

Tools

Why Direction Matters when Digitizing Polygons in LP360

LP360, versions 2014.1 and above



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When drawing polygons it definitely matters if they are drawn clockwise or counterclockwise. Why you ask? Well, because polygons have a “sense” of direction. The right hand side of the vector used to draw a polygon is considered to be the “inside.” If you draw your polygon clockwise the right-hand side of the vector becomes the “inside” of the polygon. Likewise, if you draw the polygon counterclockwise the right hand side of the geometry is on outside of the polygon and the insider portion is now considered to be a “hole” (Figures 1 & 2).

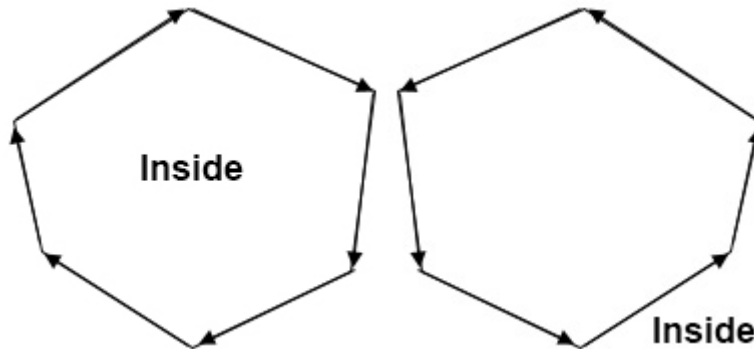


Figure 1 (left) - Polygon drawn clockwise, Figure 2 (right) - Polygon drawn counterclockwise

For example, if you are digitizing a breakline in LP360 around a waterbody such as a pond or lake you would want to digitize the breakline in the clockwise direction. This way, when the breakline is enforced, you get the expected result of a flattened water body (Figure 3).

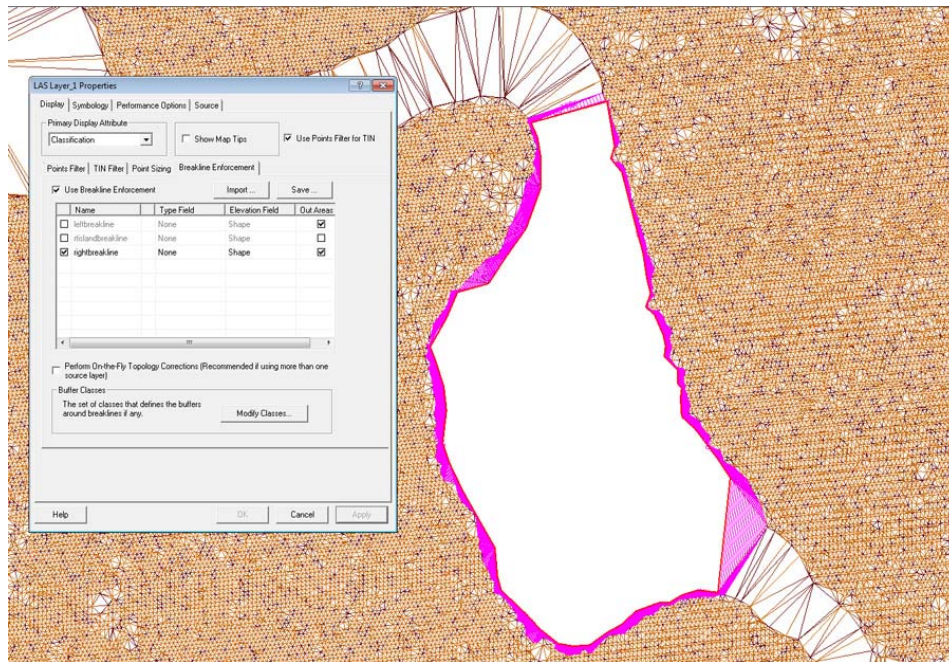


Figure 3 - Flattened water body

What do you do if you have an island in your water body? This is where you would need to digitize the breakline around the island in the counterclockwise direction. This forces the area outside the island polygon to act as the “inside” and allows the water around the island to be flattened when the breaklines are enforced. (Figure 4) This is actually one of the reasons the LP360 Breakline tools are so powerful!

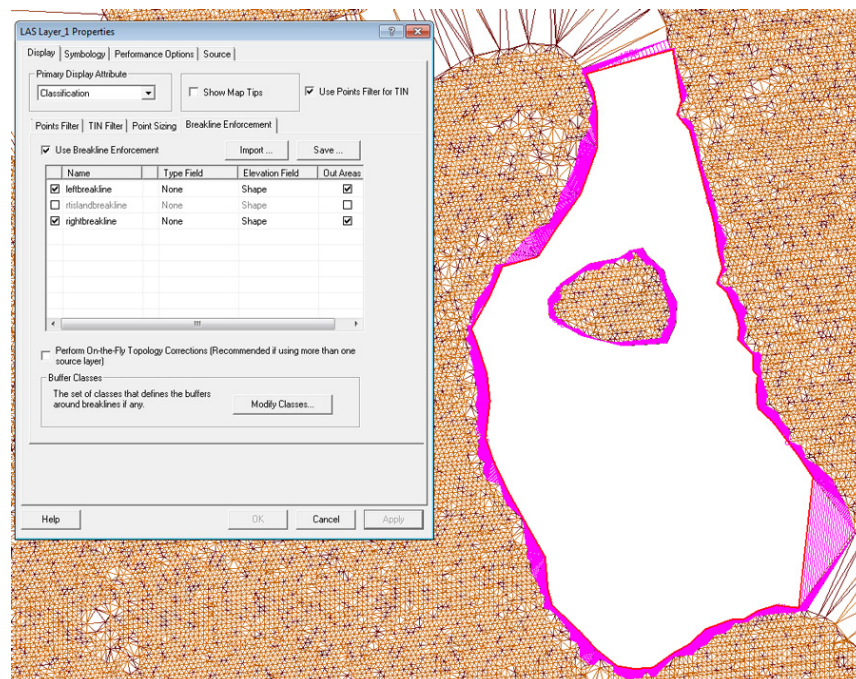


Figure 4 - Flattened water body around island

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Another instance where you need to keep in mind this polygon behavior is when you are digitizing polygons with labels. The Labels will only be on the inside of the polygon when digitized in the clockwise direction as seen in Figure 5 below. Here the left polygon was digitized in the counterclockwise direction and the second polygon was digitized in the clockwise direction.



Figure 5