INTRODUCTION to ESRI ARCGIS
For
Visualization, CPSC 178

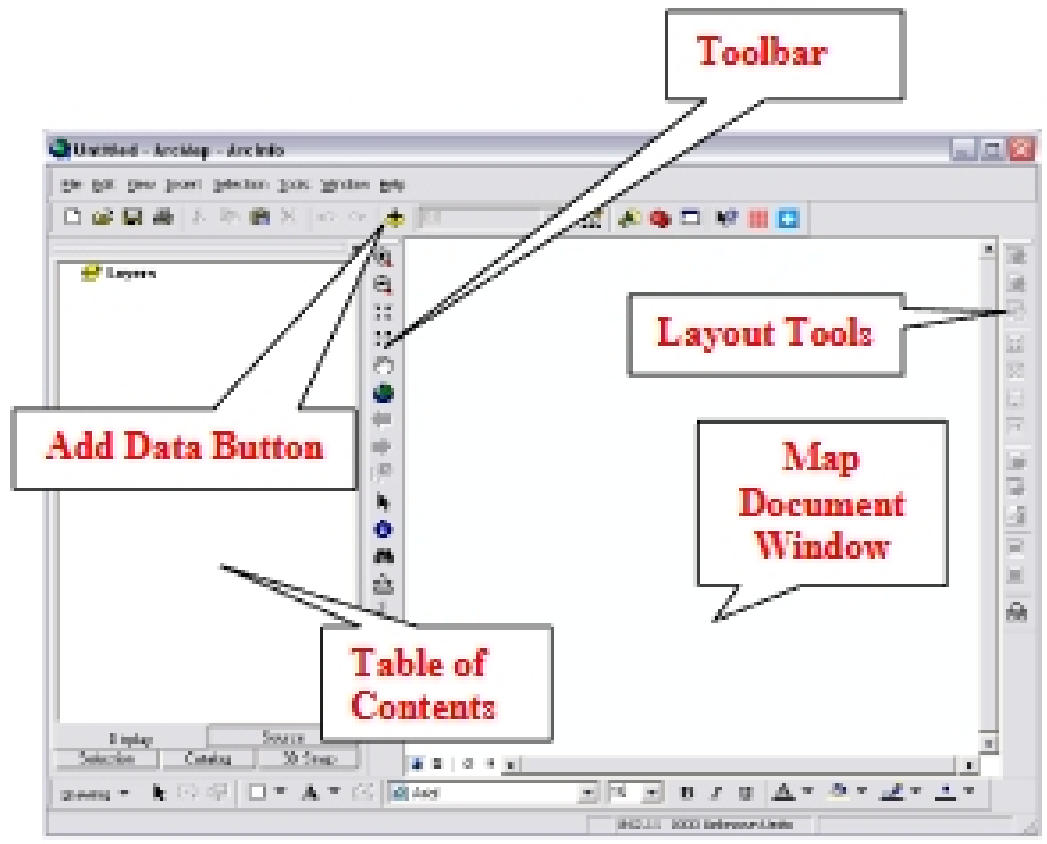
1) Navigate to the **C:/temp** folder

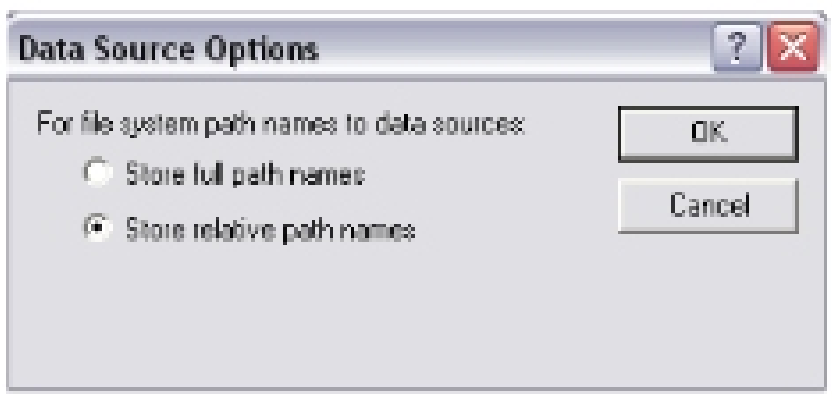
2) Make a directory using your initials.

3) Use your web browser to navigate to www.library.yale.edu/MapColl/ and click on the look for the **"Download GIS Workshop Materials" Quicklink**. On the **Workshop Materials** page, look for the Data Link for the **Visualization CPSC178 Workshop**. Download and Unzip the dataset to your initials folder. This file contains the datasets we will use for the exercises that follow.

4) Start **ArcMap** with a new empty map

5) Use the **Add Data Button**  to open the **Add Data Dialog Box**. Browse to the folder you put the data files in and select the **2000_Election_Counties_Albers.shp** file. Click **Add**.





6) Go to **File>Document Properties**. Click on the **Data Source Options** button. Change the setting to "**Store Relative Pathnames**." Click **OK** twice.

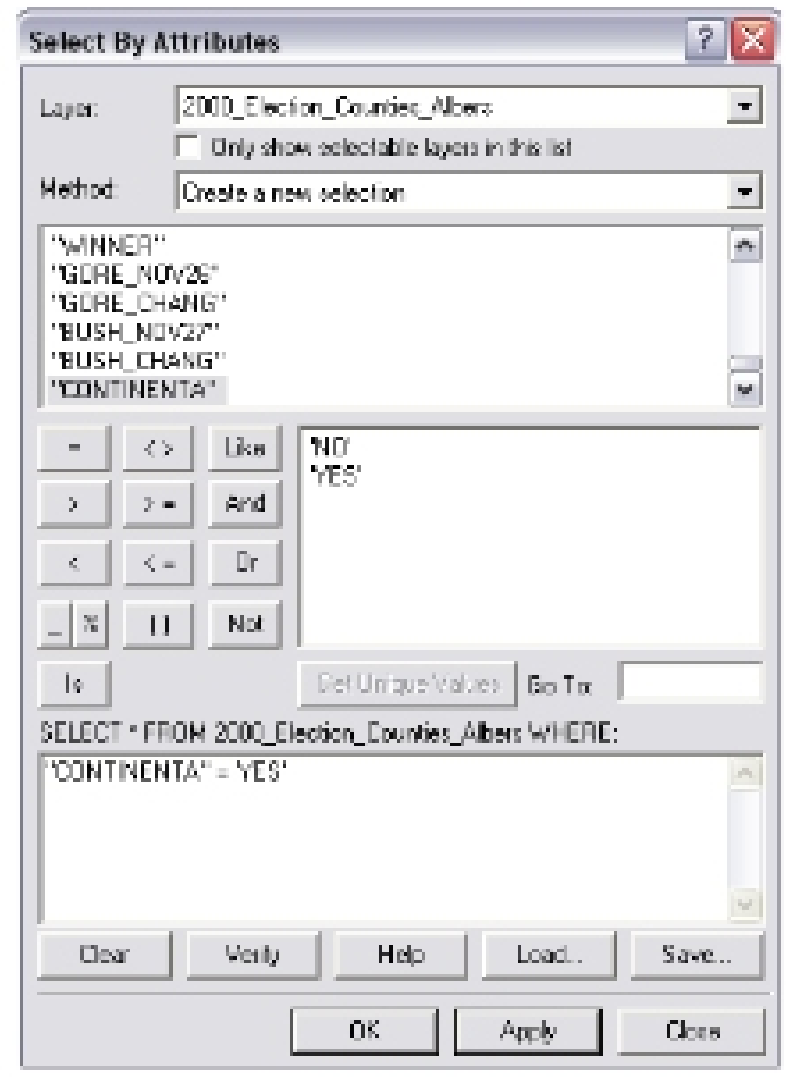
7) Go to **File>Save As** and save your Map Document as **MapEx01.mxd** in your initials folder.

8) Right-Click on the **2000_Election_Counties_Albers** Layer in the **Table of Contents** at the left side of the window, and select **Open Attribute Table**. Take a look at the available data in the shapefile.

9) Close the **Attribute Table**.

Subsetting the Data to the Continental U.S. Using Selection by Attributes

1) Got to **Selection>Select by Attributes.** Scroll to the bottom of the **'Fields'** window and double-click on **"CONTINENTA"** to add it to the **Query Window**. Click on the "=" sign to add it to the **Query Window**. Now click the **Get Unique Values** Button and double-click on "**YES**" to add it to the **Query Window**. **Click Apply**.



2) Close the **Select by Attributes** window. You should now see that the polygons that make up the Continental U.S. are highlighted/selected.

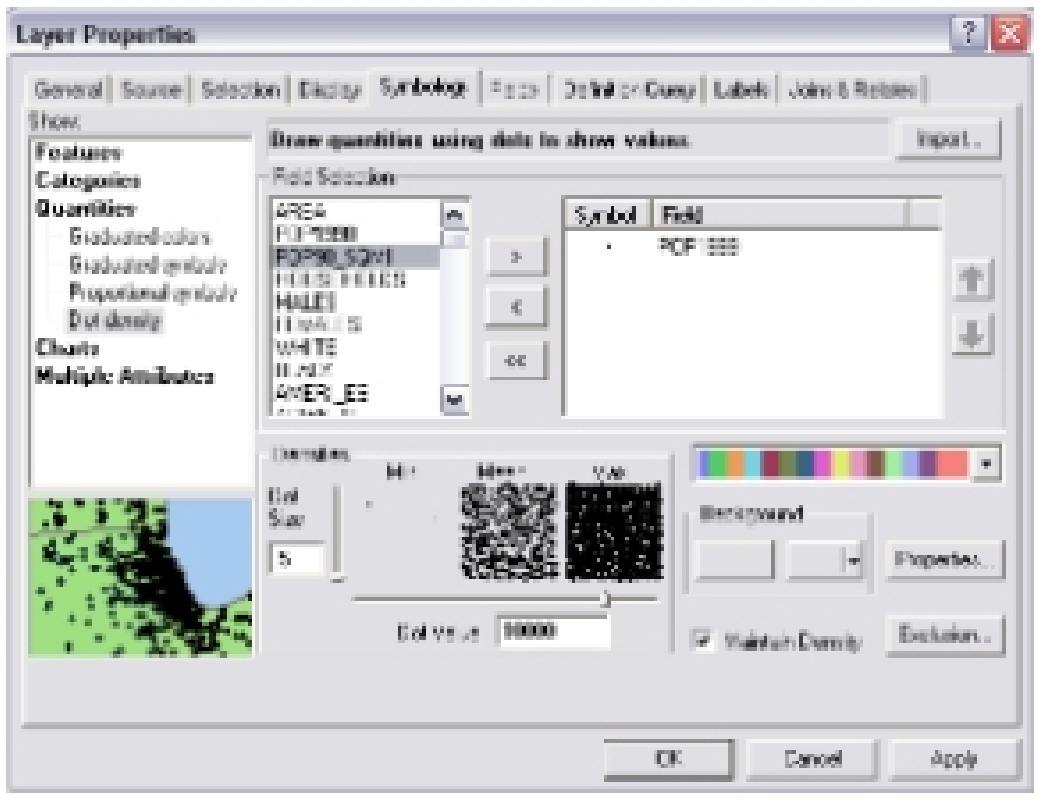
3) Right-click on the **2000_Election_Counties_Albers** Layer in the **Table of Contents** and select **Data>Export Data.**

4) Make sure **Export: Selected Features** is selected and browse to your initials folder and name your export file **Elections_2000_Continent.** Click **OK** and select yes when prompted to add your file as a layer.

5) Right-click on the original **2000_Election_Counties_Albers** Layer and **Remove** it.

6) Click on the **Global Extent Button**  to zoom to the new extent of your data.

Applying Symbology to Visualize Data Attributes



1) Right-click on the **Election_2000_Continent** layer and select **Properties**.

2) Select the **Symbology Tab** and then select

3) **Quantities** and **Dot Density**. Under **Field Selection**, highlight **POP1999** and Click the **Add Button**  .

4) Look where you added the **POP1999 Field** and Double-Click on the **'dot' Symbol** to the left of the Field Name. This will open the **Symbol**

Selector. Change the color to **Black**.

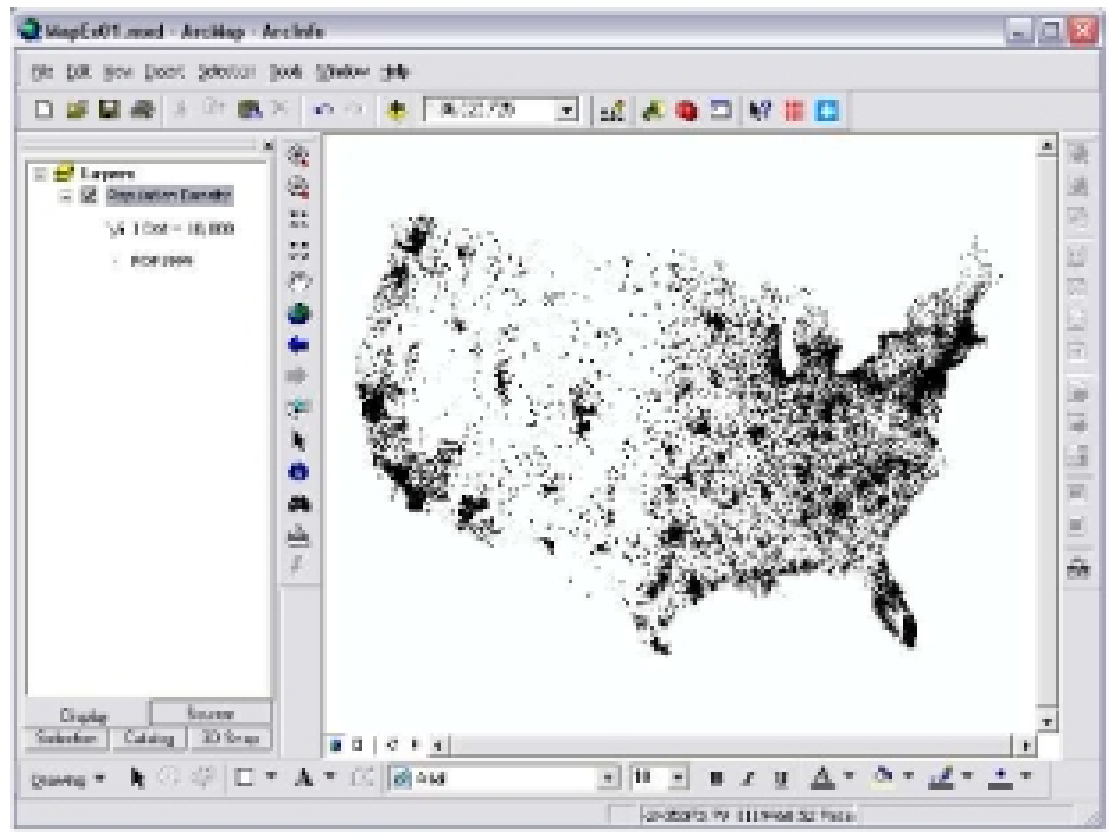
5) Under **Densities**, set the **Dot Size** to **.5** and the **Dot Value** to **10000**.

6) Click the **Background Button** and set the color to '**No Color**.' Click **Apply**.

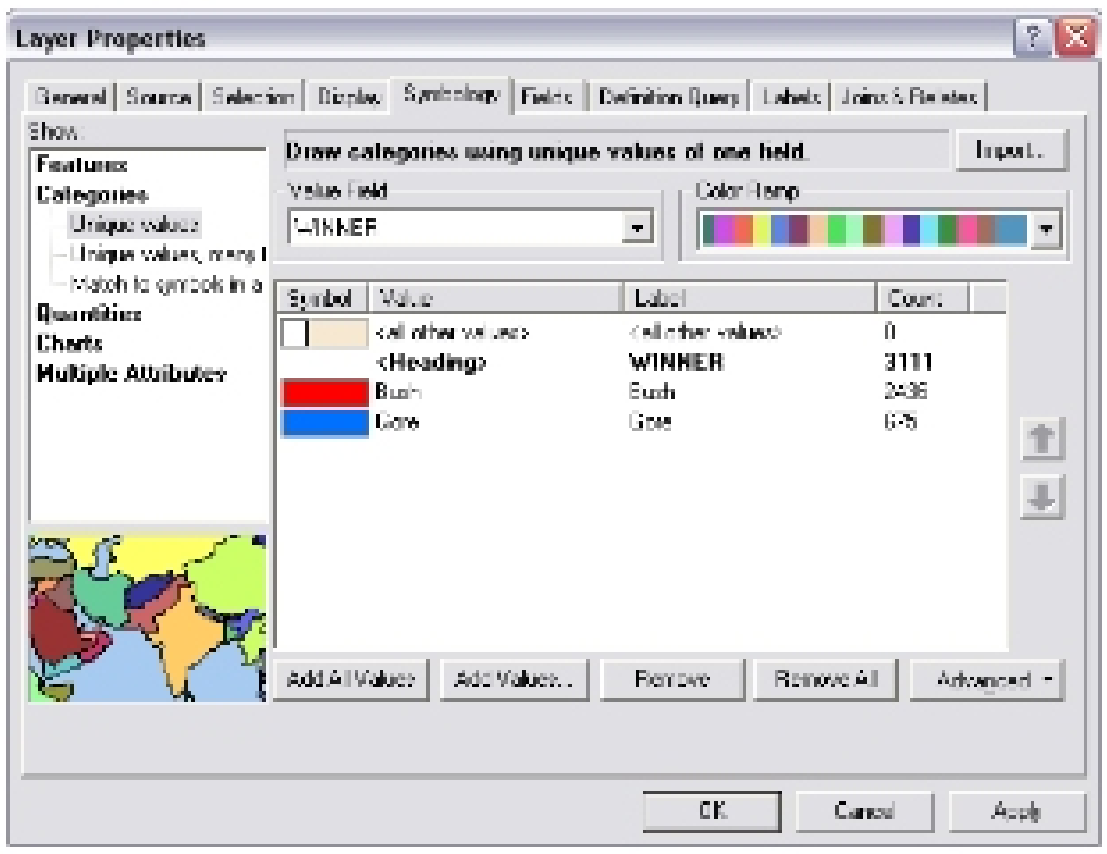
7) Click on the **General Tab** and **Rename** the Layer **Population Density**. Click **OK**.

8) Right-click on the newly renamed Population **Density Layer** and select **Copy**.

9) Right-click on the Layers Icon Layers and select **Paste Layer(s).**



10) Open the **Properties** for the **LOWER Population Density** layer and be sure that the **General Tab** is selected. Rename the Layer **Election Results**.



11) Click on the **Symbology Tab** and choose **Categories>Unique Values**.

12) Change the **Value Field** to **WINNER** and click on the **Add All Values Button** and make sure that the **Gore** and **Bush** values are added.

13) Uncheck the All Other Values item and then double-click on the color patch next to **Bush** to open the **Symbol Selector.** Use the **Symbol Selector** to change the **Fill Color** to **Red** and click **OK**.

14) Change the **Gore** color patch to **Blue** using the same method.

15) Left-click on the '**Symbol**' field header (above the color patches) and select "**Properties for All Symbols.**" Make the Outline Color '**No Color.**' Click **OK**.