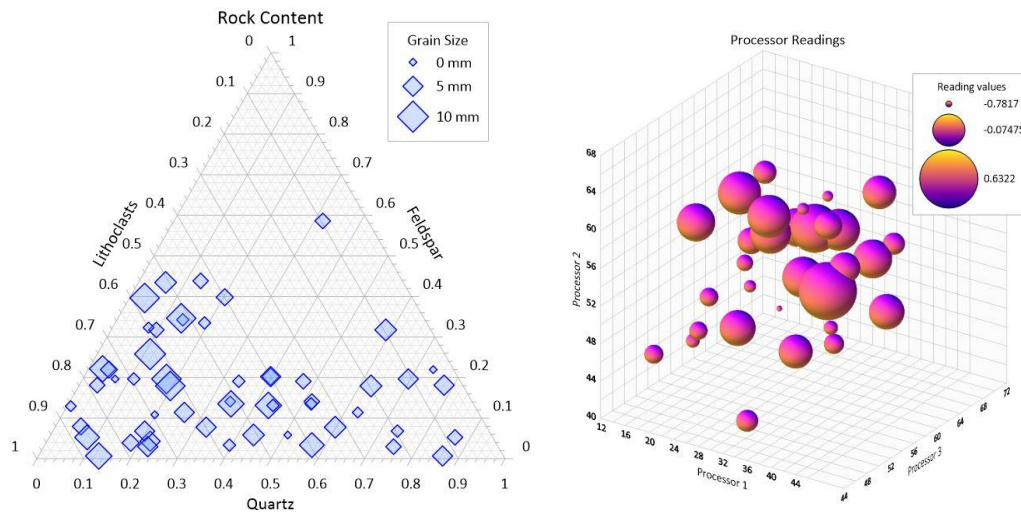# New Features of Grapher 18

1. **Create bubble plot legends with variable symbol sizing**

Create legends with proportional symbol sizing for Bubble plots! Now you can easily show the data values controlling the Size variable for your Bubble plot. Use the default labeling system supplied from your input data file, or manually edit each entry to set your own label text. The symbol shape and bubble color properties will update in the Legend when changed in the bubble plot itself.

The following plot types are now able to create the new Bubble Plot Legend:

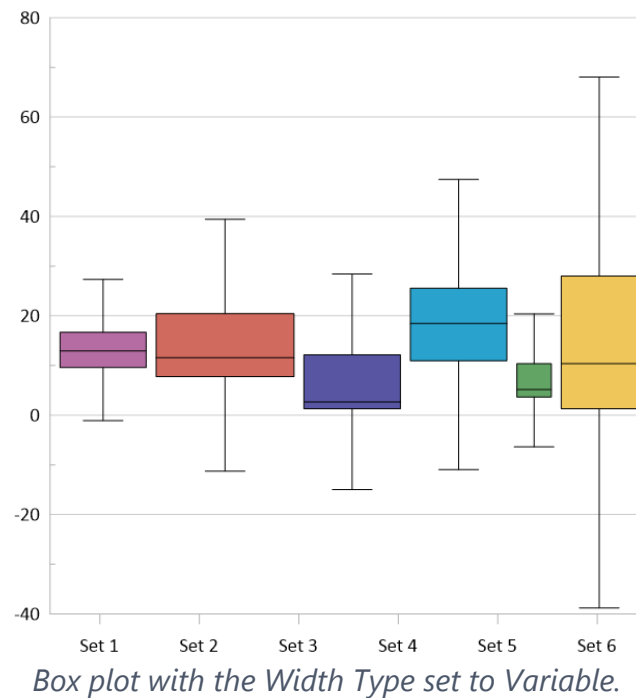- Bubble Plot
- XYZ Bubble Plot
- Ternary Bubble Plot

Add a bubble plot legend with proportional bubbles with just the click of your mouse

2. Box Plot Improvements

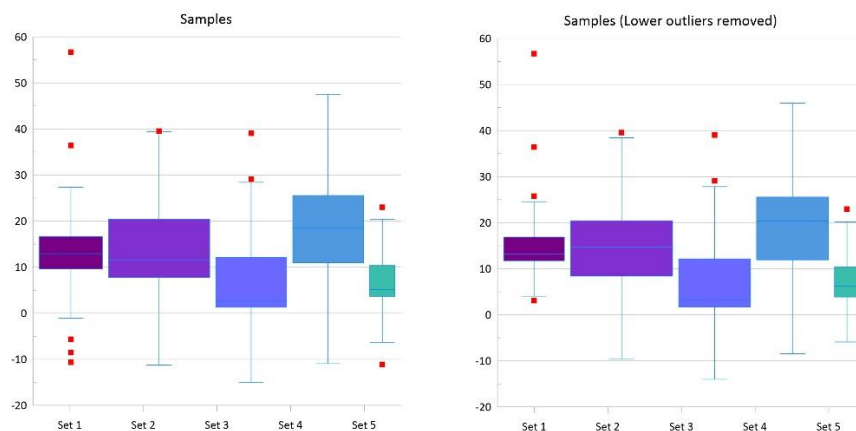- ### **Set adjustable or variable Box widths in Grapher**

Control the width of Box Plots in Grapher Preview! Change the width of all box plots together, or use a variable width for each Box Plot. The Variable setting will vary the size based on the number of sample entries in each set of data. Using this setting is a good way

to quickly compare the data populations for each box, which can be an indicator of statistical significance.

Box plot with the Width Type set to Variable.

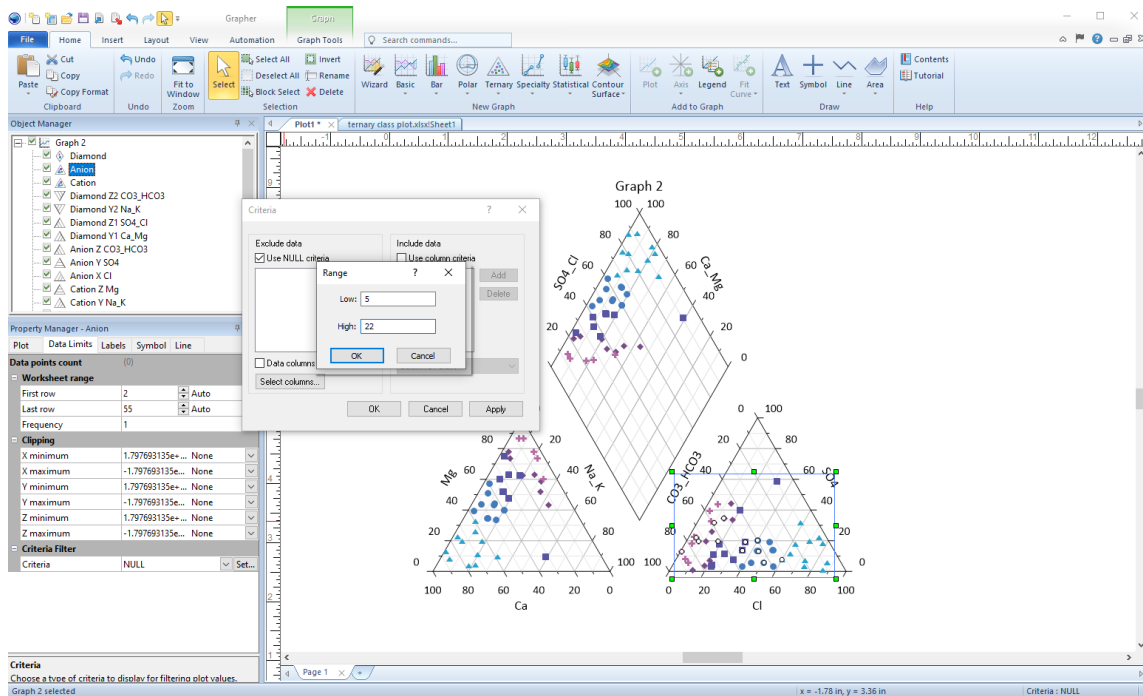- **Filter input data for Box Plots using the Criteria Filter**

Use Clipping and/or Criteria Filter with Box Plots in Grapher Preview! The Criteria Filter allows you to plot your data and exclude or include data values based on your chosen criteria, without manually removing these data from your file. Remove outlier values, negatives values, or erroneous records with ease.

Use Criteria Filter to include/exclude specific data from your plot

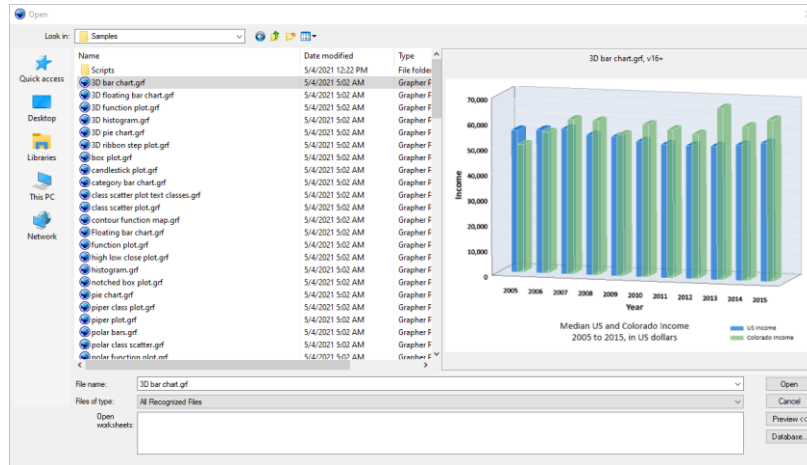## 4. [Ternary Plots: Use Clipping and Criteria Filter in Grapher](#)

Clip a value or range of values using Clipping, or include/exclude specific column criteria using Criteria Filter on a Ternary Plot. This is a great way to filter your data by well ID or remove null values.

Ternary Plot - applying a Criteria Filter or Clipping.

5. Resizable File | Open dialog

This quality-of-life feature will improve your working experience in Grapher. The File | Open dialog has been modernized and is now resizable. Easily see your full file path, project preview, and file details.

*The **File | Open** dialog is now resizeable*

6. Resizable Status Bar widths

The dividers in the status bar are now resizable. Now your data values, plot values and page coordinates can all be seen without being cut off in the status bar.

7. Speed improvements

The following speed improvements have been implemented:

- It's now faster when performing copy/paste operations when a large amount of data is held in the project.
- Opening GRFs linked to many data sheets or data files is now much faster.