Working with Graphics:

How to use images, graphics and charts in OOo Writer

Contents

Overview

This describes how to insert images and graphics into documents written with OpenOffice.org Writer; modify, resize, position, and anchor graphics; add captions; and use Writer's drawing tools.

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Contributors: Jean Hollis Weber contributed the sections on automatic and manual captions, anchoring graphics, and Writer's drawing tools. Portions created by Jean Hollis Weber are Copyright © 2004. All Rights Reserved. (Contributor contact jeanweber@openoffice.org.)

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Feedback

Please direct any comments or suggestions about this document to: authors@user-faq.openoffice.org.

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Many thanks and congratulations to the developers who provided us with a great product! Thanks to the the community of authors, reviewers and support people for getting the project up and running. This is a great contribution for open software freedom.

Modifications and updates

Version	Date	Description of Change
1.0	3 January 2005	First published edition.

Graphics in Writer documents

When you write a text document using OpenOffice.org Writer, you may may need to include some graphic illustrations.

Graphics in Writer are of three basic types:

- Graphic and image files, including photos, drawings, scanned images, and others
- Diagrams created using Writer's drawing tools
- Charts created using OOo's Chart facility (see the chapter titled "Working with Charts" in the Common Features Guide)

This chapter covers the first two types of graphic illustrations. Most parts of this chapter also apply to the other components of OOo.

How to add a graphic from a file

OpenOffice.org can import various vector (line drawing) and raster (bitmap) file formats. The most common are .gif, .jpg, .png, and .bmp. See Appendix A on page 18 for a full list of supported graphic file types.

Graphics may be downloaded from the Internet, scanned, created with a graphics program, or they may be photos taken with a digital camera. Some questions come to mind:

- How is a graphic inserted?
- Should the graphic be included in the document, or should it be linked to the file?
- How can the size of the graphic be adjusted?
- How can the relative position between the graphic and the text be changed?

These questions will be discussed in order.

Inserting a graphic from a file

To insert a graphic image from a file, the file must be stored in a directory (folder) on the computer.

Proceed as follows:

1) On the main menu. select **Insert > Image > from File**. This displays the window shown in Figure 1.
2) Navigate to the file to be inserted.
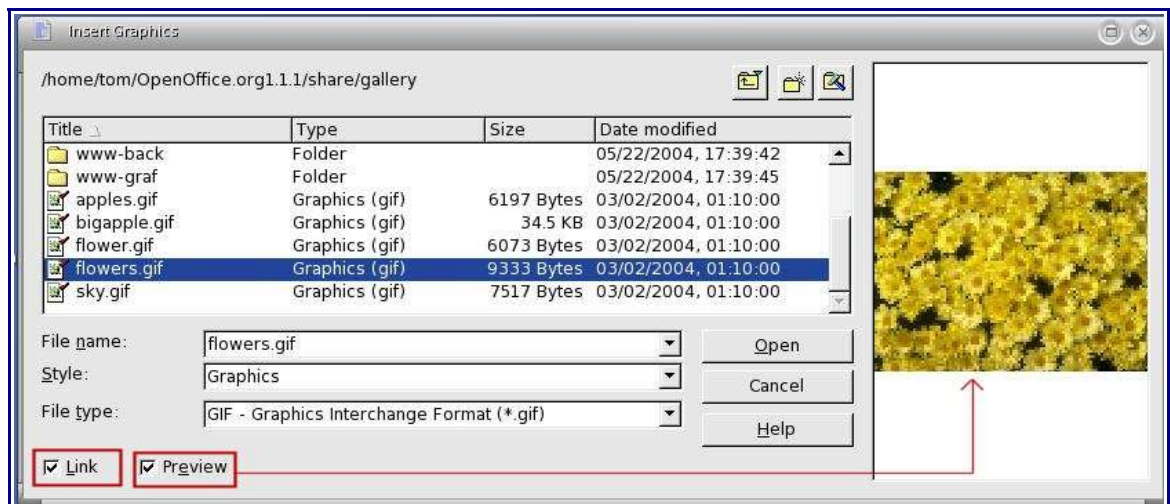3) Select the file to insert and click **Open**.

Figure 1. Insert Graphics dialog

Note: *At the bottom of the Insert Graphics dialog (Figure 1) are two checkboxes. If the* **Preview** *checkbox is checked, the selected graphic file is previewed in the window, as shown in Figure 1, so you can verify that you have the correct file. The* **Link** *checkbox is discussed below.*

Linking a graphic file

If the **Link** checkbox in the Insert Graphic dialog is checked, OOo will create a link to the file containing the graphic, instead of saving a copy of the graphic in the document. The result is that the figure will be displayed in the document, but when the document is saved, it will contain only a reference to the graphic file, but not the graphic itself. The document and the image remain two separate files, and they are merged together only when you open the document again.

Linking an image has two advantages and one disadvantage:

- Advantage – Linking can reduce the size of the document when it is saved, because the image file itself is not included.

- Advantage – You can modify the image file separately, without changing the document, because the link to the file remains valid and the modified image will appear when you next open the document.

- Disadvantage – If you send the document to someone else, you must also send the image file, or the receiver will not be able to see the linked image.

Resizing a graphic

It is possible, and quite likely, that the inserted image will not fit perfectly into the document because it is too big or too small. Therefore you will probably need to resize the image.

The position of the image is not relevant for now. Changing the position of an image relative to the text is discussed in "Positioning graphics within the text" on page 8.

You can modify the size of a graphic in two ways:

- Unscaled resize
- Scaled resize

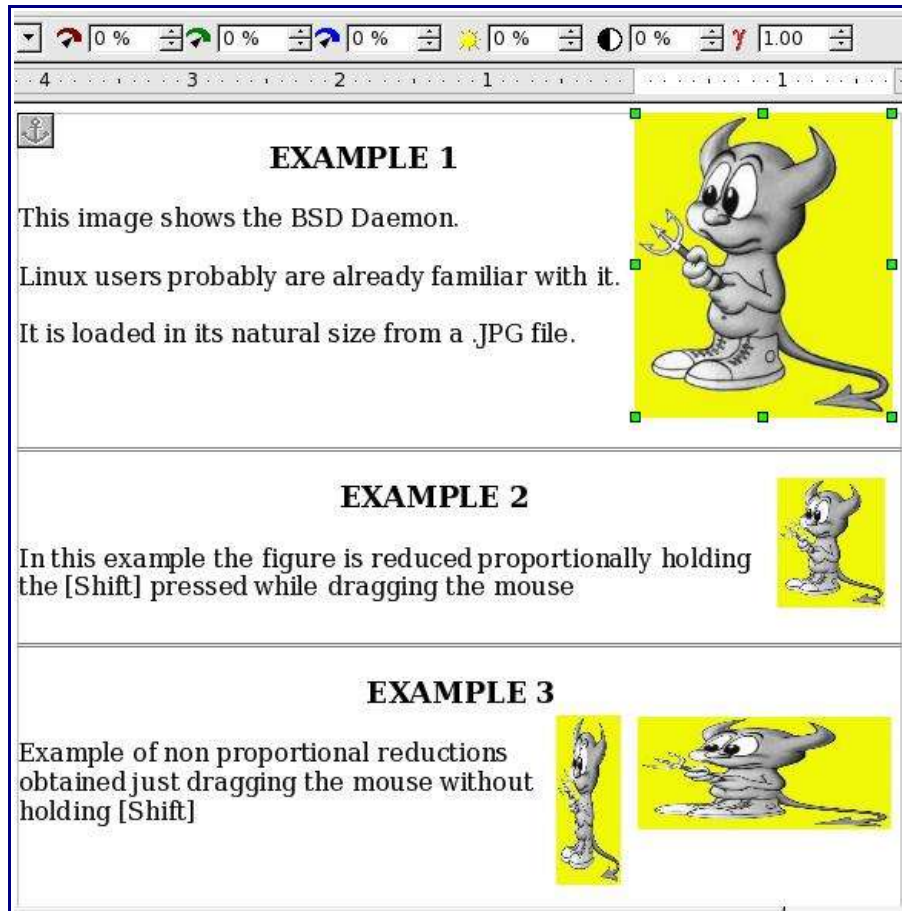Figure 2 shows three examples of an image inserted into a document and resized.

Figure 2. Three examples of resized images, plus the original image

Unscaled resize

In Example 1, the image is in its natural size. When you add a new graphic (and also when you select an existing one by clicking on it), it displays some square points along its perimeter; these are called *handles*. To resize the graphic:

1) Move the cursor onto a point.

2) Click the left mouse button.

3) Drag the mouse to modify the size of the figure.

This basic resizing process is useful if you need to specify the size and the height independently of each other. The problem with this method, as demonstrated in Example 3, is that when the graphic is not changed to scale, it will be distorted.

You need to either carefully measure and calculate how much the image needs to be adjusted in the horizontal and vertical directions in order to maintain the correct proportions, or use the "scaled resize" method described below.

Scaled resize

A scaled resize is usually the best option, because it automatically maintains the proportions of the graphic. To perform a scaled resize:

1) Press and hold the *Shift* key.

2) Click and drag a corner handle of the graphic.

   It will resize proportionally, as shown in Example 2.

3) Release the mouse button to complete the resize.

Inserting images from other sources

You can insert images from sources other than a file on a computer. The possible sources for images are:

- Graphics program

- Scanner

- OOo Gallery

From a graphics program

You can use many different graphics programs to edit a graphic file. In these programs you can select, copy, and paste an image, or part of a graphic into an OpenOffice.org document. Figure 3 shows an example of this procedure, which can be recreated with these steps:

1) In the imaging program window, select an area of the image to be copied. (The program used in the example is Paint Shop.)

2) Move the cursor over the selected area and press *Control+C* to copy.

3) Switch to the OpenOffice.org Writer window.

4) Click to insert the cursor where the graphic is to be inserted.
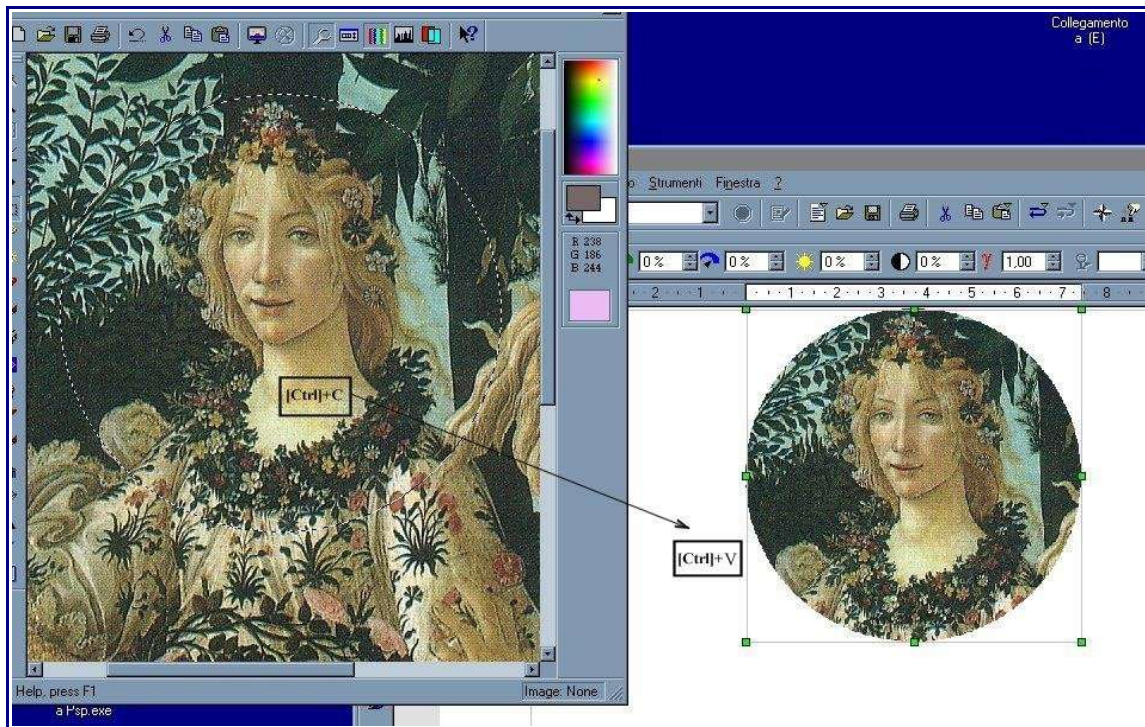
5) Press *Control+V* to paste.

Figure 3. Using a graphics program

Scanner

If a scanner is connected to your computer, OpenOffice.org can call the scanning application. The scanned item will then be added into the OOo document page as an image. To start this procedure, select on the Main Menu **Insert > Graphic > Scan > Select Source**.

OpenOffice.org Gallery

The Gallery is available in all components of OpenOffice.org. For an introduction to the Gallery, see the chapter titled "Working with the Gallery" in the Common Features Guide.

You can select a graphic from the Gallery and drag it into the document. The Gallery icon is located in the right side of the Function Bar. Proceed as follows:

1) Click on the Gallery icon 🖼️.

2) Select the theme containing the image you want to insert.

3) Click on the image with the left mouse button and, holding the button pressed, drag the image into the document.

4) Release the mouse button.

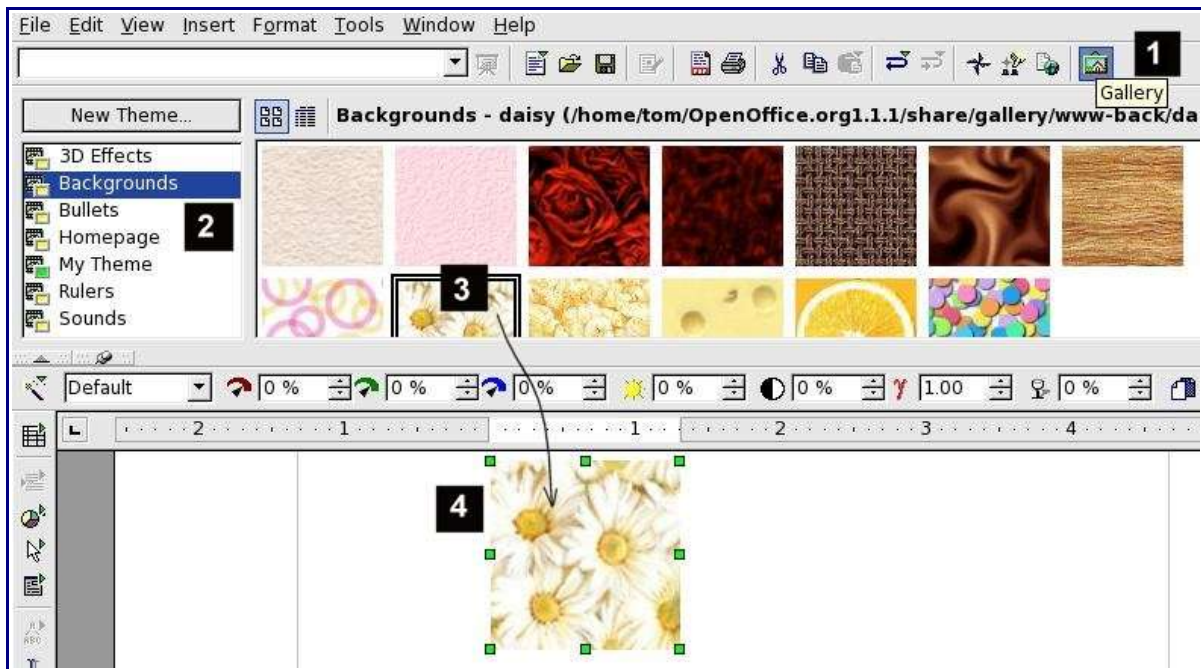Figure 4 shows an example of image dragged from the Gallery.

Figure 4. Inserting an image from the gallery

Adding an image to the Gallery

You may wish to add to the Gallery any images that you use frequently, for example a company logo. You can then very easily insert these graphics into a document later.

To add images to the Gallery, proceed as follows:

1) Open the Gallery.

2) Select the theme where you want to add images, or click the **New Theme** button to create a new one.

3) Right-click on the desired theme and select **Properties** in the pop-up menu. This will display a window from which to select the files to be added (see Figure 5).

4) In this window, click the **Find Files** button. Select the directory in which to start the search, and the file types to limit the search.

5) A list of graphic files will be displayed in the window.

6) Select the files to add.

Note: To select more than one file, hold the Control button down while you click on each file.

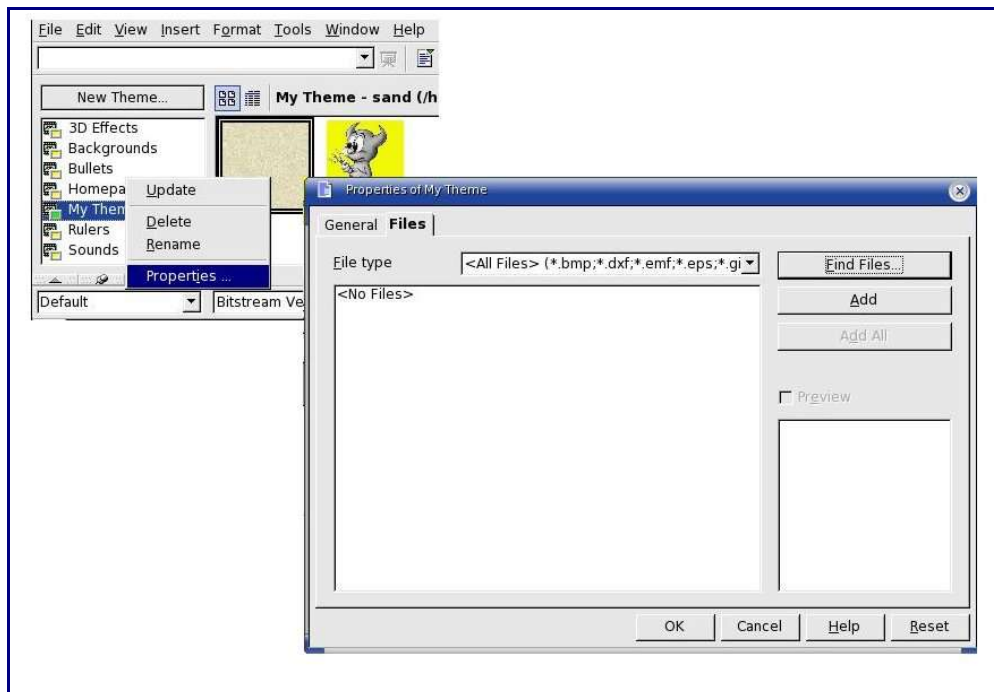7) Finally, click the **Add** button.

Figure 5. Gallery properties menu

Modifying an image

When you insert a new image, or select one already present in the document, the Object toolbar changes. (This toolbar always changes automatically according to the object that is being worked with, for example text, table, image, or diagram.)

Figure 6 shows what the Object toolbar displays when an image is selected.

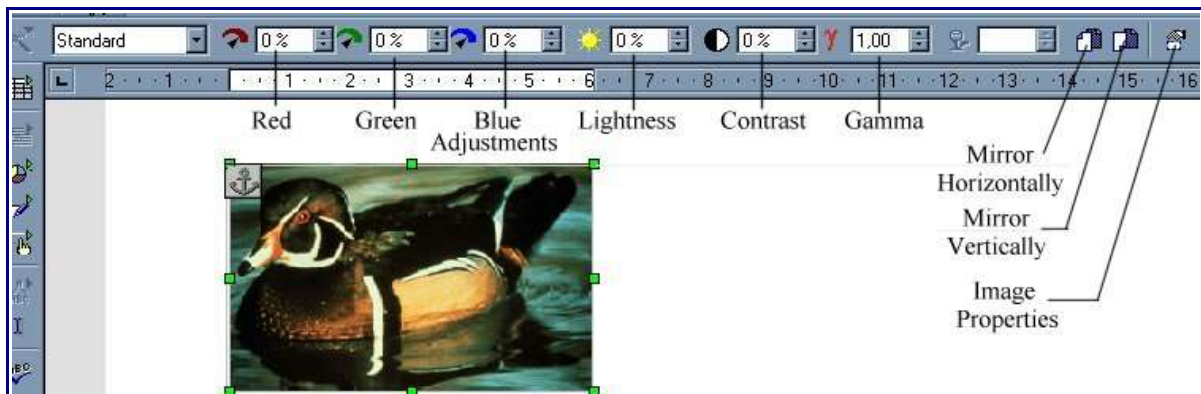
Figure 6. Object Toolbar when a graphic is selected

From this toolbar, you can mirror (flip) the graphic horizontally or vertically, and correct the lightness, contrast, and color of the graphic. These functions are useful when you want to apply small corrections to the graphic or obtain special effects.

Figure 7 provides examples of the changes that can be applied from the object toolbar.
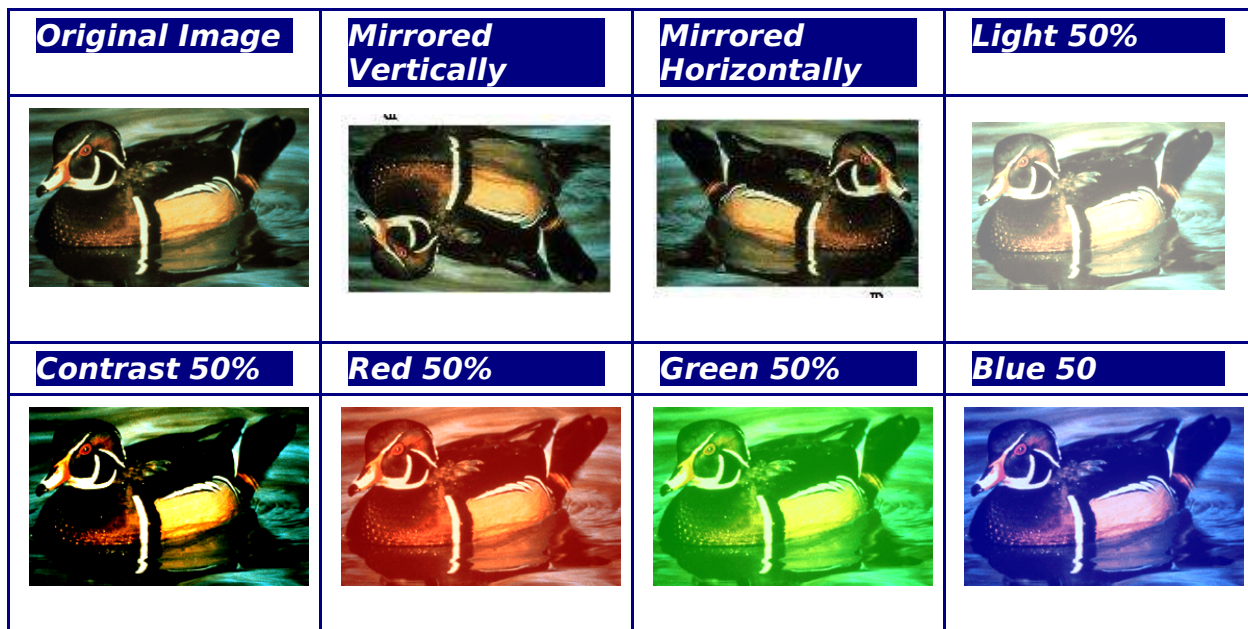
Original Image	Mirrored Vertically	Mirrored Horizontally	Light 50%
Contrast 50%	Red 50%	Green 50%	Blue 50

Figure 7. Graphic effects that can be changed from the graphic object toolbar

Notes: *For more sophisticated adjustments it is better to use an image manipulation program such as* **GIMP.** *GIMP is an open source graphics program that can be downloaded from* <u>http://www.theopencd.org</u>.

Positioning graphics within the text

When you add a graphic to a text document, you need to choose how to position the graphic with respect to the text and other graphics.

Graphic *arrangement* refers to the placement of a graphic behind or in front of other graphics or text. *Alignment* refers to the vertical or horizontal placement of a graphic in relation to the page, frame, paragraph or character to which it is anchored. *Text wrapping* refers to the relation of graphics to surrounding text, which may wrap around the graphic on one or both sides, be overprinted behind or in front of the graphic, or treat the graphic as a separate paragraph or character.

Arranging and aligning graphics

You can arrange and align graphics using commands from:

- Menu options (from the menu bar or the right-click menu)
- Frame/Graphics Object Bar
- Graphics dialog

Frame/Graphics Object Bar

There are two toolbars related to manipulating graphics: the Graphics Object Bar and the Frame Object Bar. You can switch between these two toolbars as needed.

When you select a graphic, the Graphics Object Bar (shown in Figure 6) may be displayed. Click on the left-facing arrow at the right end of the toolbar to display the Frame Object Bar (Figure 8).

Here you can click icons to apply many arrangement, alignment, wrapping, anchoring, formatting, and other choices. You can toggle this object bar by clicking on the left-facing arrow at the right-hand end to redisplay the Graphics Object Bar.
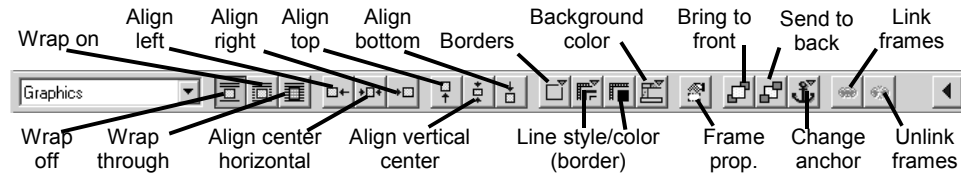
Figure 8. Frame object bar

Graphics dialog

Click **Format > Graphics**, or right-click and then click **Graphics** on the pop-up menu, or click the **Frame Properties** icon on the object bar to display the Graphics dialog. Here you can specify the characteristics of the graphic and its placement in detail.

Wrapping text around graphics

The Wrap menu options provide several possibilities:

- Alternate paragraphs and graphics, maintaining a separation between them (*No Wrap*).

- Wrap text around the graphics (*Page Wrap* or *Optimal Page Wrap*).

- Put a semi-transparent graphic over the text (*Wrap Through*).

- Add a graphic in the background (*In Background*).

Often you need to insert graphics with no text around them, as in this chapter. To set the position of an image to *no wrap*, follow the following steps:

1) Select a graphic by clicking on it.

2) Right-click to display the context menu and move the cursor to *Wrap* to display the various wrap modes.

3) Select *No Wrap.*

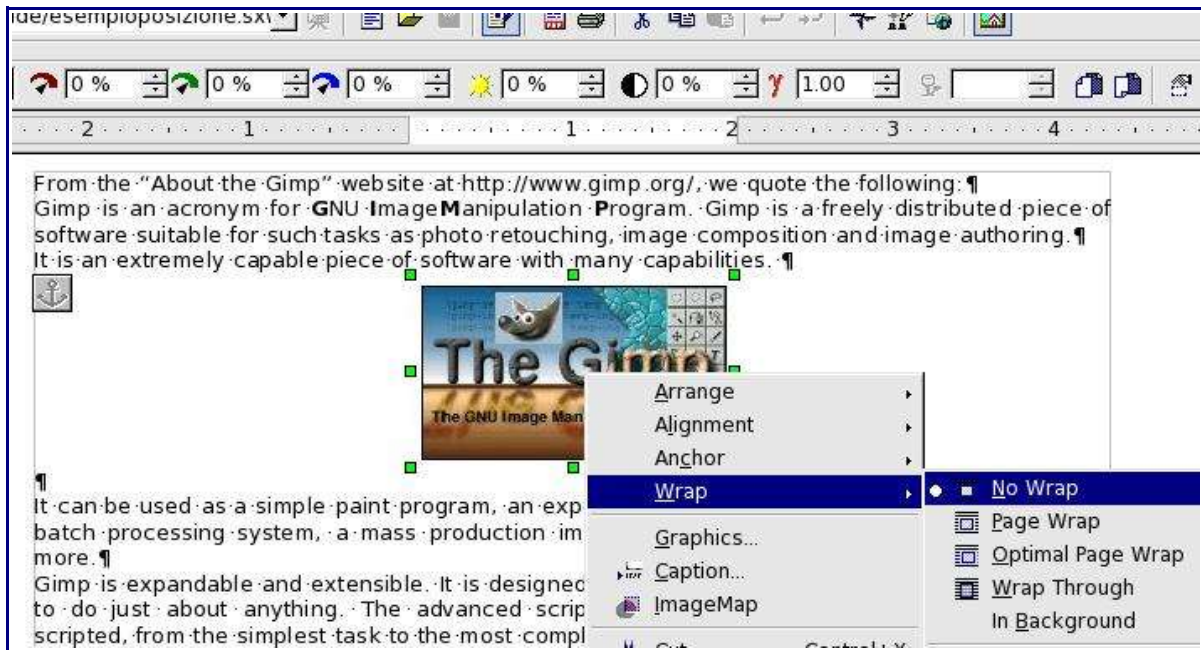Figure 9 shows an example of this operation.

Figure 9. Changing the wrap of a graphic

When formatting some documents, such as newsletters, you may want to put photos mixed with text, or just want to add some decorative images. The *Page Wrap* option may satisfy this need. Figure 10 shows an example of a graphic insertion with the *Page Wrap* option
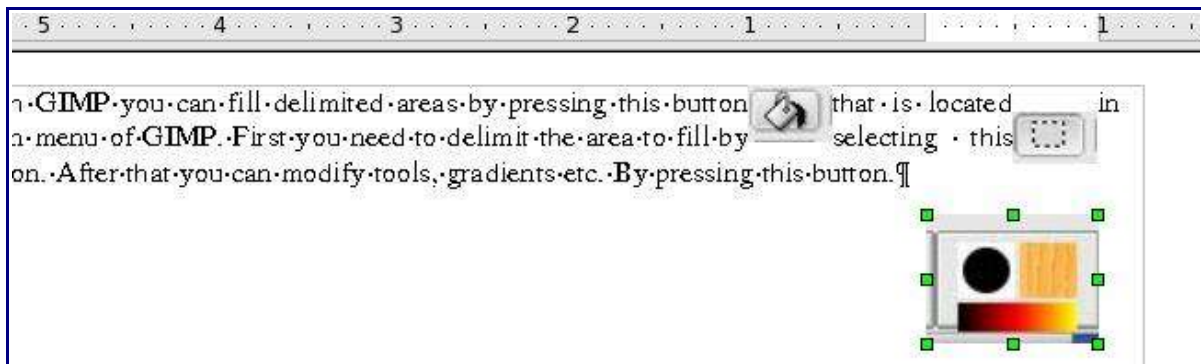

Figure 10. Inserting a graphic using the page wrap option

When an image is inserted with the page wrap option, you can move it anywhere on the page. The text will be automatically adjusted around the image, like water around a sailing boat.

Th *Optimal Page Wrap* option is similar to *Page Wrap* but it maintains the text positioned beside the image. The position is decided automatically in order to optimize the relative position between text and image.

Double-clicking on an image pops up a window where you can set all the parameters affecting the image (see Figure 11). This is where you can change the setting for the optimal page wrap.
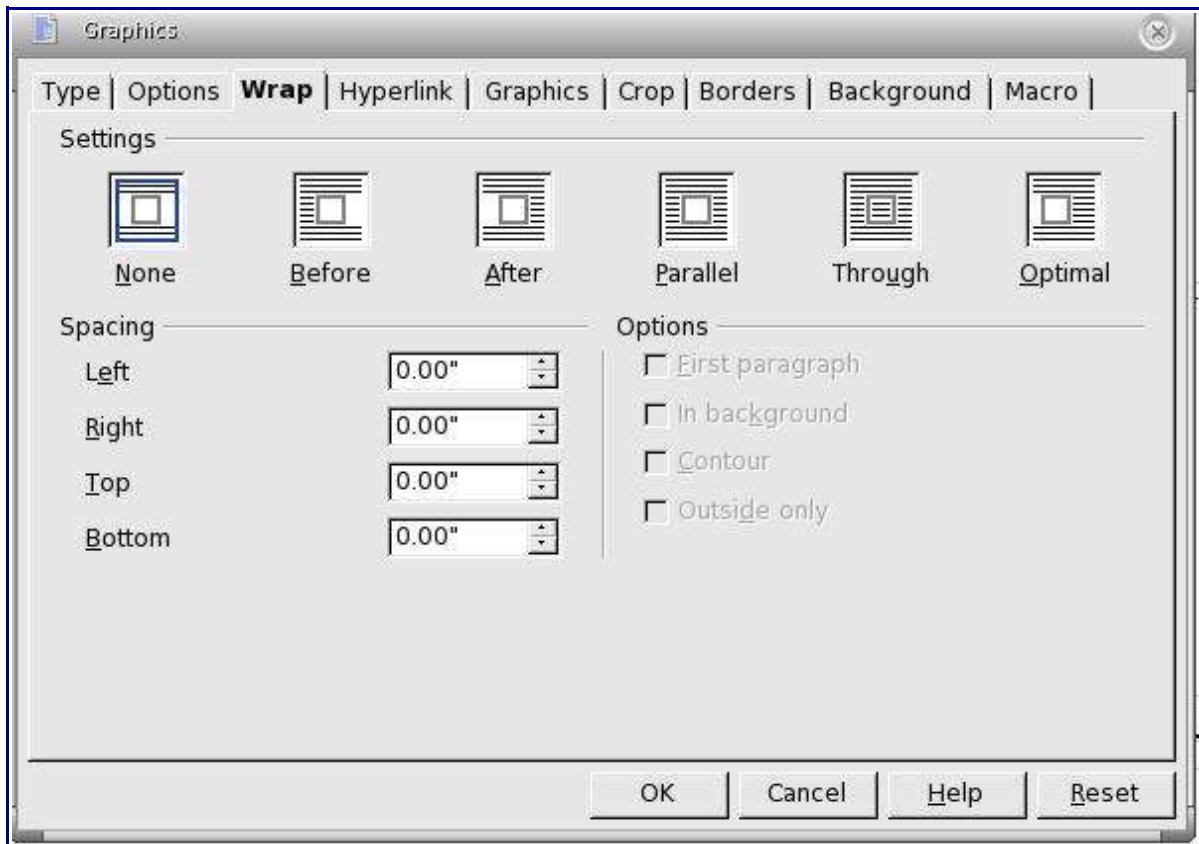
Figure 11. Graphic properties menu

You can also insert an image overlapping the text. In this case some part of the text will be hidden, unless you change the transparency of the image.

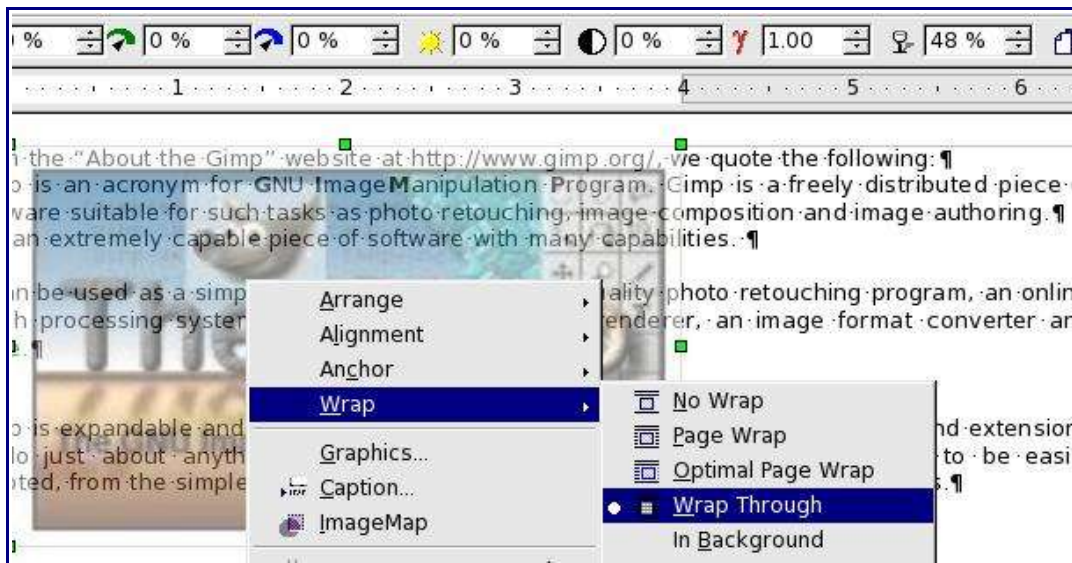The final result looks like a decal applied over the text, as in Figure 12

Figure 12. Transparent image added over the text

In the upper right corner of Figure 12, it is clear that the transparency is set to 48%, so that the words under the image are visible, but appear lighter than the rest of the text.

You can obtain a similar result if you set a graphic's wrap to *In Background*. In this case all the text will be clearly readable, with characters that have the same intensity. However, the background graphic should not be dark, otherwise the text could be difficult to read.

Anchoring graphics and drawing objects

You can anchor graphics to a page, paragraph, or character, or as a character. You can also place graphics in a frame and anchor the frame to a page, paragraph, or character. Which method you choose depends on what you are trying to achieve.

Here are the ways you can anchor graphics or drawing objects:

To Page
Graphic keeps the same position in relation to the page margins. It does not move as you add or delete text or other graphics. This method is useful when the graphic does not need to be visually associated with a particular piece of text. It is often used when producing newsletters or other documents that are very layout-intensive.

To Paragraph
Graphic is associated with a paragraph and moves with the paragraph. It may be placed in the margin or another location. This method is useful as an alternative to a table for placing icons beside paragraphs.

To Character
Graphic is associated with a character but is not in the text sequence. It moves with the paragraph but may be placed in the margin or another location. This method is similar to anchoring to a paragraph but cannot be used with drawing objects.

As Character
Graphic is placed in the document like any other character and therefore affects the height of the text line and the line break. The graphic moves with the paragraph as you add or delete text before the paragraph. This method is useful for keeping screen shots in sequence in a procedure, or for adding a small icon in sequence in a sentence.

To Frame
If the graphic has been placed in a frame, you can anchor the graphic in a fixed position inside the frame. The frame can then be anchored to the page, a paragraph, or a character, as required.

Adding captions to graphics

You can add captions to graphics in three ways: automatically, by using the Caption dialog, and manually.

Adding captions automatically

You can set up OOo to add captions automatically whenever you insert a graphic, a table, or other objects into a document. You can choose which objects are captioned automatically, what the sequence name is for each caption (for example, "Table" or "Figure"), and the position of the caption.

To set up automatic captions:

1) Click **Options > Text Document > General**.

2) Select **Caption – Automatic**, then click the **Object Selection** button.

3) On the Caption dialog, choose which objects will be automatically captioned and specify the characteristics of the captions.

For more information, see "General options for text documents" in the chapter titled "Setting up Writer."

Now when you insert a graphic, it will be placed in a frame with a caption containing the default sequence name for graphics (for example, "Figure"). Position the cursor in the caption area and type the text for the caption.

Using the Caption dialog

To add captions using the Caption dialog:

1) Insert the graphic, then select it and click **Insert > Caption**.

2) On the Caption dialog (Figure 13), select the caption category ("Illustration" in this example) and Arabic (1 2 3) as the numbering, and type your caption text.

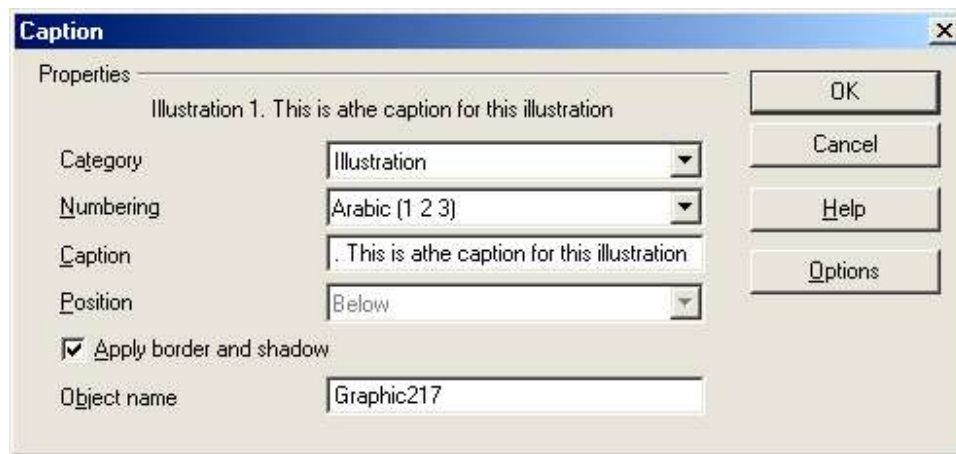3) Click **OK**. The graphic and its caption are placed in a frame, as shown in Figure 15.

Figure 13. Defining the caption for an illustration

TIP   In the Category box, you can type any name you want—for example, "Figure." OOo will create a numbering sequence using that name.
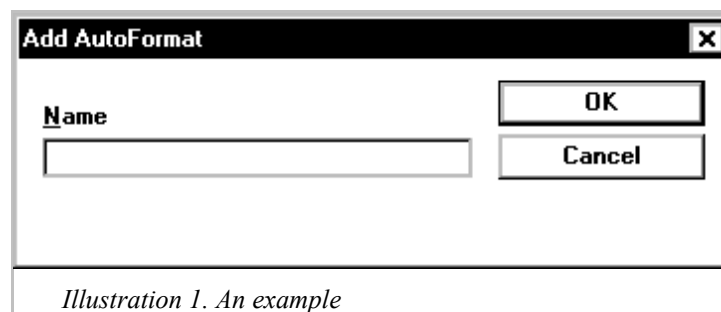

Illustration 1. An example

Figure 14. An example of a graphic and its caption contained in a frame. The outer box shows the edge of the frame; this border is normally set to be invisible.

Adding captions manually

To add a caption to a graphic manually, you need to place the graphic in one paragraph and the caption in the following paragraph. Here's how:

1) Insert the graphic and anchor it to its paragraph as a character. Press *Enter* to create a new paragraph for the caption.

2) In the caption paragraph, type the word "Figure" and a space.

3) To insert the figure number, click **Insert > Fields > Other** and select the Variables tab.

4) Select **Number Range** in the *Type* list. Select **Figure** in the *Selection* list. Click the **Insert** button.

5) A number will appear after the word "Figure" in the caption. Type the text of the caption.

TIP	Using the Fields dialog can get a bit cumbersome if you are manually adding captions to a lot of figures, so you might want to make an AutoText entry containing the word Figure, the figure-number field, and the space after the number.

Using Writer's drawing tools

You can use Writer's drawing tools to create graphics such as simple diagrams using rectangles, circles, lines, text, and other objects. Group the drawing objects to make sure they stay together the way you intended.

You can use the drawing tools to place drawing objects directly on a page in your document, or you can insert the drawing objects into a frame.

You can also use the drawing tools to annotate photographs, screen captures, or other illustrations produced by other programs, but this is not recommended for these reasons:

- You cannot include graphics in a group with drawing objects, so they may get out of alignment in your document.
- If you convert a Writer document to another format, such as HTML, the drawing objects and the graphics will not remain associated; they will be saved separately.

Instead, use OOo Draw or another graphics program to annotate illustrations.

Creating drawing objects

To begin using the drawing tools, display the Draw Functions toolbar (Figure 15),

Long-click on the Show Draw Functions icon ![icon] on the main toolbar (normally found on the left-hand side of the Writer window).

If you are planning to use the drawing tools repeatedly, you can tear off this toolbar and move it to a convenient place on the window.
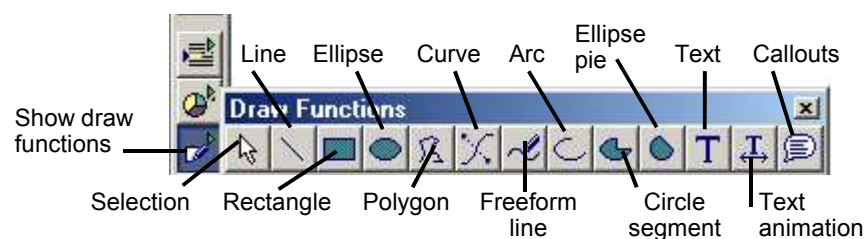

Figure 15. Displaying the Draw Functions toolbar

To use a drawing tool:

1) Click in the document where you want the drawing to be anchored. You can change the anchor later, if necessary.

2) Select the tool from the Draw Functions toolbar (Figure 15). The mouse pointer

changes to a drawing-functions pointer, a cross-hair with a symbol for the selected tool.

3) Move the cross-hair pointer to the place in the document where you want the graphic to appear, and then click and drag to create the drawing object. Release the mouse button. The selected drawing function remains active, so you can draw another object of the same type.

4) To cancel the selected drawing function, press the *Esc* key or click on the selection icon (the arrow) on the Draw Functions toolbar.

5) You can now change the properties (fill color, line type and weight, anchoring, and others) of the drawing object using either the Drawing object bar (Figure 16) or the choices and dialogs reached by right-clicking on the drawing object.

Setting or changing properties for drawing objects

To set the properties for a drawing object before you draw it:

1) On the Draw Functions toolbar (Figure 15), click the **Selection** tool.

2) The object bar changes to look like Figure 16. Click on the arrows next to each property and select the value you want for that property.
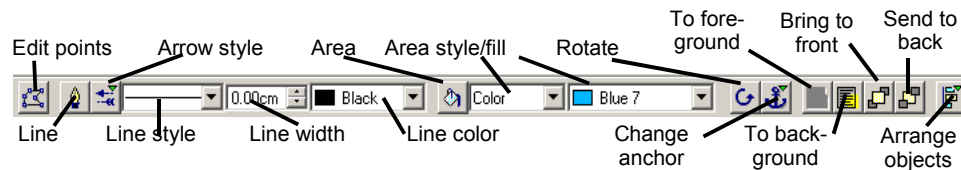

Figure 16. Drawing object bar

3) For more control, or to define new attributes, you can click on the **Area** or **Line** icons to display detailed dialogs.

The default you set applies to the current document and session. It is not retained when you close the document or close Writer, and it does not apply to any other document you open. The defaults apply to all the drawing objects except text objects.

To change the properties for an existing drawing object:

1) Select the object. The object bar changes to look like Figure 16.

2) Continue as described above.

You can also specify the position, size, rotation, slant, and corner radius properties of the drawing object:

1) Right-click on the drawing object, and then click **Position and Size** from the pop-up menu. The Position and Size dialog is displayed.

2) Choose properties as required.

Grouping drawing objects

1) Select one object, then hold down the Shift key and select the others you want to include in the group. The bounding box expands to include all the selected objects.

2) With the objects selected, click **Format > Group > Group**, or right-click and then click **Group > Group** on the popup menu.

You cannot include an embedded or linked graphic in a group with drawing objects.

Appendix A: Graphic file types supported

OpenOffice.org Writer can open the file types listed in Table 1.

Table 1. Graphic file types supported by OpenOffice.org Writer

File extension	File type
BMP	Windows Bitmap
DXF	AutoCAD Interchange Format
EMF	Enhanced Metafile
EPS	Encapsulated PostScript
GIF	Graphics Interchange Format
JPG, JPEG	Joint Photographic Experts Group
MET	OS/2 Metafile
PBM	Portable Bitmap
PCD	Kodak Photo CD
PCT	Mac Pict
PCX	Zsoft Paintbrush
PGM	Portable Graymap
PNG	Portable Network Graphic
PPM	Portable Pixelmap
PSD	Adobe Photoshop
RAS	Sun Raster Image
SGF	StarWriter Graphics Format
SGV	StarDraw 2.0
SVM	StarView Metafile
TGA	Truevision Targa
TIF, TIFF	Tagged Image File Format
WMF	Windows Metafile
XBM	X Bitmap
SPM	X PixMap