

## Creating Charts in Excel 2007

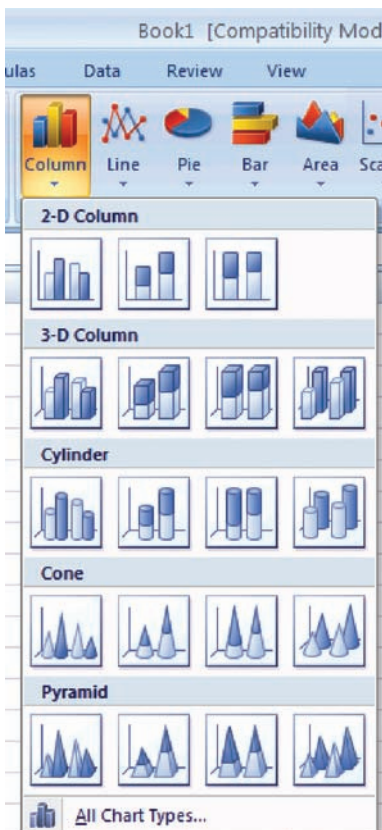
Using the Microsoft Excel 2007 chart creation system you can quickly produce professional looking charts. This help sheet describes how to create and modify a simple 3-D Column bar chart and Pie chart. It is good practice to create the charts described in this document and try modifying them before applying the techniques you learn to your own data.

A simple three dimensional Column bar chart can be produced from the following example spreadsheet. Note that cell A1 is left blank.

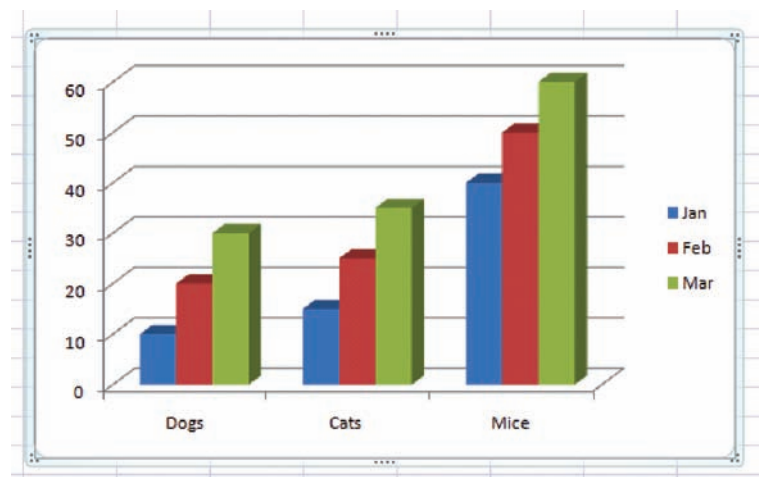
	A	B	C	D
1		Dogs	Cats	Mice
2	Jan	10	15	40
3	Feb	20	25	50
4	Mar	30	35	60

First drag over the titles and data so that they are all highlighted.

Click on the **Insert** tab, at the **Charts** group select **Column**, a drop down window displaying various types of Column chart appears (picture below left).

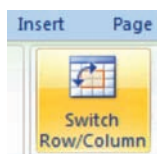


Select the extreme left 3-D Column format, a 3-D Column chart is displayed embedded within the spreadsheet (picture below).



*The new 3-D Column Chart embedded in the spreadsheet*

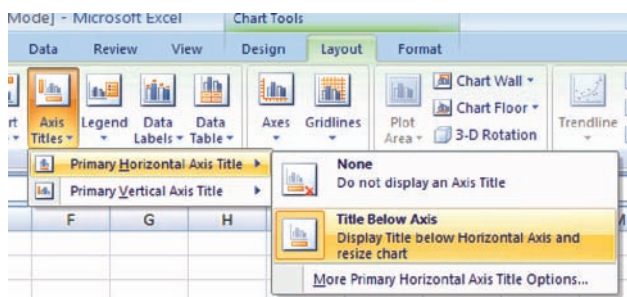
## Switching the Axis



To switch the Row and Column axis select your chart by clicking anywhere within it, then click on the **Design** tab, at the Excel ribbon **Data Group** select the **Switch Row/Column** button (picture left).

## Adding Axis Titles

To add axis titles first click on the chart to select it, then click on the **Layout** tab, at the **Labels** group click on **Axis Titles**, a drop down window displays **Primary Horizontal** and **Primary Vertical** Title options, select the **Primary Horizontal Axis Title** option then select **Title Below Axis** (picture below).



A text box containing the words **Axis Title** appears below the chart, enter your own title text in this box. To create a vertical title for the Y axis use the same procedure but select the **Primary Vertical Axis Title** option. Then select the **Vertical Title** option.

To modify the Y axis title after it has been created click on the Y axis title to select it then click the **Format** tab, at the **Current Selection** group on the Excel ribbon select **Format Selection**. The **Format Axis Title** window appears. It is worth experimenting with the various options, particularly the **Alignment** option as this allows you to rotate the text and change its direction.

## Adding a Chart Title

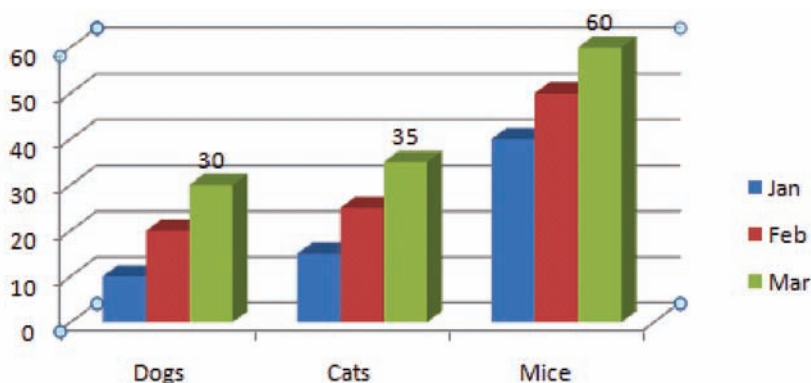
A chart title can be added by clicking on the chart to select it, selecting the **Layout** tab and using the Excel ribbons **Labels** group **Chart Title** option. Select a position for your title from the available options in the drop down window.

## Legend Options

The legend indicates the colours or patterns that are assigned to the data series in a chart. To modify the legend click on the chart then click on the **Layout** tab, at the **Labels** group on the Excel ribbon select **Legend** a drop down window appears displaying various Legend position options.

## Adding Data Labels to a Series

Right click on one of the series bars that you want to add data labels to, a window appears with various options, select **Add Data Labels**. A data label is added to the top of each bar for that data series. The default setting is Value (picture below).



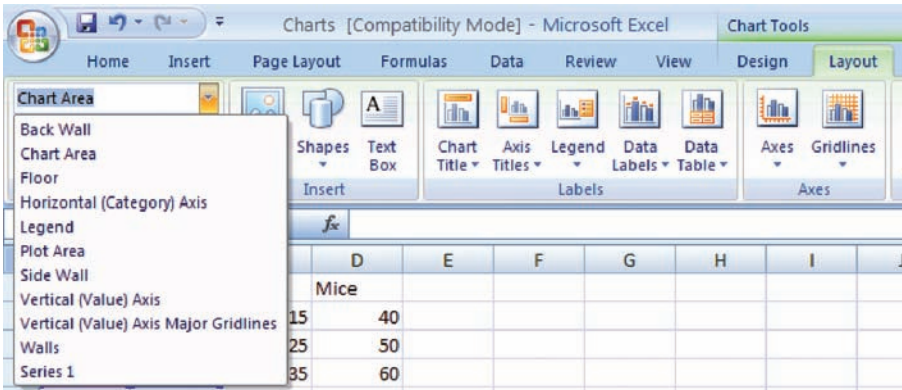
*A chart with Data Value Labels added for the Mar data series*

Category names can be added as data labels by right clicking on one of the series bars that you want to add category names to, select **Format Data Labels**, the **Format Data Labels** option appears, click on the **Category Name** box (Values can be turned off by clicking the Values box). Click on **Close**. The category name now appears at the top of each bar for the selected data series.

## Listing and Modifying the Elements of a Chart

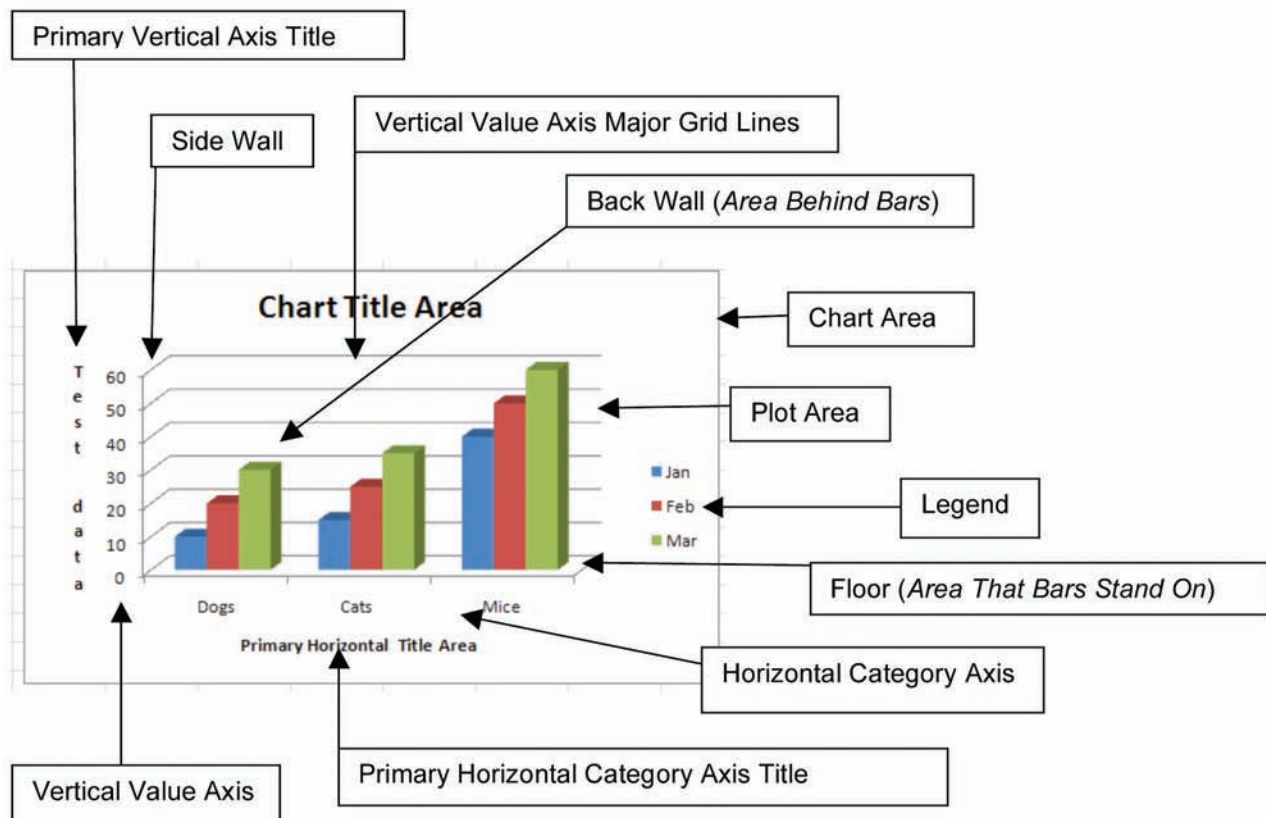
A quick method for listing and changing the various elements for a chart such as the Titles and Back Wall is as follows:

Select the chart by clicking on it, select the **Layout** tab, then from the Excel ribbons **Current Selection** group at the extreme left of the ribbon click the downward arrow alongside the top option. The various Chart Elements that you can change are listed (picture below).



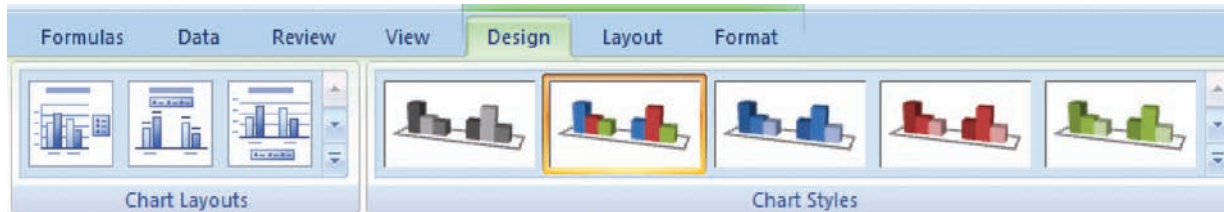
### The Chart Elements list

Click on any chart element you want to modify e.g. if **Back Wall** is selected you can add a colour or picture to the area behind a charts bars. The picture below points out the element names used for the various areas of a chart.



## Layouts and Styles

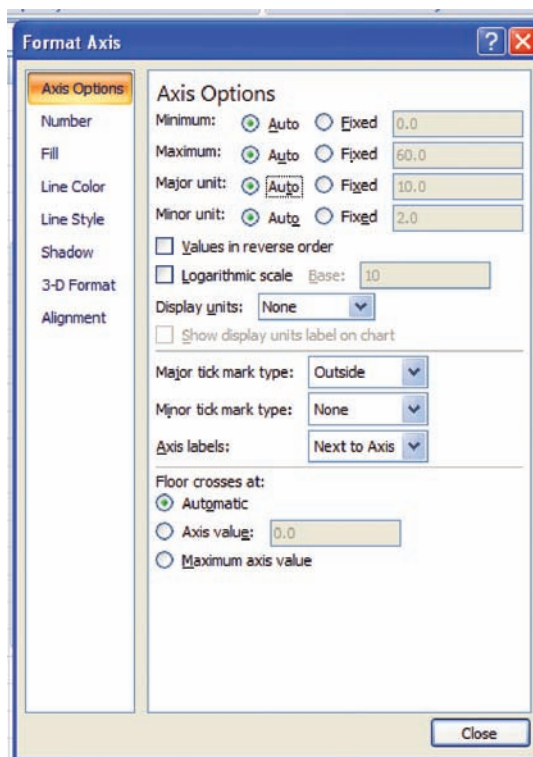
Using the **Design** tabs **Chart Layouts** section you can easily apply various preformatted layouts to your chart (picture below). Preformatted colour combinations for the charts bars are easily selected from the **Design** tabs **Chart Styles** section. If the chart is to be printed on a black and white printer you will achieve better definition by selecting a chart style that uses varying shades of grey.



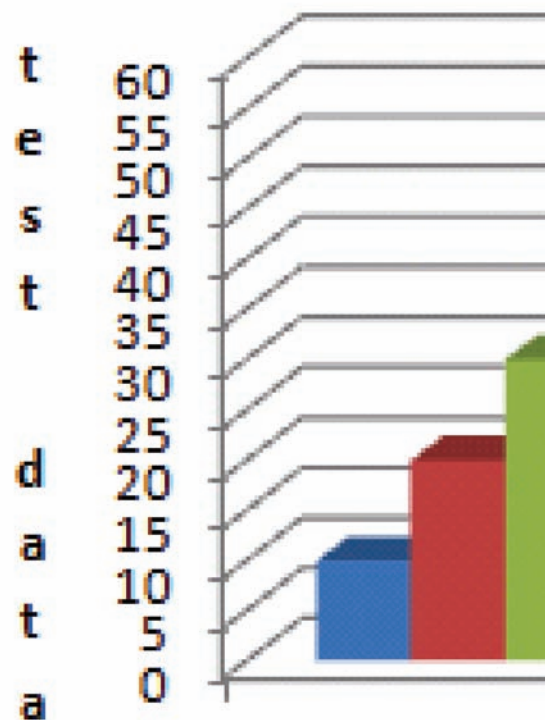
## Changing the Scale of the Y Axis

Note... the **Y** axis is the vertical axis at the left of the chart, this is also known as the **Value** axis. In the bar chart used for this help sheet the axis has the range of values 0 10 20 30 40 50 60.

Select the **Y** axis by clicking on it, select the **Layout** tab, then at the **Current Selection** section of the Excel ribbon click on **Format Selection**, the **Format Axis** window appears (picture below left). At the moment the **Y** axis counts up in increments of **10**. This can be changed to increments of **5** by clicking the **Fixed** radio button for the **Major Unit** entry and entering **5.0** as the new **Major Unit** value. This will change the interval of Tick marks and Grid lines to **5** and so change the look of the chart (picture below right). Click on the **Close** button.



*The Format Axis Window*



*Appearance of the Y Axis and Grid Lines after setting the Major Unit to 5.0*

The numbers at which the **Y** axis starts and finishes can be changed by entering new **Fixed** values for the **Minimum** and **Maximum** settings.

## Changing the Number Category for the Y Axis to Currency or Percentage

The default setting for **Number Category** is **General**, so the numbers on the **Y** axis are displayed as they appear on the example chart in this help sheet. You may need to display numbers as another category such as **Currency** or **Percentages**, to achieve this, at the **Axis Options** list select **Number** and select the number category you require from the list.

## Changing the X Axis

The **X** axis is the horizontal axis running along the bottom of the chart, it is also known as the **Category** axis. Rather than displaying numerical intervals, this axis displays text labels, therefore fewer modification options are available than you find for the **Y** axis. To view the available options use the same technique as described for changing the **Y** axis.

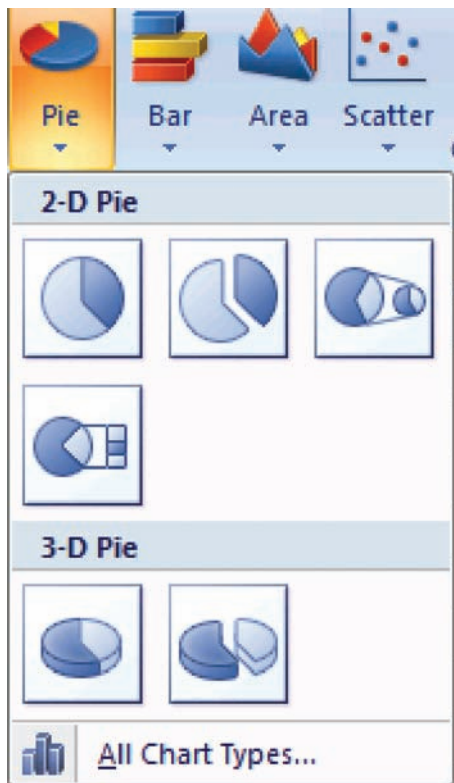
## Creating a Simple 3-D Pie Chart

A pie chart can be produced from the following example spreadsheet.

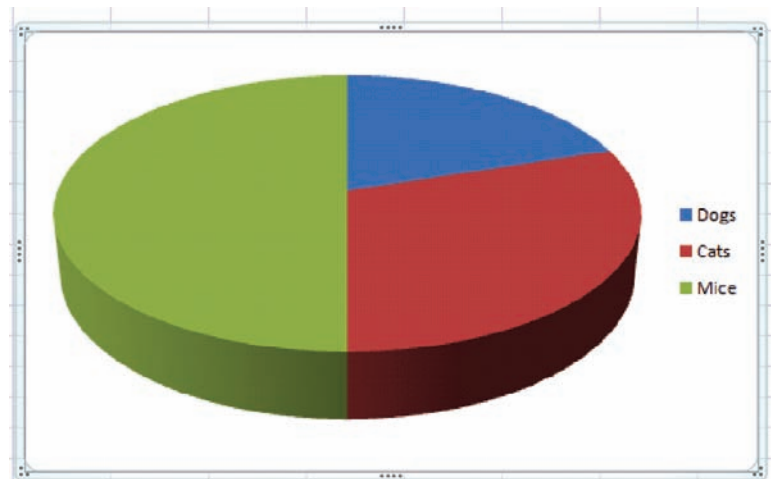
	A	B
1	Dogs	20
2	Cats	30
3	Mice	50

First drag over the titles and data so that they are all highlighted.

Click on the **Insert** tab, at the **Charts** group select **Pie**, a drop down window displaying various types of pie chart appears (picture below left).



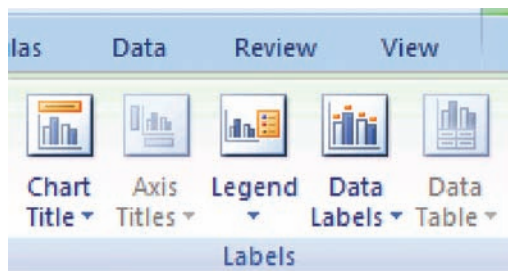
Select the **3-D Pie** chart option at the bottom left, a 3-D Pie chart appears embedded within the spreadsheet (picture below).



## Exploding a Section

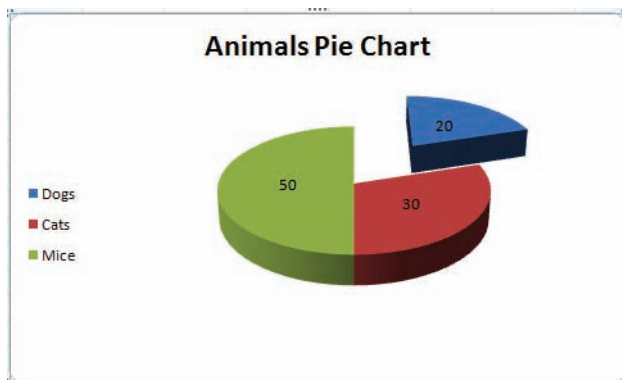
You can emphasise a section of a pie chart by exploding it away from other sections. First, click on the pie chart to select it then click once on the section that is to be exploded. With the left mouse button depressed, drag the slice out to explode it.

## Adding a Title, Legend and Data Labels



Click on the chart to select it and then click the **Layout** tab. At the Excel ribbons **Labels** section select the item you want to add or change (picture left). The **Data Labels** option adds the numerical values to the pie segments.

## Example Pie Chart



The example chart (picture left) has been given the chart title **Animals Pie Chart**. The **Dogs** segment has been exploded away from the other sections and **Data labels** have been added and positioned using the **Display Data Labels and position centred on the data points** option. **Show Legend at Left** has been selected from the **Legend** options.

## Layouts and Styles

Using the **Design** tabs **Chart Layouts** section you can easily apply various preformatted layouts to your pie chart (picture below). Preformatted colour combinations for the pie chart segments are easily selected from the **Design** tabs **Chart Styles** section. If the chart is to be printed on a black and white printer you will achieve better definition by selecting a chart style that uses varying shades of grey.

