[\\MIXITE\Projects\Geothermal\_DOE\DataForRelease\Alabama\Deployed\AL\_BoreholeLithIntervals\Archive\Arc3Dtest](file:///\\MIXITE\Projects\Geothermal_DOE\DataForRelease\Alabama\Deployed\AL_BoreholeLithIntervals\Archive\Arc3Dtest)

C:\Users\ccaudill\Documents\GRC\Arc3D

<http://forums.esri.com/Thread.asp?c=93&f=1734&t=214456>

<http://forums.esri.com/Attachments/24262.png>

To make a 3D solid model, first create two TINs corresponding to top surface and bottom surface

respectively, using necessary data. Use Create Tin and Edit Tin tools of TIN Creation tools of

3D Analyst Tools.

Extract edges of bottom TIN. Deploy 3D Analyst Tools->Conversion->TIN Edge for this purpose.

By default this has Polyline ZM shape. Edit this Polyline feature (may be a shape file) in ArcMap

so that except boundary lines all other edges are deleted.

Convert this polyline shape file into Polygon using Data Management Tools->Features

->Feature to Polygon tool.

Edit this polygon (in ArcMap start editing and double click the polygon) by pushing each and every node slightly outside (by very small margin). The idea is to make it infinitesmly larger than the earlier unedited polygon. Save this polygon.

Edit top surface tin (3D Analyst Tools->TIN Creation->Edit TIN). Add edited polygon as a clip

polygon and use shape field as the source of Z values (set height\_field to Shape and use\_Z to TRUE).

The resulting tin gets side panels by this edit operation (just like a cap).

View this tin along with the already created bottom surface tin in ArcScene. If needed veiw both the surface of the tins (Layer Face Culling button in ArcScene). For good results switch Layer

Lighting off for the bottom tin and render both the TINs in the same color. This gives a

reasonably good 3D solid. Like this, for each geological formation seperate sets of tins can be

created and ultimately displayed together in ArcScene which hopefully serves the purpose.

As a further action you can convert both these TINs into Multipatch using 3D Analyst Tools->

TIN Surface-> Interpolate Polygon to Multipatch (Be careful - use edited polygon for top surface

TIN and unedited polygon for bottom surface TIN). Combine these two multipatches into one deploying

Data Management Tools->General->Append. Finally you have a single solid 3D multipatch polygon for

each geological formation.

I am attaching a single solid bed along with this as a Word document file (ThreeDFigures.doc).

Extruding points to lines

<http://webhelp.esri.com/arcgisdesktop/9.3/index.cfm?TopicName=Displaying%202D%20features%20in%20ArcScene>