

CALCULATING GEOMETRY (AREA, PERIMETER, LENGTH, CENTROIDS) IN ARCMAP

This help guide describes how to use the geometry calculator in ArcMap to calculate the area of a polygon. The procedures can also be used to calculate other geometries such length of a line, polygon centroid coordinates and x and y coordinates of a line start or end.

Calculating area per square km - polygons:

Calculating area of polygons can be done using the Field Calculator.

1. In ArcMap, open the attribute table of the *projected* shapefile: Right-click on the layer > **Open Attribute Table**.
2. Click the **Table Options** down arrow and choose **Add Field**
3. In the **Add Field** dialog add a name and choose the data type, precision and scale:
 - o **Name:** AreaSqKm
 - o **Type:** Double
 - o Define the **Precision** (field length) and **scale** (decimal places)
 - Precision: 10
 - Scale: 6
4. Click OK.
5. Click on this new column header — **AreaSqKm** — to make it the active field.
6. Right-click on the header and choose **Calculate Geometry**. If a message appears click **Yes** to continue.
7. In the **Calculate Geometry** box check the appropriate **Co-ordinate System Box** and choose the **Units** drop down box - Square Kilometers.
8. Click **OK**.

The area by square kilometre has been calculated for each of the polygons in the layer.