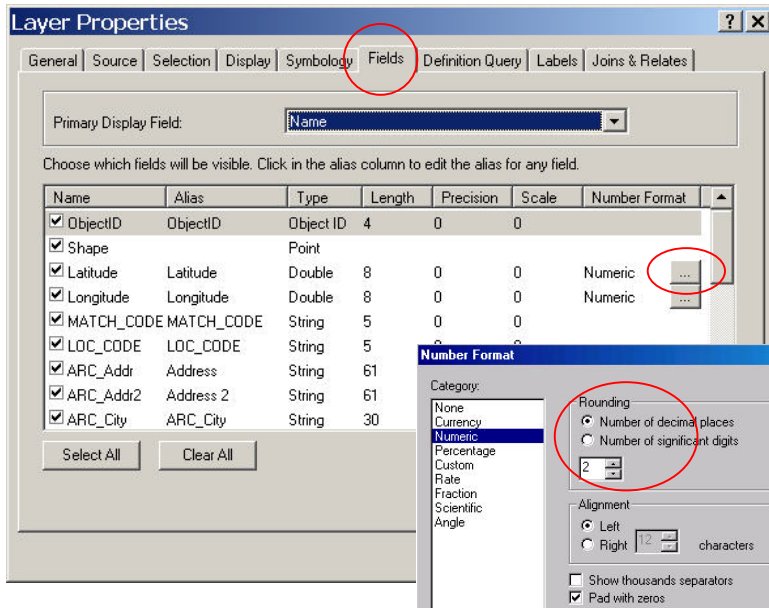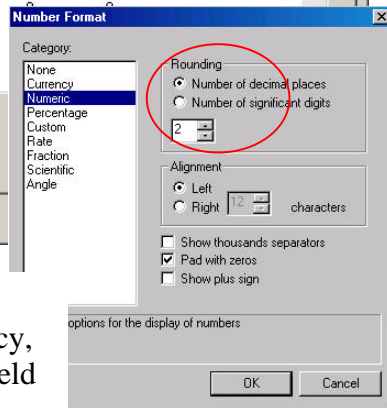# Labels – Tips and Tricks

Labels can be generated from any field(s) in your attribute table. Here are several methods to change the display of your label, both for the content and for the symbology.

Tip #1 - Controlling the number of decimal places on the label of a numeric field

The display format of numeric data is controlled under the Fields tab of the Layer Properties. Notice that fields that are in a Numeric format have an ellipse (…) at the end of the row.

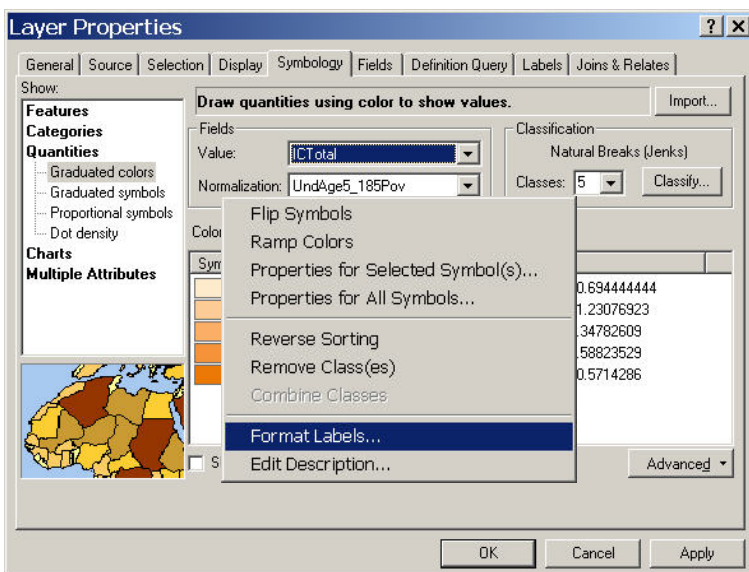Click on the ellipse to open the Numbers Format dialog.

This dialog allows you to change the number of decimal places. This changes the way numbers are displayed in both the attribute table and for any labels displayed from this field.

The default number of decimals is 6.

If the values in the field represent percentages, currency, etc you can set the numeric field as a particular category. This adds the formatting %, $ for fields.

You'll notice that the column heading in the Symbology tab says "Label". This is for the labels that appear in Table of Contents and the Legend; it doesn't change the text labels you might be displaying from this field.
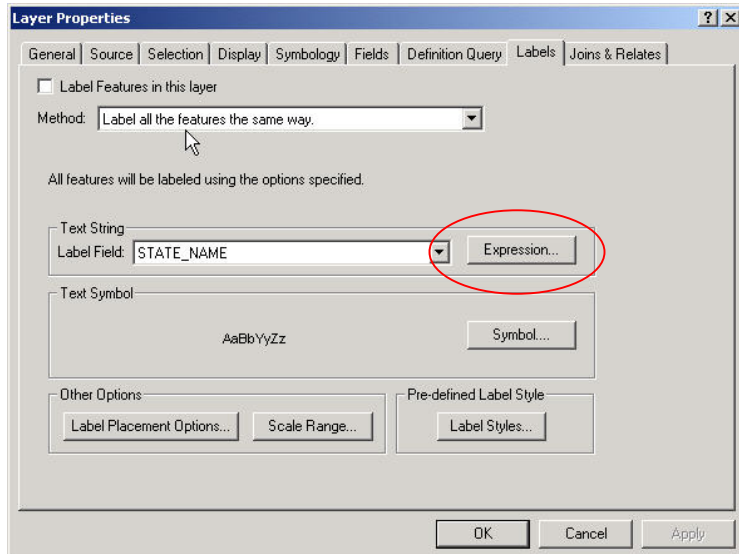

Right –clicking on an item in the symbology list The same Numbers Format dialog shown above is available.

Make sure you use the same number of decimals for both your Table of Contents / Legend and your labels.

Tip #2 – Inserting additional text into your label

It is sometimes necessary to include descriptive text along with your label. For example, you may wish to have your map display "Participants = 47" rather than just the number "47". Additional text can be added to your label in a label expression.

In the Labels tab of the Layer Properties, click the Expression button.

Edits to the expression are made in the center part of the dialog. You will need to use double quotes around the text string. Use an ampersand (&) to connect all portions of your expression.

Example:
"Participants = " & [Sum_count]
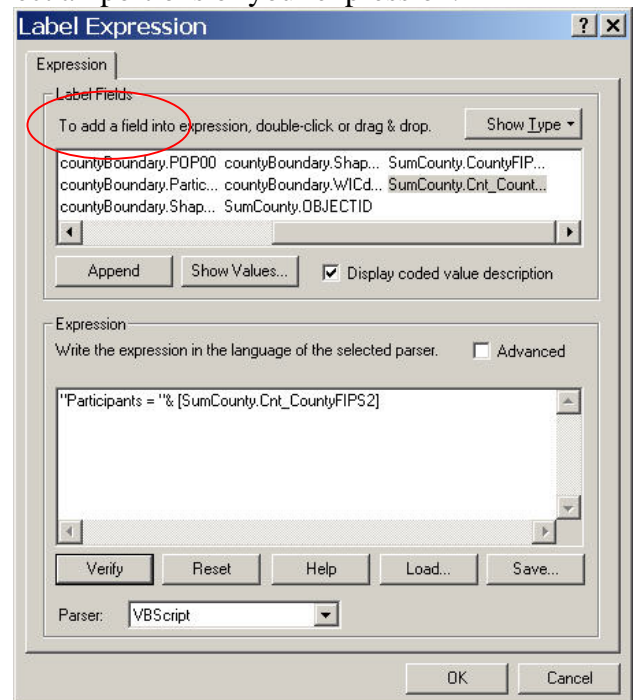Results: Participants = 222

If you need to have text stacked, use the format word vbnewline.

[county]&vbnewline& "Participants = "&[Sum_count]
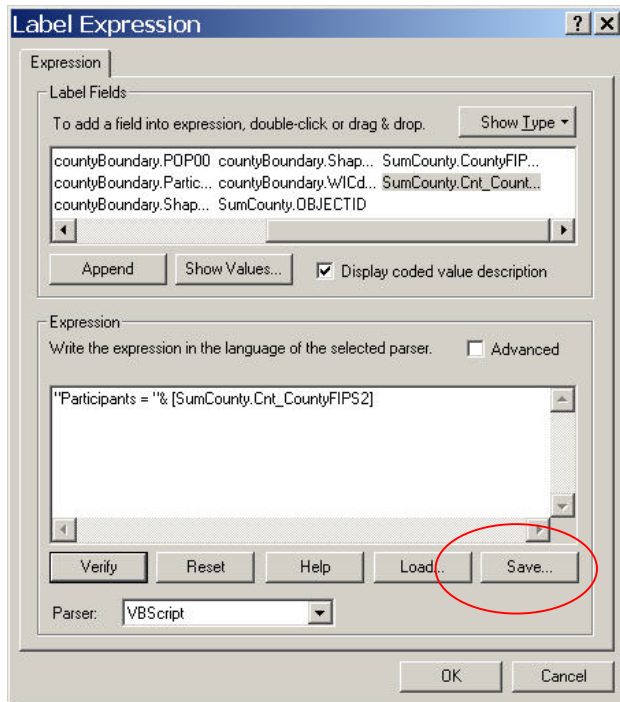
Results: Cole
          Participants = 222

- If you just need multiple fields, add one by clicking, select additional fields and click Append. The &" "& connecting the two fields with a space between.
- Any additional spaces should be included in the text string, or it will all be run together.
- Click Verify to verify the syntax of your expression.

Tip #3 Saving expressions to be used again

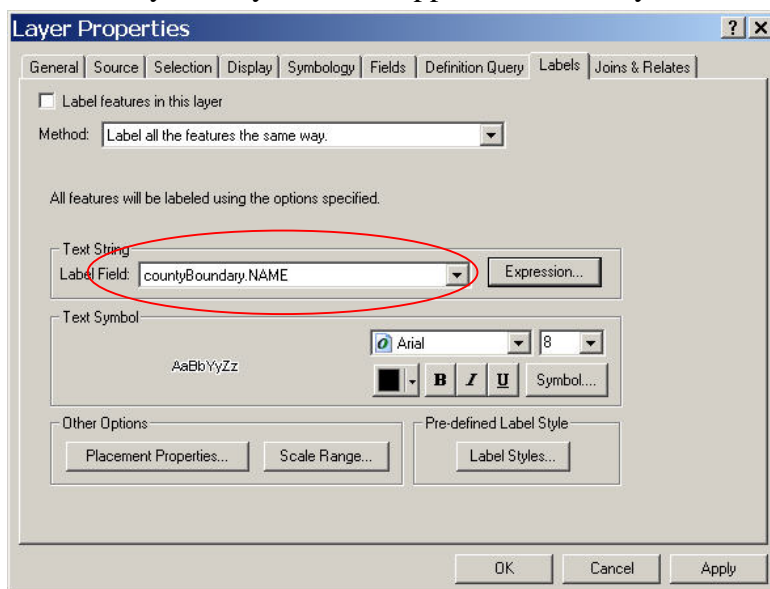You may wish to save the complex expression you built to use again for another project.

Click on the Save button to create a file containing the syntax of your expression. Store your expression in your project folder. The file format is lxp; these files can be opened with Notepad.

The next time you want to use your expression, click on the Load button and browse to the location of your saved expression. Even if the fields have changed slightly, it's handy to have the proper syntax to refer to.

Tip # 4 – labels based on joins
Layers that are joined show both the layer name and the field name in the Label Field. Example: [County.CountyName] as opposed to [CountyName]
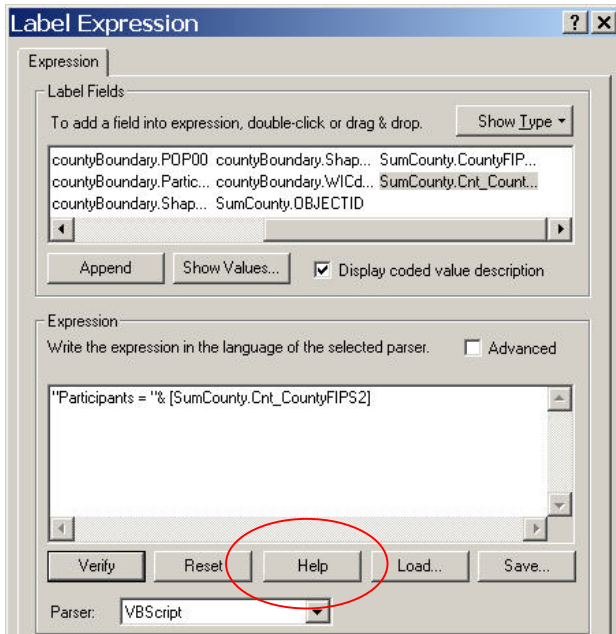

If you remove the join later during the project, your labels may disappear and/or you may get an error message.
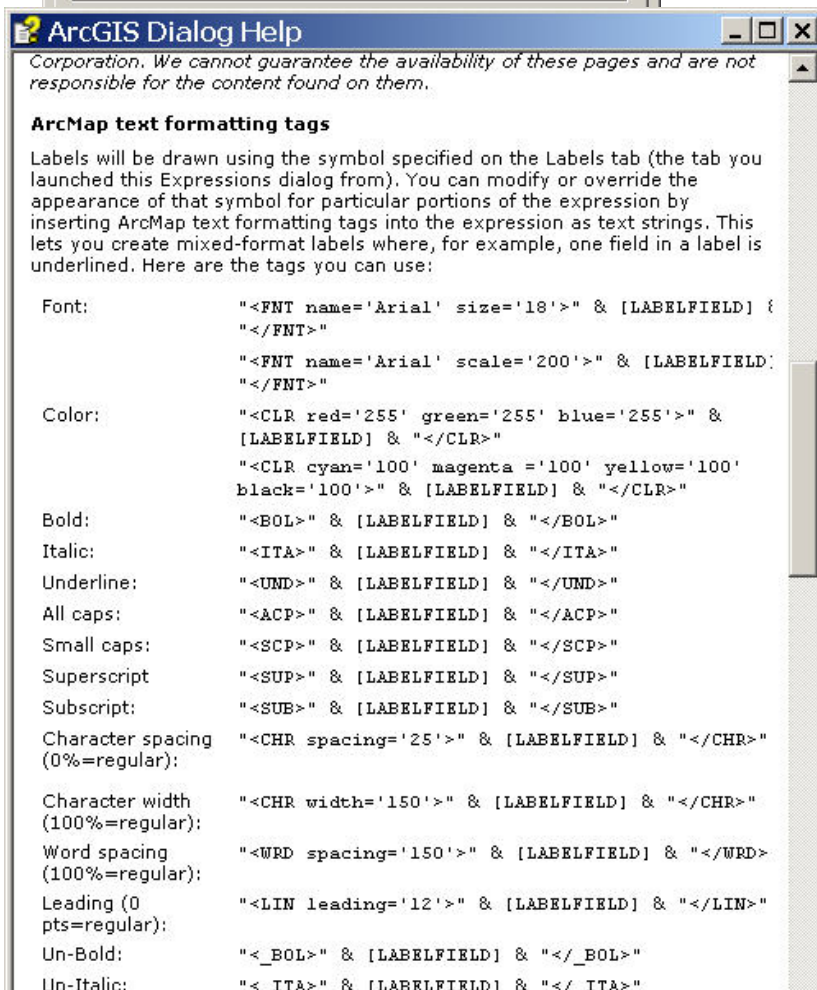
If you can a drawing failure error message, check the fields that were used to generate your labels. The fields you selected may have been from the joined table, which is no longer available.

Tip #5 Changing symbology within a single label expression

Occasionally you may wish to generate a label where part of the expression is shown in bold or with larger text. There are several formatting tags that can be added to your label expression. A complete list of these (and help with expressions in general) is found under Help when you are in the Label Expression dialog.

The format tags are placed on either side of the text or text field you wish to modify. The text tags are bracketed with < > and must also be within quotes " ".

For example
"<BOL>" & [COUNTYNAME] & "</BOL>"
&vbnewline&"Participants = "&[sum_county]

Results:
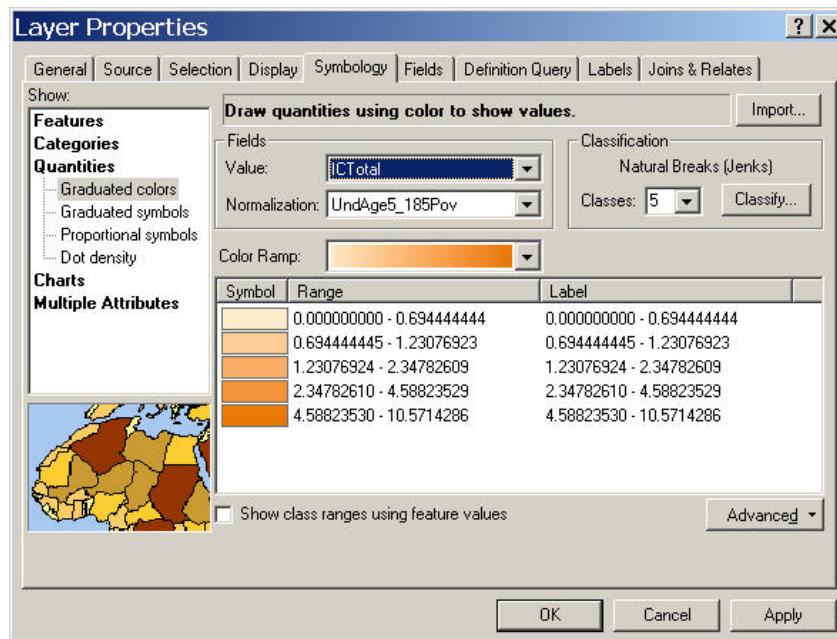**Cole**
Participants = 222

Notice the tag is closed at the end of the expression with the backslash. (</BOL>)

Review the help dialog for additional formatting tags.

Hint: Make sure you are consistent with your case. <BOL> "mytext" </bol> won't work.
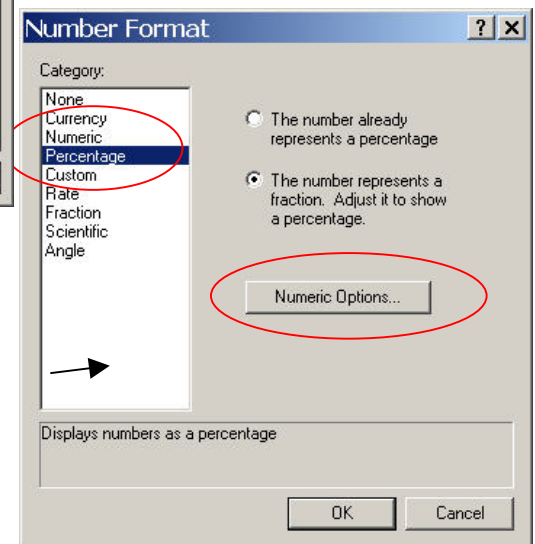
Tip #6 – Mathematical Calculations Within a Label Expression
When using Symbology that is based on quantitative values, sometimes you may have used a value field with a Normalization field. This is most often to return a percent of the total.
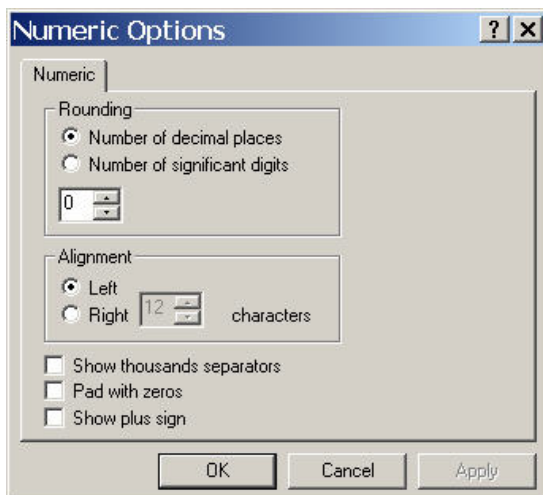

Once the data is normalized, the values in the Label column are displayed as a fraction.

You will need to format the labels to get them to appear as percentages instead.

Switch from Numeric to Percentage and click "The number presents a fraction. Adjust to show a percentage."
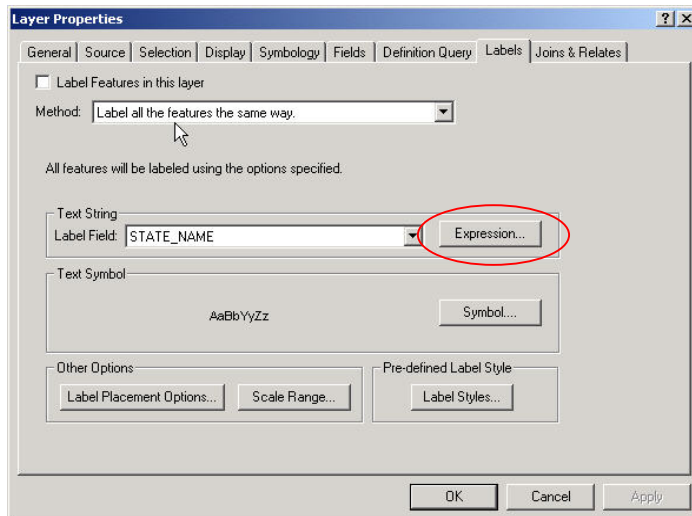
Click Numeric Options to set the number of decimals for your percentage.

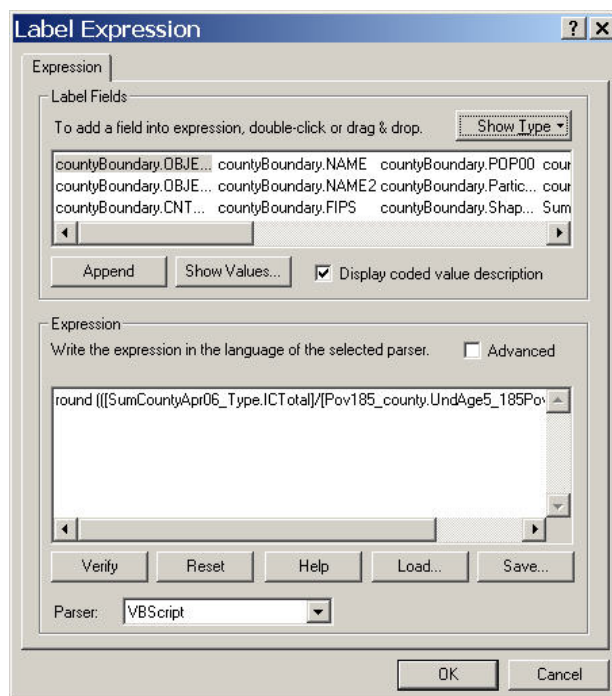Generally your percentage is shown as "0" decimal places.

This example assumes that you do NOT have a field for the percentage. If you have a field that has the percentage calculated, Use the Fields table to display the value as a percentage (see the Number Format example in Tip #1.)

Your map is now symbolized with percentages and your Table of Contents shows percentages instead of fractions. But the labels were not affected by any of this formatting and need to be altered with a label expression. This will allow the specific percentage for each feature to be shown as a label.

Click on the Expression button on the Labels tab to open the Label Expression dialog.

In this example the data is coming from a joined table, so you will see the field name as [layerName.fieldName], rather than simply [fieldName].

Besides formatting tags, mathematical expressions can be performed within your label. You will likely want to use the Round function to change the resultant value to zero decimal places (to match your Table of Contents and legend).

- Field names are shown in [] square brackets.
- The math syntax for divide is slash (/); the syntax for multiplying is asterisk (*).
- Once you divide the two values (same fields as the symbology), multiply by 100 to get a percentage.
- The syntax for the Round function is Round ([field] , <#>) where # represents the number of decimal places you wish to round to.

- You will need parentheses to around the sections to control the order of the processing.
- Append the percentage symbol with &"%"

round ((([SumCountyApr06_Type.ICTotal]/[Pov185_county.UndAge5_185Pov] * 100) , 0) &"%"

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