CV VTuber Example 1.0.2

WebGL support

iOS & **Android** support

Windows10 UWP support

Win & **Mac** & **Linux** Standalone support

Support for preview in the **Editor**

Work with Unity Free & Pro

System Requirements

Build Win Standalone & Preview Editor : Windows8 or later

Build Mac Standalone & Preview Editor : OSX 10.9 or later

The execution of this asset is required "OpenCV for Unity" and "Dlib FaceLandmark Detector".

Features:

- CVVTuberExample(**C**omputer **V**ision **V**irtual You**Tuber** Example) is an example project of controlling 3D humanoid model (Mecanim Humanoid, "Unity-chan!" Model, VRM Model, Live2DCubism2 Model) using WebCamTexture. You can control the head orientation and the facial expression of the 3D humanoid model using WebCamTexture only.
- The head orientation and face expression are controlled by the following procedure.
  1. **WebCamTextureMatSourceGetter** - Convert WebCamTexture to OpenCV's Mat class.
  2. **DlibFaceLandmarkGetter** - Detect a face landmark points from OpenCV's Mat class.
  3. **DlibHeadRotationGetter** - Estimate head orientation from face landmark points.
  4. **HeadRotationController** - Control the head orientation of the 3D model using the estimated head orientation.

5. **HeadLookAtIKController** - Set Animator.SetLookAtPosition() method using the estimated head orientation.
6. **DlibFaceBlendShapeController** - Control the face BlendShape of the 3D model using the face landmark point.

Basic Examples:

- WebCamTexture CV VTuber Example
- VideoCapture CV VTuber Example

Advanced Examples: (require add-ons setup)

- UnityChan CV VTuber Example
- VRM CV VTuber Example
- Live2DCubism2 CV VTuber Example

Official Site | ExampleCode |Android Demo WebGL Demo

Version changes:

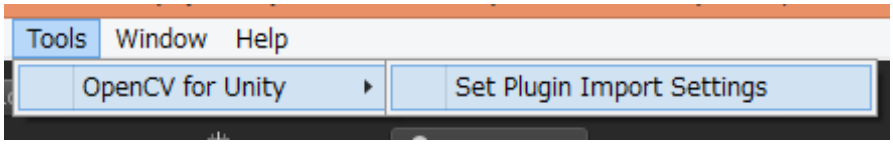
1.0.2 [Common]Updated for OpenCV for Unity v2.3.3.(This asset requires OpenCVforUnity 2.3.3 or later.) [Common]Updated for Dlib FaceLandmark Detector v1.2.5.(This asset requires Dlib FaceLandmark Detector 1.2.5 or later.)

1.0.1 [Common]largely changed the folder structure of asset package.(If there is a previous version of CVVTuberExample in the project, please delete the CVVTuberExample folder first and then import the new version.) [Common]Added WebCamTextureCVVTuberExample, VideoCaptureCVVTuberExample, UnityChanCVVTuberExample, VRMCVVTuberExample and Live2DCubism2CVVTuberExample.

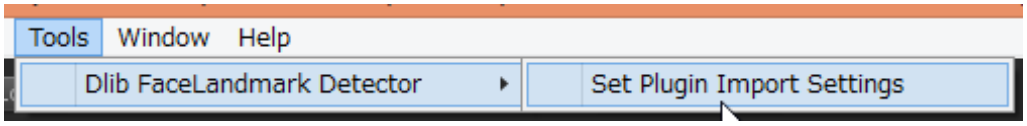
1.0.0 Initial version

Quick setup procedure to run the Basic Example scenes:

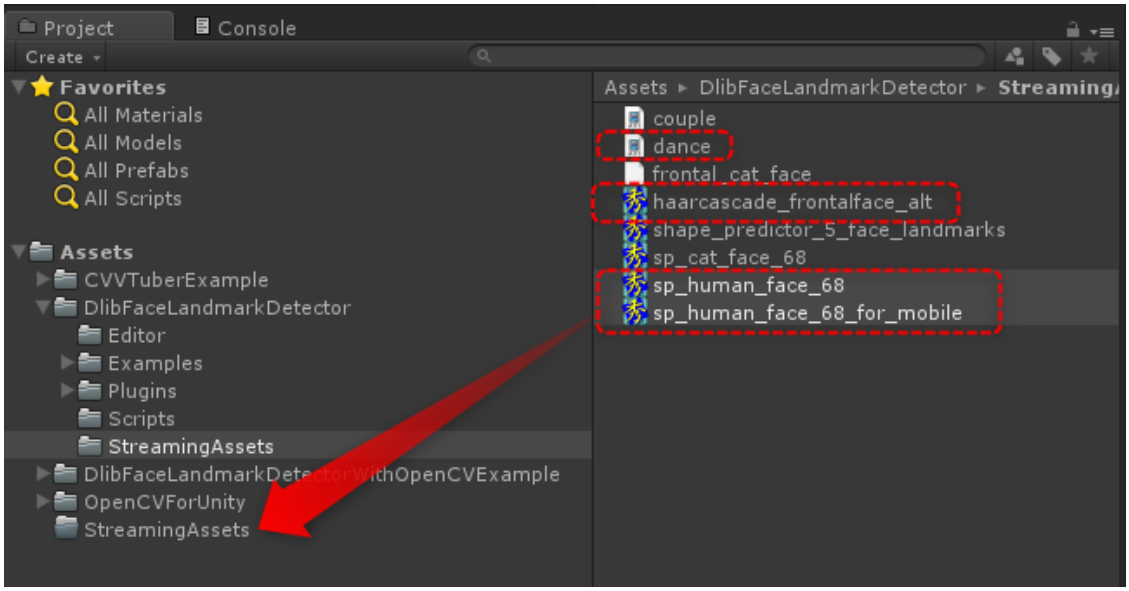
1. Import "CVVTuberExample". **(If there is a previous version of CVVTuberExample in the project, please delete the CVVTuberExample folder first and then import the new version.)**
2. Import "OpenCVForUnity".
3. Import "Dlib FaceLandmark Detector".
4. Select MenuItem[Tools/OpenCV for Unity/Set Plugin Import Settings].



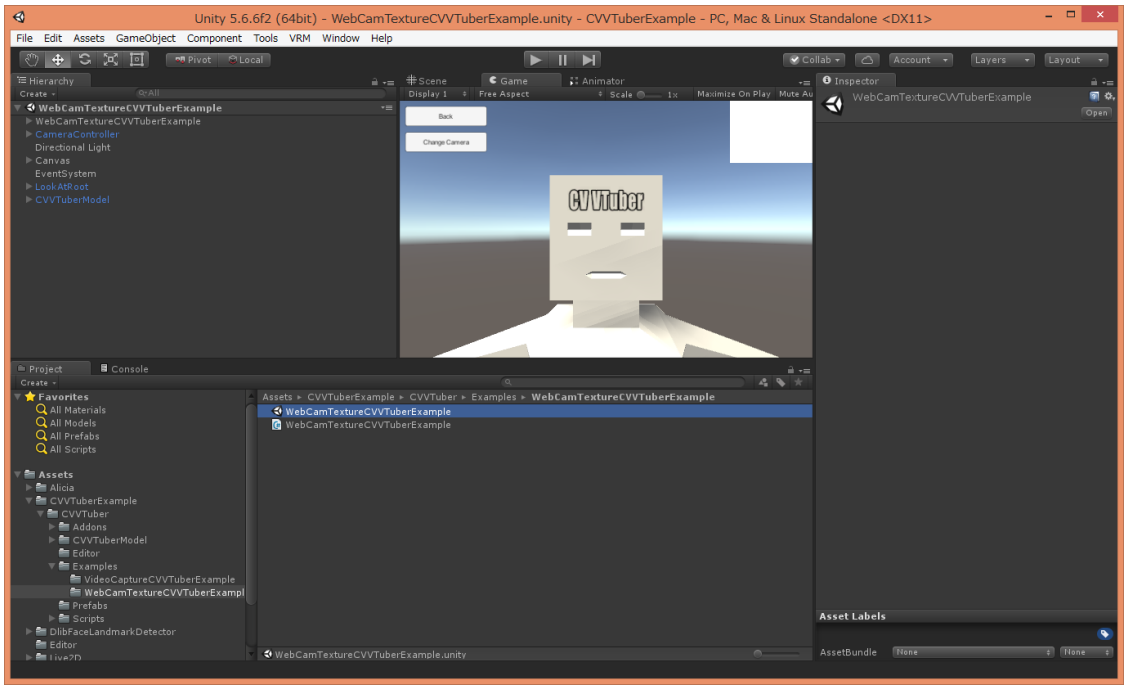
5. Select MenuItem[Tools/Dlib FaceLandmark Detector/Set Plugin Import Settings].



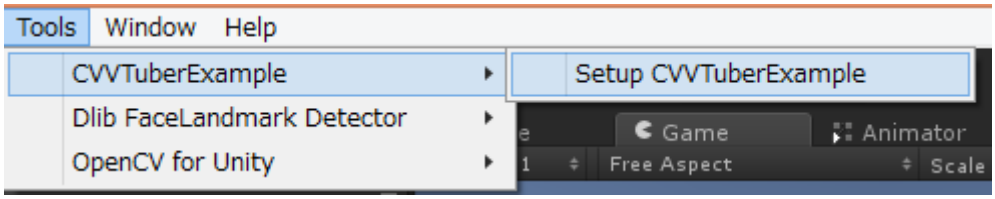
6. Move the "DlibFaceLandmarkDetector/StreamingAssets/dance.avi"," DlibFaceLandmarkDetector/StreamingAssets/haarcascade_frontalface_alt.xml", "DlibFaceLandmarkDetector/StreamingAssets/sp_human_face_68.dat" and "DlibFaceLandmarkDetector/StreamingAssets/sp_human_face_68_for_mobile.dat"to the "Assets/StreamingAssets/" folder.



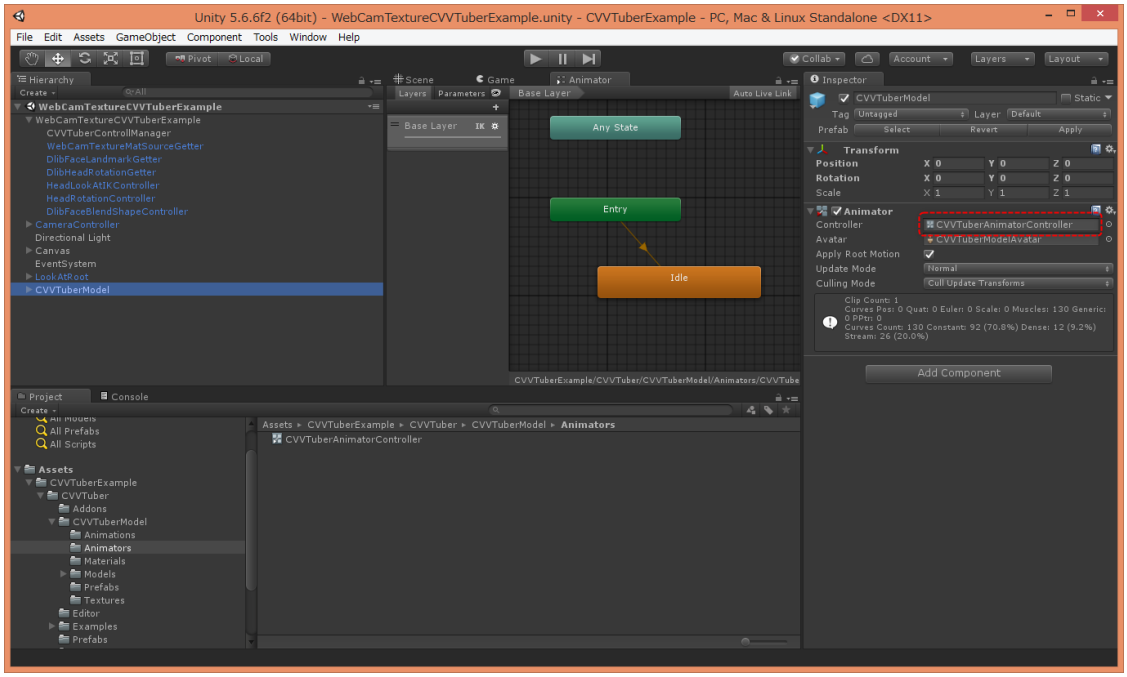
7. Open "Assets/CVVTuberExample/CVVTuber/Examples/WebCamTextureCVVTuberExample" scene.

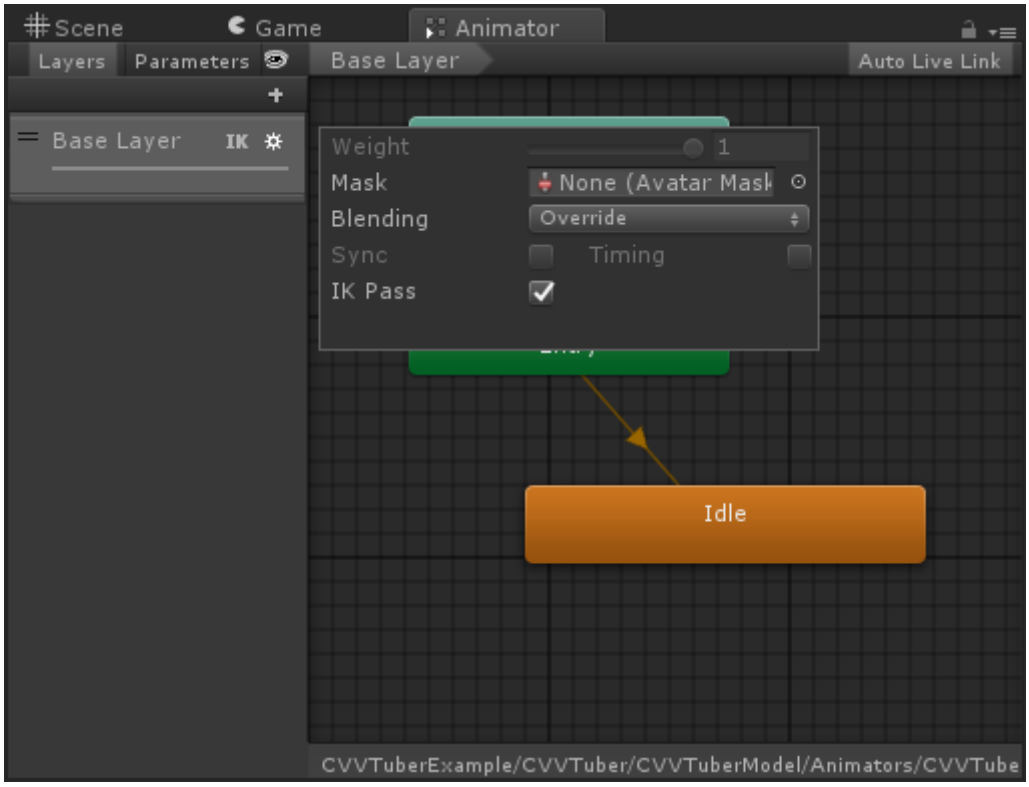


8. Select MenuItem[Tools/CVVTuberExample/Setup CVVTuberExample].

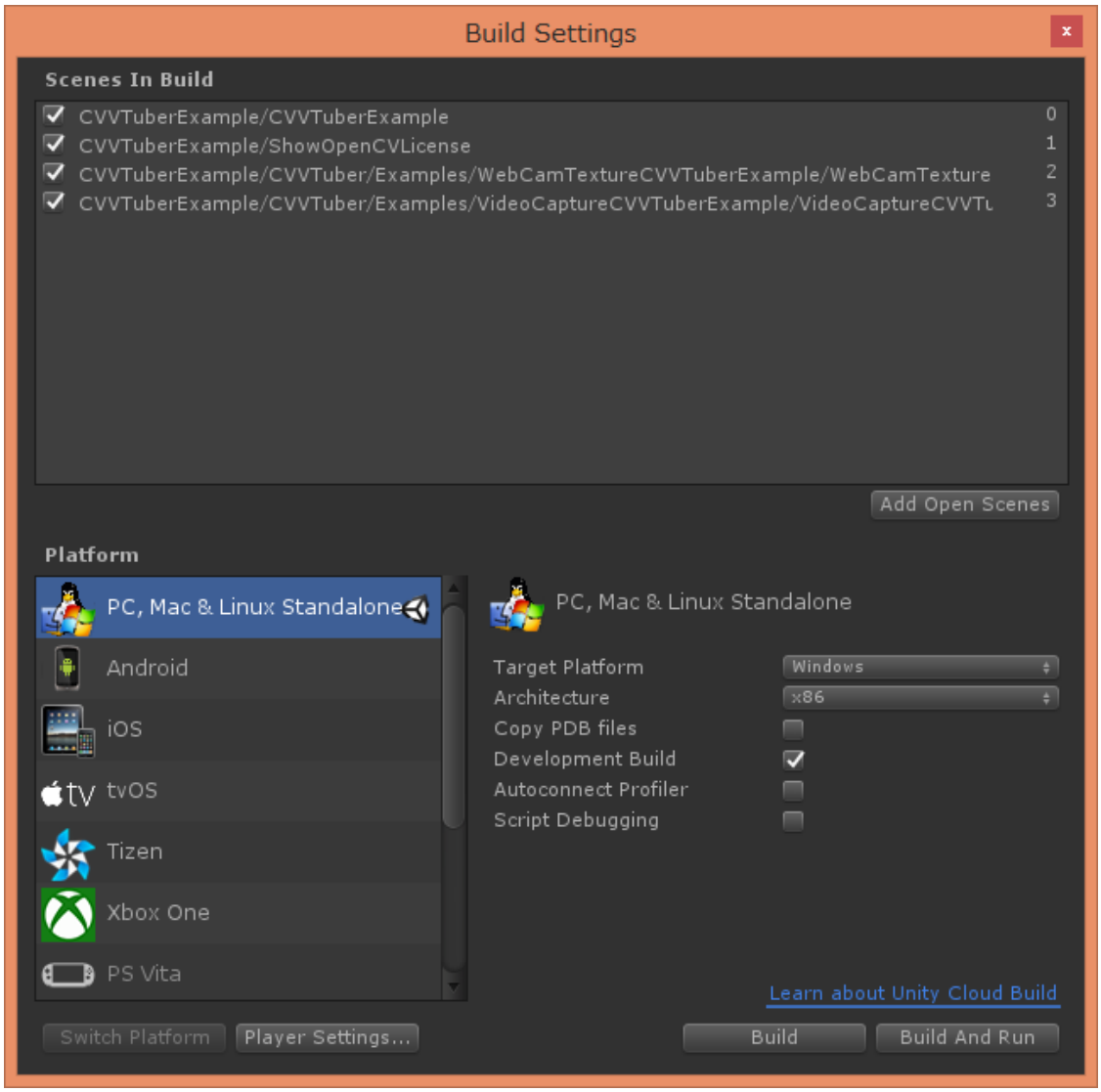


9. Click on CVVTuberAnimatorController to open the Animator window. Enable IK Pass flag of “Base Layer”.

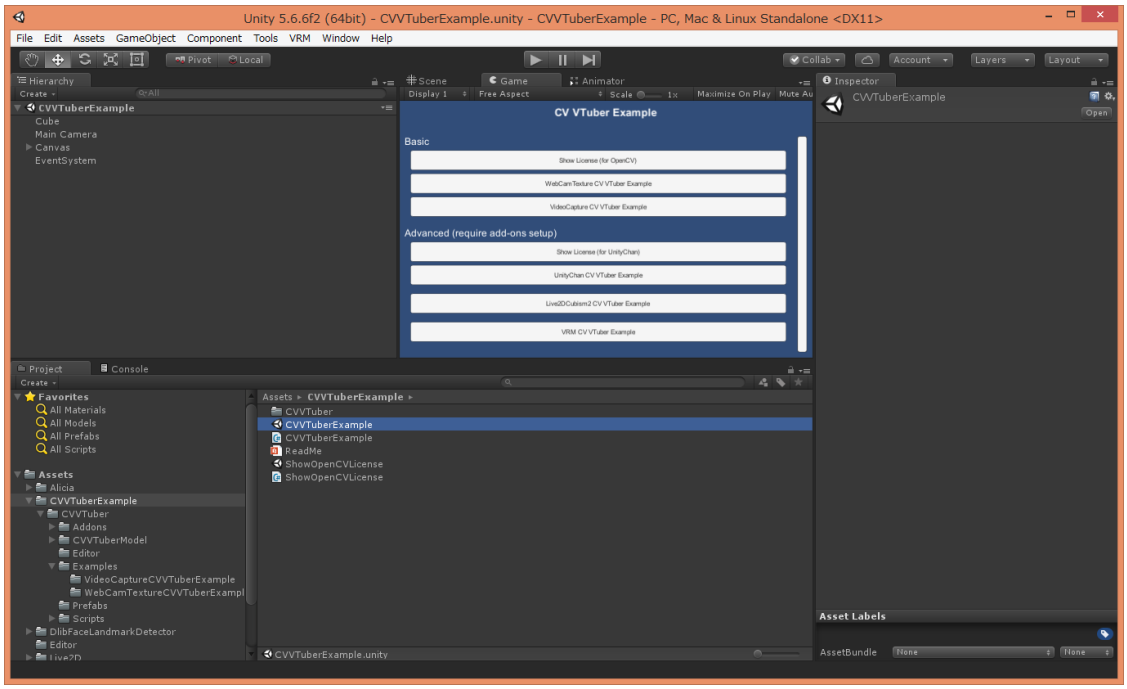




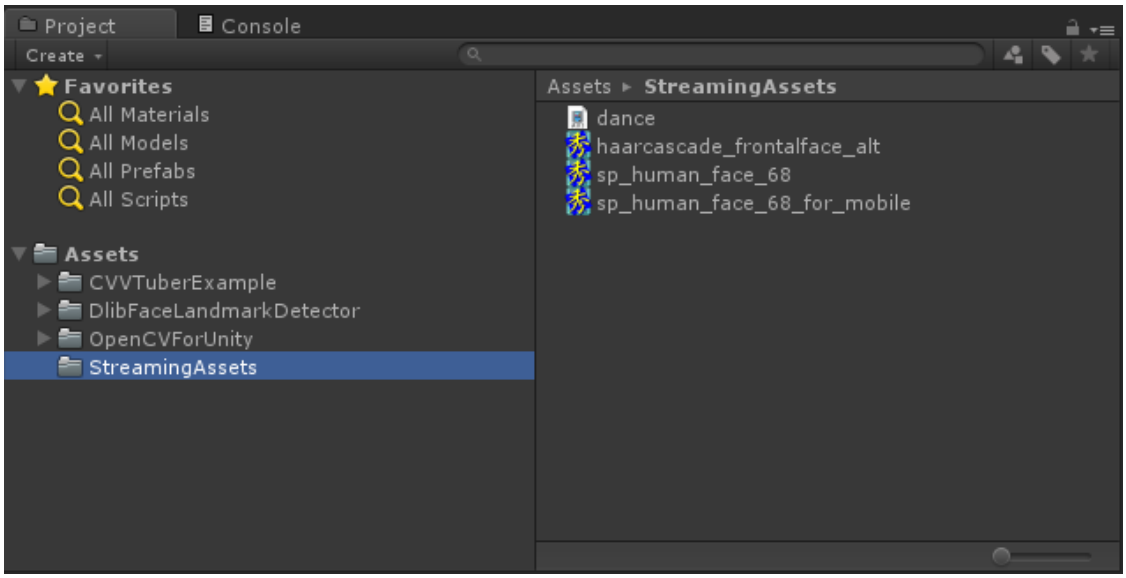
10. Add all of the "***.unity" in the "CVVTuberExample/" folder to [Build Settings] – [Scene In Build].



11. Run the CVVTuberExample scene.



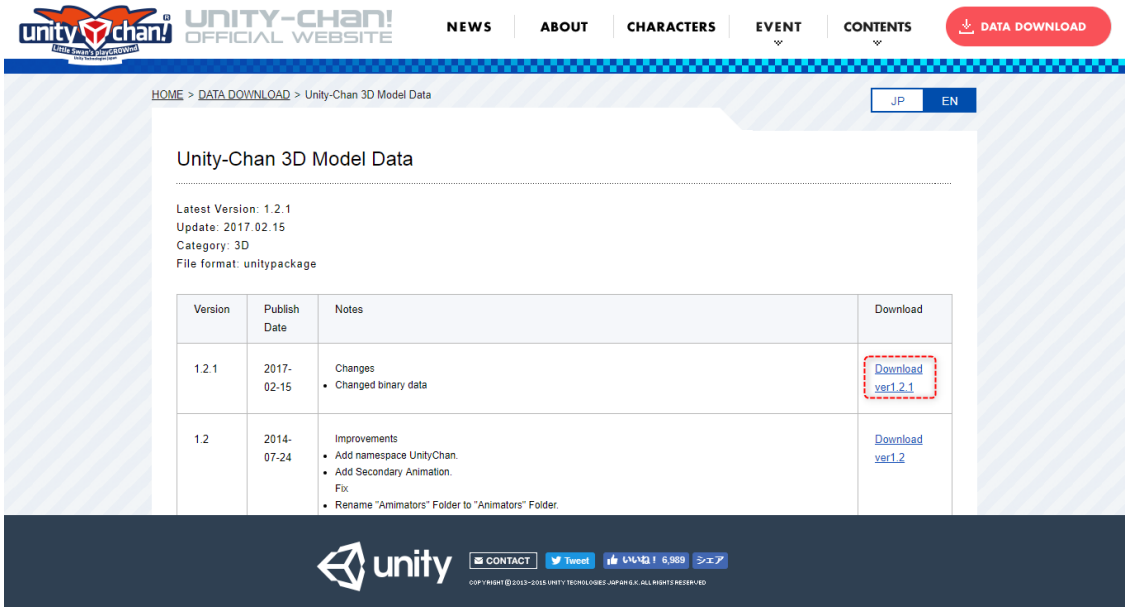
Screenshot after the setup



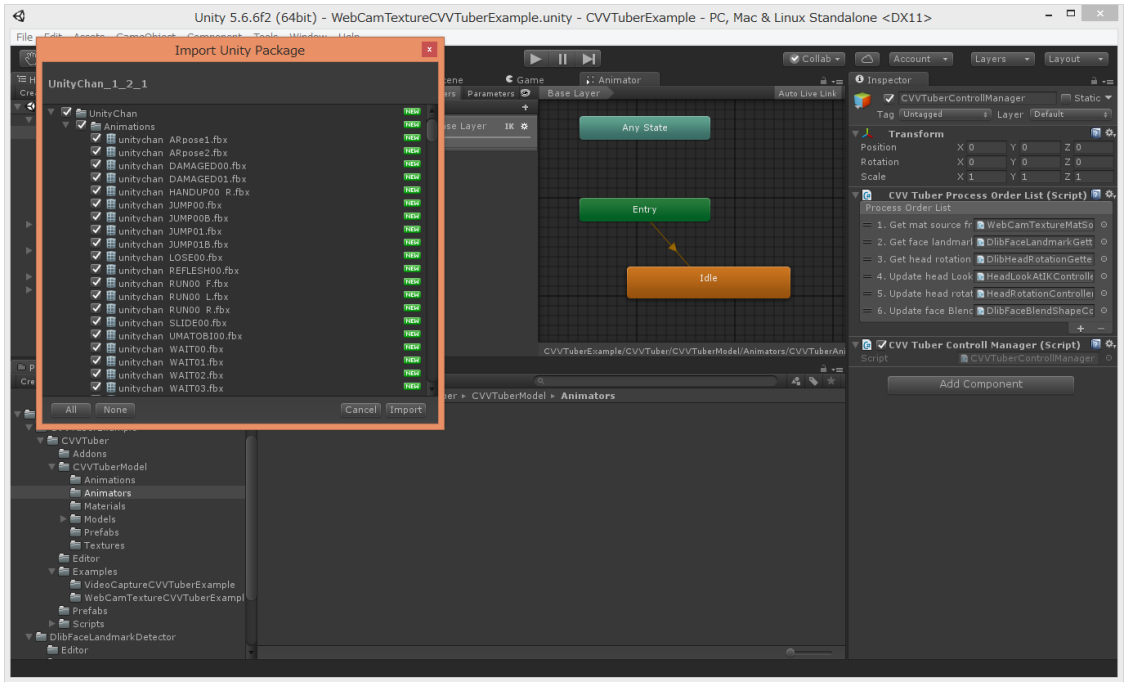
*In this example, a model set up with a general Mecanim Humanoid is also available.

Quick setup procedure to run the UnityChanCVVTuberExample scene:

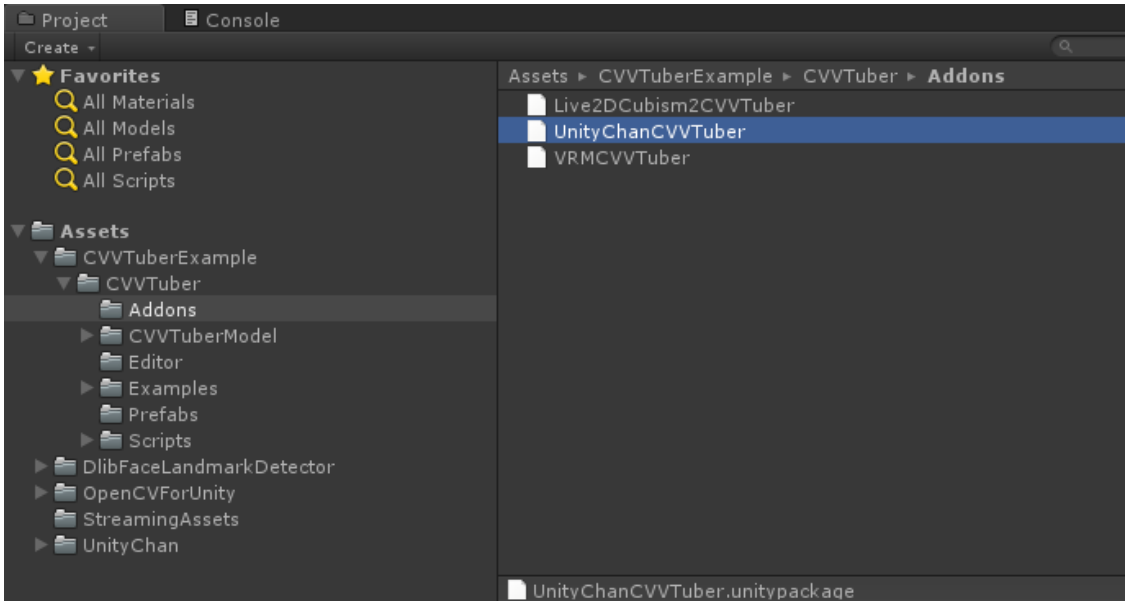
1. Download “Unity-Chan 3D Model Data ver1.2.1” from [Unity's official site](#).

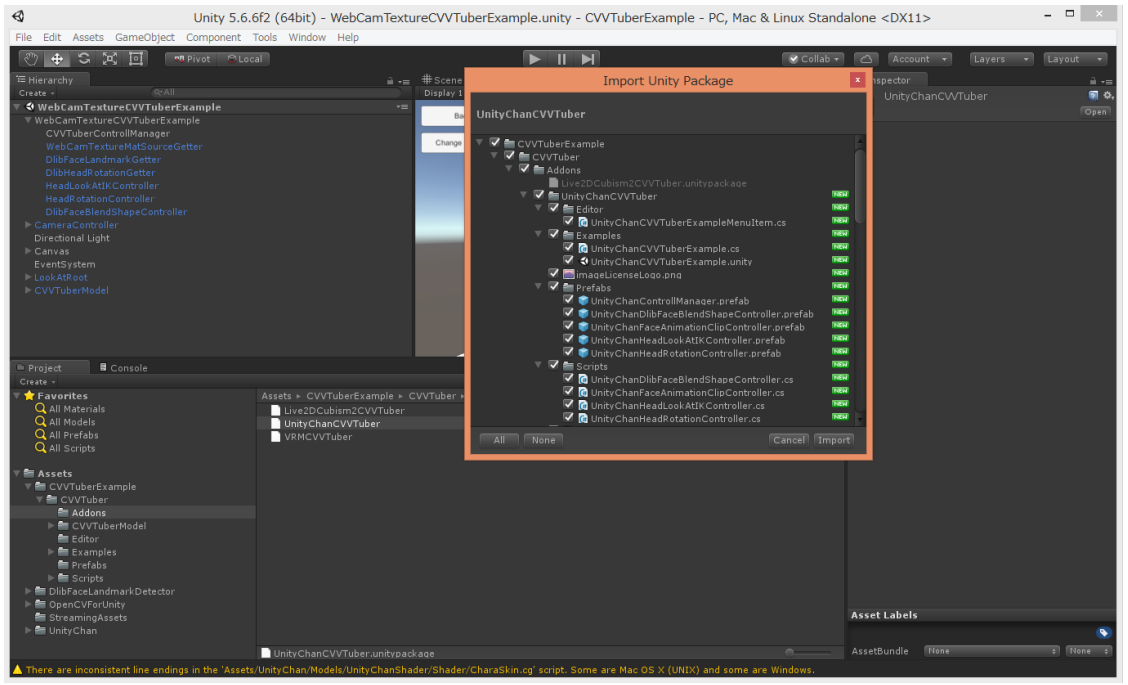


2. Import “UnityChan_1_2_1.unitypackage”.

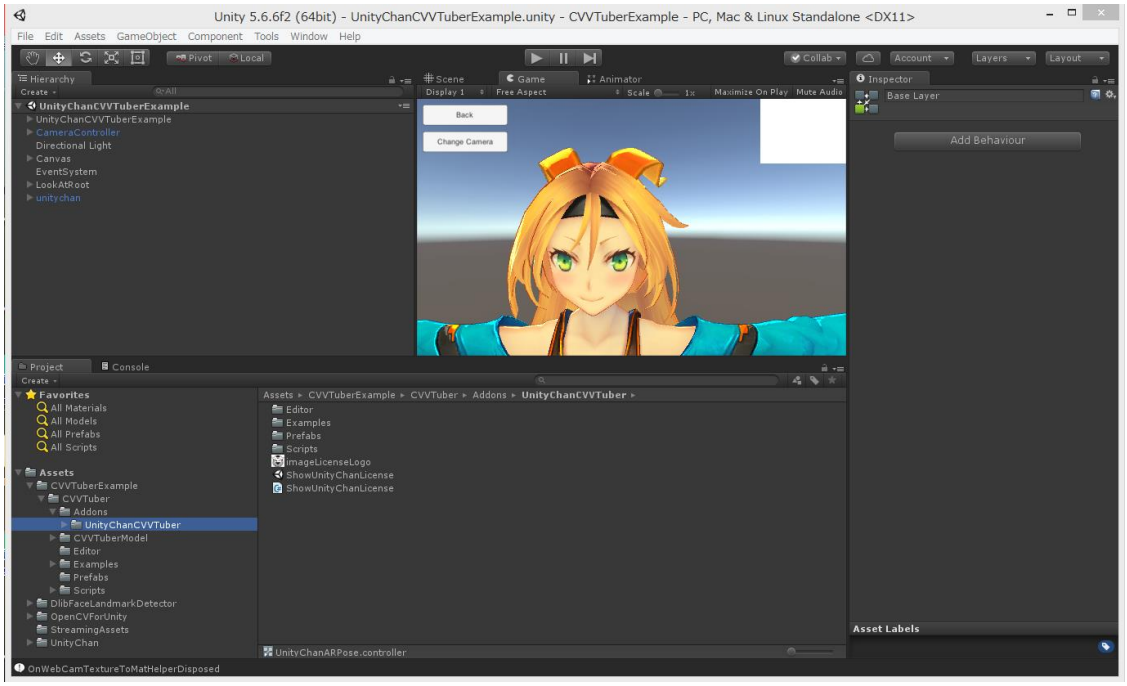


3. Import “Assets/CVVTuberExample/CVVTuber/Addons/UnityChanCVVTuber.unitypackage”.



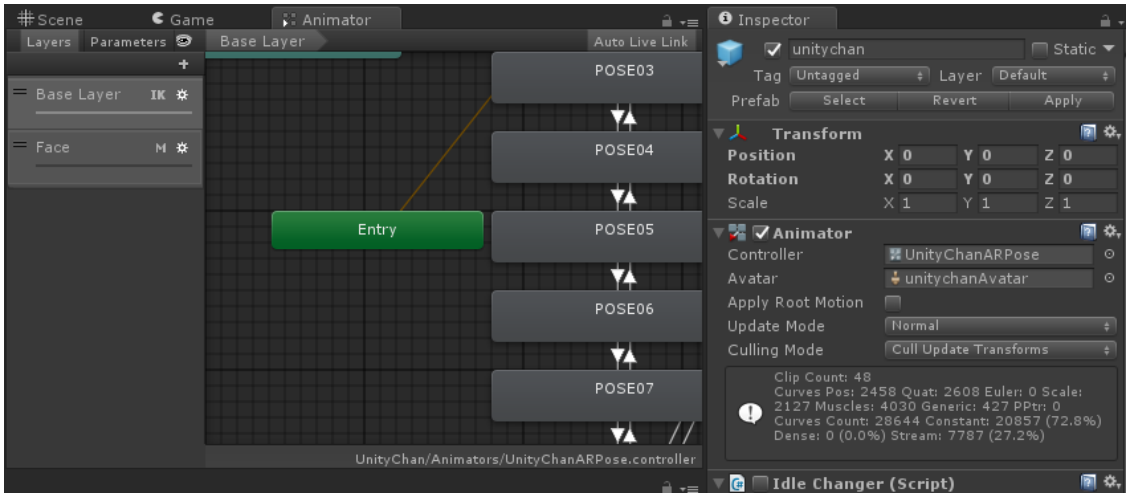


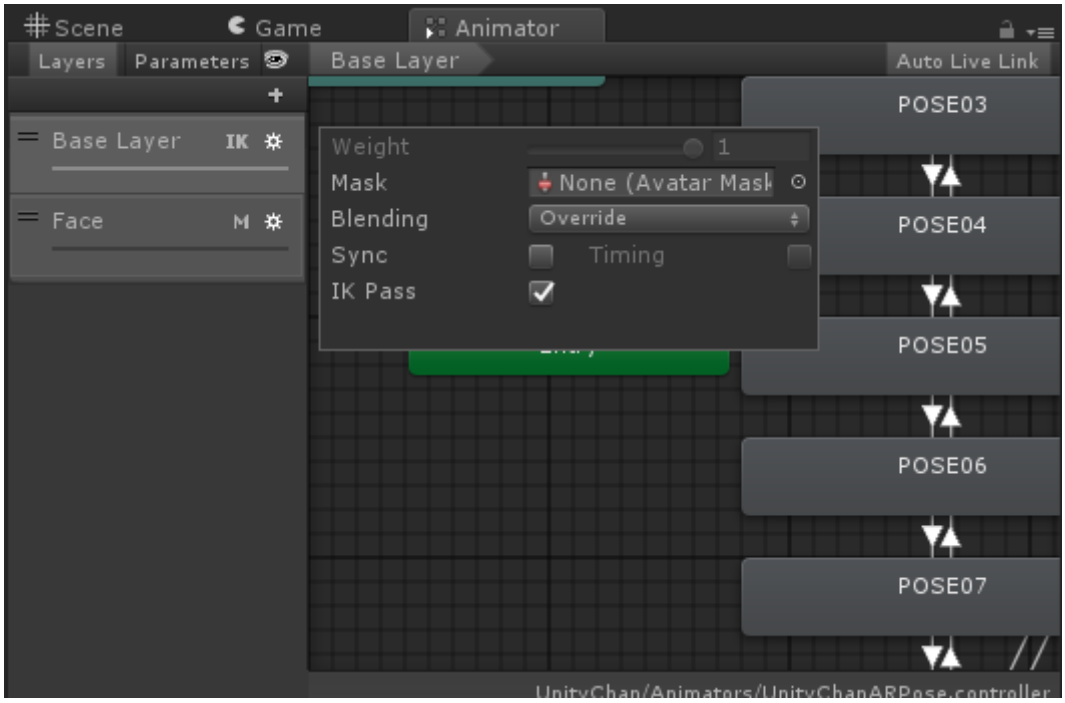
4. Open “Assets/CVVTuberExample/CVVTuber/Addons/UnityChanCVVTuber/UnityChanCVVTuberExample.unity” scene.



5. Select MenuItem[Tools/CVVTuberExample/ Setup UnityChanCVVTuberExample].

6. Click on CVVTuberAnimatorController to open the Animator window. Enable IK Pass flag of “Base Layer”.

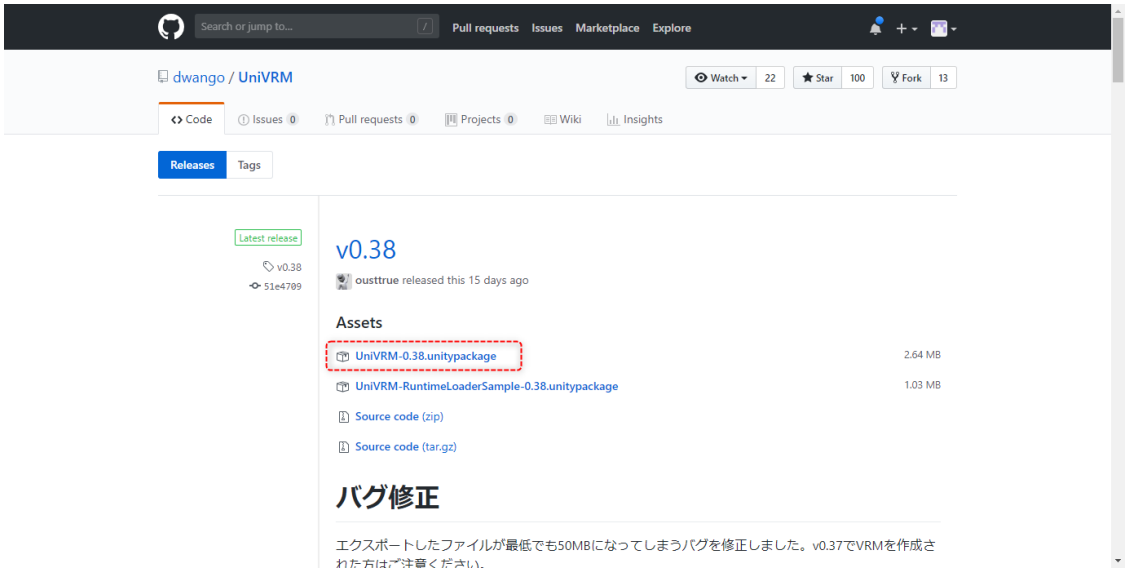




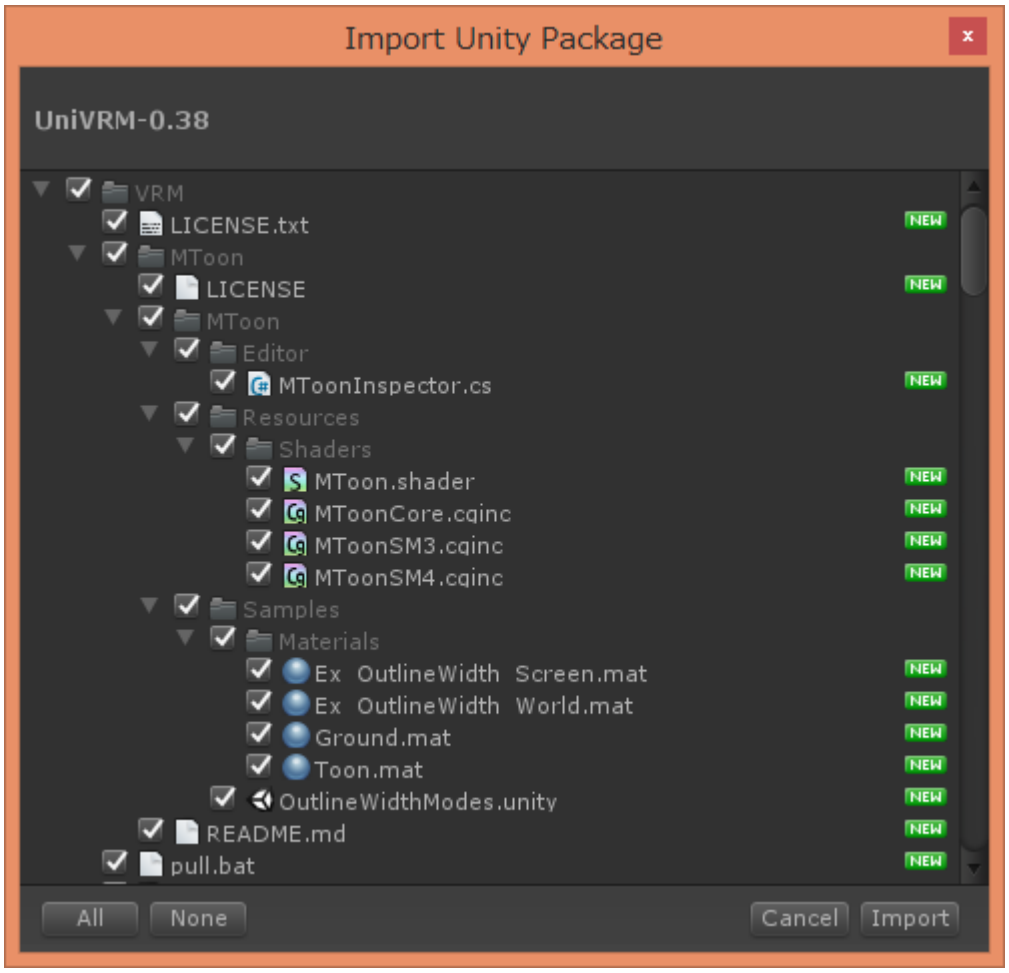
*In this example, a model set up with UnityChan format is also available.

Quick setup procedure to run the VRMCVVTuberExample scene:

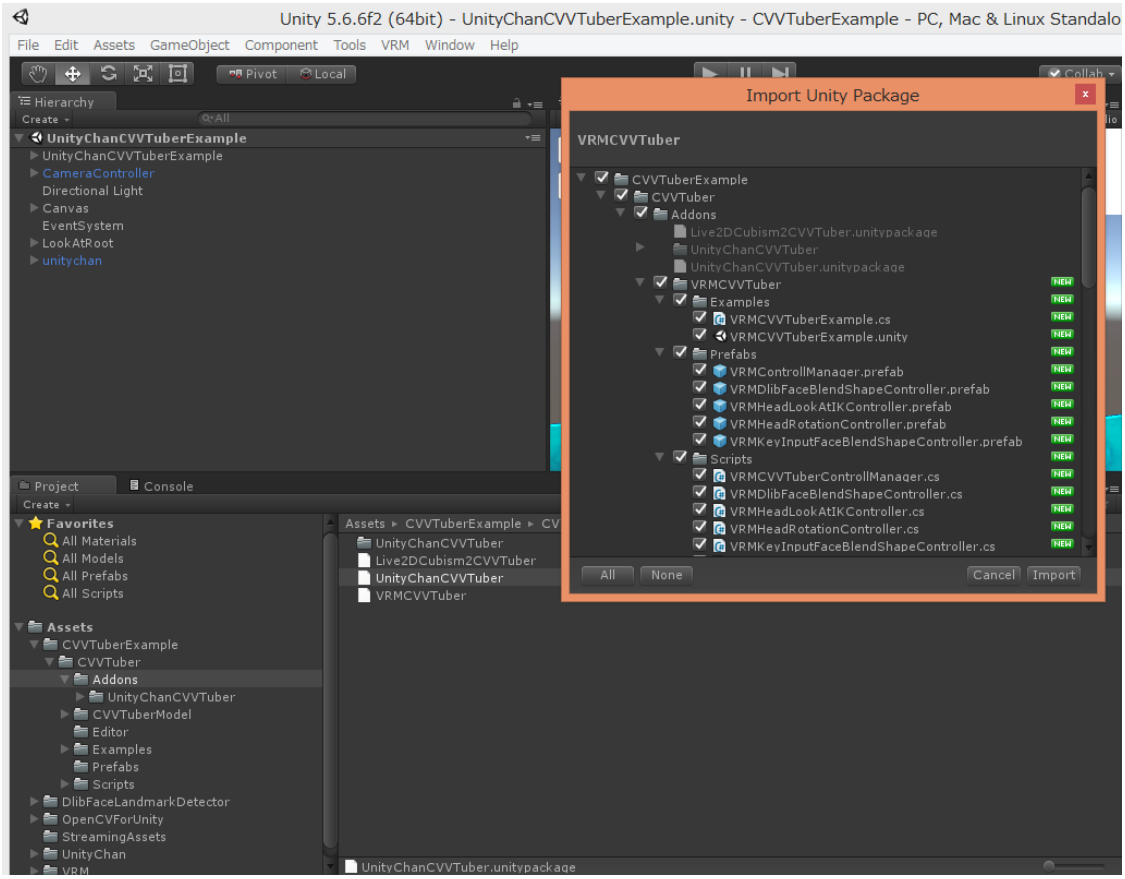
1. Download UniVRM-0.38.unitypackage from GitHub dwango/UniVRM.



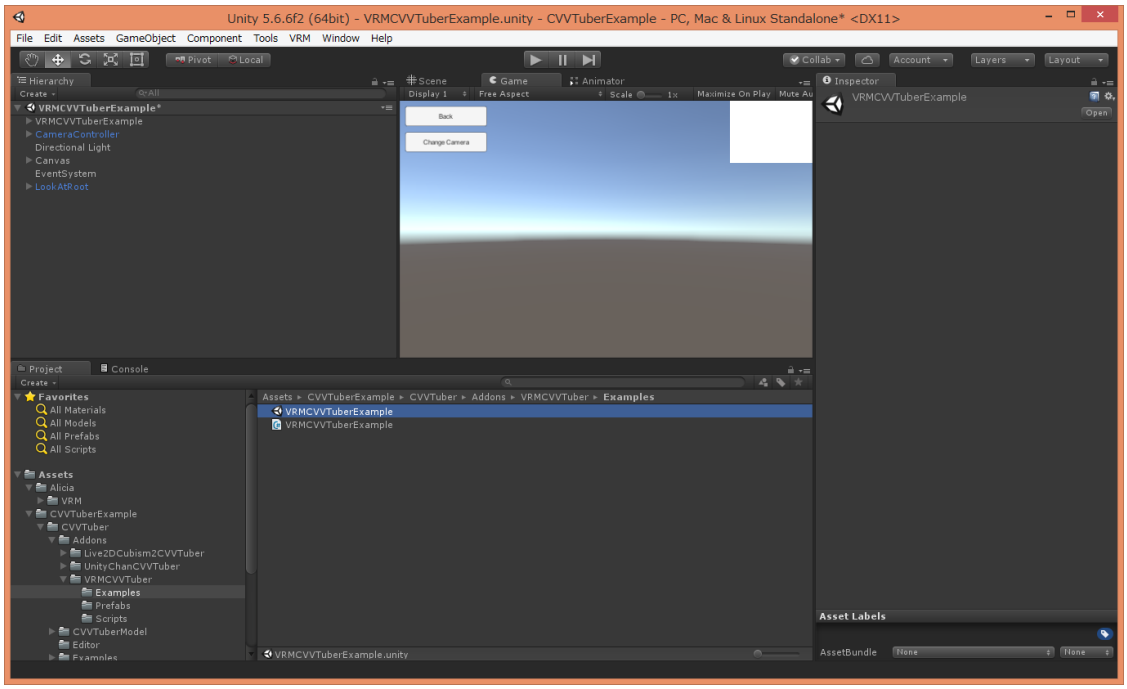
2. Import UniVRM-0.38.unitypackage.



3. Import
“Assets/CVVTuberExample/CVVTuber/Addons/VRMCVVTuber.unitypackage”.

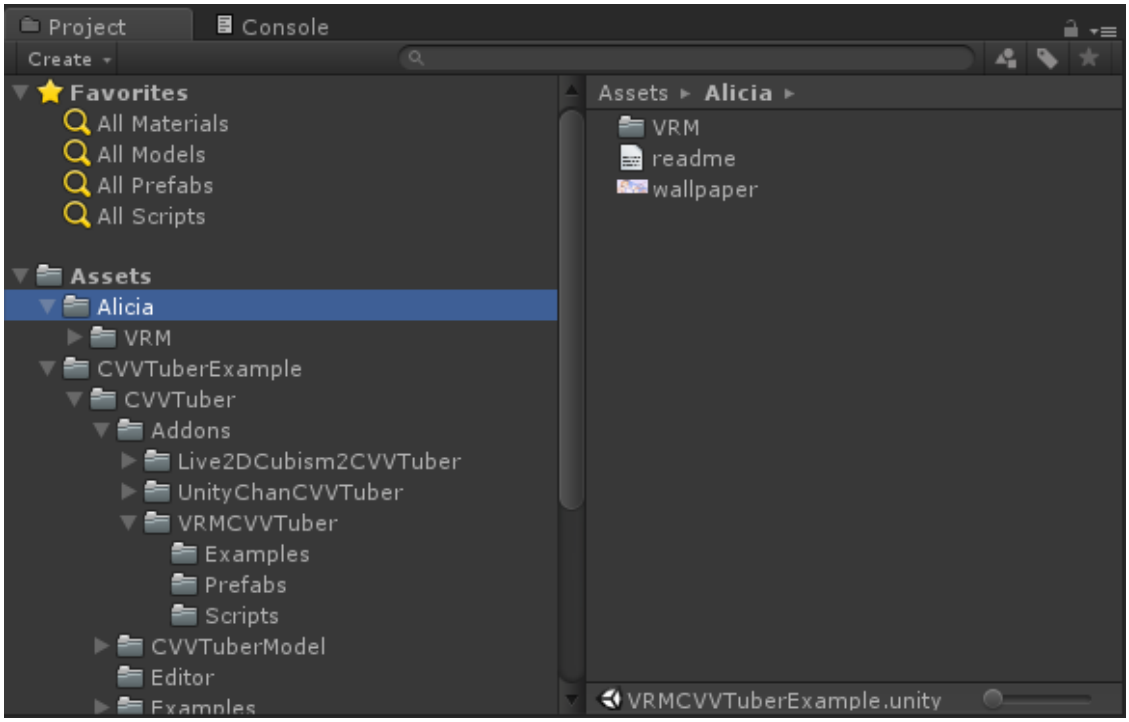


4. Open “Assets/CVVTuberExample/CVVTuber/Addons/VRMCVVTuberExamples/VRMCVVTuberExample.unity” scene.

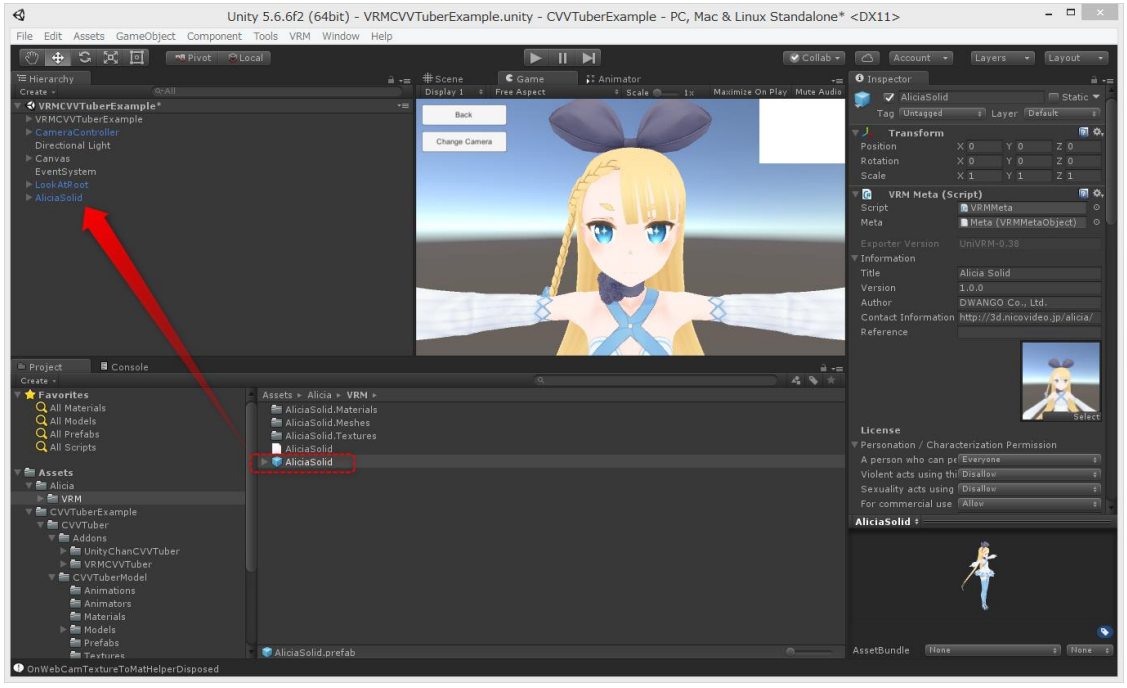


5. Download ”ニコニ立体ちゃん(VRM)” from ニコニ立体.

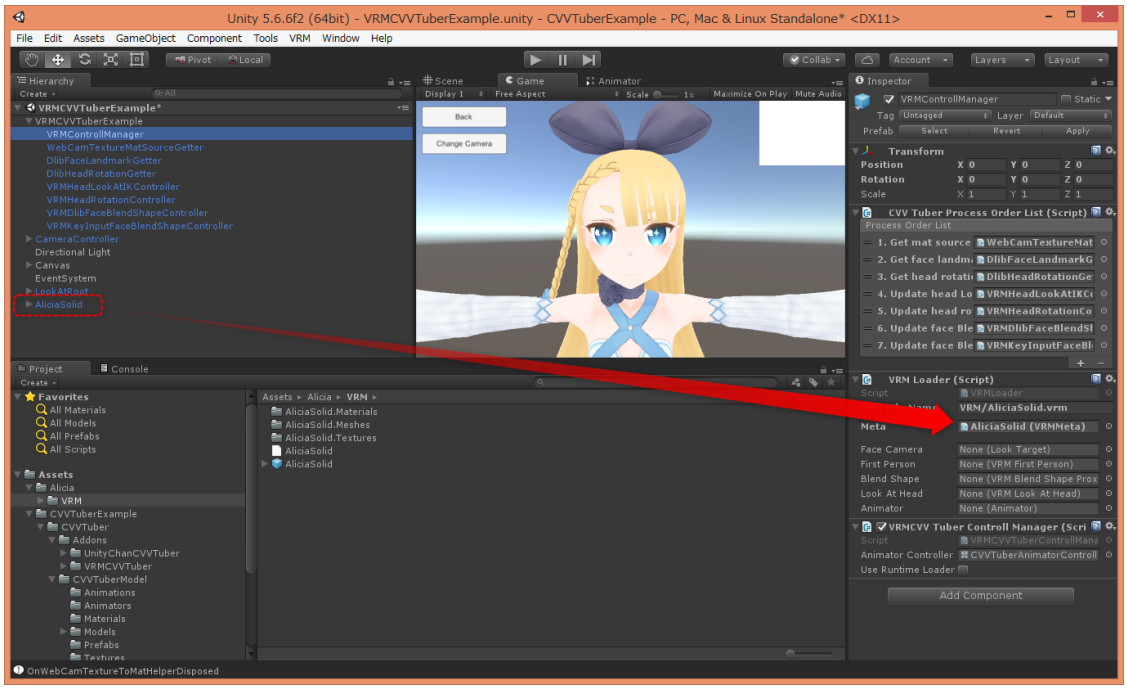
6. Unzip “Alicia_VRM.zip” and import the “Alicia” folder into the “Assets” folder.



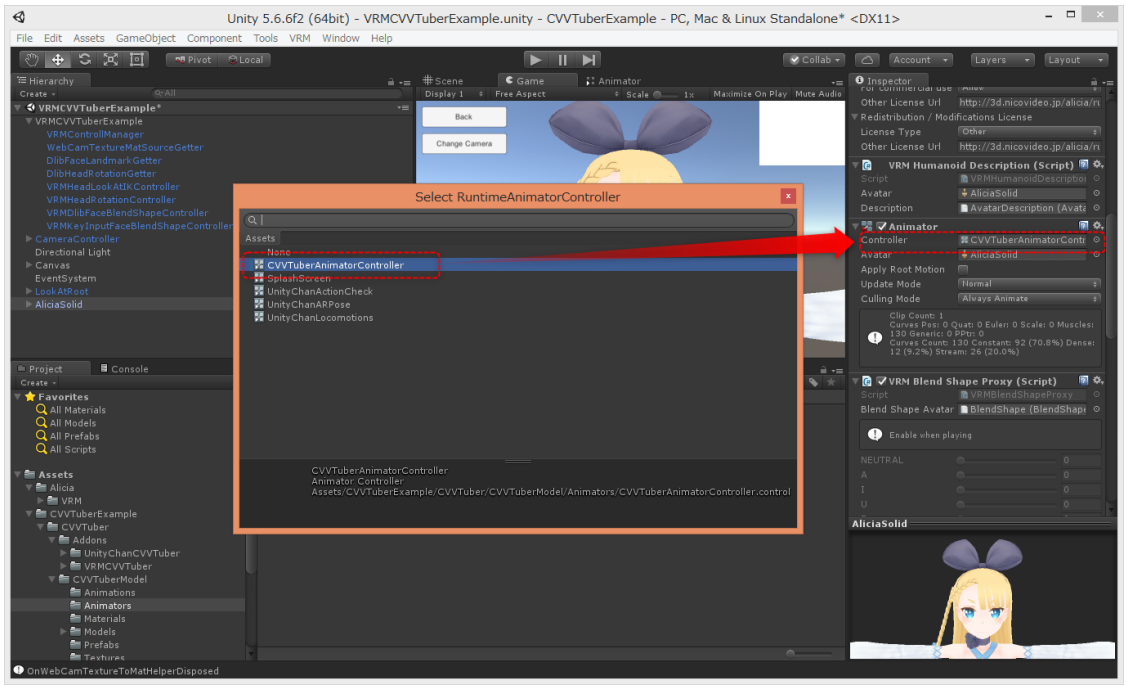
7. Drag and drop “Assets/VRM/Alicia Solid.prefab” into the “VRMCVVTuberExample” scene.



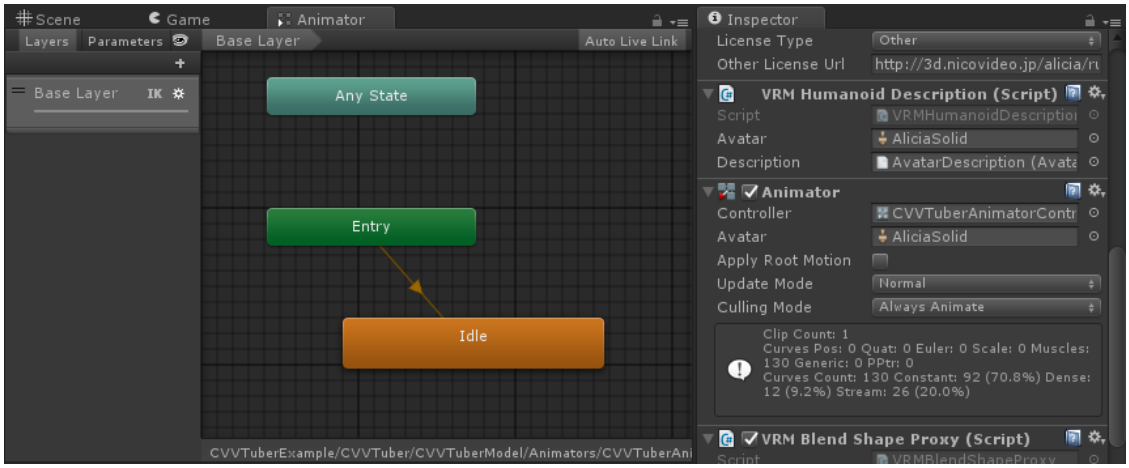
8. Set “AliciaSolid” to Meta of VRMLoader.

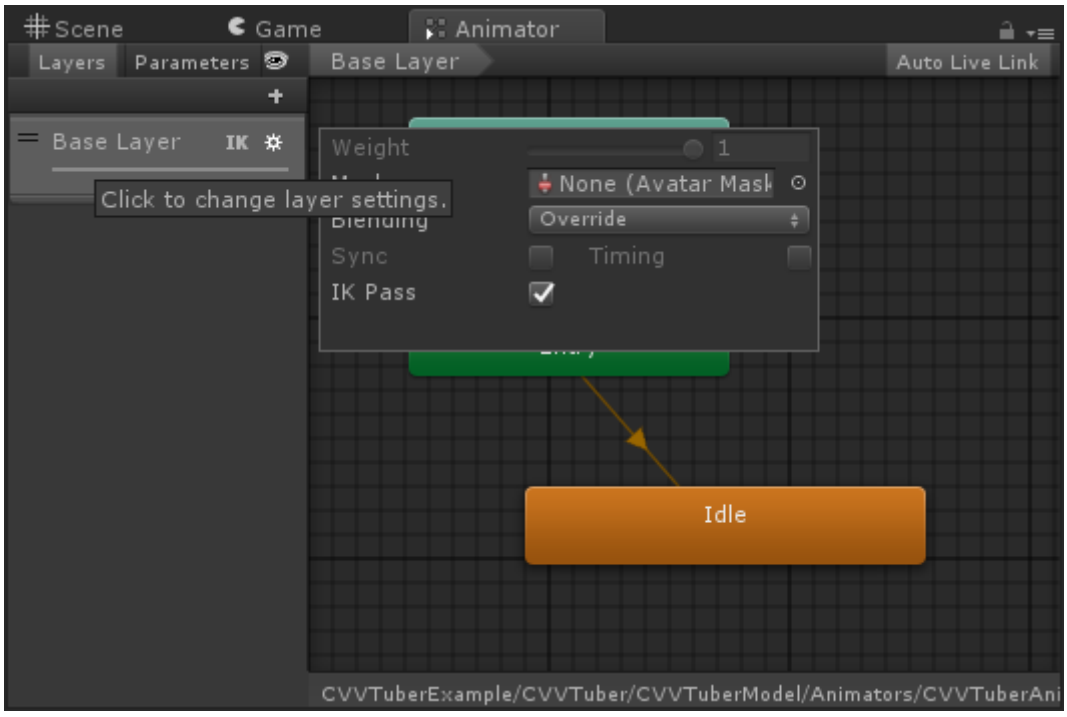


9. Set “CVVTuberAnimatorController” to Controller of AliciaSolid's Animator.



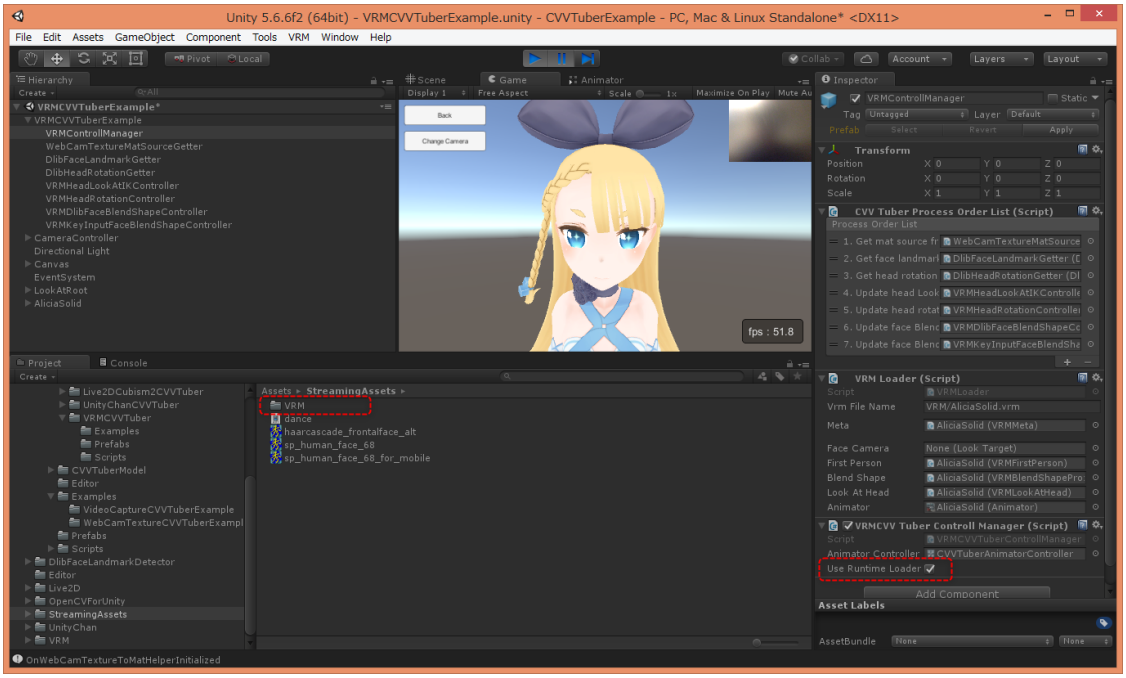
10. Click on CVVTuberAnimatorController to open the Animator window. Enable IK Pass flag of “Base Layer”.


Scene
Game
Animator
Layers
Parameters
Base Layer
Auto Live Link
Base Layer
IK
Any State
Entry
Idle
CVVTuberExample/CVVTuber/CVVTuberModel/Animators/CVVTuberAni
Inspector
License Type
Other
Other License Url
http://3d.nicovideo.jp/alicia/ru
VRM Humanoid Description (Script)
Script
VRMHumanoidDescriptio
Avatar
AliciaSolid
Description
AvatarDescription (Avata
Animator
Controller
CVVTuberAnimatorContr
Avatar
AliciaSolid
Apply Root Motion
Update Mode
Normal
Culling Mode
Always Animate
Clip Count: 1
Curves Pos: 0 Quat: 0 Euler: 0 Scale: 0 Muscles: 130 Generic: 0 PPtr: 0
Curves Count: 130 Constant: 92 (70.8%) Dense: 12 (9.2%) Stream: 26 (20.0%)
VRM Blend Shape Proxy (Script)
Script
VRMBlendShapeProxy


Scene
Game
Animator
Layers
Parameters
Base Layer
Auto Live Link
Base Layer
IK
Click to change layer settings.
Weight
1
None (Avatar Mask
Override
Sync
Timing
IK Pass
Idle
CVVTuberExample/CVVTuber/CVVTuberModel/Animators/CVVTuberAni

*In this example, a model set up with VRM format is also available.

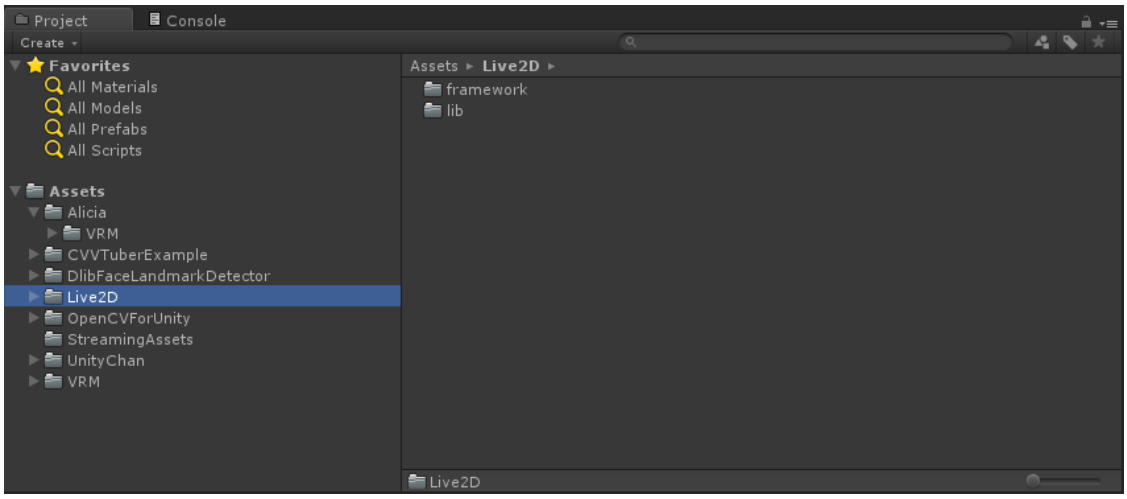
*If you set the file name (eg "VRM/AliciaSolid.vrm") to VrmFileName of VRMLoader and set useRuntimeLoader of VRMCVVTuberControllManager to true,
Load the VRM model in the StreamingAssets folder at runtime.



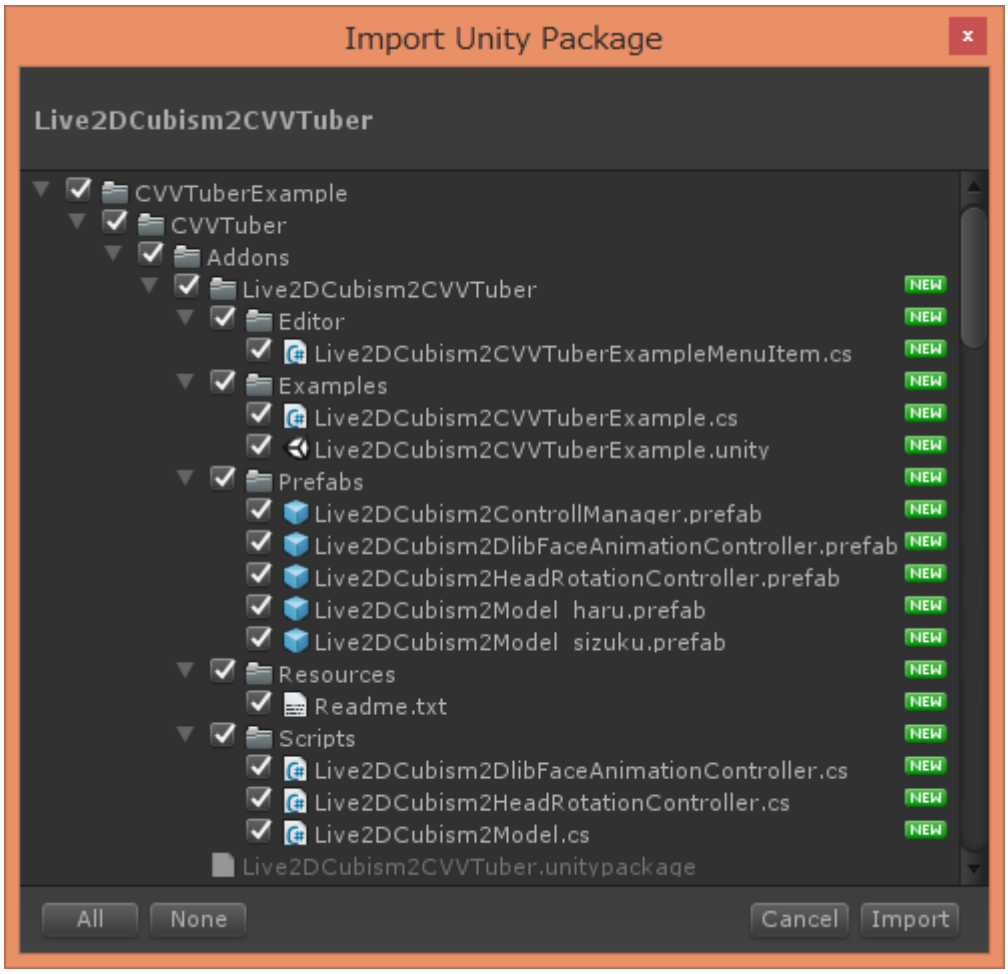
Quick setup procedure to run the Live2DCubism2CVVTuberExample scene:

1. Download “Live2D Cubism 2 SDK v2.1.04_2.zip” from Live2D site.

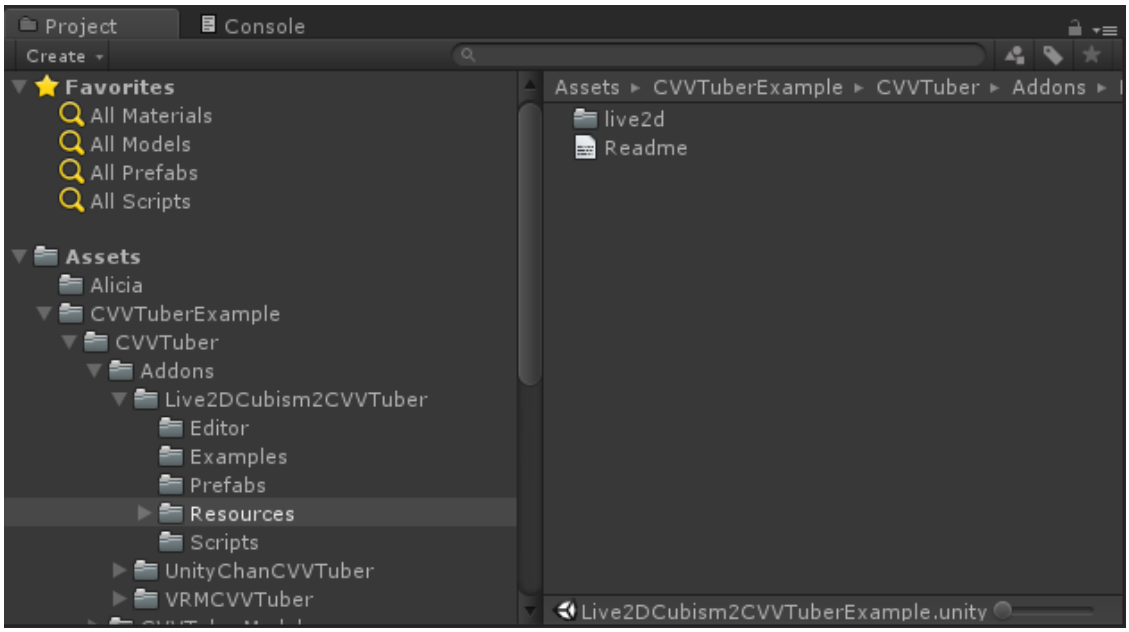
2. Unzip “Live2D_SDK_Unity_2.1.04_2_en.zip” and import the “framework” folder and “lib” folder into the "Assets/Live2D” folder.



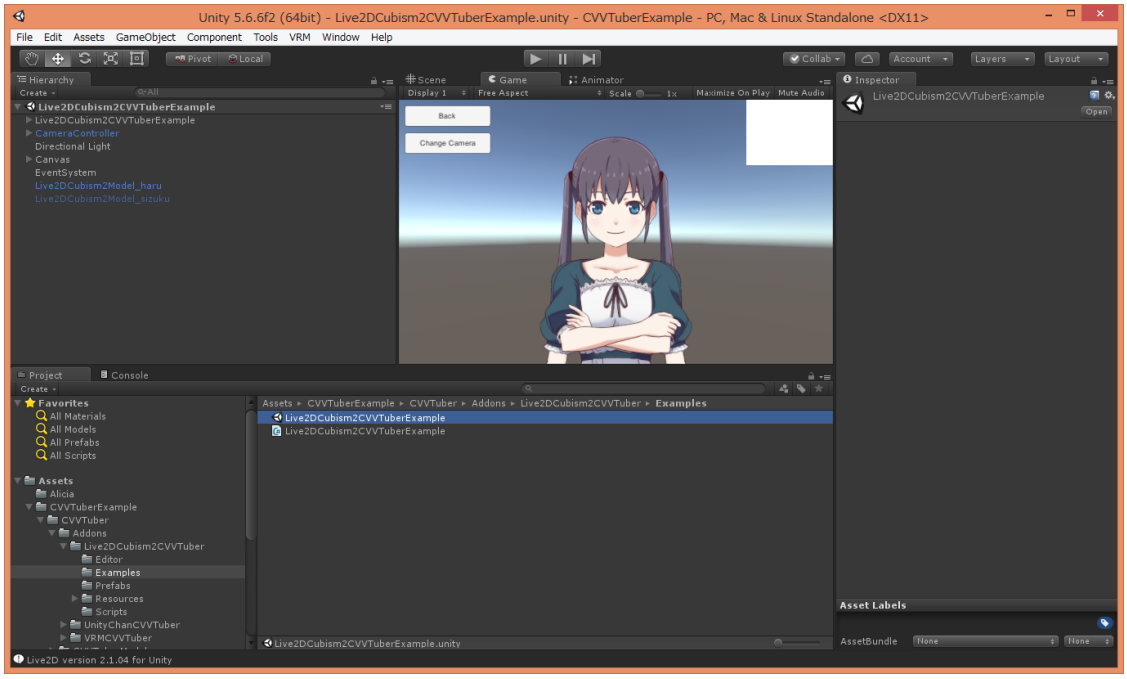
3. Import “Assets/CVVTuberExample/CVVTuber/Addons/Live2DCubism2CVVTuber.unitypackage”.



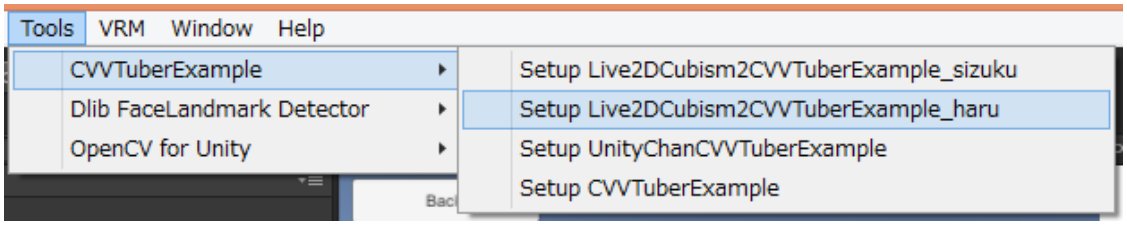
4. Copy the "sample/SampleApp1/Assets/Resources/live2d" folder of SDK to the "Assets/CVVTuberExample/Addons /Live2DCubism2CVVTuber/Resources" folder.



5. Open “Assets/CVVTuberExample/CVVTuber/Addons/Live2DCubism2CVVTuber/Live2DCubism2CVVTuberExample.unity” scene.

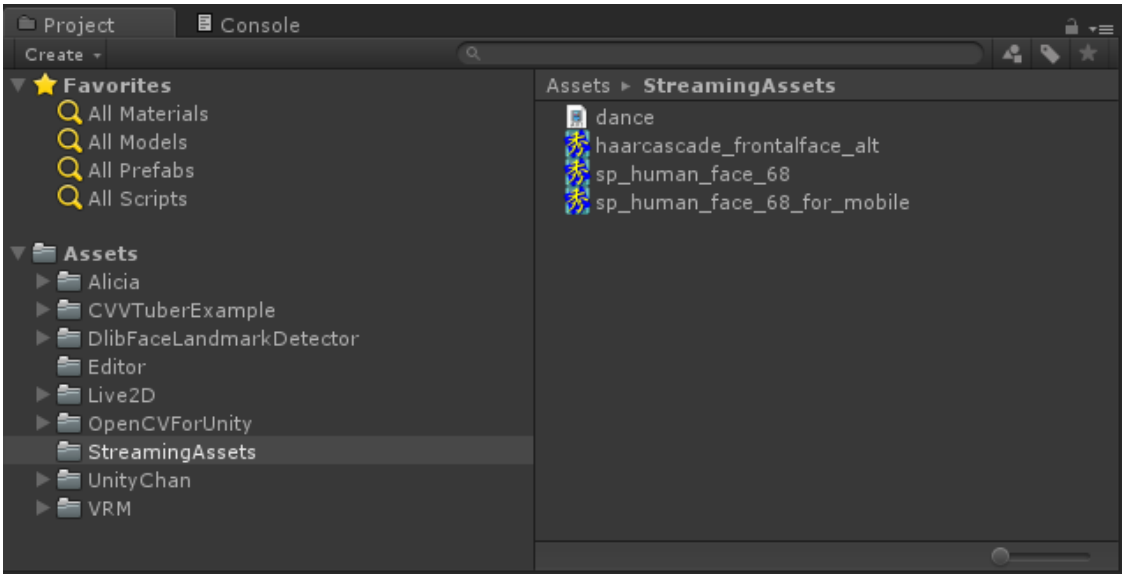


6. Select MenuItem[Tools/CVVTuberExample/ Setup Live2DCubism2CVVTuberExample_haru].



***In this example, a model set up with Live2DCubism2 format is also available.**

Screenshot after the setup



Q & A

Q1. HeadLookAtIkController does not work.

A1. Animator is not set to target of HeadLookAtIkController, or IK Pass of Base Layer of AnimatorController is not set to true.

Or AnimatorController is not set in the model's Animator.

Q2. HeadRotationController does not work.

A2. HeadRotationController target is not set. (Usually, set the Bone of the Head part)

Q3. The direction of rotation of HeadLookAtIkController or HeadRotationController is wrong.

A3. Please adjust invertAxis and rotateAxis settings.

*** When creating and publishing an application using this asset, please check the licenses and terms of use of SDK or 3D model.**