


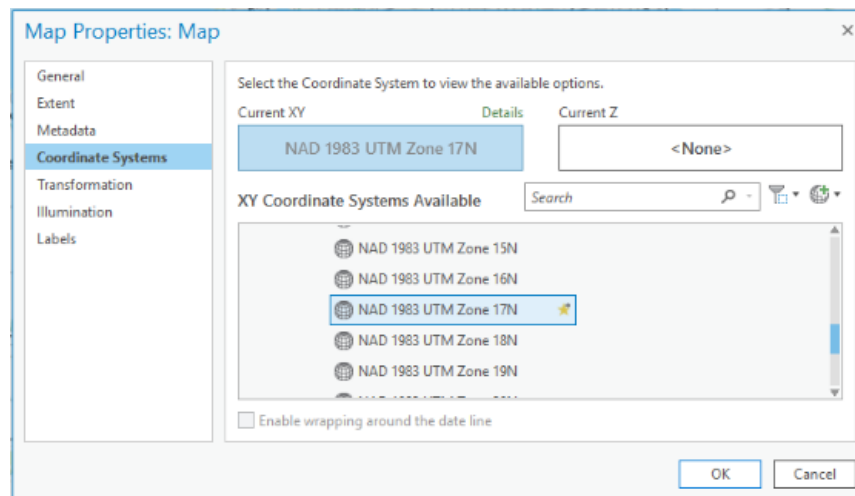
Adding X, Y Coordinates to a Table

This procedure outlines the steps to add X,Y coordinates to a table for a point data file in ArcGIS Pro.

Sample data can be downloaded from: www.brocku.ca/maplibrary/Instruction/Adding_xy_to_table.zip

Prepping the shapefile and Data Frame properties

1. Run ArcGIS Pro and create a new project.
2. Add a basemap by clicking **New Map** under the Insert tab.
3. Click the **Add Data** button and add the point file data. 
4. Double-click the data frame to access the **properties**.
5. The current coordinate system is “GCS_North_American_1983”. To select a projected coordinate system for the data frame, click the Coordinate Systems tab, then select Projected coordinate system > UTM > NAD 1983 > **NAD 1983 UTM Zone 17N**.
6. Click **OK** to return to the map window.



7. Right click the point layer and select **Open Attribute Table**.

Notice: the existing columns include latitude and longitude but not UTM eastings and northings.

- a. Next to Field: select **Add**. A new tab will open called “Fields: Adding_xy_to_table”.
- b. In the Field Name column, name the new field “**UTM_X**” for the easting values.
- c. In the Data Type column, double-click the cell and select **Long**.
- d. In the Precision column, double-click the cell and enter **10**.

Adding_xy_to_table												
Fields: Adding_xy_to_table												
Current Layer: Adding_xy_to_table												
	Visible	Read Only	Field Name	Alias	Data Type	Allow NULL	Highlight	Number Format	Default	Precision	Scale	Length
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	X	X	Double	<input type="checkbox"/>	<input type="checkbox"/>	Numeric		15	6	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y	Y	Double	<input type="checkbox"/>	<input type="checkbox"/>	Numeric		15	6	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Field	Field	Long	<input type="checkbox"/>	<input type="checkbox"/>	Numeric		10	0	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	UTM_X		Long	<input type="checkbox"/>	<input type="checkbox"/>			10		

- At the bottom of the screen, click where it says “**Click here to add a new field**”. Repeat steps 7a → 7d to add a field for the UTM Y coordinate for the northing values.



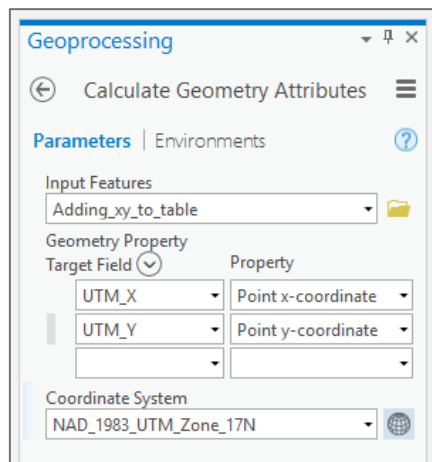
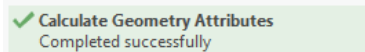
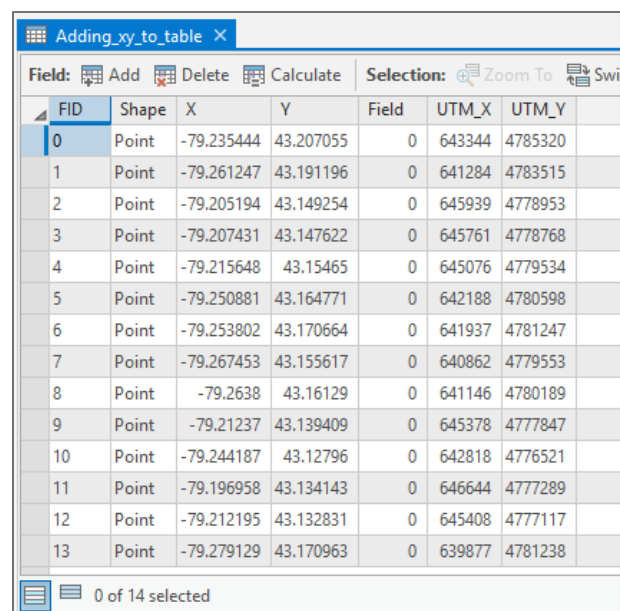
- Under the Fields tab at the top of the screen, click **Save** to keep your new fields. You can now close the “Fields: Adding_xy_to_table” tab.

NOTE: To understand how latitude and longitude coordinates relate, study the following chart as a general rule for a region in southern Ontario.

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

Updating the column with UTM coordinates

- Right-click the UTM_X column heading and select “**Calculate Geometry...**”.
- Under Input Features select “adding_xy_to_table”. The Calculate Geometry Attributes wizard appears.
- Under Target Field select **UTM_X** and under Property select **Point x-coordinate**. Do the same for **UTM_Y** just below, selecting **Point y-coordinate** instead.
- Click the globe icon next to the Coordinate System dropdown menu and double-click Projected coordinate system → UTM → NAD 1983 → **NAD 1983 UTM Zone 17N**. Click **OK**.
- Click **Run**.
- The success notification will appear.

FID	Shape	X	Y	Field	UTM_X	UTM_Y
0	Point	-79.235444	43.207055	0	643344	4785320
1	Point	-79.261247	43.191196	0	641284	4783515
2	Point	-79.205194	43.149254	0	645939	4778953
3	Point	-79.207431	43.147622	0	645761	4778768
4	Point	-79.215648	43.15465	0	645076	4779534
5	Point	-79.250881	43.164771	0	642188	4780598
6	Point	-79.253802	43.170664	0	641937	4781247
7	Point	-79.267453	43.155617	0	640862	4779553
8	Point	-79.2638	43.16129	0	641146	4780189
9	Point	-79.21237	43.139409	0	645378	4777847
10	Point	-79.244187	43.12796	0	642818	4776521
11	Point	-79.196958	43.134143	0	646644	4777289
12	Point	-79.212195	43.132831	0	645408	4777117
13	Point	-79.279129	43.170963	0	639877	4781238