

GIS 4 Geomorphology

Geomorphometry of Mountain Landscapes &
Upland Watersheds...a little Wildlife, too

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Sampling Grid & Map Ref Grid

Two kinds of grids are described here. A “survey sampling grid”, created with the Fishnet tool, is a shapefile with vector properties. Sampling grids are useful in survey planning. A “map reference grid” is a pre-formatted border that is inserted into a Layout much like a Neatline, but with more flair. Both are customizable.

OPTION A: Sampling Grid

- 1.) Draw a box that generally covers my study area using Draw tools > Rectangle.
- 2.) Convert this graphic to a shapefile (Right-click on Layers > Convert Graphics to Features) and use it as the Template Extent in the Fishnet tool.
- 3.) Open the Fishnet tool (Data Management > Feature Class > Create Fishnet tool). Assuming you know the grid size you want:
 - Pick the template shapefile.
 - Provide a filename for the output shapefile.
 - Set the grid cell Width and Height in the units the map is in – *Check the map units in View > Data Frame Properties > General tab, or look down to the lower right corner of ArcMap window.*
 - Set the Number of Rows and Columns to 0 – *This causes the tool to size the grid cells according to your specified width and height values.*
 - Set Geometry Type to Polygon.
 - Uncheck the Create Label Points box.
 - Click OK.

OPTION B: Reference Grid

When in Layout View, ArcGIS can automatically add a UTM grid (for example) based on the Data Frame coordinate system.

- 1.) It is important to set this in View > Data Frame Properties > Coordinate System. And set the map units to Meters (for UTM) in View > Data Frame Properties > General tab. Always match coordinate systems and units of the Data Frame (the display) to the data itself (the data itself).
- 2.) In Layout View, open the View > Data Frame Properties > Grid tab, click New Grid.
 - Choose all the lousy things you need to and click OK.

– Grid should show up in Layout View, but not Data View.

3.) Changing properties of this auto-grid is done in under the Data Frame Properties > Grid tab > Properties or Style.

** If your grid doesn't look the way you, try the Fishnet option or go back and create a new one, this time making sure to pay closer attention to your choices.