

## Importing NED (National Elevation Data) into ArcGIS 9.x

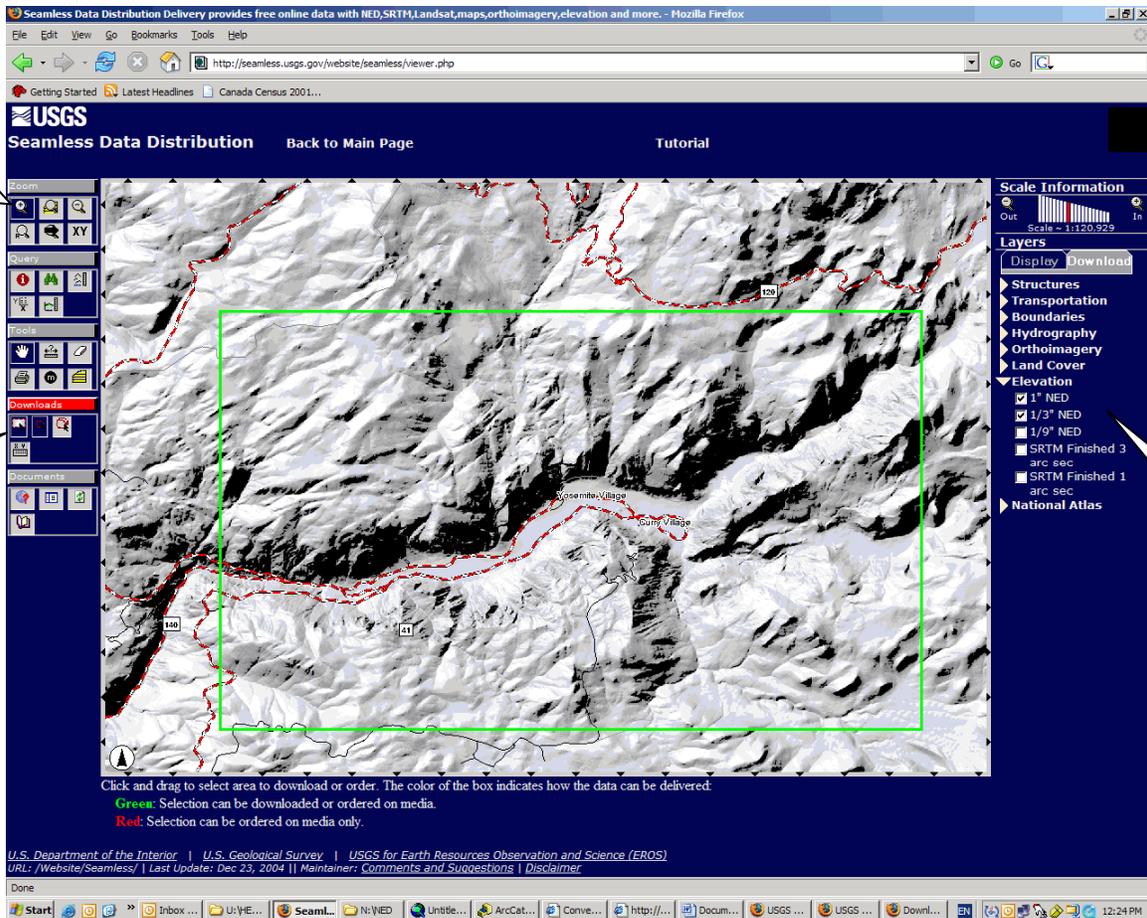
The United States Geological Survey has digital elevation models available online. The National Elevation Data are downloaded as grid files in 1 degree, 1/3 degree, and 1/9 degree formats. A reprojection is required to make these data usable with the spatial analyst functions.

### Requirements:

- ArcGIS 9.x
- NED data available from this website: <http://seamless.usgs.gov/website/Seamless/>

### Procedure:

1. Go to the USGS Seamless website.
2. Choose “View and Download United States Data”
3. A map of the United States will appear. Using the zoom tool, draw a box around the area for which you want elevation data. Alternatively, you can choose an area by name or by its coordinates by using the options available under “Query” on the left side of the page.
4. On the right side of the page under the Display button, choose elevation and select NED in the scale you want. The map will display the areas for which these data are available.
5. Select the Download tab. Check the coverages you want (1, 1/3, or 1/9 degree).
6. Using the box tool from under the Download heading on left side of the screen, draw a box around the area you want.
7. A new window will appear which lists the files available for downloading. Download and unzip the file.



First, zoom to area you want

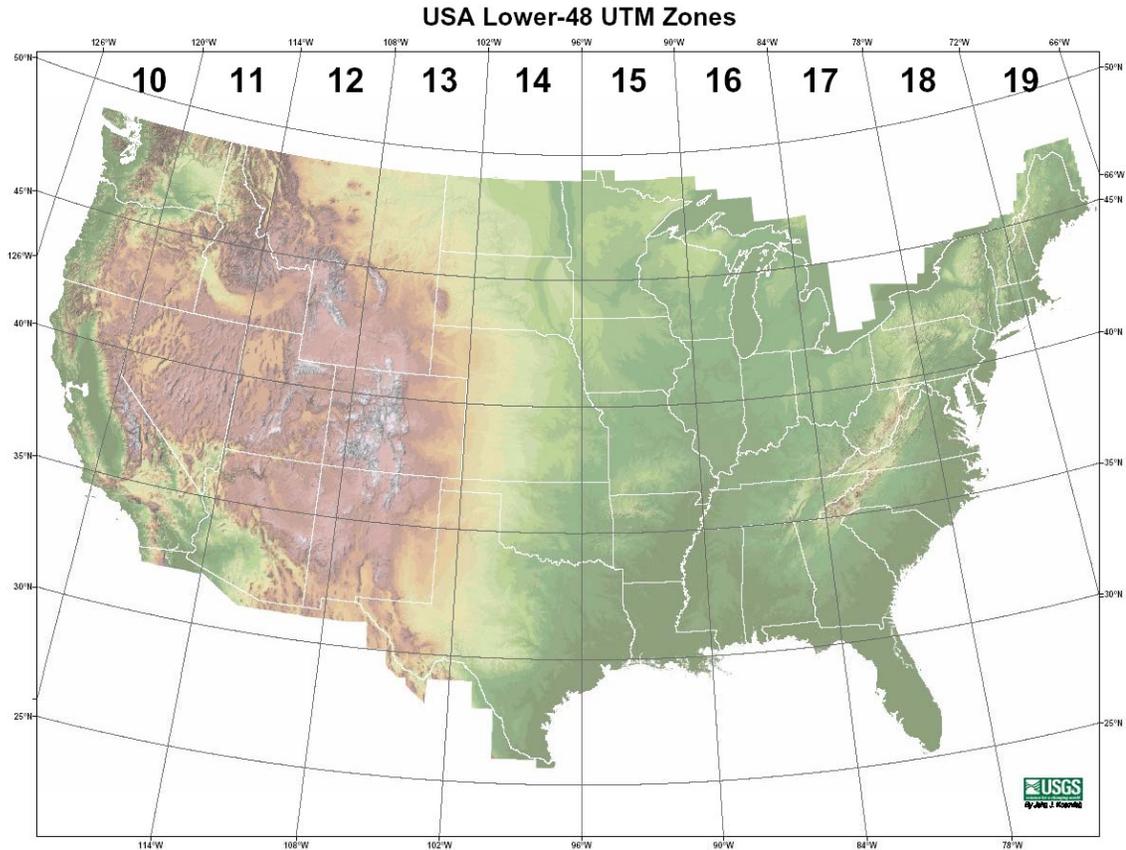
Then, draw a box around the area you want to download

Download and Display tabs

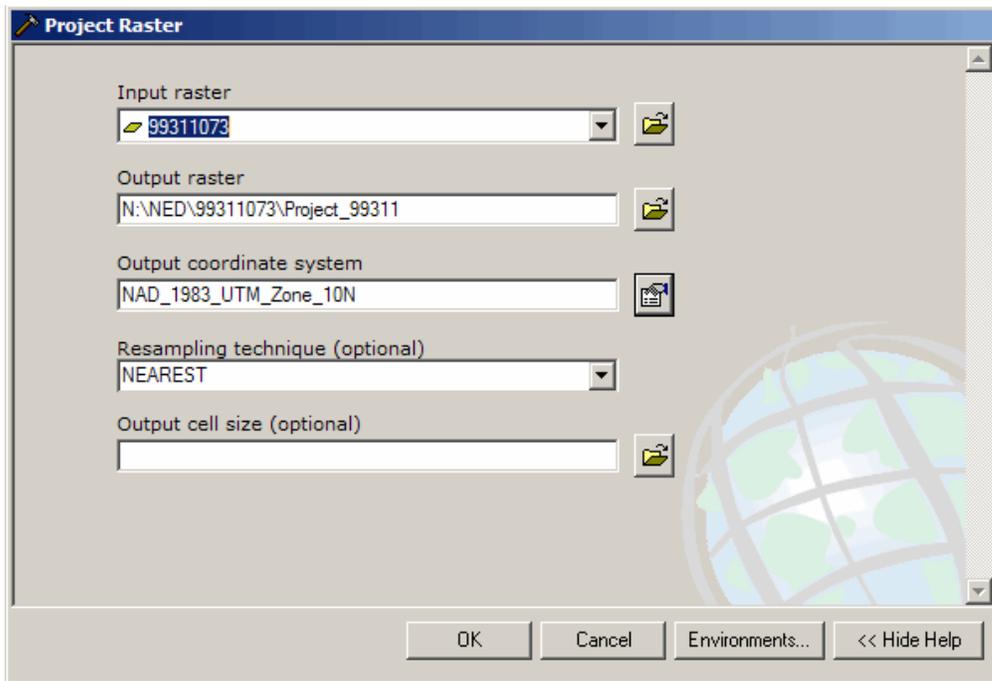
Check the scales you want to download

8. Open ArcMap with a new, empty map.
9. Click the Add Data button . Navigate to the folder which you just unzipped. There will be two files available: a raster grid and a shapefile called Metadata. Add the raster grid to your map. (This step is not mandatory, but it is always helpful to see if your data downloaded properly.)
10. Click on the ArcToolbox icon . Choose Data Management Tools→Projections and Transformations→Raster→Project Raster
11. You will be reprojecting the data into UTM. Therefore, the Output Coordinate Systems will depend on where your data is located.

Alaska data is in NAD 1927 while the rest of the U.S. is in NAD 1983. See the map below to determine the zone.



12. Input your raster file. Under Output Coordinate System, choose Select→Projected→UTM, and then the appropriate NAD year and zone. Click OK.



13. Your newly projected raster will automatically be added to your map.
14. You now need to change the projection of the map itself. Under View, select Data Frame Properties→Coordinate System→Predefined→Projected Coordinate Systems→Utm, and then the same year and zone as you chose in the previous step.
15. You're done. The NED data is now measure both horizontally and vertically in meters. The Spatial Analyst functions such as countour, hillslope, etc. will now function.

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