Unity Plugin Tutorial

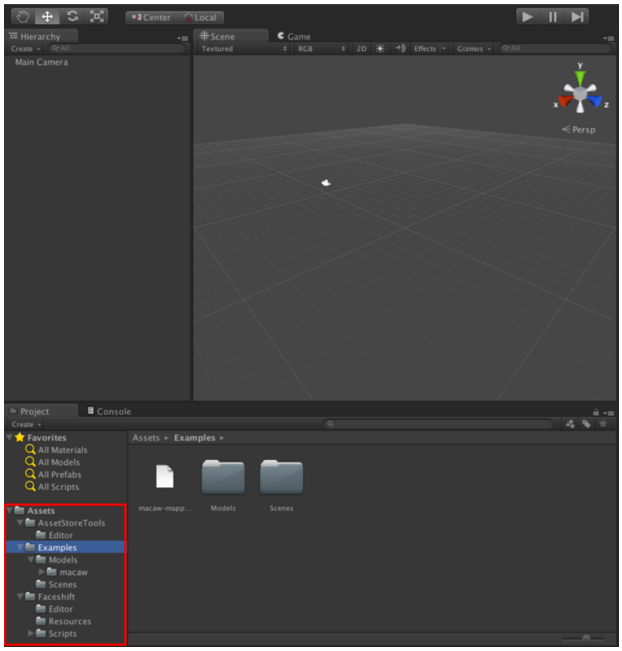
Version 2.0

Create stunning animations with motion capture at your desk. Faceshift is a markerless mocap system, which uses a depth camera to capture an actors expressions. It tracks with a facs based model, essentially guessing muscle activations of the actor.

The faceshift for unity plugin takes clips analyzed by faceshift, and allows you to map them onto arbitrary blendshape based rigs. The package contains example scenes and tutorials to get you started, and you can use the faceshift studio trial to generate your own motion capture sequences.

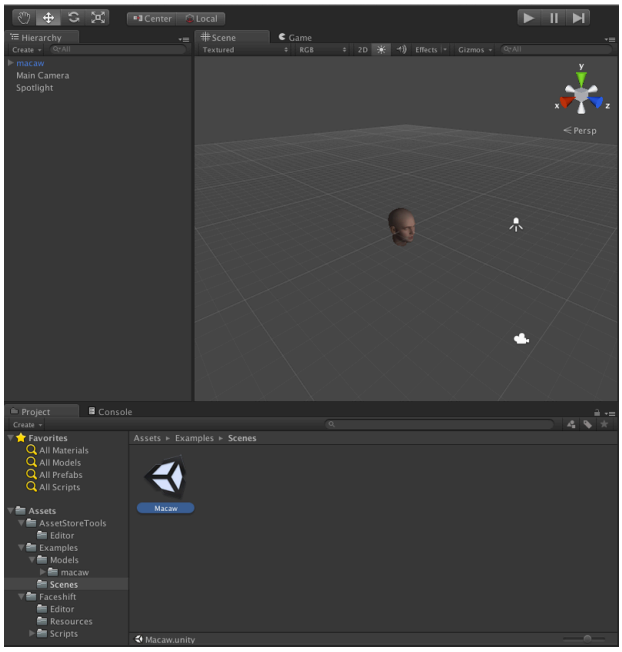
Installation

The faceshift plugin is located in the Unity Asset Store under the category "Editor Extension > Animation". Download and import the plugin from the Asset store. The package content should be displayed in the bottom left panel with the other assets.



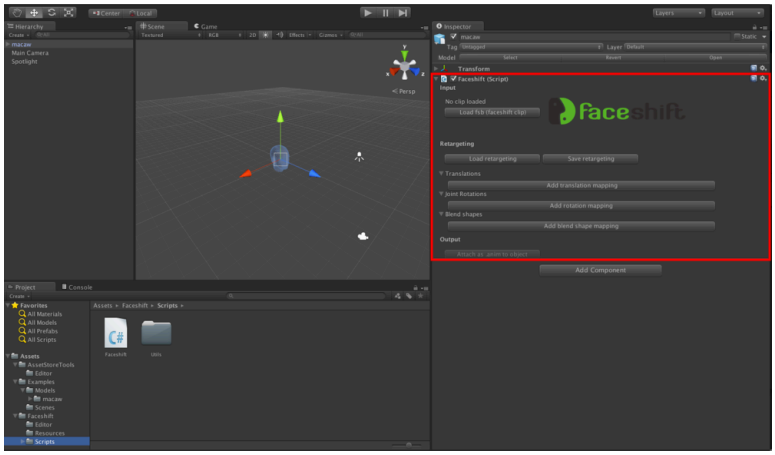
Setting up the scene

The faceshift plugin provides an example scene containing a model, a spotlight and a camera. Load the example scene by double-clicking the "Macaw" icon in "Examples > Scenes". You should see the Macaw character in the scene as well as the spotlight and the camera objects.



Get the GUI

Select the Macaw model in the Hierarchy panel on the left of the interface. From here, go in "Faceshift > Scripts" and drag the "Faceshift" script onto the Inspector panel on the right to add the faceshift component. The faceshift user interface is now loaded and you can start using it.



Loading the clip

For this step it is assumed that you already created a faceshift clip using faceshift studio. Should this step be something new to you, please refer to our Tutorials page and learn how to create and export a faceshift animation.
The "Examples" folder contains a sample clip file that you can use for testing.
Click on the "Load fsb (faceshift clip)" button and select the clip you want to load.

Retargeting

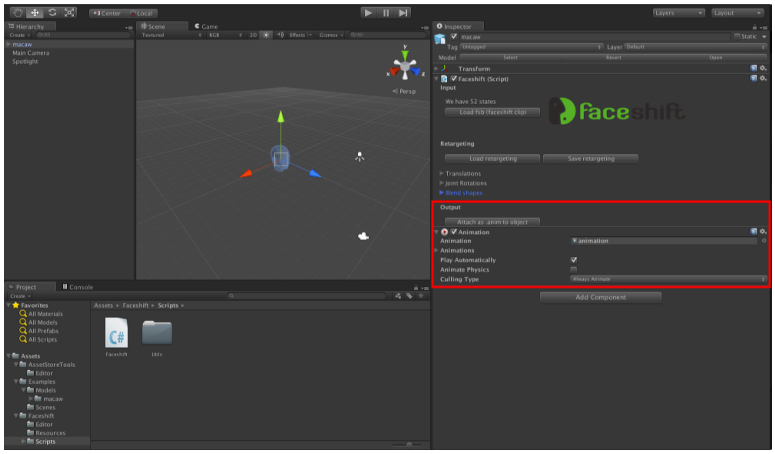
The retargeting step permits you to do the mapping between the faceshift animation and your Unity character. For doing so, you have the possibility to map blendshapes as well as translation and rotation joints. Use the corresponding "Add translation mapping", "Add rotation mapping", "Add blend shape mapping" buttons to define all the mappings that you need.
The "Examples" folder contains a sample retargeting file ("macaw-retargeting.fst") that you can directly load using the "Load retargeting" button to see how it is done for this macaw model. You can play with the coefficients to change the relation between corresponding blendshapes and see how it would alter the animation output.

Create the Animation

As soon as you completed the retargeting part, you are ready to animate your character.
Select the "Attach as .anim to object" button and give a name to your new animation file. The file will be stored as an ".anim" file in your Assets directory.

Important: to make sure this works correctly if you use your own scene, do the following in Unity3D:

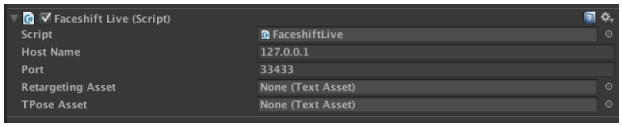
1. In the "project" window in the Assets hierarchy, click on your fbx model
2. In the inspector, you should see now the Import Settings of your model
3. Select in these Import Settings in the "Rig" tab for the "Animation Type" the value "Legacy"



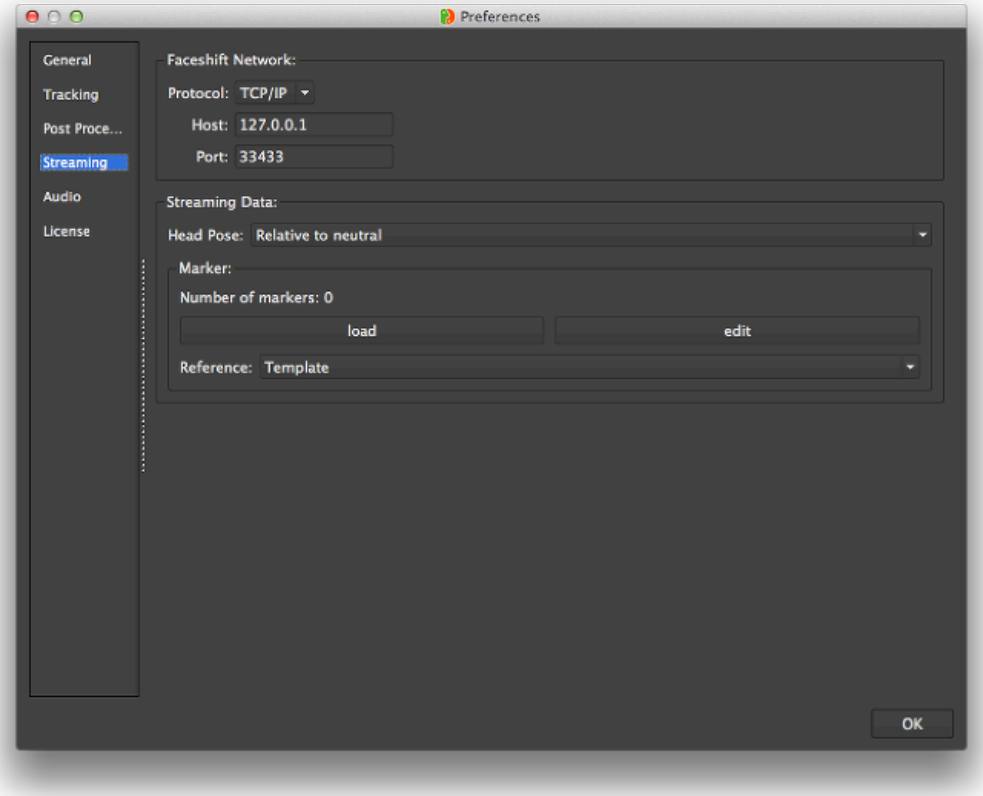
You are now able to hit the "play" button to enter the Game mode of Unity and see your character being animated.

Live

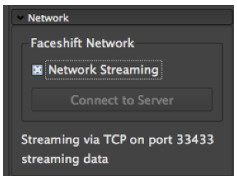
From the version 2.0 you will be able to interact from faceshift studio to unity in live mode.
A new live panel appears when you load the faceshift unity plugin:



It requires the Retargeting and TPose files to do the mapping between the faceshift animation and the unity character (see section "Retargeting").
The host name and the port information should correspond to the values set in faceshift studio, under Preferences > Streaming.



In the Tracking module of faceshift studio, make sure to enable the Network streaming.



You are now ready to animate your unity character live using the faceshift live tracking module.