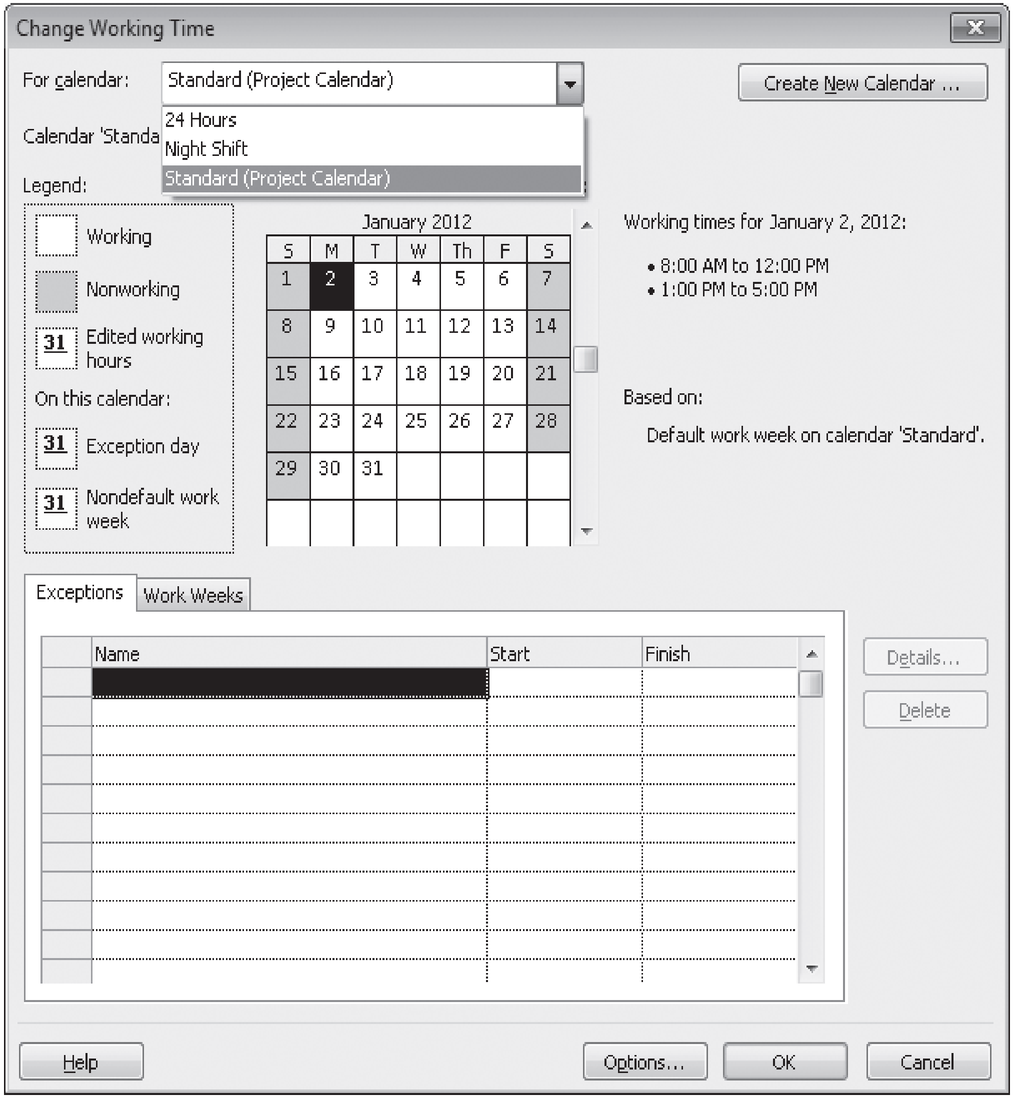
We create a working time exception in the project calendar.

1. On the **Project** tab, in the **Properties** group, click **Change Working Time**. The Change Working Time dialog box appears.

Setting Nonworking Days:

2. In the **For calendar** box, click the down arrow.

The list that appears contains the three base calendars included with Project. These calendars are:



Setting Nonworking Days:

- **24 Hours** Has no nonworking time
- **Night Shift** Covers a shift schedule of Monday night through Saturday morning, 11 P.M. to 8 A.M., with a one-hour break each day
- **Standard** The traditional working day, Monday through Friday from 8 A.M. to 5 P.M., with a one-hour break each day

Setting Nonworking Days:

Only one of the base calendars serves as the project calendar. For this project, we use the ***Standard base calendar*** as the project calendar, so leave it selected.

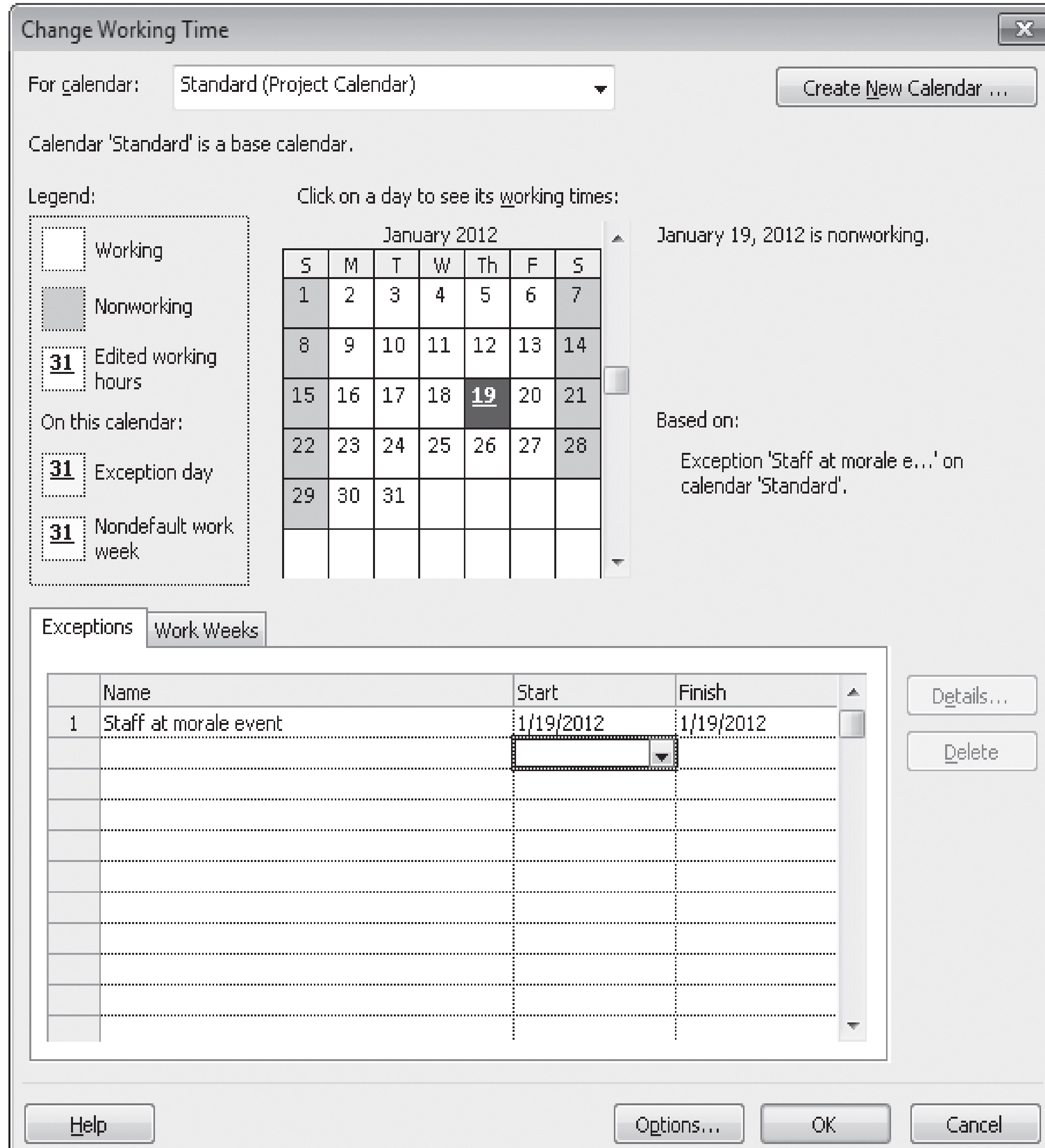
3. In the **Name** field on the **Exceptions** tab in the lower portion of the dialog box, type **Staff at morale event**, and then click in the **Start** field.

4. In the **Start** field, type **1/19/12**, and then press Enter. You could have also selected the date you want in the calendar above the Exceptions tab or from the drop-down calendar in the Start field.

Setting Nonworking Days:

The date is now scheduled as nonworking time for the project. In the dialog box, the date appears underlined and color formatting is applied to indicate an exception day.

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



Documenting Tasks and the Project Plan:

You can record additional information about a task in a ***note***. For example, you might have detailed descriptions of a task and still want to keep the task's name succinct. You can add such details to a task note. That way, the information resides in the project plan and can be easily viewed or printed.

There are three types of notes: task notes, resource notes, and assignment notes. You enter and review task notes on the **Notes tab** in the **Task Information** dialog box. Notes in Project support a wide range of text formatting options; you can even link to or store graphic images and other types of files in notes.

Documenting Tasks and the Project Plan:

Hyperlinks allow you to connect a specific task to additional information that resides outside of the project plan—such as another file, a page on the Web, or a page on an intranet.

In this section, we enter task notes and hyperlinks to document important information about some tasks.

1. Select the name of task 6, *Distribute advance copies*.

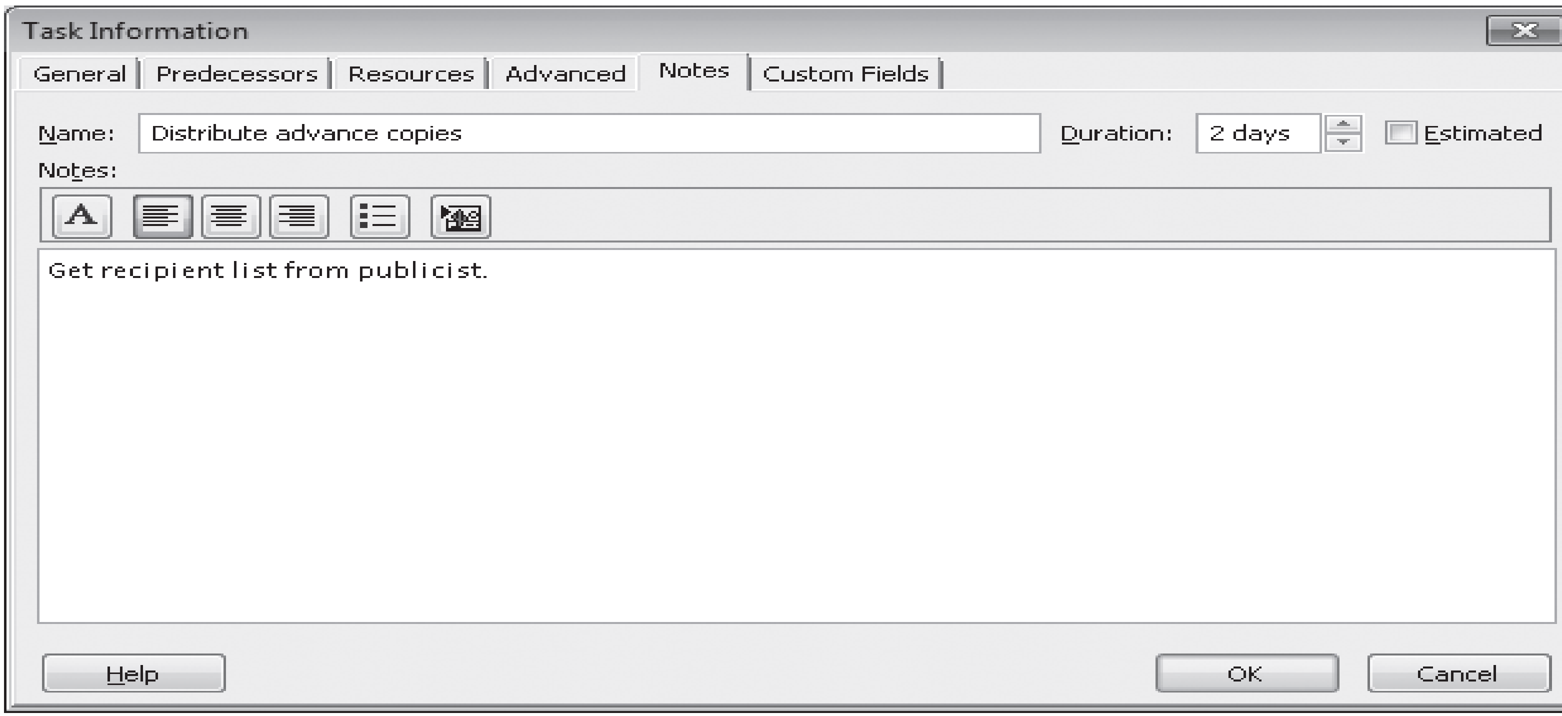
2. On the **Task** tab, in the **Properties** group, click **Task Notes**.

Tip You can also right-click the task name and click Notes in the shortcut menu that appears.

Documenting Tasks and the Project Plan:

Project displays the Task Information dialog box with the Notes tab visible.

3. In the **Notes** box, type **Get recipient list from publicist**



4. Click **OK**. A note icon appears in the Indicators column.

Documenting Tasks and the Project Plan:

5. Point to the note icon.

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.

To conclude this exercise, you create a hyperlink.

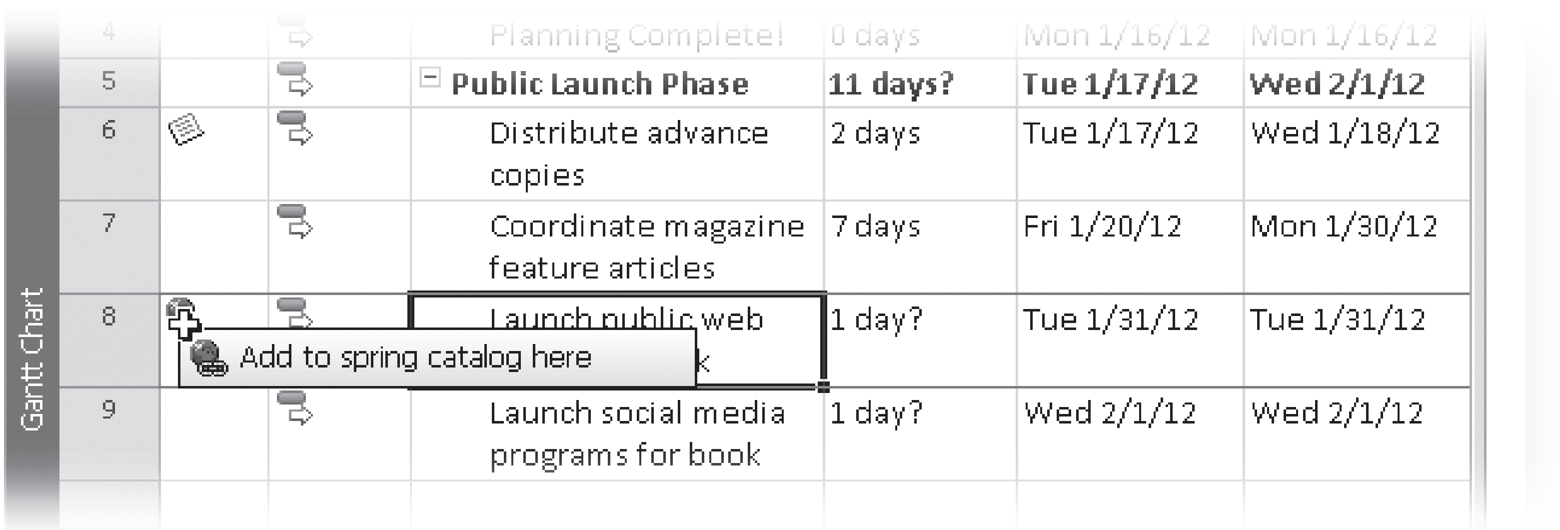
6. Right-click the name of task 8, *Launch public Web portal for book*, and then click **Hyperlink** on the shortcut menu.

The Insert Hyperlink dialog box appears.

7. In the **Text to display** box, type **Add to spring catalog here**.

Documenting Tasks and the Project Plan:

8. In the **Address** box, type **http://www.lucernepublishing.com/**
9. Click **OK**.
A hyperlink icon appears in the Indicators column. Pointing to the icon displays the descriptive text you typed earlier.



To open the Web page in your browser, right-click on the hyperlink icon and in the shortcut menu that appears click Hyperlink, and then click Open Hyperlink.

Documenting Tasks and the Project Plan:

In the following steps, you enter some properties that you will use later when printing and for other purposes.

10. Click the **File** tab.

The Backstage view appears. The Info tab should be selected by default. Note the thumbnail image and key statistics such as the start date on the right side of the Backstage view.

11. Click the **Project Information** button directly below the thumbnail image. In the menu that appears, click **Advanced Properties**.

The Properties dialog box appears with the Summary tab visible.

12. In the **Subject** box, type **New book launch schedule**.

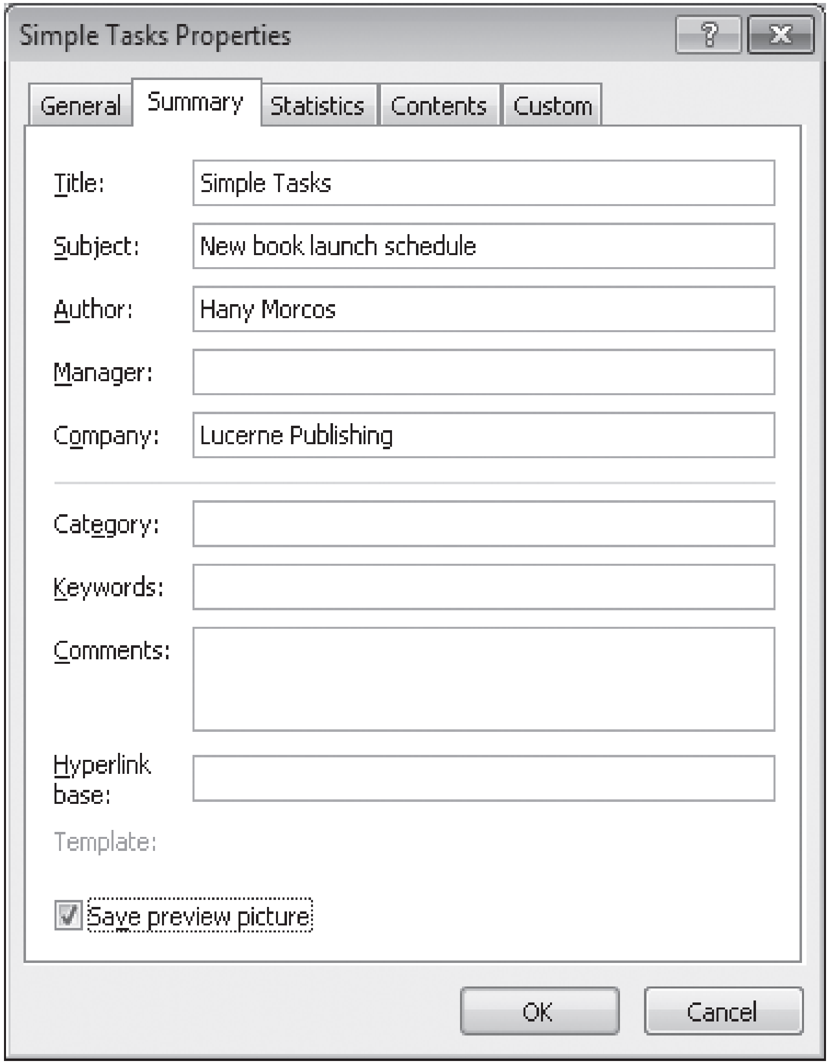
13. In the **Author** box, type your name.

14. In the **Company** box, type **Lucerne Publishing**.

Documenting Tasks and the Project Plan:

15. Select the **Save preview picture** check box.

16. Click **OK** to close the dialog box.



Key Points:

● Essential aspects of tasks in a project plan include their duration and order of occurrence.

● Task links, or relationships, cause the start or end of one task to affect the start or end of another task. A common task relationship is a finish-to-start relationship, in which the completion of one task controls the start of another task.

● In Project, phases of a schedule are represented as summary tasks.

● Tasks can be manually or automatically scheduled. For manually scheduled tasks, you can record whatever information you may have about a task’s duration, start, and finish values.

● You use calendars in Project to control when work can be scheduled to occur.

● You can document additional details using task notes and create hyperlinks to the Web.

The end