



Channel Design – Depth vs Elevation Mode

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Recently, I had a problem with the CHN (channel file) and XYZ file comparison. The project was in Elevation mode and the XYZ file had negative values, and so did the corresponding CHN file. But when they were loaded into TIN MODEL (in Elevation mode) and the difference was exported, the resulting XYZ file contained nothing inside. That has puzzled me.

The reason was that the CHN file was made in the Depth mode.

So, how to change the mode of a CHN file?

1. **Load the channel file into ADVANCED CHANNEL DESIGN.**
2. **Change the mode** by clicking the Elevation/Depth icon:

FIGURE 1. The Elevation/Depth icon shows the Elevation mode



3. **Go into Faces tab and check the faces.** After the Z-axis direction was changed, all of the faces now have the wrong orientation:

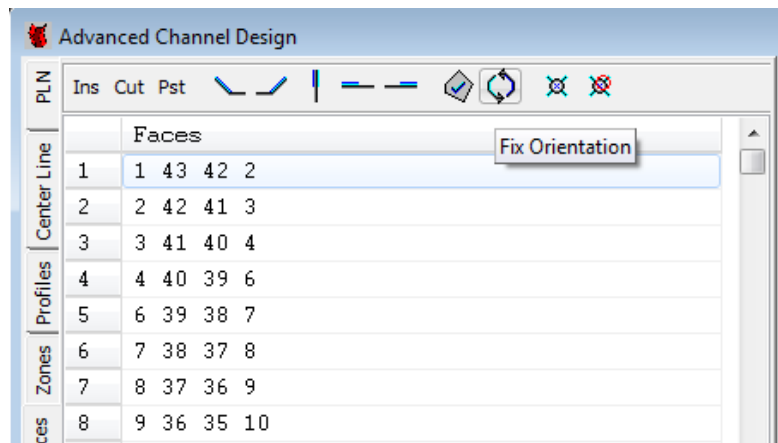
FIGURE 2. Checking the Faces

PLN	Ins	Cut	Pst
1	2	42	43
2	3	41	42
3	4	40	41
4	6	39	40
5	7	38	39
6	8	37	38
7	9	36	37
8	10	35	36
9	10	34	35
10	34	33	34
11	11	32	33
12	12	31	32
13	13	30	31
14	14	28	30
15	15	28	30
16	15	28	30

Face No:	Orientation
1	Orientation Error
2	Orientation Error
3	Orientation Error
4	Orientation Error
5	Orientation Error
6	Orientation Error
7	Orientation Error
8	Orientation Error
9	Orientation Error

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4. **Fix the orientation errors.** Select each face and click the Fix Orientation icon:

FIGURE 3. Fixing the Orientation of the Faces After the Mode Change



5. **Save the file.** You're done!

Now with the correct CHN file, TIN MODEL can compute the volumes, export the TIN-to-TIN differences, and so on.