Calculating the Area of Polygon Shapefiles

If you’ve worked with shapefiles, you know that they do not automatically calculate the area of polygon features, like feature classes do. This article will teach how you to populate this column in your shapefile’s attribute table, but keep in mind that you will need to do this each time you change the geometry of one of the features, because they will not automatically re-calculate. Skip ahead to page 3 if you would like to see how to do this in ArcGIS 9.2

Calculating the Area in ArcGIS 9.1

It takes a little bit of work and a little bit of VBA to do this in ArcGIS 9.1.

1. Add a column to the attribute table to hold the area information. It is a good idea to name it something descriptive, such as Area_Sq_Km, so that you can remember the units of measurement later on.
2. Right-click the new column name and choose to **Calculate Values**. Check the box for **Advanced**.

3. Enter the following code into the first box:

   ```vba
   Dim dblArea as double
   Dim pArea as IArea
   Set pArea = [shape]
   dblArea = pArea.area
   ```

4. Enter the following code into the second box: `dblArea`.

5. Click OK and the column will populate. Please note that it will calculate the area based on the unit of measurement in the shapefiles’ coordinate system.
Calculating the Area in ArcGIS 9.2

At ArcGIS 9.2 it has become easier to calculate the area of polygons in shapefiles.

1. Add a column to the attribute table to hold the area information. It is a good idea to name it something descriptive, such as `Area_Sq_Mi`, so that you can remember the units of measurement later on.
2. Right-click the new column name and choose **Calculate Geometry**.
3. Fill in the form as needed, and click **OK**.

![Calculate Geometry Form](image-url)