

LibreOffice
The Document Foundation

Draw Guide

Chapter 4
Changing Object Attributes

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Acknowledgments

This chapter is based on an original French document written for OpenOffice.org 1.x by Michel Pinquier (translated into English by Alex Thurgood) and previous content revised by Jim Taylor. The chapter was revised for OpenOffice.org 2.0 by Linda Worthington, Daniel Carrera, Jean Hollis Weber, and Agnes Belzunce, and later translated into German by Wolfgang Uhlig. The German revisions were then translated into English and revised for OpenOffice.org 3.3 and LibreOffice 3.3 by Martin Fox. Other contributors included Peter Hillier-Brook, Hazel Russman, Gary Schnabl, and Claire Wood.

Publication date and software version

Published 14 August 2013. Based on LibreOffice 4.1.

Note for Mac users

Some keystrokes and menu items are different on a Mac from those used in Windows and Linux. The table below gives some common substitutions for the instructions in this chapter. For a more detailed list, see the application Help.

<i>Windows or Linux</i>	<i>Mac equivalent</i>	<i>Effect</i>
Tools > Options menu selection	LibreOffice > Preferences	Access setup options
<i>Right-click</i>	<i>Control+click</i> or <i>right-click</i> depending on computer setup	Opens a context menu
<i>Ctrl (Control)</i>	⌘ (<i>Command</i>)	Used with other keys
<i>F5</i>	<i>Shift+⌘+F5</i>	Opens the Navigator
<i>F11</i>	⌘+T	Opens the Styles and Formatting window

Contents



Copyright	2
Contributors.....	2
Feedback.....	2
Acknowledgments.....	2
Publication date and software version.....	2
Note for Mac users	2
Toolbars and menus	5
Line and Filling toolbar.....	5
Text Formatting toolbar.....	6
Context menu.....	6
Formatting lines	6
Line properties.....	7
Line properties section.....	7
Arrow styles section.....	8
Corner and cap styles section.....	8
Arrowheads.....	8
Line shadows.....	9
Line styles.....	10
Creating line styles.....	10
Arrow styles.....	11
Creating arrow styles.....	11
Formatting fill area	12
Color area fill.....	13
Gradient area fill.....	13
Hatching area fill.....	13
Bitmap image area fill.....	14
Using the Area dialog.....	14
Types of area fill.....	15
Creating new area fills	16
Creating custom colors.....	16
Creating new color.....	16
Modifying colors.....	17
Editing colors.....	17
Saving and using new colors.....	18
Creating custom gradients.....	18
Creating new gradients.....	19
Modifying gradients.....	20
Saving and using new gradients.....	20
Advanced gradient controls.....	20
Creating custom hatching patterns.....	21
Creating new hatching patterns.....	22
Modifying hatching patterns.....	23
Saving and using new hatching patterns.....	23
Working with bitmap fills.....	23
Creating and importing bitmaps.....	25

Creating bitmap fills.....	25
Modifying bitmaps.....	26
Importing bitmaps.....	26
Saving and using new bitmaps.....	26
Formatting shadows.....	26
Transparency formatting.....	27
Using styles.....	28
Linked graphics styles.....	29
Creating graphics styles.....	29
Using Styles and Formatting dialog.....	29
Using a selected object.....	30
Modifying a graphics style.....	30
Updating from a selection.....	30
Applying graphics styles.....	31
Deleting graphics styles.....	31
Applying special effects.....	31
Rotating graphic objects.....	32
Manual rotation.....	32
Using the Rotation dialog.....	32
Flipping objects.....	33
Quick flipping.....	33
Using the Flip tool.....	33
Mirror copies.....	34
Distorting images.....	34
Distorting.....	35
Setting in circle (perspective).....	36
Setting to circle (slant).....	36
Dynamic gradients.....	36
Example 1.....	37
Example 2.....	37
Example 3.....	37

Toolbars and menus

To change object attributes, such as color or border width, and so on, use the Line and Filling toolbar, the Text Formatting toolbar, or the context menus.

Line and Filling toolbar

If the Line and Filling toolbar is not displayed, go to **View > Toolbars > Line and Filling** to open the toolbar (Figure 1). The most common object attributes can be edited using this toolbar. For example, you can open the Line dialog by clicking on the Line icon  and the Area dialog by clicking on the Area icon  for access to more formatting options. The tools available from left to right on the Line and Filling toolbar are also shown in Figure 1.

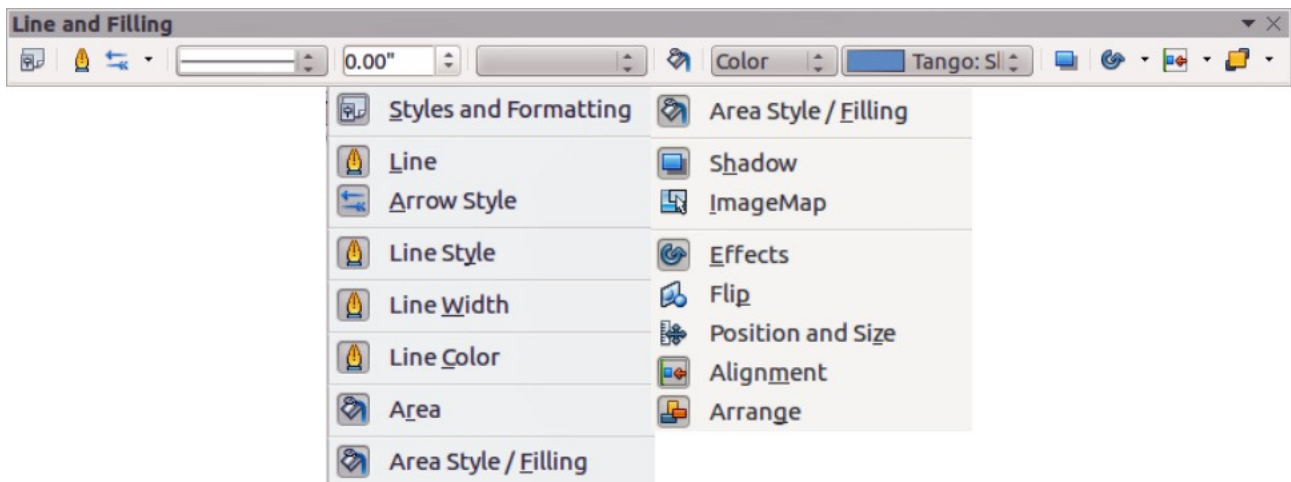


Figure 1: Line and Filling toolbar and available tools

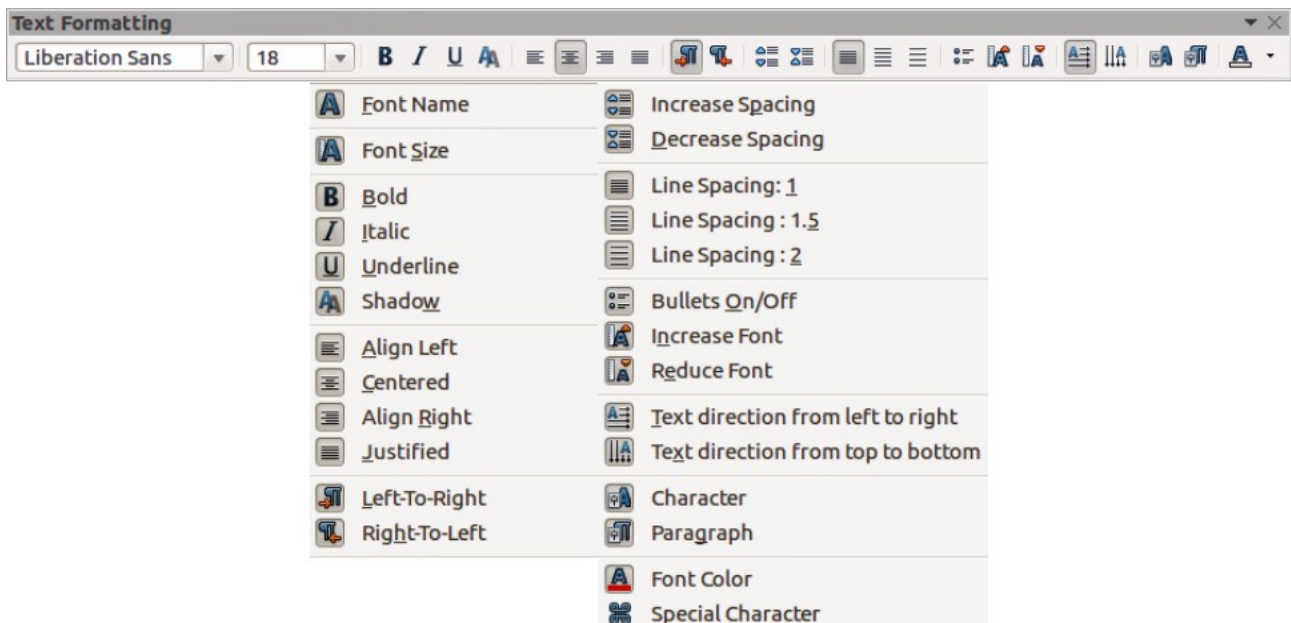


Figure 2: Text Formatting toolbar and available tools

Text Formatting toolbar

When you select text, the Line and Filling toolbar automatically changes to show the Text Formatting toolbar (Figure 2). You can also open the Text Formatting toolbar by selecting **View > Toolbars > Text Formatting**. The tools on this toolbar will not become active until text has been selected. The tools available from left to right on the Text Formatting toolbar are also shown in Figure 2.

Context menu

When an object is selected and you right-click on the object, a context menu (Figure 3) opens that applies to the selected object. This context menu provides access to the options available and allows you to change object attributes without having to open a dialog. Menu entries with a small triangle on the right-hand side contain a submenu with more menu options.

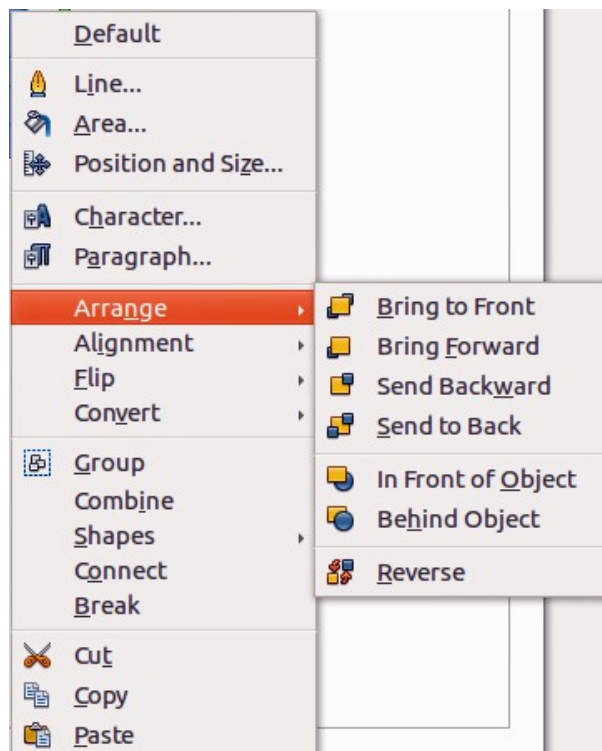


Figure 3: Example of a Context menu

Formatting lines


In LibreOffice the term *line* indicates both a freestanding segment (line), the outer edge of a shape (border), or an arrow. In most cases the properties of the line you can modify are its style (solid, dashed, invisible, and so on), its width, and its color.

To quickly format a line, first select the line then use the highlighted controls in Figure 4 on the Line and Filling toolbar to change the style, width, and color of the line.



Figure 4: Common line properties (style, width and color)

If you want to fully change the appearance of a line, then you need to use the Line dialog.

- 1) Select the line on your drawing.
- 2) Go to **Format > Line** on the main menu bar, or right-click on the line and select **Line** from the context menu, or select the **Line** icon  from the Line and Filling toolbar to open the Line dialog (Figure 5) where you can set line properties. This dialog consists of four pages: *Line*, *Shadow*, *Line Styles*, and *Arrow Styles*, as explained in the following sections.
- 3) Click **OK** to close the dialog and save your changes. The preview box at the bottom of the dialog shows the effect of your changes on a line.

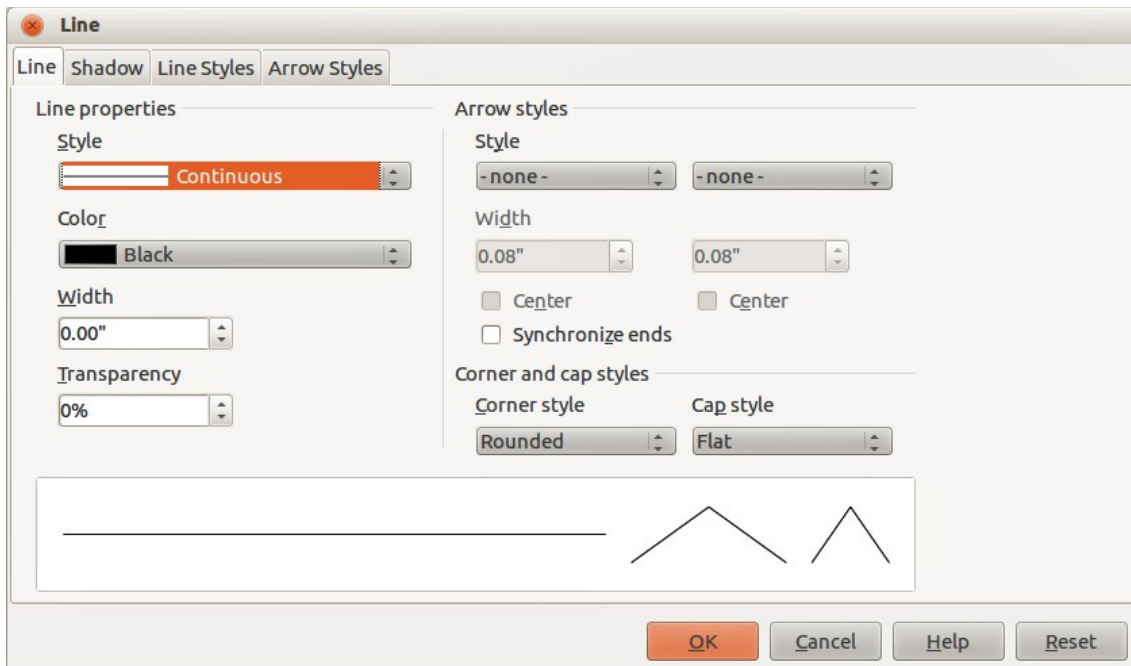


Figure 5: Line properties dialog – Line page

Line properties

The *Line* page is where you can set the basic parameters of the line and is divided into four sections as follows.

Line properties section

Use the *Line Properties* section on the left side to set the following parameters:

- **Line style** – several line styles are available from the drop-down list, but more line styles can be defined if necessary.
- **Color** – choose from the predefined colors in the drop down list or create a new color.
- **Width** – specifies the thickness of the line.
- **Transparency** – sets the transparency of a line. Figure 6 shows the effects of different percentages in transparency levels to lines when placed over an object.

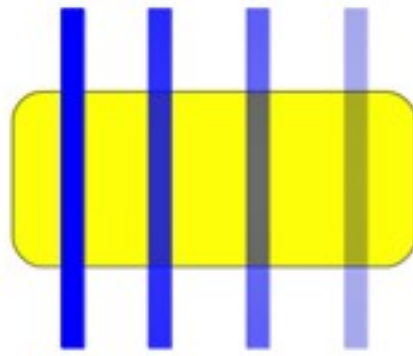


Figure 6: Line transparency effect (0%, 25%, 50%, 75% left to right)

Arrow styles section

The *Arrow styles* section of the *Line* dialog is only applicable to individual lines and is not used for lines that form the borders of a shape.

- **Style** – sets the style of the two ends of a line. The left drop down menu is for where you start the line and the right drop down menu is for where you end the line.
- **Width** – specifies the thickness of the arrow endings
- **Center** – moves the center of the arrow endings to the end point of the line. Figure 7 shows the effects of selecting this option.
- **Synchronize ends** – makes the two line ends identical.

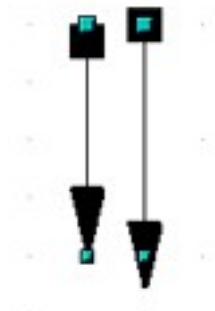



Figure 7: Default arrowheads (left) and centered arrowheads (right)

Corner and cap styles section

Corner and cap styles determine how the connection between two segments looks. To appreciate the difference between these styles, choose a thick line style and observe how the preview changes.

- **Corner style** – select the shape to be used at the corners of the line. In case of a small angle between lines, a mitered shape is replaced with a beveled shape.
- **Cap style** – select the style of the line end caps. The caps are added to inner dashes as well.

Arrowheads

A quick way to set the arrowheads for a selected line is to click on the **Arrow Style** icon  in the Line and Filling toolbar to open the *Arrowheads* menu (Figure 8). Here you can select one of the many predefined arrowhead styles for the start and ending of the selected line.

Note

Arrowheads are only applicable to lines. They have no effect on the border of an object.

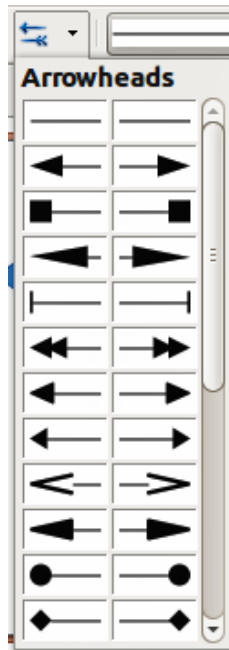



Figure 8: Arrowheads menu

Line shadows

Use the *Shadow* page (Figure 9) of the *Line* dialog to add and format the line shadow. The settings on this page are the same as those for shadows applied to other objects and are described in "Formatting shadows" on page 26.

A quicker way to apply a shadow to a line is using the **Shadow** icon  on the Line and Filling toolbar. The main disadvantage of using the **Shadow** icon is that the shadow appearance will be constrained by the shadow settings of the default graphics style.

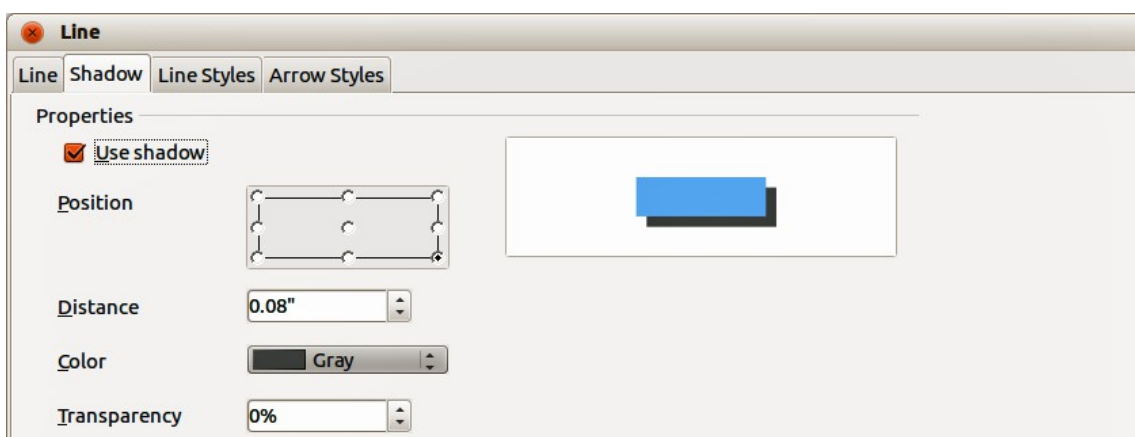


Figure 9: Line properties dialog – Shadow page

Line styles

Use the *Line Styles* page (Figure 10) of the Line dialog to create new line styles as well as to load previously saved line styles. It is normally better to create new styles when necessary than modify predefined styles.

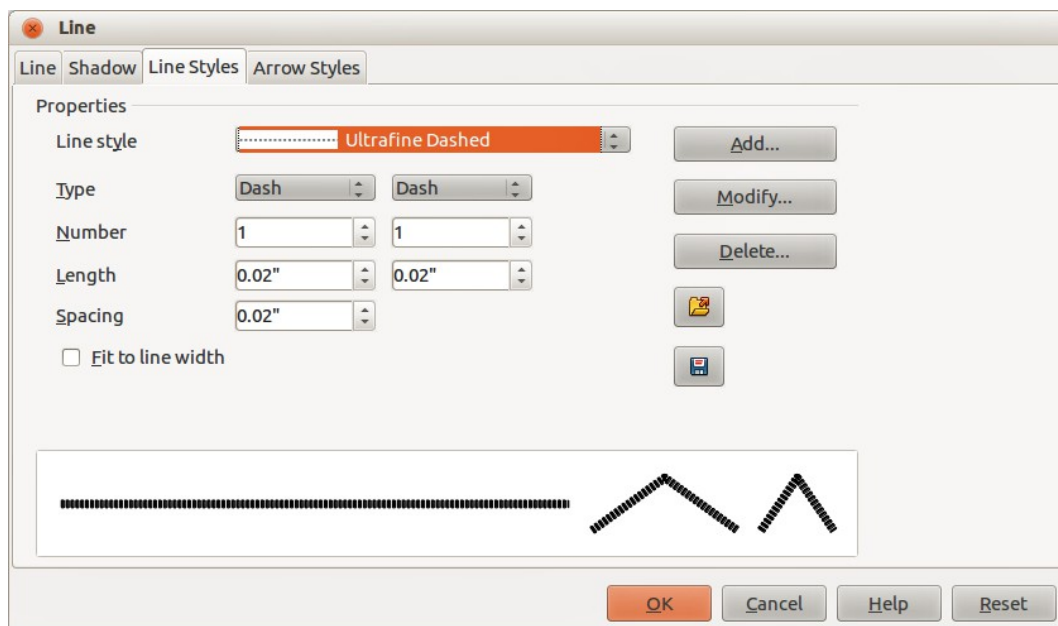





Figure 10: Line dialog – Line Styles page

Creating line styles

To create a new line style:

- 1) Choose **Format > Line** on the main menu bar, or right-click on the line and select **Line** from the context menu, or select the **Line** icon  on the Line and Filling toolbar to open the Line dialog.
- 2) Click on the **Line Styles** tab.
- 3) Select from the **Line style** drop-down menu a style similar to the style you want to create.
- 4) Click **Add** and type a name for the new line style in the dialog that opens, then click **OK**.
- 5) Now define the new style. Start by selecting the line type for the new style. To alternate two line types (for example, dashes and dots) within a single line, select different types in the two **Type** boxes.
- 6) Specify the **Number** and **Length** (not available for dot style) of each of the types of line selected.
- 7) Set the **Spacing** between the various elements
- 8) If necessary, select **Fit to line width** so that the new style fits the width of the selected line.
- 9) The new line style created is available only in the current document. If you want to use the line style in other documents, click the **Save Line Styles** icon  and type a unique filename in the Save as dialog that opens. Saved styles have the file extension of .sod.
- 10) To use previously saved line styles, click the **Load Line Styles** icon  and select a style from the list of saved styles. Click **Open** to load the style into your document.
- 11) If necessary, click on the **Modify** button to change the name of the style.
- 12) Click **OK** to close the dialog and save any changes you have made.

Arrow styles

Use the *Arrow Styles* page (Figure 11) of the Line dialog to create new arrow styles, or modify existing arrow styles, or load previously saved arrow styles.

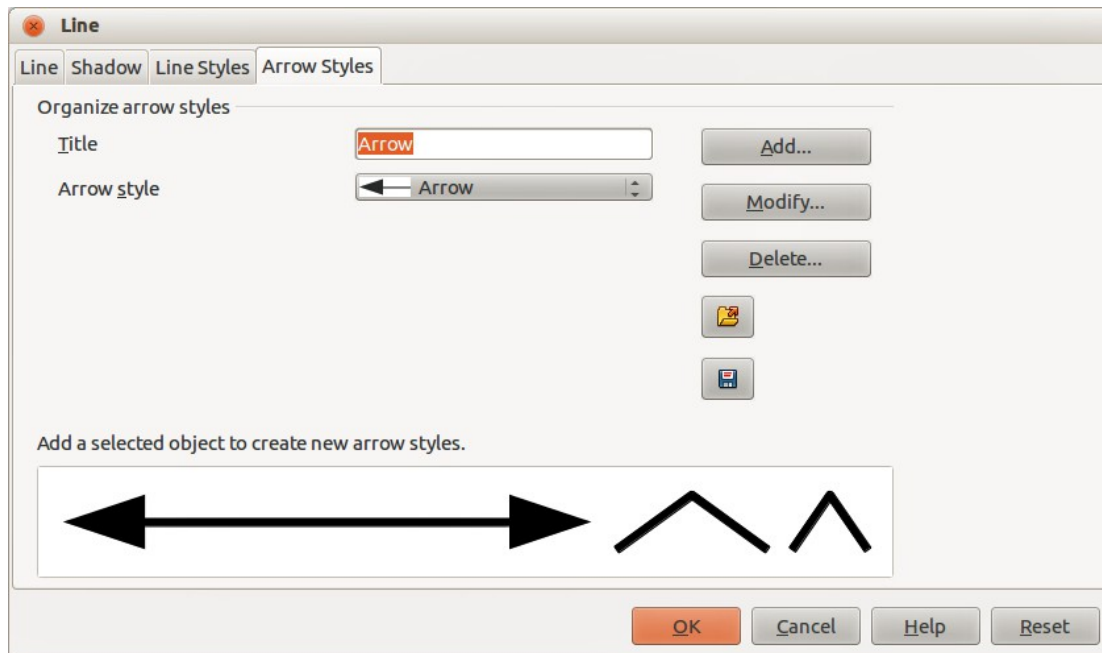


Figure 11: Line dialog – Arrow Styles page

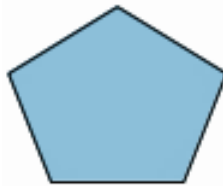


Figure 12: Using shapes for arrow styles

Creating arrow styles



To create a new arrow style:

- 1) First draw a curve in the shape you want to use for the arrowhead, or create a shape and convert to a curve. The top of the shape must face upward, as shown in Figure 12, because this becomes the point of the arrow.

Note

The arrowhead must be a curve, which is something you can draw without lifting a pencil from the paper. For example, a star can be a curve, but a smiley face cannot be a curve because you have to reposition the pencil on the paper to draw eyes and a mouth on the face.

- 2) Select the shape and, if necessary, right-click and choose **Convert > To Curve** to convert the shape to a curve. If the shape is already a curve, **To Curve** will not be available.
- 3) With the selection handles showing, select **Format > Line** from the menu bar, or right-click and choose **Line** from the pop-up menu.
- 4) Go to the *Arrow styles* page, click the **Add** button, type a name for the new arrow style, and click **OK**. The new arrowhead style will be shown in the preview.

- 5) Now you can access the new style from the Arrow style list. When you select the name of the new style, it is shown at the bottom of the dialog.
- 6) The new arrowhead style created is available only in the current document. If you want to use this arrowhead style in other documents, click the **Save Line Styles** icon  and type a unique filename in the *Save as* dialog that opens. Saved styles have the file extension of .sod.
- 7) To use previously saved arrowhead styles, click the **Load Line Styles** icon  and select the style from the saved list of styles. Click **Open** to load the style into your document.
- 8) If necessary, click on the **Modify** button to change the name of the style.
- 9) Click **OK** to close the dialog and save any changes you have made.

Formatting fill area

The term **area fill** refers to the inside of an object, which can be a uniform color, gradient, hatching pattern, or bitmap as shown in Figure 13. An area fill can be made partly or wholly transparent and can throw a shadow.

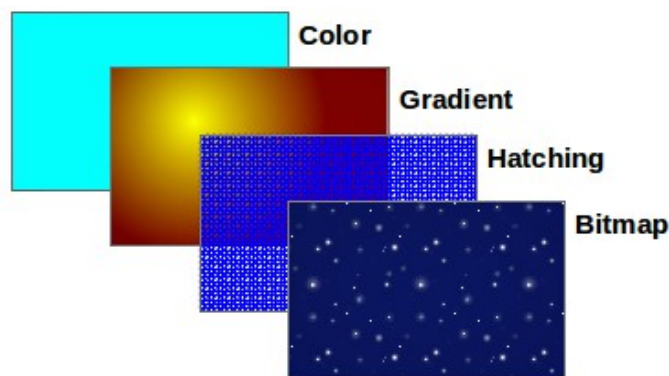


Figure 13: Different types of area fill

The Line and Filling toolbar has the majority of the tools normally used to format graphic objects. If this toolbar is not showing, go to **View > Toolbars > Line and Filling** on the main menu bar. You can also use the Area dialog, described in “Using the Area dialog” on page 14.

To format the area of an object, select it so that the selection handles show. A wide number of default fillings are readily available from the Line and Filling toolbar (Figure 14). Select on the Area Style/Filling drop-down menus the type of fill required (Figure 15) from *None*, *Color*, *Gradient*, *Hatching*, or *Bitmap* and then select the style of fill to be used. Once you have decided on a predefined or custom fill, you can further refine it by adding a shadow or transparency.



Figure 14: Common fill options highlighted

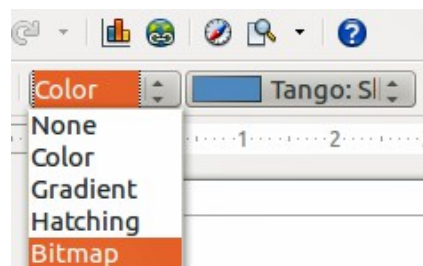


Figure 15: Area fill types

Color area fill

To change the area fill of an object to a color (Figure 16):

- 1) Select the object you wish to edit.
- 2) On the Line and Filling toolbar, select **Color** from the Area Style/Filling drop down list.
- 3) Select a color from the drop-down list.

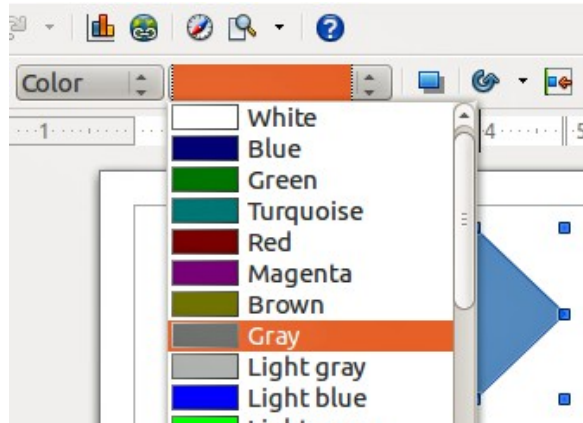


Figure 16: Color area fill

Gradient area fill

A gradient fill provides a smooth transition from one color to another. The transition pattern may vary from a simple linear transition to a more complex radial one. To change the area fill of an object to a gradient (Figure 17):

- 1) Select the object you wish to edit.
- 2) On the Line and Filling toolbar, select **Gradient** from the Area Style/Filling drop down list.
- 3) Select a gradient from the drop-down list.

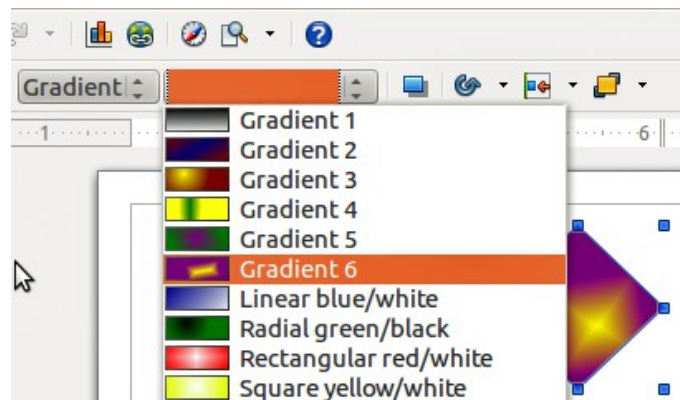


Figure 17: Gradient area fill

Hatching area fill

When a hatching fill is applied it fills the complete area of the selected object. To change the area fill of an object to a hatching (Figure 18):

- 1) Select the object you wish to edit.
- 2) On the Line and Filling toolbar, select **Hatching** from the Area Style/Filling drop down list.
- 3) Select a hatching fill from the drop-down list.

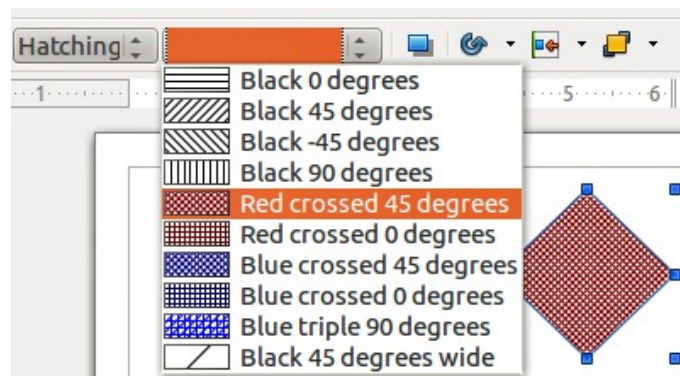


Figure 18: Hatching area fill

Bitmap image area fill

You can fill an object only with a bitmap image but not a vector graphic image. To change the area fill of an object to a bitmap image (Figure 19):

- 1) Select the object you wish to edit.
- 2) On the Line and Filling toolbar, select **Bitmap** from the drop down list.
- 3) Select a bitmap fill from the drop-down list.

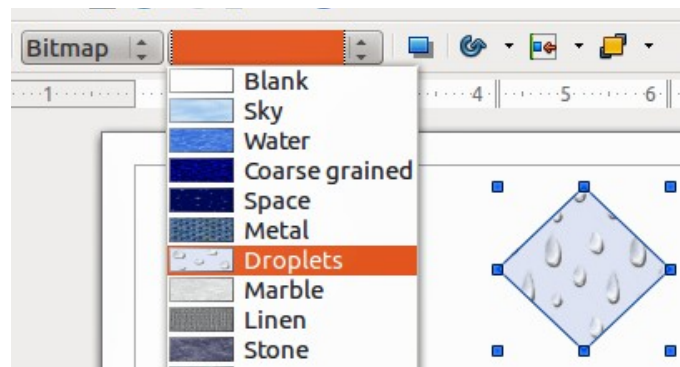



Figure 19: Bitmap image area fill

Using the Area dialog

In addition to using the Line and Filling toolbar, you can use the Area dialog to apply existing area fills with greater control or create your own area fill.

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Area* tab to open the Area page and to apply an area fill. LibreOffice includes several area fills already defined, but you can create area fills yourself. See “Creating new area fills” on page 16 for more information.
- 4) Select the type of area fill from the drop-down list: *None*, *Color*, *Gradient*, *Hatching*, or *Bitmap*. Types of area fill are explained below.
- 5) Select the style of area fill from the options that become available. The number of available options will depend on the type of area fill selected above.
- 6) Click **OK** to close the dialog and save your changes. The area fill will then appear in your selected object.

Types of area fill

- **Color fills** – select **Color** from the *Fill* drop down list and then select your required color from the list of available colors (Figure 20). A preview of the selected color appears at the bottom of the dialog.

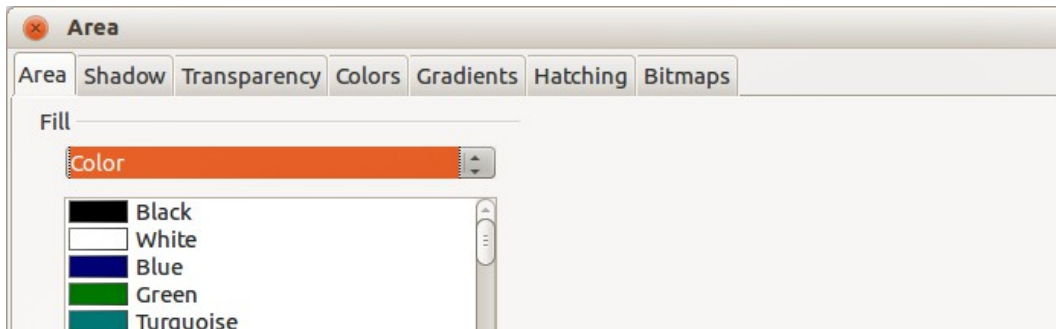


Figure 20: Area color dialog

- **Gradient fills** – select **Gradient** from the drop down list and then select your required gradient from the list of available gradients (Figure 21). You can override the number of steps (increments) that should be applied to the gradient transition. To do so, deselect the **Automatic** option under *Increments* and then enter the number of steps required in the box to the right. A preview of the selected gradient appears at the bottom of the dialog.

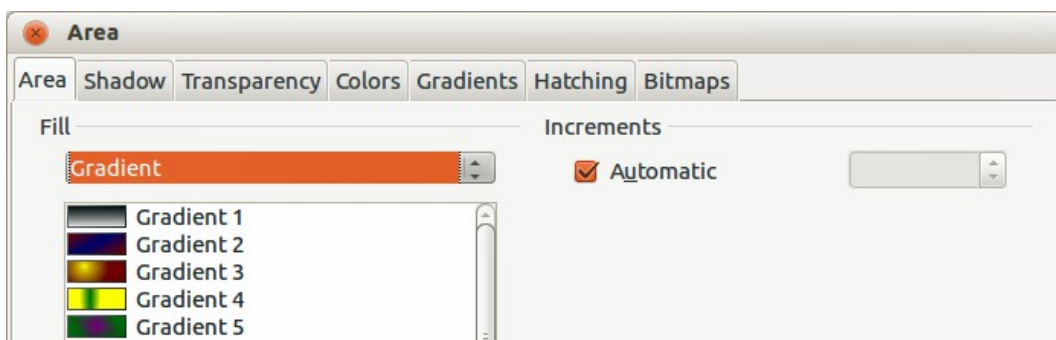


Figure 21: Area gradient dialog

- **Hatching fills** – select **Hatching** from the drop down list and then select your required hatching from the list of available hatchings (Figure 22). You can apply a different background color by selecting the **Background color** option and choosing a color from the drop down list. A preview of the selected hatching appears at the bottom of the dialog.

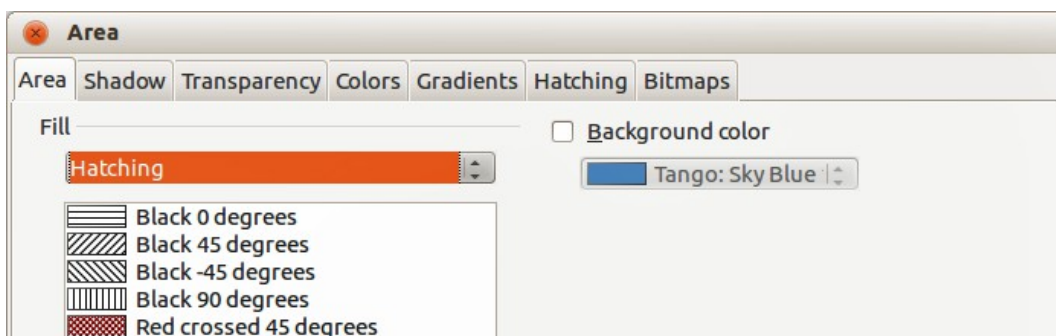


Figure 22: Area hatching dialog

- **Bitmap fills** – select **Bitmaps** from the drop down list and then select your required bitmap from the list of available bitmaps (Figure 23). You can customize a large number of parameters. A preview of the selected bitmap appears at the bottom of the dialog.

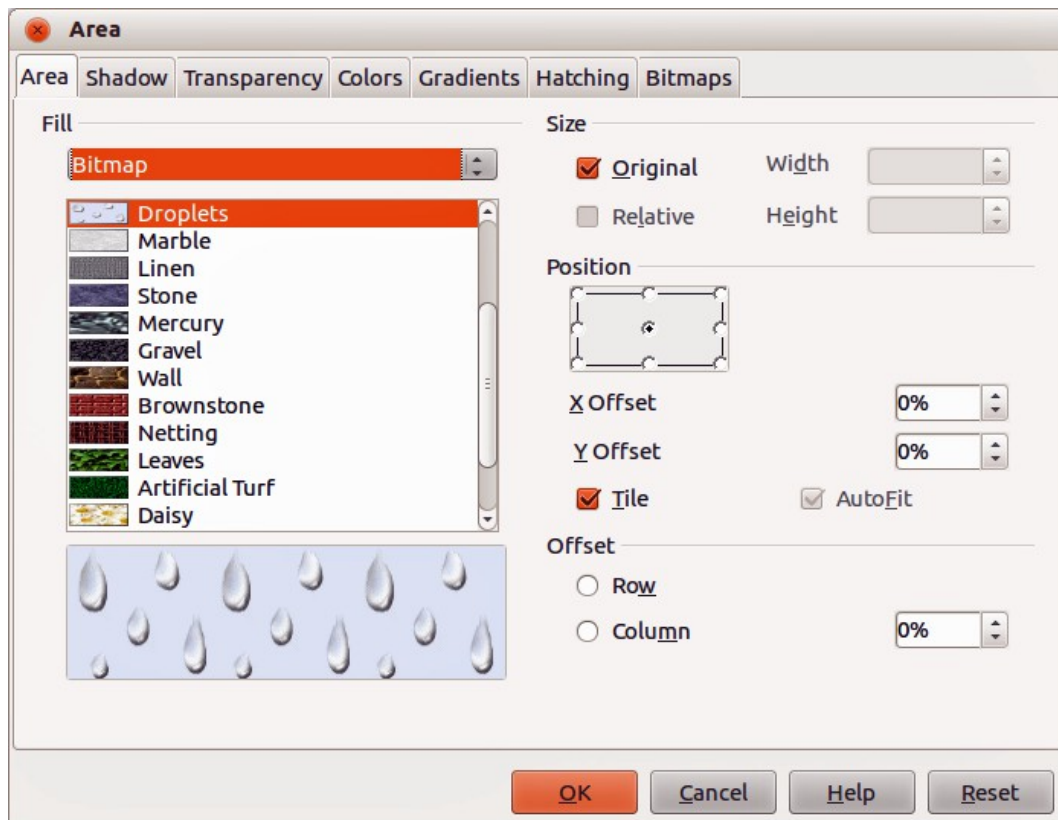


Figure 23: Area bitmap dialog

Creating new area fills


The following sections describe how to create new fills and how to apply them.

Although you can change the characteristics of an existing fill and then click the **Modify** button, it is recommended that you create new fills, or modify custom fills rather than the predefined ones, as these may be reset when updating LibreOffice.

Creating custom colors

On the *Colors* page (Figure 24), you can modify existing colors or create your own. You can also specify a new color either as a combination of the three primary colors Red, Green, and Blue, (RGB notation) or by percentages of Cyan, Magenta, Yellow, and Black (CMYK notation).

Creating new color

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Colors* tab to open the Colors page.
- 4) Enter a name for the new color in the *Name* box.
- 5) Select whether to define the color in RGB or CMYK. For RGB, specify the red (R), green (G) and blue (B) component on a 0 to 255 scale. For CMYK, specify the cyan (C), magenta (M), yellow (Y) and black (K) components from 0% to 100%.
- 6) Click the **Add** button. The color is now added to the *Color* drop down list.
- 7) Click **OK** to save your changes and close the dialog.

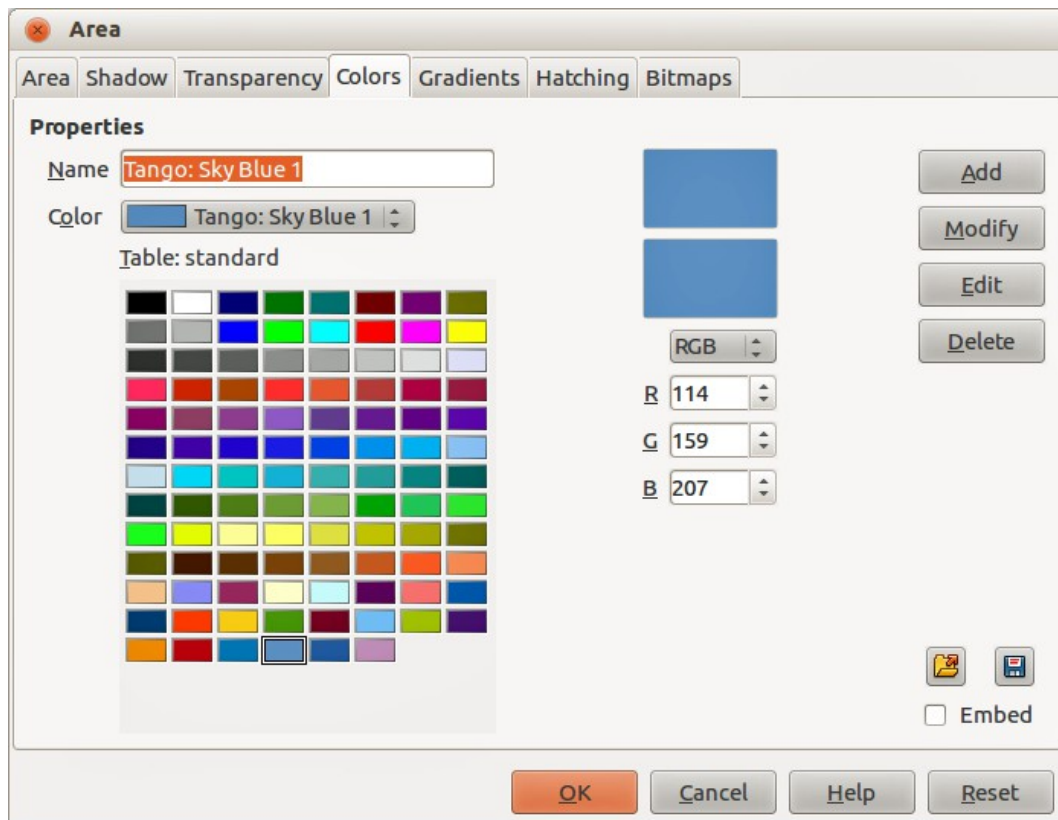




Figure 24: Creating a new color

Modifying colors

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Colors* tab to open the Colors page.
- 4) Select the color to modify from the list.
- 5) Enter the new values that define the color in RGB or CMYK.
- 6) Modify the name as required.
- 7) Click **Modify** to save your changes.
- 8) Click **OK** to close the dialog.

Editing colors

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Colors* tab to open the Colors page.
- 4) Select the color to edit from the list.
- 5) Click on the **Edit** button to open the Color Picker dialog (Figure 25).
- 6) Modify the color components as required using RGB, CMYK or HSB (Hue, Saturation, Brightness).
- 7) Click **OK** to exit the Color Picker dialog.
- 8) Modify the name as required.

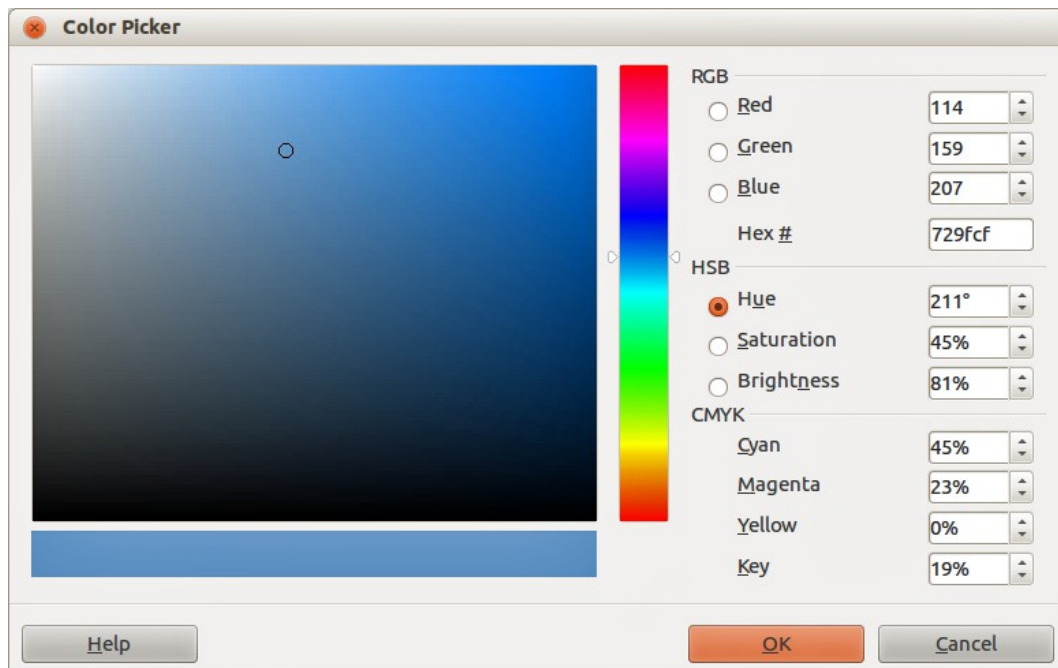




Figure 25: Editing a color

- 9) Click **Modify** on the Color dialog to save your changes.
- 10) Click **OK** to close the dialog.

Saving and using new colors

Any new color created is available only in the current document. If you want to use this color in other documents, click the **Save Color List** icon  and type a unique filename in the **Save as** dialog that opens. The saved colors list has the file extension of `.soc`.

To use a previously saved color list, click the **Load Color List** icon  and select from the file open dialog. Click **Open** to load the saved color list into Draw.

Tip

You can also add custom colors using **Tools > Options > LibreOffice > Colors**. This method makes the color available to all components of LibreOffice.

Creating custom gradients

To create a new gradient or to modify an existing one, select the Gradients tab from the Area dialog (Figure 26). Several types of gradients are predefined and in most cases changing the *From* and *To* colors will be sufficient to obtain the desired result.

It is highly recommended that you create a new gradient even if you just want to change the two colors, rather than modifying the predefined ones, which should only be used as starting points.

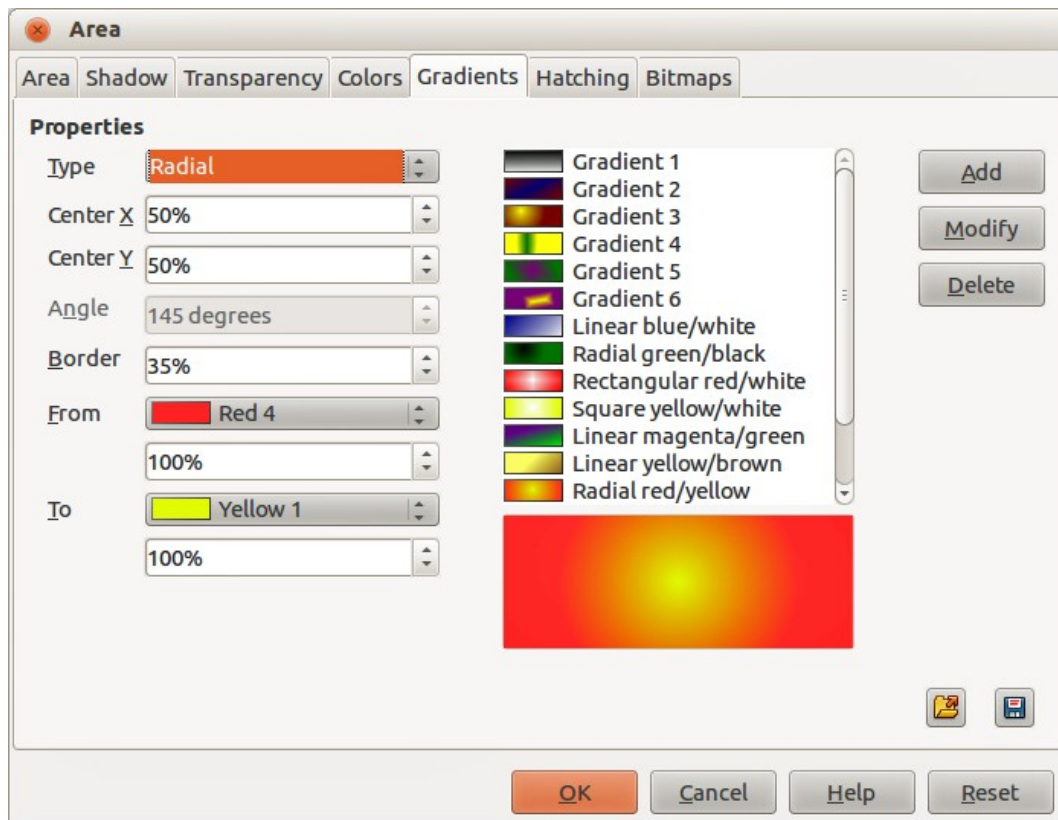


Figure 26: Creating a new gradient

Creating new gradients



- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Gradients* tab to open the Gradients page.
- 4) Select the *From* and *To* colors from the drop down lists.
- 5) Select the type of gradient from the drop down list: *Linear*, *Axial*, *Radial*, *Ellipsoid*, *Square* or *Rectangular*. A preview of the gradient type is shown in the dialog.
- 6) Set all the properties as desired (very often the default values will work well). The properties used to create a gradient are summarized in Table 1. Depending on the type of gradient selected, some properties may be grayed out.
- 7) Click **Add** to add the newly created gradient to the list.
- 8) Type a name for the new gradient in the dialog that opens and click **OK**.
- 9) Click **OK** to close the dialog.

Table 1: Gradient properties


Property	Meaning
Center X	For Radial, Ellipsoid, Square and Rectangular gradients, modify these values to set the horizontal offset of the gradient center.
Center Y	For Radial, Ellipsoid, Square and Rectangular gradients, modify these values to set the vertical offset of the gradient center.
Angle	For all the gradient types, specifies the angle of the gradient axis.


Property	Meaning
Border	Increase this value to make the gradient start further away from the border of the shape.
From	The start color for the gradient. In the edit box below enter the intensity of the color: 0% corresponds to black, 100% to the full color.
To	The end color for the gradient. In the edit box below enter the intensity of the color: 0% corresponds to black, 100% to the full color.

Modifying gradients

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Gradients* tab to open the Gradients page.
- 4) Select the gradient to modify from the list.
- 5) Enter the new values for the properties that become available for change. See Table 1 for more information on gradient properties.
- 6) Click **Modify** to save your changes.
- 7) Click **OK** to close the dialog.

Saving and using new gradients

The new gradient created is available only in the current document. If you want to use this gradient in other documents, click the **Save Gradients List** icon  and type a unique filename in the **Save as** dialog that opens. The saved gradients list has the file extension of `.sog`.

To use a previously saved gradients list, click the **Load Gradients List** icon  and select from the file open dialog. Click **Open** to load the saved gradients list into Draw.

Advanced gradient controls

As discussed in “Creating custom gradients” on page 18, gradient properties can be configured using the properties given in the dialogs shown in Figure 26 and Table 1. However, LibreOffice provides advanced controls for gradients as follows.




- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Gradients* tab to open the Gradients page (Figure 26).
- 4) Select the type of gradient you want to use for your object from the *Type* drop down list. Properties you can adjust will depend on the gradient type you have selected and these are explained below.
- 5) Go to **View > Toolbars > Mode** on the main menu bar, click on the **Effects** icon  on the Line and Filling toolbar to open the Mode toolbar.
- 6) Click on the **Gradient** icon  in the **Mode** toolbar (Figure 27). This displays a dashed line connecting two colored squares. The colors show the *From* and *To* colors that are used for the selected gradient (Figure 28).



Figure 27: Mode toolbar

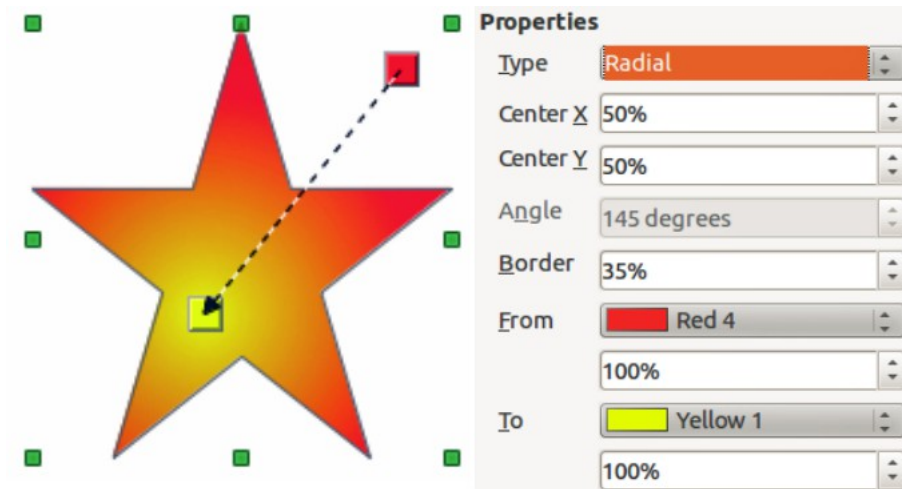


Figure 28: From Red 4 to Yellow 1 gradient

- 7) For **linear gradients** – move the square corresponding to the *From* color to change where the gradient starts (border value). Move the square corresponding to the *To* color to change the orientation (angle value).
- 8) For **axial gradients** – move the *To* color to change both the angle and border properties of the gradient. Only the square corresponding to the *To* color can be moved.
- 9) For **radial gradients** – move the *From* color to modify the border property to set the width of the gradient circle. Move the *To* color to change the point where the gradient ends (Center X and Center Y values).
- 10) For **ellipsoid gradients** – move the *From* color to modify the border property to set the size of the gradient ellipsoid. Move the *To* color to change the angle of the ellipsoid axis and the axis itself.
- 11) For **square and rectangular gradients** – move the *From* color to modify the border to set the size of the gradient square or rectangle and the angle of the gradient shape. Move the *To* color to change the center of the gradient.
- 12) Click **OK** to save your changes and close the Area dialog.

Note

Moving the squares will have different effects depending on the type of gradient. For example, for a linear gradient, the start and end squares of the gradient will always be situated to either side of the center point of the object.

Creating custom hatching patterns

To create new hatching patterns or modify existing ones, select the *Hatching* tab of the Area dialog (Figure 29). As with gradients and colors, it is better to create a new hatching pattern rather than modify a predefined one. The properties that can be set for a hatching pattern are shown in Table 2.

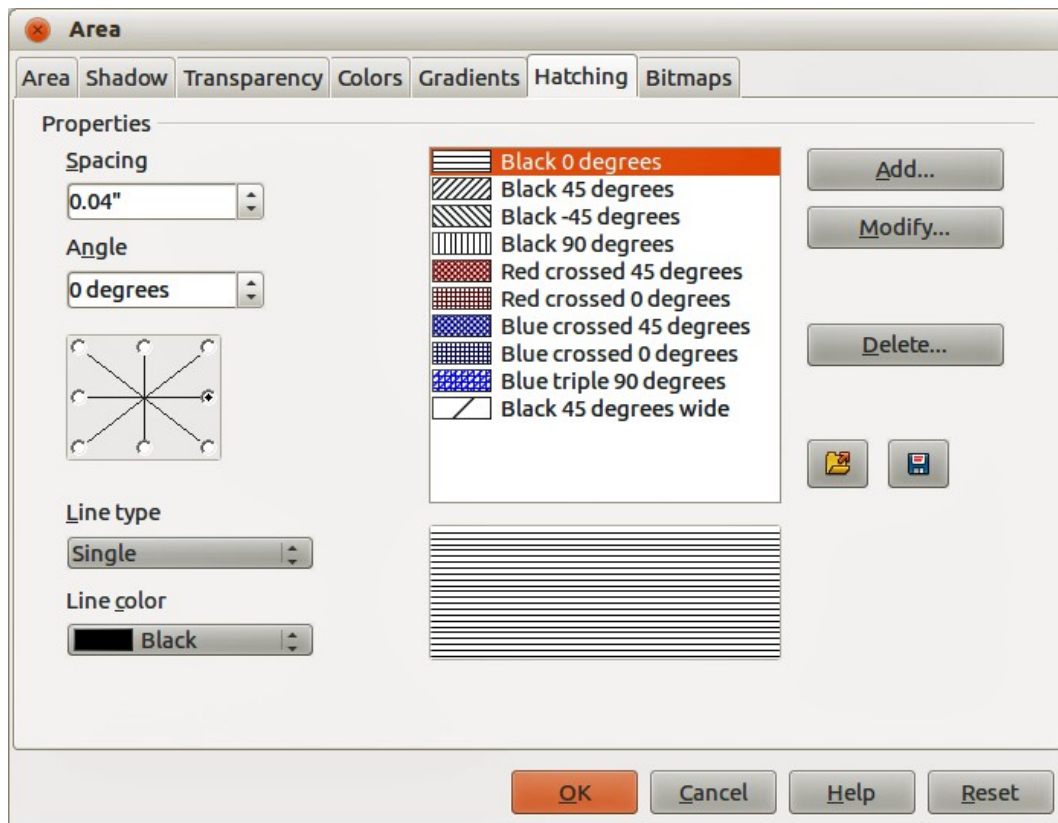



Figure 29: Creating a new hatching pattern


Table 2: Hatching pattern properties

Property	Meaning
Spacing	Determines the spacing between two lines of the pattern. As the value is changed the preview window is updated.
Angle	Use the mini map below the numerical value to quickly set the angle formed by the line to multiples of 45 degrees. If the required angle is not a multiple of 45 degrees, just enter the desired value in the edit box.
Line type	Set single, double or triple line for the style of the pattern.
Line color	Use the list to select the color of the lines that will form the pattern.


Creating new hatching patterns


- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Hatching* tab to open the Hatching page.
- 4) Select as a starting point a pattern similar to the one that will be created.
- 5) Modify the properties of the lines forming the pattern. A preview is displayed in the window below the available patterns. More information on hatching properties is shown Table 2.
- 6) Click **Add** and type a name for the new gradient in the dialog that opens, then click **OK**.
- 7) Click **OK** to close the dialog.

Modifying hatching patterns

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Hatching* tab to open the Hatching page.
- 4) Select the hatching pattern to modify from the list.
- 5) Enter the new values for the properties that become available for change. See Table 2 for more information on gradient properties.
- 6) Click **Modify** to save your changes.
- 7) Click **OK** to close the dialog.

Saving and using new hatching patterns

The new hatching pattern created is available only in the current document. If you want to use this hatching pattern in other documents, click the **Save Hatches List** icon  and type a unique filename in the **Save as** dialog that opens. The saved hatches list has the file extension of .soh.

To use a previously saved hatches list, click the **Load Hatches List** icon  and select from the file open dialog. Click **Open** to load the saved hatches list into Draw.

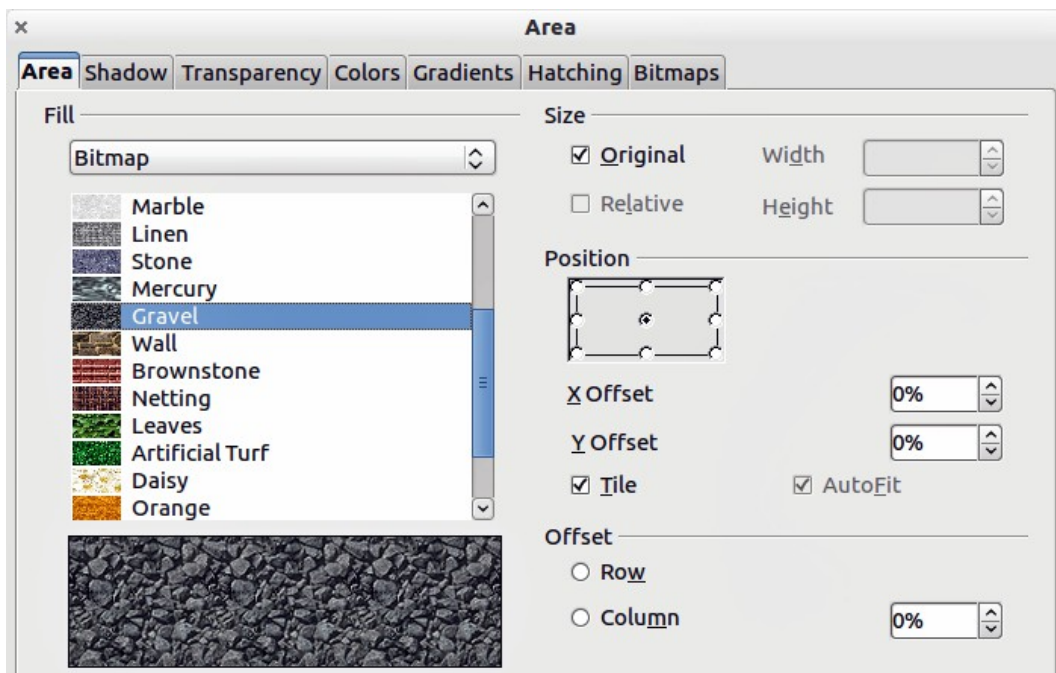



Figure 30: Advanced formatting for bitmap fill

Working with bitmap fills

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Area* tab to open the Area page.
- 4) Select *Bitmap* from the *Fill* drop down list (Figure 30).

- 5) Select from the list of bitmaps the one to be used to fill the area. Note that any imported bitmaps will become available in the list.
- 6) Set the size, position and offset parameters (as applicable). See Table 3 for more information on bitmap properties. The best way to acquire understanding of these parameters is to use them. Figure 31 shows some examples of bitmap fills and the parameters used.
- 7) Click **OK** to close the dialog.

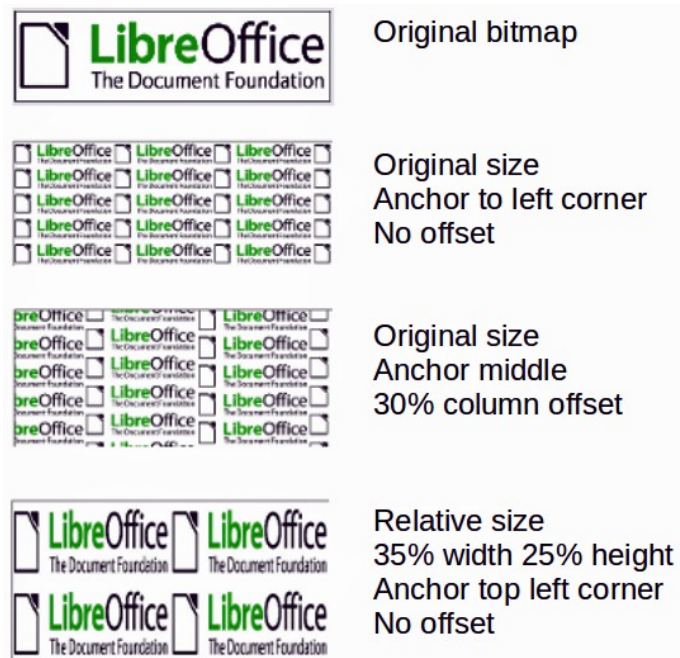


Figure 31: Examples of bitmap fill

Table 3: Bitmap fill properties

Property	Meaning
Size – Original	Select this box to retain the original size of the bitmap.
Size – Relative	To rescale the object, deselect Original and select Relative. The Width and Height edit boxes are enabled.
Size – Width	When Relative is selected 100% means that the bitmap original width will be resized to occupy the whole fill area width, 50% means that the width of the bitmap will be half that of the fill area.
Size – Height	When Relative is selected 100% means that the bitmap original height will be resized to occupy the whole fill area height, 50% means that the height of the bitmap will be half that of the fill area.
Position – Anchor Map	Select from the map the place within the area to which the bitmap should be anchored.
Position – Tile	When this option is selected, the bitmap will be tiled to fill the area. The size of the bitmap used for the tiling is determined by the Size settings.
Position – X offset	When Tile is enabled, enter in this box the offset for the width of the bitmap in percentage values. 50% offset means that Draw will place the middle part of the bitmap at the anchor point and start tiling from there.
Position – Y offset	This will have a similar effect to the X offset, but will work on the height of the bitmap.

Property	Meaning
Position – Autofit	Stretches the bitmap to fill the whole area. Selecting this option disables all the size settings.
Offset – Row	If Tile is enabled, offsets the rows of tiled bitmaps by the percentage entered in the box so that two subsequent rows are not aligned.
Offset – Column	If Tile is enabled, offsets the columns of tiled bitmaps by the percentage entered in the box so that two subsequent columns of bitmaps are not aligned.

Creating and importing bitmaps

You can add (import) new bitmap fills or create your own pattern on an 8x8 grid using the *Bitmaps* tab of the Area dialog (Figure 32).

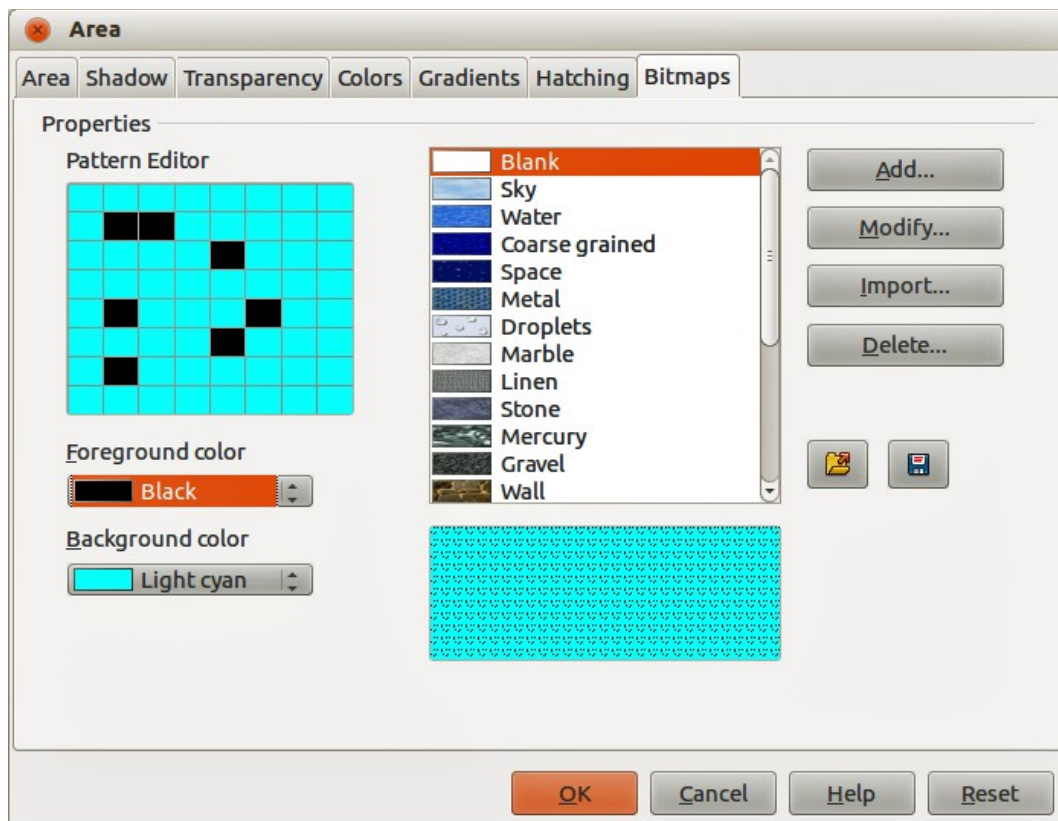



Figure 32: Creating a new bitmap

Creating bitmap fills


- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Bitmap* tab to open the Bitmap page.
- 4) Select **Blank** as the bitmap type to activate the **Pattern Editor**.
- 5) Select the **Foreground** and **Background** colors.
- 6) Start creating the pattern by clicking with the left mouse button the squares (pixels) that you want in the foreground color. Use the right mouse button to apply the background color. Check the preview window to see if the desired effect is achieved.

- 7) Click **Add** to save the pattern and type a name for the new gradient in the dialog that opens, then click **OK**.
- 8) Click **OK** to close the dialog.

Note

You only modify bitmaps that you have created in LibreOffice. The bitmaps supplied with LibreOffice or imported bitmaps cannot be changed or modified using LibreOffice.

Modifying bitmaps


- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Bitmap* tab to open the Bitmap page.
- 4) Select a bitmap that you have created from the list.
- 5) Make the changes to your bitmap using the **Pattern Editor** and the color drop down lists.
- 6) Click **Modify** to save your changes.
- 7) If necessary, type a new name in the dialog that opens and click **OK**.
- 8) Click **OK** to close the dialog.


Importing bitmaps

To import a bitmap created in another program:

- 1) Click **Import** and a file browser dialog opens.
- 2) Browse to the directory containing the bitmap file and select it, then click **Open**.
- 3) Type a name for the imported bitmap and click **OK**.


Saving and using new bitmaps

The new bitmap created is available only in the current document. If you want to use this bitmap in other documents, click the **Save Bitmap List** icon  and type a unique filename in the **Save as** dialog that opens. The saved bitmap list has the file extension of `.sob`.


To use a previously saved bitmap list, click the **Load Bitmap List** icon  and select from the file open dialog. Click **Open** to load the saved bitmap list into Draw.

Formatting shadows

Shadowing can be applied to lines, shapes and text.

To quickly apply a shadow to a line or shape only, first select the object and then click on the **Shadow** icon  in the Line and Filling toolbar. The shadow applied using this method cannot be customized and is set to default settings.

For a more control when adding shadows to an object, you have to use the Shadow page on the Area dialog (Figure 33) as follows:

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.

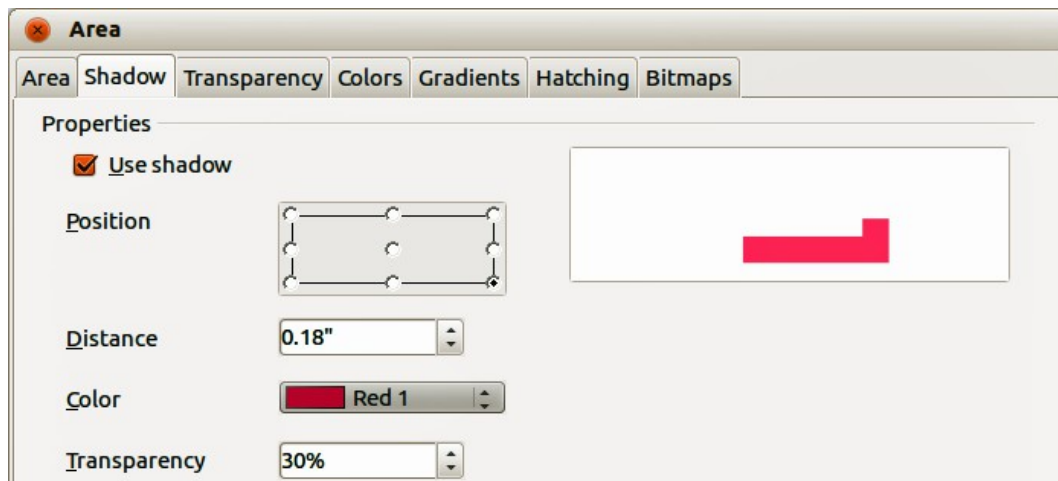



Figure 33: Area dialog – Shadow page

- 3) Click on the *Shadow* tab to open the Shadow page.
- 4) Select **Use shadow** and the shadow options become active.
- 5) In **Position** select the direction in which the shadow is cast.
- 6) In **Distance** enter a distance in the text box to set spacing between the object and the shadow.
- 7) In **Color** select a color from the drop down list to determine the color of the shadow.
- 8) In **Transparency** enter a percentage in the text box to determine the amount of transparency for the shadow.
- 9) Click **OK** to save your changes and close the dialog.

Transparency formatting

Transparency is applicable to objects as well as shadows. To apply transparency to lines, refer to “Formatting lines” on page 6; for shadows, refer to “Formatting shadows” on page 26.

To apply transparency to objects using the Transparency page on the Area dialog (Figure 34):

- 1) Select the object you wish to edit.
- 2) Go to **Format > Area** on the main menu bar, or click on the Area icon  on the Line and Filling toolbar, or right-click on the object and select **Area** to open the Area dialog.
- 3) Click on the *Transparency* tab to open the Transparency page.
- 4) To create a uniform transparency, select **Transparency** and enter a percentage in the text box.
- 5) To create a gradient transparency (so that the area becomes gradually transparent) select **Gradient** and select the type of gradient transparency from the drop down list: *Linear*, *Axial*, *Radial*, *Ellipsoid*, *Quadratic* or *Square*.
- 6) Set the parameters for the type of the gradient transparency you selected above. Refer to Table 4 for a description of the properties. The available parameters will depend on the type of gradient transparency selected above.
- 7) Click **OK** to save your changes and close the dialog.

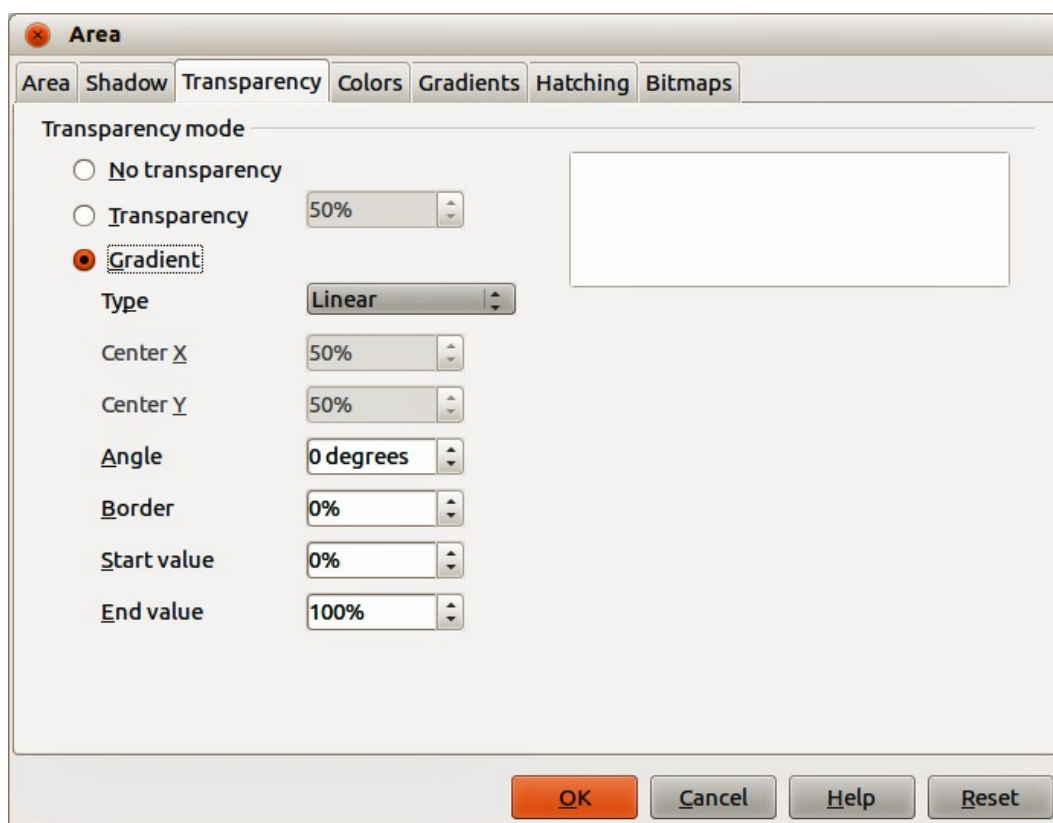


Figure 34: Area dialog – Transparency page

Table 4: Gradient transparency properties

Property	Meaning
Center X	For Radial, Ellipsoid, Quadratic and Square gradients, modify these values to set the horizontal offset of the gradient center.
Center Y	For Radial, Ellipsoid, Quadratic and Square gradients, modify these values to set the vertical offset of the gradient center.
Angle	For Linear, Axial, Ellipsoid, Quadratic and Square gradient, specifies the angle of the gradient axis.
Border	Increase this value to make the gradient start further away from the border of the object.
Start value	Value for the starting transparency gradient. 0% is fully opaque, 100% means fully transparent.
End value	Value for the ending transparency gradient. 0% is fully opaque, 100% means fully transparent.

Using styles

Suppose that you want to apply the same area fill, line thickness, and border to a set of objects. This repetitive process can be greatly simplified by the use of styles. Styles allow you to define a formatting template (a style) and then to apply that style to multiple objects. For more information on styles, see the *Writer Guide Chapter 6 Introduction to Styles*.

Linked graphics styles

Graphics styles support inheritance; that is, a style can be linked to another (parent) style so that it inherits all the formatting settings of the parent. You can use this property to create families of styles.

For example, if you need multiple boxes that differ in color but are otherwise identically formatted, the best way to proceed is to define a generic style for the box including borders, area fill, font, and so on. Then create a number of hierarchically dependent styles which differ only in the fill color attribute. If you then need to change the font size or the thickness of the border, it is sufficient to change the parent style and all the other linked styles will change accordingly.

Creating graphics styles

You can create a new graphics style in two ways:

- Using the Style and Formatting dialog.
- From a selected object.

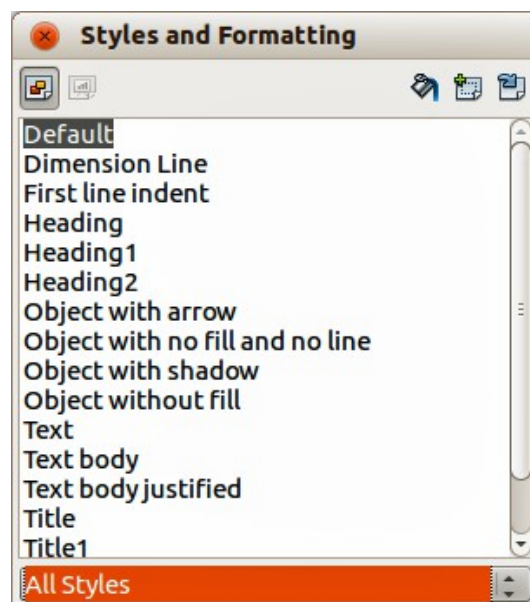




Figure 35: Styles and Formatting dialog

Using Styles and Formatting dialog

- 1) Click on the **Styles and Formatting**  icon on the Line and Filling toolbar or press the **F11** key to open the Styles and Formatting dialog (Figure 35).
- 2) Click on the Graphics Styles icon  in the top left corner of the Styles and Formatting dialog. This will open a list of styles available for use with graphics.
- 3) Select the style you want to use in the Styles and Formatting dialog.
- 4) Right-click and select **New** to open the Graphics Styles dialog (Figure 36).
- 5) Click on the *Organizer* tab to the Organizer page.
- 6) Give your new graphics style a memorable file name.
- 7) Use the various pages and available options in the Graphics Styles dialog to format and categorize your new style.
- 8) Click **OK** when finished to save your new graphics style and close the dialog.

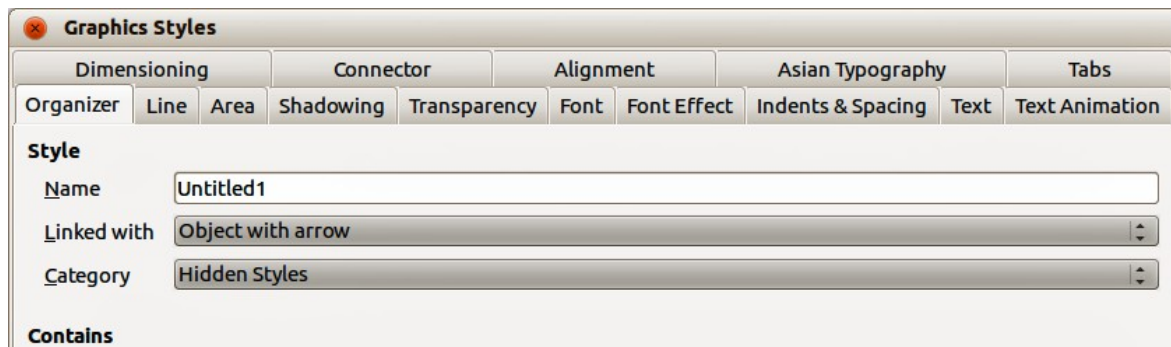


Figure 36: Graphics Styles dialog – Organizer page

The Graphics Styles dialog consists of several pages that may be grouped as follows:


- *Organizer* – contains a summary of the style and its hierarchical position.
- *Font*, *Font Effects*, *Indents & Spacing*, *Alignment*, *Tabs* and *Asian Typography* – set the properties of the text inserted in a text box or in a graphic object.
- *Dimensioning* – used to set the style of dimension lines.
- *Text*, *Text Animation*, *Connector*, *Line*, *Area*, *Shadowing*, and *Transparency* – determine the formatting of a graphic object.

Note

When styles are linked, changing a color for example will change the color in all linked styles. Sometimes this is exactly what you want; at other times you do not want the changes to apply to all linked styles. It pays to plan ahead.

Using a selected object

You can create a new style from an object that has already been formatted. This can be text or graphics:

- 1) Select the object you want to use to create your new style.
- 2) Open the Styles and Formatting dialog and click the **New Style from Selection** icon .
- 3) In the Create Style dialog that opens, type a name for the new style. This dialog also shows existing custom styles that are available.
- 4) Click **OK** to save the new style.


Modifying a graphics style

To modify an existing style:

- 1) Right-click on the style in the Styles and Formatting dialog.
- 2) Select **Modify** from the context menu to open the Graphic styles dialog and is the same dialog used when creating a new graphics style (Figure 36).
- 3) Make the required changes to the style.
- 4) Click **OK** to save your changes and close the dialog.


Updating from a selection

To update a style from a select object:

- 1) Select an object that uses the format you want to adopt as a style.
- 2) In the Styles and Formatting dialog, select the style you want to update and then click the **Update Style** icon .

Applying graphics styles

You can apply a graphics style using the Styles and Formatting dialog. First make sure that the graphics styles are shown (Figure 35), then do one of the following:

- Select the object to which you want to apply a graphics style and double-click on the name of the style you want to apply.
- Click the **Fill Format mode** icon , position the cursor on the object to be styled and click the mouse button. This mode remains active until you turn it off, so you can apply the same style to several objects. To quit Fill Format mode, click the **Fill Format mode** icon again or press the *Esc* key.
- When Fill Format mode is active, a right-click anywhere in the document cancels the last Fill Format action. Be careful not to accidentally right-click and thus undo actions you want to keep.

Tip

At the bottom of the Styles and Formatting window is a drop-down list. You can choose to show all styles or groups of styles such as applied styles or custom styles.

Deleting graphics styles

You cannot delete any of the predefined styles in LibreOffice, even if you are not using them. You can only delete user-defined (custom) styles. However, before you delete a custom style, make sure the style is not in use. If an unwanted style is in use, replace it with a substitute style.

To delete custom styles, right-click on a style in the Styles and Formatting dialog and click **Delete** on the context menu. Click **Yes** in the confirmation box that opens and the style is deleted.

Applying special effects

As well as the basic actions of moving and resizing an object, a number of special effects can also be applied to objects in Draw. Several of these effects are readily available in the Mode toolbar (Figure 37). If the Mode toolbar is not showing, select it from **View > Toolbars > Mode**.

This section describes how to rotate, flip, or distort an object, and two ways of setting an object in a circle.

The tools are described in the following sections with the exception of the 3D rotation tool, which is described in *Chapter 7 Working with 3D Objects*.

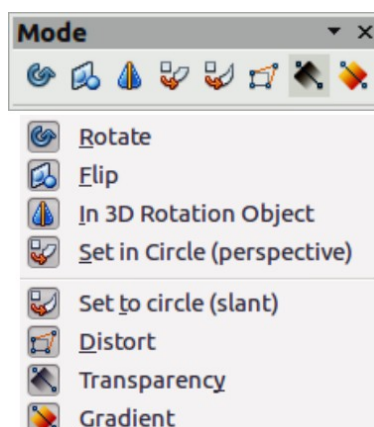


Figure 37: Mode toolbar and available tools

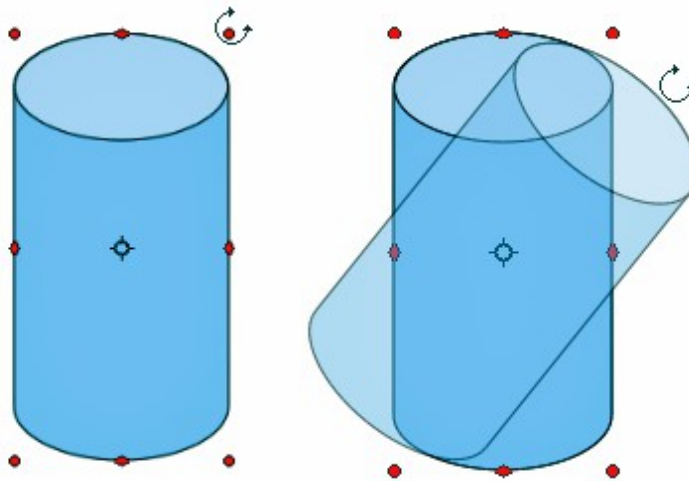



Figure 38: Object selected for rotation

Rotating graphic objects

Rotation of an object can be carried out manually or using a dedicated dialog, just like changing object position and size.

Manual rotation

- 1) Click on an object and the selection handles will show.
- 2) Click the **Rotate** icon  in the Line and Filling or Mode toolbars. The selection handles change shape and color (Figure 38).
- 3) If necessary, click and drag the pivot point for rotation to change the way an object is rotated. The pivot point is a circle and appears, by default, in the middle of the selected object. Normally the center of an object will be just fine, but on some occasions you may wish to rotate around a corner or even around a point outside the object.
- 4) Move the mouse over one of the corner handles and the cursor changes shape.
- 5) Click the mouse and move in the direction in which you want to rotate the object. Only the corner selection handles are active for rotation.
- 6) To restrict the rotation angles to multiples of 15 degrees, press and hold the *Shift* key while rotating the object. This is very handy for rotating objects through a right angle, for example from portrait to landscape.
- 7) When satisfied release the mouse button.

Using the Rotation dialog

Instead of rotating a graphic object manually, you can use the Rotation dialog (Figure 39) for more precise control when rotating an object.

- 1) Select the object so that the selection handles are displayed.
- 2) Press *F4* key, or select **Format > Position and Size** on the main menu bar, or right-click on the object and select Position and Size from the context menu to the Position and Size dialog.
- 3) Click on the *Rotation* tab to open the Rotation page.
- 4) In the **Pivot point** section, enter a figure in **Position X** and/or **Position Y** boxes to reposition the pivot point relative to the top left corner of the drawing, or select a position for the pivot point in **Default settings**. The default position for the pivot point is the center of the object.

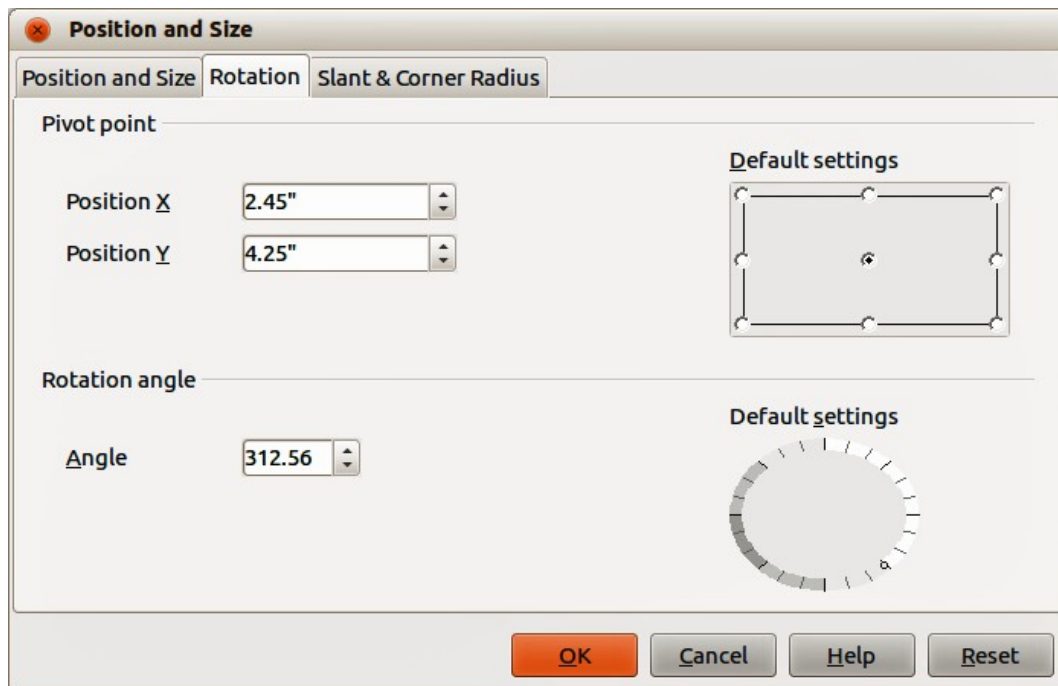


Figure 39: Position and Size dialog – Rotation page

- 5) In the **Rotation angle** section, enter an angle in the **Angle** box by which to rotate the object, or click and drag the **Rotation Angle** indicator in **Default settings** until you reach the required angle. As you click and drag, the angle is shown in the **Angle** box.
- 6) Click **OK** to save your changes and close the dialog.

Flipping objects


Quick flipping

The quickest and easiest method to flip an object horizontally or vertically is as follows:

- 1) Select an object and the selection handles will be displayed.
- 2) Go to **Modify > Flip** and select **Horizontally** or **Vertically** on the main menu bar, or right-click and select **Flip > Horizontally** or **Flip > Vertically** from the context menu and the selected object will be flipped to face the other direction.

Using the Flip tool

The **Flip** tool on the Mode or Line and Filling toolbars can also be used to flip an object. Using this tool, you can also change the position and angle that the object flips over (Figure 40).

- 1) Select an object and the selection handles will be displayed.
- 2) Click on the **Flip** icon  and the *axis of symmetry* appears as a dashed line through the middle of the object. The object will be flipped about this axis of symmetry.
- 3) Click and drag one or both ends of the axis of symmetry to set the orientation of the axis.
- 4) Place the cursor over one of the object selection handles until it changes shape.
- 5) Click and drag the object across to the other side of the axis of symmetry until the object will appear flipped over. The angle and position of the flip will depend on the angle and position of the axis of symmetry.
- 6) Release the mouse button and your object is flipped.

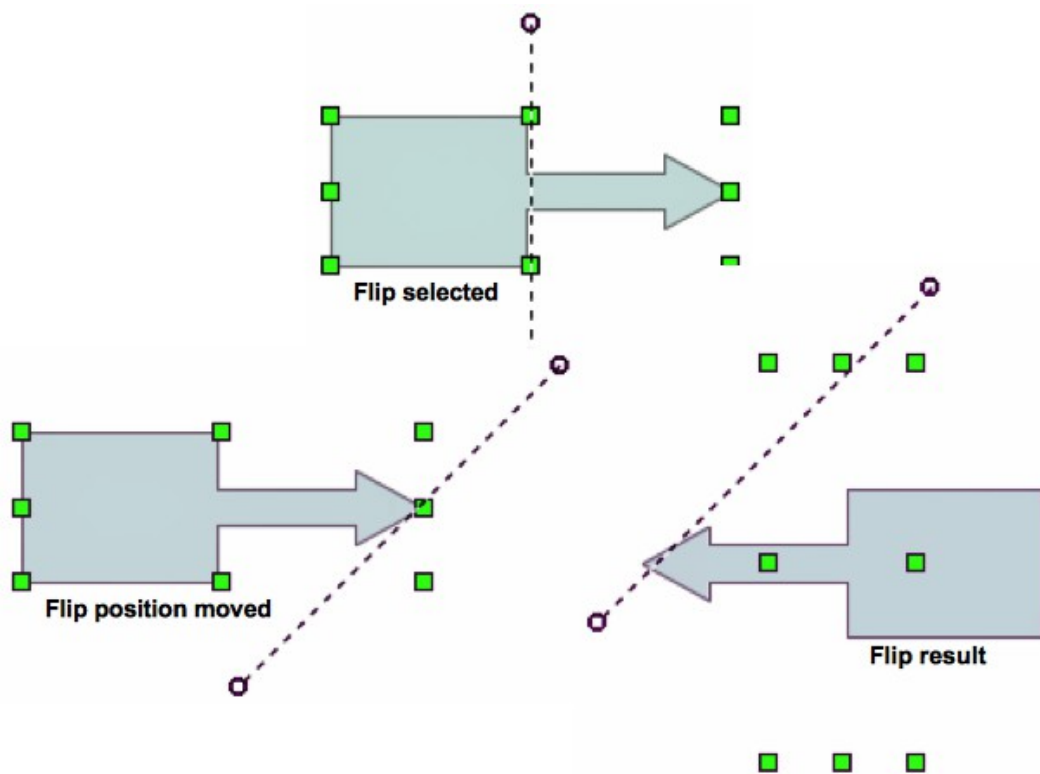


Figure 40: Using the Flip tool

Note

If you press the *Shift* key while moving the axis of symmetry, it will rotate in 45 degree increments.



Mirror copies


At the moment there is no mirror command existing in Draw. However, mirroring an object can be emulated by using the **Flip** tool as follows:

- 1) Select the object you want to make a mirror copy of and copy the object to the clipboard.
- 2) Select the **Flip** tool on the Mode or Line and Filling toolbars.
- 3) Move the axis of symmetry to the desired location of the mirror axis, then flip the object.
- 4) Click on an empty area of the page to deselect the object.
- 5) Paste from the clipboard to put a copy of the object back into its original location and now you have a mirror copy.
- 6) If necessary, select both objects and realign them by going to **Modify>Alignment** on the main menu bar, or right-click and select **Alignment** from the context menu and then select the type of alignment.

Distorting images


Three tools on the Mode toolbar let you drag the corners and edges of an object to distort the image.

- **Distort**  distorts an object in perspective.
- **Set to Circle (slant)**  creates a pseudo three-dimensional effect.

- **Set in Circle (perspective)**  creates a pseudo three-dimensional effect.

In all three cases you are initially asked if you want to transform the object to a curve. This is a necessary first step, so click **Yes**. Then you can move the object handles to produce the desired effect. The results of using these tools are shown in the following figures.

Distorting

Select an object and click on the **Distort** icon  on the Mode toolbar. After converting to a curve as requested, move the handles to stretch the object. The corner handles distort the corners, the vertical midpoint handles distort the figure horizontally and the horizontal ones distort it vertically (Figure 41).

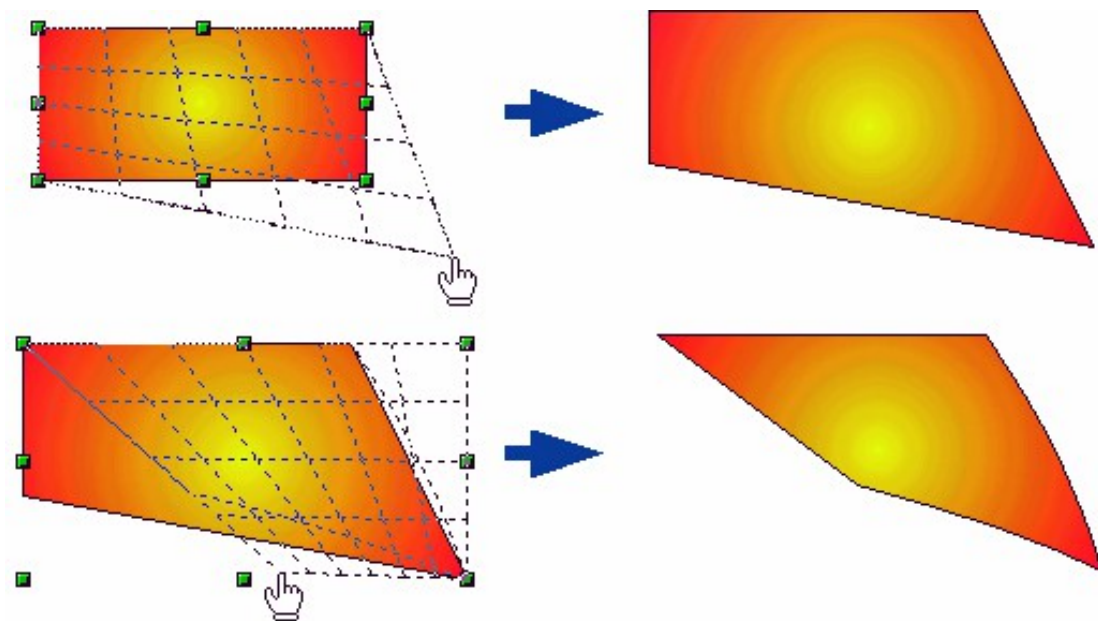


Figure 41: Distorting an image

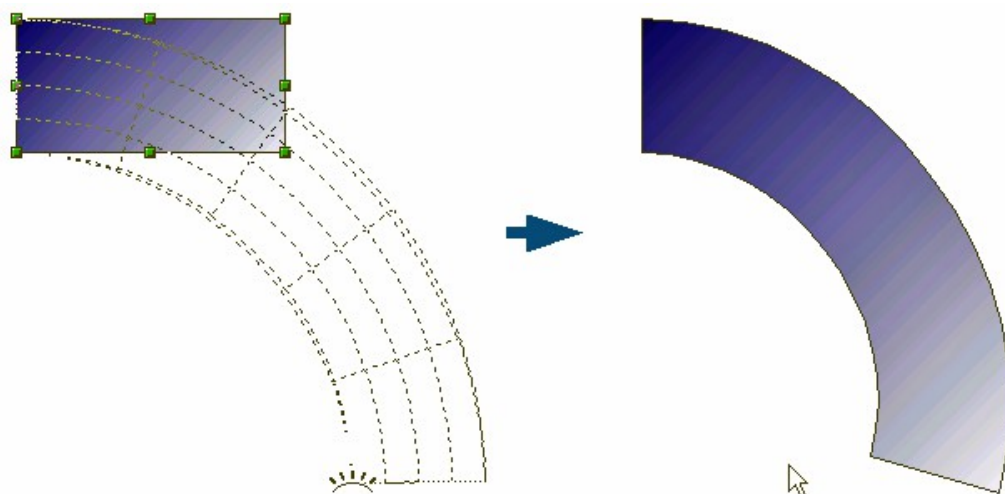




Figure 42: Setting an image to a circle with perspective

Setting in circle (perspective)

Select an object and click on the **Set in Circle (perspective)** icon  in the Mode toolbar. After converting to a curve, move the object handles to give a pseudo three-dimensional perspective) (Figure 42).

Setting to circle (slant)

Select an object and click on the **Set to Circle (slant)** icon  in the mode toolbar. After converting to a curve, move the object handles to give a pseudo three-dimensional slant perspective (Figure 43).

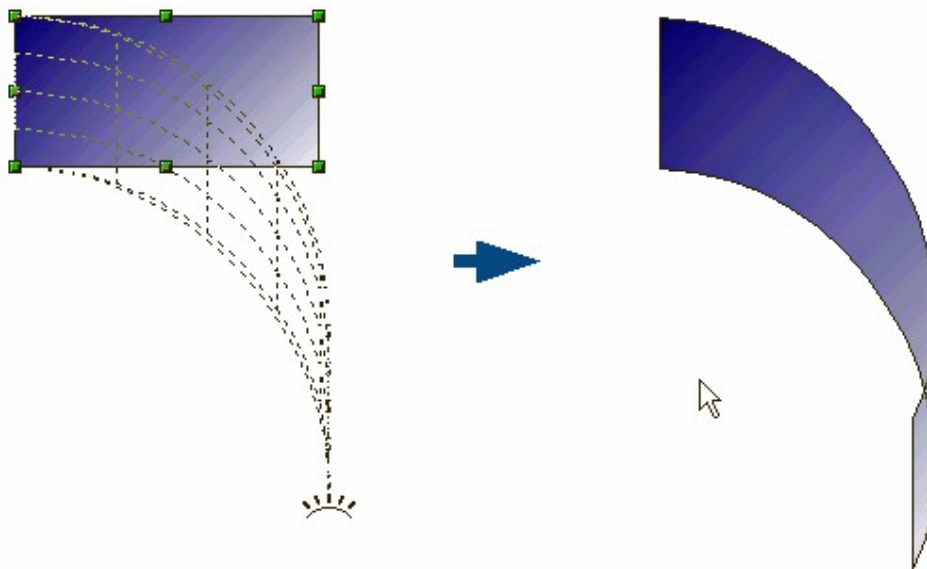


Figure 43: Setting an image to a circle with slant


Note


Transforming an object into a curve is a safe operation, but it cannot be reversed other than by clicking the **Undo** button.

Dynamic gradients

You can control transparency gradients in the same manner as color gradients and both types of gradient can be used together. With a transparency gradient, the direction and degree of object fill color changes from opaque to transparent. In a color gradient, the fill changes from one color to another, but the degree of transparency remains the same.

Two icons are present on the Mode toolbar to dynamically control transparency and color gradients. Even if you have not assigned transparency to an object with a color fill, you can control

the transparency by clicking on the **Transparency** icon . This defines a transparency gradient and a dashed line connecting two squares appears on the object. Move the two squares to modify the gradient. You can define the direction of the gradient (vertical, horizontal, or at any angle) and the spot at which the transparency begins.

A regular color gradient is defined in the same manner. Select an object, then select a gradient fill from the Gradients page of the Area dialog (Figure 26 on page 19). The **Gradient** icon  is now

active on the Mode toolbar. When you click on the gradient icon, a dashed line connecting two squares appears on the object, just as it does for a transparency gradient.

In both transparency gradient and gradient fill, click outside the object to set the gradient.

Note

Moving the squares will have different effects, depending on the type of gradient. For example, for a linear gradient, the start and end squares of the gradient will always be situated to either side of the center point of the object.

Example 1

A single color object and a transparency gradient, covering part of the underlying object. The gradient can be dynamically adjusted; the direction of transparency by moving the white square or the distance over which it is applied by moving the black square (Figure 44).

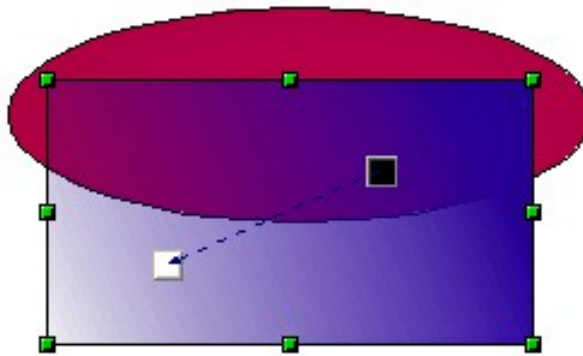


Figure 44: Example 1 of a dynamic gradient

Example 2

An object with a color gradient, completely covering another object. The gradient is adjusted dynamically by moving the squares – the color of the square relating to the increase or decrease in that color (Figure 45).

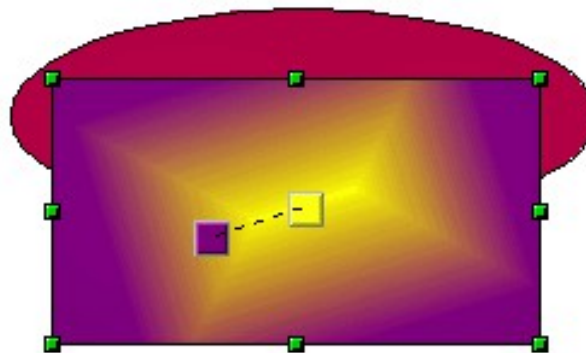


Figure 45: Example 2 of a dynamic gradient

Example 3

An object with both color and transparency gradients, partly covering the underlying object (Figure 46).

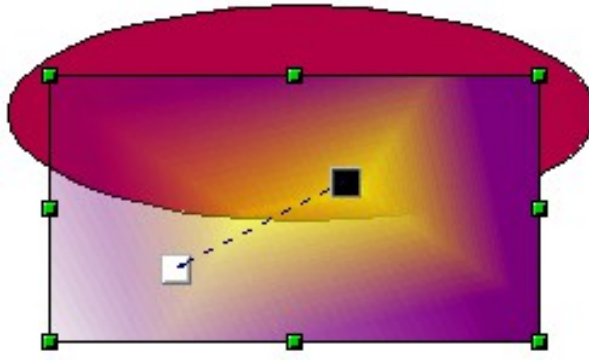


Figure 46: Example 3 of a dynamic gradient