## Creating Charts and Graphs <br> 

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## Contents

Overview ..... ii
Copyright and trademark information ..... ii
Feedback ..... ii
Acknowledgments ..... ii
Modifications and updates ..... ii
Inserting charts. ..... 1
Using the Chart AutoPilot ..... 2
Choosing the chart type ..... 5
Editing the chart ..... 10
Moving and resizing a chart ..... 11
Graphics and color ..... 12
Applying a background to a spreadsheet ..... 12
Graphics in the background of cells ..... 12

## Overview

OpenOffice.org Calc lets you present data graphically in a chart, so that you can visually compare data series and view trends in the data.

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## Feedback

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

## Acknowledgments

Thanks to Peter Kupfer for his review of this chapter.

## Modifications and updates

| Version | Date | Description of Change |
| :---: | :---: | :--- |
| 1.0 | 24 December 2004 | First published version. |
|  |  |  |

## Inserting charts

OpenOffice.org Calc offers a variety of different ways to chart or graph your Calc data. Any time a chart is created, the chart AutoPilot is invoked.
Open the spreadsheet and highlight (select) the data to be included in the chart. There are two ways to proceed after you have selected your data. The first method (see Figure 1) is Insert > Chart:


Figure 1. Selecting Insert Chart
The second method (see Figure 2) is to long-click (that is, hold down the left mouse button for 1 second) on Insert Object to display the floating toolbar, then click on the Insert Chart button:


Figure 2. Using the Insert Chart button

## Using the Chart AutoPilot

Once Insert Chart is selected, the chart AutoPilot menu appears. (See Figure 3.) The first dialog is used to define the data range, the labels, and the target sheet for the chart.


Figure 3. Create a Chart AutoPilot

## Data Range

The data range selected should contain both the labels and the data. (See Figure 4.) If the data range is selected when the AutoPilot is started, it will automatically be inserted in the Range input field. If the AutoPilot is started without a selected data range, a range can be selected by clicking on the range selection icon next to the Range input field.


Figure 4. Highlighted Data Range

## First Row/Column as Label

First Row as Label: Uses the entries in the top row of the selection as labels for the data range. This setting is useful if there are several columns of data that need to be displayed in the same chart. (See Figure 5.)


Figure 5. Example using first row as label

First Column as Label: Uses the entries in the leftmost column of the selection as labels for the data range. (See Figure 6.)

1st Column as Label


Figure 6. Example using first column as label
First Column \& First Row as Label: Both checkboxes can be selected as well. This provides a combination of both options. This sets the first row as the labels and the first column as the x -axis values. (See Figure 7.)


Figure 7. Example using first column and first row as labels

## Chart Results Output

This dropdown box specifies which sheet the chart will output to. By default the current sheet is selected, but any sheet, or a new sheet, can also be selected. However, a chart can not be set to be its own sheet; it must be an object in a normal sheet.

Once the correct options have been input, either click Create to create the chart, or click Next to proceed to the next dialog to choose the chart type.

## Choosing the chart type

On the next page of the AutoPilot (see Figure 8), the chart type can be chosen and a preview of the chart output can be seen. Click Create from here, or click Next for more options.


Figure 8. Choosing a chart type (format)
OpenOffice.org Calc offers several different chart types. Most chart types come in both a 2dimensional and a 3-dimensional style. Below is the list of available styles with examples.

Lines (2D \& 3D) - Provides a standard line graph that is useful for displaying changing data over a period of time.


Figure 9. 2D Line Graph: Normal

Running Distances


Figure 10. 3D Line Graph: Deep

Areas (2D \& 3D) - Creates graphs that are similar to line graphs but with the area under the line shaded in.


Columns (2D \& 3D) - Creates vertical columns to represent data. The columns can be normal, stacked, or by percent. In 3D mode the data can also be represented by cylinders and cones.


Figure 13. 2D Column: Normal

Bars (2D \& 3D) - Provides the same features as columns, but they are horizontal.


Figure 16. 3D Bars: Normal

Pies (2D \& 3D) - Graphs that are useful for showing the parts of a whole. The pie chart can be separated or keep as a solid circle.


Figure 17. 2D Pie: Offset 2

Gases in the Atmosphere


Figure 18. 3D Pie: Normal

XY Chart - This graph is similar to a scatter plot. It can be used to show several trials of experiments with two variables.

Acceleration of Different Masses with a Given Force


Figure 19. XY Chart: Lines with Symbols
Net - Provides a circular graph with a separate Y axis for each item on the X axis. Points within a data series are connected with a polygon.

## Main Title



Figure 20. Net Chart: Normal

Stock Chart - Shows change from one data series to the next for each X value.


Figure 21. Stock: Stock Chart 2
The next page of the AutoPilot (see Figure 22) provides options for fine-tuning the chart selection. There are several variants that can be chosen for each graph type. In the example charts above, the variants come after the colon. Again, the chart can be created from this screen, or titles and labels can be added by clicking Next.


Figure 22. Choosing a variant

On the last page of the AutoPilot (see Figure 23), a title and labels for the axes can be added.


Figure 23. Adding text

## Editing the chart

Once the chart is created, further edits can be made. To edit a chart:

1) Select the chart (left-click).
2) Right-click and select Edit.

Alternatively, the chart can be double-clicked.
This will activate a new toolbar on the left side of the screen (see Figure 24) used for editing different aspects of the chart.


Figure 24. Edit Chart toolbar

## Moving and resizing a chart

Once the chart has been created, it can be moved or scaled. To move the chart:

1) Click on the chart to select it.
2) Click and hold down the left mouse button to drag the chart across the window.

To resize the chart:

1) Click on the chart to select it.
2) Click on one of the green handle bars (see Figure 25) and move the mouse.


Figure 25. Resizing chart handles

## Graphics and color

## Applying a background to a spreadsheet

1) Select the cells.
2) Choose Format > Cells (or right-click on the chart and choose Format Cells from the context menu).
3) On the Background tab page, select the background color.

## Graphics in the background of cells

1) Choose Insert > Graphics $>$ From File.
2) Select the graphic and click Open.
3) The graphic is inserted and anchored to the current cell.

To make the inserted graphic part of the background:

1) Select it.
2) Right click and select Arrange > To Background.

Note: To remove a graphic from the background, use the Navigator. Press F5, select the graphic from the navigator. Double-click on the appropriate graphic, and then right-click on it and change the arrangement.

