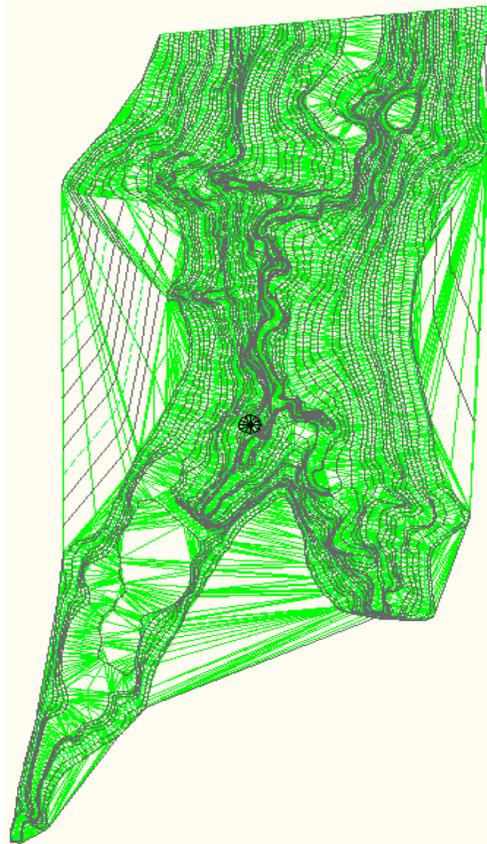
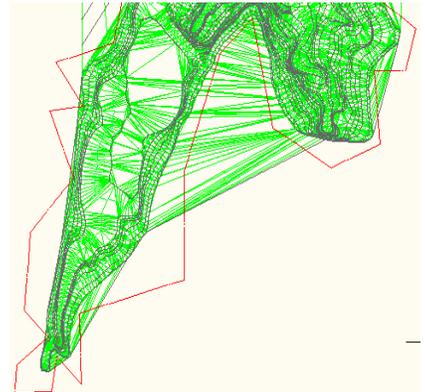


A boundary can be used to clean up the outer edges of a surface model where TIN lines may extend across space where survey data is not provided. This is illustrated in the figure below.



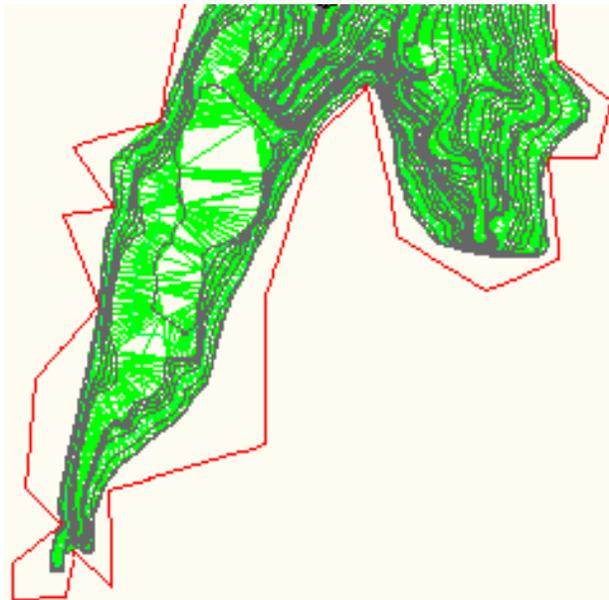
A boundary is created using a closed 2D polyline object which crosses over all TIN lines that you want to remove from your surface model. Start by changing the display of your surface to show only the triangles. It will also help to turn off object snapping and polar tracking while you are drawing the polyline so that the program is not continually trying to find nodes to snap to while you are drawing the polyline.

Start drawing the 2D polyline at any point outside of your surface and start drawing a polyline all the way around the surface back to the starting point, crossing over all TIN lines that you want to remove along the way, as shown in the figure to the right. When you return to the starting point of the polyline you can type C at the command line to close the polyline.

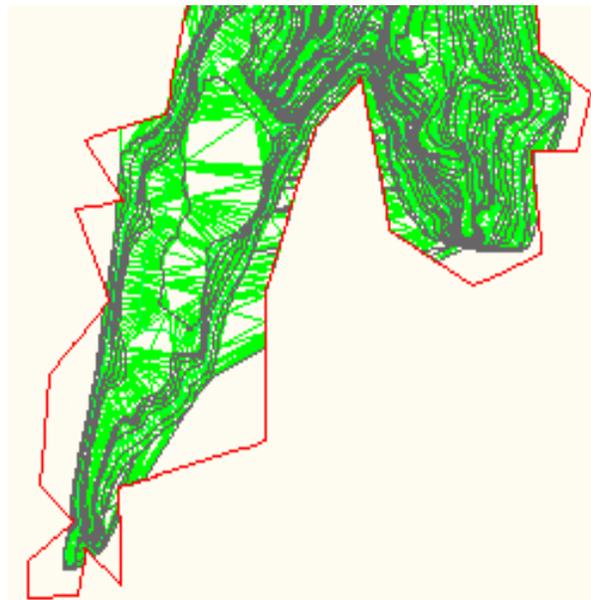


Once you are finished drawing the polyline, you will add it to the surface definition. In the *Definition* area under the surface name, right click on *Boundaries* and select *Add...* In the Add Boundaries window, you can provide a name for the boundary if you want to and make sure the type of boundary is set to *Outer*. Also make sure the box next to *Non-destructive breakline* is unchecked. Leaving this box checked will cause the TIN lines to be trimmed at the location where

the boundary line crosses them rather than deleting the lines altogether. Examples of how the surface is modified when applying an outer boundary are shown below. Click on the OK button and rebuild the surface if necessary to see the changes.

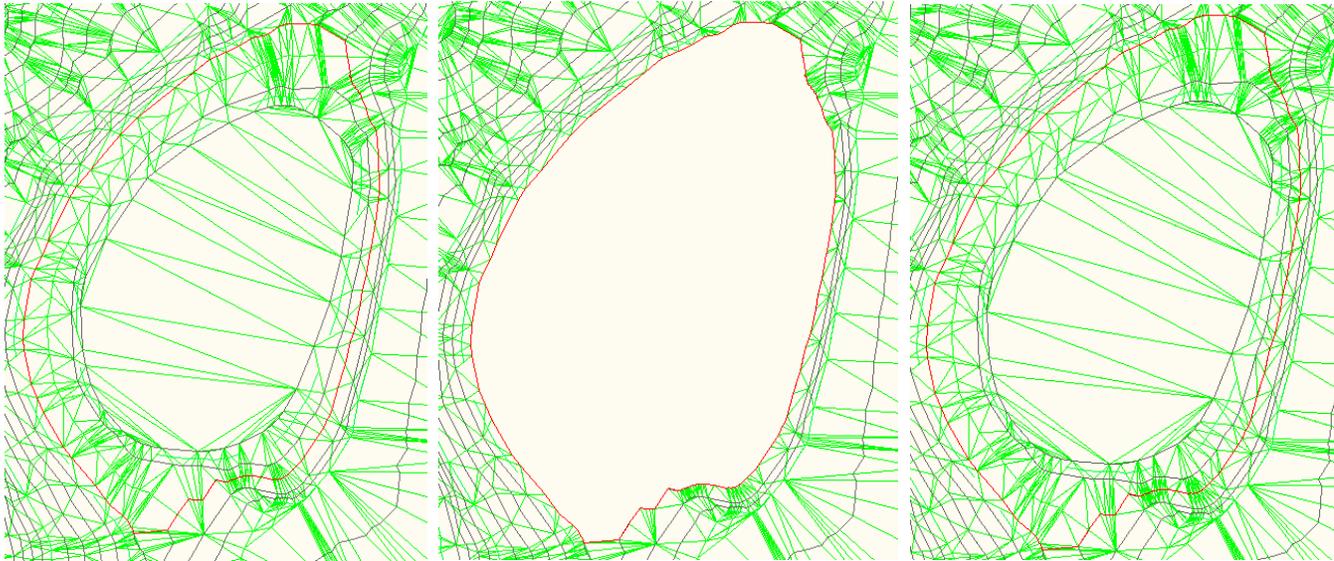


Non-destructive breakline box unchecked



Non-destructive breakline box checked

Two other types of boundaries that are commonly used to define flat or hidden areas inside the terrain surface, such as the water surfaces in a reservoir, are the *Hide* and *Show* boundaries. A *Show* boundary creates a flattened area in the surface defined by the boundary polyline. A *Hide* boundary is similar to the *Show* boundary, but it cuts out the area defined by the boundary polyline from the surface model, leaving a hole. An example of how these two boundaries can be used to modify a surface are shown below.



Original Surface

Hide Boundary  
Non-destructive breakline checkedShow Boundary  
Non-destructive breakline checked