WinGraph 2.0

Introduction

Undoubtedly the most effective way to present data is to present it visually, with a chart or graph. WinGraph enables you to draw graphs or charts, input data, change their style and shapes, print them, copy them to the Windows Clipboard, or save them to a file.

Corporate/Site Licenses

All corporate, business, government or other commercial users of **WinGraph** must be registered. We offer quantity discounts as well as site licensing.

Site licensing agreements allow duplication and distribution of specific number of copies within the licensed institution. Duplication of multiple copies is not allowed except through execution of a licensing agreement. Site license fees are based upon the estimated number of users.

If your company has five or more users who will be using **WinGraph**, your company qualifies for a Site License.

Site License fee is based on the number of users who will be using **WinGraph** regularly. The per-user license fee is based on the following schedule:

> **10 - 49 users   -$8.00 per user**
> **50 - 99 users   -$7.00 per user**
> **100+ users   -Corporate License**

Corporate License entitles unlimited number of users to use **WinGraph** in a corporation. **The fee is $500.00**.

Corporate licensing agreements allow unlimited duplication, distribution and use of **WinGraph** within the licensed institution.

Note that with a site or corporate license, only one copy of the program will be sent. You will be responsible for distributing additional copies.

ALL PRICES AND DISCOUNTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
WARNING: YOU MAY NOT USE **WINGRAPH** WITHIN YOUR ORGANIZATION WITHOUT A PRIOR PURCHASE OR LICENSE AGREEMENT.

Disclaimer

Users of **WinGraph** must accept this disclaimer of warranty: "**WinGraph** is supplied as is. The author disclaims all warranties, expressed or implied, including, without limitation, the warranties of merchant ability and of fitness for any purpose. The author assumes no liability for damages, direct or consequential, which may result from the use of **WinGraph**."

Technical Support

Technical support for **WinGraph** is available to all registered users. If you are not a registered user, we will provide limited assistance to help you install and become sufficiently proficient for proper evaluation. For all questions, problem reports, comments and suggestions, please contact:

TD Software
P.O. Box 127
Etowah, TN 37331
VOICE (615) 263-7679
AOL: DANT260109
CompuServe 74477,3652

Installation

WinGraph files come in compressed form, and they must be installed using the included Windows-hosted installation program. If you received **WinGraph** as an archived (.ZIP) file, unarchive it to a diskette.

Using WinGraph:

 OverView:

When the WinGraph Application is first loaded it shows a 2D bar graph. Default data is entered into the graph from the Data Dialog box. Sample titles, labels, and legends are also displayed. This is also the graph that is displayed when you select the "New Graph" menu item from the "File" menu.

1. You can select a graph type and graph style from menu commands.

2. You can input data and labels from the Data Dialog box. You can enter positive or negative values in whole numbers or decimal.

3. You can set each data point from a Set Each Dialog box.

4. You can add text to the graph from the Set Titles Dialog box.

5. You can select patterns for your graph from the Patterns Dialog box.

6. You can customize your graph by setting properties from a drop-down list box.

7. You can set options using the menu Options command.

8. You can copy your graph to the Windows Clipboard, print it out, or save it to a file using the commands from the File menu.
   Note: You can save a bitmap or metafile image of the graph to a file. You can also save the graph as a binary file and load it into WinGraph for any modifications.

9. You can re-size your graph by using Windows commands to re-size the window.

10. You can display a Print Preview window where you can view the graph and set its location, width, and height on the page before printing. You can choose Portrait or Landscape printer orientation. You can choose to print in Color or Black/White, with or without a border around the graph. You can choose from a palette of solid colors, dithered colors, or grayscale.

11. You can display information about each Control in the Message Bar as the mouse pointer is moved over each Control.

12. You can display information about each Menu Item in the Message Bar as the menu is browsed with the arrow keys.

Some terms:
  Data Point--The intersection of two or more variables. For example, if the quantity sold in March was 45, the data point is the intersection of the variables *quantity sold* (whose value happens to be 45) and *time* (whose value happens to be March).If a data point is at the intersection of two variables and the values of one variable depend on the values of the other, the first is called the **dependent variable** and the other the **independent variable**.
  Data Set--A number of data points that are grouped together for some reason.
  Here are two data sets, one for Gadgets and another for Widgets:

	Jan	Feb	Mar	Apr	May
Gadgets	10	20	5	30	50
Widgets	10	30	40	50	100
Quantity	20	50	45	80	150

Gadgets and Widgets, you'll notice, have an equal number of data points. This must always be the case for sets of data assigned to a graph. If all data sets do not have the same number of data points, a zero value will be assigned to the missing points.

Pie Charts

Description:
A chart representing the whole of a thing as a circle. Parts of the whole are shown as proportionally sized slices of the pie. A pie chart can represent only one data set.

Properties:

Graph Data:
  Pie charts show only the first data set (that is, the data points for Set = 1) even if multiple data sets have been defined. Pie charts do not handle negative data meaningfully. Negative data is temporarily forced to a zero value when the graph is drawn.
Explode Pie:
  Defines which (if any) segments are exploded from the center of the pie.
Pattern Data:
  Pattern Data is used to supply pattern information for the pie segments. Once a pattern is selected for one data point, all data points should have a pattern. Any slices not assigned a pattern are shown as solid black.
Color Data:
  The Color Data property allows you to select colors for the pie slices instead of using the default colors. Once a color is selected for one data point, all data points should have a color. Any slices not assigned a Color Data value are shown in black.

Graph Text:

Legend Text:
The Legend Text can be supplied for each data point. Text is displayed on the right of the graph next to the sample of the corresponding pattern or color.

Label Text:
By replacing the default numeric labels with text, the Label Text offers an alternative to a legend.

Graph Styles

Label lines:
In the default style, labels are connected to each slice by a line. The text color is either the default or the color selected by the Foreground property.

No label lines:
This style omits the line between label and slice.

Colored labels:
The labels are shown in the same color as the slice and are connected by lines to corresponding slices.

Colored labels without lines:
Identical to Colored labels but omits the line between label and slice.

% Labels:
The labels are a percentage of the total chart and are connected by lines to corresponding slices.

% Labels without lines:
Identical to % Labels but omits the line between label and slice.

Colored % labels:
The percentage labels are shown in the same color as the slice and are connected by lines.

Colored % labels without lines:
Identical to Colored % labels but omits the line.

Bar Graphs

Description:
A graph consisting of parallel horizontal or vertical bars that measure a particular quantity in an item at particular intervals. Bars can be clustered or stacked to measure a given quantity in several items.

Properties:

Graph Data:
Bar graphs can display multiple data sets with as many data points as required.

Pattern Data:
The Pattern Data property supplies pattern information for the faces of the bars. If Sets = 1, Pattern Data applies to each data point. If Sets > 1, Pattern Data applies to each data set.

Color Data:
The Color Data property supplies color information for the faces of the bars. If Sets = 1, Color Data applies to each data point. If Sets > 1, Color Data applies to each data set.

3D Side Data:
Only 3D Bar graphs use the 3D Side Data property. It selects the color for the sides of the bars.

Graph Text:

Legend Text:
The Legend Text can be supplied for each data point or each data set. Text is displayed on the right of the graph next to the sample of the corresponding pattern or color.
Label Text:
By replacing the default numeric labels with text, the Label Text offers an alternative to a legend.

Graph Styles

Vertical:
The default Graph Style shows the bar graph with vertical bars, clustered if Sets > 1.
When bars are vertical, viewers are predisposed to attribute a time sequence (running from left to right) even when none is intended. That gives vertical bars an advantage over horizontal bars when you want to stress trends as well as comparative amounts.
Horizontal:
The bars are oriented so that they extend horizontally.
This style is best for comparing amounts when you do not want to suggest a trend.
Stacked:
After the first data set, bars for subsequent sets are stacked above the bar for the preceding set. Does not meaningfully display negative data.
The effect is similar to an Area graph with the important difference that data points are shown as separate entities.
Horizontal stacked:
Identical to Stacked but the bars are horizontal.
The information conveyed is similar to what is communicated by a Pie chart, except that you can show more than one data set.
Stacked %:
The values of the data for each set are represented as a percentage of the total. This is a way to show relative values.
Horizontal stacked %:
Identical to Stacked %, but the bars are horizontal.
Z-clustered (3D only):
The first data set is drawn at the back of the chart. Subsequent sets are drawn in front of preceding sets.
Z-clustered Bar charts work best when values for subsequent data sets do not eclipse the sets that came before, so all bars remain in view.
Horizontal Z-clustered (3D only):
Identical to Z-clustered, but the bars are horizontal.

Gantt Chart

Description:
A specialized version of stacked bar charts used to provide a graphic view of a project schedule, with each bar in the chart representing the start time, duration, and completion time of a task
Gantt charts are always horizontal and require Sets >= 2.

Properties:

Graph Data:
The values for Set = 1 are never shown. They are offset values for the start of the bars. Subsequent data sets are then added. Negative values are not meaningfully displayed.
Pattern Data, Color Data:,
These operate the same way as they do for bar graphs.

Graph Text:

Legend Text, Label Text:
These operate the same way as they do for bar graphs.

Graph Styles

Adjacent bars:
There is no separation between bars.
Spaced bars:
Spaces are introduced between bars.

Line and Log/Lin Graphs

Description:
Line A graph showing the relationship of one variable to another by using lines to join plotted points. The variables are measured along two perpendicular axes, X (horizontal) for the independent variable, and Y (vertical) for the dependent variable. When the graph portrays more than one set of data, each set is shown by a line of its own.
Log/Lin A variation on the line graph that uses logarithmic scaling on the Y axis to amplify minor variations in the dependent variable and flatten larger fluctuations.

Properties:

Graph Data:
These graphs can display multiple data sets with as many data points as are meaningful.
Pattern Data:
No Pattern Data are applied to these graphs.
Color Data:
The Color Data property allows you to select the colors to be used for each data set. Once a color has been select for one data set, all data sets should have a color. Any sets not assigned a Color Data value are shown in black.
Symbol Data:
The Symbol Data property describes the symbol to be used for each data set.

Graph Text:

Legend Text:
Legend Text allows text to be supplied for each data set. The text is displayed to the right of the graph next to a sample of the corresponding line color or symbol for each set, depending on which option has been selected.
Label Text:
Label Text allows the labels along the fixed axis to contain the text of your choice.

Graph Styles

Lines:
   The graph displays lines only.
Symbols:
   The graph displays symbols only.
Sticks:
   The graph displays sticks only.
Sticks and symbols:
   The graph displays sticks and symbols.
Lines and symbols:
   The graph displays lines and symbols.
Lines and sticks:
   The graph displays lines and sticks.
Lines and sticks and symbols:
   The graph displays lines and sticks and symbols.

Area Graphs

Description:

A graph that measures trends by relating one variable to another in terms of magnitude or volume. The default style is cumulative; as each set is drawn in turn, its values are added to values for corresponding data points of the sets that came before. Area graphs drawn in this style are like Pie charts in that they show the relationship of the parts to the whole. But unlike Pie charts, they also show trends.

Properties:

Graph Data:
   Area graphs can display multiple data sets with as many data points as are meaningful. Negative data is not displayed.
Pattern Data:
   The Pattern Data property sets the fill pattern for each data set.
Color Data:
   The Color Data property sets the color for each data set.

Graph Text:

Legend Text:
   Legend Text allows text to be supplied for each data set. The text is displayed on the right of the graph, next to a sample of the corresponding pattern or color.
Label Text:
   Label Text allows the labels along the X axis to contain the text of your choice.

Graph Styles

Stacked data sets:
The first data set is drawn and then subsequent sets are added; each new set above the one that came before it.
Like a Pie chart, this style shows the relationship of the parts to the whole. But unlike a Pie chart, the relationship can change as an independent variable (time, for instance) changes.
Absolute:
Each data set is drawn from the base line.
The effect is similar to a line graph that has been shaded. The visual impact is different, though. Line graphs stress trends. Area graphs emphasize quantities.
This style works best when used to compare trends that never eclipse one another, so that the smaller area always remains in front of the larger, where it can be seen.
Percentage:
The values are shown as a percentage of the total.
This style can be compared to a percentage-style Pie chart.

Tape Graphs

Description:
Tape graphs are essentially 3D line graphs.

Properties:

Graph Data:
Tape graphs can display multiple data sets with as many data points as are meaningful.
Color Data:
The Color Data property allows you to select colors for each data set.

Graph Text:

Legend Text:
Legend Text allows legends to be supplied for each data set. The text is shown to the right of the graph next to a sample of the corresponding color.
Label Text:
Label Text allows the labels along the X axis to contain text of your choice.

Graph Styles
There are no style options.

Menu Commands

File

New Graph:
Displays a sample graph that you can modify to develop your own graph.
Open File:
Displays an Open dialog that you can use to select a graph file to open with the extension .GPH.
Save File:
Saves the graph to a binary file. You would use this command when you have opened a file to

modify the graph and you wish to save the file to the same filename. If you use this command to save a file that has never been saved before a dialog will be displayed so you can name the file and tell where to save it.

Save File As:
Save the graph to a binary file. You would use this command to save a file for the first time or if you wish to save an opened file under a different name or to a different location.

Copy BitMap:
Copies a bitmap of the graph to the Windows Clipboard.
A bitmap can be manipulated pixel by pixel and a metafile cannot. You can copy a bitmap of the graph to the Windows Clipboard and then paste it into Windows Paintbrush or any paint program and edit it.
The size of the graph copied will be the actual size of the graph shown on the screen.

Copy Metafile:
Copies a metafile of the graph to the Windows Clipboard.
A metafile is more suitable for scaling than a bitmap, so metafile format is best for coping a graph via the Windows Clipboard to a document.
The size of the graph copied will be the actual size of the graph shown on the screen.

Save BitMap
Saves an image of the graph as a BitMap.
A dialog box is displayed allowing you to select where you want to save the file to disk.
You must use an extension of .bmp or you will receive an error message.
The size of the graph saved to disk will be the actual size of the graph as it is shown on the screen.

Save MetaFile
Saves an image of the graph as a MetaFile.
A dialog box is displayed allowing you to select where you want to save the file to disk.
You must use an extension of .wmf or you will receive an error message.
The size of the graph saved to disk will be the actual size of the graph as it is shown on the screen.

Print Preview:
A Print Preview window is displayed giving you the capability to set and view the location and size of the graph on the page before you print it.

Type

Graph Types:
Selects Graph types.

Style

Graph Styles:
Selects Graph styles.

Grid:
Places reference grids on the axes of the graph.
The menu options are: **None (default)**, **Horizontal**, **Vertical**, or **Both**.

Data

Set Data:
Set All...
Displays a dialog box used to input data sets, points and labels for the graph. See Data Dialog.

Set Each...
   Displays a dialog box used to set the value for each data point. See Set Each Dialog.

Options

Draw Style:
   Monochrome
      The background for the graph is set to white and all colors are set to black. You can use the Patterns Dialog to set patterns.
   Color
      The graph displays default or selected colors. This is the default.
Labels
   Off
      This option turns the labels for the graph Off.
   On
      This option turns the labels for the graph On.
Legend Style
   Monochrome
      This option shows the text for the legend in black.
   Color
      This options permits you to use color for legend text.
Patterns...
   Displays a dialog box used to input patterns into the graph. See Patterns Dialog.

Help:

Contents
   Displays the WinGraph Help at the Contents section.
About WinGraph
   Displays the About box which contains the application name, version number, copyright notice and developer.

Data Dialog

1. Select number of sets and number of points by using Spin buttons or by typing in values.
   Minimum Sets = 1; Maximum Sets = 10.
   Minimum Points = 2; Maximum Points = 50.
2. Click "Input Data" button.
   Shows a Data Grid with the correct number of rows for Sets and the correct number of columns for Points. Use Arrow Keys or the Mouse to select a cell to input data.
   Whole number or decimal values can be entered which can be positive or negative. Cells will expand to accommodate size of number.
   Click on "Clear Data" button to remove data from all cells.
   Use Ctrl-D to remove data from individually selected cells.
3. Click "Input Labels" button.
   Shows a Data Grid with the correct number of rows for labels; which is equal to the number of Points.
   Any printable characters can be entered into a cell.
   Click on "Clear Labels" button to remove label data from all cells.
   Use Ctrl-D to remove label data from individually selected cells.
4. Click "OK" button to input data into the graph.

5. Click "Cancel" button to return to the graph without inputting data.

Note: When you return to the Data Dialog, all data you have previously set will appear in the Data Grid. If you have used the "Set Each Data" function to enter new values, these values will be reflected in the Data grid.

Set Each Dialog

1. Click on a data point of the graph. The Set number, Point number, and the value of the data is displayed.
2. Input a new value and click on the "Set New" button and the data point changes to the new value. Values can be whole numbers or decimal, and can be positive or negative.
3. Click on the "Close" button. The dialog disappears and you are returned to the graph.

Set Titles Dialog

1. Use Tab key to move between text boxes.
2. Type in the Graph Title if you wish a graph title to be displayed on the graph.
   A Graph Title cannot contain more than 80 characters. If the title is too long to fit on the graph, it may not be displayed. When this happens, increase the width of the graph, and the title will display.
   The Graph Title will be centered at the top of the graph.
3. Type in the Left Title if you choose to have one in the graph.
   The Left Title does not apply to Pie charts.
   A Left Title cannot contain more than 80 characters. In addition, if the title is too long to fit in the space available, the title may not display. In that case, increase the width of the graph.
   Note: Text added to a graph by setting Left Title always appears on the left of the graph. If you set Left Title for a bar graph with vertical bars and then switch the graph's orientation by selecting a style with horizontal bars, the text for Left Title will remain on the left.
4. Type in the Bottom Title if you choose to have one in the graph.
   This allow you to provide text to be placed at the bottom of the graph. Centered and parallel to the horizontal axis.
   The Bottom Title does not apply to Pie charts.
   A Bottom Title cannot contain more than 80 characters. If the title is too long it may not display. In this case, increase the width of the graph.
   Note: Text added to a graph by setting Bottom Title always appears at the bottom of the graph. If you set Bottom Title for a bar graph with vertical bars and then switch the graph's orientation by selecting a style with horizontal bars, the text for Bottom Title will remain at the bottom.
5. Type in the Legend Text if you require a legend in your graph.
   Legend Text cannot contain more than 80 characters for each legend. If the text is too long and won't display then increase the width of the graph.
   You must separate each Legend Text with a semi-colon (for example Text1;Text2;Text3)
   Pie charts and single data set Bar graphs should have a legend text for each data point. All other graph types should have a legend text for each data set.
   WinGraph automatically determines the spacing between legend text.
6. Click on the "OK" button to place text into your graph.
7. Click on the "Cancel" button to remove the dialog box without placing text into the graph.
8. Click on the "Reset Legend" button to remove the legend from your graph.

Patterns Dialog

1. Type a pattern number in the Fill Pattern box. Patterns 0-7 can be used in color or monochrome graphs. Sets and Points boxes contain the values you set using the Data

Dialog.
2. Click on a data set or data point on the shown graph to input patterns into the graph.
For Pie charts and Bar graphs with only one data set, select one pattern per data point. For all other graphs, select one pattern per data set.
   Note: Pie charts must have only one data set.!
3. Click on the "Close" button to close the dialog box and return to the graph.

Print Preview

The Print Preview contains the follow features to locate, size, customize, view and print your graph:

Dimension panel - Lets you select the XY coordinates of the origin of your graph. Also enables you to set the width and height of your graph. All dimensions are in inches and can be in whole numbers or decimals. A maximum of five characters can be entered including the decimal point.
Palette - Lets you select one of three color palettes from a drop down list. Solid color is the default. Dithered color gives the colors on the graph a pastel effect. Grayscale is great for printing color graphs on black and white printers.
Print Style - Lets you select one of four Print Styles from a drop down list. You can print the graph in monochrome, color, monochrome with a border around the graph, or color with a border.
Orientation - Lets you select from a drop down list whether the printer will print in portrait or landscape mode.
View Graph - This command will display the graph on the page object. Before you view the graph you should have set the orgin and size of the graph, and which palette to use. The page object is sized to 40% of the actual printed page. And the graph is sized accordingly. The orientation of the printer can be changed while viewing the graph and the page object will change to match the orientation.
Print Graph - This command will send the graph information to the printer or the spooler if your using Windows Print Manager.
Before selecting this command you should have set the origin and size of the graph, selected the palette, and chose the print style you wish to use.
Note: The graph is viewed in the Print Preview as a windows metafile and the text and patterns may be distorted and even unreadable. However the purpose of the Print Preview is to give you a visual indication of where the graph will print on hard copy. The graph will be printed to the highest resolution of your default printer.
Close - This command will remove the Print Preview and return you to the main graph window.

Properties

Properties are selected by clicking the arrow on the Property drop-down list box. Select a property with the the Mouse. Settings are selected by clicking the arrow on the Setting drop-down list box. For some settings you must type in a value. If the setting is in a list, select it with the Mouse. After selecting the Property and Setting, click on the Check mark to input the setting into the graph. For certain settings you must click on the graph to activate the setting.

Property

Background:
Sets the color of the background of the graph.
You can select 1 of 16 colors. White is the default.
Select a setting and click the Check mark to implement the setting.
When you change the background color, the colors for the components of the graph are selected automatically. However, you can change the Foreground and the Color Data properties.

Foreground:
Sets the colors of titles, labels, and legends.
You can select 1 of 17 different settings. The default setting is Auto black/white.
Select a setting and click the Check mark to implement the setting.
WinGraph automatically uses black or white as its default foreground color. Depending on the background color set, it picks the color that gives the best contrast.

Font Family:
Selects the font family in which the text specified by the current setting of Font Use will be displayed.
The Font Family property settings are: **Roman (default)**, **Swiss**, and **Modern**.
Select a setting and click the Check mark to implement the setting.

Font Use:
Selects the text component to which Font Family, Font Style, and Font Size will be applied.
The Font Use property settings are: **Graph Title**, **Other Titles**, **Labels**, **Legend**, **All Text**.
Note: Select Font Use property and a setting before you select Font Family, Font Size or Font Style.
Select a setting and click the Check mark to implement the setting.
If you select All Text, you can set values for the font family, style, and size that will be applied to all text components of the graph. It gives you a quick way to set all to, say, the Swiss font.
You can then select the individual components to make further changes.

Font Style:
Selects italic, bold, or underlined for the text specified by Font Use.
The Font Style property settings are:

Default
Italic
Bold
Bold Italic
<u>Underlined</u>
<u>*Underlined italic*</u>
<u>**Underlined bold**</u>
<u>***Underlined bold italic***</u>

Select a setting and click the Check mark to implement the setting.

Font Size:
Sets the approximate font size for the text specified by the current setting of Font Use.
The setting for Font Size specifies a percentage of the system font size. <u>**Valid settings are from 50 to 500**</u>.
The default setting depends on Font Use:

Font Use	Font Size (%)
Graph Title	200
Other Titles	150
Labels	100
Legend	100

Type in a value and click the Check mark to implement the setting.
The setting for Font Size is not absolute; it's a starting point. If necessary, WinGraph will

reduce the font size in order to fit the text into the space available.

Note: WinGraph will attempt to display text no matter how small it must make the font to do so. When running under Windows 3.0, where font sizes are fixed, Windows itself limits how small a font can be. Under Windows 3.1 there is no such limitation. As a result, font size may become so small that text is difficult to read. If this happens, increase the size of the graph or decrease the length of the text.

Explode Pie:

Used to explode Pie chart segments.

The Settings Are: **Not Exploded (default)** and **Exploded**.

To explode a slice of the pie select the setting "Exploded". Then click on the Pie slice you want to explode.

To return an exploded slice to the pie select the setting "Not Exploded" then click on the exploded slice.

Color Data:

For most graph types, the setting for Color Data selects the color used to display each data set. For Pie charts and for bar graphs with Set = 1, the setting for Color Data selects a color for each point rather than for each set.

You can select 1 of 16 colors.

Select a color then click a Set or Point on the graph to set the color. Once you have selected one color, you should select colors for all sets or points. Otherwise, those which have not been assigned a color will display in black.

For Line and Log/Lin graphs you must click on a data point. Adding a style with Symbols will help you do this. You can remove the symbols after you select the color.

3D Side Data:

Used to specify the color of the sides and top of a 3D Bar graph.

You can select 1 of 16 colors.

Select a color then click on a set or point on the graph to set the color.

If Sets > 1 you set the color of the sets and if Sets = 1 you set the color of each point.

Ticks:

Used to enable or disable axis ticks.

The Ticks property settings are: **Off (default)**, **On**, **X Ticks only**, and **Y Ticks only**.

Select a setting and click the Check mark to implement the setting.

Tick Every:

Selects the frequency with which tick marks are displayed on the X axis.

A tick mark for every nth data point is supplied, where n is the setting for Tick Every. **Valid settings are from 1 to 1000.**

When the number of points is less than Tick Every, the X axis of the graph will be extended to the value of Tick Every. Since there must be an integral number of ticks, the X axis will, if necessary, be extended to a multiple of Tick Every.

For example, if number of points = 127 and Tick Every = 50, then the X axis will be extended to 150.

Type in a value and click the Check mark to implement the setting.

Label Every:

Selects the frequency with which labels are displayed on the X axis.

The label for every nth data point is displayed, where n is the setting for Label Every. **Valid settings are from 1 to 1000**.

For example, In a graph with five data points and Label Every = 1, five labels are displayed. In a graph with five data points and Label Every = 3, the first and fourth labels are displayed.

Type in a value and click the Check mark to implement the setting.

Symbol Data:

Selects symbols to be used for Line and Log/Lin graphs.

Select one symbol per data set. You can select 1 of 10 symbols

Select a setting and click the Check mark to implement the setting.

Data Reset:
> Allows you to remove any or all information that has been supplied to the graph.
> **None (default)**--Does not remove any information.
> **Graph Data**--Clears all data inputted into the graph from the Data Grid and reverts to random data.
> **Color Data**--Resets colors inputted from Color Data property to default colors.
> **3D Side or Explode Data**--Returns the colors of the sides and top of 3D Bar graphs to default colors. Also used to return exploded pie slices to the pie.
> **Label Text**--Removes labels from the graph.
> **Legend Text**--Removes legend from the graph.
> **Pattern Data**--Removes patterns from graph.
> **Symbol Data**--Removes symbols set with the Symbol Data property and displays default symbols.
> **All Data**--Resets all information inputted into the graph to their default values.
> **Font Data**--Removes font settings and displays default settings.

<u>Using the Keyboard</u>

Keys are not case sensitive.

<u>Keys</u>	<u>Action</u>
Tab	Moves to next item.
Shift + Tab	Moves to previous item.
Alt + n	Where n stands for the underlined letter. Selects the item.

<u>Using Help Features</u>

Besides selecting the Contents menu item from the Help menu, there are other features that can be used to obtain help while using WinGraph.

1. For any active window, pressing the F1 key brings up the WinGraph help screen and displays context-sensitive help.

2. Browsing the menu items with the arrow keys or holding down the mouse button will display information for the high-lighted item in the Message bar at the bottom of the window.

3. When the mouse pointer is moved into a control or area, information about that control or area is displayed in the Message bar.