

## Task : How to calculate Area, Perimeter, and Acreage

Created by: Rosemary Neal, DPR

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There are several approaches to this task. Before you begin, make sure that your View Units have been set correctly. To do this go to the View menu choice View/Properties, and set the map units.

To calculate the area and perimeter values, you can

**Either** - Run ESRI's sample script, *calcapl.ave*, which is located in the `../arcview/samples/scripts` folder. The script must be attached to a button in the View GUI. If the View has been projected the calculations are in projected units. Otherwise the calculations are in 'native' map units.

**Or** -

1. Open the Attribute table of the polygon shapefile for which you want to calculate area and perimeter.
2. Start editing the table by selecting the Table/Start Editing menu choice.
3. Add a new field by selecting the Edit/Add Field menu choice.
4. Create a new field (Area, Perimeter) and define it as a Number with the appropriate width and number of decimal places. Click OK.
5. Make sure that the field you want to populate is highlighted (e.g. Area).
6. Select either the Field/Calculate menu choice or the Calculator button.
7. Place your cursor in the input box at the bottom of the Field Calculator dialog box.
8. Double click on the [Shape] field in the upper left hand box. [Shape] should appear in the lower box.
9. After the word [Shape], type `.Return Area` so that the final statement reads `[Shape].ReturnArea`
10. Click OK and the new field should be populated with the area of each shape.
11. For Perimeter repeat Steps 4 – 10, using the field heading Perimeter, and the statement `[Shape].ReturnLength`.
12. Stop editing the table by selecting the Table/Stop Editing menu choice and save the edits.

To calculate acreage values, you can

**Either** - Run ESRI's sample script, *calcacre.ave*, which is located in the `../arcview/samples/scripts` folder. The script must be attached to a button in the View GUI. The script will add the fields Area, Acres and Perimeter to polygon themes if they do not exist. If the View has been projected the Area and Perimeter calculations are in projected units. Otherwise the calculations are in 'native' map units. If the fields exist, their values are recalculated. Rerun the script if you change the projection of the view.

The factor of 0.0002471 for calculating acreage is used by default (convert sq meters to acres). If you are using Feet, the factor must be modified to 0.000022956 (convert sq ft to acres) by editing the script.

***Or -***

1. Open the Attribute table of the polygon shapefile for which you want to calculate acreage. Make sure the Area field is present and populated.
2. Start editing the table by selecting the Table/Start Editing menu choice.
3. Add a new field by selecting the Edit/Add Field menu choice.
4. Create a new field called Acres and define it as a Number with the appropriate width and number of decimal places. Click OK.
5. Make sure that the Acres field is highlighted.
6. Select either the Field/Calculate menu choice or the Calculator button.
7. Place your cursor in the input box at the bottom of the Field Calculator dialog box.
8. Double click on the [Area] field in the upper left hand box. [Area] should appear in the lower box.
9. After the word [Area], type \* 0.000022956 so that the final statement reads [Area] \* 0.000022956
10. Click OK and the new field should be populated with the acreage of each shape.
11. Stop editing the table by selecting the Table/Stop Editing menu choice and save the edits.

***Finally*** - A modified version of ESRI's *calcacre.ave* script has been posted on DPR's website as an extension called Calculate Acreage Extension.