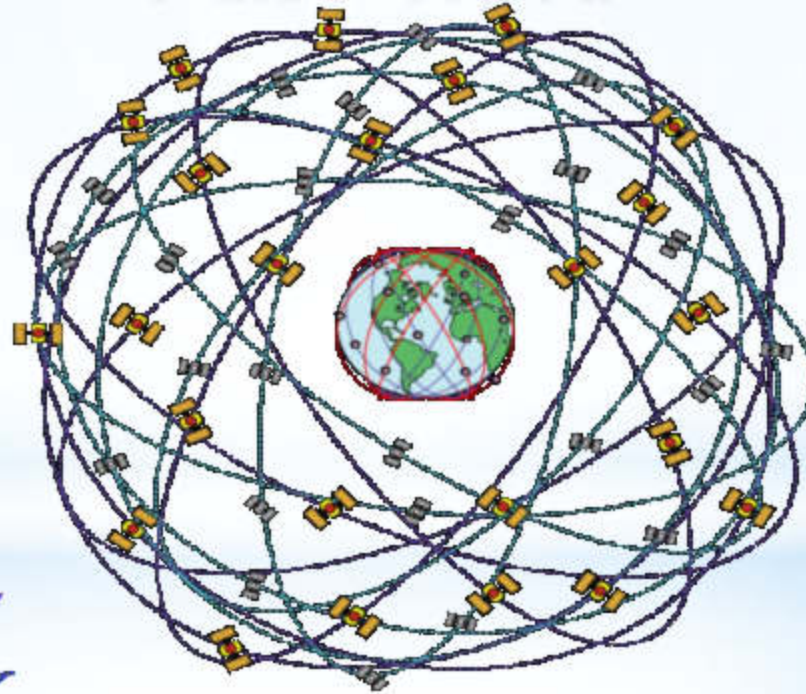




*Compiled and Circulated by Prof. (Dr.) Sukamal Maity, W.B. Govt. Approved P.T.I,  
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# AREA AND LENGTH CALCULATIONS FROM GNSS DATA



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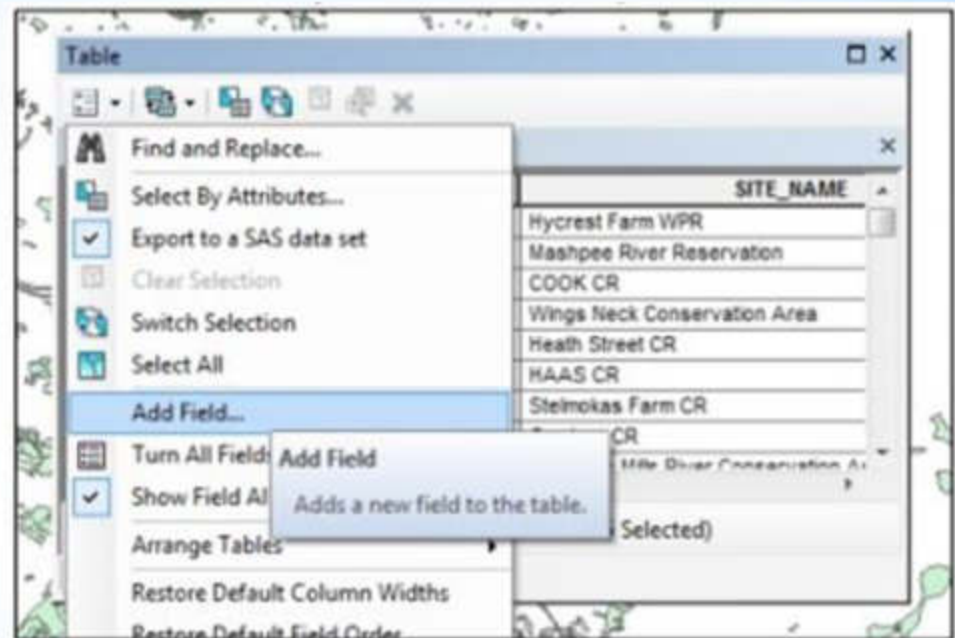




## Calculated a new attribute field to the area and length by GNSS Data

Typically you want to calculate area or perimeter or length for features that don't already have an area field in the attribute table. Therefore, you must first add a blank new attribute field to hold the area value.

- **Step - 1:** Right click and open the attribute table for the feature class of which you would like to calculate geometry.
- **Step - 2:** Click on the Table Options icon in the top left corner of the table and choose add Field.





- **Step-3:** Name the new field e.g. areas or Sq. Km. and make it Double type, because this is a numeric field with decimal places and leave the accuracy and scale set to 0 and click OK.
- **Step-4:** Now, a new field as been added to the end of the attribute table.

**Add Field**

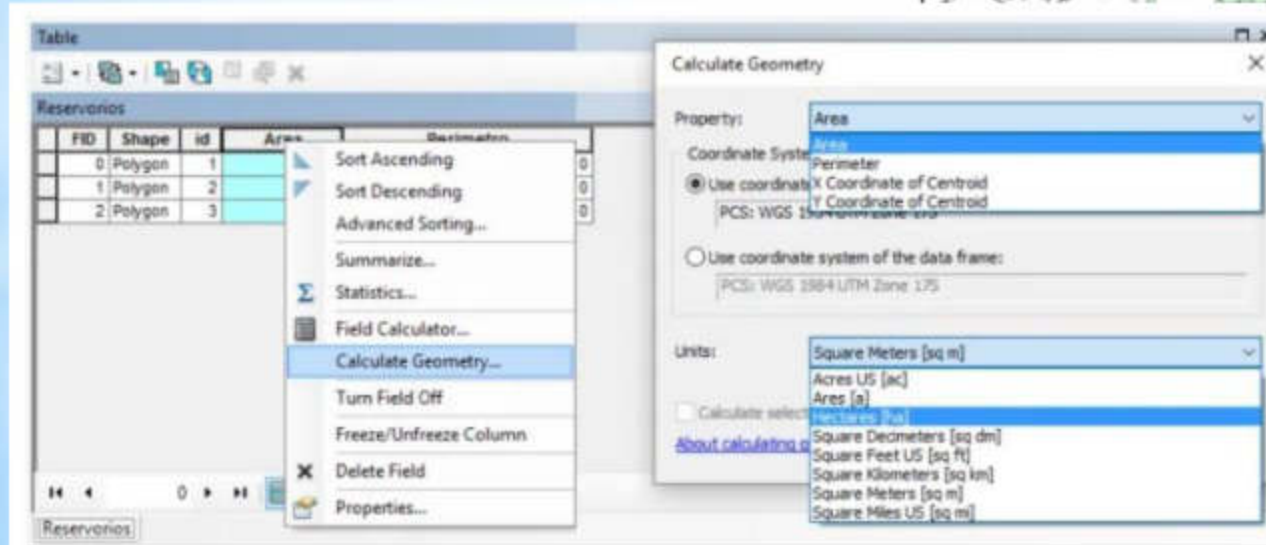
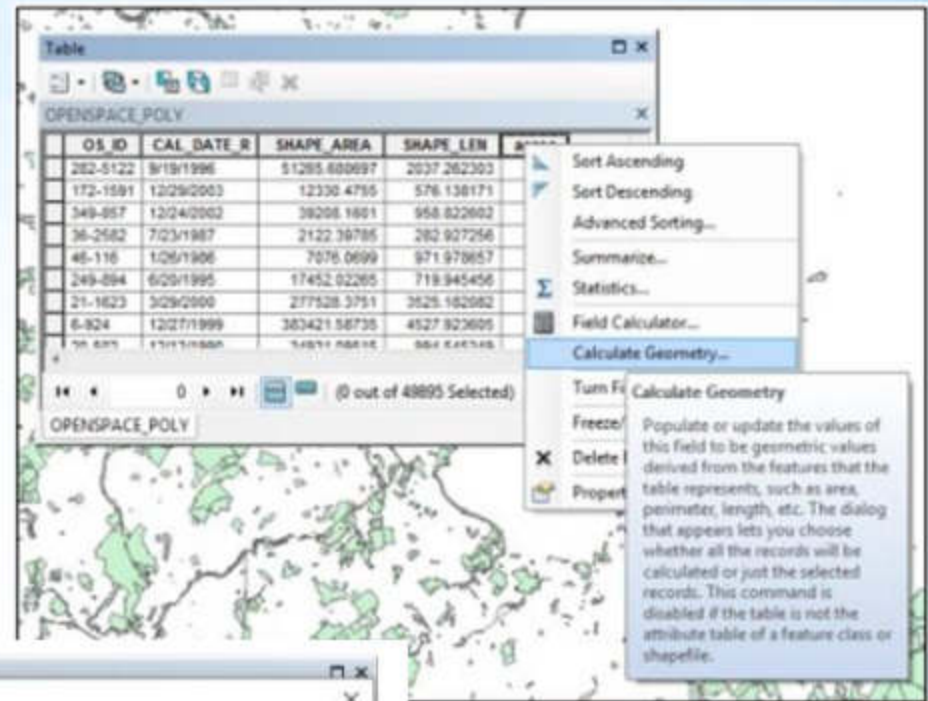
Name:

Type:

Field Properties

Precision	0
Scale	0

- **Step-5:** Open the layer's attribute table, right click on the make of the new attribute field that will hold the area calculation e.g. area and choose calculate Geometry
- **Step-6:** Ignore the warning message and Click/Press OK.

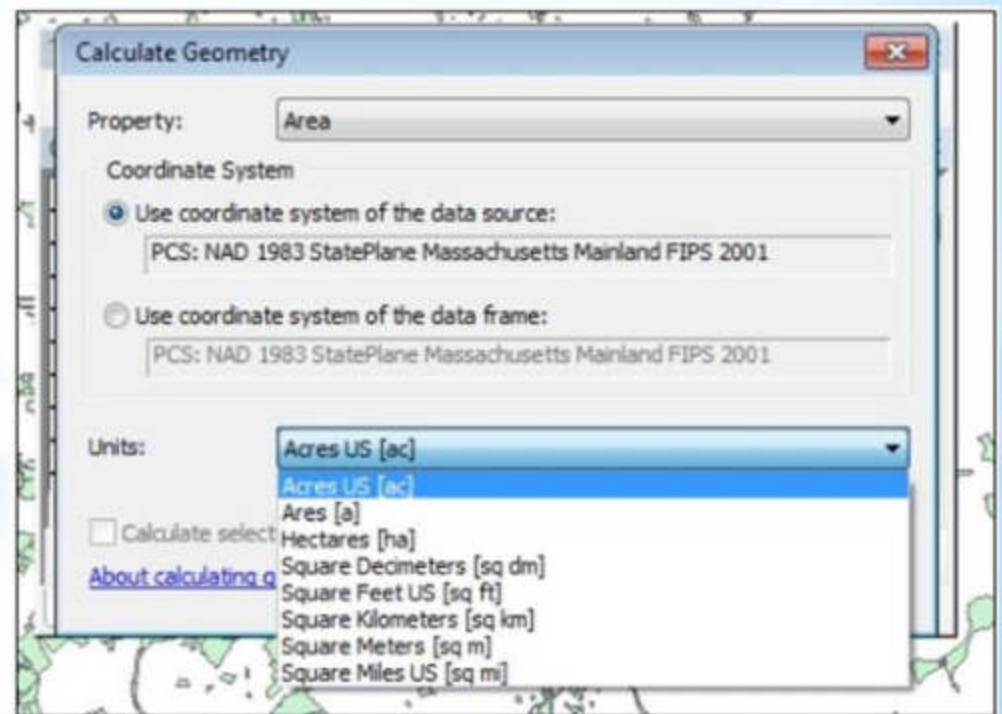




- **Step-7:** Choose the property you want to calculate e.g., Area, the coordinate system, and the units e.g., acres, and Click / press OK

Important Note: If you see that the fields are disabled e.g. Area disabled - that means you are trying to calculate area for an unprotected data set. Firstly, set the Data Frame's coordinate system to a projected coordinate system, then go through these steps again.

- **Step-8:** Follow the same starting from adding a field to calculate other geometries that is length, perimeter, X position, Y position if necessary.
- **Step-9:** The column will automatically populate with the area.





**Important Note:** If you have anything selected, the rows will only populate for the selected features. If this happens, unselect all features and calculate geometry again. It will overwrite previous values.

calculate the length of a GPS track in ArcGIS 10.9 What I've done so far is:

- Converted track using the "Points to Line" tool
- Opened attribute table
- Made new "Length" column
- Opened "Field Calculator"
- Entered in Python mode, "!Shape!. get Length ("GEODESIC", "METERS")"



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**THANK YOU FOR YOUR  
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