



Draw Guide

Chapter 4
Changing Object Attributes

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Note

Everything sent to a mailing list, including your email address and any other personal information that is written in the message, is publicly archived and cannot be deleted.

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Using LibreOffice on macOS

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

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

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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, its color and the type of arrowhead.



Note

When you hover the mouse cursor over an icon or tool on a toolbar or in the Sidebar, a pop up will indicate the purpose of the icon or tool.

Line and Filling toolbar

To format a line using the **Line and Filling** toolbar (Figure 1):

- 1) Make sure the line is selected in your drawing.
- 2) On the **Line and Filling** toolbar, select the line style you want to use from the **Line Style** drop-down list.
- 3) On the **Line and Filling** toolbar, either type the line width in the **Line Width** text box, or use the up and down arrows to change the line width.
- 4) On the **Line and Filling** toolbar, click on the small triangle to the right of the **Line Color** icon and select a color from the dialog that opens.

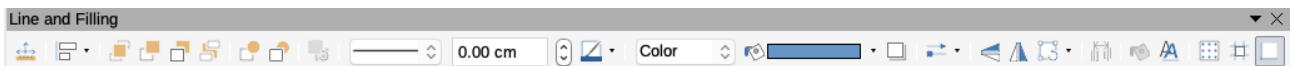


Figure 1: Line and Filling toolbar

Sidebar

To format a line using the **Line** section in the **Properties** deck on the Sidebar (Figure 2):

- 1) Make sure the line is selected in your drawing.
- 2) Click on the **Properties** icon on the Sidebar to open the **Properties** deck
- 3) Click on the down arrowhead **V** on the left of the **Line** title bar to open the **Line** section.
- 4) Select from the drop-down lists the type of arrowhead for each end of the line and change the line into an arrow. The left drop-down list adds an arrow head to the beginning of the line. The right drop-down list adds an arrow head to the end of the line.
- 5) Select from the middle drop down list the type of line from the options available.
- 6) Select the line width from the options in the **Width** drop down list or enter a width in the text box.
- 7) Select the line color from the **Line Color** dialog that opens when you click on the small triangle to the right of the **Color** box.
- 8) Deselect the line to save your changes to the line.

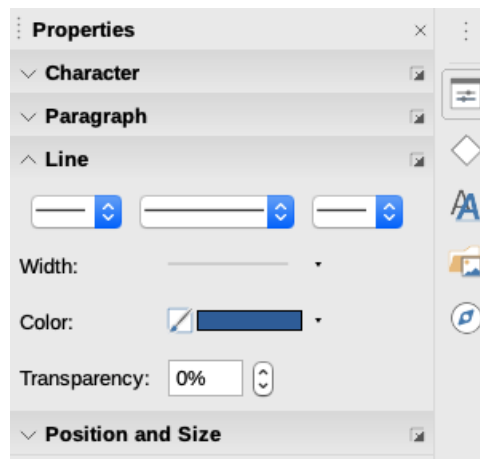


Figure 2: Line section In Properties on Sidebar

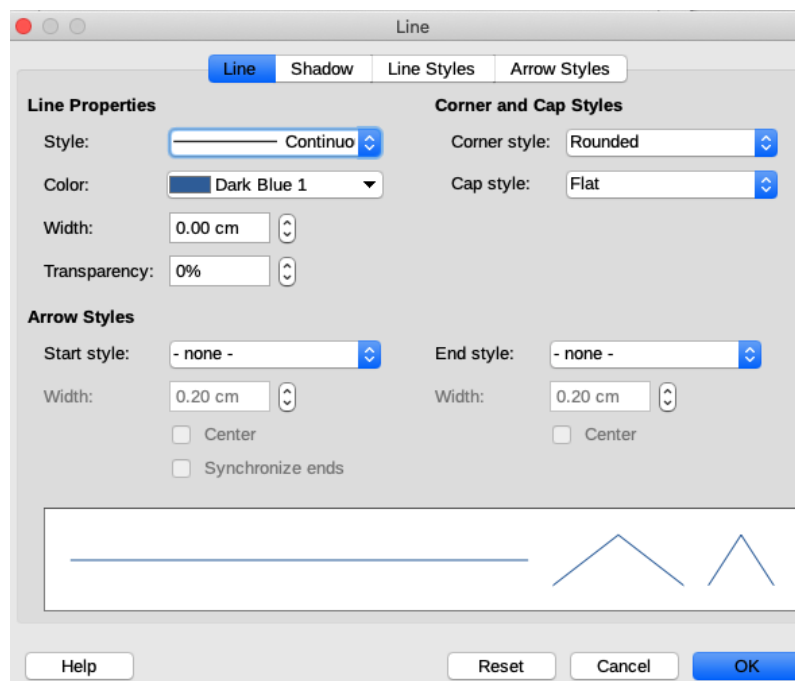


Figure 3: Line dialog - Line page

Line dialog

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

- 1) Select the line in 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 to open the **Line** dialog (Figure 3). This dialog consists of four pages: **Line**, **Shadow**, **Line Styles** and **Arrow Styles** and are explained in the following sections.
- 3) When you have made all your changes to the selected line, 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.

Line page

The **Line** page in the **Line** dialog (Figure 3) is where you can set the basic parameters of the line and is divided into three sections as follows.

Line properties

Use **Line Properties** to set the following parameters:

- *Style* – select a line style from the drop-down list.
- *Color* – select a predefined color from the drop-down list or create a custom color.
- *Width* – specifies the thickness of the line.
- *Transparency* – sets the transparency of a line. Figure 4 shows the effects of different percentages in transparency levels to lines when placed over an object.

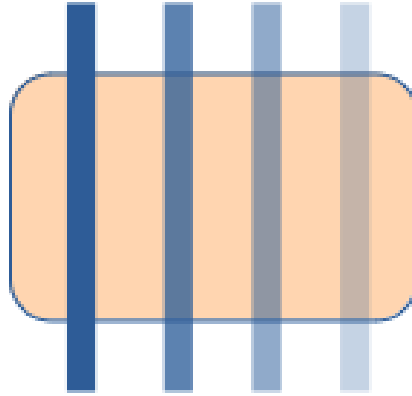


Figure 4: Line transparency (0%, 25%, 50%, 75% left to right)

Arrow styles

Arrow Styles page on the **Line** dialog are only applicable to individual lines and are not used for lines that form the borders of a shape.

- *Start style* and *End style*– sets the arrow style or arrowhead for the start and end of a line from the drop down list.
- *Width* – specifies the thickness of the arrow endings
- *Center* – moves the center of the arrow endings to the end point of the line. Figure 5 shows the effects of selecting this option.
- *Synchronize ends* – makes the two line ends identical.

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 6). Here you can select one of the many predefined arrowhead styles for the start and ending of a selected line.



Note

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



Figure 5: Default arrow top;
centered arrow bottom

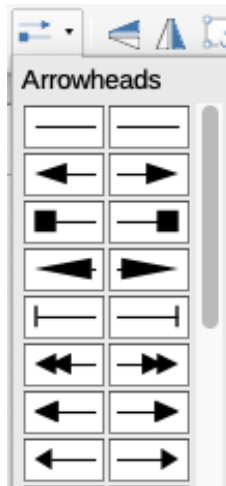


Figure 6:
Arrowheads
drop down menu

Corner and cap styles

Corner and Cap Styles (Figure 3 on page 6) 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.

Line shadows

Use the **Shadow** page (Figure 7) of the **Line** dialog to add and format a shadow to a selected line. The settings on this page are the same as those for shadows applied to other objects and are described in “Shadows” on page 29.

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.

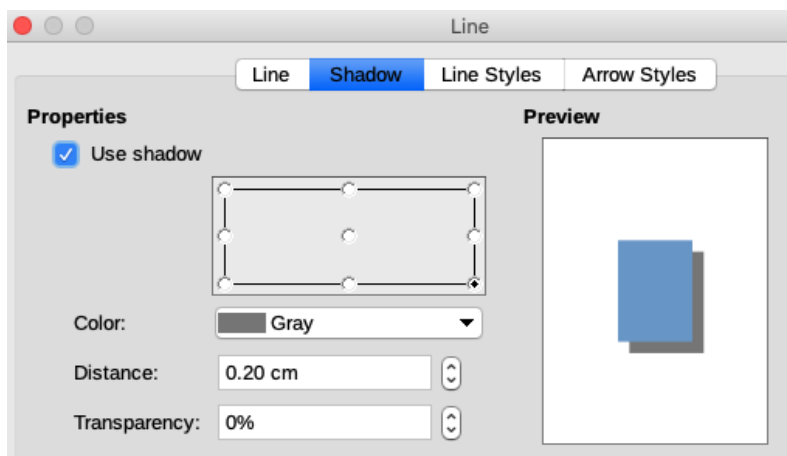


Figure 7: Line dialog - Shadow page

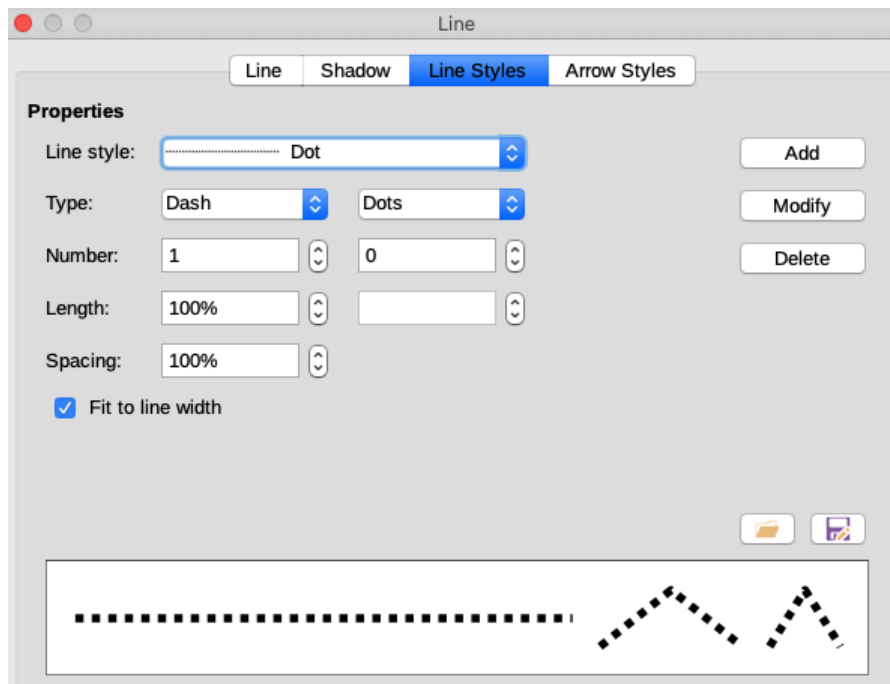


Figure 8: Line dialog - Line Styles page

Line styles

Use the **Line Styles** page (Figure 8) of the **Line** dialog to change the line style from the options available from the drop menu in *Properties* or create a new line style. An example of the line style selected or created is displayed at the bottom of the dialog 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 to open the **Line Styles** page (Figure 8).
- 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 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 *Type* 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 line styles have the file extension of *.sod*.
- 10) To use previously saved line style, 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.

Deleting line styles

To delete a 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 to open the **Line Styles** page (Figure 8).
- 3) Select the line style you want to delete from the *Line style* drop-down list.
- 4) Click on the **Delete** button, then confirm the deletion by clicking on the **Yes** button in the confirmation dialog that opens.
- 5) Click **OK** to close the **Line** dialog and save any changes you have made.



Note

When deleting line styles, make sure that the line style is not used in another drawing or document.

Arrow styles

Use the **Arrow Styles** page (Figure 9) in the **Line** dialog to create new arrow styles, or modify existing arrow styles, or load previously saved 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 10) because this becomes the point of the arrow.

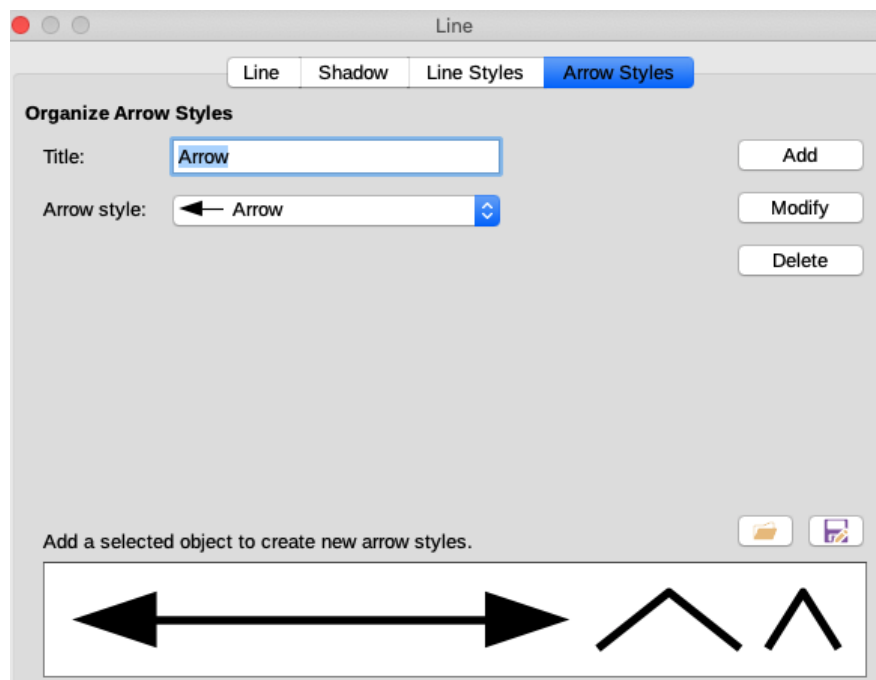


Figure 9: Line dialog - Line Styles page



Figure 10: Using shapes for arrow styles

- 2) Select the shape and, if necessary, right-click and choose **Convert > To Curve** from the context menu 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 main menu bar, or right-click and choose **Line** from the context 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 select the new style from the *Arrow style* list. The new style is shown at the bottom of the drop down list.
- 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.



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.

Deleting arrow styles

To delete an arrow 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 **Arrow Styles** tab to open the **Arrow Styles** page (Figure 9 on page 10).
- 3) Select the arrow style you want to delete from the *Arrow style* drop-down list.
- 4) Click on the **Delete** button, then confirm the deletion by clicking on the **Yes** button in the confirmation dialog that opens.
- 5) Click **OK** to close the **Line** dialog and save any changes you have made.



Note

When deleting arrow styles, make sure that the arrow style is not used in another drawing or document.

Formatting fill areas

The term area fill refers to the inside of an object, which can be a uniform color, gradient, hatching, bitmap or pattern as shown in Figure 11. An area fill can be made partly or wholly transparent and can throw a shadow.

Line and Filling toolbar

Tools on the **Line and Filling** toolbar (Figure 1 on page 5) provide a wide number of default fillings readily available to quickly format graphic objects. If this toolbar is not showing, go to **View > Toolbars > Line and Filling** on the main menu bar. To format the area of an object:

- 1) Select an object so that the selection handles are displayed.
- 2) Click on **Area Style/Filling** on the **Line and Filling** toolbar and, from the drop-down list, select the type of fill required (*None, Color, Gradient, Hatching, Bitmap, Pattern*) (Figure 12).
- 3) Click on the right **Area Style/Filling** drop-down list and select one of the available options for the selected type of area. For more information on area fills, see “Area dialog” on Page 14.
 - Color options in Figure 13.
 - Gradient options in Figure 14.
 - Hatching options in Figure 15.
 - Bitmap options in Figure 16.
 - Pattern options, see *Fill* and *Transparency* in the **Area** section on the Sidebar (Figure 17) or the *Pattern* section in **Area** page of the **Area** dialog (Figure 22 on page 17).
- 4) Deselect the object to save your changes to the object.

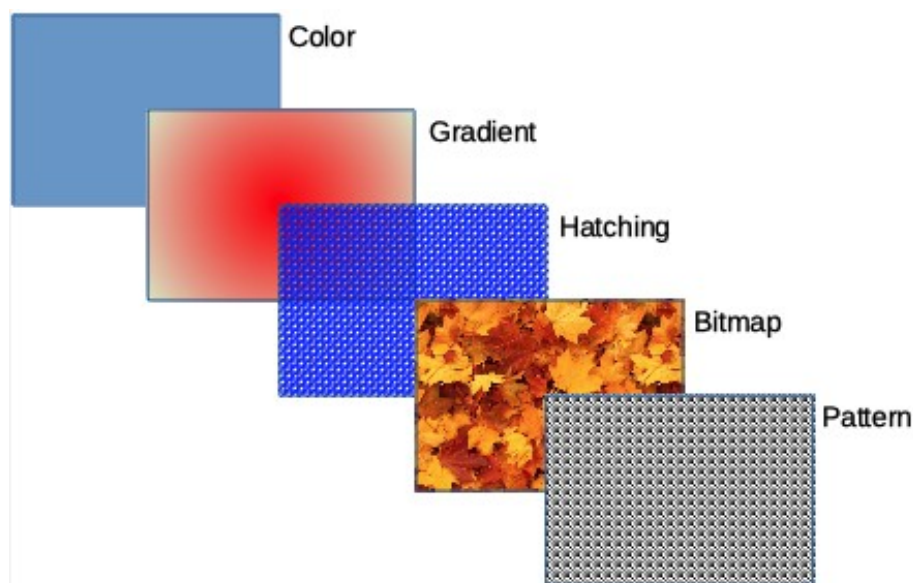


Figure 11: Examples of area fill types

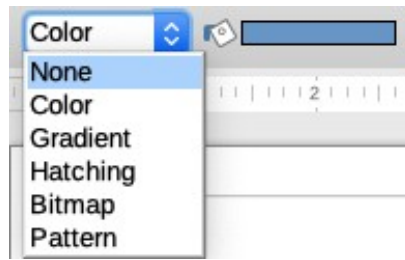


Figure 12: Area fill types

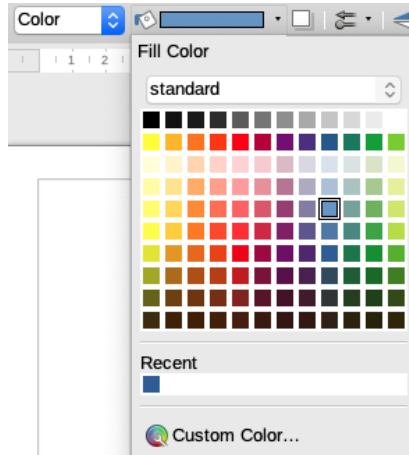


Figure 13: Color area fill

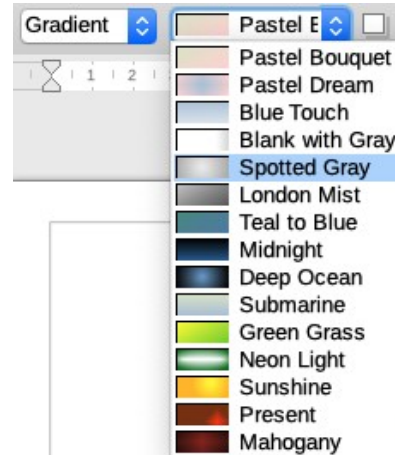


Figure 14: Gradient area fill

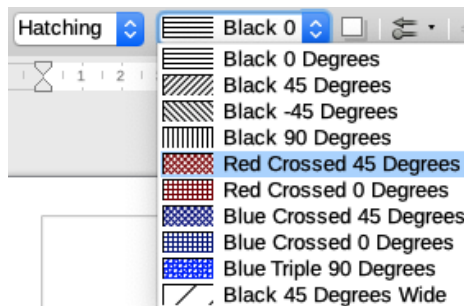


Figure 15: Hatching area fill

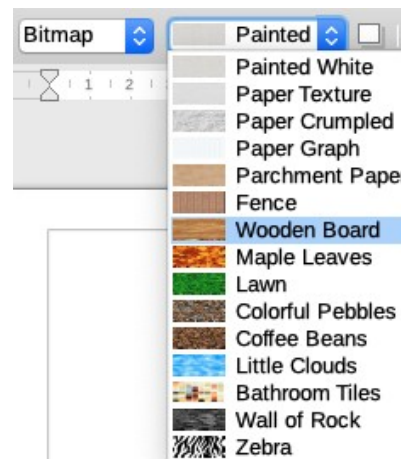


Figure 16: Bitmap area fill

Sidebar

To quickly format the area of an object using the Sidebar (Figure 17):

- 1) Make sure the object is selected in your drawing.
- 2) Click on the **Properties** icon on the Sidebar, then click on the down arrowhead **V** on the left of the **Area** titlebar to open the **Area** section.
- 3) Use the various options in the *Fill* and *Transparency* drop-down lists of the **Area** section to format the fill and transparency of an object. For more information on area fills, see “Area dialog” on Page 14.
- 4) Deselect the object to save your changes.

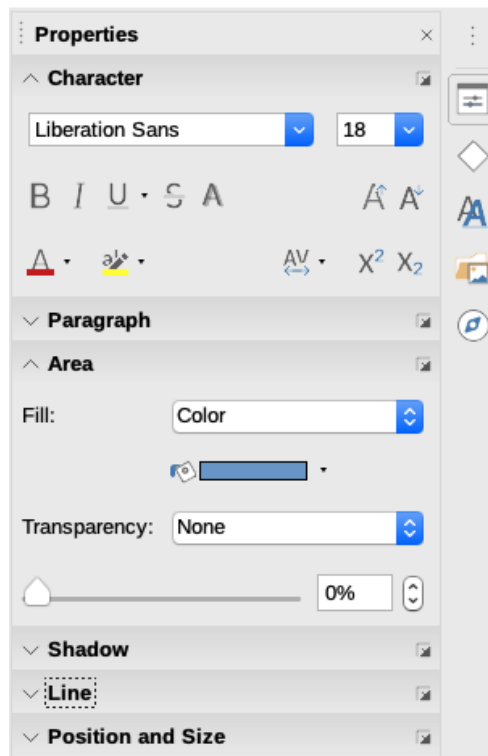


Figure 17: Area section in Properties on Sidebar

Area dialog

Use the **Area** dialog (Figure 18) to change existing area fills with greater control or create your own area fill.

- 1) Select the object you wish to edit.
- 2) Next format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar.
 - Right-click on the object and select **Area** from the context menu 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 “Working with area fills” on page 18 for more information.
- 4) Select the type of area fill from the drop-down list: *None*, *Color*, *Bitmap*, *Gradient*, *Pattern*, or *Hatch*. The 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 the selected object.

Types of area fill

Color fill

- 1) Open the **Area** dialog and click on the **Area** tab to open the **Area** page.

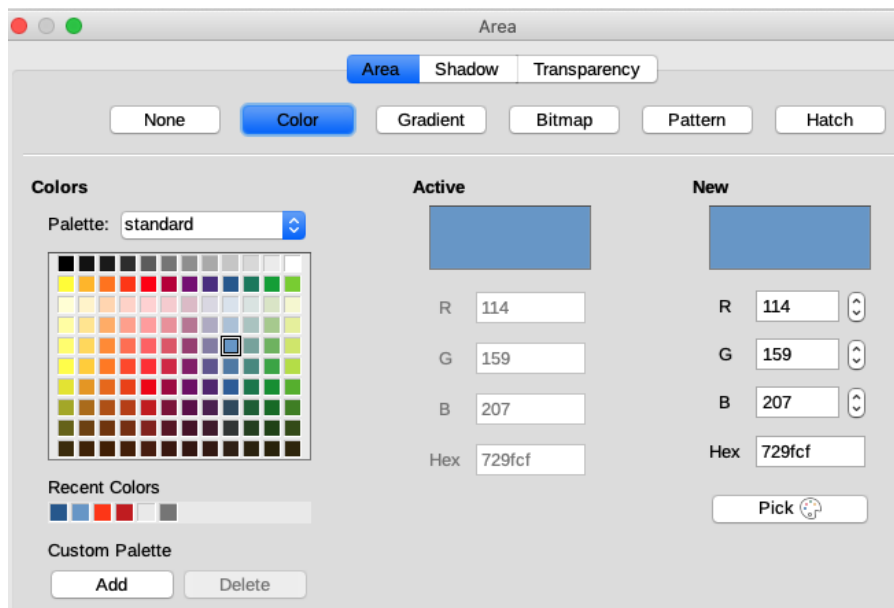


Figure 18: Area dialog - Color page

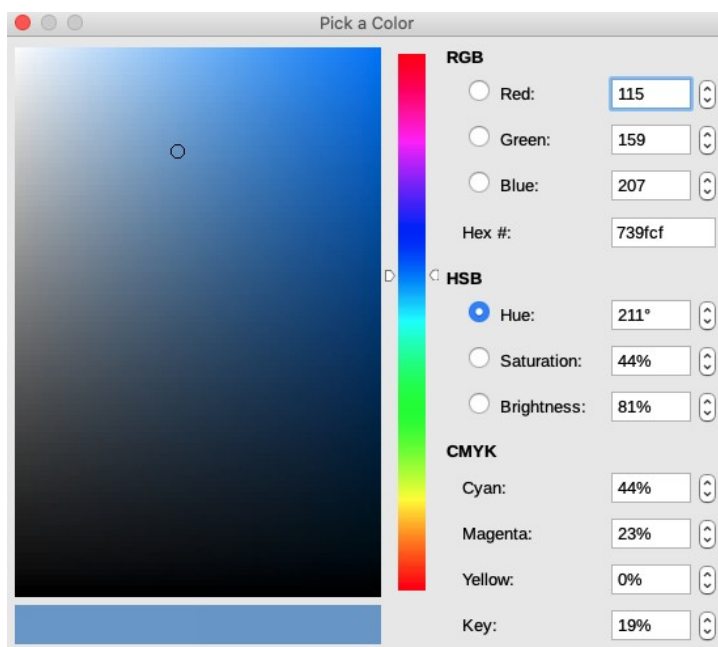


Figure 19: Pick a Color dialog

- 2) Click on **Color** (Figure 18) to open the options available for a color fill.
- 3) In *Palette*, select your required palette from the drop down list and your required color from the available colors shown. All color fills available are solid colors.
- 4) **Active** shows the present color fill of your selected object. After selecting a new color, a preview of the selected color appears in **New** in the dialog.
- 5) Alternatively, enter the *RGB* or *Hex* values of a color in the appropriate text box.
- 6) Alternatively, click on *Pick* to open the **Pick a Color** dialog (Figure 19). Here you can pick a color from the color box or enter the *RGB*, *Hex*, *HSB* or *CMYK* values for your color.
- 7) If you have used a color before and would like to use it again, then select your color from those available in *Recent Colors*.
- 8) Click **OK** to close the dialog and save your changes. The area fill will then appear in the selected object.

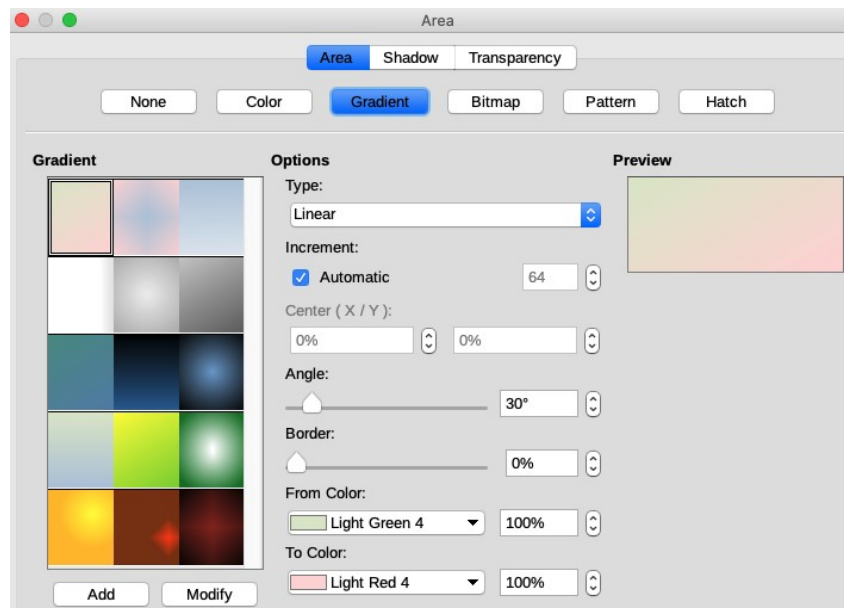


Figure 20: Area dialog - Gradient page

Gradient fill

- 1) Open the **Area** dialog and click on the **Area** tab to open the **Area** page.
- 2) Click on **Gradient** (Figure 20) to open the options available for a gradient fill.
- 3) In **Gradient**, select your required gradient from the list of available gradients and it will appear in **Preview**.
- 4) To override the default gradient transition in your selection, deselect *Automatic* in **Options** and then enter the values for *Type*, *Increment*, *Angle*, *Border*, *From Color* and *To Color* in the available boxes.
- 5) Click **OK** to close the dialog and save your changes. The area fill will then appear in the selected object.

Bitmap fill

- 1) Open the **Area** dialog and click on the **Area** tab to open the **Area** page.
- 2) Click on **Bitmap** (Figure 21) to open the options available for a bitmap fill.
- 3) In **Bitmap**, select your required bitmap from the list of available bitmaps and it will appear in **Preview**.
- 4) To override the settings for the bitmap in your selection, enter the values for *Style*, *Size*, *Position*, *Tiling Position*, and *Tiling Offset* in the available boxes under **Options**.
- 5) Alternatively, click on *Add/Import* and select an image from the file selection box that opens to use as a bitmap fill.
- 6) Click **OK** to close the dialog and save your changes. The area fill will then appear in the selected object.

Pattern fill

- 1) Open the **Area** dialog and click on the **Area** tab to open the **Area** page.
- 2) Click on **Pattern** (Figure 22) to open the options available for a pattern fill.
- 3) In **Pattern**, select your required pattern from the list of available pattern and it will appear in **Preview**.

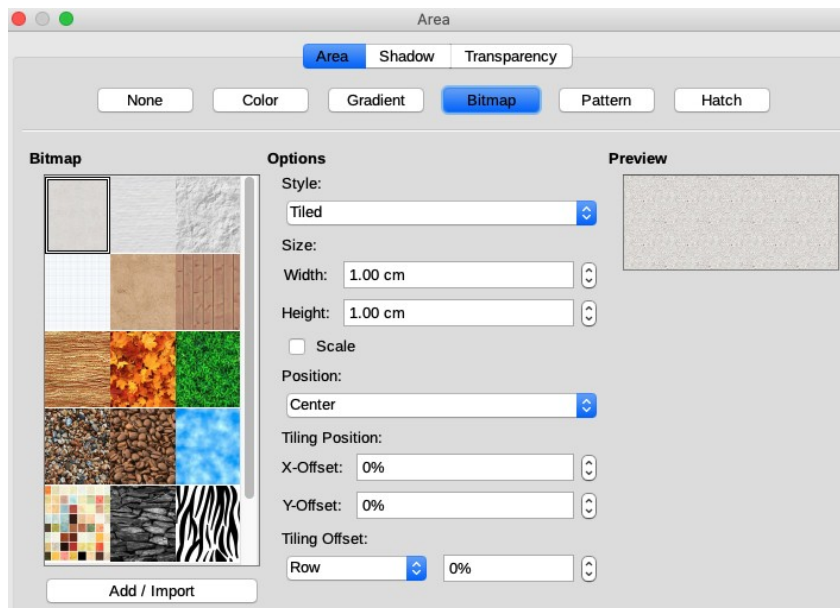


Figure 21: Area dialog - Bitmap page

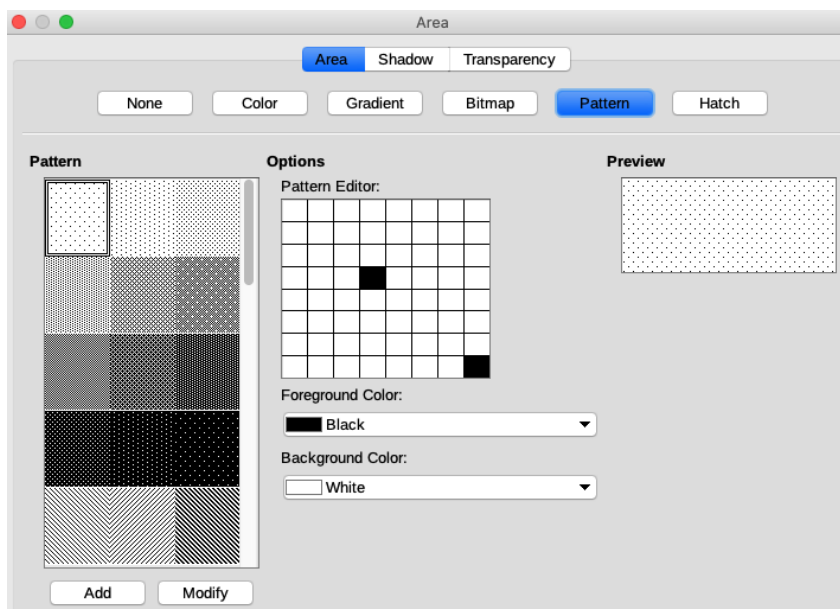


Figure 22: Area dialog - Pattern page

- 4) To override the settings for the pattern in your selection, enter a new pattern in *Pattern Editor*, then a new *Foreground Color* and *Background Color* in the available boxes under **Options**.
- 5) Click **OK** to close the dialog and save your changes. The area fill will then appear in the selected object.

Hatch fill

- 1) Open the **Area** dialog and click on the **Area** tab to open the **Area** page.
- 2) Click on **Hatch** (Figure 23) to open the options available for a hatch fill.
- 3) In **Hatch**, select your required hatching from the list of available hatchings and it will appear in **Preview**.

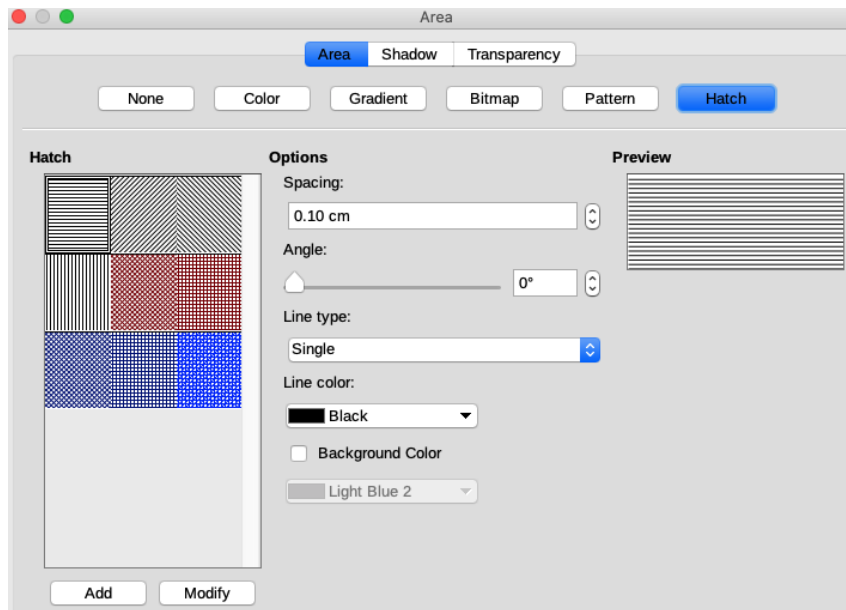


Figure 23: Area dialog - Hatch page

- 4) To override the settings for the hatching in your selection, enter a new values for *Spacing*, *Angle*, *Line color* and *Background Color* in the available text boxes under **Options**.
- 5) Click **OK** to close the dialog and save your changes. The area fill will then appear in the selected object.

Working with area fills

Color fills

Creating colors using Area dialog

Using the **Area** dialog (Figure 18 on page 15), you can create a new color as a combination of the three primary colors Red, Green, and Blue, (RGB notation) as follows:

- 1) Select the object you wish to edit.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the Area icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** from the context menu to open the **Area** dialog.
- 3) Click on the **Colors** button to open the **Colors** page.
- 4) Specify the red (R), green (G) and blue (B) values on a 0 to 255 scale to create a new color.
- 5) Click the **Add** button to open the **Name** box (Figure 24) and enter a name for the new color.
- 6) Click **OK** to close the **Name** box and add the new color to the *Custom* palette.
- 7) Click **OK** to save your changes and close the **Area** dialog. The new color will appear as a fill in the selected object.

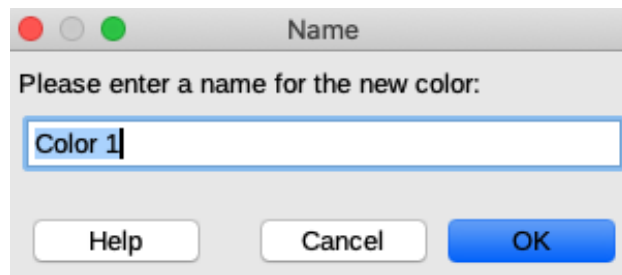


Figure 24: Color name box

Creating colors using *Pick a Color* dialog

You can create a new color using the **Pick a Color** dialog as follows:

- 1) Select the object you wish to edit.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the Area icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** from the context menu to open the **Area** dialog.
- 3) Click on the **Colors** button to open the **Colors** page (Figure 18 on page 15).
- 4) Click on the **Pick** button to open the **Pick a Color** dialog (Figure 19 on page 15).
- 5) Create a new color using one of the following methods. A preview of the color created is shown in the colored box next to the original color in the bottom left corner of the dialog.
 - Select a color range from the colored bar, then, using the mouse, move the target in the colored box until you are satisfied with the color selected.
 - Enter values for red (R), green (G) and blue (B) in the RGB text boxes.
 - Enter values for cyan (C), magenta (M), yellow (Y), and key (K) (black) in the CMYK text boxes.
 - Enter values for hue (H), saturation (S) and brightness (B) in the HSB text boxes. HSB values do not change the color, but how a color looks.
- 6) Click **OK** to close the **Pick a Color** dialog.
- 7) Click the **Add** button to open the **Name** box (Figure 24) and enter a name for the new color.
- 8) Click **OK** to close the **Name** box and add the new color to the *Custom* palette.
- 9) Click **OK** to save your changes and close the **Area** dialog. The new color will appear as a fill in the selected object.

Deleting custom colors

- 1) Select a filled object that uses the color fill you want to delete.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the Area icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** from the context menu to open the **Area** dialog.
- 3) Click on the **Colors** button to open the **Colors** page (Figure 18 on page 15).
- 4) Select *Custom* from the *Palette* drop-down list.

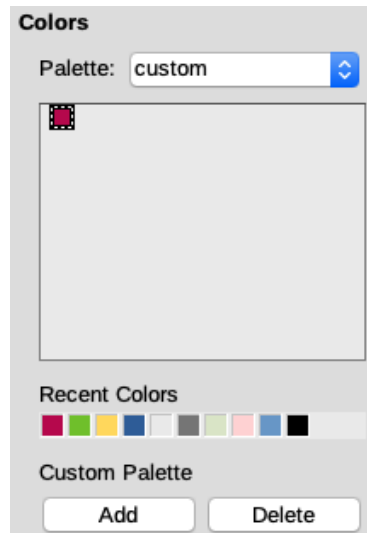


Figure 25: Deleting custom colors

- 5) Select the color you want to delete and click on the **Delete** button (Figure 25). There is no confirmation given when deleting a color.
- 6) Click **OK** to save your changes and close the **Area** dialog.



Note

It is recommended to only delete colors that you have created from the custom palette. Deleting colors from the standard palettes that are available in LibreOffice, may cause problems in documents that use one of the standard colors.

Gradient fills

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



Note

It is recommended, even if you just want to change the two colors, that you create a new gradient rather than modifying the predefined ones. Predefined gradients should only be used as starting points. Also predefined gradients may have been used in other objects in your drawing or in other documents.

Creating new gradients

- 1) Select the filled object you want to edit.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - 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 20 on page 16).
- 4) In **Options**, select the *From Color* and *To Color* from the drop-down lists.

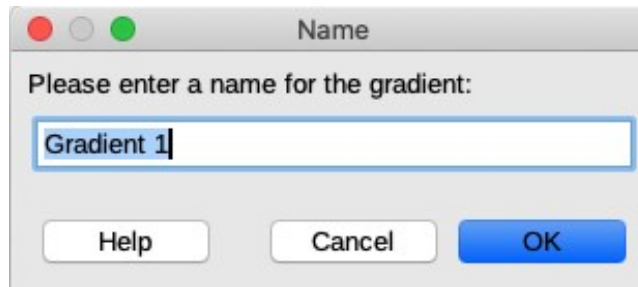


Figure 26: Adding gradients

- 5) In **Options**, select the gradient type from the drop-down list: *Linear*, *Axial*, *Radial*, *Ellipsoid*, *Quadratic* or *Square*. A preview of the gradient type is shown in the dialog.
- 6) Set all the properties as desired. 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 the **Add** button to open the **Name** box (Figure 26). Enter a name for the new gradient, then click **OK** to close the **Name** box.
- 8) Click **OK** to close the **Area** dialog and save the changes.

Table 1: Gradient properties.

Gradient 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.
Border	Increase this value to make the gradient start further away from the border of the shape.
From Color	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 Color	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 an object that contains the gradient as a fill and format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** to open the **Area** dialog.
- 2) Click on the **Gradients** tab to open the **Gradients** page (Figure 20 on page 16).
- 3) Select the gradient you have previously created and added to the **Gradients** displayed in the **Area** dialog.
- 4) Enter the new values for the gradient properties that you want to change. See Table 1 for more information on gradient properties. Depending on the type of gradient selected, some properties may be grayed out.
- 5) Click **Modify** to save your changes. There is no confirmation given when modifying a gradient.
- 6) Click **OK** to close the **Area** dialog and save the changes.

Deleting gradients

- 1) Select a filled object that uses the gradient fill you want to delete.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the Area icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** from the context menu to open the **Area** dialog.
- 3) Click on the **Gradients** tab to open the **Gradients** page (Figure 20 on page 16).
- 4) Select the gradient you want to delete.
- 5) Right click on the gradient and select **Delete** from the pop-up menu. Click on **Yes** to confirm the deletion.
- 6) Click **OK** to save your changes and close the **Area** dialog.



Note

It is recommended to only delete gradients that you have created. Deleting gradients that are installed with LibreOffice may cause problems in documents that use one of these gradients.

Advanced gradient controls

LibreOffice provides advanced controls for gradients as follows.

- 1) Select an object that contains the gradient as a fill.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** to open the **Area** dialog.
- 3) Click on the **Gradients** tab to open the **Gradients** page in the **Area** dialog (Figure 20 on page 16).
- 4) Go to **View > Toolbars > Transformations** on the main menu bar or click on the **Transformations** icon on the **Line and Filling** toolbar to open the **Transformations** toolbar.

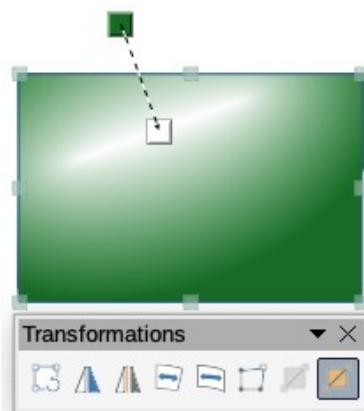


Figure 27: Interactive gradient tool on Transformations toolbar

- 5) Click on the **Interactive gradient tool** icon in the **Transformations** toolbar. This displays a dashed line connecting two colored squares. The colors show the *From Color* and *To Color* that are used for the selected gradient (Figure 27).
- 6) Select the type of gradient you want to use for the object from the *Type* drop-down list in **Options** on the **Gradients** page in the **Area** dialog. Properties you can adjust will depend on the gradient type you have selected and these are explained below.
 - **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).
 - **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.
 - **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).
 - **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.
 - **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.
- 7) 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.

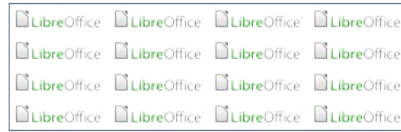
Bitmap fills

Editing bitmaps

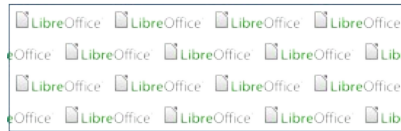
- 1) Select an object that contains a bitmap as a fill or insert a bitmap into a selected object (see “*Pattern fill*” on page 16 for more information).
- 2) Go to **Format > Area** on the main menu bar, or click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5), or right-click on the object and select **Area** to open the **Area** dialog.
- 3) Click on the **Bitmap** tab to open the **Bitmap** page (Figure 21 on page 17).
- 4) Select a bitmap from **Bitmap** that you want use and edit as a fill. Note that any imported bitmaps will also be available.
- 5) In **Options**, select the properties for *Style*, *Size*, *Position*, *Tiling Position* and *Tiling Offset*. See Table 2 for more information on bitmap properties. The best way to understand bitmap properties is to use them. Figure 28 shows examples of bitmap fills and the properties used.
- 6) Click **OK** to save your changes and close the **Area** dialog.



Original bitmap



Width and height 25% scaled
Anchor to top left corner
No offset



Width and height 25% scaled
Anchor to top right
Row offset 50%

Figure 28: Examples of bitmap fill

Table 2: Bitmap options.

Bitmap option	Meaning
Style – Custom position/size	When this option is selected, the position of the bitmap in the object and the size of the bitmap can be determined.
Style – Tiled	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
Style – Stretched	When this option is selected, a bitmap will be stretched to fill object area.
Size – Width	Sets the width of the bitmap. For example, 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	Sets the height of the bitmap. For example, 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.
Size – Scale	When selected, bitmap size is given as a percentage for Width and Height. When deselected, the actual size of the bitmap is given for Width and Height.
Position	When this option is selected, the anchoring point of the bitmap is determined.
Tiling Position – X-Offset	Sets 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.
Tiling Position – Y-Offset	Sets the offset for the height 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.
Tiling Offset	Offsets the columns of tiled bitmaps by the percentage entered in the box so that two subsequent columns of bitmaps are not aligned.

Importing bitmaps

To import a bitmap created in another program:

- 1) Select an object where you want to import a bitmap into.

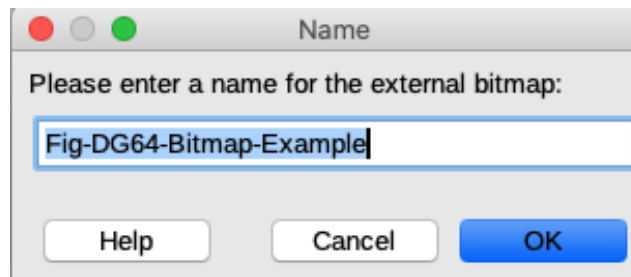


Figure 29: Importing bitmaps

- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** to open the **Area** dialog.
- 3) Click on the **Bitmap** tab to open the **Bitmap** page (Figure 21 on page 17).
- 4) Click on **Add/Import** and a file browser dialog opens.
- 5) Browse to the directory containing the bitmap file and select it, then click **Open**.
- 6) Enter a name for the new bitmap in the **Name** box (Figure 29), then click **OK** to close the **Name** box.
- 7) Click **OK** to save your changes and close the **Area** dialog.

Deleting bitmaps

- 1) Select a filled object that uses the bitmap fill you want to delete.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar.
 - Right-click on the object and select **Area** from the context menu to open the **Area** dialog.
- 3) Click on the **Bitmap** tab to open the **Bitmap** page (Figure 21 on page 17).
- 4) Right click on the bitmap and select **Delete** from the pop-up menu. Click on **Yes** to confirm the deletion.
- 5) Click **OK** to save your changes and close the **Area** dialog.



Note

It is recommended to only delete bitmaps that you have created or imported. Deleting bitmaps that are installed with LibreOffice may cause problems in documents that use one of these bitmaps.

Pattern fills

Creating or editing patterns

- 1) Select an object that contains a pattern as a fill or insert a pattern into a selected object (see “*Pattern fill*” on page 16 for more information).

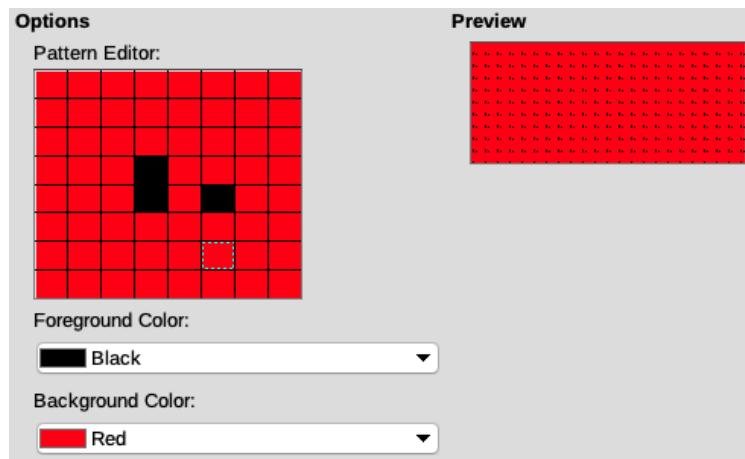


Figure 30: Creating or editing patterns

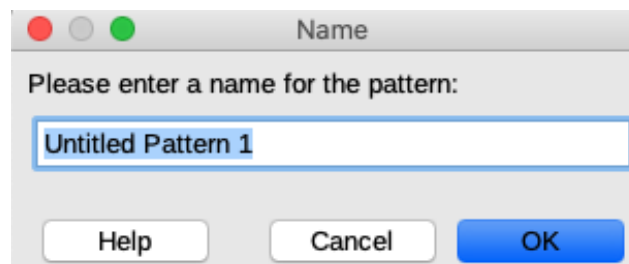


Figure 31: Naming new patterns

- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** to open the **Area** dialog.
- 3) Click on the **Pattern** tab to open the **Pattern** page (Figure 22 on page 17).
- 4) Select a pattern from the options available in **Pattern**. Note that any imported patterns will also be available.
- 5) In **Options**, select the color you want to use from the drop down lists for *Foreground Color* and *Background Color* (Figure 30).
- 6) In **Options – Pattern Editor**, start creating or editing the pattern by clicking with the left mouse button in the squares (pixels) that you want to fill with *Foreground Color*. Check the **Preview** window to see if the desired effect is being achieved.
- 7) If you have created a new pattern, click the **Add** button to open the **Name** box (Figure 31). Enter a name for the new pattern, then click **OK** to close the **Name** box.
- 8) If you have edited a pattern, click **Modify** to save your changes. There is no confirmation given when saving an edited pattern.
- 9) Click **OK** to save your changes and close the **Area** dialog.

Deleting patterns

- 1) Select a filled object that uses the pattern fill you want to delete.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).

- Right-click on the object and select **Area** from the context menu to open the **Area** dialog.
- 3) Click on the **Pattern** tab to open the **Pattern** page (Figure 22 on page 17).
 - 4) Right click on the pattern and select **Delete** from the pop-up menu. Click on **Yes** to confirm the deletion.
 - 5) Click **OK** to save your changes and close the **Area** dialog.



Note

It is recommended to only delete patterns that you have created. Deleting patterns that are installed with LibreOffice may cause problems in documents that use one of these patterns.

Hatching fills

To create a new hatching fill or to modify an existing one, select the **Hatch** tab from the **Area** dialog. As with gradients and colors, it is better to create a new hatching fill rather than modify a predefined one. The properties that can be set for a hatching pattern are shown in Table 3.

Table 3: Hatching options.

Hatching option	Meaning
Spacing	Determines the spacing between two lines of the hatching fill. 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 hatching fill.
Line color	Use the list to select the color of the lines that will form the hatching fill.
Background color	When selected, adds a color fill behind the lines used for the hatching fill.

Creating new hatching fills

- 1) Select the filled object you want to edit and format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** to open the **Area** dialog.
- 2) Click on the **Hatch** tab to open the **Hatch** page (Figure 23 on page 18).
- 3) As a starting point, select a hatching fill similar to the one that you want to create.
- 4) Modify the options of the lines forming the hatching fill. A preview is displayed in the window below the available patterns. See Table 3 for information on hatching options.
- 5) Click the **Add** button to open the **Name** box (Figure 32). Enter a name for the new hatching fill, then click **OK** to close the **Name** box. The new hatching appears at the bottom of the hatching fills displayed in **Hatch**.
- 6) Click **OK** to close the **Area** dialog and save the changes.

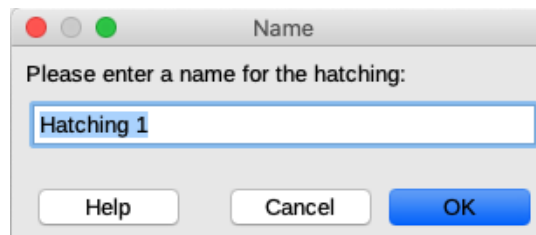


Figure 32: Adding hatching fills

Modifying hatching fills

- 1) Select an object that contains the hatching as a fill.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** to open the **Area** dialog.
- 3) Click on the **Hatch** tab to open the **Hatch** page (Figure 23 on page 18).
- 4) Select a hatching you have previously created and added to the **Hatch** displayed in the **Area** dialog.
- 5) Enter the new values for the **Options** that become available for change. See Table 3 for more information on hatch options.
- 6) Click **Modify** to save your changes. There is no confirmation given when modifying a hatching.
- 7) Click **OK** to close the **Area** dialog and save the changes.

Deleting hatch fills

- 1) Select a filled object that uses the hatching fill you want to delete.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** from the context menu to open the **Area** dialog.
- 3) Click on the **Hatch** tab to open the **Hatch** page (Figure 23 on page 18).
- 4) Select the hatching you want to delete.
- 5) Right click on the hatching and select **Delete** from the pop-up menu. Click on **Yes** to confirm the deletion.
- 6) Click **OK** to save your changes and close the **Area** dialog.



Note

It is recommended to only delete hatchings that you have created. Deleting hatchings that are installed with LibreOffice may cause problems in documents that use one of these hatchings.

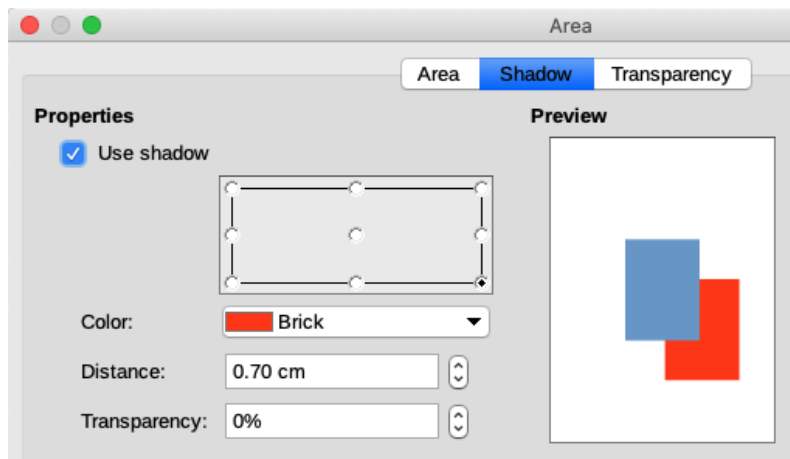


Figure 33: Area dialog - Shadow page

Shadows

Default shadows

To quickly apply a shadow to an object, select the object and click on the **Shadow** icon in the **Line and Filling** toolbar (Figure 1 on page 5). The shadow applied to an object using this method is set to default settings.

Formatting shadows

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

- 1) Select an object where you want to apply a shadow.
- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** to open the **Area** dialog.
- 3) Click on the **Shadow** tab to open the **Shadow** page (Figure 33).
- 4) Select *Use shadow* in **Properties** for the shadow options to become active.
- 5) Select the anchor point for the direction of the shadow cast in relation to the object.
- 6) In *Color*, select the color palette and the color you require for the shadow.
- 7) In *Distance*, enter a distance in the text box to set spacing between the object and the shadow.
- 8) In *Transparency*, enter the percentage in the text box for the shadow transparency.
- 9) Click **OK** to close the **Area** dialog and save the changes.

Transparencies

Transparency can be applied to filled objects as well as shadows and lines.

- To apply transparency to lines, refer to “*Formatting lines*” on page 5.
- To apply a transparency to shadows, refer to “*Formatting shadows*” on page 29.

To apply transparency to filled objects using the **Transparency** page on the **Area** dialog:

- 1) Select an object where you want to apply a transparency.

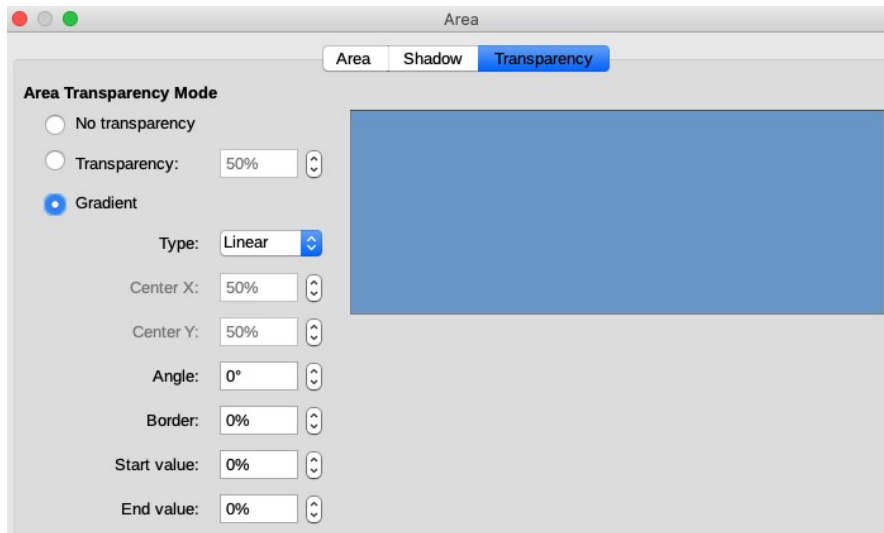


Figure 34: Area dialog - Transparency page

- 2) Format the area using one of the following methods:
 - Go to **Format > Area** on the main menu bar.
 - Click on the **Area** icon on the **Line and Filling** toolbar (Figure 1 on page 5).
 - Right-click on the object and select **Area** to open the **Area** dialog.
- 3) Click on the **Transparency** tab to open the **Transparency** page (Figure 34).
- 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 close the **Area** dialog and save the changes.

Table 4: Transparency parameters.

Transparency parameters	Meaning
Centre X	For <i>Radial</i> , <i>Ellipsoid</i> , <i>Quadratic</i> and <i>Square</i> gradients. The values to set the horizontal offset of the gradient center.
Center Y	For <i>Radial</i> , <i>Ellipsoid</i> , <i>Quadratic</i> and <i>Square</i> gradients. The values to set the vertical offset of the gradient center.
Angle	For <i>Linear</i> , <i>Axial</i> , <i>Ellipsoid</i> , <i>Quadratic</i> and <i>Square</i> gradients. 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 drawing object styles



Note

In LibreOffice Draw, only drawing object styles are available in the **Graphic Styles** dialog and the **Styles** deck on the Sidebar.

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 *Chapter 6 Introduction to Styles* in the *Writer Guide*.

Linked styles

Drawing object styles support inheritance. This means that 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, it is recommended to create a generic style for the box including borders, area fill, font, and so on. You 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.



Note

When styles are linked, changing a color 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.

Creating new styles

After creating a new style, it will be placed in *All Styles* and *Custom Styles* in the **Styles** deck of the Sidebar. When the your new style is applied to an object, the new style will also appear in *Applied Styles*.

Using Styles deck

- 1) Click on the **Styles** icon on the Sidebar to open the **Styles** deck (Figure 35).
- 2) Right click on a style and select **New** from the context menu to open the **Graphic Styles** dialog (Figure36).
- 3) Click on the **Organizer** tab to open the **Organizer** page in the **Graphic Styles** dialog.
- 4) In the *Name* text box, type a memorable style name.
- 5) In *Inherit from*, select a style from the drop down list a style if you want your new style to inherit settings from a LibreOffice style.

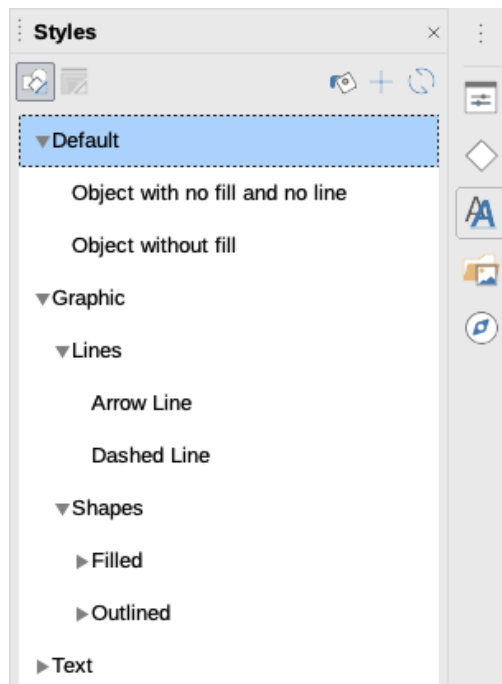


Figure 35: Styles deck in Sidebar

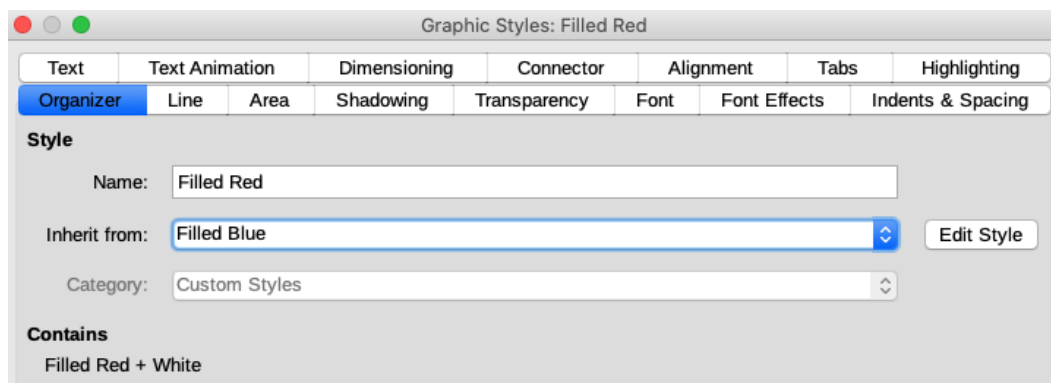


Figure 36: Graphic Styles dialog - Organizer page

- 6) Use the various pages and available options in the **Graphic Styles** dialog to format and categorize your new style.
 - *Organizer* – contains a summary of the style and its hierarchical position.
 - *Font, Font Effects, Indents & Spacing, Alignment, and Tabs* – 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, Highlighting and Transparency* – determine the formatting of an object.
- 7) Click **OK** when finished to save your new style and close the **Graphic Styles** dialog.

New style from selection

- 1) Select the object you want to use to create your new style, or create a new object in your drawing.
- 2) Use the various options in the pages of the **Graphic Styles** dialog (Figure 36), or the various tools on the **Line and Filling** toolbar (Figure 1 on page 5) to make your changes to the object.

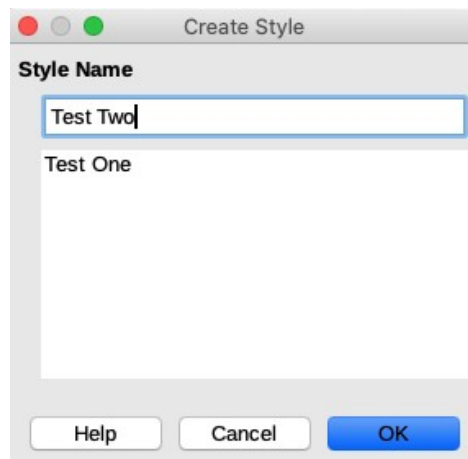


Figure 37: Create Style dialog

- 3) Go **Format > Styles > New Style from Selection** on the main menu bar or click on the **New Style from Selection** icon in the **Styles** deck on the Sidebar.
- 4) In the **Create Style** dialog (Figure 37) that opens, type a name for the new style. This dialog also shows existing custom styles that are available.
- 5) Click **OK** to save the new style and close the dialog.

Modifying or editing styles

It is recommended to only modify or edit styles that you have created. Modifying or editing styles that are installed with LibreOffice may cause problems in other documents that use one of these styles.

- 1) Select an object in your drawing.
- 2) Open the **Graphic Styles** dialog (Figure 36) using one of the following methods:
 - Go to **Format > Styles > Edit Style** on the main menu bar.
 - Right click on the object and select **Edit Style** from the context menu.
 - Right click on the object style in the **Styles** deck on the Sidebar and select **Modify** from the context menu.
- 3) Use the various pages and available options in the **Graphic Styles** dialog to modify and edit the object style.
 - *Organizer* – contains a summary of the style and its hierarchical position.
 - *Font, Font Effects, Indents & Spacing, Alignment, and Tabs* – 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, Highlighting and Transparency* – determine the formatting of an object.
- 4) Click **OK** when finished to save your changes and close the **Graphic Styles** dialog.

Editing linked styles

If you have an object in your document that uses linked styles then it is possible to edit the linked styles that have been applied to the object. This done using the **Graphic Styles** dialog as follows:

- 1) Select an object in your drawing that uses linked styles.

- 2) Go to **Format > Styles > Edit Style** on the main menu bar or right click on the object and select **Edit Style** from the context menu to open the **Graphic Styles** dialog (Figure 36 on page 32).
- 3) Click on the **Organizer** tab to open the **Organizer** page in the **Graphic Styles** dialog.
- 4) Check that the style name in the *Inherit from* text box is the linked style you want to edit.
 - a) If the linked style is the one you want to edit, use the various pages in the **Graphic Styles** dialog to edit the style.
 - b) If the linked style is NOT the one you want to edit, click on **Edit Style** to the right of the *Inherit from* text box until the name of the linked is displayed. Use the various pages in the **Graphic Styles** dialog to edit the style.
- 5) Click **OK** when finished to save your changes and close the **Graphic Styles** dialog.



Note

Updating linked styles that are part of the default installation of LibreOffice could cause problems in other documents that use LibreOffice default styles.

Updating styles

To update a style from changes made to an object:

- 1) Select the object where you want to make changes to the style.
- 2) Use the various options in the pages of the **Graphic Styles** dialog (Figure 36 on page 32), or the various tools on the **Line and Filling** toolbar (Figure 1 on page 5) to make your changes to the object.
- 3) Use one of the following methods to update the style that has been applied to the object.
 - Click on the **Update Style** icon in the **Styles** deck on the Sidebar.
 - Click on **Format > Styles > Update Selected Style** on the main menu bar



Note

There is no confirmation when you update a style. Make sure that you only update styles that you have created. Updating styles that are part of the default installation of LibreOffice could cause problems in other documents that use LibreOffice default styles.

Applying styles

You can apply a drawing object style using the **Styles** deck on the Sidebar as follows:

- 1) Select the object where you want to apply a style.
- 2) To open a list of available styles, click on the **Styles** icon on the **Line and Filling** toolbar (Figure 1 on page 5), or click on the **Styles** icon on the Sidebar (Figure 35 on page 32).
- 3) Double click on the style name to apply the style to the selected object.



Tip

At the bottom of the **Styles** deck on the Sidebar there is a drop-down list. Here you can choose to show all styles or groups of styles such as *Applied Styles* or *Custom Styles*.

Deleting 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. To see which styles are in use, choose *Applied Styles* from the drop-down list at the bottom of the **Styles** deck on the Sidebar (Figure 35 on page 32).

Delete a custom style as follows:

- 1) To open a list of available styles, click on the **Styles** icon on the **Line and Filling** toolbar (Figure 1 on page 5), or click on the **Styles** icon on the Sidebar (Figure 35 on page 32).
- 2) Select *Applied Styles* or *Custom Styles* from the drop down list at the bottom of the **Styles** deck on the Sidebar to display the styles in use.
- 3) Right click on the style name in the styles list and select **Delete** from the context menu.
- 4) If the style is in use, a warning message will appear. Click **Yes** to delete the style. If the style is not in use, no confirmation message appears.

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 **Transformations** toolbar (Figure 38). If the **Transformations** toolbar is not showing, select it from **View > Toolbars > Transformations** on the main menu bar.

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

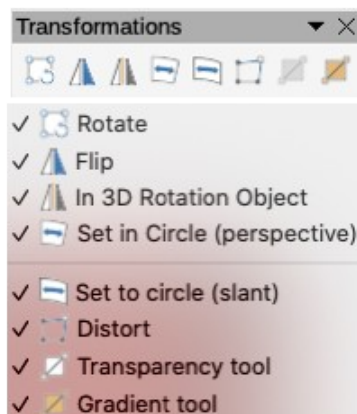


Figure 38: Transformations toolbar

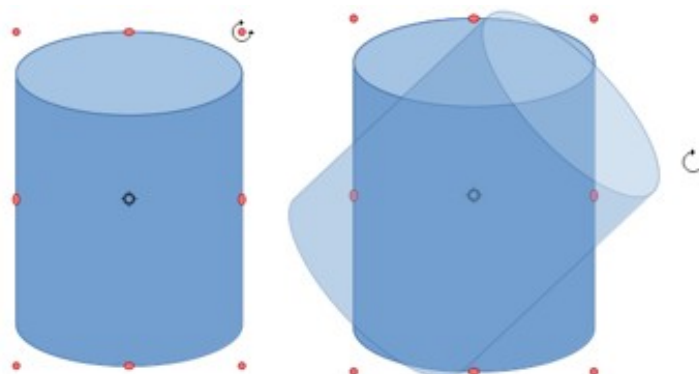


Figure 39: Manually rotating an object

Rotating objects

Rotation of an object can be carried out manually or using a dedicated dialog. This is similar to changing the position or size of an object.

Manual rotation

- 1) Click on an object you want to rotate and the selection handles will show.
- 2) To put the selected object into rotation mode, use one of the following methods. The selection handles will change shape and color when in rotation mode (Figure 39).
 - Click again on the selected object.
 - Click on the down arrow to the right the **Transformations** icon in the **Line and Filling** and select the **Rotate** icon from the context menu.
 - If the **Transformations** toolbar is displayed (Figure 38) click on the **Rotate** icon.
- 3) If necessary, click and drag the rotation pivot point to change the way the 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 cursor over one of the corner handles and the cursor changes shape.
- 5) Click and move the mouse 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.

Sidebar rotation

To rotate an object using the **Position and Size** section in the **Properties** deck on the Sidebar (Figure 40):

- 1) Click on an object you want to rotate and the selection handles will show.
- 2) Click on the **Properties** icon on the Sidebar to open the **Properties** deck, then click on the down arrowhead (v) next to the **Position and Size** section to open this section.
- 3) Click on and then rotate the rotation indicator in **Rotation** or enter the rotation angle in the text box or select a predetermined rotation angle from the drop-down list. The object rotates as you move the rotation indicator or enter an angle in the text box.
- 4) When satisfied with the rotation of the object, click outside the object to fix rotation in place.

Rotation dialog

Instead of rotating an object manually or using the Sidebar, you can use the **Rotation** page in the **Position and Size** dialog (Figure 41) for a more precise control when rotating an object.

- 1) Click on an object you want to rotate and the selection handles will show.
- 2) Press the *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 open the **Position and Size** dialog.
- 3) Click the **Rotation** tab to open the **Rotation** page.
- 4) In the **Pivot Point**, enter a figure in *Position X* and/or *Position Y* text 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.

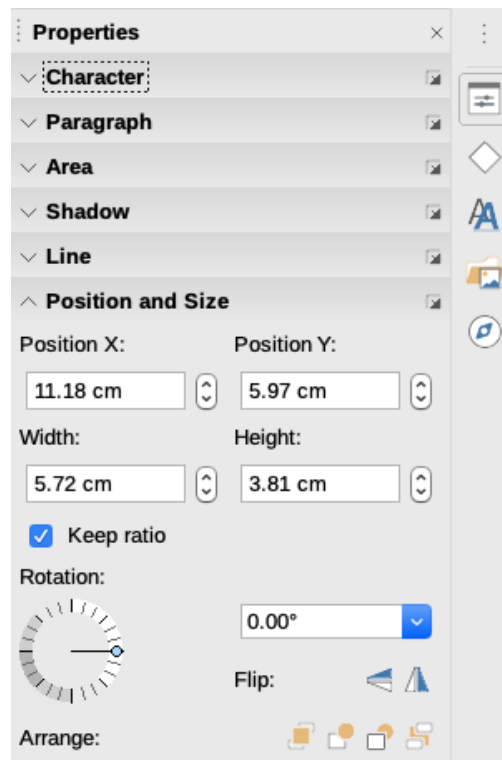


Figure 40: Position and Size section in Properties on Sidebar

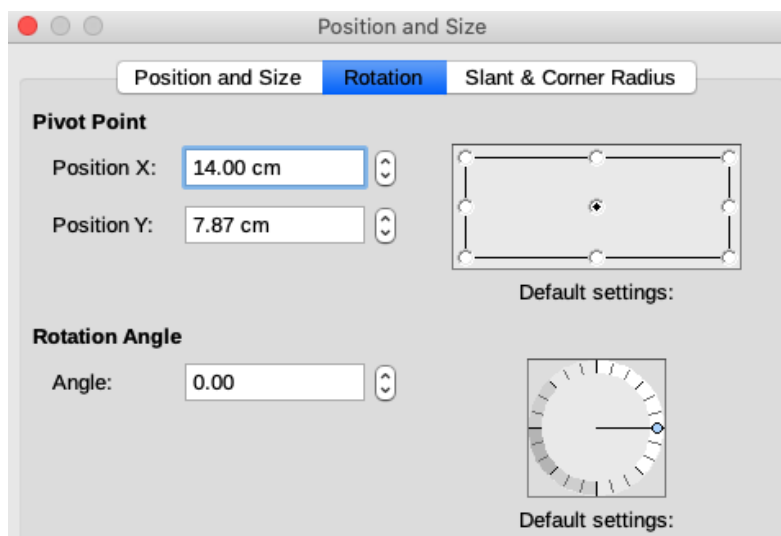


Figure 41: Position and Size dialog - Rotation page

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

Flipping objects

Quick flipping

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

- 1) Select the object you want to flip and the selection handles will be displayed.

- 2) Use one of the following methods to flip the object vertically or horizontally:
 - Right click on the object and select **Flip > Horizontally** or **Flip > Vertically** from the context menu.
 - In the **Position and Size** section of the **Properties** deck on the Sidebar, click on one of the icons *Flip the selected object vertically* or *Flip the selected object horizontally*.
 - Click on the **Vertical** or **Horizontal** icon on the **Line and Filling** toolbar (Figure 1 on page 5).

Flip tool

Using the **Flip** tool on the **Transformations** toolbar (Figure 38 on page 35), you can also change the position and angle that the object flips over.

- 1) Select the object you want to flip and the selection handles will be displayed.
- 2) Click the **Flip** tool on the **Transformations** toolbar 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 (Figure 42).
- 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 appears 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 the object is flipped.

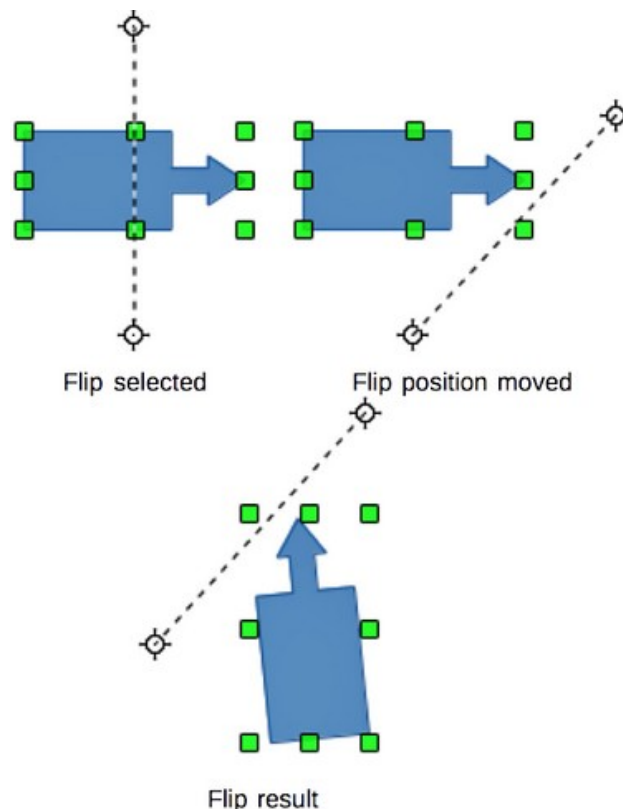


Figure 42: Using Flip tool on Transformations toolbar



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 **Transformations** 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 **Shape > Align** on the main menu bar, or right click and select **Align** from the context menu and then select the type of alignment.

Distorting images

Three tools on the Transformations 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. Examples of using these tools are shown in the following figures.

Distorting

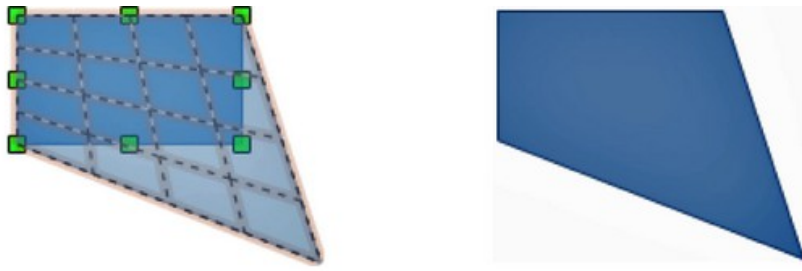
Select an object and click on the **Distort** icon on the **Transformations** toolbar (Figure 38 on page 35). After converting to a curve as requested, move the handles to stretch the object. The corner handles distort the corners, the vertical midpoint handles distort the figure horizontally and the horizontal ones distort it vertically (Figure 43).

Setting in circle (perspective)

Select an object and click on the **Set in Circle (perspective)** icon in the **Transformations** toolbar (Figure 38 on page 35). After converting to a curve as requested, click and move one of the selection handles to give a pseudo three dimensional perspective) (Figure 44).

Setting to circle (slant)

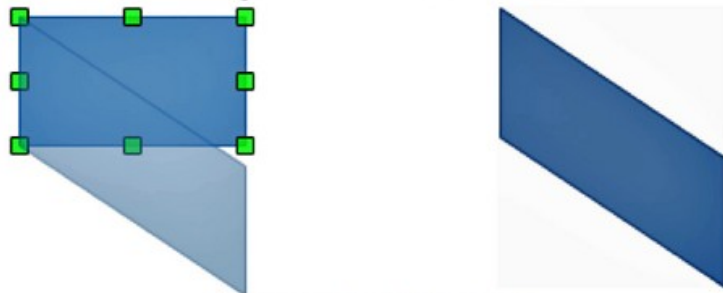
Select an object and click on the **Set to Circle (slant)** icon in the **Transformations** toolbar (Figure 38 on page 35). After converting to a curve as requested, click and move one of the selection handles to give a pseudo three dimensional slant perspective (Figure 45).



Using corner selection handle



Using horizontal selection handle



Using vertical selection handle

Figure 43: Distorting an object

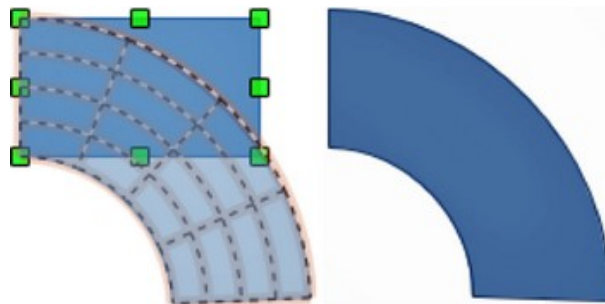


Figure 44: Setting an object to a circle with perspective

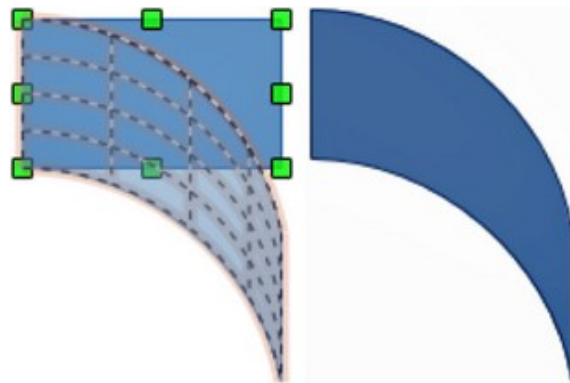


Figure 45: Setting an object to a circle with slant



Note

Transforming an object into a curve is a safe operation, but it cannot be reversed other than by clicking **Format > Undo** on the main menu bar.

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 **Transformations** toolbar (Figure 38 on page 35) 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 **Interactive transparency tool** 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 20 on page 16). The **Interactive gradient tool** icon is now active on the **Transformations** toolbar. When you click on the **Interactive gradient tool**, 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.

In the example shown in Figure 46 there is a single color object and a transparency gradient, covering part of the underlying object. This gradient transparency can be dynamically adjusted. Direction of transparency is changed by moving the white square and the distance over which it is applied by moving the green square.



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.

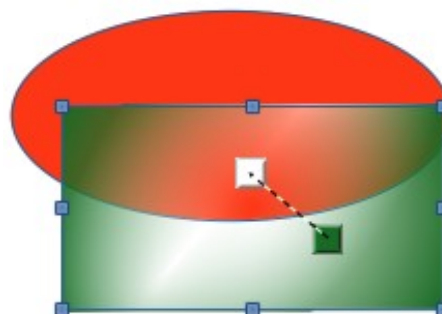


Figure 46: Example of a dynamic gradient