

Homework 5. TIN Generation and Processing

- Each individual (not group) take your group's spot elevation data and breakline data and generate a TIN and 0.5m contour data set. (leave group data intact and work in your own folder) Merge these contours with your planimetric data to complete the topographic map.
- Hints follow on *one possible way* (I am sure there are others) to accomplish this.
- In ArcGIS 9.X, first enable 3D Analyst by running ArcMap, select "tools", then "extensions, then check the "3D Analyst" box, then "close"
- Run ArcMap, click on the red "toolbox" icon, select "3D Analyst Tools"
- Select "TIN Creation", browse to a folder to contain the TIN data
- For the "Spatial Reference" entry, browse to the spot elevation shape file, confirm that it finds the coordinate system data, etc., then close. All that you just did was to create a blank data structure to hold the TIN data that will be imported next.
- Still under the "TIN Creation" dialogue, select "Edit TIN" in order to import data
- The "Features" to add are the mass points from the "spot elevation" shape file, and any line features that you want to use as break lines.

- When you close this dialogue, a shaded facet plot appears on the ArcMap screen.
- Under “3D Analyst tools”, select “TIN Surface”
- Select “contour” and give parameters (0.5m contour interval etc.)
- Find a way to show (plot) the triangles
- Find a way to import the contour data into your planimetric map data
- Differentiate index contours if possible
- Label the index contours
- Edit for pleasing appearance
- Hand in letter size hardcopy and digital files (maybe make a personal folder under your group folder ?)
- IMPORTANT – show the sequence of programs, menu selections, dialogue box interactions, etc., that were done to generate your results. (So that someone else, like me, could reproduce the results)
- Due Friday, 8 December