

# BROCK UNIVERSITY MAP LIBRARY


## Creating Points from X,Y Data in ArcMap

This procedure outlines the steps necessary to create points from a simple text file containing latitude and longitude coordinates. ArcMap 9.x or higher will accept text (.txt), comma separated (.csv), dbase (.dbf) Microsoft Access database (.mdb) and Excel (.xls or .xlsx) file formats.

The original data in this example is a DBF file with latitude and longitude coordinates in decimal degrees.



OID	X	Y
0	-79.235444	43.207055
1	-79.261247	43.191196
2	-79.205194	43.149254
3	-79.207431	43.147622

1. Run ArcMap and create a new document.
2. Click the Add Data button  and add the text file.
3. In the *Table of Contents* on the left of the ArcMap window, right-click on the table and select "Open" to view the DBF data.

### To create points:

4. Add a street network layer for reference purposes.
5. Right-click on the DBF table listed in the *Table of Contents* and select **Display XY data**.
6. In the dialogue box, specify the fields with X and Y coordinates.

**\*\*TIP: See the following table for a summary of X, Y formats.\*\***

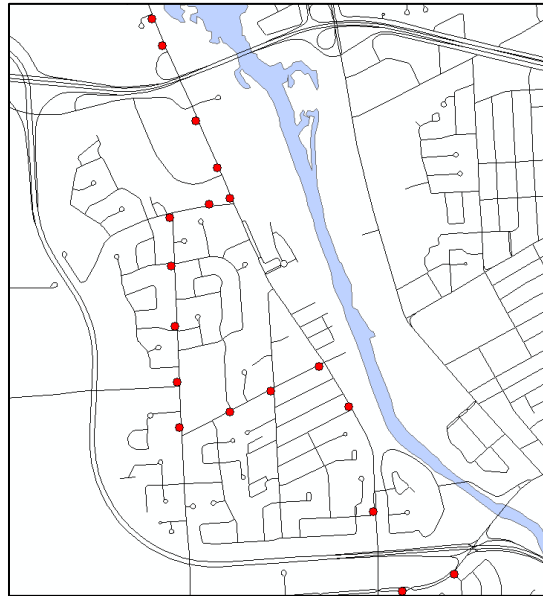
Latitude	43 degrees	UTM-Y	4,763,000 metres N
Longitude	-79 degrees	UTM-X	623,000 metres E

7. Under Spatial Reference, click the Edit button to define the Geographic coordinate system.
8. From the Spatial Reference Properties dialogue box, click the "Select" button and then click each *folder* in the following path, until you get to the projection file "North American Datum 1983.prj".

### Geographic Coordinate Systems > North America > North American Datum 1983.prj

9. Click Add.
10. Click OK to the Spatial Reference Properties dialogue box.
11. The "Display XY Data" dialogue box is now complete. Click OK.

The XY data is displayed in the map window.



12. This point data file is called an "event" file. To make a permanent shape file, right-click on the point data layer and choose **Data > Export Data**. Follow the steps to create a shapefile.
13. When prompted to add the exported data to the map as a layer, click Yes. The point file is now a permanent shape file.