

### **3D Model Orientation in Orbiter**

In Orbiter the Z-axis is elevation (up/down) and the Y-axis is forward/back. The X-axis is left/right.

In Anim8tor the Y-axis is elevation (up/down), and the Z-axis is forward/back. The X-axis is left/right.

This can obviously be confusing when attempting to convert an Anim8tor model for use in Orbiter.

**To help yourself visualise how a 3d model will look in Orbiter, imagine that Anim8tors 'Front' view is like looking skywards (up), with the front of the model being at the top of the screen.**

So for a 'spacecraft' model produced in Anim8tor to have the correct orientation in Orbiter, it must be rotated so that in 'Front view' the model is as described above.

I say 'spacecraft' in the above paragraph, because if you are building a model rocket launcher for vertical take-off in Orbiter and are intending to use Vinka's multistage or multistage2 dll then the model can be left as drawn (assuming you have drawn it standing up) in front view. Multistage dll will take care of the orientation requirement in Orbiter, placing the rocket standing upright on the pad.

All this means that depending on the type of model you are constructing, the axis rotation steps you need to take before exporting the model for use in Orbiter will be different.

#### **Orientation methods**

For a model drawn with its rear on the left and its front on the right:

1. Rotate the model about the Y-axis by 270 degrees,
2. Rotate the model about the X-axis by 270 degrees.

You can also use  $-90$  in place of 180, its just the way Anim8tor performs the rotation, that's all.

For a model drawn with its front at the top and its rear at the bottom looking at it from the top in Anim8tors front view, then rotate the model about the X-axis by 180 degrees so you are seeing the underside of the model. If the same model were to be used for a vertical launch using Vinka's Multistage then no re-orientation is necessary.