



Altair

HyperWorks

HM-3520: Sculpting

Model Files

This exercise uses the `dummy_position_solid.hm` file, which can be found in the `hm.zip` file. Copy the file(s) from this directory to your working directory.

Exercise: Conforming a Seat to a Dummy Profile

The objective of this exercise is to take a dummy pelvis profile and imprint it onto a seat.

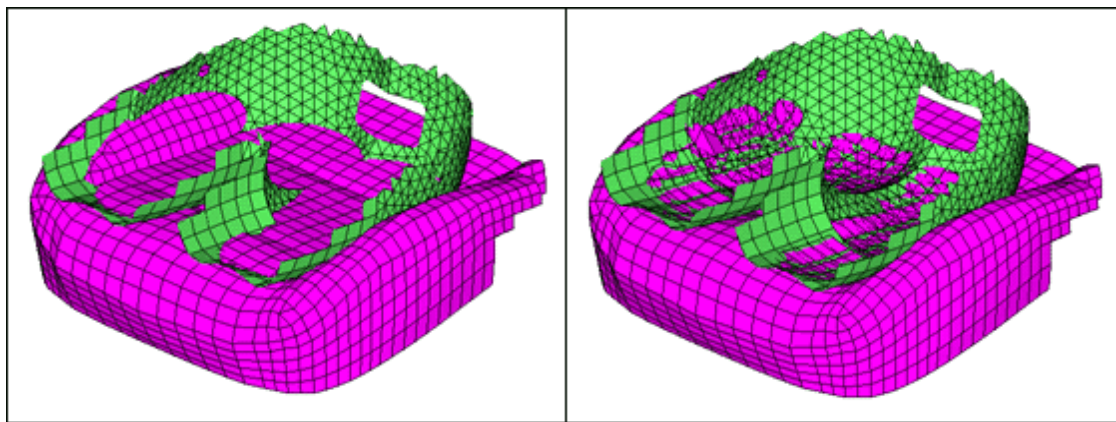


Figure 1: Seat before and after sculpting

Step 1: Load and review the model.

Open the HyperMesh file, `dummy_position_solid.hm`.

Step 2: Morph the seat.

1. From the menu bar, click **Morphing > Free Hand**.
2. Go to the **sculpting** subpanel.
3. Set the **sculpting tool** to **mesh**.
4. For the **sculpting tool**, select all of the elements in the **dummy** collector (Figure 2).
5. For **affected elements**, select all of the elements in the **seat** collector (Figure 2).
6. For the **base point** as well as the **tool path: node list**, choose a node on the dummy (Figure 2).
7. Define a sculpt direction for your seat using **N1 N2** (Figure 2).
8. Set your **taper angle** to 85 (degrees).
9. Verify that mesh compression is set to **compress by factor**.
10. Set **mesh compr=** to 0.5.

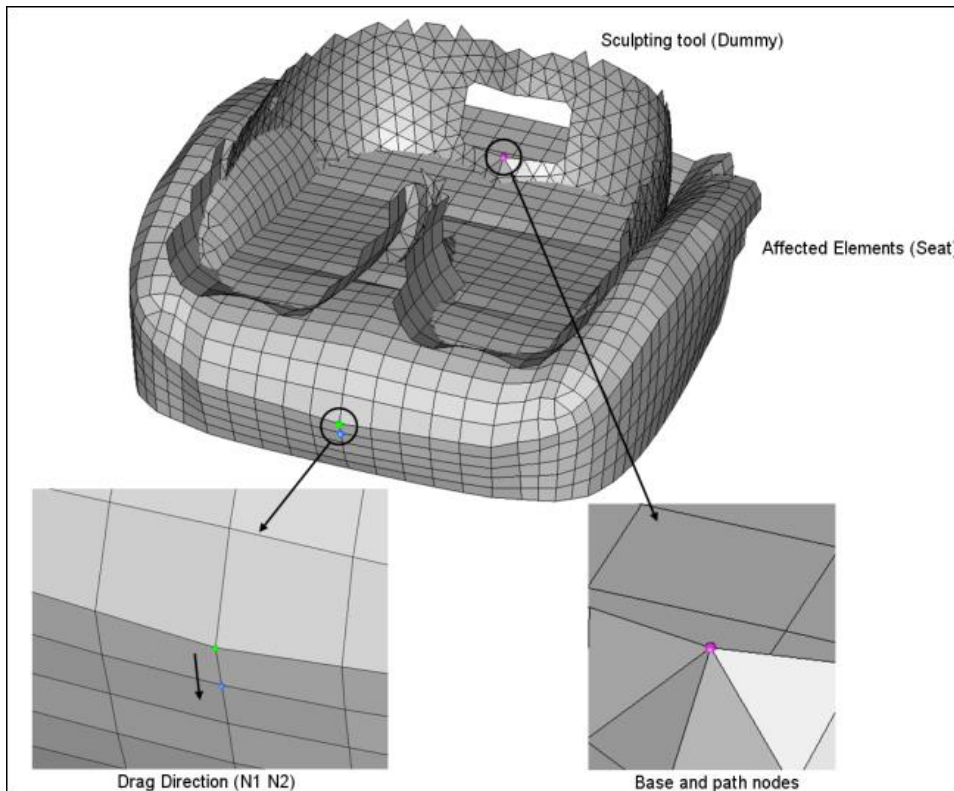


Figure 2: Setting up the model for morphing

10. Click **move+** to complete the morphing operation.

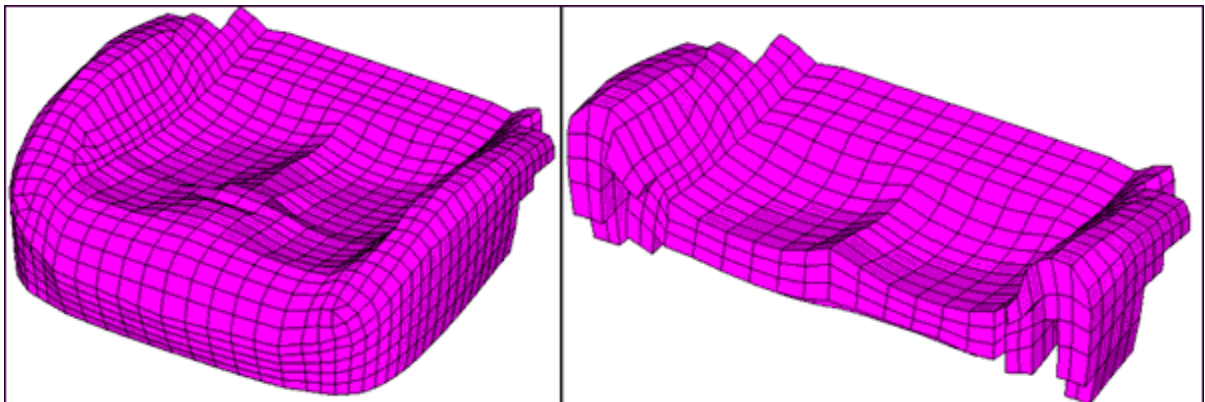


Figure 3: Seat after sculpting

11. Review the obtained mesh quality.

Summary

Using just a few steps you have been able to take a fairly complicated profile and impose it on to another mesh.