

TUTORIALS

Digital Forming connects designers, retailers and manufacturers.

1b. File Preparation

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Tutorial 1B: File Preparation

File Preparation

To optimize your experience in ODO you should prepare your files always ensuring that the triangulation/mesh is as even and uniform as possible. This is particularly important if you want to use manipulation and shape modifying tools. In some CAD packages, controlling the mesh is not possible; in this case, you can re-mesh models in MeshMixer, ZBrush, MAGICS, or Blender.

A file that has good triangulation will look uniform, as shown below. Meaning the triangles, and vertices are distributed evenly. Figure 1

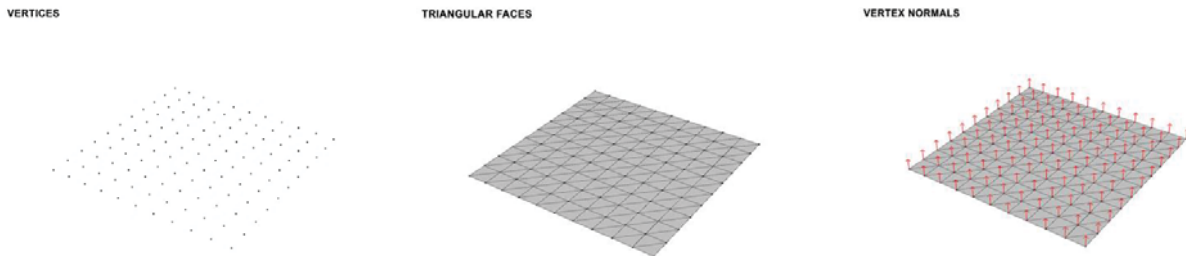


Figure 1

Here is an example of uneven distribution, otherwise known as bad topology (Figure 2):

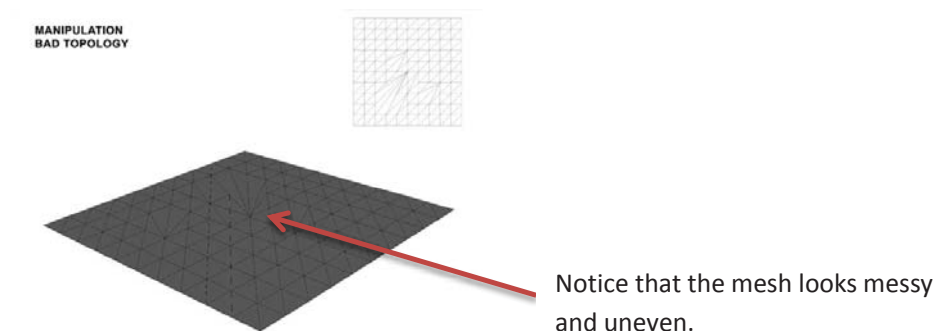


Figure 2

When vertices are selected in ODO, it assigns a weighting to them. Vertices in the centre of the selection will be highlighted in bright orange, the colour intensity will fade as the weighting becomes reduced. When your mesh is even and ordinate, the shape manipulation will be evenly applied. (Figure 3).

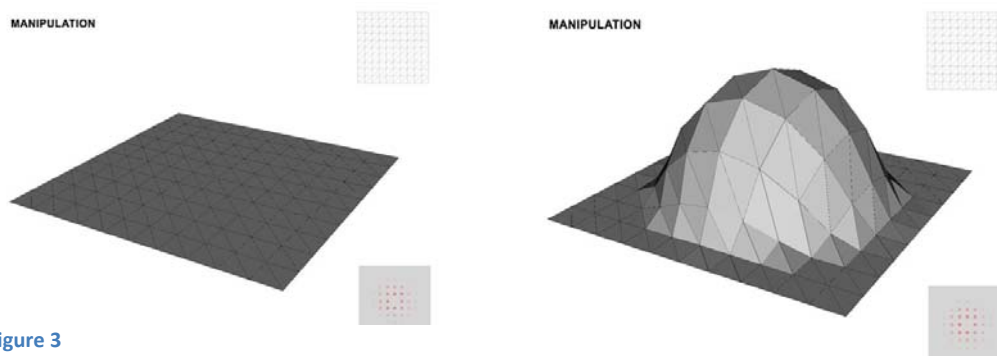


Figure 3

Contact: support@digitalforming.com for any further questions.

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If your mesh is uneven this will result in uneven shape manipulation, and will not produce the desired effect. (Figure 4)

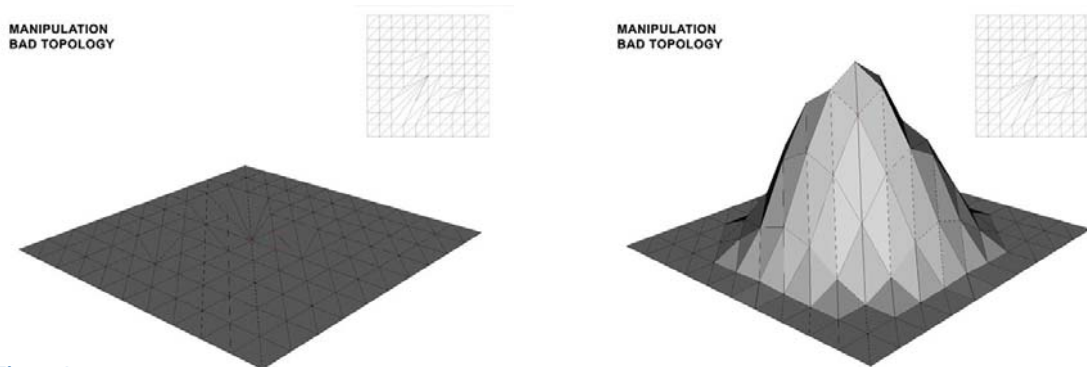
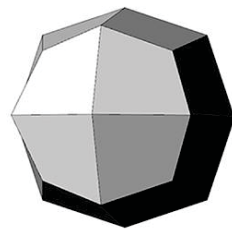


Figure 4

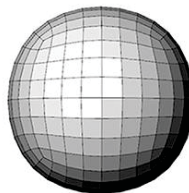
Saving Files for ODO:

When saving your geometries for ODO, consider this, if the mesh has too many polygons, then your file may become too large, and result in a poor customization experience online:

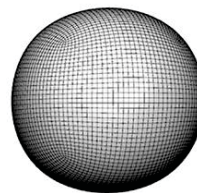
POLYGON DENSITY CONSIDERATION



**LOW POLY
FAST DOWNLOAD**



MEDIUM POLY



**HIGH POLY
SLOW DOWNLOAD**

Ideally an .ODO file should be below 6mb, this will result in a fast customization experience, with 10mb being the maximum suggested size for a .ODO file. Bare in mind ODO will compress your files from their original size.

Tutorial 1B: File Preparation

Saving Files for Dynamic Skin:

A more advanced tool in ODO allows models to be positioned as a skin on selected vertices of the base model (Figure 5). In order for your models to position on the vertex points correctly, you must ensure you save your files in the correct position.

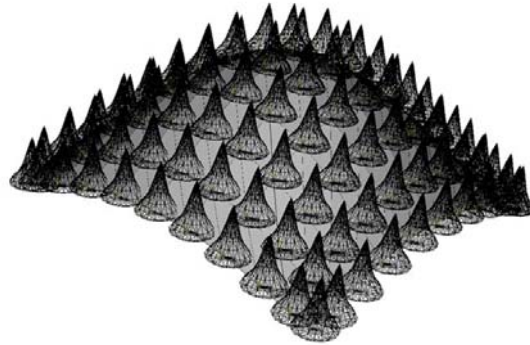


Figure 5

The model needs to be saved in the position you want your model to appear in ODO. With the origin in the position you'd like the model to attach to the vertices (Figure 6). The triangulation of your base model will also effect positioning.

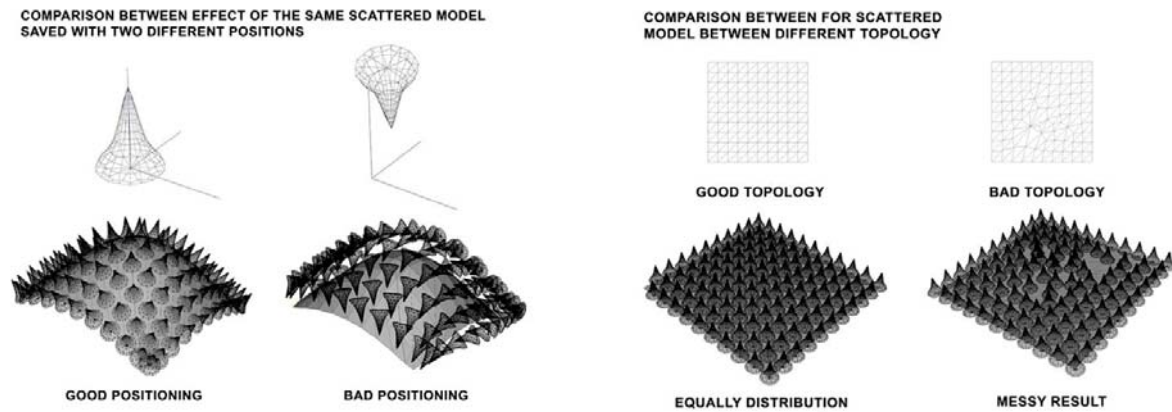


Figure 6