

# *SOC 4650/5650: Week 08 ArcGIS Quick Reference*

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*March 7<sup>th</sup>, 2017*

## *Projecting Data*

Add tabular data containing x, y coordinates to the Table of Contents, then right click on the table<sup>1</sup> and choose Display XY Data.... Be sure your data frame's projected coordinate system is appropriate for the data you are working with.<sup>2</sup>

<sup>1</sup> You may need to switch the Table of Contents view to List by Source.

<sup>2</sup> If your x, y coordinates have lots of decimal places, they are likely in decimal degrees and you should have your data frame set to NAD 1983. If your data have few or no decimal places, they are likely in UTM coordinates and you should have your data frame set accordingly.

## *Converting Data to String or Numeric*

In the attribute table window, add a new column of the data type you need by going to Table Options ▸ Add Field.... Then right click on the new attribute and choose Field Calculator.... Use the Field Calculator window to populate your new variable with values from an existing variable.

## *Spatial Joins*

### *Points to Polygons*

Right click on your *target layer* and choose Joins and Relates ▸ Joins. Make sure Join data from another layer based on spatial location is selected, choose your *reference layer*, select the desired summary attributes, and select the output destination.

### *Polygons to Points*

Right click on your *target layer* and choose Joins and Relates ▸ Joins. Make sure Join data from another layer based on spatial location is selected, choose your *reference layer*, select it falls inside, and select the output destination.

### *Points to Points*

Right click on your *target layer* and choose Joins and Relates ▸ Joins. Make sure Join data from another layer based on spatial location is selected, choose your *reference layer*, select Each point will be given all the attributes of the point in the layer being joined that is closest to it..., and select the output destination.

## Table Joins

### Adding Joins

Right click on your *target layer*<sup>3</sup> and choose Joins and Relates ▸ Joins. Make sure Joint attributes from a table is selected, choose the table, and choose the variable that the join is going to be based on (i.e. the matching identification number variable).<sup>4</sup>

<sup>3</sup> You may need to switch the Table of Contents view to List by Source.

<sup>4</sup> If the identification number variable is not available, there is a conflict between the identification number variable types - one is likely string and the other is likely numeric. You may need to change the storage of the variable in Stata and export the data as a Microsoft Excel file.

### Removing Joins

Right click on your *target layer* and choose Joins and Relates ▸ Joins ▸ Remove Joins... and select the join you wish to remove.

## Exporting Data

Right click on the layer and select Data ▸ Export Data.... Be sure to select Use the same coordinate system as: the data frame and to change the output feature class to the correct file path. You can export data both as shapefiles and geodatabase feature classes.