

1. Starting with a ridgeline segment (polyline)
2. Get the z value of the segment using **Interpolate** GP tool
3. Use the **Cross Section Lines** (3D sample tool from ESRI) to get an orthogonal cross section layer as a reference. (optional)
4. Duplicate two polylines to 100ft below the original z (placement of the duplicate lines is important to get the right cross section). Using **Duplicate Plane** under edit/ArcGISPro
5. save the duplicated lines into a fc
6. Make a copy of the fc and add Copy to the filename naming convention
7. with the Copy fc, flip one of the duplicated lines
8. Use Edit/Vertices feature and connect the duplicated line together by either extending the lines or adding addition line. End to end connection only. Don't crisscross
9. Using **Feature to Polygon**, to convert the line fc to a polygon fc.
10. Back to the first fc (from step 5), use **Feature Vertices to Point** to convert the lines to points
11. **Add field** – OriginalOID
12. Use **Calculate Fields** to copy the ObjectID to the new field
13. **Select Feature by Attribute** set the selection to where Orig_FID = 2 (Orig_FID is the original Object ID generated in the line fc that was kept when the point layer was created)
14. **Calculate Field** on the selected records and subtract ObjectID from half of the total number of records
15. **Add Geometry Attribute** to the point fc
16. **Points to Line**, must set the Line Field to OriginalOID
17. **Create TIN Input Feature is the Output of the step 17. Set it as a Hardline.** The reminder parameters are left as default. 2nd Input feature is set to the result of Step 9. Set the type to soft clip. Height Field set to <None>.
18. Convert Step 18 output to Raster using **TIN to Raster**. The default parameter is good.
19. Using **Minus** to subtract new Raster from original DEM raster
20. Apply **ContourList** to the result of step 19 with Contour Value set to 0