

KaleidaGraph



Quick Start Guide

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Overview: Guided Tour

This tutorial contains four major examples to guide you through the operation of KaleidaGraph. We recommend that you try and complete all four at one sitting, however you can always come back and complete the examples at a later time.

[Example 1 - Generating a Sample Data Set](#)

Enter some data, change the column titles and data format, sort the data, and calculate simple statistics for the data.

[Example 2 - Creating a Scatter Plot](#)

Create and modify a Scatter plot of the data from the first example. This example shows how to change the display of the variable, use a few plot tools, and add a curve fit and error bars.

[Example 3 - Creating a Column Plot](#)

Create a Column plot from a saved data set. This example shows how to modify the axes, change the display of the axis labels, and add value labels above the columns.

[Example 4 - Laying out Plots for Printing](#)

Display the plots from the preceding examples on the same page using the layout window.

A number of additional tutorials are also provided. Some of the topics include using Formula Entry, applying a General curve fit, and performing Student t-tests and ANOVA on data sets.

Example 1 - Generating a Sample Data Set

This example takes you through the process of typing data into the data window, changing the column titles and data format, sorting the data, and calculating statistics on the raw data. This example is divided into the following topics:

- [Entering Data](#)
- [Editing Column Titles](#)
- [Changing Data Format](#)
- [Sorting the Data](#)
- [Calculating Statistics](#)

Entering Data

The first step is to type some data into the data window. By default, the cell at row 0, column 0 is the active cell.

1. Type **4.3** into this cell.
2. Press the **Return** (Mac), **Enter** (Windows), or **Down Arrow** key to move down to the next cell.
3. Type the values **2.9**, **4.8**, **3.2**, **3.9**, **3.5**, and **2.3** into the first column. After each value is entered, press the **Return** (Mac), **Enter** (Windows), or **Down Arrow** key to move down a row.
4. Click the cell in the first row of the second column (row 0, column 1).
5. Use the same method to type the data values **8.0**, **6.2**, **9.0**, **5.7**, **8.8**, **7.2**, and **4.9** into this column.

Editing Column Titles


The next step will be to change the titles of the first two data columns.

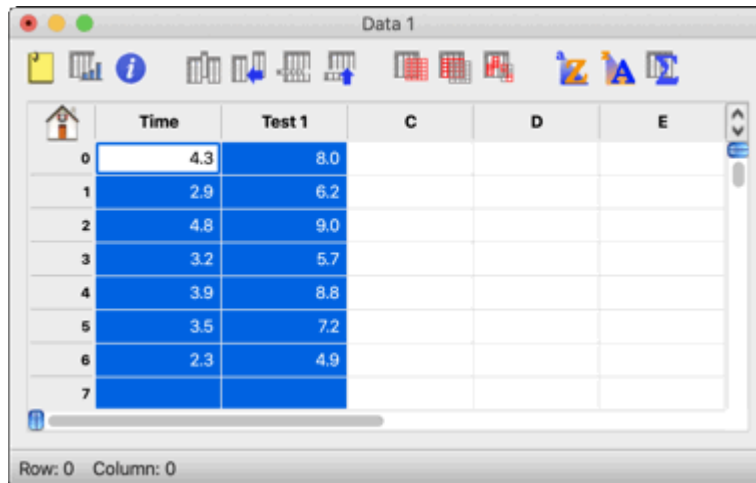
1. Double-click the column title of the first data column. The name of the current column (**A**) will be selected.
2. Type **Time** for the new column title.
3. Press **Tab** to edit the title of the second column.
4. Type **Test 1** for the new column title.

Changing Data Format

The following steps change the display of the data so that each value only has one decimal place.

1. Select the first two columns in the data window (**Time** and **Test 1**).


2. Choose **Data > Column Formatting** or click  in the data window to display the Column Formatting palette. This palette can be used to change many of the attributes associated with the data window, such as font, color, font size, column width, and format of the data.
3. In the **Number Type and Formatting** portion of the palette, choose **Fixed** from the **Format** pop-up menu.
4. Set the **Decimals** to 1.
5. Click **Apply** to update the selected columns. The data window should resemble the one below:



	Time	Test 1	C	D	E
0	4.3	8.0			
1	2.9	6.2			
2	4.8	9.0			
3	3.2	5.7			
4	3.9	8.8			
5	3.5	7.2			
6	2.3	4.9			
7					


Sorting the Data

Now we will sort the data in the first column to get the values in ascending order (from low to high).

1. If they are not already selected, select the first two columns in the data window (**Time** and **Test 1**).
2. Choose **Functions > Ascending Sort** or click  in the data window to display the Sort dialog.
3. Click **OK** to sort the data. The data in the second column will be arranged according to the rows in the first column.

Calculating Statistics

The final step is to calculate a number of standard statistics on one of the data columns.

1. Click the **Test 1** label in the data window to select the entire column.
2. Choose **Functions > Statistics** or click  in the data window to display the statistics for the Test 1 data. The Statistics dialog provides a **Copy to Clipboard** button to export the results for use in a data, plot, or layout window.
3. Click **OK**.

At this point, you can proceed to the next example to create a plot from this data.

Example 2 - Creating a Scatter Plot

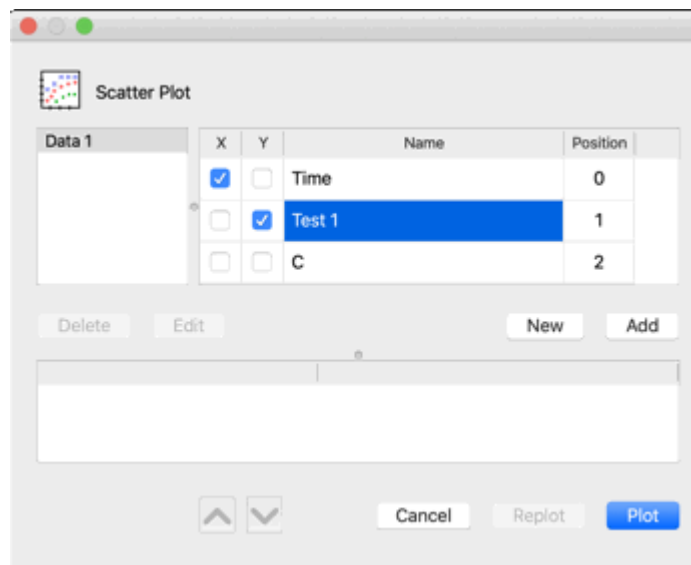
This example uses the data from the preceding example to create a Scatter plot. This example shows how to change marker type and size, use the Identify and Data Selection tools, apply a Linear curve fit, display the curve fit equation, and add error bars. This example is divided into the following topics:

- [Creating a Scatter Plot](#)
- [Changing Variable Settings](#)
- [Using the Identify Tool](#)
- [Applying a Linear Curve Fit](#)
- [Exporting the Results of the Curve Fit](#)
- [Using the Data Selection Tool](#)
- [Adding Error Bars](#)

Creating a Scatter Plot

Now, let's create a plot using the example data entered in the previous exercise.

1. Choose **Gallery > Linear > Scatter**. The Variable Selection dialog is displayed. Notice that the name of the data file and its column titles are displayed in this dialog.
2. Select **Time** as the X variable and **Test 1** as the Y variable by clicking the appropriate check boxes, as shown in the dialog below:




3. Click **Plot** to create a Scatter plot.

Changing Variable Settings

Now that the graph has been created, it can be modified very easily. For example, let's change how the data is represented on the plot. You will use the Variable Settings dialog to change the marker type and size.

1. Triple-click the marker displayed in the legend (or choose **Plot > Variable Settings**).
2. Select a different marker from the **Marker** pop-up menu to represent the variable on the plot. The first six markers in the left column are transparent; all of the others are opaque.
3. Select **18** from the **Marker Size** pop-up menu.
4. Click **OK** and the plot will be redrawn to reflect the changes that have been made.

Using the Identify Tool

Now we will use the Identify tool () on the toolbox to display the coordinates of the data.

1. Select the Identify tool by either clicking it or pressing **I** on your keyboard.
2. Once the tool is selected, click one of the data points. The X and Y coordinates are displayed in the upper-left corner of the plot window.

It is also possible to leave the coordinates directly on the plot. To do this:


- Press **Option** (Mac) or **Alt** (Windows) as you release the mouse button. This places a label containing the coordinates to the right of the point.

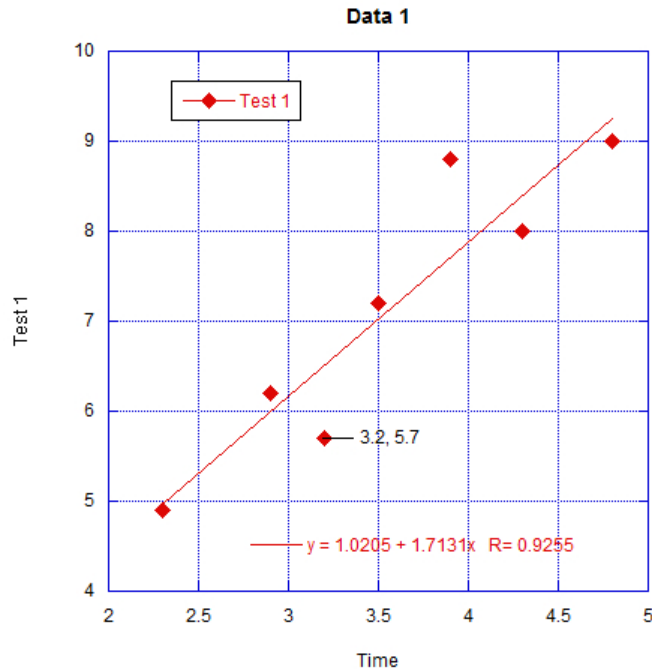
Applying a Linear Curve Fit

You can quickly and easily fit a curve to a set of data points. To add a curve fit to the plot:

1. Choose **Curve Fit > Linear**. This displays the Curve Fit Selections dialog to select which variables to fit with the Least Squares Error method.
2. Select a variable to be fit (in this case **Test 1**) by clicking its check box.
3. Click **OK**. The curve fit is calculated and the curve fit line is drawn on the plot. By default, the curve fit results will also be displayed on the plot. If the equation is not displayed, turn on **Display Equation** in the **Plot** menu.

The position of the equation can be changed using the Selection Arrow.

1. Click the Selection Arrow () on the toolbox.
2. Drag the equation to a new position.
3. When the move is complete, click anywhere else in the window and the object handles disappear.
4. You can use the same technique to move the legend. At this point, the plot should be similar to the one below:




Exporting the Results of the Curve Fit

Once a curve fit is applied, you can copy the values of the curve fit line to the data window. These values are appended after the existing data in your data window. The first column will be a series of X values. The number of X values will be equal to the number of curve fit points specified in the Curve Fit Options dialog (**Curve Fit** menu). The second column will contain the values from the curve fit at each of these locations.

1. Reselect **Linear** from the **Curve Fit** menu. The Curve Fit Selections dialog appears with a drop-down arrow under **View**.
2. Click the drop-down arrow and choose **Copy Curve Fit to Data Window** from the pop-up menu.
3. Click **OK** to return to the plot window.

Using the Data Selection Tool

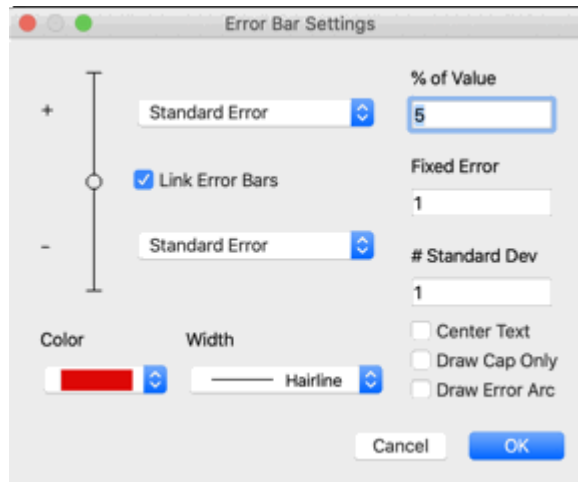
Now we will use the Data Selection tool () to graphically remove a point from the plot. The Data Selection tool operates by enclosing a region of the plot in a polygon. Any data points outside the polygon are temporarily removed from the plot. By pressing **Option** (Mac) or **Alt** (Windows) as you make the polygon, the data inside the polygon can be eliminated.

1. Select the Data Selection tool by either clicking it or pressing **S** on your keyboard.
2. Once the tool is selected, press **Option** (Mac) or **Alt** (Windows) and create a polygon around the data point in the lower-left corner of the plot window. Once the polygon is complete, the point is removed from the plot and the curve fit is recalculated.
3. Double-click the Data Selection tool to return the plot to its original state.

Adding Error Bars

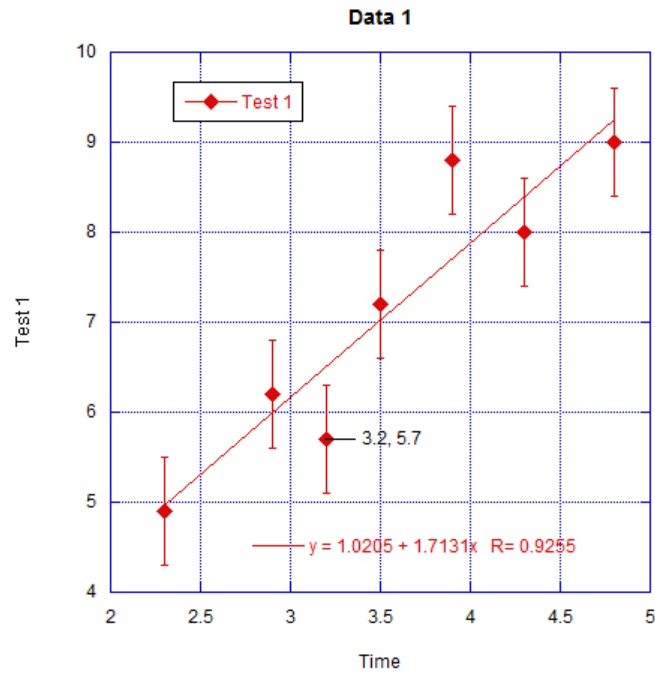
The last modification to the plot will be the addition of error bars. Error bars illustrate the amount of error for the plotted data.

1. Choose **Plot > Error Bars** to display the Error Bar Variables dialog.
2. Click the check box in the **Y Err** column to add vertical error bars. The Error Bar Settings dialog is displayed to choose the type of error.
3. From the pop-up menu, choose **Standard Error** for the error type. The dialog should look like the following:



4. Click **OK** to return to the Error Bar Variables dialog.
5. Click **OK** to add the error bars to the plot. The error bars represent the standard error of the entire data column.

You have just created a customized plot, as shown below:



You can continue on to the next example which takes you through the process of creating and customizing a Column plot.

Example 3 - Creating a Column Plot

This example uses a Column plot to show how to adjust major and minor ticks, axis labels, plot color, fill patterns, column spacing, and label rotation, in addition to displaying values above the columns. This example is divided into the following topics:

- [Opening a Saved Data File](#)
- [Creating a Column Plot](#)
- [Changing Axis Options](#)
- [Changing the Fill Pattern](#)
- [Increasing Column Offset](#)
- [Editing Text Labels](#)
- [Adding Value Labels](#)

Opening a Saved Data File

We will begin this example by opening a saved data set.

1. Choose **File > Open**.
2. Locate and open the **Data** folder, which is located in the **Examples** folder.
3. Double-click the **Housing Starts** file.

Creating a Column Plot

Now, let's create a plot using this data.

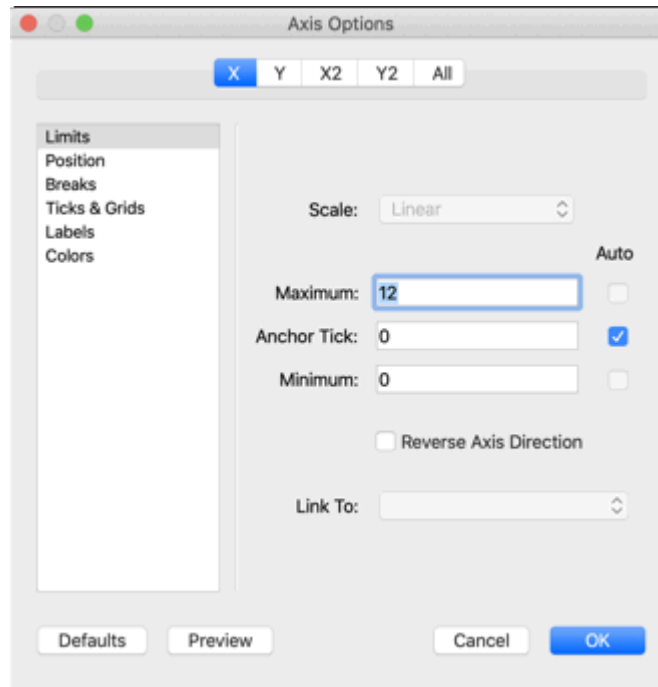
1. Choose **Gallery > Bar > Column**. The Variable Selection dialog is displayed.
2. Select **Month** as the X variable and **1966(K)** as the Y variable by clicking the appropriate check boxes.
3. Click **Plot** to create a Column plot.

Changing Axis Options

The first set of changes will be made in the Axis Options dialog. This dialog contains the majority of the settings for the axes, tick marks, grid lines, and axis labels.

The first change is to remove the grid lines and tick marks along the X axis.

1. Triple-click the X axis (or choose **Plot > Axis Options**).



2. Click **Ticks & Grids**. The dialog changes to show the options that can be selected for the major and minor tick marks and grid lines.
3. In the **Major Interval** portion of the dialog, choose **None** from the **Display Tick** and **Display Grid** pop-up menus.

The next change also involves the tick marks, but this time on the Y axis.

1. Click the **Y** tab at the top of the dialog.
2. Choose **Out** from both of the **Display Tick** pop-up menus.

The next step is to change the maximum Y axis limit from 140 to 160.

1. Click **Limits**. The dialog changes to show the options that can be selected for the limits.
2. Change the **Maximum** value from 140 to 160.

The last step is to add some color to the interior of the plot. By default, plots are created without interior and background colors. To select an interior color:

1. Click the **All** tab at the top of the dialog.
2. If it is not already selected, click **Colors** and then choose one of the lighter colors from the **Interior** pop-up menu.
3. Click **OK** to update the plot with all of the changes that were made while in the Axis Options dialog.

Changing the Fill Pattern

Now you can change the fill pattern for the columns using the Variable Settings dialog.

1. Triple-click the small square in the legend, which is filled with the same pattern as the columns (or choose **Plot > Variable Settings**).
2. Select a different fill pattern from the **Fill Pattern** pop-up menu.

3. Click **OK**.

Increasing Column Offset

The next step is to increase the amount of space between the columns.

1. Choose **Plot > Plot Options**.
2. If it is not already selected, click **Bar** to display the options available for Bar and Column plots.
3. Change the **Column Offset** percentage from 20 to 40%.
4. Click **OK** to update the plot.

Editing Text Labels

The following steps remove the X axis title, resize the Y axis title, and rotate the X axis labels.

1. Click the X axis title, **Month**, and press **Delete** (Mac) or **Backspace** (Windows).
2. Click the Y axis title, **1966 (K)**. Drag any one of the four object handles to increase the font size of the label. It is also possible to change the font size by double-clicking the text label.
3. Double-click one of the X axis labels. Notice that this dialog has its own set of controls.
4. Choose **90°** from the pop-up menu.
5. Click the right justification button so that the rotated labels line up evenly.
6. Click **OK** to return to the plot window.
7. Drag the X axis labels closer to the axis. You can also use the arrow keys to move selected objects one pixel at a time in the specified direction (10 pixels if you press **Shift** while using the arrow keys).

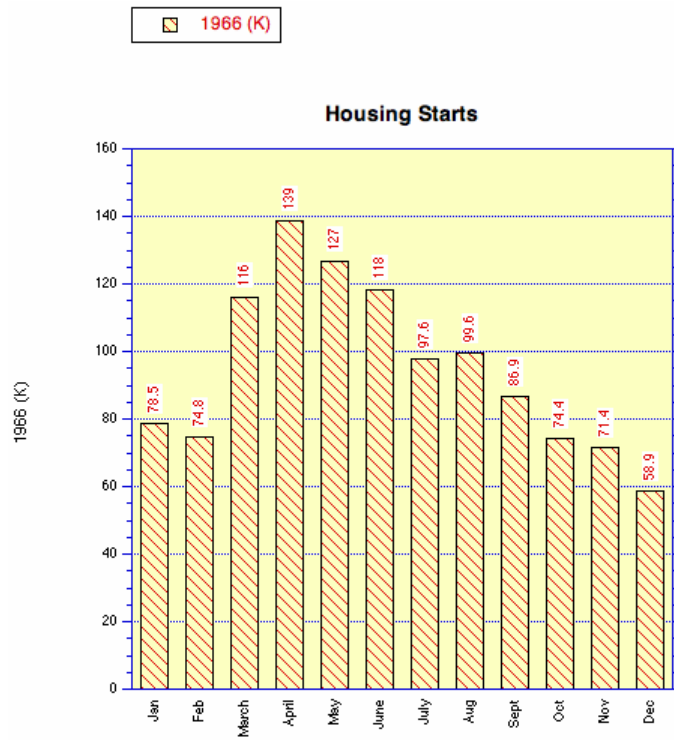
Adding Value Labels

The last step is to display the values of each column. To do this:

- Turn on **Add Values** in the **Plot** menu.

The values are placed at the top of each column. The values can be moved as a group by dragging them to a new location.

The Column plot is now complete. A sample plot is shown below.



Example 4 - Laying out Plots for Printing

This example shows how to use the layout window to place the plots created in the previous examples on a single page.

Note: The following topics assume the two plots from the previous examples are still available. If you do not have them any longer, you can open any two plots from the **Plots** folder in the **Examples** folder.

This example is divided into the following topics:

- [Placing Plots in the Layout](#)
- [Arranging Plots in the Layout](#)
- [Modifying and Printing the Layout](#)

Placing Plots in the Layout

To place plots into the layout window:

1. Choose **Windows > Show Layout > KG Layout**. If no layout has been created previously, an empty layout window is displayed.
2. Use the **Select Plot** command (**Layout** menu) to select the two plots that were created in the previous examples. At this point, do not worry about their overall placement.

Arranging Plots in the Layout

To arrange the plots in the layout window:


1. Choose **Layout > Arrange Layout**. The Arrange Layout dialog allows you to enter the number of rows and columns to divide the layout window into equal sections.
2. The default settings (two rows and one column) are sufficient for this example, so click **OK**.

Notice that the layout window is divided into two equal sections and the plots are automatically resized and placed into these sections.

Modifying and Printing the Layout

It is possible to display more than just plots in the layout window. The plot tools are available, enabling you to add text and other objects to the layout. Various graphic images can be imported into the layout window. Also, a background pattern and frame can be added to the layout using the **Set Background** command (**Layout** menu).

The following steps explain how to add a text label to the layout window:

1. Select the Text tool () from the toolbox. You can select this tool by either clicking it or pressing **T** on your keyboard.

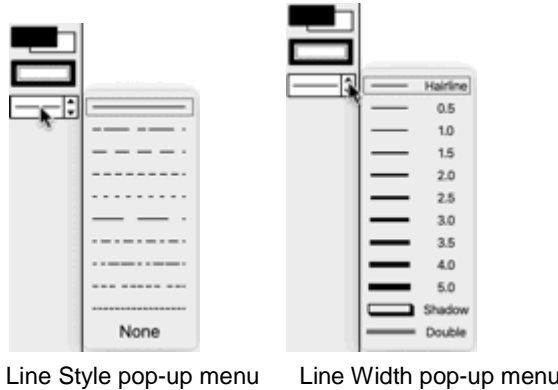
2. Click anywhere in the layout window. The Edit String dialog will appear.
3. Enter some text into this dialog. KaleidaGraph supports fully-stylized text, so feel free to highlight various portions of the text string you have entered and make changes to the font, font size, style, and color. Any changes you make only affect the selected portion of the text string.
4. Once you are finished making changes, click **OK** to add the text label to the layout window. You can move the label to a new position using either the Text tool or the Selection Arrow.

Feel free to print the layout by choosing **File > Print Layout**. To close the layout window, choose **File > Close**.

Additional Tutorials

Editing the Legend

This example shows how to edit the legend frame and text. The attributes of the legend frame are controlled by the bottom three icons on the toolbox. The steps in this example use the last icon in the toolbox, which is divided into two sections: a Line Style icon on the left and a Line Width icon on the right.




The first step is to open a saved plot.

- Open the **Sample Plot** file, which is located in the **Plots** folder in the **Examples** folder.

Editing the Legend Frame

1. Click the legend to select it.
2. From the toolbox, click the Line Width icon (the up and down arrows) and choose **Hairline** from the pop-up menu. Notice that the legend frame changes from a shadow box to a hairline width line.
3. Now click the Line Style icon (the line to the left of the up and down arrows) and select one of the dashed lines from the pop-up menu. Notice that the line surrounding the legend now contains the dashed pattern you selected.
4. Finally, choose **None** from the Line Style pop-up menu. This removes the legend frame completely.

Editing the Legend Text

1. Select the Text tool () from the toolbox. You can select this tool by either clicking it or pressing **T** on your keyboard.
2. Double-click any of the three labels inside the legend. The Edit String dialog is displayed to modify the text.
3. Delete the text in this dialog and type any information you like. Feel free to change the font, size, and style as well.
4. Click **OK** to return to the plot and see the change.

The changes you made only affect this one label. If you use the Selection Arrow instead of the Text tool, you can change the attributes of all legend items at once. However, you cannot edit the text with the Selection Arrow.

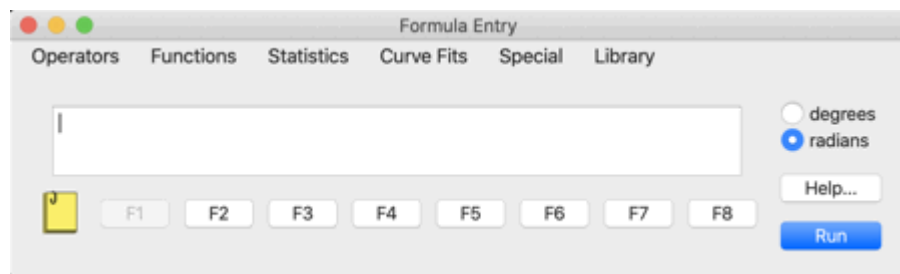
Using Formula Entry

This example shows how to use the Formula Entry window to operate on the data window. Details on executing a multi-line formula are also included. This example is divided into the following topics:


- [Formula Entry Overview](#)
- [Executing Individual Formulas](#)
- [Executing Multi-line Formulas](#)

Formula Entry Overview

The Formula Entry window, shown below, is a very powerful tool for data analysis. Use Formula Entry to enter equations (functions) that generate and manipulate data in the frontmost data window. The results of a formula can be placed in a data column, a single cell, or a memory location.



Memory locations and column numbers can be used in formulas. Memory locations range from 0 to 99 and need to be preceded by an **m** when used in a formula (m15, m35, and so on).

Column numbers range from 0 to 999 and need to be preceded by a **c** when used in a formula (c10, c55, and so on). To display the column numbers, click the Expand/Collapse button  in the data window. Please note that when a selection is made in the data window, the first column in the selection becomes column 0.

The following are a few examples of basic formulas along with a description of each:

- c2=c0+c1; Adds the first two columns together and stores the results in column 2.
- c1=c0/1000; Divides column 0 by 1000 and stores the results in column 1.
- c2=cos(c0); Calculates the cosine of column 0 and stores the results in column 2.

Executing Individual Formulas

Let's get started by running a few formulas and seeing their effects on the data window:


Note: In the steps that follow, you can press **Enter** on the numeric keypad instead of clicking **Run**.

1. Choose **File > New** to display an empty data window.
2. Choose **Windows > Formula Entry**. By default, the F1 button is selected. The F1-F8 buttons can be used to store common formulas, however, we recommend that you leave F1 for general use and store your formulas in F2-F8.
3. Click **F2**, type **c0=index() + 1**, and click **Run**. This creates a series from 1 to 100 in column 0.
4. Click **F3**, type **c1=log(c0)**, and click **Run**. This function calculates the logarithm of each value in column 0 and stores the results in column 1.
5. Click **F4**, type **c2=c1^2**, and click **Run**. This formula squares each value in column 1 and stores the results in column 2.

6. Click **F5**, type **cell(0,3)=csum(c2)**, and click **Run**. This formula calculates the total sum of the values in column 2 and stores the result in the cell at row 0, column 3.

Executing Multi-line Formulas

It is not necessary to enter and execute each formula individually. KaleidaGraph has a method to enter multiple formulas and execute them all at once.

To the left of the F1 button is a Posted Note button . Clicking this button displays a text editor. You can enter multiple formulas into the editor and run them all at once by clicking **Run**. The formulas must be on separate lines and each must be terminated with a semicolon.

Let's try using the same formulas from before, but this time executing them using the Posted Note window:

1. Choose **File > New** to display an empty data window.
2. Choose **Windows > Formula Entry**.
3. Click the Posted Note button in the Formula Entry window to display a text editor.
4. Type the following formulas into the Posted Note window. Note that each formula ends with a semicolon and appears on a separate line.

```
c0=index() + 1;  
c1=log(c0);  
c2=c1^2;  
cell(0,3)=csum(c2);
```

5. After the formulas are entered, click **Run** to execute all of the formulas at once.

As you can see, this is a very convenient method to execute multiple formulas at once. Using this method, you can save the formulas as a text file that can be opened at a later time within the Posted Note dialog.

Performing a One Way ANOVA

This example walks you through the process of performing a one way ANOVA on one of the example data files. Use this test when you want to see if the means of three or more different groups are affected by a single factor. This test is the same as the unpaired t-test, except that more than two groups can be compared.

As part of the results, KaleidaGraph calculates F and P values:

- **F value** - This value is the ratio of the groups' mean square over the error mean square. If this value is close to 1.0, you can conclude that there are no significant differences between the groups. If this value is large, you can conclude that one or more of the samples was drawn from a different population. To determine which groups are different, use one of the post hoc tests.
- **P value** - This value determines if there is a statistically significant difference between the groups. If this value is below a certain level (usually 0.05), the conclusion is that there is a difference between the groups.

This example is divided into the following topics:

- [Opening a Saved Data File](#)
- [Performing the One Way ANOVA](#)
- [Running a Post Hoc Test](#)

Opening a Saved Data File

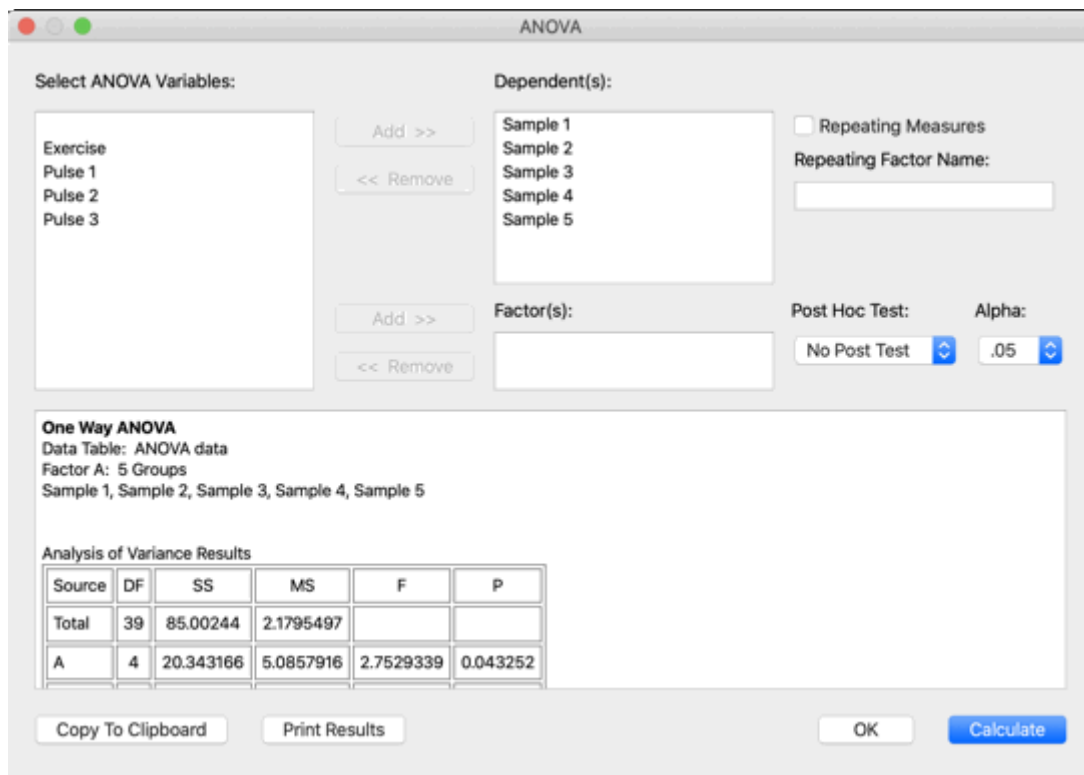
We will begin this example by opening a saved data set.

1. Choose **File > Open**.
2. Locate and open the **Data** folder, which is located in the **Examples** folder.
3. Double-click the **ANOVA data** file.

The first five columns in the data window (Sample 1 through Sample 5) will be used in this example.

Performing the One Way ANOVA

1. Choose **Functions > ANOVA** to display the ANOVA dialog.
2. Assign **Sample 1** through **Sample 5** to the Dependent(s) list by selecting these variables and clicking the **Add** button. You can assign each one individually or you can select all five and assign them at once.
3. Click **Calculate**. The results of the test are displayed in the bottom half of the dialog, as shown below. This test produces a P value of 0.04325, indicating that there is a significant difference between the groups.



Running a Post Hoc Test

To determine which groups are different and the size of the difference, you can use one of the post hoc tests.

1. Choose **Tukey HSD** from the **Post Hoc Test** pop-up menu.
2. Click **Calculate**. The results of the post hoc test appear below the ANOVA results. By comparing the P values that are calculated, it appears that Sample 4 differs significantly from the other samples.

3. The results can be copied to the Clipboard or printed by pressing the appropriate button in the dialog.
4. Click **OK** to return to the data window.

Applying a General (user-defined) Curve Fit

This example takes you through the process of opening a saved plot and applying a user-defined curve fit. KaleidaGraph's General curve fit is based on the Levenberg-Marquardt algorithm. You can solve up to nine unknown parameters during the fitting process. This example is divided into the following topics:

- [Opening a Saved Plot](#)
- [Applying a General Curve Fit](#)
- [Changing Appearance of the Curve Fit Line](#)
- [Loading Curve Fit Definitions from KaleidaGraph's Fit Library](#)

Opening a Saved Plot

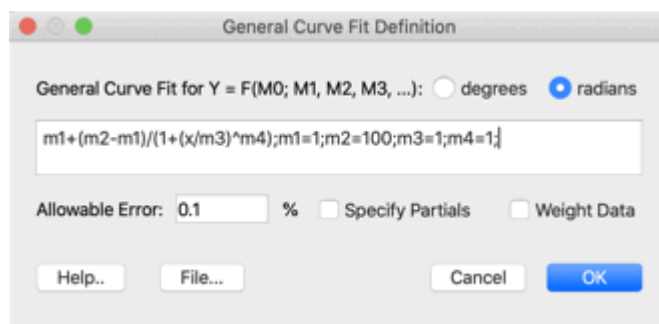
We will start by opening a saved plot.

1. Choose **File > Open**.
2. Locate and open the **Plots** folder, which is located in the **Examples** folder.
3. Double-click the **Inhibition Plot** file.

Applying a General Curve Fit

The steps below will take you through the process of applying a Sigmoidal curve fit to the data. The equation used is of the form $y = a + (b - a) / (1 + (x/c)^d)$.

1. Choose **Curve Fit > General > fit1**. This will display the Curve Fit Selections dialog.
2. Click **Define Function** to display the General Curve Fit Definition dialog.
3. Type **m1+(m2-m1)/(1+(x/m3)^m4);m1=1;m2=100;m3=1;m4=1** into the field provided and click **OK**. The information that appears after the curve fit definition represents the initial guesses for the unknown parameters in the equation.



4. Click the check box in front of **% Inhibition**. This indicates to KaleidaGraph that you want to apply a curve fit to this variable.
5. Click **OK** and the curve fit is calculated and displayed on the plot.

6. A table should appear containing the results of the fit. If it is not displayed automatically, turn on **Display Equation** in the **Plot** menu. The table lists the values of the unknown parameters along with the standard error of these values. It should be read as the parameter value +/- the standard error. The Chi Square and R values are also displayed as part of the curve fit results.
7. Feel free to move the table to a new location using the Selection Arrow. If you would prefer to hide the table, turn off **Display Equation** in the **Plot** menu.

Changing Appearance of the Curve Fit Line

The final step will be to change the line style and width of the curve fit line.

1. Choose **Plot > Variable Settings**.
2. Click the **Curve Fit Settings** tab. This will allow you to change the appearance of the curve fit line.
3. Using the appropriate pop-up menus, select a different line style and line width for the curve fit.
4. Click **OK** to apply the changes.

Note: Depending on the line width selected, you may not notice a difference on the screen. However, you will notice a difference when the plot is printed.

Loading Curve Fit Definitions from KaleidaGraph's Fit Library

KaleidaGraph includes over 100 curve fit definitions that are divided into several categories (Polynomial, Logarithmic, Sigmoidal, and so on). Each curve fit definition is stored as a text file in the **Curve Fits** folder (within the **Examples** folder).

The following steps show you how to load a predefined curve fit definition. The equation used in this example is the same as the one used in the previous example.

1. Choose **Curve Fit > General > fit1**. This will display the Curve Fit Selections dialog.
2. Click **Define Function** to display the General Curve Fit Definition dialog.
3. Click **File** to display a text editor.
4. Click **Open**.
5. Locate and open the **dosersplgst** file. This file is in the **Sigmoidal** folder (in the **Curve Fits** folder). The definition and initial guesses for the parameters will be displayed in the editor. All of the initial guesses in the predefined definitions are set equal to 1. You may need to modify one or more of the initial guesses to allow the fit to converge on a reasonable solution.
6. Click **OK** to display the curve fit equation in the General Curve Fit Definition dialog.
7. Change the initial guess for the m2 parameter from 1 to 100.
8. Click **OK** to exit the General Curve Fit Definition dialog.
9. If it is not already selected, click the check box in front of **% Inhibition**.
10. Click **OK** and the curve fit is calculated and displayed on the plot.

This process cannot be used to edit the curve fits stored in your master curve fit list. For information on how to add curve fits to your master list, refer to either the electronic manual or the online help.

Modifying Data in a Saved Plot

This example shows how to modify a data point in a saved plot and have the plot and any curve fits automatically updated. This example is divided into the following topics:

- [Extracting the Data](#)
- [Changing the Data and Updating the Plot](#)
- [Changing Multiple Data Points](#)

Extracting the Data

To get started, we need to open a saved plot and extract the data. To do this:

1. Choose **File > Open** and open the **Sample Plot** file (located in the **Plots** folder, within the **Examples** folder).
2. With the plot frontmost, choose **Plot > Extract Data**. The original data used to create the plot is displayed.

The title of the window begins with the same name as the original data file. Additionally, a date and time stamp is appended to the name, identifying when the data was archived in the plot.


Changing the Data and Updating the Plot

Now we can make changes to the data and have the plot updated.

1. Turn on **Auto Link** in the **Plot** menu. When this command is active, you can make changes to the data and have the plot automatically updated after each individual change.
2. Delete the first value in the second column (78.5) and type **100** into this cell.
3. Click another cell to activate the Auto Link feature. The plot and curve fit are automatically updated to reflect the modified data value.

Changing Multiple Data Points

If you need to add or modify multiple data points, it may be more efficient to use the **Update Plot** command (**Plot** menu) because Auto Link causes the plot to update after each change. In this case, turn off **Auto**

Link, make any changes to the data, and either choose **Update Plot** or click  in the data window. The plot will be updated to reflect all of the changes at once.

Generating Similar Plots

If you routinely create the same types of plots in KaleidaGraph, it helps to set some defaults or templates so that most of the work can be done automatically. KaleidaGraph provides several features that can be used to generate similar plots.

The following topics provide a general idea of when to use each to achieve a consistent look for your plots:

- **Style Files** - This feature is useful for setting program defaults like font information, plot characteristics, colors, and so on. This information is used any time a new plot is created. It is possible to export separate Style files so that you can load different settings as needed.
- **Template Plots** - This feature is useful when you have an existing plot and want to replace the data, keeping the appearance of the plot intact. If the original plot contains curve fits or error bars, the resulting plot will also have these applied. The plot and axis titles will remain the same; however, the legend will reflect the names of the new variables.
- **Plot Scripts** - This feature is useful when you need to generate several identical plots at one time from different data sets. If the script is pointed at a plot that contains curve fits or error bars, each resulting plot will also have these applied. Other features include the option to automatically save or print each plot and the ability to set the titles and legend information for each plot.
- **Formula Scripts** - This feature is useful for automating the process of creating plots. Using a formula script, it is possible to open saved data files, manipulate the data with Formula Entry, and create plots.

Contact Information

If you have any questions concerning KaleidaGraph, please contact us at:

Synergy Software
2457 Perkiomen Avenue
Reading, PA 19606

Tel: 610-779-0522
Fax: 610-370-0548

Internet addresses:

Sales/Upgrades: orders@synergy.com
Technical Support: support@synergy.com

Website: www.kaleidagraph.com
www.synergy.com

Please take the time to register your program during installation to receive free technical support and upgrade information. You can also register by accessing the registration page on our website.

Please feel free to check our website periodically for:

- Product descriptions
- Technical notes
- Frequently asked questions
- New release information
- Maintenance updates
- And other topics of interest