Tentacle v1.1

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NOTES

- There two scripts, one for either the Mac or PC. This is for obtaining the correct Text Curves as the two systems operate differently.

ERROR CHECKS

There will be several error checks if the options box is not given the correct fields.

1. If the naming field has not been changed.

2. If the name chosen conflicts with an already existing name (A number must be manually appended, sorry).

3. If the Joint Density is an odd number.

SETUP

1. The best way to run the script is to copy the correct **tentacle.mel** to your maya scripts folder, and the provided **UI Images** under the prefs folder.

Examples:

- On a PC, it is :
  Users/User/Documents/maya/2011-x64/scripts
- On a Mac, it is:
  Users/User/Library/Preferences/Autodesk/maya/2011-x64/scripts

2. Then open (or reload Maya), and under the MEL command menu, simply type in tentacle. You maya also middle-mouse drag the text to your shelf as a button.

TIPS FOR GENERAL USE

1. Make sure to close the **Hypershade** because all the nodes generated for the rig will appear in the workspace area. This will slow down your machine if the joint density is high with the Extra Options selected.

2. The generated Utility Nodes do no appear in the **Hypershade**; *alternatively they appear only in the **Outliner**.*

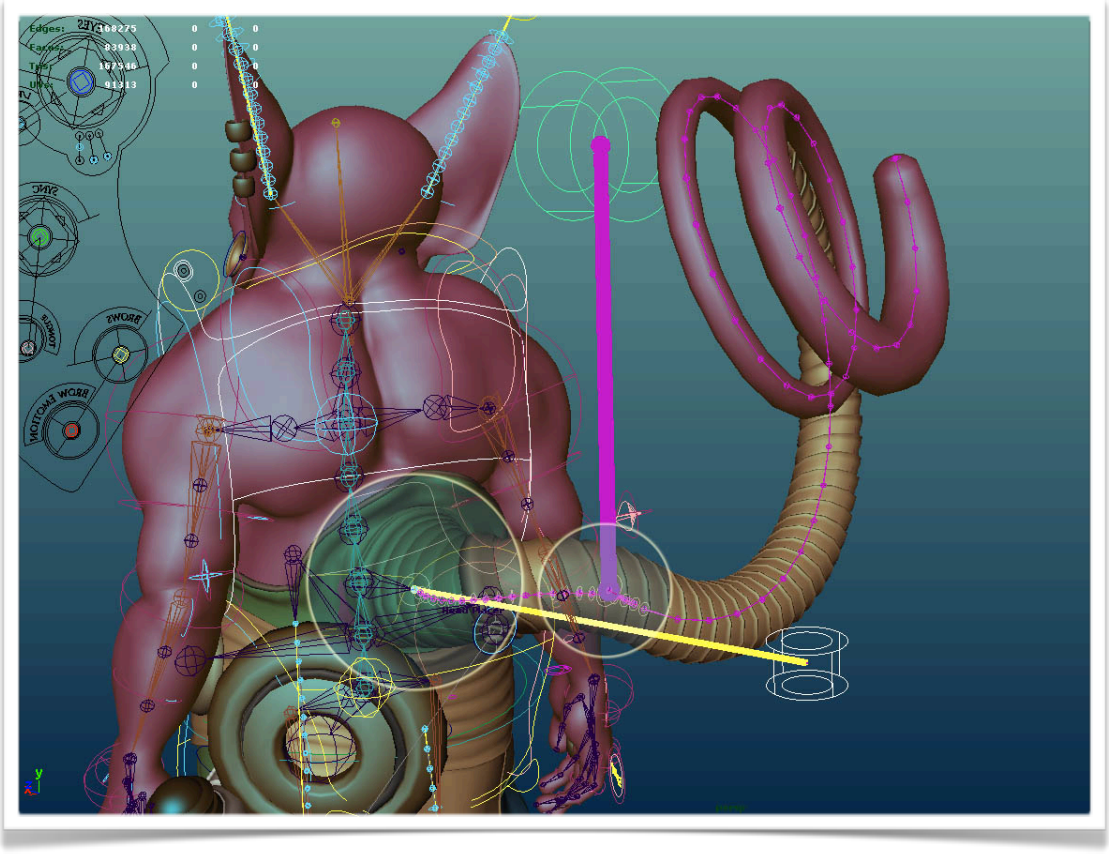
3. Try to use a high joint density for optimal flexibility.

4. The **Control Tether** is for visual purposes only. It just helps to maintain visual organization so that you can easily keep track of your control.

TIPS FOR ADVANCED USE

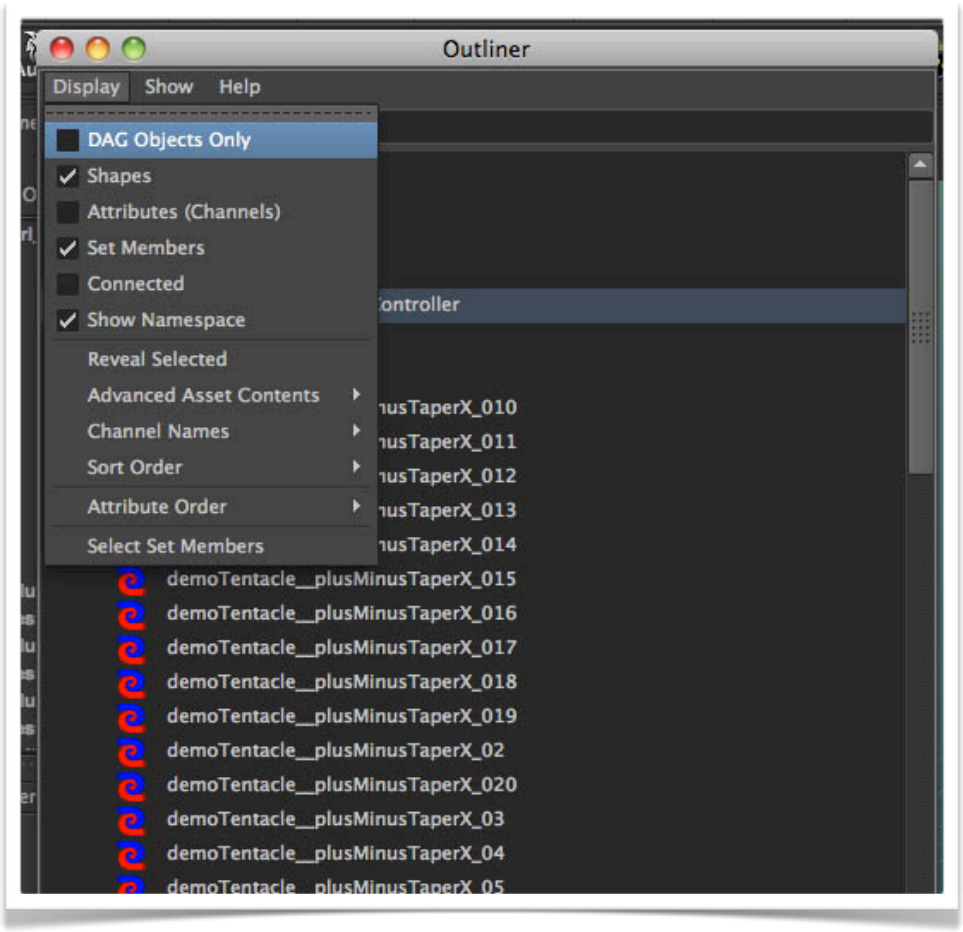
1. Enabling the **Tapering** option for controlling the joint spacing, which can prove useful for having a higher density at either end for the desired movement. *Just remember to set your **joint-taper** before you do any **smooth-binding**.*

2. For tails, or possibly other related types of objects, it may be ideal to create two **Tentacle** rigs. A shorter one for the start (to help create orientation of the whole tail), then a second longer one (to help carry out the bulk of tail options). Just parent the master controller group (the curve object which contains all of your Tentacle rig objects) of the last rig to the end joint of first rig.



3. It may be advantageous to manually change the numbers that were calculated during the **Tentacle** creation. These fall-off figures handle the way the Tentacle moves throughout the whole tail. To change these, follow these instructions:

- Disable the checkbox “DAG Objects Only” to allow the Tentacle Utility Nodes to be viewed in the **Outliner**.

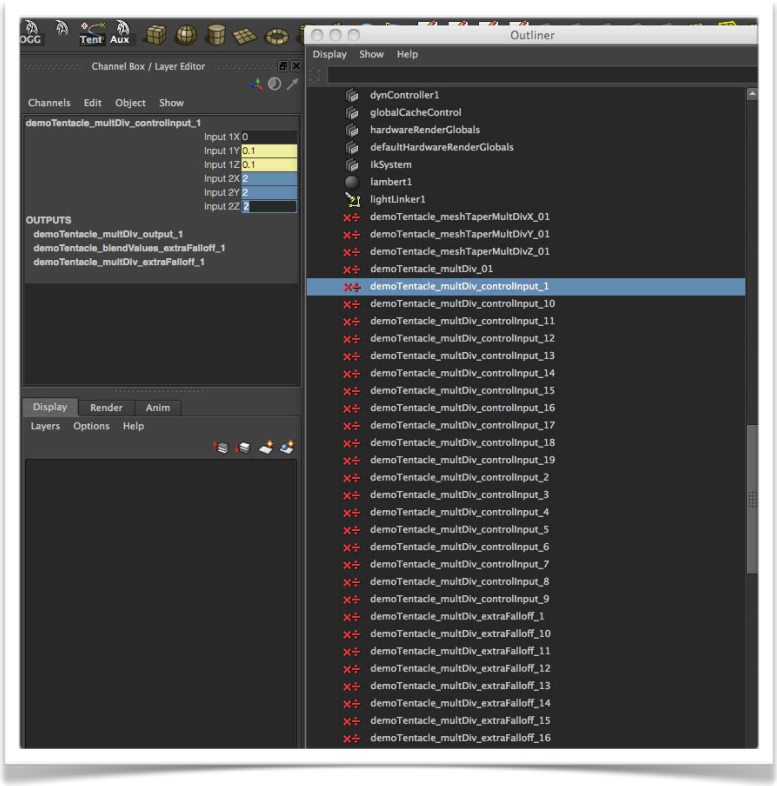


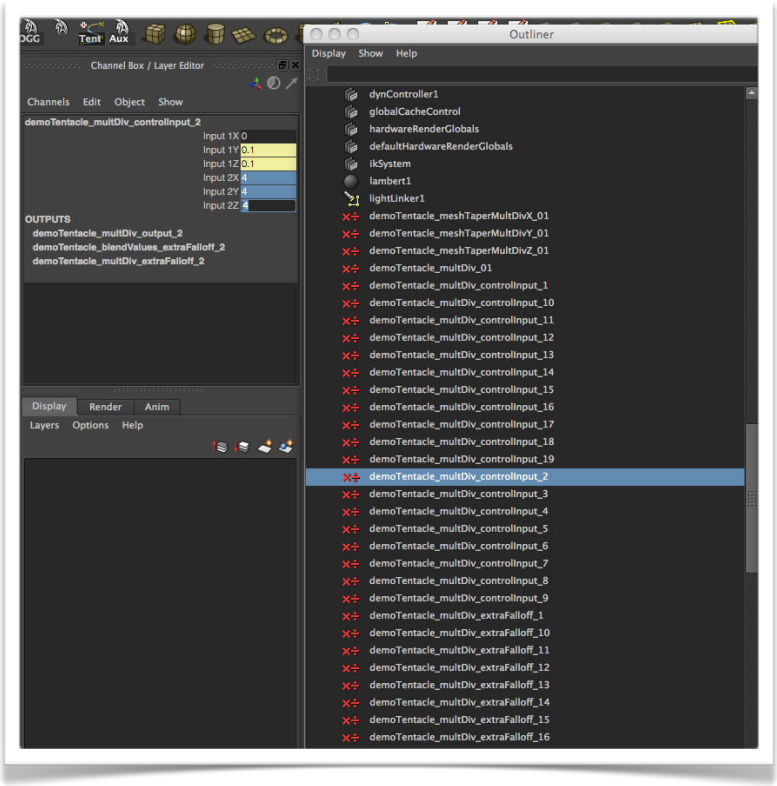
- Locate the *nameYouChoseTentacle_multDiv_controlInput* files, which should be located near the bottom of the Outliner. They are MultiplyDivide Nodes, which will always have a red multiply & divide icon. **View Images on the next page for help.*

- You can view the values in either the Channel Box or Attribute Editor by the selecting each individual file.

- Simply change the Input 2X/2Y/2Z to the desired value, then increase or decrease the value from there. For example: *demoTentacle_multDiv_controlInput_1 will have the value of 2, then demoTentacle_multDiv_controlInput_2 will have the value of 4, demoTentacle_multDiv_controlInput_4 will have the value of 6, and so on.*

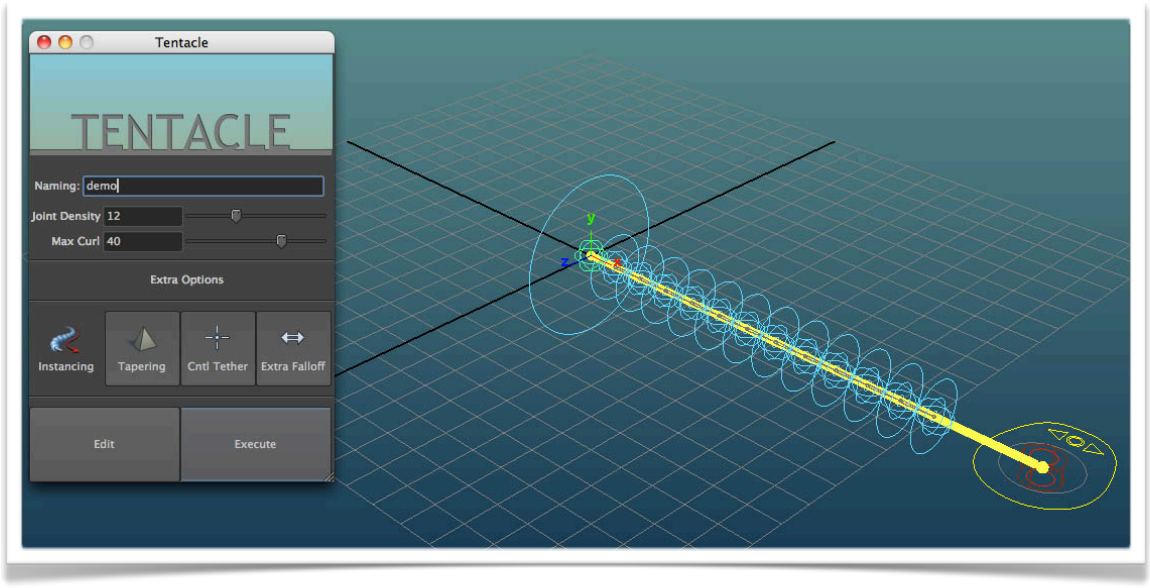
- *You can change these however you like to fit the purpose of your rig.*





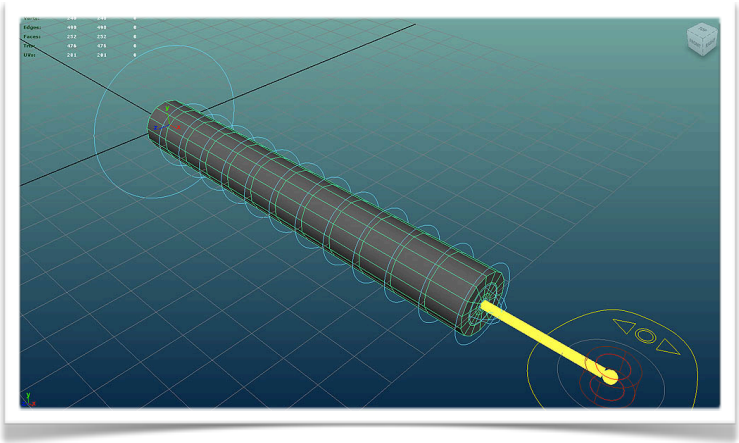
HOW TO USE:

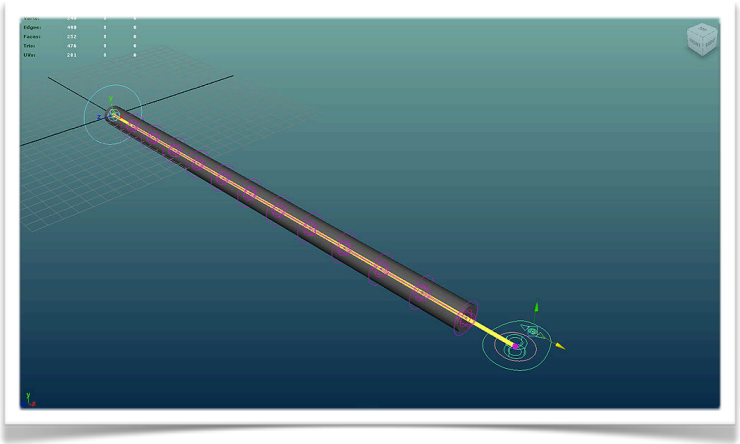
1. Open the **Tentacle Script**. Type the desired name in the “Naming” field. *Some errors may occur if this is done incorrectly*.
    - Select the desired options, in this case we will select **Tapering**, for a distributed tapering effect, which can be controlled afterwards. We will also enable the **Control Tether** for visual aid, and the **Extra Falloff** to help control the direction of fall-off for the Tail End.



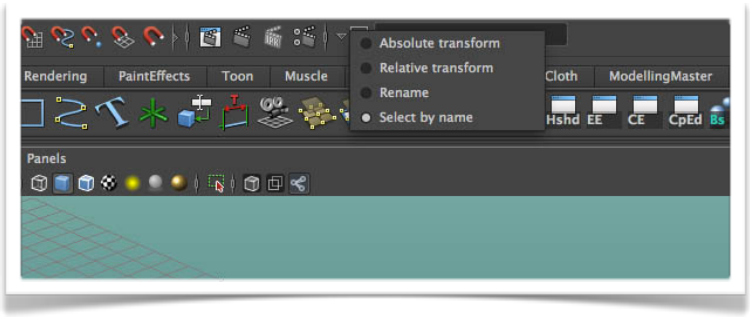
2. Prepare your mesh for **Smooth Binding**. Here I have made sure that the mesh subdivisions running length-wise down the chain match with each joint.

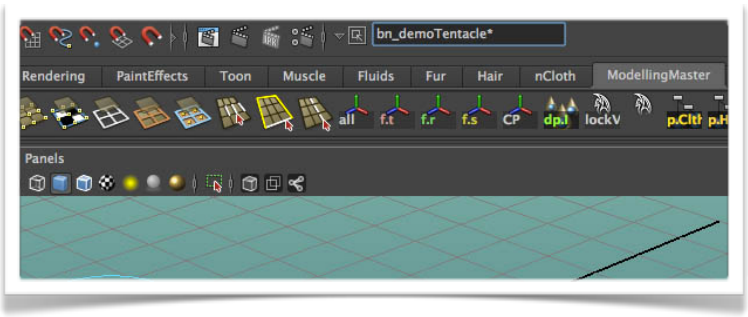
3. You may use the **Length Tool** to extend or shorten the chain. This will do so without scaling the joints, which in many cases is the best way to achieve the desired length. You may also change the position of the individual curves for the best placement.



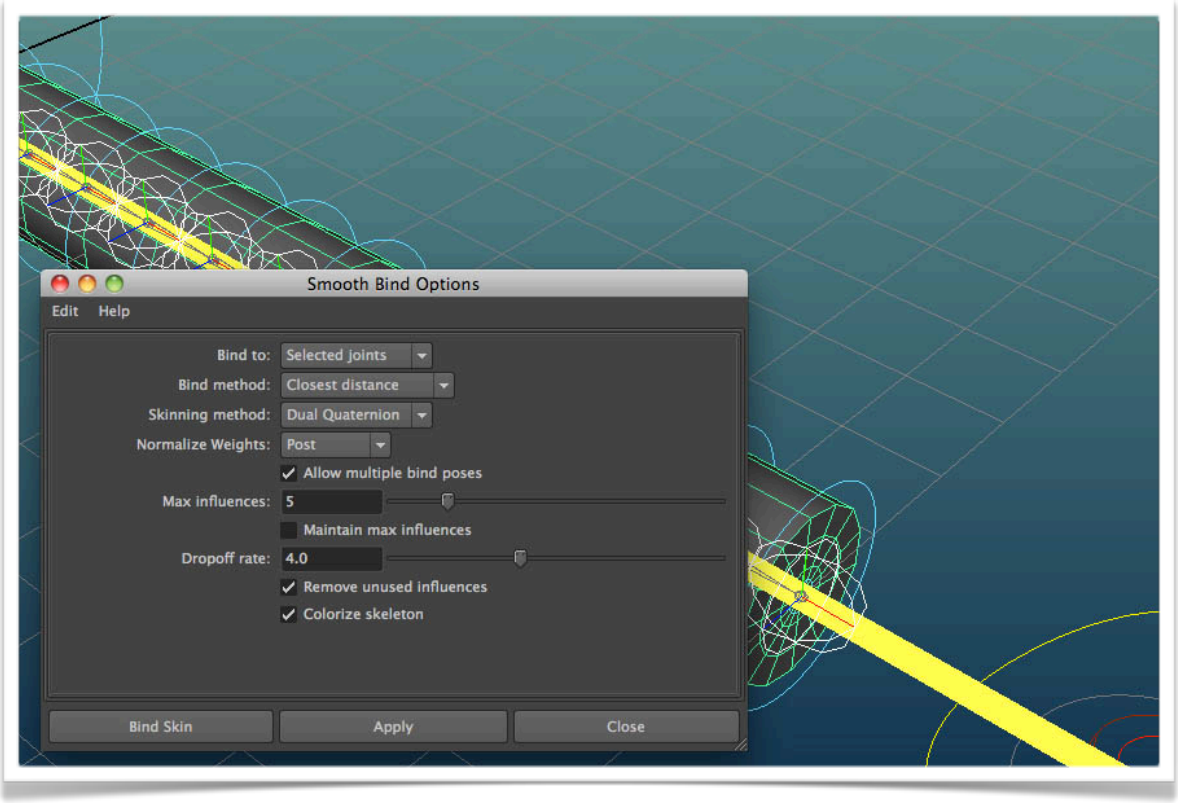


4. For ease of mind, you can select all the **Bound-Joints** with one click. This can be especially useful when you have a very large joint chain. Simply go to the top of the Maya window select the little square (see images below), and choose “Select by name”. Then enter in the field bn_nameYouChoseTenacle*





5. After selecting all of the joints, shift-select your mesh, then open the Smooth Bind Options Window. I’m going to choose these options. There is nothing special here you need to enter, other than **Bind to Selected Joints**, found at the top of the option box.



6. Now that's it! Just move the main controller (Red Barrel). It will be best to paint weights on your mesh, which in most cases, you just have to smooth out each weight.