



Working with Map Projections

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Second edition

Demo Theater

My data doesn't line up!

Data doesn't have a projection defined.

- **How do I identify the projection?**

Data has a projection defined, but the data draws in the wrong place.

The XY data brought into ArcMap does not show up where it is supposed to.

What projection should I use for my project?

When adding XY data from a table to ArcMap

Things to watch out for:

- **The data must be in the proper format:**
 - XLS, XLSX, PRN, CSV, DBF, TXT formats can all be used .
- **The field names must not be over 10 characters long, cannot contain spaces, cannot contain special characters, and field names cannot begin with a number.**
- **Fields containing coordinates must be formatted as Double. Fields formatted as General will drop decimals when brought into ArcMap.**
- **For coordinates in decimal degrees, set the field properties to a minimum of 6 decimal places.**

How to add the XY data table to ArcMap:

- Click on the Add Data button, navigate to the file, and add to the map.
- Right click on the name of the table, and Open.
- Examine the coordinates, and note the fields names that contain the X (Longitude) and Y (Latitude) values.
- Right click on the name of the table, and select Display XY Data.
- ***WARNING: If the ArcMap Data Frame has a projection assigned, that will need to be corrected in the Add XY Data dialog!***

What projection should I use for my project?

There are four major considerations:

1] **Objective – what do you need to preserve?**

- **Distance**
- **Area**
- **Shape**
- **Direction**

2] **How much area does the data cover?**

A city, a province, a small country, a continent, the whole earth?

3] **Where is the data located on the earth's surface?**

Is it polar, at the Equator, at the midlatitudes?

4] **What is the shape of the data?**

Is it larger north to south, or is the larger extent east to west?

Knowledge Base article 24646 is linked to a list of supported map projections that includes properties of each map projection, and normal applications for each projection.



QUESTIONS

Thank you...

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