

## Using X-Y Data to Create New Feature Class or Shapefile

In addition to data sources such as a shapefile, you can also add tabular data that contains geographic locations in the form of x,y coordinates to your map. You can easily collect x,y coordinate data using a global positioning system (GPS) device.

In order to add a table of x,y coordinates to your map, the table must contain two fields: one for the x-coordinate and one for the y-coordinate. The values in the fields your coordinates need to be in the projected units or decimal degrees.

The fields must be numeric otherwise they will not be listed here. For example, if the coordinate value is stored in degrees, minutes, and seconds in a field (for example, -120 13 58), the field will not be listed here. You'll need to convert the values to decimal degrees and store them in a numeric field.

Once you have added the data to your map, the layer behaves like other point feature layers. For instance, you can decide whether or not you want to display it, symbolize it, set the visible scale, or display a subset of features that meet some criteria.

The table on which this layer is defined may introduce some limitations. For example, if the table does not have an ObjectID (such as delimited text files or tables from OLE DB connections), you will not be able to make selections. If the table is editable, you will be able to edit the layer. However, you won't be able to interactively move a point on the map; you must change the coordinates in the table. You may also export the table out as a shapefile or feature class to overcome these limitations.

### How to add a table with x,y coordinates to a map

1. Click the Tools menu and click Add XY Data.
2. Click the table dropdown arrow and click a table that contains x,y coordinate data. If the table is not on the map, click the Browse button to access it from disk.
3. Click the X Field dropdown arrow and click the field containing x-coordinate values.
4. Click the Y Field dropdown arrow and click the field containing y-coordinate values.
5. Click Edit to define the coordinate system and units represented in the x and y fields. The x,y coordinates will be automatically transformed to match the coordinate system of the data frame.
6. Click OK.