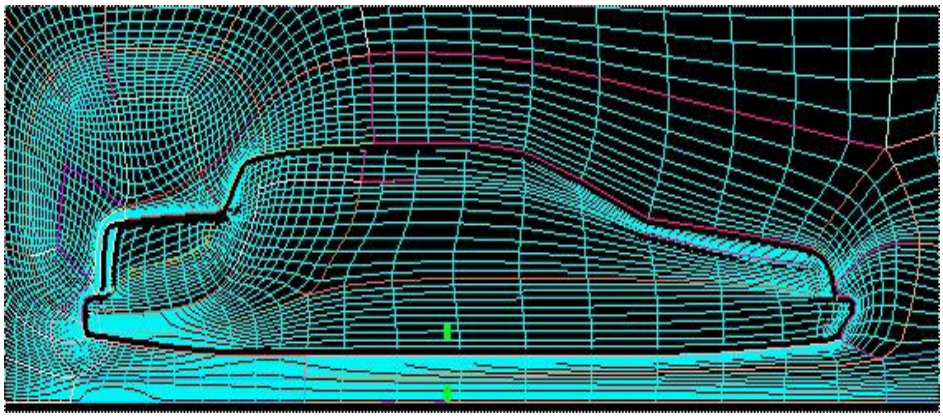
Tutorial 10.2: Compact Enrichment

The idea of compact enrichment can be extended to three-dimensional grids.

What You Will Create

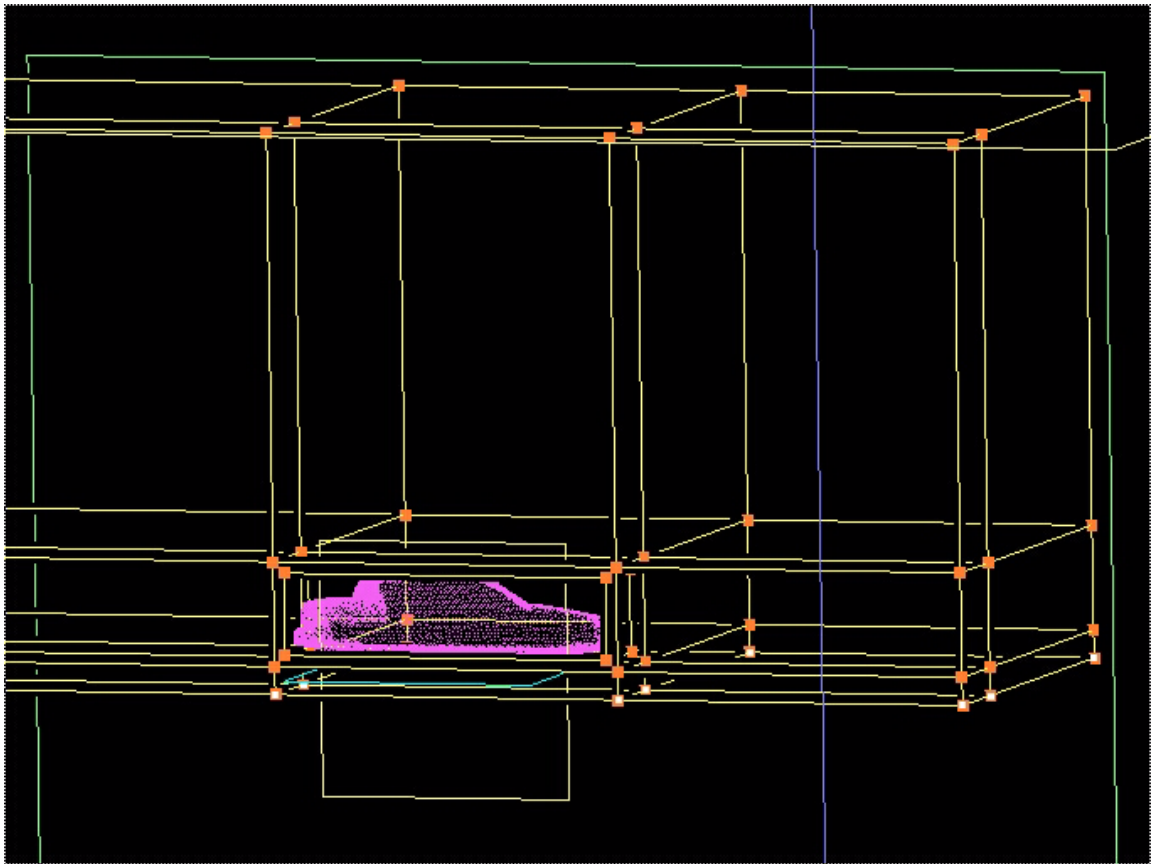


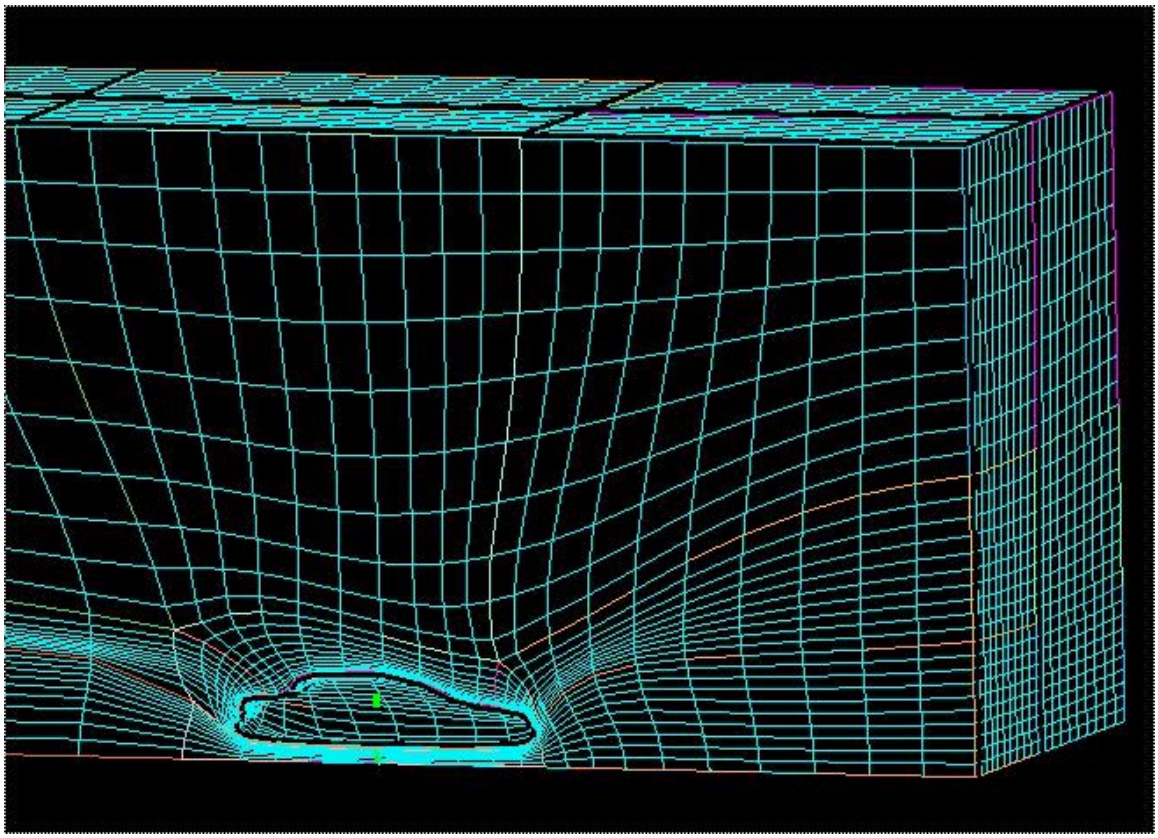
What You Will Learn

- Using the reference group function to add topology
- Group Background Display Mode

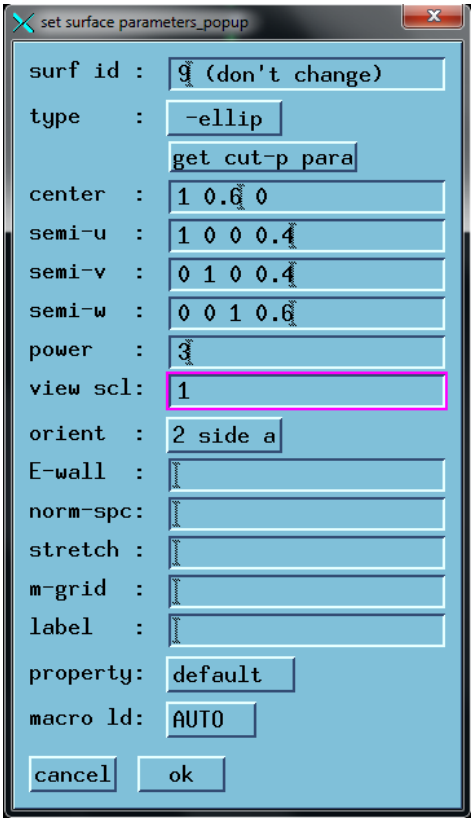
Step 1 Adding an Internal Surface

Reopen **GridPro**, and load the **Tutorial_10.2.fra** file. You should also load the corresponding grid created with this topology from the **Turorial_10.2.grd** file. The topology with surfaces in the point's mode and the corresponding grid with a shell should look like the following.

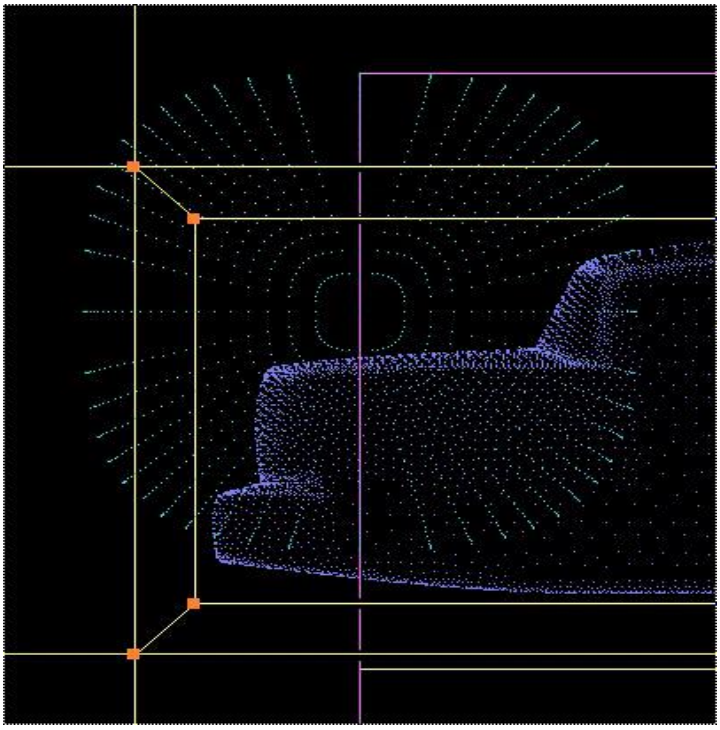




We want to enrich this grid in an area similar to that which we did in the 2- D case. Go to the **load: -ellip** command from the **surf** menu, and type in the following preferences**.**

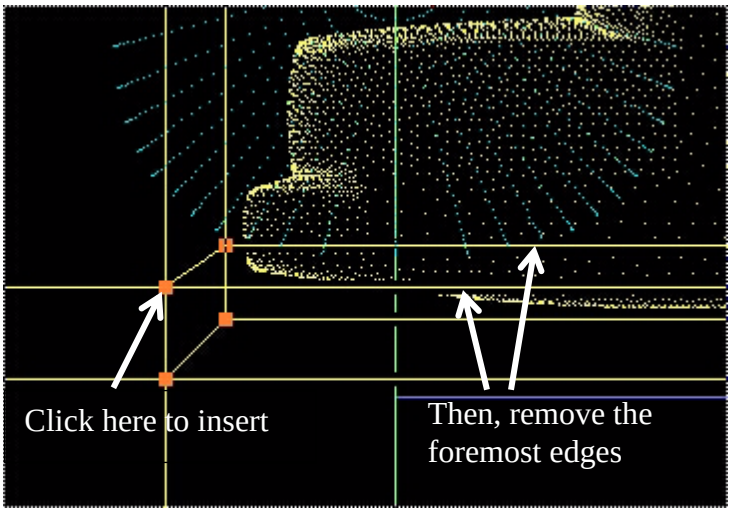


You should see the following new surface on your screen.

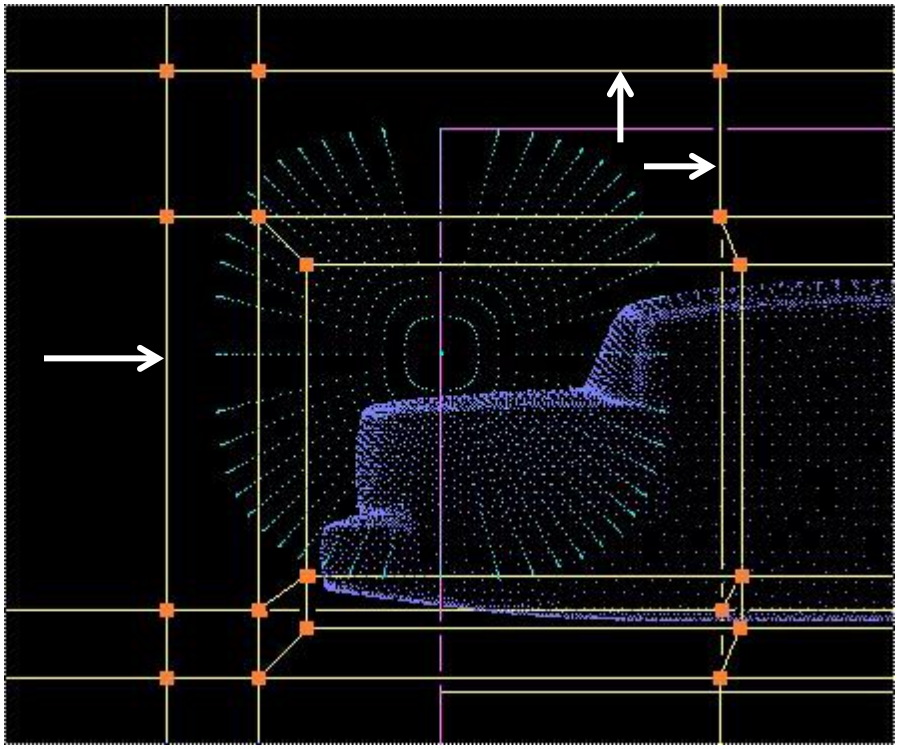


Step 2 Adding Topology

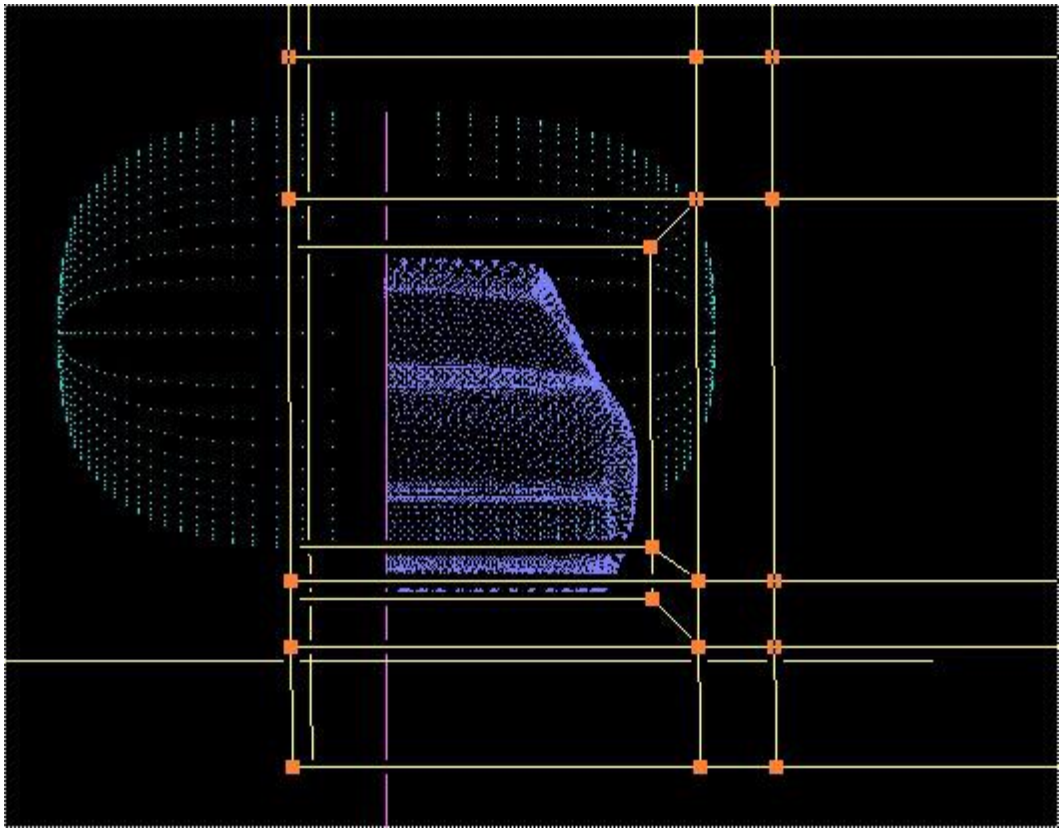
Insert and remove edges as shown below.



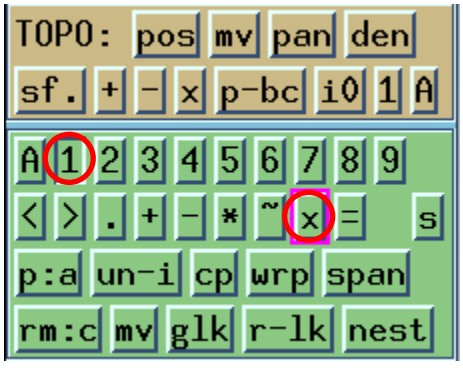
Now, insert three more edges, as shown below. You do not need to remove anything after these insertions.



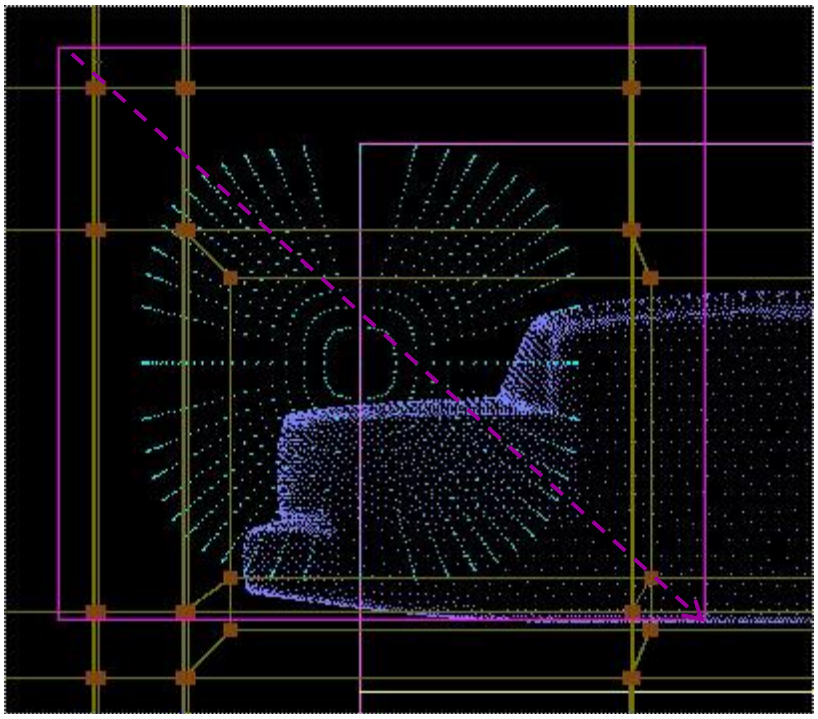
Rotate the screen and insert another edge as shown below.



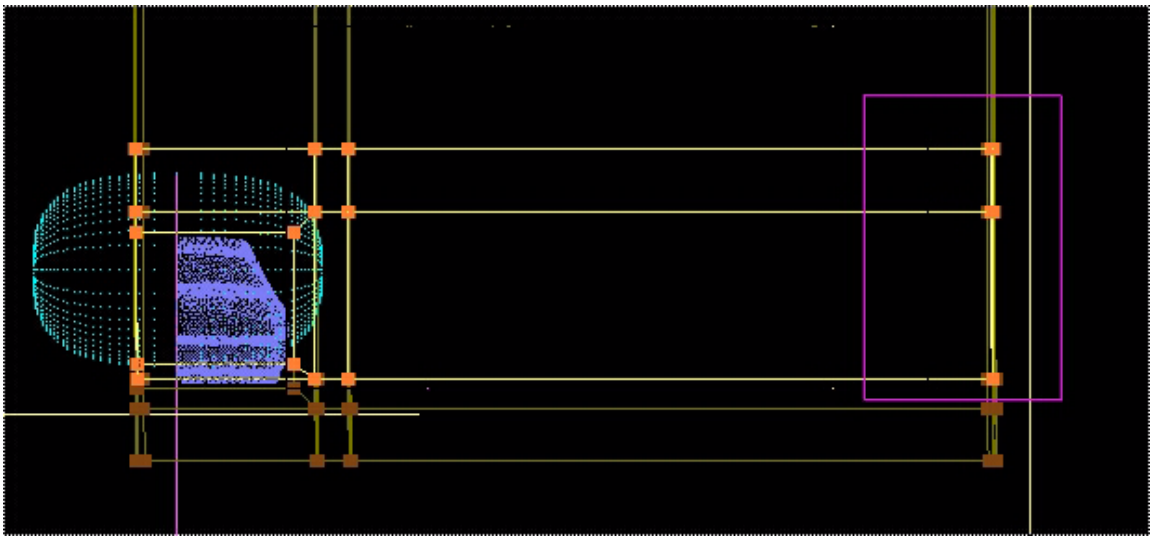
Rotate the view back to the previous one. Now, choose group **1** from the **TOPO** command panel and click **x** button to clear the group. Group **1** is special because it is used as what is called the reference group.



Now, click the + button on the **TOPO** panel and select the following points to add to group **1**.

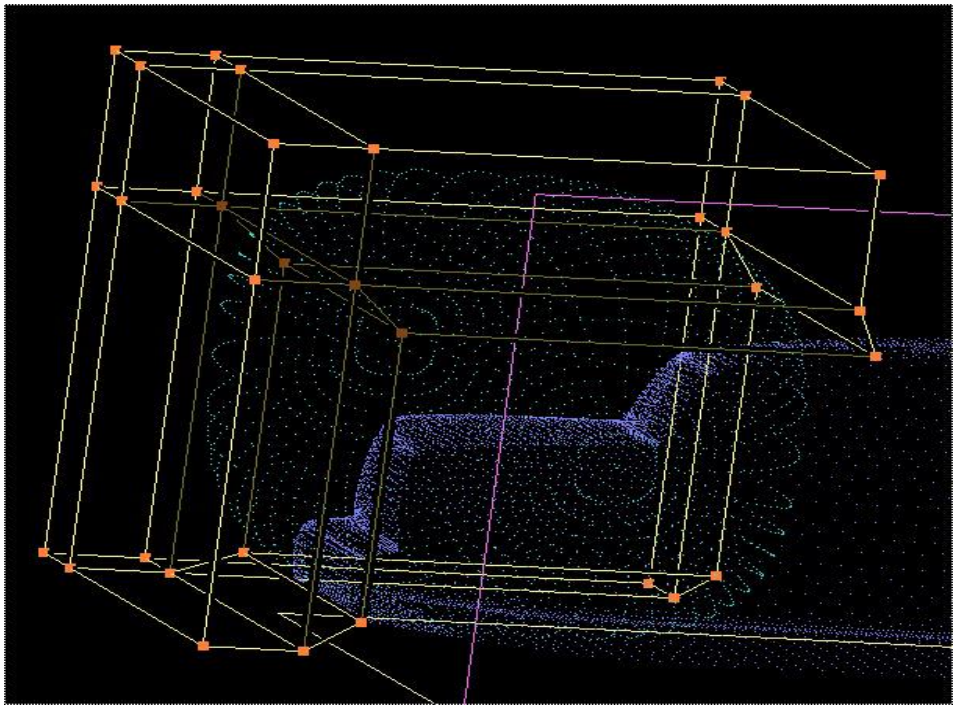


Now, rotate the view and click the **-** button on the **TOPO** panel to remove the points shown below from the group.



Notice the button to the left of the  on the **TOPO** command panel. Right now, it should be an  . Click it twice so that it changes to  .

Notice that all the topology points outside of group **1** disappear. Choose an empty group other than group **1**. Now, you can see only the topology that is in group **1**, and it is faded. Add the outer part of the visible topology to the current group. It should look like the following picture.



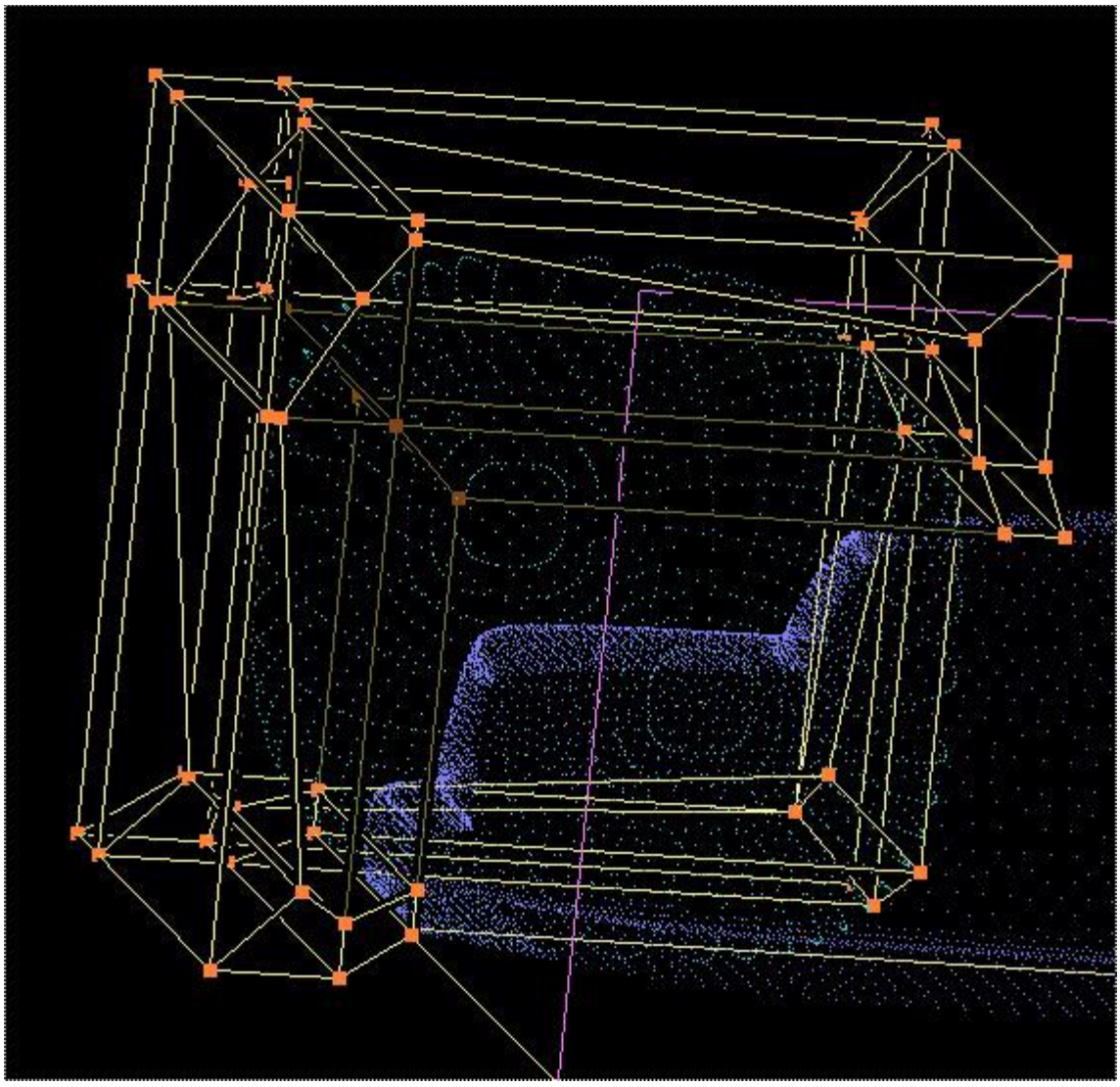
The Group Background Display Mode

There are three modes for group background display of topology. Each mode specifies a unique view associated with the current topology group. No matter which selection is made, the only active points will be those in the selected group. The display mode determines what other topology can be seen, according to the rules stated below.

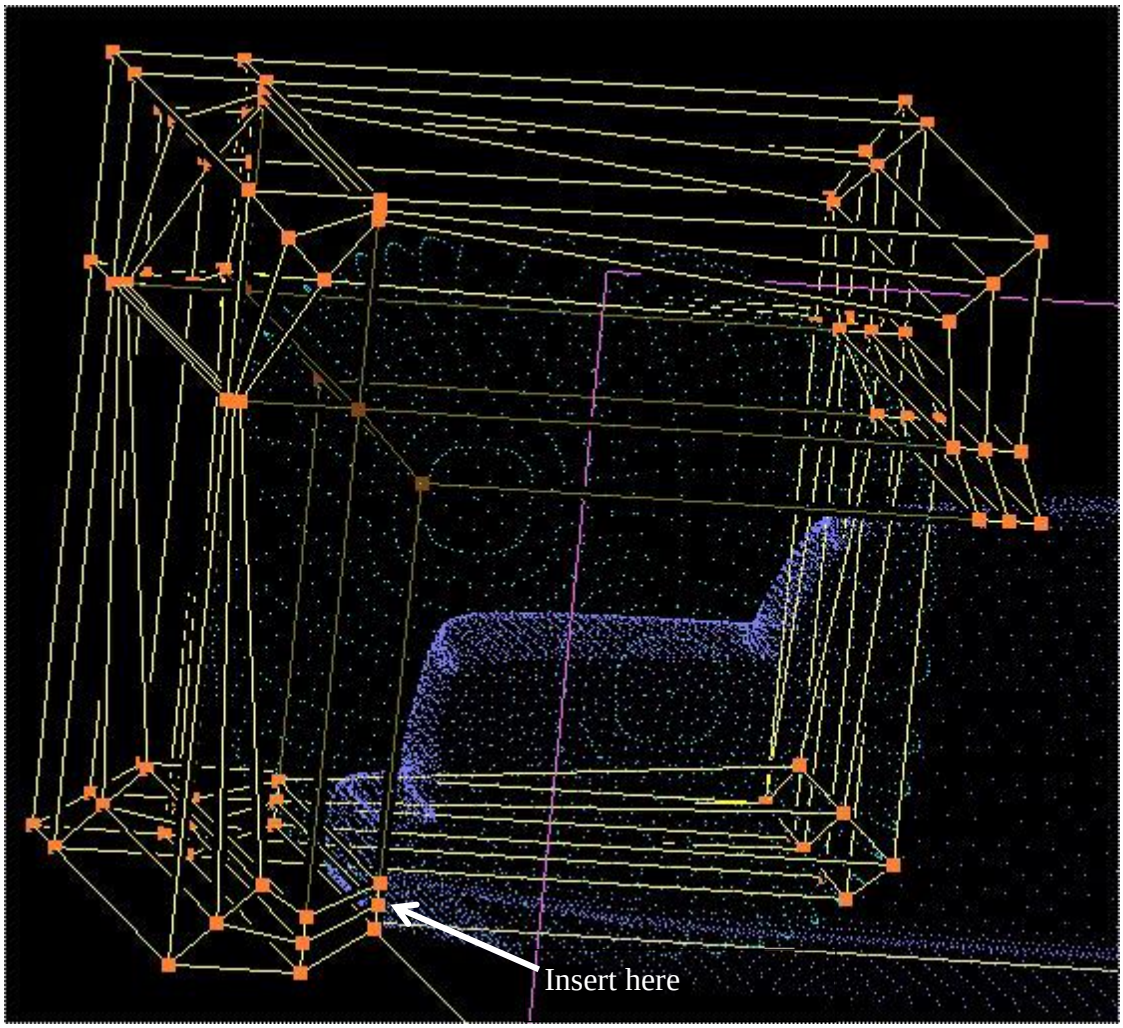
Table 1:

A	All	All topology points.
G	Group	The group only. No additional points.
R	Reference	Those points which are in group 1

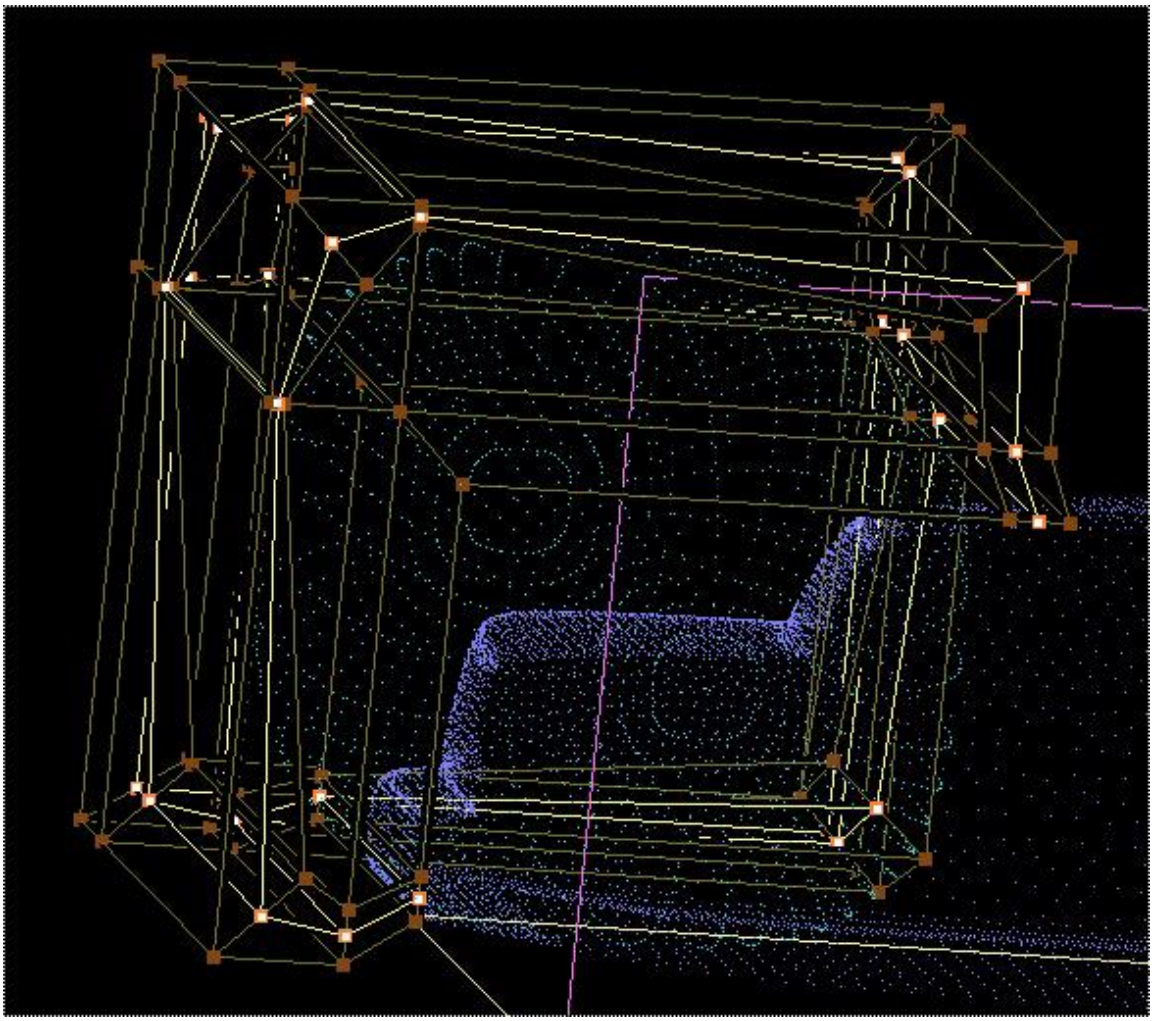
Now, choose **wrp - 10% smaller** from the **TOPO** command panel. You should now see something very complex like the image below.



Make one more insertion by holding down and clicking as shown below.



Click the button on the **TOPO** command panel. This will highlight the topology that you just inserted. Make sure that the ellipsoid is the current surface and assign all points to the surface as shown below.



Step 3 Creating a Grid

Now that you have finished creating the internal surface and the new topology, you can create the grid. Go to **Ggrid: start** from the **topo** menu. After waiting a few minutes, the grid should look like the following picture.