

Graphics

This document deals with the manipulation and formatting of graphical objects in Microsoft Word. Word can accept graphics in a variety of formats including TIF, GIF and JPG files. For some less common filetypes, the correct graphics filters need to be installed (but these generally are by default). You can also place other Microsoft Office objects in Word, such as an Excel chart, which can actively link back to the original program when they are edited.

It should be noted that there are two basic types of graphics - pictures and drawing objects. Pictures are often created by other software and you import a file into Word. A picture is composed of thousands of tiny colored squares and is often referred to as a bitmap. Examples include scanned pictures, digital photographs and clip art. Drawings objects on the other hand are made from lines, and are covered in the Drawing handout.

Adding a Picture

As mentioned in the introduction, *pictures* are fundamentally different from *drawings*. You can create your own picture in *Microsoft Paint and other Graphics Programs* using tools similar to those available in *Microsoft Draw*, but you can't edit it in the same way. Whereas with a drawing you can select, edit and move objects around, with a picture you have to erase any mistakes and start again.

Adding Clip Art or a Picture File

The usual source of a picture is from a file or clipart. Here it is assumed that you do not have a picture file to import, so clipart is used instead.

1. Type a paragraph (or use the shortcut =rand(1,3) <Enter>)
2. Open the **Insert** menu and choose **Picture** then, from the submenu, choose **Clip Art...** (you would use **From File...** here if you had one)

There's also a **New Drawing** option in this submenu. If you choose this then a *canvas* measuring 5" by 3" appears in your text. This can then be adjusted to the required size. Drawings made this way act just like a picture - ie they move along with the text as if they are a normal character.

3. Select any *Category* then choose any clip from that category
4. Press <Return> to add the clip to your document then [**Close**] the *Insert ClipArt* window

The clip art is positioned relative to its surrounding text. Here, you placed it on a blank line, so it's in its own paragraph. You can apply center justification to the paragraph in the normal way to position the picture in the center on the page:

5. Click on the [**Center**] button
6. Press <Return> *twice* to start a new paragraph, click on [**Align Left**] then type in a couple of lines of text (or use the shortcut =rand(1,3) <Enter>)

Resizing and Cropping a Picture

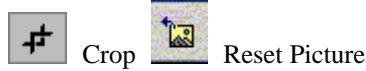
You can change the size and *aspect ratio* (width relative to height) of a graphical object using the handles which surround it when it's selected:

1. Click on the clip art - the handles appear together with a floating *Picture* toolbar

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2. Position the mouse cursor over any corner handle (it becomes a double-headed arrow)
3. Hold down the mouse button and drag the handle inwards to reduce the size of the picture
4. Repeat steps 2 and 3 but this time drag a side handle to change the picture aspect



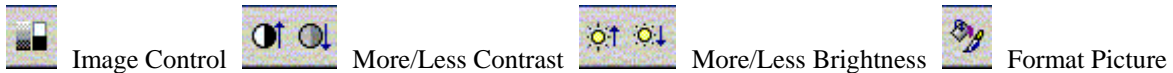
You can also cut off unwanted parts of a picture by cropping it:

5. Click on the [**Crop**] button on the new *Picture* toolbar - the mouse cursor takes on the same shape as the button
6. Position the cursor over the side handle where you want to remove part of the picture, hold down the mouse button and drag the mouse towards the center of the picture
7. A rectangle shows the area after cropping - release the mouse button when this is as required

If you decide you have cut off too much of the picture you can use the same procedure to uncrop it. You can also use [**Undo**] (or <Ctrl z>) to abandon the change. Finally, note also the [**Reset Picture**] button on the far right of the *Picture* toolbar which will set a picture back to its original settings (size, shape etc).

Formatting a Picture

With the clip art still selected, investigate the effect of some of the other buttons on the *Picture* toolbar. The first button ([**Insert a Picture**]) lets you replace the selected picture by another (or, if the toolbar is permanently displayed, add a new picture at the insertion point). There is no need to do this here.



1. Click on the next toolbar button ([**Image Control**]) and investigate the various options - end by resetting the control to **Automatic** to restore the color

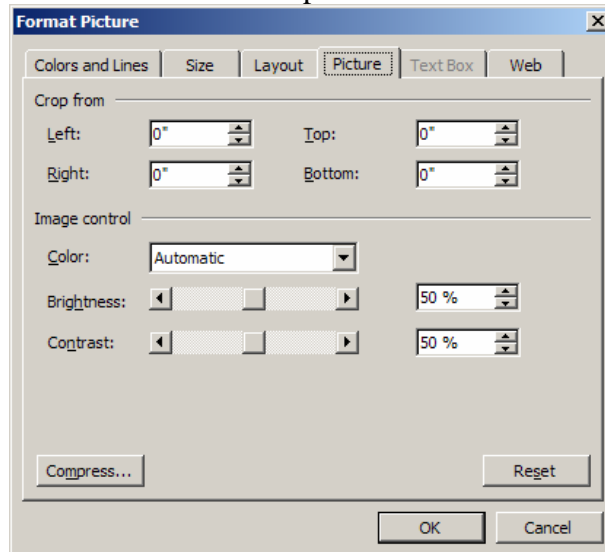
The next four buttons control the *contrast* and *brightness* - just like on a television. You have to click several times on each to see the effect.

2. Investigate the [**More Contrast**] ... [**Less Brightness**] buttons to see their effect

You can set these options precisely by using the **Format Picture** command:

3. Click on the [**Format Picture**] button - the *Format Picture* window appears

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On the *Picture* tab, note that you can set *Crop* and the *Image Control* here as well as via the toolbar button. The original **Contrast:** and **Brightness** values were 50% - to return to these settings:

4. Reset the *Brightness:* and *Contrast:* to **50%**
5. Press <Return> for [OK] to close the *Format Picture* window

Note that the [Reset] button provided in the *Format Picture* window sets everything back to the original settings, including any cropping or resizing.

Adding Other Graphics

There are numerous other sources of graphics which you might want to add to your document. Examples include equations, organization charts, Microsoft maps, *WordArt* and *AutoShapes*. Some of these are treated by Word as pictures (including the first three in the list above); others as drawings (the last two). How they can be edited and positioned mirrors what you can do with a normal picture/drawing.

Positioning Graphics, Text Wrapping and Anchors

When adding graphical objects to your document, you have seen how sometimes the object is positioned as you would expect (as a separate entity, which moves with the text) but sometimes in a seemingly random position (overlapping text or on top of another object). This behavior is dependent on various inter-related factors, especially the *Wrapping style*.

The *Wrapping style* here is set to **In line with text**. This means that it's part of the text and moves around just like any character within the paragraph. Click on **Cancel** to close the *Format Object* window

Wrapping Style

To learn more about text wrapping, carry out the following on a new document:

1. Press <Ctrl n> or click on the [New] button for a new document
2. Type a paragraph at least **5** lines long (type rubbish text, if you like, but include spaces) (use shortcut =rand(1,5)<enter>)

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3. Move the *insertion point* (typing position) into the middle of the top line
4. Press <Ctrl 2> to *double space* your paragraph
5. Now open the **Insert** menu, choose **Picture** then **Clip Art...** - select [**Horses**]
6. Click on a **horse** then press <Return> to insert it - [**Close**] the *Insert ClipArt* window
7. Click on the inserted picture and, using a corner handle, resize it to roughly **1 1/2 inch** (3.8 Centimeters) square

As you have seen previously, the picture acts like a normal character in the middle of a paragraph, with *text wrapping* set to *In line with text*.

8. Click on the [**Text Wrapping**] button on the *Picture* toolbar
9. From the drop-down menu, select **Square** - you will find the paragraph splits into 3 columns around the picture (with the text reading left to right across the columns)
10. Repeat step 8 but choose **Behind Text** - now the text runs over the horse
11. Repeat step 8 again but choose **In Front of Text** - the horse hides some of the words
12. Do the same again but choose **Top and Bottom** - the horse appears in its own paragraph (normally there would be text above and below, but the picture here is in the top line)
13. Finally try **Tight** - the text appears in columns, as with **Square**, but this time the column edges either side of the horse are not straight

The other option, **Through** has the same effect as **Tight** on this picture. The difference between them is that if the picture has open space within it then text can occupy that open space. If parts of your text are too close to the picture you can widen the gap by choosing **Edit Wrap Points**.

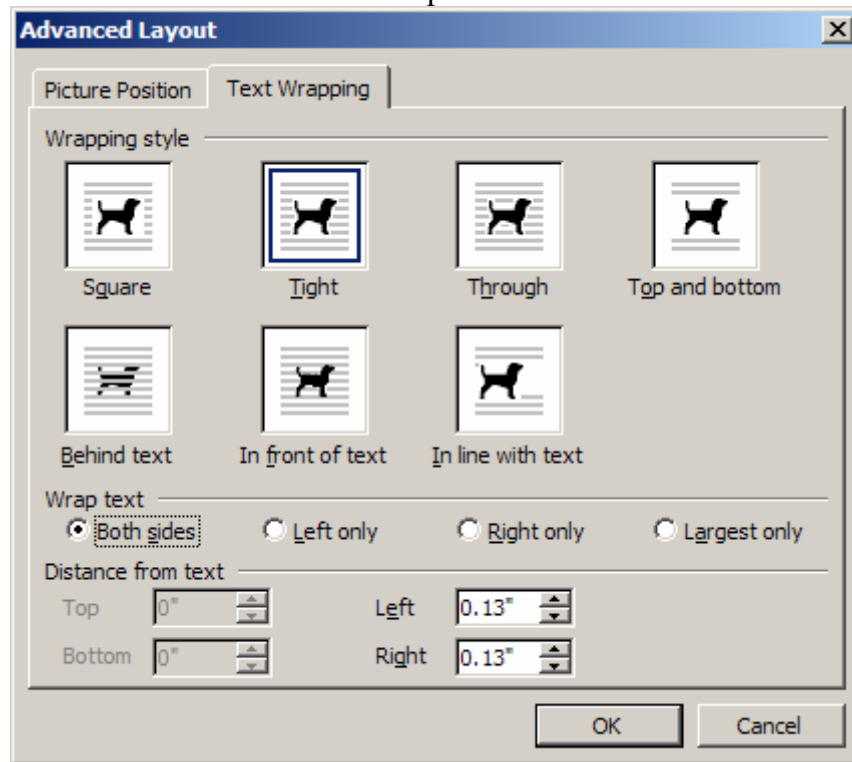
14. Repeat step 8 but choose **Edit Wrap Points** - the horse is surrounded by dots
15. Move the cursor over any of the dots, hold down the mouse button and drag the dot away from the horse - release the mouse button and the text moves away from the new *wrap point*

Advanced Layout

In the *Format Object* window, you can specify the margins surrounding an object more precisely:

1. With the horse still selected, click on the [**Format Picture**] button, move to the *Layout* tab then click on [**Advanced...**] - the *Advanced Layout* window appears:

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2. On the *Text Wrapping* tab, the *Wrapping styles* you've just seen are displayed
3. Beneath that, *Wrap text* lets you have text *Both sides* of the picture or just one
4. Note the *Distance from text* settings - these set the margins around the object precisely
5. Click on the other *Wrapping styles* and see how the *Distance from text* settings can vary - with some styles, part or all of the options are greyed out
6. End by setting the *Wrapping style* to **Square** then click on the *Picture Position* tab

Side-by-Side Columns

You've already seen how you can have text wrapping round both sides of a graphical object - with this, you have to read the text *across* the object. Sometimes, however, you want to read down the column to the left and then down the one to the right. You can create this effect using a multiple column layout but it's much easier to employ a table:

1. Press **<Ctrl End>** to move to the end of your text then **<Return>** for a new line
2. Click on the **[Insert Table]** button and drag across the first **3** cells in the top row
3. When you release the mouse button, the table skeleton is drawn underneath the horse.
4. Click on the horse and **[Cut]** it then click in the *middle* cell in the table and **[Paste]** it in
5. To center the picture in the cell, click on the **[Format Picture]** button and (on the *Layout* tab) set *Wrapping style* to **Tight** and *Horizontal alignment* to **Center**
6. Press **<Return>** for **[OK]** to close the *Format Picture* window
7. Now click in the *left* cell in the table and type in enough text to exactly fill it
8. Repeat step **6** but this time fill in the *right* cell in the table
9. The final step is to remove the lines around the cells:
10. Open the **Table** menu and choose **Select** then **Table**
11. Click on the *list arrow* attached to the **[Borders]** button and choose **[No Border]**
12. Press **<Ctrl End>** or click beneath the table and continue typing your text as normal
13. Turn off the paragraph marks - click on the **[Show/Hide ¶]** button

Watermarks

A watermark is a graphical object which appears very faintly in the background of a page. It can be used for stating copyright, for example. Watermarks should be inserted into a header or footer - it then prints out on every page. Though the anchor for the graphic is held in the header/footer, the graphic itself can be placed anywhere on the page.

To add a watermark:

1. Open the **View** menu and choose **Header and Footer**
2. Next open the **Insert** menu and select **Picture**

You now choose the object which will form your watermark. The procedure for making an object a watermark varies according to the type of object chosen. With clip art or a picture file, you can set the *Image Control* explicitly as a *watermark*; with WordArt or an AutoShape you don't have this facility. To see how to make such as object into a watermark:

3. Choose **WordArt...** then press <Return> for [OK] to accept the first WordArt style
4. Type the watermark text (eg **Copyright Your_Name Date**) - press <Return> for new lines
5. Click on [OK] to insert the WordArt into your document - a special toolbar appears
6. Now click on the [Format WordArt] button on the special *WordArt* toolbar
7. On the *Colors and Lines* tab, under *Line*, click on the *list arrow* attached to **Color:**
8. Click on **More Colors...** and select a light grey shade - press <Return> for [OK]
9. Move to the *Layout* tab and set the *Wrapping style* to **Behind text**
10. Click on [Advanced...] and, on the *Picture Position* tab set both the *Horizontal* and *Vertical Alignment* to **Centered** relative to **Page**
11. Press <Return> *twice* to close the *Advanced Layout* and *Format WordArt* windows

Click on [Print Preview] to see the watermark effect - then [Close] *Print Preview*

To see how to make a picture a watermark:

- Open the **View** menu and choose **Header and Footer**
 - Click on the [Paste] button - the horse should still be on the clipboard
 - Click on the [Text Wrapping] button and choose **Behind text**
 - Now, click on the [Image Control] button and choose **Watermark**
 - Using the [More Brightness] button, lighten the object if necessary
 - Using the <arrow keys> move the picture up to the top right corner of the page
 - Finally [Print Preview] the watermark effect - then [Close] *Print Preview*
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