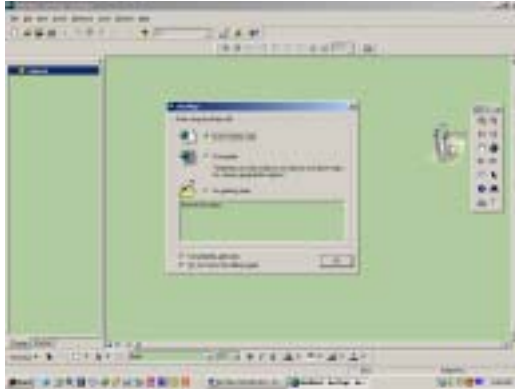


# ArcView 8.1 GIS Exercise 25 – Adding X-Y (GPS) Data to ArcMap and Interpolating Between the X-Y Points


## Initial Steps to create a project:

1. Start ArcView 8.1. An “ArcMap” window will open. Choose “A new empty map”. Check “OK”.




- a.
2. Set the Data Frame properties as follows:
    - a. Right-click on the in the data frame to open the Data Frame Properties window.
    - b. Click the “General” tab and set the Map Units and Display Units to “Meters”.
    - c. In the “Select a Coordinate System” window choose:
      - i. Predefined
      - ii. Project Coordinate System
      - iii. UTM
      - iv. NAD 1983
      - v. Zone 14N
    - d. Click “OK”.

## Adding the X, Y data.

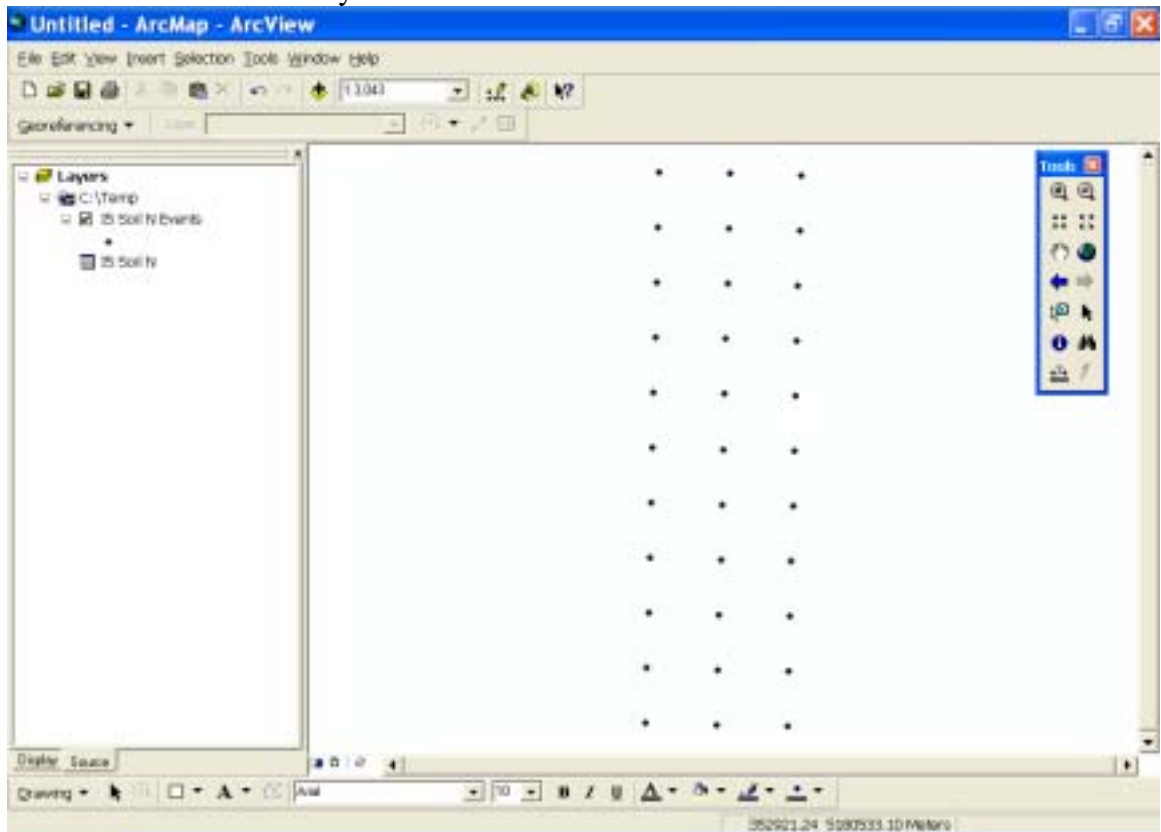
1. Note: The table needs to be in .dbf or .txt format before adding to ArcMap.
2. Click the “Add Data”  button to add the desired (“I - 5” and “I - 4”) tables to the Data Frame. The tables will be displayed in the Table of Contents area but nothing will be displayed in the Data View.

## Displaying the X, Y Data as an Event Layer.

3. From the “Tools” pulldown menu, choose  Add XY Data.... An “Add XY Data” window will be displayed.

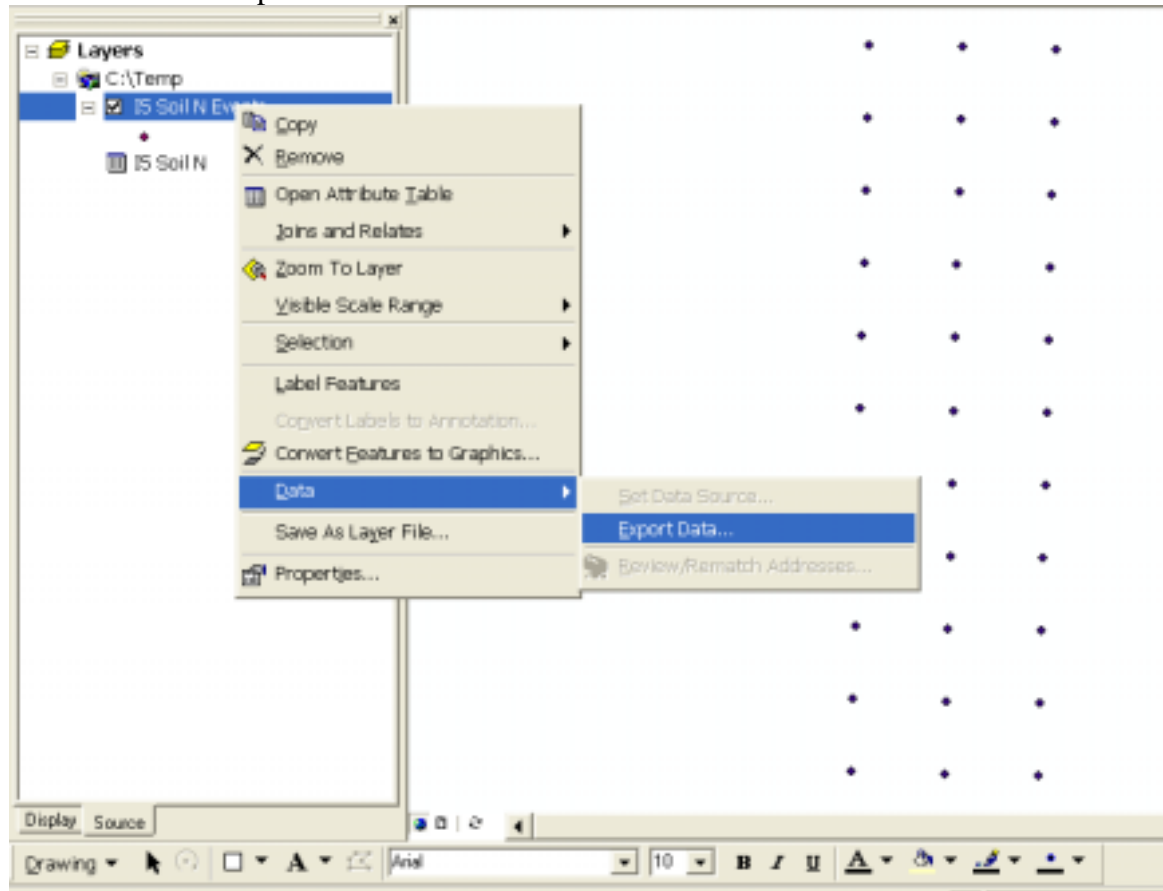


4. Do not choose a coordinate system.
5. Click “OK” in the Add XY Data window to dismiss the window and display the GPS data as an “Event Layer”.

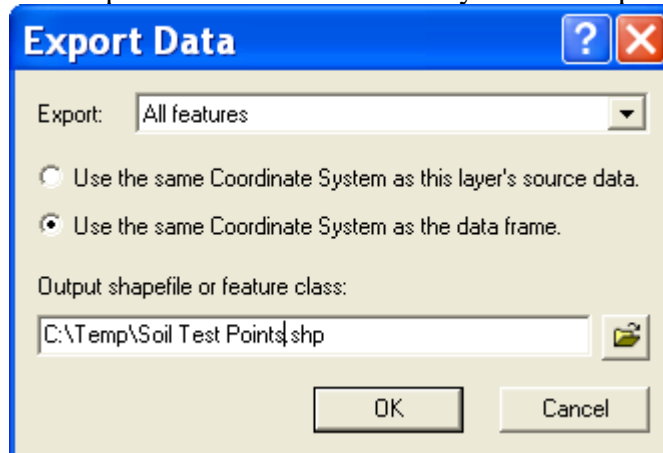


## Exporting the Event Layer as a Shapefile

6. Right-click on the Event Layer name in the table of contents and choose “Data” and then select “Export Data”.



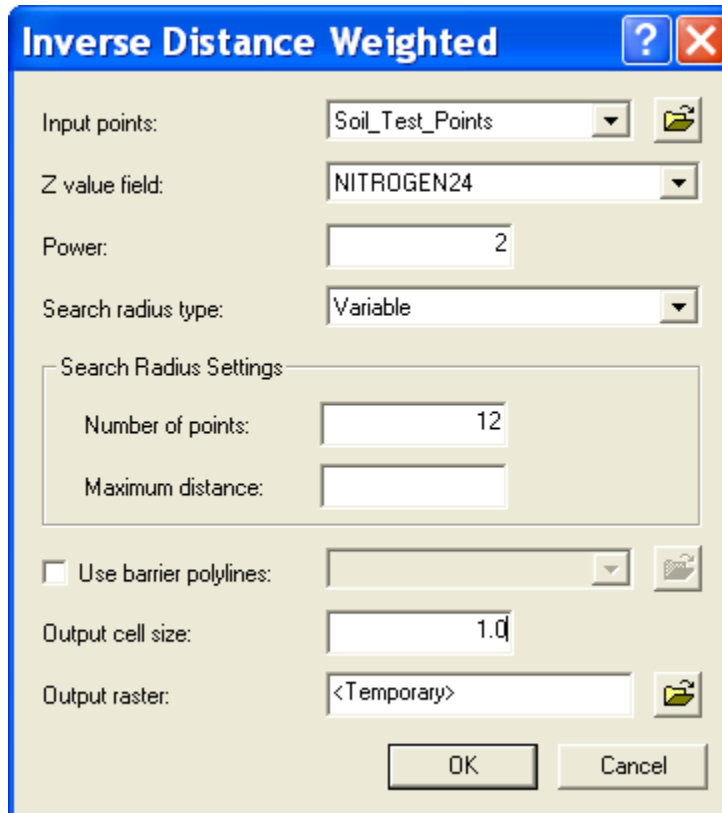
7. In the “Export Data” window:
  - a. Choose “Use the same coordinate system as this layers source data”.
  - b. Name the new shapefile and choose a directory for the shapefile.



- c. Click OK.
8. Add the new shapefile as a layer to the map.

## Interpolating Between Points

9. From the View pulldown menu choose “Toolbars”, and then select “Spatial Analyst”.
10. In the Spatial Analyst window choose “Interpolate to Raster” and then select “Inverse Distance Weighted”.
11. In the Inverse Distance Weighted window”
  - a. Select the desired layer.
  - b. Choose a desired Z Value Field (Nitrogen 24).
  - c. Leave all values at default except Output Cell Size. Set cell size to 1.0 meter.



12. Click “OK” to interpolate and add the contour map to the view.

