

Import and Export from Maya to unity.

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Since units that are used in Unity are equal to meters in Maya we need to make sure that we actually work in meters within Maya.

So for to most seamless import in Unity use the following instructions.

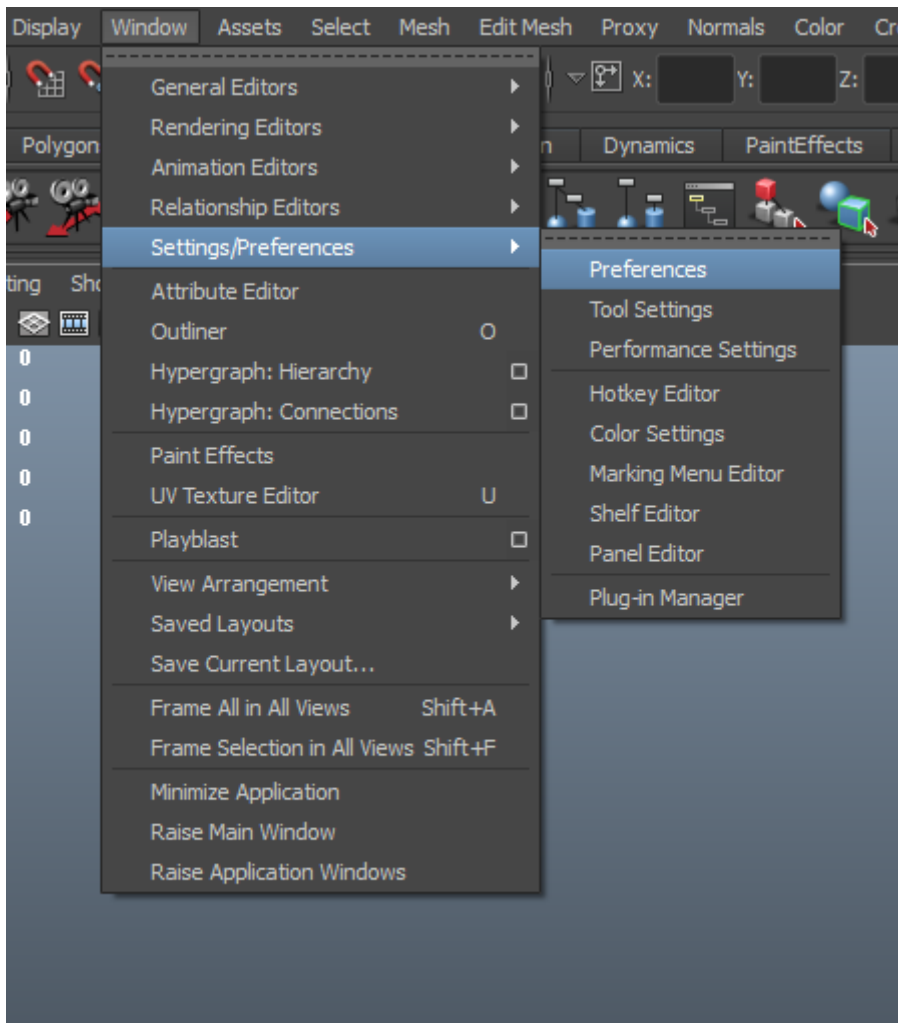
1 Open Maya.



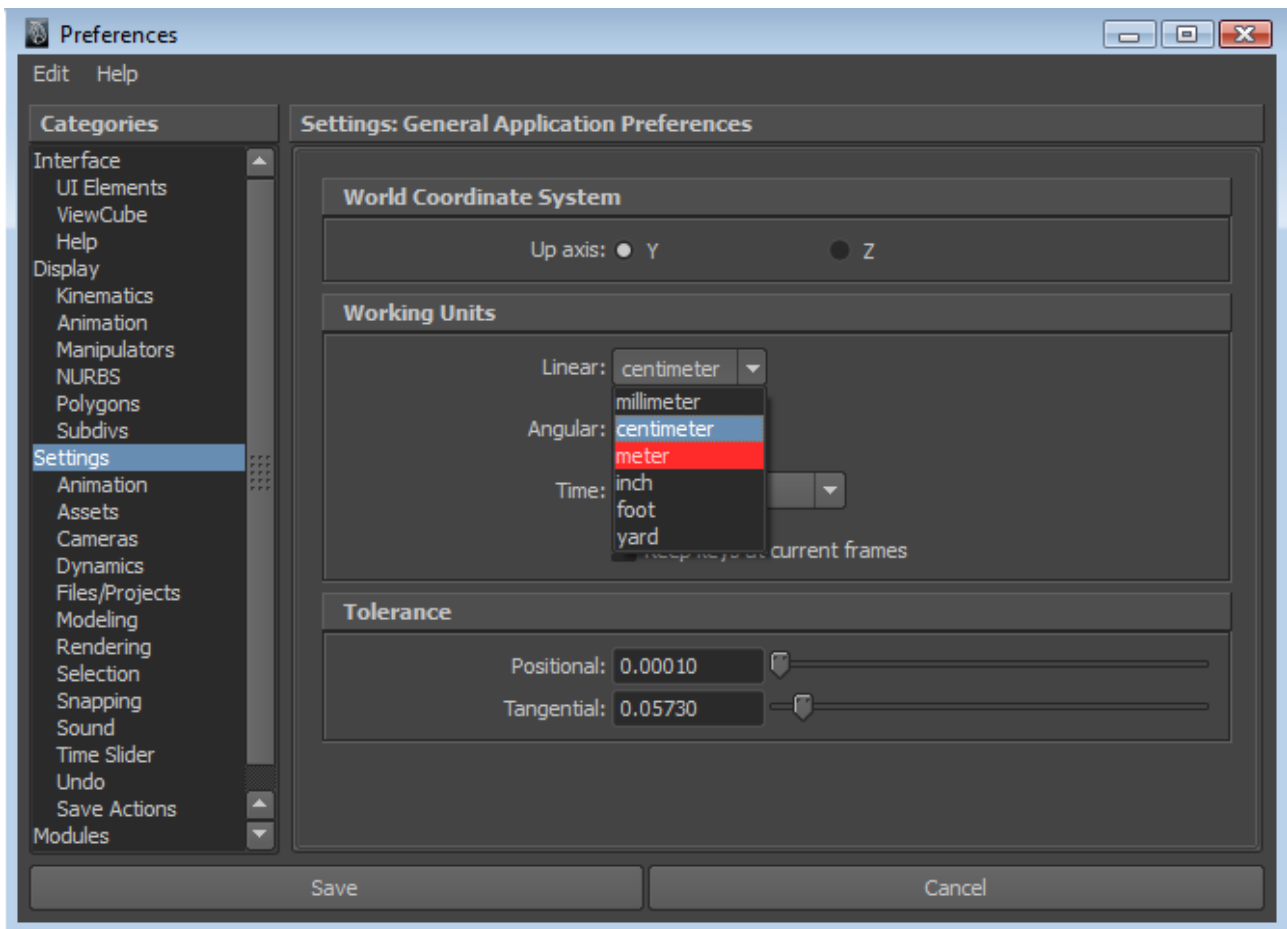
Happy stuffs =]

2 Set your working units to Meter.

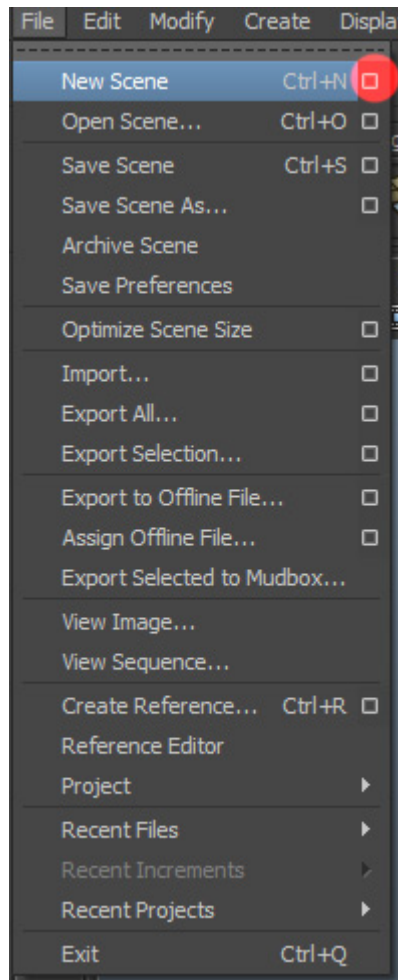
To do this go to Window>Settings/Preferences>Preferences.



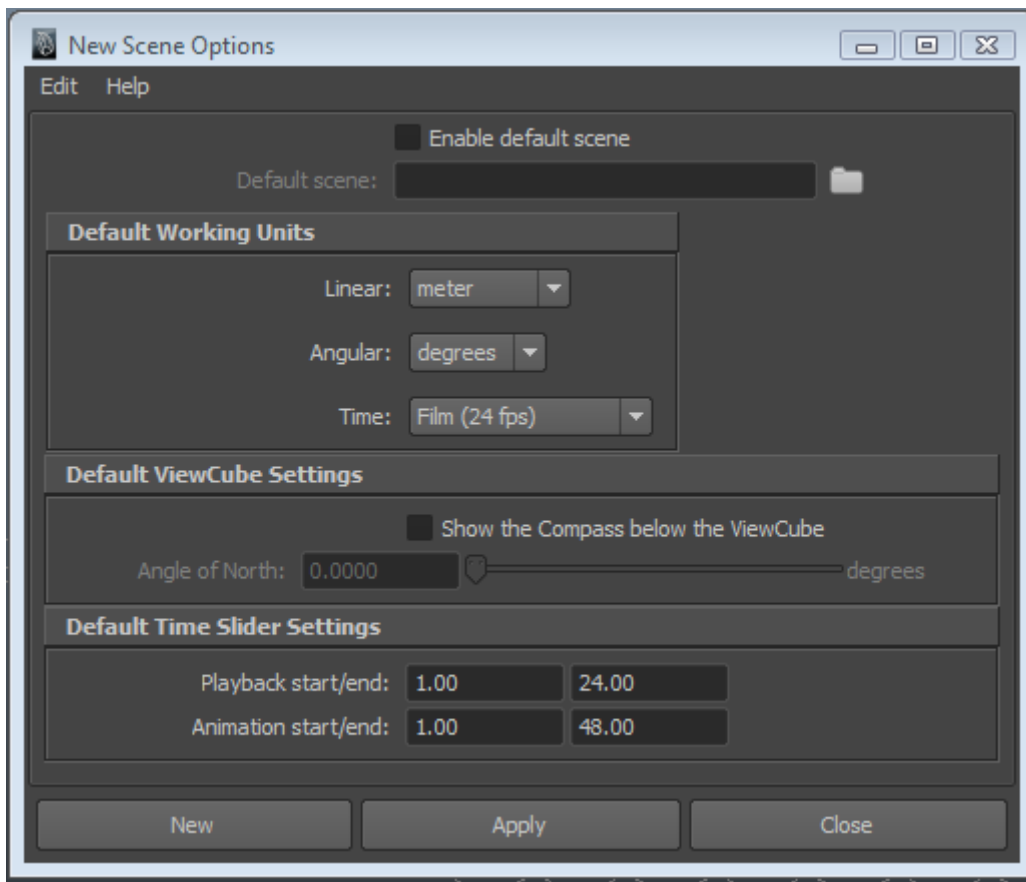
Go to settings, under Working Units, and change Linear to meter. (Highlighted in red.)



Another way to do this is by going to File>New Scene []. (Click on the little box highlighted in red.)

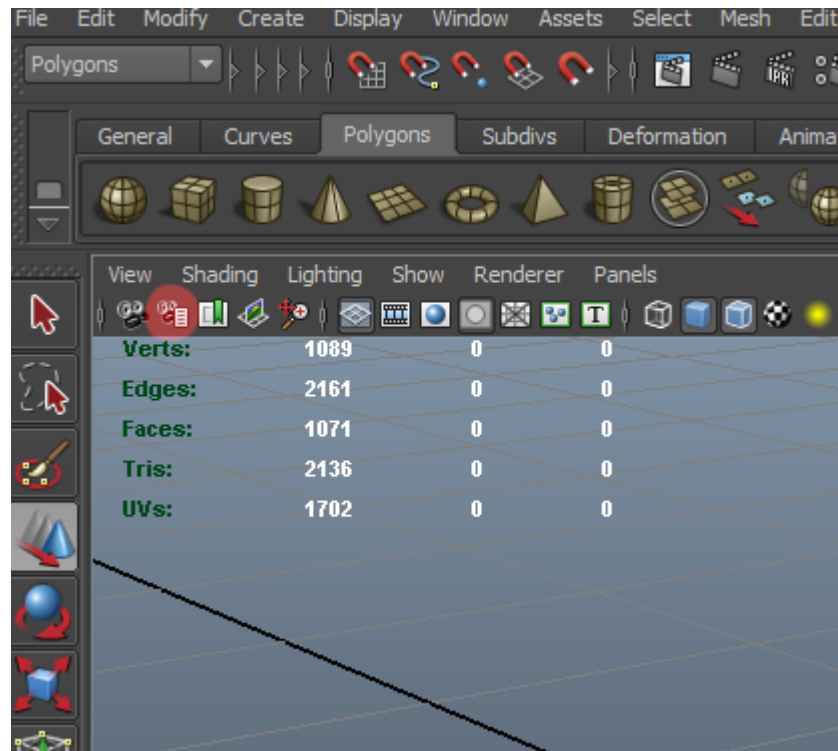


A new window will pop-up. Here change the Linear to meter and hit Apply.

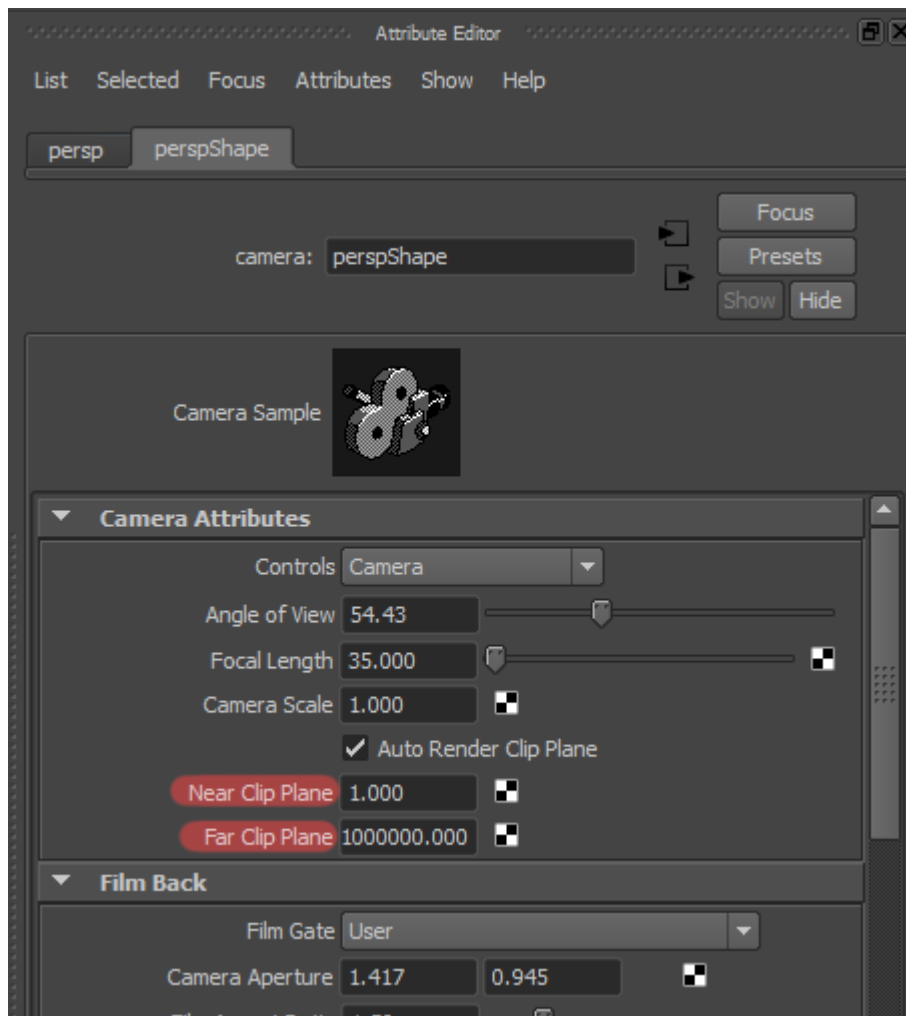


Now everytime you start a new scene Meters will be the default units.

Sometimes you can't see the model you are modeling properly because of the clipping planes that are set in Maya. So we want to change those too. Click on the little camera icon with a note in it. It is located in the top left of your viewport window.



Your Attributes Window will now open and display the setting of your camera.

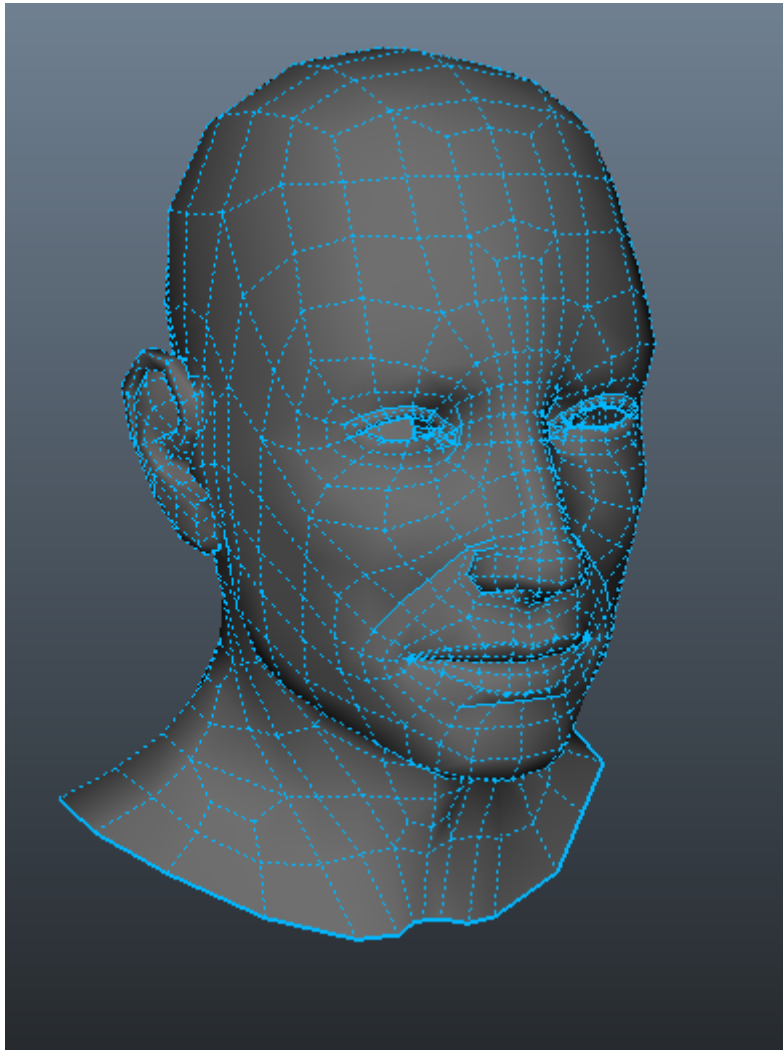


We want to change the Near Clip Plane and the Far Clip Plane so our model shows up properly in the viewport. The numbers aren't an exact science and should be used differently per object. I like to set the Far Clip Range pretty far like a million units and the Near Clip Plane 1 unit.

What this means is it will now render everything between 1 unit and 1000000 units from the camera. Experiment with the numbers and see what works for your model.

Do not forget to set these for the orthographic views also. (Basically for any camera that is in use.)

3 Model something



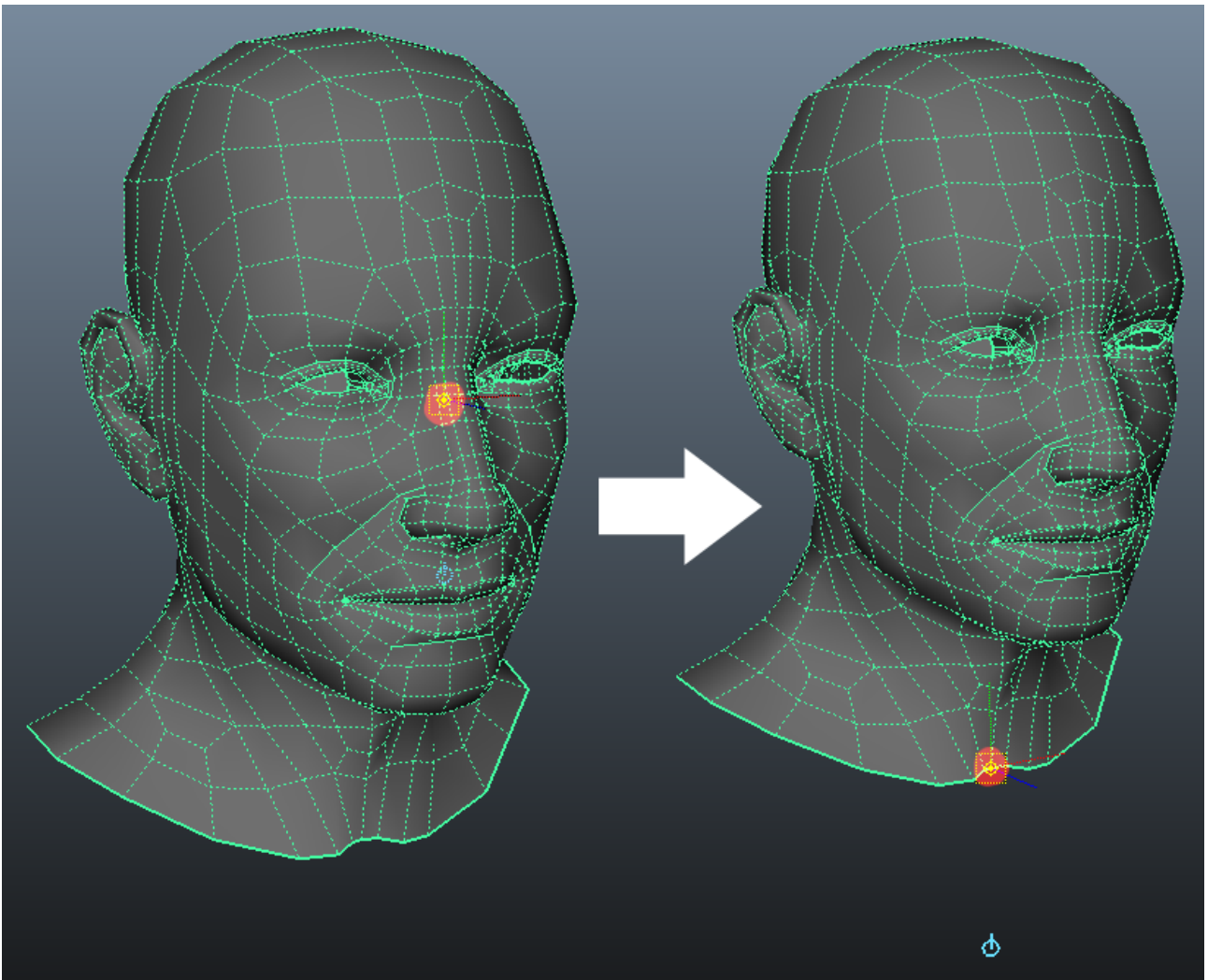
Happy Times =]

4 Make your model ready for export.

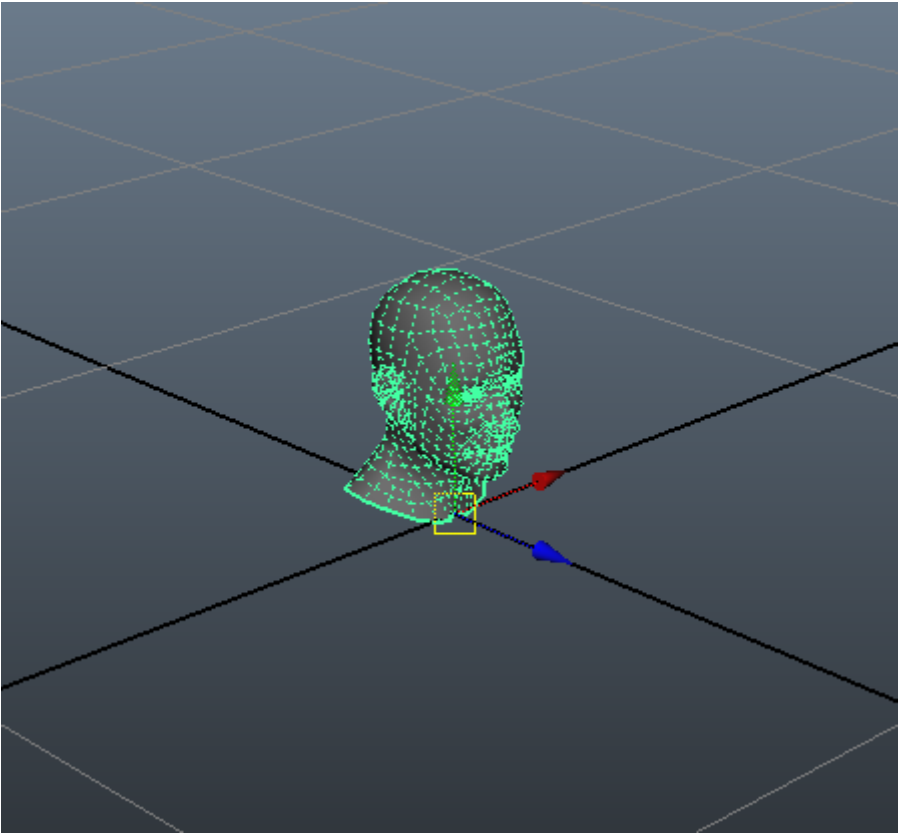
First of all make sure your model is clean. What this means is make sure you don't have double vertices/edges/polygons, that your normals are facing the proper directions, name your objects properly, etc.

Find a reference model that is to scale to use it to scale your model properly. A character model is a good scaling model. If you don't have a scaling model using a box of 1 by 1 by 1 is enough. Or you could just ask the 3d lead to supply you with a scaling model.

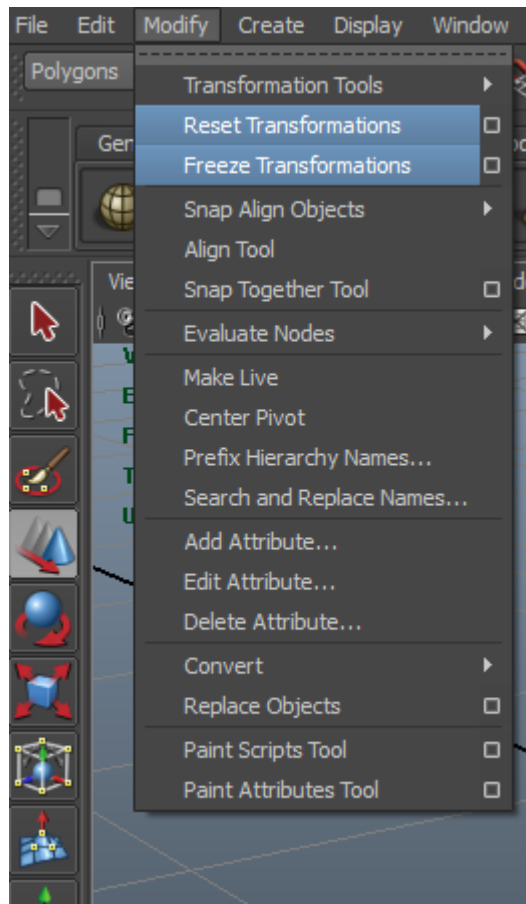
Fix pivot point if needed by hitting the Insert key and moving the pivot point to the base of the model. (pivot point is highlighted in red.)



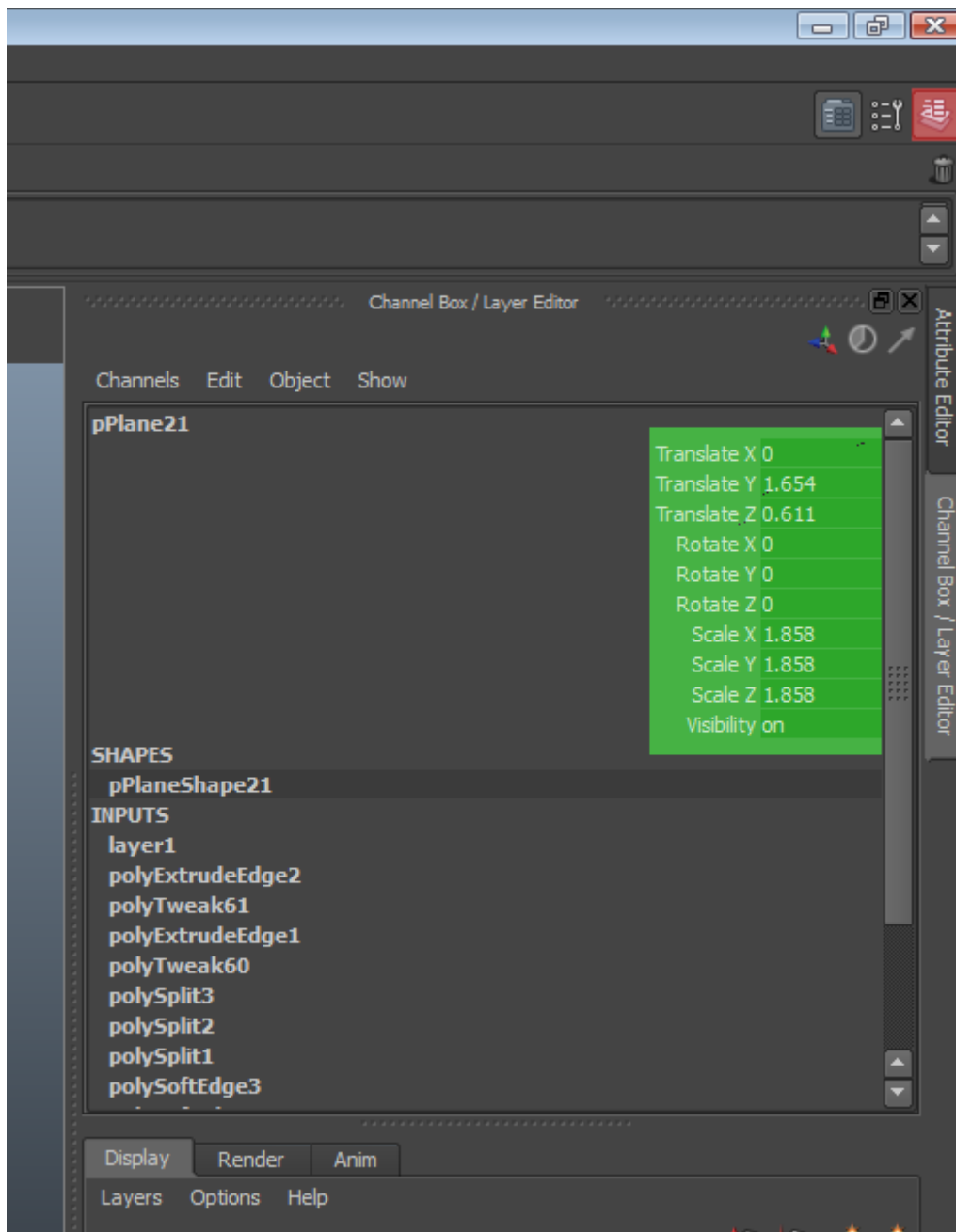
Center your object, this is handy so you actually place your assets in Unity where you drop them in the scene. To do this simply snap the model to the center of the grid by holding “x” and dragging the model.



Fix the actual scale and transformations of your model. (Channel box to check transformations)
To do this go to Edit>Freeze Transformations and Edit> Reset Transformations.

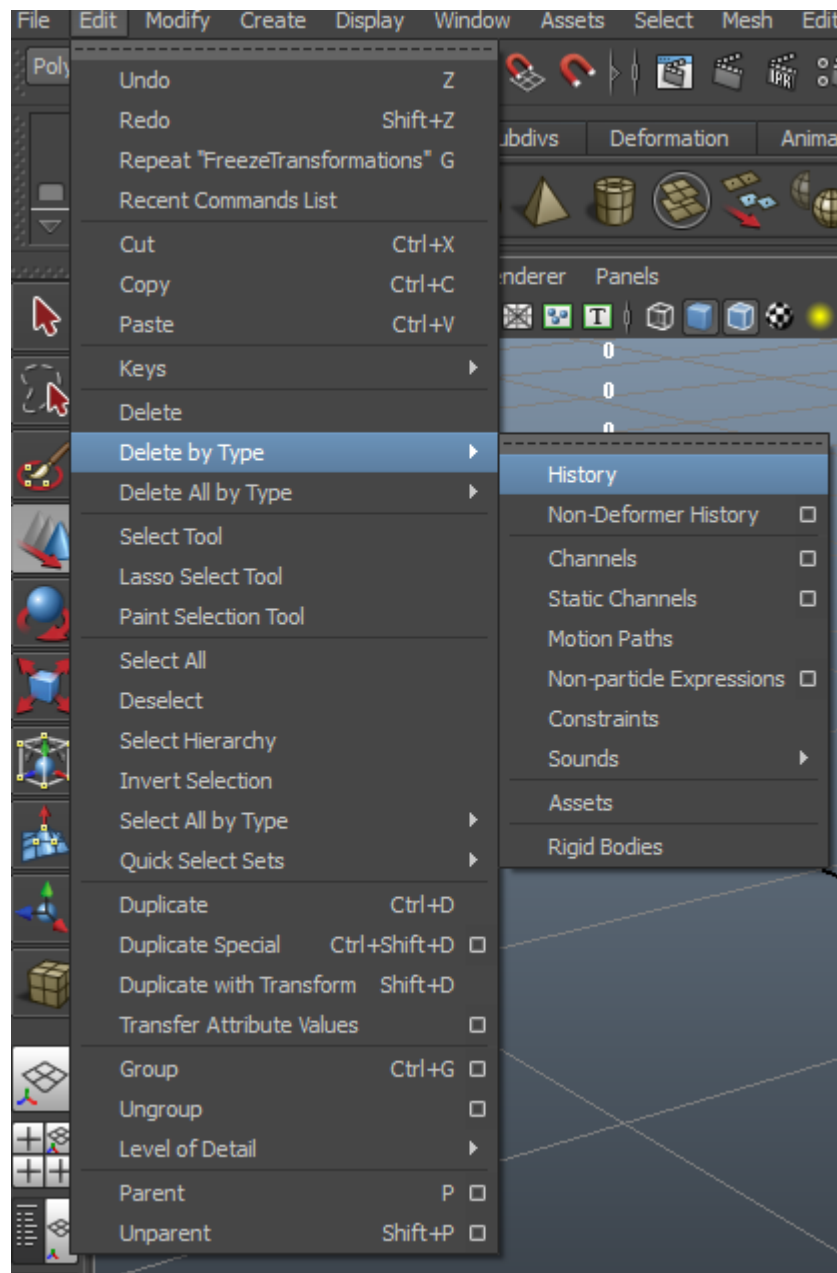


Go to the Channel box to check transformations. (highlighted in red)
Everything should be “0” except for scale which should be “1”. (That which is highlighted in green is before freezing and resetting transformation.)



And finally delete the history of the object.

Go to Edit> Delete by Type> History. Make sure you have got the object selected first.

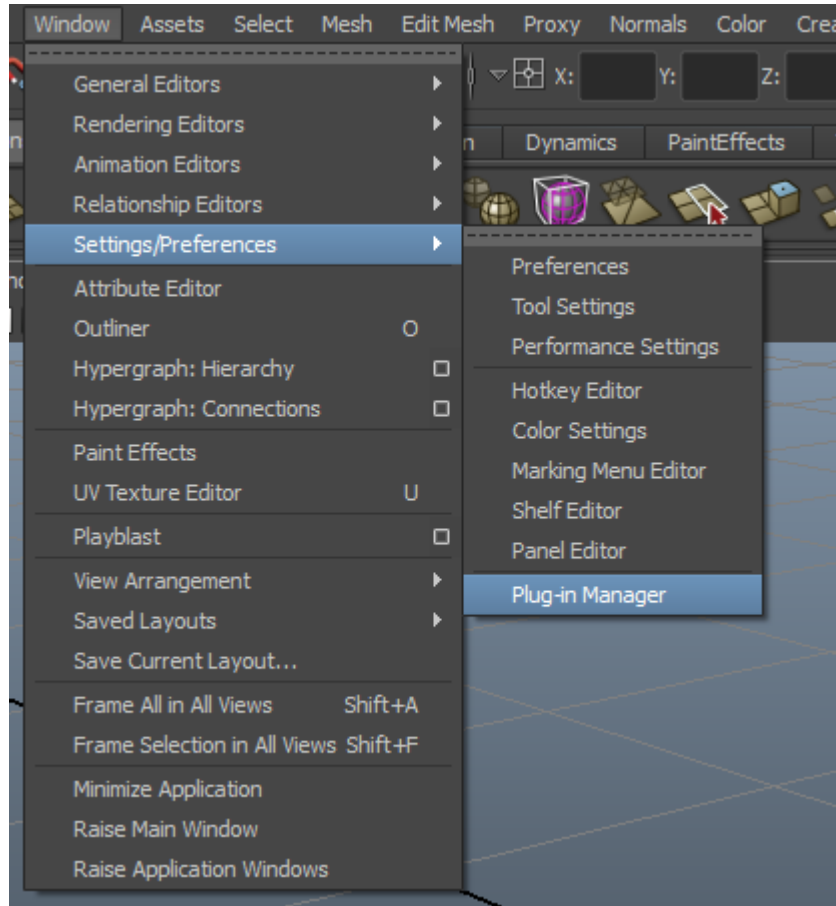


Your model is now ready to be exported.

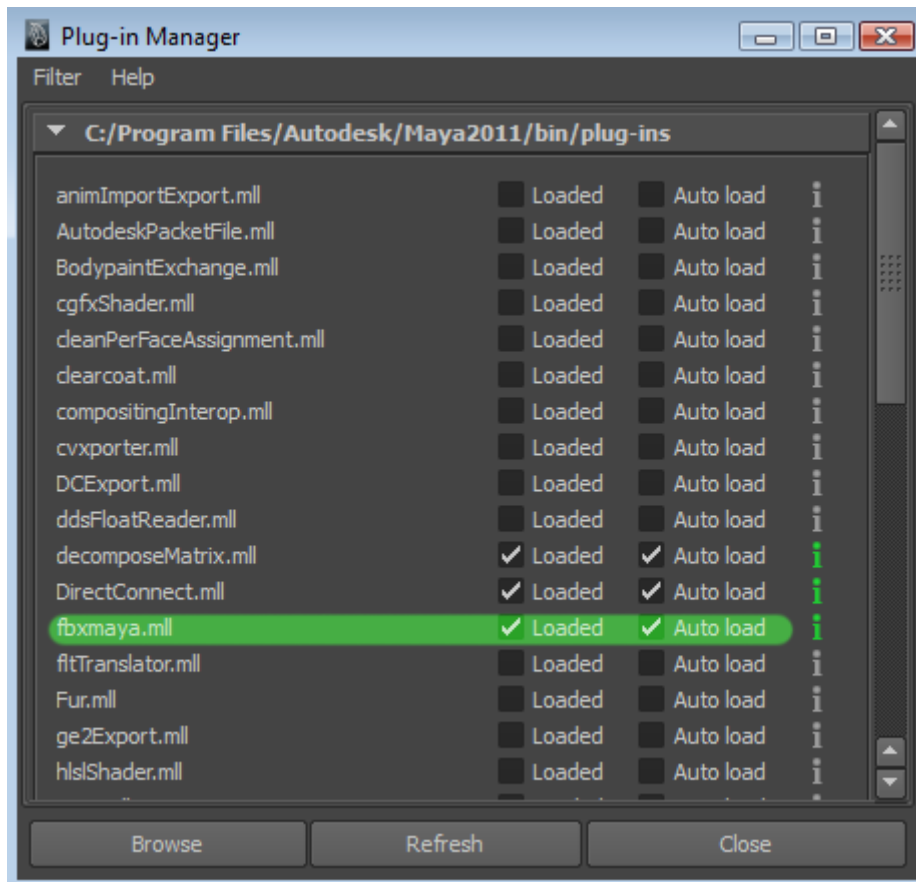
5 Exporting

We must first enable the fbx exporter in Maya.

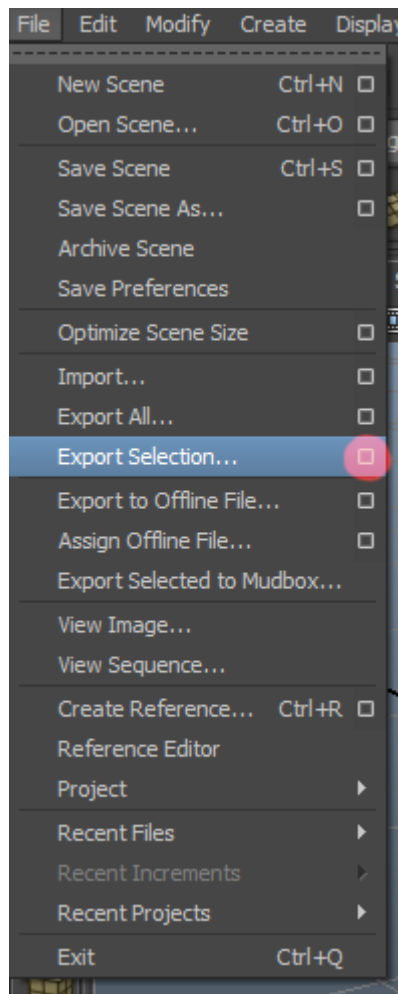
To do this we should go to Windows>Settings/Preferences>Plug-in Manager.



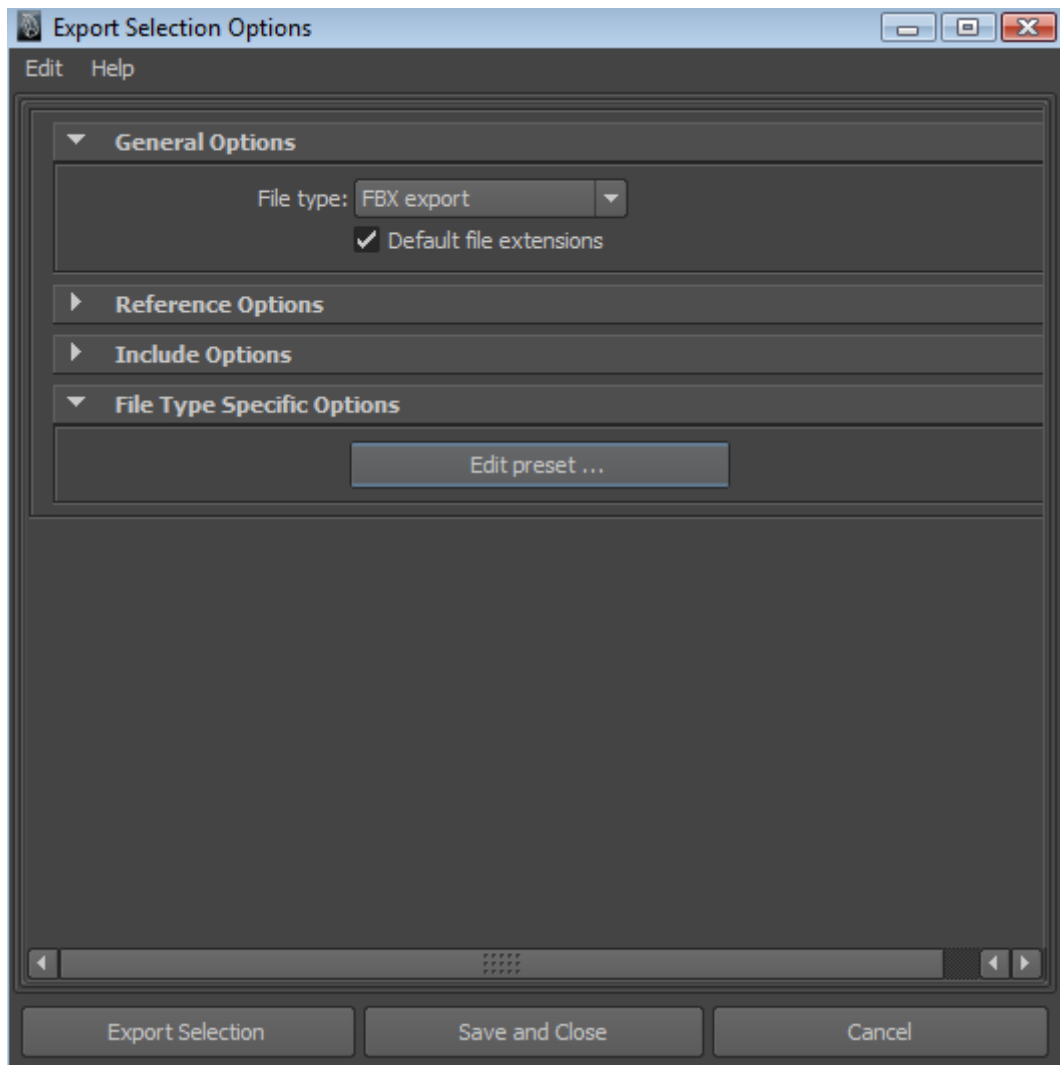
A new window will pop up.
In that window look for fbxmaya.mll and enable it. (highlighted in green.)



Once the fbx exporter is enabled we need to set the scale it exports our models with. To do this go to File>Export Selection... []. Click on the little box next to Export Selection. (highlighted in red)

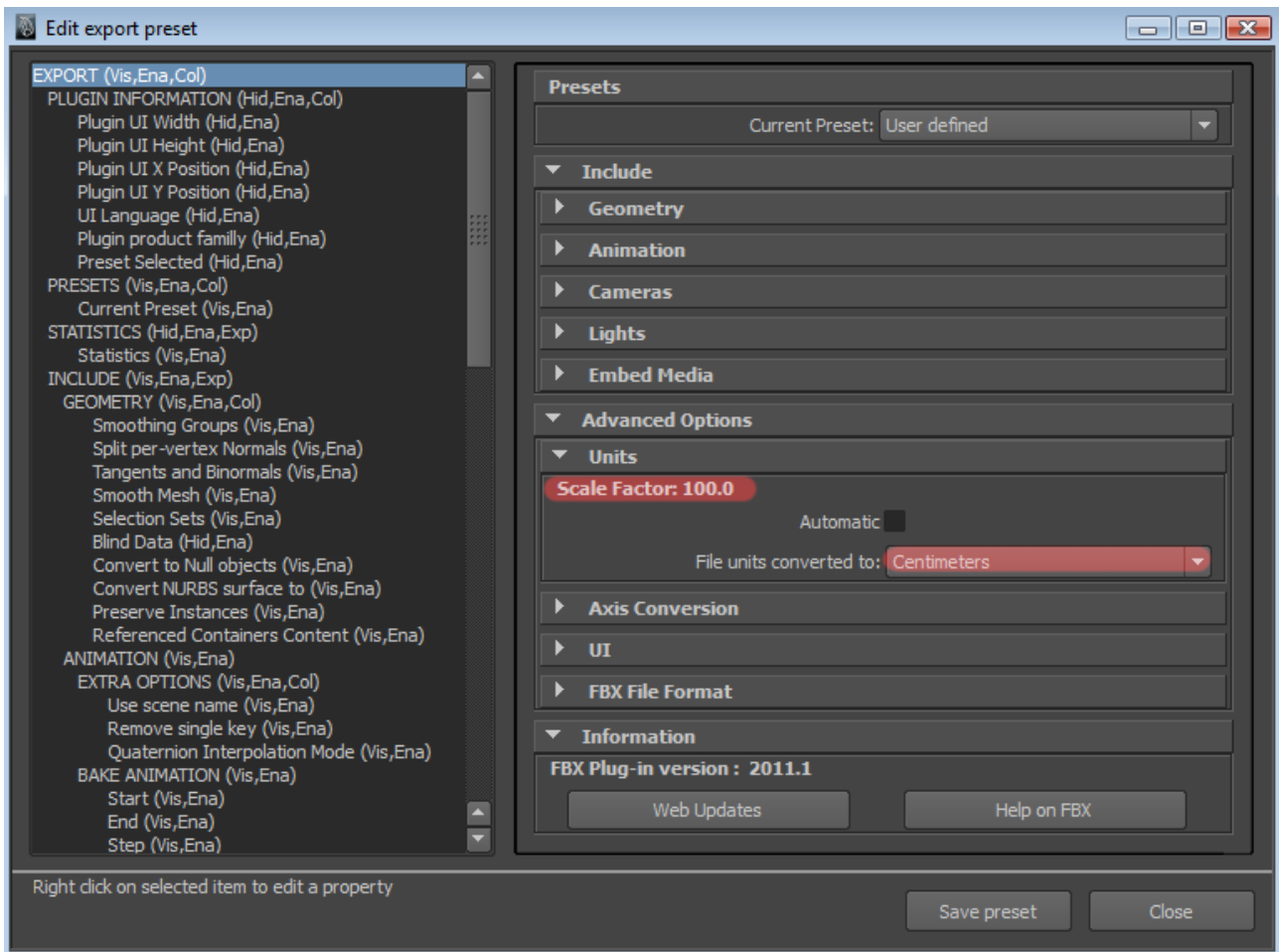


A new window with export settings will pop up.



Change the file type to FBX export. And then click on the Edit preset... button.

In this window leave everything as is except for the Advanced>Units section. We need to set the Scale Factor to 100 for Unity to import it with a scale of 1. (Unity automatically scales down the models to 0.01 on import.) To do that deselect the Automatic check box and change the units to centimeter.



That's it! Now all you need to do is export your model to FBX and drop the file in your Unity Project folder.

And they lived happily ever after! =]