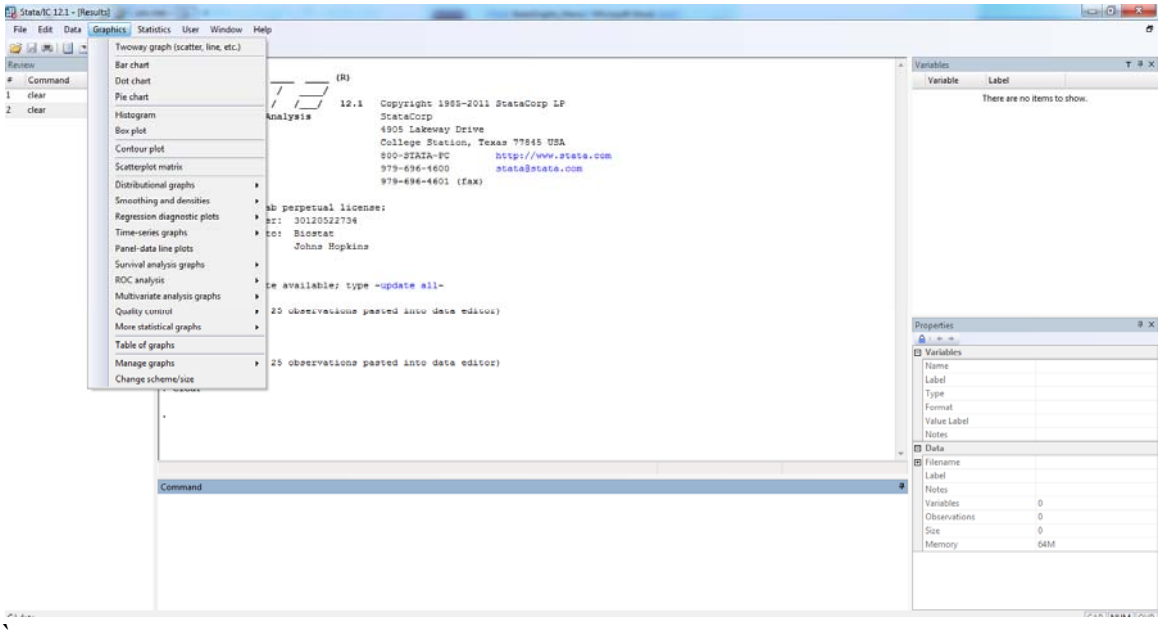
Creating Stata Graphs Using Menus instead of Typing Commands

As you may have noticed from your homework and first lab exercise, the graphing commands in Stata get cumbersome rather quickly, and are not necessarily easy to remember. The commands get more cumbersome and more difficult the more "bells and whistles" added to the graph – titles and subtitles, additional lines etc…

Perhaps a more intuitive approach to creating graphics in Stata (at least after a little experience) lies in using the built-in menu system for graphics. To utilize this, click on the word **Graphics** which appears in the top left portion of the Stata screen. A drop-down menu will appear with a list of choices for the type of graph you wish to create.



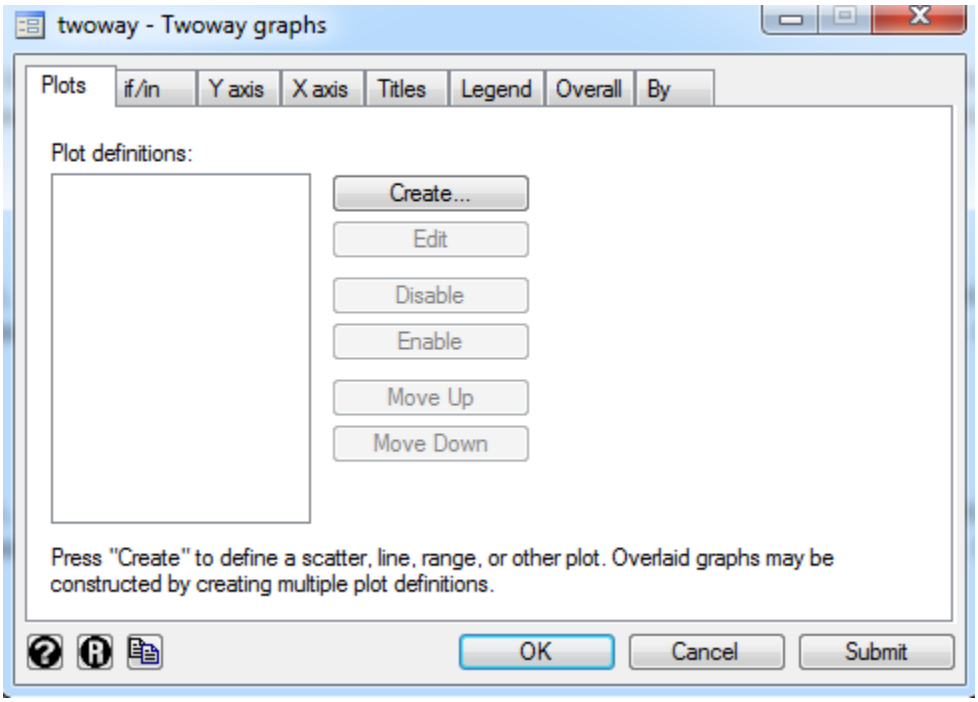
Once you choose the type of graph, you are then presented with a dialogue box which allows you to customize the features of your graph.

Just to give an example of how to use this approach to create a Stata graph, let's look at how to use the menus driven approach to graph the "residuals versus fitted values plot" in part (6) of the first problem in Problem Set 1. This plot is actually a scatterplot.

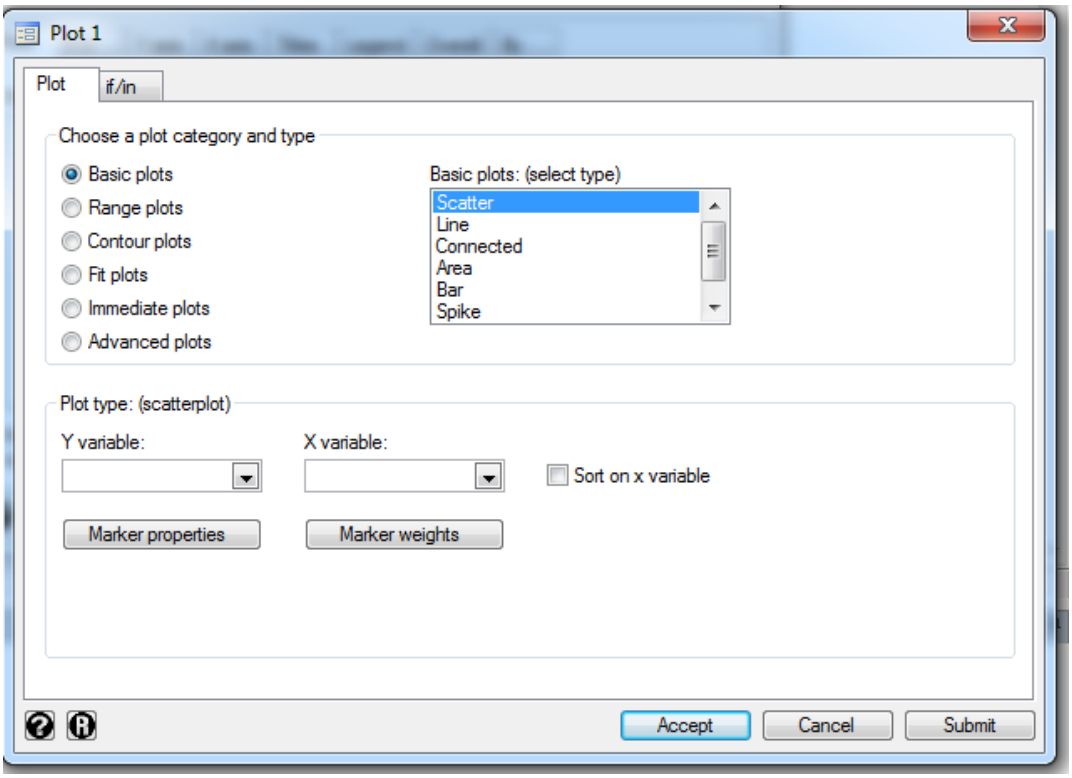
The command given is:

```
twoway (scatter resid yhat), title(Residuals from wt=ht age)
yline(0)
```

To create this same graph using the menus based approach, you would first choose the **Twoway Graph (scatterplot, line, etc..)** option from the drop down menu shown above. The following dialogue box will appear:

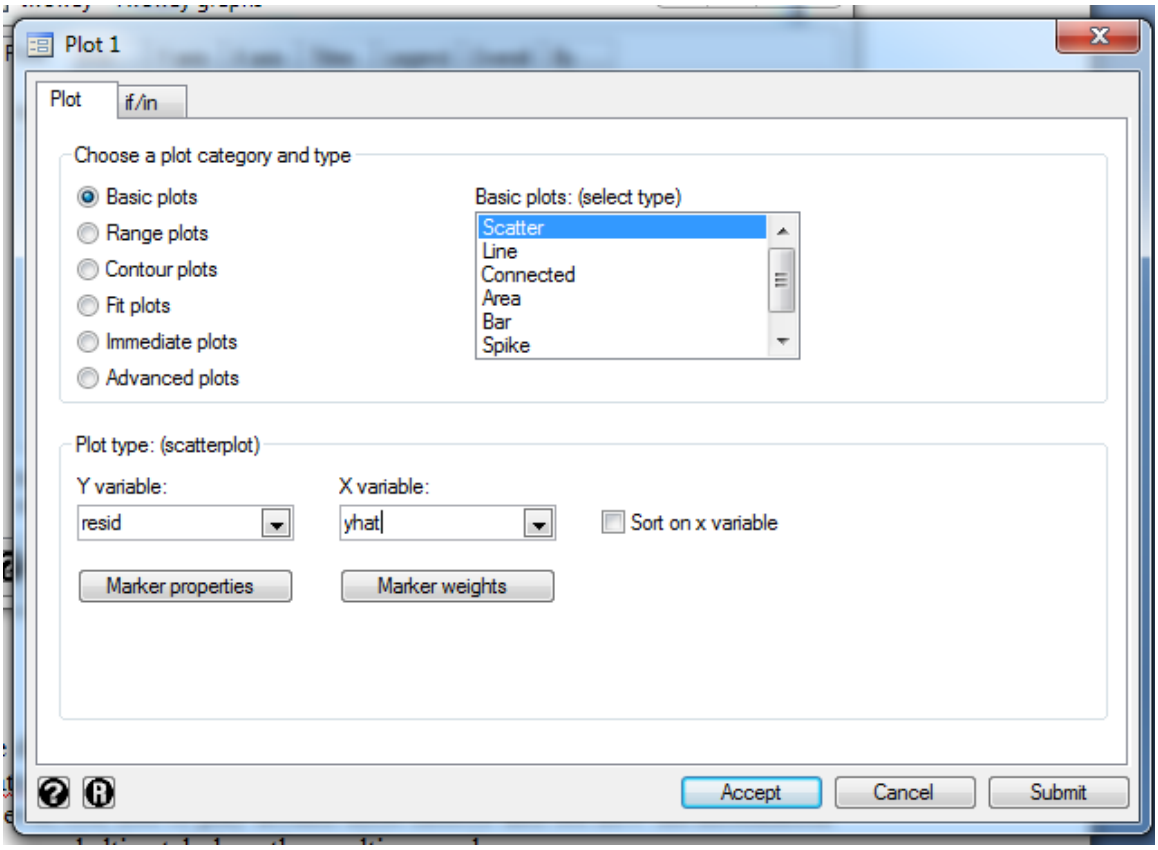


The first need in making a scatterplot is to click on the **Create…** button in the dropdown menu. Another dialogue box will open that will allow you to customize the graphic.

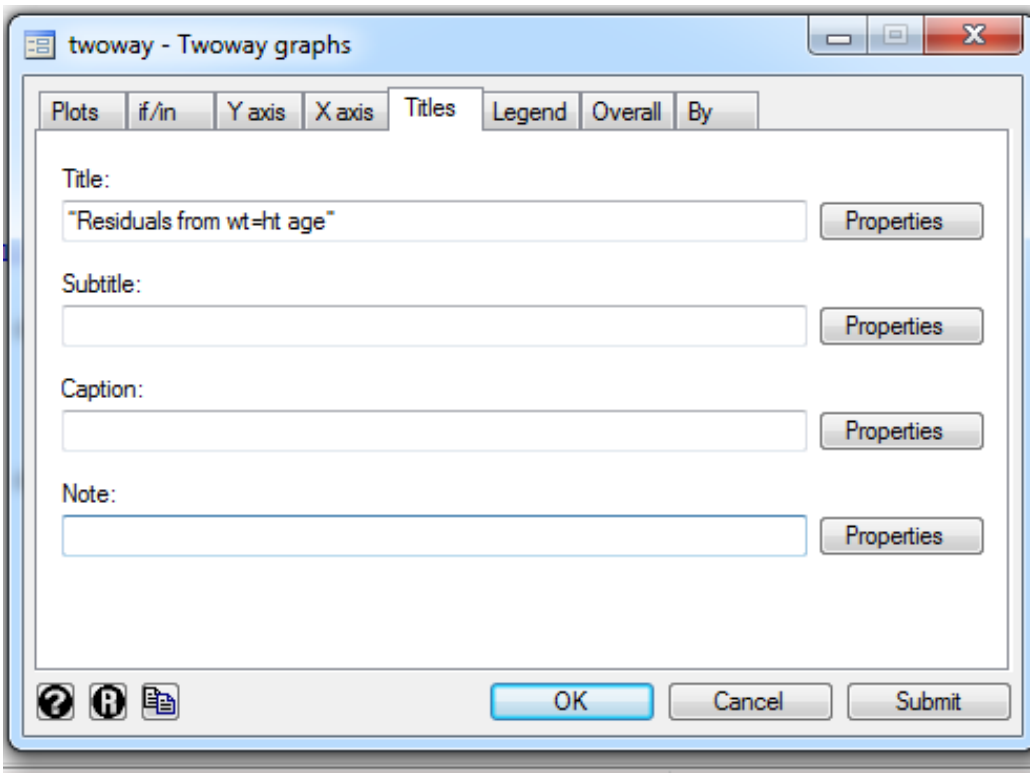


With the above dialogue box, the default type of plot is a **Basic plot** : the default subtype is **Scatterplo**t. This meets the needs for the graph we are charged with creating. However, feel free to play around these choices and see how the information required changes, and ultimately how the resulting graph appears.

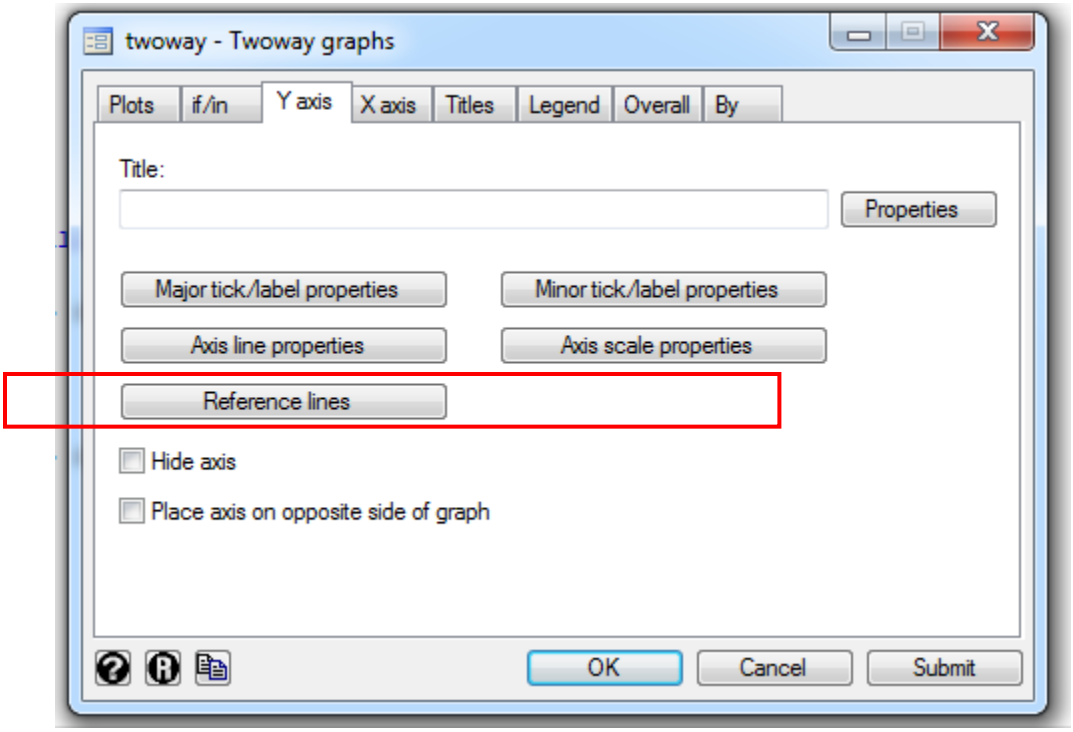
To specify the "y" and "x" components for the scatterplot, fill these in the spaces labeled **Y variable** and **X variable**, respectively.



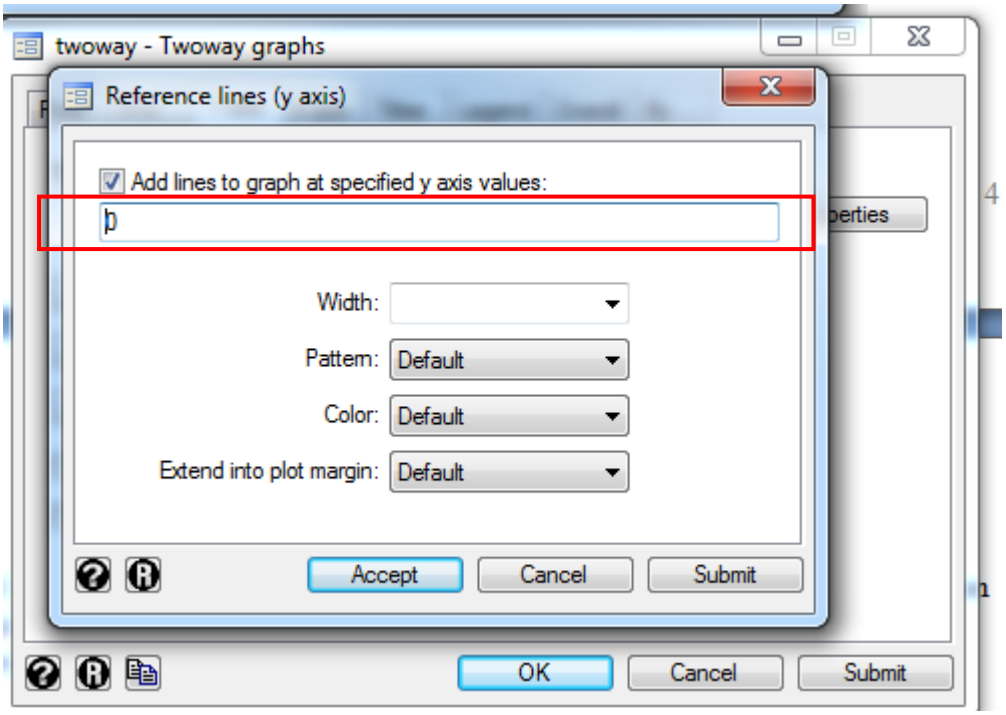
Now to add the title: close the above dialogue box by clicking on the **X** in the upper right hand corner. The original **twoway Twoway graph dialogue** box will still be open: click on the tab labeled "Title" in the top row of the dialogue box, and you will encounter a screen which gives you a series of choices related to the title of the graph – type the desired title *"Residuals from wt=ht age"* in the box labeled **Title**. *(note: it is only sometimes necessary to enclose the title in quotes – but never wrong either – so I recommend always using quotes so as not to have to worry about when they are/are not necessary)*



Finally, to add the horizontal line at y=0, Click on the **Y axis** tab, to get the following screen. On this screen, click on the **Reference Lines** button.



Another dialogue box screen will open, which allows you to specify the y axis value(s) where you wish to plot a horizontal line. To get a horizontal line at y=0, fill in this box with 0.



Click on the **Accept** tab of the **Reference Lines** dialogue box to return to the **twoway – Twoway graphs** dialogue box. Now, to plot the graph click on either the **Accept** or **Submit** tab, and the dialogue box will close, and the graph will open in a new window.

Notice: in addition to the graph appearing in a separate window, the Stata command syntax that created the graph that you customized using the Menu approach appears both in the "Review" window, and the "Results" window. This command can be saved into a **.do file** and reused.

```
twoway (scatter resids yhat), yline(0) title("Residuals from
wt=ht age")
```

(the above is the same command given in HW1, except the position of the yline and title options has been switched – this has no effect on the end result. Also, quotes were added to the title as explained previously)

This example has demonstrated a little about Stata's graphing capabilities, and the utility of using the menu's based system to create graphs. There is a learning curve to using the Graphics menu and resulting dialogue boxes to create fancy Stata graphics: however, if you plan to use Stata for future graphics creation, it is well worth experimenting with this approach.