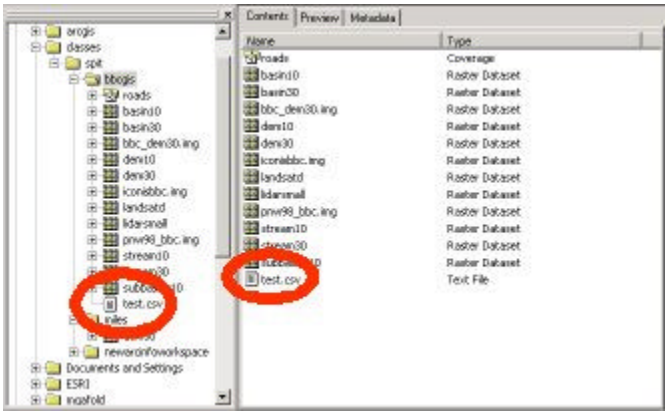
It is a common task for many field researchers to want to map the attributes of their field observations, and for most that means they have recorded an "X" and "Y" and "Z" measurement. These values are stored in a spreedsheet, relational database, or on a GPS data logger. Importing them as point feature types is very easy.

1. Make a spreedsheet file of you observations. For the purpose of importing the data into ArcGIS make one representation of the data very simple - one row for each observation, each observation has a unique ID and a unique set of XY pairs followed by the value of the variable that was observed.

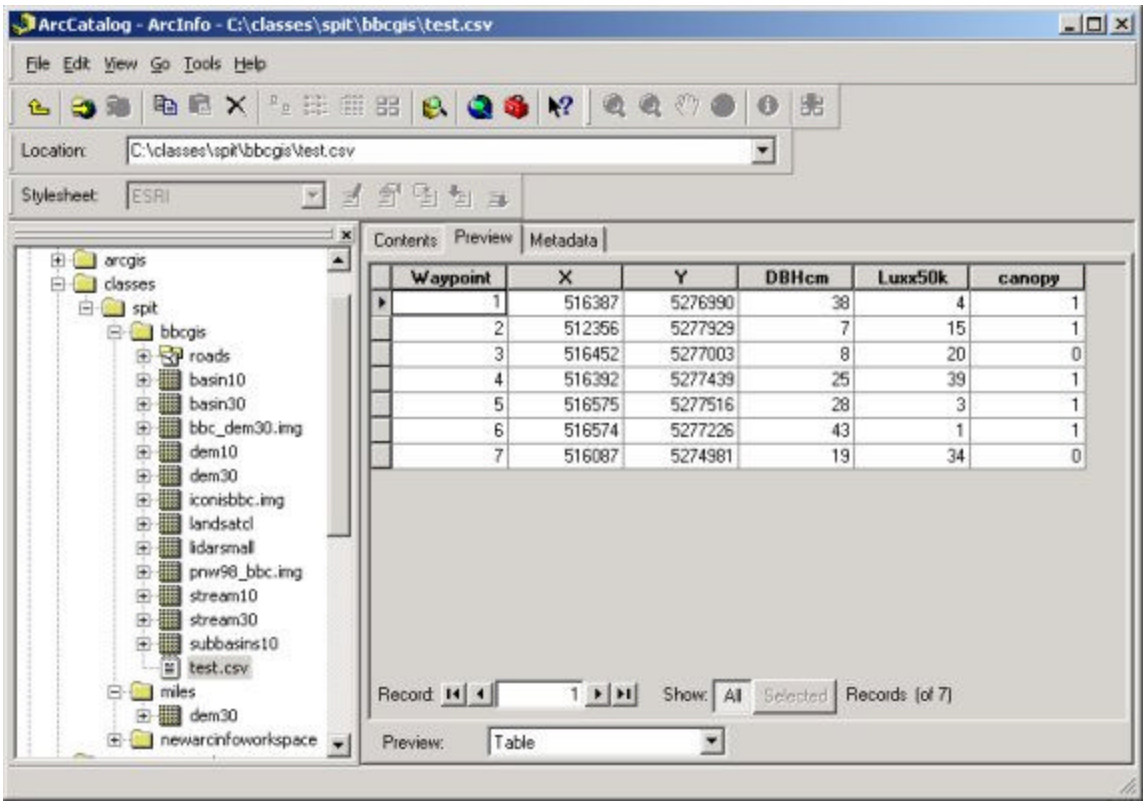
example.txt

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| 1 | Waypoint | X | Y | DBHcm | Luxx50k | canopy |
| 2 | 1 | 516387 | 5276990 | 38 | 4 | 1 |
| 3 | 2 | 512356 | 5277929 | 7 | 15 | 1 |
| 4 | 3 | 516452 | 5277003 | 8 | 20 | 0 |
| 5 | 4 | 516392 | 5277439 | 25 | 39 | 1 |
| 6 | 5 | 516575 | 5277516 | 28 | 3 | 1 |
| 7 | 6 | 516574 | 5277226 | 43 | 1 | 1 |
| 8 | 7 | 516087 | 5274981 | 19 | 34 | 0 |

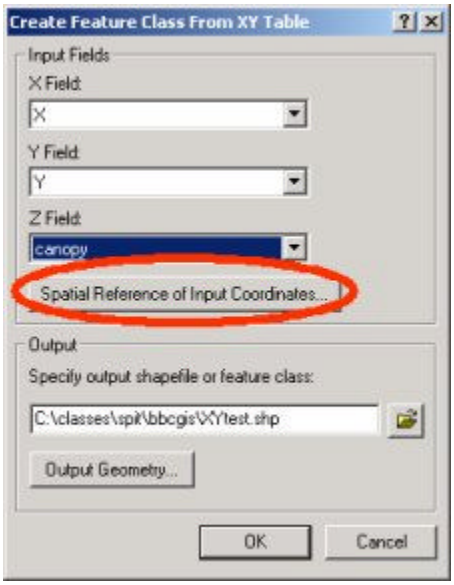
2. Using the software you like (MS-Excel), Save the file as a comma delimited file (.csv) in to the workspace or data directory where you wish to create the geodataset. Now open ArcCatalog and navigate to that directory. The .csv file will be displayed in the table of content view.



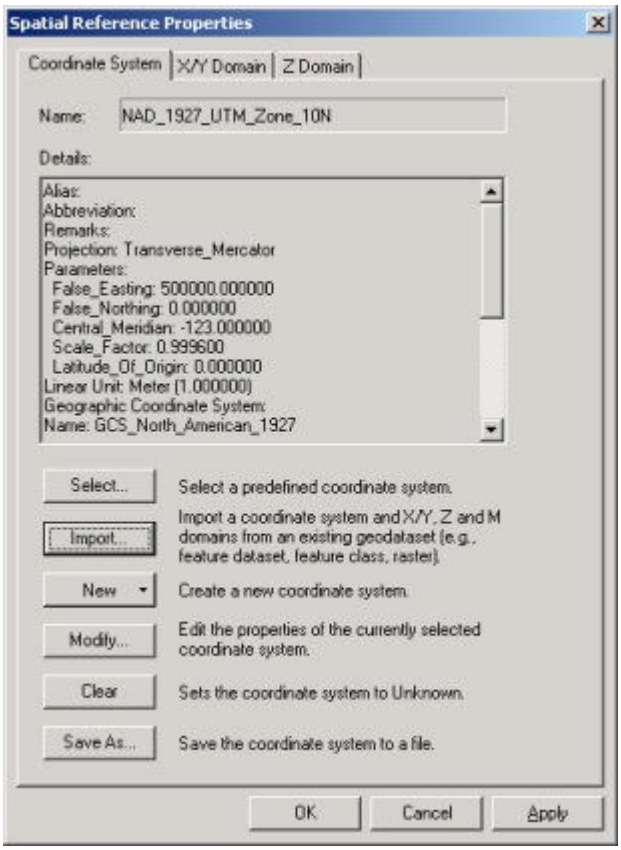

3. You can PREVIEW the table using the PREVIEW tab.



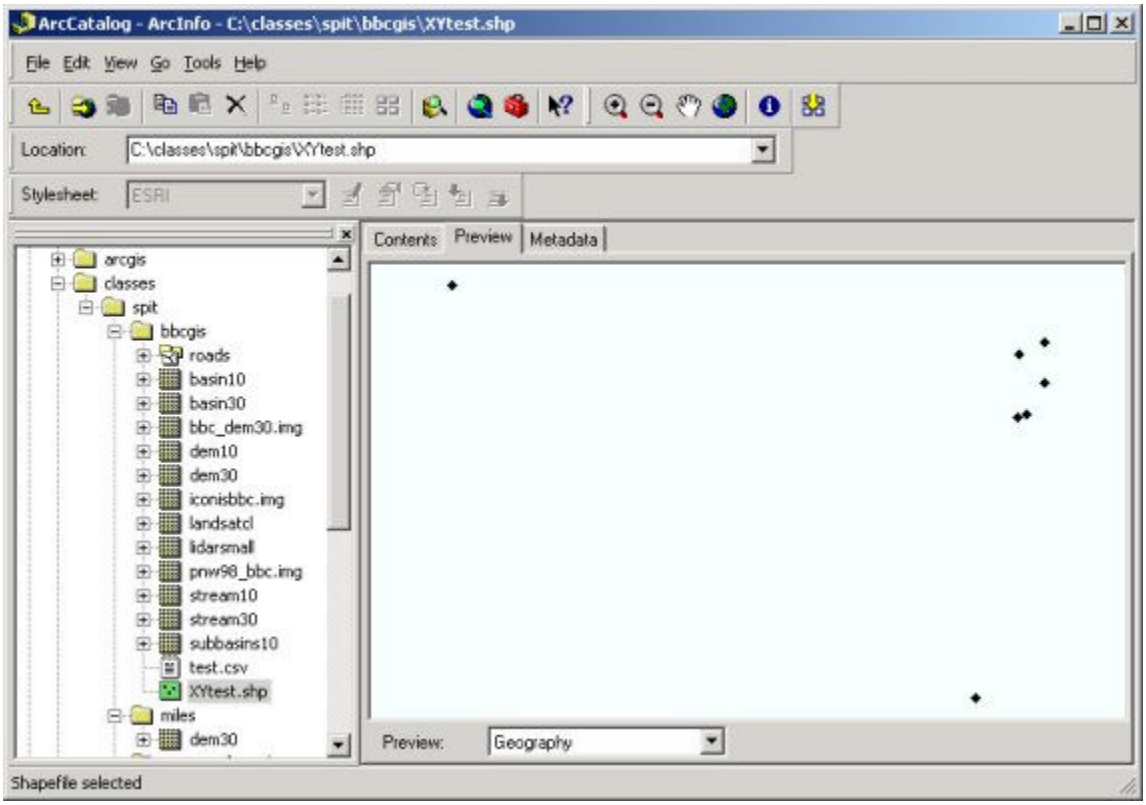

4. Right click on the .csv file name in the left hand table of content viewer and select the option to create freature class from XY table . In the dialog box scrollable windows select the fields from the table that hold the values for X, Y, and Z (Z will be one of the attributes). Also, select the location for the resulting shapefile. Then click on the button "Spatial Reference of Input Coordinates".



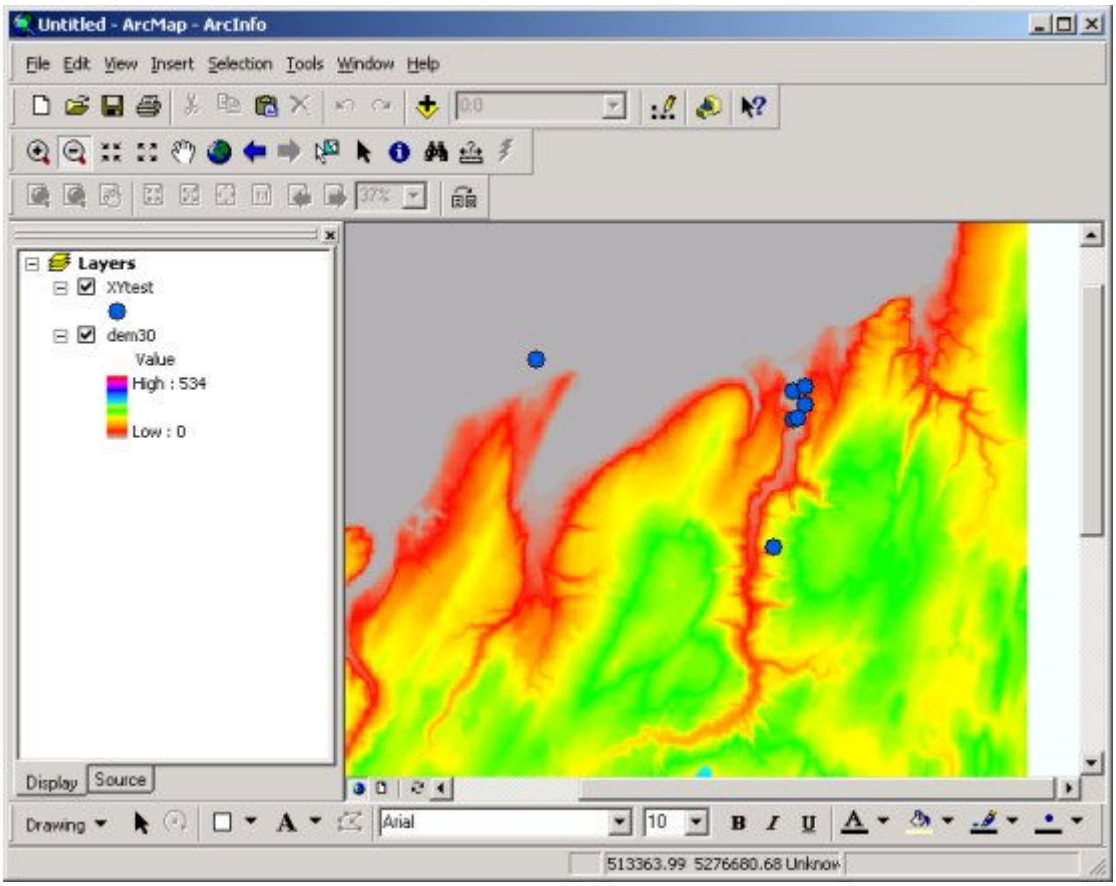

5. In most cases you will know the coordinate system which should be applied to your data and you can select it from the available list. You can also, select an existing coverage in you data collection that has the same coordinate system and import it for your new dataset. Click on IMPORT and select the ROADS coverage. The click OK to return to the Feature class dialog and click OK again.




6. After the process is finished you may need to REFRESH the ArcCatalog window before the new shapefile is displayed. Right Click in the CONTENT window and select REFRESH. Then PREVIEW the data. It looks like I MAY have an error.

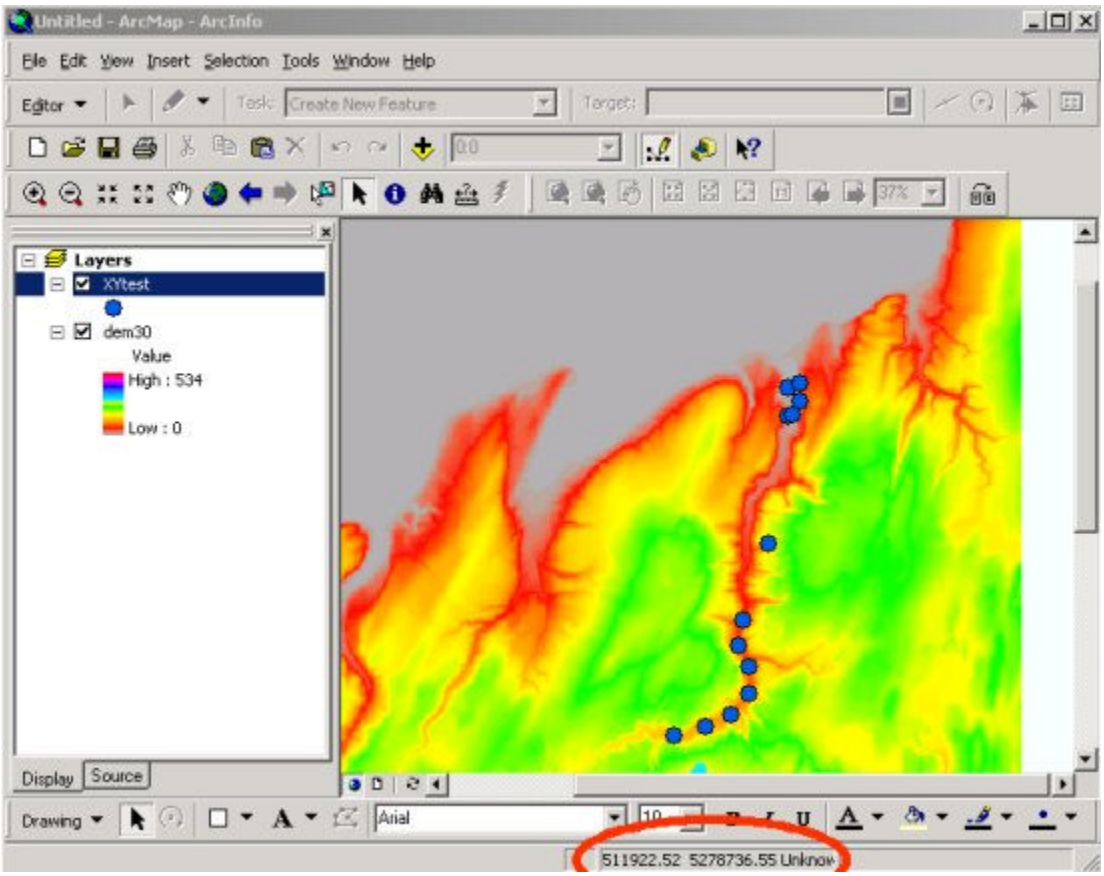


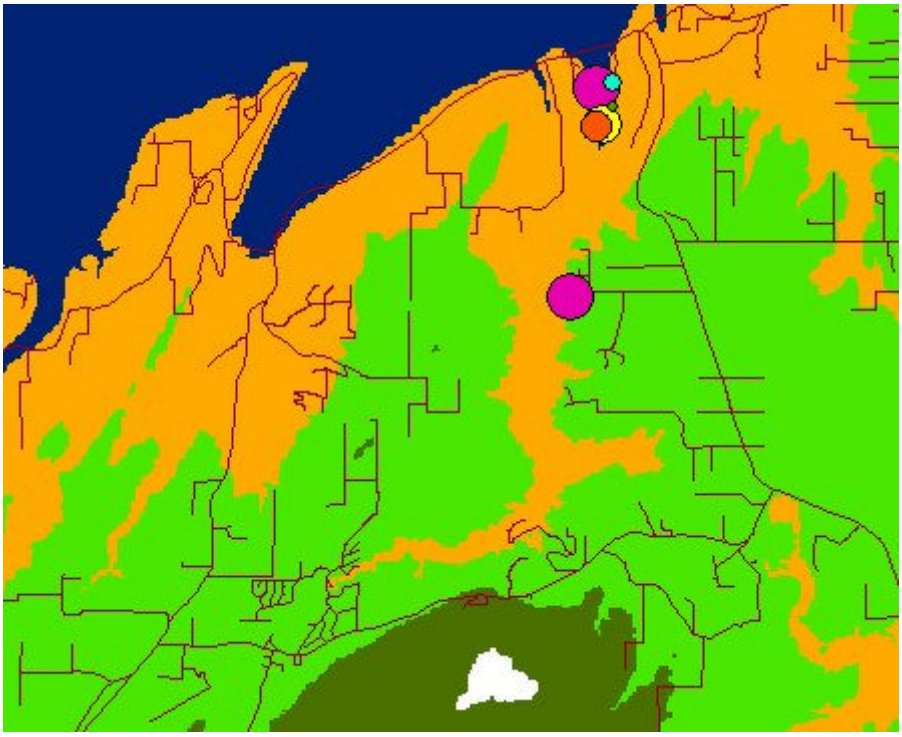
7. Open ArcMap and load the DEM and the New shape file (mine is called XYtest.shp) or if ArcMap is already open just drag them over. Remember how to change the symbols? Yes, I have an error




8. I'm just going to through that one out. Highlight the point layer and select TOOLS > Edit Toolbar. From the resulting toolbar select EDITOR > Start editing.

9. It's very simple. With the editor "pointer" click on the "bad" data point and hit the delete key. It's just as easy to add a point by selecting the "pencil" tool (note your drawing tool options) and the Click on the location where you wish to add data. You can refer to the X and Y coordinates at the bottom of the window to help you pick the position you want. I'll add a few up the watershed just to show how it's done..




10. Now I'll delete them and save the "good" ones. Select EDITOR > Stop editing. Save the edits.

11. Now go make a cool looking map.