

About This Help

This user's guide presents background information about using First Impression, as well as task-oriented discussions of First Impression features. For information about adding First Impression to your application, handling error messages and events, and alphabetical references of First Impression's OCX object, methods, events, and properties, refer to the First Impression OCX Reference Manual.

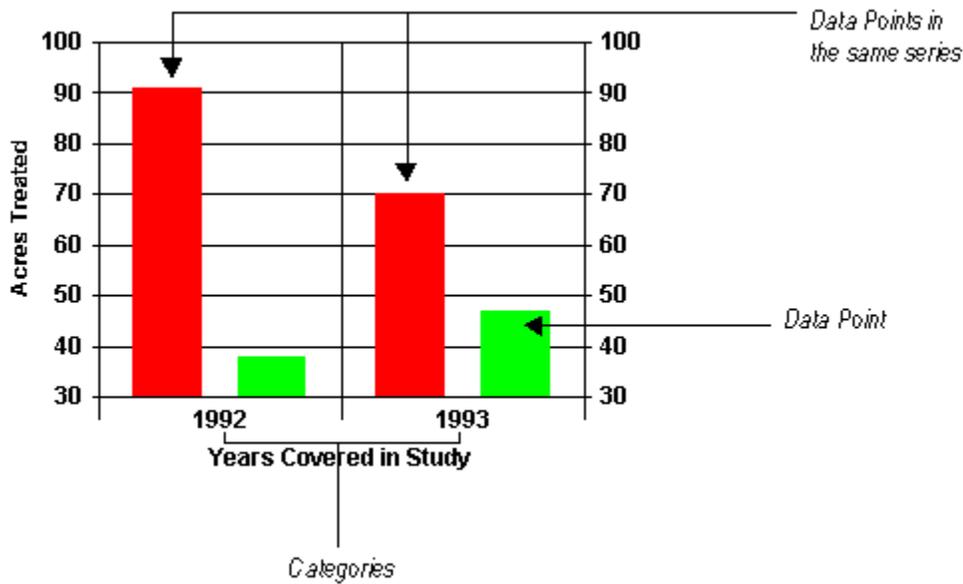
Documentation Conventions

Throughout this documentation, a set of typographic conventions are used to define elements and references to First Impression items. Recognizing these conventions will assist your comprehension of this documentation.

Convention example	Description
AxisSelected, AllowSelections, Select,	Names of events, properties, and methods, are in proper case and bold font.
To install First Impression:	A series of numbered instructions are preceded by an introductory line. The introductory line begins with an arrowhead.
1.Type a:\setup.	Numbered instructions provide step-by-step directions for performing tasks. The instructions should be performed in the order they are presented.
<i>chart plot</i>	In numbered steps, items you are to enter are shown in Letter Gothic font.
<i>thicknessratio</i>	In general sections, italic text is used for the first occurrence of a new term.
[<i>axis_id</i>]	In reference sections, italic text indicates variable or argument information you must supply.
{TRUE FALSE}	In reference sections, italic text surrounded by square brackets indicates optional arguments.
VtChart1.AllowDithering	In reference sections, text surrounded by braces indicates you must make a choice among the items inside the braces. Choices are separated by vertical bars.
VCFI32.OCX	Letter Gothic font is used for all code examples.
VtChart1.RowCount 'number of rows	File names are presented in upper case text.
	In code examples, an apostrophe precedes a comment.

Chart Terminology

Charts provide a graphical representation of data. Values or data points are displayed in formats such as: bars, lines, markers, filled areas, bubbles, or pie slices. These data points are grouped into series that are identified with unique colors or patterns. In many chart types, one data point from each series is grouped together by category along an axis.



Related Topics:

[General Chart Elements](#)

[2D Chart Elements](#)

[3D Chart Elements](#)

[Selecting Chart Elements](#)

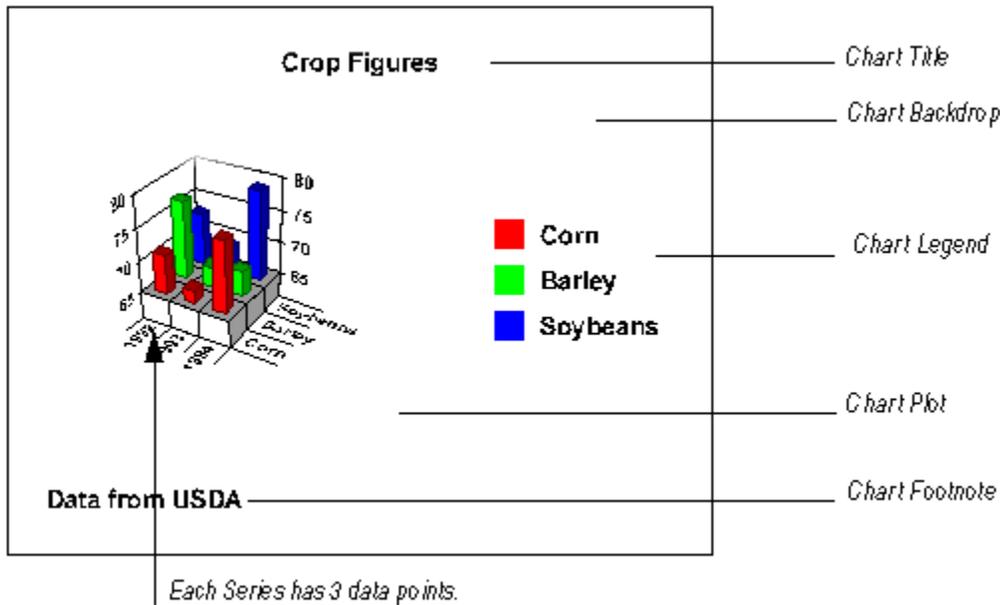
[Formatting Chart Elements](#)

[Double Clicking on Chart Elements](#)

[Using Dialog Boxes](#)

General Chart Elements

Charts can also have titles, backdrops, legends, plots, and footnotes. The following illustration identifies these common chart elements in their default positions.



Related Topics:

[Chart Terminology](#)

[2D Chart Elements](#)

[3D Chart Elements](#)

[Selecting Chart Elements](#)

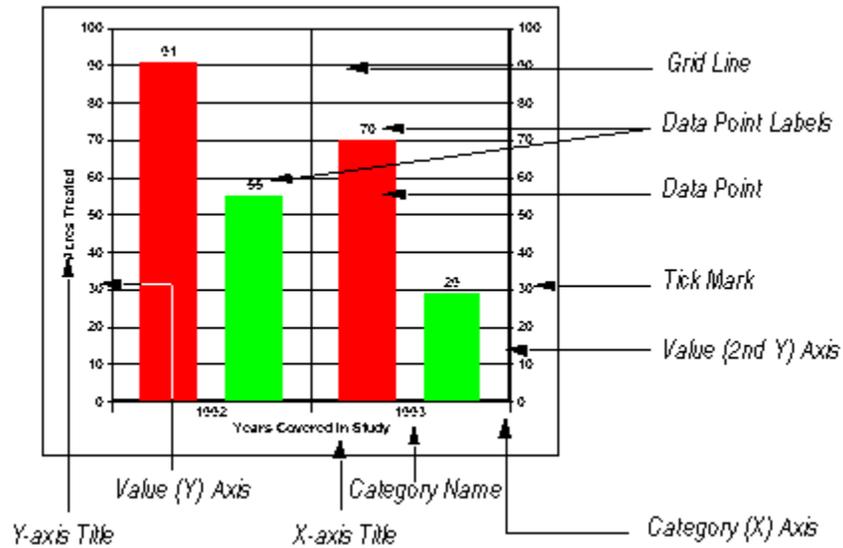
[Formatting Chart Elements](#)

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[Using Dialog Boxes](#)

2D Chart Elements

The following illustration identifies the elements in a typical 2D chart.



Related Topics:

[Chart Terminology](#)

[General Chart Elements](#)

[3D Chart Elements](#)

[Selecting Chart Elements](#)

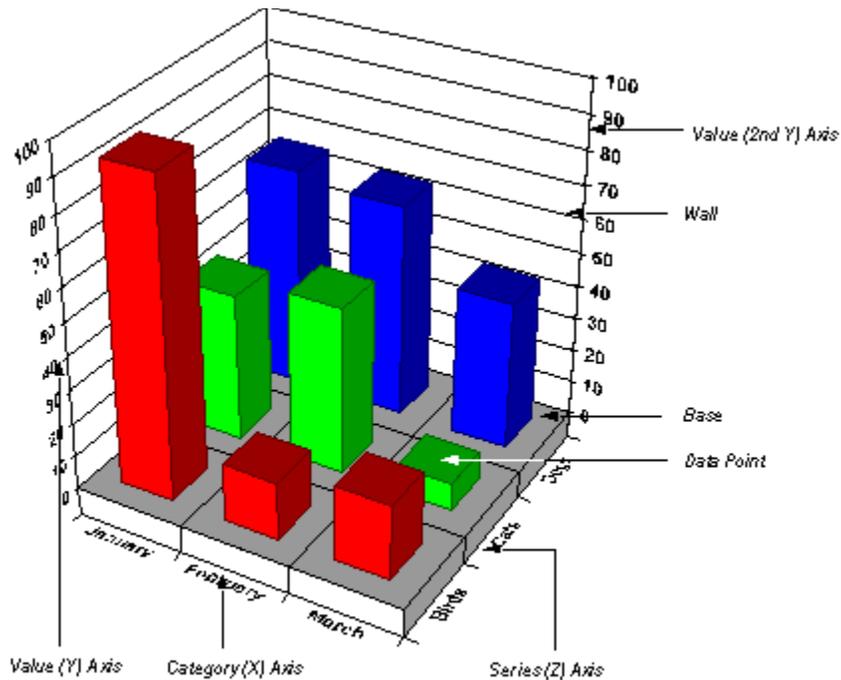
[Formatting Chart Elements](#)

[Double Clicking on Chart Elements](#)

[Using Dialog Boxes](#)

3D Chart Elements

The following illustration identifies the elements in a typical 3D chart.



Related Topics:

[Chart Terminology](#)

[General Chart Elements](#)

[2D Chart Elements](#)

[Selecting Chart Elements](#)

[Formatting Chart Elements](#)

[Double Clicking on Chart Elements](#)

[Using Dialog Boxes](#)

Selecting Chart Elements

You can click the left mouse button once on a chart element to select it. The following table provides information about selecting each chart element.

<u>To select...</u>	<u>Click...</u>	<u>Effect</u>
Chart	In the chart, but not on a specific chart element.	Selection handles appear around the chart.
Chart title	Anywhere in the title area.	Selection handles appear around the title. You can resize or reposition it.
Footnote	Anywhere in the footnote area.	Selection handles appear around the footnote. You can resize or reposition it.
Legend	In the legend, but not the legend keys.	Selection handles appear around the legend. You can resize or reposition it.
Series	On an element in an unselected series, or on the legend key identifying the series.	Selection handles appear on all elements of chart series. Handle also appears on legend key.
Series Label	Anywhere in the series label.	Selection handles appear around the label. You can reposition it.
Plot	In the plot, but not on a specific chart element.	Selection handles appear around the chart plot. You can resize or reposition it.
Axis	On the axis text, axis line, or axis ticks.	Selection handles appear on the axis. You cannot manually resize the axis.
Axis title	Anywhere in the axis title area.	Selection handles appear around the axis title.
Chart grid	On any grid line.	Selection handles appear around the grid.
2D wall and 3D wall or base	Any part of the base or wall other than a grid line.	Selection handles appear around the wall in a 2D chart, and the base and wall in a 3D chart.
Data point	Click on a data point in a selected series, or on a data point in the same series as another selected data point.	Selection handles appear on the single data point only.
Data point label	Anywhere in the data point label.	Selection handles appear around the data point label. You can reposition it.

Related Topics:

[Chart Terminology](#)

[General Chart Elements](#)

[2D Chart Elements](#)

[3D Chart Elements](#)

[Formatting Chart Elements](#)

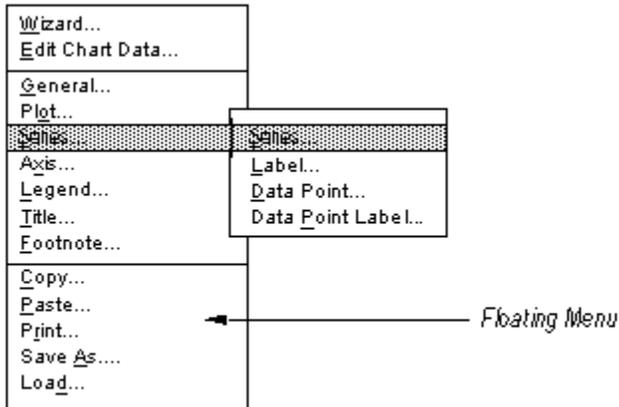
[Double Clicking on Chart Elements](#)

[Using Dialog Boxes](#)

Formatting Chart Elements

You can format any element of a First Impression chart by changing settings in a dialog box. First Impression dialog boxes can be displayed by making a selection from a menu or by double clicking the appropriate chart element.

Click the right mouse button anywhere within a First Impression chart to display the floating menu. Once the menu appears, use the left mouse button to select a menu item. Clicking on menu items followed by three periods displays a submenu as shown in the following illustration.



The following table describes the purpose of each item on the floating menu.

<u>Item</u>	<u>Dialog Box Displayed</u>	<u>Purpose</u>
Wizard	Chart Wizard	Guides you through chart design process.
Edit Chart Data	Data Grid Editor	Modifies the data, rows, columns and labels in the data grid.
General	Format Chart	Formats the fill, frame, and shadow displayed in the chart backdrop and provides a convenient place to toggle on and off the display of the title, the legend, the footnote or the 2nd Y axis.
Plot	Format Plot	Changes the chart type, stacks or unstacks chart series, turns lines and markers on or off, controls the location of the plot, formats the plot backdrop, reorders series, sets chart-type specific options, and controls 3D chart formatting and lighting.
Series	Format Series	Controls the display of series, plots a series on a secondary axis, formats series appearance such as bar shape, line style, markers, and fill colors, sets series smoothing, and formats statistics lines and guidelines.
Label	Format Series Label	Controls the series label location and line style, edits the label text, formats the label text and position, and formats the label backdrop.
Data Point	Format Data Point	Formats the fill and marker for an individual data point.
Data Point Label	Format Data Point Label	Controls the type and location of the label on an individual data point,

		formats the font and layout of the label text, and formats the label backdrop.
Axis	Format Axis	Formats the width and color of the axis, axis grid, and axis ticks, and changes axis scale.
Label	Format Axis Label	Formats the axis label backdrop and font, and controls the positioning and alignment of the axis labels.
Title	Format Axis Title	Formats the axis title backdrop and font, edits the axis title text, and controls the display of the axis title and its location.
Legend	Format Legend	Formats the legend backdrop, changes the font used to display the legend text, and controls the legend location.
Title	Format Title	Formats the title backdrop and font, edits the title text, and controls the display of the title and the its location.
Footnote	Format Footnote	Formats the footnote backdrop and font, edits the footnote text, controls the display of the footnote and the its location.
Copy	None	Places a copy of the current chart on the clipboard in Windows Metafile (.wmf) format.
Paste	None	Takes a graphic in Windows Bitmap (.bmp) or Windows Metafile (.wmf) format from the clipboard and places it in the selected element's backdrop or fill.
Print	Print	Displays the Print dialog box.
Save As	Save As	Saves the current file as a chart file (.vtc), a bitmap (.bmp), or a metafile (.wmf)
Load	Load Chart	Loads an existing chart file into the current chart control. The chart you load replaces the chart already in the control.

If you use the menu to display the Format Axis, Format Axis Title, Format Axis Label, Format Series, Format Series Label, Format Data Point, or Format Data Point Label dialog boxes, you are prompted to identify the specific axis, series, or data point you want to modify.

Related Topics:

[Chart Terminology](#)

[General Chart Elements](#)

[2D Chart Elements](#)

[3D Chart Elements](#)

[Selecting Chart Elements](#)

[Double Clicking on Chart Elements](#)

[Using Dialog Boxes](#)

Double Clicking on Chart Elements

You can also display First Impression dialog boxes by double clicking chart elements. The following table lists the dialog box displayed when you double click various chart elements.

<u>To format...</u>	<u>Double-click...</u>	<u>Dialog Box</u>	<u>Tab</u>
Chart Backdrop	The chart but not on a specific chart element.	Format Chart	Backdrop
Footnote	Any part of the footnote.	Format Footnote	Text
Title	Any part of the title.	Format Title	Text
Legend Backdrop	Anywhere in the legend area other than the text or keys.	Format Legend	Backdrop
Legend Text	The legend text.	Format Legend	Font
Plot	Anywhere in the plot area, but not on a specific chart element.	Format Plot	Backdrop
Axis Label	An axis label.	Format Axis Label	Font
Axis Line or Ticks	The line or ticks on an axis.	Format Axis	Scale
Axis Title	The axis title text.	Format Axis Title	Text
Grid	Any grid line.	Format Axis	Grid
3D Base or Wall	Anywhere on the base or wall other than a grid line.	Format Plot	Base & Walls
Series	A chart element in an unselected series or the legend key identifying the series.	Format Series	Line for line type series Fill for all others
Data Point	A selected data point, or a point in the same series as a selected data point.	Format Data Point	Options or Fill if series defaults have been overridden.
Series Label	The series label.	Format Series Label	Text.
Data Point Label	The data point label.	Format Data Point Label	Options or Text if series defaults have been overridden

Related Topics:

[Chart Terminology](#)

[General Chart Elements](#)

[2D Chart Elements](#)

[3D Chart Elements](#)

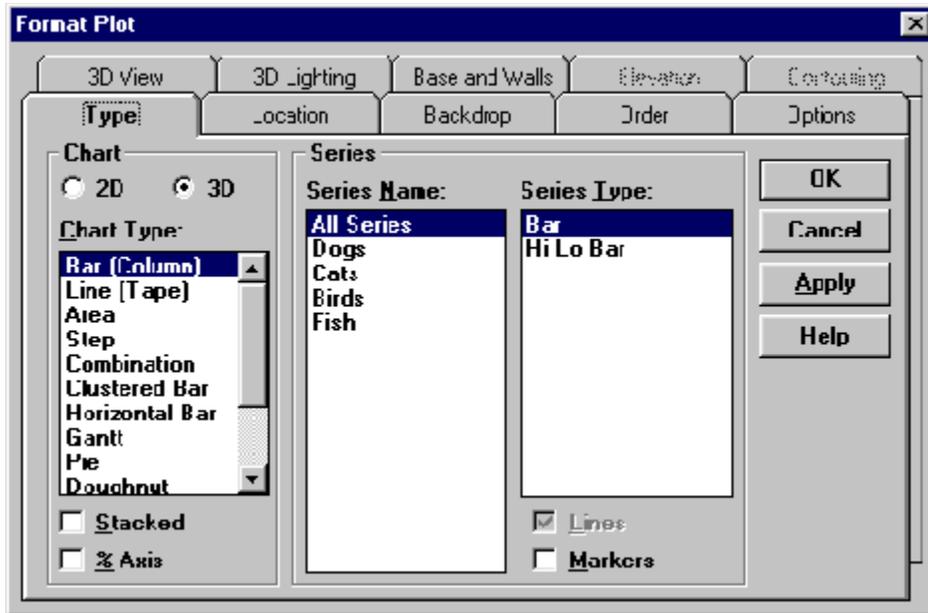
[Selecting Chart Elements](#)

[Formatting Chart Elements](#)

[Using Dialog Boxes](#)

Using Dialog Boxes

Most First Impression dialog boxes provide sets of options grouped on separate tabs. As you click each tab, the controls in the dialog box change to allow you to edit a different set of options. Any options that are not appropriate for the current chart type or situation are grayed. The following illustration shows an example of a First Impression dialog box.



Click on a button or tab to learn what it does.

Related Topics:

[Chart Terminology](#)

[General Chart Elements](#)

[2D Chart Elements](#)

[3D Chart Elements](#)

[Selecting Chart Elements](#)

[Formatting Chart Elements](#)

[Double Clicking on Chart Elements](#)

3D View Tab

Displays the 3D View tab to set options for viewing a 3D chart.

3D Lighting Tab

Displays the 3D Lighting tab to set lighting options for a 3D chart.

Base and Walls Tab

Displays the Base and Walls tab to set base and wall options for a chart.

Location Tab

Displays the Location tab to set options for positioning chart elements.

Backdrop Tab

Displays the Backdrop tab to set options for plot backgrounds.

Order Tab

Displays the Order tab for reordering chart series.

Options Tab

Displays the general chart options tab.

OK Button

Click Ok to update the chart and dismiss the dialog box.

Cancel Button

Click Cancel to discard any changes you have not applied and dismiss the dialog box.

Help Button

Click Help to display help for the dialog box options.

Apply Button

Click Apply to update the chart without dismissing the dialog box.

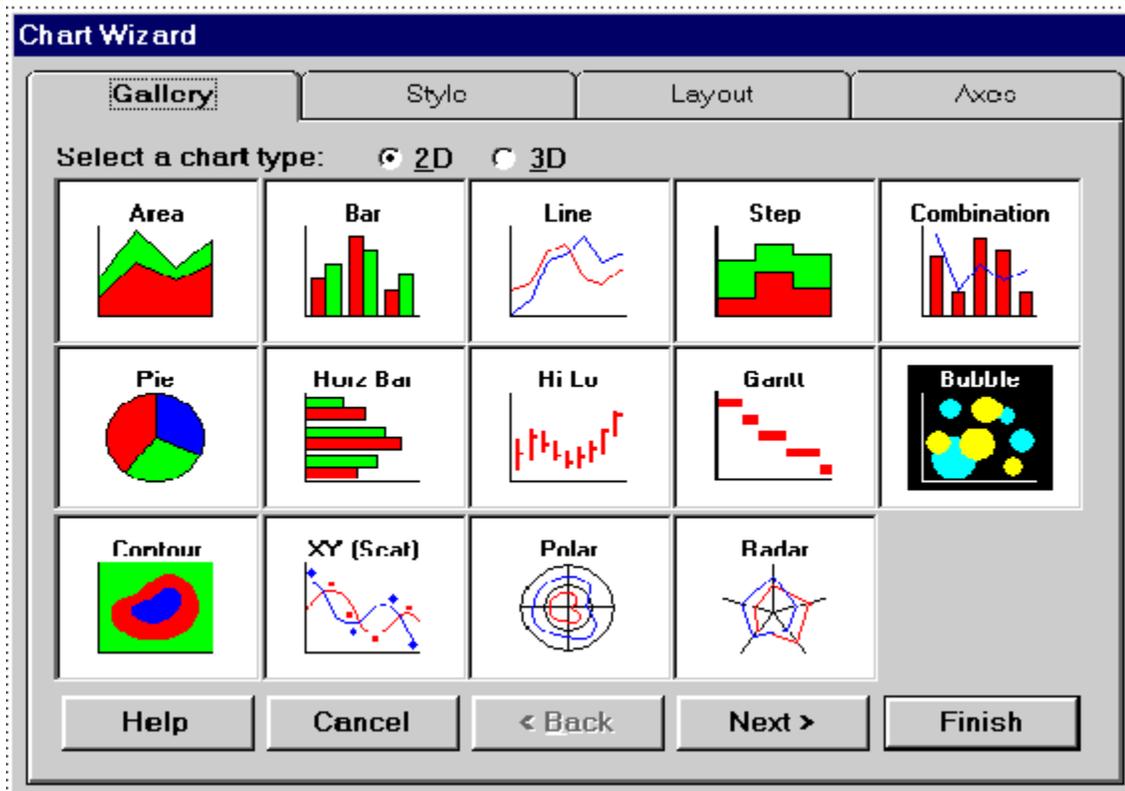
The Chart Wizard

The Chart Wizard is a series of tabbed dialog boxes that guides you through the process required to create a new First Impression chart or modify an existing chart for use with your application. With the Chart Wizard, you can quickly accomplish many design tasks that would otherwise take much longer to complete.

To Access the Chart Wizard:

1. Right-click the chart control on the form.
2. Select Wizard from the menu.

The Chart Wizard tabbed dialog will display.



To learn how to use the chart wizard, see [Navigating in the Chart Wizard](#).

Related Topics:

[The Gallery Tab](#)

[The Style Tab](#)

[The Layout Tab](#)

[The Axes Tab](#)

[Modifying Charts with the Wizard](#)

Navigating in the Chart Wizard

The Chart Wizard provides four tabs that control various design aspects such as choosing a chart type, setting chart options, controlling chart layout, and specifying chart and axis titles. You can navigate through these tabs by clicking on the tab at the top of the dialog box, or by using the navigation buttons at the bottom of the dialog box



Click on the navigational buttons to learn what they do.

Related Topics:

[The Chart Wizard](#)

[The Gallery Tab](#)

[The Style Tab](#)

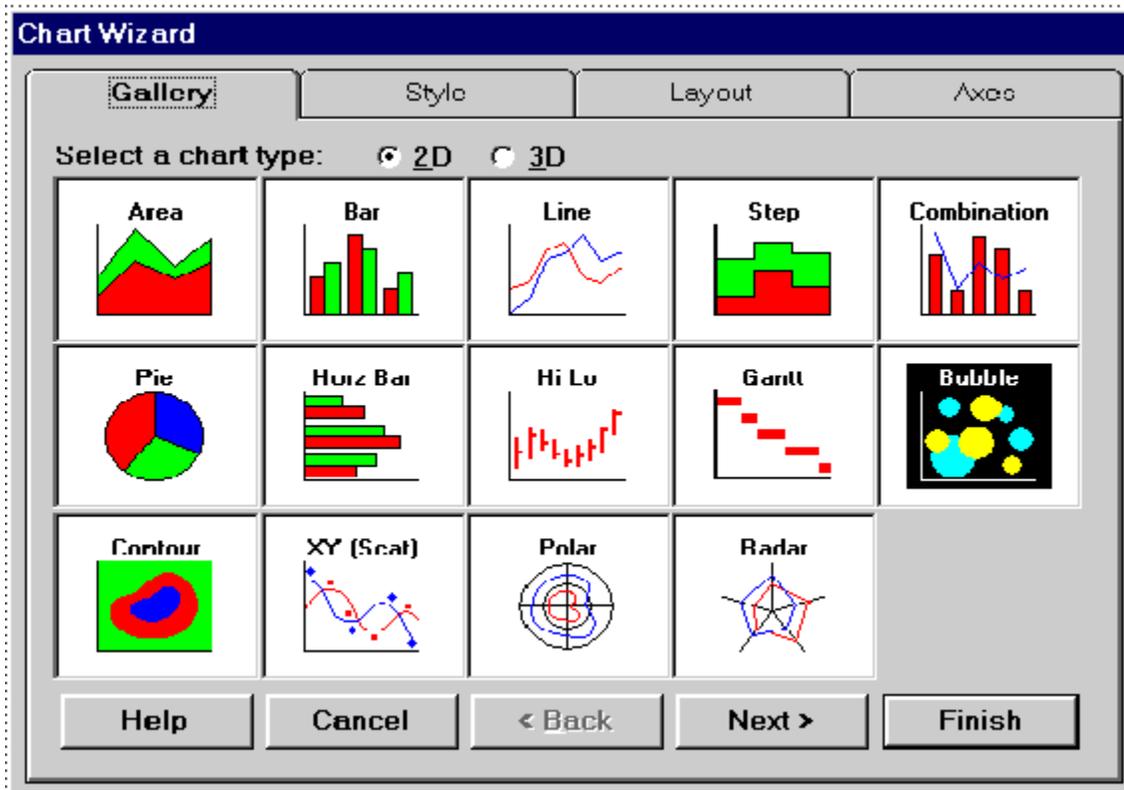
[The Layout Tab](#)

[The Axes Tab](#)

[Modifying Charts with the Wizard](#)

The Gallery Tab

The Gallery Tab allows you to select the type of chart you wish to design. Two radio buttons allow you to differentiate between 2D chart types and 3D chart types.



Click on buttons to learn what they do.

Related Topics:

[The Chart Wizard](#)

[Navigating in the Chart Wizard](#)

[The Style Tab](#)

[The Layout Tab](#)

[The Axes Tab](#)

[Modifying Charts with the Wizard](#)

Wizard 2D Radio Button

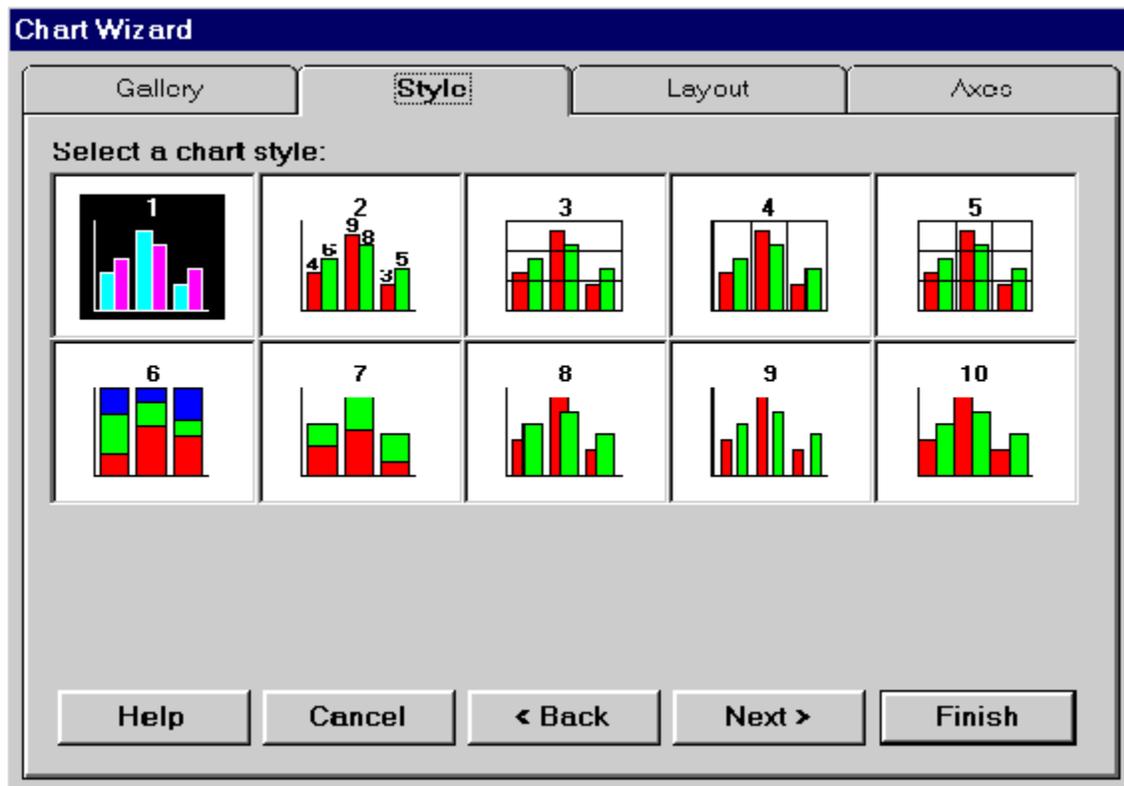
Click here to display 2D chart types.

Wizard 3D Radio Button

Click here to display 3D chart types.

The Style Tab

The Style Tab lets you set the style for the chart type you have selected. By using the style tab, you can easily set chart display options such as series labels, stacking and bar gap.



Click on buttons to learn what they do.

Related Topics:

[The Chart Wizard](#)

[Navigating in the Chart Wizard](#)

[The Gallery Tab](#)

[The Layout Tab](#)

[The Axes Tab](#)

[Modifying Charts with the Wizard](#)

The Layout Tab

The Layout Tab provides methods for determining the elements and layout of the chart plot.

The screenshot shows the 'Chart Wizard' dialog box, specifically the 'Layout' tab. The dialog has four tabs: 'Gallery', 'Style', 'Layout' (selected), and 'Axes'. The main area is titled 'Enter desired layout settings:'. On the left is a grouped bar chart with five categories (R1 to R5) on the x-axis and a y-axis from 0 to 90. Each category has four bars in red, green, blue, and yellow. On the right are configuration options: 'Chart Title' (text box), 'Chart Footnote' (text box), 'Chart Legend' (dropdown menu set to 'None'), and 'Series Data along:' with radio buttons for 'Rows' and 'Cols' (selected). At the bottom are buttons for 'Help', 'Cancel', '< Back', 'Next >', and 'Finish'.

Category	Red	Green	Blue	Yellow
R1	25	85	75	10
R2	65	68	12	5
R3	35	62	72	20
R4	15	58	50	35
R5	60	75	25	32

Click on buttons and text boxes to learn what they do.

Related Topics:

[The Chart Wizard](#)

[Navigating in the Chart Wizard](#)

[The Gallery Tab](#)

[The Style Tab](#)

[The Axes Tab](#)

[Modifying Charts with the Wizard](#)

Chart Title Text Box

The Chart Title text box allows you to enter the title you wish to display above the chart.

Chart Footnote Text Box

The Chart Footnote text box allows you to enter a footnote to display beneath the chart

Chart Legend Pop Up Menu

The Chart Legend pop up menu provides options for displaying the chart legend. The options include:

- **Bottom** The legend is displayed beneath the chart.
- **Left** The legend is displayed to the left of the chart.
- **None** No legend is displayed with the chart.
- **Right** The legend is displayed to the right of the chart.
- **Top** The legend is displayed at the top of the chart.

Series Data Radio Buttons

Click on a button to determine how series data is read from the data grid. The two choices for reading series data include:

- **Rows** Series data is read from rows of the data grid.
- **Columns** Series data is read from columns of the data grid.

The Axes Tab

The Axes Tab allows you to label chart axes.

Chart Wizard

Gallery Style Layout **Axes**

Enter desired axis titles:

Category	Series 1 (Red)	Series 2 (Green)	Series 3 (Blue)	Series 4 (Yellow)
R1	25	85	75	10
R2	65	68	12	5
R3	35	62	72	20
R4	15	58	58	35
R5	60	75	25	32

Category (X)

Value (Y)

Depth (Z)

Secondary (Y2)

Help Cancel < Back Next > Finish

Click on buttons and text boxes to learn what they do.

Related Topics:

[The Chart Wizard](#)

[Navigating in the Chart Wizard](#)

[The Gallery Tab](#)

[The Style Tab](#)

[The Layout Tab](#)

[Modifying Charts with the Wizard](#)

Category Text Box

The Category text box allows you to label the X axis for the chart.

The X axis is referred to as the Category axis.

Value Text Box

The Value text box allows you to label the Y axis for the chart.

The y axis is referred to as the value axis.

Depth Text Box

The Depth text box allows you to label the Z axis for the chart.

The Z axis is referred to as the depth axis.

Secondary Text Box

The Secondary text box allows you to label the secondary Y axis (Y2) for the chart.

Modifying Charts with the Wizard

When you use the chart wizard to modify existing charts, the wizard will initialize the chart back to its default settings and then restore only those features it controls in the Gallery, Layout and Axes tabs. You will want to exercise care when modifying existing charts that may have originally been created without the wizard. You may need to manually adjust some chart settings after using the wizard.

Related Topics:

[The Chart Wizard](#)

[Navigating in the Chart Wizard](#)

[The Gallery Tab](#)

[The Style Tab](#)

[The Layout Tab](#)

[The Axes Tab](#)

Wizard Help Button

Displays Wizard Help.

Wizard Cancel Button

Aborts Changes.

Wizard Back Button

Displays Previous Tab.

Wizard Next Button

Displays Next Tab.

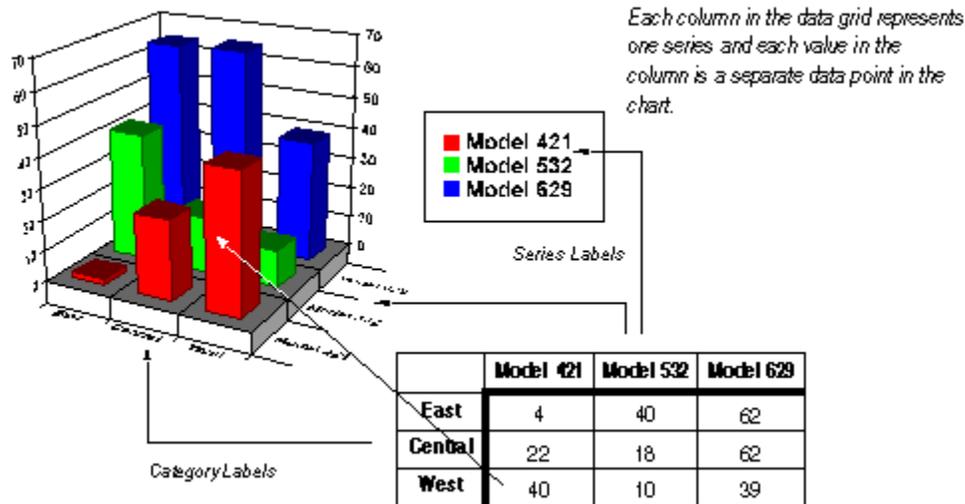
Wizard Finish Button

Applies Modifications.

Chart Data Grid

Each chart is associated with a data grid. This data grid is a table that holds the data being charted. The data grid can also include labels used to identify series and categories on the chart. The person who designs your chart application fills the data grid with information by inserting data, or by importing data from a spreadsheet or array.

The following illustration shows the relationship between a data grid and a chart.



In most cases, each column in the data grid translates to one series on the chart. However, First Impression supports a number of chart types that require two or more columns of data to chart a series. These chart types include XY, polar, bubble, hi-lo, and gantt charts. Specific information about the data grid requirements of these chart types is included in the following discussion.

Note You may be formatting a chart in an application designed for you by someone else. To use one of the chart types that requires more than one column of data for a series, you may need to have the chart designer familiarize you with the structure of the chart data. If you are attempting to design a chart, refer to the First Impression Reference Manual for more information about data grids.

Related Topics:

[The DataGrid Editor](#)

[Resizing the Data Grid](#)

[Modifying Data in the Data Grid](#)

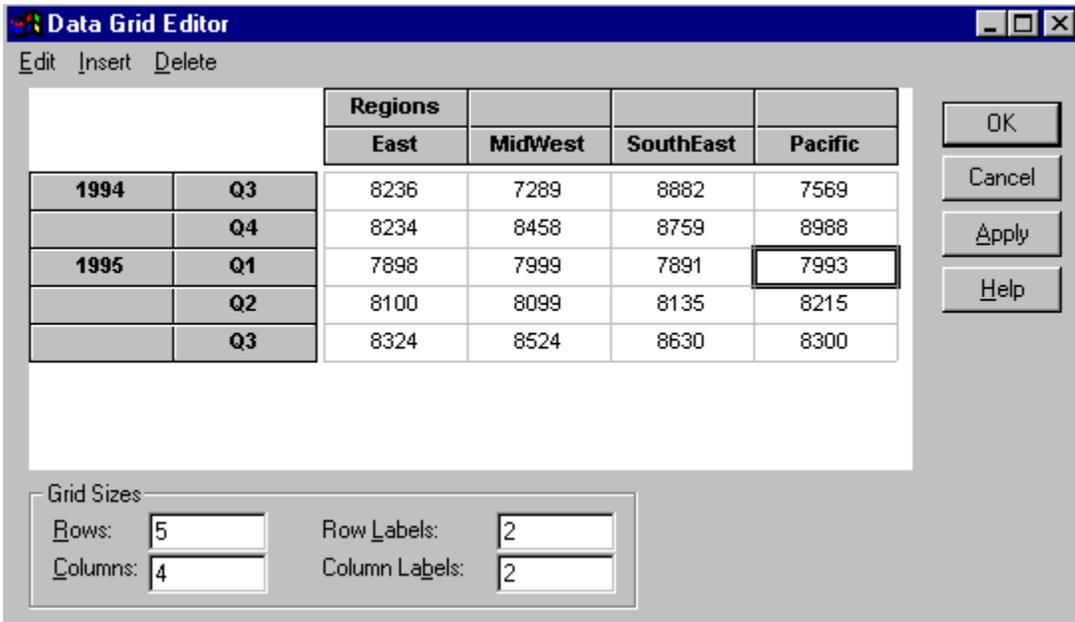
The DataGrid Editor

You can easily modify the data in the Data Grid by using the Data Grid Editor.

To Access the Data Grid Editor

1. Right-click the chart control on the form to display the floating menu.
2. Choose Edit Chart Data... from the menu.

The Data Grid Editor dialog will display.



		Regions			
		East	MidWest	SouthEast	Pacific
1994	Q3	8236	7289	8882	7569
	Q4	8234	8458	8759	8988
1995	Q1	7898	7999	7891	7993
	Q2	8100	8099	8135	8215
	Q3	8324	8524	8630	8300

Grid Sizes

Rows: Row Labels:

Columns: Column Labels:

Click on the Data Grid Editor buttons and menus to learn their function.

Related Topics:

[Chart Data Grid](#)

[Resizing the Data Grid](#)

[Modifying Data in the Data Grid](#)

Resizing the Data Grid

Since the chart grid is initially filled with random data, you might want to start by resizing the data grid to agree with the size of the worksheet containing your data. You can resize the grid simply by indicating the correct number of rows and columns of your worksheet in the Data Grid Editor. You can also indicate the number of levels of labels the rows and columns have.

The following example steps you through resizing the Data Grid:

To Resize the Data Grid for 8 Rows and Columns of Data

1. Double-click the mouse cursor in the Rows field of the Editor dialog to select the current row value.
2. Type the number 8.
3. Tab to the Columns field.

The Data Grid will redisplay to reflect the change in number of rows.

4. In the Columns field, type the number 8.
5. Tab to exit the Columns field.

The data grid should now display 8 columns and 8 rows. The additional column and row cells will appear empty.

Important Although the grid redisplay as you exit a cell, those changes have not yet been applied to the chart. You must click Apply or Ok to affect the chart.

Related Topics:

[Chart Data Grid](#)

[The DataGrid Editor](#)

[Modifying Data in the Data Grid](#)

Modifying Data in the Data Grid

Once you have resized the data grid to accommodate your worksheet data, you are ready to modify the data in the grid.

To Modify The Data In The Grid

1. Use the mouse cursor to click and select a cell or use the tab key, left or right, up or down arrow keys to navigate to the desired cell.
2. The cell location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, type the new data value.
4. The cell will display the new value and replace the previous value once you have exited the cell. You may exit the grid cell by navigational keys or the Enter key.

Related Topics:

[Chart Data Grid](#)

[The DataGrid Editor](#)

[Resizing the Data Grid](#)

[Adding Row and Column Labels](#)

[Modifying Row and Column Labels](#)

Adding Row and Column Labels

The Data Grid Editor provides an easy method for changing the number of row and column labels.

To add Row Labels and Column Labels.

1. Double-click the mouse cursor in the Row Labels field of the Editor dialog to select the current number of row labels.
2. Type the number of desired row labels.
3. Tab to the Column Labels field.

The Data Grid will redisplay to reflect the change in number of row labels.

4. In the Column Labels field, type the number of desired column labels.
5. Tab to exit the Column Labels field.

The data grid should now display additional column and row labels.

Remember You must click Apply or OK to affect the chart.

Once you have added row and column labels, you are ready to modify the row and column labels.

Related Topics:

[Chart Data Grid](#)

[The DataGrid Editor](#)

[Resizing the Data Grid](#)

[Modifying Data in the Data Grid](#)

[Modifying Row and Column Labels](#)

Modifying Row and Column Labels

You can change data grid labels in a few simple steps.

To Modify Row and Column Labels In The Grid

1. Use the mouse cursor to click and select a label cell or use the tab key, left or right, up or down arrow keys to navigate to the desired cell.
2. The cell location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, type the new label.
4. The cell will display the new label and replace the previous label once you have exited the cell. You may exit the grid cell by navigational keys or the Enter key.

Related Topics:

[Modifying Data in the Data Grid](#)

[Adding Row and Column Labels](#)

[Inserting a Data Grid Row](#)

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Row](#)

[Deleting a Data Grid Column](#)

[Inserting a Column of Data Grid Row Labels](#)

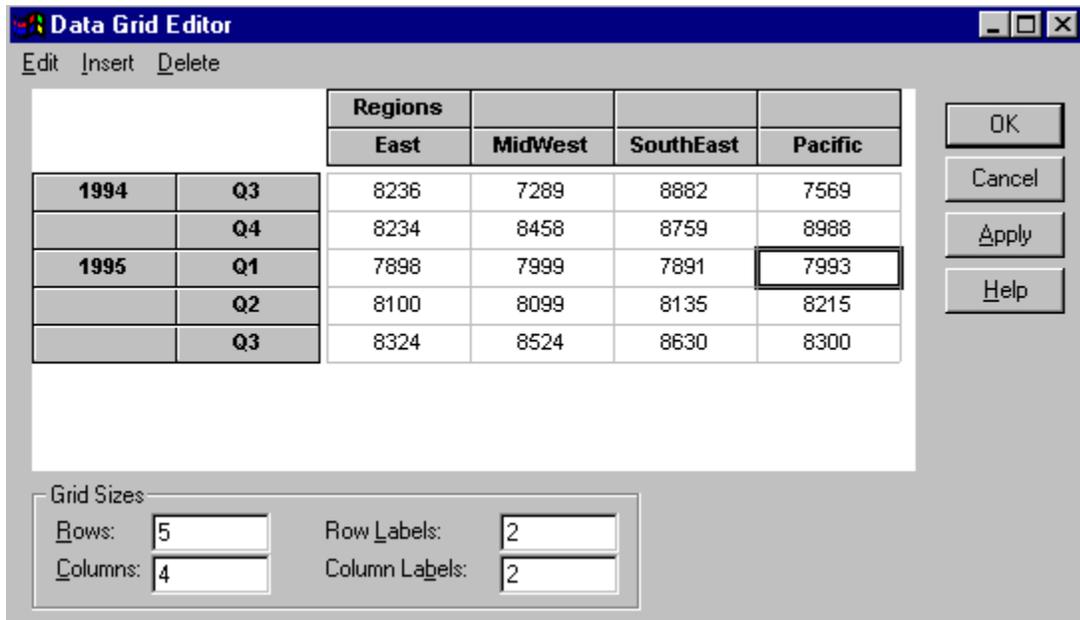
[Inserting a Row of Data Grid Column Labels](#)

[Deleting a Column of Data Grid Row Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

The Menu Bar

The Data Grid Editor menu bar contains three menus which provide methods to simplify the data editing process.



Click on the Data Grid Editor Menus to learn what they do.

Related Topics:

[Inserting a Data Grid Row](#)

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Row](#)

[Deleting a Data Grid Column](#)

[Inserting a Column of Data Grid Row Labels](#)

[Inserting a Row of Data Grid Column Labels](#)

[Deleting a Column of Data Grid Row Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

Inserting a Data Grid Row

To Insert a Data Grid Row

1. Use the mouse or navigational keys to move to the desired cell location.
2. The cell location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, select **Row** from the **Insert** menu.
4. An entire data grid row will be inserted at that point in the grid, moving the current row down one level.

Related Topics:

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Row](#)

[Deleting a Data Grid Column](#)

[Inserting a Column of Data Grid Row Labels](#)

[Inserting a Row of Data Grid Column Labels](#)

[Deleting a Column of Data Grid Row Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

Inserting a Data Grid Column

To Insert a Data Grid Column

1. Use the mouse or navigational keys to move to the desired cell location.
2. The cell location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, select Column from the Insert menu.
4. An entire data grid column will be inserted at that point in the grid, moving the current column on position to the right.

Related Topics:

[Inserting a Data Grid Row](#)

[Deleting a Data Grid Row](#)

[Deleting a Data Grid Column](#)

[Inserting a Column of Data Grid Row Labels](#)

[Inserting a Row of Data Grid Column Labels](#)

[Deleting a Column of Data Grid Row Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

Deleting a Data Grid Row

To Delete a Data Grid Row

1. Use the mouse or navigational keys to move to the desired cell location.
2. The cell location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, select **Row** from the **Delete** menu.
4. The entire data grid row will be deleted at that point, moving the row below the current cell location up to the current position.

Related Topics:

[Inserting a Data Grid Row](#)

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Column](#)

[Inserting a Column of Data Grid Row Labels](#)

[Inserting a Row of Data Grid Column Labels](#)

[Deleting a Column of Data Grid Row Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

Deleting a Data Grid Column

To Delete a Data Grid Column

1. Use the mouse or navigational keys to move to the desired cell location.
2. The cell location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, select **Column** from the **Delete** menu.
4. The entire data grid column will be deleted at that point, moving the column to the right of the current cell location left one position.

Related Topics:

[Inserting a Data Grid Row](#)

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Row](#)

[Inserting a Column of Data Grid Row Labels](#)

[Inserting a Row of Data Grid Column Labels](#)

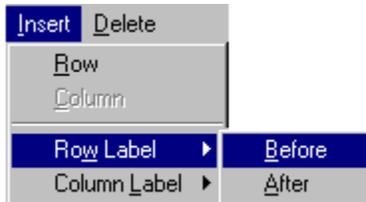
[Deleting a Column of Data Grid Row Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

Inserting a Column of Data Grid Row Labels

To Insert a Column of Data Grid Row Labels

1. Use the mouse or navigational keys to move to the desired row label location.
2. The row label location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, select **Row Label** from the **Insert** menu.
4. Choose **Before** to insert a column of row labels **to the left of** the currently selected label. Choose **After** to insert a column of row labels **to the right of** the currently selected label.



Related Topics:

[Inserting a Data Grid Row](#)

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Row](#)

[Deleting a Data Grid Column](#)

[Inserting a Row of Data Grid Column Labels](#)

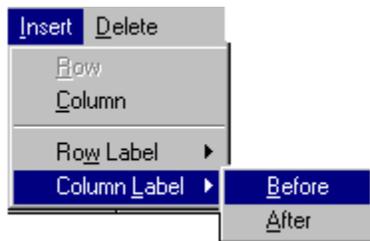
[Deleting a Column of Data Grid Row Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

Inserting a Row of Data Grid Column Labels

To Insert a Row of Data Grid Column Labels

1. Use the mouse or navigational keys to move to the desired column label location.
2. The column label location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, select **Column Label** from the **Insert** menu.
4. Choose **Before** to insert a row of column labels **above** the currently selected label. Choose **After** to insert a row of column labels **below** the currently selected label



Related Topics:

[Inserting a Data Grid Row](#)

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Row](#)

[Deleting a Data Grid Column](#)

[Inserting a Column of Data Grid Row Labels](#)

[Deleting a Column of Data Grid Row Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

Deleting a Column of Data Grid Row Labels

To Delete a Column of Data Grid Row Labels

1. Use the mouse or navigational keys to move to the desired row label location.
2. The row label location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, select **Row Label** from the **Delete** menu.
4. The entire column of row labels will be deleted at that point in the grid, moving the existing row labels left one position.

Related Topics:

[Inserting a Data Grid Row](#)

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Row](#)

[Deleting a Data Grid Column](#)

[Inserting a Column of Data Grid Row Labels](#)

[Inserting a Row of Data Grid Column Labels](#)

[Deleting a Row of Data Grid Column Labels](#)

Deleting a Row of Data Grid Column Labels

To Delete a Row of Data Grid Column Labels

1. Use the mouse or navigational keys to move to the desired column label location.
2. The column label location will be highlighted by a thick black border, indicating that the cell is active.
3. Once the cell is active, select **Column Label** from the **Delete** menu.
4. A row of column labels will be deleted at that point in the grid, moving the existing row labels up one position.

Related Topics:

[Inserting a Data Grid Row](#)

[Inserting a Data Grid Column](#)

[Deleting a Data Grid Row](#)

[Deleting a Data Grid Column](#)

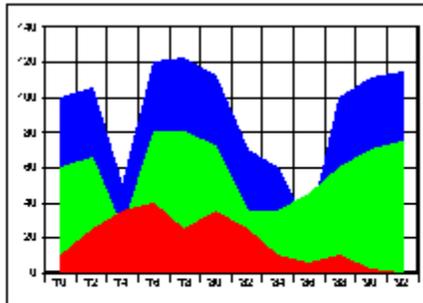
[Inserting a Column of Data Grid Row Labels](#)

[Inserting a Row of Data Grid Column Labels](#)

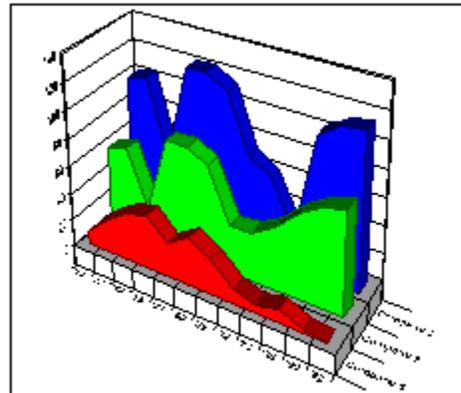
[Deleting a Column of Data Grid Row Labels](#)

Area Charts

Use area charts to emphasize the relative importance of values over a period of time. An area chart focuses on the magnitude of change rather than the rate of change. Each filled-area on the chart represents a series and is identified by a different color or pattern. Values are plotted on the vertical (Y) axis and categories are plotted on the horizontal (X) axis. You can also chart one or more series against the secondary Y axis instead of the primary axis.



2D Area Chart



3D Area Chart

Related Topics:

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

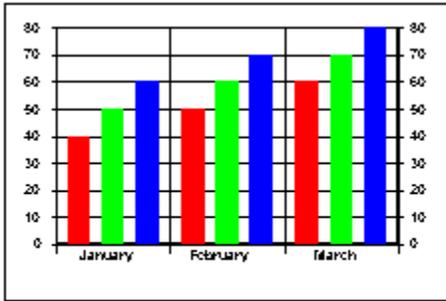
[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

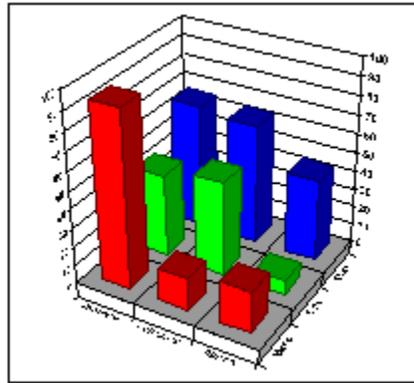
[3D Scatter Charts](#)

Bar Charts

Use bar charts to compare one item to another, or to compare a number of items over a period of time. These charts are particularly effective at showing large changes from one category to another. Each 2D or 3D bar represents a value in the data grid. Bars representing a series are located at the same position in each category and have the same color and pattern. In 2D charts, values are grouped on the vertical (Y) axis, and bars are grouped by category along the horizontal (X) axis. On 3D charts, values are plotted on the vertical (Y) axis, categories are grouped along the horizontal (X) axis, and the depth (Z) axis shows series.



2D Bar Chart



3D Bar Chart

Related Topics:

[Area Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

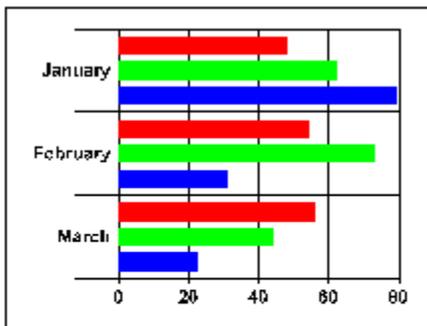
[Polar Charts](#)

[Hi-Lo Charts](#)

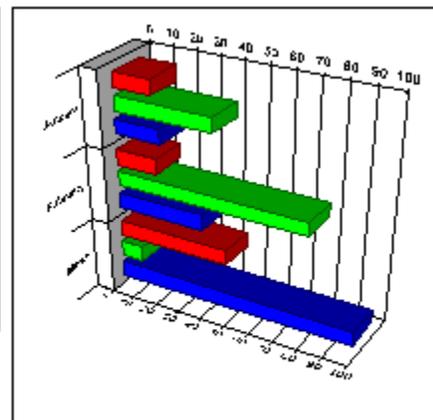
[Elevation Charts: Surface and Contour](#)

[3D Scatter Charts](#)

Horizontal Bars



2D Horizontal Bar Chart



3D Horizontal Bar Chart

Horizontal bars are similar to standard bar charts except that the categories are organized on a vertical (X) axis and the values are plotted on a horizontal (Y) axis.

Related Topics:

[Area Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Bar Charts](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

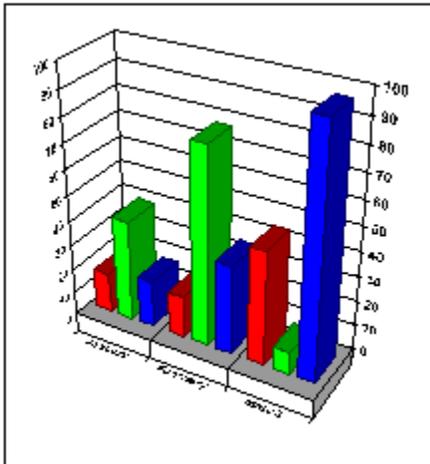
[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

[3D Scatter Charts](#)

Clustered Bars

Series and data points in a clustered bar chart are displayed as they are in a 2D bar chart, however the chart and all the chart elements are displayed in 3D.



Clustered Bar Chart

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Bar Charts](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

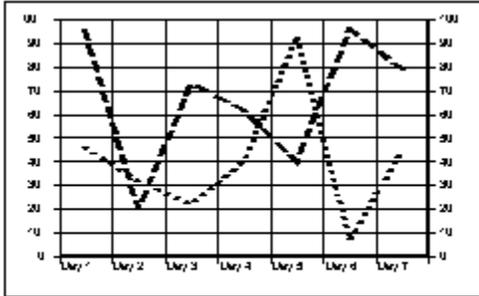
[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

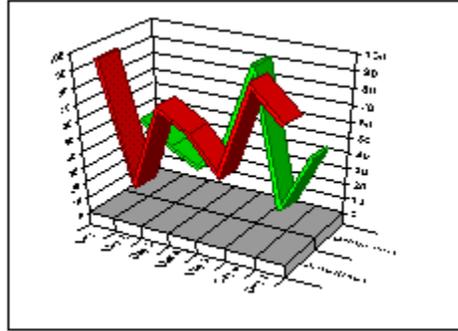
[3D Scatter Charts](#)

Line Charts

Use line charts to show trends or changes in data over a period of time. These charts emphasize time flow and rate of change rather than amount of change. In 2D line charts, values are plotted along the vertical (Y) axis and categories are displayed on the horizontal (X) axis. In 3D charts, values are plotted on the vertical (Y) axis, categories are grouped along the horizontal (X) axis, and the depth (Z) axis shows series.



2D Line Chart



3D Line Chart

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

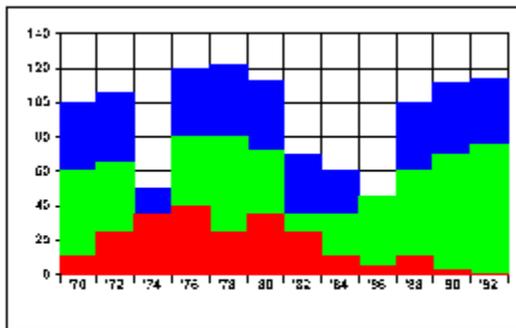
[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

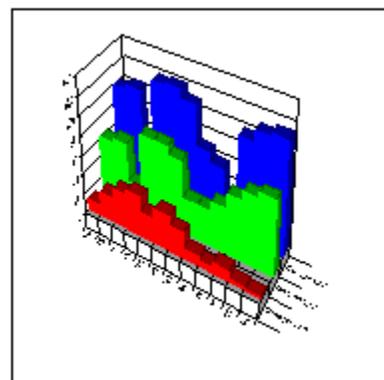
[3D Scatter Charts](#)

Step Charts

Use step charts to compare items that do not show trends. Step charts display distinct points along the value (Y) axis, with vertical lines showing the difference between each point. The horizontal (X) axis shows categories.



2D Step Chart



3D Step Chart

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

[Hi-Lo Charts](#)

[Gantt Charts](#)

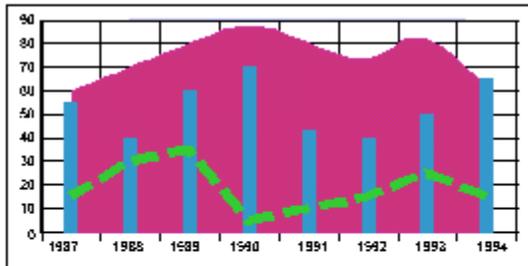
[3D XYZ Charts](#)

[Elevation Charts: Surface and Contour](#)

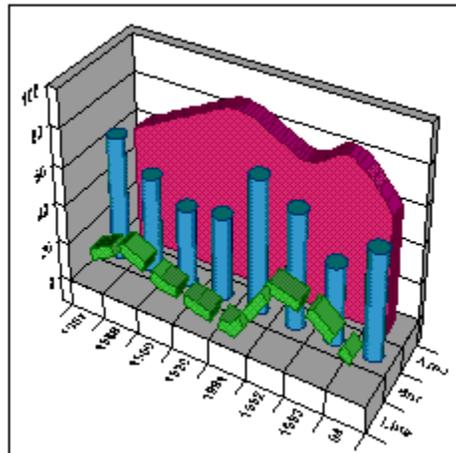
[3D Scatter Charts](#)

Combination Charts

Use combination charts to visually highlight the differences between multiple series of data. A different method can be used to draw each data series.



2D Combo Chart



3D Combo Chart

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Radar Charts](#)

[Polar Charts](#)

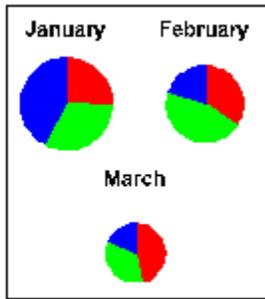
[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

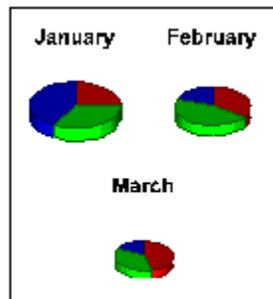
[3D Scatter Charts](#)

Pie and Doughnut Charts

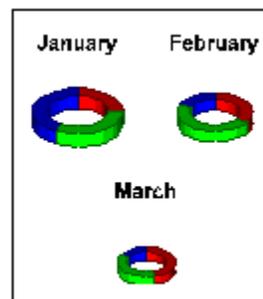
Use pie or doughnut charts to show the relationship of parts to the whole. Each pie or doughnut represents a category. Each slice of the pie or doughnut represents a value in that category. You can separate or “explode” slices in a chart by clicking a slice and dragging it away from the rest of the pie or doughnut.



2D Pie Chart



3D Pie Chart



Doughnut Chart

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Radar Charts](#)

[Polar Charts](#)

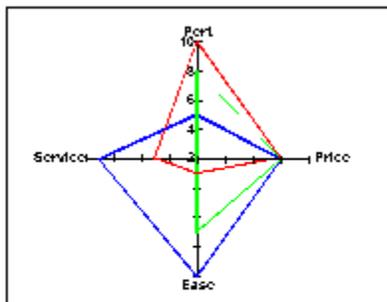
[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

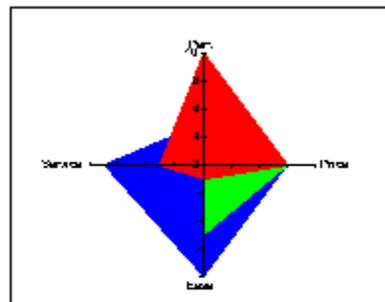
[3D Scatter Charts](#)

Radar Charts

Use radar charts to show changes or frequencies of each series relative to a center point and to one another. Lines connect all the data markers in the same series. You can choose to fill the lines, thereby creating a radar area chart.



Radar Line Chart



Radar Area Chart

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[Polar Charts](#)

[Hi-Lo Charts](#)

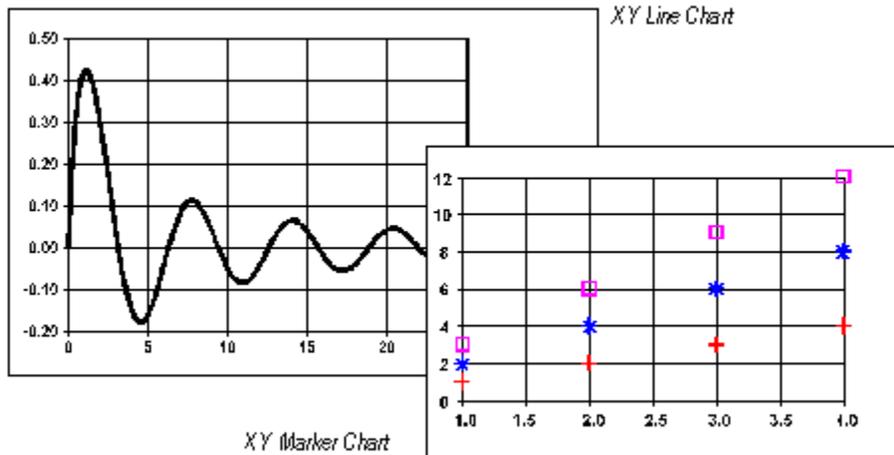
[Elevation Charts: Surface and Contour](#)

[3D XYZ Charts](#)

[3D Scatter Charts](#)

XY Charts

Use XY charts to plot two groups of numbers as one series of XY coordinates. Each series on the chart requires two columns of data in the data grid. The first column holds the X coordinate and the second column the Y coordinate. The column label on the first column in each series is used to identify the series in the legend. Additionally, any formatting applied to the first column is used to display the series on the chart. Any formatting applied to the second column is ignored. You can use markers or lines or both to draw the XY points.



Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[Polar Charts](#)

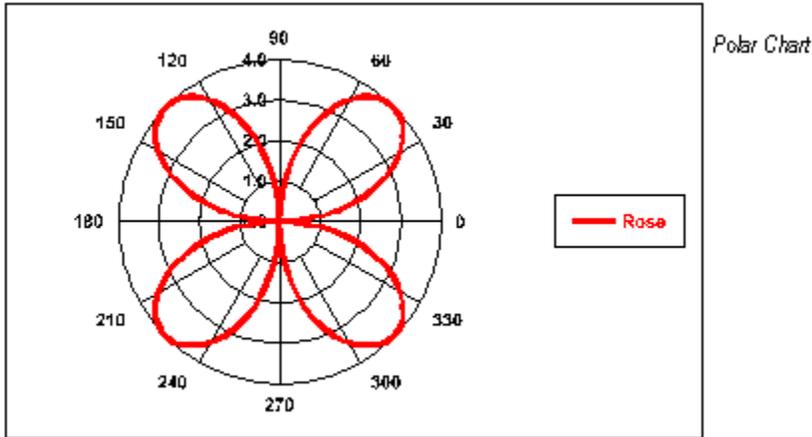
[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

[3D Scatter Charts](#)

Polar Charts

Use polar charts to show cyclical trends. The polar chart requires two columns in the data grid for each chart series: the first column holds the distance from the center of the chart (the radius), and the second column contains the angle on the perimeter of the chart. The column label on the first column in each series identifies the series in the legend. Additionally, any formatting applied to the first column is used to display the series on the chart. Any formatting applied to the second column is ignored.



Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

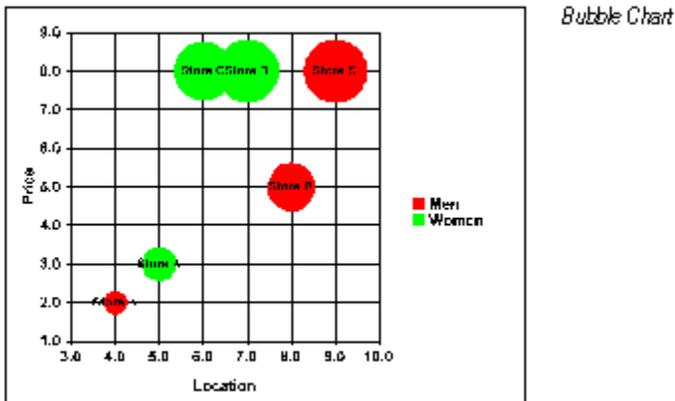
[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

[3D Scatter Charts](#)

Bubble Charts

Use bubble charts to show a visual comparison using three coordinates. Each bubble requires three columns of data in the data grid. The first column holds the X coordinate, the second the Y coordinate, and the third the bubble size. All the coordinates in a bubble chart measure values; therefore, the vertical (Y) axis and the horizontal (X) axis both show values. The column label on the first column in each series identifies the series in the legend. Additionally, any formatting applied to the first column is used to display the series on the chart. Any formatting applied to the second and third columns is ignored.



Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Bar Charts](#)

[Clustered Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Hi-Lo Charts](#)

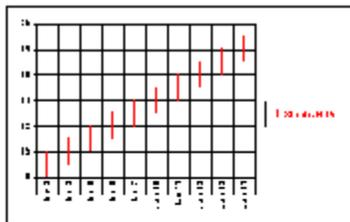
[Elevation Charts: Surface and Contour](#)

[3D Scatter Charts](#)

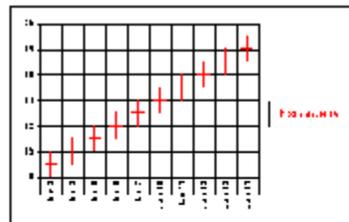
Hi-Lo Charts

Hi-lo charts are most commonly used to show stock market information. However, these chart types can also be used for scientific data such as indicating changes in readings over a period of time. The vertical (Y) axis shows values and the horizontal (X) axis shows categories or dates.

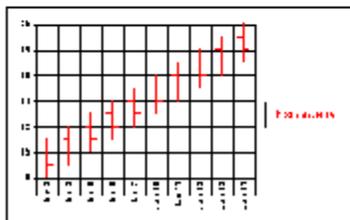
First Impression supports a number of variations to the hi-lo charts. These include: hi-lo-close with the close marker crossing the data point or extending to the right of the data point, open-hi-lo-close, and open-hi-lo-close bar.



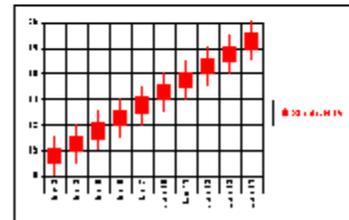
Hi-Lo Chart



Hi-Lo-Close Chart



Open-Hi-Lo-Close Chart



Open-Hi-Lo-Close Bar Chart

The data in the data grid must be organized appropriately for each variation of the hi-lo chart.

- A hi-lo chart requires two columns for each data series: the first column is used for the high point and the second is used for the low point.
 - A hi-lo-close chart requires three columns for each data series: the first column is used for the high point, the second for the low point, and the third for the closing point.
 - An open-hi-lo-close or a open-hi-lo-close bar chart (sometimes called candle stick charts) requires four columns of data for each data series: the first column is used for the open point, the second for the high point, the third for the low point, and the fourth for the closing point.
- The column label on the first column in each series identifies the series in the legend. Additionally, any formatting applied to the first column is used to display the series on the chart. Any formatting applied to the remaining columns that make up the series are ignored.

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[Radar Charts](#)

[Polar Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

[XY Charts](#)

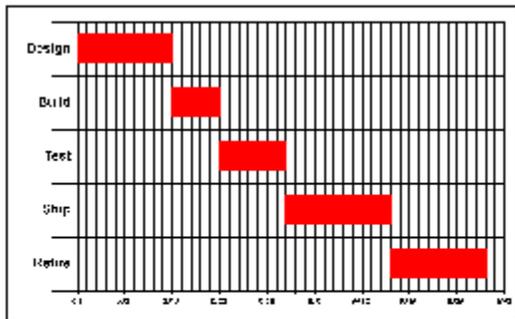
[Bubble Charts](#)

[Elevation Charts: Surface and Contour](#)

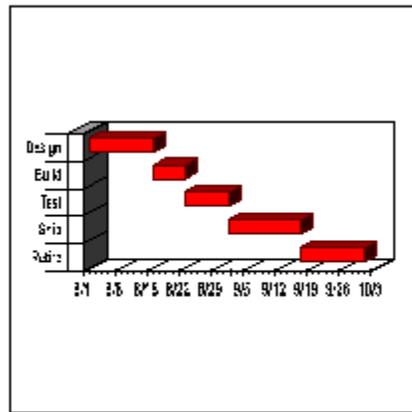
[3D Scatter Charts](#)

Gantt Charts

Use gantt charts to display a range of bars that indicate the relative time required for various activities within a project. The horizontal axis (Y) shows dates and the vertical axis (x) shows categories. This chart type requires two columns of data for each series. The first column holds the start date, and the second column holds the duration.



2D Gantt Chart



3D Gantt Chart

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

[3D Scatter Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

[Bubble Charts](#)

[3D XYZ Charts](#)

Elevation Charts: Surface and Contour

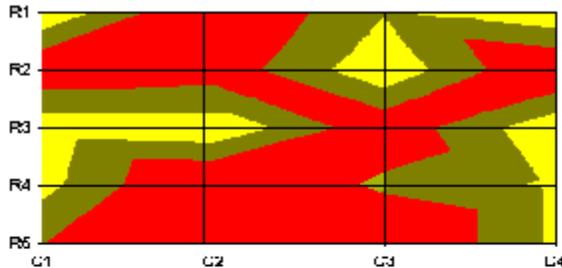
Elevation charts are commonly used to display topographic data. There are two types of elevation charts: contour charts and 3D surface charts.

A contour chart is drawn as a two-dimensional area. Changes in the data plotted on this chart are demonstrated through variations in color known as contours. Contours are drawn on the chart as either colored bands or lines. Contour bands can be represented on the chart in dramatic contrast or as a subtle transition in hue known as gradient. Contour charts do not have a value axis; the variation in color is represented in the legend instead.

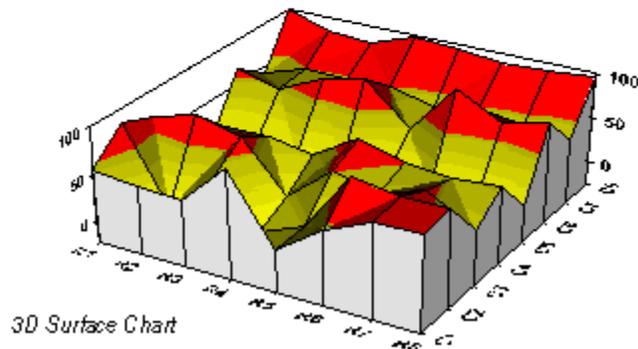
A surface chart is drawn as a rectangular grid with a surface base or floor. The value axis is drawn

perpendicular to the chart base giving the chart its three-dimensional quality. Data variations are plotted on this chart at raised elevations from the surface. The data points themselves are plotted on grid intersections at the corresponding value axis elevation, thus giving the chart depth.

Contours can be applied to surface charts to display additional information. These variations in color bands or lines are projected on the chart's three-dimensional surface and can demonstrate a separate collection of data independent of elevation.



2D Contour Chart



3D Surface Chart

Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

[Hi-Lo Charts](#)

[3D XYZ Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

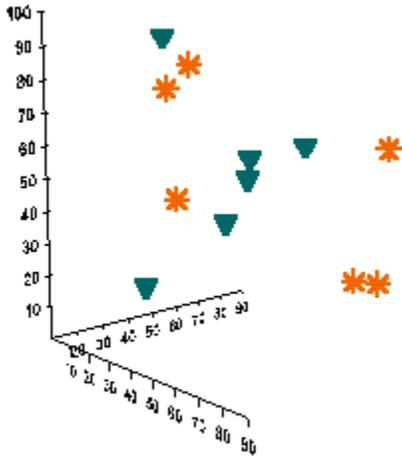
[Bubble Charts](#)

[Gantt Charts](#)

[3D Scatter Charts](#)

3D XYZ Charts

This chart shows variation and relationships over three sets of values plotted on a three-dimensional grid. Each data point represents the intersection of the X,Y and Z axes. Each series on the chart requires three columns of data in the data grid. The first column holds the x coordinates, the second column holds the y coordinates and the third column holds the z coordinates.



Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Radar Charts](#)

[Polar Charts](#)

[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[XY Charts](#)

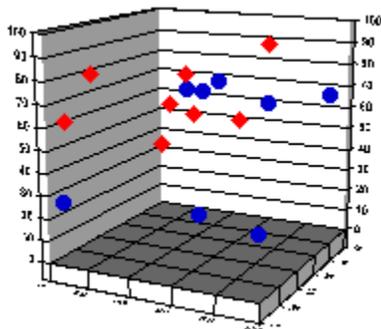
[Bubble Charts](#)

[Gantt Charts](#)

[3D Scatter Charts](#)

3D Scatter Charts

This chart is drawn as a three-dimensional grid with a base and walls. It plots data points created by the intersection of three different coordinate values. Each of the three values that make up a point corresponds to a particular axis in a 3D grid. Each series on the chart requires three columns of data in the data grid. The first column holds the x coordinates, the second column holds the y coordinates and the third column holds the z coordinates.



Related Topics:

[Area Charts](#)

[Horizontal Bars](#)

[Line Charts](#)

[Combination Charts](#)

[Bar Charts](#)

[Clustered Bars](#)

[Step Charts](#)

[Pie and Doughnut Charts](#)

[Radar Charts](#)

[Polar Charts](#)

[Hi-Lo Charts](#)

[Elevation Charts: Surface and Contour](#)

[XY Charts](#)

[Bubble Charts](#)

[Gantt Charts](#)

[3D XYZ Charts](#)

The Editor Apply Button

Apply data grid changes to the chart.

The Editor OK Button

Apply data grid changes and **exit** the dialog simultaneously.

The Editor Cancel Button

Exit the data grid editor **without** applying changes.

The Editor Help Button

Displays Data Grid Editor Help.

The Edit Menu

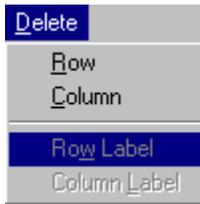


The Edit menu allows you to cut, copy and paste data between cells in the data grid editor.

The Insert Menu

- The Insert Menu allows you to insert data grid rows, columns and row and column labels.

The Delete Menu



The Delete Menu allows you to delete data grid rows, columns and row and column labels.

Grid Size Rows

Double click this value and enter a new one to modify the number of rows in the data grid.

Grid Size Columns

Double click this value and enter a new one to modify the number of columns in the data grid.

Grid Size Row Labels

Double click this value and enter a new one to modify the number of row labels in the data grid.

Grid Size Column Labels

Double click this value and enter a new one to modify the number of column labels in the data grid.

Data Grid Rows and Columns

Click to select a cell in a row or column and enter a new value to modify the data.

Data Grid Row Labels

Click to select a row label cell and enter a new value to modify the data.

Data Grid Column Labels

Click to select a column label cell and enter a new value to modify the data.

The Format Plot Dialog

There are a number of variations for several of the chart types. For example, you can choose to stack some charts or determine whether lines or markers represent chart elements. One of the ways Chart types and variations are controlled is by setting options in the Type tab of the Format Plot dialog.

To display the Format Plot dialog box:

1. Double click the chart plot; or, use the right mouse button to display the floating menu and select Plot.

The Format Plot dialog box is displayed.

2. If necessary, click the Type tab. This will display the [Format Plot Dialog Type Tab](#).
3. When you have made all necessary changes, click OK or Apply to redraw the chart to reflect the new settings.

Related Topics:

[Selecting a Chart Type](#)

[Stacking on a Percent Axis](#)

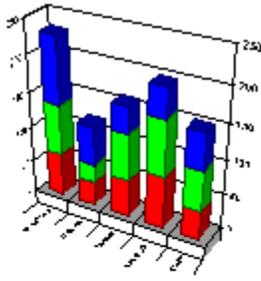
[DataPoints As Lines or Markers](#)

Selecting a Chart Type

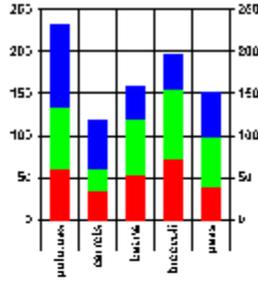
The options grouped in the Chart section of the [Format Plot Type Tab](#) control the chart type and whether the chart is stacked.

You can stack series in a bar, line, area, step, combination, clustered bar, and horizontal bar chart. Stacking places the data points from the same category on top of each other. Each bar still represents the same value.

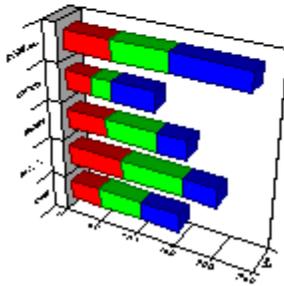
Stacking data shows how all categories in a series compare over time, or compares each part to the total. The following illustration shows the stacked variations of several chart types.



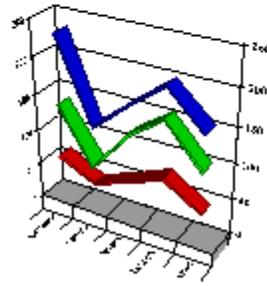
Stacked 3D Bar



Stacked 2D Bar



Stacked 3D Horizontal Bar



Stacked 3D Line

Related Topics:

[The Format Plot Dialog](#)

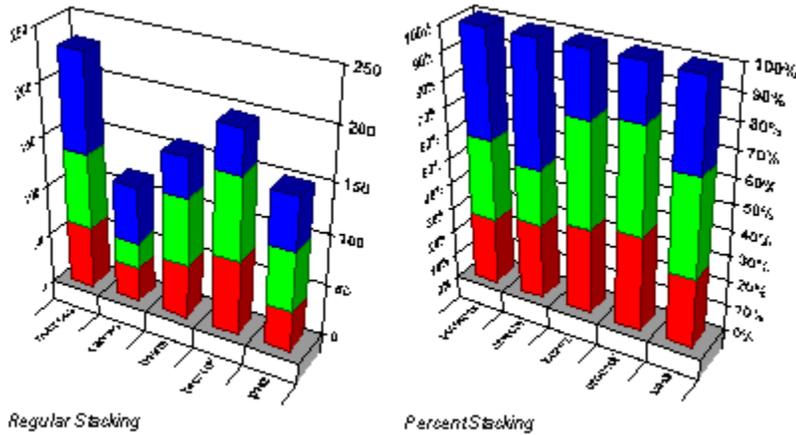
[Stacking on a Percent Axis](#)

[DataPoints As Lines or Markers](#)

Stacking on a Percent Axis

When series data is stacked on a percent axis, all the values in each category are added together. That sum is considered 100 percent. Each data point in the category is drawn as a percentage of that sum. You can stack series by setting the option in the [Type Tab](#) of the Format Plot Dialog box.

The following illustration shows the same chart with regular stacking and stacking on a percent axis.



Note To display other types of percent stacking, change the scale of the chart's Y axis.

Related Topics:

[The Format Plot Dialog](#)

[Selecting a Chart Type](#)

[DataPoints As Lines or Markers](#)

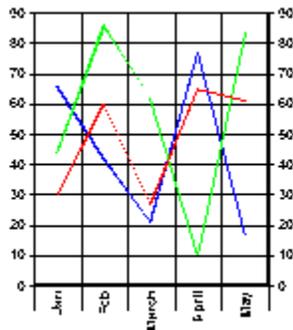
DataPoints As Lines or Markers

If your chart type is any 2D or 3D chart other than pie or bubble, you have the option to set datapoints as lines or markers. Markers and lines can both represent all data points on 2D line, XY, Radar, and Polar charts.

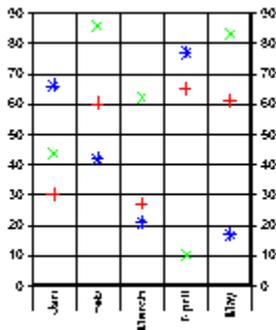
On the [Format Plot Type Tab](#), to display lines, select the Lines check box.

To display markers, select the Markers check box.

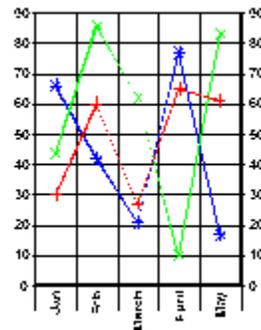
To display both markers and lines, select both check boxes.



Lines Only



Markers Only



Lines and Markers

Related Topics:

[The Format Plot Dialog](#)

[Selecting a Chart Type](#)

[Stacking on a Percent Axis](#)

Using Combination Charts

Combination charts allow you to plot each series differently on a chart. By depicting each series in its own unique way, you increase the impact and readability of your chart.

When using Combination charts, you must specify the type used to display each series in the chart.

To change a series type:

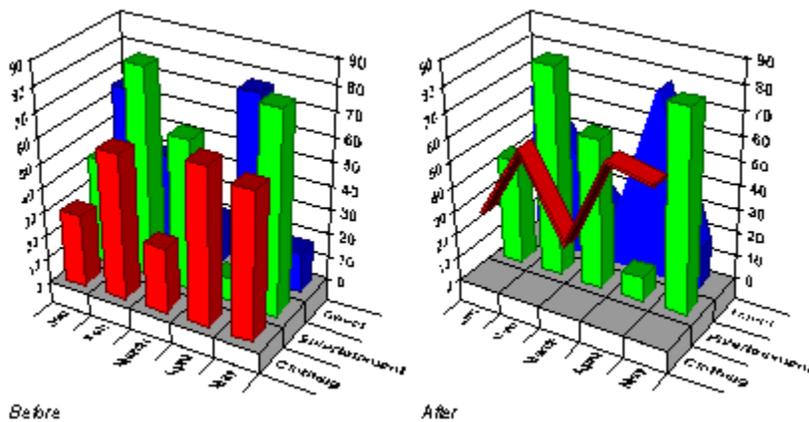
1. Select a series in the Series Names list box on the [Format Plot Type Tab](#).

The Series Types list now shows the valid types for the selected series.

2. Select the type you want to use for the selected series.

You can also select All Series to set the same type for all series in the chart.

Continue specifying types for each series as necessary. The following illustration shows the results of changing the Clothing series to a line chart and the Travel series to an area chart.



Related Topics:

[Using Radar Charts](#)

[Using Hi-Lo Charts](#)

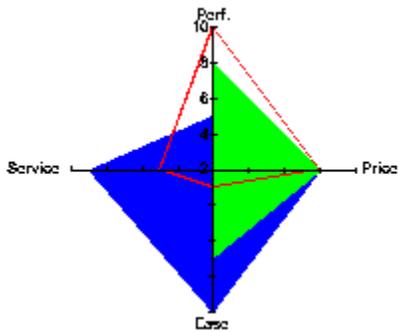
Using Radar Charts

Radar charts show changes or frequencies of each series relative to a center point and to one another. When you select Radar as the chart type, you can specify whether each series is displayed as a line or filled area.

To change the variation of a radar chart:

1. Select the 2D radio button to display a list of 2D chart types.
2. Select Radar in the Chart Type list box of the [Format Plot Type Tab](#)
3. Select a series in the Series Name list.
4. Select a type for the series in the Series Type list.

Continue selecting types for additional series as necessary. The following illustration shows a radar chart with two series displayed as area and one series displayed as line.



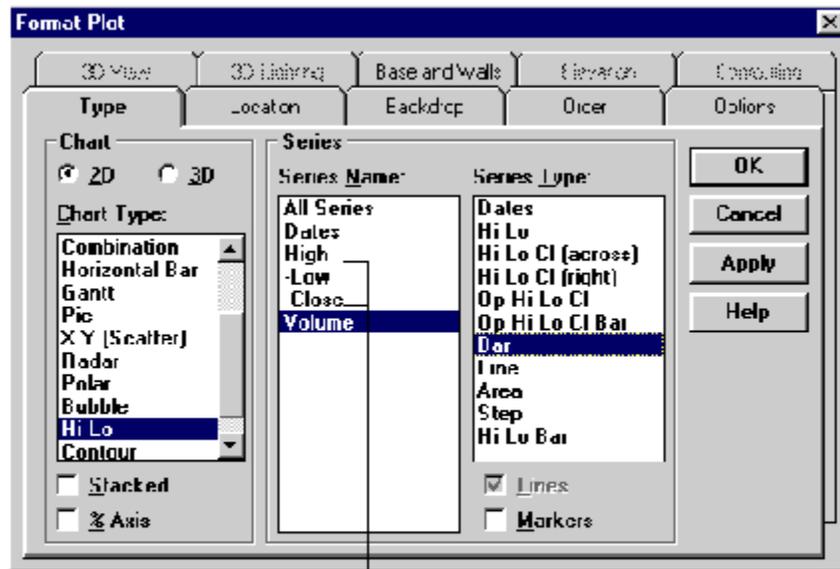
Related Topics:

[Using Combination Charts](#)

[Using Hi-Lo Charts](#)

Using Hi-Lo Charts

If your chart depicts stock market information, or changes in data over a period of time, then a Hi-Lo Chart is the best choice for plotting your data. When you select Hi-Lo as the chart type, you can specify the variation of hi-lo chart you want to display as well as assign different types to other series.



Notice that since the Hi-Lo-Close chart requires three columns of data, the second and third column that make up the series are indented to show that they are part of the first series.

Related Topics:

[Using Combination Charts](#)

[Using Radar Charts](#)

[Specifying Volume Information for Hi-Lo Charts](#)

[Displaying Hi-Lo Bars In Other Chart Types](#)

Specifying Volume Information for Hi-Lo Charts

When you select Hi-Lo as the chart type, you can specify the variation of hi-lo chart you want to display as well as assign different types to other series. The following tutorial tells you step-by-step how to set up a hi-lo chart to depict volume.

To specify a Hi-Lo-Close chart with Volume information:

1. Select the 2D radio button to display a list of 2D chart types from the [Format Plot Type Tab](#).
2. Select Hi-Lo in the Chart Type list.
3. If a column in the data grid holds dates, select that series name and then select the Dates series type.

This instructs First Impression to use the values in this column to create a date axis for this chart. The series is automatically excluded so that it is not actually charted.

4. Select the first series that holds stock information in Series Names list.
5. Select one of the Hi-Lo-Close variations in the Series Type list box.

The second and third column in every series are indented to show that the series requires three columns of data to chart a Hi-Lo-Close chart.

6. Select the series that contains volume information in the Series Name list box.
7. Select the series type you want to use to display volume data.

Bar, Line, or Area would be typical choices for displaying volume data.

8. Click OK or Apply to redraw the chart.

Since volume information is usually very different from the high, low, and close price of stock you may need to take the following steps to finish the chart.

9. Double-click the Volume series in the chart; or, use the right mouse button to display the floating menu and select Series to display the Format Series dialog box.

If you use the menu, you must specify which series you want to format.

10. If necessary, click the [Options tab](#).
11. Check the Plot on 2nd Y Axis check box.
12. Click OK.

Note You can display a date axis on a line or bar chart by selecting hi-lo as the chart type, specifying the first series type as Date, and the remaining series as lines or bars.

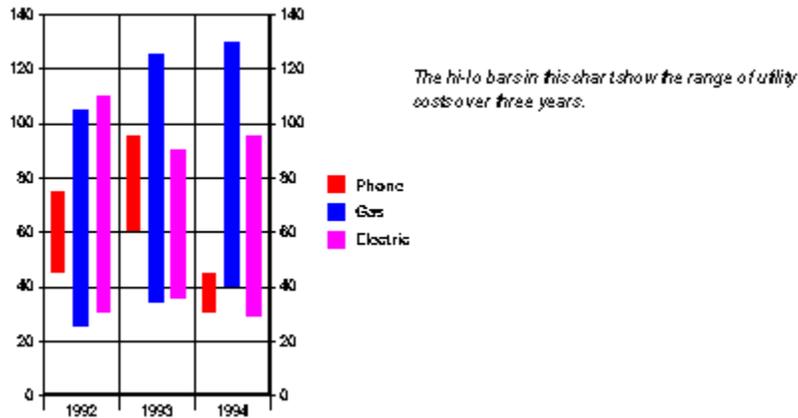
Related Topics:

[Using Hi-Lo Charts](#)

[Displaying Hi-Lo Bars In Other Chart Types](#)

Displaying Hi-Lo Bars In Other Chart Types

You can use hi-lo bars to represent a range of values from a beginning point other than zero. Hi-lo bars are a series type available on bar, combination, horizontal bar, hi-lo and clustered bar charts. Each bar requires two columns from the data grid - a beginning value and an end value. The following illustration shows hi-lo bars in a chart.



Related Topics:

[Using Hi-Lo Charts](#)

[Specifying Volume Information for Hi-Lo Charts](#)

Reordering Series

You can change the order in which the series in a chart are displayed. This can be particularly useful if one series obscures the view of the data in another series. By rearranging the series, you can find the most aesthetically pleasing way to present your data.

To reorder the series in a chart:

1. Double-click the chart plot; or, use the right mouse button to display the floating menu and select Plot.
2. Click the [Order tab](#).
3. Select a series in the Series Order list box.
4. Click Up to move the series up in the drawing order. Click Down to move the series down in the drawing order.
5. Click OK or Apply to redraw the chart.

Related Topics:

[How Reordering Series Affects the Chart.](#)

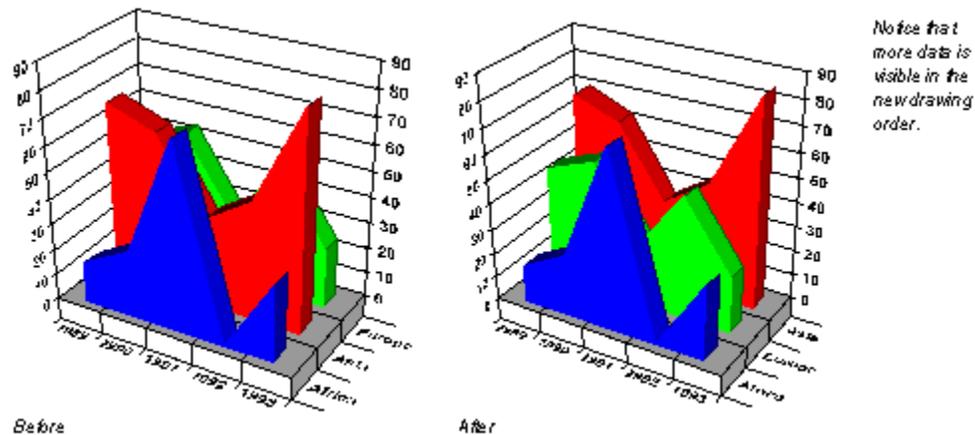
[Stacking Series](#)

How Reordering Series Affects the Chart

The results of reordering series in a chart can be quite effective in enhancing your display of data.

Simply changing the drawing order of series on a chart can make more data visible, and increase the impact your chart has.

The following illustrations show the result of moving the series labeled Europe in front of the series labeled Asia.



You can also use buttons on the [Order tab](#) to stack and unstack series and to change the order of stacked series.

Related Topics:

[Reordering Series](#)

[Stacking Series](#)

Stacking Series

Stacking series in a chart can provide a better way of plotting similar data for multiple series. By stacking the data, you can illustrate changes and trends for multiple series together in one chart position. Stacking data can eliminate the obstructed views common to 3D charts.

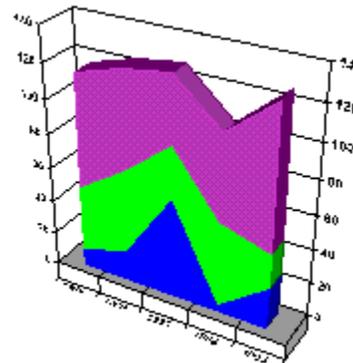
To stack series in the Order tab:

1. Select the last series in the Series Order list box.
2. Click Stack.

The series you highlighted is shown as stacked with the preceding series.

3. Click Stack again.

The two stacked columns are now stacked with the preceding series. The order in which they appear in the stacked list is the order in which they are drawn, first series on the bottom of the stack.



4. Click Apply to redraw the chart.
5. To unstack the series, select the Stack associated with the series in the Series Order list and click Unstack.

Related Topics:

[Reordering Series](#)

[How Reordering Series Affects the Chart.](#)

Adding Chart Elements

In addition to the plot, the major chart elements are titles, legends, and footnotes. The following information explains how to add these elements to a chart.

To add a title to a chart:

1. Use the right mouse button to display the floating menu.
2. Select Title to display the Format Title dialog box.
3. Select the [Location Tab](#) if necessary
4. Check the Visible check box to display the title.
5. Select the [Text tab](#).
6. Type the title text in the Text field.
7. Click OK or Apply to redraw the chart to include the new title.

To add a legend to a chart:

1. Use the right mouse button to display the floating menu.
2. Select Legend to display the Format Legend dialog box.
3. Select the [Location Tab](#) if necessary
4. Check the Visible check box to display the legend.
By default, series labels are used to identify each series in the legend.
5. Click OK or Apply to redraw the chart to include the legend.

To add a footnote to a chart:

1. Use the right mouse button to display the floating menu.
3. Select Footnote to display the Format Footnote dialog box.
4. Select the [Location Tab](#) if necessary
5. Check the Visible check box to display the footnote.
6. Select the [Text tab](#).
7. Type the footnote text in the Text field.
8. Click OK or Apply to redraw the chart to include the new footnote.

Related Topics:

[Controlling the Display of Chart Elements](#)

[Automatic Chart Layout](#)

[Chart Element Areas](#)

[Positioning Chart Elements](#)

[Repositioning Chart Elements](#)

[Custom Chart Element Positions](#)

[Effect of Element Positioning on the Chart](#)

Controlling the Display of Chart Elements

First Impression provides a quick and easy way to turn off or on the display of existing chart elements such as the title, the legend, the footnote, and the second Y axis.

To hide or show a title, footnote, legend, or second Y axis:

1. Click the right mouse button to display the floating menu.
2. Select General to display the Format Chart dialog box with the [Options tab](#) selected.
- 3 Check the Show Title, Show Footnote, Show Legend, or Show 2nd Y Axis check box to display any of those elements. Uncheck those items to hide any of those elements.

Note If you have not created a title or footnote, checking the Show Title or Show Footnote check box displays default text.

4. Click OK or Apply to redraw the chart.

Related Topics:

[Adding Chart Elements](#)

[Automatic Chart Layout](#)

[Chart Element Areas](#)

[Positioning Chart Elements](#)

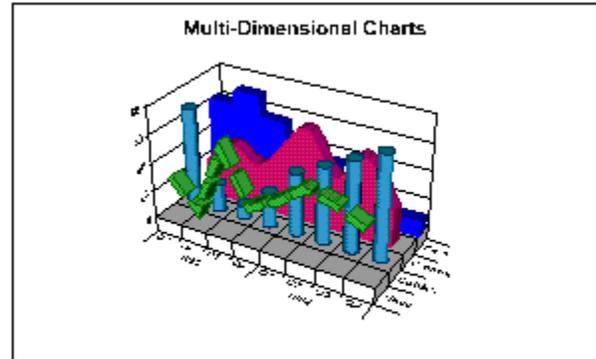
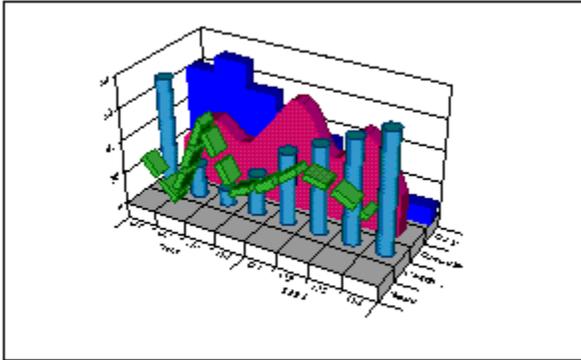
[Repositioning Chart Elements](#)

[Custom Chart Element Positions](#)

[Effect of Element Positioning on the Chart](#)

Automatic Chart Layout

By default, First Impression operates in automatic layout mode. As you add elements such as a title or legend to a chart, the existing chart elements are resized and repositioned to make room for the new elements. For example, the following illustration shows how a chart plot is resized when you add a title to the chart.



When a title is added, the chart plot is resized and moved lower.

Related Topics:

[Adding Chart Elements](#)

[Controlling the Display of Chart Elements](#)

[Chart Element Areas](#)

[Positioning Chart Elements](#)

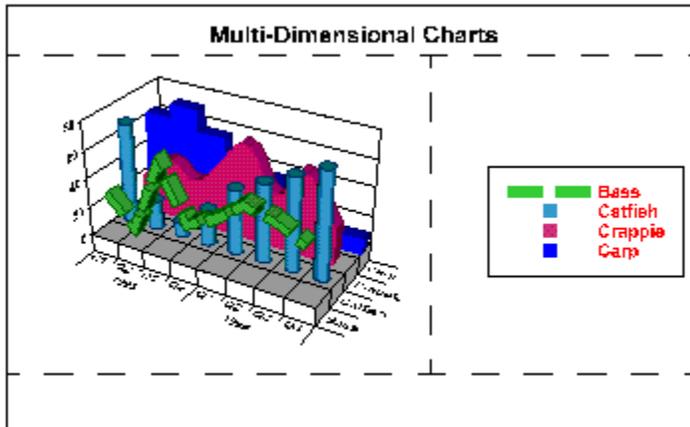
[Repositioning Chart Elements](#)

[Custom Chart Element Positions](#)

[Effect of Element Positioning on the Chart](#)

Chart Element Areas

In automatic layout, the chart plot, title, legend, and footnote are all drawn within their individual areas of the chart. The size of text used for the title, legend, footnote, and the axis labels and titles determines the size of each area. If you use very large fonts or long text, elements may be cropped and the axis labels and titles may be dropped from the plot. The following illustration shows each element in its default position and shows an example of how the chart area is divided for each element.



Related Topics:

[Adding Chart Elements](#)

[Controlling the Display of Chart Elements](#)

[Automatic Chart Layout](#)

[Positioning Chart Elements](#)

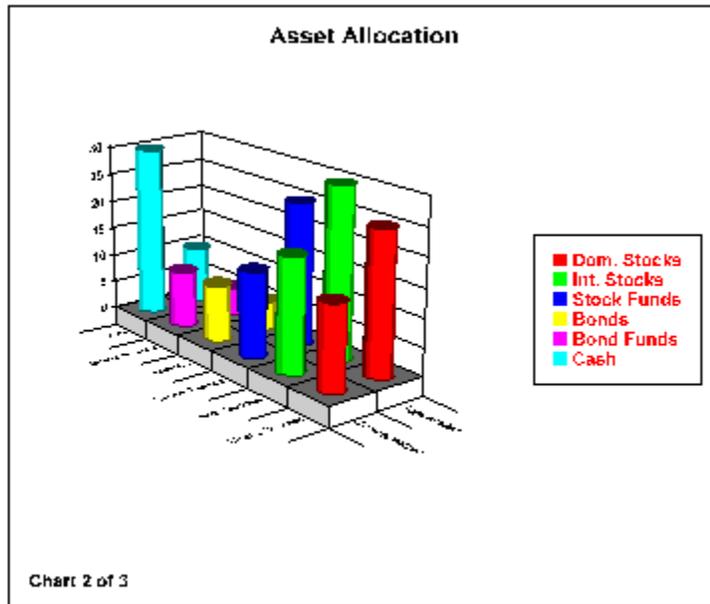
[Repositioning Chart Elements](#)

[Custom Chart Element Positions](#)

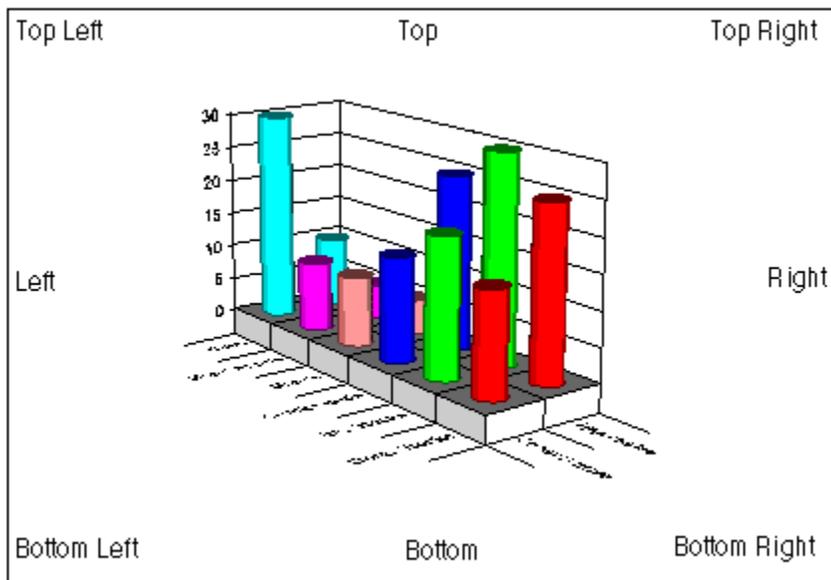
[Effect of Element Positioning on the Chart](#)

Positioning Chart Elements

By default, when you add a title, legend, or footnote, First Impression puts the object in a specific location. The following illustration shows the default position for each of these objects.



The following illustration defines the nine preset locations First Impression uses for placing objects.



Related Topics:

[Adding Chart Elements](#)

[Controlling the Display of Chart Elements](#)

[Automatic Chart Layout](#)

[Chart Element Areas](#)

[Repositioning Chart Elements](#)

Custom Chart Element Positions

Effect of Element Positioning on the Chart

Repositioning Chart Elements

First Impression makes it easy to relocate chart elements using the Location tab of the element dialog box.

To move a chart element to a new predefined position:

1. Double click an element (the footnote, for example) to display the appropriate dialog box.
2. Select the [Location tab](#).
3. Select one of the position radio buttons and click OK or Apply.

Use of the Custom radio button is discussed in the following section.

Related Topics:

[Adding Chart Elements](#)

[Controlling the Display of Chart Elements](#)

[Automatic Chart Layout](#)

[Chart Element Areas](#)

[Positioning Chart Elements](#)

[Custom Chart Element Positions](#)

[Effect of Element Positioning on the Chart](#)

Custom Chart Element Positions

You can override the size and layout of chart elements by selecting and dragging elements on the screen or by making settings in a dialog box.

To resize or reposition objects manually:

1. Select the title, footnote, plot, or legend.
2. Once the object is surrounded by selection handles you can drag it to a new location or resize it as desired.

Bear in mind that what you are actually resizing is not the text or plot itself, but the bounding rectangle around the object. Based on the size you make the object, First Impression may have to resize or clip objects to fit the space.

To resize or reposition objects using dialog box settings:

1. Double click the title, footnote, plot, or legend.

The appropriate dialog box is displayed.

2. Select the [Location tab](#).
3. Select the Custom radio button.
4. Enter values in the Top, Left, Height, and Width fields to describe the coordinates of the upper left corner of the object and its height and width.

First Impression uses the measurement unit specified in your Windows default settings.

Related Topics:

[Adding Chart Elements](#)

[Controlling the Display of Chart Elements](#)

[Automatic Chart Layout](#)

[Chart Element Areas](#)

[Positioning Chart Elements](#)

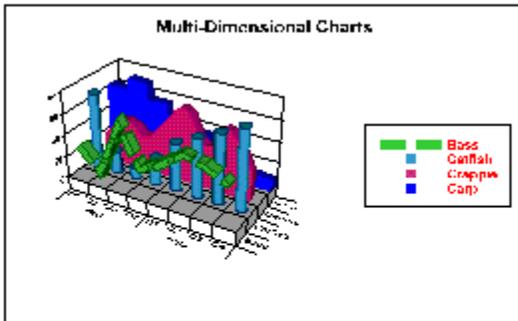
[Repositioning Chart Elements](#)

[Custom Chart Element Positions](#)

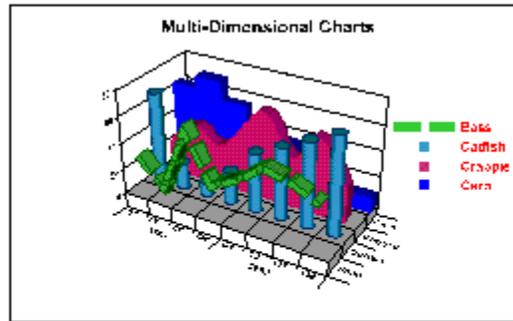
[Effect of Element Positioning on the Chart](#)

Effect of Element Positioning on the Chart

The following illustration shows the results of resizing and repositioning chart elements.



Automatic Layout



Custom Layout

The custom chart was given more impact by enlarging the plot and repositioning it higher in the chart. The border was also removed from the legend and it was repositioned slightly to better fit with the resized plot.

Related Topics:

[Adding Chart Elements](#)

[Controlling the Display of Chart Elements](#)

[Automatic Chart Layout](#)

[Chart Element Areas](#)

[Positioning Chart Elements](#)

[Repositioning Chart Elements](#)

[Custom Chart Element Positions](#)

Optimizing Chart Text

You can optimize the appearance of all chart text for display on the screen or for appearance in a printed chart.

To optimize chart text:

1. Click the right mouse button to display the floating menu.
2. Select General from the floating menu to display the Format Chart dialog box.
3. Select Options to display the [Options Tab](#).
4. Select one of the text metric radio buttons.

Related Topics:

[Formatting Fonts](#)

[Aligning and Orienting Text](#)

Formatting Fonts

You can specify the font, font style, font size, font color, and special effects used to display a text element on a chart.

To format text:

1. Double-click the left mouse button on the text you want to format.

You can also use the right mouse button to display the floating menu and select the appropriate item for the chart element you are formatting.

The appropriate dialog box is displayed with the Font or Backdrop tab selected.

2. Select the [Font tab](#).

The dialog box tabs used to format fonts for the chart titles, legends, footnotes, and axis titles are all the same.

Related Topics:

[Optimizing Chart Text](#)

[Aligning and Orienting Text](#)

Aligning and Orienting Text

You can also control the justification, orientation, and alignment of chart text. The horizontal and vertical alignment of text is only observed if you enlarge the rectangle holding the text.

Alignment and orientation of text is managed through the Text Tab.

Many different dialogs contain a Text tab. Some of the dialogs that contain a text tab include: The Format Title, Format Axis Label, and Format Series Label dialogs

The following tables define the orientation and text alignment options available for your chart text. For more information about how to set these options, refer to the [Text Tab](#).

Horizontal alignment options for text.

<u>Alignment</u>	<u>Description</u>
Left	All lines of text are aligned on the left margin.
Right	All lines of text are aligned on the right margin.
Center	All lines of text are centered horizontally.

Vertical alignment options for text.

<u>Alignment</u>	<u>Description</u>
Top	All lines of text are aligned at the top margin.
Bottom	All lines of text are aligned at the bottom margin.
Center	All lines of text are centered vertically.

Orientation options for text.

<u>Orientation</u>	<u>Description</u>
Horizontal	The text is displayed horizontally.
Vertical	The text is displayed, one letter on top of each other, reading from top to bottom.
Up	The text is rotated to read from bottom to top.
Down	The text is rotated to read from top to bottom.

Note When you rotate text up or down, the vertical and horizontal alignment are still relative to the text and not to the bounding box. In other words, text displayed with up orientation and left alignment is actually flush against the bottom of the bounding box, not the left side.

Related Topics:

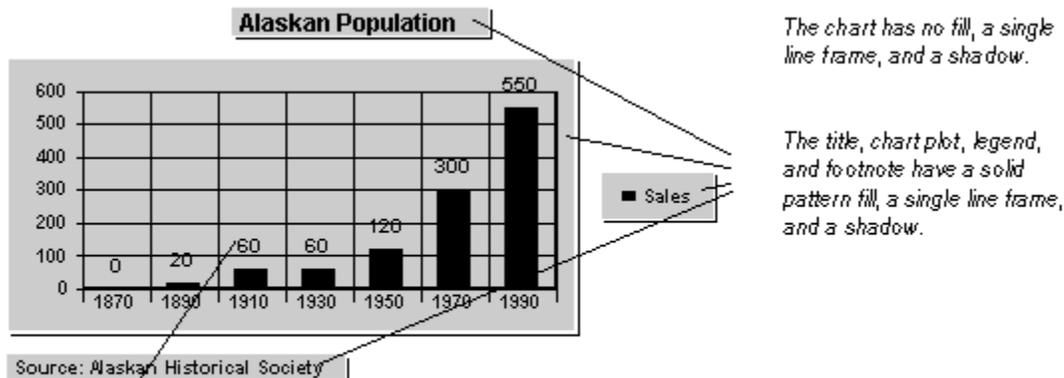
[Optimizing Chart Text](#)

[Formatting Fonts](#)

Assigning Backdrops to Elements

You can enhance a chart's appearance by placing a backdrop on the chart itself, and on individual chart elements. A backdrop can include a frame or box around the chart or chart element, a shadow behind the element, and a pattern, gradient, or graphic picture behind the element.

The following illustration shows the various chart elements that can be assigned a backdrop.



The data point labels have no fill, a single line frame and no shadow.

Related Topics:

[Editing Backdrops](#)

[Backdrop Fills](#)

[Picture Fit Methods](#)

[Resetting To Default Formats](#)

Editing Backdrops

Once you have determined to use a backdrop for your chart element, you may need to edit the backdrop in order to achieve the desired results. Many First Impression dialogs include a Backdrop tab which contains several options for modifying backdrops.

To edit a backdrop:

1. Double click the left mouse button on the chart element whose backdrop you want to edit.

You can also use the right mouse button to display the floating menu and select the appropriate command for the chart element you are formatting.

2. Once the appropriate dialog box is displayed, select the [Backdrop Tab](#) if necessary.

The dialog box tabs used to format the backdrops for the chart control, chart plot, title, legend, labels, series labels, data point labels, and footnotes are all the same.

3. When you have finished making any necessary changes to the backdrop, click OK or Apply to redraw the chart to reflect the changes.

Related Topics:

[Assigning Backdrops to Elements](#)

[Backdrop Fills](#)

[Picture Fit Methods](#)

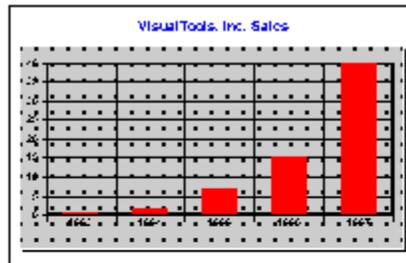
[Resetting To Default Formats](#)

Backdrop Fills

You can choose among a number of types of backdrop fill. The following illustration shows examples of several fill types.



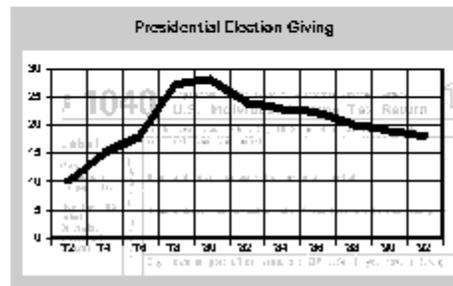
Solid Fill



Pattern Fill



Gradient Fill



Picture Fill

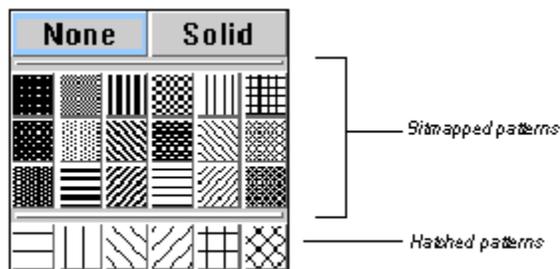
The controls in the Fill section of the [Backdrop tab](#) allow you to set the fill type, color, and pattern.

Pattern Backdrop Fills

One or two colors are used to display a pattern in the chart control or chart element.

Patterns are bitmaps. A low resolution version of each bitmap displays the pattern on the screen. When you print a chart, a high resolution version of the bitmap is used if the output device prints at more than 144 dpi. The higher the resolution of the output device, the smaller the copies of the bitmaps that make up the patterns are reproduced. At high resolutions, First Impression adjusts the patterns to prevent the lines from getting too close together. Hatches are not bitmaps, but actual lines drawn to fill the object. They always appear the same regardless of the output resolution. Hatches can be used to output First Impression charts on a plotter.

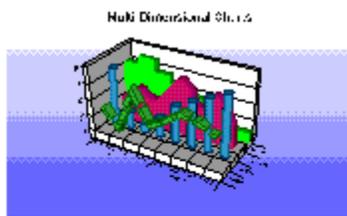
The following illustration shows which patterns in the pattern popup are bitmaps and which are hatches.



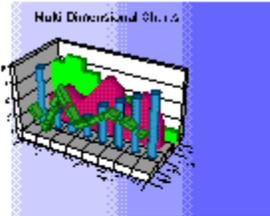
Gradient Backdrop Fills

A gradient blends two colors to create the fill. The colors can be blended from top to bottom, left to right, in concentric rectangles, or concentric ovals.

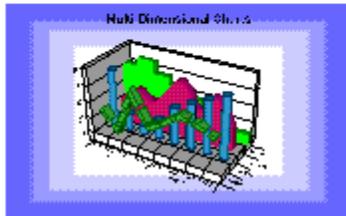
The following illustration shows examples of the various types of gradients.



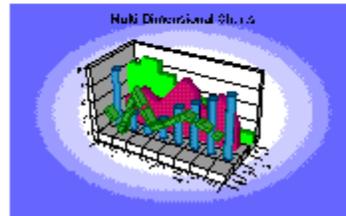
Horizontal Gradient



Vertical Gradient



Rectangle Gradient



Oval Gradient

Picture Fills

Picture Fills allow you to specify a graphic image to use as the backdrop fill. You can use a picture fill on a chart element regardless of its pattern or gradient setting. If the graphic does not cover the entire backdrop area, any specified pattern or gradient covers the remaining area.

Note If you use a Windows metafile for the graphic, it does not show up if you use the copy command to copy the chart to the clipboard. Windows limits you from having a metafile that contains a metafile. If you plan to copy the chart to the clipboard, use a bitmap for the graphic instead of a metafile.

Some graphics products output bitmap files in an older format that is compatible with OS/2. First Impression does not support these bitmaps. If you attempt to use one of these files, you receive an error, "Invalid picture format." You can read these files into PaintBrush and save them as BMPs to convert them to the newer bitmap format. First Impression can then use these files without any problems.

Related Topics:

[Assigning Backdrops to Elements](#)

[Editing Backdrops](#)

[Picture Fit Methods](#)

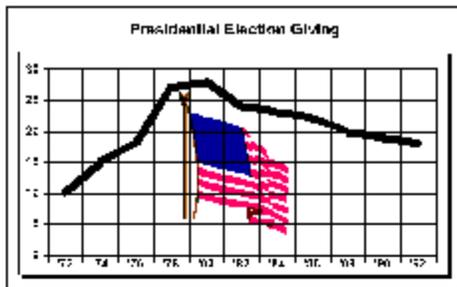
[Resetting To Default Formats](#)

Picture Fit Methods

There are a number of ways to fit a picture behind a chart as a backdrop. The following table lists the options for fitting graphics.

Constant	Description
Actual Size	Displays the graphic at the original size it was created. If the original size of the graphic is too large, the graphic is cropped. If the original size of the graphic is too small, it is centered.
Best Fit	Scales the graphic proportionally to fit entirely within the backdrop.
Stretch to Fit	Scales the graphic to fit backdrop regardless of its original proportions.
Tiled	Duplicates the graphic repeatedly to fill the backdrop.
Crop Fitted	Centers the graphic and scales it proportionally to fill the backdrop. Any part of the image that falls outside the backdrop is cropped.

The following illustration shows each of these options.



Actual Size



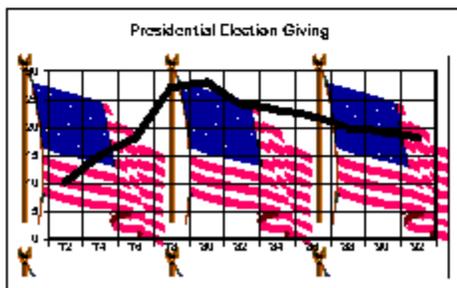
Best Fit



Stretch to Fit



Crop Fitted



Tiled

Related Topics:

[Assigning Backdrops to Elements](#)

[Editing Backdrops](#)

[Backdrop Fills](#)

[Resetting To Default Formats](#)

Resetting To Default Formats

You can reset a chart to the First Impression default formats. All chart options, except the chart type are returned to their default values.

To reset the chart:

1. Click the right mouse button to display the floating menu.
2. Select General to display the Format Chart dialog box with the [Options tab](#) selected.
3. Click the Reset button.
4. Click OK or Apply to redraw the chart.

Related Topics:

[Adding Chart Elements](#)

[Controlling the Display of Chart Elements](#)

[Automatic Chart Layout](#)

[Chart Element Areas](#)

[Positioning Chart Elements](#)

[Repositioning Chart Elements](#)

[Custom Chart Element Positions](#)

[Effect of Element Positioning on the Chart](#)

[Optimizing Chart Text](#)

[Formatting Fonts](#)

[Aligning and Orienting Text](#)

[Assigning Backdrops to Elements](#)

[Editing Backdrops](#)

[Backdrop Fills](#)

[Picture Fit Methods](#)

Formatting 3D Charts

There are a number of items you can format that are unique to 3D charts. These include:

- The rotation and elevation from which the chart is viewed.
- The viewing distance used to display the chart.
- The proportions of the chart.
- The type of projection used to draw the chart.
- The lighting of 3D elements.
- The appearance of the base and wall of the chart.

Related Topics:

[Changing Chart Rotation and Elevation](#)

[Chart Elevation Options](#)

[Chart Rotation Options](#)

[Chart Projection](#)

[Chart Width and Height Ratios](#)

[Chart Viewing Distance](#)

[Formatting the Base and Walls](#)

[Lighting 3D Charts](#)

[Ambient Lighting](#)

[Infinite Light Sources](#)

Changing Chart Rotation and Elevation

You can change the rotation, elevation, viewing distance, and proportions of a 3D chart using settings on the 3D View tab of the Format Plot dialog box. You can also change the rotation and elevation of a chart interactively.

To change the 3D view using the Format Plot 3D View Tab:

1. Double click the chart plot; or, click the right mouse to display the floating menu and select Plot.
2. Click the [3D View tab](#)
3. Make any necessary changes and click OK or Apply to redraw the chart reflecting the changes.

To change the rotation and elevation of a chart interactively:

1. Place the pointer anywhere in the chart region.
2. Press and hold the CTRL key.

The cursor changes to the rotation cursor.

3. Click and hold the left mouse button.

A dotted bounding box appears around the chart plot. Reference arrows appear at the corner where the first data point in the first series is drawn.

4. Move the pointer up and down to change the chart elevation and right and left to change the chart rotation.

The bounding box shows the position of the chart plot as you move the mouse.

5. When you find the rotation and elevation you want, release the mouse button.

The chart repaints in the new position.

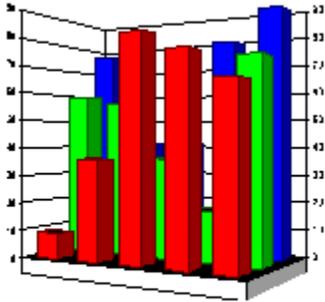
Related Topics:

[Chart Elevation Options](#)

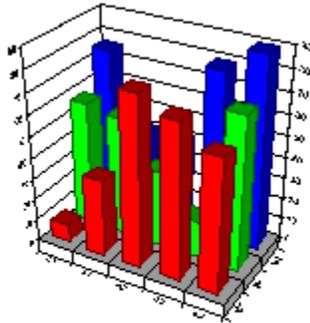
[Chart Rotation Options](#)

Chart Elevation Options

An important aspect of changing the 3D view is altering the elevation at which the chart is viewed. Elevation is defined as the relative height from which a chart is viewed. An Elevation height of 90, positions the chart as if you are looking directly down on the top of the chart. An elevation of 0 positions the chart as if you are looking directly at the side of the chart. The default elevation is 30 degrees. For specific information on how to modify the elevation of a 3D chart, see The [Format Plot 3D View Tab](#). The following illustration shows a 3D chart at two different elevation levels.



This chart has an elevation of 0.



This chart has the default elevation of 30 degrees.

Related Topics:

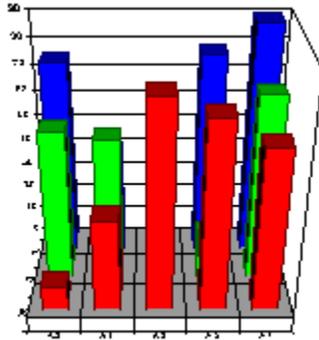
[Changing Chart Rotation and Elevation](#)

[Chart Rotation Options](#)

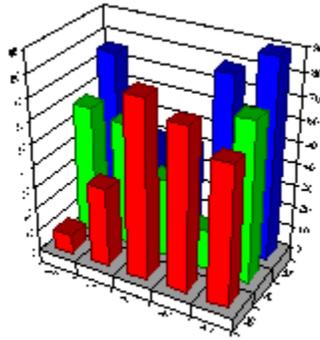
Chart Rotation Options

Another option for changing the 3D view includes altering the rotation of a chart.

Rotation is defined as the angle that the chart is turned from the viewer. Rotation does not apply to 3D pie or doughnut charts. For specific information on how to modify the rotation of a chart, see The [Format Plot 3D View Tab](#). The following illustration shows a 3D chart at two different degrees of rotation.



This chart has a rotation of 90 degrees.



This chart has the default rotation of 60 degrees.

[Changing Chart Rotation and Elevation](#)
[Chart Elevation Options](#)

Chart Projection

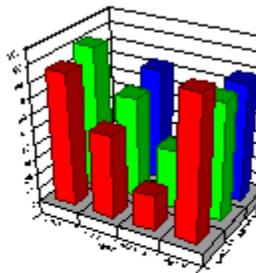
When you look at a 3D chart on a computer screen or a printed piece of paper, you are looking at an object that is specially drawn to give a 3D appearance in a 2D plane. Projection is a mathematical process used to display a 3D chart in a 2D plane. The following table describes the various types of projection.

Projection	Description
Oblique	This is sometimes referred to as 2.5 dimensional. The chart has depth, but the XY plane does not change when the chart is rotated or elevated.
Orthogonal	Perspective is not applied to the chart. The advantage of using this type of projection is that vertical lines remain vertical, making some charts easier to read.
Perspective	This provides the most realistic 3D appearance. Objects farther away from you converge toward a vanishing point.

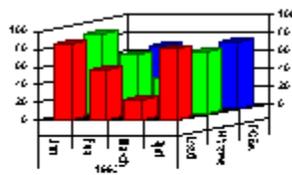
For specific information on how to alter chart projection, see [The Format Plot 3D View Tab](#).

Important Surface charts will not display with oblique projection. If the Oblique projection type is selected for a surface chart, an orthogonal projection will be substituted instead.

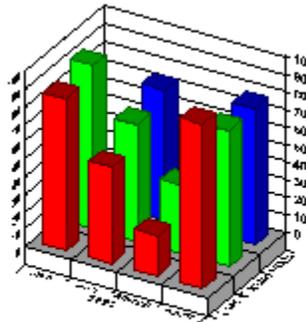
The following illustration shows the same chart drawn using different projection methods.



Perspective



Oblique



Orthogonal

Related Topics:

[Changing Chart Rotation and Elevation](#)

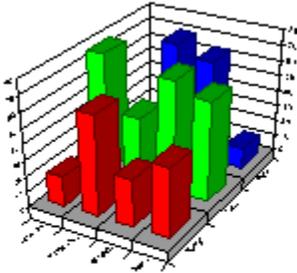
[Chart Elevation Options](#)

[Chart Rotation Options](#)

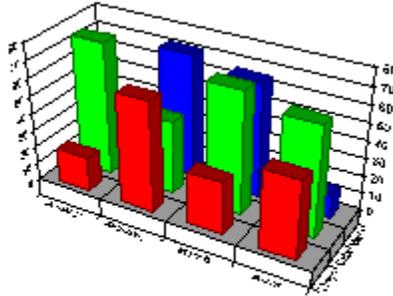
Chart Width and Height Ratios

Depending on the type of chart you are displaying, you may desire to alter the width and depth of the chart in order to display data more efficiently. You can modify how the chart's width and depth is drawn according to the chart's height. This is known as the width to height ratio and depth to height ratio. The ratio is calculated according to the percentage of the chart's height used to draw the chart's width and depth. For specific information on how to modify this value, see The [Format Plot 3D View Tab](#).

The following illustration shows various degrees of width and depth ratios to display the chart.



This chart has a width ratio of 100 and a depth ratio of 200.



This chart has a width ratio of 200 and a depth ratio of 100.

Related Topics:

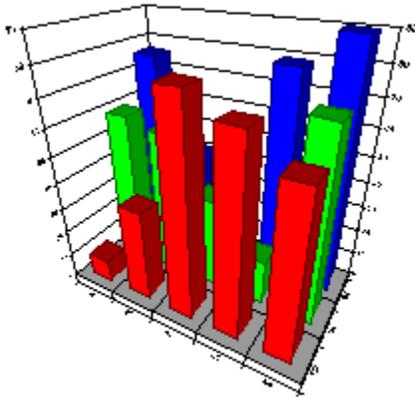
[Chart Projection](#)

[Chart Viewing Distance](#)

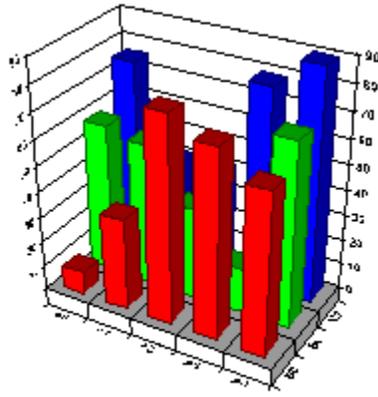
Chart Viewing Distance

The perspective of an object changes as you move closer to it or farther away from it. The same is true of a 3D chart. The Viewing Distance is defined as the distance from which the chart is viewed as a percentage of the depth of the chart. For specific information on how to modify the viewing perspective for a chart, see The [Format Plot 3D View Tab](#).

By default, 3D charts are viewed from a distance of 200 percent of the chart's depth. The following illustration shows the same chart at two different viewing distances.



This chart is drawn with a viewing distance of 50 percent.



This chart is drawn with the default viewing distance of 200 percent.

Related Topics:

[Chart Projection](#)

[Chart Width and Height Ratios](#)

Formatting the Base and Walls

You can change the colors and patterns applied to the walls of a 2D chart and the walls and base of a 3D chart, the color used to draw the lines in the base and walls, the height of the base and the width of the walls. The width of the walls and height of the base are measured in points.

To format the walls and base:

1. Double click in the chart plot; or, use the right mouse button to display the floating menu and select Plot.
2. Select the [Base and Walls tab](#).
3. Make any necessary changes and click OK or Apply to redraw the chart to reflect the changes.

Note: One of the options you can choose for a chart base or wall, is to display the base or wall as a pattern. It is important to understand how patterns work before using them in your chart.

Patterns are bitmaps. A low resolution version of each bitmap displays the pattern on the screen. When you print a chart, a high resolution version of the bitmap is used if the output device prints at more than 144 dpi. The higher the resolution of the output device, the smaller the copies of the bitmaps that form the patterns are reproduced. At high resolutions, First Impression adjusts the patterns to prevent the lines from getting too close together. Hatches are not bitmaps, but actual lines drawn to fill the object. They are always drawn at the same resolution, regardless of the output device. Hatches can be used to output First Impression charts on a plotter.

Related Topics:

[Formatting 3D Charts](#)

[Changing Chart Rotation and Elevation](#)

Lighting 3D Charts

When light falls on a 3D object some areas of the object are brightly illuminated, and other areas are in shadows. You have complete control of how much light strikes the chart, and from what direction.

To change the lighting on a 3D chart:

1. Double click the chart plot; or, click the right mouse button to display the floating menu and select Plot.
2. Select the [3D Lighting tab](#).
3. Make any necessary changes and click OK or Apply to redraw the chart to reflect the changes.

Related Topics:

[Ambient Lighting](#)

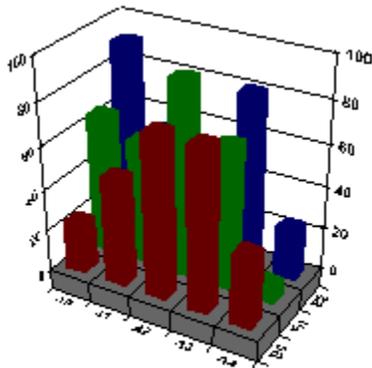
[Infinite Light Sources](#)

Ambient Lighting

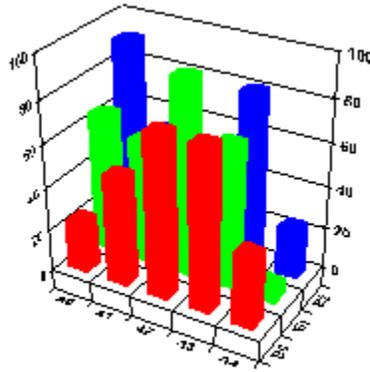
Ambient light is defined as the diffusive light that shines on all sides of chart elements and is cast in addition to light from fixed light sources. If ambient light is set to 100 percent, all sides of the chart elements are illuminated equally no matter what light sources you turn on. If ambient light is set to 0, only the sides of chart elements facing the active light sources are illuminated. The default setting for ambient light is 15 percent.

For more information about how to set ambient lighting, see [The Format Plot 3D Lighting Tab](#).

The following illustration shows the varying degrees of ambient light on a chart.



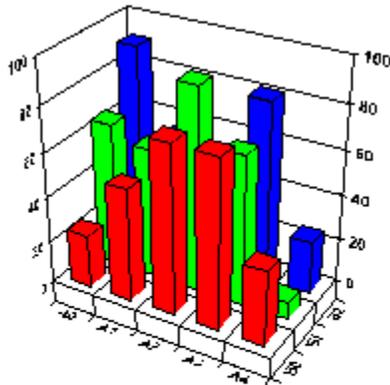
*Ambient light 50 percent
No edge lights
No light sources*



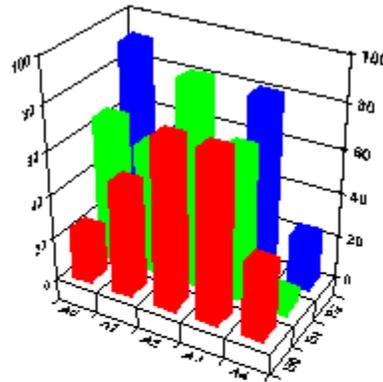
*Ambient light 100 percent
No edge lights
No light sources*

Edge Intensity is defined as the amount of lighting applied to the edges of 3D objects such as bars, lines, pies or doughnuts. An edge light intensity of 0 draws the edges as black lines. An edge light intensity of 100 percent fully illuminates the edges using the edge pen's color. The default edge pen color is the same as the series fill color.

The following illustration depicts varying degrees of edge lighting on a chart.



*Ambient light 100 percent
Edge lights on at 0
No light sources*



*Ambient light 100 percent
Edge lights on at 100 percent
No light sources*

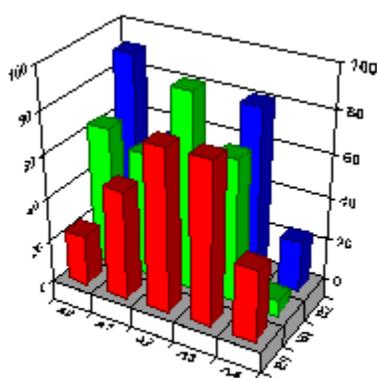
Related Topics:

[Lighting 3D Charts](#)

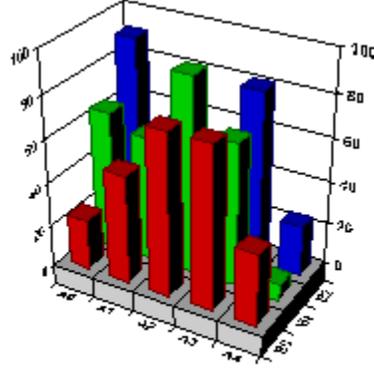
[Infinite Light Sources](#)

Infinite Light Sources

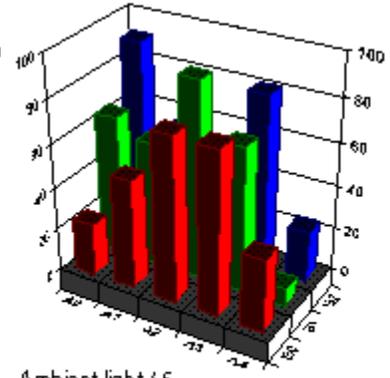
You can "turn on" or "turn off" up to nine preset infinite light sources on your chart. An infinite light source means that while there is a direction towards which the light shines, there is not a fixed distance from which the light is shone. The position of the light source is at infinity with reference to the chart. This allows a more uniform illumination and shading of the chart surfaces. At an intensity of 100 percent, chart surfaces perpendicular to the light source are fully illuminated. At an intensity of 50 percent, these surfaces receive 50 percent illumination from this light. An intensity of 0 turns off the light source. For specific information on how to set Infinite Light Sources, see The [Format Plot 3D Lighting Tab](#).



*Ambient light 15
Edge Lights on at 50
Center Light Source at 100*



*Ambient light 15
Edge Lights on at 50
High Left Light Source at 100*



*Ambient light 15
Edge Lights on at 50
Low Right Light Source at 100*

Important A chart surface's total illumination is the sum of the contributions of the ambient light and each of the infinite lights.

Related Topics:
[Lighting 3D Charts](#)
[Ambient Lighting](#)

Formatting Axes

There are a number of axis components that you can format on a 2D or 3D chart. You can:

- Change the axis type.
- Format date axes.
- Change the color and size of the axis grid lines.
- Change the color and size of axis lines.
- Change the color and size of the axis tick lines.
- Change the scale of the axis.
- Create and format an axis title.
- Format axis labels.

Related Topics:

[Axis Terminology](#)

[Common Axis Elements](#)

Axis Terminology

There are three types of axes that can appear on a chart: a value axis, a category axis, and a date axis. Category axes have text labels identifying the category or series in the chart. Value axes display numbers as values or percents. Date axes display a range of dates. It is important to know the type of axis you are dealing with in each chart type, because any appropriate formatting applied to an axis is maintained when you switch to a new chart type.

The following table provides a list of the types of each axis on various chart types.

Chart Types	X	Y	2nd Y	Z
2D Bar	Category	Value	Value	N/A
2D Line				
2D Area				
2D Step				
2D Combination				
3D Bar	Category	Value	Value	Category
3D Line				
3D Area				
3D Step				
3D Combination				
2D and 3D Horizontal Bar	Category	Value	N/A	N/A
2D and 3D Gantt	Category	Date	N/A	N/A
XY	Value	Value	N/A	N/A
Bubble	Value	Value	N/A	N/A
Hi-Lo	Date or Category	Value	Value	N/A
Polar	Angle	Value	N/A	N/A
Radar	Radar	Value	N/A	N/A
3D Clustered Bar	Category	Value	Value	N/A
3D XYZ	Value	Value	Value	N/A
3D Scatter	Value	Value	Value	Value
2D Contour	Category	N/A	N/A	Category
3D Surface	Category	Value	Value	Category

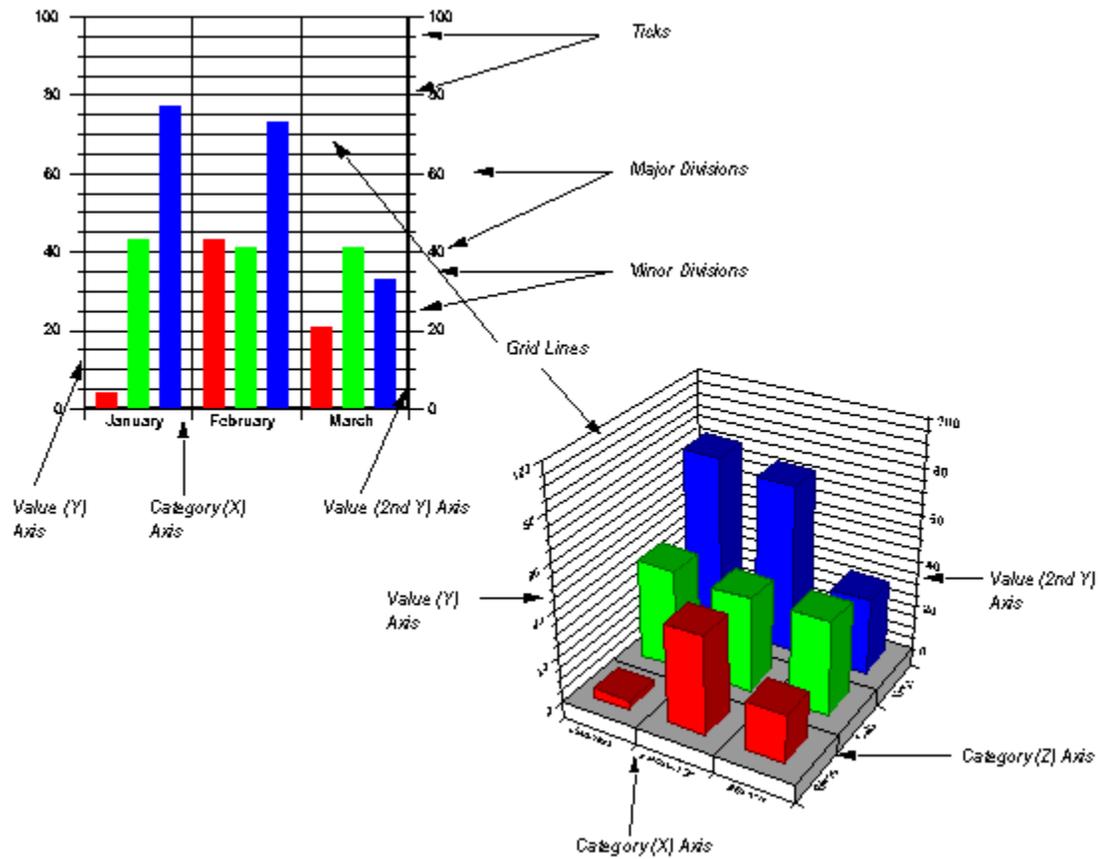
Related Topics:

[Formatting Axes](#)

[Common Axis Elements](#)

Common Axis Elements

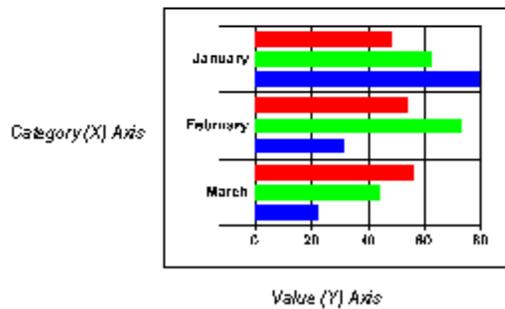
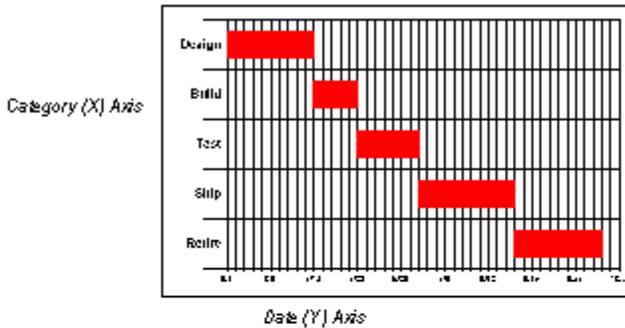
The axes that appear on a chart vary from one chart type to another. The following illustration shows the common features of axes on 2D and 3D bar, line, area, and step charts.



Related Topics:
[Formatting Axes](#)
[Axis Terminology](#)

Gantt and Horizontal Bar Charts

Both gantt and horizontal bar charts display the category (X) axis vertically along the left side of the chart. Gantt charts display the date (Y) axis along the bottom of the chart. Horizontal bar charts display the value (Y) axis along the bottom of the chart.



Related Topics:

[Formatting Axes](#)

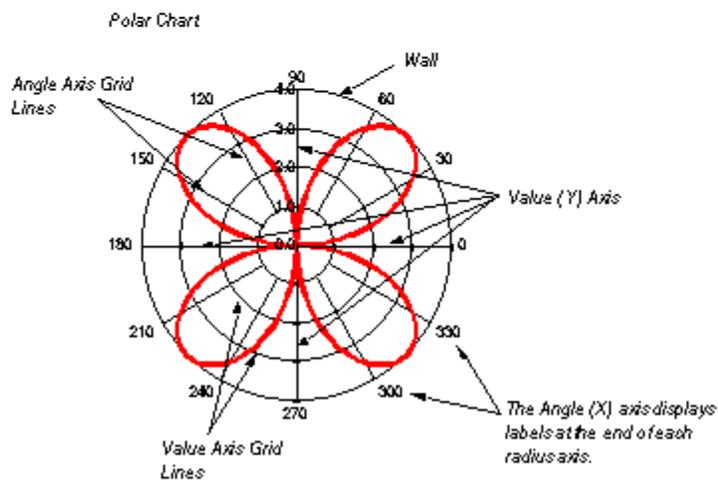
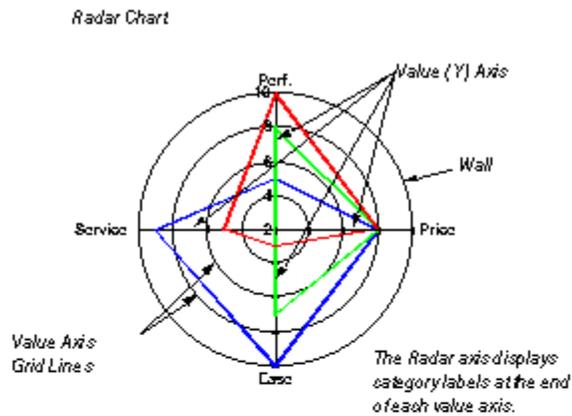
[Axis Terminology](#)

[Common Axis Elements](#)

[Radar and Polar Charts](#)

Radar and Polar Charts

The axis elements on radar and polar charts are slightly different. The following illustration shows the axis elements displayed on these two types.



Note Pie and doughnut charts have no axis information, but use the format settings for X axis labels to format the labels on an individual pie or doughnut chart.

Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Common Axis Elements](#)

[Gantt and Horizontal Bar Charts](#)

How to Format an Axis

The following discussion provides information for formatting all types of axes.

To format an axis:

1. Double click the axis or use the right mouse button to display the floating menu and select Axis.

If you use the menu, you must specify which axis you want to format. The Format Axis dialog box is displayed.

The following table briefly describes each tab in the Format Axis dialog box.

Tab	Description
Options	Controls the line width and color used to draw the axis line and tick marks.
Grid	Controls the color, line style, and line thickness used to display the major and minor grid lines.
Scale	Controls the display of the axis, type and settings of the axis scale. The options on this tab vary depending on the type of axis selected: category axis , date axis or value axis .
Ticks	Controls the length and positioning of ticks on the axis line.

2. Make any necessary changes to any axis options and click OK or Apply to redraw the chart. Specific information about the options on each tab are presented in the following material.

Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Common Axis Elements](#)

[Gantt and Horizontal Bar Charts](#)

[Radar and Polar Charts](#)

[Labeling Axis Tick Marks](#)

[Labeling Axes Inside The Plot](#)

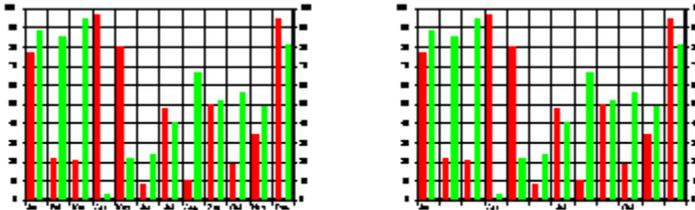
[Displaying Axes Scales](#)

[Automatic and Manual Scaling](#)

Labeling Axis Tick Marks

Axis labels contain tick marks that signify the divisions along a chart axis. These labels can occur at major and minor divisions on a chart. Depending on the chart size, labeling tick marks at every division can sometimes result in a cluttered, hard-to-read chart. Skipping labels and tick marks can help reduce the clutter of labels that can occur when you have a large number of divisions. For specific information about labeling tick marks and how to skip them to avoid clutter, see the [Format Axis Ticks Tab](#).

The following illustration demonstrates the use of this option.



In order to minimize the clutter of labels on the first chart, Division labels is set to 3. The first label is displayed, two are skipped, and then another label displayed. Ticks are still displayed at every division.

Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Common Axis Elements](#)

[Gantt and Horizontal Bar Charts](#)

[Radar and Polar Charts](#)

[How to Format an Axis](#)

[Labeling Axes Inside The Plot](#)

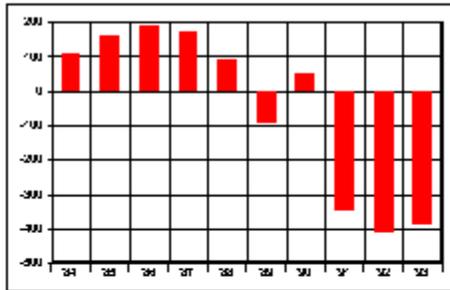
[Displaying Axes Scales](#)

[Automatic and Manual Scaling](#)

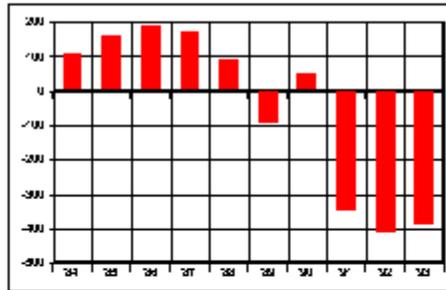
Labeling Axes Inside The Plot

If a chart moves the axis intersection to a point well within the chart plot, it may be difficult to read the labels from their location along the original axis. First Impression provides you the option of labeling the axis at its new location to improve label readability. For information about how to label the axis inside the plot, see [The Format Axis Scale Tab](#).

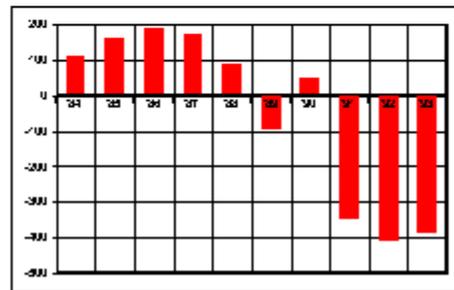
The following illustration shows axis labeling on the original axis and inside the plot.



Normal Axis Position



X axis intersection has been moved to 0 on the Y axis.
Axis labels are still drawn in the original axis position.



X axis intersection and axis labels have been moved to 0 on the Y axis.

Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Common Axis Elements](#)

[Gantt and Horizontal Bar Charts](#)

[Radar and Polar Charts](#)

[How to Format an Axis](#)

[Labeling Axis Tick Marks](#)

[Displaying Axes Scales](#)

[Automatic and Manual Scaling](#)

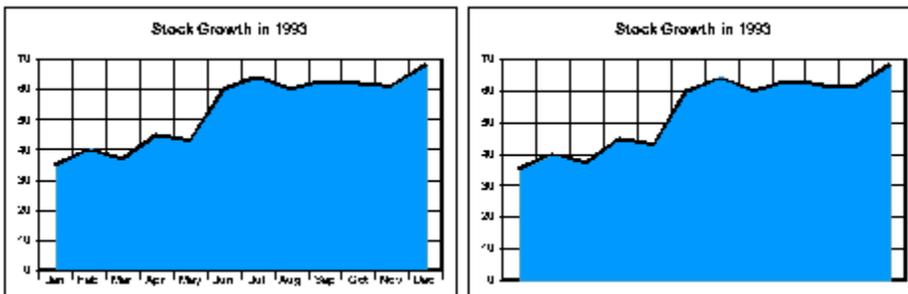
Displaying Axes Scales

For aesthetic reasons, you may not wish to display all the axis scales for a chart. First Impression provides you the methods to turn on and turn off axis scales when displaying a chart. Each time you display the Format Axis dialog box, you must first choose the axis type.

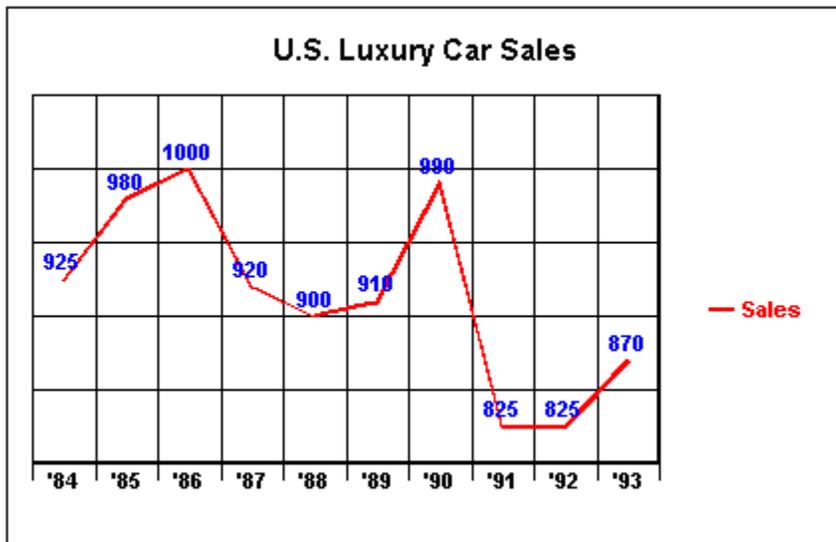
The Format Axis Scale tab will appear differently depending on the type of axis you have chosen. For specific information on how turn on and off **category** axis scales see [The Format \(Category\) Axis Scale Tab](#)

For specific information on how turn on and off **value** axis scales see [The Format \(Value\) Axis Scale Tab](#)

The following illustration shows the same chart, first with the X axis scale on, and then with the X axis scale turned off.



The following illustration shows a chart with the Y axis scale turned off.



Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Common Axis Elements](#)

[Gantt and Horizontal Bar Charts](#)

[Radar and Polar Charts](#)

[How to Format an Axis](#)

[Labeling Axis Tick Marks](#)

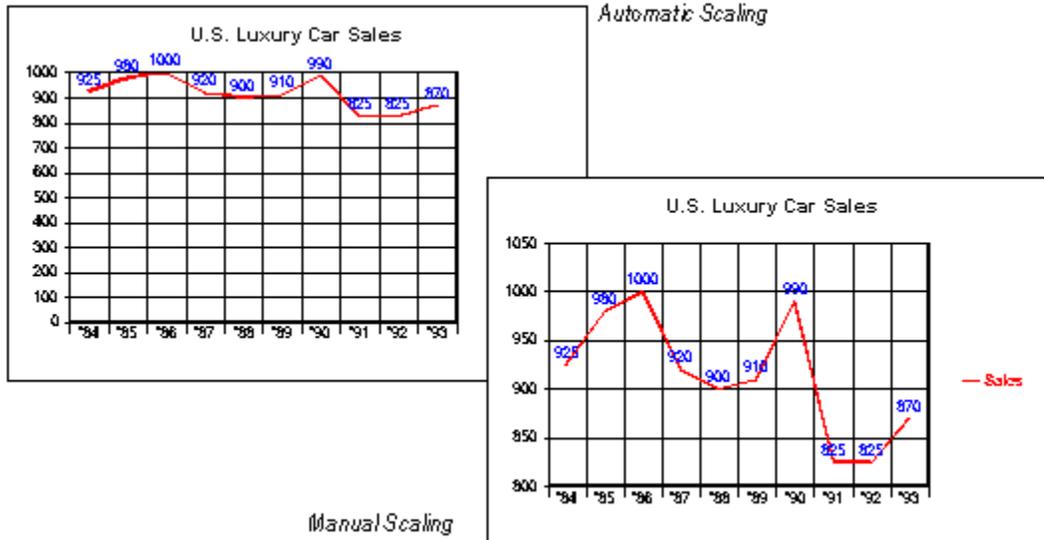
[Labeling Axes Inside The Plot](#)

[Automatic and Manual Scaling](#)

Automatic and Manual Scaling

If a chart is set to automatic scaling, the axis scale will display the minimum and maximum values as well as all the values in between. Your chart may look better if you limit the scale values that display by setting your own manual scale values. For specific information on how to set Automatic or Manual scaling, see [The Format \(Value\) Axis Scale Tab](#).

The following illustration shows the same chart, first with automatic scaling, and then with manual scaling.



Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Common Axis Elements](#)

[Gantt and Horizontal Bar Charts](#)

[Radar and Polar Charts](#)

[How to Format an Axis](#)

[Labeling Axis Tick Marks](#)

[Labeling Axes Inside The Plot](#)

[Displaying Axes Scales](#)

3D Axis Intersections

If the current chart is a 3D XYZ chart, then the [Format Axis Scale](#) tab displays options for placement of the axes intersections. You may wish to allow the axes to intersect at their usual positions, or you may want to enable the Cross At option to specify where you want the current axis to cross the intersecting axis. The Format Axis Scale Tab provides individual options for placing the X, Y and Z axis.

Related Topics:

[Displaying Axes Scales](#)

[Automatic and Manual Scaling](#)

[Date Axis Scaling](#)

[Radar Axis Scaling](#)

[Polar Axis Scaling](#)

[Formatting Axis Ticks](#)

Date Axis Scaling

If you select a date axis on your chart, the Format Axis Scale tab displays options for showing the axis scale, and entering the values used to scale the date axis. The values you are allowed to specify include the beginning data for the axis, the ending date for the axis, and intervals to pass between tick marks.

Major Interval Tick Mark Settings

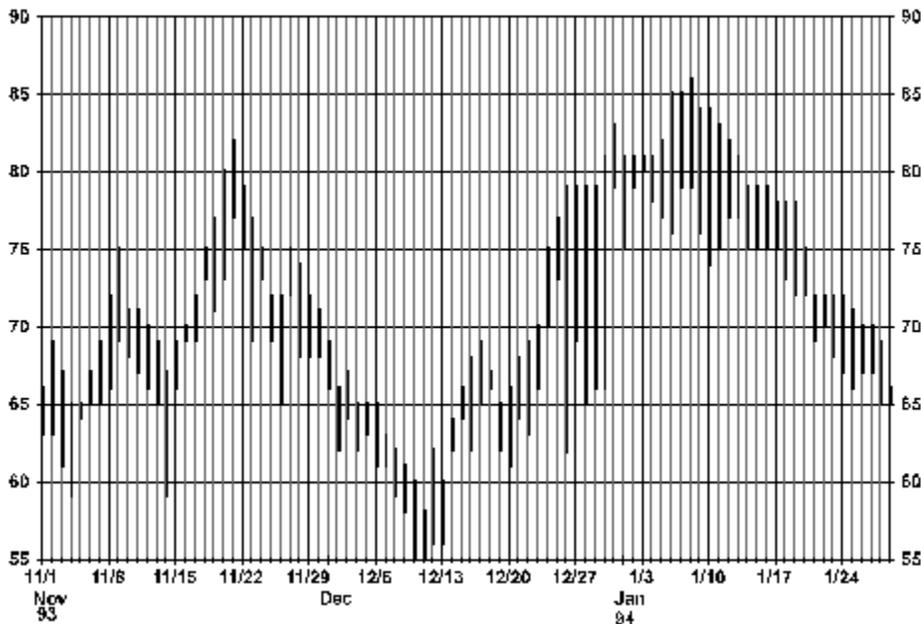
The major ticks and grid lines appear at major intervals, and the minor ticks and grid lines appear at minor intervals. Axis labels are drawn at major intervals. The following table describes the settings for these options.

Type	Description
None	No Interval.
Days	A tick mark occurs each day.
Weeks	A tick mark occurs Monday of each week.
Semi-months	A tick mark occurs on the 1st and 15th day of each month.
Months	A tick mark occurs on the 1st of each month.
Years	A tick mark occurs on January 1 of each year.

For example, to create a quarterly scale, set the interval to 3 months.

For specific information about how to set these options, see [The Format \(Date\) Axis Scale Tab](#).

The following illustration shows the use of the Major Format, New Month, and New Year options.



Note First Impression displays dates in this tab using the Windows environment date format assigned through the Control Panel. A confusing situation can occur when using dates earlier than 1920. If you have your date format set to not show centuries, the scale tab assumes the date displayed is between 1/1/1920 and 12/31/2019. So, if you have a date axis minimum of Jan 1, 1905, displayed as 1/1/05, the dialog will convert it to Jan 1, 2005. The solution is to use centuries in your Windows date format if you want to deal with dates outside the range 1/1/1920 to 12/31/2019.

Related Topics:

[Displaying Axes Scales](#)

[Automatic and Manual Scaling](#)

[3D Axis Intersections](#)

[Radar Axis Scaling](#)

[Polar Axis Scaling](#)

Radar Axis Scaling

The only scaling change you can make for a radar axis is to turn the display of the axis on or off. The value axes on a radar chart can be formatted like any other value axis. For specific information on how to turn the axis display on or off for a radar chart, see [The Format \(Radar\) Axis Scale Tab](#)

Related Topics:

[Displaying Axes Scales](#)

[Automatic and Manual Scaling](#)

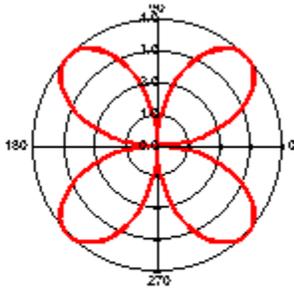
[3D Axis Intersections](#)

[Date Axis Scaling](#)

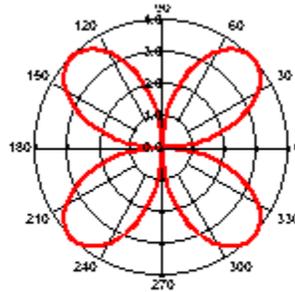
[Polar Axis Scaling](#)

Polar Axis Scaling

The radius axis on a polar chart can be formatted just like any other value axis. Scaling the polar axis allows you to control the number of radial grid lines and labels that are displayed around the perimeter of the chart. Radial grid lines for major divisions extend to the center of the chart. Radial grid lines for minor divisions extend from the first division of the value axis to the perimeter of the chart. For specific information about formatting the radius axis, see the [Format \(Polar\) Axis Scale tab](#)



This chart has 4 major divisions and no minor divisions. The circle is divided into four equal sections.



This chart has 4 major divisions and 3 minor divisions. Each major division is divided into 3 equal sections.

Axis labels are drawn at both major and minor divisions.

Related Topics:

[Displaying Axes Scales](#)

[Automatic and Manual Scaling](#)

[3D Axis Intersections](#)

[Date Axis Scaling](#)

[Radar Axis Scaling](#)

Formatting Axis Ticks

You can modify the tick marks that appear on your chart axes. The length of major tick marks can be modified to best fit the chart. Tick mark position on the axis can also be modified. The following table lists the available tick position settings.

<u>Style</u>	<u>Description</u>
None	No tick marks are displayed on the axis.
Center	Tick marks are centered across the axis.
Inside	Tick marks are displayed inside the axis.
Outside	Tick marks are displayed outside the axis.

For specific information about these tick mark settings, see [The Format Axis Ticks tab](#).

Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

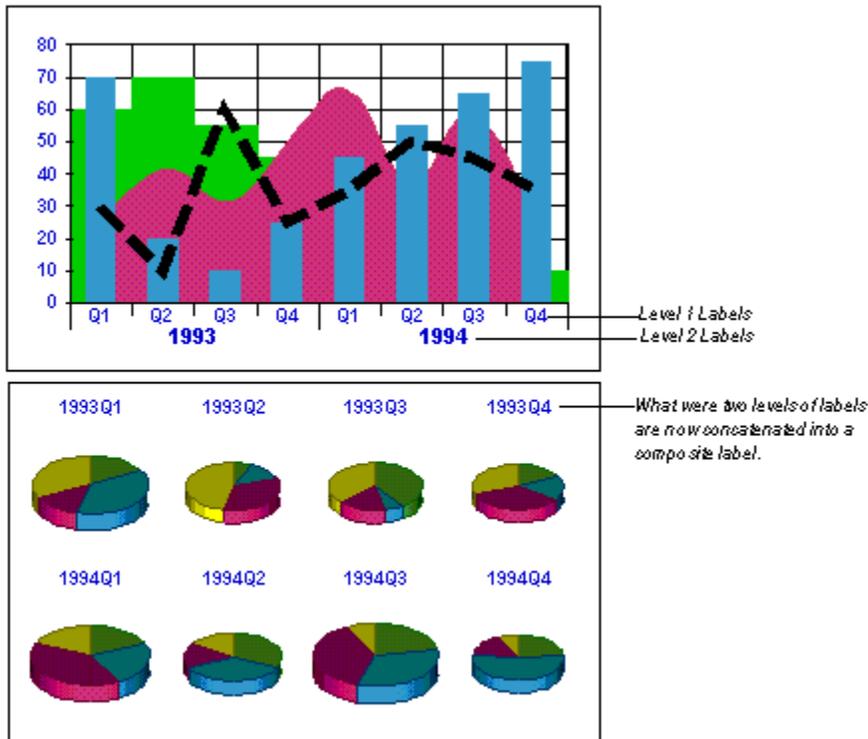
[Common Axis Elements](#)

[Labeling Axis Tick Marks](#)

Formatting Axis Labels

You can change the font, font size, orientation, and alignment of axis label text, use a mask to format the text, and create a backdrop for the label. Labels on individual pie charts are actually x axis labels. To format pie chart labels, format the x axis labels on a chart.

The following illustration shows how multiple levels of labels are displayed on two different types of charts.



To format a set of axis labels:

1. Double click on one of the labels you want to format; or select Axis'Labels to display the Format Axis Labels dialog box.

Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Common Axis Elements](#)

[How to Format an Axis](#)

[Formatting Axis Ticks](#)

[Format Axis Labels Dialog](#)

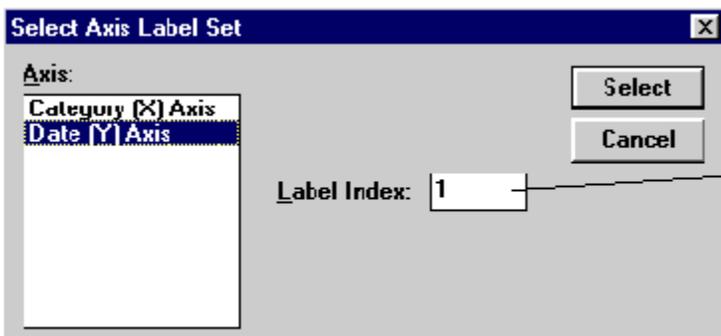
[Controlling Label Position](#)

[Standing Labels](#)

[Axis Label Text Formatting](#)

Format Axis Labels Dialog

If you use the menu, the following dialog box appears. Specify which axis and level of labels you want to format.



Specify which level of labels you want to format. Levels are numbered from the axis outward, beginning with 1. If the axis in question does not have multiple levels of labels, enter 1.

The following table describes each of the tabs on the Format Axis Labels dialog box

<u>Tab</u>	<u>Description</u>
Backdrop	Controls the fill, frame, and shadow used to create a backdrop for the axis label.
Text	Controls the orientation and alignment of the axis labels.
Font	Controls the font, font size, font color, font style, and special effects used to display the axis label text.
Format Code	Controls the mask used to display the axis labels.

Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Common Axis Elements](#)

[Labeling Axes Inside The Plot](#)

[Formatting Axis Labels](#)

[Controlling Label Position](#)

[Standing Labels](#)

[Axis Label Text Formatting](#)

Controlling Label Position

The [Text tab](#) of the Format Axis Label dialog box provides the methods needed to control axis label position for your chart.

The Horizontal, Vertical, and Orientation sections of the dialog box are enabled if you uncheck the Automatic check box. The horizontal and vertical alignment refer to how the text is aligned within each division.

Horizontal Alignment. The following table describes the horizontal alignment options for label text.

<u>Alignment</u>	<u>Description</u>
Left	Each label is aligned at the left edge of the division.
Right	Each label is aligned at the right edge of the division.
Center	Each label is centered horizontally within the division.

Vertical Alignment. The following table describes the vertical alignment options for label text.

<u>Alignment</u>	<u>Description</u>
Top	Each label is aligned at the top of the division.
Bottom	Each label is aligned at the bottom of the division.
Center	Each label is centered vertically within the division.

Orientation. The following table describes the orientation options for label text.

<u>Orientation</u>	<u>Description</u>
Horizontal	The text is displayed horizontally along the direction of the axis.
Vertical	The text is displayed, one letter stacked on top of each other, reading from top to bottom.
Up	The text is rotated so its right edge is next to the axis.
Down	The text is rotated so its left edge is next to the axis.

Note When you rotate text up or down, the vertical and horizontal alignment are still relative to the text and not to the chart. In other words, text displayed with up orientation and right alignment is actually flush against the axis, not the left side of the division.

Related Topics:

[Formatting Axis Labels](#)

[Format Axis Labels Dialog](#)

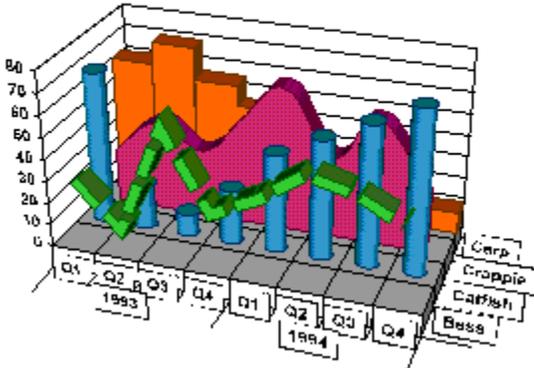
[Standing Labels](#)

[Axis Label Text Formatting](#)

Standing Labels

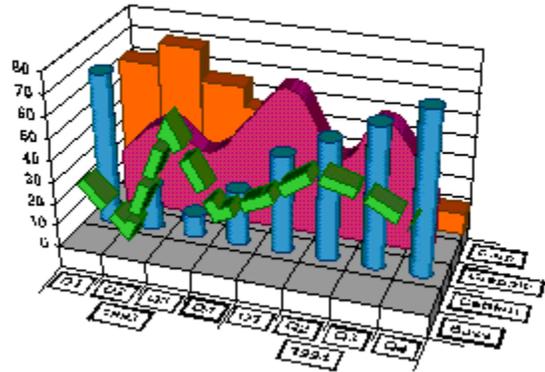
On 3D charts, you may desire to rotate labels up on the text baseline to stand in the Y plane. Standing text can make the labels more legible if you are viewing the chart at very low elevations. This option applies only to labels on an X or Z axis on most charts, and the Y axis on horizontal charts.

Multi-Dimensional Charts



Standing Label Text

Multi-Dimensional Charts



Non-Standing Label Text

Related Topics:

[Formatting Axis Labels](#)

[Format Axis Labels Dialog](#)

[Controlling Label Position](#)

[Axis Label Text Formatting](#)

Axis Label Text Formatting

The Format Code tab of the Format Axis Label dialog box provides options for formatting axis label text. You can select the format string category and the format code from a list of predefined strings. For details on how to format axis label text, see the [Axis Label Format Code tab](#).

Click here to view sample [Number Formats](#)

Click here to view sample [Date and Time Formats](#).

Click here to view the codes available to use when designing [Custom Label Formats](#).

Related Topics:

[Format Axis Labels Dialog](#)

[Controlling Label Position](#)

[Standing Labels](#)

Number Formats

The following table lists the built-in number formats and the results if the format is applied to a positive, negative, and decimal number.

Category	Format	3	-3	.3
All	General	3	-3	.3
Fixed	0	3	-3	0
	0.00	3.00	-3.00	0.30
	#,##0	3	-3	0
	#,##0.00	3.00	-3.00	0.30
	#,##0_);(,##0)	3	(3)	0
	#,##0_);[RED](,##0)	3	(3) in red	0
	#,##0.00_);(,##0.00)	3.00	(3.00)	0.30
	#,##0.00_);[RED](,##0.00)	3.00	(3.00) in red	0.30
Currency	\$\$,##0_);(\$,##0)	\$3	(\$3)	\$0
	\$\$,##0_);[RED](\$,##0)	\$3	(\$3) in red	\$0
	\$\$,##0.00_);(\$,##0.00)	\$3.00	(\$3.00)	\$0.30
	\$\$,##0.00_);[RED](\$,##0.00)	\$3.00	(\$3.00) in red	\$0.30
Percentage	0%	300%	-300%	30%
	0.0%	300.0%	-300.0%	30.0%
	0.00%	300.00%	-300.00%	30.00%
Fraction	# ?/?	3	-3	2/7
	# ??/??	3	-3	3/10
Scientific	0.00E+00	3.00E+00	-3.00E+00	3.00E-01
	##0.0E+0	3.0E+0	-3.0E+0	3.0E-01

Date and Time Formats

The following table lists the built-in date and time formats and the result of applying the format.

Category	Format	Result
Date	m/d/y	2/3/94
	d-mmm-yy	3-Feb-94
	d-mmm	3-Feb
	mmm-yy	Feb 94
	m/d/y h:mm	2/3/94 6:15
Time	h:mm AM/PM	3:29 PM
	h:mm:ss AM/PM	3:29:41 PM
	h:mm	15:29
	h:mm:ss	15:29:41
	mm:ss	29:41
	[h]:mm:ss	1:09:33

Custom Label Formats

The following table lists the format symbols that can be used in a custom format string.

Format Symbol	Description
General	Displays the number in General format.
0	Digit placeholder. If the number contains fewer digits than the format contains placeholders, the number is padded with 0's. If there are more digits to the right of the decimal than there are placeholders, the decimal portion is rounded to the number of places specified by the placeholders. If there are more digits to the left of the decimal than there are placeholders, the extra digits are retained.
#	Digit placeholder. This placeholder functions the same as the 0 placeholder except the number is not padded with 0's if the number contains fewer digits than the format contains placeholders.
?	Digit placeholder. This placeholder functions the same as the 0 placeholder except that spaces are used to pad the number.
. (period)	Decimal point. Determines how many digits (0's or #'s) are displayed on either side of the decimal point. If the format contains only #'s left of the decimal point, numbers less than 1 begin with a decimal point. If the format contains 0's left of the decimal point, numbers less than 1 begin with a 0 left of the decimal point.
%	Displays the number as a percentage. The number is multiplied by 100 and the % character is appended.
, (comma)	Thousands separator. If the format contains commas separated by #'s or 0's, the number is displayed with commas separating thousands. A comma following a placeholder scales the number by a thousand. For example, the format #,### scales the number by 1000 (e.g., 10,000 would be displayed as 10).
E- E+ e- e+	Displays the number as scientific notation. If the format contains a scientific notation symbol to the left of a 0 or # placeholder, the number is displayed in scientific notation and an E or an e is added. The number of 0 and # placeholders to the right of the decimal determines the number of digits in the exponent. E- and e- place a minus sign by negative exponents. E+ and e+ place a minus sign by negative exponents and a plus sign by positive exponents.
\$ - + / () : space	Displays that character. To display a character other than those listed, precede the character with a back slash (\) or enclose the character in double quotation marks (" "). You can also use the slash (/) for fraction formats.
\	Displays the next character. The backslash is not displayed. You can also display a character or string of characters by surrounding the characters with double quotation marks (" ").
* (asterisk)	Repeats the next character until the width of the column is filled. You cannot have more than one asterisk in each format section.
_ (underline)	Skips the width of the next character. For example, to make negative numbers surrounded by parentheses align with positive numbers, you can include the format _) for positive numbers to skip the width of a parenthesis.
"text"	Displays the text inside the quotation marks.
@	Text placeholder. Text replaces the @ format character.
m	Month number. Displays the month as digits without leading zeros (e.g., 1-12). Can also represent minutes when used with the h or hh formats.
mm	Month number. Displays the month as digits with leading zeros (e.g., 01-12). Can also represent minutes when used with the h or hh formats.
mmm	Month abbreviation. Displays the month as an abbreviation (e.g., Jan-Dec).
mmmm	Month name. Displays the month as a full name (e.g., January-December).
d	Day number. Displays the day as digits with no leading zero (e.g., 1-9).
dd	Day number. Displays the day as digits with leading zeros (e.g., 01-31).
ddd	Day abbreviation. Displays the day as an abbreviation (e.g., Sun-Sat).
dddd	Day name. Displays the day as a full name (e.g., Sunday-Saturday).
yy	Year number. Displays the year as a two-digit number (e.g., 00-99).
yyyy	Year number. Displays the year as a four-digit number (e.g., 1900-2078).
h	Hour number. Displays the hour as a number without leading zeros (1-23). If the format contains one of the AM or PM formats, the hour is based on a 12-hour clock. Otherwise, it is based on a 24-hour clock.
hh	Hour number. Displays the hour as a number with leading zeros (01-23). If the format contains one of the AM or PM formats, the hour is based on a 12-hour clock. Otherwise, it is based on a 24-hour clock.

	formats, the hour is based on a 12-hour clock. Otherwise, it is based on a 24-hour clock.
m	Minute number. Displays the minute as a number without leading zeros (0-59). The m format must appear immediately after the h or hh symbol. Otherwise, it is interpreted as a month number.
mm	Minute number. Displays the minute as a number with leading zeros (00-59). The mm format must appear immediately after the h or hh symbol. Otherwise, it is interpreted as a month number.
s	Second number. Displays the second as a number without leading zeros (0-59).
ss	Second number. Displays the second as a number with leading zeros (00-59).
AM/PM	am/pm
A/P	a/p
12-hour time.	Displays time using a 12-hour clock. Displays AM, am, A, or a for times between midnight and noon; displays PM, p for times from noon until midnight.
Displays text in black.	[BLACK]
Displays text in blue.	[BLUE]
Displays text in cyan.	[CYAN]
Displays text in green.	[GREEN]
Displays text in magenta.	[MAGENTA]
Displays text in red.	[RED]
Displays text in white.	[WHITE]
Displays text in yellow.	[YELLOW]
Displays text using the corresponding color in the color palette. n is an index to a color in the color palette.	[COLOR n]

Axis Titles

You can add a title for each axis. Axis titles can provide additional information about the axis that helps the viewer interpret the chart.

To create an axis title:

1. Use the right mouse button to display the floating menu.
2. Select Axis' Title to display the Format Axis Title dialog box.
3. Check the Visible check box to display the title.
4. Type the title text in the Text field.
5. Click OK or Apply to redraw the chart to include the new title.

The following table describes each of the tabs on the Format Axis Labels dialog box

Tab	Description
-----	-------------

[Text](#)

Controls the text used for the axis title as well as the orientation and alignment of the text.

[Backdrop](#)

Controls the fill, frame, and shadow used to create a backdrop for the axis title. .

[Font](#)

Controls the font, font size, font color, font style, and special effects used to display the axis title.

Related Topics:

[Formatting Axes](#)

[Axis Terminology](#)

[Formatting Axis Labels](#)

[Format Axis Labels Dialog](#)

[Controlling Label Position](#)

[Standing Labels](#)

[Axis Label Text Formatting](#)

Plot Options

Several chart types have options that customize the appearance or organization of the entire chart. These options are located in the [Options tab](#) of the Format Plot dialog box.

To format plot options:

1. Double click the chart plot; or, click the right mouse button to display the floating menu and select Plot.
2. Select the Options tab from the Format Plot dialog box.

The enabled options on the tab vary depending on the current chart type.

3. Change any of the settings.
4. Click OK or Apply to redraw the chart to reflect the changes.

Related Topics:

[Controlling Bar Spacing](#)

[Controlling Chart Direction](#)

[Starting Angle Rotation](#)

[Chart Layout Options](#)

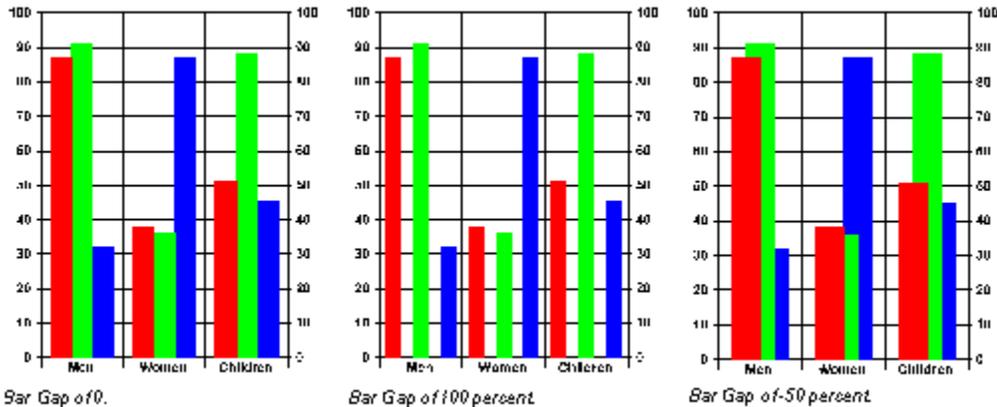
[Pie and Doughnut Chart Options](#)

Controlling Bar Spacing

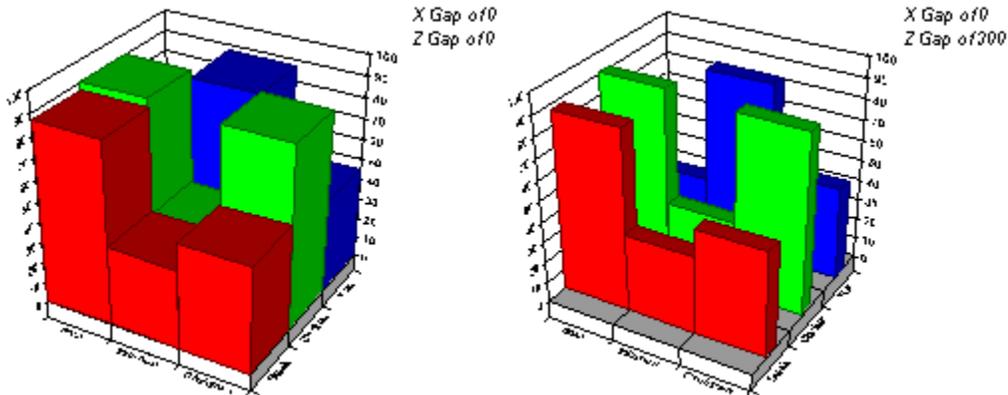
There are three settings that control the spacing between bars on bar and hi-lo charts. The Bar Gap Ratio controls the distance between bars within a category and applies only to 2D bar charts. The default bar gap of 50 percent places a space between each bar that is half as wide as the bars.

For specific information about how to set the bar spacing for your chart, see the [Format Plot Options tab](#).

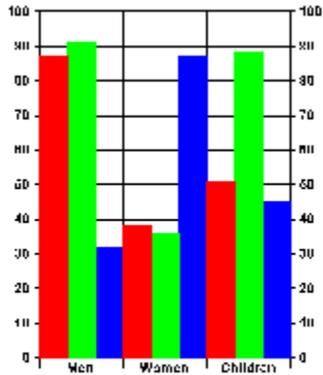
The following illustration shows the results of other bar gap settings.



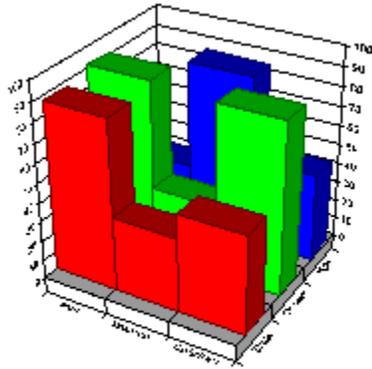
The Z Gap Ratio controls the distance between series of bars on the Z axis of a 3D chart. You can set the Z Gap Ratio to any value between 0 and 10,000. The Z-Gap Ratio only applies to 3D charts. The following illustration shows various Z Gap settings.



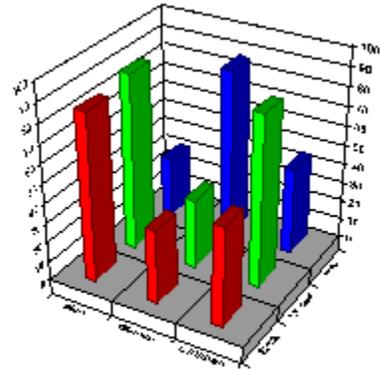
The X Gap Ratio controls the distance between individual bars on the X axis of a 3D bar chart and the space between categories of bars on 2D bar and hi-lo charts and applies to both 2D bar and 3D bar charts. The following illustration shows various X Gap settings.



Bar Gap of 0
and X Gap of 0.



X Gap of 0
Z Gap of 100 percent



X Gap of 500
Z Gap of 100 percent

Related Topics:

[Plot Options](#)

[Starting Angle Rotation](#)

[Controlling Chart Direction](#)

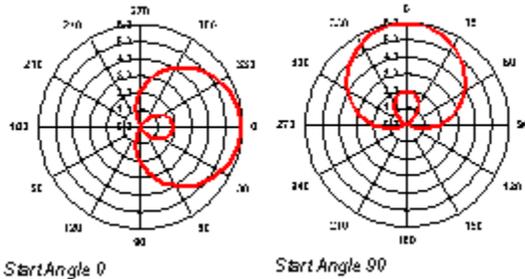
[Chart Layout Options](#)

[Pie and Doughnut Chart Options](#)

Starting Angle Rotation

First Impression provides a method for specifying the starting point on a circle at which drawing begins for pie, doughnut, polar and radar charts. This is known as Starting Angle Rotation. Valid values are between -360 and 360. Values can be measured in degrees, radians or grad depending on the setting in the Angle Units option of the [Format Plot options tab](#).

The following illustration demonstrates a starting angle of 0 and 90 degrees.



Related Topics:

[Plot Options](#)

[Controlling Bar Spacing](#)

[Controlling Chart Direction](#)

[Chart Layout Options](#)

[Pie and Doughnut Chart Options](#)

Chart Layout Options

The [Options tab](#) of the Format Plot dialog provides the controls that affect all elements of the chart. The Element Layout section of this tab is particularly useful for pie and doughnut chart layout.

Sorting is defined as the order in which the slices of pie and doughnut charts are drawn. The following table lists the options for sorting a chart.

Setting	Description
None	Pie slices are drawn in the order the data appears in the data grid.
Ascending	Pie slices are drawn from the smallest to the largest slice, starting at the defined starting angle.
Descending	Pie slices are drawn from the largest to the smallest slice, starting at the defined starting angle.

Weighting is defined as the size of each pie or doughnut in relation to the other pies or doughnuts in the same chart. The following table lists the options for weighting a chart.

Setting	Description
None	All pies and doughnuts are drawn the same size.
Pie Total	The slice values in each pie are totaled and the pie with the highest total identified. The size of each pie in the chart is determined by the ratio of its total value compared to the largest pie.
First Series	The size of a pie is determined by the relationship of values in the first series of each pie. The larger the value in the first series, the bigger the pie. It is most common to exclude this first series so that the values are not drawn as pie slices.

Related Topics:

[Plot Options](#)

[Controlling Bar Spacing](#)

[Controlling Chart Direction](#)

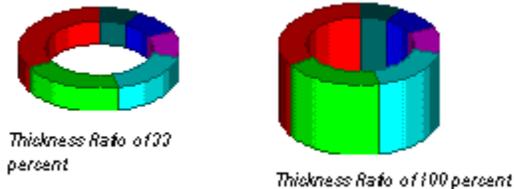
[Starting Angle Rotation](#)

[Pie and Doughnut Chart Options](#)

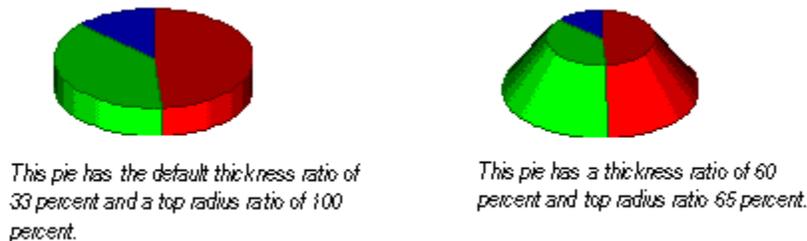
Pie and Doughnut Chart Options

If you are plotting data on a pie or doughnut chart, **thickness ratio** can make your chart more interesting. Thickness ratio is defined as the percentage of the pie or doughnut radius that determines the height of a 3D pie or doughnut. The higher the percentage, the taller the pie or doughnut.

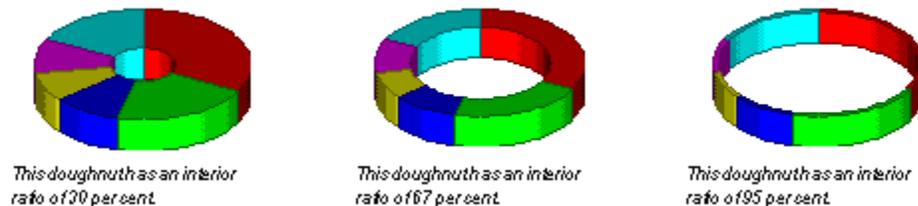
The following illustration demonstrates the thickness ratio of a doughnut chart.



Top Radius Ratio is defined as the percentage of the pie radius that is used to draw the top of a 3D pie. A ratio of 100 draws a cylinder; values less than 100 result in a tapering of the top of the pie. A value of 0 results in a cone. The following illustration demonstrates top radius ratio with pie charts.



Interior Ratio is defined as the ratio of the entire doughnut size that is used to display the interior "hole" of the doughnut. Valid values are any number between 0 percent and 100 percent. The following illustration demonstrates interior ratio on a doughnut chart.



With First Impression, you can control the number of **sides** used to draw a doughnut. More sides give the doughnut a rounder, smoother appearance. If you enter a value of 1 in this option, First Impression determines the number of sides needed to draw a round doughnut based on the size of the doughnut. The maximum value for this option is 360. The following illustration depicts variations in doughnut chart sides.



Note A very large number of sides may impact performance.

For specific information on how to set these options of your pie or doughnut chart, see the [Format Plot options tab](#).

Related Topics:

[Plot Options](#)

[Controlling Bar Spacing](#)

[Controlling Chart Direction](#)

[Starting Angle Rotation](#)

[Chart Layout Options](#)

Formatting Series and Data Points

There are a number of things that you can do to format individual series or data points in a chart. You can:

- Plot series data from rows rather than columns of the data grid.
- Hide or exclude a series.
- Plot the series on a secondary Y axis.
- Change the appearance of the elements that make up the series.
- Change the fill and line colors used to display series elements or individual data points.
- Add or modify markers used to identify series elements or individual data points.
- Add statistics lines or guidelines to highlight series information.

Related Topics:

[Supplying Series Data](#)

[Formatting Series Data](#)

[Setting Series Options](#)

[Bar Shapes](#)

[Smoothing Series Data](#)

[Hi-Lo-Close Colors](#)

[Changing the Series Fill and Pen](#)

Supplying Series Data

When charting series data, you might first want to indicate that the data being plotted on the chart is read from rows in the data grid rather than from columns.

To Read Data Series In Rows:

1. Click the right mouse button to display the floating menu and select General from the menu.
2. Choose the [Options tab](#)
3. Click the Data Series in Rows box to indicate that the data is being supplied from rows in the data grid rather than columns.

Related Topics:

[Formatting Series and Data Points](#)

[Formatting Series Data](#)

[Setting Series Options](#)

[Bar Shapes](#)

[Smoothing Series Data](#)

[Hi-Lo-Close Colors](#)

[Changing the Series Fill and Pen](#)

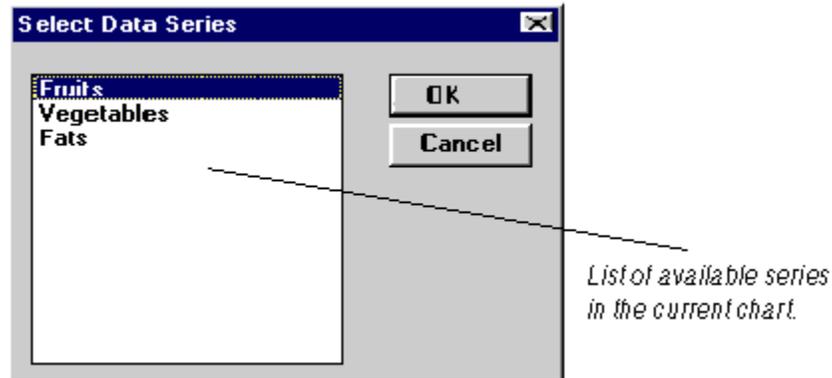
Formatting Series Data

To format a chart series:

1. Double click the series in the chart or the legend key that identifies the series.

The Format Series dialog box is displayed.

Alternatively, you can use the right mouse button to display the floating menu and select Series from the menu. Then, select the series you want to format from the Select Data Series dialog box and click Select.



The Format Series dialog box appears with either the Fill or Line tab selected.

2. When you have made all the formatting changes required for the series, click OK or Apply to redraw the chart to reflect the changes you have made.

Related Topics:

[Formatting Series and Data Points](#)

[Supplying Series Data](#)

[Setting Series Options](#)

[Bar Shapes](#)

[Smoothing Series Data](#)

[Hi-Lo-Close Colors](#)

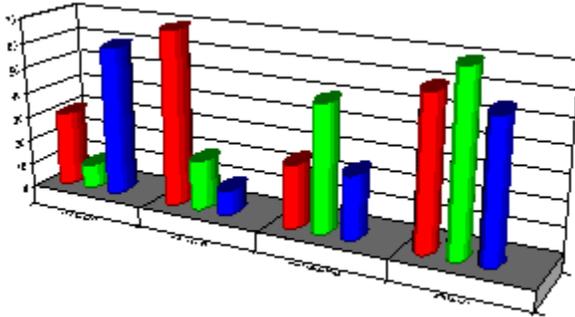
[Changing the Series Fill and Pen](#)

Setting Series Options

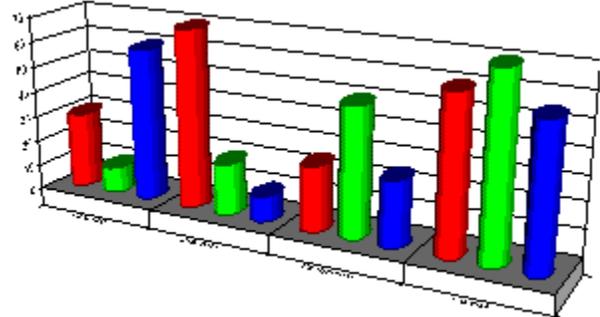
The options in the [Format Series Options tab](#) hide or exclude a series, plot the series on a secondary Y axis, change style of bars on a bar chart, set the gain and loss colors used in a hi-lo chart, and control smoothing for line and area series types

If you choose to hide a series, the space occupied by the series is still shown on the chart, but the data is not displayed. If you choose to exclude a series from a chart, the data is not displayed and the space occupied by the series is removed from the chart.

The following illustration shows the difference between hiding and excluding a series.

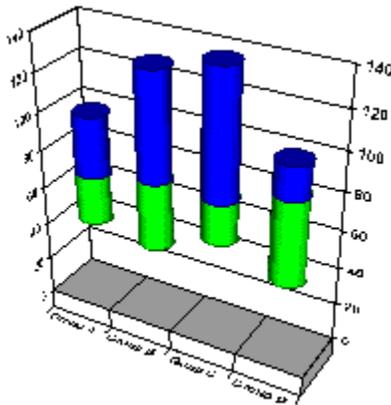


The last series in each category is hidden.



The last series in each category is excluded.

The following illustration shows how hiding a series in a stacked chart can produce floating chart elements.



If you wish to plot the current series on the secondary Y axis instead of the primary axis, you can set that option on the Options tab of the Format Series dialog box. You may then want to change the scale, type, or format of the secondary axis to best display the series data. This can be done with the [Options tab](#), as well.

Related Topics:

[Formatting Series and Data Points](#)

[Supplying Series Data](#)

[Formatting Series Data](#)

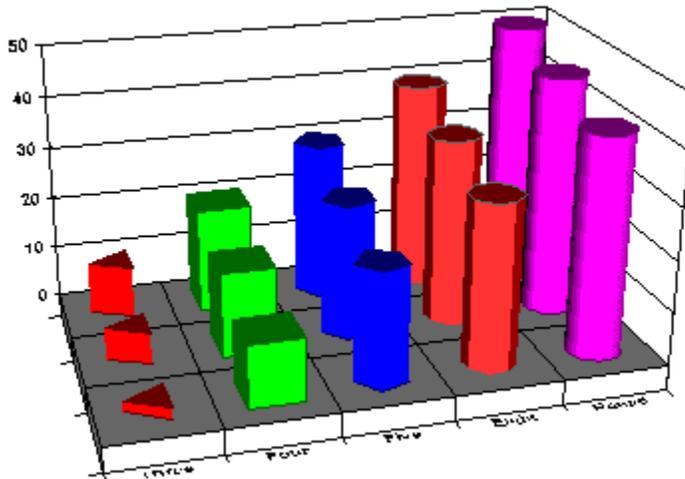
[Bar Shapes](#)

[Smoothing Series Data](#)

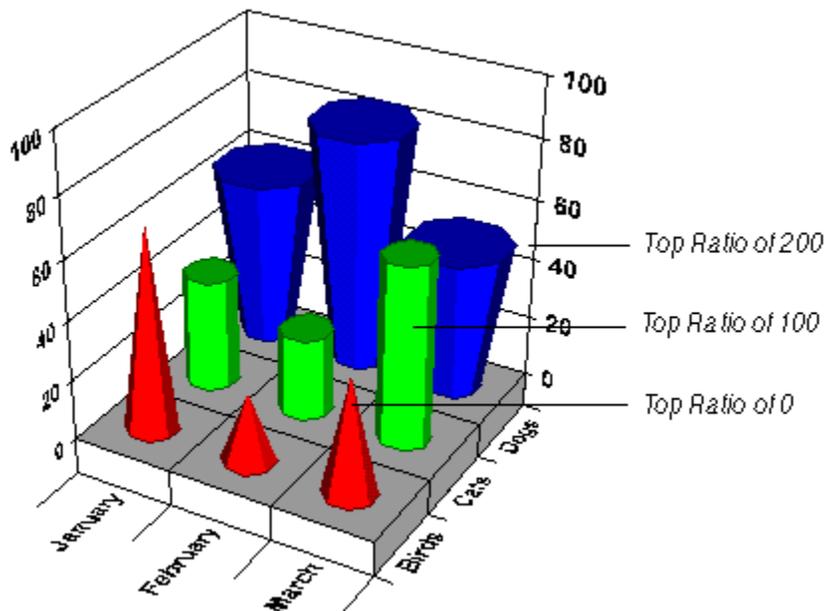
Bar Shapes

To control the appearance of bars in 3D bar charts; including horizontal bar charts, gantt charts, and clustered bar charts, you can set these options on the [Format Series Options tab](#).

You can specify the number of **sides** for bars by entering a value between 1 and 360 to indicate the number of sides for the bars. If you enter 1, First Impression determines how many sides are necessary to create a round column, given the size of the bar. The following illustration shows a number of different bar styles that can be created by changing the number of sides.



Top Ratio is defined as the percentage of the bottom diameter of a bar used to draw the top of the bar on a chart. Valid numbers are between 0 and 10,000 to indicate the percent of the bottom diameter. Values less than 100 result in a top smaller than the bottom. Values greater than 100 result in the top wider than the bottom. The following illustration shows the effects of changing the top ratio on several bars.



Related Topics:

[Formatting Series and Data Points](#)

[Supplying Series Data](#)

[Formatting Series Data](#)

[Setting Series Options](#)

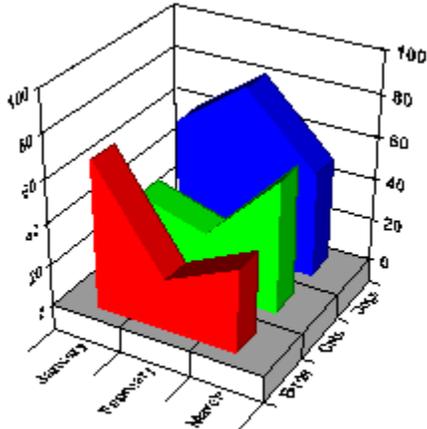
[Smoothing Series Data](#)

[Picture Bars](#)

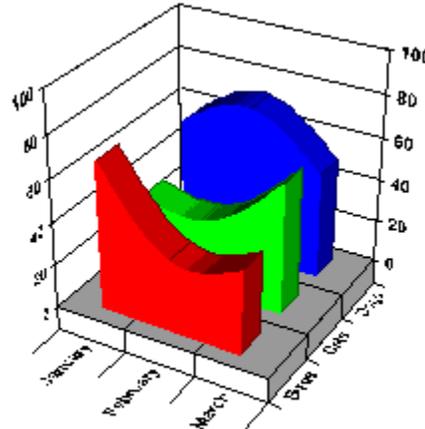
Smoothing Series Data

Smoothing is the process of using one of several mathematical formulas to divide the chart data into a number of facets. When the chart is drawn using these facets, the result is a smoother curve to the series lines.

You can smooth line and area series chart types. The following illustration shows the results of smoothing the series in a 3D area chart.



No smoothing is applied to this chart.



Cubic B-Spline smoothing with 12 facets is applied to each series in this chart.

You can control series smoothing by setting the correct options on the [Format Series Options tab](#). The following table describes the smoothing **formulas** that can be used to smooth series data.

Smoothing Type	Description
None	No smoothing is applied to the data.
QuadraticBSpline	A quadratic B-spline formula determines the smoothing applied to the data. This form of smoothing results in a less-smooth curve that stays closer to the data points.
CubicBSpline	A cubic B-spline formula determines the smoothing applied to the data. This form of smoothing results in a smoother curve, but varies further from the data point than a QuadraticB spline curve.

In order to smooth series data, you must specify the series smoothing factor. The **Factor** is the number of facets or points sampled between the chart data points to create the smoothing effect. The higher the number, the more smoothing occurs.

Related Topics:

[Formatting Series and Data Points](#)

[Supplying Series Data](#)

[Formatting Series Data](#)

[Setting Series Options](#)

[Bar Shapes](#)

[Hi-Lo-Close Colors](#)

[Changing the Series Fill and Pen](#)

Hi-Lo-Close Colors

Hi-Lo charts are most commonly used to show stock market information. A hi-lo-close chart calculates whether the close value for a data point was a gain or a loss from the close value of the previous data point. In other words, the first data point never has a gain or loss color, but sets the basis for deciding if the next data point displays a gain or loss. The open-hi-lo-close bar chart calculates whether the close point was a gain or loss from the open value for the same point. Gains and losses are calculated differently between open-hi-lo-close bar charts and other variations of hi-lo-close charts.

You can control the colors used to display the elements of a hi-lo chart by setting the appropriate options on the [Format Series Options tab](#). On this tab, you can select both the **Gain Color** and **Loss Color** to be represented on your chart.

Related Topics:

[Formatting Series and Data Points](#)

[Supplying Series Data](#)

[Formatting Series Data](#)

[Setting Series Options](#)

[Bar Shapes](#)

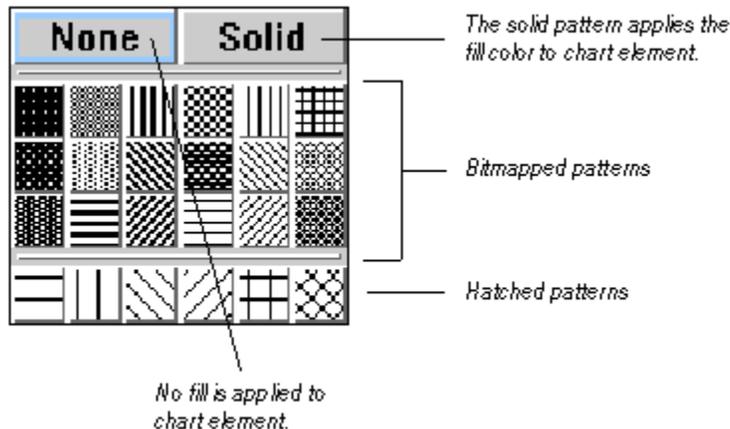
[Smoothing Series Data](#)

[Changing the Series Fill and Pen](#)

Changing the Series Fill and Pen

You can use options on the **Fill tab** to change the color, pattern, and edge pen used to display the series elements. If the series is a 2D bar type, you can also specify a graphic image to use as the fill for the bars.

The following illustration shows the organization of the pattern picker.



Patterns are bitmaps. A low resolution version of each bitmap is used to display the pattern on the screen. When you print a chart, a high resolution version of the bitmap is used if the output device prints at more than 144 dpi. The higher the resolution of the output device, the smaller the copies of the bitmaps that make up the patterns are reproduced. At high resolutions, First Impression adjusts the patterns to prevent the lines from getting too close together.

Hatches are not bitmaps, but actual lines drawn to fill the object. They are always drawn at the same resolution, regardless of the output device.

The **fill color** is used as the color for solid patterns. It is used as the background color for any other type of pattern. By default, the line color for an element matches this fill color.

The **pattern color** is used to draw the pattern over the fill color if any pattern other than solid is selected.

The **edge pen** outlines all 3D objects and all 2D elements except the lines in line, XY, hi-lo, radar, and polar charts.

For specific information on how to set these options, see the [Format Series Fill tab](#).

Related Topics:

[Formatting Series and Data Points](#)

[Supplying Series Data](#)

[Formatting Series Data](#)

[Setting Series Options](#)

[Bar Shapes](#)

[Smoothing Series Data](#)

[Hi-Lo-Close Colors](#)

Picture Bars

You can specify a graphic image to use as the fill for a series of 2D vertical or horizontal bars or gantt charts.

A control on the [Fill tab of the Format Series dialog](#) box displays a preview of the graphic. When a valid path and file name are entered in the File text box, the picture is displayed in the Picture control. Only Windows Bitmap (.bmp) and Windows Metafiles (.wmf) are supported graphic formats.

If you create picture bars using a Windows metafile, the pictures will not appear if you save the chart as a metafile. This is a Windows limitation that prevents a metafile from containing another metafile. If you plan to copy the chart to the clipboard, or save the chart as a metafile, use a bitmap for the picture bars instead of a metafile.

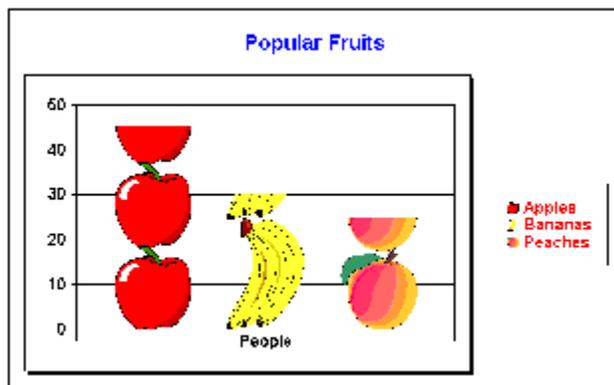
You can choose how to fit the graphic into the bar by setting the **Fit Method**. The following table lists the options for fitting graphics.

Fit Method	Description
Stacked	Duplicates the graphic repeatedly to fill the bars. Since this uses multiple copies of the graphic, it is recommended that you use as small a file as possible.
Stretch To Fit	Scales the graphic to fit the bars regardless of its original proportions.

To fill 2D bars interactively, use the following steps:

1. Select the bar you want to fill on the chart.
2. Click the right mouse button to display the floating menu and select Paste.
3. Identify the graphic you want to paste into the bar and click OK.

The following illustration shows an example of a different graphic used to identify each series in a chart using the stacked fit method.



Some graphics products output bitmap files in an older format that is compatible with OS/2. First Impression does not support these bitmaps. If you attempt to use one of these files, you receive an error, "Invalid picture format." You can read these files into PaintBrush and save them as BMPs to convert them to the newer bitmap format. First Impression can then use these files without any problems.

Related Topics:

[Bar Shapes](#)

[Changing the Series Fill and Pen](#)

Formatting Lines

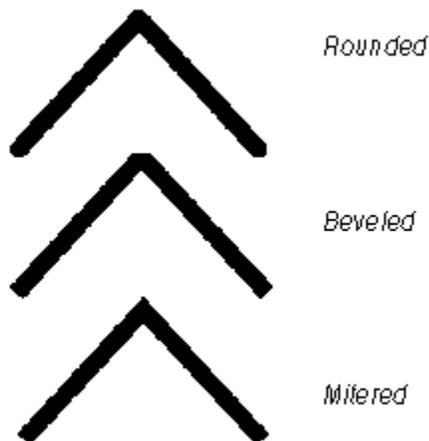
The controls on the [Line tab](#) of the Format Series dialog box format the style, width, color, joint, and end caps of 2D lines and the lines in XY, radar, polar, and hi-lo charts.

Join styles determine how the lines on your chart will look at the point where they join or meet. Join styles are particularly important when using thick lines on your chart. The following table lists the valid line join styles.

Join Types	Description
Mitered	The outer edges of the two lines are extended until they meet.
Round	A circular arc is drawn around the point where the two lines meet.
Beveled	The notch between the ends of two joining lines is filled.

Important Very acute mitered joins are automatically beveled to avoid drawing large spikes along the line.

The following illustration shows an example of each join style.



Cap styles determine how the end of each line on your chart is capped. Line caps can enhance the appearance of your chart, particularly if you are using large or thick lines to plot data.

The following table lists valid line cap styles:

Cap Type	Description
Butt	The line is squared off at the endpoint.
Round	A semicircle with a diameter of the line thickness is drawn at the end of the line.
Squared	The line continues beyond the endpoint for a distance equal to half the line thickness and is squared off.

The following illustration shows an example of each cap style.



For specific information on how to format lines, see the [Format Series Line tab](#).

Related Topics:

[Formatting Markers](#)

[Formatting Statistics Lines](#)

[Formatting Guidelines](#)

[Formatting Data Points](#)

Formatting Markers

The [Markers tab](#) on the Format Series dialog box controls the style, color, size, and line width used to display markers. Markers can be displayed on all chart types except pies and doughnuts.

The **Show Markers** control determines whether or not to display markers on a series. You can use this control to remove markers from a series.

An **Automatic** check box allows First Impression to use the next available marker to identify the series. You can uncheck the Automatic check box to select your own choice of marker.

If the Automatic check box is unchecked, you can specify a marker style, color, size, and line width for your chart from the [Markers tab](#).

Related Topics:

[Formatting Lines](#)

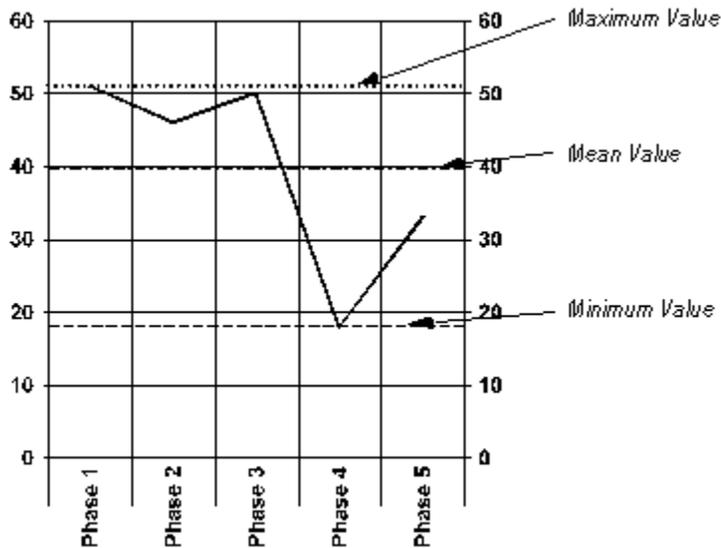
[Formatting Statistics Lines](#)

[Formatting Guidelines](#)

[Formatting Data Points](#)

Formatting Statistics Lines

The options in the [Statistics tab](#) of the Format Series dialog box control the display and appearance of statistics lines for a series. Statistics lines are useful for analyzing data by showing information such as minimum value, maximum value, mean value, standard deviation, and regression trendlines. You can only display statistics lines on 2D line and XY charts. The following illustration depicts statistics lines on a chart.



The following table describes each type of statistic.

Statistic Type	Description
Minimum	Shows the minimum Y value in the series.
Maximum	Shows the maximum Y value in the series.
Mean	Shows the mathematical mean of the Y values in the series.
Standard Deviation	Shows the standard deviation of the Y values in the series.
Regression	Shows a trend line indicated by the Y values in a series.

Related Topics:

[Formatting Lines](#)

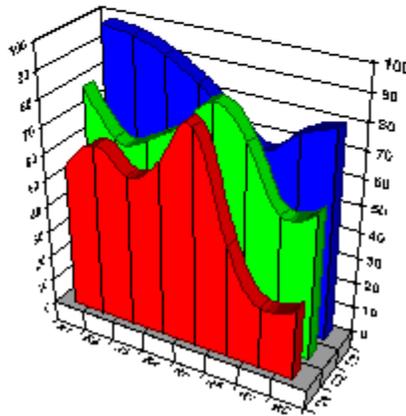
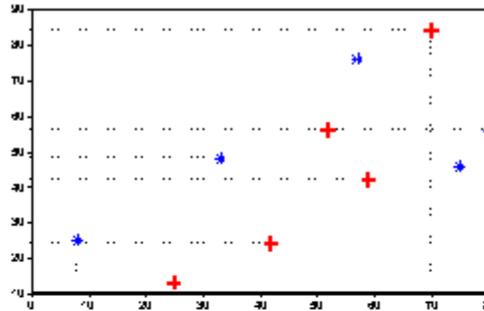
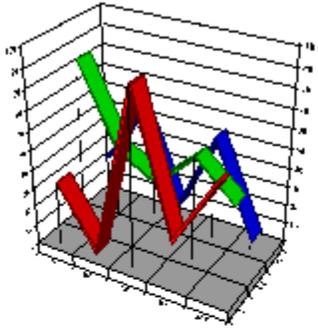
[Formatting Markers](#)

[Formatting Guidelines](#)

[Formatting Data Points](#)

Formatting Guidelines

The [Guidelines Tab](#) of the Format Series dialog box controls the display and format of guidelines for the series in 2D and 3D line, area, and step charts as well as bubble charts, 3D xyz and scatter charts. Guidelines are lines that are drawn from a data point to one or more axis to better identify the data point position. The following illustration shows guidelines on several types of charts.



Related Topics:

[Formatting Lines](#)

[Formatting Markers](#)

[Formatting Statistics Lines](#)

[Formatting Data Points](#)

Formatting Data Points

By default, each data point in a series has the same format. However, there may be times that you want to highlight one or more data points in a series by changing their format.

To format an individual data point:

1. Click a data point to select its series.
2. Click the data point again to select just the data point.
3. Double-click the data point to display the Format Data Point dialog box.

Alternatively, you can click the right mouse button to display the floating menu and select Series, Data Point. A dialog box appears asking you to specify the series and data point you want to format. You can pick Series Defaults to format the default fill and markers for the entire series.

The [Options tab](#) of the Format Data Point dialog box is displayed.

4. Uncheck the Use Series Defaults check box to ungray the Fill and Markers tabs. You can then change any of the Fill or Marker options used to display the data point. Check the Use Series Defaults check box to discard any custom settings you have made for the data point and reset all options to the series defaults.
5. Click the [Fill tab](#) to modify the fill options for the data point.
6. Click the [Marker tab](#) to modify the marker options for the data point.

Related Topics:

[Formatting Lines](#)

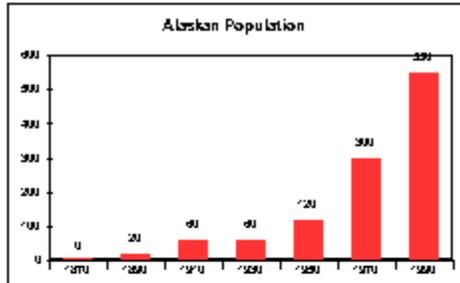
[Formatting Markers](#)

[Formatting Statistics Lines](#)

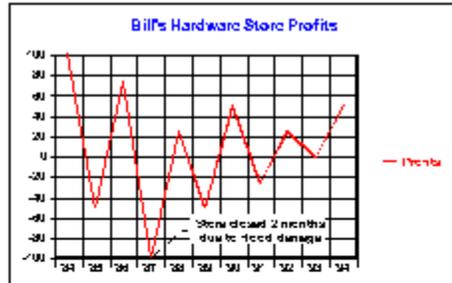
[Formatting Guidelines](#)

Formatting Labels

You can place labels on a series of data points or on individual data points to annotate the chart or draw attention to a certain chart element. The following illustrations show several uses of data point and series labels.



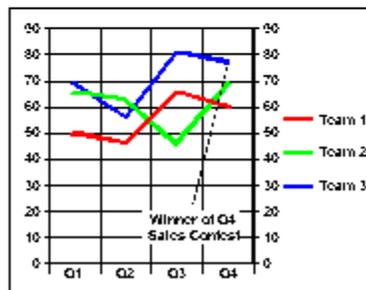
Data point labels show the value of each data point.



A data point label highlights one data point.



Data point labels show the value of each pie slice.



A series label provides information about the series.

Related Topics:

[Series Labels](#)

[Series Label Options](#)

[Data Point Labels](#)

[The Format Data Point Label Dialog](#)

[Label Options](#)

[Controlling Label Type](#)

[Formatting Label Text](#)

Series Labels

Series labels can be used instead of the legend, as a way to identify each series on a line, area, step, XY, or radar chart.

To format a series label:

1. If a series label exists, double click it. Otherwise, use the right mouse button to display the floating menu and select Series Label.
2. Specify the series for which you want to define a label and click Select to display the Format Series Label dialog box.

The following table briefly describes the tabs of options available in the Format Series Label dialog box.

Tab	Description
Options	Controls the display and placement of the label as well as the display and type of line connecting the label to the series.
Text	Controls the text used for the series label as well as the orientation and alignment of the text.
Font	Controls the font, font size, font style, font color, and special effect used to display the label text.
Backdrop	Controls the fill, frame, and shadow used to create a backdrop for the label.

3. Make any other changes to the series labels. Then, click OK or Apply to redraw the chart to reflect the changes.

Related Topics:

[Formatting Labels](#)

[Series Label Options](#)

[Data Point Labels](#)

[The Format Data Point Label Dialog](#)

[Label Options](#)

[Controlling Label Type](#)

[Formatting Label Text](#)

Series Label Options

The [Options tab](#) of the Format Series Label dialog box controls the display and position of the series label as well as the line style used to connect the label to the series.

First Impression offers several predefined positions for placing series labels. The following table describes the valid positions for series labels.

Positions	Description
None	Hides the label.
First	The label is displayed above the first data point in the series.
Last	The label is displayed above the last data point in the series.
Center	The label is displayed above the middle data point in the series.

There are three Label Line styles available in First Impression to display a line connecting a label to the series it represents. The Label Line Styles are described in the following table.

Line Styles	Description
None	No line connects the label and series.
Line	A straight line connects the label and series.
Angle Line	An angled line connects the label and series.

Related Topics:

[Formatting Labels](#)

[Series Labels](#)

[Data Point Labels](#)

[The Format Data Point Label Dialog](#)

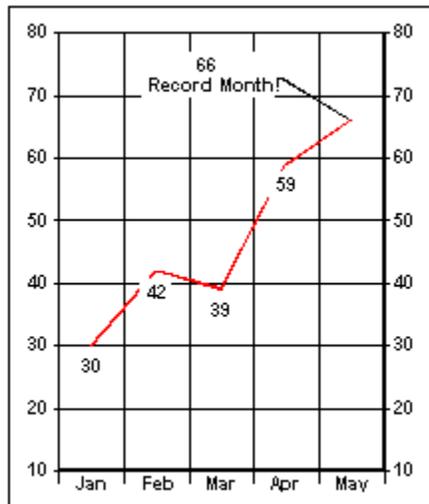
[Label Options](#)

[Controlling Label Type](#)

[Formatting Label Text](#)

Data Point Labels

You can format data point labels for all the data points in a series or for an individual data point. Data point labels can provide additional information about, or draw attention to, a data point. The following illustration shows two types of data points.



The series default for all these data points is set to display the data point value.

The data point value for May has been formatted to signify record sales.

To format data point labels:

1. Double-click the existing data point label to display the [Format Data Point Label](#) dialog box.

Alternatively, you can click the right mouse button to display the floating menu and select Series Data Point Label. A dialog box appears asking you to specify the series and data point you want to format. You can pick Series Defaults to format the data point labels for every data point in the series.

2. Uncheck the Use Series Defaults check box to enable other tabs in the dialog box. You can then change any of the options used to display the data point. Check the Use Series Defaults check box to discard any custom settings you have made for the data point label and reset all options to the series defaults.

Related Topics:

[Formatting Labels](#)

[Series Labels](#)

[Series Label Options](#)

[The Format Data Point Label Dialog](#)

[Label Options](#)

[Controlling Label Type](#)

[Formatting Label Text](#)

The Format Data Point Label Dialog

The following table briefly describes the tabs available in the Format Data Point Label dialog box

Tab	Description
Options	Controls the display and placement of labels as well as the display and type of lines connecting the labels to the series.
Text	Controls the text used for the data point label as well as the orientation and alignment of the text.
Font	Controls the font, font size, font style, font color, and special effect used to display the label text.
Backdrop	Controls the fill, frame, and shadow used to create a backdrop for the label.
Value Format	Controls the mask used to display the data point label when the text is displayed as a value.
Percent Format	Controls the mask used to display the data point label when the text is displayed as a percentage.

Note Make any necessary changes to the tabs in the Format Data Point dialog box and click OK or Apply to redraw the chart to reflect the changes.

Related Topics:

[Formatting Labels](#)

[Series Labels](#)

[Series Label Options](#)

[Data Point Labels](#)

[Label Options](#)

[Controlling Label Type](#)

[Formatting Label Text](#)

Label Options

The [Options tab](#) of the Format Data Point Label dialog box controls the position of the data point label and the line style used to connect the label to the data point.

Nine preset locations are available to position data point labels. The following table lists the available locations..

Locations	Description
None	No label displayed.
Above Point	The label is displayed above the data point. This location is only valid for bar, line, area, step, XY, polar, radar, and bubble charts.
Below Point	The label is displayed below the data point. This location is only valid for bar, line, area, step, XY, polar, radar, and bubble charts.
Center	The label is displayed centered on the data point. This location is only valid for bar, line, area, step, xy, polar, radar and bubble charts.
Base	The label is displayed along the category axis, directly beneath the data point. This location is only valid for bar, line, area, and step charts.
Inside	The label is displayed inside a pie or doughnut slice.
Outside	The label is displayed outside a pie or doughnut slice.
Left	The label is displayed to the left of the data point. This location is only valid for XY, polar, radar, and bubble charts.
Right	The label is displayed to the right of the data point. This location is only valid for XY, polar, radar, and bubble charts.

There are three Label Line Styles available for displaying the line that connects the data point and its label. The following table lists the line styles available.

Line Styles	Description
None	No line connects the label and series.
Line	A straight line connects the label and data point.
Angle line	An angled line connects the label and data point.

Related Topics:

[Formatting Labels](#)

[Series Labels](#)

[Series Label Options](#)

[Data Point Labels](#)

[The Format Data Point Label Dialog](#)

[Controlling Label Type](#)

[Formatting Label Text](#)

Controlling Label Type

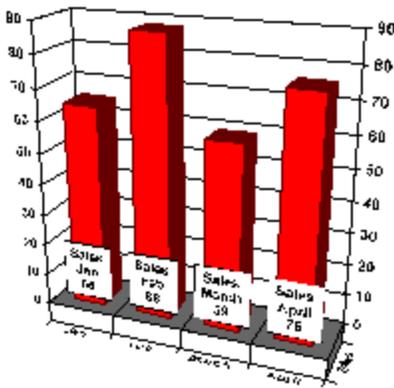
The settings on the [Text tab](#) of the Format Data Point Label dialog box control the type of label displayed on the data point.

First Impression will automatically create a data point label for you, if you select the **Automatic** option. You can indicate the type of label you would like by selecting the appropriate radio button. The available label types described in the following table. If you select more than one type, the labels are stacked on top of each other.

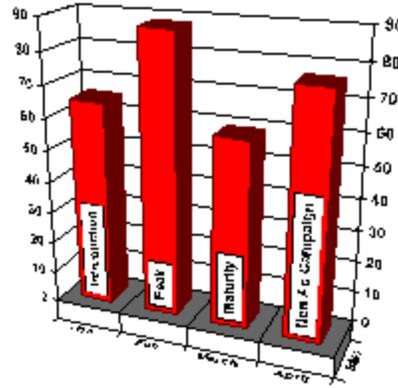
Type	Description
Value	The value of the data point appears in the label.
Percent	The value of the data point is displayed in the label as a percentage according to the axis percent basis.
Series Name	The series name is used to label the data point.
Data Point Name	The category name is used to label the data point.

If you don't wish to use one of the available label types, you can choose to enter custom label text by selecting the Custom radio button, and entering the desired text in the text box of the Text tab.

The following illustration shows the use of automatic and custom data point labels.



These data points have automatic labels that display the series name, data point name, and data point value.



These data points each have custom labels that have been rotated to a 90 up orientation.

Related Topics:

[Formatting Labels](#)

[Series Labels](#)

[Series Label Options](#)

[Data Point Labels](#)

[The Format Data Point Label Dialog](#)

[Label Options](#)

[Formatting Label Text](#)

Formatting Label Text

You can specify a display mask to control the appearance of the data point labels. On the Format Data Point Label dialog box, use the settings on the [Value Format tab](#) to format the label when it is displayed as a value. Use the settings on the [Percent Format tab](#) to format the label when it is displayed as a percent.

Related Topics:

[Formatting Labels](#)

[Series Labels](#)

[Series Label Options](#)

[Data Point Labels](#)

[The Format Data Point Label Dialog](#)

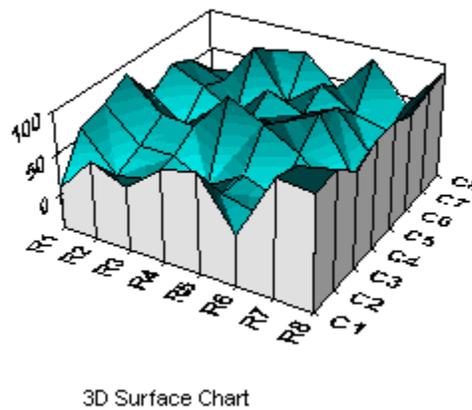
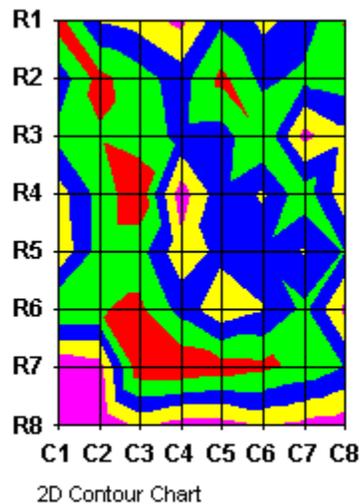
[Label Options](#)

[Controlling Label Type](#)

Elevation Charts

Elevation charts can be drawn as a 2D contour chart or a 3D surface chart. Use the Chart Type list in the [Type tab](#) of the Format Plot dialog box to specify which chart type you wish to draw.

The following illustration depicts a contour and a surface chart.



Related Topics:

[The Elevation Tab](#)

[Displaying Contours](#)

[Displaying Chart Bases](#)

[Surface Chart Projection](#)

[Displaying Chart Surfaces](#)

[Displaying Wireframe Surfaces](#)

[Chart Surface Smoothing](#)

[Displaying Elevation and Contour Data](#)

The Elevation Tab

Once you have specified the type of chart you wish to draw, you can format both elevation and contouring information for the chart. Contour and elevation options are divided between two tabs in the Format Plot dialog box. The [Elevation tab](#) contains basic contour and surface options. The [Contouring tab](#) controls the assignment of colors and line widths used in the actual contour bands and lines.

In each tab, the available options depend on the chart type you have specified and will be disabled (grayed) if they do not apply to the current chart type.

Related Topics:

[Elevation Charts](#)

[Displaying Contours](#)

[Displaying Chart Bases](#)

[Surface Chart Projection](#)

[Displaying Chart Surfaces](#)

[Displaying Wireframe Surfaces](#)

[Chart Surface Smoothing](#)

[Displaying Elevation and Contour Data](#)

Displaying Contours

The purpose of contouring is to identify areas on a surface or contour chart that have like contour values. On a surface chart, the contour data is the elevation data itself. In such a chart, contour bands are painted upon the surface along areas within given elevation ranges while contour lines are striped along areas at specific elevations.

Basic contour information is contained in an array of contour attributes each of which define a contour band or line. Each element in the array consists of a contour value, brush for contour bands, pen for contour lines, and an optional label which is used to identify the contour element in a contour legend.

When displaying contour bands on a chart, areas on the chart whose contour values lie directly beneath a given element's value (but above the preceding element's value) are filled using that element's brush. When displaying contour lines on a chart, areas on the chart whose contour values exactly match a given element's value are striped using that element's pen.

The Format Plot Elevation tab allows you to set the types of contour you wish to display on your chart. The following table lists the available contour types

<u>Type</u>	<u>Description</u>
Bands	Contours are displayed as bands of color.
Lines	Contours are displayed as colored lines.

To learn how to set the contour type for your chart, see [The Format Plot Elevation tab](#).

Related Topics:

[Elevation Charts](#)

[The Elevation Tab](#)

[Displaying Chart Bases](#)

[Surface Chart Projection](#)

[Displaying Chart Surfaces](#)

[Displaying Wireframe Surfaces](#)

[Chart Surface Smoothing](#)

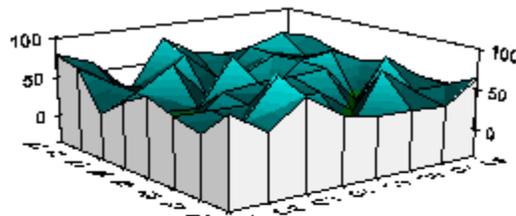
[Displaying Elevation and Contour Data](#)

Displaying Chart Bases

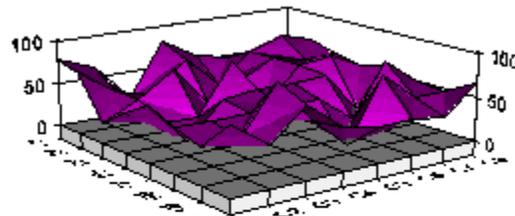
In addition to displaying variations in data as contours on their surface, surface charts can also reflect data variation in the base of the chart. There are four different surface chart base types. A chart base of type **bands** or **lines** will reflect the chart's contours in the base. A chart base of type **pedestal** or **standard** does not reflect any of the chart's contours. The following table defines each of the four base types:

Type	Description
Pedestal	The base is displayed as a solid area that rises up to meet the surface.
Standard	The base is displayed as a flat area beneath the chart surface.
Bands	The base reflects the chart's contours as a series of contour bands.
Lines	The base reflects the chart's contours as a series of contour lines.

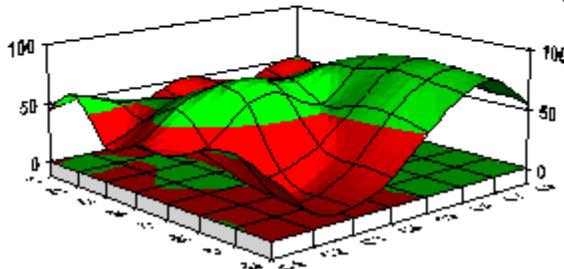
The following illustration depicts the various surface chart bases.



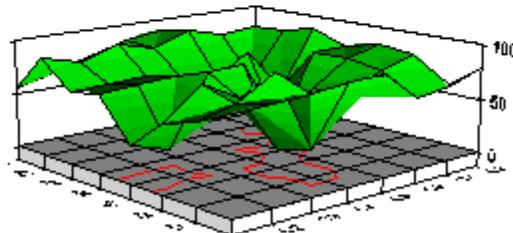
Surface Chart with Pedestal Base



Surface Chart with Standard Base



Surface Chart with Contour Bands Base



Surface Chart with Contour Lines Base

For specific information about how to select the base type for your chart, see The [Format Plot Elevation tab](#).

Related Topics:

[Elevation Charts](#)

[The Elevation Tab](#)

[Displaying Contours](#)

[Surface Chart Projection](#)

[Displaying Chart Surfaces](#)

[Displaying Wireframe Surfaces](#)

[Chart Surface Smoothing](#)

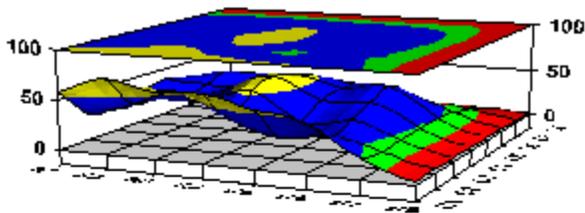
[Displaying Elevation and Contour Data](#)

Surface Chart Projection

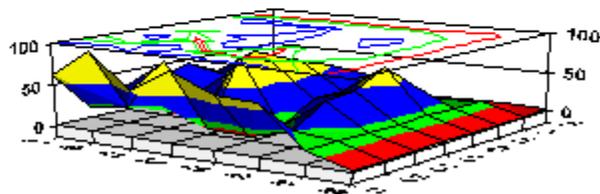
Projection is a charting technique that displays a planar contour chart projected above a surface chart. The following table defines the three available projection options:

<u>Method</u>	<u>Description</u>
None	No projection is displayed above the chart.
Bands	The planar chart reflects the chart's contours in contour bands.
Lines	The planar chart reflects the chart's contours in contour lines.

This illustration demonstrates the two projection methods which display the contours of the surface chart below.



Surface Chart with Contour Bands Projection



Surface Chart with Contour Lines Projection

To learn how to set the projection method for your surface chart, see The [Format Plot Elevation tab](#).

Related Topics:

[Elevation Charts](#)

[The Elevation Tab](#)

[Displaying Contours](#)

[Displaying Chart Bases](#)

[Displaying Chart Surfaces](#)

[Displaying Wireframe Surfaces](#)

[Chart Surface Smoothing](#)

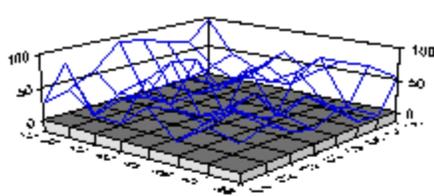
[Displaying Elevation and Contour Data](#)

Displaying Chart Surfaces

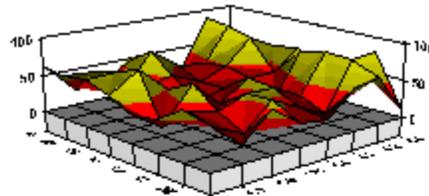
There are five ways to represent the surface on a 3D surface chart. The following table lists the five options:

Type	Description
None	The surface data is represented exclusively by a wireframe.
Bands	The surface displays changes in data with contour bands.
Lines	The surface is represented by a wireframe and displays changes in data with contour lines.
Solid	The surface is drawn with a solid color.
Solid with Lines	The surface is drawn with a solid color. Changes in data are indicated by contour lines super imposed on the solid color.

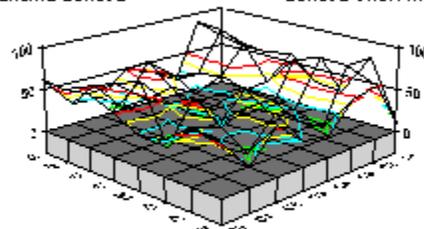
The following illustration demonstrates chart surfaces.



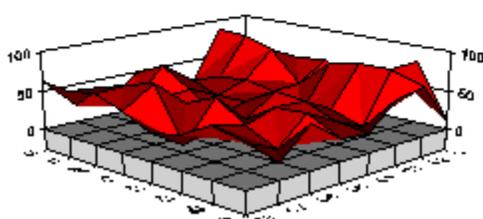
Surface Chart with Wireframe Surface



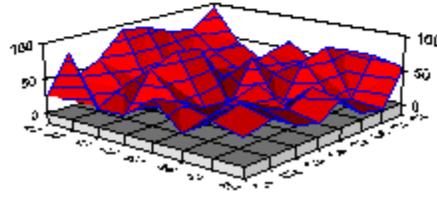
Surface Chart with Contour Bands Surface



Surface Chart with Contour Lines Surface



Surface Chart with Solid Surface



Surface Chart with Solid with Lines Surface

For specific information on how to select your charts surface type, see [The Format Plot Elevation tab](#).

Related Topics:

[Elevation Charts](#)

[The Elevation Tab](#)

[Displaying Contours](#)

[Displaying Chart Bases](#)

[Surface Chart Projection](#)

[Displaying Wireframe Surfaces](#)

[Chart Surface Smoothing](#)

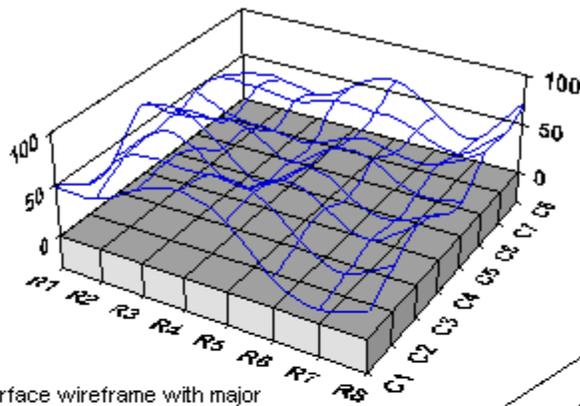
[Displaying Elevation and Contour Data](#)

Displaying Wireframe Surfaces

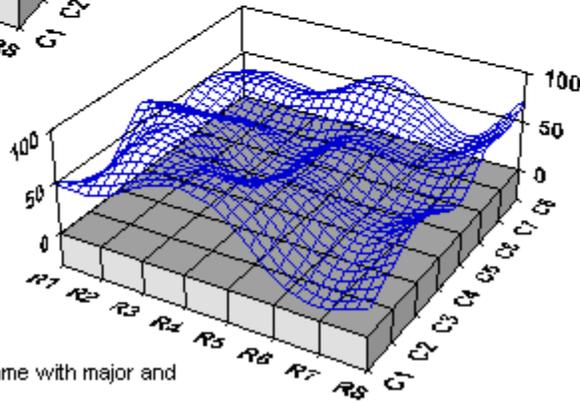
If you choose not to display a surface on your 3D surface chart, then the surface is represented exclusively by a wireframe. Surface wireframes can be displayed through variations in pen color and the interval at which the wireframe appears along the chart's surface. The following table lists the wireframe options available on The Format Plot [Elevation tab](#).

Type	Description
None	The surface is represented by the surface color only.
Major	The wireframe indicates the original data grid values.
Major and Minor	The wireframe is drawn upon the surface along the original data grid values and any additional rows or columns generated by the smoothing process.

The following illustration shows several wireframe surface charts.



Surface wireframe with major grid lines only.



Surface wireframe with major and minor grid lines.

Related Topics:

[Elevation Charts](#)

[The Elevation Tab](#)

[Displaying Contours](#)

[Displaying Chart Bases](#)

[Surface Chart Projection](#)

[Displaying Chart Surfaces](#)

[Chart Surface Smoothing](#)

[Displaying Elevation and Contour Data](#)

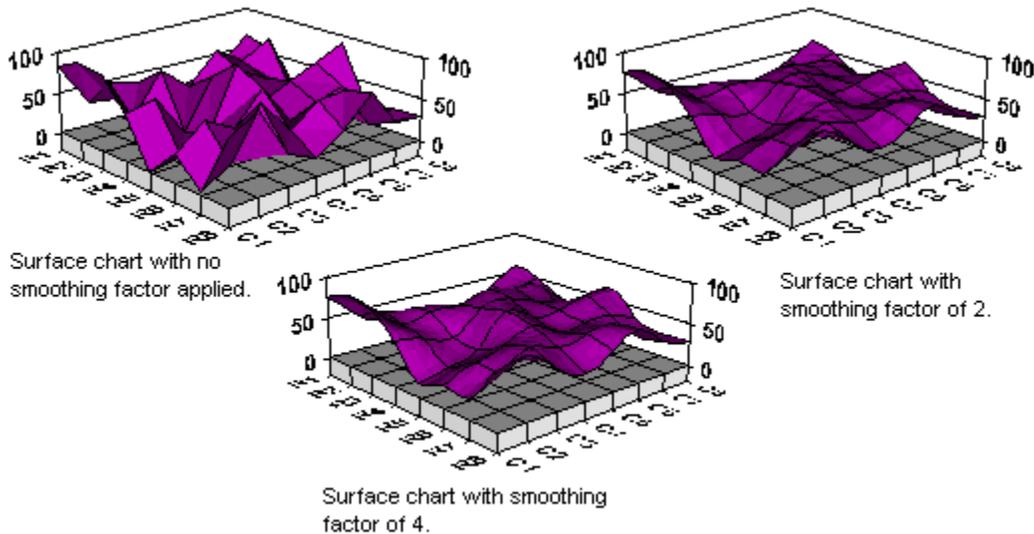
Chart Surface Smoothing

Smoothing can be applied to both contour and surface charts. You can use smoothing to create rounder, smoother contours. First Impression uses the bi cubic B spline formula to determine how to smooth the chart data based on the smoothing factor you specify in The Format Plot [Elevation tab](#). The following table describes valid smoothing factors:

Factor	Description
0	The raw grid data is used with no smoothing.
1	This factor samples the spline data only at the original data grid locations.
2-32	A factor of 2 or more will break the row and column locations into the specified number of subdivisions.

Note Since smoothing occurs for both rows and columns, a smoothing factor of 2 breaks a surface patch into 4 subpatches while a smoothing factor of 4 breaks a patch into 16 subpatches. Higher smoothing factors may slow drawing speed significantly.

The following illustration depicts chart smoothing.



Related Topics:

[Elevation Charts](#)

[The Elevation Tab](#)

[Displaying Contours](#)

[Displaying Chart Bases](#)

[Surface Chart Projection](#)

[Displaying Chart Surfaces](#)

[Displaying Wireframe Surfaces](#)

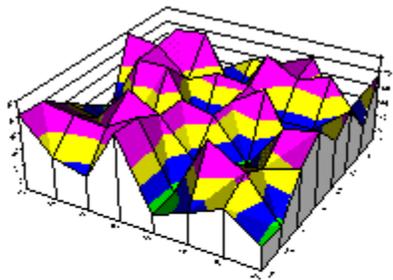
[Displaying Elevation and Contour Data](#)

Displaying Elevation and Contour Data

A contour chart displays only contour data, but a surface chart can display both contouring and elevation data. Normally, all data in a data grid represents both contouring and elevation. If you choose to use separate contour data, then the data grid is divided vertically between columns into two equal subranges of data. The left subrange contains elevation data, and the right subrange contains contouring data.

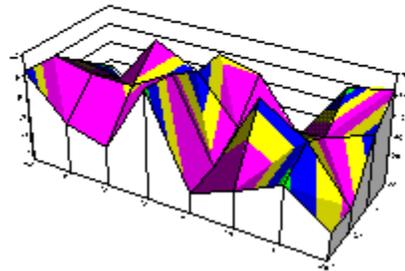
When Use Separate Contour Data is enabled, a surface chart will display surface contours that do not necessarily conform to the shape of the surface. For example, a surface chart displaying separate contour and elevation data might depict snowfall across a mountain range.

The following illustration demonstrates how the Use Separate Contour Data option can affect a surface chart display:



Surface chart with Use Separate Contour Data disabled. The contour bands conform to the shape of the surface so in this case, elevation and contour data represent the same thing on the chart.

Surface chart with Use Separate Contour Data enabled. Contour bands do not conform to the shape of the surface so in this case, elevation and contour data convey separate information.



To enable Use Separate Contour Data for your chart, see the [Format Plot Elevation tab](#).

Related Topics:

[Displaying Contours](#)

[Displaying Chart Surfaces](#)

[Chart Surface Smoothing](#)

[Formatting Contouring Options](#)

[Displaying Contour Chart Colors](#)

[Modifying Contour Colors](#)

Formatting Contouring Options

Unless otherwise specified, contours are drawn on a chart at major axis divisions. You may wish to increase or decrease the number of contours that appear on your chart in order to best plot your specific data. First Impression provides methods for designing custom contours for your chart by setting the appropriate options.

The first step in designing custom contours for your chart is to disable the **Automatic Values** option on the [Format Plot Contouring tab](#). When the Automatic Values option is disabled, you can customize contours by modifying current contours, adding new contours or deleting existing ones. You can also label contours. Value labels appear in the legend.

To add a new contour:

1. Select a contour value from the contour list.
2. Click the new button.

A new value will be inserted in the contour list.

3. Double-click the number displayed in the Value window of the [Contouring tab](#).
4. Type the new value for the contour.

The contour list will be re-ordered to display the new value in the appropriate location.

5. Click Apply or OK to redraw the chart to reflect the changes.

To delete an existing contour:

1. Select a contour value from the contour list.
2. Click the delete button.
3. Click Apply or OK to redraw the chart to reflect the changes.

To modify a contour:

1. Select a contour value from the contour list.
2. Double-click the number displayed in the Value window of the Contouring tab.
3. Type the new value for the contour.
4. Click Apply or OK to redraw the chart to reflect the changes.

To add a contour label:

1. Select a contour value from the contour list.
2. Click once in the Value Label window of the Contouring tab.
3. Type the value label you wish to appear in the legend.
4. Click Apply or OK to redraw the chart to reflect the changes.

Related Topics:

[Chart Surface Smoothing](#)

[Displaying Elevation and Contour Data](#)

[Formatting Contouring Options](#)

[Displaying Contour Chart Colors](#)

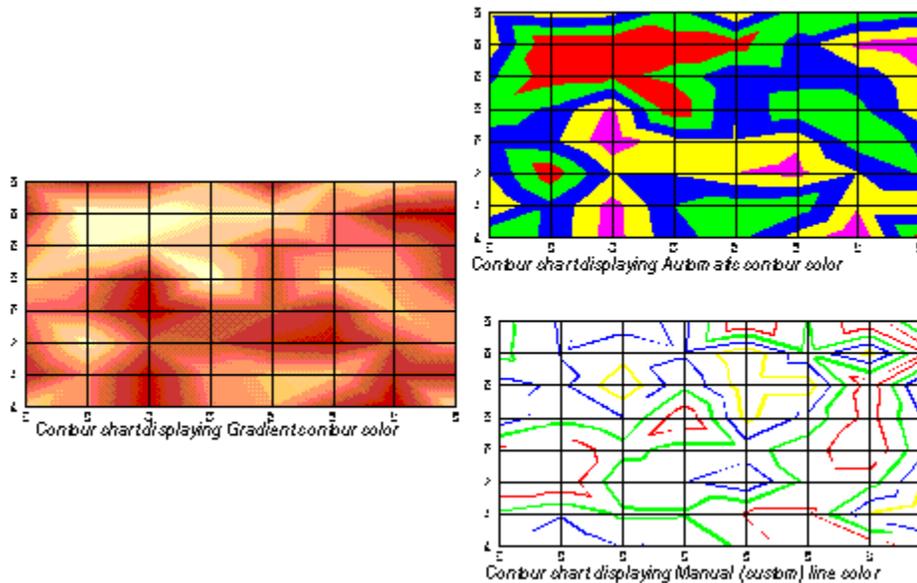
[Modifying Contour Colors](#)

Displaying Contour Chart Colors

First Impression provides three ways to display color on a contour chart. The following table describes each of the valid color types:

Type	Description
Automatic	The contour colors are displayed as the default series colors.
Gradient	The contours are displayed in an even transition of two colors.
Manual	Custom contour colors can be specified and modified by the user. (Manual colors is only available when Automatic values is unchecked.)

The following illustration demonstrates the three color types for contour charts:



To learn more about how to set Contour chart colors, see [The Format Plot Contouring tab](#).

Related Topics:

[Displaying Elevation and Contour Data](#)

[Formatting Contouring Options](#)

[Modifying Contour Colors](#)

Modifying Contour Colors

First Impression provides contour color display methods on the [Contouring tab](#) of the Format Plot dialog box. When the contour colors option is set to **Automatic**, contour colors are automatically computed based on series colors. You can customize any contour color when the Colors option is set to manual. When the Colors option is set to gradient, only the To and the From color can be customized.

To modify contour band colors:

1. Select Manual from the Colors popup list.
2. Select one of the values listed in the contour list.
3. Select a band color from the Band Options Color pop up list.
4. Click Apply or OK to redraw the chart to reflect the changes.

To modify contour line colors:

1. Select Manual from the Colors popup list.
2. Select one of the values listed in the contour list.
3. Select a line color from the Line Options Color pop up list.
4. Click Apply or OK to redraw the chart to reflect the changes.

To modify gradient band colors:

1. Select Gradient from the Colors popup list.
2. Select the To value listed in the contour list.
3. Select a band color from the Band Options Color pop up list.
4. Select the From value listed in the contour list.
5. Select a band color from the Band Options Color pop up list.
6. Click Apply or OK to redraw the chart to reflect the changes.

To modify gradient line colors:

1. Select Gradient from the Colors popup list.
2. Select the To value listed in the contour list.
3. Select a line color from the Line Options Color pop up list.
4. Select the From value listed in the contour list.
5. Select a line color from the Line Options Color pop up list.
6. Click Apply or OK to redraw the chart to reflect the changes.

Related Topics:

[Displaying Contours](#)

[Displaying Elevation and Contour Data](#)

[Formatting Contouring Options](#)

[Displaying Contour Chart Colors](#)

Exporting Charts

There are two ways to export copies of a chart from First Impression: by saving it to a file, or by copying it to the clipboard.

To copy a chart to the clipboard:

1. Use the right mouse button to display the floating menu bar and select Copy.

A copy of the current chart is placed on the clipboard in Windows Metafile format. You can then view the chart in any application that supports the .wmf format.

To save the chart to a file:

1. Use the right mouse button to display the floating menu bar and select Save As.

The Save As dialog box appears.

2. Enter a name and path for the file.
3. Select a file type from the Save File As Type popup.

You can save the chart in the native First Impression format (.vtc), as a standard metafile (.wmf), or as a Windows bitmap (.bmp). By default, the Adobe placeable header information is included in the metafile.

4. To save the metafile without the Adobe Placeable header information, check Save metafile without size information.

Do not check this option if you intend to use this metafile in a Microsoft application such as Word or Excel. These applications expect size information to be included in metafiles.

5. To save the text on the chart as curves check Save Text As Curves.

You should check this option if you are using an unusual font that may not be present on other systems that will be using the metafile. This option should also be used to properly display text if you are deforming the metafile by stretching it.

6. Click Save.

Related Topics:

[Loading Saved Charts](#)

[Printing Charts](#)

[Setting Print Options](#)

[Specifying Page Size and Appearance](#)

[Changing Printer Setup](#)

Loading Saved Charts

You can load a chart that was saved in First Impression's native format into the current chart control. Any chart that currently exists in the control is discarded.

To load a file:

1. Use the right mouse button to display the floating menu bar and select Load.

The Load Chart dialog box appears. A list of all .vtc files in the current directory is displayed.

2. Select the file you want to load.

3. Click OK.

Related Topics:

[Exporting Charts](#)

[Printing Charts](#)

[Setting Print Options](#)

[Specifying Page Size and Appearance](#)

[Changing Printer Setup](#)

Printing Charts

You can print a copy of the current chart.

To print a chart:

1. Use the right mouse button to display the floating menu bar and select Print to display the Print dialog box.
2. Make any necessary settings and click Print.

Specific information about the settings in the Print dialog box is presented in the following discussion.

Related Topics:

[Exporting Charts](#)

[Loading Saved Charts](#)

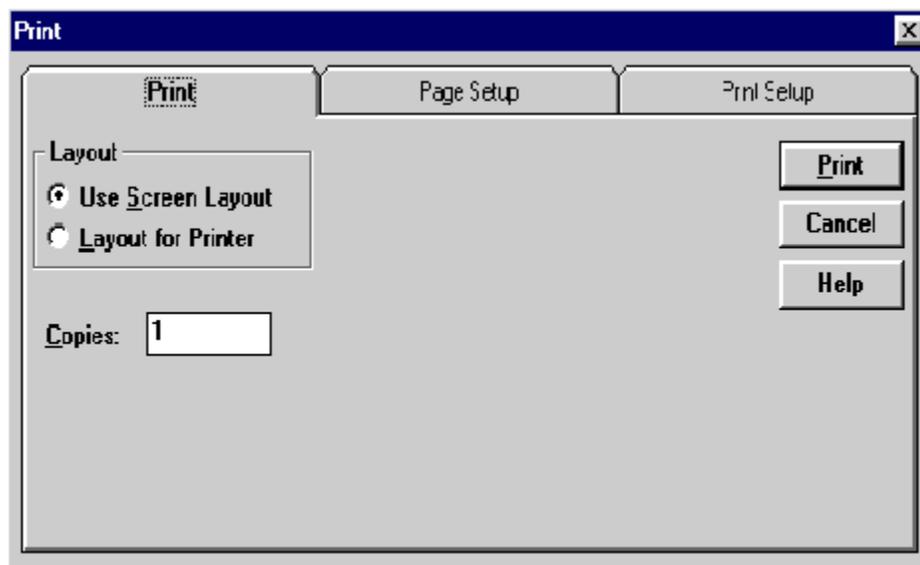
[Setting Print Options](#)

[Specifying Page Size and Appearance](#)

[Changing Printer Setup](#)

Setting Print Options

The following illustration shows the settings on the Print tab.



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

Related Topics:

[Exporting Charts](#)

[Loading Saved Charts](#)

[Printing Charts](#)

[Specifying Page Size and Appearance](#)

[Changing Printer Setup](#)

Layout radio buttons

Select Use Screen Layout to print the chart exactly as it appears on the screen. Select Layout for Printer to layout the chart to best fit the page. Chart elements such as axis labels and data points are repositioned as they would be if you had resized the chart on the screen.

Copies text box

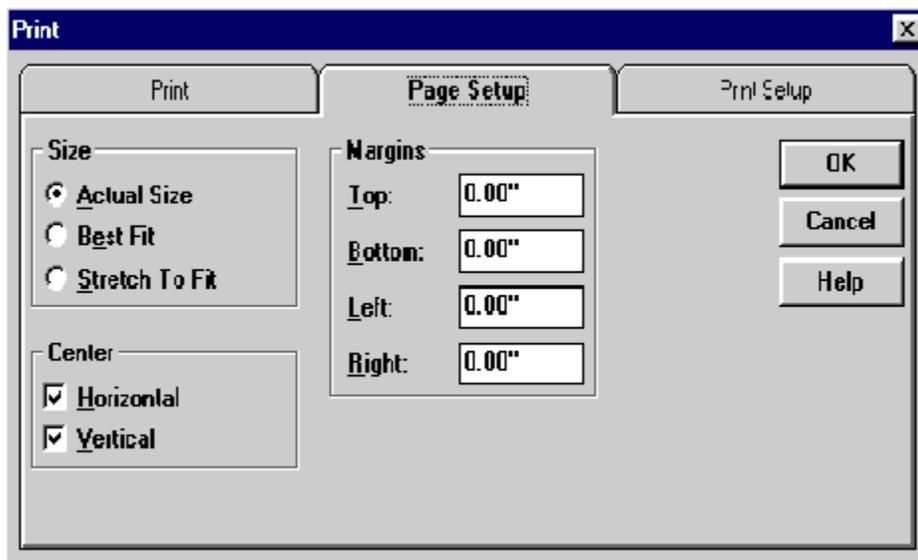
Enter the number of copies of the chart you want printed.

Print button

Sends a copy of the chart to the printer.

Specifying Page Size and Appearance

You can use the options on the Page Setup tab to change page margins and control how the chart is positioned on the page. The following illustration shows the options on the Page Setup tab.



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

Related Topics:

[Exporting Charts](#)

[Loading Saved Charts](#)

[Printing Charts](#)

[Setting Print Options](#)

[Changing Printer Setup](#)

Page Size radio buttons

Select Actual Size to print the chart at the original size it was created. Select Best Fit to scale the chart proportionally to fit the page. Select Stretch to Fit to scale an image of the chart to fit the page, regardless of its original proportions.

Page Center check boxes

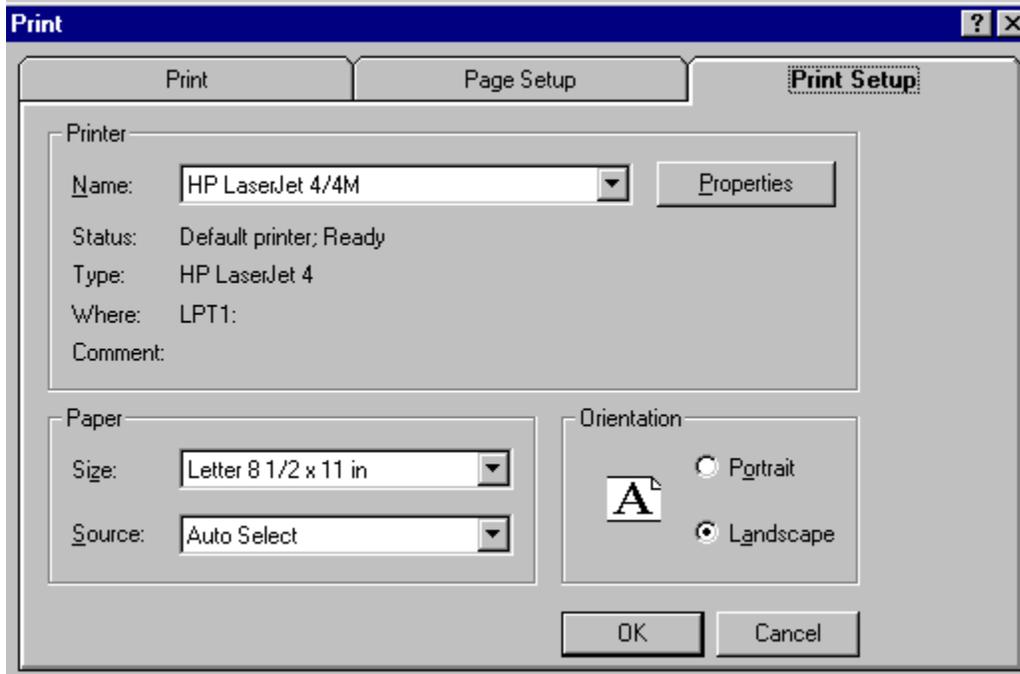
Check Center Horizontally to center the chart horizontally on the page. Uncheck Center Horizontally to print the chart at the left margin of the page. Check Center Vertically to center the chart vertically on the page. Uncheck Center Vertically to print the chart at the top margin of the page.

Page Margins text boxes

Enter a value in inches or centimeters, depending on your Windows settings to specify the top, bottom, left, and right margins of the page.

Changing Printer Setup

The Print Setup tab provides standard Windows settings for selecting the printer, page orientation, and paper size and source. This Setup tab may appear differently depending on the system you are using.



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

Related Topics:

[Exporting Charts](#)

[Loading Saved Charts](#)

[Printing Charts](#)

[Setting Print Options](#)

[Specifying Page Size and Appearance](#)

Printer Identification list box

Identifies the current printer, printer port and device.

This identification will differ depending on your operating system, unique printer options and devices.

Paper section

Size Choose a paper size from the available options in the list box.

Source Choose a paper source from the available options in the list box.

Orientation section

Landscape [Click here to print across the width of the page.](#)

Portrait [Click here to print across the length of the page.](#)

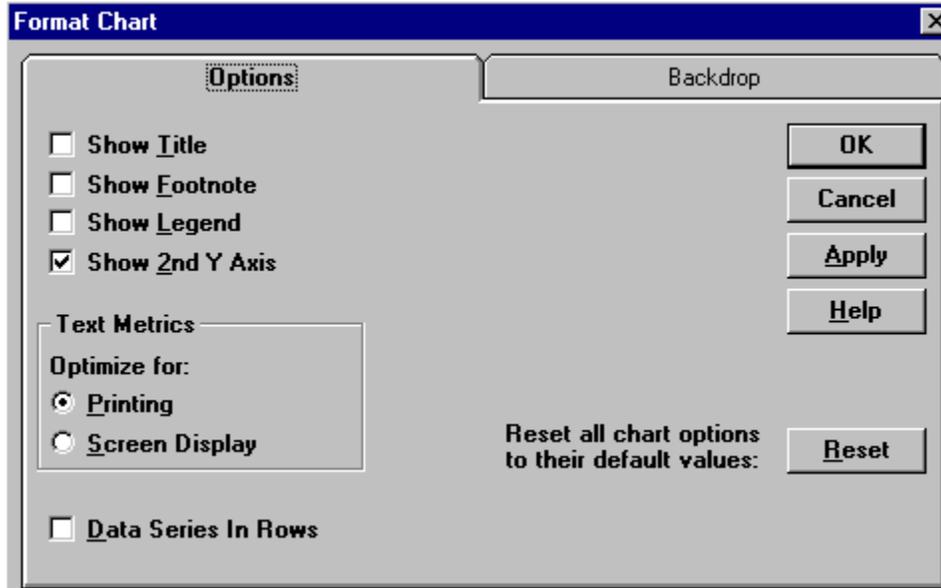
Properties button

Displays the printing properties for your particular printer.

The Format Chart Options Tab

The Format Chart dialog allows you to turn on or off the display of some common chart elements, reset any chart formatting to its default values, and specify a backdrop for the entire chart.

The Options tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Chart Backdrop Tab](#)

Printing

Choose this radio button to use TrueType virtual font metrics to optimize text layout for printing. TrueType virtual font metrics may not be very accurate for text displayed on the screen. Text displayed on the screen may be larger or smaller than the virtual metrics requested. Larger text may not fit where it is supposed to and part of a character, a whole character, or even in some cases words may be clipped.

Screen Display

Choose this radio button to optimize text layout for the screen. Text in charts laid out for screen display always fits correctly within its chart area. The printed text is generally a bit smaller and so the text may appear in slightly different places.

Show Title check box

Click this to display a chart title.

Show Footnote check box

Click this to display a chart footnote

Show Legend check box

Click this to display a chart legend.

Show 2nd Y Axis check box

Click this to display a secondary Y axis for the chart.

Data Series In Rows check box

Click this to read series data from data grid rows rather than columns.

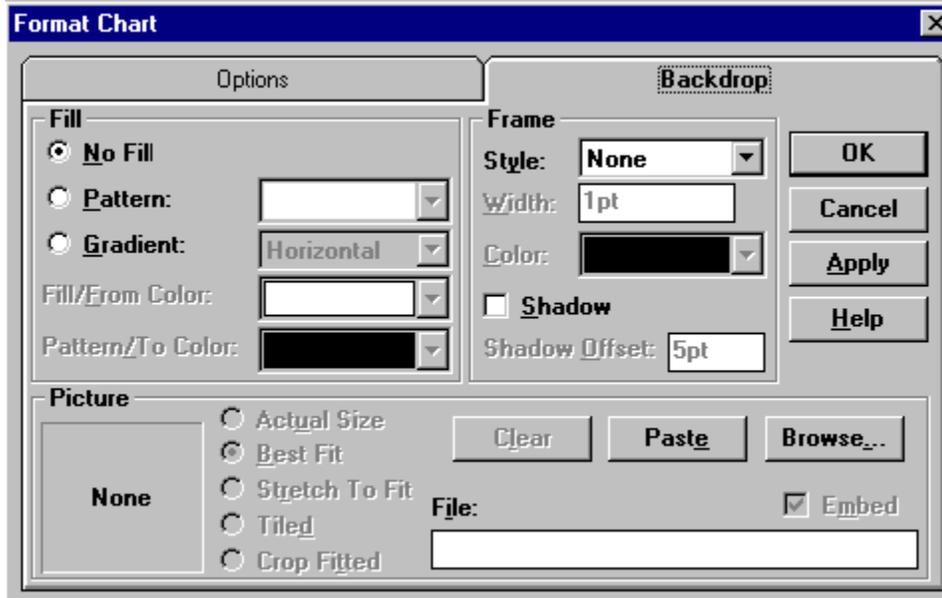
Reset All Options to Default button

Click this to reset all chart options to their defaults settings.

The Format Chart Backdrop Tab

The Format Chart dialog allows you to turn on or off the display of some common chart elements, reset any chart formatting to its default values, and specify a backdrop for the entire chart.

The Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

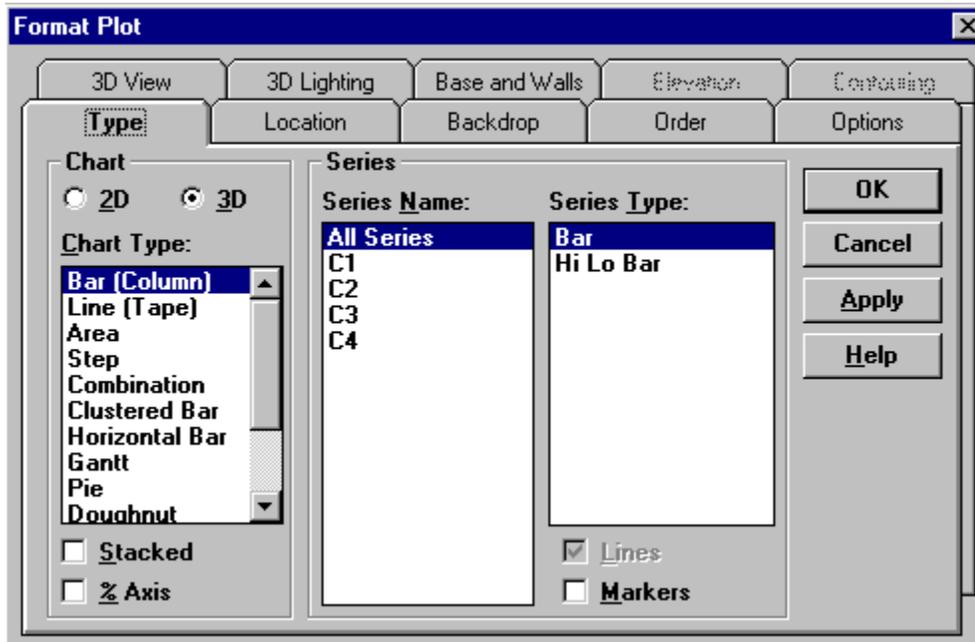
See Also:

[The Format Chart Options Tab](#)

The Format Plot Type Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The Type Tab provides methods for determining whether your chart is a 2D or 3D chart, selecting the appropriate chart type, stacking data and setting type of data point markers.



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Backdrop Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot 3D View Tab](#)

[The Format Plot Base and Walls Tab](#)

[The Format Plot Elevation Tab](#)

[The Format Plot Contouring Tab](#)

Chart radio buttons

Select the 2D radio button to display a list of the 2D chart types in the Chart Type list box. Select the 3D radio button to display the 3D chart types.

Chart Type list box

Select a type from the list.

Stacked check box

Click this box to stack all the series of the current chart.

Percent Axis check box

Check the %Axis check box to add together all the values in each category. That value is considered 100 percent. Then each data point in the category is drawn as a percentage of that sum.

Line or Markers

The options in this section of the dialog are enabled if you choose a 3D chart or a 2D chart type other than pie or bubble. Markers can represent the data points on the chart for all 2D types other than bubble and pie charts. Markers and lines can both represent all data points on 2D line, XY, Radar, and Polar charts.

Series Name list box

Select a series from the list.

Series Type list box

Select the series type you want to use to display data from the list.

Ok Button

Applies changes to the chart and dismisses the dialog.

Cancel Button

Dismisses the dialog without applying changes.

Apply Button

Applies changes to the chart without dismissing the dialog

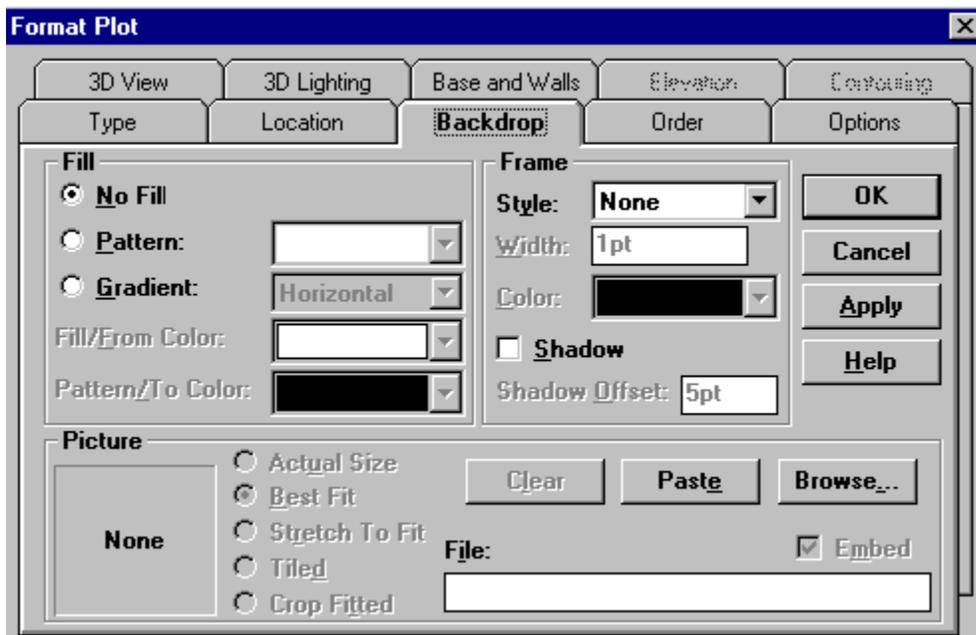
Help Button

Displays this Help screen.

The Format Plot Backdrop Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot 3D View Tab](#)

[The Format Plot Base and Walls Tab](#)

[The Format Plot Elevation Tab](#)

[The Format Plot Contouring Tab](#)

No Fill radio button

The chart control or chart elements have no fill, so any formatting applied to the surface behind them shows through. A picture can still be applied to a element with no fill.

Pattern radio button and pop up menu

Click the radio button, then click the pop up menu to display the pattern picker. Click one of the patterns, click None to have no fill on the object, or Solid to use only the fill color to fill the object.

Gradient radio button and pop up menu

Click on the radio button and select a gradient type from the popup menu.

Fill/From Color and Pattern/To Color pop up menus

Click the control to display the color picker. Choose a predefined color or click Custom to create your own color.

The fill color is used to create a solid pattern. For a pattern fill, the pattern color is drawn on top of the fill color.

For a gradient fill, use the Fill/From Color popup to specify the color used as the top color in a horizontal gradient, the left color in a vertical gradient, and the center color in a rectangle or oval gradient. Use the Pattern/To Color popup to specify the color used as the bottom color in a horizontal gradient, the right color in a vertical gradient, and the outer color in a rectangle or oval gradient.

Picture buttons

Clear. Click this button to clear an existing picture from the backdrop. Some graphics files can be very large. In order to minimize performance problems, it is recommended that you always clear one picture from the backdrop before specifying a new one. This prevents the system from having to deal with two large graphics files simultaneously.

Paste. Click this button to paste a .wmf or .bmp file from the clipboard into the current backdrop. You can also paste a graphic into an existing backdrop by selecting the backdrop on the screen and selecting the Paste command from the floating menu. Select the graphic file you want to paste into the backdrop and Click OK.

Browse. Click Browse to display a standard Open dialog box. Select the file to display and click OK. The pathname and file then appear in the File field and a preview of the graphic appears in the Picture control.

File. To add a picture to the backdrop, type the full path to the graphic file in the File field or press the Browse button to display an Open dialog box. When you specify a valid path, a preview of the graphic appears in the dialog box.

Embed. Select the Embed check box to save the picture file with the chart. In order to save space, it is better not to embed charts unless they are not going to be available later.

Picture display box

This control displays a preview of the graphic. When you enter a valid path and file name into the File text box, or paste a graphic from the clipboard, the picture is previewed in the Picture control. Only the Windows Bitmap (.bmp) and Windows Metafiles (.wmf) graphic formats are supported.

Picture Fit radio buttons

Choose one of these options to determine how to fit the graphic into the backdrop space.

The following table lists the options for fitting graphics.

Constant	Description
Actual Size	Displays the graphic at the original size it was created. If the original size of the graphic is too large, the graphic is cropped. If the original size of the graphic is too small, it is centered.
Best Fit	Scales the graphic proportionally to fit entirely within the backdrop.
Stretch to Fit	Scales the graphic to fit backdrop regardless of its original proportions.
Tiled	Duplicates the graphic repeatedly to fill the backdrop.
Crop Fitted	Centers the graphic and scales it proportionally to fill the backdrop. Any part of the image that falls outside the backdrop is cropped.

Frame Section

Style. Select a frame style from the popup.

Width. Enter the number of points to be used as the width for the frame lines. A point is $1/72$ of an inch. For the Thick Inner and Thick Outer frames, the width sets the thick line.

Color. Select a color for the frame lines from the Color picker.

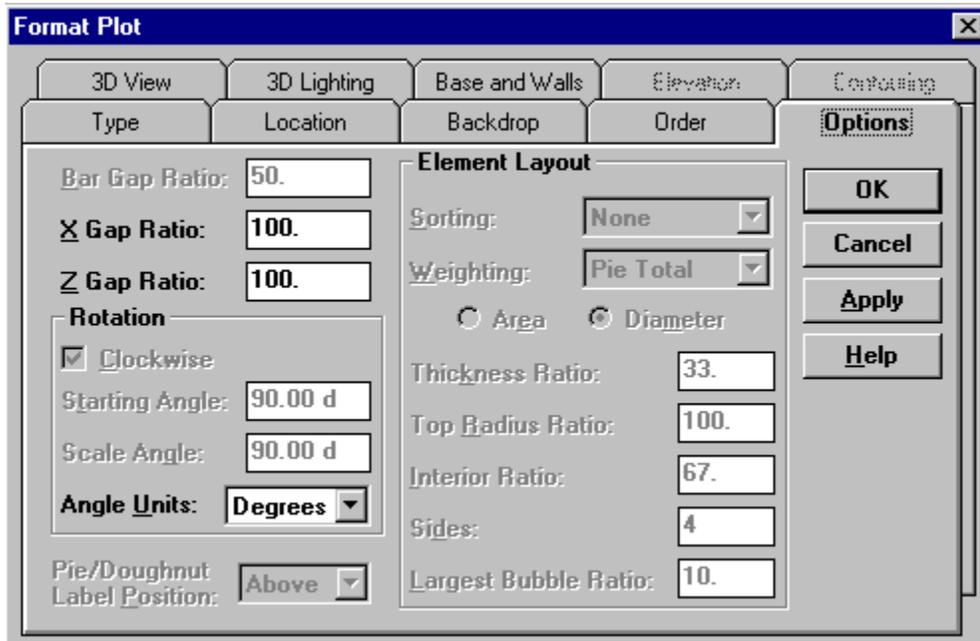
Shadow. Select this check box to place a shadow on the frame. The following chart shows shadows around the chart control, plot, title, legend, and footnote.

Shadow Offset. Specify the number of points the shadow is offset from the frame.

The Format Plot Options Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The Options tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Backdrop Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot 3D View Tab](#)

[The Format Plot Base and Walls Tab](#)

[The Format Plot Elevation Tab](#)

[The Format Plot Contouring Tab](#)

Bar Gap Ratio text box

Enter a bar gap value between 10,000 and -100. The default bar gap of 50 percent places a space between each bar that is half as wide as the bars.

X Gap Ratio text box

Enter an x gap ratio to any value between 0 and 10,000.

Z Gap Ratio text box

Enter a z gap value between 0 and 10,000.

Clockwise check box

Check this box to draw pie, doughnut, polar, and radar charts in a clockwise direction. Uncheck the box to draw the charts in a counterclockwise direction.

Starting Angle text box

Enter a value between 0 and 360 degrees to indicate the point on a circle at which drawing starts for pie, doughnut, polar, and radar charts. Enter 0 to indicate the 3 o'clock position. A starting angle of 90 degrees moves the starting position to 12 o'clock if the direction is set to counterclockwise, or to 6 o'clock if the direction is set to clockwise. The value is displayed in degrees, radians, or grad, depending on the setting in the Angle Units option.

Scale Angle text box

Choose where you want to display the scale on the chart. Angles are measured in the direction specified by the Clockwise check box. A value of 0 starts at the 3 o'clock position.

Angle Units pop-up menu

Choose the unit of measure for all angles in the chart. This affects the unit of measure used for: drawing the angle (Y coordinate) in a polar chart; the starting angle for polar, pie and doughnut charts; scale angle for radar and polar charts; and the rotation and elevation of 3D charts. Choose degrees, radians, or grads.

Sorting list box

This setting controls the order in which the slices of pie and doughnut charts are drawn. The following table lists the options for this setting.

Setting	Description
None	Pie slices are drawn in the order the data appears in the data grid.
Ascending	Pie slices are drawn from the smallest to the largest slice, starting at the defined starting angle.
Descending	Pie slices are drawn from the largest to the smallest slice, starting at the defined starting angle.

Weighting list box

This setting controls the size of each pie or doughnut in relation to the other pies or doughnuts in the same chart. The following table lists the options for this setting.

Setting	Description
None	All pies and doughnuts are drawn the same size.
Pie Total	The slice values in each pie are totaled and the pie with the highest total identified. The size of each pie in the chart is determined by the ratio of its total value compared to the largest pie.
First Series	The size of a pie is determined by the relationship of values in the first series of each pie. The larger the value in the first series, the bigger the pie. It is most common to exclude this first series so that the values are not drawn as pie slices.

Weighting Radio Buttons

Select the Area radio button to weight pies and doughnuts by the area of the chart element. Select the Diameter radio button to weight pies and doughnuts by the diameter of each chart element.

Thickness Ratio text box

This setting specifies the percentage of the pie or doughnut radius that determines the height of a 3D pie or doughnut. The higher the percentage, the taller the pie or doughnut. You can enter a value between 0 and 100 percent.

Top Radius Ratio text box

This setting specifies the percentage of the pie radius that is used to draw the top of a 3D pie. A ratio of 100 draws a cylinder; values less than 100 result in a tapering of the top of the pie. A value of 0 results in a cone.

Interior Ratio text box

This setting describes the ratio of the entire doughnut size that is used to display the interior "hole" of the doughnut. You can enter any number between 0 percent and 100 percent for this setting.

Sides text box

This setting controls the number of sides used to draw a doughnut. More sides give the doughnut a rounder, smoother appearance. If you enter a value of 1 in this option, First Impression determines the number of sides needed to draw a round doughnut based on the size of the doughnut. The maximum value for this option is 360. A very large number of sides may impact performance.

Largest Bubble Ratio text box

This setting controls the appearance of bubbles in a bubble chart. It describes the percentage of the shortest chart axis that is used as the diameter of the largest bubble. All other values are then sized in their relationship to the largest bubble. Valid values for this option are 2 to 50.

Pie/Doughnut Label Position text box

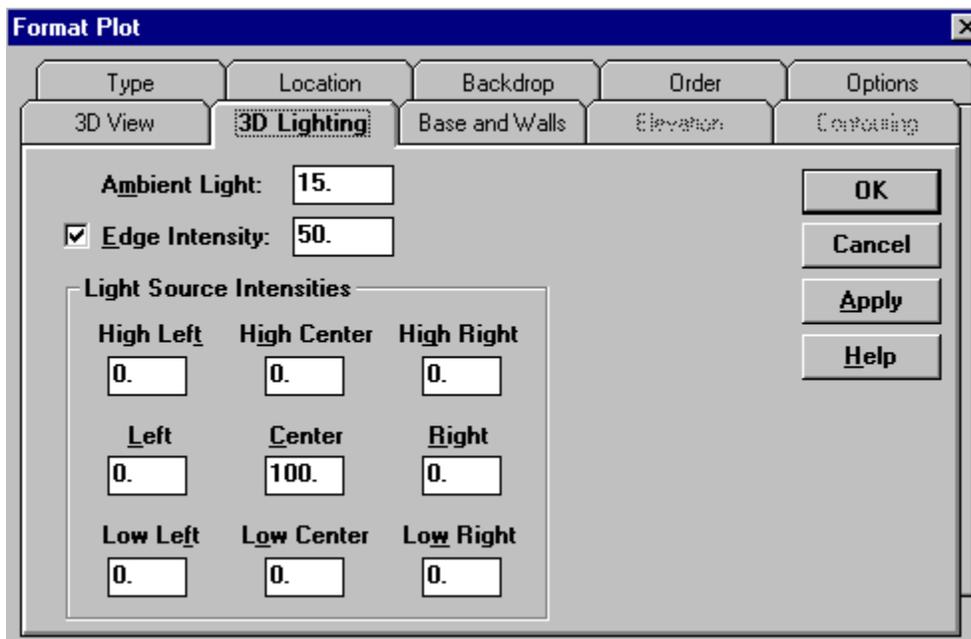
This setting controls where the labels for each pie or doughnut are placed on the chart. These labels are actually category labels. They use the font and backdrops defined for the X axis labels. The following table lists the options for this setting.

Setting	Description
None	No label is displayed.
Above	The label is displayed above the pie or doughnut.
Below	The label is displayed below the pie or doughnut.
Center	The label is centered on the pie or doughnut.

The Format Plot 3D Lighting Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The 3D Lighting tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Backdrop Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot 3D View Tab](#)

[The Format Plot Base and Walls Tab](#)

[The Format Plot Elevation Tab](#)

[The Format Plot Contouring Tab](#)

Ambient light text box

Check the box to turn ambient lighting on and then enter a number between 0 and 100 percent to specify the amount of ambient lighting to apply to the chart.

If ambient light is set to 100 percent, all sides of the chart elements are illuminated equally no matter what light sources you turn on. If ambient light is set to 0, only the sides of chart elements facing the active light sources are illuminated. The default setting for ambient light is 15 percent.

Edge Intensity check box and text box

Check the box to turn edge lighting on. Uncheck the box to turn edge lighting off. Enter a number between 0 and 100 percent to specify the amount of lighting applied to the edges of 3D objects such as bars, lines, pies or doughnuts.

An edge light intensity of 0 draws the edges as black lines. An edge light intensity of 100 percent fully illuminates the edges using the edge pen's color. The default edge pen color is the same as the series fill color.

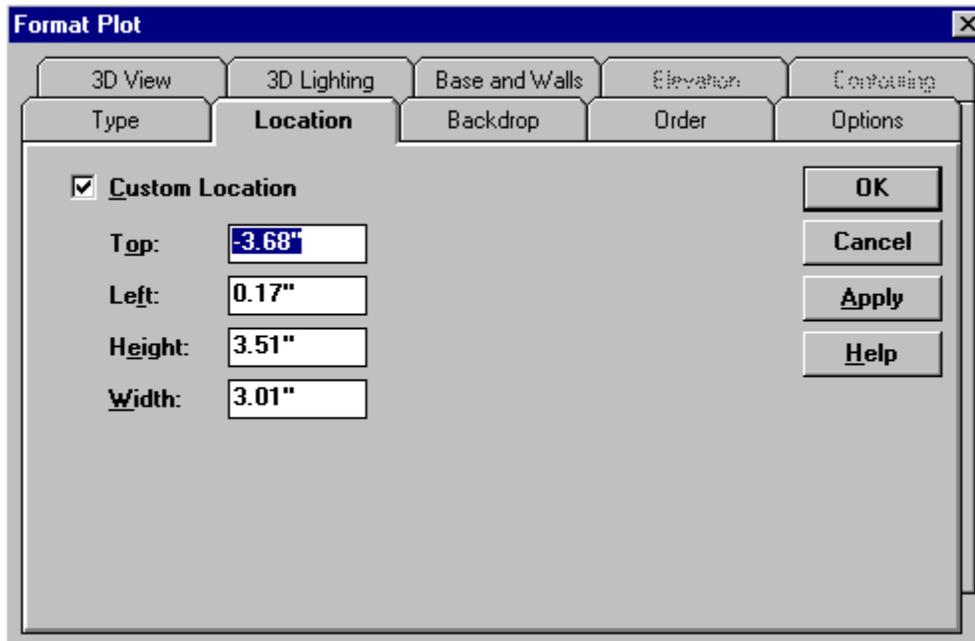
Light sources text boxes

For each of the light sources, enter a value between 0 and 100 percent. At an intensity of 100 percent, chart surfaces perpendicular to the light source are fully illuminated. At an intensity of 50 percent, these surfaces receive 50 percent illumination from this light. A setting of 0 turns off the light source.

The Format Plot Location Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The Location tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Backdrop Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot 3D View Tab](#)

[The Format Plot Base and Walls Tab](#)

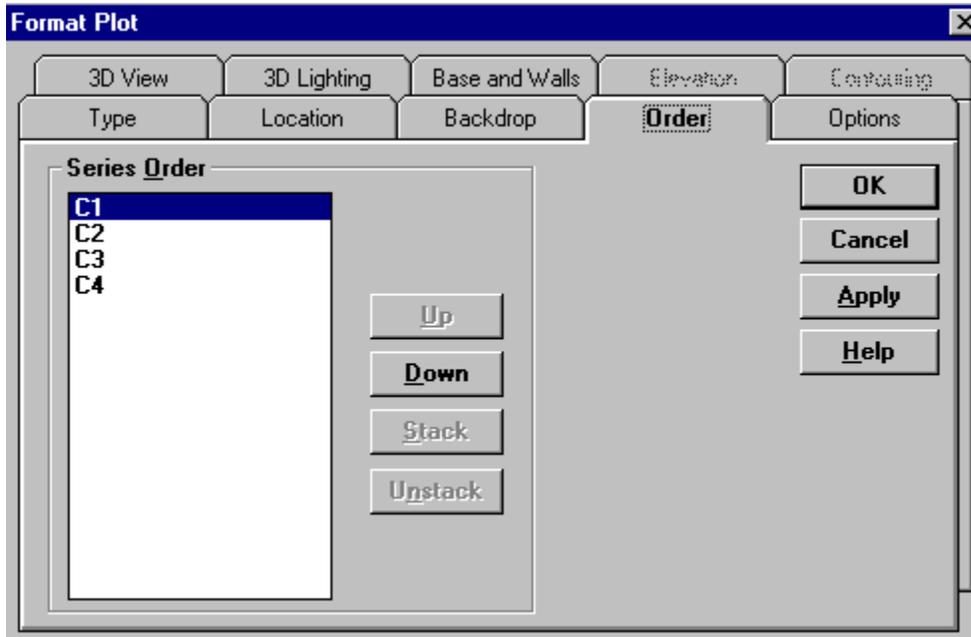
[The Format Plot Elevation Tab](#)

[The Format Plot Contouring Tab](#)

The Format Plot Order Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The Order tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Backdrop Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot 3D View Tab](#)

[The Format Plot Base and Walls Tab](#)

[The Format Plot Elevation Tab](#)

[The Format Plot Contouring Tab](#)

Series Order list box

Select a series you wish to change the order of.

Up Button

Moves the selected series up one position in order.

Down Button

Moves the selected series down one position in order.

Stack Button

Stacks the selected series with the preceding series.

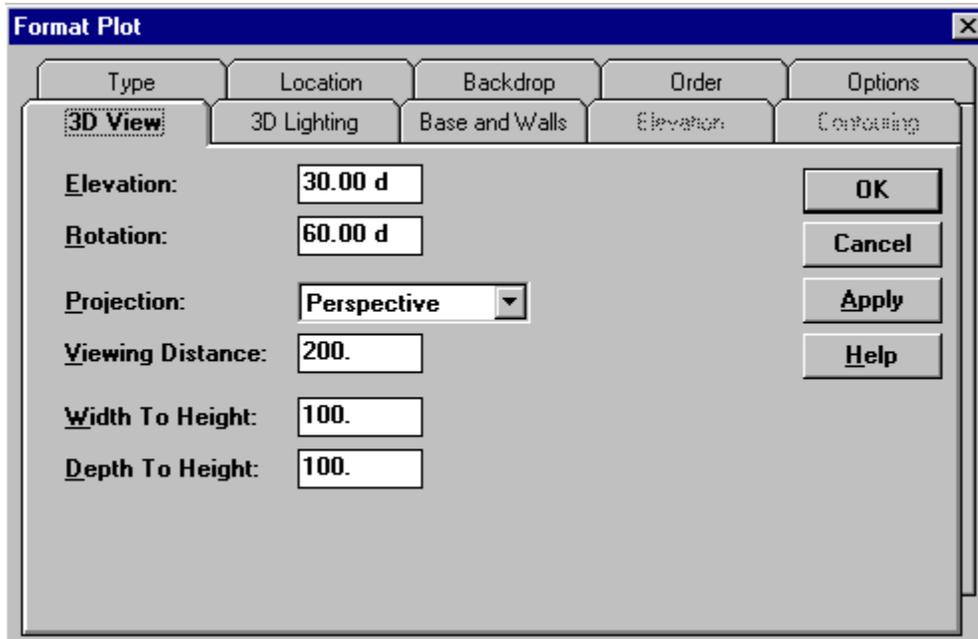
UnStack Button

Unstacks the selected stack associated with the series in the Series Order list.

The Format Plot 3D View Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The 3D View tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Backdrop Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot Base and Walls Tab](#)

[The Format Plot Elevation Tab](#)

[The Format Plot Contouring Tab](#)

Elevation text box

Enter a number between 0 and 90 degrees in this control to describe the relative height from which a chart is viewed. If you set the elevation to 90, you look directly down on the top of the chart. If you set the elevation to 0, you look directly at the side of the chart. If you are using an angle measurement other than degrees, enter the proper equivalents. The default elevation is 30 degrees.

Rotation text box

Enter a number between 0 and 360 degrees to specify the angle that the chart is turned from the viewer. If you are using an angle measurement other than degrees, enter the proper equivalents. Rotation does not apply to 3D pie or doughnut charts.

Projection pop-up menu

Select a projection type from the popup menu.

Projection	Description
Oblique	This is sometimes referred to as 2.5 dimensional. The chart has depth, but the XY plane does not change when the chart is rotated or elevated.
Orthogonal	Perspective is not applied to the chart. The advantage of using this type of projection is that vertical lines remain vertical, making some charts easier to read.
Perspective	This provides the most realistic 3D appearance. Objects farther away from you converge toward a vanishing point.

Width to Height and Depth to Height Ratio text boxes

Enter the number representing the percentage of the chart's height used to draw the chart's width and depth.

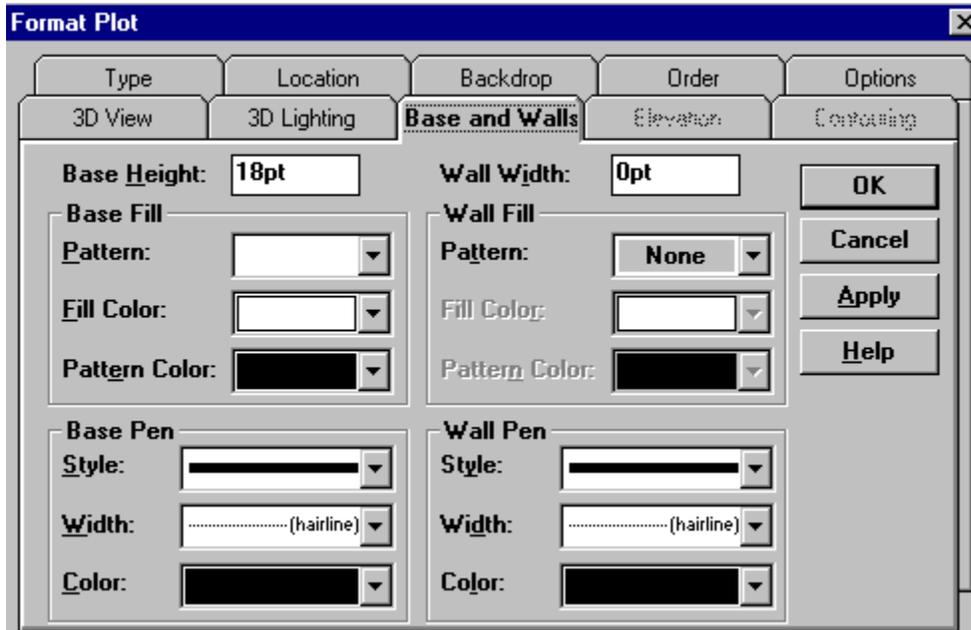
Viewing Distance text box

Enter a positive number that represents the distance from which the chart is viewed as a percentage of the depth of the chart.

The Format Plot Base and Walls Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The Base and Walls tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Backdrop Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot 3D View Tab](#)

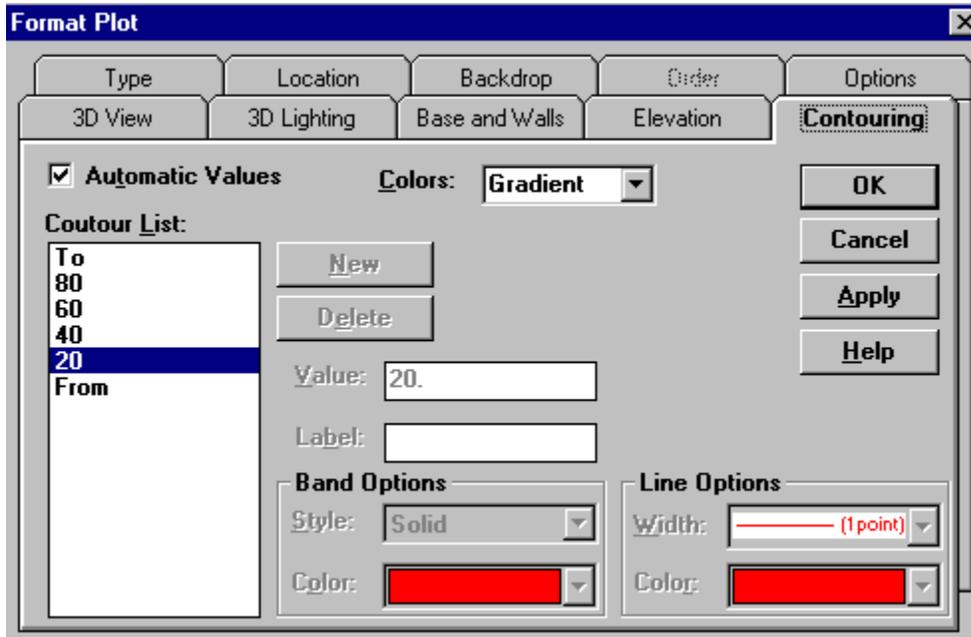
[The Format Plot Elevation Tab](#)

[The Format Plot Contouring Tab](#)

The Format Plot Contouring Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The Contouring tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Backdrop Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot 3D View Tab](#)

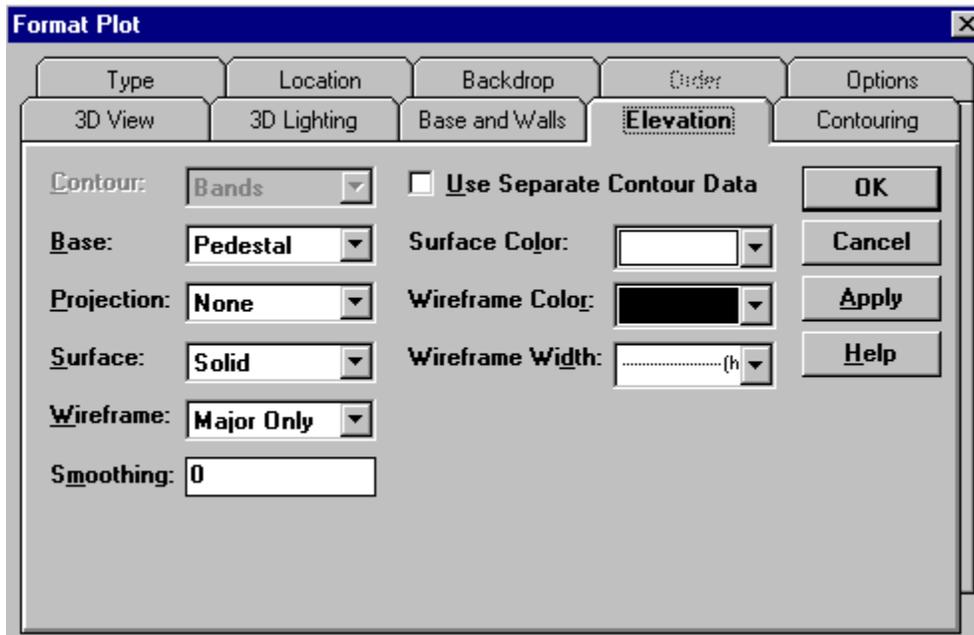
[The Format Plot Base and Walls Tab](#)

[The Format Plot Elevation Tab](#)

The Format Plot Elevation Tab

The options in the Format Plot dialog box control the location and appearance of the chart plot, formatting of 3D charts and formatting and ordering that affects all series or data points in the chart.

The Elevation tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Plot Type Tab](#)

[The Format Plot Backdrop Tab](#)

[The Format Plot Options Tab](#)

[The Format Plot 3D Lighting Tab](#)

[The Format Plot Location Tab](#)

[The Format Plot Order Tab](#)

[The Format Plot 3D View Tab](#)

[The Format Plot Base and Walls Tab](#)

[The Format Plot Contouring Tab](#)

Base Height text box

Enter the number of points for the base height.

This control only affects 3D charts.

Wall Width text box

Enter the number of points for the wall width.

This control only affects 3D charts.

Base Fill section

Use these controls to specify the colors and patterns used to draw the base of a chart.

The Base Fill is not used for a 2D chart.

Pattern. Click the control to display the pattern picker. Select one of the patterns, click None to have no pattern on the object, or click Solid to use only the fill color to fill the object.

Fill Color and Pattern Color. Click any of these controls to display the Color Picker. Select one of the predefined colors or click Custom to mix your own color.

Wall Fill section

Use these controls to specify the colors and patterns used to draw the walls of a chart.

Pattern. Click the control to display the pattern picker. Select one of the patterns, click None to have no pattern on the object, or click Solid to use only the fill color to fill the object.

Fill Color and Pattern Color. Click any of these controls to display the Color Picker. Select one of the predefined colors or click Custom to mix your own color.

Base Pen section

Use these controls to format the lines used to draw the base . The Base Pen is not used on 2D charts.

Style. Select a line style for the lines that frame the walls or base.

Width. Select a width for the lines that frame the walls or base; or, select Custom to specify your own line width.

Color. Click the control to display the Color Picker. Select one of the predefined colors to draw the lines that make up the base or walls; or, click Custom to mix your own color.

Wall Pen section

Use these controls to format the lines used to draw the wall edges.

Style. Select a line style for the lines that frame the walls or base.

Width. Select a width for the lines that frame the walls or base; or, select Custom to specify your own line width.

Color. Click the control to display the Color Picker. Select one of the predefined colors to draw the lines that make up the base or walls; or, click Custom to mix your own color.

The Format Series Options Tab

The Format Series dialog box controls the appearance of individual series in the chart. If you use the menu to display this dialog box, you are prompted to identify the series you want to format.

The Options tab displays the following options:



The screenshot shows the 'Format Series' dialog box with the 'Options' tab selected. The dialog has a title bar with a close button (X) and a tabbed interface with tabs for 'Options', 'Fill', 'Line', 'Markers', 'Statistics', and 'Guidelines'. The 'Options' tab contains the following controls:

- Three checkboxes: Hide, Exclude, and Plot On 2nd Y Axis.
- A 'Bars' section with a 'Sides' text box containing '4' and a 'Top Ratio' text box containing '100'.
- A 'Hi Lo Close' section with 'Gain Color' and 'Loss Color' dropdown menus, both set to 'Automatic'.
- A 'Smoothing' section with a 'Function' dropdown menu set to 'None' and a 'Factor' text box containing '12'.
- Four buttons on the right: 'OK', 'Cancel', 'Apply', and 'Help'.

Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Fill Tab](#)

[The Format Series Line Tab](#)

[The Format Series Markers Tab](#)

[The Format Series Statistics Tab](#)

[The Format Series Guidelines Tab](#)

Hide series check box

Check this box to turn off display of the current series. The space occupied by the series is still shown on the chart, but the data is not displayed. Uncheck this box to redisplay a hidden series. In pie and doughnut charts, room is still reserved for hidden series pie slices, even though they are not displayed.

Exclude series check box

Check this box to remove a series from a chart. The data is not displayed and the space occupied by the series is removed from the chart. Uncheck this box to return an excluded series to the chart.

Plot Series On 2nd Y Axis check box

Check this box to plot the current series on the secondary Y axis instead of the primary axis. You may then want to change the scale, type, or format of the secondary axis to best display the series data. Uncheck this box to plot the data on the primary axis.

Bar Sides text box

Enter a value between 1 and 360 to indicate the number of sides for the bars. If you enter 1, First Impression determines how many sides are necessary to create a round column, given the size of the bar. The following illustration shows a number of different bar styles that can be created by changing the number of sides.

Top Ratio text box

Enter a number between 0 and 10,000 to indicate the percent of the bottom diameter used to draw the top of the chart. Values less than 100 result in a top smaller than the bottom. Values greater than 100 result in the top wider than the bottom. The following illustration shows the effects of changing the top ratio on several bars.

Function list box

Select a smoothing type from the popup menu. The following table describes the smoothing type.

Smoothing Type	Description
None	No smoothing is applied to the data.
QuadraticBSpline	A quadratic B-spline formula determines the smoothing applied to the data. This form of smoothing results in a less-smooth curve that stays closer to the data points.
CubicBSpline	A cubic B-spline formula determines the smoothing applied to the data. This form of smoothing results in a smoother curve, but varies further from the data point than a QuadraticB spline curve.

Smoothing Factor text box

Specify the number of facets or points sampled between the chart data points to create the smoothing effect. The higher the number, the more smoothing occurs.

Gain Color color picker

Click the control to display the color picker and select the color used to indicate a gain in value. Select a predefined color or click Custom to mix your own color. Select Automatic to have all elements that reflect a gain in value use the fill color defined for the series.

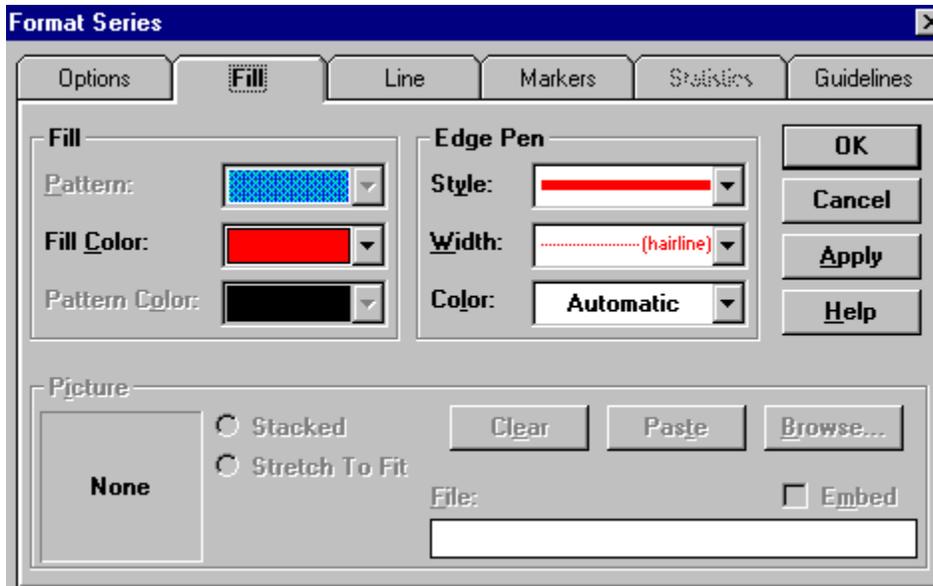
Loss Color color picker

Click the control to display the color picker and select the color used to indicate a loss in value. Select a predefined color or click Custom to mix your own color. Select Automatic to have all elements that reflect a loss in value use the fill color defined for the series.

The Format Series Fill Tab

The Format Series dialog box controls the appearance of individual series in the chart. If you use the menu to display this dialog box, you are prompted to identify the series you want to format.

The Fill tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Options Tab](#)

[The Format Series Line Tab](#)

[The Format Series Markers Tab](#)

[The Format Series Statistics Tab](#)

[The Format Series Guidelines Tab](#)

Series Fill Pattern picker

Click the control to display the pattern picker. Select the pattern or hatch you want to use to fill the chart element. The following illustration shows the organization of the pattern picker.

Series Fill Color picker

The fill color is used as the color for solid patterns. It is used as the background color for any other type of pattern. By default, the line color for an element matches this fill color.

Series Pattern Color picker

The pattern color is used to draw the pattern over the fill color if any pattern other than solid is selected.

For both color controls, click the control to display the color picker. Select the color you want to use. You can choose Custom to display a color mixer and create your own color.

Edge Pen Style list box

Click the control to display the line picker. The line picker displays the available line styles. Select the style you want to use to outline objects.

Edge Pen Line Width list box

Click the control to display the available line widths. Select a width from the list or click Custom to specify your own width.

Edge Pen Color picker

Click the control to display the color picker. Select a predefined color, or select Automatic to have the outline drawn in the same color as the object's fill color. You can also click Custom to mix a new color.

Series Bar Picture Section

This control displays a preview of the graphic. When a valid path and file name are entered in the File text box, the picture is displayed in the Picture control. Only Windows Bitmap (.bmp) and Windows Metafiles (.wmf) are supported graphic formats.

Fit Method. You can choose how to fit the graphic into the bar. The following table lists the options for fitting graphics.

Fit Method	Description
Stacked	Duplicates the graphic repeatedly to fill the bars. Since this uses multiple copies of the graphic, it is recommended that you use as small a file as possible.
Stretch To Fit	Scales the graphic to fit the bars regardless of its original proportions.

File. Type the full path to the graphic file in the File field or press the Browse button to display an Open File dialog box. When you specify a valid path, a preview of the graphic appears in the Picture control.

Clear Series Picture Button

Click this button to clear an existing picture from the picture control.

Embed Series Picture Button

Select the Embed check box to save the graphic with the file.

Paste Series Picture Button

Click this button to place a .wmf or .bmp file from the clipboard into the current chart element.

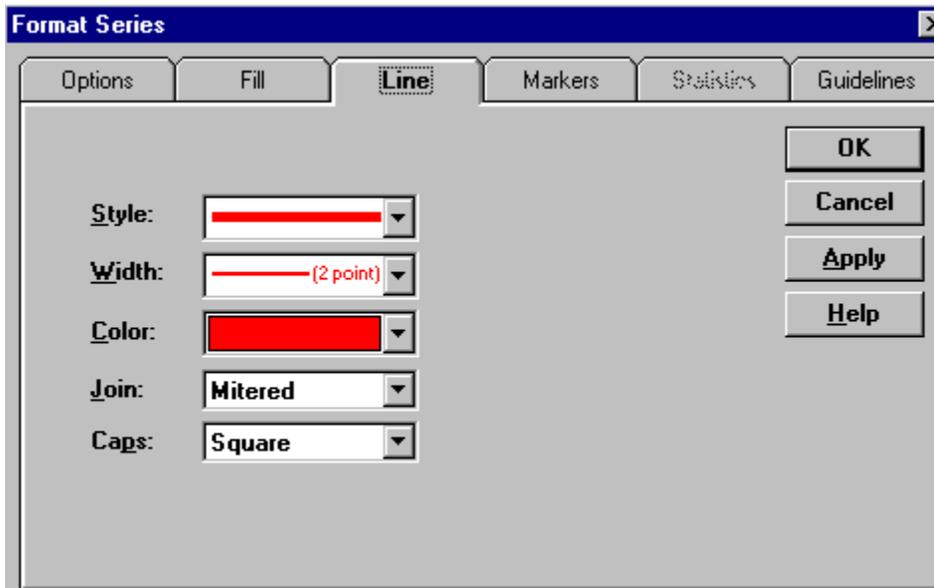
Browse Series Picture Button

Click this button to locate a .wmf or .bmp file to use as the picture.

The Format Series Line Tab

The Format Series dialog box controls the appearance of individual series in the chart. If you use the menu to display this dialog box, you are prompted to identify the series you want to format.

The Line tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Options Tab](#)

[The Format Series Fill Tab](#)

[The Format Series Markers Tab](#)

[The Format Series Statistics Tab](#)

[The Format Series Guidelines Tab](#)

Show Series Lines check box

Check this check box to display lines on a 2D chart. Uncheck this check box to hide the lines on the chart.

Series Line Style list box

Click the control to select a style for the current line.

Series Line Width list box

Click the control to display the preset line widths. Pick a width, or select Custom to assign your own width.

Series Line Color picker

Click the control to display the Color picker. Select one of the predefined colors, or click Custom to mix your own color.

Series Line Join style list box

Select a method of joining line segments in the series. Join styles are particularly important when using thick lines.

Join Types	Description
Mitered	The outer edges of the two lines are extended until they meet.
Round	A circular arc is drawn around the point where the two lines meet.
Beveled	The notch between the ends of two joining lines is filled.
Important	Very acute mitered joins are automatically beveled to avoid drawing large spikes along the line.

Series Line Cap style list box

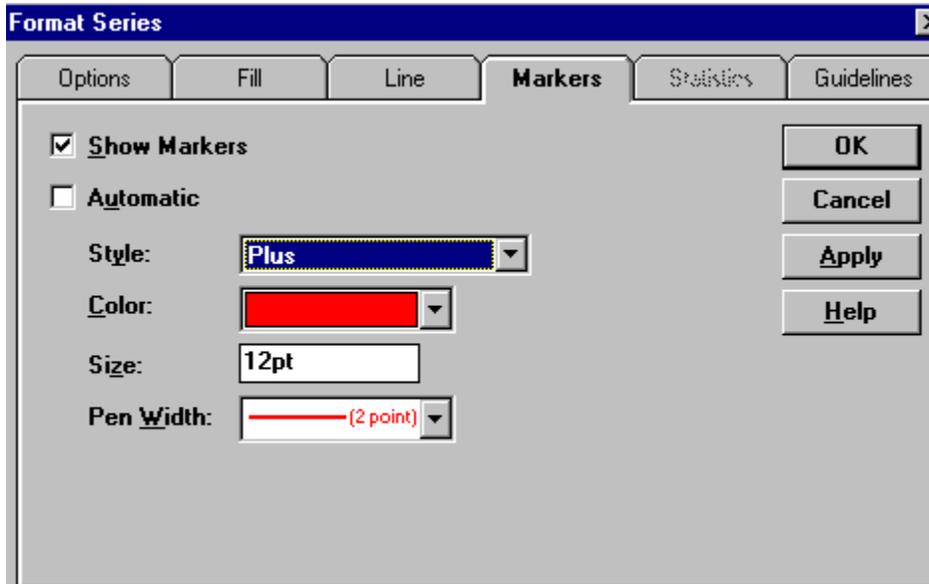
Select a type to specify how the ends of lines are displayed.

Cap Type	Description
Butt	The line is squared off at the endpoint.
Round	A semicircle with a diameter of the line thickness is drawn at the end of the line.
Squared	The line continues beyond the endpoint for a distance equal to half the line thickness and is squared off.

The Format Series Markers Tab

The Format Series dialog box controls the appearance of individual series in the chart. If you use the menu to display this dialog box, you are prompted to identify the series you want to format.

The Markers tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Options Tab](#)

[The Format Series Fill Tab](#)

[The Format Series Line Tab](#)

[The Format Series Statistics Tab](#)

[The Format Series Guidelines Tab](#)

Show Series Markers check box

Check this box to display markers on a series. Uncheck this box to remove markers from a series.

Series Markers Automatic check box

Check this box to allow First Impression to use the next available marker to identify the series. Uncheck this box to select your own choice of marker.

Series Markers Style list box

Select a marker type to identify the data points in the current series.

Series Markers Color picker

Click the control to display the Color Picker. Select a color for the marker or click Custom and mix your own color.

Series Markers Size text box

Enter the number of points for the marker diameter.

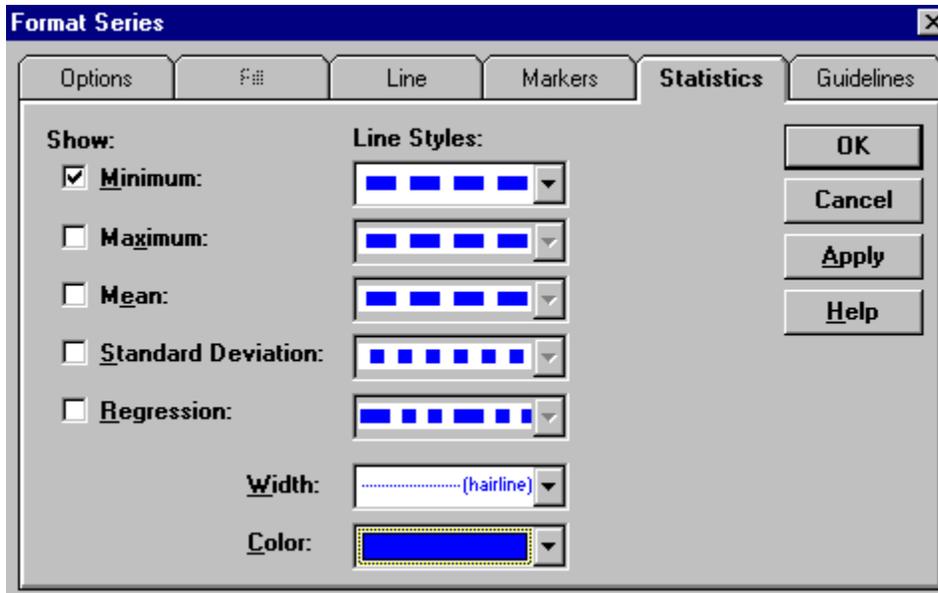
Series Markers Pen Width list box

Select a width for the lines that form the marker, or click Custom and set your own width.

The Format Series Statistics Tab

The Format Series dialog box controls the appearance of individual series in the chart. If you use the menu to display this dialog box, you are prompted to identify the series you want to format.

The Statistics tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Options Tab](#)

[The Format Series Fill Tab](#)

[The Format Series Line Tab](#)

[The Format Series Markers Tab](#)

[The Format Series Guidelines Tab](#)

Show Statistics Lines check boxes

For each type of statistic, check the box to display the line or uncheck the box to remove the line. The following table describes each type of statistic.

Statistic Type	Description
Minimum	Shows the minimum Y value in the series.
Maximum	Shows the maximum Y value in the series.
Mean	Shows the mathematical mean of the Y values in the series.
Standard Deviation	Shows the standard deviation of the Y values in the series.
Regression	Shows a trend line indicated by the Y values in a series.

Statistics Line Styles list boxes

For each type of statistic, select a line style that uniquely identifies it.

Statistics Line Color picker

Select the color for the statistics lines that represent the current series.

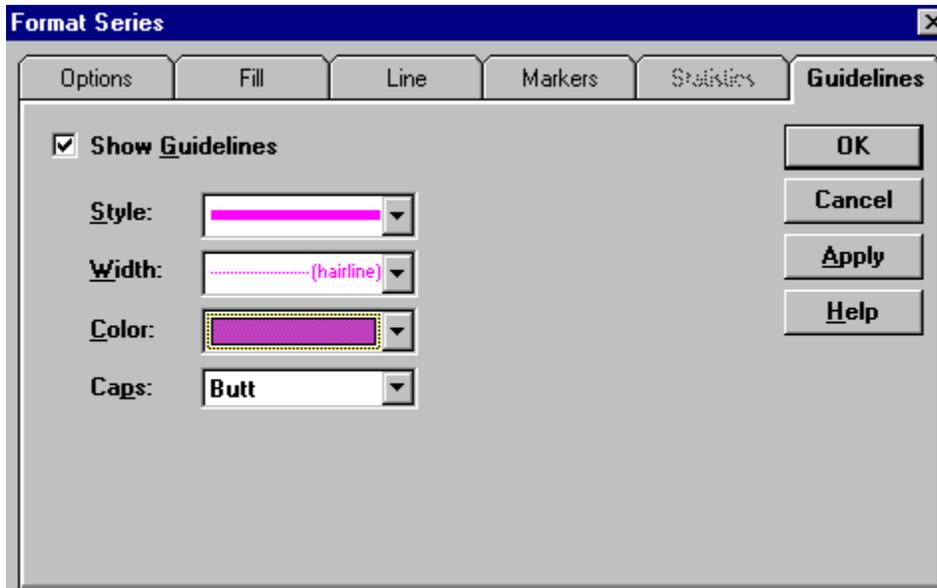
Statistics Line Width list box

Select a width for the statistics lines, or click custom and set a new width.

The Format Series Guidelines Tab

The Format Series dialog box controls the appearance of individual series in the chart. If you use the menu to display this dialog box, you are prompted to identify the series you want to format.

The Guidelines tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Options Tab](#)

[The Format Series Fill Tab](#)

[The Format Series Line Tab](#)

[The Format Series Markers Tab](#)

[The Format Series Statistics Tab](#)

Show Guidelines check box

Check this box to display guidelines for the series. Uncheck this box to remove guidelines.

Guideline Styles list boxes

Select a Guideline style from the list of predefined styles.

Guideline Color picker

Select the color for the guideline.

Guideline Width list box

Select a width for the guideline, or click custom and set a new width.

Guidelines Cap style list box

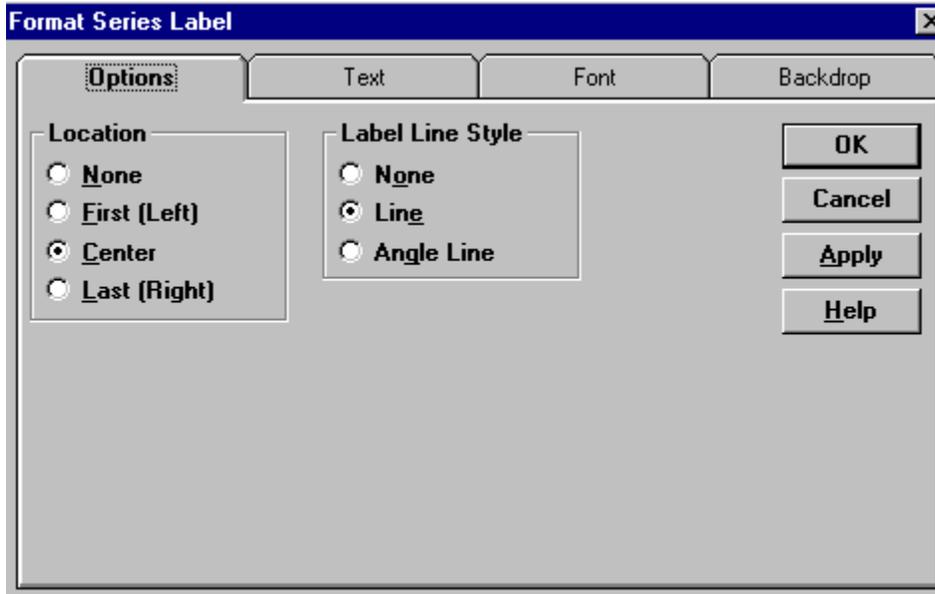
Select a type to specify how the ends of guidelines are displayed.

Cap Type	Description
Butt	The line is squared off at the endpoint.
Round	A semicircle with a diameter of the line thickness is drawn at the end of the line.
Squared	The line continues beyond the endpoint for a distance equal to half the line thickness and is squared off.

The Format Series Label Options Tab

The Format Series Label dialog box controls the display and appearance of series labels on area, step, and line charts.

The Options tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Label Font Tab](#)

[The Format Series Label Text Tab](#)

[The Format Series Label Backdrop Tab](#)

Series Label Location radio buttons

To display a series label on the chart, select one of the predefined positions. The following table describes the valid positions for series labels.

Positions	Description
None	Hides the label.
First	The label is displayed above the first data point in the series.
Last	The label is displayed above the last data point in the series.
Center	The label is displayed above the middle data point in the series.

Series Label Line Style radio buttons

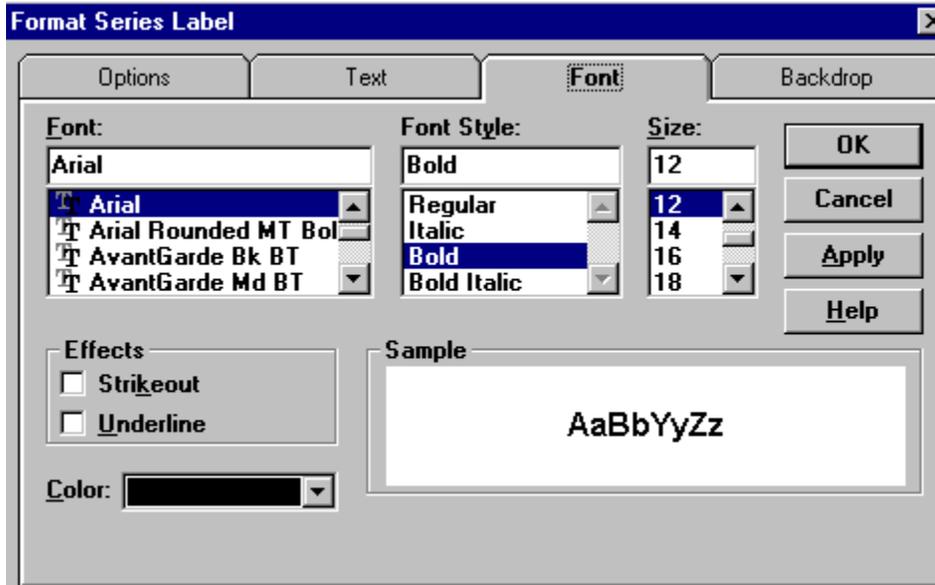
To display a line connecting a label to a series it represents, select one of the Label Line Style radio buttons described in the following table.

Line Styles	Description
None	No line connects the label and series.
Line	A straight line connects the label and series.
Angle Line	An angled line connects the label and series.

The Format Series Label Font Tab

The Format Series Label dialog box controls the display and appearance of series labels on area, step, and line charts.

The Font tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Label Options Tab](#)

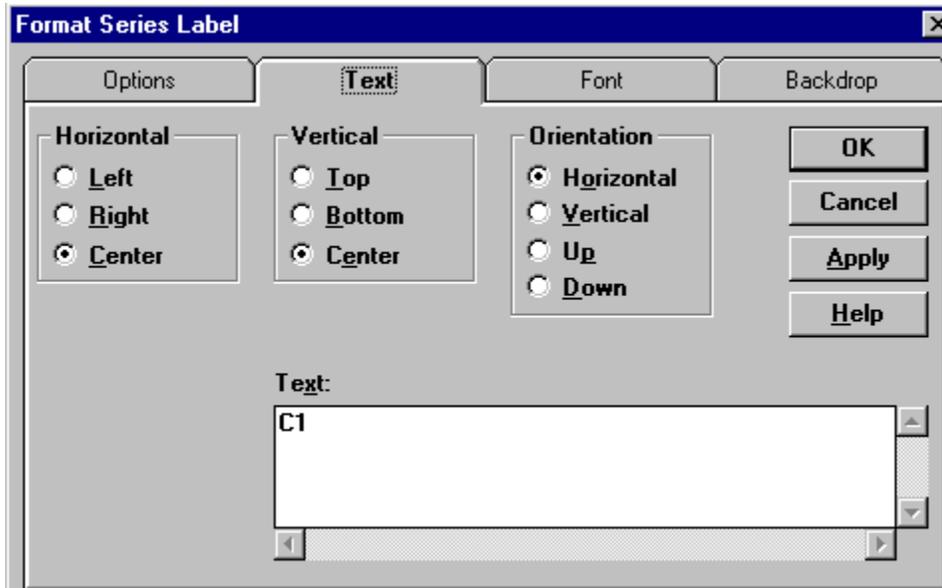
[The Format Series Label Text Tab](#)

[The Format Series Label Backdrop Tab](#)

The Format Series Label Text Tab

The Format Series Label dialog box controls the display and appearance of series labels on area, step, and line charts.

The Text tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Label Options Tab](#)

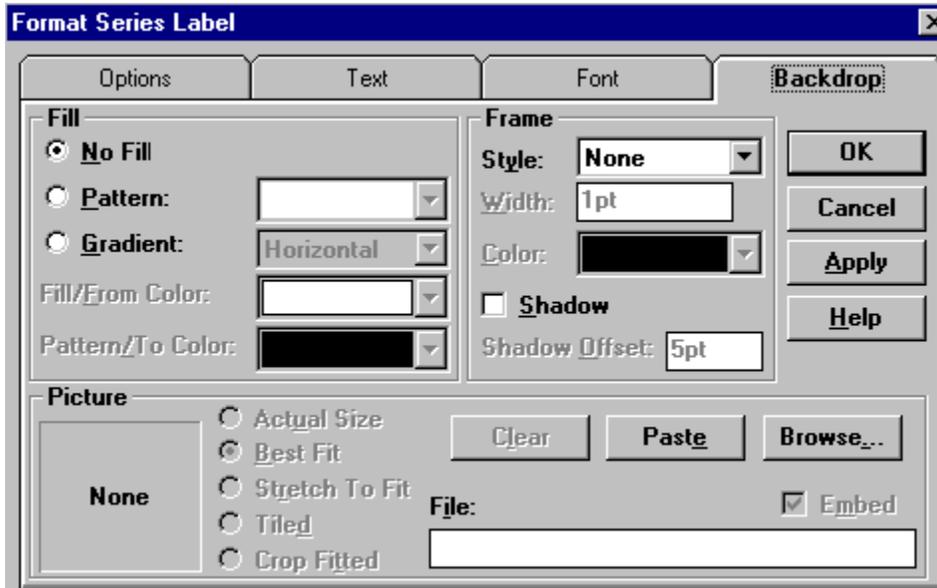
[The Format Series Label Font Tab](#)

[The Format Series Label Backdrop Tab](#)

The Format Series Label Backdrop Tab

The Format Series Label dialog box controls the display and appearance of series labels on area, step, and line charts.

The Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Series Label Options Tab](#)

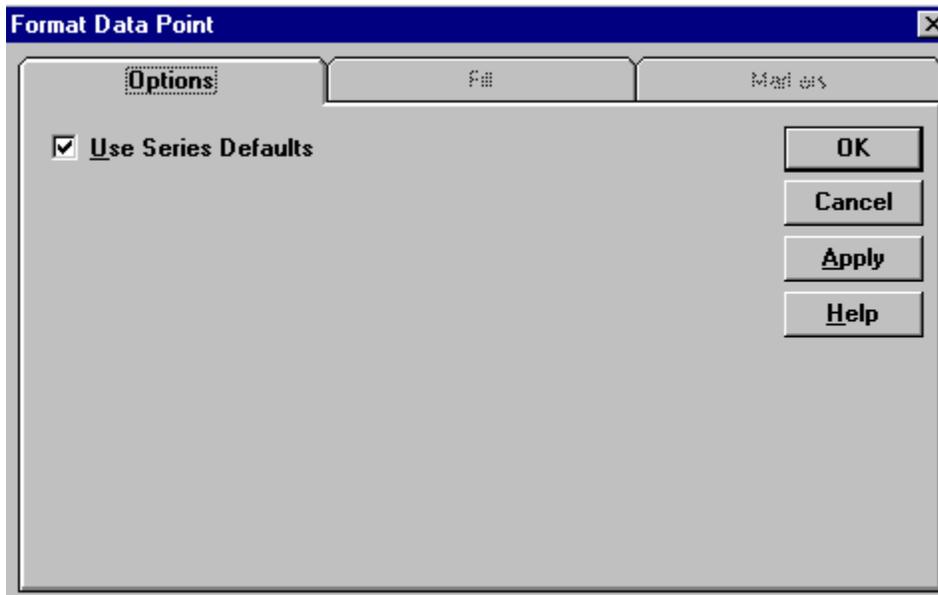
[The Format Series Label Font Tab](#)

[The Format Series Label Text Tab](#)

The Format Data Point Options Tab

The Format Data Point dialog box is used to format the appearance of an individual data point. If you use the menu to display this dialog, you are prompted to identify which data point you want to format.

The Options tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Fill Tab](#)

[The Format Data Point Markers Tab](#)

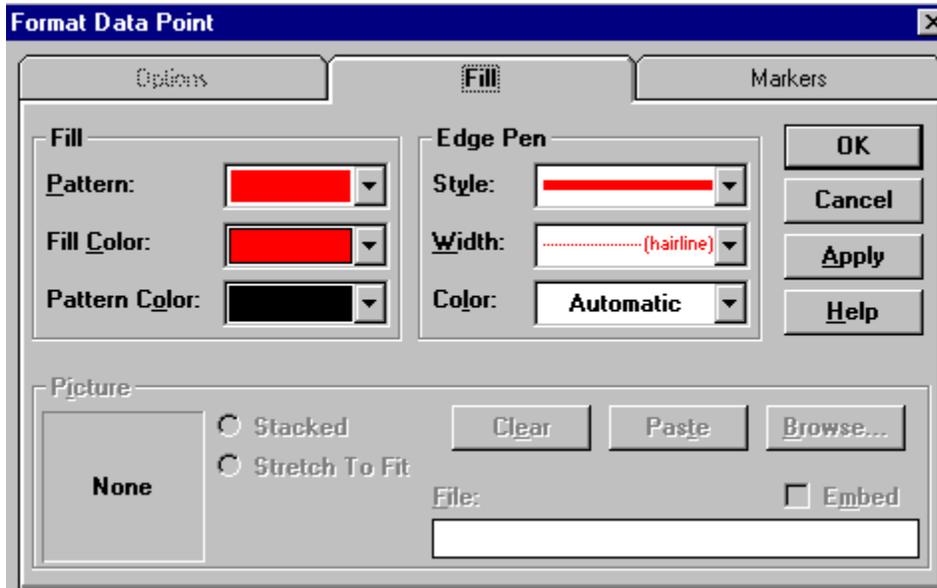
Use Series Defaults check box

Uncheck this box to ungray the Fill and Markers tabs. You can then change any of the Fill or Marker options used to display the data point. Check the Use Series Defaults check box to discard any custom settings you have made for the data point and reset all options to the series defaults.

The Format Data Point Fill Tab

The Format Data Point dialog box is used to format the appearance of an individual data point. If you use the menu to display this dialog, you are prompted to identify which data point you want to format.

The Fill tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Options Tab](#)

[The Format Data Point Markers Tab](#)

DataPoint Fill Pattern picker

Click the control to display the pattern picker. Select the pattern or hatch you want to use to fill the chart element. The following illustration shows the organization of the pattern picker.

Data Point Fill Color picker

The fill color is used as the color for solid patterns. It is used as the background color for any other type of pattern. By default, the line color for an element matches this fill color.

Data Point Pattern Color picker

The pattern color is used to draw the pattern over the fill color if any pattern other than solid is selected.

For both color controls, click the control to display the color picker. Select the color you want to use. You can choose Custom to display a color mixer and create your own color.

Data Point Picture Section

This control displays a preview of the graphic. When a valid path and file name are entered in the File text box, the picture is displayed in the Picture control. Only Windows Bitmap (.bmp) and Windows Metafiles (.wmf) are supported graphic formats.

Fit Method. You can choose how to fit the graphic into the data point. The following table lists the options for fitting graphics.

Fit Method	Description
Stacked	Duplicates the graphic repeatedly to fill the data point. Since this uses multiple copies of the graphic, it is recommended that you use as small a file as possible.
Stretch To Fit	Scales the graphic to fit the data point regardless of its original proportions.

File. Type the full path to the graphic file in the File field or press the Browse button to display an Open File dialog box. When you specify a valid path, a preview of the graphic appears in the Picture control.

Clear Data Point Picture Button

Click this button to clear an existing picture from the picture control.

Embed Data Point Picture Button

Select the Embed check box to save the graphic with the file.

Paste Data Point Picture Button

Click this button to place a .wmf or .bmp file from the clipboard into the current chart element.

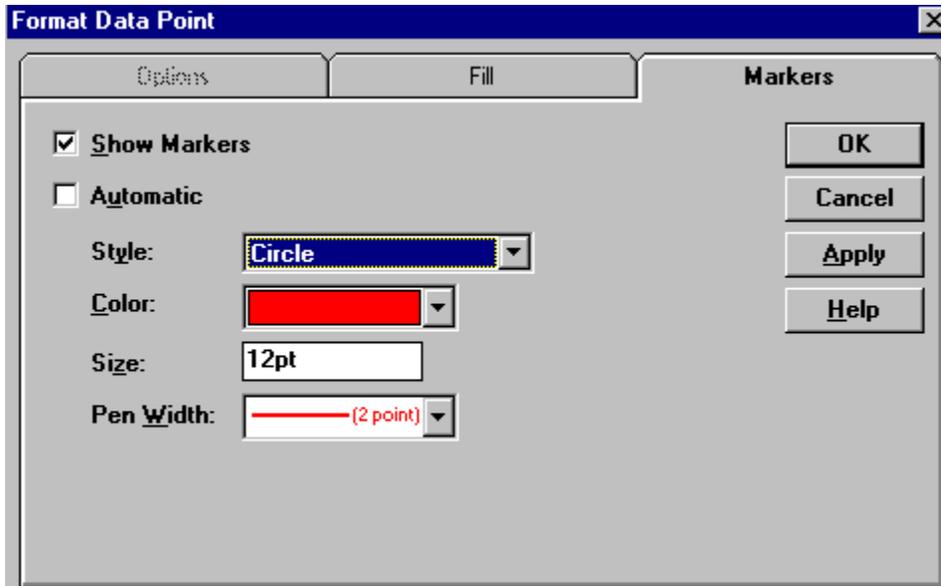
Browse Data Point Picture Button

Click this button to locate a .wmf or .bmp file to use as the picture.

The Format Data Point Markers Tab

The Format Data Point dialog box is used to format the appearance of an individual data point. If you use the menu to display this dialog, you are prompted to identify which data point you want to format.

The Markers tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Options Tab](#)

[The Format Data Point Fill Tab](#)

Show Data Point Markers check box

Check this box to display markers on a data point. Uncheck this box to remove markers from a data point.

Data Point Markers Automatic check box

Check this box to allow First Impression to use the next available marker to identify the data point.
Uncheck this box to select your own choice of marker.

Data Point Markers Style list box

Select a marker type to identify the data points in the current series.

Data Point Markers Color picker

Click the control to display the Color Picker. Select a color for the marker or click Custom and mix your own color.

Data Point Markers Size text box

Enter the number of points for the marker diameter.

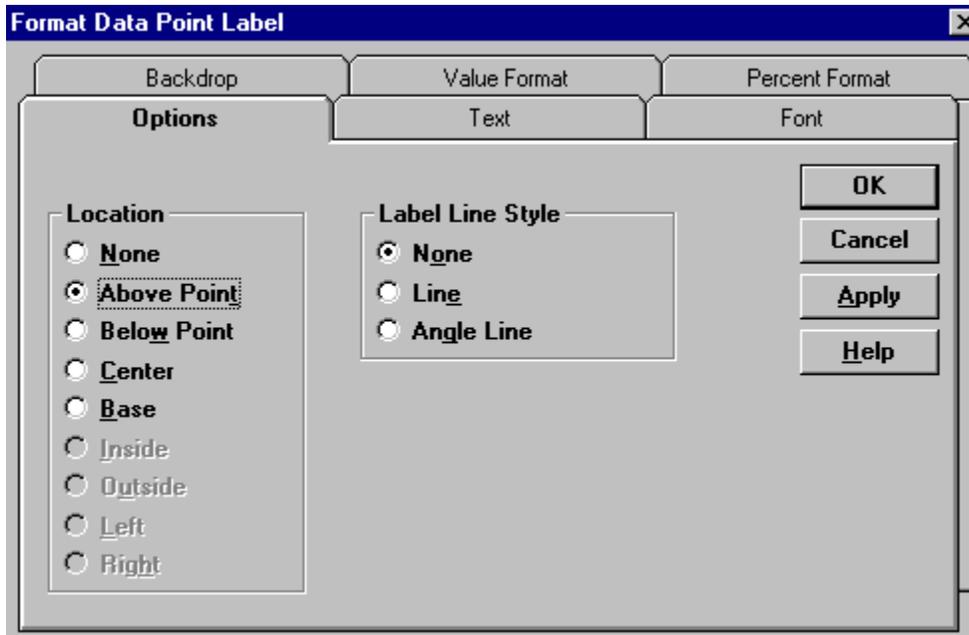
Data Point Markers Pen Width list box

Select a width for the lines that form the marker, or click Custom and set your own width.

The Format Data Point Label Options Tab

The Format Data Point Label dialog box controls the text or value used to label a data point, as well as the font, format, position and backdrop used to display the label.

The Options tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Label Text Tab](#)

[The Format Data Point Label Font Tab](#)

[The Format Data Point Label Backdrop Tab](#)

[The Format Data Point Label Value Format Tab](#)

[The Format Data Point Label Percent Format Tab](#)

Data Point Label Location radio buttons

Choose one of nine preset locations to position data point labels. The following table lists the available locations..

Locations	Description
None	No label displayed.
Above Point	The label is displayed above the data point. This location is only valid for bar, line, area, step, XY, polar, radar, and bubble charts.
Below Point	The label is displayed below the data point. This location is only valid for bar, line, area, step, XY, polar, radar, and bubble charts.
Center	The label is displayed centered on the data point. This location is only valid for bar, line, area, and step charts.
Base	The label is displayed along the category axis, directly beneath the data point. This location is only valid for bar, line, area, and step charts.
Inside	The label is displayed inside a pie or doughnut slice.
Outside	The label is displayed outside a pie or doughnut slice.
Left	The label is displayed to the left of the data point. This location is only valid for XY, polar, radar, and bubble charts.
Right	The label is displayed to the right of the data point. This location is only valid for XY, polar, radar, and bubble charts.

Data Point Label Line Styles radio buttons

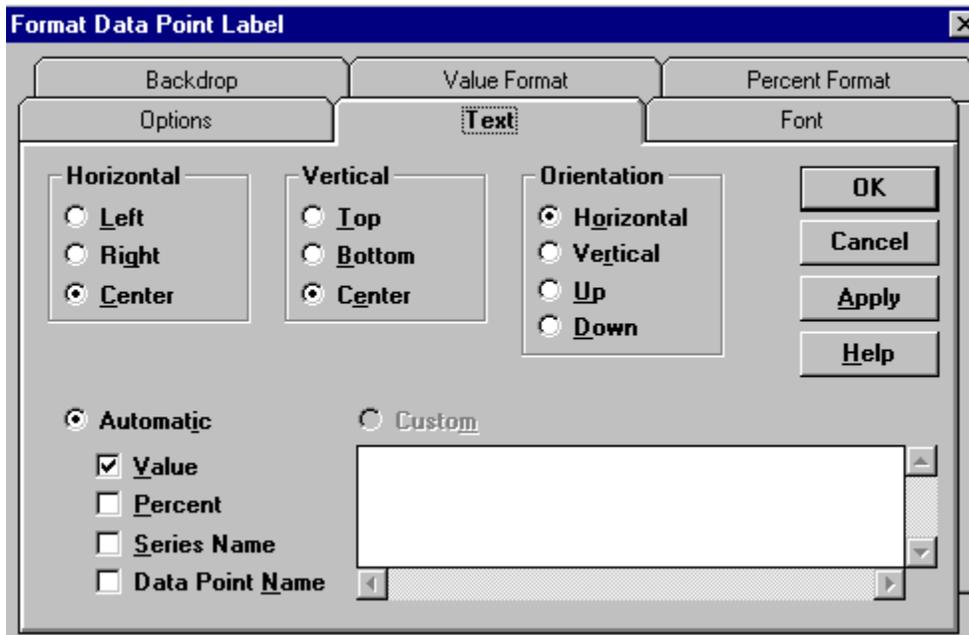
Choose one of the available line styles from the list box. The following table lists the valid label line styles.

Line Styles	Description
None	No line connects the label and series.
Line	A straight line connects the label and data point.
Angle line	An angled line connects the label and data point.

The Format Data Point Label Text Tab

The Format Data Point Label dialog box controls the text or value used to label a data point, as well as the font, format, position and backdrop used to display the label.

The Text tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Label Options Tab](#)

[The Format Data Point Label Font Tab](#)

[The Format Data Point Label Backdrop Tab](#)

[The Format Data Point Label Value Format Tab](#)

[The Format Data Point Label Percent Format Tab](#)

Automatic Data Point Label radio button

Select a label from the available label types. The label types are described in the following table. If you select more than one type, the labels are stacked on top of each other.

Type	Description
Value	The value of the data point appears in the label.
Percent	The value of the data point is displayed in the label as a percentage according to the axis percent basis.
Series Name	The series name is used to label the data point.
Data Point Name	The category name is used to label the data point.

Custom Data Point Label radio button

Select this radio button to enter custom label text in the Text field.

Custom Data Point Label Text box

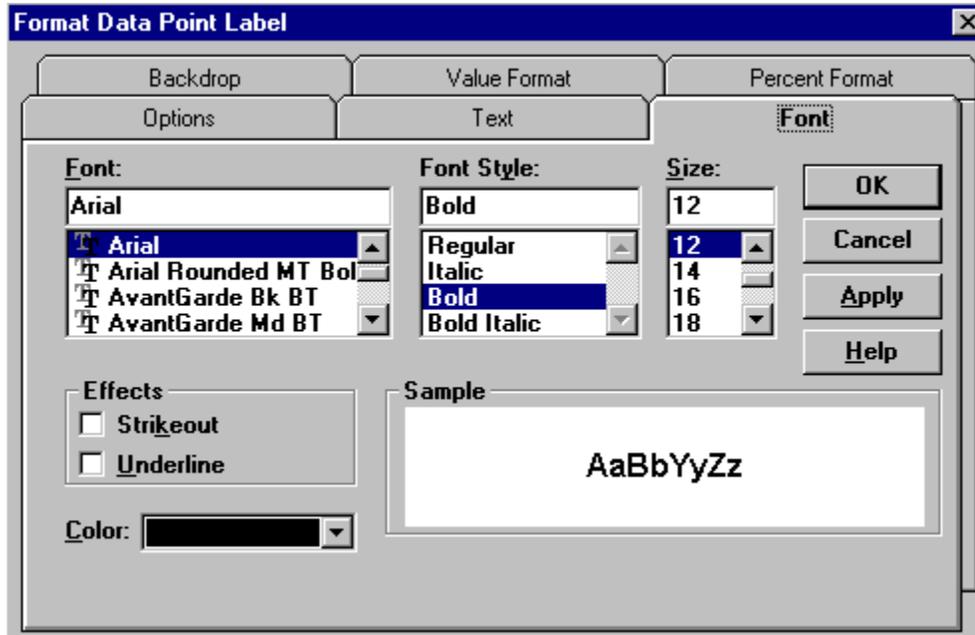
Enter the custom label text in this field.

Use CTRL + ENTER to force text to another line.

The Format Data Point Label Font Tab

The Format Data Point Label dialog box controls the text or value used to label a data point, as well as the font, format, position and backdrop used to display the label.

The Font tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Label Options Tab](#)

[The Format Data Point Label Text Tab](#)

[The Format Data Point Label Backdrop Tab](#)

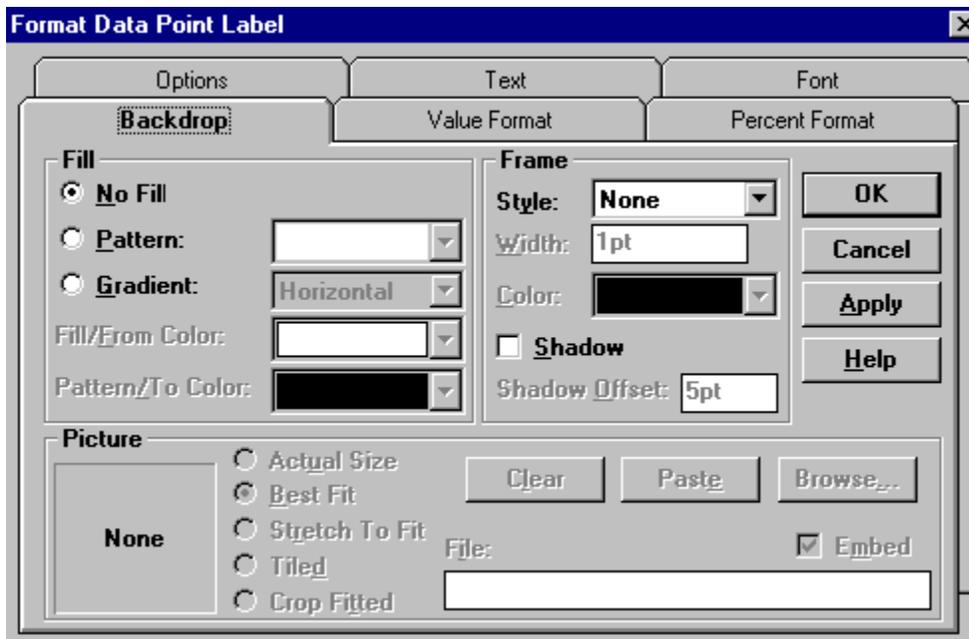
[The Format Data Point Label Value Format Tab](#)

[The Format Data Point Label Percent Format Tab](#)

The Format Data Point Label Backdrop Tab

The Format Data Point Label dialog box controls the text or value used to label a data point, as well as the font, format, position and backdrop used to display the label.

The Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Label Options Tab](#)

[The Format Data Point Label Text Tab](#)

[The Format Data Point Label Font Tab](#)

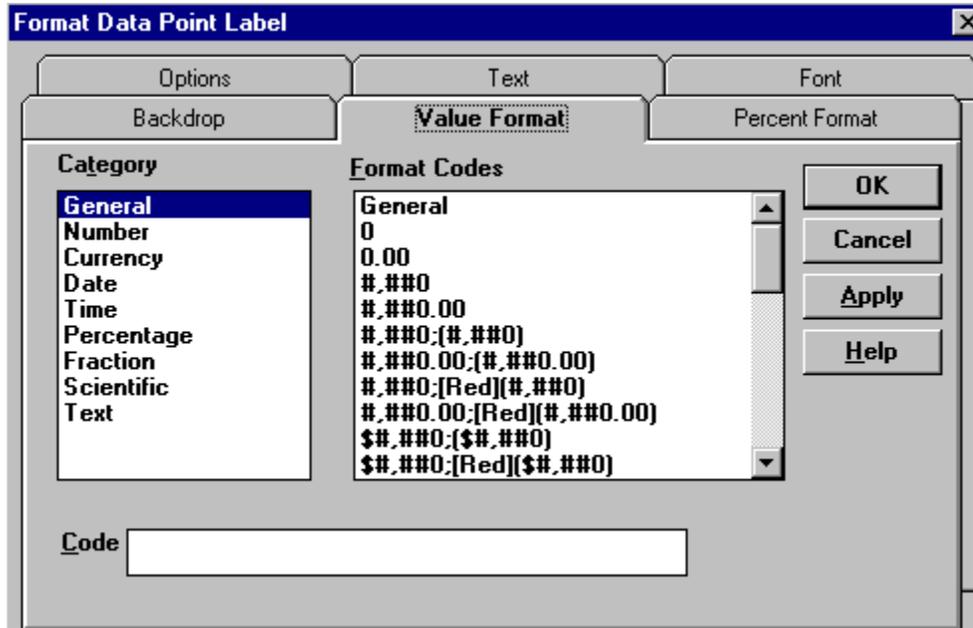
[The Format Data Point Label Value Format Tab](#)

[The Format Data Point Label Percent Format Tab](#)

The Format Data Point Label Value Format Tab

The Format Data Point Label dialog box controls the text or value used to label a data point, as well as the font, format, position and backdrop used to display the label.

The Value Format tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Label Options Tab](#)

[The Format Data Point Label Text Tab](#)

[The Format Data Point Label Font Tab](#)

[The Format Data Point Label Backdrop Tab](#)

[The Format Data Point Label Percent Format Tab](#)

Value Format Category list box

Select a category to display a list of preset format strings appropriate for that type of data in the Format Code list box.

Value Format Code list box

Select one of the predefined strings.

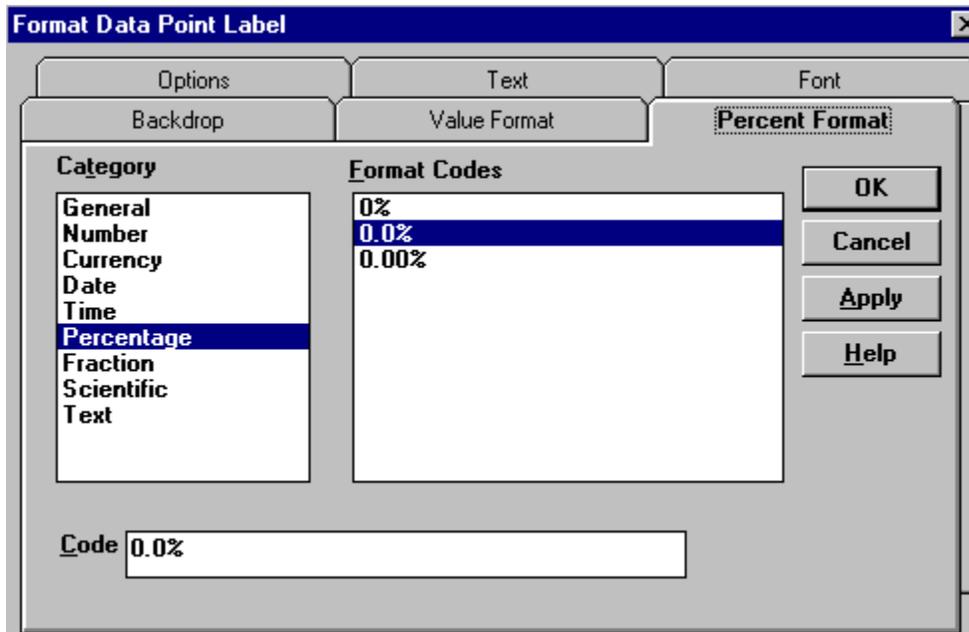
Custom Value Code text box

Enter valid format symbols in this field to create your own custom format.

The Format Data Point Label Percent Format Tab

The Format Data Point Label dialog box controls the text or value used to label a data point, as well as the font, format, position and backdrop used to display the label.

The Percent Format tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Data Point Label Options Tab](#)

[The Format Data Point Label Text Tab](#)

[The Format Data Point Label Font Tab](#)

[The Format Data Point Label Backdrop Tab](#)

[The Format Data Point Label Value Format Tab](#)

Percent Format Category list box

Select a category to display a list of preset format strings appropriate for that type of data in the Format Code list box.

Percent Format Code list box

Select one of the predefined strings.

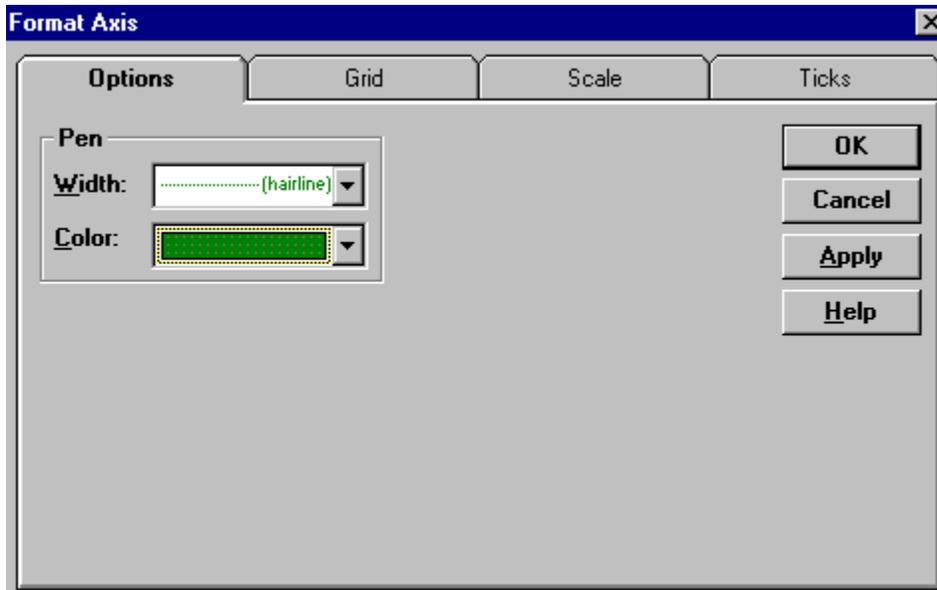
Custom Percent Code text box

Enter valid format symbols in this field to create your own custom format.

The Format Axis Options Tab

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The Options tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Grid Tab](#)

[The Format Axis Scale-Category Tab](#)

[The Format Axis Scale-Date Tab](#)

[The Format Axis Scale-Value Tab](#)

[The Format Axis Polar Tab](#)

[The Format Axis Radar Tab](#)

[The Format Axis Ticks Tab](#)

Pen Width pop up menu

Select a predefined width from the list, or click Custom to assign your own width.

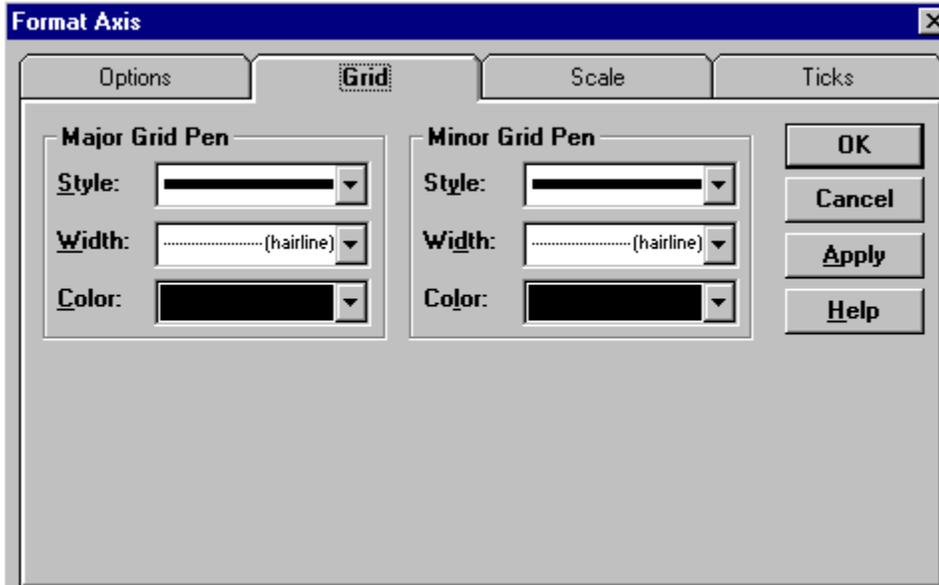
Pen Color pop up menu

Click the control to display the Color Picker. Select a predefined color, or click Custom to mix your own color.

The Format Axis Grid Tab

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The Grid tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Options Tab](#)

[The Format Axis Scale-Category Tab](#)

[The Format Axis Scale-Date Tab](#)

[The Format Axis Scale-Value Tab](#)

[The Format Axis Polar Tab](#)

[The Format Axis Radar Tab](#)

[The Format Axis Ticks Tab](#)

Width pop up

Select a predefined width from the list or click Custom to design your own width. The following illustration shows how grid width can be used to change the appearance of a chart.

Style pop up

Select a line style from the list. The following table shows an example of each line style.

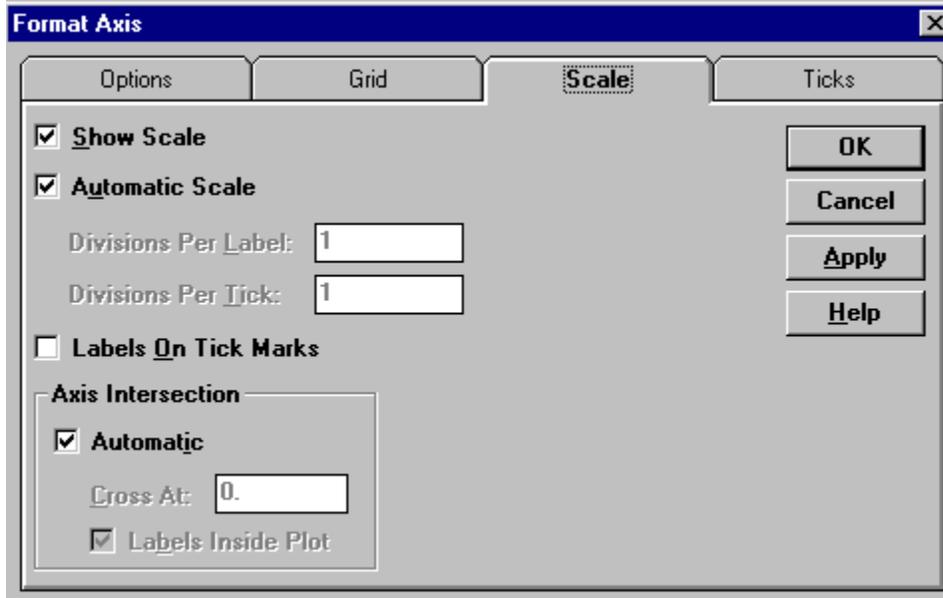
Color pop up

Click the control to display the Color Picker. Select a predefined color, or click Custom to mix your own color.

The Format Axis Scale-Category Tab

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The Scale tab displays the following options if the selected axis is a category axis.:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Options Tab](#)

[The Format Axis Grid Tab](#)

[The Format Axis Scale-Date Tab](#)

[The Format Axis Scale-Value Tab](#)

[The Format Axis Polar Tab](#)

[The Format Axis Radar Tab](#)

[The Format Axis Ticks Tab](#)

Show Scale check box

Check this box to display the axis scale, line, ticks, and title on the axis. Uncheck the box to hide the axis elements.

Automatic Scale check box

Check this box to let First Impression scale the axis based on the data being charted. Uncheck this box to manually scale the axis based on values you provide in the Divisions Per Label and Divisions per Tick options.

Divisions Per Label text box

A value of 1 labels every division. A value greater than 1 labels the first division and skips the labels for the extra divisions.

Divisions Per Tick text box

A value of 1 places a tick mark at every division. A value greater than 1 places a tick mark at the first division and skips the tick marks for the extra divisions.

Labels On Tick Marks check box

Check this box to center each label on a tick mark. Uncheck this box to center each label between two tick marks.

Automatic Axis Intersection check box

Check this box to have the axes intersect at their usual position. Uncheck this box to enable the Cross At and Labels Inside Plot options to specify where you want the current axis to intersect a perpendicular axis.

Cross At text box

Enter the position where you want the current axis to cross its intersecting axis. If the intersecting axis is a value axis, enter the value where you want to place the current axis. If the intersecting axis is a date or category axis, enter the division number at which you want to place the current axis.

Labels Inside Plot check box

Check this box to move the axis labels with the axis to the new intersection point. This may cause labels to display on top of the chart plot. Uncheck this box to leave the labels in their original position. Only the axis line and tick marks are drawn at the new intersection point.

The Format Axis Scale-Date Tab

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The Scale tab displays the following options if the selected axis is a Date axis:

The screenshot shows the 'Format Axis' dialog box with the 'Scale' tab selected. The dialog has four tabs: 'Options', 'Grid', 'Scale', and 'Ticks'. The 'Scale' tab contains the following controls:

- Show Scale**
- Automatic Scale**
- Skip Weekends**
- Minimum:** 1/5/00
- Maximum:** 3/21/00
- Major Interval:** 1 Months
- Minor Interval:** 1 Weeks
- Major Format:** mmm
- New Month:** <None>
- New Year:** <None>
- Axis Intersection:**
 - Automatic**
 - Cross At:** 0.
 - Labels Inside Plot**

Buttons on the right side: OK, Cancel, Apply, Help.

Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Options Tab](#)

[The Format Axis Grid Tab](#)

[The Format Axis Scale-Category Tab](#)

[The Format Axis Scale-Value Tab](#)

[The Format Axis Polar Tab](#)

[The Format Axis Radar Tab](#)

[The Format Axis Ticks Tab](#)

Show Date Scale check box

Check this box to display the axis scale, line, ticks, and title on the axis. Uncheck the box to hide the axis elements.

Automatic Date Scale check box

Check this box to let First Impression scale the axis based on the minimum and maximum values in the data being charted. Uncheck this box to manually scale the axis based on values you provide.

Minimum Enter the lowest or beginning date for the axis.

Maximum. Enter the highest or ending date for the axis scale.

Major Interval and Minor Interval. For each of these intervals, enter a number to specify how many intervals pass before a tick mark is placed on the axis. Then, select an interval type from the list box. The following table describes the interval settings:

<u>Type</u>	<u>Description</u>
None	No Interval.
Days	A tick mark occurs each day.
Weeks	A tick mark occurs Monday of each week.
Semi-months	A tick mark occurs on the 1st and 15th day of each month.
Months	A tick mark occurs on the 1st of each month.
Years	A tick mark occurs on January 1 of each year.

Major Format. Select a date format to display the first level of axis labels.

You can add additional levels of labels to indicate month and year changes on the data axis.

New Month. Select a format to be used to indicate a change of month.

New Year. Select a format to be used to indicate a change of year.

Date Axis Intersection Automatic check box

Check this box to have the axes intersect at their usual position. Uncheck this box to enable the Cross At and Labels Inside Plot options to specify where you want the current axis to cross an intersecting axis.

Date Axis Intersection Cross At check box

Enter the position where you want the current axis to cross an intersecting axis. If the intersecting axis is a value axis, enter the value where you want to place the current axis. If the intersecting axis is a date or category axis, enter the division number at which you want to place the current axis.

Date Axis Labels Inside Plot check box

If you enter a value in the Axis Intersection option, this check box is enabled. Check this box to move the axis labels with the axis to the new intersection point. This may cause labels to display on top of the chart plot. Uncheck this box to leave the labels in their original position.

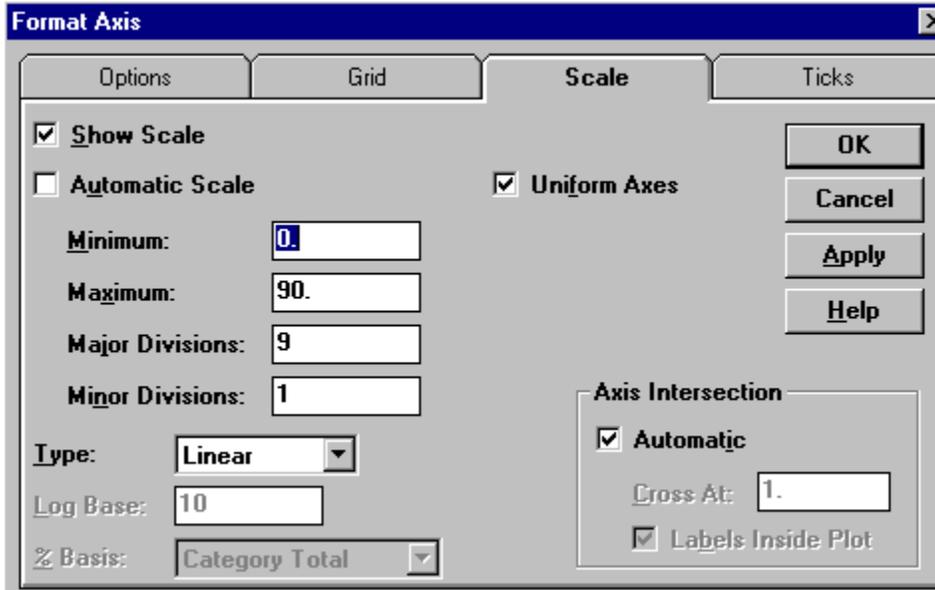
Skip Weekends check box

Check this box to not display dates that fall on weekends. Uncheck this box to display all dates regardless of day of the week.

The Format Axis Scale-Value Tab

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The Scale tab displays the following options if the selected axis is a Value axis:



The screenshot shows the 'Format Axis' dialog box with the 'Scale' tab selected. The dialog has four tabs: 'Options', 'Grid', 'Scale', and 'Ticks'. The 'Scale' tab contains the following controls:

- Show Scale**
- Automatic Scale**
- Uniform Axes**
- Minimum:** 0.
- Maximum:** 90.
- Major Divisions:** 9
- Minor Divisions:** 1
- Type:** Linear (dropdown menu)
- Log Base:** 10
- % Basis:** Category Total (dropdown menu)
- Axis Intersection:**
 - Automatic**
 - Cross At:** 1.
 - Labels Inside Plot**

On the right side of the dialog, there are four buttons: **OK**, **Cancel**, **Apply**, and **Help**.

Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Options Tab](#)

[The Format Axis Grid Tab](#)

[The Format Axis Scale-Category Tab](#)

[The Format Axis Scale-Date Tab](#)

[The Format Axis Polar Tab](#)

[The Format Axis Radar Tab](#)

[The Format Axis Ticks Tab](#)

Automatic Value Axis Scale

Check this box to let First Impression scale the axis based on the minimum and maximum values in the data being charted. Uncheck this box to manually scale the axis based on values you provide.

If you uncheck the Automatic Scale check box, the following four options are enabled so that you can enter values to be used to scale the axis.

Minimum Enter the lowest or beginning value for the scale.

Maximum Enter the highest or ending value for the scale.

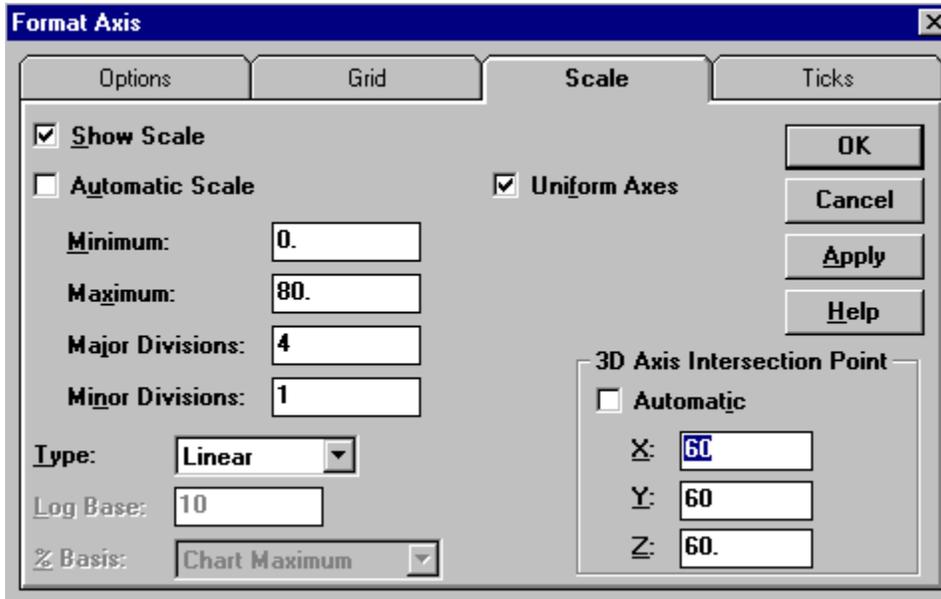
Major Divisions Enter the number of major divisions you want on the axis. Axis labels are only displayed on major divisions.

Minor Divisions Enter the number of minor divisions you want between each major division of the axis.

The Format Axis Scale Tab (3D XYZ)

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The Scale Tab displays the following options if the chart type is 3D XYZ:



The screenshot shows the 'Format Axis' dialog box with the 'Scale' tab selected. The dialog has four tabs: 'Options', 'Grid', 'Scale', and 'Ticks'. The 'Scale' tab contains the following controls:

- Show Scale**
- Automatic Scale**
- Uniform Axes**
- Minimum:** 0.
- Maximum:** 80.
- Major Divisions:** 4
- Minor Divisions:** 1
- Type:** Linear (dropdown menu)
- Log Base:** 10
- % Basis:** Chart Maximum (dropdown menu)
- 3D Axis Intersection Point**
 - Automatic**
 - X:** 60
 - Y:** 60
 - Z:** 60.

Buttons on the right side of the dialog include OK, Cancel, Apply, and Help.

Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

- [The Format Axis Options Tab](#)
- [The Format Axis Grid Tab](#)
- [The Format Axis Scale-Category Tab](#)
- [The Format Axis Scale-Date Tab](#)
- [The Format Axis Scale-Value Tab](#)
- [The Format Axis Polar Tab](#)
- [The Format Axis Radar Tab](#)
- [The Format Axis Ticks Tab](#)

Automatic 3D Axis Intersection check box

Check this box to have the axes intersect at their usual position. Uncheck this box to enable the Cross At options to specify where you want the current axis to cross the intersecting axis.

X Axis text box

Enter the point on the X value axis where you want the Y and Z axes to intersect.

Y Axis text box

Enter the point on the Y value axis where you want the X and Z axes to intersect.

Z Axis text box

Enter the point on the Z value axis where you want the X and Y axes to intersect.

XYZ Show Scale check box

Check this box to display the axis scale, line, ticks, and title on the axis. Uncheck the box to hide the axis elements.

XYZ Automatic Scale.check box

Check this box to let First Impression scale the axis based on the minimum and maximum values in the data being charted. Uncheck this box to manually scale the axis based on values you provide.

If you uncheck the Automatic Scale check box, the following four options are enabled so that you can enter values to be used to scale the axis.

Minimum. Enter the lowest or beginning value for the scale.

Maximum. Enter the highest or ending value for the scale.

Major Divisions. Enter the number of major divisions you want on the axis. Axis labels are only displayed on major divisions.

Minor Divisions. Enter the number of minor divisions you want between each major division of the axis.

Type pop up menu

Select the type of scale you want to use on the axis. The following table describes the types of axis scaling

Type	Description
Linear	Data points are plotted in a linear scale with values ranging from the minimum to the maximum chart value. This is the default scale type.
Logarithmic	Data points are plotted in a logarithmic scale with values based on a specific log scale. Logarithmic axes are not appropriate for zero or negative data.
Percent	Data points are plotted in a linear scale as percentages of the chart values. Changing the percent basis of a chart is useful for determining overall trends in data rather than specific values.

Log Base text box

Enter the logarithm base to be used for a logarithmic scale axis.

The default base is 10.

Percent Basis pop up menu

If you select Percent as the axis type, you can choose one of the following methods of calculating the percentages.

Percentage Type	Description
Chart Maximum	The largest value in the chart is considered 100 percent and all other values on the chart are displayed as percentages of that value.
Category Maximum	The largest value in each category is considered 100 percent and all other values in that category are displayed as percentages of that value.
Series Maximum	The largest value in each series is considered 100 percent and all other values in that series are displayed as percentages of that value.
Chart Total	All values in the chart are added together, and that value is considered 100 percent. All values in the chart are displayed as percentages of that value.
Category Total	All values in each category are added together to give a total value for each category. All values are displayed as a percentage of their category total.
Series Total	All values in each series are added together to give a total value for each series. All values are displayed as a percentage of their series total.

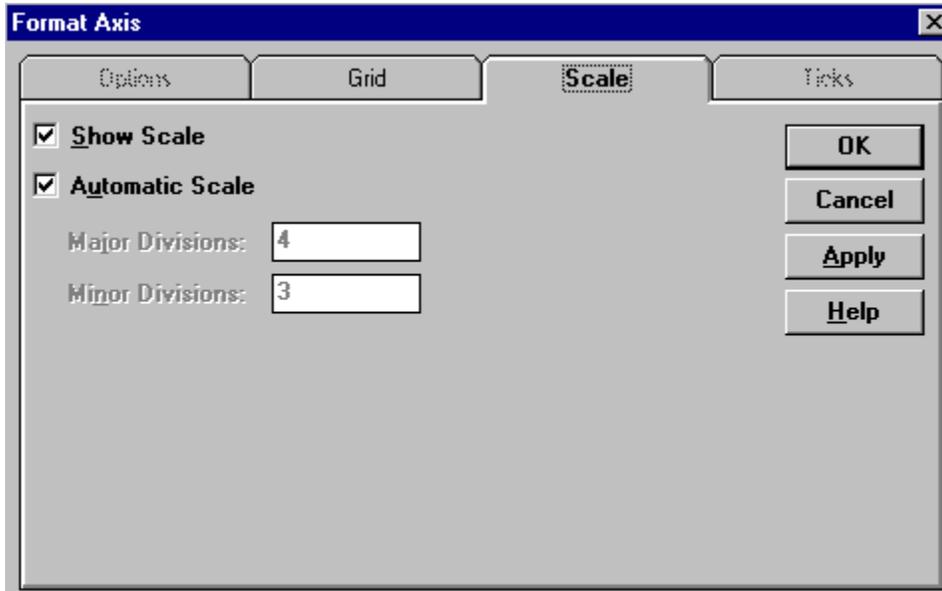
Uniform Axes check box

Check this box to specify that the unit scale for all value axes in the current chart is uniform.

The Format Axis Polar Tab

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The Polar tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Options Tab](#)

[The Format Axis Grid Tab](#)

[The Format Axis Scale-Category Tab](#)

[The Format Axis Scale-Date Tab](#)

[The Format Axis Scale-Value Tab](#)

[The Format Axis Radar Tab](#)

[The Format Axis Ticks Tab](#)

Polar Axis Automatic Scale

Check this box to let First Impression scale the axis based on the data being charted. Uncheck this box to manually scale the axis based on values you provide.

If you uncheck the Automatic Scale check box, the following four options are enabled so that you can enter values to be used to scale the axis.

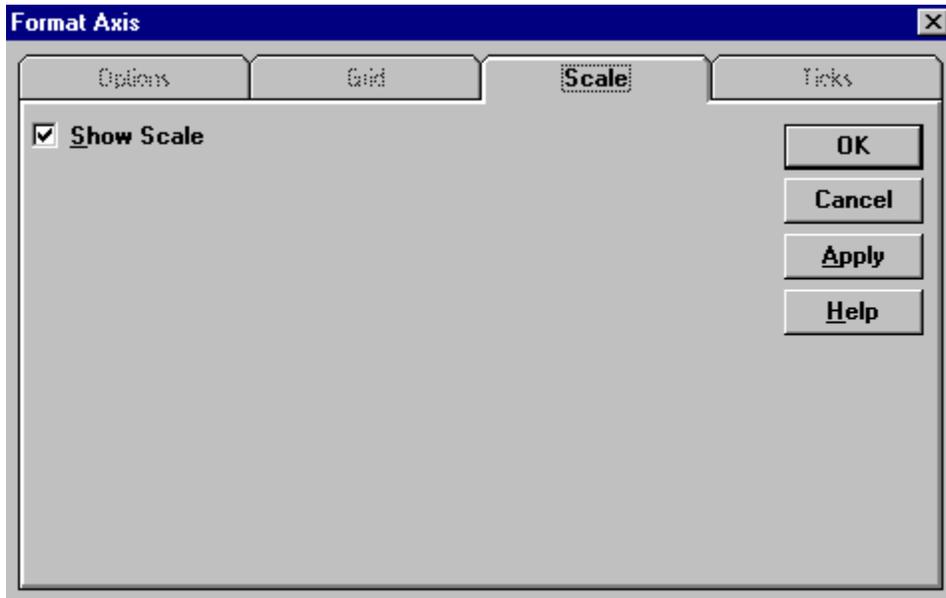
Major Divisions Enter the number of major divisions you want on the axis. Radial grid lines for major divisions extend to the center of the chart.

Minor Divisions Enter the number of minor divisions you want between each major division of the axis. Radial grid lines for minor divisions extend from the first division of the value axis to the perimeter of the chart.

The Format Axis Radar Tab

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The only option available on the Radar tab is to turn on or off the Show Scale tab. Unchecking the Show Scale check box turns off the category labels at the end of each value axis.



Click on the check box of this tab to learn what it does.

See Also:

[The Format Axis Options Tab](#)

[The Format Axis Grid Tab](#)

[The Format Axis Scale-Category Tab](#)

[The Format Axis Scale-Date Tab](#)

[The Format Axis Scale-Value Tab](#)

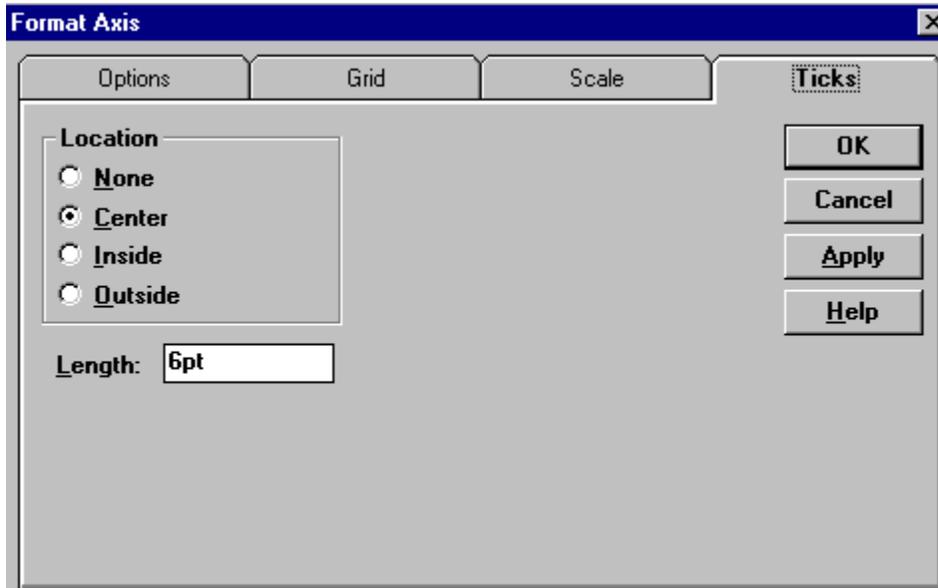
[The Format Axis Polar Tab](#)

[The Format Axis Ticks Tab](#)

The Format Axis Ticks Tab

The Format Axis dialog box controls the display of various axes, the scale of various types of axes, and the appearance of the axis grid and axis ticks.

The Ticks tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Options Tab](#)

[The Format Axis Grid Tab](#)

[The Format Axis Scale-Category Tab](#)

[The Format Axis Scale-Date Tab](#)

[The Format Axis Scale-Value Tab](#)

[The Format Axis Polar Tab](#)

[The Format Axis Radar Tab](#)

Axis Tick Length text box

Enter the length of the major tick marks in points. Minor tick marks are drawn at half this length.

Axis Tick Location radio buttons

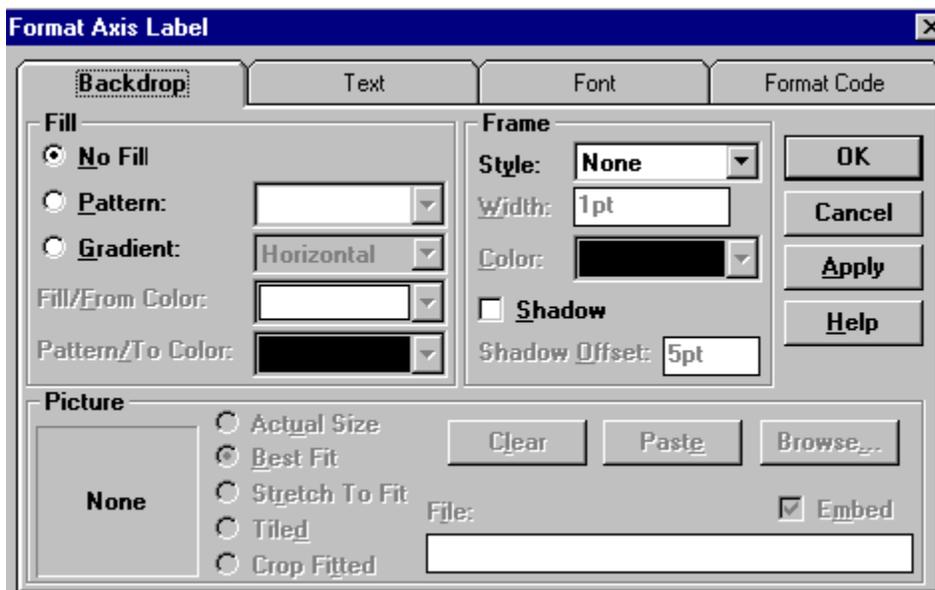
Select a style to specify the position of the tick on the axis. The following table lists the available tick position settings.

Style	Description
None	No tick marks are displayed on the axis.
Center	Tick marks are centered across the axis.
Inside	Tick marks are displayed inside the axis.
Outside	Tick marks are displayed outside the axis.

The Format Axis Label Backdrop Tab

The Format Axis Label dialog box controls the position of axis labels, and the backdrop, font, and format used to display them. If you use the menu to display this dialog, you are prompted to specify which axis you want to format.

The Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Label Text Tab](#)

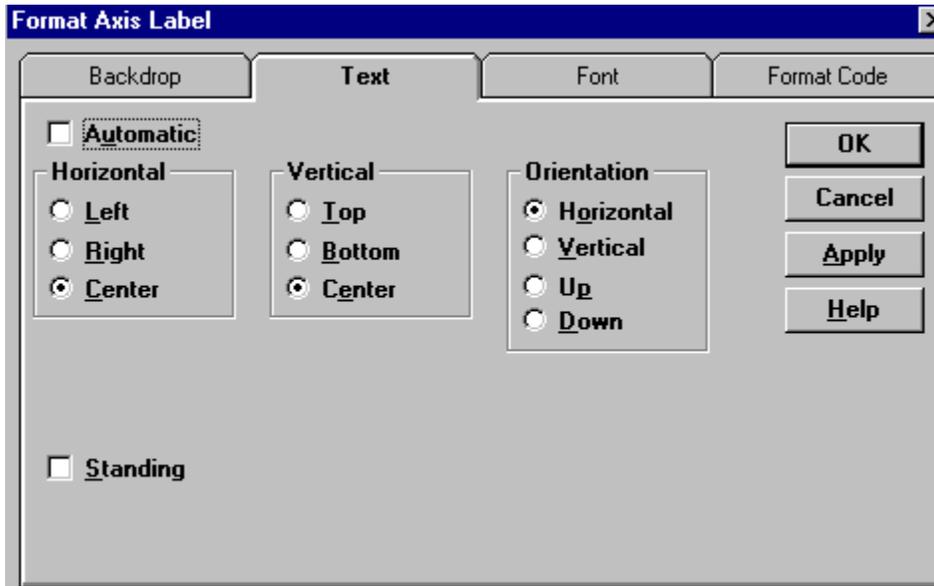
[The Format Axis Label Font Tab](#)

[The Format Axis Label Format Code Tab](#)

The Format Axis Label Text Tab

The Format Axis Label dialog box controls the position of axis labels, and the backdrop, font, and format used to display them. If you use the menu to display this dialog, you are prompted to specify which axis you want to format.

The Text tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Label Backdrop Tab](#)

[The Format Axis Label Font Tab](#)

[The Format Axis Label Format Code Tab](#)

Label Automatic check box

Check this box to allow First Impression to rotate the labels if necessary to optimize the chart layout.
Uncheck this box to set a specific horizontal and vertical alignment and orientation for the label text.

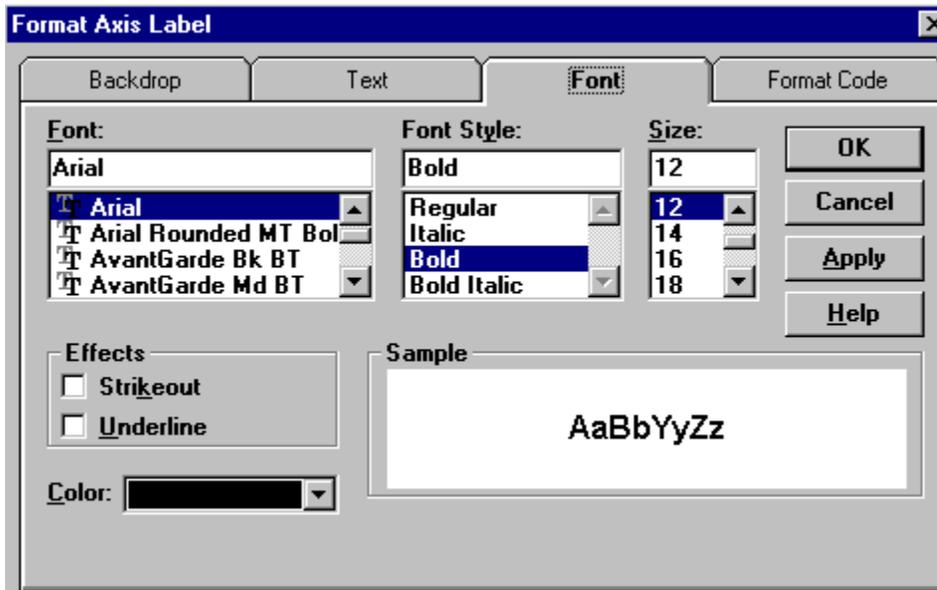
Standing Labels check box

On 3D charts, check this box to rotate labels up on the text baseline to stand in the Y plane. Standing text can make the labels more legible if you are viewing the chart at very low elevations. This option applies only to labels on an X or Z axis on most charts, and the Y axis on horizontal charts.. Uncheck this box to return labels to their standard position in the X or Z plane.

The Format Axis Label Font Tab

The Format Axis Label dialog box controls the position of axis labels, and the backdrop, font, and format used to display them. If you use the menu to display this dialog, you are prompted to specify which axis you want to format.

The Font tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Label Backdrop Tab](#)

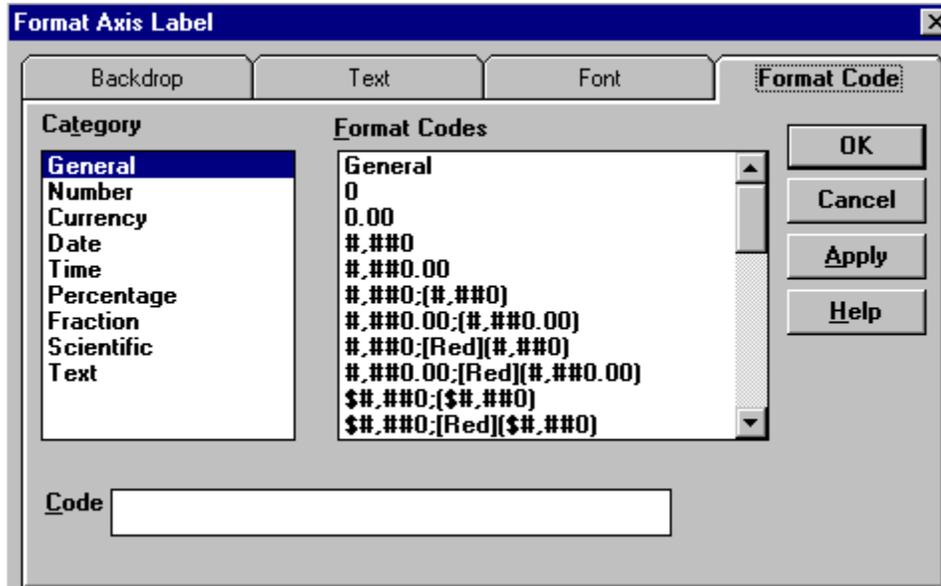
[The Format Axis Label Text Tab](#)

[The Format Axis Label Format Code Tab](#)

The Format Axis Label Format Code Tab

The Format Axis Label dialog box controls the position of axis labels, and the backdrop, font, and format used to display them. If you use the menu to display this dialog, you are prompted to specify which axis you want to format.

The Format Code tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

Click here to view sample [Number Formats](#)

Click here to view sample [Date and Time Formats](#).

Click here to view the codes available to use when designing [Custom Label Formats](#).

See Also:

[The Format Axis Label Backdrop Tab](#)

[The Format Axis Label Text Tab](#)

[The Format Axis Label Font Tab](#)

Axis Label Category pop up menu

Select a category to display a list of preset format strings appropriate for the type of label in the Format Codes list box.

Axis Label Format Code pop up menu

Select one of the predefined strings.

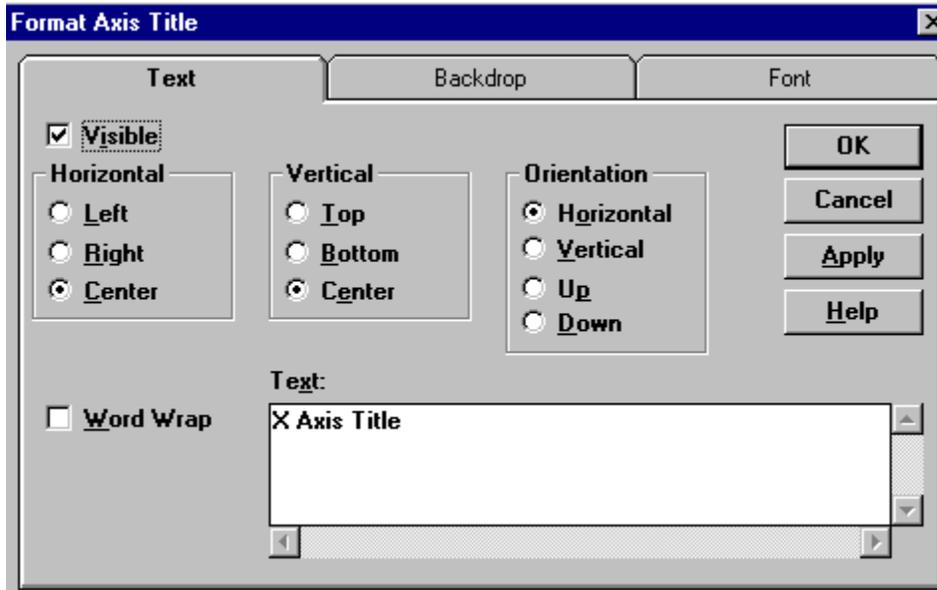
Custom Axis Label text field

Enter valid format symbols in this field to create your own custom format. You can also create a custom format. The following table lists the format symbols that can be used in a custom format string.

The Format Axis Title Text Tab

The Format Axis Title dialog box controls the text used as a title for the axis chart. It also controls the font and backdrop used to display the title. If you use the menu to display this dialog, you are prompted to specify which axis you want to format.

The Text tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Axis Title Backdrop Tab](#)

[The Format Axis Title Font Tab](#)

Axis Title Visible check box

Check this box to display the axis title. Uncheck this box to hide the axis title.

The Horizontal, Vertical, and Orientation sections of the dialog box are enabled if you uncheck the Visible check box.

Axis Title Word Wrap check box

Check this box to wrap any text that is too long to fit on one line of the bounding box. You can also control where text breaks by pressing CTRL + ENTER to place a soft carriage return in the text.

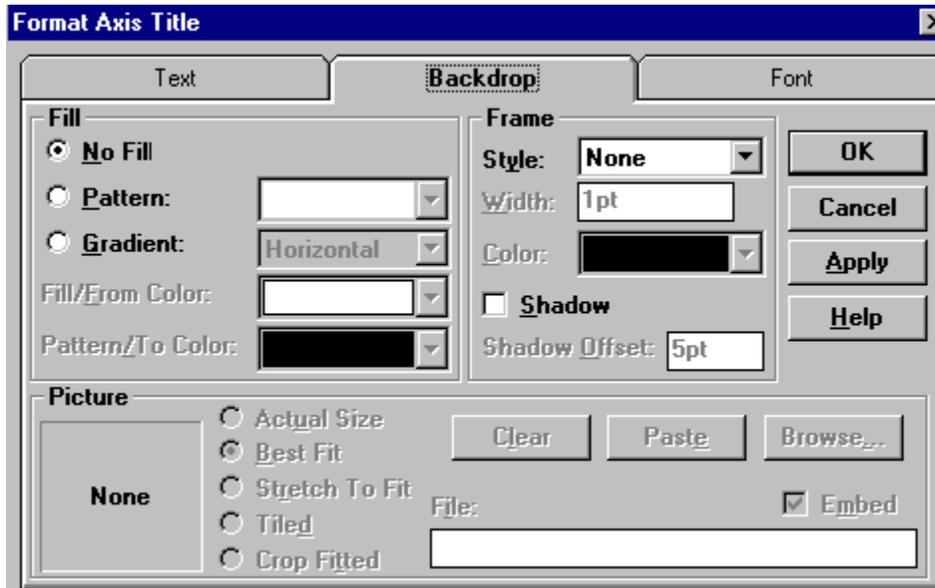
Axis Title Text box

Enter the title text.

The Format Axis Title Backdrop Tab

The Format Axis Title dialog box controls the text used as a title for the axis chart. It also controls the font and backdrop used to display the title. If you use the menu to display this dialog, you are prompted to specify which axis you want to format.

The Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

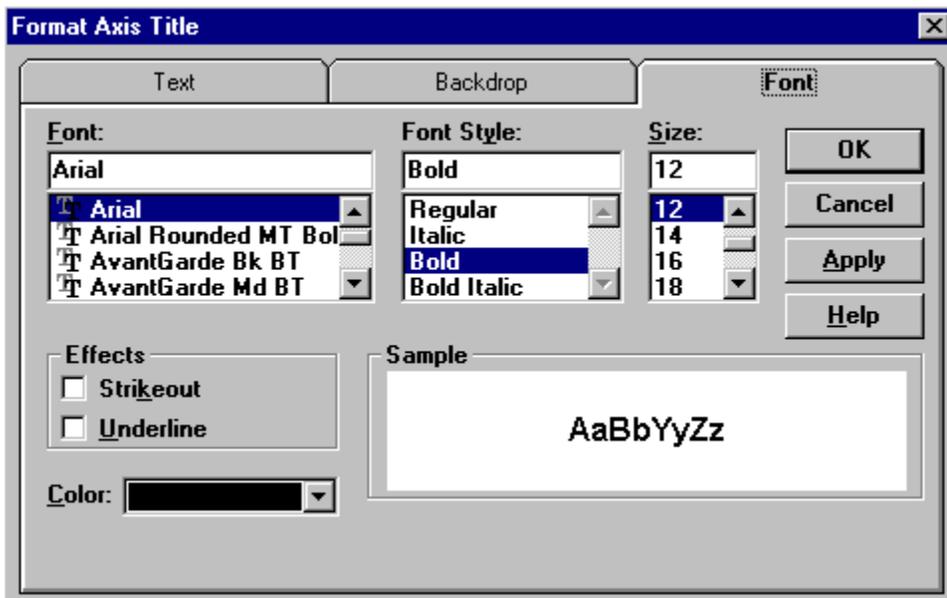
[The Format Axis Title Text Tab](#)

[The Format Axis Title Font Tab](#)

The Format Axis Title Font Tab

The Format Axis Title dialog box controls the text used as a title for the axis chart. It also controls the font and backdrop used to display the title. If you use the menu to display this dialog, you are prompted to specify which axis you want to format.

The Font tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

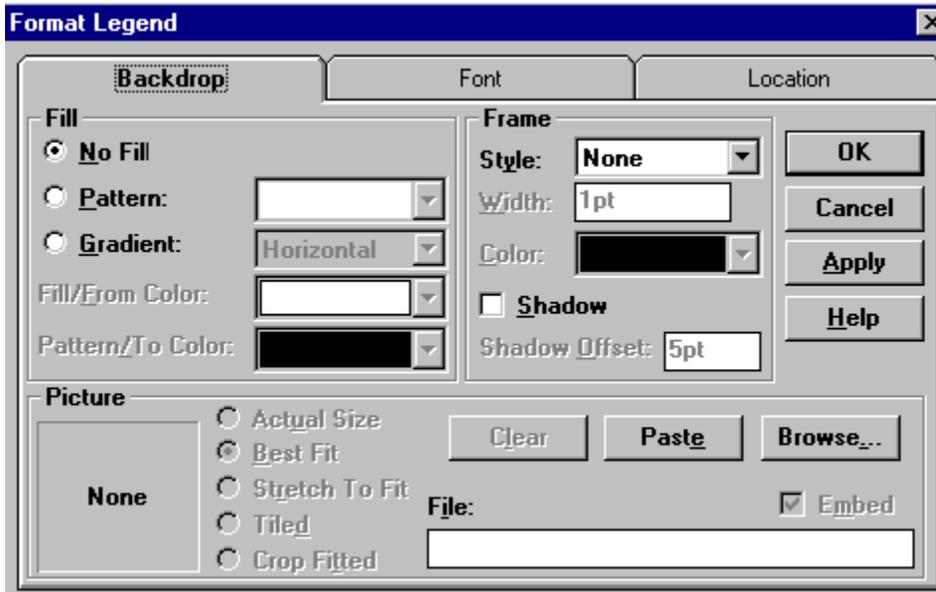
[The Format Axis Title Text Tab](#)

[The Format Axis Title Backdrop Tab](#)

The Format Legend Backdrop Tab

The Format Legend dialog box controls the positioning and appearance of the chart legend.

The Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

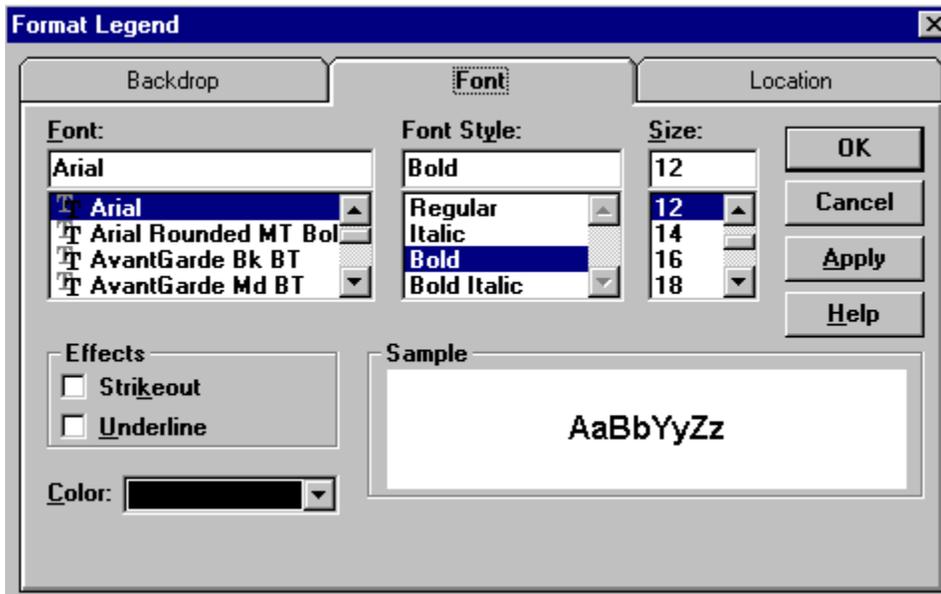
[The Format Legend Font Tab](#)

[The Format Legend Location Tab](#)

The Format Legend Font Tab

The Format Legend dialog box controls the positioning and appearance of the chart legend.

The Font Tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Legend Backdrop Tab](#)

[The Format Legend Location Tab](#)

Font list box

Select a font from the list of fonts installed on your Windows system.

Font Style list box

Select a style from the list of supported styles for the font you selected.

Size list box

Select a size from the list of valid sizes for the font you selected. You can also type a valid size in the Size field.

Effects check box

Check either or both the Strikeout and Underline check boxes to apply those effects to the text.

Sample display box

As you make selections from the other controls in this dialog box, the sample is updated to reflect the changes.

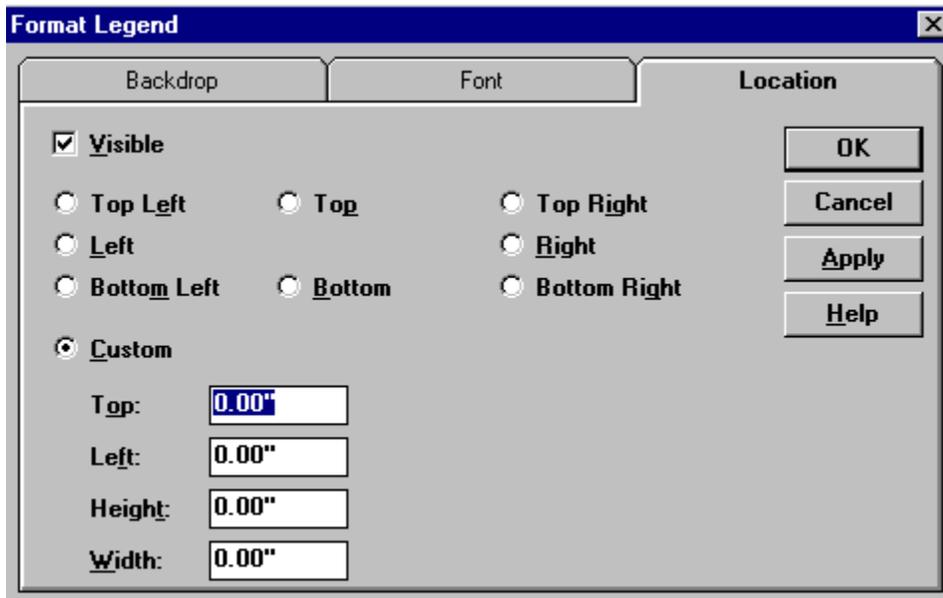
Color pop up menu

Click the control to display the Color Picker. Select one of the predefined colors, or click Custom to mix your own color.

The Format Legend Location Tab

The Format Legend dialog box controls the positioning and appearance of the chart legend.

The Location tab displays the following options:



The screenshot shows the 'Format Legend' dialog box with the 'Location' tab selected. The dialog has three tabs: 'Backdrop', 'Font', and 'Location'. The 'Location' tab contains the following options:

- V**isible
- T**op **L**eft
- T**op
- T**op **R**ight
- L**eft
- R**ight
- B**ottom **L**eft
- B**ottom
- B**ottom **R**ight
- C**ustom

Below the 'Custom' option, there are four text boxes for specifying dimensions:

- T**op: 0.00"
- L**eft: 0.00"
- H**eight: 0.00"
- W**idth: 0.00"

On the right side of the dialog, there are four buttons: **OK**, **Cancel**, **A**pply, and **H**elp.

Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Legend Backdrop Tab](#)

[The Format Legend Font Tab](#)

Visible check box

Click here to display the chart element.

Location radio buttons

Click on one of these buttons to position the chart element.

Custom Location check box and text boxes

Click [here](#) to manually enter a custom location for the chart element, then enter the appropriate value for the following location settings:

Top: The top of the chart element.

Left: The left edge of the chart element.

Height: The height of the chart element.

Width: The width of the chart element.

Custom Location radio button and text boxes

Click [here](#) to manually enter a custom location for the chart element, then enter the appropriate value for the following location settings:

Top: The top of the chart element.

Left: The left edge of the chart element.

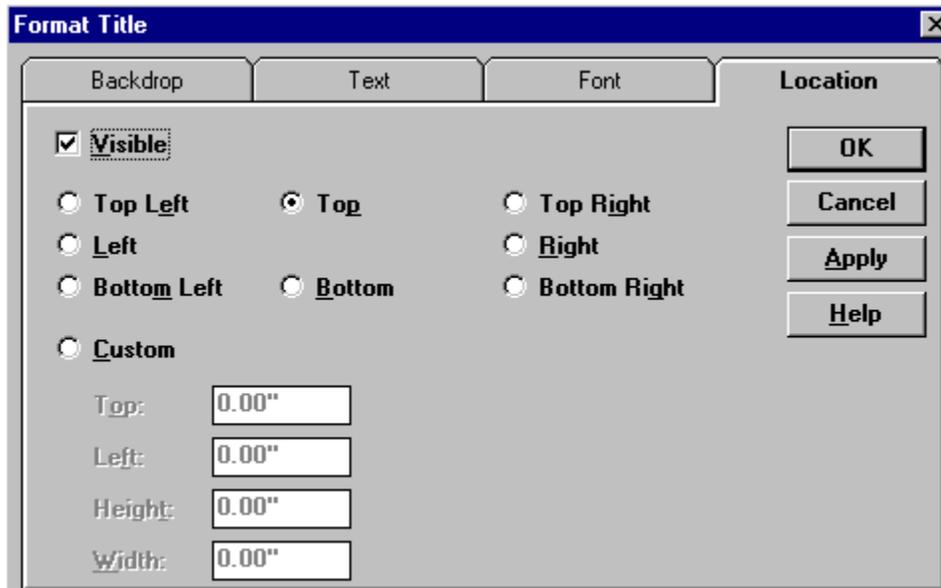
Height: The height of the chart element.

Width: The width of the chart element.

The Format Title Location Tab

The Format Title dialog box controls the positioning and appearance of the chart title.

The Location tab displays the following options:



The screenshot shows the 'Format Title' dialog box with the 'Location' tab selected. The dialog has four tabs: 'Backdrop', 'Text', 'Font', and 'Location'. The 'Location' tab contains the following options:

- Visible**
- Top Left**
- Top**
- Top Right**
- Left**
- Right**
- Bottom Left**
- Bottom**
- Bottom Right**
- Custom**

Below the 'Custom' option, there are four text boxes for specifying dimensions:

- Top: 0.00"
- Left: 0.00"
- Height: 0.00"
- Width: 0.00"

On the right side of the dialog, there are four buttons: 'OK', 'Cancel', 'Apply', and 'Help'.

Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Title Text Tab](#)

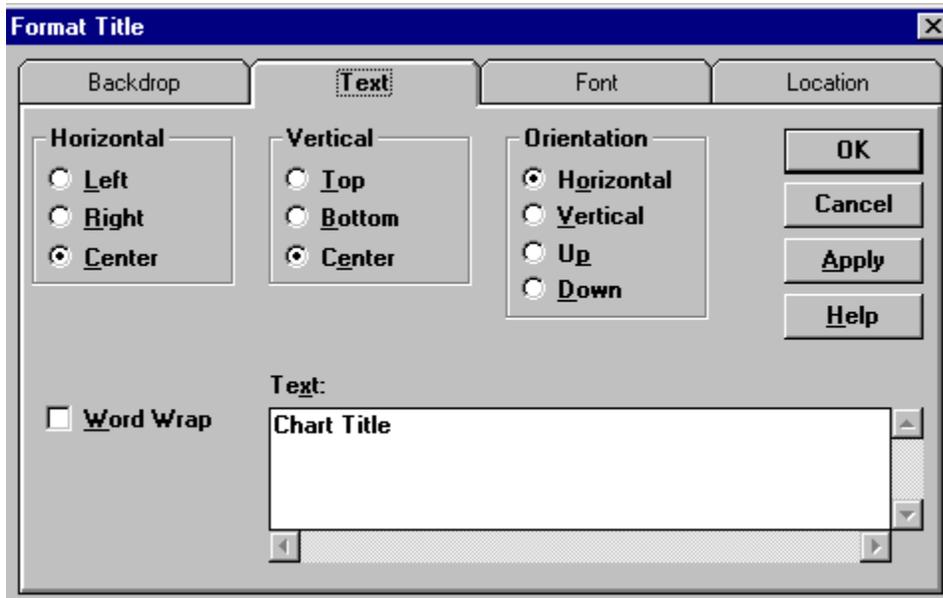
[The Format Title Backdrop Tab](#)

[The Format Title Font Tab](#)

The Format Title Text Tab

The Format Title dialog box controls the positioning and appearance of the chart title.

The Text Tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Title Location Tab](#)

[The Format Title Backdrop Tab](#)

[The Format Title Font Tab](#)

Horizontal Alignment radio buttons

Click the appropriate radio button to align text horizontally.

The following table describes the horizontal alignment options for text.

<u>Alignment</u>	<u>Description</u>
Left	All lines of text are aligned on the left margin.
Right	All lines of text are aligned on the right margin.
Center	All lines of text are centered horizontally.

Vertical Alignment radio buttons

Click the appropriate radio button to align text vertically.

The following table describes the vertical alignment options for text.

<u>Alignment</u>	<u>Description</u>
Top	All lines of text are aligned at the top margin.
Bottom	All lines of text are aligned at the bottom margin.
Center	All lines of text are centered vertically.

Orientation radio buttons

Click the appropriate radio button to set the desired orientation options.

The following table describes the orientation options for text.

<u>Orientation</u>	<u>Description</u>
Horizontal	The text is displayed horizontally.
Vertical	The text is displayed, one letter on top of each other, reading from top to bottom.
Up	The text is rotated to read from bottom to top.
Down	The text is rotated to read from top to bottom.

Note When you rotate text up or down, the vertical and horizontal alignment are still relative to the text and not to the bounding box. In other words, text displayed with up orientation and left alignment is actually flush against the bottom of the bounding box, not the left side.

Word Wrap check box

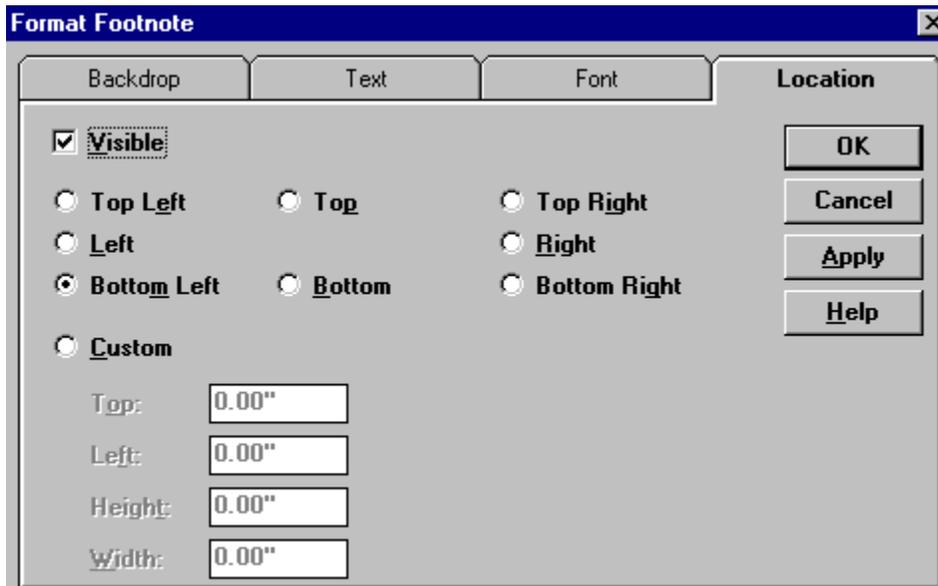
Check this box to wrap any text that is too long to fit on one line of the bounding box. You can also insert line breaks manually by pressing CTRL + ENTER anywhere in the text. Word Wrap is not available on the Text tab of the following dialog boxes: Format Axis Labels, Format Data Point Labels, and Format Series Labels.

Text box

Enter the text to be displayed by the chart element you are formatting.

The Format Footnote Location Tab

The Format Footnote Location tab displays the following options:



The screenshot shows the 'Format Footnote' dialog box with the 'Location' tab selected. The dialog has four tabs: 'Backdrop', 'Text', 'Font', and 'Location'. The 'Location' tab contains the following options:

- Visible**
- Top Left**
- Top**
- Top Right**
- Left**
- Right**
- Bottom Left**
- Bottom**
- Bottom Right**
- Custom**

Under the 'Custom' option, there are four text boxes for specifying dimensions:

- Top: 0.00"
- Left: 0.00"
- Height: 0.00"
- Width: 0.00"

On the right side of the dialog, there are four buttons: 'OK', 'Cancel', 'Apply', and 'Help'.

Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

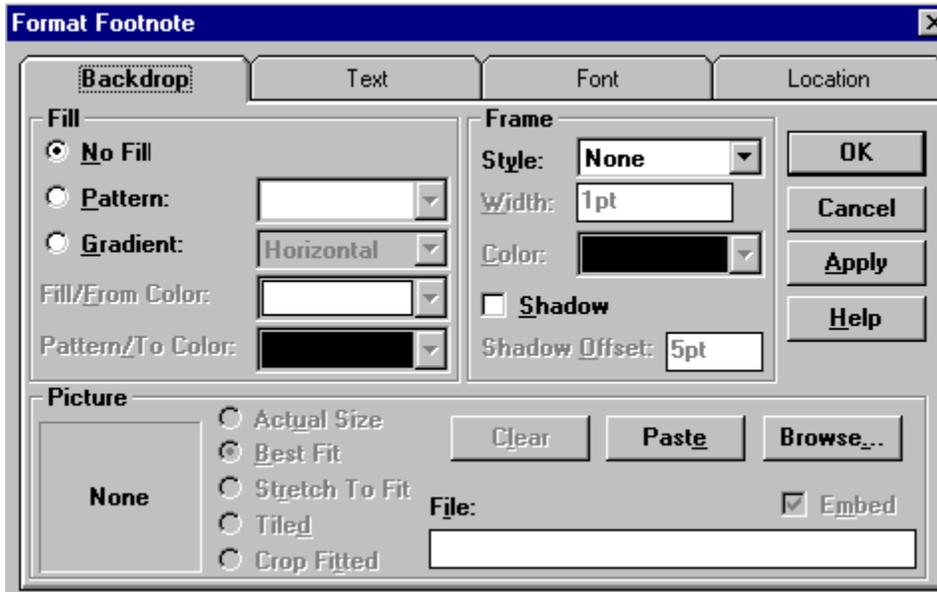
[The Format Footnote Backdrop Tab](#)

[The Format Footnote Font Tab](#)

[The Format Footnote Text Tab](#)

The Format Footnote Backdrop Tab

The Format Footnote Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

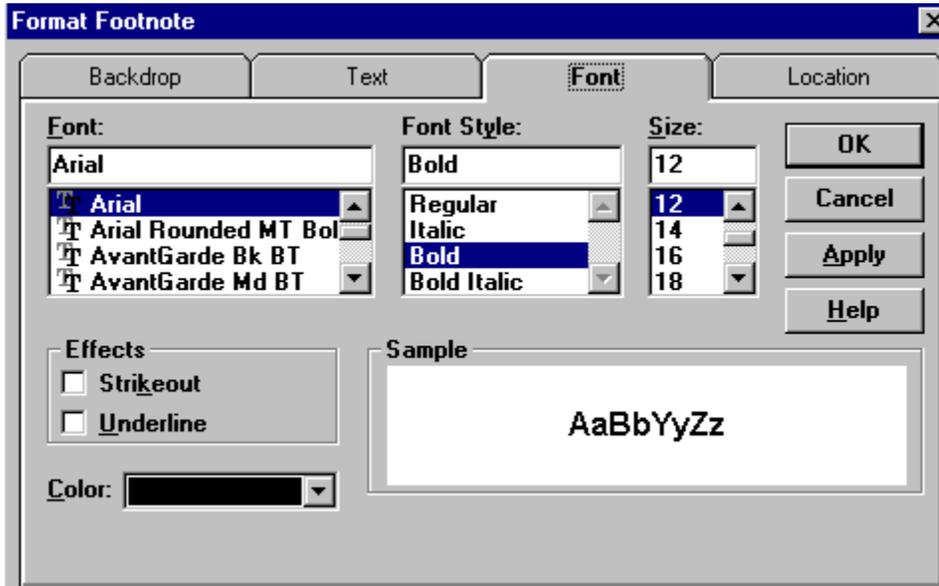
[The Format Footnote Location Tab](#)

[The Format Footnote Font Tab](#)

[The Format Footnote Text Tab](#)

The Format Footnote Font Tab

The Format Footnote Font tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

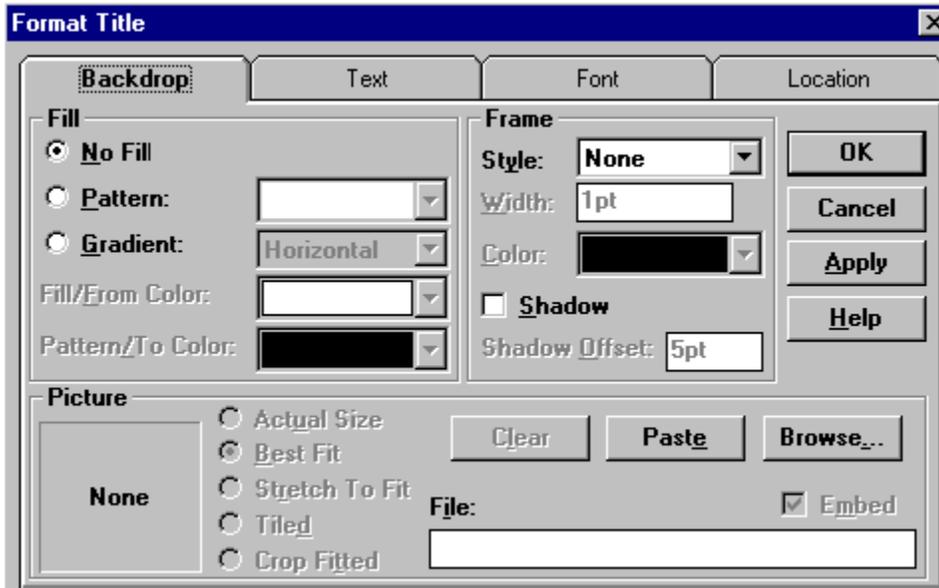
[The Format Footnote Location Tab](#)

[The Format Footnote Backdrop Tab](#)

[The Format Footnote Text Tab](#)

The Format Title Backdrop Tab

The Format Title Backdrop tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

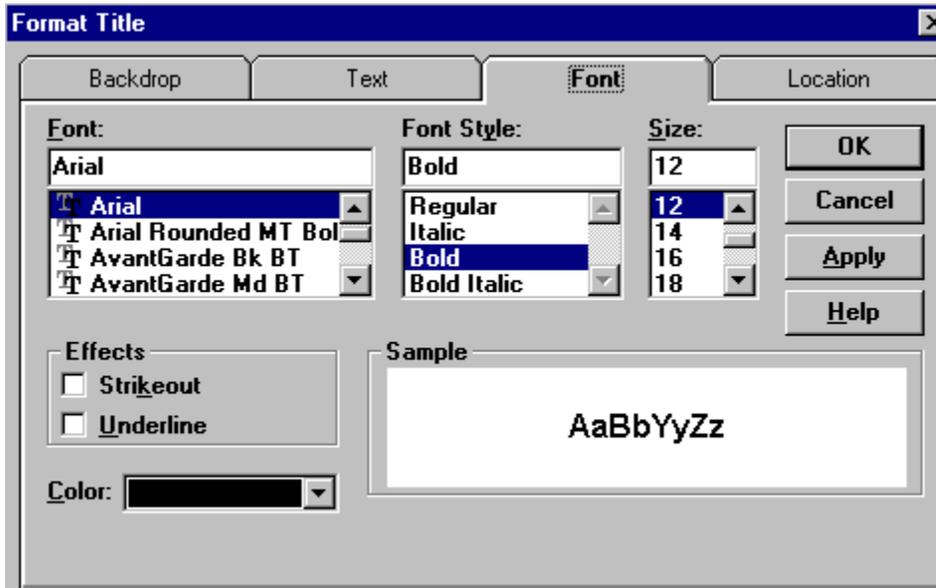
[The Format Title Location Tab](#)

[The Format Title Text Tab](#)

[The Format Title Font Tab](#)

The Format Title Font Tab

The Format Title Font tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

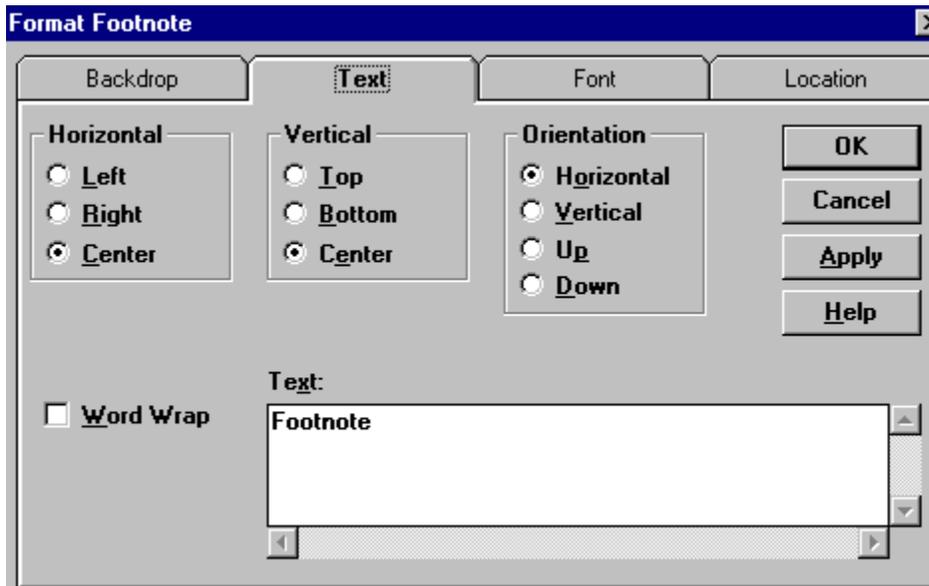
[The Format Title Location Tab](#)

[The Format Title Text Tab](#)

[The Format Title Backdrop Tab](#)

The Format Footnote Text Tab

The Format Footnote Text tab displays the following options:



Click on the buttons, check boxes and text boxes of this tab to learn what they do.

See Also:

[The Format Footnote Location Tab](#)

[The Format Footnote Backdrop Tab](#)

[The Format Footnote Font Tab](#)

Contour list box

To specify how contours are displayed, select one of the following options:

<u>Type</u>	<u>Description</u>
Bands	Contours are displayed as bands of color.
Lines	Contours are displayed as colored lines.

Base list box

This option controls how the base of a surface chart is represented. Select one of the following options:

<u>Type</u>	<u>Description</u>
Pedestal	The base is displayed as a solid area that rises up to meet the surface.
Standard	The base is displayed as a flat area beneath the chart surface.
Bands	The base reflects the chart's contours as a series of contour bands.
Lines	The base reflects the chart's contours as a series of contour lines.

Projection list box

This option displays a planar contour chart projected above a surface chart. Select one of the following projection methods:

<u>Method</u>	<u>Description</u>
None	No projection is displayed above the chart.
Bands	The planar chart reflects the chart's contours in contour bands.
Lines	The planar chart reflects the chart's contours in contour lines.

Surface list box

This option controls how the surface itself is represented on a 3D surface chart. Select one of the following options:

<u>Type</u>	<u>Description</u>
None	The surface data is represented exclusively by a wireframe.
Bands	The surface displays changes in data with contour bands.
Lines	The surface is represented by a wireframe and displays changes in data with contour lines.
Solid	The surface is drawn with a solid color.
Solid with Lines	The surface is drawn with a solid color. Changes in data are indicated by contour lines super imposed on the solid color.

Wireframe list box

This wireframe option controls the appearance of the wireframe drawn upon a surface chart. Select one of the following options:

<u>Type</u>	<u>Description</u>
None	The surface is represented by the surface color only.
Major	The wireframe indicates the original data grid values.
Major and Minor	The wireframe is drawn upon the surface along the original data grid values and any additional rows or columns generated by the smoothing process.

Smoothing text box

First Impression uses the bi cubic B spline formula to determine how to smooth the chart data based on

the smoothing factor you specify. Enter a valid factor from 0 - 32

The following table describes valid smoothing factors:

Factor	Description
0	The raw grid data is used with no smoothing.
1	This factor samples the spline data only at the original data grid locations.
2-32	A factor of 2 or more will break the row and column locations into the specified number of subdivisions.

Use Separate Contour Data check box

A contour chart displays only contour data, but a surface chart can display both contouring and elevation data. Uncheck this checkbox to use all data in the data grid for both contouring and elevation. Check this checkbox to provide separate contour and elevation data. When this checkbox is checked, the data grid is divided vertically between columns into two equal subranges of data. The left subrange contains elevation data, and the right subrange contains contouring data.

When Use Separate Contour Data is enabled, a surface chart will display surface contours that do not necessarily conform to the shape of the surface. For example, a surface chart displaying separate contour and elevation data might depict snowfall across a mountain range.

Surface Color picker

Surface color applies to both surface and contour charts and controls the color used to draw solid chart surfaces.

Wireframe Color picker

Wireframe color controls the color used to draw the wireframe for 3D surface charts.

Wireframe Width picker

Wireframe width controls the width of the line used to draw the wireframe for 3D surface charts.

Automatic Contouring Values check box

Automatic values refers to the values used to display chart contours. Check this checkbox if you wish to have each major axis division represent a separate contour. Uncheck this checkbox if you want to design your own custom contours.

Contour Colors list box

The Colors option in the contouring tab controls how color is displayed on the chart. The following table describes the valid color types:

Type	Description
Automatic	The contour colors are displayed as the default series colors.
Gradient	The contours are displayed in an even transition of color.
Manual	Custom contour colors can be specified and modified by the user. (Manual colors is only available when Automatic values is unchecked.)

Contour Value List box

The values representing each contour are displayed here. Select a value from the list to modify, label or delete a contour.

New Contour button

Click this button to add a new contour value to the list.

Delete Contour button

Click this button to delete the selected contour value from the list

Contour Value text box

Enter a new contour value here.

Contour Label text box

Enter a new label for the selected contour value here.

Band Options list boxes

Style Select a contour band style

Color Select a contour band color

Line Options list boxes

Width Select a contour line width.

Color Select a contour line color.

Welcome to First Impression

Welcome to the **Borland Edition of First Impression** from Visual Components. Visual Components develops and markets a full range of tools for the component-based developer. Our product portfolio includes best of class tools for data analysis, charting, rich text and spell checking. We offer a royalty-free runtime license for all of our OCX products.

The **Professional Edition of First Impression** supports features not found in this version of First Impression. Attempting to use these features through the user interface, or by using OCX properties and methods will result in an error.

For additional information regarding the **Professional Edition of First Impression**, including Upgrade information, contact Visual Component Sales at 800-884-8665.

Other Ways of Contacting Visual Components:

- **By telephone.** You can contact our sales staff at (800) 884-8665 on weekdays between 8:30 a.m. and 5:30 p.m., central time.
- **By FAX.** You can contact us by FAX at (913)599-6597.
- **On the Internet.** Contact us at:

World Wide Web - <http://www.visualcomp.com>

Electronic Mail - sales@visualcomp.com

- **Via BBS.** You can contact us through our bulletin board service at (913) 599-6713.
- **Via CompuServe.** You can contact us through CompuServe – 74774,443.

Visual Components also maintains a section in the MS Windows Components A+ Forum on CompuServe. These sections are used for peer to peer support and the distribution of example projects, maintenance releases, etc. To reach the Visual Components section, type:

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When communicating with Visual Components via the CompuServe forums, include our account number with all messages. This assures that your message receives prompt attention.

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