Motion Builder Basic Rigging Guide – V1

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In Maya:

**Make sure you are in the “Animation” menu context.

Rigging Using Smooth Bind and Default Weights

1. In Maya, ensure that the fbx plug in is loaded (Windows/SettingsPreferences/Plug-in Manager)

2. Import your character mesh as an obj file

TIP: Remember ALT to move in the camera and w-translate e-rotate r-scale

3. Import your fbx rig (you may wish to build your own, but for the purposes of this demo we will be using one of two rigs that are available to you in the dropbox:

   bone_skeleton.FBX – it is located on your home computer in

   C:\Program Files\Autodesk\MotionBuilder 2013\tutorials or

   SkeletonFromMB2012 - it is located on your home computer in C:\Autodesk\Autodesk_MotionBuilder_2012_English_Win_64bit\Content\ClipArt

   JaySkeleton.fbx - a rig from Animation Alumni Jay Munday

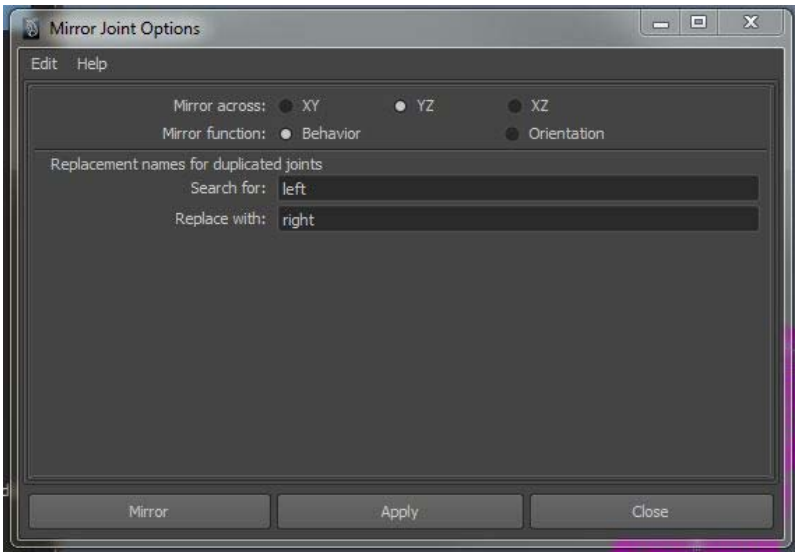
   These are excellent starting points. Note the postfix “FromMB20XX” is for dropbox ease of identification. On your home computer it is bone_skeleton and Skeleton (formerly called skeleton75 in previous versions).

   It is very important to follow **motion builder naming conventions.** The above are excellent examples.

4. Align your rig with the model. In the video we have used a model of a Gladiator built by VSFX Alumni Trent Stroud. It is highly recommended that you select a more stylized character that will be less scrutinized for identifiable human movement for which we are highly aware and critical if not perfect.

   Disclaimer: This is not a rigging class and this tutorial is not about weigh painting. I encourage all VSFX students to take the animation rigging class offered.

Tip: When aligning your rig, if your character is symmetric, delete the one side, then select **Skeleton/Mirror Joint**. In the dialog box, change Mirror across to **YZ**, and designate which joints to mirror, left for right, or right for left.



5. In Maya, bring up the outliner. You will see the rig (hips or a control reference) and the mesh.

   You can expand the rig in the outliner (use **shift when hitting the plus symbol** to speed this up) or you can use **select hierarchy** to ensure the rig is selected.

6. Next **skin** your mesh. Under **Skin/Bind Skin/Smooth Bind.**

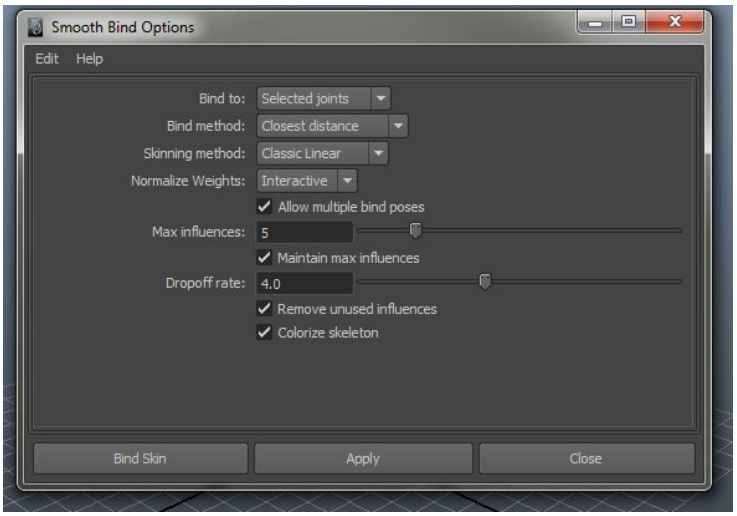
   Ensure you bind with the following settings in the dialogue box for better default weight values:

   selected joints

   closest distance

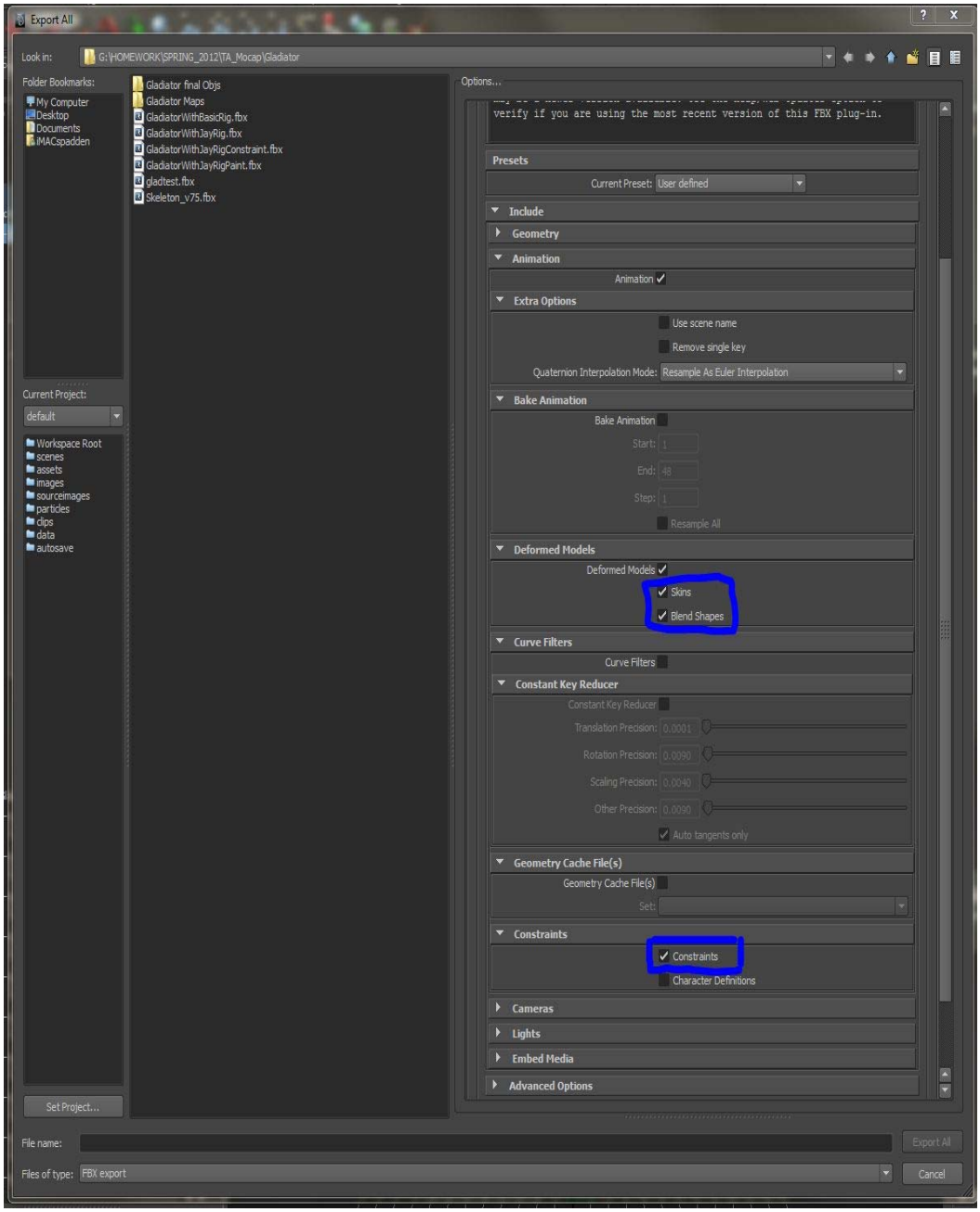
   classic linear

   interactive



7. **Finally, export your rigged character as an fbx.**

(Ensure in the options box that **skin/blends and constraints** are checked. These are found under Deformed Models and Constraints in the export dialog box)



Alternatively, in Houdini: (documentation coming soon)

Next, In Motion Builder:

1. **Open** your exported rigged character fbx file using **File/Open**.

   You can test your rig at this stage by rotating or moving a joint, just to make sure everything exported okay from Maya.

2. **Characterize** your model - by dragging the character icon to the “hips”

   (select **Biped**)

3. **Merge** in your captured, cleaned up fbx motion skeleton and characterize

   (for example, LAMAR_ROM_CLEANED.fbx is an example in the dropbox).

4. **Characterize** your motion capture data.

   (select **Biped**)

You now have motion on something that is not one of the tutorial characters!