

## NRCS

### Pennsylvania

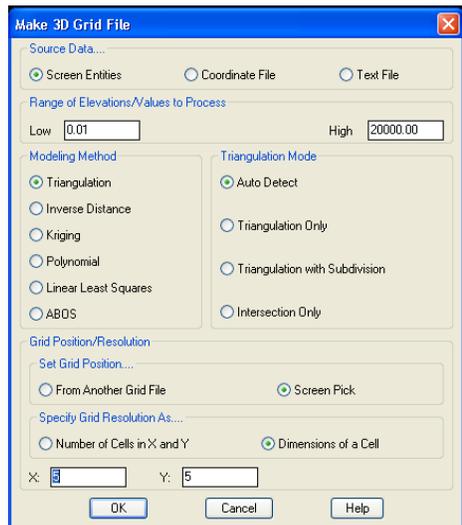
#### Carlson/AutoCAD 2008 Instructions

## Creating a grid file

A grid file should be created immediately after creating the contours. This file will be used for drawing profiles and cross-sections and using design programs. During these instructions any Carlson module can be used (civil or survey). Remember to save your drawing!

“The program internally makes a triangular network of the data points (if *Triangulation* is selected as the modeling method) and then interpolates the elevation values of a rectangular grid at the specified grid resolution. Data points can be either points, inserts, lines, or polylines. Lines and polylines are treated as breaklines in the triangulation.” (2008 Carlson Civil Suite Manual)

- 1) Isolate the layers: **points, boundary lines, break lines, contours, and index contours.**
  - a) **View Menu → Isolate**
  - b) Select objects listed above to isolate and press “**enter**”
  
- 2) Create 3D Grid File: **Surface Menu → Make 3D Grid File.**
  - a) A window will appear, enter the file name you wish to save it as and \*save to the customers folder.\*
  - b) A “make 3D grid file” box will appear check the boxes that are in the figure below. Make sure to change the X and Y values to **5 x 5** for grid resolution. This will make a more accurate grid file when doing earthwork computations and profiles. A general rule of thumb is to keep the total number of grids cells under 500,000 (about 700 by 700 cells). This will help to limit the processing time.



- c) The command line will prompt you to **pick** the lower left hand corner of map. Do this and draw the box up to the top right of map. Next it will prompt you to select objects. Do this by typing “**all**” and then “**enter**”. \*Make sure to draw a box big enough to include the entire map.\*
- d) Check the command line for a report saying “found point #'s”. If not go through the process again and check for errors.