This tutorial is about modeling curtains and cloth in general. It is based on a technique suggested by Stephen James on our Forum, in response to a question by Kevin McCall. The technique is based on first building a low resolution model (cage), which is then subdivided to derive the final model.

To start, build a window, roughly as shown to the left, to use as a reference.

You will next model the first curtain.
- Working in top view, draw a zig-zag shape, corresponding to a curtain on the left half of the window (shown on the left).
  - Extrude to a height that covers from the floor to the top of the window.
  - Working in front view, draw five lines at roughly equal distances.
  - Use the Trim/Split tool to split and stitch the extruded object with the five lines. Note that the result is a single object.

You will next scale the curtain cage locally at the position of the lines.
- In front view, prepick the segments of the line at 1 and, with the Independent Scale tool active, click on 1, then 2 and 3. Then scale the curtain cage locally on the other lines to derive roughly the result shown on the left.

• After working in front view, go to a side view and scale the curtain at the inserted lines some more, to give it a free flowing shape.

• Copy/mirror the left curtain to derive to one on the right side of the window. Then working on both a front and side view locally scale and move some of its points to make it slightly different from the one on the left. When done, the result should be roughly as shown above right. Note that this is still a cage of a curtain.

Next, you will make the ties that hold the curtains near their middle.
- Generate a cuboid of a size sufficient to cover the curtain at its cavity, as shown on the left and also above in detail.
  - Delete the top and bottom faces of the cuboid, then insert segments to its side faces and move points in all directions to give the cuboid a more irregular shape.
  - Use the Parallel tool to transform the deformed cuboid into a double parallel object, by offsetting it towards its outside by about 1/4".

We shall next model the second layer of curtains, starting with the top drape, which will be generated as a two path sweep.
- Draw three splines, roughly as shown on the right.
  - With the Sweep tool active and Two Path Sweep on, select the source and two paths. The result is as shown in both a smooth and faceted version.

When this stage is done, the two cages should be roughly as shown above left.
- With the T-Subz tool, and the proper settings in its dialog, click on each of the two pieces to derive the final curves, as shown above middle.

The whole curtain is shown above right and below, in both a hidden line plot and a shaded rendering.

Concluding, it needs to be noted that, even though above we gave some specific instructions about how to execute the different steps of the curtain generation process, much has to rely on one’s artistic sense and dexterity. Modeling the curtains will undoubtedly involve quite a bit of trial and error, which is something the process we described can easily accommodate. We already suggested that one will have to experiment with different settings when applying the subdivision tool. Also, shaping the cages will most likely have to go through a few cycles before a satisfactory form is reached.