Instructions for GIS Mapping Projects

Opening Arcview

1. Open **ArcView** by double clicking on the shortcut icon on your desktop, or Click Start -> Programs ->ESRI ->ArcView GIS 3.x - > ArcView GIS 3.x

Starting a New ArcView Project:

2. Once the program starts, using the project wizard select create a new project with a new view or from the program window, select File -> New Project. Then start a new View by clicking on the New button

3. View 1 will open: Select from the top menu line: View - > Add Theme. Or if the project wizard window is open, click Yes to the prompt -> Would you like to add data to the View now?

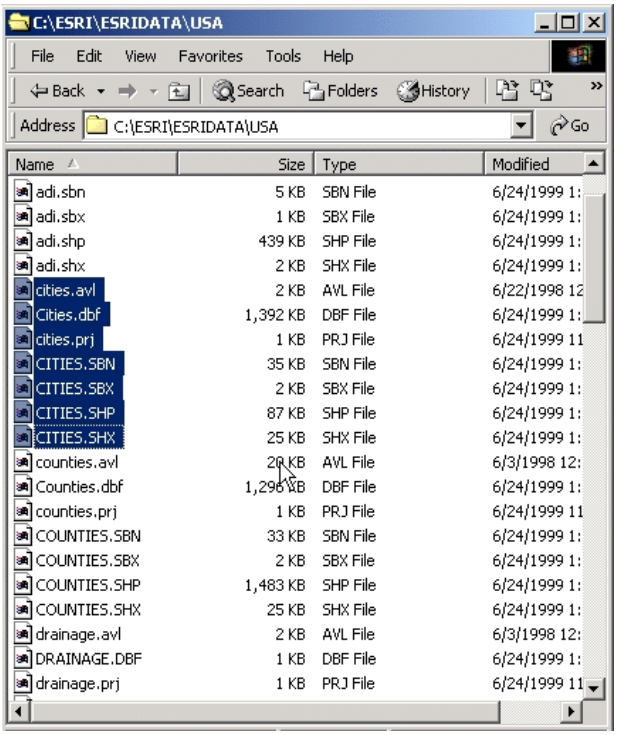
16. Double Click your directory: C:\echo\GIS Mapping\Redistricting

17. Click on a project in the *left side of the box* **ex.** County Maps.apr Double Click or Select OK

18. Double click on a Project File from box on the left ex. Or click OK City Plans.apr

Examining ESRI files (World, USA, Canadian Maps) outside of ArcView

1. To find ESRI provided shape files, minimize Arcview and Open My Computer, from your desktop by double clicking on the icon.



2. Select the C drive by Double clicking on it in the list.

3. Double click on ESRI

4. Double click on ESRIDATA

5. Select USA, Canada, and etc.

6. Note that a typical Arcview map theme is actually a composite of between 3 and 7 actual files. At the very least, an Arcview theme is composed of three files with the file name extensions .shp, .shx, and .dbf. Of course when you add a theme in ArcView, you are only shown the list of .shp files. Selecting one of those in ArcView will automatically draw the other files into the project without you needing to do anything.

Creating a New View:

1. Close my computer and maximize ArcView by clicking on the icon on the status bar at the bottom of your screen

2. Click on View then New and then the box ☐ to maximize the View.

3. Click on the View menu item on top of the ArcView screen

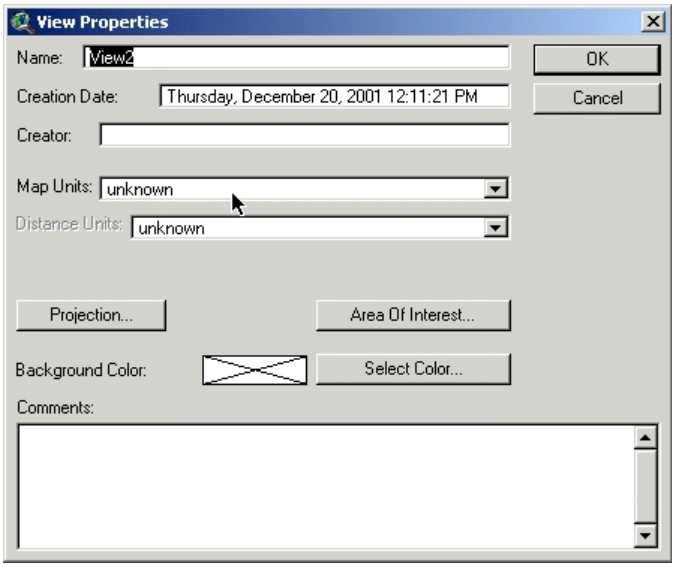
4. Select Properties

5. Highlight or darken the text for View1

6. Type a View Name over View1 and select OK

7. IT IS IMPORTANT TO *SAVE* YOUR WORK AT REGULAR INTERVALS

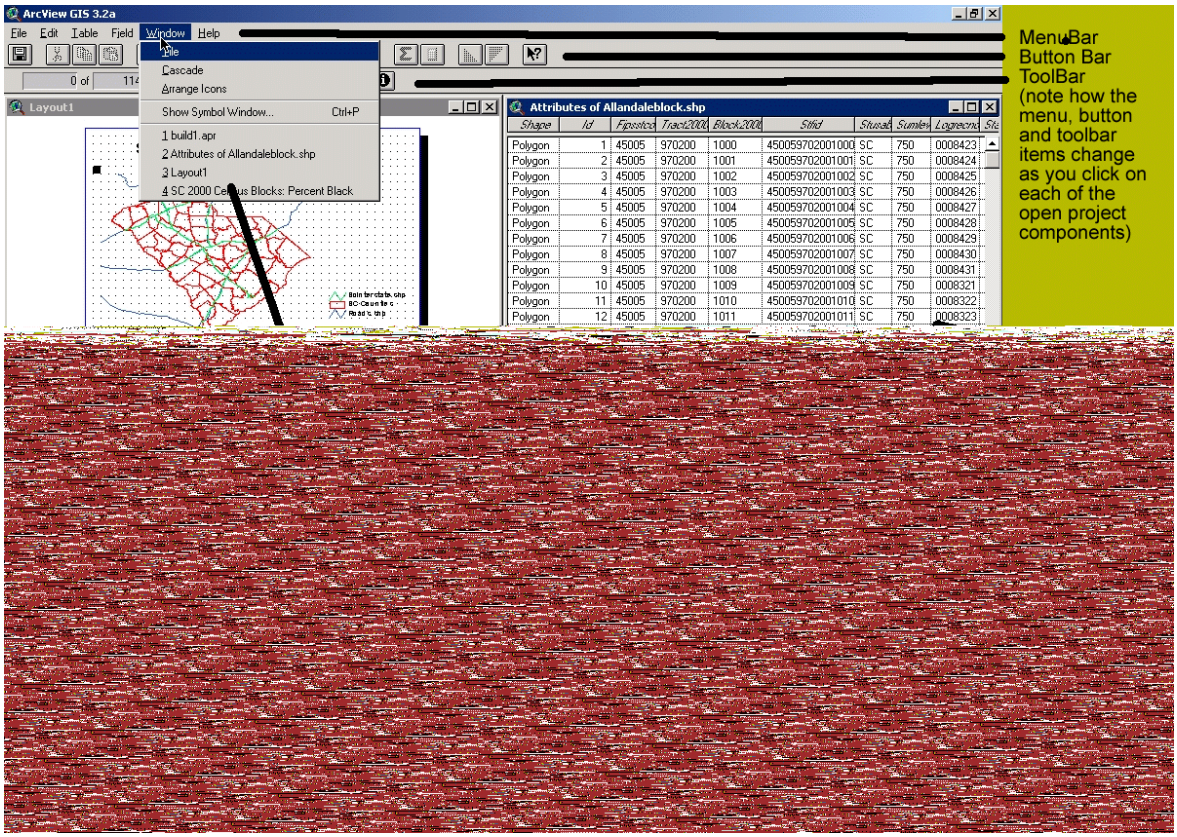
8. Select File from the main item and select Save project.



Adding a Theme to a View:

1. Go to **View** on the tool bar Select Add Theme

2. Scroll down and click on *Sccountypop*.shp (county boundaries) to select the county boundary theme. Then hold the shift button down and Select click Scplaces2000.shp (large municipalities), scvtd2000a.shp-(*voting precincts*) and Scblocks2000.shp - (*census blocks*) Click OK



3. Click in box *Sccountypop*.shp or Scplaces2000.shp to activate the theme, Check the box to view or show the theme's features.

9. The next screen asks if your geographic data (boundaries) and your attribute data (population) are in one or two separate files. Select the second option - Geographic data and attribute data are in a single file. Click next.

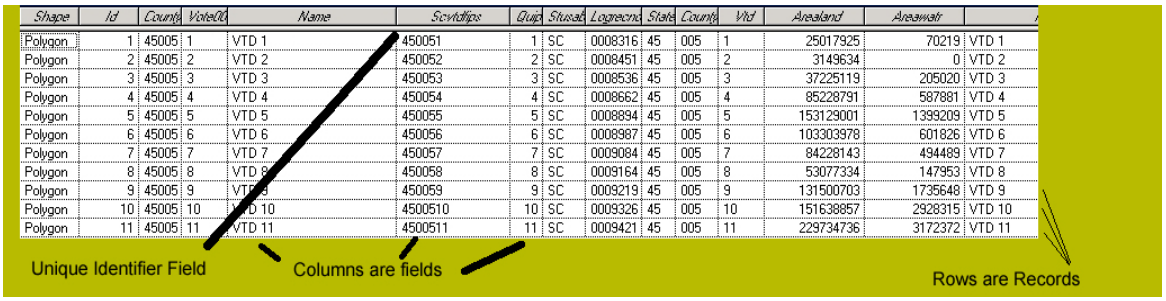
10. Select Load Data Set and click on browse

11. Navigate to C:\My directory\My subdirectory and select the correct boundary/population data file, which will be named the same as the shapefile that you created in the **How to convert precincts or census blocks to match a county or a city** excercise above. Click OK

12. Leave Specify an internal name, alone, it should have the name of the file that you started with.

13. In specify a Join Field scroll down and select scvtdfips when using shapefiles created from precincts and select stfid when using shape files created from census blocks (scblocks). This field is a unique identifier field for each record in a table.

14. Click Next



Shape	Id	County	Vote00	Name	Scvtdfips	Bup	Stusab	Logrecno	State	County	Vtd	Arealand	Areawatr	
Polygon	1	45005	1	VTD 1	450051	1	SC	0008316	45	005	1	25017925	70219	VTD 1
Polygon	2	45005	2	VTD 2	450052	2	SC	0008451	45	005	2	3149634	0	VTD 2
Polygon	3	45005	3	VTD 3	450053	3	SC	0008536	45	005	3	37225119	205020	VTD 3
Polygon	4	45005	4	VTD 4	450054	4	SC	0008662	45	005	4	85228791	587881	VTD 4
Polygon	5	45005	5	VTD 5	450055	5	SC	0008894	45	005	5	153129001	1399209	VTD 5
Polygon	6	45005	6	VTD 6	450056	6	SC	0008987	45	005	6	103303978	601826	VTD 6
Polygon	7	45005	7	VTD 7	450057	7	SC	0009084	45	005	7	84228143	494489	VTD 7
Polygon	8	45005	8	VTD 8	450058	8	SC	0009164	45	005	8	53077334	147953	VTD 8
Polygon	9	45005	9	VTD 9	450059	9	SC	0009219	45	005	9	131500703	1735648	VTD 9
Polygon	10	45005	10	VTD 10	4500510	10	SC	0009326	45	005	10	151638857	2928315	VTD 10
Polygon	11	45005	11	VTD 11	4500511	11	SC	0009421	45	005	11	229734736	3172372	VTD 11

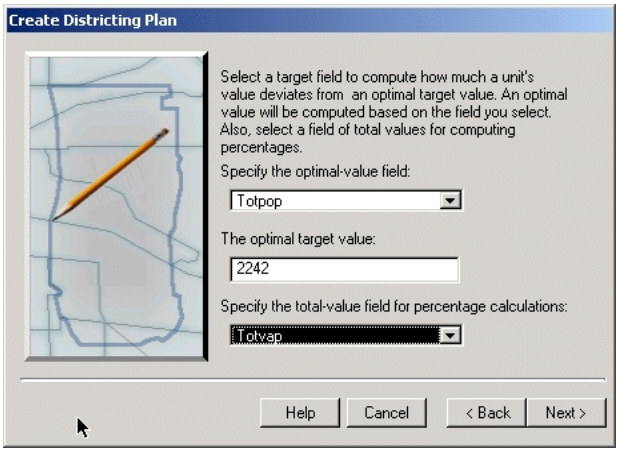
15. Specify the assignment name. Default is district which is usually fine. Click the drop down and scan the list for another if you like. Then specify the total number of districts. The default for this extension is limited to 59 districts. Click Next.

Note: If you wish to do a plan that has more than 59 districts, you will need to go to www.southernecho.org/download to get a file called distext-240.zip and open it with winzip. Also on the web site is a file called districtreadme.txt which contains instructions on what to do with the two files in the archive.

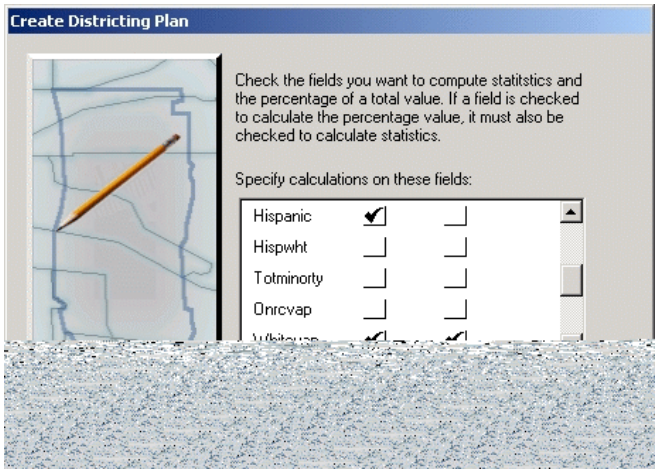
16. (Specify Optimal Value Field:) Select Totpop or Totalpop

17. (Specify the total-value field for percentage calculations) Select Totvap

18. Click Next



19. (Specify Calculations:) *This step provides the population data, deviation percent, and deviation percentages for the selected races in the districting plan.* Scroll down and check the *left column for* White, totblk, Hispanic, TotAsian. Select any 2 or more races you want displayed in the statistic table. *Checking the left column computes only the sum for ecah population subcategoy)*



20. Check the *right column for* Whitevap, Totblkvap, Hispanicvap, and totasianvap. : (*The right column calculates the sum and the percent).* Click Finish

21. The County plan view will pop up with a statistics table and a baseline bar chart

22. You may now select the pointer (left top corner of the assignment editor) for each district and draw your districts by their coordinated colors.

Districting Tool in Action: the statistics table (bot. left) helps you keep track, on the fly, of the composition of the districts as you create them. The assignment tool controls which districts you are assigning areas and their respective populations to.

To close or open the assignment editor

1. To close the assignment editor, select Close which is at the bottom of the box

2. To open the assignment editor, go to plan select stop editing and start editing

2. Specify the page layout i.e. portrait or landscape.

3. Select a new layout

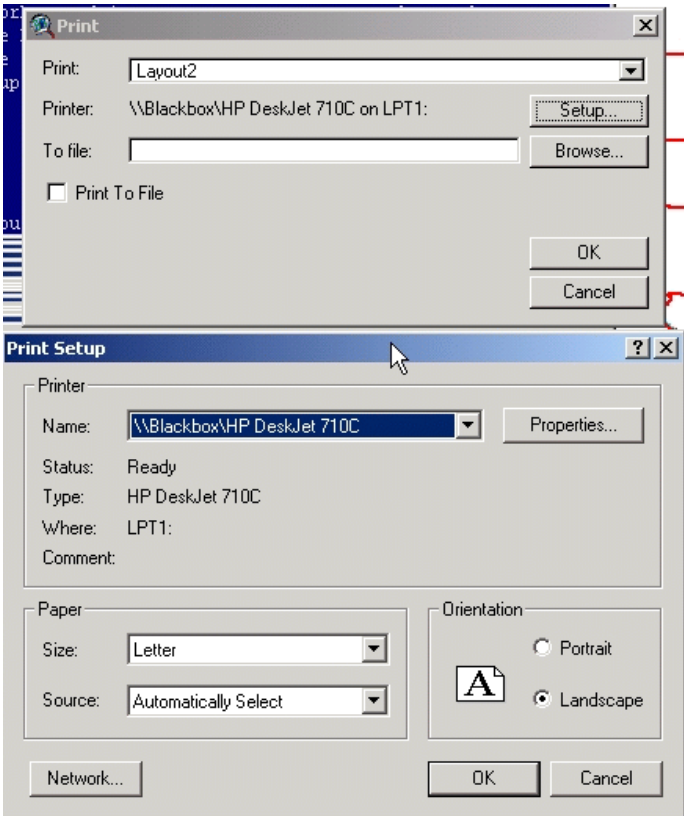
4. Maximize the Layout and inspect the way it looks

5. If you don't see a mileage bar, or if the bar says units unknown, you need to switch back to the view and set the view - > properties -> distance units to miles.

6. If you see a map title that says Layout 1 - your source View probably is untitled. To title the view, switch back to view - > properties -> and overtype the view name with one you like.

7. If your legend contains names which don't make a lot of sense, you need to switch back to the view and rename the themes. Click Theme -> Properties and change the name to something more desirable.

8. To give the map a more desirable title than Layout 1, you can simply double click in the map title part of the map, the so called "title frame" to get to text properties and type in what you like.



9. If you want your layout to have a title, click the menu item Layout -> Properties

10. Highlight or Darken Layout 1, type the layout title, and Click OK. Note that the title you've given the layout shows up in the top bar of the layout window.

11. To print click file - > print and then in the print window, assign the proper printer orientation (Landscape or Portrait) and ensure that the desired printer has been selected. Click OK. Your map should print right out.

12. Save your work.

Troubleshooting Section

How to remove an EMPTY THEME

1. Uncheck G all themes
2. Go to EDIT
3. Select all Graphics, then delete