

## KaleidaGraph 4.0 New Features

### Data Window Changes

- Adjustable column width and row height.
- Ability to select the font, font size, style, justification, font color, and background color for individual columns.
- Ability to add horizontal and vertical splits to compare different sections of the same data window.
- Column titles can be edited directly in the data window.
- Added a toolbar to the top of each data window. Added an option to the Preferences dialog and a command to the Data menu to control whether the toolbar is displayed or hidden.
- When saving the data file, the size of the data window is remembered.
- The default characteristics of the data window can be set in the Column tab of the Preferences dialog.

### Plotting Changes

- Added Dot, Summary Column, Double Y Bar, and Double Y Column plots.
- Added the ability to change the position of the axes.
- Added support for axis breaks.
- Added the ability to choose how scientific and engineering notation plot labels are displayed.
- Added six new formats for controlling the display of time series axis labels.
- Added the ability to set the X axis limits in Probability and X-Y Probability plots.
- Logarithmic scales are now available for Box and Percentile plots.
- Added support for creating Histograms by specifying the bin size. This is the method that was used prior to v3.5. The Histogram portion of the Plot Options dialog determines which method is used.

### Data Analysis Changes

- Added the Student-Newman-Keuls, Scheffe, and Fisher's LSD post hoc tests.
- Added a linear correlation function, `corr()`, to the Functions menu in Formula Entry.
- Modified the statistics commands in Formula Entry to make it easier to calculate statistics on a row-by-row basis across a range of columns. You can now use a formula like `c3=mean(0:2)` instead of `c3=mean([0:0, 0:2])`.

### File Saving Changes

- Added the ability to save a group layout file, which embeds the plot files in the same file as the layout file. See Section 2.12 for more information.
- Added a Save as type (Windows) or Format (Macintosh) pop-up menu to the Save dialog when saving from the data, plot, and layout windows. The pop-up menu initially defaults to KaleidaGraph file types, but remembers the last file type selected for subsequent files. This addition caused most of the commands to be removed from the Import and Export submenus.
- Data, plot, and layout windows can be saved in a v3.5 format for use in v3.5x and v3.6x. See Section 2.13 for more information.

### Command and Dialog Changes

- Show Macros and Edit Macros were combined into a single command.
- Added an Invert Mask command to the Functions menu. This works like the Invert Mask macro, but can be used on multiple columns at once.
- The Column Format dialog has been replaced by a floating palette.
- The Format menu was removed. The Text Options, Value Label Format, and Equation Label Format commands were moved to the Plot menu. The Curve Fit Options command is now located in the Curve Fit menu.
- The Update Plot command has been changed slightly. When you choose this command from the Plot menu or click the Update Plot button, the plot will be updated based on the entire data set, regardless of any selections in the data window. To update the plot using a subset of the data, select the data, press Shift, Alt (Windows), or Option (Macintosh), and either choose Plot > Update Plot or click the Update Plot button. This particular selection will be remembered until you make a different selection and press Shift, Alt, or Option when updating the plot. To go back to using the entire data set, either select all of the data or click a single cell and press Shift, Alt, or Option when updating the plot.
- Redesigned the Preferences dialog.
- Redesigned the Axis Options, Variable Settings (formerly Plot Style), and Plot Options (formerly Plot Extras) dialogs. All of these commands are located in the Plot menu.

### Axis Options Dialog

- The Axis Options dialog now includes the settings that were in the Plot Color, X Label Format, Y Label Format, X2 Label Format, and Y2 Label Format dialogs. In addition, the settings for tick length, axis thickness, grid thickness, and tick thickness are now included in this dialog.
- The tabs across the top of the dialog allow you to choose which axis is being edited. When All is selected, settings that affect the entire plot are displayed, such as plot color (frame, grid, interior, and background), tick mark length, and the thickness of the axes, tick marks and grid lines.
- This dialog now contains settings that allow you to change the position of the axes and insert axis breaks.
- A Notation pop-up menu was added to the Labels portion of the dialog that controls how scientific and engineering notation labels appear on the plot.
- A Preview button was added that lets you see how your changes affect the plot without leaving the dialog.

### Variable Settings Dialog (formerly Plot Style)

- The Plot Style command was changed to Variable Settings and the entire dialog was redesigned.
- The Variable Settings dialog lists the names of any variables from the current plot. If a data window is the active window, this dialog will list Variable #1 through Variable #20.
- To make the same changes for multiple variables within this dialog, press Shift, Ctrl (Windows), or (Macintosh) and click each variable name. To deselect a variable, press Ctrl (Windows) or (Macintosh) and click the name.

- When working with variables that have long names, the left side of the dialog can be resized. Position the pointer over the vertical line to display a doubleheaded arrow ( ). Then, drag to resize the dialog.
- A Preview button was added that lets you see how your changes affect the plot without leaving the dialog.
- An option was added in the Curve Fit Settings tab that forces any curve fits applied to this variable to use the same line style, line width, and color as the variable.
- The View dialog that could be displayed from within Plot Style is no longer available. Use the General portion of the Plot Options dialog to set the default marker size.

#### **Plot Options Dialog (formerly Plot Extras)**

- The Plot Options dialog now includes the options for a number of different plots. The settings that were available in Polar Options, Probability Options, Histogram Options, and Step Options are now included in this one dialog.
- The General portion of the dialog contains a Marker Thickness setting that lets you set the thickness of the markers independently of the variable and curve fit lines.
- The options associated with Bar and Column plots were separated into a new category within this dialog. The Bar portion of the dialog also contains a Display pop-up menu that only affects Summary Column plots.
- The Histogram portion of the dialog allows you to choose whether the Histogram is created by specifying the bin size or the number of bins.
- A category was created for Pie charts which includes a Draw Pie Frame option.
- A Preview button was added that lets you see how your changes affect the plot without leaving the dialog.
- If you are editing an existing plot and choose Plot > Plot Options, the settings associated with the current plot type will be displayed automatically.

#### **Preferences Dialog**

- The Preferences dialog was redesigned.
- The pop-up menu that controls the decimal separator is now located in this dialog.
- Three options were added that control whether the toolbar and column numbers are displayed for new data windows, as well as how rows and columns are resized.
- The File Settings tab contains the pop-up menus that control what files are saved when you quit the program.
- A Column tab was added that allows you to set the defaults used for all new data windows.
- A Defaults button was added that resets all of the settings in the current tab to their original defaults.