

Projecting Coordinate systems Greg Dreaper

ArcTool box has a tool that will define and or reproject coordinate systems for shapefiles, coverages, and geodatabase. Define Projection Wizard define coordinate systems for these data types and the Projection Wizard allow for reprojecting these data types. This example defines a shapefile in Alabama State Plane West, NAD 83 feet and will project that shapefile to a Geographic coordinate system.

Defining a shapefile's coordinate system

1. Open ArcTool box, Expand the DATA MANAGEMENT tab, and select the DEFINE PROJECTION WIZARD (SHAPEFILES, GEODATABASES).
2. From the Define Projection Wizard dialog box, browse to the desired shapefile, click OK, and Click NEXT.

(Note: there are 3 thing that can be done to define the projection of a shapefile or Geodatabase, either select an existing Coordinate System, Import a Coordinate System from an existing shapefile, or build a custom Coordinate System.)

3. Hit SELECT COORDINATE SYSTEM, click SELECT, double click PROJECTED COORDINATE SYSTEM, double click STATE PLANE, double click NAD 83 (feet), double click Alabama State Plane West, and hit OK. Hit NEXT.
4. Review the summary of your shapefile, and hit FINISH.

Projecting a shapefile's coordinate system

1. Open ArcTool box, Expand the DATA MANAGEMENT tab, and select the PROJECT WIZARD (SHAPEFILES, GEODATABASES).
2. From the Project Wizard dialog box, browse to the desired shapefile, click OK, and Click NEXT.
3. Type the name and location of the shapefile. Hit OK and NEXT.
4. Hit SELECT COORDINATE SYSTEM, click SELECT, double click GEOGRAPHIC COORDINATE SYSTEM, double click GEOGRAPHIC, double click WGS 1984, hit OK, AND Hit NEXT.
5. From the Select Geographic Transformation, highlight the shapefile and click SET TRANSFORMATION. Review the Converting to and from coordinate systems to ensure they are correct and Hit OK and click Next. (Note: The default Transformation is usually the best. However, if this does not work you have a choice of algorithms to choose from.

6. From the Coordinate extents of the output data set dialog box, review the coordinate extents and click NEXT.
7. From the summary box, review the to and from coordinates to ensure they are correct, and hit FINISH.