

New Features

This is an overview of some of **Grapher 10's** new features.

User Friendly

- Updated to the modern [ribbon](#) appearance. This makes all commands easily available with a mouse scroll and click. Ribbon is fully [customizable](#).
- Lock the [position](#) and [size](#) of objects separately.
- [Copy](#) and [paste](#) the format of a selected object to other objects.
- Moved [label format](#) options from a pop-up dialog to the **Property Manager** for quicker label format and [font](#) changes.
- Added a method to display the [ribbon](#) with a classic menu view.

Graph Features

- New [QQ plot](#) and normalized QQ plot.
- New [contour function map](#).
- New [3D XYZ-XYZ](#) vector plot. Vectors are plotted between the two XYZ coordinates.
- New [3D XYZ-dx, dy, dz vector plot](#). The dx, dy, and dz values tell Grapher how long each vectors should be in each direction.
- Color 2D [vector plots](#) and 3D [vector plots](#) based on the magnitude of the vector length.
- Display [notches](#) on [box-whisker plots](#), indicating significance of the median as compared to other box-whiskers.
- Define outliers in [box-whisker plots](#) based on percentiles, minimum and maximum, or the previous inner-quartile range method.
- Display [notch labels](#) on box-whisker plots.
- New [histogram](#) fit curves. Add lognormal, exponential, power, inverse Gaussian, or Gaussian [fits](#) to histograms.
- Display [class scatter plots](#) with a [gradient of colors](#) ranging over the classes.
- Display [class scatter plots](#) with a range of [symbol sizes](#) over the classes.
- Set all [class scatter plot](#) symbols to the same symbol shape with a single option.
- Set all [class scatter plot](#) symbols to the same symbol size with a single option.
- Inserted linked [fit statistics](#) are now fully editable.
- [Export error bar](#) values to a worksheet.
- Connect [error bars](#) with a line.
- Improved the [graph wizard](#).
- Add a [background](#) line around any label.

Axis Features

- [Move box plot axis](#) labels and [reset](#) positions back to default location.

Legend Features

- Change the [symbol sizes](#) of all items in a legend at once.
- Display [pie chart](#) slices in legends.

Drawing and Digitizing Features

- Define line thickness for a [symbol](#).
- Define fill patterns and colors for a [symbol](#).
- [Worksheet text](#) linked in plot window *Text* object now appears with the same formatting in the plot window as the cell has in the worksheet window. This allows better control over date/time formats, number of decimal places, and text formats.
- Add a rectangle or rounded rectangle frame to [text](#).

- Improved display of multiple lines of text in [text templates](#).
- Improved location of lines in [text templates](#).
- Improved scrolling of multiple lines of text in the [Text Editor](#).
- [Text Editor](#) window can now be resized.

Data Features

- Flip or [transpose](#) columns to rows and rows to columns.
- Round data with the [Data | Transform Round equation](#).
- Calculate values in the worksheet with the PI expression in [Cells | Data | Transform](#).
- Added a percentage [number format](#) for easier conversion of data.
- Save data files as [Excel](#) XLSX format.
- Import data in [Excel](#) XLSM format.
- Set the [decimal separator](#) in the worksheet to either period or comma.
- Set the decimal separator for individual worksheets when [importing](#).
- Use the + option in data [transforms](#) to combine cells with text.
- Improved the data [Transform](#) command's automatic detection of the first and last rows used. When an empty column is selected, the first and last rows are the first and last rows used in all other columns in the worksheet.
- Improved copying/pasting ability from [Excel](#) to Grapher.
- Added new [date/time formats](#).
- Updated the available [numeric formats](#).

Import and Export Improvements

- Import [PDF](#) files.
- Export [PDF](#) files with page sizes.
- Export [GIF](#) and [PNG](#) files with transparent backgrounds.
- New compression options for raster and [vector](#) PDF files, creating smaller exported files.
- Export partially transparent objects to vector [PDF](#) file format.
- Improved import and export of [metafile](#) images with partial transparency.
- Import and export [JPG2000](#) files.
- Export [GSI](#) files for easier import into other Golden Software programs.
- Improved export of graphs to image file formats. Set the [pixels per inch and plot size](#) independently so the exported graph more closely matches the graph in Grapher.

Automation

- Pass command line [arguments](#) to a script.
- Fill [confidence intervals](#) from a script.
- Set and control [gradient](#) fill properties from a script.

See Also

[Introduction to Grapher](#)

[Three-Minute Tour](#)

[Grapher Tutorial Introduction](#)

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