

## Plotting X,Y (lat, long) coordinates on a map

1. These instructions assume you already have made some kind of map onto which you would like to plot points. Also, start in Data View.
2. Make a spreadsheet in Excel with the lat/long coordinates you would like to plot on a map. If you are planning to include other data for bar or pie charts associated with each point, I recommend including that info on the spreadsheet as well (though data can be added later).
3. I have found that saving the spreadsheet in .xls format worked best for uploading the spreadsheet to Arcmap 10. I have made both .csv and .xlsx files, but Arcmap would not recognize the formats during upload attempts.
4. Also, make sure that all numerical data are defined as such in Excel (under Format cells).
5. I have seen recommendations online to close out the file in Excel before uploading it to Arcmap.
6. Upload the data thru the "Add data" button. While in the "Add data" window, click on your saved Excel sheet, and then click on the actual worksheet you want to upload to Arcmap. You need to do this even if you have only one worksheet to upload.
7. Right click on the uploaded data once they appear in the Table of Contents in Arcmap. Choose the option to plot X,Y points.
8. When assigning a projection to the X,Y points GSC\_WGS\_1984 seems to work fine in a lot of cases. X field usually goes to longitude and the Y field usually goes to latitude. The program will probably give you a window about the data not having an Object-ID field, which you can obtain by exporting the data, or just hit OK and ignore the warning. I don't bother with the Object-ID field for just plotting points. If I will add a pie chart or other chart, then I recommend exporting the data prior to plotting. (See my tutorial on plotting Pie Charts for further info.)
9. Once you hit OK, the program should draw the points on your map. Symbols for the plotted points can be changed thru the table of contents by right clicking on current symbol.
10. Names of features that you add to the map like highways, town boundaries, etc can be changed in the Table of Contents by double clicking them and typing in a new name. This can be important if you want to change how the name of a feature appears when a legend is later added to the map.

11. Text can be added thru the Insert menu and then modified by double clicking on the text. To change font style and size, click on "Change symbol" after dialog that appears after double clicking the text. Text can also be added to all the plotted points under "Labels" from the Properties window of the feature within the Table of Contents.
12. Once you are ready to save, print, or add legend, scale bar, or map title, switch to Layout view. Those items (and others) can be added thru the Insert menu and modified to your preference.
13. Items can be moved around the layout view by selecting the black arrow icon.