ArcGIS 10.1, 10.2

Getting Started with ArcMap: Relating Attributes from Tables

Welcome to the Essential ArcGIS Task Sheet Series. This series supplements the Iowa State University GIS Geospatial Technology Training Program short course series, "Essential ArcGIS Tutorial Series." The task sheets are designed to provide quick, easy instructions for performing specific tasks in GIS.

Relate defines relationships between two tables of different features. this allows a layer's attributes to be accessed using the associated attributes of another table. This task sheet will cover how to relate attributes from tables.

1. Download Data

a. Download the data used in this task sheet by navigating to www.extension.iastate.edu/communities/gis/quicktasksheets/data. Click on the publication number that matches this task sheet. In this case, the publication number is **PM2082-09x**. This data originated from the Iowa Natural Resource Geographic Information Systems Library (NRGIS Library) under **State-wide Data** > **Infrastructure** > **wind_turbines** and can also be found at: https://programs.iowadnr.gov/nrgislibx/ or www.igsb.uiowa.edu/nrgislibx/.

b. Add the **county** and **wind_turbines** shapefiles to a blank ArcMap Document.

2. Relating Features

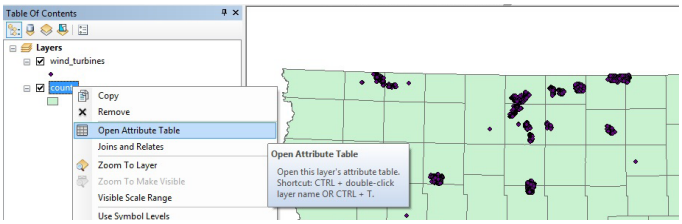
a. Open the attribute table from both the **wind_turbines** layer and the **county** layer by right-clicking the layer from the **Table of Contents** and selecting **Open Attribute Table**. The attribute table of each layer can be opened simultaneously.

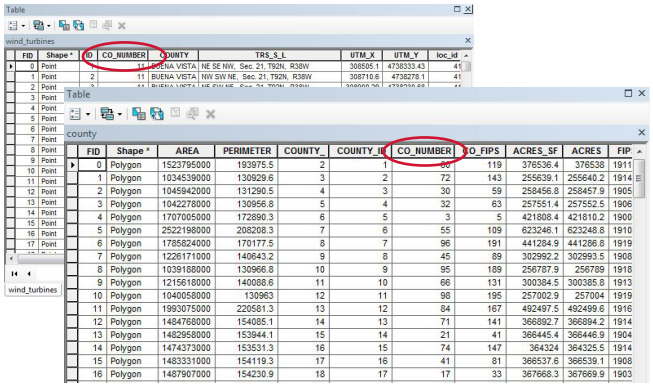
b. Examine the contents of each table to find a unique field that the tables can be matched based on. In this case the **CO_NUMBER** field contains numbers that represent each county. *Note: Using the COUNTY field will not work because all caps is used by the wind_turbines layer and not the county layer.*

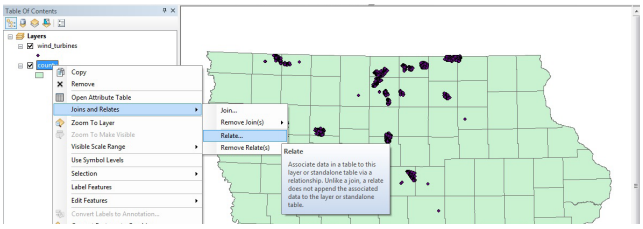
c. Right-click on the **county** layer and select **Joins and Relates** > **Relate**...

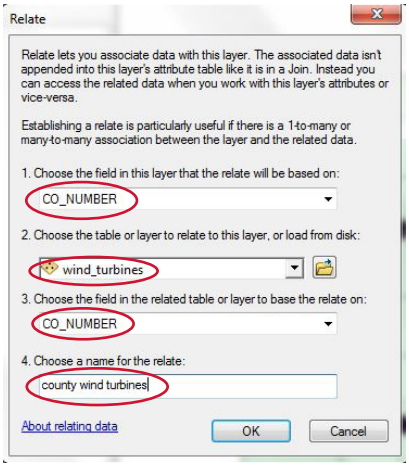
d. From the **Choose the field in this layer that the relate will be based on:** drop-down menu, select **CO_NUMBER**.

e. From the **Choose the table or layer to relate to this layer, or load from disk:** drop-down menu, select









3. Selecting Related Features

a. Open the attribute table for both the **wind_turbines** layer and the **county** layer by right-clicking the layer from the **Table of Contents** and selecting **Open Attribute Table**. Resize the windows from each attribute table to get a full view of each.

b. Select the **Select By Attributes** icon in the attribute table for the **county** shapefile.

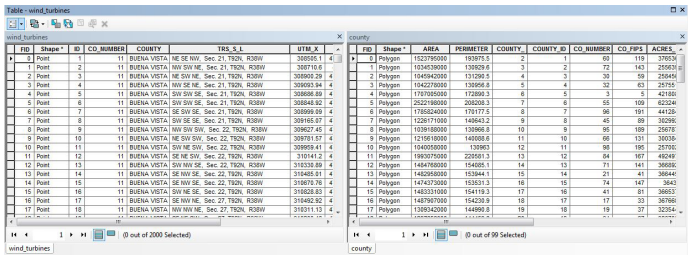
c. From the **Method:** drop-down menu, make sure **Create a new selection** is selected.

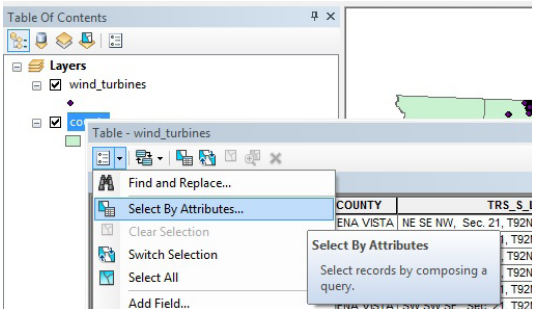
d. Double click on **"COUNTY"** from the box below **Create a new selection**.

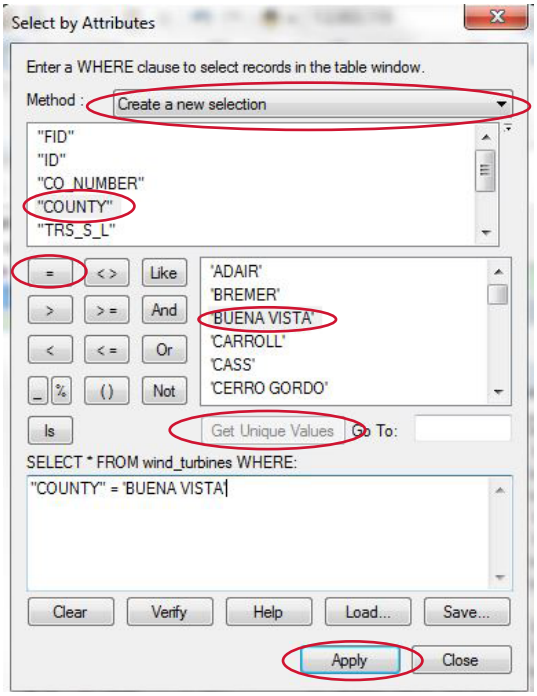
e. Click the **=** icon.

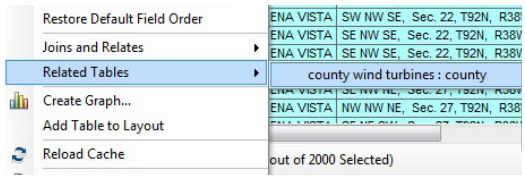
f. Click the **Get Unique Values** icon and double-click **Buena Vista** from the box above and click **Apply**.

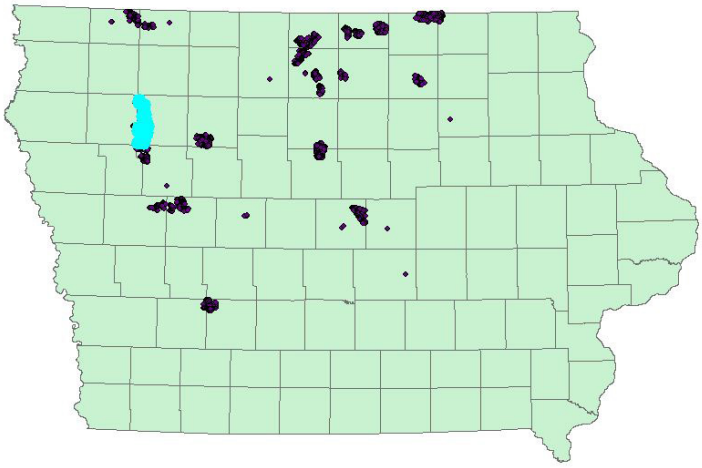
g. From the **wind_turbines** attribute window, click on the **Table Options** icon > **Related Tables** > **county wind turbines : county**. Features of the **wind_turbines** layer will be selected based upon the county it was related to from the **county** layer.











Contact

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