



Microsoft Excel 5.0 Session 3

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Introduction

Excel Session 3 is a course created for CAL PACT participants to learn more about the features of Excel. The course covers simple introductory material and applies to both the Windows and Macintosh computer platforms. This document serves as a supplement and future reference to the class.

What you will need to know to take this class

- how to use the mouse
- how to use the Macintosh or Windows computing environment
- the material covered within the CAL PACT Excel 1 and 2 classes.

Specifically: data entry
editing
formatting
formula entry
printing

What you will learn in this class

- making a chart using the Chart Wizard
- editing a chart
- formatting a chart

Conventions used in this document

Menus and menu commands are separated by a vertical bar (|). In the document they will appear as **Menu | Command**. An example of this is "Select **File | New...**"

Making A Chart

Positioning the Chart

There are two options for positioning a chart-on the current worksheet or on a new worksheet. Charts made on the current worksheet allows the data and the chart to be viewed at the same time and printed on the same print-out. Charts made on a new worksheet allows for easier management of the chart. The chart will appear as a new sheet tab.

If you have lots of data and are only making a chart out of a few data points, make a chart on a new worksheet so that your worksheet does not become too cluttered. But if you want your data next to the chart, you might opt for the chart on the current worksheet.

To create a chart on a New worksheet:

1. Highlight the data to plot. Include cells containing labels for rows and columns to use in the chart.
2. Choose **Insert | Chart | On New Sheet**.
3. Continue with the section **Chart - Step 1** on the following page.

To create a chart on the Current worksheet:

1. Highlight the data to plot. Include cells containing labels for rows and columns to use in the chart.
2. Click the **Chart Wizard** toolbar button or choose **Insert | Chart | On This Sheet**.
3. Click and drag the cross-hair pointer to create an appropriate outline for the chart.
4. Continue with the section **Chart - Step 1** on the following page.

If the outline or the location of the chart is not correct it can be modified with the features outlined later in this document.

Chart - Step 1

Step 1 of the Chart Wizard asks to confirm the selected cells in the range display. If the wrong cells are selected, move the Chart Wizard dialog box and select the correct cell range or type in the correct range. Click on Next when the correct range is displayed.

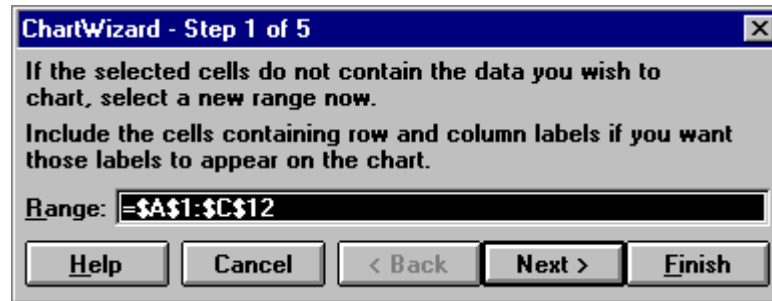
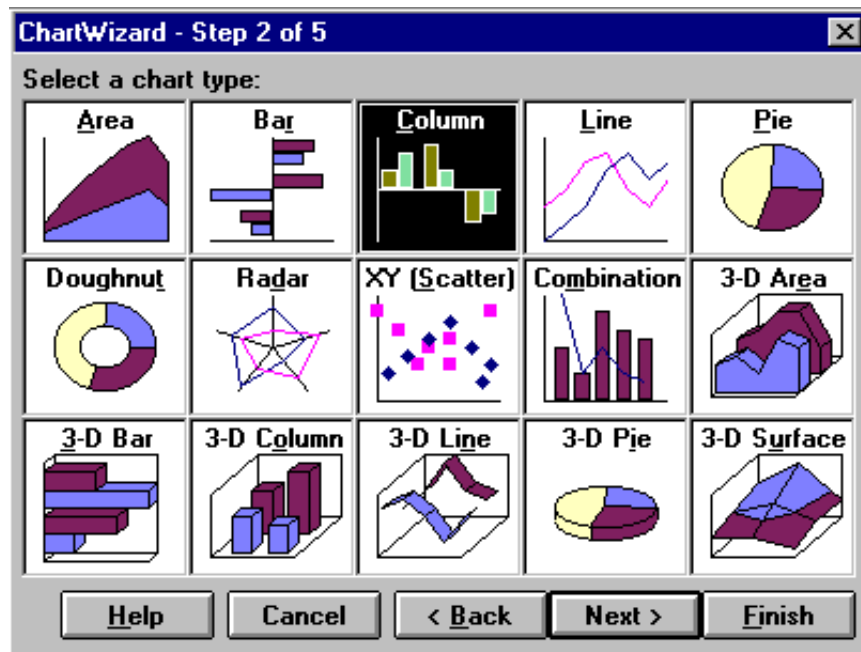


Chart - Step 2

Step 2 of the Chart Wizard selects the chart type. Select a chart type and click on Next or Back if there was a mistake in the previous step.



What's the difference between a Line chart and a (XY) Scatter chart?

Many users are unaware of the difference between a line and scatter chart. *Know the difference.*

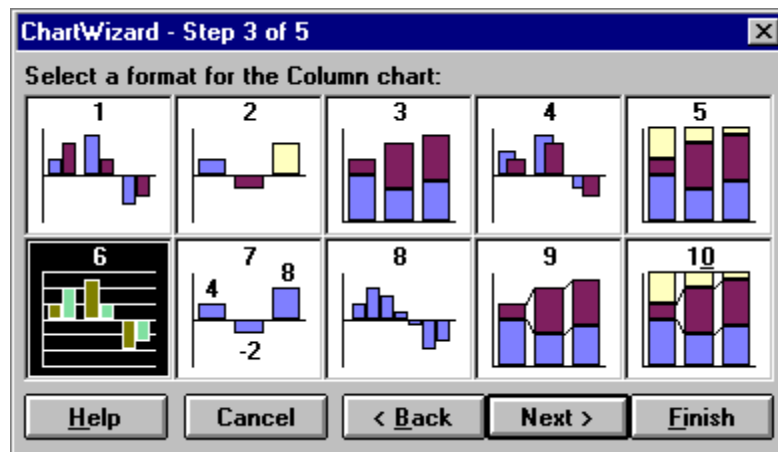
The line chart emphasizes time flow and the rate of change, rather than the amount of change. The line chart will plot each data point one tick mark apart regardless of how far apart the x-data is. Only the difference between one point to the next is shown.

The xy- scatter shows the relationship or degree of relationship between the numeric values in several chart data series. This means that Excel will calculate the scale and tick-mark labels for the x-axis, just as it does for the y-axis. A regression line can be plotted through a xy-scatter graph.

An Example: Looking at a plot of pig numbers vs. how much they weigh. The numerical value for the pig should not affect how the data is plotted since all pigs are equal. Looking at a plot of time vs. growth, both time and growth are dependent and must be plotted according to scale.

Step 3

Step 3 of the Chart Wizard selects the specific format of the chart. Select a chart format and click on Next or Back if there was a mistake in the previous steps.



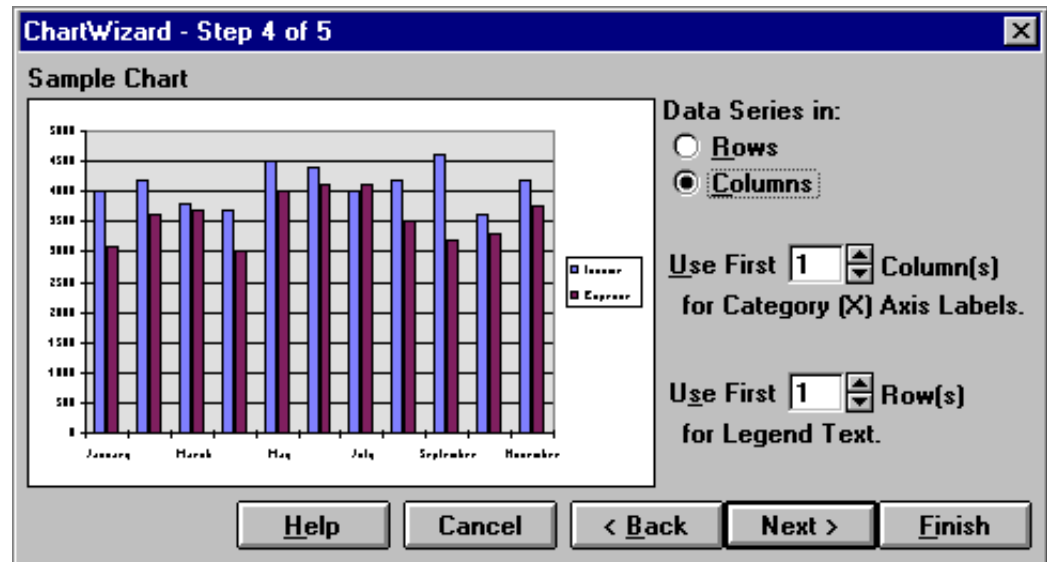
Step 4

Step 4 of the Chart Wizard previews how the chart will look. To the right of the preview, there is a list of three options that can change how the data is displayed. Choose the proper settings and click on Next or Back if there was a mistake in the previous steps.

Data Series - Select Rows if the data was entered in rows or select Columns if the data was entered in columns.

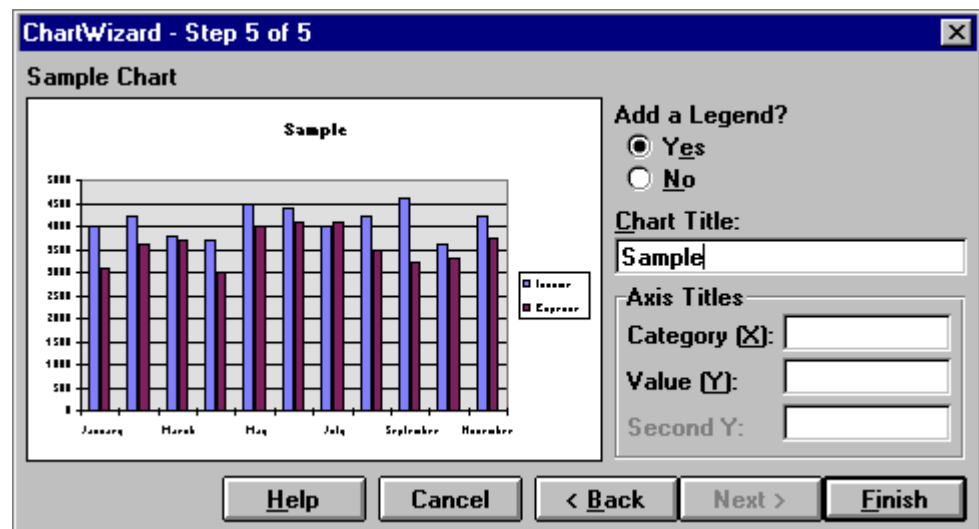
Use First __ Column(s)/Row(s) for Category (x) axis labels - This option sets the number of rows/columns to use as the labels for the x-axis.

Use First __ Column(s)/Row(s) for Legend Text - This options sets the number of rows/columns to use as the labels for the legend text.



Step 5

Step 5 of the Chart Wizard has various option of adding a legend, chart title, and axis labels. Add the desired labels and click Finish or Back if there was a mistake in the previous steps.

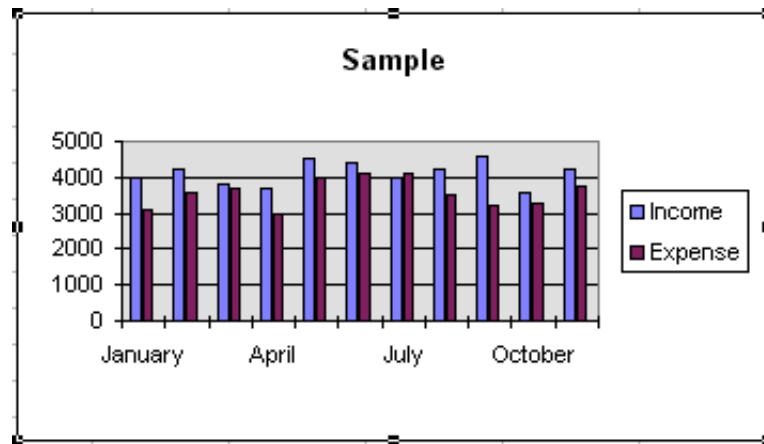


A chart has now been created! Don't worry if there is a missing title or axis label or even if the chart type is wrong, the chart can be edited after it has been created.

Working With A Chart

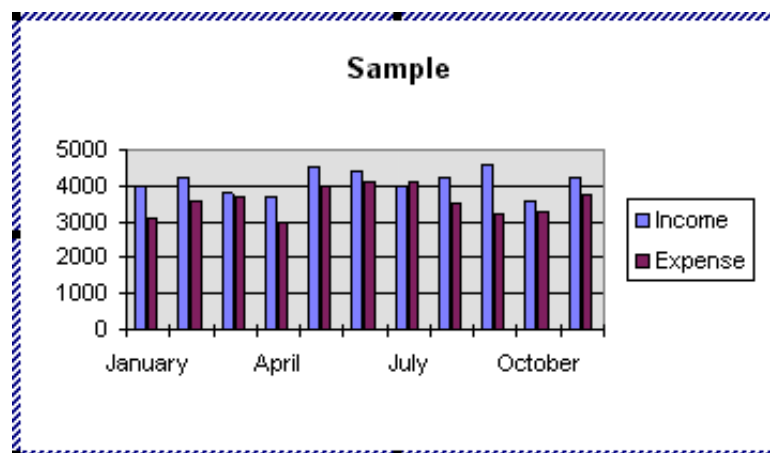
Selecting A Chart

Select a chart by clicking one time on the chart. Selected chart will have eight tiny boxes around the edge called handles. This only applies to charts that are created on the same sheet. Charts created on a new sheet will be selected by default.



Opening a Chart

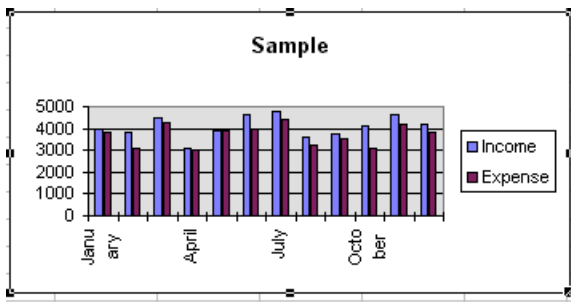
Double clicking on the chart will open it. An opened chart will have the same eight boxes, but with a thicker border that is highlighted.



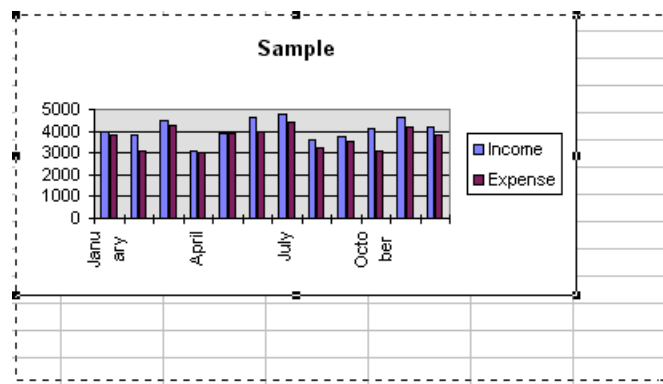
Resizing the Chart

Resizing a chart applies only when the chart has been created on the same sheet.

1. Select the chart to resize. The selected chart will now have eight tiny boxes around the edge called handles.
2. Select the appropriate handle depending on which direction the chart will be resized. For example, to make the chart wider to the right, select the handle in the middle on the right edge (and drag further to the right). To enlarge the chart area down and to the left, select the handle on the lower left corner.
3. When the mouse pointer is placed over a handle, it turns into a double arrow.



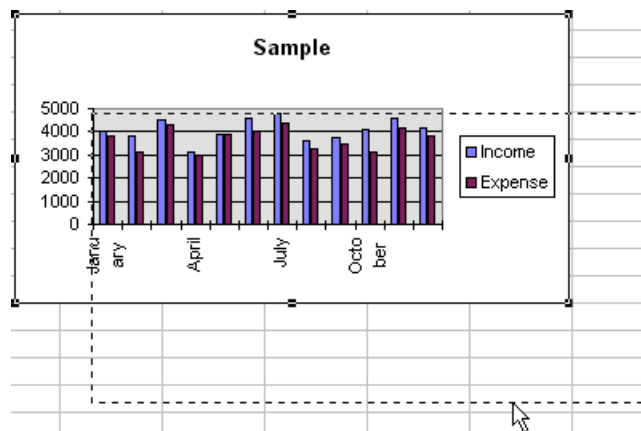
4. Drag the chart to a new size.



Moving a Chart and its Contents

Moving a chart is similar to moving a cell. Select the chart to move and drag it to the new location. An open chart can also be moved by dragging the chart by its border. The Title, Legend, Axis Labels, and other chart objects can be moved from the opened chart.

1. Select the chart or object within an opened chart to move.
2. The selected chart or object within the chart will show the eight small control handles around the border.
3. Move the object by dragging the object by its border.

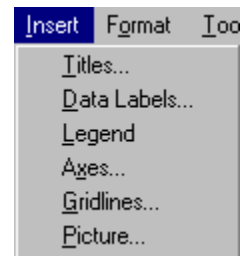


Editing a Chart

The Insert menu allows you to insert or remove Titles (chart title, axis labels, etc), Data Labels, Legend, Axes, and Gridlines.


Inserting a Chart Title or Axis Labels

Open a chart by double clicking on it and select **Insert | Titles....**



Legends

To insert a Legend

1. Select the chart and click on the add legend button . *or*
2. Open the chart and select **Insert | Legend**

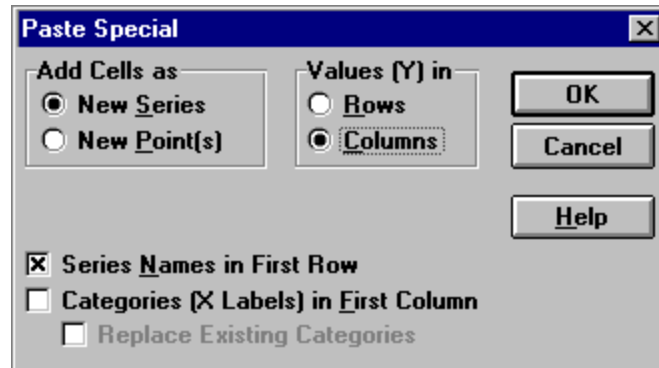
To resize the Legend

1. Select the Legend from an open chart
2. Click and drag the legend handles to resize.

New Series or Data

To add a new series or Data to a chart

1. Select and Copy the Data to add from the worksheet.
2. Open the Chart to add the new data or series to.
3. Select **Edit | Paste Special...**



4. Choose to add the new data as a New Series or Row.
5. Choose if the data is in Rows or Columns *or* if the Series name or Axes Label are included.

or

1. Choose **Insert | New Data....**
2. Type the cell range or select the data to add from the worksheet.
3. If Excel cannot automatically determine how to place the new data, the Paste Special Menu will automatically appear.

Naming a series (i.e. changing the series name in the legend)

1. Select the series to name.
2. Select **Format | Selected Data Series...**

3. Choose the **Name and Values** tab.
4. Type the series name into the Name box surrounded by quotes.

Deleting

To Delete a Legend, Chart Title, Axis Labels, or Series

1. Select the object to delete (remember selected objects will have handles on the border).
2. Press the delete key *or* select **Edit | Clear All** (for deleting the selected region) or **Edit | Clear Series** (for deleting the entire series).

Formatting

The **Format** menu can customize the chart by changing the chart type, the font of the chart text, the horizontal and vertical alignment, the text orientation, the pattern and color of the chart, and the style of the chart text. Remember that the chart must be opened before chart object can be selected for formatting. The first line of the **Format** menu changes with whatever item you have selected. Many times, by double clicking on the chart object, the proper formatting menu will be accessed. To use this shortcut, it is important to double click on the correct object.

Chart Type

The chart type can be changed by clicking on the chart selection button.  or by opening the chart and selecting **Format | Chart Type...**

Using the **Chart Type** menu provides more choices such as chart styles and Series Order.

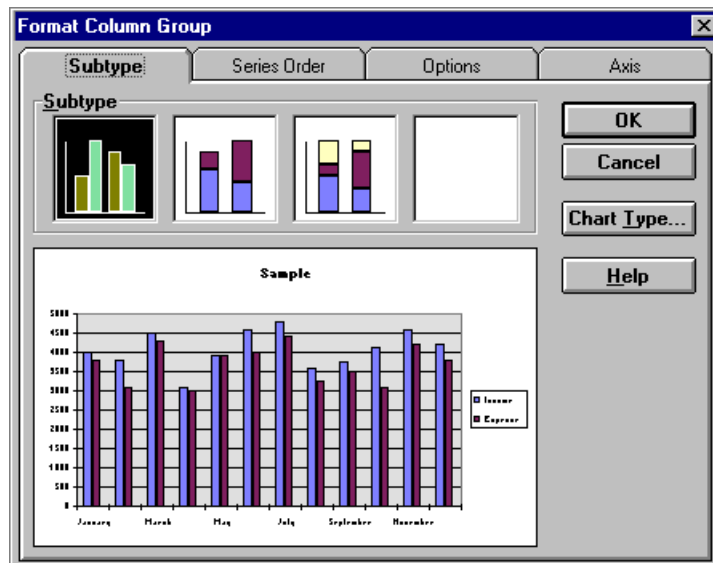
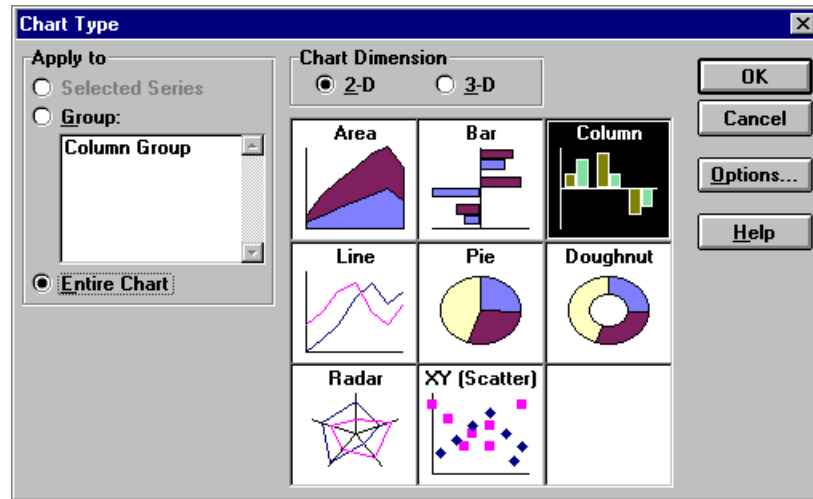
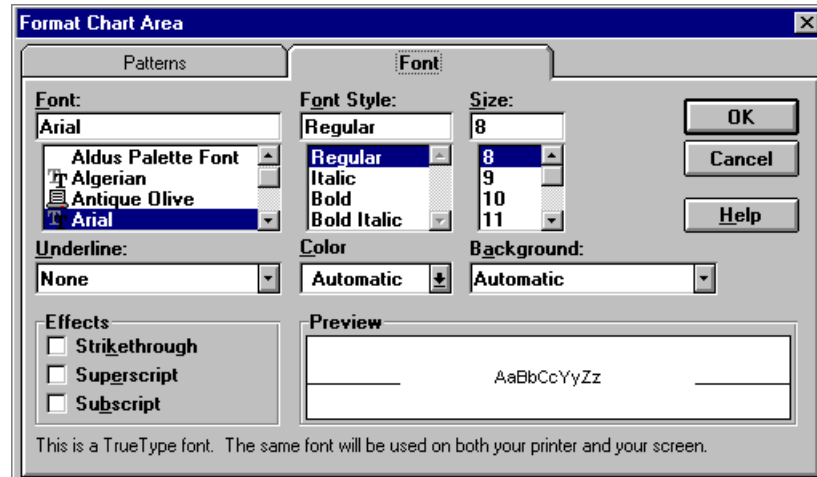


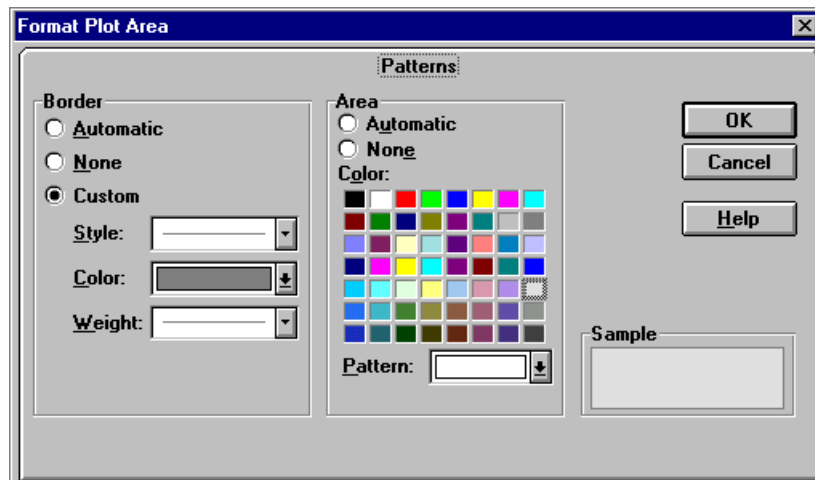
Chart Area

Change the background color of the chart or the text on the chart area by double clicking on the chart area.



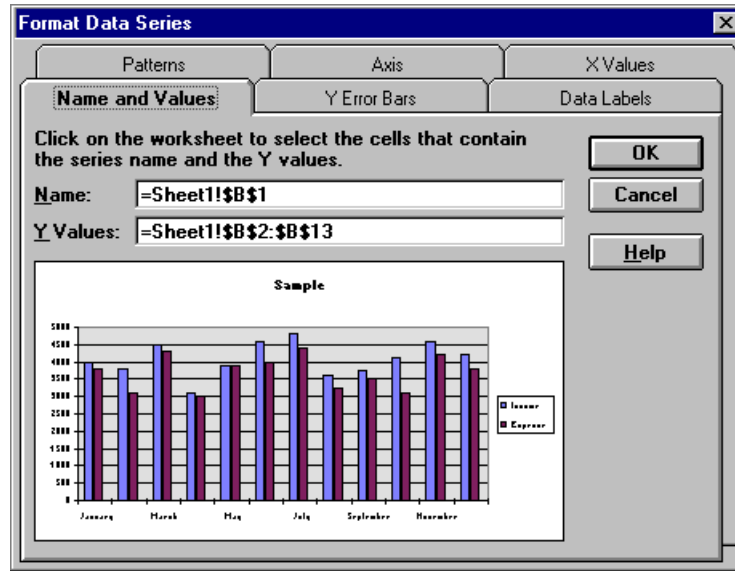
Plot Area

The default plot border and area for Excel 5.0 is gray. Change this by double clicking on the plot area and then changing the color of the area and border to the desired color.



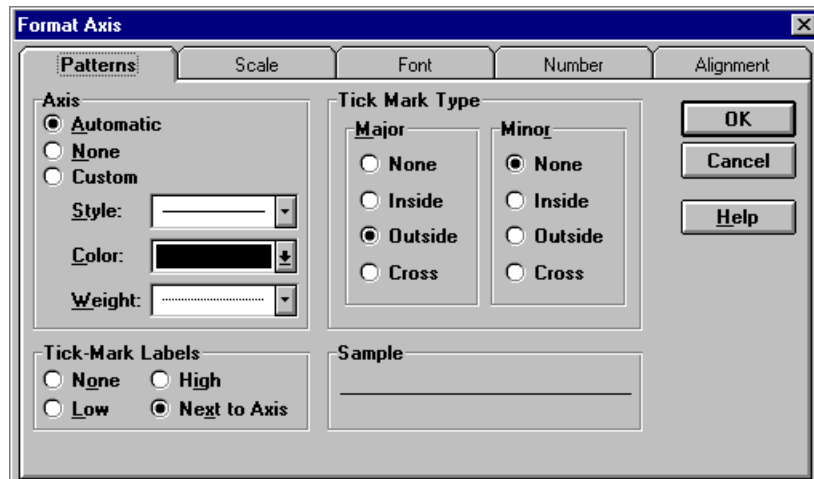
Data Series

Select and format the data series to rename the series, change the pattern (color and markers) of the series, and add error bars or data labels to the series.



Axis

Double click on an axis to change the scale of the plot, the tick marks of the axis, and the orientation and font of the labels.

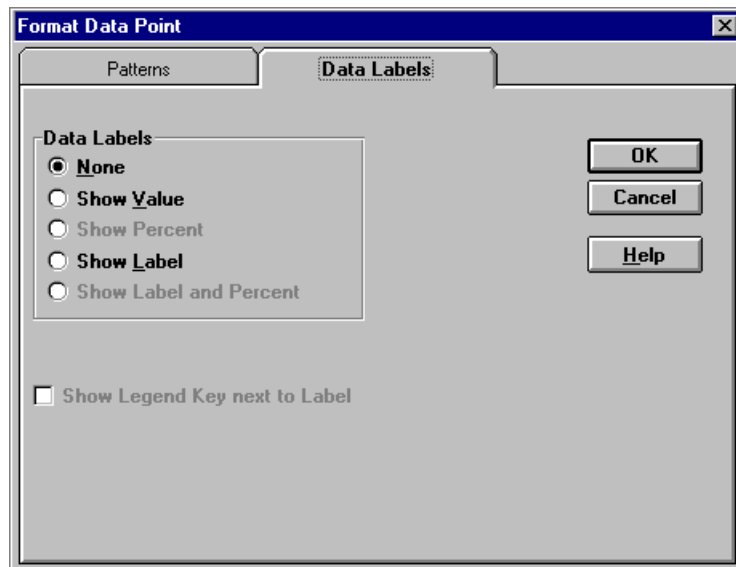


Legend

Change the font, placement and pattern of the legend by double clicking on the legend.

Data Point

To select a certain data point, select the series that contains the data point and then click on the data point to format. Add labels or change the pattern of the selected data point.



Deleting a Chart

If the chart is on a new sheet

1. Click on the sheet tab at the bottom of the screen to select the sheet.
2. Delete the sheet by selecting **Edit | Delete Sheet**.

If the chart is on the same sheet

1. Select the chart by clicking one time on the chart. The selected chart will have eight tiny handles around the edge.
2. Clear the chart using **Edit | Clear | All** or press the Delete key on the keyboard.