Importing SketchUp geometry to Houdini

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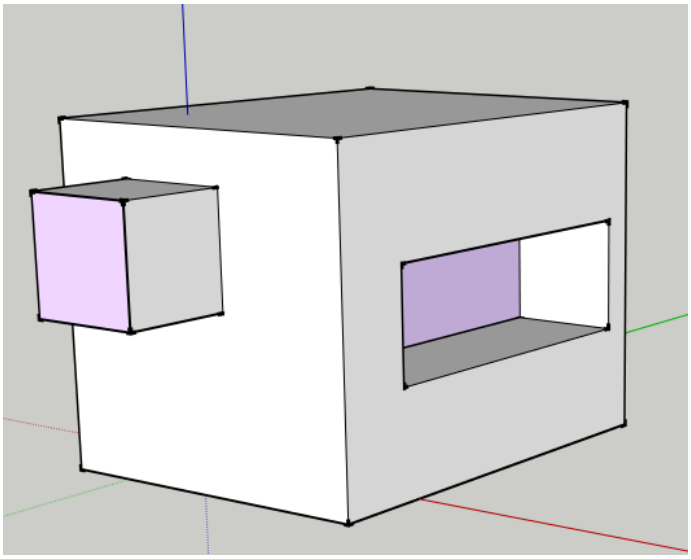
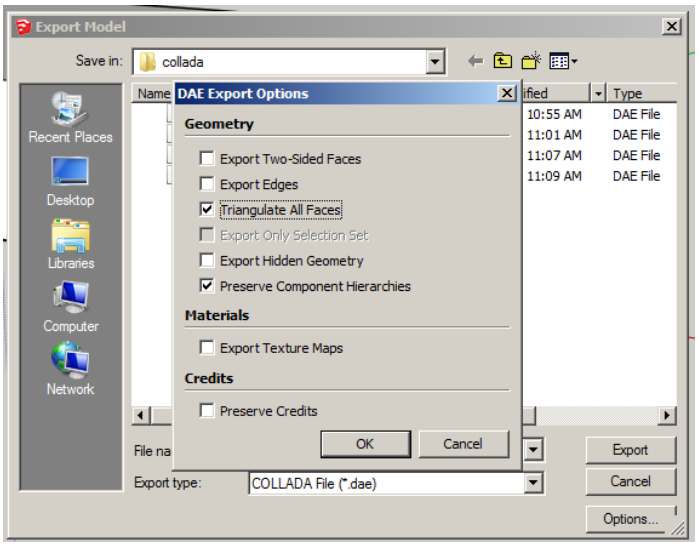
The SketchUp import using Collada files is a little complex. When Houdini imports Collada, it imports the whole scene. The geometry comes in using a while set of ‘file’ nodes, each importing a different group or object. To get all the geometry into one ‘geo’, some workarounds are needed.

There are a few steps, as follows:

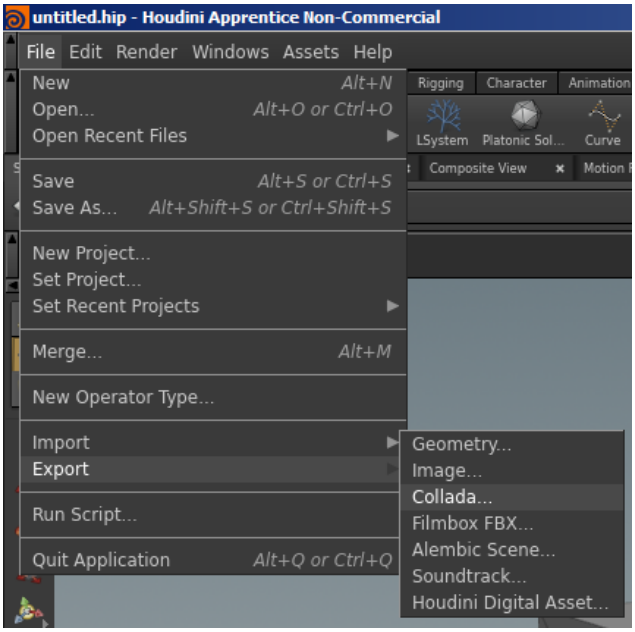
1. Use groups in your SketchUp file to organise different elements. Here the windows are in a group.

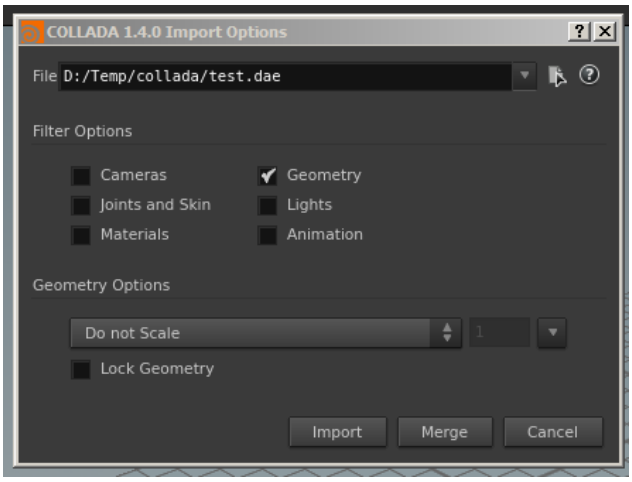


2. Export the model as Collada (.dae) file. Use the settings shown below.

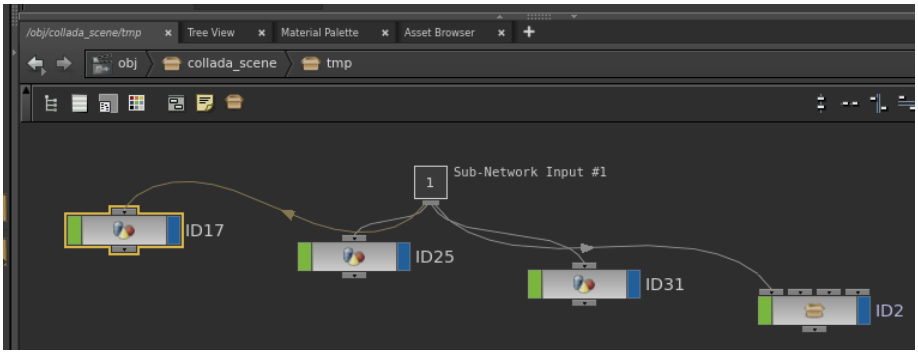


3. Import the Collada file into Houdini

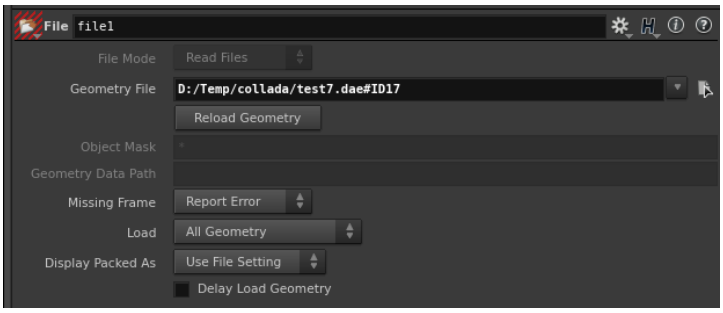




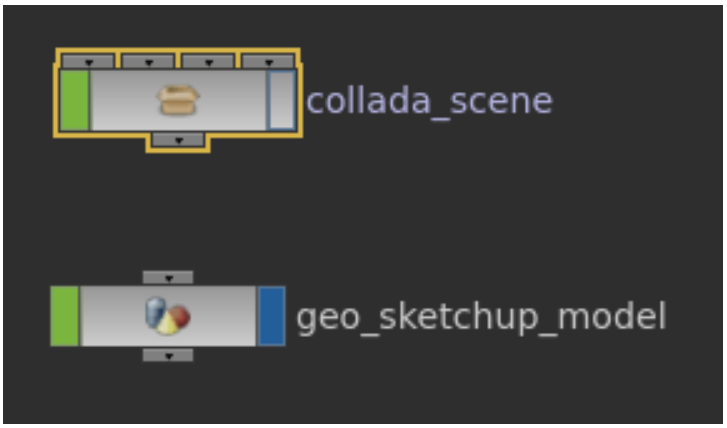
4. Now you have a ‘subnet’ node called ‘collada_scene’ that has the SketchUp geometry in it, organized into many subnets. If you have a big file, there really can be hundreds of subnets.

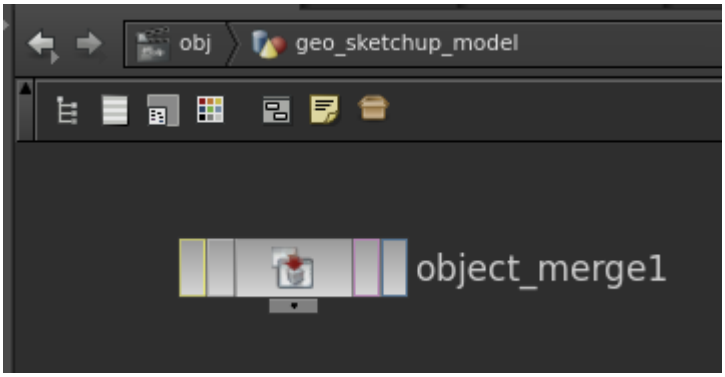


If you look in these subnets, you will find ‘file’ nodes. One problem is that all these nodes have absolute paths. This means that if you move your files to another computer, it is unlikely to work!

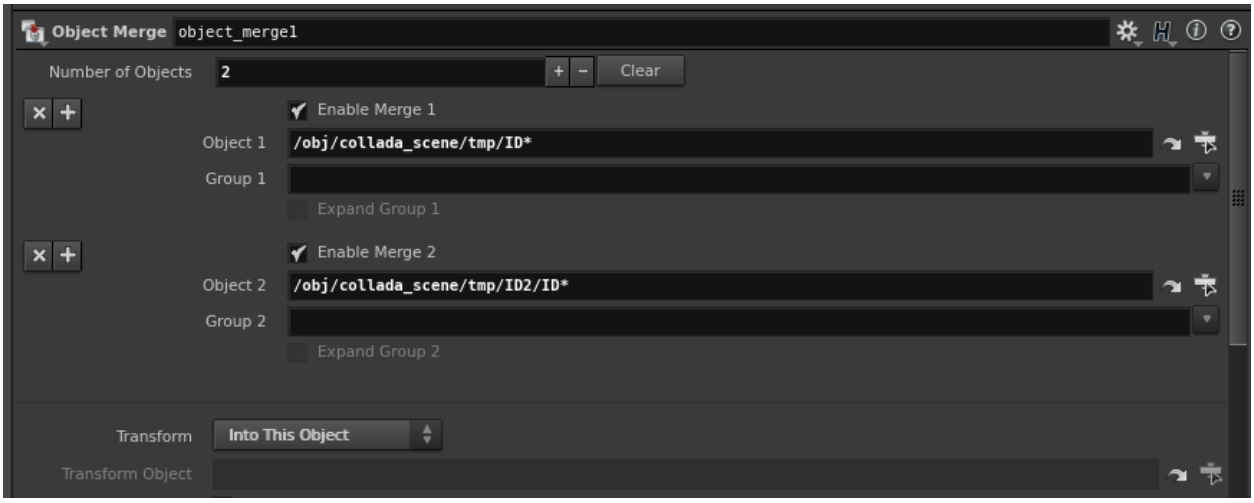


5. Extract the geometry you want into your own geo node, using “Object Merge”





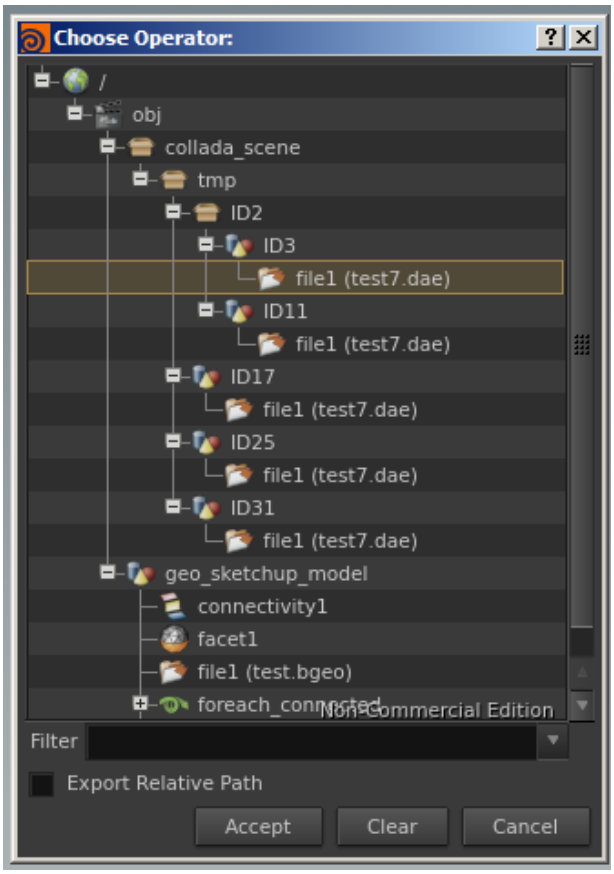
6. Set the setting for the Object merge node. In this case they look like this:



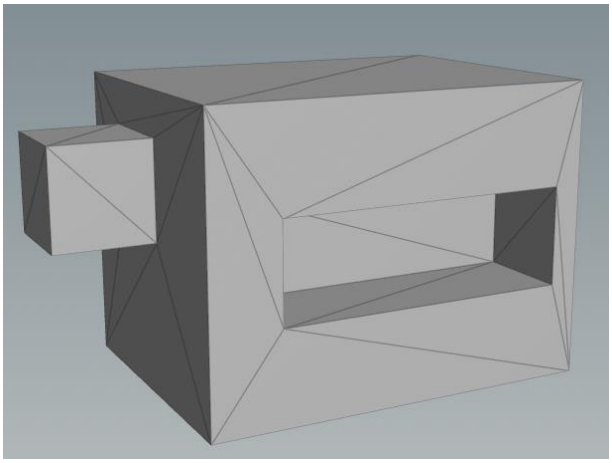
Object 1 is all the top level geometry that is not groups.

Object 2 is the group with the windows in it.

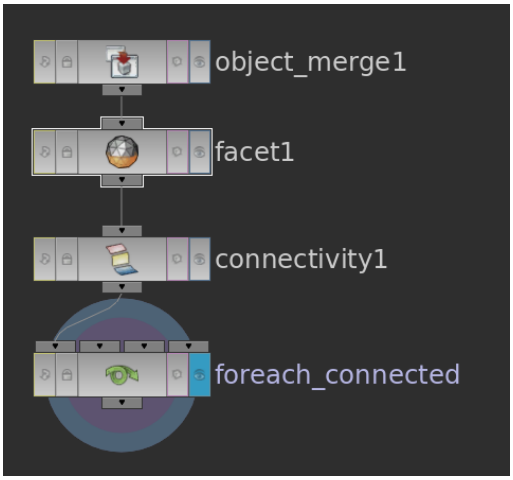
When you set these paths for the objects you will see that there is a hierarch. Groups like the windows are one level down.

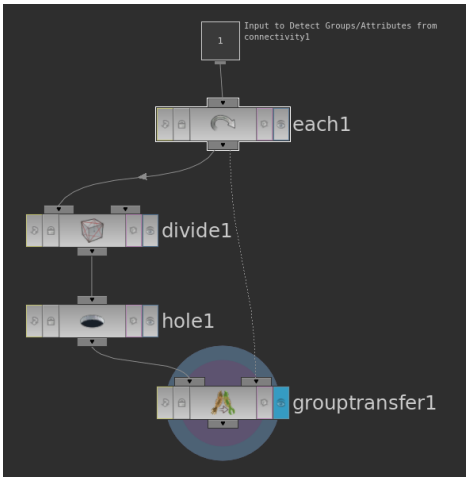


7. Now you should have a triangulated model that look like this.



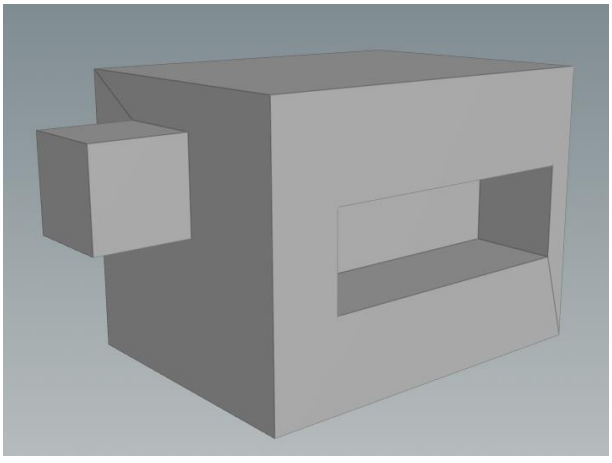
8. Merge the triangles like this. (You need to make sure you don’t lose the groups, that is why there is a “for each” in there.)





See the nodes in the example Houdini file for more details on how to do this.

This should give you a clean model in Houdini.



9. Last – add a ‘file’ node to save this as a BGEO. It is not a good idea to work on this file directly. Just use this file to extract the geometry, and then save as BGEO so that you can easily import the geometry into another Houdini file.