



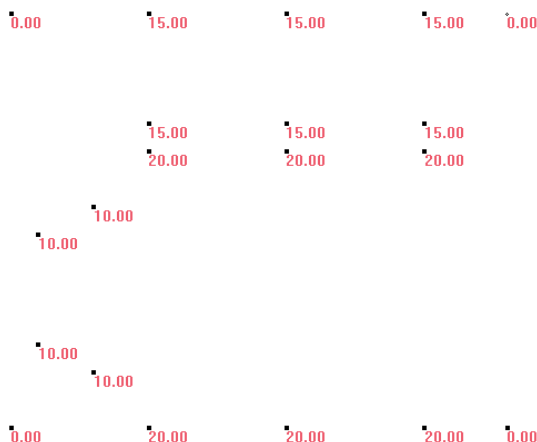
How to Use the TIN Program to Create Advanced Channel File

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Once a TIN model is generated, we can go directly to the “Save” menu item, select the CHN file format output and the program will convert our TIN model into an advanced channel model (*.CHN).

Sometimes it is not what we want. TIN MODEL connects points into triangles following Delaunay rules. It gives a satisfactory result when we deal with the set of homogeneously spaced points. That is not case with channel data.

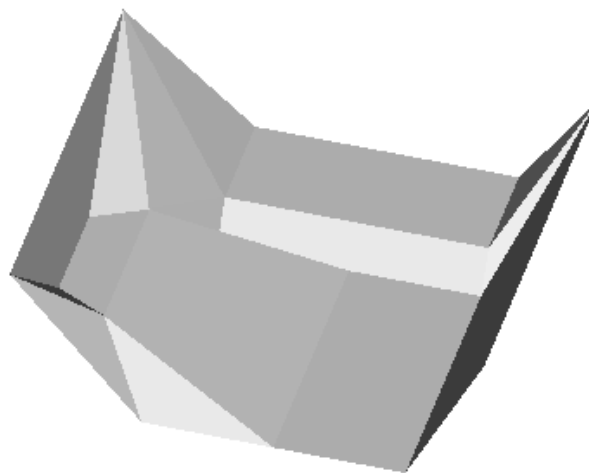
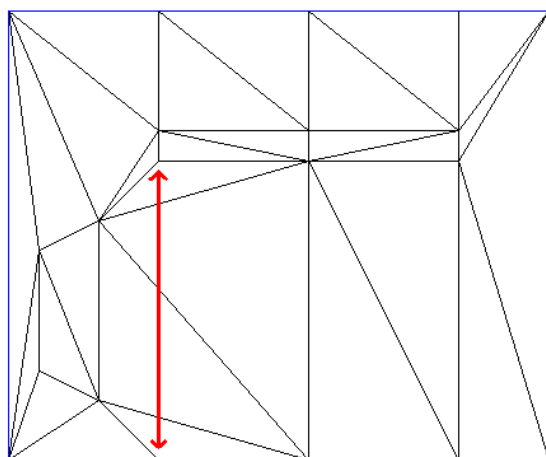
FIGURE 1. Sample Data Set



We have two choices:

- **Adding more points** is the simplest solution. It takes a lot of work and the final result might have an unnecessarily large number of faces, that means we have to go to the ADVANCED CHANNEL DESIGN program and do more editing (merging faces, removing unnecessary nodes).

FIGURE 2. The CHN file Generated in the TIN MODEL Program

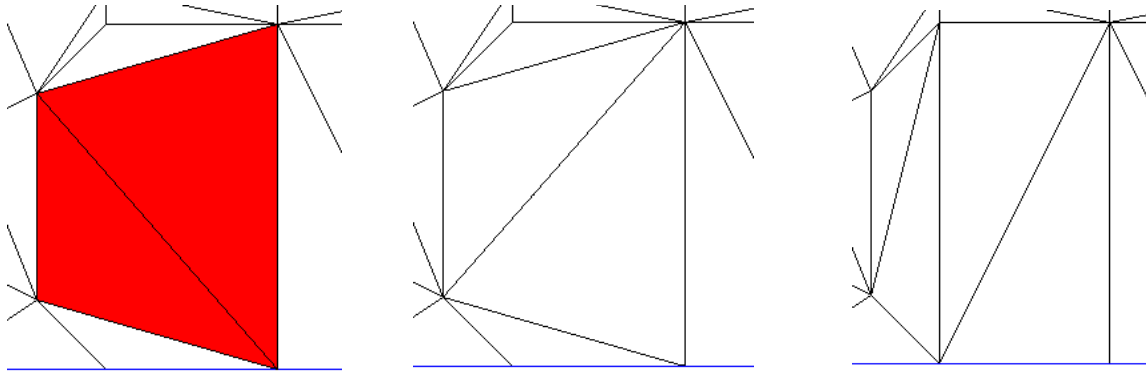


- **Use TIN Editor** is the other option. I will demonstrate this option on this sample data set where the initial model does not give us a satisfactory channel.
We want to connect points indicated with red arrow in Figure 2. To achieve this goal we are going to use “reconnect” tool. 
- a. **Use the “magic wand”**  **to select two neighboring triangles.** It is just first step. We need a few more operations to meet our final goal.

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- b. Use the “split triangle” tool  to add two points (circled in red) to the edge of the channel.

Note: The Undo/Redo buttons  are very useful to correct any mistake during design.

FIGURE 3. *Selecting the two neighboring triangles (left)*



Our Final design looks like this:

FIGURE 4. *Resulting Channel*

