# Section 4

# Linking and Embedding

By the end of this Section you should be able to:

Insert Text Slides
Link to Documents
Link to Worksheets
Link to Charts
Link to Images
Update and Edit Links

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# Exercise 30 - Inserting Text Slides

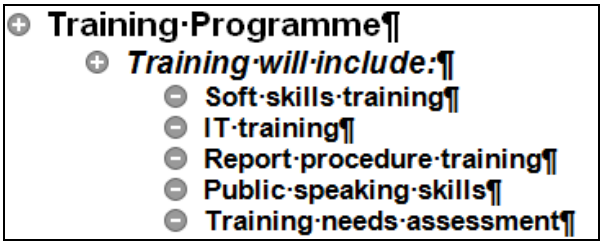
***Guidelines:***

Individual sections of text can be imported into a *PowerPoint* presentation from word processing applications most easily by using **Copy** and **Paste**. However, if a document is created with the correct outline already set up, it can be imported using a command in *PowerPoint,* which will create new slides directly.

***Actions:***

1. Open the word processing application *Word* and open the file **Welcome.docx**, which is included with the supplied *PowerPoint* files. Make sure **Outline View**, , is selected.

2. Examine the text; it has been formatted at different levels.




3. When imported into *PowerPoint*, the highest level text will be translated into slide titles, the next level into 1st level bullet points, and so on. Close the document and close *Word*.

4. In *PowerPoint* create a new blank presentation. On the **Title Slide** add **Welcome** as the title text and your organisation name as the subtitle text.

5. Apply a design theme of **Solstice**.

6. To import the outline, select the **Home** tab and drop down the **New Slide** options. Select **Slides from Outline**. Look in the supplied data files folder and select **All Outlines** from **Files of type**.

7. Select the file **Welcome** and click the **Insert** button,

.

8. Three new slides are created from the outline file. Compare their structure with the original file layout.

9. Save the presentation as **links** and leave it open.

# Exercise 31 - Linking to a Document

***Guidelines:***

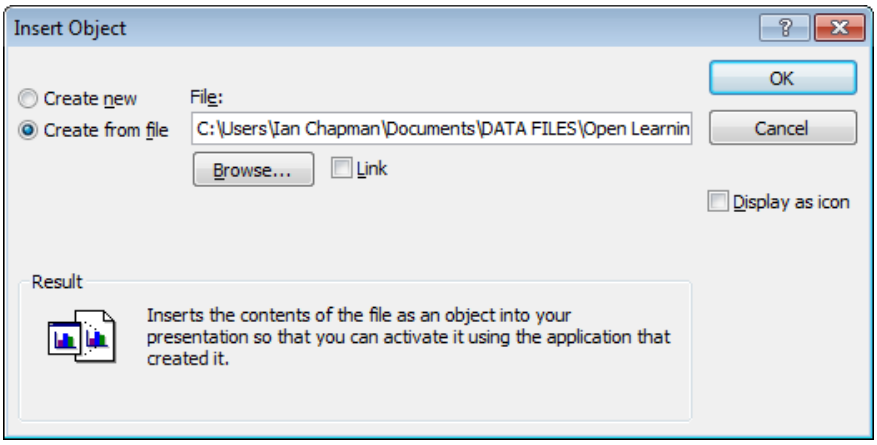
Objects on a slide can be **linked** to external data from a variety of other applications. Linking an object means that if its source data is changed, those changes can be reflected in the object in the presentation. It also means that the source data can be opened in its own application directly from *PowerPoint*.

***Actions:***

1. At the end of the current presentation create a new **Title Only** slide and add the title **Products**.

2. To create a link, select the **Insert** tab, then **Object** and the **Create from file** option.

3. Click **Browse** and locate the supplied *PowerPoint* data files. Select the **Products** file and click **OK**.




4. In the **Insert Object** dialog box, check **Link**.

5. Click **OK** to insert the document as a linked object, then save the presentation.

6. The text cannot be altered directly on the slide. To amend the text, double click the object. *Word* starts and opens the source document.

7. In *Word*, format the **Product Range** heading as **Bold Italic**.

8. Save the document and close *Word*. Notice that the slide content has changed to match the changes to the source document.

*Note: In this example the presentation was open when the source object was being changed. The situation where the presentation is not open will be covered in a later exercise.*

9. Leave the presentation open.

# Exercise 32 - Linking to a Worksheet

***Guidelines:***

A link can be created from a slide to a range of data on a worksheet. As before the data cannot be amended from *PowerPoint*, but only by amending the source data in its original application (*Excel*).

***Actions:***

1. At the end of the current presentation create a new **Title Only** slide and add the title **Performance**.

2. Start *Excel* and open the workbook **Sales** from the data files.

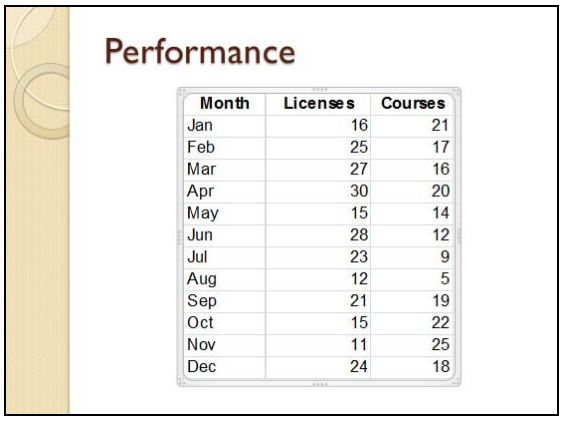
3. Display the **Data** sheet and click and drag to select the range **B3:D15**. This range has already been given the name **Range**.

4. Copy the range then switch back to *PowerPoint.*

5. To create a link to the range, from the **Home** tab, select the **Paste** drop down options and then **Paste Special**.

6. Select the **Paste link** option and click **OK**.

7. The range selected from the spreadsheet is now linked to the presentation. Enlarge the range object by dragging a corner handle then save the presentation.




| Month | Licenses | Courses |
|---|---|---|
| Jan | 16 | 21 |
| Feb | 25 | 17 |
| Mar | 27 | 16 |
| Apr | 30 | 20 |
| May | 15 | 14 |
| Jun | 28 | 12 |
| Jul | 23 | 9 |
| Aug | 12 | 5 |
| Sep | 21 | 19 |
| Oct | 15 | 22 |
| Nov | 11 | 25 |
| Dec | 24 | 18 |

8. Although the data cannot be amended on the slide, the whole object can be formatted. Right click the object and select **Format Object**. Change the **Fill Color** to light blue and click **Close**.

Note: *The link can also be created by using the **Object** button on the **Insert** tab as used in the last exercise. The part of the spreadsheet that was last selected will be used as the object.*

9. Double click the object to open it in *Excel*, then leave *Excel* open for the next exercise.

# Exercise 33 - Linking to a Chart

***Guidelines:***

Rather than create a chart in *PowerPoint*, if a suitable one already exists within a workbook you can import it or create a link to it.

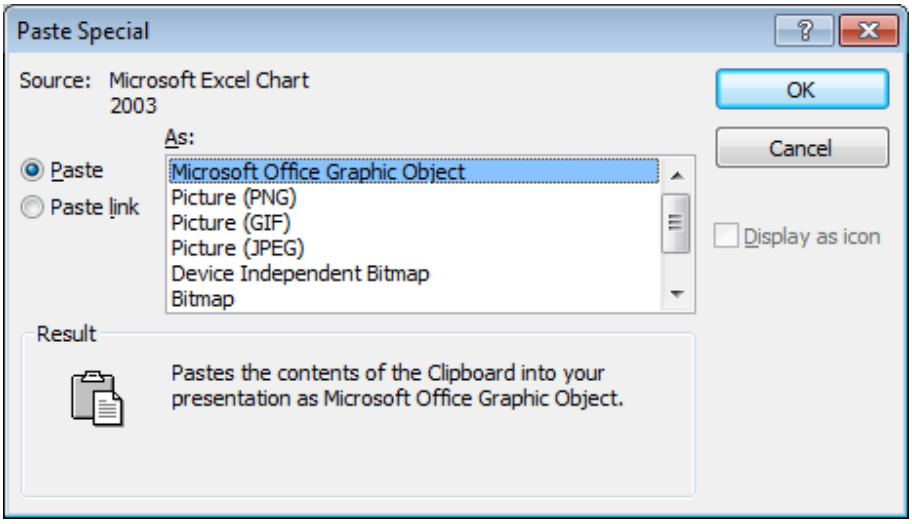
***Actions:***

1. With the **Sales** workbook open in *Excel*, click on the **2009** sheet tab to open it. Click on the chart and then click **Copy**, .

2. Switch to *PowerPoint* and insert two new **Title Only** slides at the end of the **Link** presentation.

3. Add the title **Linked Chart** to the first of the new slides and **Embedded Chart** to the other.

4. Click in the main area of the **Embedded Chart** slide and select **Paste** and then **Paste Special**.




5. With **Paste** selected, click **OK**. The chart is pasted into the presentation, with its associated data. It is **embedded**, i.e. no longer linked to the original workbook. Resize to make it fit the slide.

6. Click in the main area of the **Linked Chart** slide and select **Paste** and then **Paste Special** again.

7. This time select **Paste link** and click **OK**. The chart is pasted into the presentation as a link to the original workbook.

8. Double click the chart on the **Linked Chart** slide. The original workbook is opened in *Excel*. Close *Excel* without saving any changes.

*Note: The chart and data can be amended on the **Embedded Chart** slide by clicking the **Edit Data** button on the **Chart Tools Design** tab.*

9. Leave the presentation open.

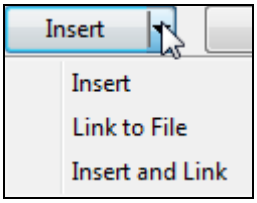
# Exercise 34 - Linking to an Image

***Guidelines:***

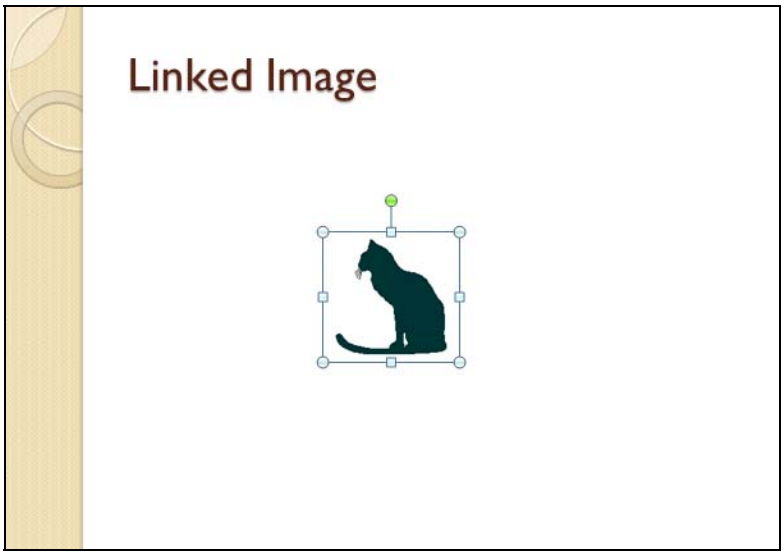
Links to images can also be added to a presentation. If the original image is edited in any way, the changes are reflected in the linked *PowerPoint* object.

***Actions:***

1. At the end of the **links** presentation create another **Title Only** slide.
2. Name it **Linked Image**.
3. To create a link to an image file, from the **Insert** tab, select **Picture**.
4. Select the location of the supplied data folder and select the file **cat.gif** file from the contents.
5. Click the drop down arrow on the **Insert** button.




6. Click the **Link to File** option. The linked graphic is placed in the presentation and can be manipulated like any inserted object.




*Note: Links to images are handled differently to other links. Double clicking the image will not open it in any application.*

7. Save the **links** presentation and close it.
8. Close *PowerPoint*.

# Exercise 35 - Updating Linked Data

***Guidelines:***

The default when creating links is for them to have the automatic update option set. Whenever a presentation containing links is opened, you will always be prompted to update the data from automatic links. If the option is accepted, all automatic update linked objects within the presentation will be updated with the current versions of the source data. If not, they will be left unchanged.

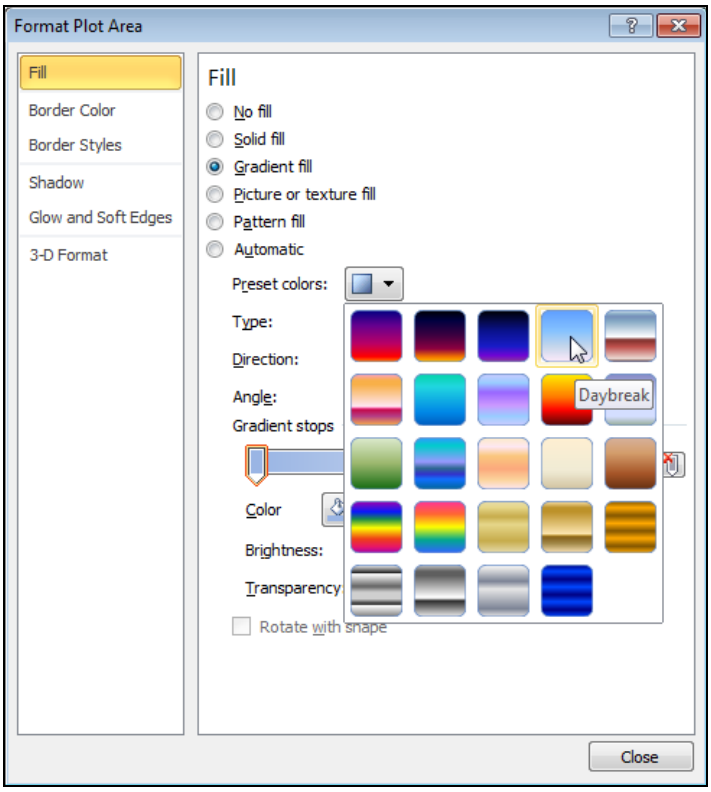
***Actions:***

1. Open the workbook **Sales** in *Excel*.

2. Select the worksheet **Data** and change the number of licenses sold in January to **20**.

3. Select the worksheet **2009** and right click on the **Plot Area**. Select **Format Plot Area** from the shortcut menu.

4. From **Gradient fill**, select a **Preset color** effect of **Daybreak**.




5. Click **Close**.

6. Save the workbook and close *Excel*.

7. Open *Word* and open the document **Products**. At the end of the list add a new product **e-Citizen**, with the same formatting as the existing content.

**continued over**

# Exercise 35 - Continued

8. Save the document with the same name and close *Word*.

9. Open *Microsoft Paint* (**All Programs | Accessories | Paint** from the **Start** menu) and open the image **cat.gif** from the supplied data files. Remember to specify **All Files** in the **Files of type** box.

10. Use the **Fill with color** tool, , to change the colour of the cat from black to blue (select the colour from the palette at the top of the window).

11. Save the image and close the application.

12. Start *PowerPoint* open the presentation **links** - a prompt appears:

13. Read the text in the message box then click **Update Links**. The process may take a few moments.

14. Check the **Products** slide (slide **5**). The new text is shown.

15. Check the **Performance** slide (slide **6**). The new data for January is shown.

16. Check the **Linked Chart** slide (slide **7**). The new data and chart background is shown.

*Note: A linked chart can also be updated by right clicking on it and selecting **Update Link** from the shortcut menu.*

17. Check the **Embedded Chart** slide (slide **8**). No changes are shown because this object is not linked, it is embedded.

*Note: An embedded chart can also be updated by clicking the **Refresh Data** button found in the **Data** group of **Chart Tools Design** tab.*

18. Check the **Linked Image** slide (slide **9**).

19. Save the presentation and leave it open for the next exercise.

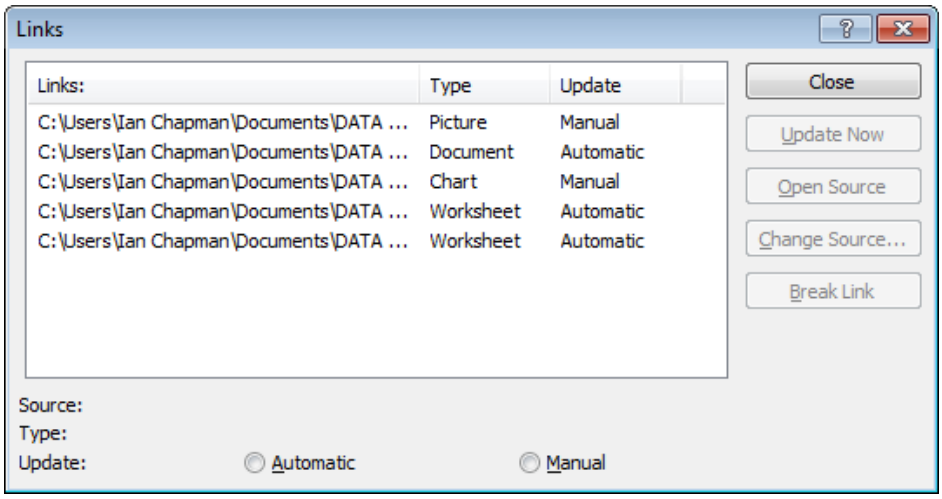
# Exercise 36 - Editing Links

***Guidelines:***

Once links have been created in a presentation, they can be amended, updated or broken at any time.

***Actions:***

1. Select the **File** tab. From the list select **Info** and then **Edit Links to Files**, found in the **Properties** panel at the bottom right of the screen. All links in the presentation are shown.




2. Click on the **Document** link (to **Products**). This is currently an **Automatic** link. Click the **Manual** option at the bottom of the dialog box.

3. Click **Close** on the dialog box, then save the presentation and close it.

4. Open *Word* and open the document **Products**. Delete the line showing **Trainer's Packs**.

5. Save the document with the same name and close *Word*.

6. In *PowerPoint*, open the **links** presentation, selecting the **Update Links** option when prompted.

7. Check the **Products** slide (slide **5**). The text has not been amended automatically, the update must be requested manually.

8. Select the **File** tab, select **Info** and then **Edit Links to Files**.

9. Click on the link to the **Products** document and click **Update Now**. The text is amended to match the source. Click **Close** and the **Home** tab to see the slide.

*Note: In the **Links** dialog box, [Change Source...] allows the link to be redirected to a new source and [Break Link] removes the link from that object.*

10. Save the presentation and close it.

# Exercise 37 - Revision: Linking and Embedding

1. Open the **Section4** presentation.

2. Insert text from the **Facilities.docx** file which is included with the supplied data files, to create 3 new slides at the end of the presentation.

3. Insert a **Title Only** slide at the end of the presentation and add a title of **Price List**.

4. Start *Excel* and open the spreadsheet **Prices.xlsx** and select the range **A1:D4**. Insert this range on to the new slide, so that the data on the slide is linked to the data in the spreadsheet.

5. Insert another **Title Only** slide at the end of the presentation and add a title of **Occupancy**.

6. Open the spreadsheet **Forest.xlsx** and insert the chart from the **Chart** sheet on to the new slide so that the data on the slide is linked to the data in the spreadsheet.

7. Save the presentation as **revision37** and close it.

8. In the **Prices** spreadsheet, increase the prices in the **Comfort** range by **£10**, then save and close the file.

9. In the **Forest** spreadsheet, change the colour of the **Chart Walls** to another suitable colour, then save and close the file.

10. Close *Excel*.

11. In *PowerPoint*, open the **revision37** presentation so that the updated data is shown.

12. Edit the links in the presentation. Make the link to the **Prices** data a **Manually** updated link.

13. Break the link to the chart data so that the chart on the slide will no longer be affected by changes in the original spreadsheet.

14. Save and close the presentation.

*Note: An example of slides added in this exercise can be found in the **Answers** section at the end of the guide.*