Chapter at a Glance

Create new Visio diagrams in Office 2007 files

Link Visio diagrams to Office 2007 files

Embed copies of Visio diagrams in Office 2007 files

11 Using Visio Diagrams with the Microsoft Office System

In this chapter, you will learn how to:

✔ Create new Visio diagrams in Office 2007 files.
✔ Embed copies of Visio diagrams in Office 2007 files.
✔ Link Visio diagrams to Office 2007 files.

Microsoft Office Visio diagrams can support, strengthen, and clarify the information in Microsoft Office 2007 files, such as Microsoft Office Word documents, Microsoft Office PowerPoint presentations, and Microsoft Office Excel spreadsheets. For example, you can incorporate Visio diagrams to enhance the text in Word documents, illustrate the points on PowerPoint slides, support the calculations in Excel spreadsheets, and so forth. The results clearly have more impact than words or numbers alone.

You can use any of the following methods to incorporate Visio diagrams into Office 2007 files:

● Create a new Visio diagram directly in an Office 2007 file. For example, you might want to create a diagram to illustrate a point on a PowerPoint slide. The diagram you create becomes part of the PowerPoint file. Use this method when you don't need to save the diagram as a separate Visio drawing file.

● *Embed* a copy of a Visio diagram in an Office 2007 file. For example, you might want to copy part of a Visio diagram and paste it into a Word document. The copy you embed becomes part of the Word file. Use this method when you don't want any changes you make to the copy of the diagram to appear in the original Visio drawing file, and vice versa.

● *Link* a Visio diagram to an Office 2007 file. For example, you might want to link an entire diagram to a Word document and keep the linked copy up-to-date. Any changes you make to the original Visio drawing file are reflected in the Word file. The diagram you link to the Office 2007 file doesn't become part of the file, so the Office 2007 file size stays at a minimum. Use this method when you want to synchronize the original diagram and the copy in the Office 2007 file.

You can modify the Visio diagrams you incorporate into Office 2007 files by double-clicking the diagram in the file. Visio opens inside the file and replaces the program's menus and toolbars with Visio menus and toolbars so that you use Visio shapes, menus, and drawing tools to modify the diagram. When you're finished, you click anywhere outside the diagram to return to the Office 2007 program.

> **Important** This chapter demonstrates incorporating Visio diagrams into Word documents, so Word must be installed on your computer to complete the exercises in this chapter. You can use the general methods outlined in this chapter to incorporate Visio diagrams into any program or Office 2007 file that supports *object linking and embedding*; however, this chapter's instructions are specific to Word.

In this chapter, you'll learn how to create a new Visio diagram within a Word document, embed a copy of a Visio diagram in a Word document, and link a Visio diagram to a Word document. You'll also learn how to modify Visio diagrams in a Word document.

> **Important** Before you can use the practice files in this chapter, you need to install them from the book's companion CD to their default location. See "Using the Book's CD-ROM" on page xix for more information.

Creating New Visio Diagrams in Office 2007 Files

When you're working in an Office 2007 file, such as a Word document, and you think a diagram would enhance or clarify the text, you can create that diagram directly in the file by using Visio. When you create a Visio diagram in an Office 2007 file, you use the Object command on the Insert tab to insert a blank drawing page into the file. Then you create the diagram from scratch right in the Office 2007 file. The diagram you create becomes part of the file; that is, it isn't a separate Visio drawing file. To modify the diagram, open the Office 2007 file that contains the diagram, and double-click the diagram to open it in Visio within the file. Then use the Visio shapes, menus, and drawing tools to make your changes.
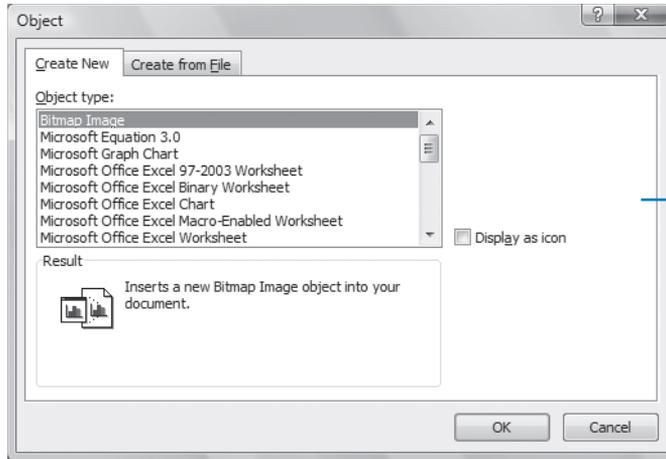
Use the Object Dialog box to create new Visio drawings within Office 2007 titles

In this exercise, you create a new block diagram in a Tradeshow Schedule Proposal document, and then you modify the diagram in the document.

USE the *Proposal* file in Documents\Microsoft Press\Visio 2007 SBS\11_OfficeSystem.

Office Button

1. Start Word. Click the **Office Button**, and then click **Open**.

The Open dialog box displays the contents of the Documents folder by default.

2. Double-click the **Microsoft Press** folder, double-click the **Visio 2007 SBS** folder, double-click the **11_OfficeSystem** folder, and then double-click **Proposal**.

Word opens the document.

3. Select the blue placeholder text, *<Insert block diagram here.>*, and then press the Del key.

Word deletes the text and places the insertion point at the beginning of the line.

4. If the insertion point appears at the end of the previous line, press the Enter key to start a new line.

5. Click the **Insert** tab, and then in the **Text** group, click **Object** to open the **Object** dialog box.

6. On the **Create New** tab, in the **Object type** area, click **Microsoft Office Visio Drawing**.
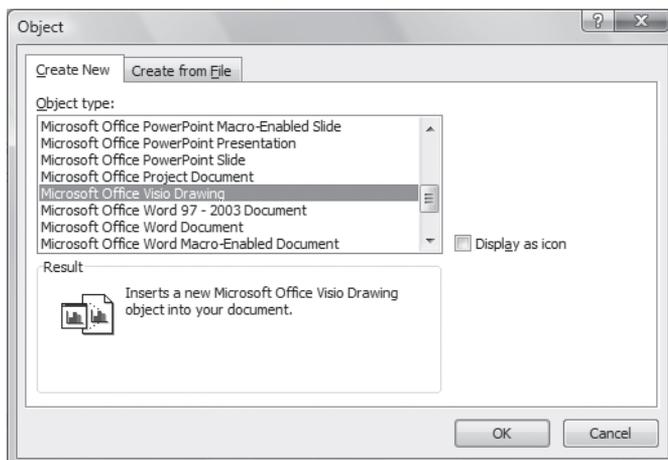
> **Tip** When you want a Visio icon for the diagram to appear in the document instead of the diagram itself, select the Display as icon check box in the Object dialog box.

7. Click **OK**.

Visio starts, adds a blank drawing page to the document, opens the Shapes window, replaces the Word menus and toolbars with Visio menus and toolbars, and then opens the Choose Drawing Type dialog box.
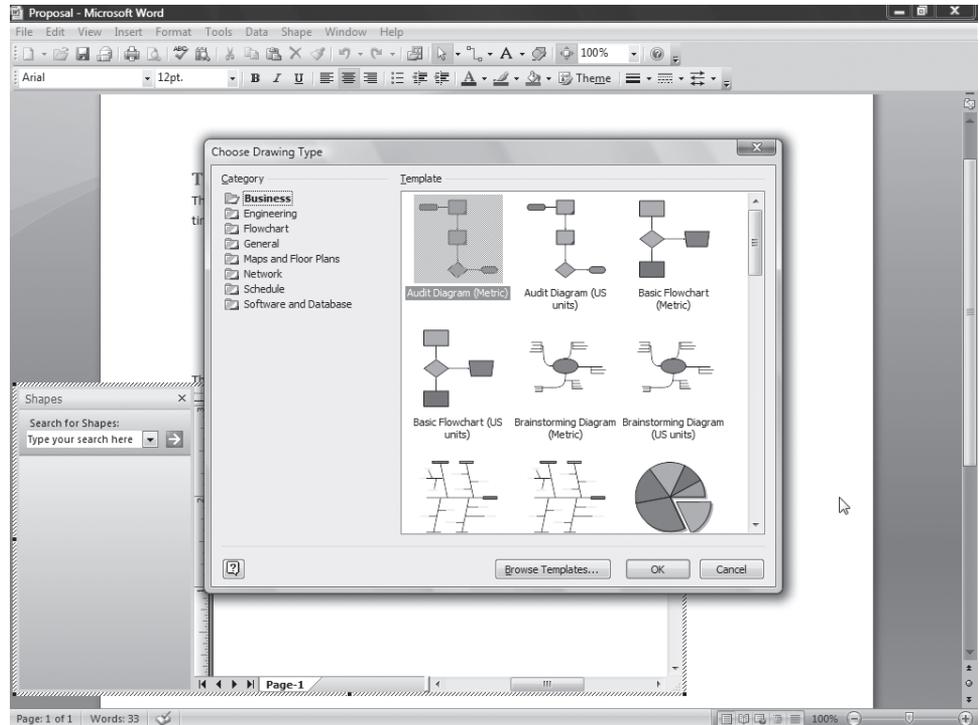
8. In the **Category** area, click **General**, and in the **Template** area, double-click **Block Diagram**.

In the Word document, Visio opens the Block Diagram template, which opens the Blocks, Blocks Raised, Borders and Titles, and Backgrounds stencils.
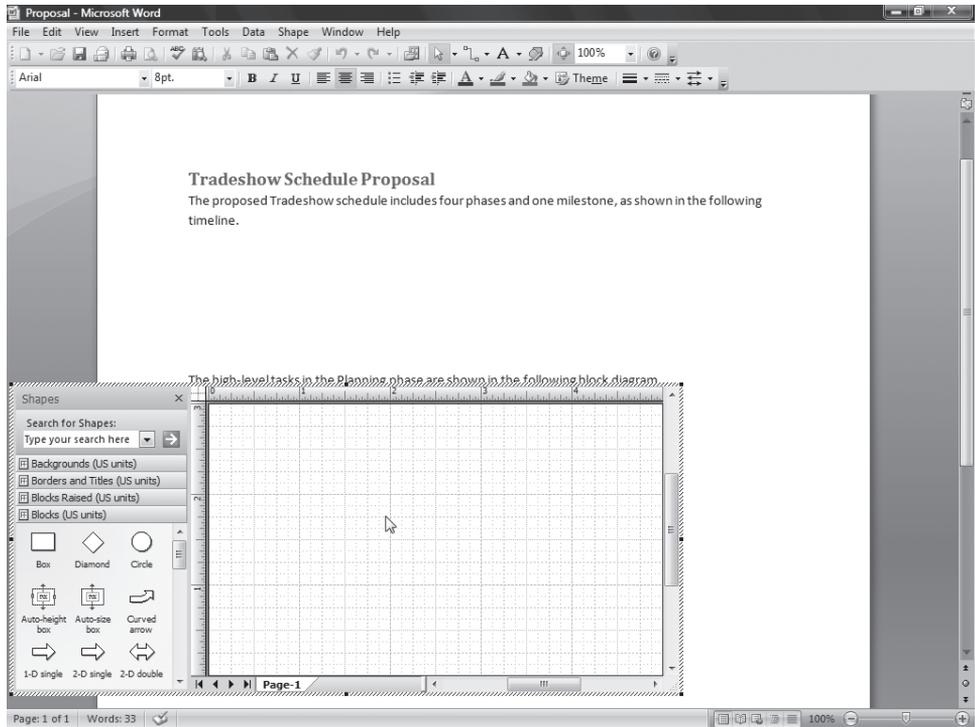
9. From the **Blocks** stencil, drag the **Arrow box** shape onto the drawing page, and position it in the upper-middle portion of the page.
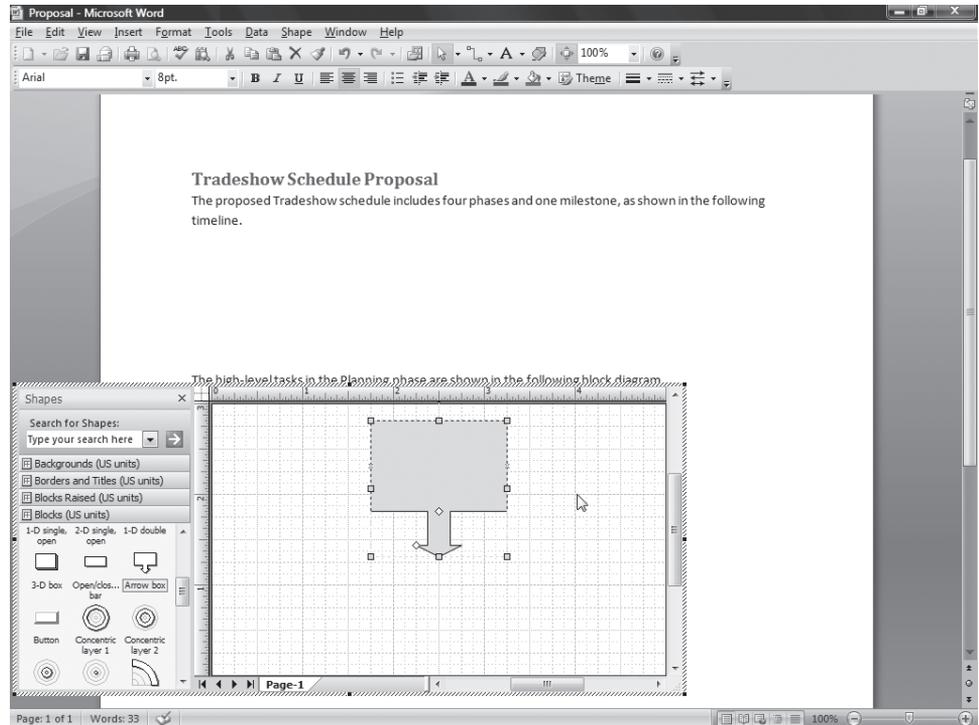
> **Troubleshooting** You might need to scroll down the Blocks stencil to find the Arrow box shape.

10. Drag another **Arrow box** shape onto the drawing page, and position it directly below the first **Arrow box** shape.
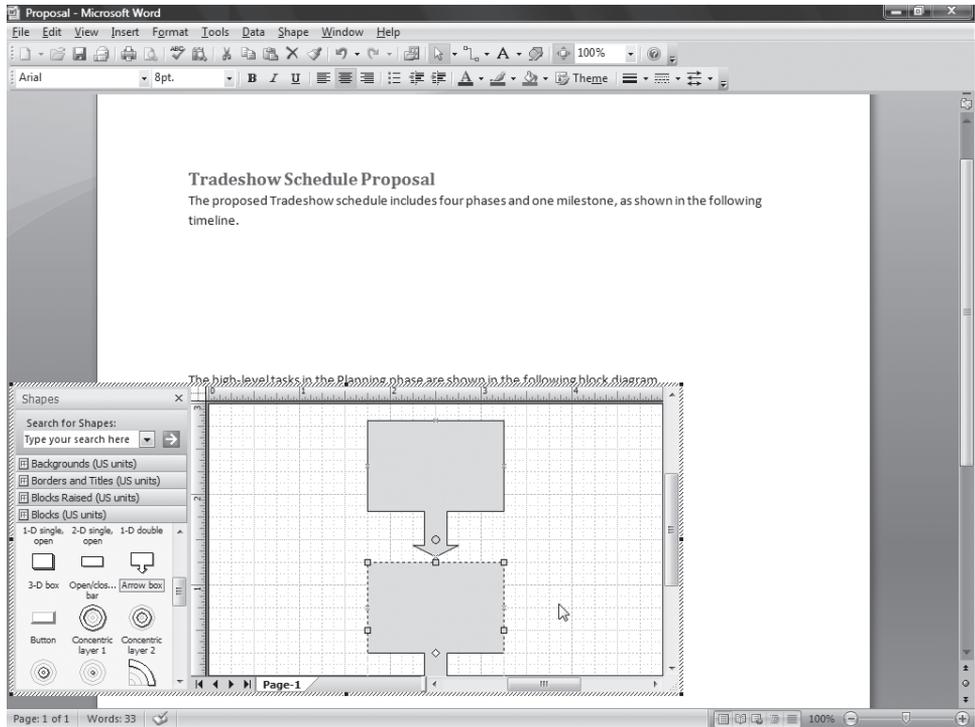
11. On the **Shape** menu, click **Center Drawing**.

Visio centers the shapes on the drawing page.

12. Select the first **Arrow box** shape, and then type **Determine Scope**.

13. Select the second **Arrow box** shape, and then type **Create Schedule**.
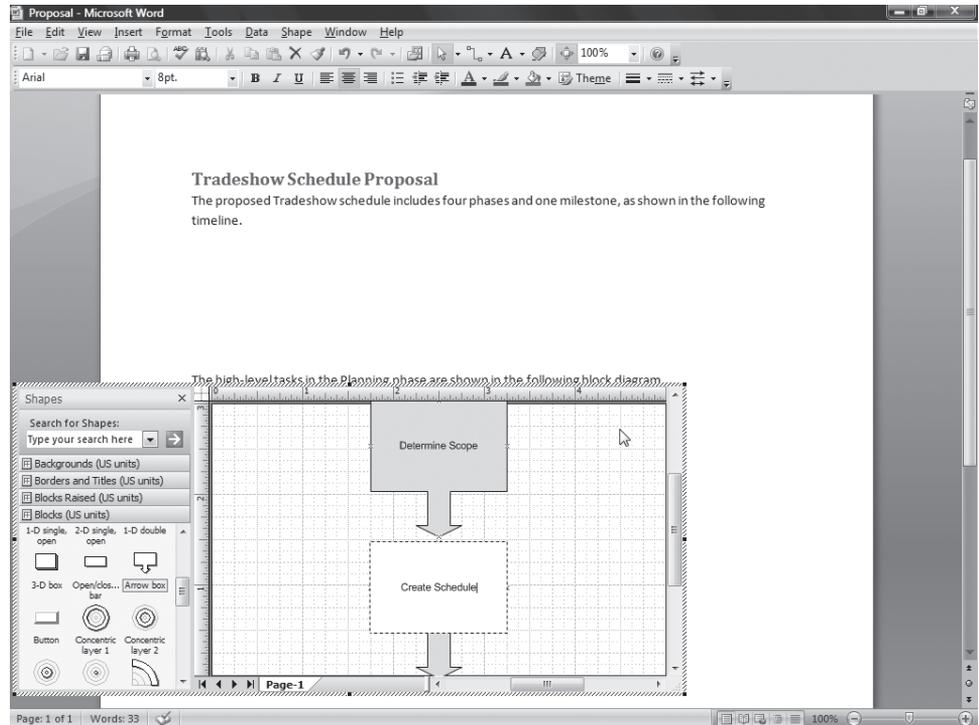
**14.** Click a blank area of the Visio drawing page to deselect the **Create Schedule** shape.

15. To lengthen the drawing window so that there's more white space above and below the shapes on the drawing page, drag the bottom, middle, black selection handle on the black dashed drawing window (below the **Page-1** tab) down a little. Repeat this step using the middle, black selection handle on the top of the window.

When you place the pointer over a black selection handle on the window, the pointer changes to a double-headed arrow. This visual cue indicates that Word is ready for you to lengthen the drawing window.
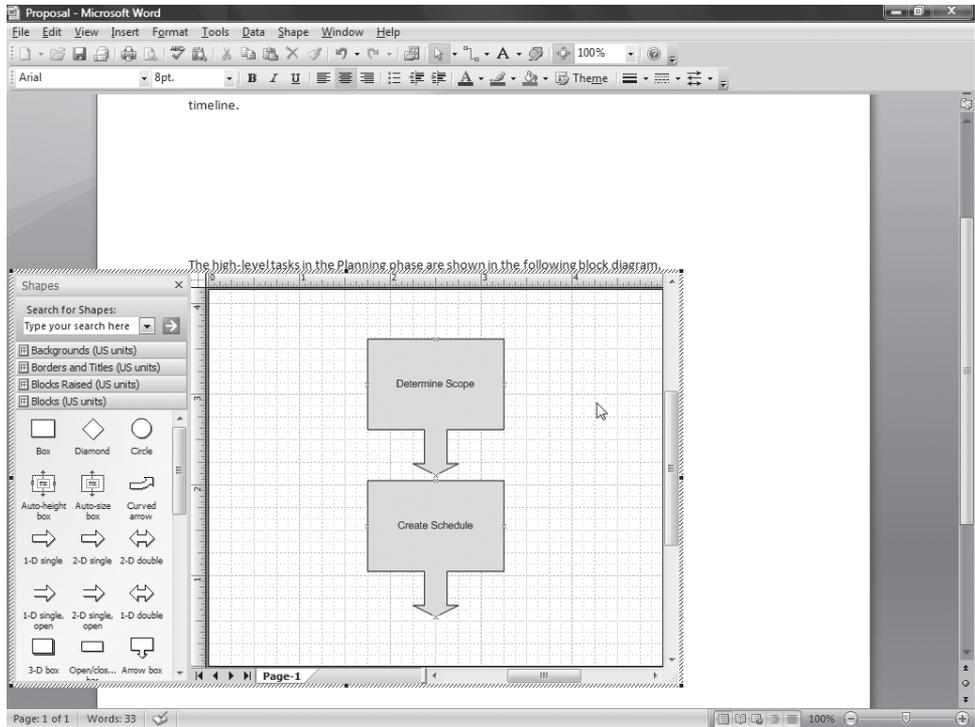
16. To close Visio and continue working in Word, click anywhere outside the Visio diagram in the Word document.

Visio closes, and Word becomes the active program again. The diagram becomes part of the Word document.
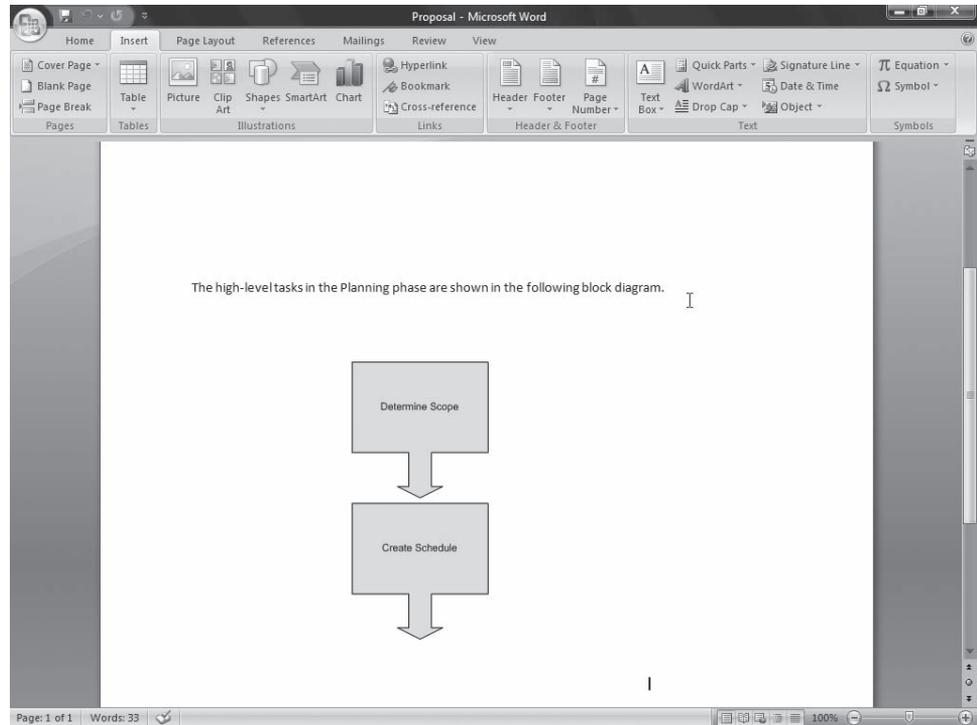
17. To modify the Visio diagram, double-click it.

Visio opens the diagram and stencils again.

18. To lengthen the drawing window again to fit a third shape under the other two, drag the middle, black selection handle on the black dashed drawing window down far enough to include one more shape in your diagram.

The length of the drawing area increases.
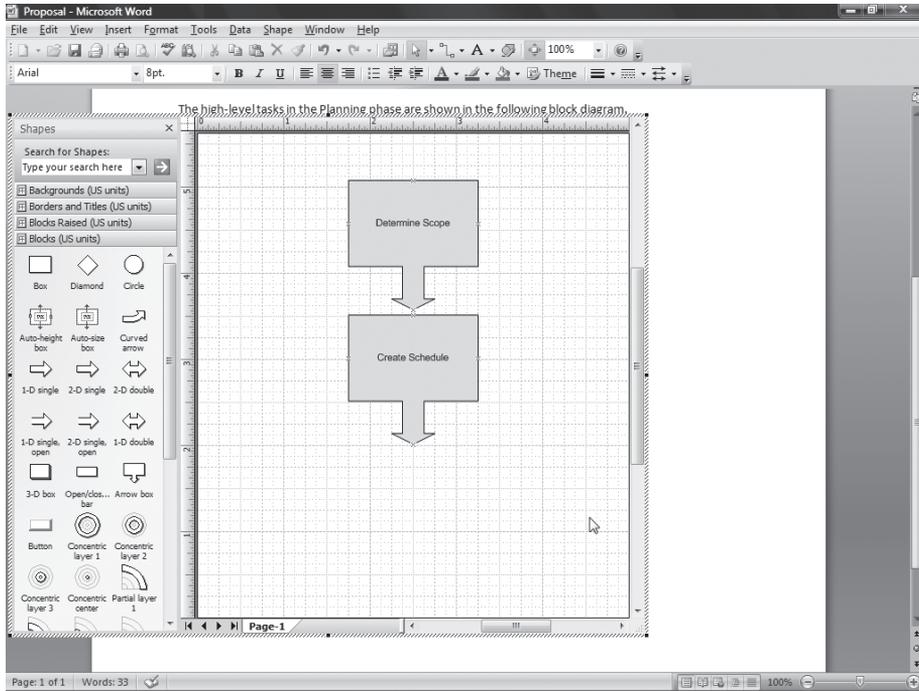
19. From the **Blocks** stencil, drag the **Box** shape onto the drawing page, and position it below the second **Arrow box** shape.
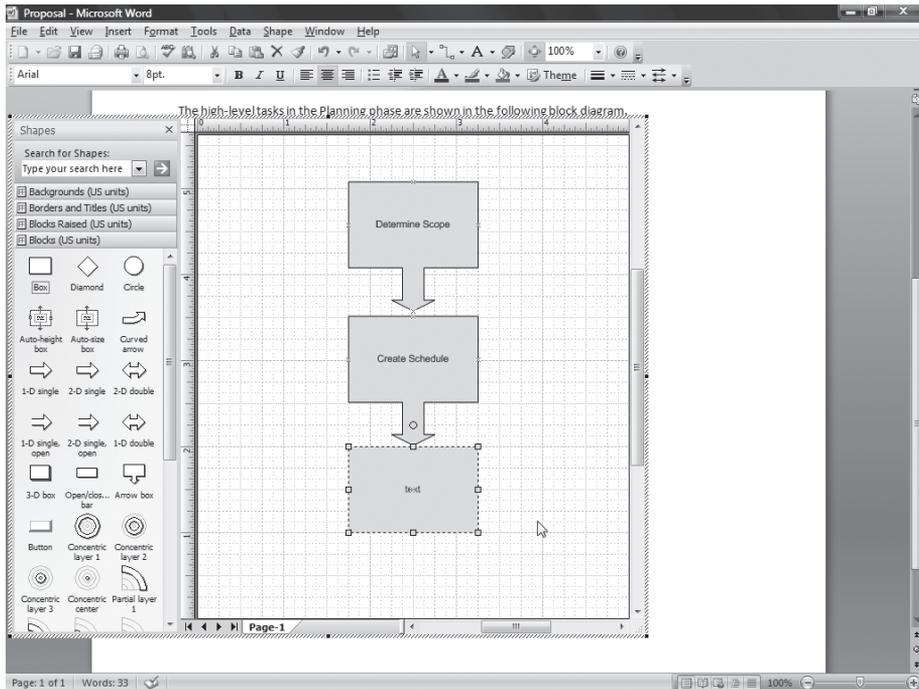
20. With the **Box** shape selected, type **Get Approval for Scope and Schedule**.
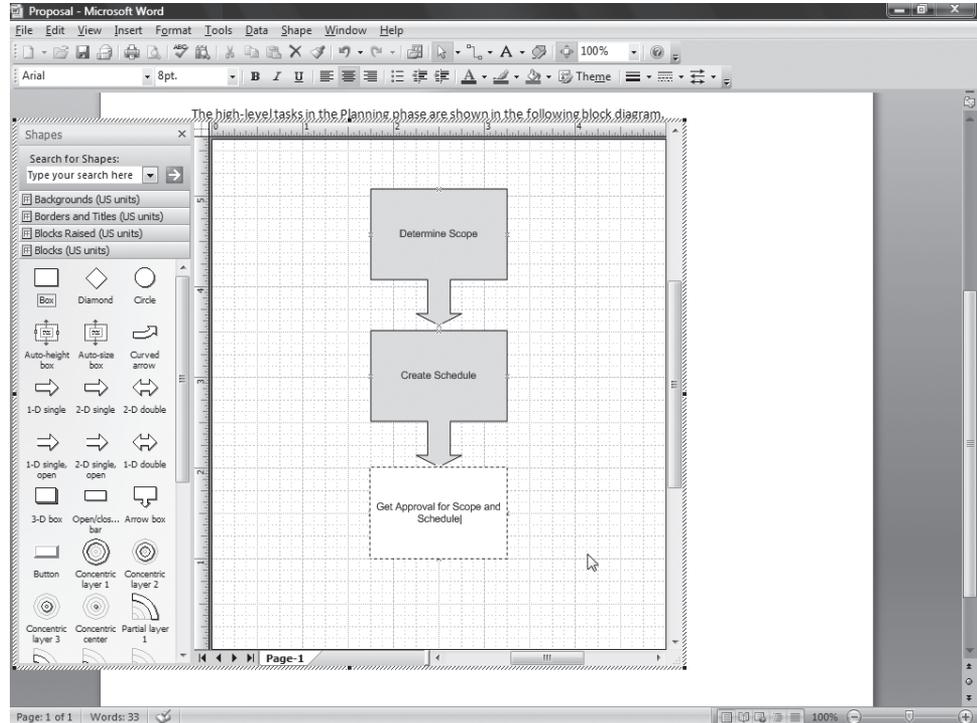
21. Click a blank area of the drawing page to deselect the **Get Approval for Scope and Schedule** shape.

22. On the **Shape** menu, click **Center Drawing**.

Visio centers the shapes on the drawing page.

**23.** To close Visio and continue working in Word, click anywhere outside the Visio diagram in the Word document.

Visio closes, and Word becomes the active program again. The revised diagram becomes part of your Word document.
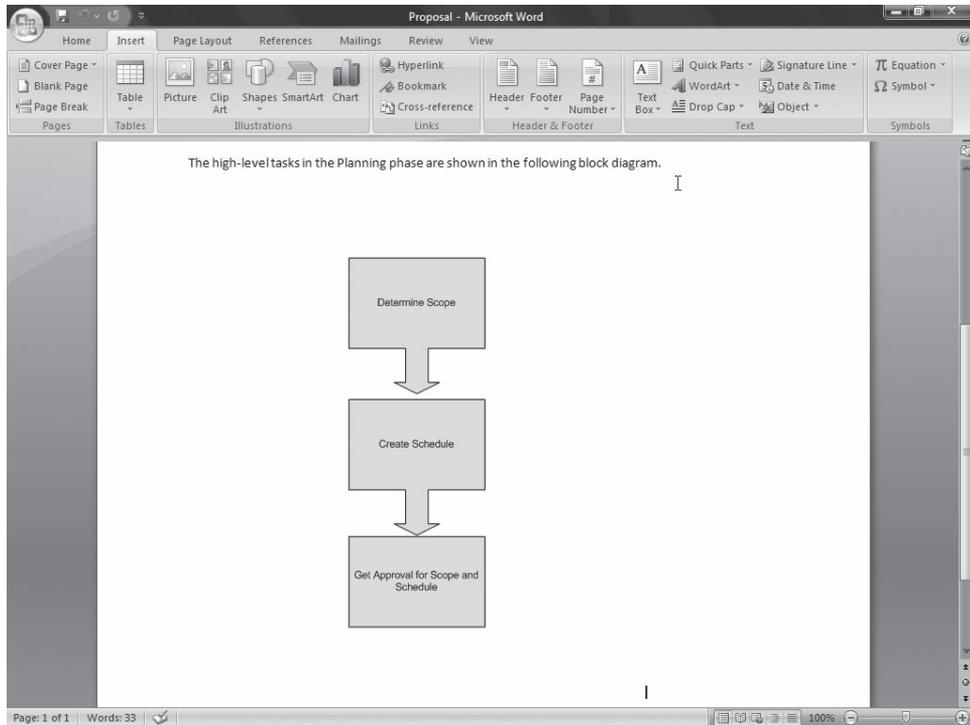
24. Click the **Office Button**, and then click **Save As** to open the **Save As** dialog box.

25. In the **File name** box, replace *Proposal.docx* with **ProposalCreate**.

26. Click the **Save** button to save the document.

**27.** Click the **Office Button**, and then click **Exit Word** to close Word and the document.

Embedding Copies of Visio Diagrams in Office 2007 Files

If you have a Visio diagram that you want to add to an Office 2007 file, you can embed a copy of the diagram into the file. When you embed a diagram in an Office 2007 file, you copy the entire diagram or pieces of it, and then paste the copy into the file. The copy of the diagram becomes part of the Office 2007 file. When you modify the embedded diagram in the Office 2007 file, you modify the copy only. Any changes you make to the copy of the diagram don't appear in the original Visio diagram because there's no link between the Office 2007 file and the Visio drawing file.
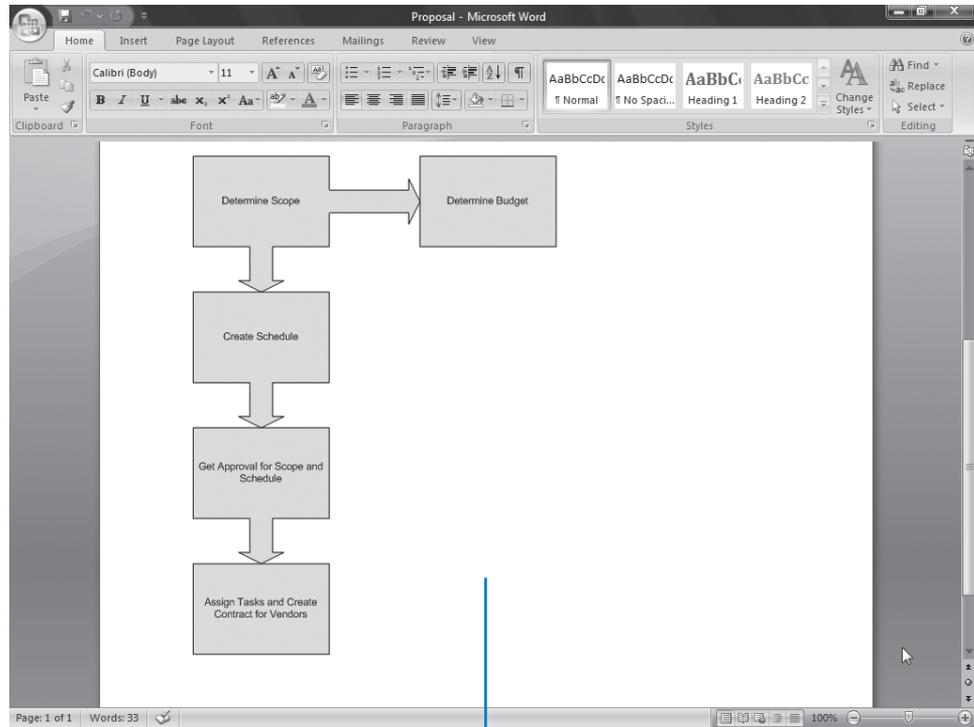
Embed a copy of a Visio diagram into an Office 2007 file by pasting it into the file

In this exercise, you open a block diagram, copy it, open a Word document, and then embed the copy of the diagram into the document. Finally, you modify the copy of the diagram in the Word document.

> **USE** the *PlanPhase* and *Proposal* files in Documents\Microsoft Press\Visio 2007 SBS \11_OfficeSystem.

1. Start Visio. On the **File** menu, click **Open**.

   The Open dialog box displays the contents of the Documents folder by default.

2. Double-click the **Microsoft Press** folder, double-click the **Visio 2007 SBS** folder, double-click the **11_OfficeSystem** folder, and then double-click **PlanPhase**.

   Visio opens a block diagram and four stencils.
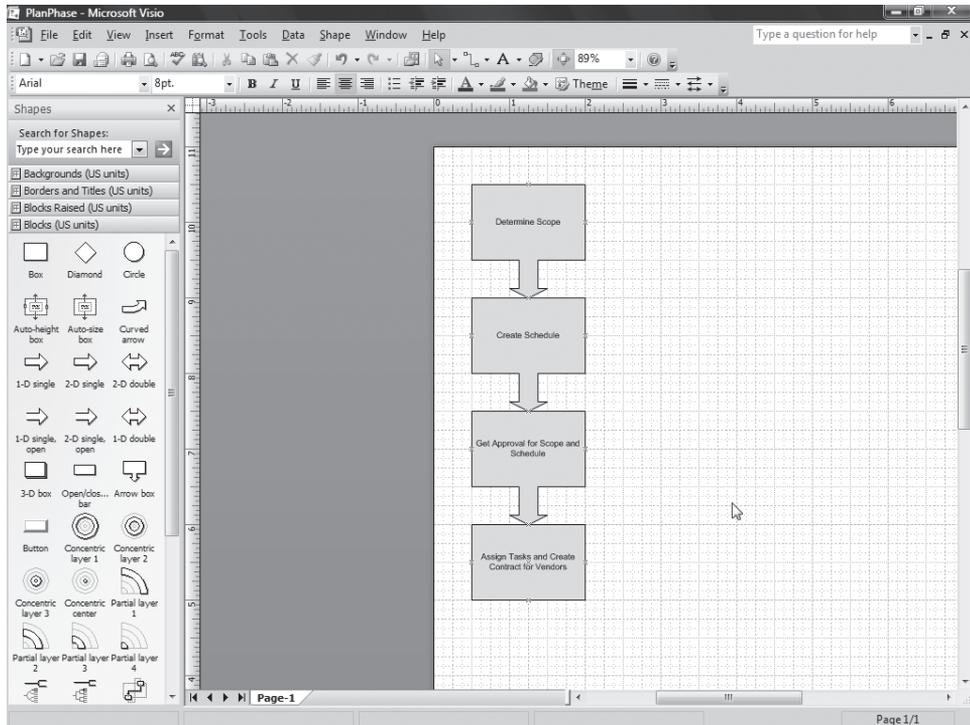
3. On the **Edit** menu, click **Select All**.

Visio selects all the shapes in the diagram.

Copy

4. On the Standard toolbar, click the **Copy** button.

Visio copies the selected shapes.

Office Button

5. Start Word. Click the **Office Button**, and then click **Open**.

The Open dialog box appears.

6. Double-click the **Microsoft Press** folder, double-click the **Visio 2007 SBS** folder, double-click the **11_OfficeSystem** folder, and then double-click **Proposal**.

Word opens the document.

> **Troubleshooting** If you don't see the Microsoft Press folder in the Open dialog box, navigate to the Documents folder.

7. Select the blue placeholder text, *<Insert block diagram here.>*, and then press the Del key.

Word deletes the text and places the insertion point at the beginning of the line.

8. If the insertion point appears at the end of the previous line, press the [Enter] key to start a new line.

9. On the **Home** tab, in the **Clipboard** area, click the **Paste** button.

Paste

Word pastes the copy of the Visio diagram in the Word document.
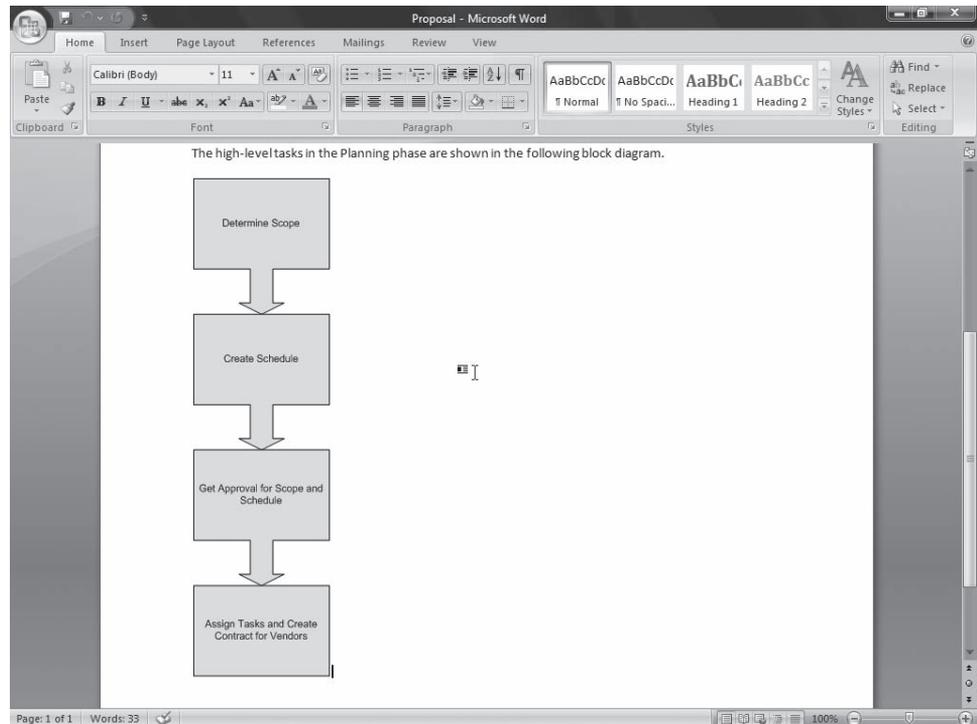
10. To modify the Visio diagram, double-click it.

Visio opens the diagram and the Shapes window, and replaces the Word menus and toolbars with Visio menus and toolbars.

11. To widen the drawing window, drag the middle-right, black selection handle on the black dashed drawing window to the right a little.

The width of the drawing area increases.
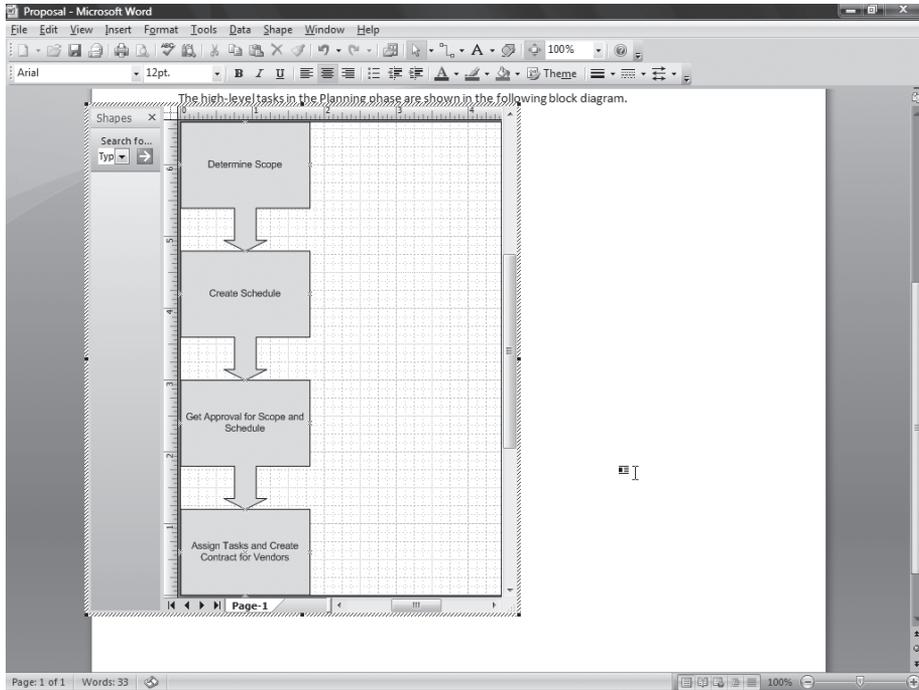
Shapes

12. On the Standard toolbar, click the **Shapes** button, point to **General**, and then click **Blocks**. Visio opens the Blocks stencil.
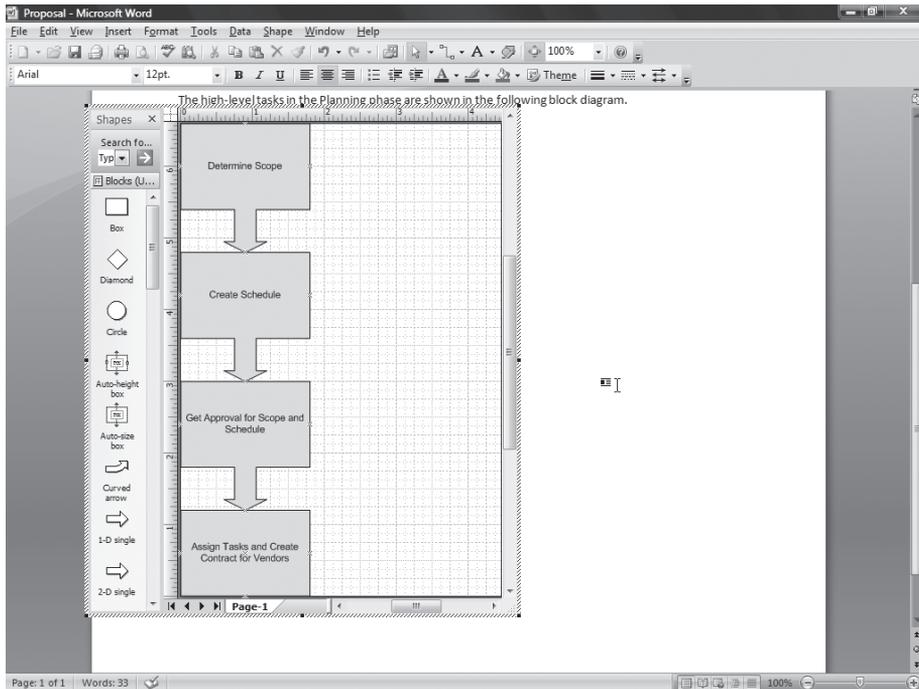
13. From the **Blocks** stencil, drag the **1-D single** shape onto the drawing page, and connect it to the right connection point on the **Determine Scope** shape.
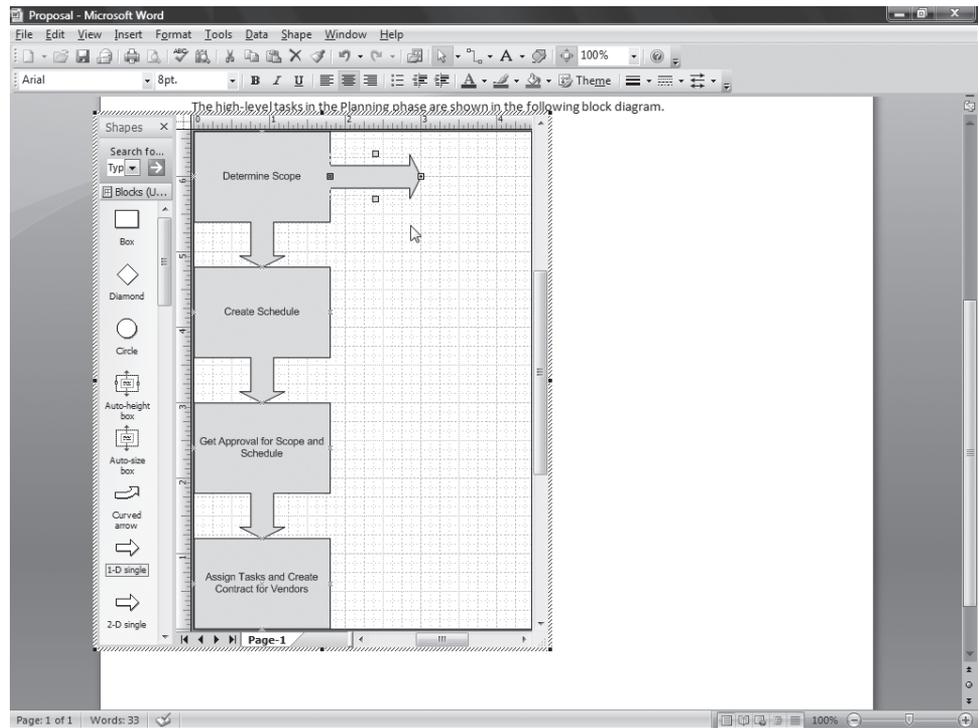

14. From the **Blocks** stencil, drag the **Box** shape anywhere on the drawing page.

15. With the **Box** shape selected, type **Determine Budget**.

16. Press the `Esc` key to close the text block for the **Box** shape.

17. Move the **Box** shape and position it to the right of the **1-D single** shape so the **1-D single** shape connects to the **Box** shape.
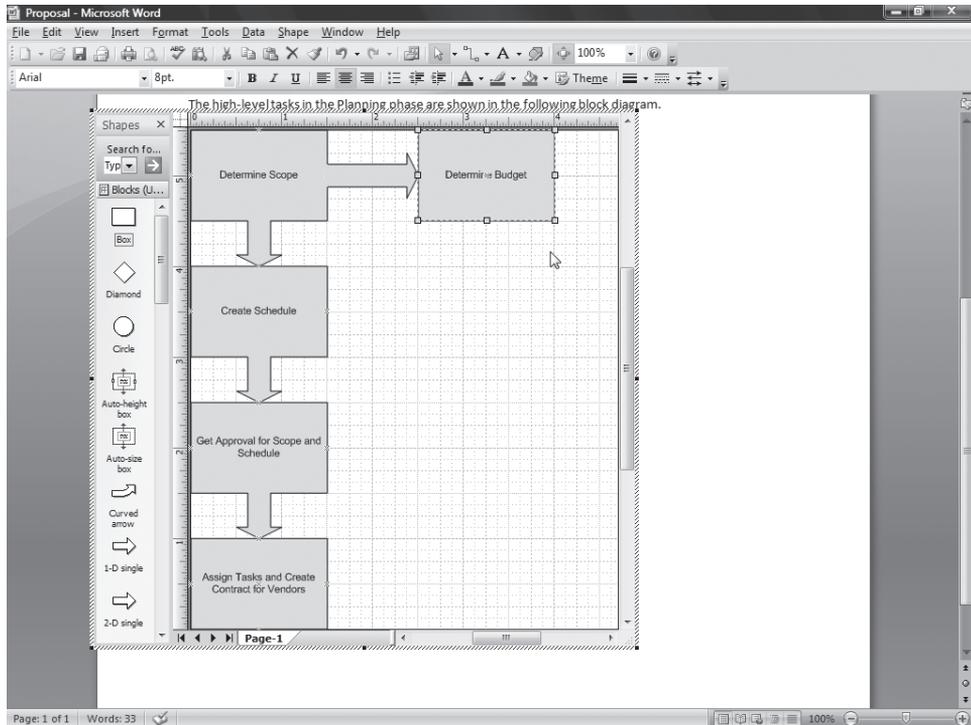
> **Troubleshooting** You might need to widen the window a bit more to fit the Box shape on the drawing page.

18. To close Visio and continue working in Word, click anywhere outside the Visio diagram in the Word document.

Visio closes, and Word becomes the active program again.
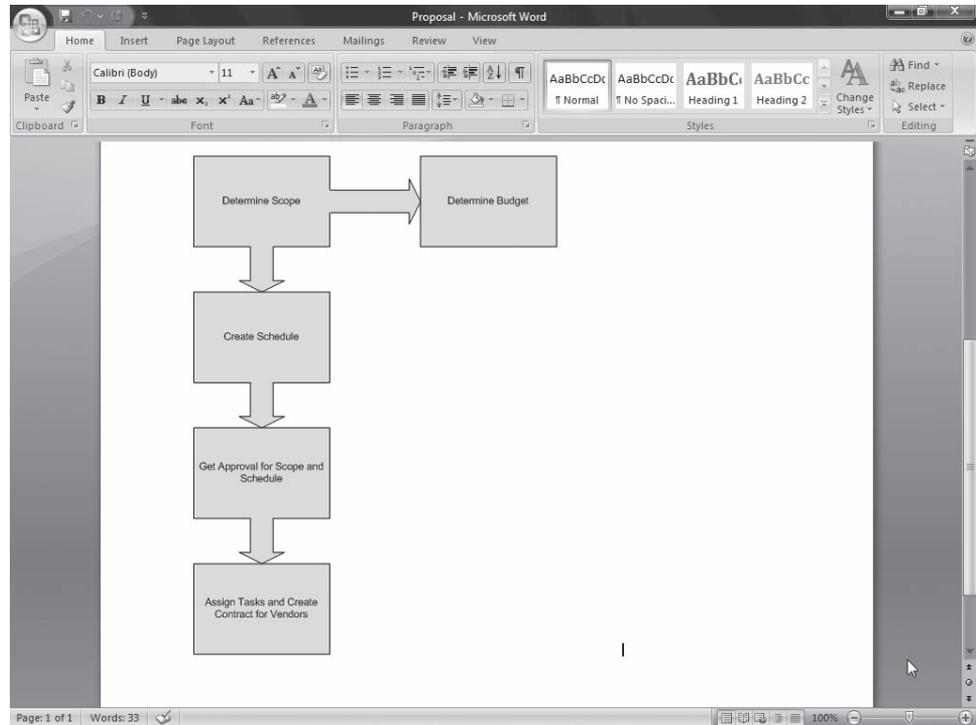
19. Click the **Office Button**, and then click **Save As** to open the **Save As** dialog box.

20. In the **File name** box, replace *Proposal.docx* with **ProposalEmbed**.

21. Click **Save** to save the document.

22. Click the **Office Button**, and then click **Exit Word** to close Word and the document.

   Word closes and Visio becomes the active program. Notice the changes you made to the copy of the diagram in the proposal didn't affect the original Visio diagram.

23. On the **File** menu, click **Exit** to close Visio and the diagram.

Linking Visio Diagrams to Office 2007 Files

The main difference between linking a Visio diagram and embedding a copy of a Visio diagram is that a linked diagram doesn't become part of the Office 2007 file. You link a Visio diagram to a file when you want to synchronize the original diagram with the copy in the file. For example, you might link an unfinished Visio block diagram to a Word document. Then when you make changes to the Visio drawing file, those changes are reflected in the Office 2007 file, so it's always up to date.

There is another difference between linking and embedding: when you link to a Visio diagram, you link to the *entire* diagram, including the background. When you embed a copy of a Visio diagram, you can copy all or only specific pieces of it.
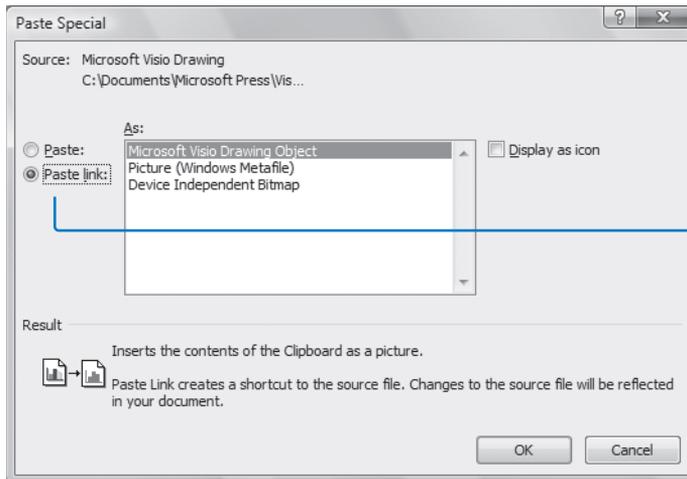
Use the Paste Link option in the Paste Special dialog box to link Visio diagrams to Office 2007 files

In this exercise, you open a block diagram, copy the entire diagram, open a Word document, and then link the diagram to the document. Finally, you modify the Visio diagram, which updates the copy of the diagram in the Word document.

USE the *PlanPhase* and *Proposal* files in Documents\Microsoft Press\Visio 2007 SBS \11_OfficeSystem.

1. Start Visio. On the **File** menu, click **Open**.

   The Open dialog box displays the contents of the Documents folder by default.

2. Double-click the **Microsoft Press** folder, double-click the **Visio 2007 SBS** folder, double-click the **11_OfficeSystem** folder, and then double-click **PlanPhase**.

   Visio opens a block diagram and four stencils.
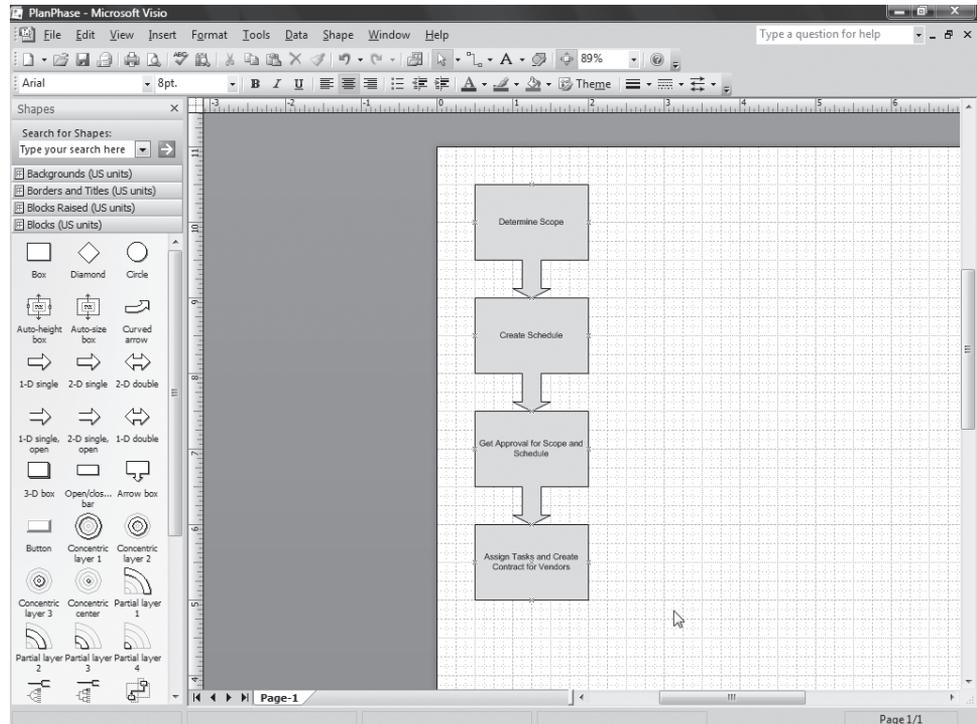
3. On the **Edit** menu, click **Copy Drawing**.

Visio copies the entire diagram.

> **Troubleshooting** If the Copy command appears on the Edit menu instead of the Copy Drawing command, a shape on the drawing page is selected, and you will not be able to link the diagram to a file. Press the [Esc] key to cancel the shape selection, and then try again.

Office Button

**4.** Start Word. Click the **Office Button**, and then click **Open**.

The Open dialog box appears.

5. Double-click the **Microsoft Press** folder, double-click the **Visio 2007 SBS** folder, double-click the **11_OfficeSystem** folder, and then double-click **Proposal**.

Word opens the document.

> **Troubleshooting** If you don't see the Microsoft Press folder in the Open dialog box, navigate to the Documents folder.

6. Select the blue placeholder text, *<Insert block diagram here.>*, and then press the [Del] key.

Word deletes the text and places the insertion point at the beginning of the line.

7. If the insertion point appears at the end of the previous line, press the [Enter] key to start a new line.

8. On the **Home** tab, in the **Clipboard** group, click the down arrow on the **Paste** button, and then click **Paste Special** to open the **Paste Special** dialog box.

9. Click **Paste link**.
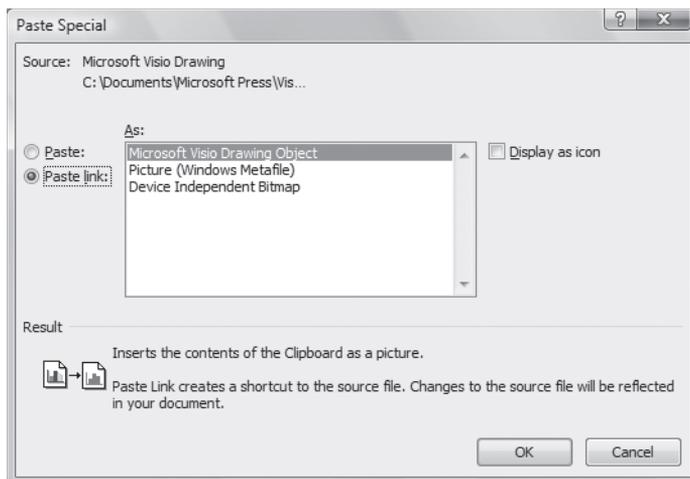
> **Troubleshooting** To link to a diagram, you must save it first, and then link to the entire diagram. If the Paste link option appears dimmed, save the diagram, and then use the Copy Drawing command to copy the entire diagram.

10. In the **As** box, click **Microsoft Visio Drawing Object**, and then click **OK**.

Word links to the Visio drawing file and pastes a copy of the diagram in the Word document.
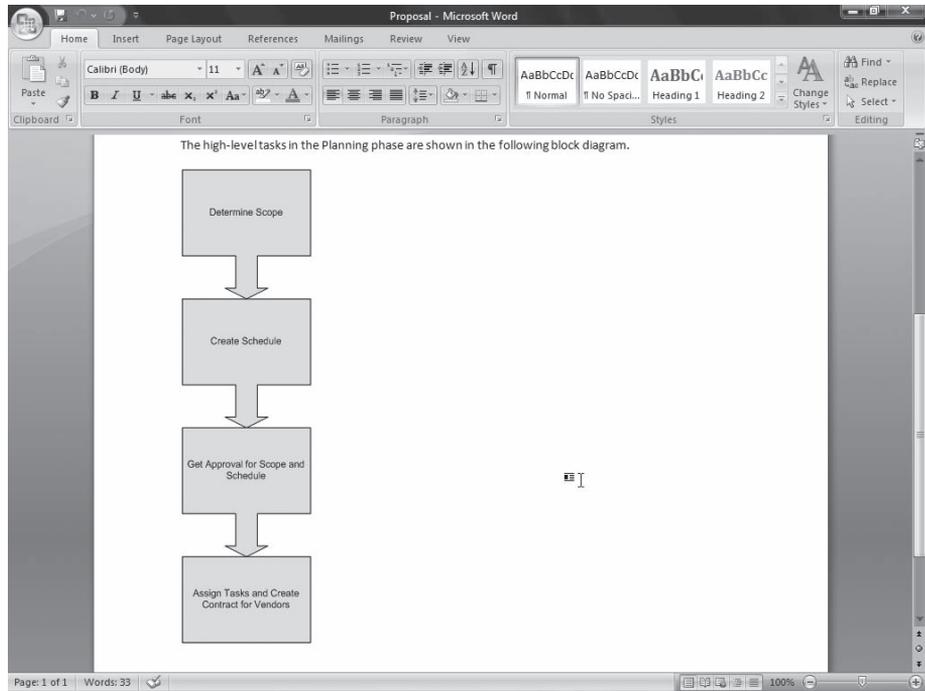
11. To modify the Visio diagram, double-click it. The original diagram, *PlanPhase*, opens in a separate Visio window.
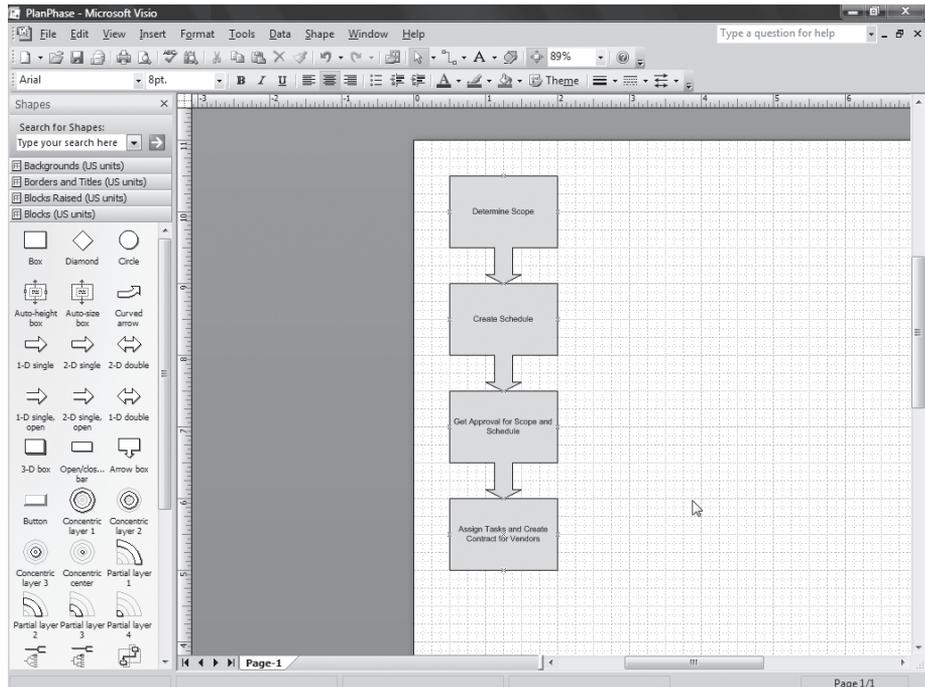
> **Troubleshooting** When you link a Visio diagram to an Office 2007 file, you link to a drawing file with a specific name in a specific location. If you rename or move the Visio drawing file, you must update the link. To update the link, right-click the linked diagram within the Office 2007 file, and then on the shortcut menu, click Update Link. If you don't update the link before you double-click the diagram in the Office 2007 file, you'll receive an error message because Office 2007 won't be able to find the drawing file.

12. On the **Edit** menu, click **Select All**.

Visio selects all the shapes on the drawing page.

13. On the **Format** menu, click **Text** to open the **Text** dialog box.

14. On the **Font** tab, in the **General** area, click the **Color** box. Under **Standard Colors**, select the red color (the second color to the right), and then click **OK**.

Visio changes the text color in all the shapes to red.
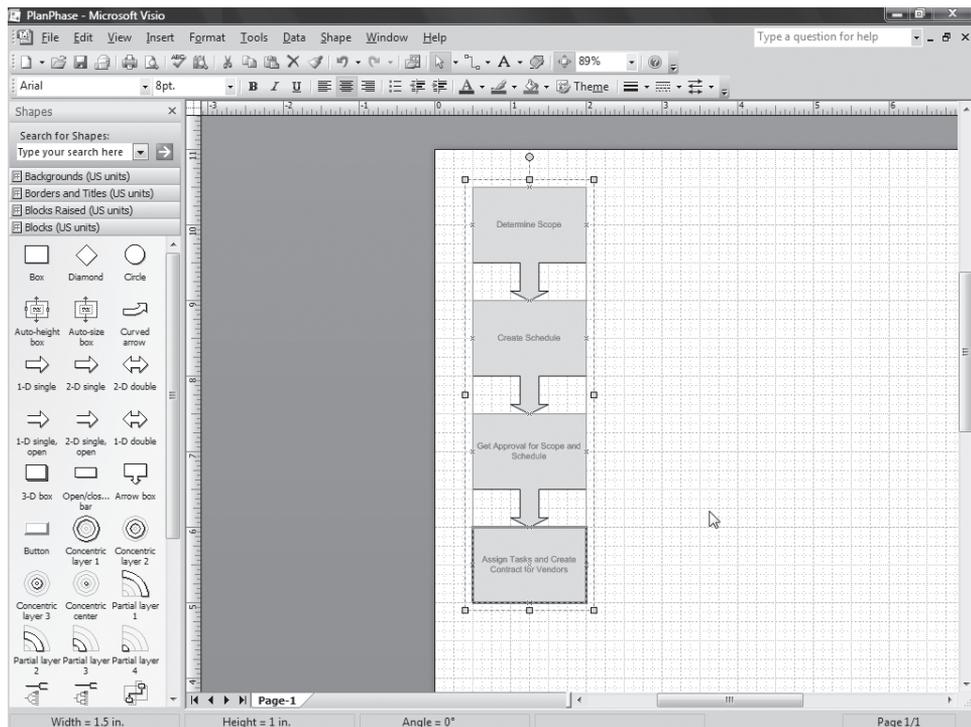
15. On the **File** menu, click **Save** to save the changes to the **PlanPhase** diagram.

16. On the **File** menu, click **Exit**.

The diagram closes, Visio closes, and Word becomes the active program.

17. In Word, right-click the diagram, and then click **Update Link** on the shortcut menu.

Word applies the changes to the linked diagram in the Word document.
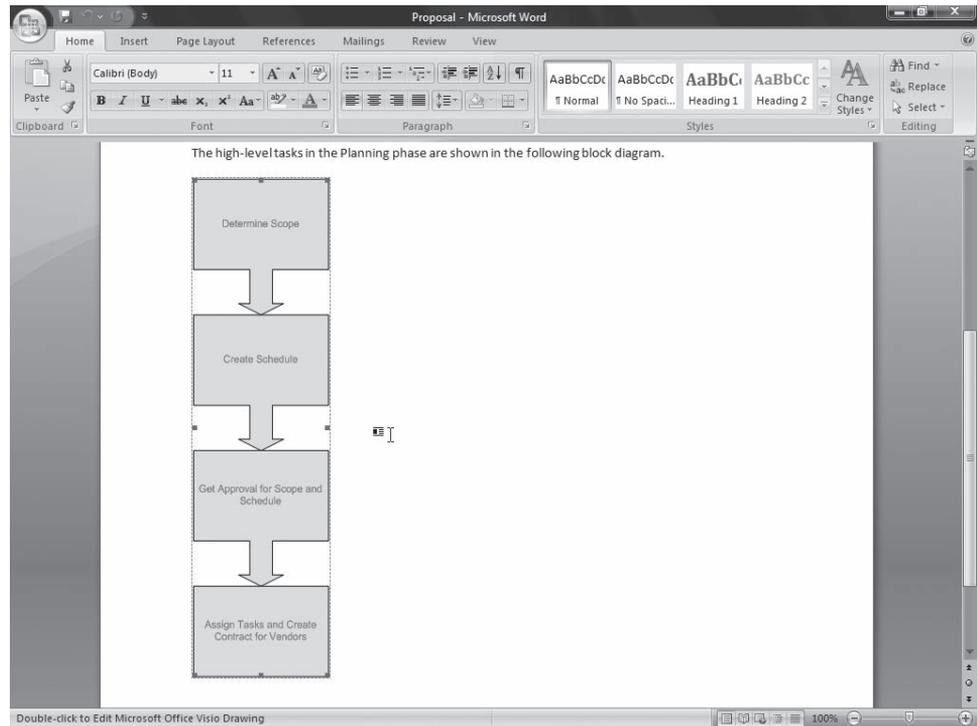
> **Tip** Linked diagrams can be updated either automatically or manually. To specify how you want your linked diagrams in a particular Office 2007 file to be updated, first open the Office 2007 file. Then, click the Office Button, point to Prepare, scroll to the bottom of the Prepare menu, and then click Edit Links to Files.

18. In Word, click the **Office Button**, and then click **Save As** to open the **Save As** dialog box.

19. In the **File name** box, replace *Proposal.docx* with **ProposalLink**.

20. Click **Save** to save the document.

21. Click the **Office Button**, and then click **Exit Word** to close Word and the document.

Key Points

- To create a diagram directly in an Office 2007 file, on the Insert menu, click Object. The diagram you create becomes part of the Office 2007 file.

- To embed a copy of a diagram into an Office 2007 file, copy the diagram, and then paste it into the file. When you embed a copy of diagram into an Office 2007 file, the copy becomes part of the file.

- To link an entire diagram to an Office 2007 file, first make sure you save it. Next, in Visio, on the Edit menu, click Copy Drawing. Then, in Word, on the Home tab, in the Clipboard group, click the Paste down arrow, and then click Paste Special. In the Paste Special dialog box, make sure you select the Paste link option.

- When you link a Visio diagram to an Office 2007 file, you link to the Visio drawing file, so you if you move or rename the Visio drawing file, you must update the link in the Office 2007 file. To do so, right-click the diagram in the Office 2007 file, and then on the shortcut menu, click Update Link.