Using Error Bars in a Creative Fashion

Error bars are a standard feature in Excel. Once data is plotted on a scatter plot, if you click on the points on the graph, you will get the Format Data Series menu to pop up. Click on the Y Error Bars tab, where you will encounter the display type and how to set the amount of error in a variety of ways. The same screen choices appear for the X Error Bars tab, which will only appear for an XY scatter plot as the type of graph.

Once you have selected the display and error amount, the bars appear on the graph. Here is the percent error, as custom error amount, on the counts for radioactivity. You will notice the error grows at lower counts as time passes.

Now, once you have error bars on the graph, you can modify them by clicking on Developer’s Guide to Excelets/Sinex
one of the error bars and the Format Error Bars menu pops up. Now you can change the color, line size (weight), and marker on the Patterns tab and display on the X or Y Error Bars tab as done earlier.

The horizontal red lines on the potential energy diagram, shown below, are x error bars as the both display type at a fixed value.

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While the mass spectrum of lead given below, uses the minus display type on the y error bar, where the percentage is set to 100% to get them to reach the x-axis. Here the data points are made not to show.


Another good general source of creative information is *Error Bars in Excel Charts.*