

## New Features

This is an overview of some of **Grapher 8's** new features.

### General

- Automatically [check for updates](#).
- Control opacity/transparency of fill, lines, symbols, and text.
- [Customize Grapher](#) toolbars and menus.
- Draw an [inset](#) to magnify a portion of the page.
- [Digitize](#) the X, Y, and Z values when applicable (i.e. a ternary diagram).
- Import/export with ease.
- Improvements made to no 1x setting.
- [Log program actions](#) for crash reports.
- The [Tools | Options](#) and [Tools | Defaults](#) commands replace **File | Preferences/Defaults**.
- Quickly [zoom in](#) and [zoom out](#) with the mouse wheel.

### Editing

- Customize opacity for any color setting.
- Draw [fill gradients](#) as a radial gradient.
- Use one of the 315 [fill patterns](#), including new USGS patterns.
- Use worksheet linked text for all text blocks that use the [Text Editor](#).
- View more colors with the enlarged [color palette](#).

### Graphs

- Create a [2D radar plot](#).
- Create a horizontal [histogram plot](#).
- Easily place the axes title to the right, left, above, or below the axis.
- Set bars in [bar chart type graphs](#) to different shapes or images.
- Use a [line color column](#) to display multiple colors for line plot line segments.

### Labels

- Customize the character used for the label [thousand separators](#).
- Use a comma as the [decimal separator](#) instead of a period for labels.
- Use [radius and angle offsets](#) for [polar bar charts](#) labels.
- Use the [text editor](#) for [labels prefixes and suffixes](#) of 2D graphs.

### Graphing Features

- Limit ternary axes to a [portion of the graph](#).
- Function plot equations can be longer than previous versions of **Grapher**.
- Spread [gradient fill](#) across an entire bar plot, floating bar plot, or histogram.
- Use the [magnifier](#) to create zoomed in views on an existing plot.

### Legends

- Create up to 100 columns for [legends](#) entries.
- Display legend object names on the left or right.
- Display line plot fill in the [legends](#).

See Also

[Introduction to Grapher](#)

[Three-Minute Tour](#)

[Grapher Tutorial Introduction](#)

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