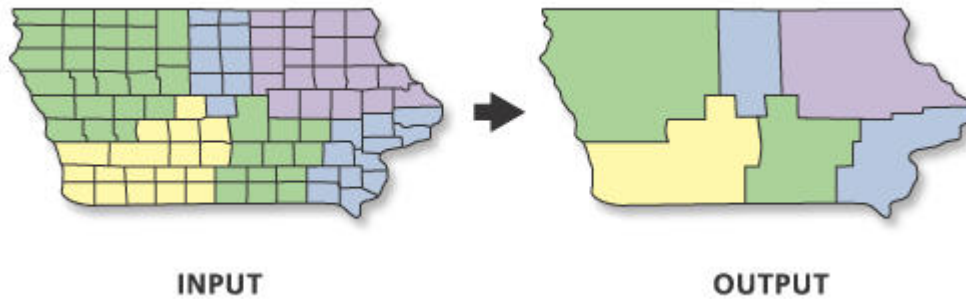


How to Dissolve Boundaries

If you need to combine counties or other boundaries to create a new layer for a region or district, this is done using the Dissolve command.



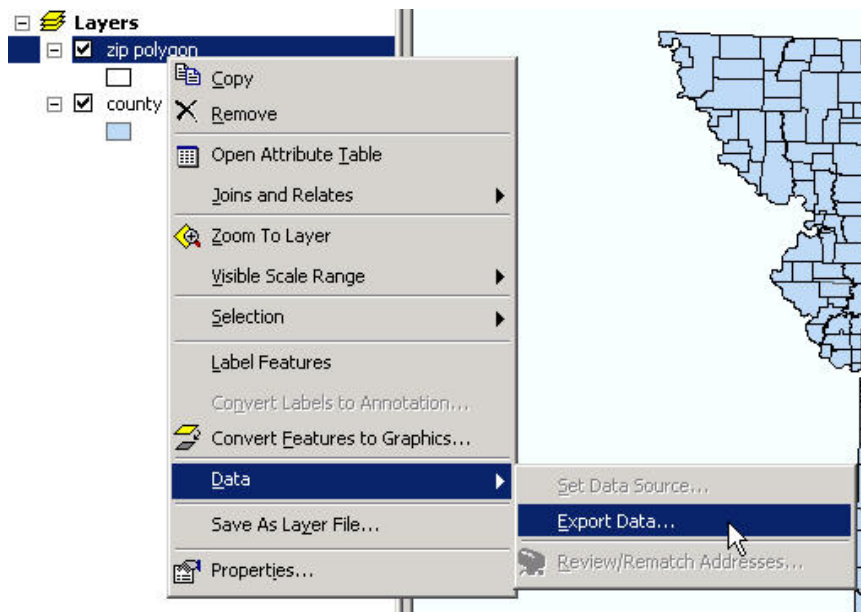
Dissolve works by aggregating data with common attributes. Features with the same attribute values are merged together into a single polygon.

BEFORE YOU BEGIN, PLEASE CHECK THE DISTRICT_BOUNDS FOLDER ON M:\GISDATA. MANY REGIONS HAVE ALREADY BEEN CREATED, AND MIGHT ALREADY BE IN THIS FOLDER.

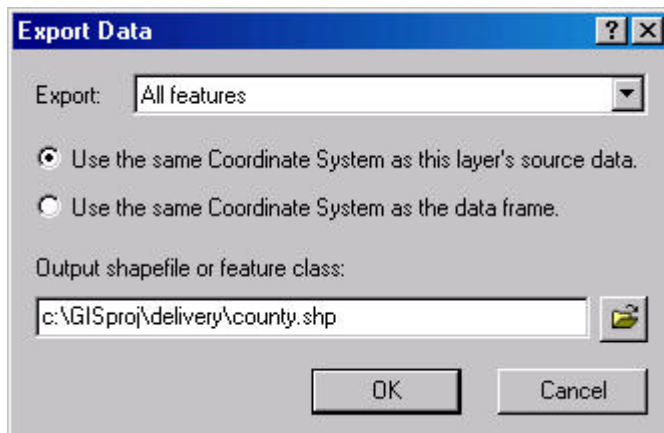
To begin the dissolve command, you must first have a source for the output boundaries. This is often just a hard copy of a county map with lines drawn on it with a marker; this is fine.

Open ArcMap and add the data layer county.shp, found in M:\GISDATA\district_bounds.

Select the data layer, right click and choose Export > Export Data.



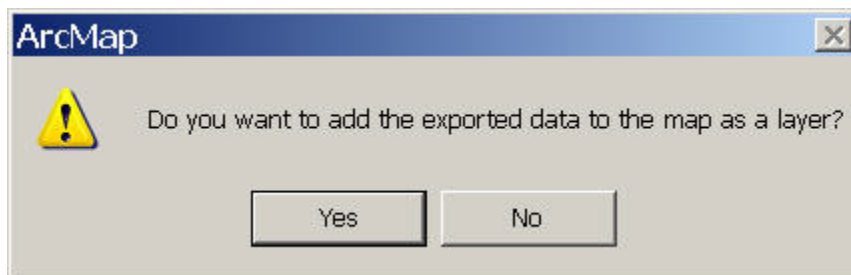
You are creating your own copy of the county boundary file. You could do the same thing in ArcCatalog by copying this same file into your own folder on your C:\ or H:\ drive and then adding this version to ArcMap.



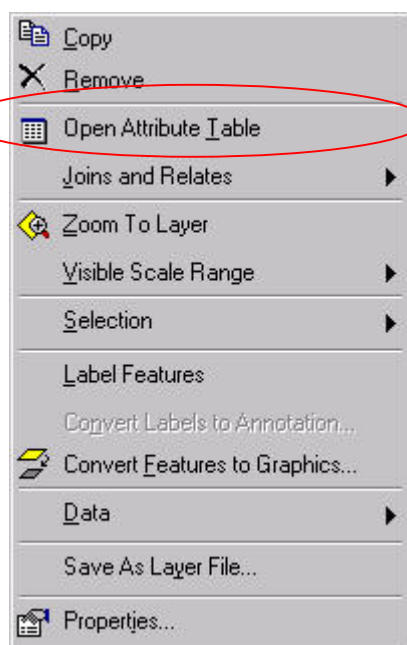
Make sure that you are exporting all features, and that you are using the same Coordinate System as the layer's source data.

The output shape file is a name of your choosing. A suggested file name is county_input.shp. Use the yellow folder button to navigate to a more appropriate folder. You will NOT have permission to write any data onto the M:\ drive.

You will be prompted about adding the layer to your project. Please select Yes.

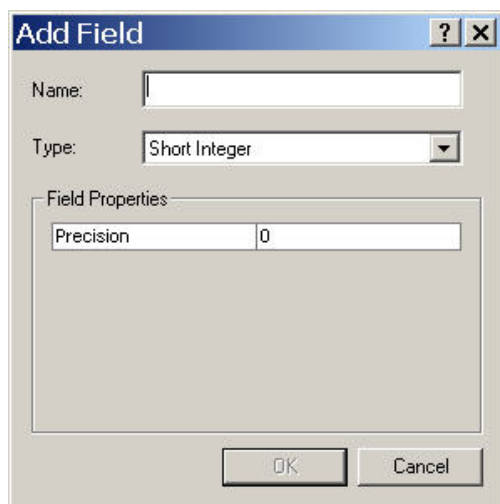
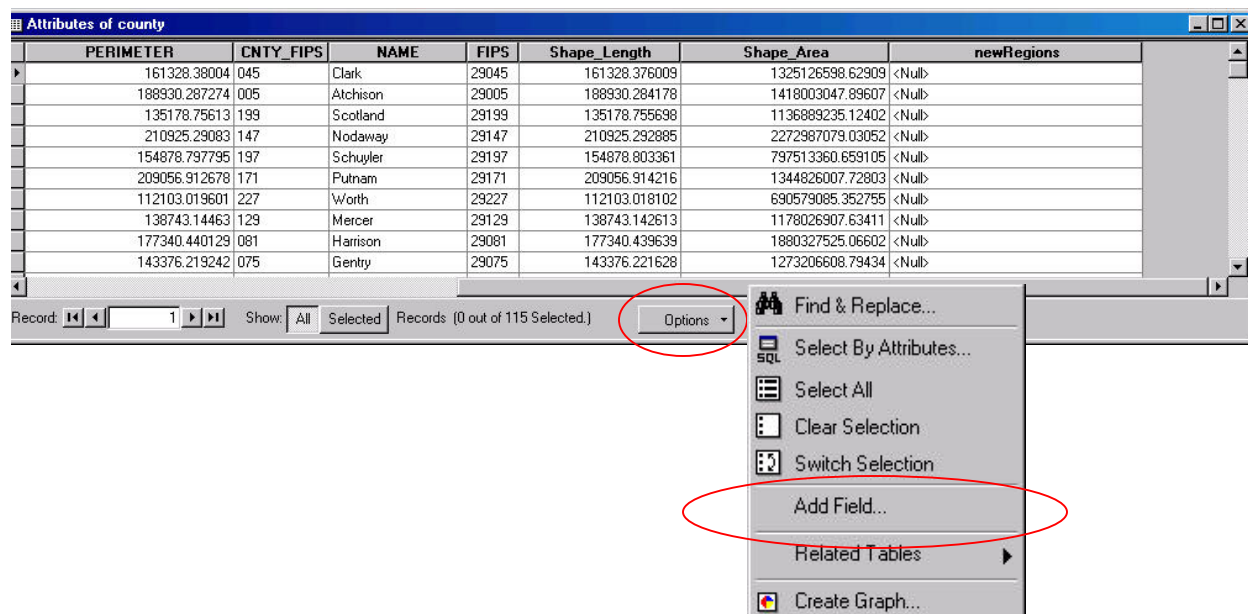


The layer that is loaded will look the same as the county.shp file, since it is just a copy.



Open the Attribute table of your county_input shape file. Before you can use the dissolve command, you must have an attribute field that contains the district names or numbers. This field does not exist, so you must add the field and then the appropriate values for your districts or regions.

Add a new field to this attribute table. Select the Options button at the bottom of the attribute table.



If the regions or districts you are creating are numbered, you can leave the type as Short Integer. If you are using names (Northeast, Northwest, Central), change the type to Text.

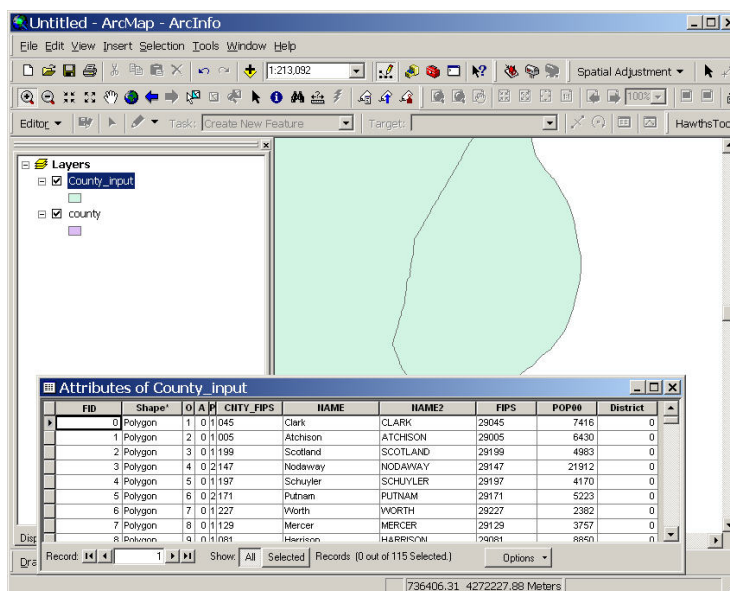
Assign the Name as District (or Region).

Click OK.

This will add a new field to the end (right hand side) or

your attribute table.

Leave your attribute table open, but slide it down toward the bottom of your display so you can see both your map and the table.

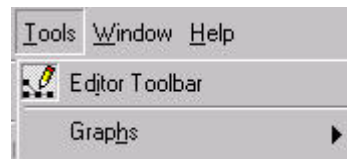


Before you can populate this new district field, you must start an Edit session.



Select Editor from the Editor Toolbar, and then Start Editing.

If you do not have an Editor Toolbar, you can open one by selecting from the Menu Tools > Editor Toolbar. (This icon can also be found on your Main toolbar.)

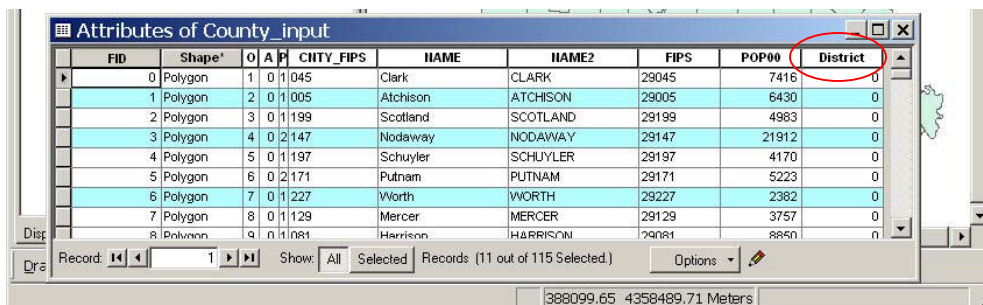
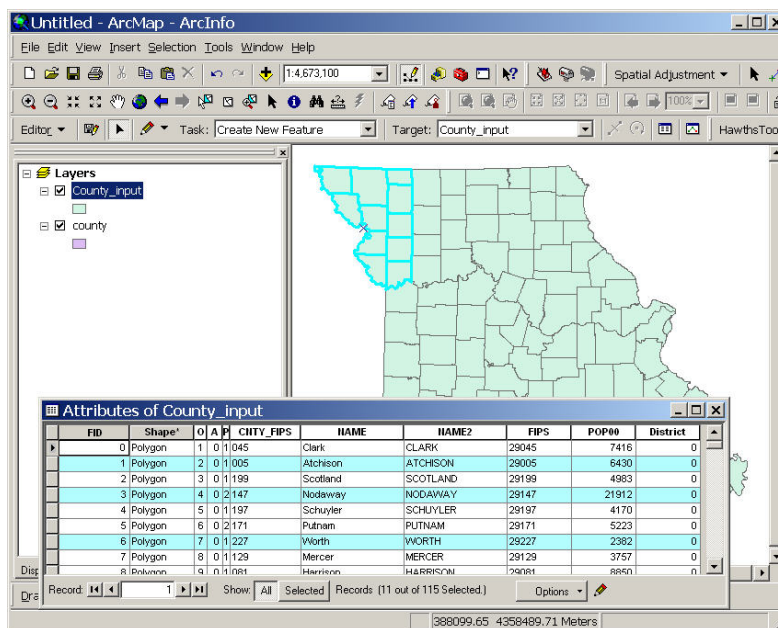


Using your paper document as a reference, select the counties for the first region (it doesn't matter where you start, but generally you should work top to bottom.)

Use the Select Feature tool to select each county. You can hold down the Shift key to select multiple counties.

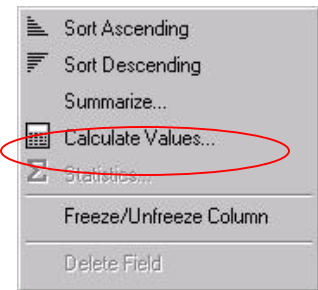


You will see the counties selected on your screen, as well as in your table.

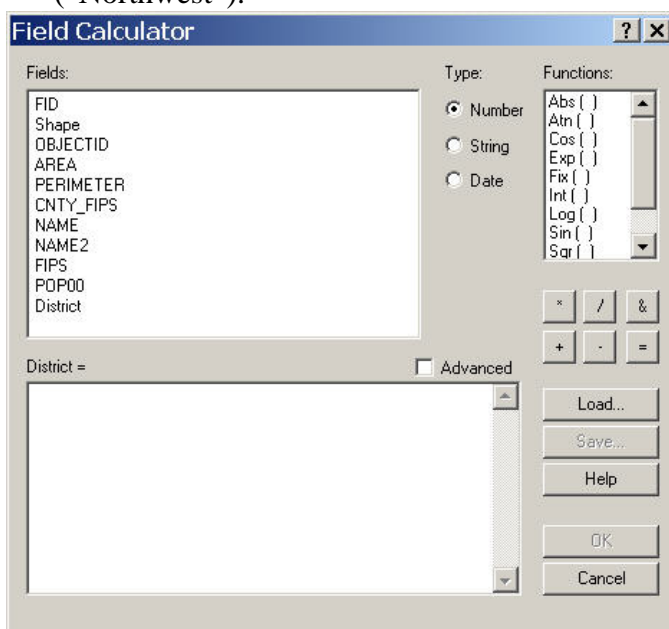


Select the column heading of your newly added field.

Right click on the column heading and choose Calculate Values.



This will open the field calculator dialog. At the lower part of this dialog, type the district number. Note: If you are working for a text field, you must also add quotation marks (“Northwest”).



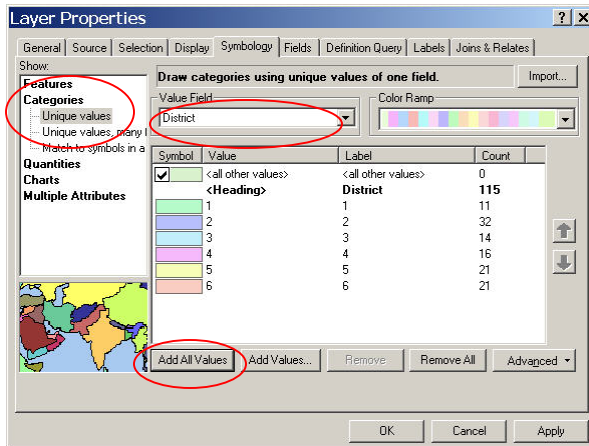
Click OK.

The values of the district will be changed. Notice that the highlighted records in the attribute table have the new values.

Continue to select and calculate all the counties until you have populated every county. It is helpful to sort the county by the district column when you think you are done to check for empty records.

Once you have populated the entire county layer with district values, you can use this new field to symbolize counties each with its own color. You should do this before the dissolve command to make sure you don't have any errors.

Open the properties of the county_input file, select the Symbology tab, choose Categories, Unique Values. Set the value field to the District and click Add All Values.



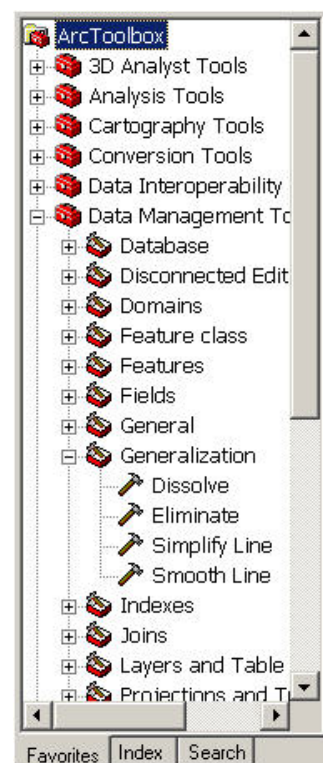
Compare your screen display to the hard copy map, correcting any errors.

Once you have determined that the counties are populated correctly, stop editing, making sure that you save your changes.

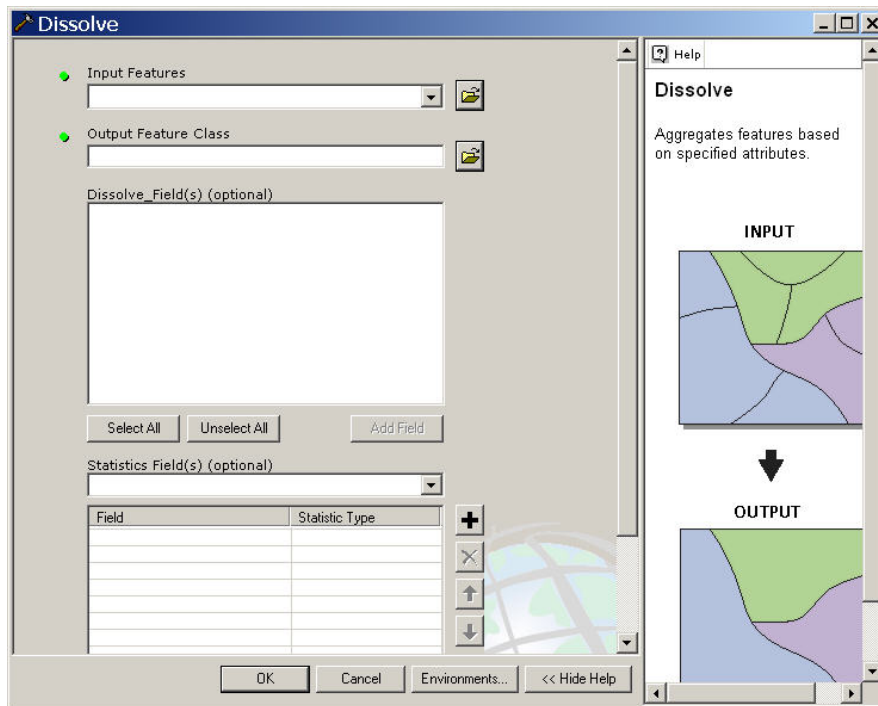


The command for Dissolve is found in ArcToolBox. Open the toolbox using the red toolbox icon on the main toolbar.

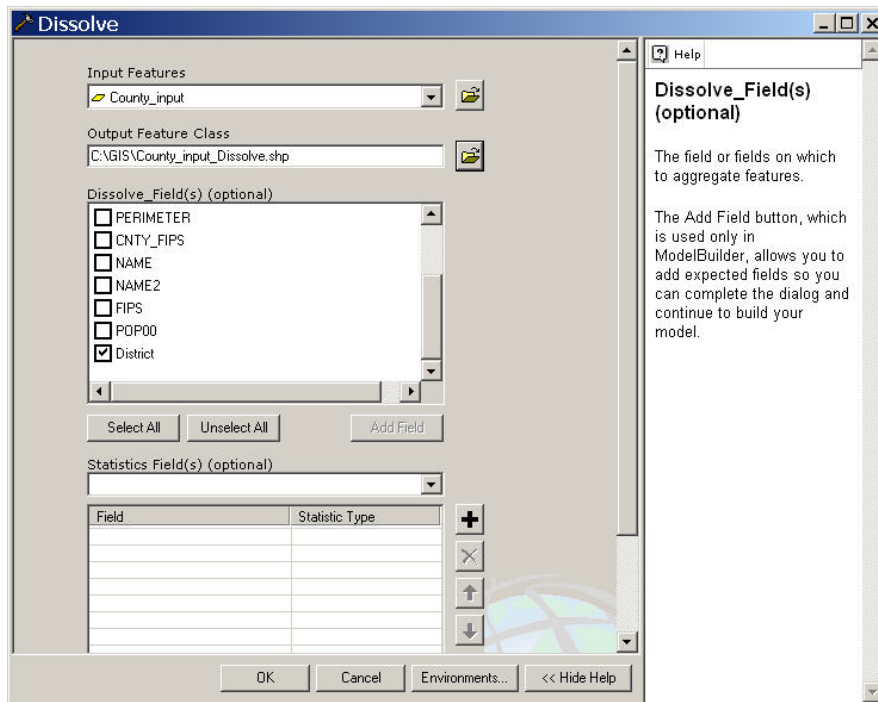
The Dissolve command is found under Data Management Tools > Generalization > Dissolve.



Selecting Dissolve from the toolbox will activate the Dissolve dialog. On the right side of this dialog is a help box, providing instructions and illustrations.



The green dots next to the 1st 2 fields indicate that these are required input.

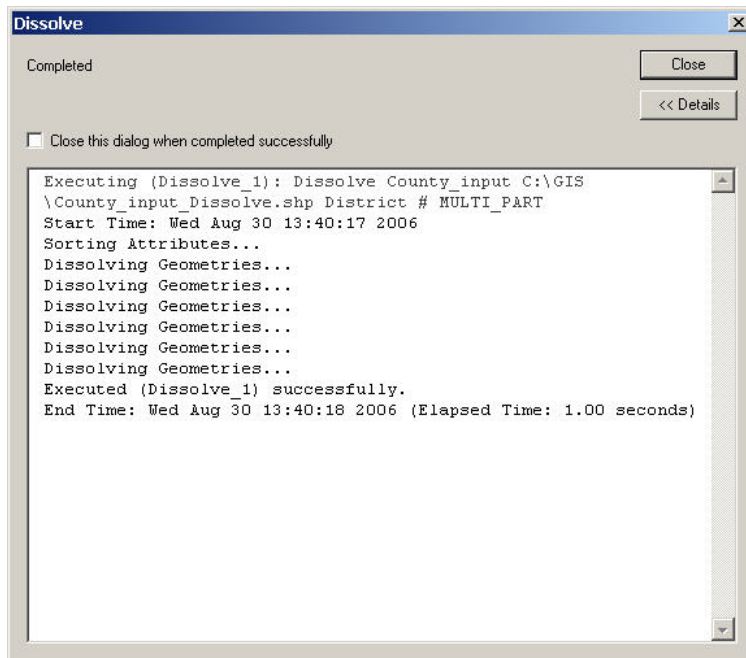


Make sure Input Features is set to your working county_input.shp file. The Output Feature Class is the name of the new file you are creating. You should give it a descriptive name like ABCregion.shp. Make sure there are no spaces in the name.

The dissolve field will be District.

Click OK.

A process dialog will appear, showing the internal steps being taken. If there are errors with the process they will appear here. Once the process is complete, click Close to dismiss the dialog.



The new output file will automatically be added to your display. It will be display as a single color. Use the Symbology tab in the Layer Properties to display by the unique values of the District field. (The same steps you just did with the county boundaries before running the Dissolve.)

If you find any errors, it is much easier to delete the output file and start over, correcting any errors in the county_input shape file.

Once you have created your regional boundary file, please share this with the rest of the department. Contact GIS administration to arrange having your new file shared from M:\GISDATA\district_bounds.

Tracy Schloss
Missouri Department of Health and Senior Services
8/30/06