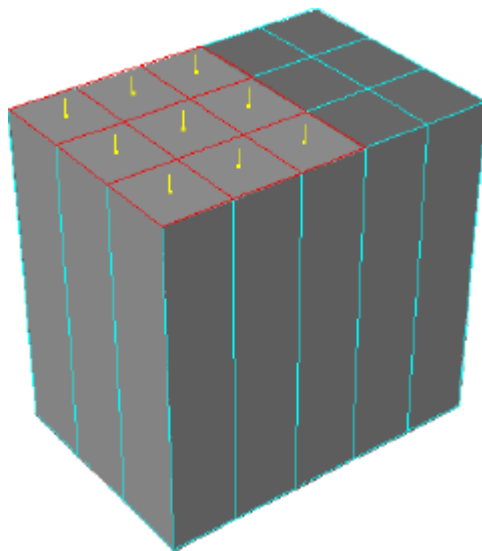


HyperNURBS Modeling

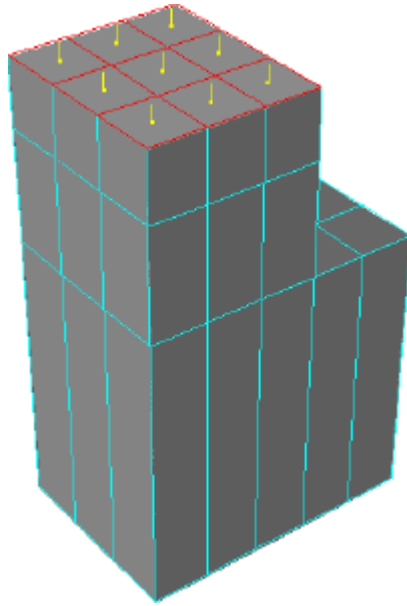
HyperNURBS Modeling is nothing more than creating an object with very few polygons (= cage object) which gets its final shape by rounding and subdividing via a HyperNURBS object.

So you e.g. start with a polygon cube and make it a sub object of the HyperNURBS object. If during modeling you want to switch back and forth between cage object display and HyperNURBS display you don't have to put the cage object in and out of the HyperNURBS - just hit "Q" to switch between both display modes. "Q" deactivates and activates the first parent generator object (while the Symetry object is ignored). If you want to see the HyperNURBS object without the cage object visible you have to select the HyperNURBS object in the Object Manager.

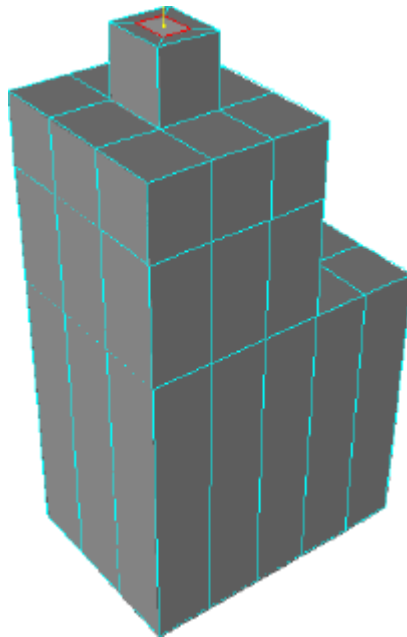
As little exercise let's create a cube of 3x1x5 segments and convert it to a polygon object (in the menu under "Structure / Make Editable"). Switch to Polygon mode. Using the Live Selection tool select the first three polygon rows (see picture). It's important that in the "Active Tool" window the option "Only Select Visible Elements" is active - if not also polygons on the back side of the cube would be selected.



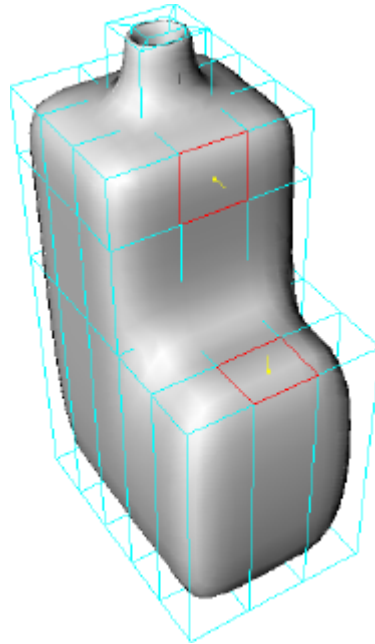
We want to use the Extrude tool from the Structure menu to extrude these polygons two times. The first extrusion should be half the cube's height. If you release the mouse button the Extrude tool is still active - so you can instantly do another extrusion. The second should be about a quarter as high as the cube.



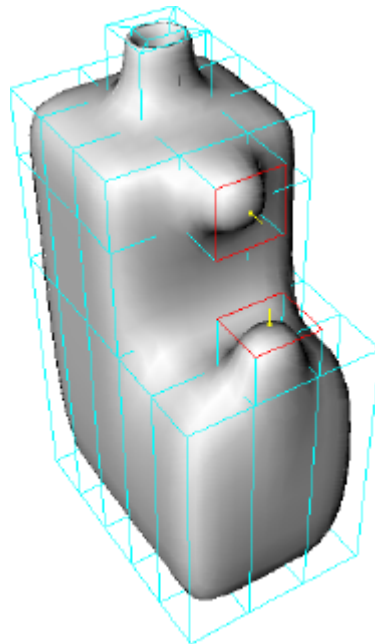
Next we select the middle of the newly extruded polygons and extrude it a bit upwards. Now you select "Extrude Inner" from the Structure menu and extrude the new polygon inwards.



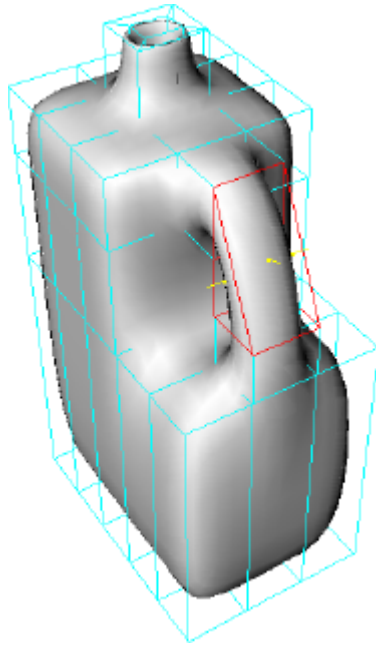
Extrude the active polygon downwards to create an opening. Now put this object into a HyperNURBS object to see the final shape. By the way - using the Quick Navigation in the view window title bar during modeling you can rotate and move around your object very quickly to make sure it looks good from every point of view.



The selected polygons (see picture above) can be used to create a handle for this bottle. First you have to extrude these polygons. Now we can connect them with the Bridge tool.



Select the Bridge tool from the Structure Menu. To create a clean connection between both polygons you first have to select a point of the first polygon - now select the corresponding point of the other polygon. After releasing the mouse button the connection should look like in the following picture.



Here's your final liquid detergent bottle!

