Rendering ZBrush 3.1 Normal Maps in Carrara Pro with Inagoni's Baker Plugin

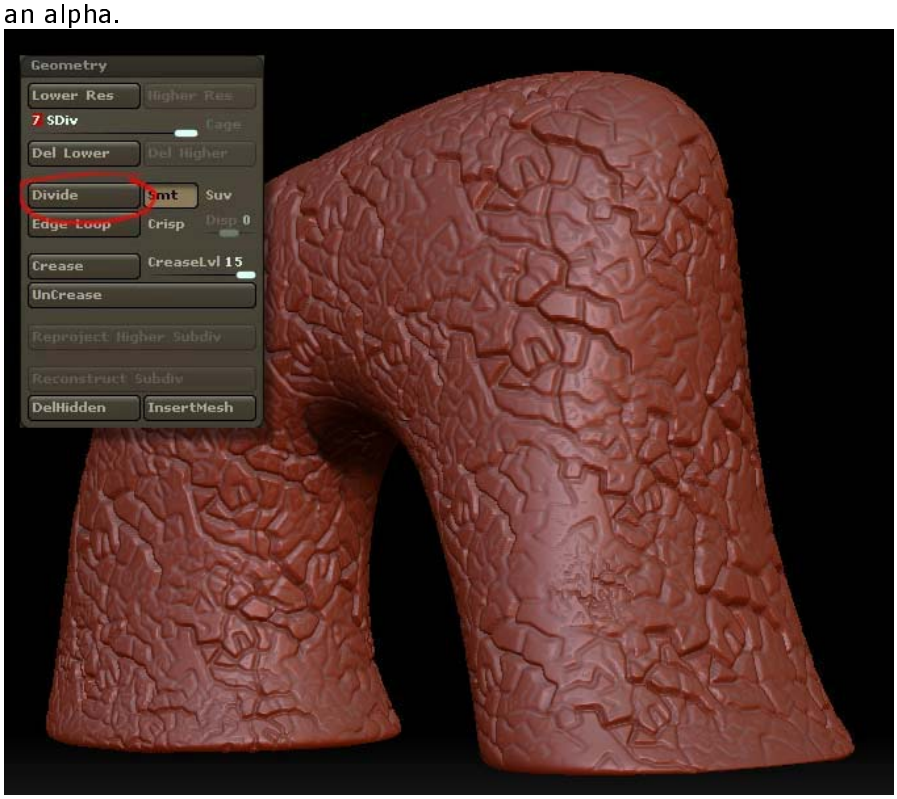
This is a quick, basic tutorial for getting ZBrush normal maps into Carrara. I used Silo 2.05, ZBrush 3.1 and Carrara 6.03 with Inagoni's Baker plugin. I've assumed that you have at least a working knowledge of each of these programs. The process should also work fine in Carrara 5.1 Pro.

Key things to remember; the normal map relies on UV co-ordinates. If you don't assign a texture and UVs then it won't work. I also found that exporting the obj file without the texture didn't work. I'm no expert but I suspect that ZBrush doesn't export the UVs if you don't export the texture.

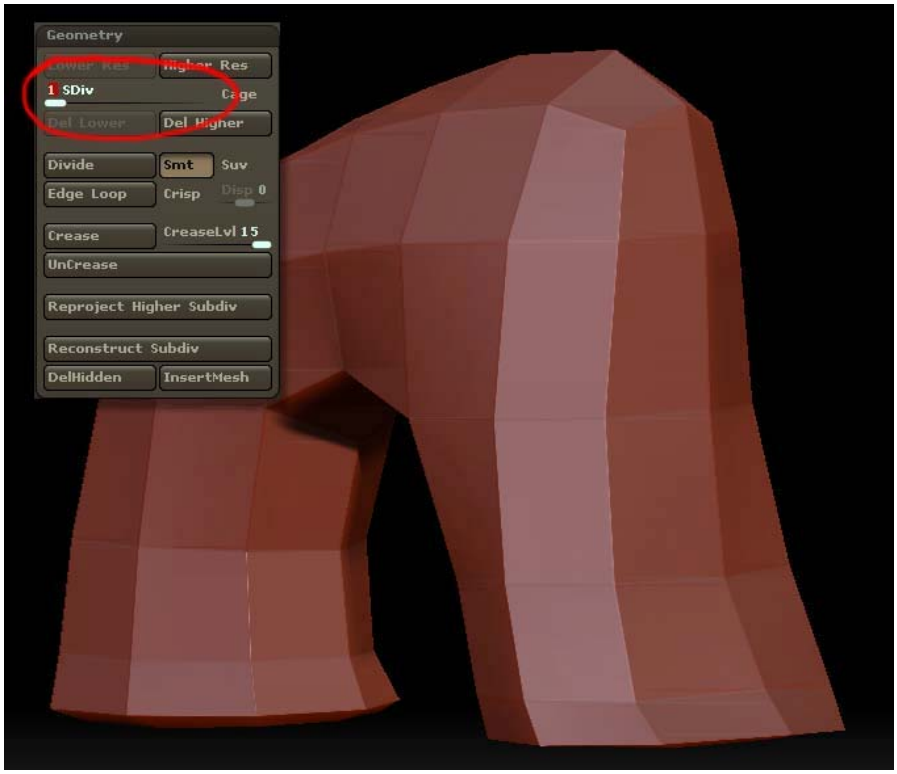
1. Make a lo-res model either in ZBrush or the modeller of your choice. I used Silo 2 for this.
2. Save the base mesh out of Silo as a .obj file
3. Open up ZBrush and import the base mesh using the import button on the Tool menu.

4. Draw the model on the screen and press T to enter edit mode.

5. Subdivide as many times as you like and then sculpt some detail into the high-res mesh. I divided 7 times and used the drag rectangle stroke with an alpha.



6. Take the subdivision down to the lowest level.



7. Make a new texture – I've used 2048 x 2048 pixels. Click new to assign it to the model.

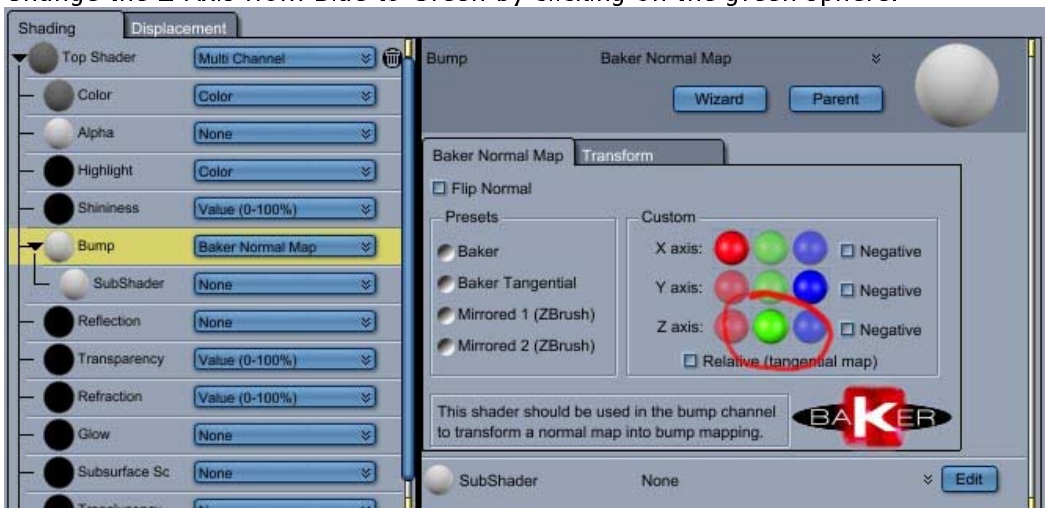
8. Open up the Tool/Texture palette and click EnableUV. Click GUV or AUV tiles depending on your preference. I used AUV.

9. Open the Tool/NormalMap palette and set the size of the map you want. I've gone for 2048 again. Click the Adaptive and SmoothUV buttons. Click create normal map button.

10. After a few moments (might be longer, depending on the detail of your model) the map will be created, placed in the texture palette and assigned to the model.
11. Open up the Texture menu and click the FlipV button (you can flip it in Carrara later if you forget to do this). Then click the export button to save the map. Note: that your model will now look strange as it flips the texture on the model too.

12. Assign the original blank texture back to the model.
13. Next open the Tool/Export palette. Leave the settings on the default and click the Export button to export the lo-res ZBrush object.

14. Open up C6 and import the exported ZBrush lo-res object file. Select it.
15. Go into the Shader Room and set the bump channel to Baker Normal Map. Change the Z Axis from Blue to Green by clicking on the green sphere.



16. Set the Baker Normal Map SubShader to texture map and import the normal map from wherever you saved it. If you didn't flip the map in ZBrush then do a vertical flip now in the subshader.
17. Render to see the result – I smoothed the object once in the modelling room to get this result.

So that's it – basic ZBrush to C6 normal mapping using Baker. Higher resolution maps give more detail. Also try playing with the bump slider in the Carrara shader to get more or less bump effect.

Regards Tony (aka –ASH-)