Calc Guide

Chapter 8
Using Graphics in Calc

OpenOffice.org

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Authors

Peter Kupfer
Iain Roberts
Agnes Belzunce
Jean Hollis Weber
Rod Englesman
Alexandre Martins

Feedback

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Graphics in Calc

Graphics can be very useful aids to presenting data in OpenOffice.org (OOo) Calc. In this chapter, and in OOo as a whole, the word *graphics* includes both pictures and drawings. Calc is often used to present data and to make forecasts and predictions. Adding graphics can turn an average document into a memorable one.

This chapter covers adding graphics, pictures, and drawings in Calc. In most aspects, using graphics in Calc is very similar to using graphics in any other OOo component. This chapter explains some of the differences in their use. It also covers some of the more advanced graphics functions and how they can enhance spreadsheets further.

Inserting pictures

Pictures, including corporate logos and photographs of products and people, are probably the most common type of graphic added to a Calc document.

Graphics can be inserted in three ways:

- From a file
- From the gallery
- From another application by copying and pasting

From a file

The most common way to insert a picture is from an existing file. To insert a picture from a file:

1) Select **Insert > Picture > From File** from the menu bar.

Note	The Insert Picture window can also be launched from the Draw toolbar by clicking on the button.

2) In the *Insert Picture* window (Figure 1), navigate to and select the file to insert.

3) Select **Open**. The selected file is inserted into the spreadsheet.

Note	The picture is inserted into Calc floating above the cells. See "Anchoring" on page 13 for an explanation of how to anchor graphics.

Figure 1: Insert Picture window

From the Gallery

The Gallery provides a convenient way to group reusable objects such as graphics and sounds that can be inserted into documents. The Gallery is explained in more depth in the chapter titled "Working with the Gallery" in the *Getting Started* guide.

This section explains the basics of inserting a picture into Calc from the Gallery.

1) To open the Gallery, choose **Tools > Gallery**, or click on the Gallery icon 🖼 . (See Figure 2.)

Figure 2: Gallery open in Calc

2) Navigate through the Gallery to find the desired picture.

3) To insert the picture, either **right-click** and choose **Insert > Copy** or click and drag the picture into the spreadsheet

Note	You can also insert a picture using **Insert > Link**. The difference between a copy and a link is that a copy saves the image into the file so that any changes to the original file don't affect the document. A link is the opposite. A link is essentially a pointer to the original image. That means if you change the image file, the image in the document will change as well.

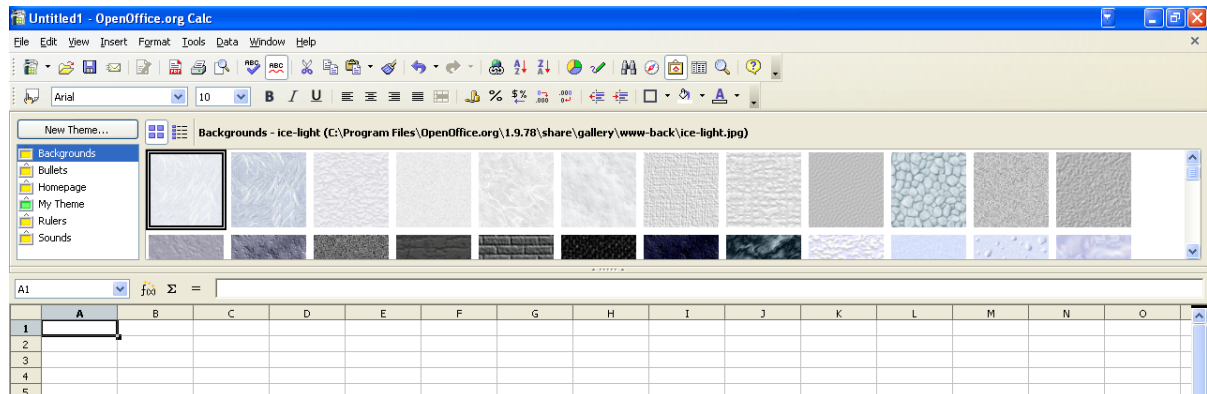4) To close the Gallery, choose **Tools > Gallery** and uncheck the **Gallery** entry, or click on the Gallery icon 🏠 again.

From another application – copying and pasting

Pictures can be copied into Calc from other applications, both from other components of OOo and from non-OOo applications. To do this:

1) In the other application, copy the image to the clipboard.

2) Switch into Calc.

3) **Right-click** and choose **Paste** or select **Edit > Paste** to insert the graphic.

Caution ⚠️	If the application from which the graphic was copied is closed before the graphic is pasted into Calc, the image stored on the clipboard may be lost.

Drawing in Calc

Calc, like the other components of OOo, has a range of tools to create custom drawings. This chapter covers the default options in Calc. For a more detailed explanation of the drawing tools and their uses, please see the *Draw Guide*.

To access the drawing tools:

1) Select **View > Toolbars > Drawing**.

2) The drawing toolbar appears at the bottom of the screen (Figure 3).

Figure 3: Drawing toolbar

Table 1 describes the tools in this toolbar (left to right).

Table 1: Draw toolbar options

Toolbar button	Default behavior
Select	Selects objects.
Line	Draws lines.
Rectangle	Draws a rectangle with a black border and blue background.
Ellipse	Draws an ellipse with a black border and a blue background.
Freeform Line	Draws a freeform line.
Text	Draws a text box with no border.
Callouts	Draws a square callout with a line connecting to one location.
Basic Shapes	Clicking on the icon draws a diamond with a black border and blue background. Clicking on the drop down arrow displays other shapes.
Symbol Shapes	Clicking on the icon draws a smiley face with a black border and blue background. Clicking on the drop down arrow displays other shapes.
Block Arrow	Clicking on the icon draws a double sided block arrow with a black border and blue background. Clicking on the drop down arrow displays other arrows.
Flowcharts	Clicking on the icon draws a table like symbol with a black border and blue background. Clicking on the drop down arrow displays other flowchart shapes.
Callouts	Clicking on the icon draws a curved rectangular callout with a black border and blue background. Clicking on the drop down arrow displays other callout shapes.
Stars	Clicking on the icon draws a 5 pointed star with a black border and blue background. Clicking on the drop down arrow displays other stars.
Points	Allows editing of the points of a selected polygon.
Fontwork Gallery	Opens the fontwork gallery.
From File (Insert)	Opens the Insert Picture dialog box.
Extrusion On/Off	Opens the 3-D Setting toolbar and converts the selected shape (if any) to 3-D.

Working with graphics in Calc

Now that the graphic, whether it is a picture or a drawing, is in Calc we need to be able to work with it so that it appears correctly. As in the other OOo components there are different settings for graphic files. This section explains the more commonly used ones in Calc.

We will look at options that come from two places when dealing with graphics: the Picture toolbar and the context menu. Some of the tools can be accessed in both places.

There is also a Drawing Object Properties toolbar; its features are described in the *Draw Guide*.

Picture toolbar

The *Picture* toolbar, by default, only shows when a picture is selected. It can be set to always be present (**View > Toolbars > Picture**) or picture control buttons can be added to the Standard toolbar. Those features are covered in the "Menus and Toolbars" chapter in the *Getting Started* guide.

The default *Picture* toolbar looks like Figure 4. Examples of the results of using these tools are given in the *Draw Guide*.
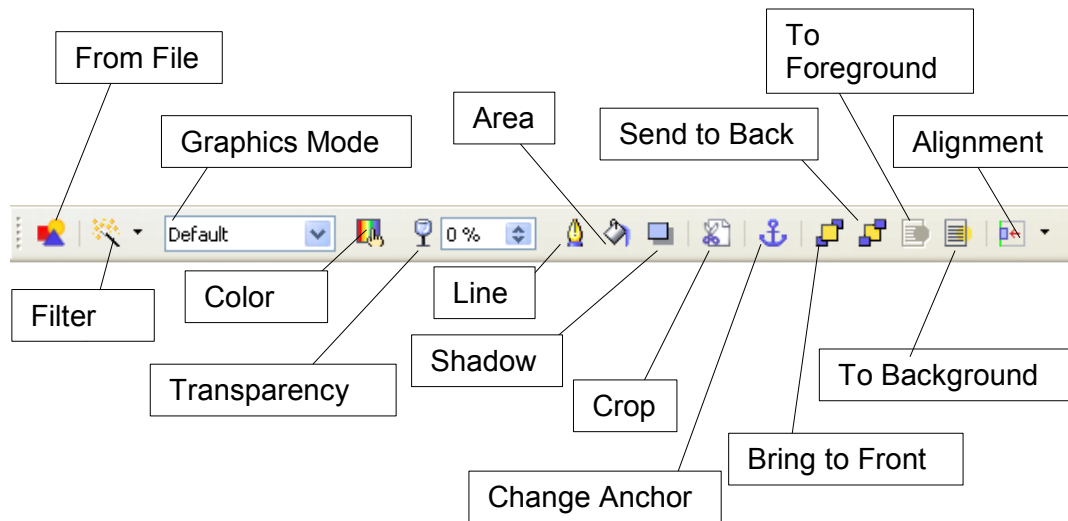

Figure 4: Picture toolbar

From File

The use of this icon is described "Inserting pictures" on page 1.

Filter

Clicking on the drop down arrow next to the Filter icon displays the toolbar shown in Figure 5.
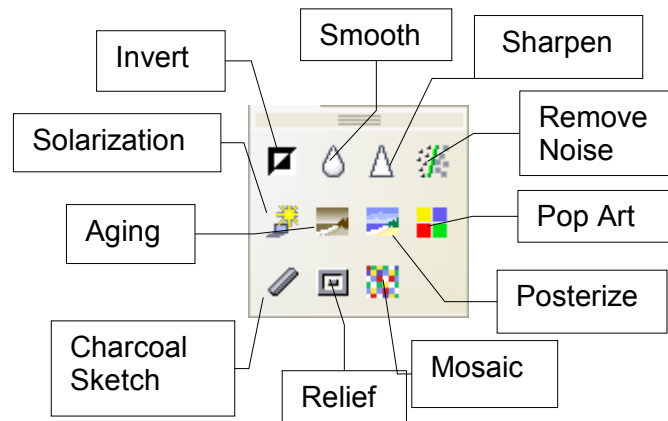
Figure 5: Picture filter toolbar

Table 2: Picture filter toolbar buttons

Button	Purpose
Invert	Inverts the colors in the picture like a negative.
Smooth	Softens the contrast in an image.
Sharpen	Increases the contrast in an image.
Remove Noise	Removes single pixels from an image.
Pop Art	Converts any image to a pop-art format.
Posterize	Opens a dialog to determine the number of poster colors. This effect is based on the reduction of the number of colors. It makes photos look like paintings.
Mosaic	Joins small groups of pixels into rectangular areas of the same color. The larger the individual rectangles are, the fewer details the graphic image has.
Relief	Displays a dialog for creating reliefs. The position of the imaginary light source that determines the type of shadow can be chosen.
Aging	Makes a photo appear aged. The higher the aging degree, the older the picture will look.
Charcoal Sketch	Displays the image as a charcoal sketch. The contours of the image are drawn in black, and the original colors are suppressed. This function can be applied to the whole image or to a part of it.
Solarization	Opens a dialog for defining solarization. Solarization refers to an effect that looks like what can happen when there is too much light during photo development. The colors become partly inverted.

Graphics Mode

Use the graphics mode drop down box to change the colors of the selected picture. There are four options, as listed in Table 3.

Table 3: Graphics Mode options

Option	Purpose
Default	Keeps the picture the same as it was when inserted.
Grayscale	Shows the picture as a grayscale image.
Black/White	Shows only black and white in the image.
Watermark	Make the picture into a watermark that blends into the background.

Color

Clicking on this button pops up a toolbar (Figure 6.) Use these tools to edit the different color hues in the picture and adjust the brightness, contrast, and gamma.
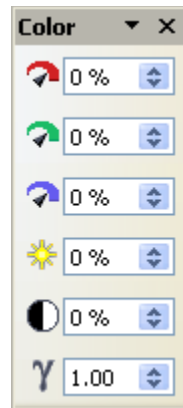

Figure 6: Color toolbar

Transparency

Adjusts the transparency of the picture.

Line

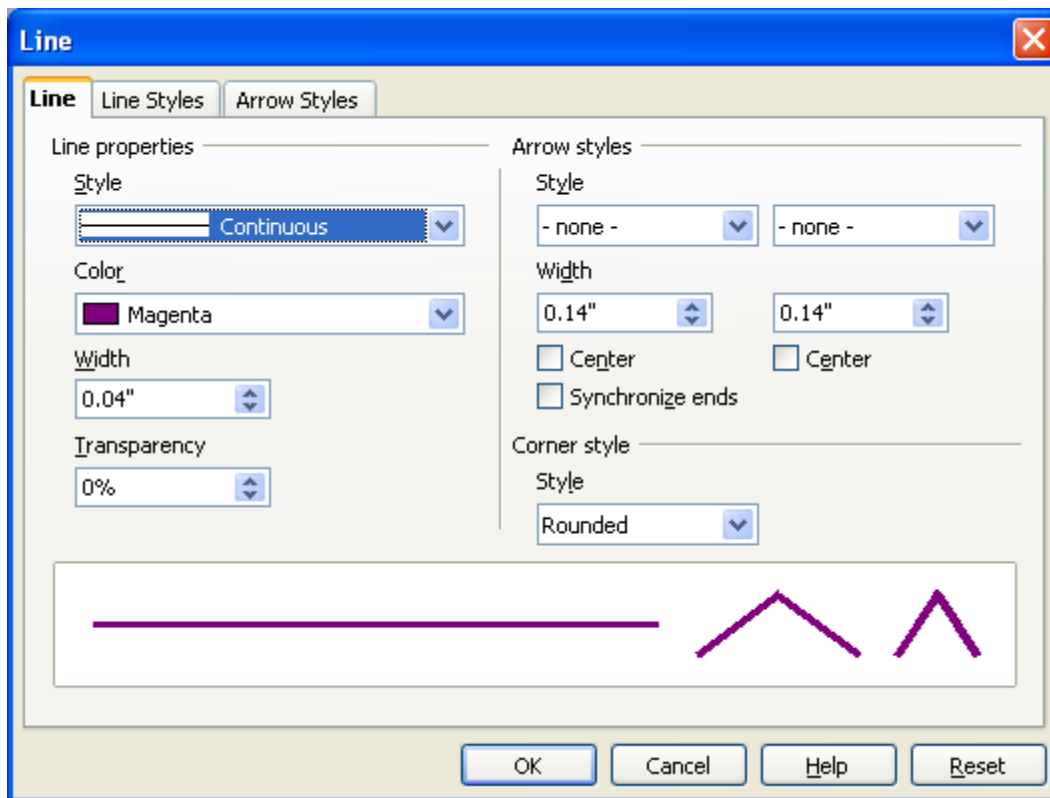Opens a dialog box (Figure 7) where you can apply a border to a picture.

Figure 7: Line dialog box

Area

You can apply a background to an area, but this is not particularly useful with working with pictures.

Shadow

Adds a shadow to a picture. The picture casts a shadow on the spreadsheet, rather than shadows within the picture being affected.

Crop

Opens a dialog box where you can crop the image. Cropping removes part of a picture and is often used in photo editing.

Note	It is not possible to use the mouse to select the area to be cropped. Instead, in the crop dialog, specify how far from the top, bottom, left and right borders the crop should be. The cropped shape will always be a rectangle; more complex cropped shapes are not possible with this tool in Calc.

Change Anchor

Toggles the anchor from *To Page* to *To Cell* and vice versa.

Bring to Front/Send to Back

These buttons quickly change the arrangement of the pictures. If two or more graphics are overlapping, this changes which graphic appears at the top and the bottom of the pile.

To Foreground/To Background

These buttons quickly change the location of the image to the background if it is in the foreground or to the foreground if it is in the background.

Note	Bring to Front and Send to Back rearrange the order of a group of overlapping graphics, all of which remain floating on top of the cells. To Background pushes a graphic behind the cells. The section below on Positioning Graphics has more information.

Alignment

If two or more pictures are selected, click the drop down arrow next to this button to adjust the horizontal and vertical alignment of the pictures in relation to each other (tops aligned, bottoms aligned, centers aligned, and so on.

Picture context menu

Many of the same options accessible from the picture toolbar are also accessible from the context menu. There are some additional options only available from the context menu that are discussed here. The context menu is shown in Figure 8 and is accessible by right-clicking on a graphic.

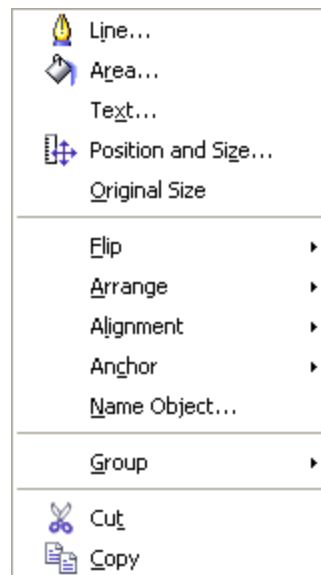|	
New in 2.0	Opening the context menu has changed in OOo 2.0. In previous versions of OOo, right-clicking always opened a context menu for the highlighted object(s) and did not change the focus. In OOo 2.0, right-clicking changes the focus and then opens the context menu.

Figure 8: Picture context menu

Text

Opens a dialog box where you can set the options for text that goes over a picture. To write text over a graphic, click on the graphic to select it, and then press *Enter*. There should be a cursor inside the graphic. Any text entered is part of the graphic, so if the graphic is moved the text will move with it.

Position and Size

Opens a dialog (Figure 9) where you can change the size, location, rotation, slant, and corner radius of the graphic.
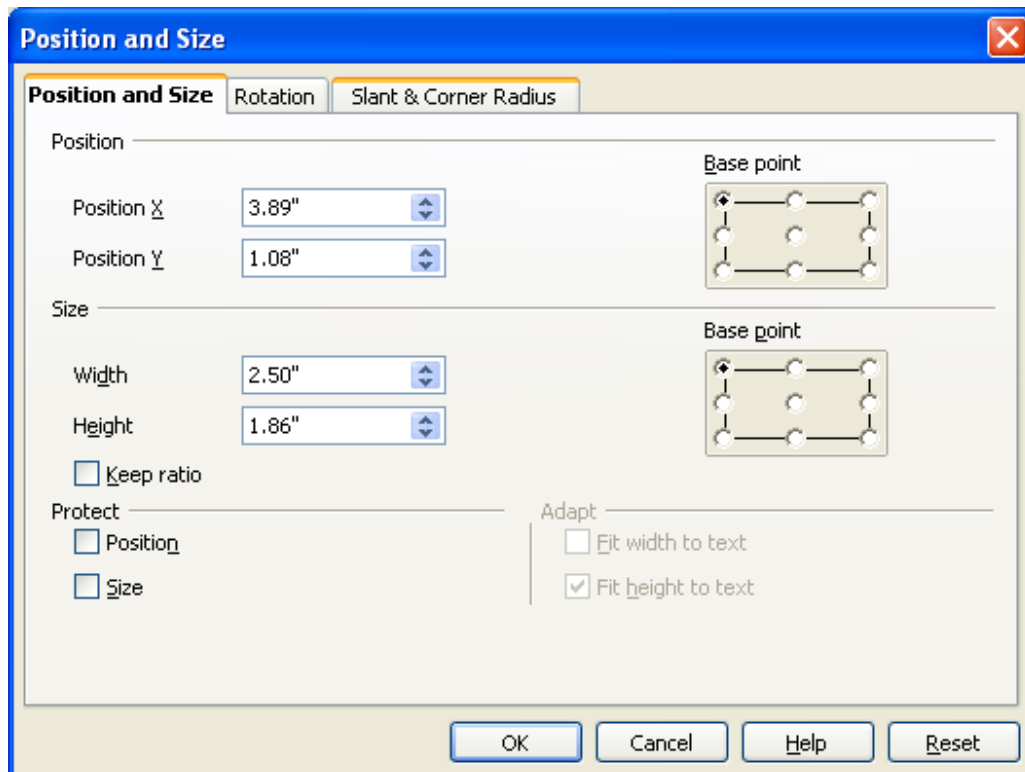

Figure 9: Position and size dialog

Flip

Flips the picture horizontally or vertically.

Name Object

Opens a dialog box where you can name the picture. This name is used in the Navigator (*F5*) to help identify the picture, but does not appear in the spreadsheet itself. If there are many graphics, it can make finding them easier if, for example, a graphic is called *beach scene* rather than *graphic 23*.

Group

Groups several different objects together so that they behave as one. For example, grouping four objects would allow you to move them as one. To group objects together:

1) Hold down *Shift* and *left-click* on each object until they are all selected.

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2) When all are selected, *right-click* and from the context menu select **Group > Group**.

3) If an existing group is selected, this menu may include options to Ungroup, Edit Group and Exit Group.

Once objects are grouped, they cannot be moved relative to each other; they have to move as a group.

If you want to change their position, *right-click* and choose **Group > Edit Group** from the context menu. Editing the group allows you to change the objects' relative position without first ungrouping them (you can also edit other individual properties).

When you are done editing the group, you have to exit the group to do anything else. *Right-click* and choose **Group > Exit Group** from the context menu.

Note	If, having worked with groups, you cannot select certain objects, try selecting **Group > Exit Group** from the context menu.

Positioning graphics

Graphics can be positioned in Calc to work together and build more complex features.

Arrangement

By changing the arrangement of graphics, you can create layers of graphics, and create a type of 3-D effect. Figure 10 shows a series of arranged ellipses.
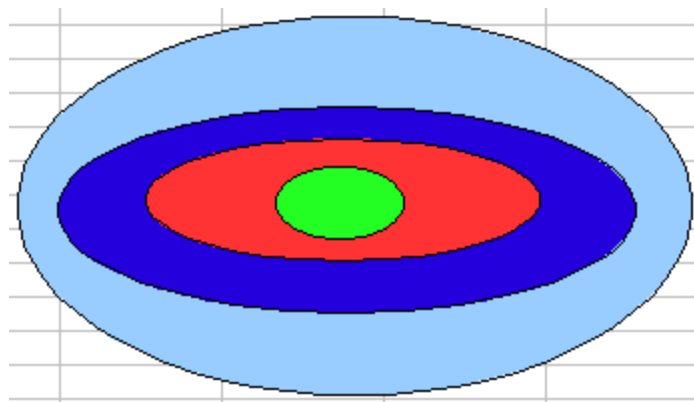

Figure 10: Arranged drawing

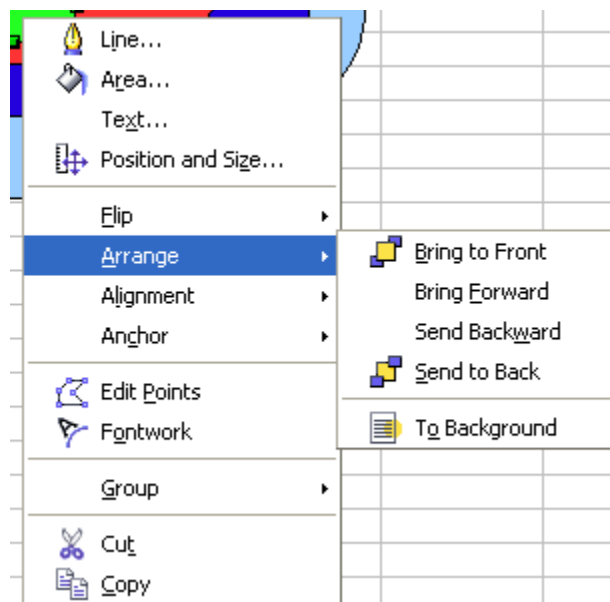The Calc arrange options are shown in Figure 11.

Figure 11: Calc arrange options

If you select an object and choose **Bring Forward** the object will move up one level. If
Bring to Front is chosen, the object will become the top object.

Foreground and background

A graphic can be sent to the background as well. This is not the same as **Bring Forward** and
Bring Back, which set the order of a number of overlapping graphics. This feature pushes a
graphic to the back of the spreadsheet, behind the cells, allowing cells to be edited without
affecting the graphic. One potential application of this feature is to create a form out of a
graphic file; for example, to edit a tax form in Calc.

Figure 12 is an example of a tax form that was made into a graphic file and then had cells
adjusted to allow text to be typed into specific locations. The grid lines below are blue for
clarity.

Figure 12: Empty tax return

Note	A graphic that is in the background cannot be selected with the mouse. To select the graphic, use the Navigator (*F5*): all the graphics will be listed.. (If the graphic is named, selecting it will be even easier.)

Anchoring

Anchors are OOo's way of telling a graphic where to stay. In Calc, graphics can be anchored in two ways: to a cell or to a page.

Anchor to page

Anchoring a graphic to the page allows it to be positioned in a specific place on the page. The graphic does not move when cells are added or deleted. This is equivalent to an absolute reference. The graphic will always stay by cell B10 if that is where it is placed.

Anchor to cell

Anchoring a graphic to a cell ensures that the graphic always stays with the content it is originally anchored to. If a graphic is anchored to cell B10, and a new row is inserted, the graphic will then be anchored to cell B11. This is equivalent to a relative reference.

For example in Figure 13 the normal Otto and Tux picture is anchored *To Cell* B10 (XXX shows where the picture is anchored.) The inverse Otto and Tux picture is anchored to the page.
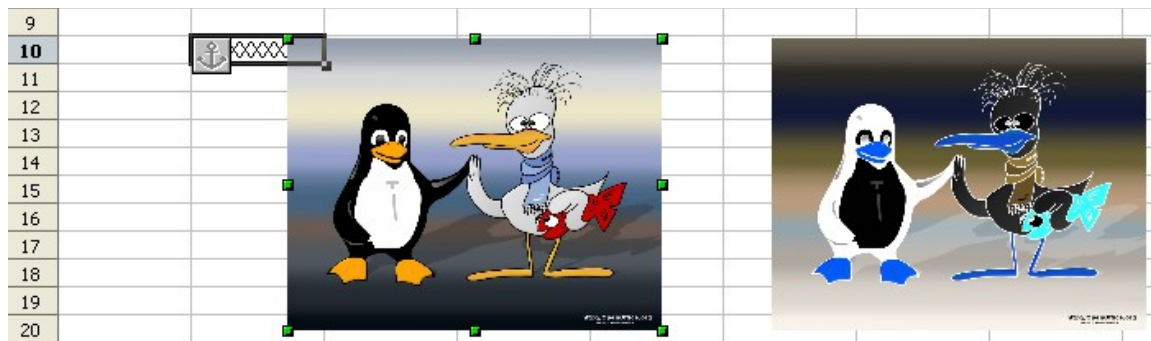
Figure 13: Anchoring 1

If two rows are inserted above the pictures, the normal picture will shift down two rows and the anchor will change. The inverse picture will not move. This is illustrated in Figure 14.
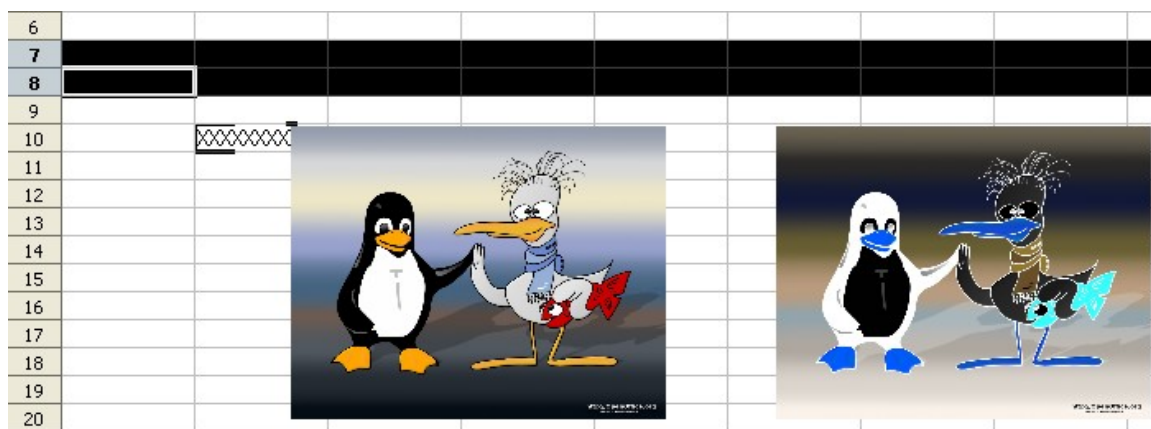

Figure 14: Anchoring 2

The final result can be seen in Figure 15.

Figure 15: Anchoring 3
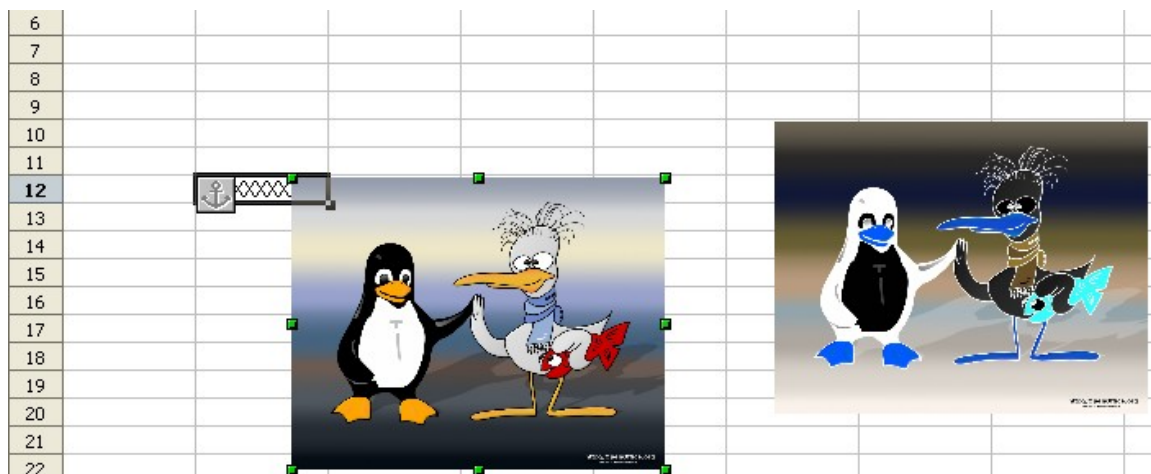
Note that the anchor symbol and the XXX have moved down to cell B12.