



**Koikatsu Animation  
Modding  
Author: Omega**

## **REQUIREMENTS:**

1. SB3Utility ver 1.15.8 or above, recommend latest version.
2. Blender 2.8 or 2.9.
3. Koikatsu Repack or Koikatsu vanilla with HF patch installed.

## **MODDER:**

- +Basic knowledges of animating in blender 2.8.
- +Basic knowledges of modding Koikatsu.
- +Patient, extremly patient.

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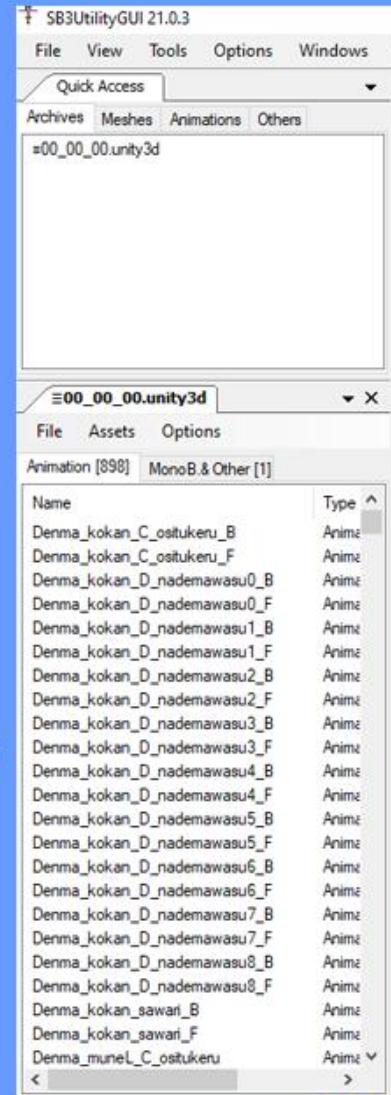
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# I. INSIGHT OF KK'S ANIMATION ASSETS (PART I)

“Why are you separating data structures study in two parts?”

» I bet that you are thinking like that, in order to start animating in blender, you must understand few asset structure of Koikatsu’s data, part 1 containing knowledge must have to aid your progress, part 2 continue the teaching after you makes some progress.

Vanilla h-animation data are located in abdata/h/anim, ignoring other 4 folders, “anim” folder is your main concern, inside it you can easily guess “female” have animation assetbundle for woman model, same with “male” have animation assetbundle for man model. Now let’s open “female” folder and drag 00\_00\_00.unity3d into Sb3u and you see nothing.... well that’s because in order to view animation, it’s need animator, base model animator.



## I. INSIGHT OF KK'S ANIMATION ASSETS (PART I)

- >> Now you need oo\_base.unity3d, it's located inside abdata/chara which containing base models of the game. I'm suggesting you copy oo\_base.unity3d and paste into two folders "female" and "male" of where you're building mod, the reason is for you be able to view animations right at work folders without navigating around, open oo\_base.unity3d with sb3u, remember that sb3u is opening 00\_00\_00.unity3d too, in new window of oo\_base, double-click on animator p\_cf\_body\_00 and switch to Mesh tab, click on "o\_body\_a" and you are seeing base female model.
- >> Switch back to 00\_00\_00.unity3d and yeah looking at those data can cause headache, scrolling down a bit and you can see there are "clips" and "controller", easy to understand that animation controller is for holding animation clips and enable various functions on each clip or all clips if you want, animation clip itself is just a package of data, so a controller is very important, don't forget it.

# I. INSIGHT OF KK'S ANIMATION ASSETS (PART I)

S83UtilityGUI 21.0.3

File View Tools Options Windows Help

Quick Access

Object Tree Mesh Material Texture

Name Type Extend X Extend Y Extend Z

**o\_body\_a** Skinned 0.7435... 0.7552 0.1187...

**o\_skeleton** Skinned 0.01955... 0.01905... 0.11388...

**o\_gomu** Skinned 0.02145... 0.02091... 0.10348...

**o\_mmpa** Skinned 0.00520... 0.00237... 0.00492...

**o\_mnpb** Skinned 0.02525... 0.00800... 0.03934...

**o\_shadowcaster** Skinned 0.74273... 0.85465... 0.11663...

**o\_tang** Skinned 0.01368... 0.00968... 0.03258...

woo\_base.unity3d

File Assets Options

Img [12] MonoB & Other [204]

Animator [9] Animation [3] Materials [10]

**p\_cf\_body\_00**

- p\_cf\_body\_00\_hi**
- p\_cf\_body\_00\_low**
- p\_cf\_body\_bone**
- p\_cf\_body\_bone\_low**
- p\_cf\_head\_bone**
- p\_cm\_body\_00**
- p\_cm\_body\_00\_low**
- p\_tang2**

**p\_cf\_body\_00**

Materials Used

Textures Used

Animator Frame Bone Mesh Material

Enabled

Renderer Name **o\_body\_a** Enabled

Mesh PathID Root Bone

**o\_body\_a** -3792096243: **cf\_a\_hand\_R**

Align SMR Sorting Layer ID Order

Export Options

Format FBX 2020.1 Export

All Frames Skins All Bones

No Mesh Bone Size

Goto Frame Remove Convert

Attributes Normals... New Skin

Mesh

Mesh Name Root Bone (Hash)

**o\_body\_a** **cf\_a\_hand\_R**

Submeshes

| Verts | Faces | Material PathID |
|-------|-------|-----------------|
| 8302  | 14028 | (external)      |

Add Material Delete Mat.

Remove Align Mesh Rest Pose

Red T. Blue T. Rip Red Rip Blue

Render Color

Reset Pose Center View Lock Light Sensitivity 100

Log

Script

File Script

# I. INSIGHT OF KK'S ANIMATION ASSETS (PART I)

SB3UtilityGUI 21.0.3

File View Tools Options Windows Help

Quick Access

Archives Meshes Animations Others

p\_cf\_body\_00

Object Tree Mesh Material Texture

| Name           | Type       | Extend X   | Extend Y   | Extend Z   |
|----------------|------------|------------|------------|------------|
| o_body_a       | Skinned... | 0.74357... | 0.7552     | 0.11872... |
| o_dankon       | Skinned... | 0.01955... | 0.01905... | 0.11388... |
| o_gomu         | Skinned... | 0.02145... | 0.02091... | 0.10348... |
| o_mnpa         | Skinned... | 0.00520... | 0.00237... | 0.00492... |
| o_mnpb         | Skinned... | 0.02525... | 0.00800... | 0.03934... |
| o_shadowcaster | Skinned... | 0.74273... | 0.85465... | 0.11663... |
| o_tang         | Skinned... | 0.01368... | 0.00968... | 0.03258... |

Animator Frame Bone Mesh Material

Render Name Enabled  
o\_body\_a

Mesh PathID Root Bone  
o\_body\_a -3792098243! cf\_s\_hand\_R

Align SMR Sorting Layer ID Order

Export Options  
Format FBX 2020.1 Export

All Frames Skins All Bones  
No Mesh Bone Size -1

Goto Frame Remove Convert  
Attributes Normals... New Skin

Mesh  
Mesh Name Root Bone (Hash)  
o\_body\_a cf\_s\_hand\_R

Submeshes  
Verts Faces Material PathID  
8302 14028 (external) 0

Add Material Delete Mat.  
Remove Align Mesh Rest Pose  
Red T. Blue T. Rip Red Rip Blue

File Assets Options

Animation [898] MonoB.& Other [1]

Name Type

|                          |                    |
|--------------------------|--------------------|
| Denma_siri_D_nademawasu4 | AnimationClip      |
| Denma_siri_D_nademawasu5 | AnimationClip      |
| Denma_siri_D_nademawasu6 | AnimationClip      |
| Denma_siri_D_nademawasu7 | AnimationClip      |
| Denma_siri_D_nademawasu8 | AnimationClip      |
| Denma_siri_sawari        | AnimationClip      |
| kha_f_00                 | AnimatorController |
| kha_f_01                 | AnimatorController |
| kha_f_02                 | AnimatorController |
| kha_f_03                 | AnimatorController |
| kha_f_04                 | AnimatorController |
| kha_f_05                 | AnimatorController |
| kha_f_06                 | AnimatorController |
| kha_f_07                 | AnimatorController |
| kha_f_08                 | AnimatorController |
| kha_f_09                 | AnimatorController |
| kha_f_10                 | AnimatorController |
| kha_f_base               | AnimatorController |
| L_A_Idle                 | AnimationClip      |

Materials Used

Textures Used

The screenshot shows the SB3UtilityGUI interface for managing animation assets. A specific asset, 'p\_cf\_body\_00', is selected in the main list. The left panel displays a detailed breakdown of its components, including various animation clips and animator controllers. The right panel provides options for exporting the asset to FBX format, setting export parameters like format (FBX 2020.1), export type (All Frames, Skins, All Bones), and mesh settings (Root Bone, Mesh Name). A red box highlights the list of animation clips and controllers on the left.

## I. INSIGHT OF KK'S ANIMATION ASSETS (PART I)

- » Now click open any animation controller and the very first thing when you open any animation controller is to set animator.
- » On top right of the controller you can see “Animator Path ID”, open it and select p\_cf\_body\_00 and now you just see female model changing pose, which mean it's connecting to animation clip you are selecting, pressing “Play” button is gonna enable model moving base on keyframes.
- » And continuing lesson: in Koikatsu there are 10 categories for h-scenes, each of category covering range of animations so you should choose correct category to put animation in. Back to action clips, you can see naming like WF, WS, SS, etc. That is how the game recognize action clips and load it so you don't want to mess up naming part. I have put a text file “H-AnimationInfo” containing information about h-scenes categories, check it out inside folder “Text archives”. So how many action clips you need to build at least for h-scenes? well, get ready to be shocked.

# I. INSIGHT OF KK'S ANIMATION ASSETS (PART I)

ONE MESH FOR EACH ANIMATION PATH

ANIMATION CONTROLLER SYSTEM

The screenshot displays the SB3UtilityGUI interface with several key components highlighted:

- Top Bar:** File, View, Tools, Options, Windows, Help.
- Left Sidebar:** Quick Access, Archives, Meshes, Animations, Others. Under Animations, there are entries for "m00\_00\_unity3d" and "m00\_base.unity3d".
- Middle Left:** A list of Animation Clips (343) for "kha\_f\_00".

| Name                    | Type                      |
|-------------------------|---------------------------|
| Denma_sit_D_nademaswas4 | AnimationClip             |
| Denma_sit_D_nademaswas5 | AnimationClip             |
| Denma_sit_D_nademaswas6 | AnimationClip             |
| Denma_sit_D_nademaswas7 | AnimationClip             |
| Denma_sit_D_nademaswas8 | AnimationClip             |
| Denma_sit_sewari        | AnimationClip             |
| <b>kha_f_00</b>         | <b>AnimatorController</b> |
| kha_f_01                | AnimatorController        |
| kha_f_02                | AnimatorController        |
| kha_f_03                | AnimatorController        |
| kha_f_04                | AnimatorController        |
| kha_f_05                | AnimatorController        |
| kha_f_06                | AnimatorController        |
| kha_f_07                | AnimatorController        |
| kha_f_08                | AnimatorController        |
| kha_f_09                | AnimatorController        |
| kha_f_10                | AnimatorController        |
| kha_f_base              | AnimatorController        |
| L_A_Idle                | AnimationClip             |
- Middle Right:** A 3D view of a human-like character skeleton with purple bones and blue joints, representing the mesh and animation paths.
- Right Panel:** Contains settings for "p\_cf\_body\_00-1" including "Animate Path ID", "Bone Select", "Track", "Export Options" (Clip->Slot)-(Animator), "One Clip per File", "Format FBX 2020", "Keyframes 1-0", "Linear", "Stream Interp.", "Morphs", "Rate In-Between", and "Bone Size -1".
- Bottom Panel:** Includes buttons for "Sync Play", "Auto Play", "Speed" (set to 30.0), "Anim. Override Contr. None", "Link Co...", "Clip Control", "Controller", "State Const.", "Reset Pose", "Center View", "Lock Light", "Sensitivity 100", "Render", and "Image".

## I. INSIGHT OF KK'S ANIMATION ASSETS (PART I)

- +Female H-caressing: 17 clips, 14 clips if no anal included.
- +Male H-caressing: 17 clips, 14 clips if no anal included.
- +Female services: 21 clips, 11 clips if no cum inside mouth included.
- +Male services: 21 clips, 11 clips if no cum inside mouth included.
- +Female penetration: 52 clips, 26 clips if no anal included.
- +Male penetratrion: 52 clips, 26 clips if no anal included.
- +Special-H: 8 clips for masturbation, 4 clips for peeping, accounting for a solo partner.
- +Lesbians: 8 clips for each female, 16 clips total.
- +Multi-girls H: 63 Services clips total for 2 female 1 male, 33 if no cum inside mouth.  
156 Penetration clips in total, 78 if no anal included.
- +Darkness H: have the same conditions with Multi-girls H, partners are 2 male 1 female.

Beside Special-H, number of action clips for each partner must be equally so a complete H-caressing must have 34 clips, a full H-services must have 42 clips and so on, want to know the “best” part? this is a minimum requirement.....

## I. INSIGHT OF KK'S ANIMATION ASSETS (PART I)

» So yeah, you can see a lot of works needed to be done, and when you cut down entries of category, the game couldn't load it properly so you have to meet the demand. You can however make animation clips more simple to cut down time, efficiency is very important, you don't want boredom to growing on you and make you wants to quit, but don't make animation way too simple, there is no fun in that.

» For this guide I'm gonna use penetration category as a sample, don't worry the procedure is similar to other categories, so I needs 54 animation clips in total because I don't including anal scenes in my work, 27 for female, 27 for male. Now let's open the blender project!!

## 2. MAKE ANIMATION IN BLENDER

>> The blender project were originally made by [johnbbob\\_la\\_petite](#), he have allowed for sharing and making changes, which i did. So the new version have bug fixes and improve on some parts. You are free to share, but please remember to credits both [johnbbob](#) and me.

>> So i've designed UI to fit with what you will need later on, you can change UI to suit your taste later but i'm gonna talk and guide you on a project UI.

+On right side is where you can select Layer and modify Properties, I have select useful Layers be ready, mostly just FK and IK layers.

+On left side is Blender files, why does it there? because i don't know where you learnt basic animations, but some guides don't cover on delete animation clips forever. It's simple: when you create a clip, it's gonna appear in Blender files and when you delete the clip in Blender files, it'll be gone forever.

+Bottom middle is Timeline and Action center, can't animate anything without them

+Middle is of course the Rig and 3D Model, you can also see Rig layers as well.

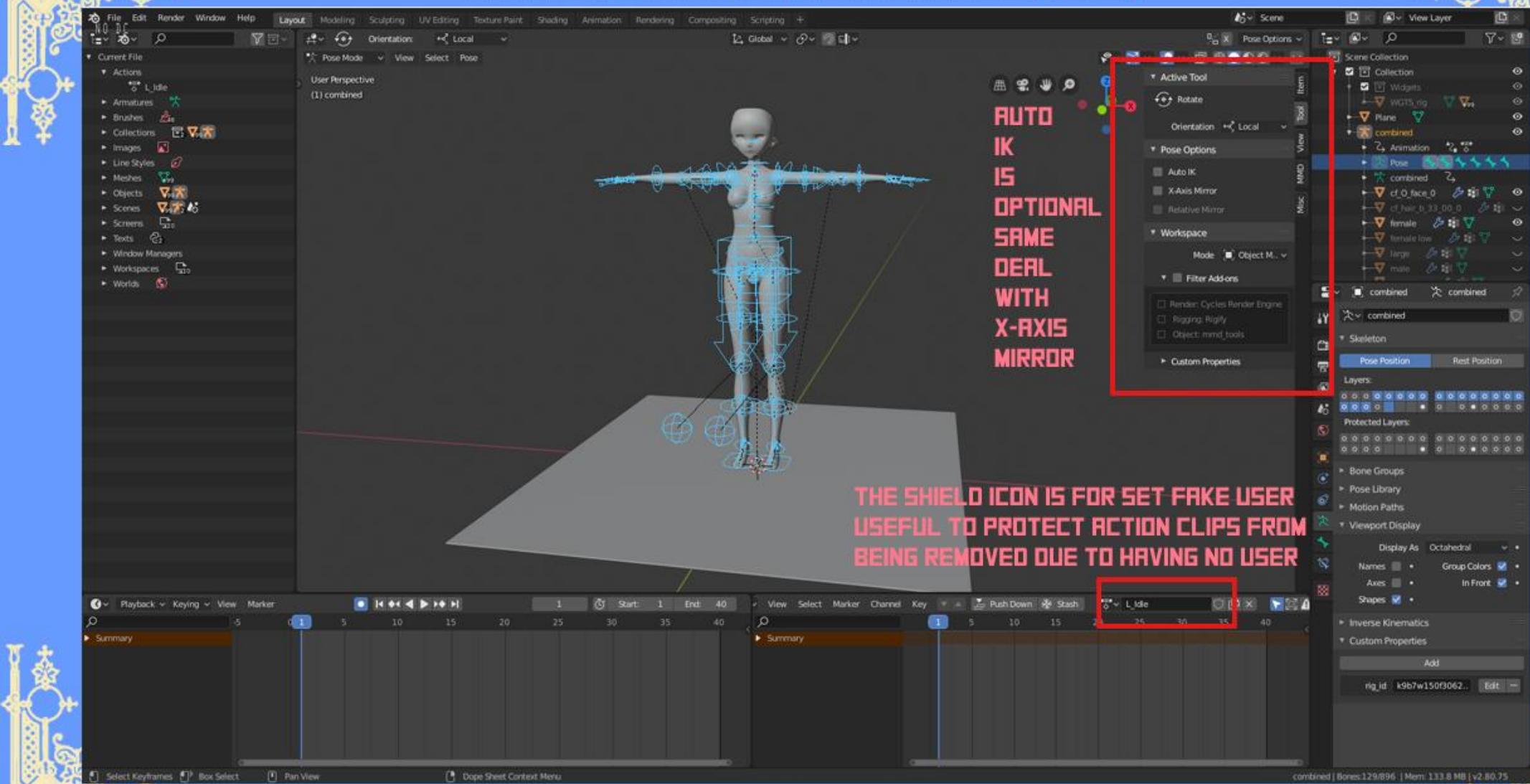
## 2. MAKE ANIMATION IN BLENDER

>> Now we don't do any modeling here so please select the rig and enter pose mode, create new Action clip, female is usually have more complexity than male so we are gonna deals with it first. "Female" have average breasts size, "small" is a female with small breasts and "large" is for big breasts as you can see on viewport. It doesn't matter about breasts size because when you make animation groping breasts base on "large", it would look weird on character with flat chest and vice versa, so using "female" with average breasts size make it more acceptable on most cases.

>> Now you have noticed L/M/S letters on the name like L\_SLoop. M\_SLoop, S\_SLoop. It's actually referring to body size, not breasts size. The default model is set on L size, for now just ignore this matter, we will come back to it later.

>> I'm naming first Action clip "L\_Idle", and before moving any FK/IK, i enable Auto Keying, getting used with this feature will boost animating progress. And then I set End keyframe at 40, why 40? Because vanilla clips mostly stop at 40 frames. Now i'm gonna also check on Tool in Properties bar, X-axis mirror is a good tool but don't let your guard down, some times mirroring don't do exactly what you want.

## 2. MAKE ANIMATION IN BLENDER



## 2. MAKE ANIMATION IN BLENDER

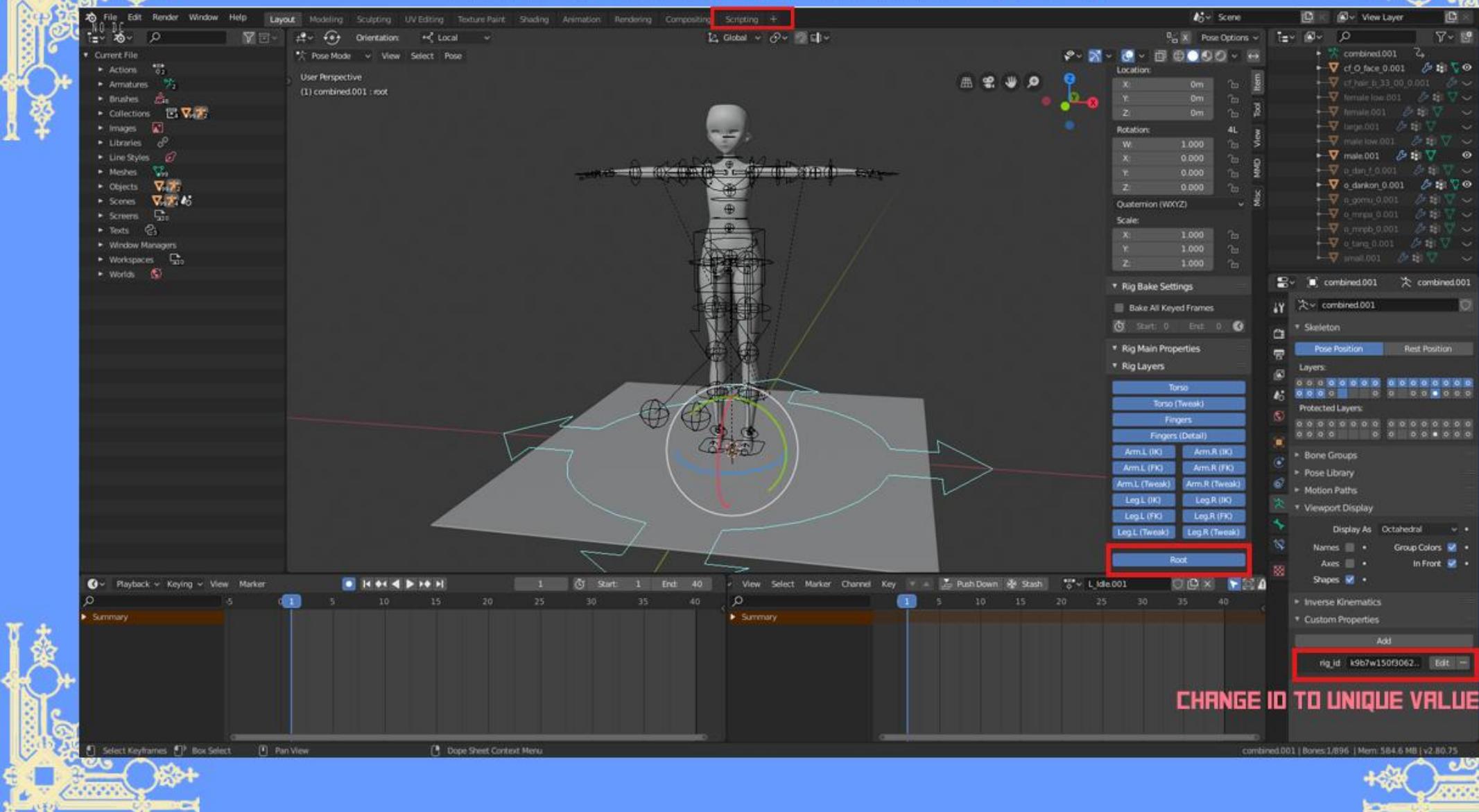
>> Now let's animating: move bones, rotate bones, do not scale bones because character in Koikatsu come with different shape and size, scale bones would affect all characters running on the animation, only scale bone when you really have to, few more hundred steps and done, 27 base action clips female. Well, I can't guide you step by step on this part, you have concepts inside your head and the blender project, you have to animating rig base on the concept, practice more and more to completing it. Here are some useful tips for you:

- + You need base action clips be a foundation for baked animation later, for **Bake setting** you just need to set **End Frame** and enable **Visual Keying**.
- + Remember to set **Interpolation** to **Linear**, which commonly used in Unity.
- + Joints have constraints and if you see animation in Koikatsu have weird joints, you should reduce or increase influence on bones, or just changing pose to something else.
- + Blender project can't mimic 100% of Koikatsu, so you should expect Koikatsu could do some bad thing to animations in h-scenes.
- + Don't modify anything on the 3D model unless you know what you are doing.

## 2. MAKE ANIMATION IN BLENDER

- + You should practice a habit of saving blender project, you don't want to redo whole progress when something unexpected happens.
- + Before close your blender project, make sure all Action clips have connecting to the rig or else when you save unlinking clip and reopen, it will disappear.
- » Now after i finished base action clips for female, it's time to do male, you can open another project, copy and paste everything into the new project, set the new rig to have "Male" with "o\_dankon\_0" visible, then change the rig\_id of new rig to something unique, switch to "Scripting" tab and choose second rig\_ui.py, set rig\_id be the same with Male rig\_id. And now you can animate and make male action clips, you should however add new letter to the name of action clip be distinguish like L\_Idle\_M, L\_Idle\_F, it's up to you.
- » There is one thing when you wants to animating the penis: in Koikatsu penis have tracking on pussy meaning it's following pussy position during orgasm, so the priority is on pussy first, then come to penis's position on keyframes, which it's why you can see penis snap from one position to another position when animation running in Free-H, totally normal.

## 2. MAKE ANIMATION IN BLENDER



## 2. MAKE ANIMATION IN BLENDER

```
1 import bpy
2 import math
3 import json
4 import collections
5 import traceback
6 from math import pi
7 from bpy.props import StringProperty
8 from mathutils import Euler, Matrix, Quaternion, Vector
9 from rna_prop_ui import rna_idprop_quote_path
10
11 rig_id = "k9b7w150f30628e4"
12
13 ID FOR FEMALE'S RIG
14 #####
15 ## Math utility functions ##
16 #####
17
18 def perpendicular_vector(v):
19     """ Returns a vector that is perpendicular to the one given.
20         The returned vector is _not_ guaranteed to be normalized.
21     """
22
23
24
25
26
27
28
29
29
```

RIG\_UI.PY IS FOR FEMALE  
RIG\_UI.PY.001 IS FOR MALE  
EACH CAN RUN INDEPENDENCE

```
1 import bpy
2 import math
3 import json
4 import collections
5 import traceback
6 from math import pi
7 from bpy.props import StringProperty
8 from mathutils import Euler, Matrix, Quaternion, Vector
9 from rna_prop_ui import rna_idprop_quote_path
10
11 rig_id = "k9b7w150f3062885"
12
13 ID FOR MALE'S RIG
14 #####
15 ## Math utility functions ##
16 #####
17
18 def perpendicular_vector(v):
19     """ Returns a vector that is perpendicular to the one given.
20         The returned vector is _not_ guaranteed to be normalized.
21     """
22
23
24
25
26
27
28
29
```

## 2. MAKE ANIMATION IN BLENDER

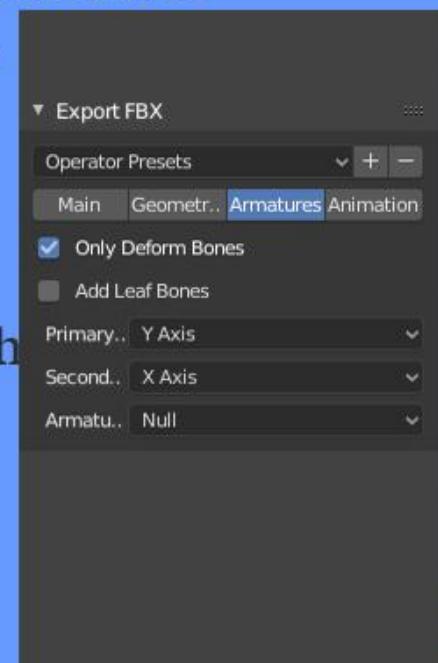
>> Be patient with me, takes your time and try to keep animation clean and simple, don't try to make very complex stuffs, remember you needs time for other parts later, also the more complexity your animation is, the more problems could happens.

>> Assuming you have 54 baked and 54 base action clips (you still need to make correction later, so just keep those base action clips), it's time to export fpx. The amount of time to export is depending on cpu, ram and how big data is, so you can either export all action clips at same times, or cut it into mini fpx parts. But always remember:

Export FBX panel => Armatures => Uncheck Add leaf bone =>  
Check Only Deform Bones

(Also remember to remove "Female collection" when you exports Male action clips and vice versa)

(If you can't see Rig Layers on any model, rerun rig\_ui.py with correct rig\_id in Scripting tab, some times it's disappeared after re-launch blender project)



## 2. MAKE ANIMATION IN BLENDER

» This setting can't be saved, so make it into a habit is a good idea. And you are not done yet, you need to categorize into three groups L/M/S of action clips. Now enable "Root" bone and DO NOT KEYFRAMING. Scale is 1 so you just exported L clips, scale "Root" to 0.92 as M size and it's gonna applying to all action clips, export fpx with different naming.

» Then Scale "Root" again to 0.84 as S size, export fbx. Action clips for Female should only using "Root" from female collection, same with male. I told you to remove "Female collection" when export Male's clips is to decrease data size and to make sure "Root" bone doesn't overlapping with each other. Now you have animation data to build asset file!

### 3. INSIGHT OF KK'S ANIMATION ASSETS (PART 2)

>> Now continue the lesson, you see animation assetbundle is a mixture of lists and mono behaviours and these could be shared between different bundle, and i don't plan to make anyone creates these from scratch, so reusing vanilla data is good. Now here is a brief explanation on animation assets:

+aibuaction: enable touch icon on female's mouth, breasts, kokan (vagina), anal, hip. 1 is enable, 0 is disable.

+breath: enable moaning/breathing sounds.

+cam\_khs/khh:

+dan\_khs/khh:

+gotoADV: link animation to scenario in "adv" folder.

+HFaceList: control face expression.

+personality\_breath: setting dialogs when female breaths.

+personality\_voice: setting dialogs when female talks.

### 3. INSIGHT OF KK'S ANIMATION ASSETS (PART 2)

+hitcollision:

+HPointToggle: add new scenes to H

+item\_khs: add items info to animation

+MotionIKData: this one have same name with animation controller but in text form, mainly function to fix IK roll bones

+neck\_khs/khh:

+parent\_object:

+reaction\_khs: control expression on each animation clips

+se\_khs/khh: sound effect for sex actions

+siru\_khs/khh: control action speed

+voice: control voice playing on every action clips

+yure:

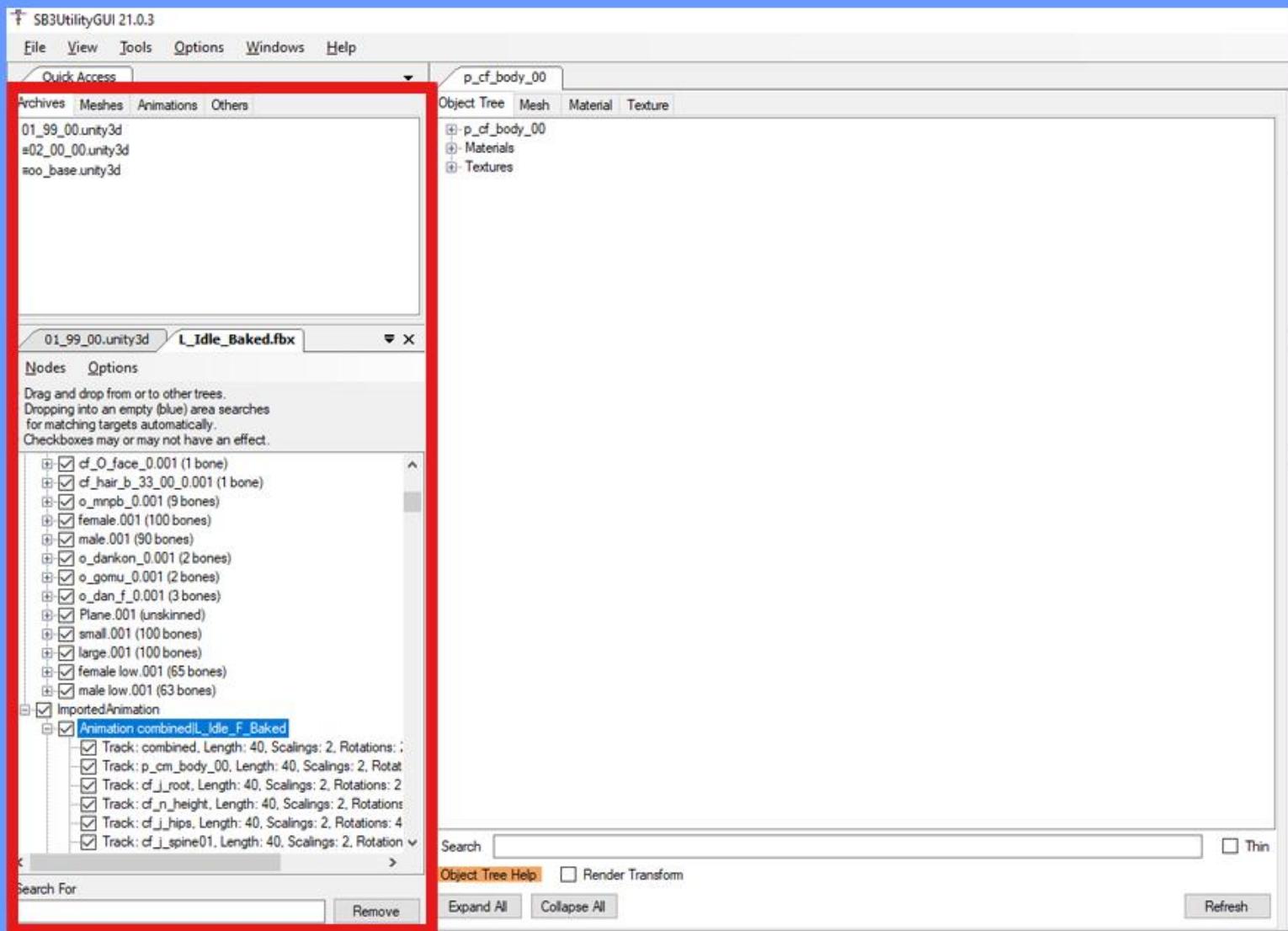
» There are more and you can make your own asset to support your mods, but as you can see asset data are a lot for reuse purpose, let's move to next content.

## 4. EXPORT FBX AND BUILD ANIMATION ASSETS

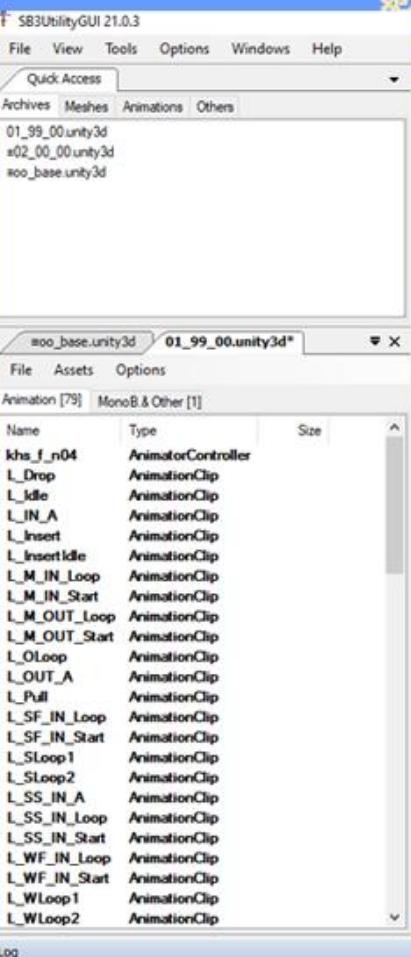
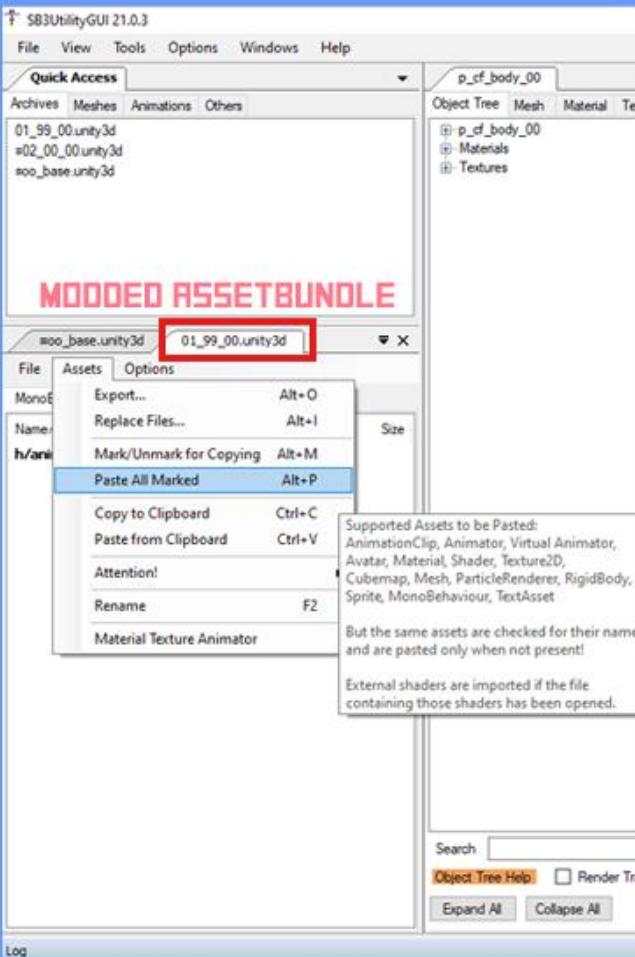
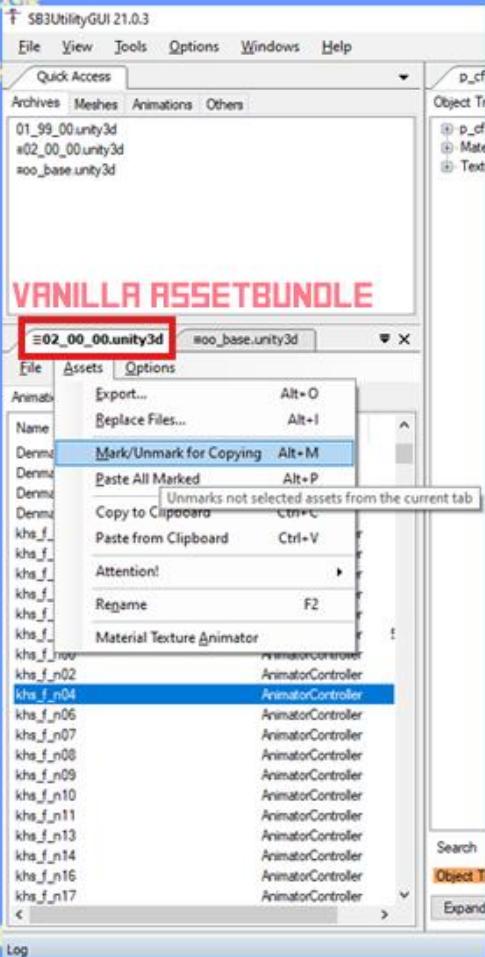
» Open exported fbx and asset file in “Female” folder, don’t forget open oo\_base.unity as well, you can’t view anything without 3D model. Now switch to “Others” and you can see data inside fbx, “ImportedFrame/Mesh” are not needed so just ignore them, now when you expand any action of “ImportedAnimation” you see all of bones come along, which a lot of them need to be removed or else it can go haywire in Koikatsu.

» Now back to asset file 01\_99\_00.unity3d, as you can see there is only 1 assetbundle, open the “H-AnimationInfo” text to view list of vanilla poses so you can find a similar pose with your animation works, in my case I choose “Cowgirl” to be a copy source, which mean I’m gonna open h/anim/female/02\_00\_00.unity3d via SB3u inside root folder, find and select khs\_f\_n04, press Alt+M (Mark/unmark for copying), then switch back to 01\_99\_00.unity3d and Alt+P (Paste all marked), and now i have a basic controller for asset file, just take your time on this part.

# 4. EXPORT FBX AND BUILD ANIMATION ASSETS

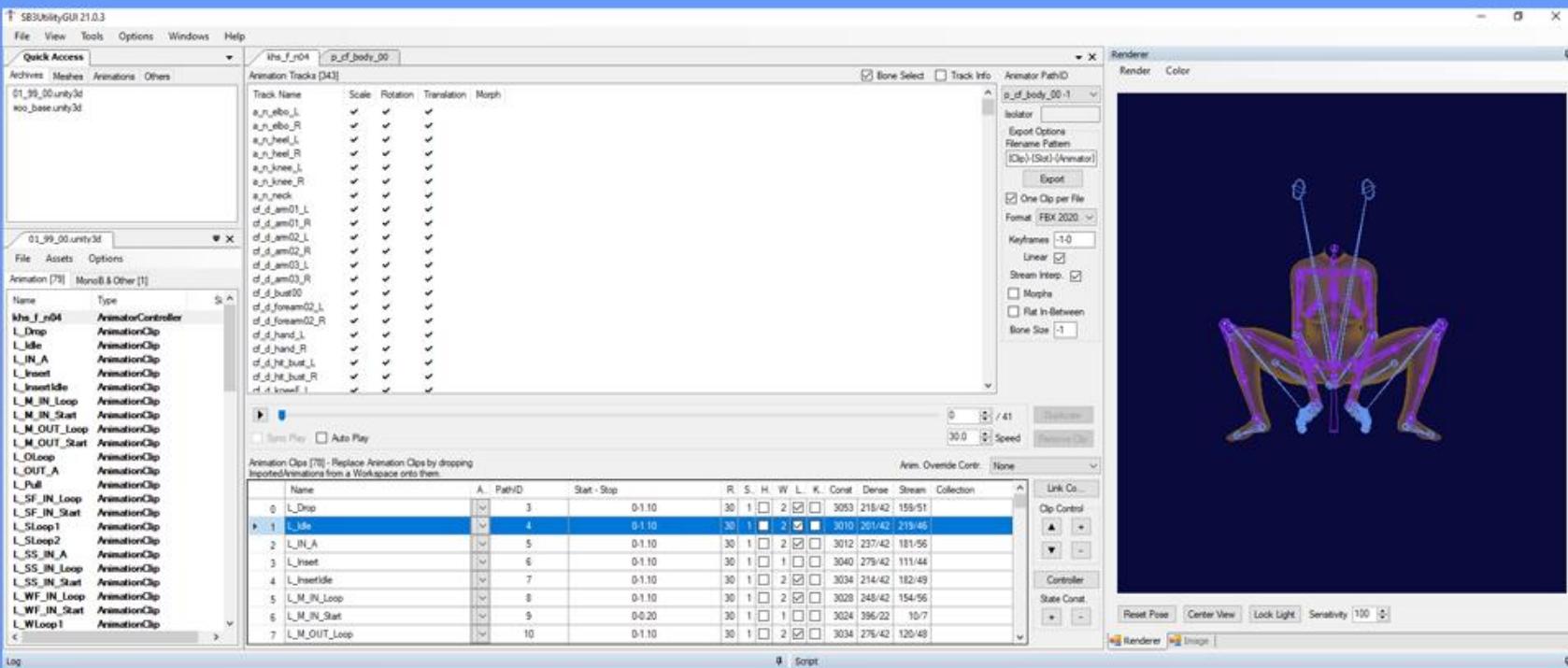


# 4. EXPORT FBX AND BUILD ANIMATION ASSETS



## 4. EXPORT FBX AND BUILD ANIMATION ASSETS

>> Now closing 02\_00\_00.unity, switch tab to 01\_99\_00.unity3d and open animation controller, connect it to oo\_base.unity3d and set up for 3D model be displayed, now to import: the order is from L to M and S for last, just following action clips order and you are gonna be fine.

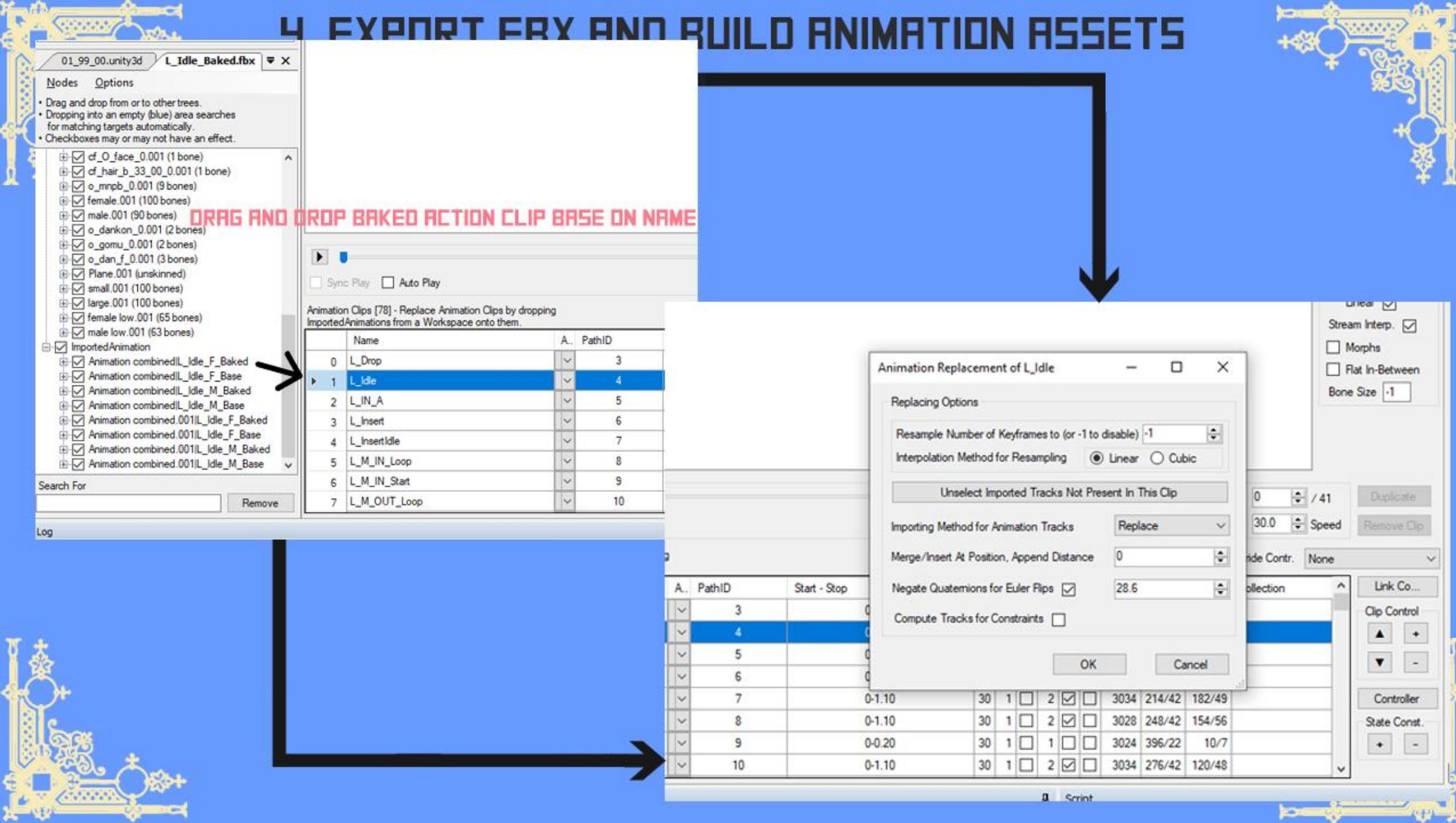


## 4. EXPORT FBX AND BUILD ANIMATION ASSETS

>> Starting with action clips L first, luckily that names are already in order so your reflex is about hold, drag and drop: click on L\_Drop of fbx panel, holding and dragging it toward L\_Drop slot on animation controller, slot 0 to be exactly because they have same name, release mouse button and a new panel showing up “Animation replacement”, set up exactly like in picture below and press OK, L\_Drop is now have new data with reserving settings, pretty cool right?

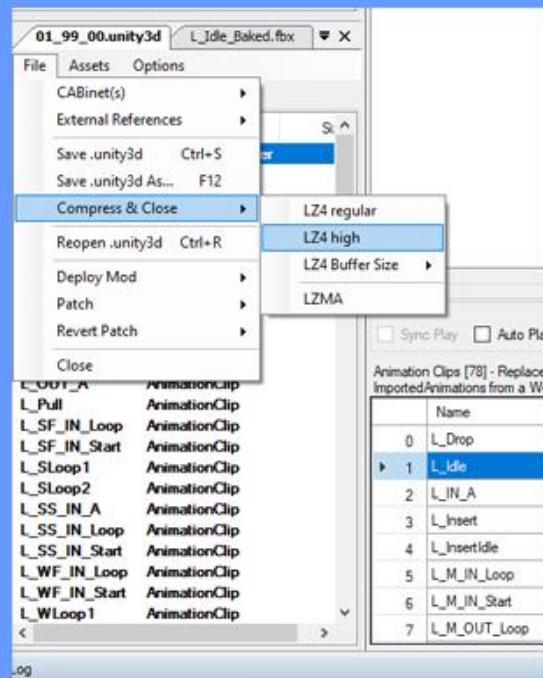
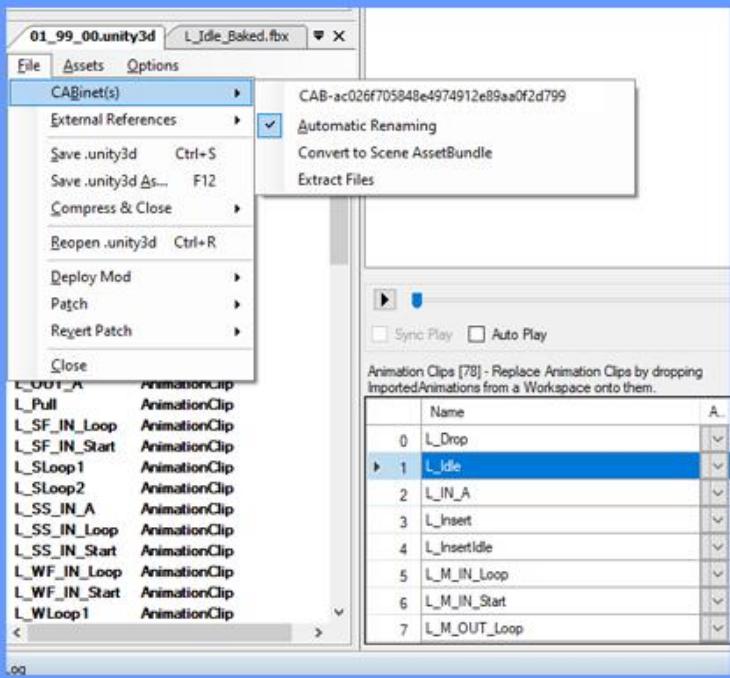
>> But it's not over yet, now try expand L\_Drop on fbx panel, you can see some unchecked bones which it's a result of “Unselect imported...”, this is how you remove unnecessary bones/tracks that potentially damaging rig in-game environment, now those action clips aren't gonna importing themselves, so repeat the progress until you done with all action clips L/M/S. The 3D model is a way to tell you if the slot have new data or not, the last thing is to rename animation controller by selecting it and press F2, make it a unique name please.

## 4 EXPORT FRY AND BUILD ANIMATION ASSETS



## 4. EXPORT FBX AND BUILD ANIMATION ASSETS

>> CAB-strings need to be change as well, as unique as possible, just put random numbers or letters should be enough. Instead of normal saving file, you should use “Compress and close”, “High” is a good option. Now after you’ve finished setting up 01\_99\_00.unity in “female” folder, let’s move on to “male” folder and repeat same steps from open vanilla asset file, mark copying, open modded 01\_99\_00.unity3d, paste marked, open fbx files, drag and drop action clips, rename controller and CAB-strings, compress and close.



## 4. EXPORT FBX AND BUILD ANIMATION ASSETS

>>Oh man the animation lists, the nightmarish of all lists, but luckily that you don't need to go through suffering like i did before Animation loader became a thing, open "manifest" xml in "Assetbundle" folder, it's a sample to build a zipmod and including animation loader function, now open "Animation loader template" and don't edit anything. You make editing in "manifest" and the template is a guideline to tell you whats to do. If the template is not cleared enough to understand, you can download "Animation+ pack.zipmod" and see how i manage to write manifest animation.

>>The template is made by Keelhauled, i edited first part to fit as a guide so credits going to Keelhauled. Line 14-15 is to put animation into studio without using list file, it's an optional, line 89 to 154, from left to right you only need to pick first Number as ID for manifest xml.

```
89 <!--
90 0, houshi, Tip Caress, 0, 0, 0, 0
91 1, houshi, Handjob (One Hand), 0, 0, 0, 1
92 2, houshi, Handjob (Two Hands), 0, 0, 0, 1
93 5, houshi, Lick (Head and Shaft), 0, 0, 1, -1
94 7, houshi, Blowjob (One Hand), 0, 1, 1, 5
95 8, houshi, Blowjob (Two Hands), 0, 1, 1, 5
96 11, houshi, Titjob, 0, 0, 2, -1
97 12, houshi, Squeeze Titjob, 0, 0, 2, -1
98 13, houshi, Body Press Titjob, 0, 0, 2, -1
99 15, houshi, Titjob & Suck, 0, 1, 2, -1
100 16, houshi, Tip Caress (Chair), 1, 0, 0, 0
101 17, houshi, Handjob (One Hand), 1, 0, 0, 1
102 21, houshi, Lick (Head and Shaft), 1, 0, 1, -1
103 22, houshi, Head Lick (No Hands), 1, 0, 1, 4
104 24, houshi, Blowjob (Two Hands), 1, 1, 1, 5
105 27, houshi, Titjob, 1, 0, 2, -1
106 28, houshi, Titjob (Squeeze), 1, 0, 2, -1
107 30, houshi, Titjob & Lick, 1, 0, 2, -1
108 31, houshi, Titjob & Suck, 1, 1, 2, -1
109 32, houshi, Head Caress (Standing), 2, 0, 0, 0
110 33, houshi, Standing HJ (One Hand), 2, 0, 0, 1
111 35, houshi, Standing HJ & Ball Lick, 2, 0, 1, 2
112 36, houshi, Standing HJ & Ball Caress, 2, 0, 0, 3
```

## 4. EXPORT FBX AND BUILD ANIMATION ASSETS

>>It's time to build a zipmod.

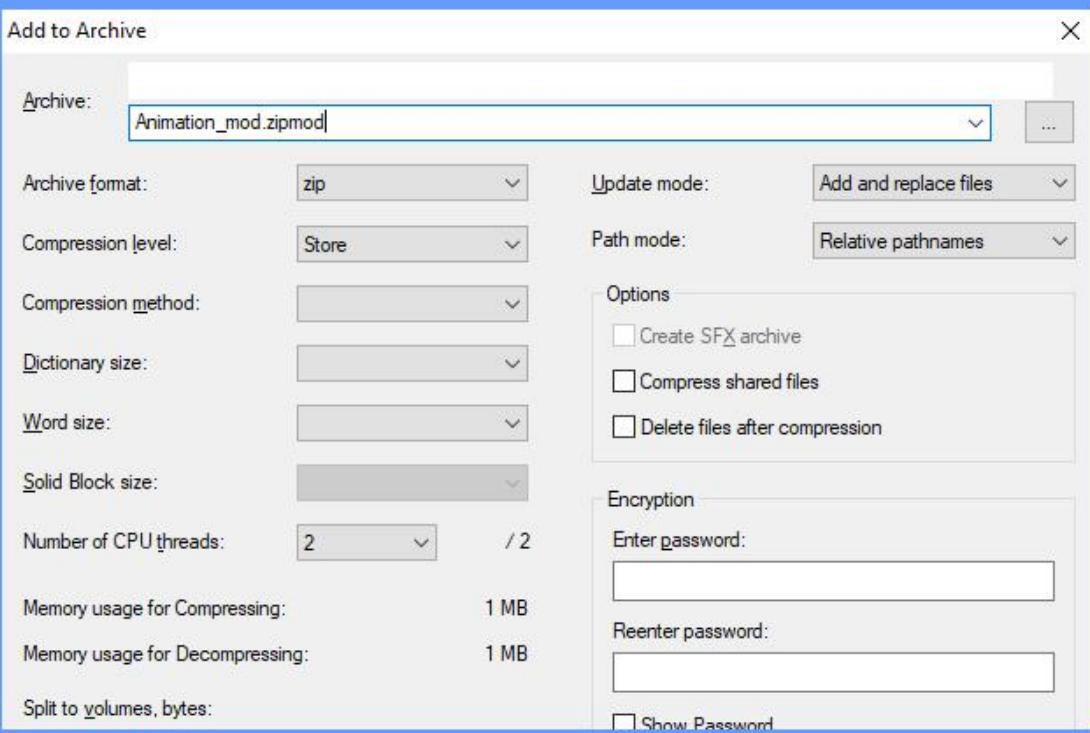
Select “abdata” and “manifest.xml”,  
right-click => 7-zip => Add to archive.

>>Archive name must have “.zipmod”  
at the end.

Archive format: Zip.

Compression level: Store.

Press OK!



## 5. TESTING ANIMATIONS IN GAME ENVIRONMENT

» Now copy zipmod to “mods” inside root folder, let’s fire up your main game and enter Free-H mode (don’t worry when muscle memory make you click on Female maker at first hand, I have that some times). You can use any cards and set to Horny because girl in “Experience” can force condom on male, so “Horny” let you have full control in the scene.

» Choose a map that containing correct H-scene, because I put my animation on “Floor” so any map with floor is fine for me. Now wait for the game to finish loading H-scene and congrats! You are viewing your own animation in a hot situation, now you should run some tests like fast speed, low speed, alternative pose, cum inside, outside, condom on, etc take notes on any part during animating you wants to fix or improves. When you see a character are rotating or locating weirdly, the reason is because L/M/S of clips are not consistency.

» “But the girl have 90 height value, so L clip should be the only one running.” that not the case here, H-scene is displaying clip for L size yes, but it’s still loading M and S size variant as well.

## 5. TESTING ANIMATIONS IN GAME ENVIRONMENT

» That is why when you switch a character midway to a smaller character, S clips are enabling right away, but the down side is that when one size clip have incorrect transform, it's affecting the character as whole. L/M/S clips are the same except for height, so when a character having wrong transform, it's likely one size variety is not the same with other, check asset file and re-import is a way.

» When you have the animation in Studio, you should check it out as well. Main game and Studio have different ways of handle bones and motions, main game have it way better while Studio is meh. So your animation can work perfectly in main game but in Studio, it might be broken at some parts or all parts. Here are two methods (you can skip this part if you don't plan to put animation into Studio):

1. The way of Illusion, it's basically adjust motions to fit in both main game and studio, Illusion used this method to speed up game building progress, that a pros but also have a cons, some times you have to downgrade quality of animations just to make it work, like i said before the main game handle it better than studio.

## 5. TESTING ANIMATIONS IN GAME ENVIRONMENT

2. So you don't like to sacrifice quality of animations, I understand and this method is for you: Just make an exclusive asset file for studio, that way main game run a quality version and studio run an ugly but no broken version. Cons of this method is time consumption, if you do this then remember to edit studio list file so it can link to a new asset file.

» Ok, how to build animation for studio?

1. **AnimeGroup\_Animation\_sample.csv** inside of folder “**Animation\_sample**” which the name of folder must be the same with name of csv.
2. **AnimeCategory\_01\_20**, in which “20” is a **parent group ID** and “01” is **category ID**, these ID could hold as many studio assets as you want, remember to make them unique, only numbers allowed.
3. **HAnime\_01\_20\_301** in which 301 is am **ID of child group**, just like parent group, it could hold a lot of studio assets BUT purpose of this ID is to classify data for a studio object, in this case holding action clips for h-animation 1.

**HAnime\_01\_20\_302** is holding data for h-animation 2 and go on.

## 5. TESTING ANIMATIONS IN GAME ENVIRONMENT

| Sample folder > abdata > studio > info > Animation_sample |                   |          |      |
|---|-------------------|----------|------|
| Name  | Date modified     | Type     | Size |
| AnimeCategory_01_20.csv                                   | 6/05/2021 8:44 PM | CSV File | 1 KB |
| AnimeGroup_Animation_sample.csv                           | 6/05/2021 8:44 PM | CSV File | 1 KB |
| HAnime_01_20_301.csv                                      | 6/05/2021 8:48 PM | CSV File | 1 KB |
| HAnime_01_20_302.csv                                      | 6/05/2021 8:47 PM | CSV File | 1 KB |

4. Use any text editor to open all csv files:

+**AnimeCategory\_01\_20** you can see ID child of

HAnime, basically number of them must be equally, you have 10 child ID inside Category, then you must have 10 HAnime csv files, which of course must not sharing same ID.

+**AnimeGroup\_Animation\_sample** holding parent ID and giving name.

+**HAnime\_01\_20\_301.csv** holding from left to right is ItemID/ParentID/ChildID, you can see ParentID holding ChildID, then ChildID holding ItemID (don't ask why Illusion make the list in that order), so ItemID should be unique as well, the rest is just naming, link path data, enable True/False of variety functions.

+If main game and studio are using same asset file, you can use Animation loader, if they are using different asset files, your only choice is to use list file. DON'T USE BOTH!

## 5. TESTING ANIMATIONS IN GAME ENVIRONMENT

5. You can use my Animation mod pack as an example, where you can see 52 lines inside HAnime linking to 52 action clips for Reserve cowgirl.
6. You can put assetbunle anywhere inside abdata, just remember to link it correctly. So yeah, after you see what could go wrong with animation mod, it's time to load blender project and fix problems. Adjust, improve, add new keyframes, etc. Do what you wants to animation clips and view it in main game/studio until you satisfied. It's time to wrap up the long guide.

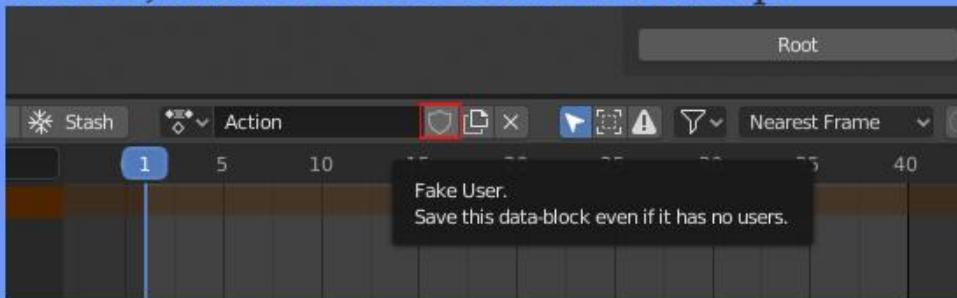
## 6. RECOLLECT ANIMATING PROGRESS

- » Thank you for coming so far, give yourself a praise!
- » As the tittle says, let's just jumping into recollection of the whole progress, the guide is already long enough:
  1. Set up work folder with oo\_base.unity, female asset file, male asset file, all inside "abdata".
  2. Fire the blender project, animating to your heart content.
  3. Export data as fbx file with correct set up, open vanilla asset file via SB3U, copy animator to modded asset file of female action and male action.
  4. Import fbx file into SB3Ultility, replacing action clips of female and male with action clips from fbx.
  5. Change CAB-strings, save under high compression, write "manifest" xml with Animation loader function, throw into "mods" folder.
  6. Load game and test the animation in Free-h, do the same if you build it for studio as well.
  7. Jump back into blender project to fix any problems you saw when testing the mod.
  8. Then reimport and keep repeat the cycle until you have a satisfy result!

## 7. TIPS AND TRICKS

+Blender:

\_You can set fake user on action clip, it makes sure action clip always have owner and never get deleted, one fake user for one action clip.



\_When you moves camera too much, it could result in slow movement, to reset and to focus camera onto an object, select it and press “.” on numpad.

\_You can remove meshes before export to make data lighter and make export progress faster, don't delete armature.

\_Do you know you can copy transform from a clip to another clip? basically create a new clip, set slider on keyframe position you wants to copy from other clip, then switch back to source clip, then switch back again to new clip and done, the new clip is now having transform from source clip, i find this trick useful when i accidentally remove a keyframe or need to make a transition.

\_If you have problem finding “pussy” and “ass” on the female model, turn on “o\_mnpa\_0” and “o\_mnpb\_0” in Layer panel.

## 7. TIPS AND TRICKS

### +Main game/Studio:

- \_During test progress on mod animation, i summoned “Advance bones editor” and mess with transform of bones, to see how it perform because there are different body shapes in Koikatsu.
- \_Test with random cards to see different results.
- \_When main game and studio are gonna using different asset files, you should use lists, when both main game and studio are gonna using same asset file, you can pick Animation loader. If you use both you can see duplicate data in studio.
- \_I made a guide to use list asset file for animation, check it out if you need it.
- \_Unity is usually favor Linear interpolation, but you can try other interpolation options. SB3Ultility can change interpolation on action clips, option is usually off, i don't suggest you use it.

## B. Q & A-TROUBLE SHOOTING

\_Q1: My game freeze during h-scenes when i'm select orgasm second time on mod position. What is going on?

A: Yeah you probably forgot to put ID of new pose into breath and voice lists, any second times of orgasm would lead to freezing h-scene.

\_Q2: Characters's arms and legs are in weird position, it's happening to any pose of mod position. How to solve this ragdoll problem?

A: MotionIK is must have, even though there is nothing writing on it, without MotionIK the game have problem correcting joints.

\_Q3: Female character goes silent some times before action clips finish running.

A: Vanilla audio is fit for 40 frames, longer than that can make female goes silent while animation keep running the rest of keyframes.

\_Q4: My mod animation is running fine in main game but broken in studio, help plsease!

## B. Q & A-TROUBLE SHOOTING

A: Like I said before, either make exclusive studio version or make change to poses so it could be fine in both main game and studio.

\_Q5: Is it possible to add more animation slots, i wants to expand my mod animation.

A: It's possible which involve to add new data slot into mono behaviour, i will have a short guide about it later.

\_Q6: What is “base” animation in list file for?

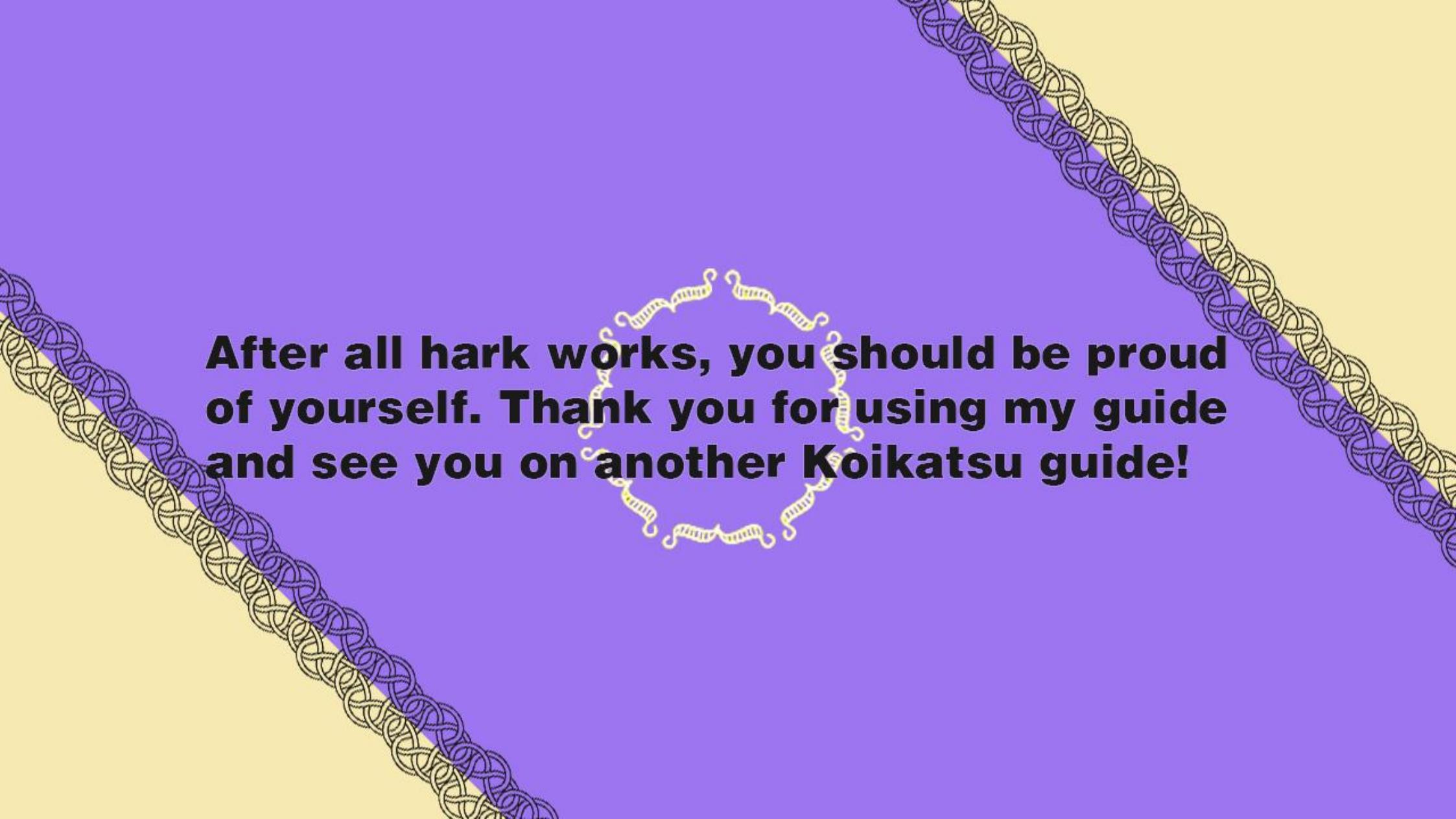
A: No idea yet, though i haven't seen any problem with using vanilla base poses.

\_Q7: Male's penis is not working like i wants in h-scenes.

A: Thank to game codes, penis would stay inside vagina for few seconds before the game let's animation clip take over, just delay and play around keyframes.

\_Q8: How to add object into h-scenes?

A: I will make a short guide for it later.



**After all hark works, you should be proud  
of yourself. Thank you for using my guide  
and see you on another Koikatsu guide!**