## OOo Calc: Charts

## Good visuals of your data can often be more important than the numbers themselves - make sure you know how to show them in the best light!

Turning the raw materials of spreadsheets (numbers) into something that can be readily digested by the human brain is the job of the chart. It's much easier to tell that 60 per cent of profits come from book sales when it viewed as a pie chart rather than just a column of numbers. In some ways, although the visuals are less specific, that is part of their power - they simplify and abstract the information into a simple form that the eyes and brain can easily take in -
you can see how one things is bigger than the other, or that things are looking up, or looking down, without having to read the numbers and calculate them in your head.

Charts are obviously used quite a lot in presentations, and though they're often associated with seemingly dull stuff like sales figures, you can make a chart out of pretty much any sort of data if you put your mind to it. OpenOffice.org has plenty of chart formats to choose from too, so there really
should be one for every occasion. And making a great looking chart is easy - you aren't expected to draw all the shapes yourself! The chart object will take care of that for you - all you need to do is point it at the data you want to use and tell it what sort of chart you want.

The chart wizard is pretty powerful, and doesn't need a great deal of explanation. Here we are going to walk through a simple set of data and look at some of the options you have for displaying it.

Calc: success with charts

|  | A | B | C |
| :---: | :--- | :--- | :--- |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| $\mathbf{4}$ |  | Jan | 123 |
| 5 |  | Feb | 120 |
| 6 |  | Mar | 124 |
| 7 |  | Apr | 136 |
| 8 |  | May | 138 |
| 9 |  | Jun | 142 |
| 10 |  | Jul | 155 |
| 11 |  | Aug | 152 |
| 12 |  | Sep | 143 |
| 13 |  |  | Oct |
| 14 |  | Nov | 144 |
| 15 |  |  | Dec |

## 1 Sort out your data

Before you begin to create a chart, the first thing you should really do is sort out your data. It is much easier to create a chart if all the data you want to plot is in one chuck, rather than spread in different columns and rows. If your spreadsheet does not really lend itself to that, you can either remember the complicated ranges you need, or perhaps an easier way is to simply copy by reference the values into another area or sheet where they can be put alongside each other.

|  | A | B | C |
| :---: | :---: | :---: | :---: |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  | Month | Sales |
| 4 |  | Jan | 123 |
| 5 |  | Feb | 120 |
| 6 |  | Mar | 124 |
| 7 |  | Apr | 136 |
| 8 |  | May | 138 |
| 9 |  | Jun | 142 |
| 10 |  | Jul | 155 |
| 11 |  | Aug | 152 |
| 12 |  | Sep | 143 |
| 13 |  | Oct | 144 |
| 14 |  | Nov | 132 |
| 15 |  | Dec | 122 |
| 16 |  |  |  |
| 17 |  |  |  |

## 2 Titles

Your chart can pick up other data rather than just raw numbers. And lets face it, a chart that just has numbers on it doesn't really explain very much - you need labels for the data too! The Chart wizard can pick up column and row labels from your selection, so if you can, try and make sure the first row and column of the selected range includes text labels for the final graph. For this chart, we have included a rangeof figures relating to some notional sales over a calendar year, but feel free to use any figures appropriate to your situation.

|  | A | B | C | D |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  | Month | Sales |  |
| 4 |  | Jan | 123 |  |
| 5 |  | Feb | 120 |  |
| 6 |  | Mar | 124 |  |
| 7 |  | Apr | 136 |  |
| 8 |  | May | 138 |  |
| 9 |  | Jun | 142 |  |
| 10 |  | Jul | 155 |  |
| 11 |  | Aug | 152 |  |
| 12 |  | Sep | 143 |  |
| 13 |  | Oct | 144 |  |
| 14 |  | Nov | 132 |  |
| 15 |  | Dec | 122 |  |
| 16 |  |  |  |  |
| 17 |  |  |  |  |
| 18 |  |  |  |  |
| 19 |  |  |  |  |

## 3 Select range

Select the range to use in your chart just as you would any other range of data in the spreadsheet. Click and drag to cover a range of cells - try not to include any cells you don't want, but remember, you can also edit the current range by typing in values from the text field to the top right of the display. If you have a predefined range, you can also select it from here by typing in the name, or using the drop-down menu.


## 5 Confirm Range

The first requestor that appears asks you for the range of data to be used in the chart. As you already had a selection, this should already be filled in for you (and refer back to the first part of the Calc tutorial if you aren't sure how the range specification works). The only other things to select here are whether the first row and column contain labels, and which sheet you want the graph to appear on.


## 4 Chart Tool

With the range selected, click on the Chart tool from the top toolbar. This will start the chart wizard, but first you have to select where the chart will be placed. The cursor will turn into a crosshair, and you can drag out the area of your chart. Don't be too worried - you can adjust the space the chart takes up later, or move it to a different part of the spreadsheet if you like.


## 6 Chart types

Now we get to the good part - you get to choose what sort of graph you want. This will entirely depend on the data you have. A simple series of data showing, say, the sales of different items in a shop, might be best done as a pie chart to show relative share easily. Sales figures might best be done as a bar graph, financial movements as a candlestick chart.

## Calc: using charts



## 7 Subtypes

Depending on the chart type you have chosen, there may be subtypes of chart available. these are usually subtle variations on the theme. For example, with bar graphs you can have side-by-side bars, stacked bars, bars that express the percentage of the data series in relation to the sum and a bar chart with extra data appearing as lines over the top. We'll leave it for you to decide when these might be appropriate!


## 9 Creating the chart

When you are happy with the labels, take a look in the preview window on the left. If it looks wrong, you should click on the Back button and go and make whatever changes are needed, otherwise it gets a little more difficult from here If it looks good, click on the Create button and the chart will be drawn in the area you set aside for it. Don't worry if it seems squashed or the text has overflowed, these are easy problems to fix.


## 8 Labels

The next step is to label the axes, and provide a legend box if necessary. For charts with a single data series, a legend is rather unnecessary and looks a bit odd too, though it is enabled by default for most charts. You can type in whatever you want for the labels, but try not to make it too long - although the titles will wrap to multiple lines, it often looks ugly.


## 10 Changing the chart

The first thing to note is that the chart is really like a graphical object, or actually, a group of graphical objects. When you create the chart, this object is still selected and you can change aspects of it (if you click away, you need to double-click back on the chart to be able to change parts of it. Right-click on the chart and choose AutoFormat to go back through the wizard you used for creating it.

## Calc: using charts



## 11 Adding a background

Right-click on the chart and choose Chart Area... to bring up a dialogue. Our chart is fine, but it could be made a lot more gaudy (or slick, depending on your preference) by adding a background colour. Click on the Area tab and choose a colour for the background from the list. The chart will change colour when you click on OK.


## 13 Going extra dimensional

You aren't stuck with a two dimensional graph either. Right-click on the chart and select Chart Type. Now click on the button marked 3D and click on OK. The chart will now be extruded into three dimensions, and the usual 3D effects can be applied (see page 74 on OOo Drawfor more on 3D effects). You can also just change the type of chart here - if you decided you wanted a pie chart after all, of course!


## 12 Making a gradient

A flat colour isn't quite as impressive as a nice gradient! Fortunately it is very easy to add one to your chart. Once again you need to right click on the chart and choose Chart Area. This time though, click on the transparency tab. A flat transparency value isn't any better than having a different colour, unless there is something behind the chart. Click on the radio button for gradient transparency. You can select the type of gradient now, and even edit the start and end values to create the effect you want.


## 14 Changing elements

One final point here. As we mentioned earlier, the chart is really a collection of individual objects. Double-click on the chart to select the object group, then right-click on an element (some text, or a bar of data). Now just that element is selected, right-click and choose Object Properties from the menu. You can now edit that object individually, by changing the colour or other properties. [x]

