# Max to LightWave Skinned Character Import

On occasion, a skinned mesh character from Autodesk 3ds Max doesn't come correctly into LightWave. The main cause for the issues is the character "rest position" is not the default position in Max. Also, up in Max is on the Z axis.

LightWave tries to correct these issues by generating extra nulls, but it doesn't always go so well. This small tutorial will explain how to fix the skinning issues.

Step 1: T-Pose Matters
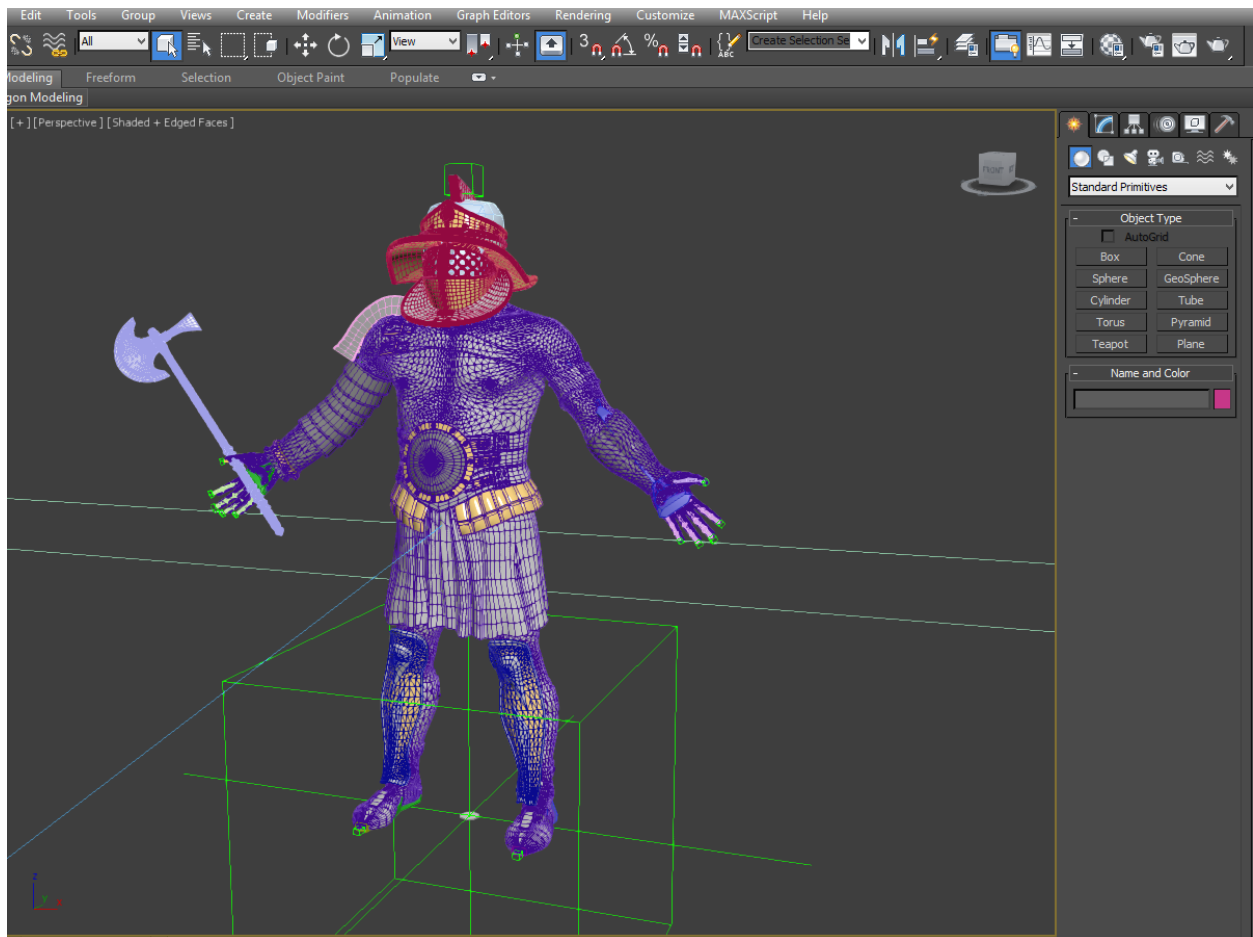
In Max get all the important items zeroed out! This is the most important step to a clean file in MAX.
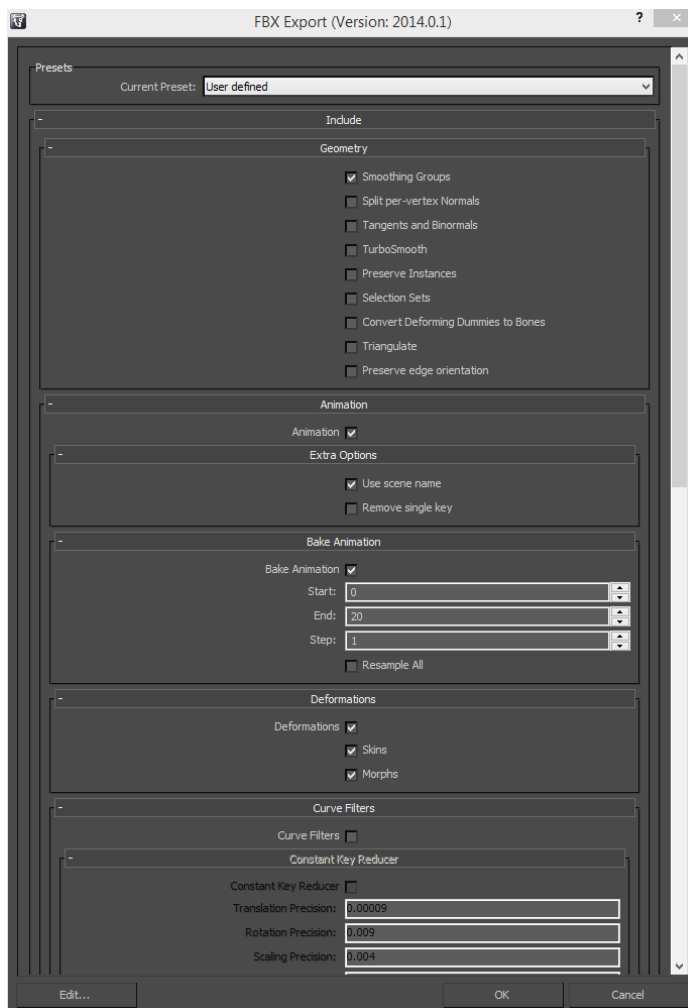
1. The Skinned mesh needs to have the first frame as the "REST POSE" aka "T-POSE"
2. It should also be at position be at 0,0,0 with the pivot at the feet
3. This is the location the mesh should be rigged at.

If the rest pose is not at zero and have a T-Pose rig, the rig will NOT WORK in LightWave. At least not without trying to re-rest all the bones to a default pose. In the file from Max is set-up properly than the skinning issues will (most of the time) be non-existent.
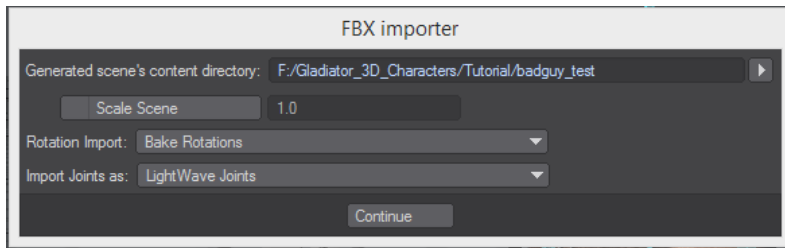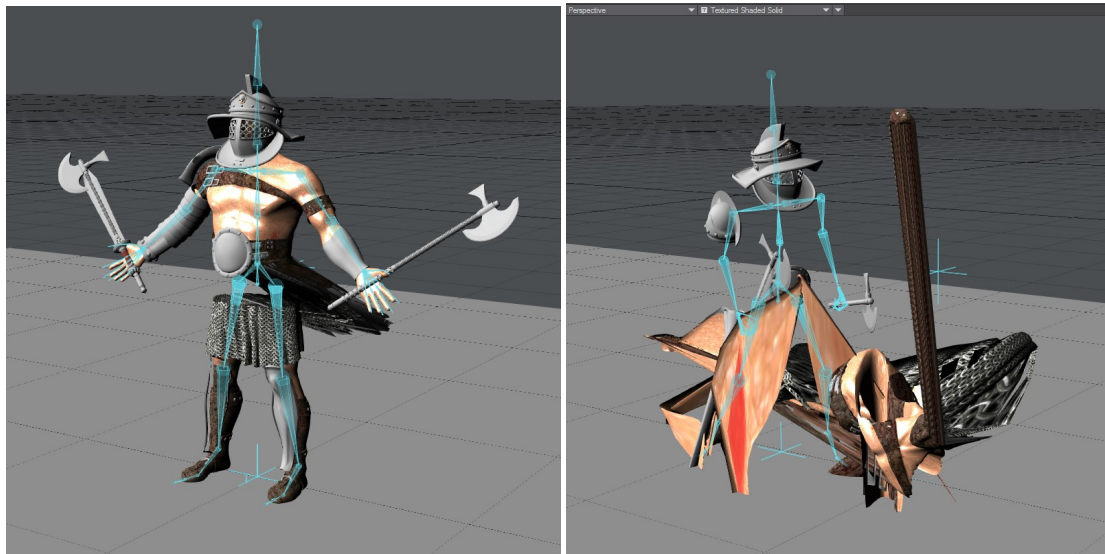
Step 2: Export FBX

checklist

1. Smoothing groups
2. Animation
3. Bake Animation
4. Deformations

Step 3: Import FBX

FBX importer

Generated scene's content directory: F:/Gladiator_3D_Characters/Tutorial/badguy_test ▶

Scale Scene 1.0

Rotation Import: Bake Rotations ▼

Import Joints as: LightWave Joints ▼

Continue

1. Skin import is broken after import, stepping through the frames show the model explode.
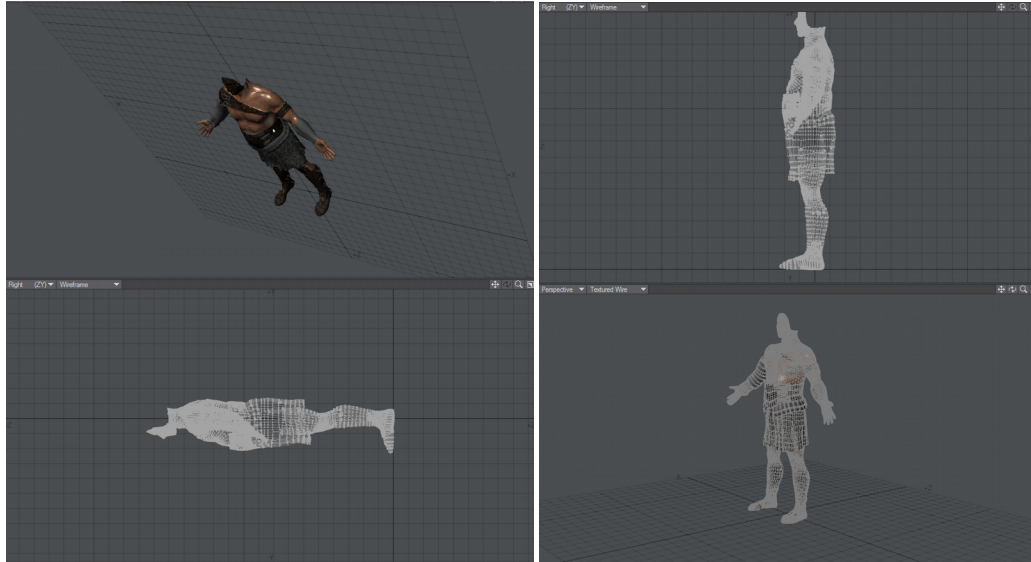

Step 4: Zero out Nulls at FRAME 0 (default T-POSE)

The stand-in null is what has the bone items under it when LightWave converts the FBX, as well as having a fbx_base_bone_transformer, these items should be zeroed out if they are not.

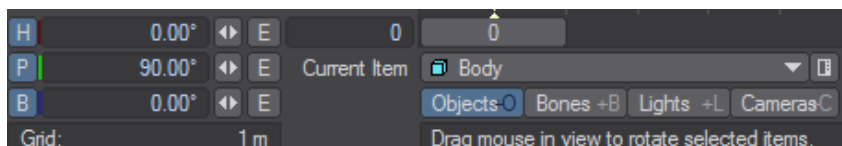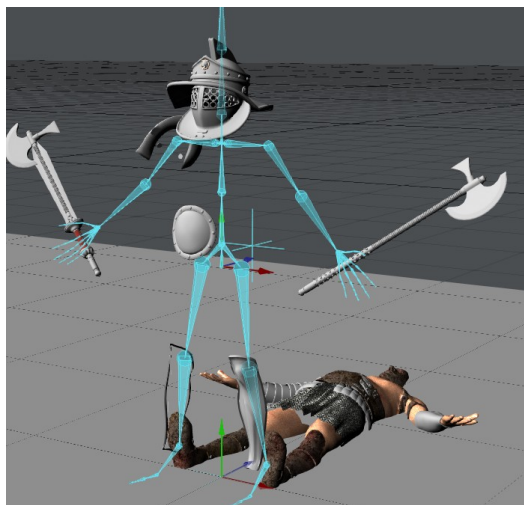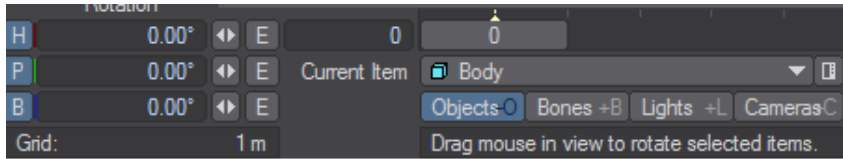1. At Frame 0, zero out the "fbx_bone_hierarchy_standin" and "fbx_base_bone_transformer"
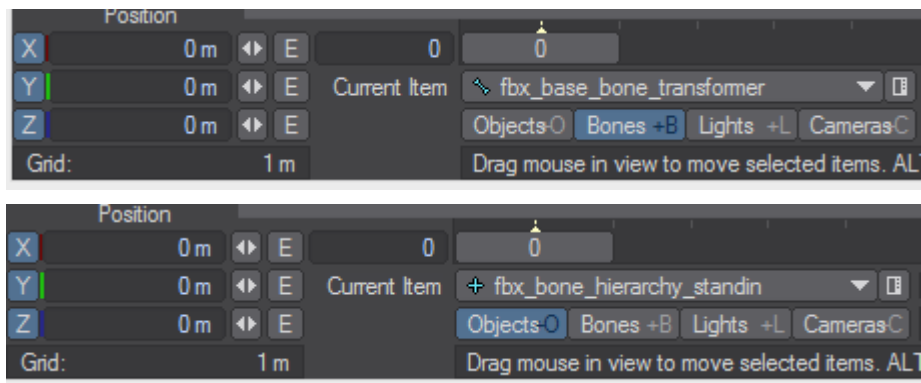
Step 5: Model rotation

1. Select the skinned mesh object
2. Hit the Modeler button in upper right corner of Layout
3. In Modeler the model will be laying down
4. On the bottom of the modeler UI change the space type to origin
5. In the right screen hit "r" to rotate the model 90 degrees so it is standing up.
6. Save it
7. Then go back to layout

Step 6: Model rotation (layout)

|					
H	0.00°	◀▶	E	0	0
P	0.00°	◀▶	E	Current Item	▣ Body
B	0.00°	◀▶	E		Objects-O Bones +B Lights +L Cameras-C
Grid:	1 m				Drag mouse in view to rotate selected items.

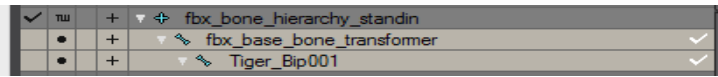1. Select the model mesh go to it rotation channels and zero out the 90 degree rotation

Step 7: Re-Resting Bones (Ctrl-R)

1. Select all the bone items and hit Ctrl-R to deactivate the bones
2. Hit Ctrl-R then to Re-Activate the bones
3. Now we need to deactivate several bones so they have no influence on the skinning
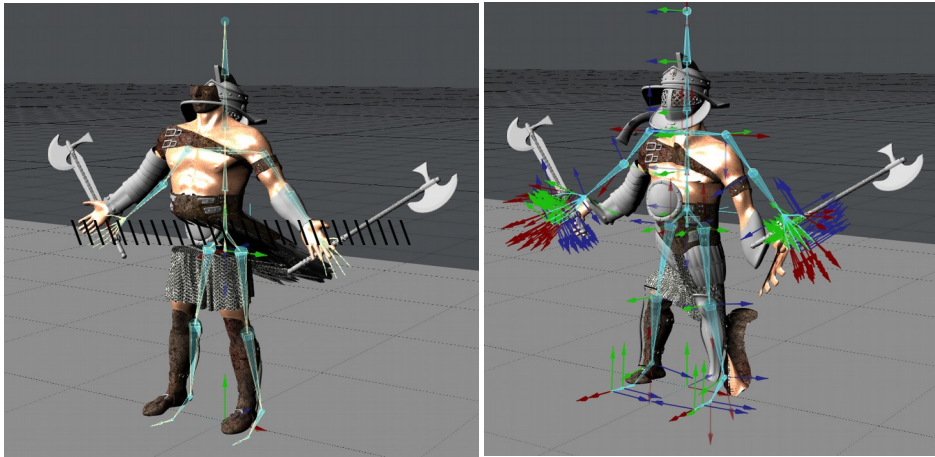
Step 8: Deactivate controller bones
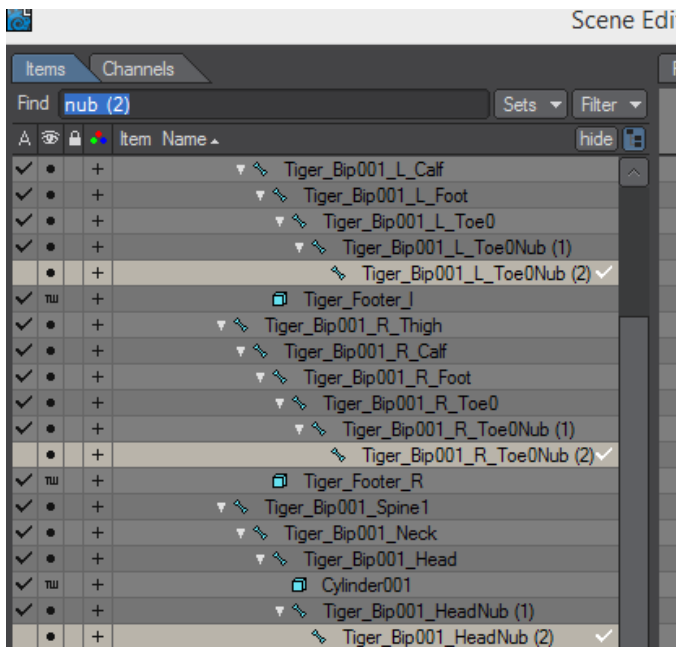
1. The Bones that are on the tips of the characters hands, feet, and head need to be deactivated.
2. They will be labeled with "nub" in the bone name.
3. All bones with the name Nub (2) deactivate
4. Fastest way is to use the Scene Editor and type in nub (2) in the find tab, hit Enter to Select then deactivate the bones using ctrl "R"
5. The last bones that need to be deactivated are the "fbx_base_bone_transformer" and Bip_001

Step 9: DONE!

Skinning should work and now it is time to get the tweaks of materials for rendering in LightWave! Woot!