

Mesh Replacement Script

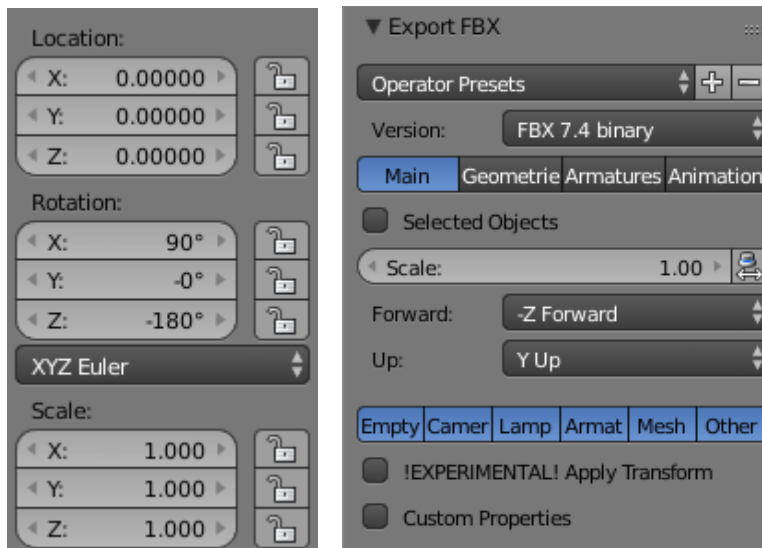
This guide has the purpose of explaining how to setup a build of Daggerfall Unity capable of replacing vanilla Daggerfall models with new meshes imported using a script written by Uncanny_Valley.

A prerequisite of this guide is a working installation on the Unity editor and a clone of DU source code. [Here](#) you can find a tutorial on how to do that.

Part 1: exporting the mesh

When exporting your model from a modelling software you need to take a few things in consideration:

- Models exported from Daggerfall Modelling are forty times bigger than they need to be in order to be used in Unity, so you need to scale them down by 0.025.
- Unity engine reads models as Y-up not Z-up. You can use [this plugin](#) for blender to address this. Of course, remember to check also the origin of models.
- This script allows a 1:1 replacement of a mesh only. Your model can't be made by more than one part, nor you can use unity prefabs, it needs to be a single mesh with less than 65,534 vertices. Unity supports [different formats](#), but exporting to .fbx is suggested.

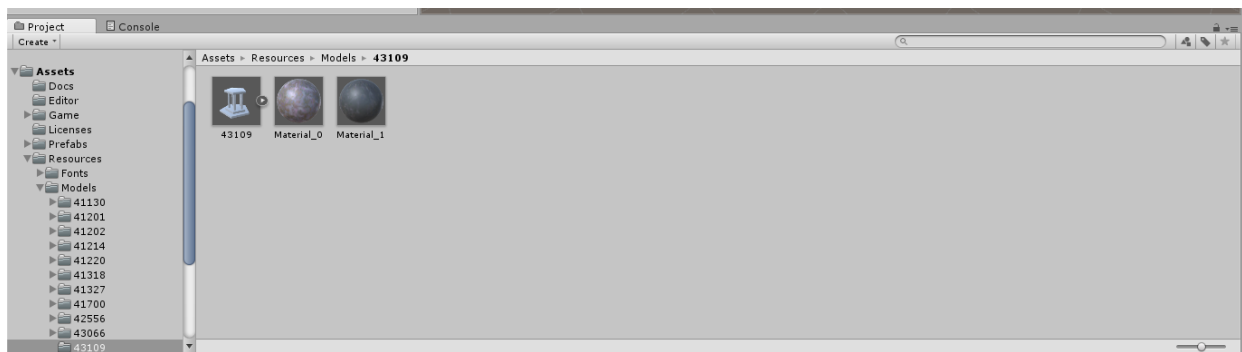


Part 2: setting up the code

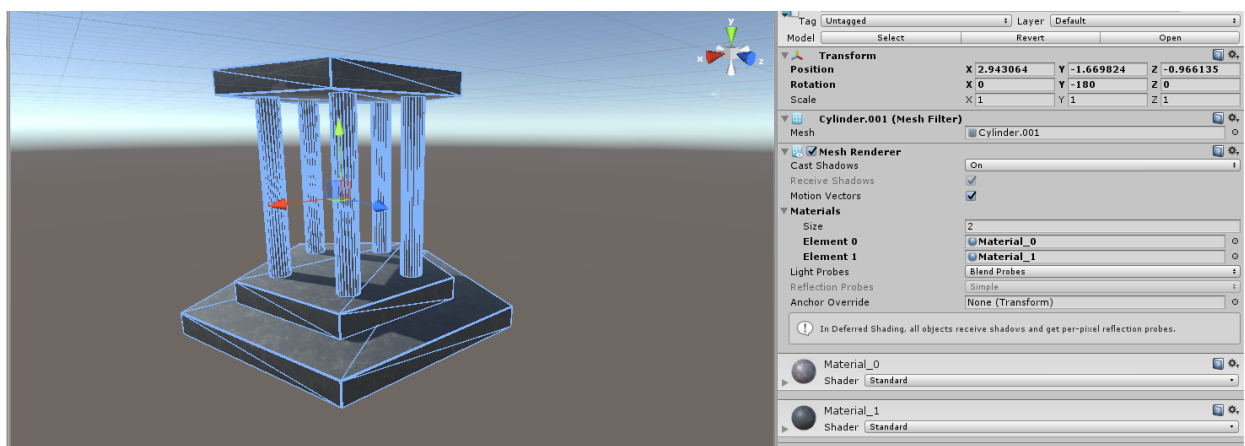
Once you have your copy of the source code, you simply need to download Uncanny_Valley script ([Here](#) you can find an updated version), extract the .7z package and overwrite the files inside *daggerfall-unity-master*.

Part 3: importing your model

1. Go to `daggerfall-unity-master\Assets\Resources\Models` and create a subfolder. Rename it with the ID of the model and place the .xfb file inside. Your model also need to be named after the ID.
2. Place the relative textures inside `daggerfall-unity-master\Assets\Resources\Textures`. You need to do so even if you're using vanilla textures.
3. Now open Unity and let it import all the new files. When it's done, navigate to the model subfolder in the project window and create new materials, one for each texture you need to use. Materials need to be called 'Material_x', where x is a number starting from 0. For example, if you have two textures you will create `Material_0` and `Material_1`.



4. Link these new materials to the corrispective textures. You may need to make a few tries to get the correct order. As an alternative, you can drag your model in the scene view and assign to it the new materials. Doing so, you will be able to check you assigned the right textures.



5. When you're done, you can compile the project and look for your model in-game.



F.A.Q.

Why the difference in scale?

Quoting *MeshReader.cs*:

```
// Using 1/40 scale (or * 0.025).  
// True world scale is 1/39.37007874015748 (or * 0.0254). Basically conversion is inches (Daggerfall) to metres (Unity).  
// 1/40 scale has been carefully chosen as it is close to true scale but requires less floating-point precision  
// for tiling assets. It also produces numbers easier to remember for editor layouts and is easier to  
// calculate manually (i.e. just divide by 40 to convert native units to Unity units).  
// For example, an RMB block dimension is 4096 native units.  
// 4096 / 40 = 102.4 (easy to remember for manual editor layouts, less precision required).  
// 4096 * 0.0254 = 104.0384 (harder to remember for manual editor layouts, more precision required).  
// This means world is slightly smaller over large distances (13107.2m error across entire map width).
```

I can see only terrain without any building in-game.

Please check your model has less than 65,534 vertices and it's made of only one part.