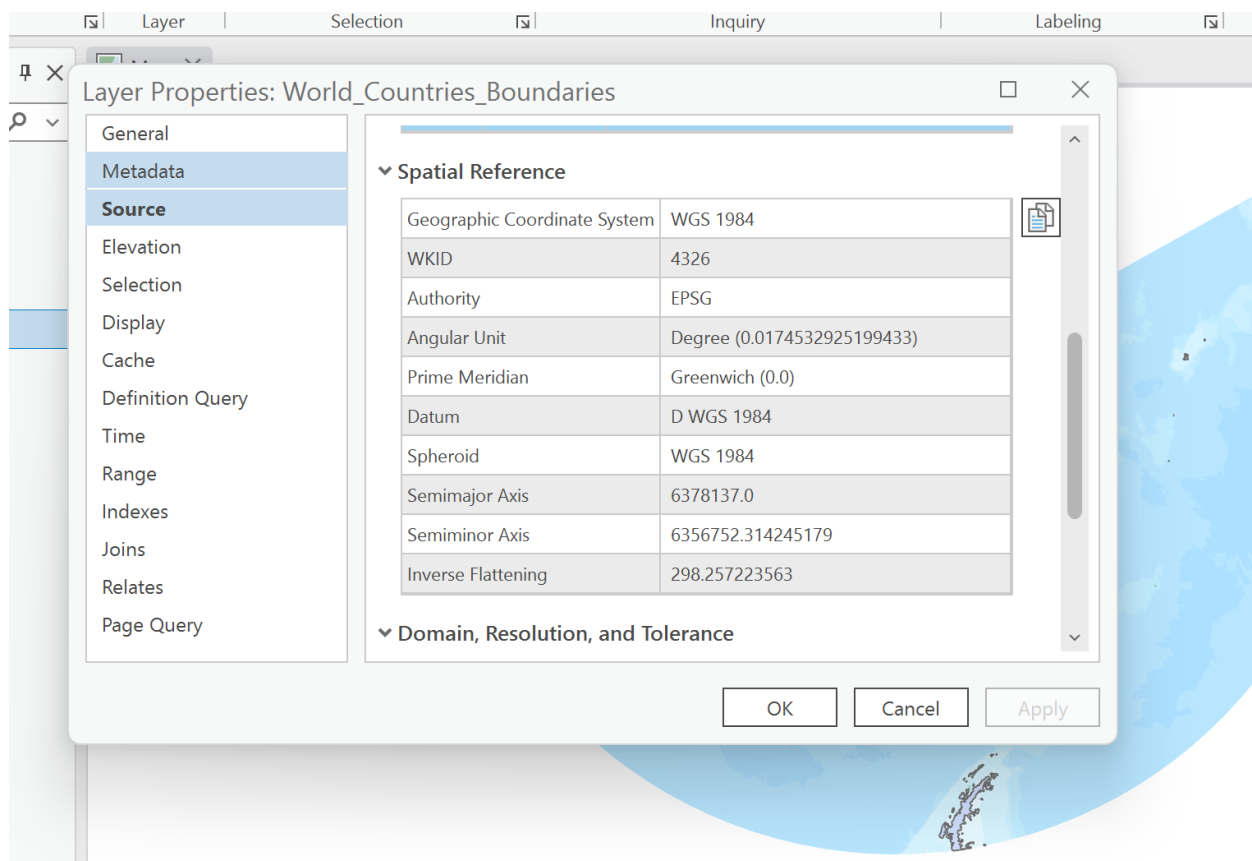
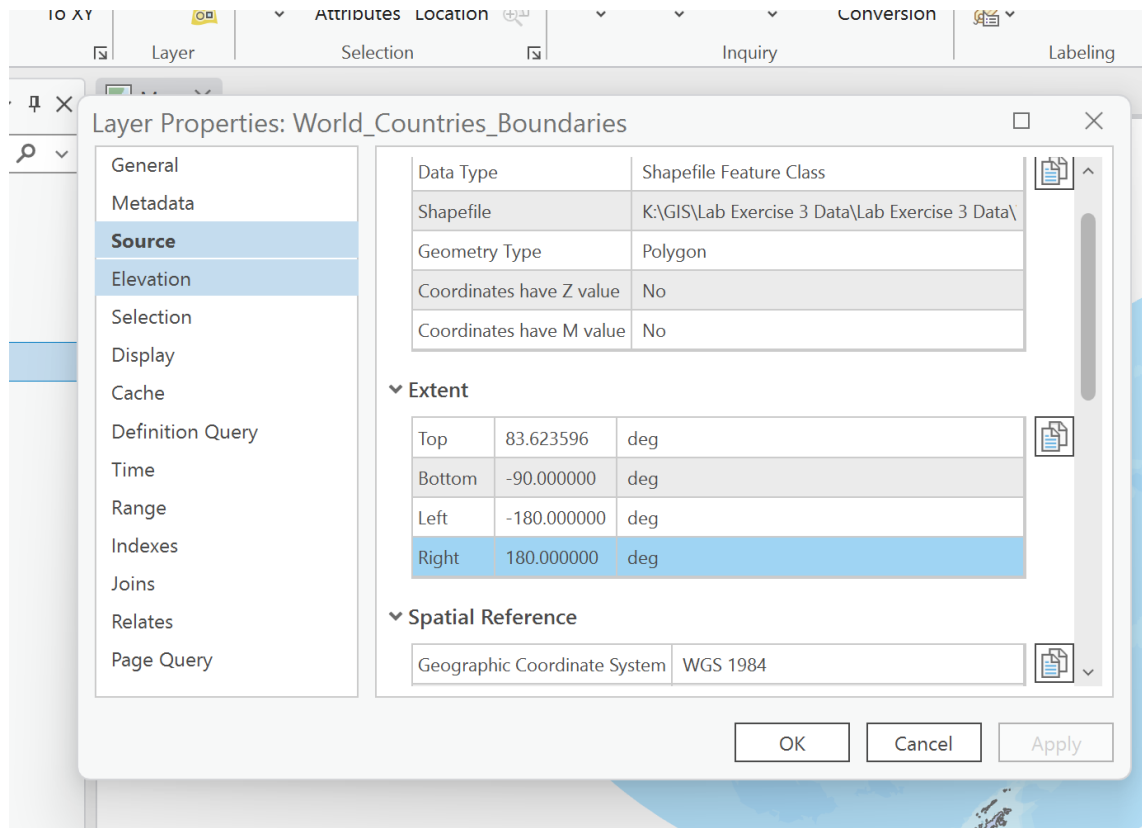
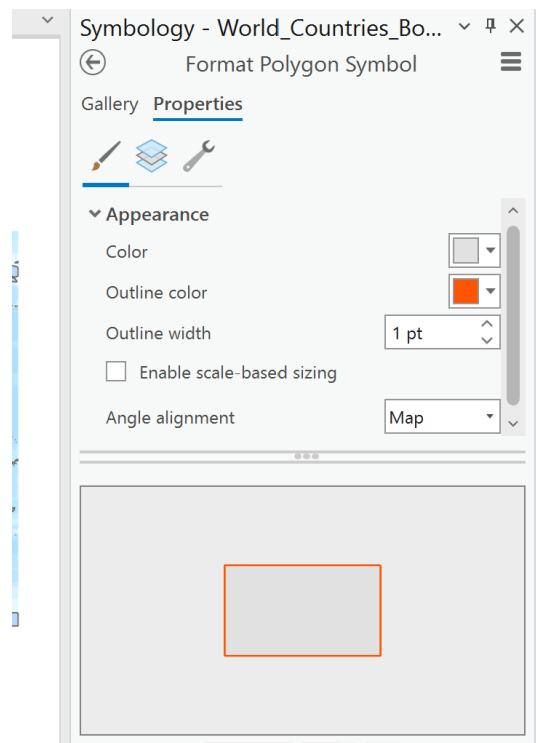
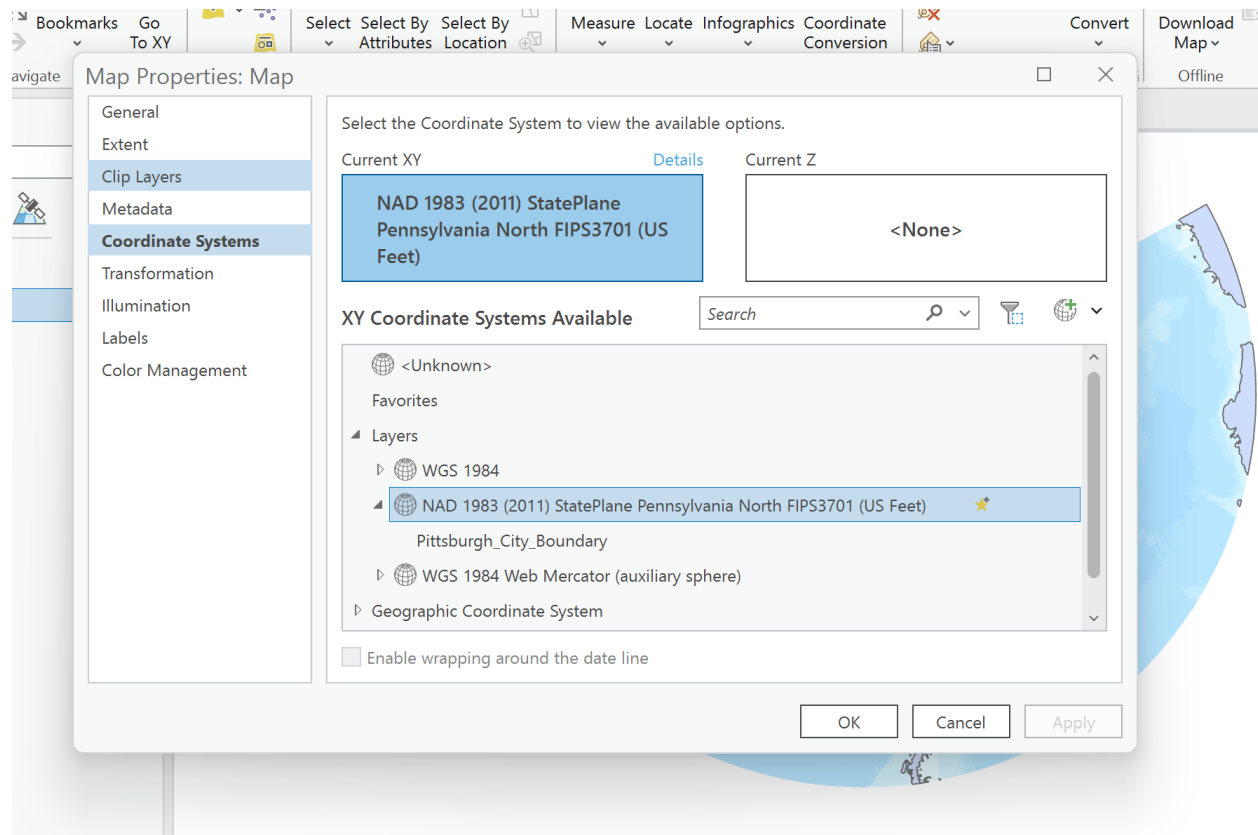


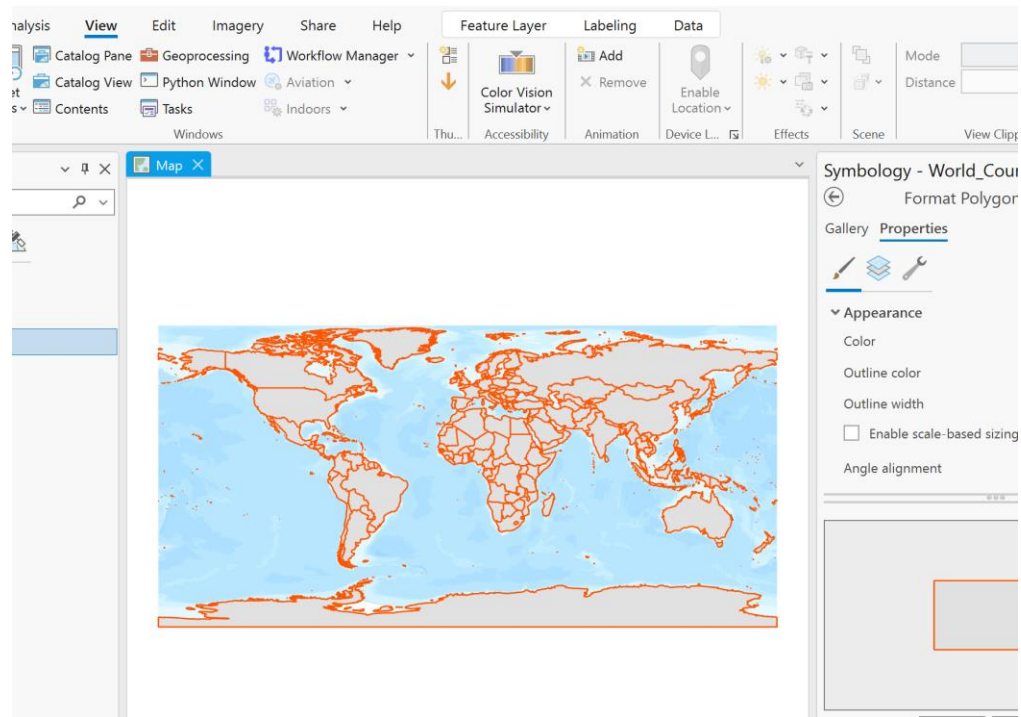
# Lab 3



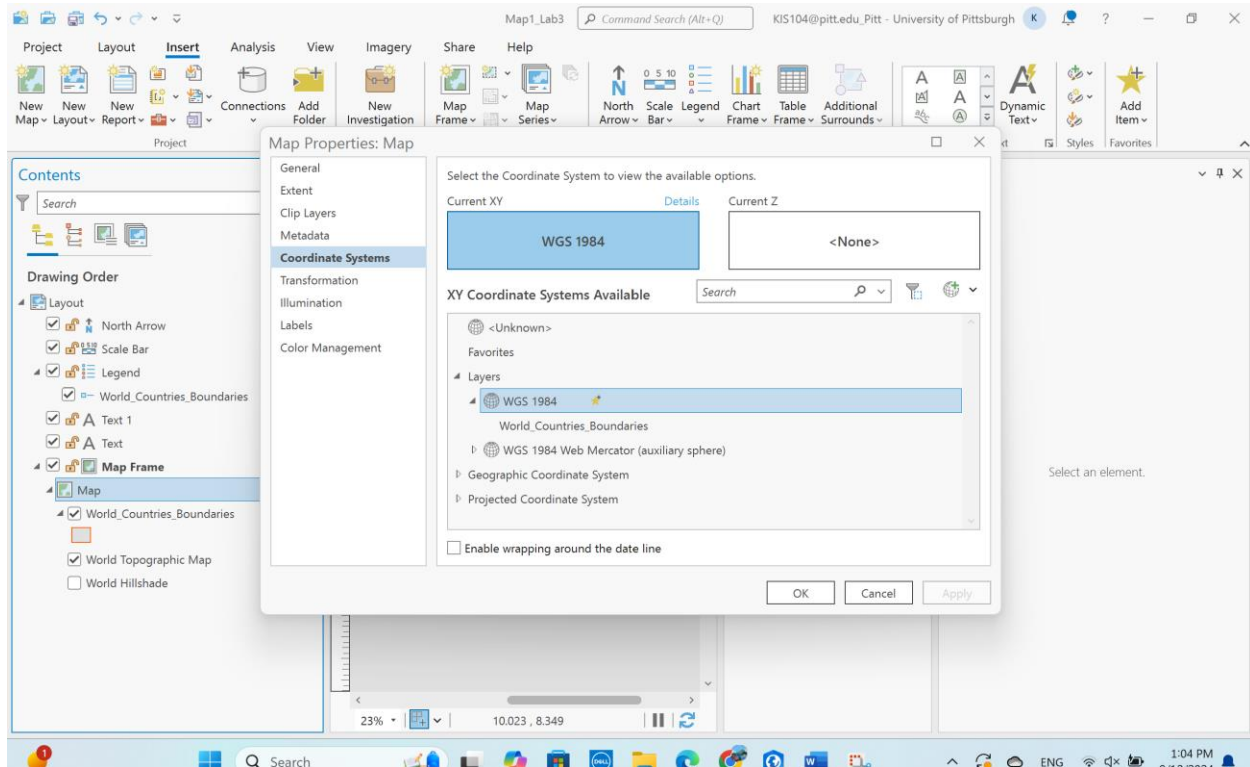
# Lab 3



# Lab 3

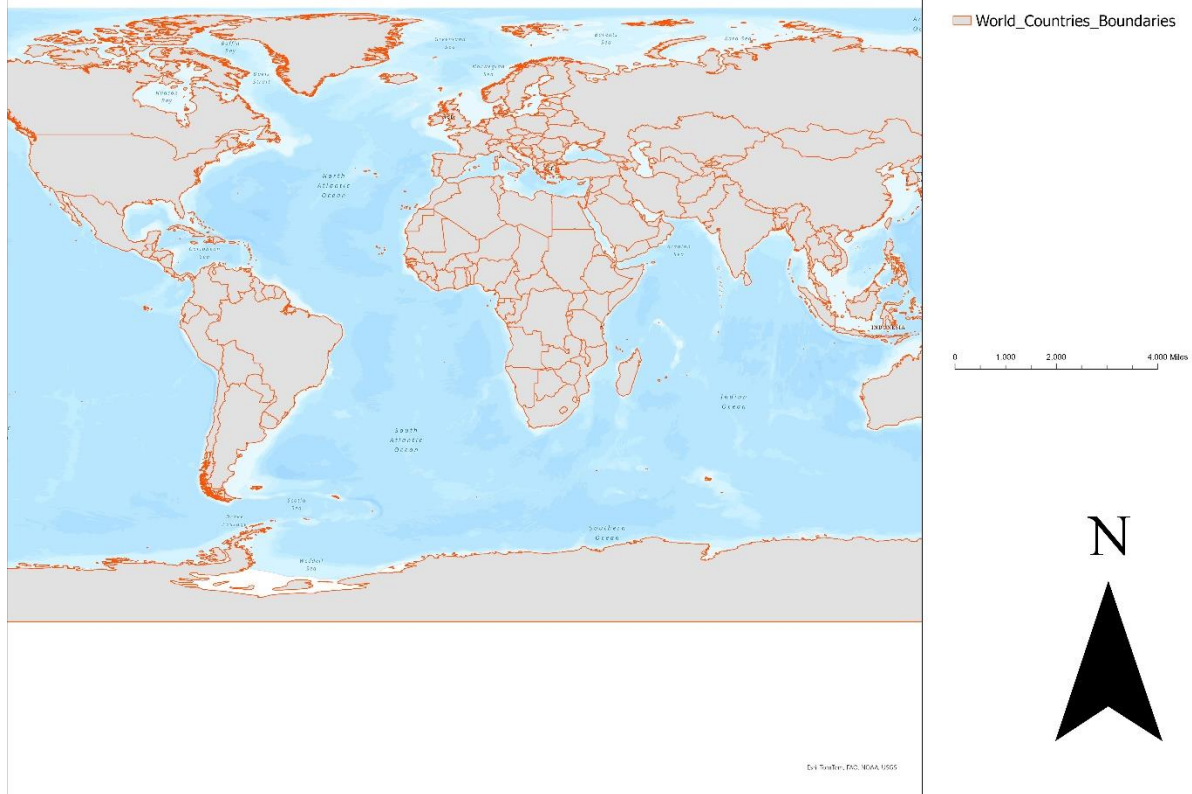


MAP 1 WGS 1984



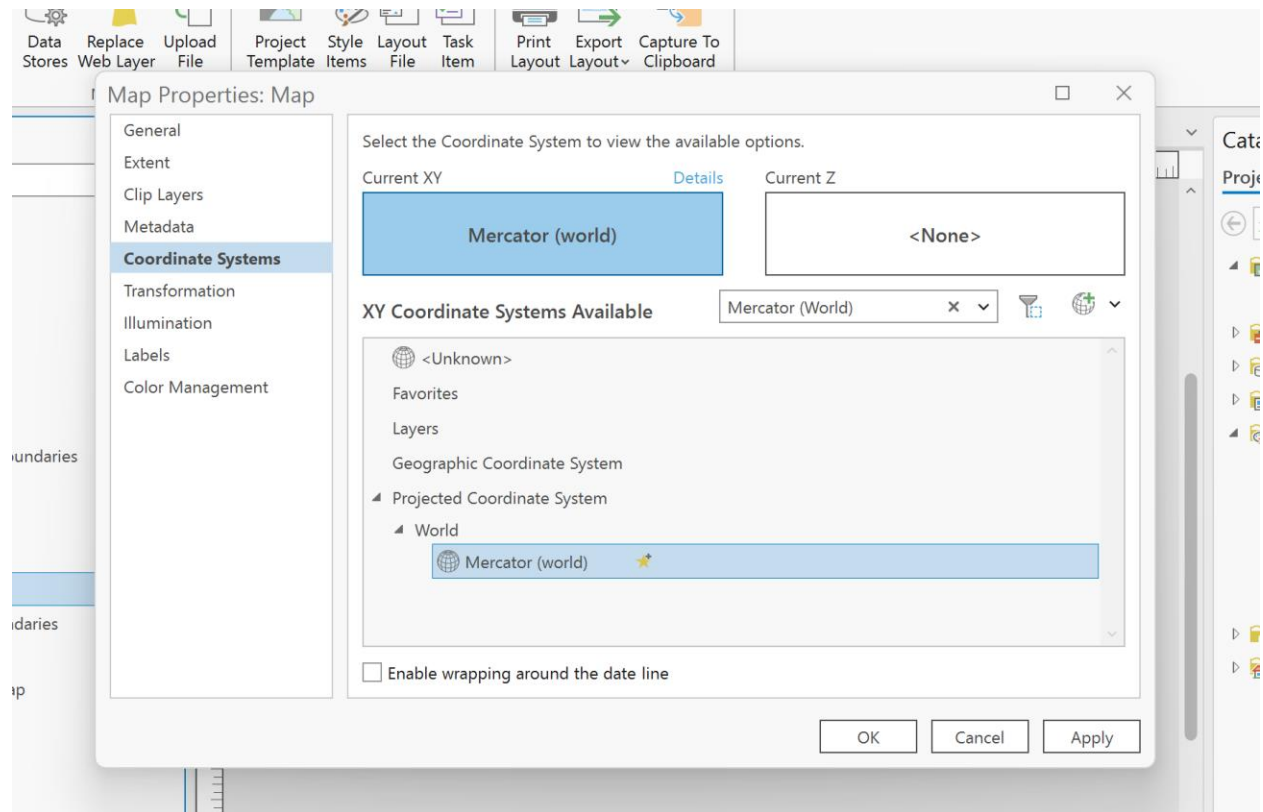
## Lab 3

Lab Exercise 2  
Map 1 WGS 1984

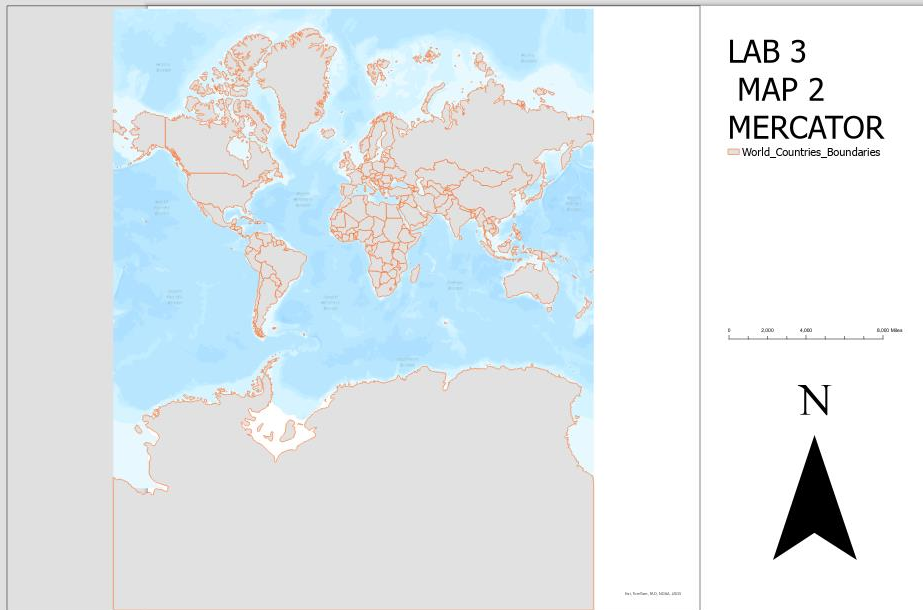


## MAP 2 Mercator

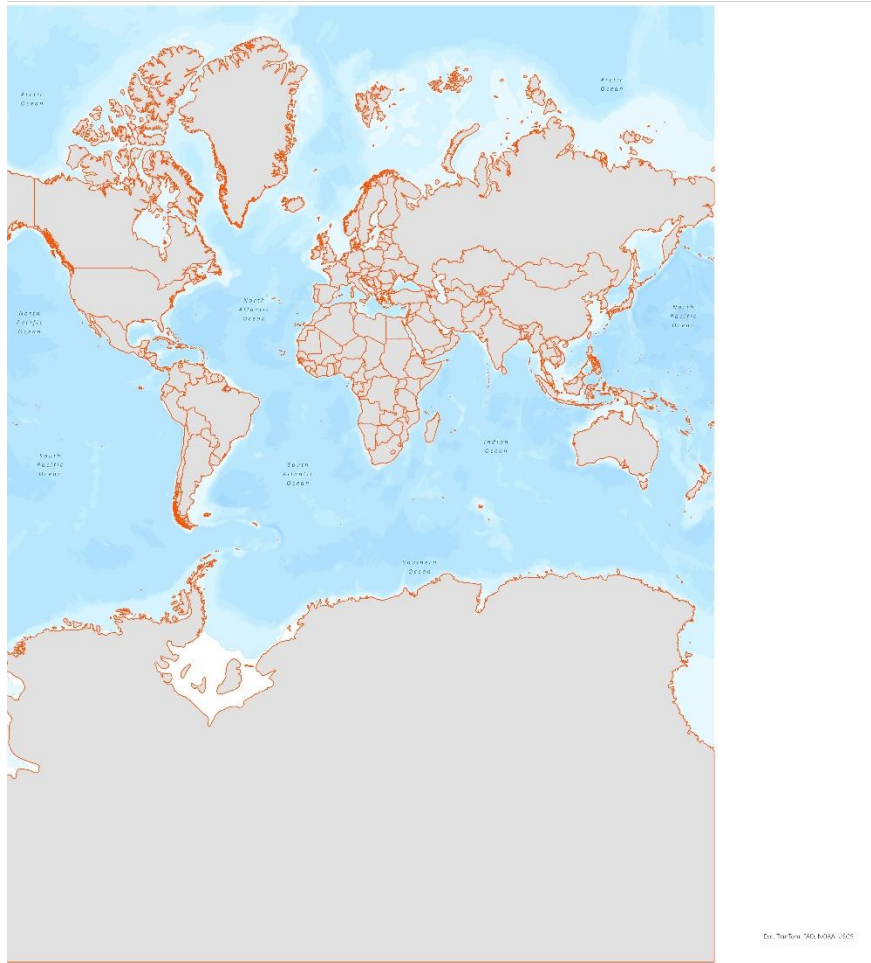
# Lab 3



# Lab 3



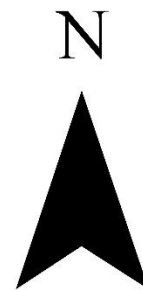
# Lab 3



## LAB 3 MAP 2 MERCATOR

World\_Countries\_Boundaries

0 2,000 4,000 8,000 Miles

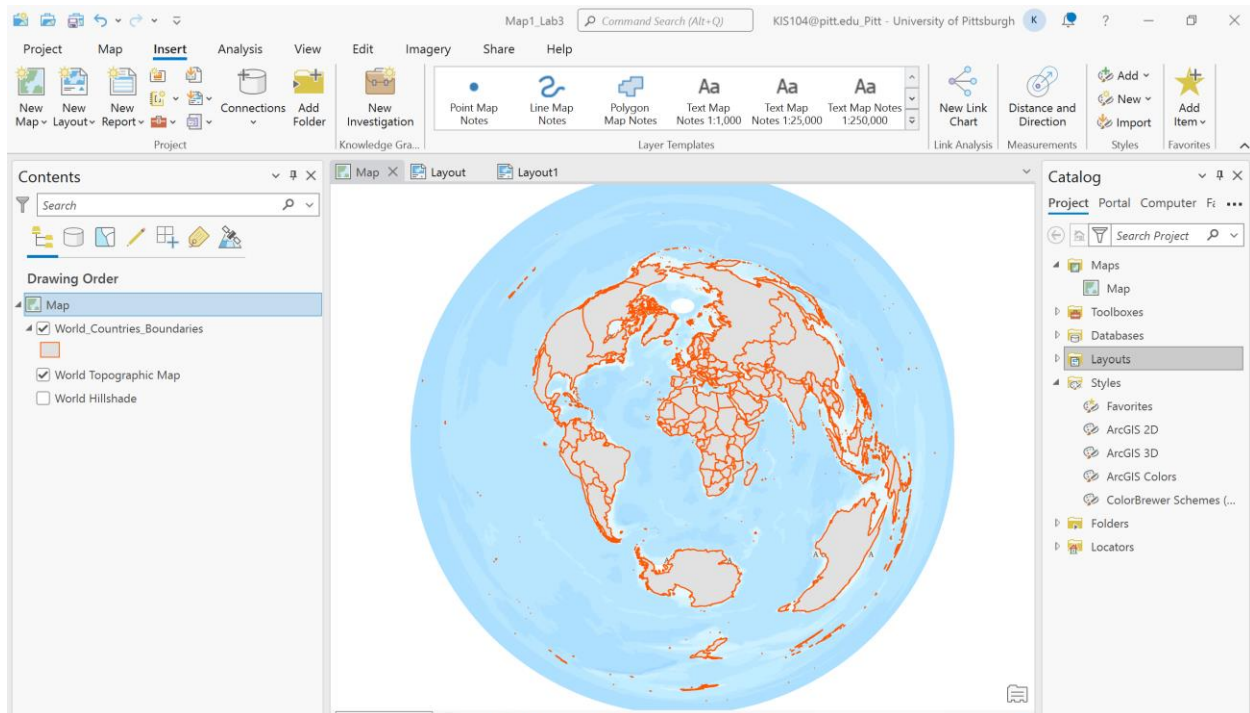
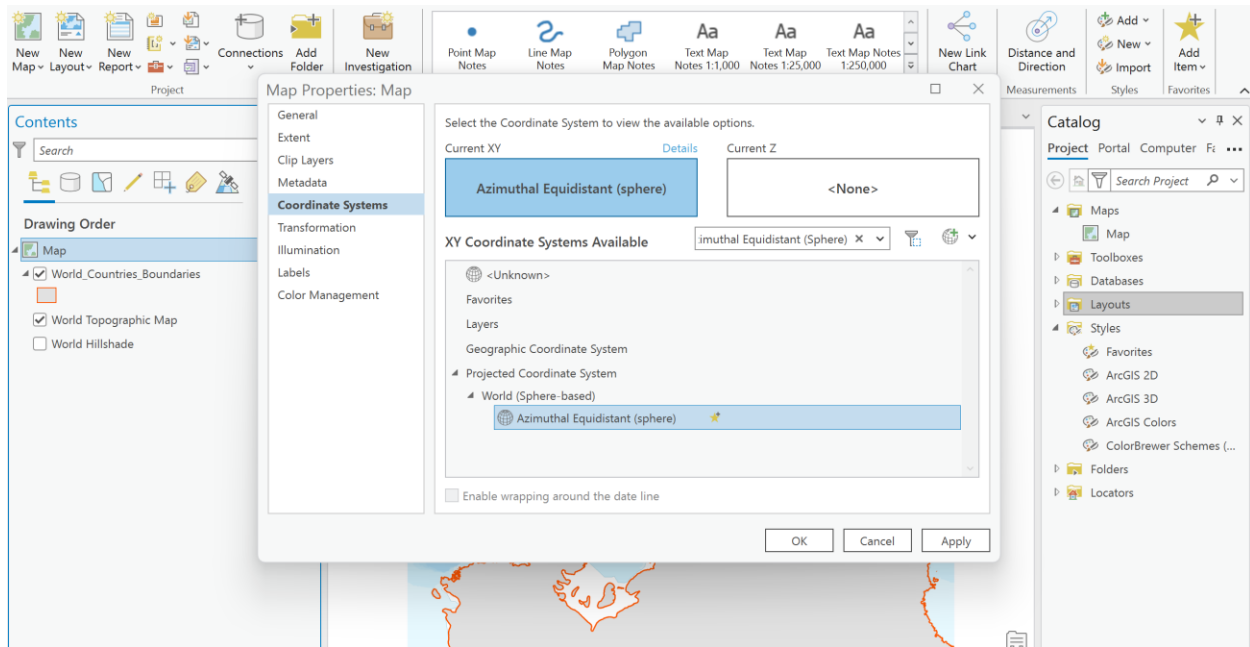


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## MAP 3 AZIMUTHAL

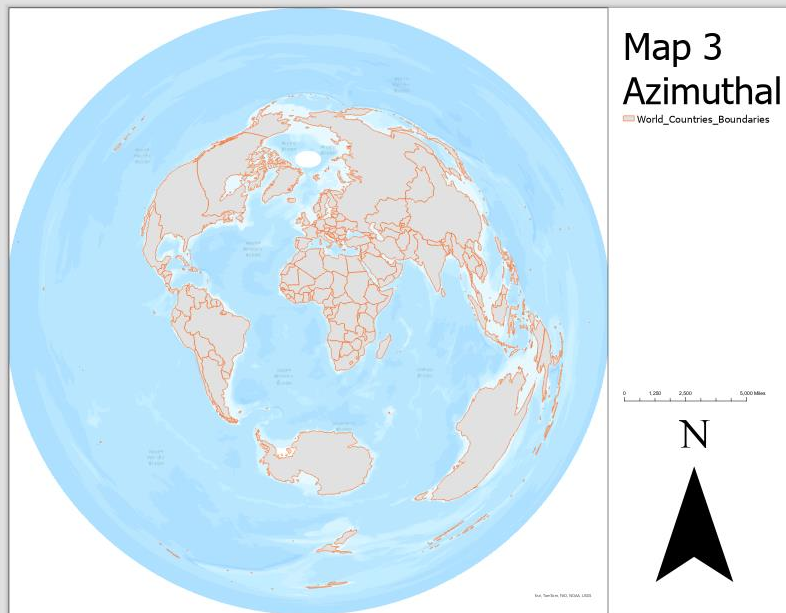


# Lab 3

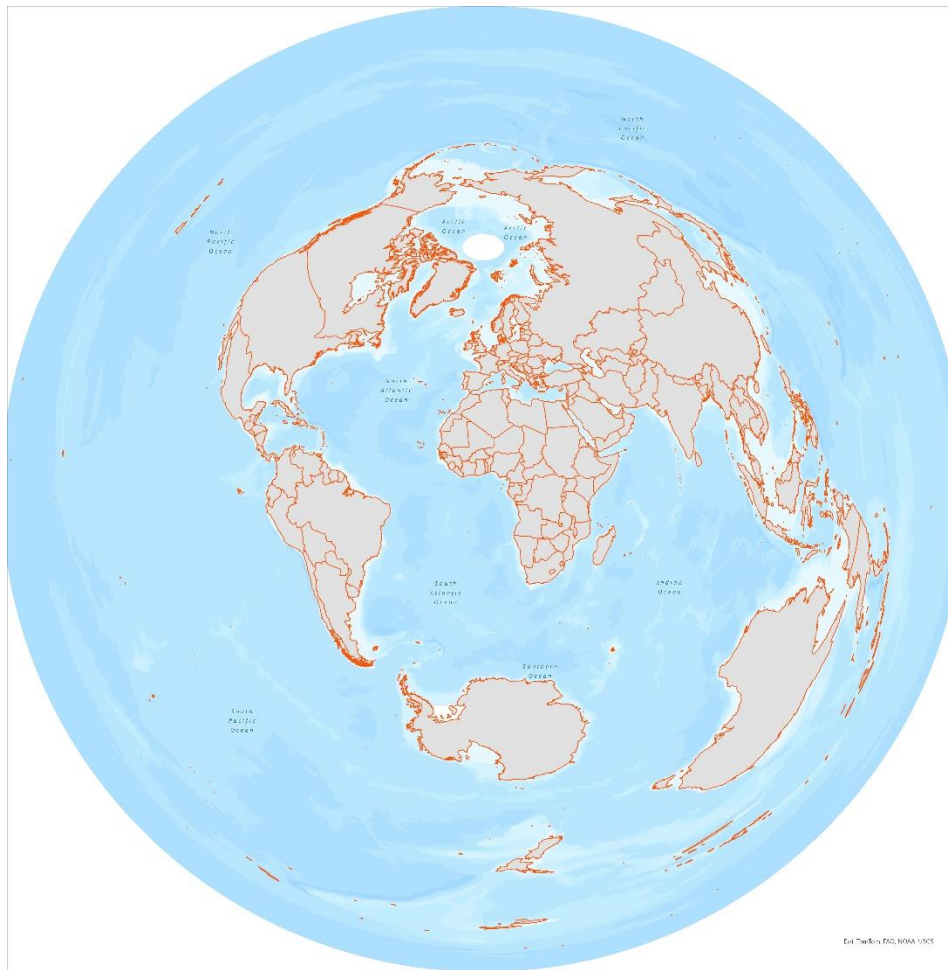




# Lab 3



# Lab 3



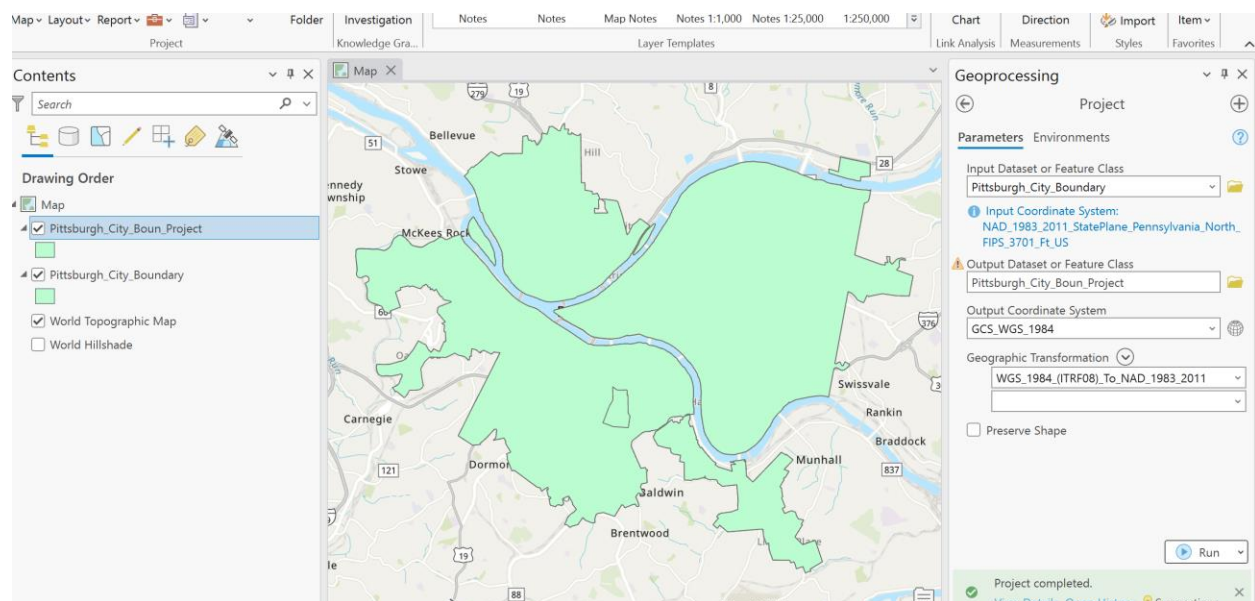
## Map 3 Azimuthal

World\_Countries\_Boundaries

0 1,250 2,500 5,000 Miles



## Part 4



# Lab 3

The screenshot displays the QGIS interface with three main windows open: 'Map Properties: Map', 'Layer Properties: Pittsburgh\_City\_Boundary', and 'Geoprocessing'.

**Map Properties: Map**

- Coordinate Systems** tab is selected.
- Current XY:** WGS 1984
- Current Z:** <None>
- XY Coordinate Systems Available:**
  - <Unknown>
  - Favorites
  - Layers
    - WGS 1984 (selected)
    - Pittsburgh\_City\_Boun\_Project
    - NAD 1983 (2011) StatePlane Pennsylvania North FIPS3701 (US Feet)
    - Pittsburgh\_City\_Boundary
    - WGS 1984 Web Mercator (auxiliary sphere)
  - Geographic Coordinate System
- ☐ Enable wrapping around the date line
- Buttons: OK, Cancel, Apply

**Layer Properties: Pittsburgh\_City\_Boundary**

- Source** tab is selected.
- Spatial Reference:**

Projected Coordinate System	NAD 1983 (2011) StatePlane Pennsylvania N
Projection	Lambert Conformal Conic
WKID	6563
Previous WKID	103140
Authority	EPSG
Linear Unit	US Survey Feet (0.3048006096012192)
False Easting	1968500.0
False Northing	0.0
Central Meridian	-77.75
Standard Parallel 1	40.88333333333333
Standard Parallel 2	41.95
- Buttons: OK, Cancel, Apply

**Geoprocessing**

- Parameters** tab is selected.
- Input Dataset or Feature Class:** Pittsburgh\_City\_Boundary
- Input Coordinate System:** NAD\_1983\_2011\_StatePlane\_Pennsylvania\_North\_FIPS\_3701\_Ft\_US
- Output Dataset or Feature Class:** Pittsburgh\_City\_Boun\_Project
- Output Coordinate System:** GCS\_WGS\_1984
- Geographic Transformation:** WGS\_1984\_(ITRF00)\_To\_NAD\_1983\_2011
- ☐ Preserve Shape
- Buttons: Run

# Lab 3

The screenshot displays the ArcGIS Pro software interface. The main map area shows a topographic map of Pittsburgh, Pennsylvania, with the city boundary highlighted in green. The 'Layer Properties: Pittsburgh\_City\_Boun\_Project' dialog box is open, showing the 'Spatial Reference' tab. The 'Geographic Coordinate System' is set to 'WGS 1984'. The 'WKID' is 4326. The 'Authority' is EPSG. The 'Angular Unit' is Degree (0.0174532925199433). The 'Prime Meridian' is Greenwich (0.0). The 'Datum' is D WGS 1984. The 'Spheroid' is WGS 1984. The 'Semimajor Axis' is 6378137.0. The 'Semiminor Axis' is 6356752.314245179. The 'Inverse Flattening' is 298.257223563. The 'Domain, Resolution, and Tolerance' section is expanded. The 'Geoprocessing' panel on the right shows the 'Project' tool with the following parameters: Input Dataset or Feature Class: Pittsburgh\_City\_Boundary; Input Coordinate System: NAD\_1983\_2011\_StatePlane\_Pennsylvania\_North\_FIPS\_3701\_Ft\_US; Output Dataset or Feature Class: Pittsburgh\_City\_Boun\_Project; Output Coordinate System: GCS\_WGS\_1984; Geographic Transformation: WGS\_1984\_(ITRF08)\_To\_NAD\_1983\_2011. The 'Run' button is visible. A status bar at the bottom indicates 'Project completed.' and 'View Details Open History Suggestions'.

Lab3\_Part4 Command Search (Alt+Q) KIS104@pitt.edu\_Pitt - University of Pittsburgh

Project Map Insert Analysis View Edit Imagery Share Help Feature Layer Labeling Data

New Map New Layout New Report Connections Add Folder New Investigation

Point Map Notes Line Map Notes Polygon Map Notes Text Map Notes 1:1,000 Text Map Notes 1:25,000 Text Map Notes 1:250,000

Layer Templates Link Analysis Measurements Styles Favorites

Contents Search

Drawing Order

- Map
  - Pittsburgh\_City\_Boun\_Project
  - Pittsburgh\_City\_Boundary
  - World Topographic Map
  - World Hillshade

Layer Properties: Pittsburgh\_City\_Boun\_Project

General Metadata Source

Elevation Selection Display Cache Definition Query Time Range Indexes Joins Relates Page Query

Spatial Reference

Geographic Coordinate System	WGS 1984
WKID	4326
Authority	EPSG
Angular Unit	Degree (0.0174532925199433)
Prime Meridian	Greenwich (0.0)
Datum	D WGS 1984
Spheroid	WGS 1984
Semimajor Axis	6378137.0
Seminor Axis	6356752.314245179
Inverse Flattening	298.257223563

Domain, Resolution, and Tolerance

OK Cancel Apply

Geoprocessing Project

Parameters Environments

Input Dataset or Feature Class Pittsburgh\_City\_Boundary

Input Coordinate System: NAD\_1983\_2011\_StatePlane\_Pennsylvania\_North\_FIPS\_3701\_Ft\_US

Output Dataset or Feature Class Pittsburgh\_City\_Boun\_Project

Output Coordinate System GCS\_WGS\_1984

Geographic Transformation WGS\_1984\_(ITRF08)\_To\_NAD\_1983\_2011

Preserve Shape

Run

Project completed. View Details Open History Suggestions

Catalog Geoprocessing

1:129,880 17,910.46E 109,980.89N ftUS Selected Features: 0

1:37 PM 9/12/2024