Daz To Blender   User's Manual
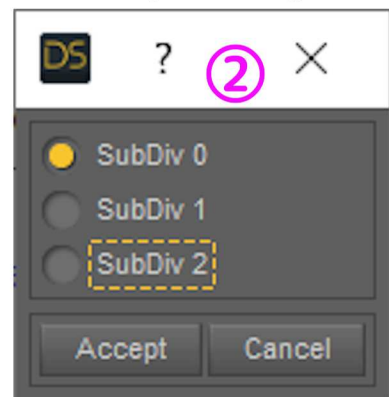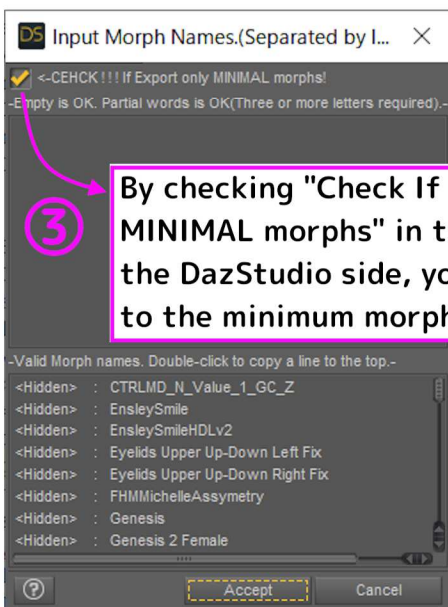
Basic Transfer Work (Export from DazStudio)
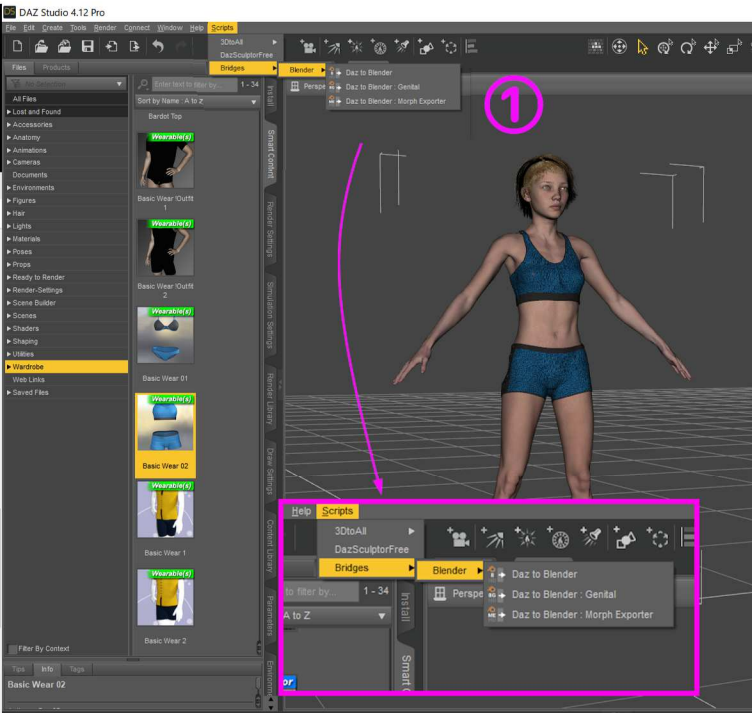
From the menu bar of DazStudio,
Select Scripts → Bridges → Blender → DazToBlender(HD).

A dialog for determining the subdivision level is displayed.
The higher the level, the higher the quality.

But Level 1 has more than 60,000 polygons and Subdiv2 has more than 240,000 polygons, which increases the load on the PC.

By checking "Check If Export MINIMAL morphs" in the script on the DazStudio side, you can limit to the minimum morph.
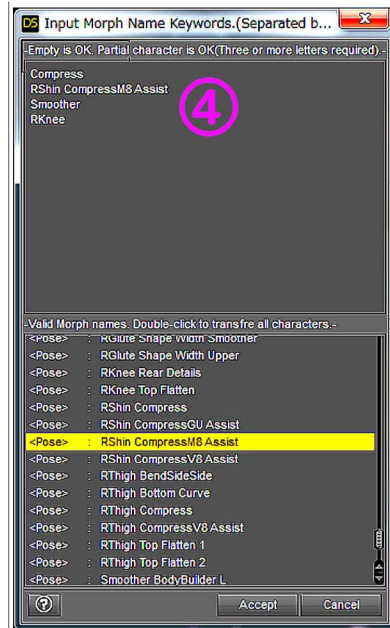
Fill in the name of the morph you want to export to blender.

List of migratable morph names.
Double click to transfer to the upper area.

About morphs exporting to blender

Morphs about the basic behavior of the head and the human body are forcibly exported.So you don't have to include face expressions or basic body morphs etc.

Export multiple morph names on one line

For example, suppose you have the following morph name list

```
RShin CompressGU Assist
RShin CompressM8 Assist
RShin CompressV8 Assist
RThigh BendSideSide
RThigh Bottom Curve
RThigh Compress
RThigh CompressV8 Assist
RThigh Top Flatten1
RThigh Top Flatten2
Top FlattenGU Assist
```

If you enter the word **"Compress"** following morphs will be exported.
```
RShin CompressGU Assist
RShin CompressM8 Assist
RShin CompressV8 Assist
RThigh Compress
RThigh CompressV8 Assist
```

If you enter the word **"Flatten"** following morphs will be exported.
```
RThigh Top Flatten1
RThigh Top Flatten2
Top FlattenGU Assist
```

Press the Accept button on the Morph Selection Dialog to display the progress bar as shown on the right. Export is complete when all tasks are completed.
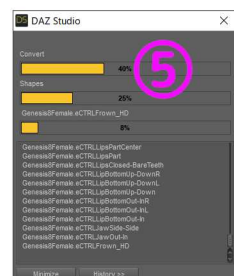
Basic Transfer Work (Import to Blender)
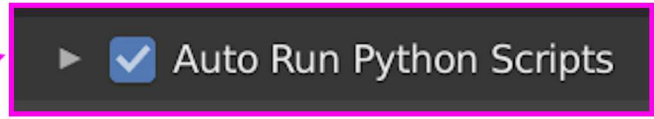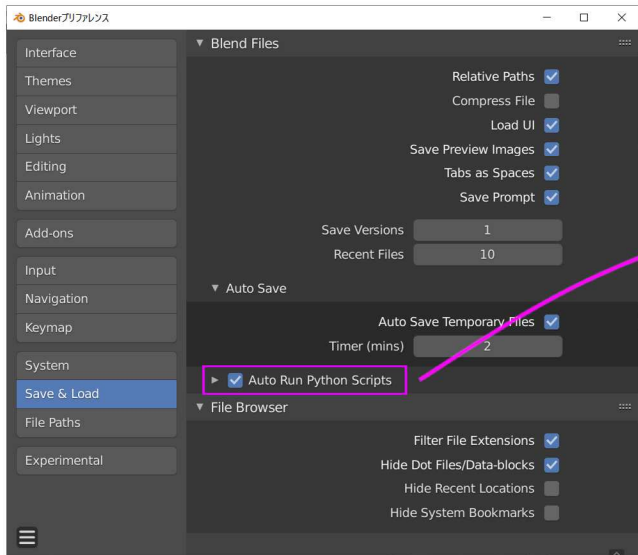
Before starting the import process,
go to Edit → Preferences → Save & Load
Make sure "Auto Run Python Scripts" is checked.

Just click "Import New Genesis HD" at the top right of 3DView and the import process will be completed.

Please note that all objects placed in 3D View before import will be deleted.

Overview of the control panel

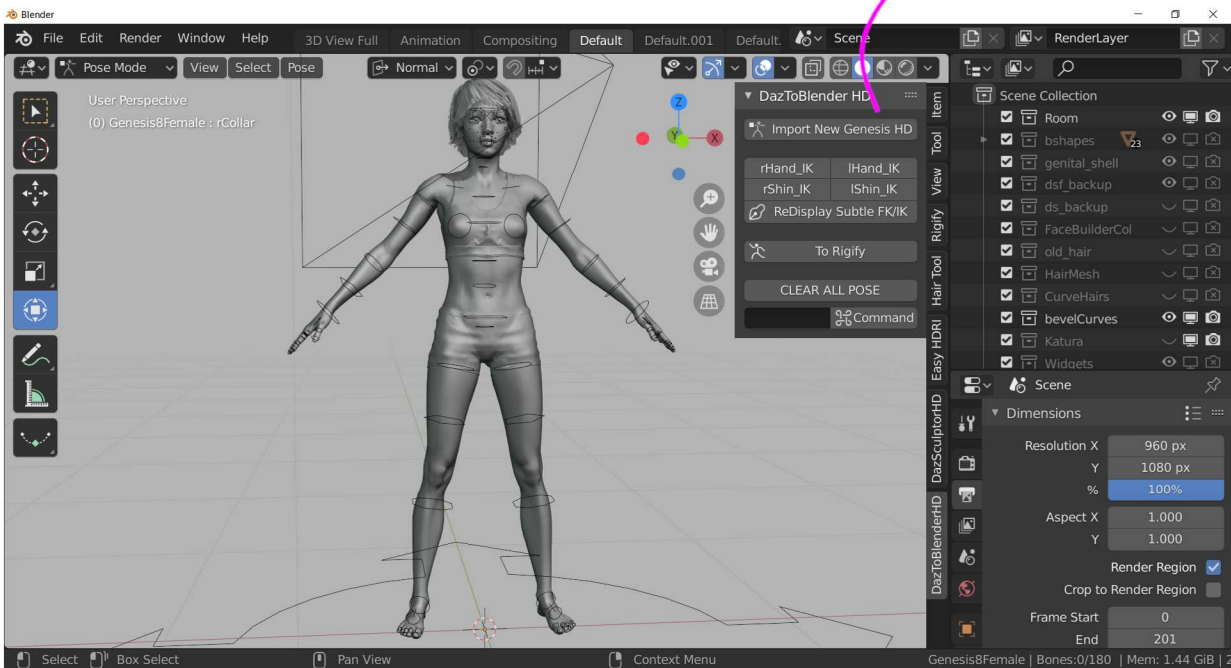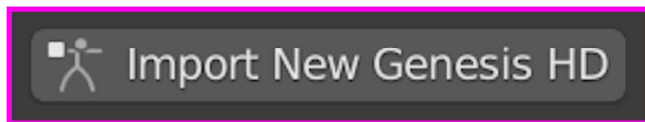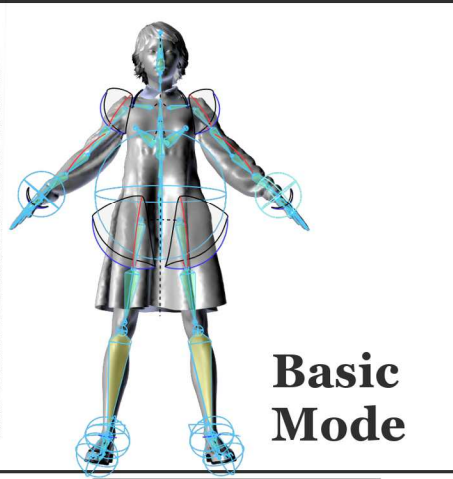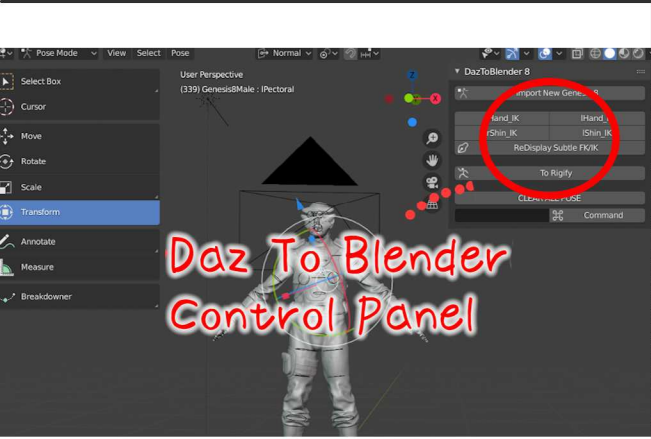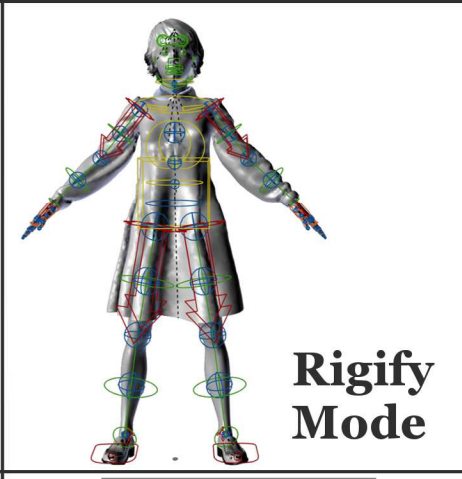|		
 Daz To Blender Control Panel	 **Basic Mode**	 **Rigify Mode**
Armature Control Panel This function is effective when Genesis8 Pose bone is selected or Rigify Pose bone is selected.	rHand_IK / lHand_IK rShin_IK / lShin_IK ReDisplay Subtle FK/IK To Rigify / To other software CLEAR ALL POSE	FK / IK Match IK & FK / Bone Range CLEAR ALL POSE
Material Control Panel This function is effective when Genesis8 Mesh object is selected.	Adjust Material Eye / x 4 Base Color.Saturation UP / DOWN CLEAR MATERIAL	
Morph Search Panel This function is effective when Any Mesh object is selected.	eyesUp / Morph	Make New Morph To Daz Morph / To Sculpt
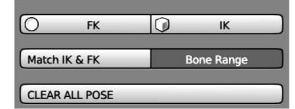
Material Control

Switch between Eyes and All Body.
Manipulation of material is always done to either the eye or another human body.
There is no way to adjust materials on both the eyes and the human body.

Select material type.

Quadruple increase / decrease of material value

Adjust Material

Eye   x 4

Base Color.Saturation

△ UP   ▽ DOWN

CLEAR MATERIAL

Retrun to default material.

Increase or decrease material value.

Search Morph

You can search morphs from ShapeKey in morph search windows.
If more than one, search in order from the top.
Since version 1.7, the wrod command input function coexists in the same place.

Eye   🔍 Morph

How to operate BasicMode Armature

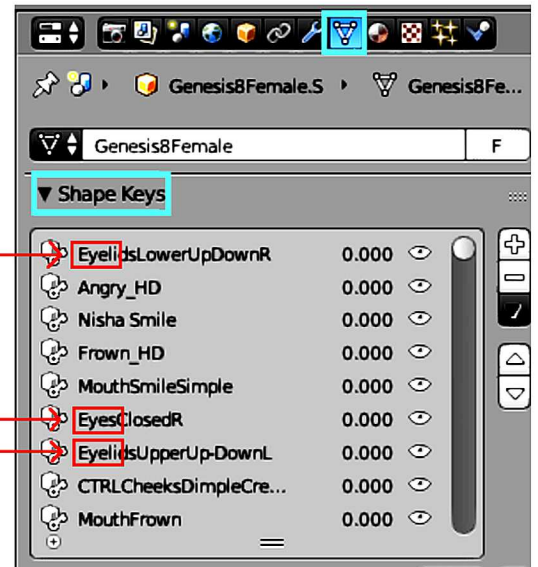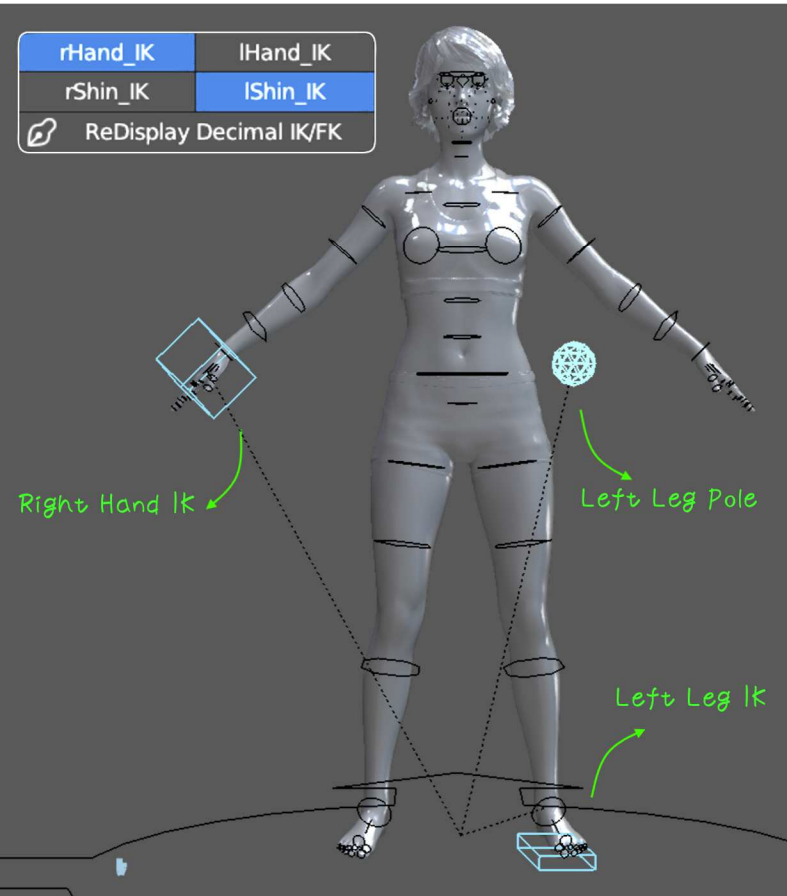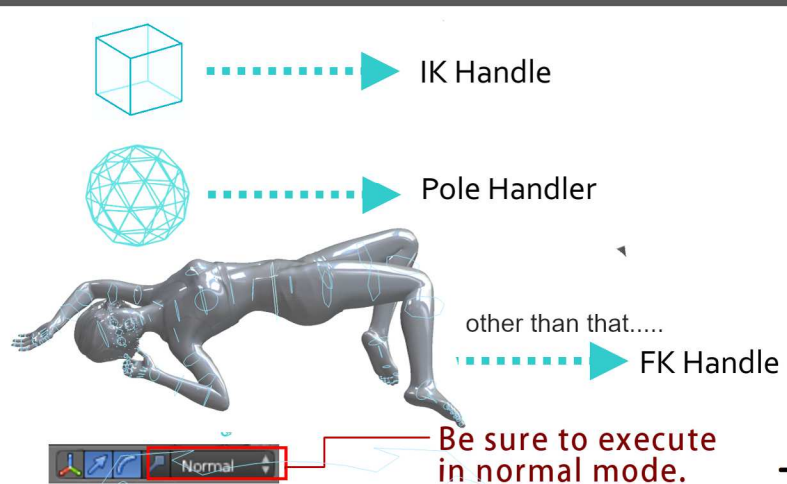With the FK / IK switching button, you can switch between the IK influence and the IK bone display.The pose is copied. The IK bone and Pole bone is displayed only when the influence of IK is over 0.5.
For example, when the IK of the right hand and the left foot are valid ...

rHand_IK	lHand_IK
rShin_IK	lShin_IK
ReDisplay Decimal IK/FK	

Right Hand IK

Left Leg Pole

Left Leg IK

During animation editing, IK bones are not completely hidden and appear smaller. Please see the next page for details.

Small IK Bone

Large IK Bone

⬜ ┄┄┄▶ IK Handle

🔵 ┄┄┄▶ Pole Handler

other than that.....
┄┄┄▶ FK Handle

Be sure to execute in normal mode.
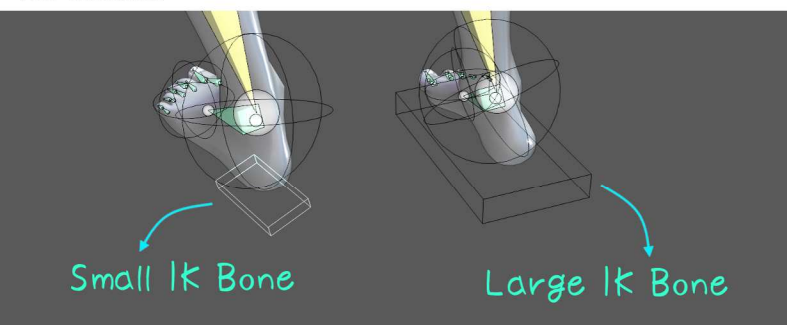
About IK's pole target

Pole target is set only for foot, not set in hand.
To change the angle of the elbow in the IK mode, you can realize by rotating the Twist bone of the upper arm (rShldrTwist／lShldrTwist) on the Y axis.

Twist upperarm born

Then...

elbow direction will change
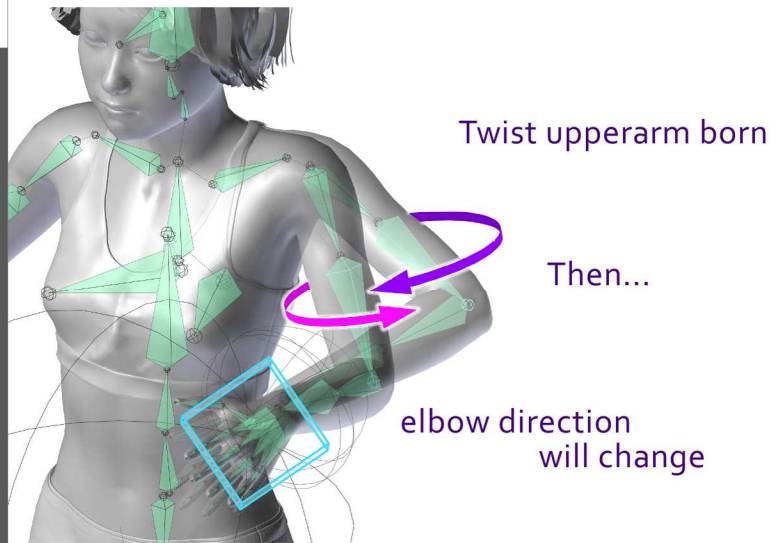
Abount Rotation of limb FK bone by IK bone

FK mode of foot

Rotate by foot FK bone (blue circle).

IK mode of foot

Rrotated by foot IK bone (blue square).

Hand FK mode and IK mode

In the case of hands, even in FK mode or IK mode, it rotates with FK bones.
IK bone does not rotate.
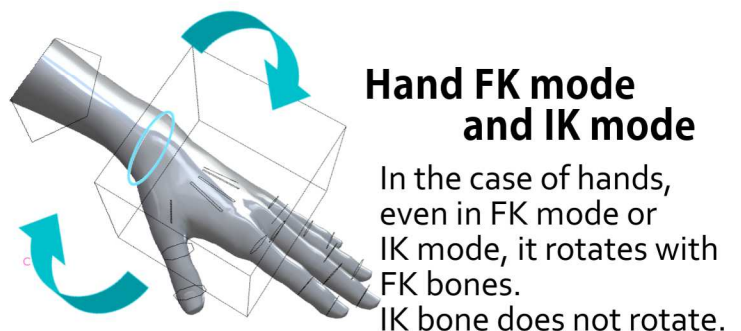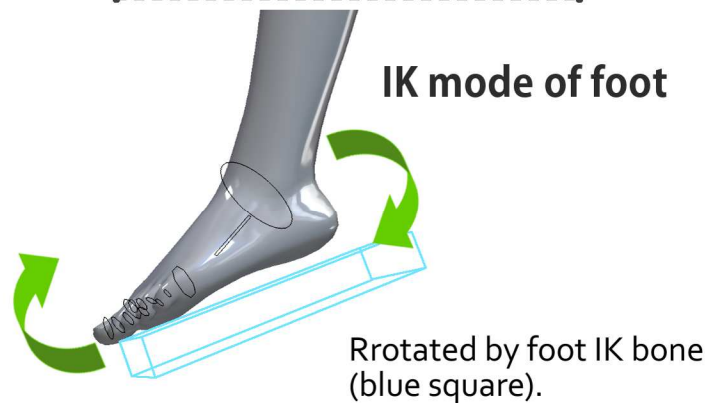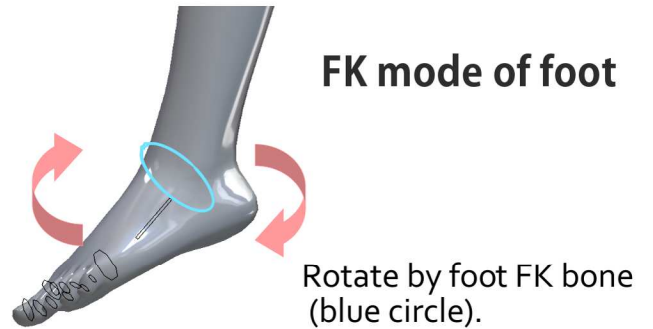
Attention points in animation production of BasicMode

Switching of IK / FK in the method of the previous page can only set the value of IK influence to either 0 or 1. However, during animation editing, you may need to set the IK influence to a subtle value such as 0.1 to 0.9 and edit in consideration of the influence of both IK and FK.

In the Property Editor, if you change the influence of IK from 0.0 to 0.8, the display of the control panel of DazToBlender8 does not change, and IK bones are not displayed.
DazToBlender8 does not automatically recognize that IK's influence has changed.

So, click "ReDisplay Subtle IK / FK" button

Then, DazToBlender8 recognizes that IK's influence has changed, and changes to GUI display and bone display according to IK's influence.

IShin_IK Button is selected.

IK Bone appear.

Conversely, when IK's influence is changed from 1.0 to 0.2, the IK switch button is deselected and the IK bone is hidden (or displayed smaller).
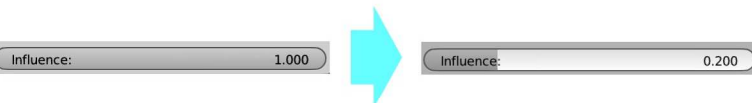
For animation editing, sometimes IK's influence needs to be set other than 0.0 and 1.0.
Therefore, during animation editing (that is, if at least one key is hit in the dope sheet or timeline)
Even if the impact of IK is less than 0.5, IK bones are not completely hidden and appear smaller. This enables animation editing that takes into consideration the influence of both IK and FK.

Small IK Bone

Large IK Bone
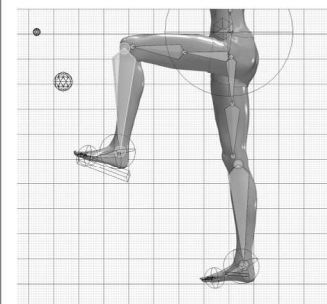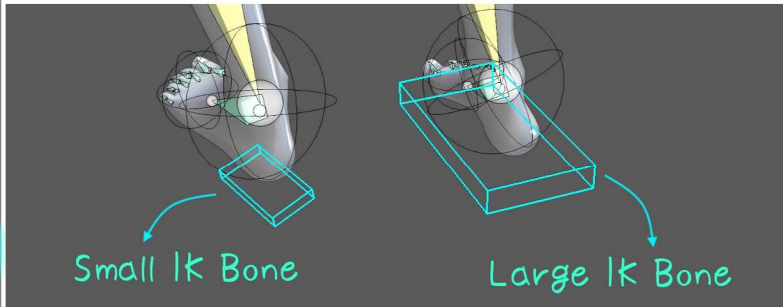
IShin IK influence 1.0
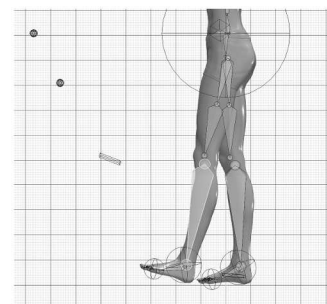
IShin IK influence 0.0
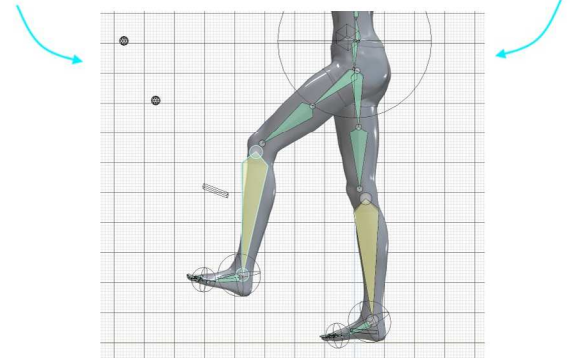
IShin IK influence 0.48

How to use Morph Loader Pro support tool 1

DazStudio's MorphLoaderPro is a plugin for customizing DazStudio's figure format freely.Morph Loader Pro suport tool is a function to create an .OBJ file for use with Morph Loader Pro.

Until now, this .OBJ file had to use other software (Blender Zbrush) etc. There was also a problem that it was difficult for non-advanced users to handle without specialized applications or plugins.

●If you use Morph Loader support tool……
①You can check the rendering result in the middle of mesh editing
②You can edit the mesh while letting the figure take on various poses. (Export result is always zeropose.)
③All mesh edit data is recorded and saved by shape key.So…
　・You can start over again
　・You can simulate pJCM data that changes with bone rotation.
　・You can create as many morphs as you need in a single project.
④You can also edit clothes, hair and shoes.

●Two mesh editing modes
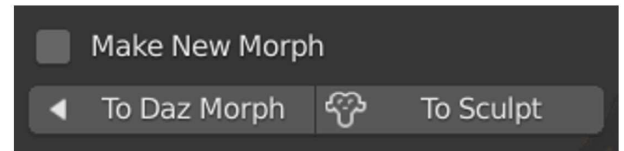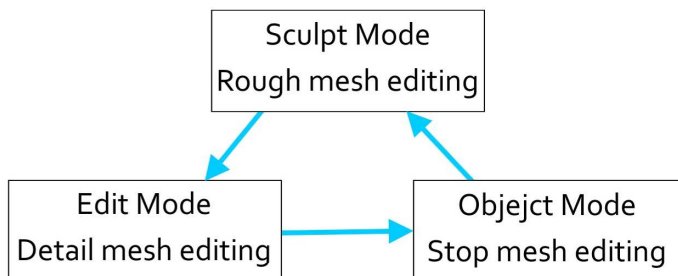By selecting the object you want to edit (figure, hair, clothing, eyebrows etc., except eyelashes) and pressing the To Sculpt button, you can automatically switch to the following three modes.

```
        ┌─────────────────────┐
        │   Sculpt Mode       │
        │ Rough mesh editing  │
        └─────────────────────┘
         ↙                 ↖
┌──────────────────┐   ┌──────────────────┐
│  Edit Mode       │ → │  Objejct Mode    │
│ Detail mesh      │   │ Stop mesh editing│
│ editing          │   │                  │
└──────────────────┘   └──────────────────┘
```

●When moving from Object mode to Sculpt mode, the following decisions and actions are taken.
　♦If there is a shape key named [to_daz_morph], select it and continue editing the shape key.
　♦If there is a shape key named [to_daz_morph] but the [Make New Morph] check box is checked,
　　then the [to_daz_morph] shape key is renamed to [to_daz_morph_end_ (date) _ (time)],
　　Create a new shape key named [to_daz_morph] and start creating a new morph.
　♦Even if there is no shape key [to_daz_morph], create this shape key anew and start creating a new morph.
　　In that case, the check state of the [MakeNewMroph] check box is not considered.

●Export shape key
When editing is complete, <u>select the object you want to output</u> and click the To Daz Morph button to convert the shape key into an .obj file and output it.
Only shape keys whose names begin with the word [to_daz_morph] are output targets.
Generally, the shape keys created in the past are as follows.

`[to_daz_morph_end_190601_181023]`

The following is the date and time.
You can change this as follows for your own understanding.
[to_daz_morph_cheek_smile]
[to_daz_morph_Jhone_shoulder_up_90]
[to_daz_morph_Elen_cutom_face]
However, the beginning must begin with [to_daz_morph].
Then, if you want to edit the shape key created in the past again, manually change the name to [to_daz_morph]
and (again, of course, manually change the name of the shape key named to_daz_morph) You can resume it.
Or, as a simpler method, changing the Blender mode change combo box with the shape key selected and editing directly is OK.
Finally, the .obj file is output for the shape key, and the output folder is automatically opened.
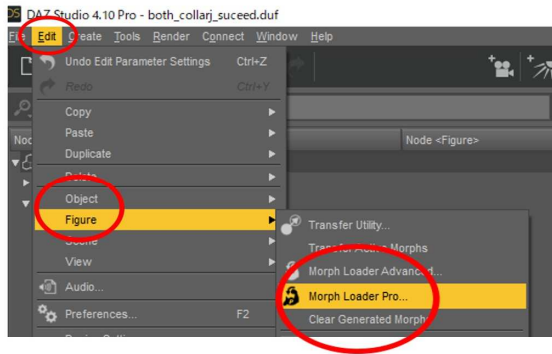
●Launch Morph Loader Pro
In the case of the figure body : Edit → Figure → Morph Loader Pro
Other than the figure body : Edit → Object → Morph Loader Pro

① It needs to be unique except when overwriting past morphs.

②〜③Used to create forms that change with bone rotation.

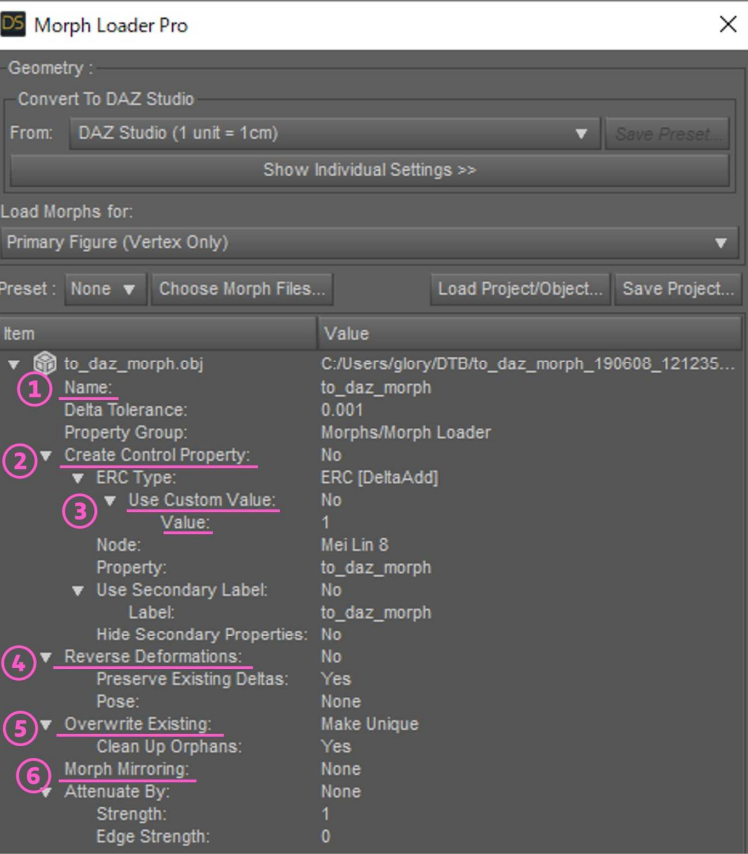④Subtracts the effect of the posing / shaping of the figure from the morph loaded, leaving only any differences on top of that.

⑤If you want to modify an existing morph, make it the same name as the morph name, and make this item a Make Deltas, you can modify the past morph.

⑥Inversion on the axes of XYZ and + and - inversion of values on the axes.

Notice

When loading morphs with this tool, always pose the DazStudio figure to zero pose.

●**Practice**

START   FINISH
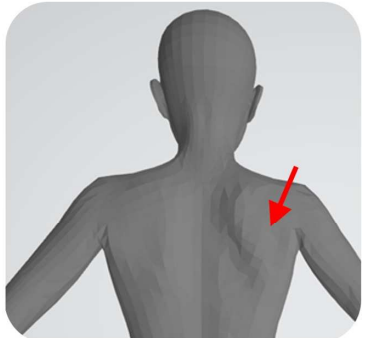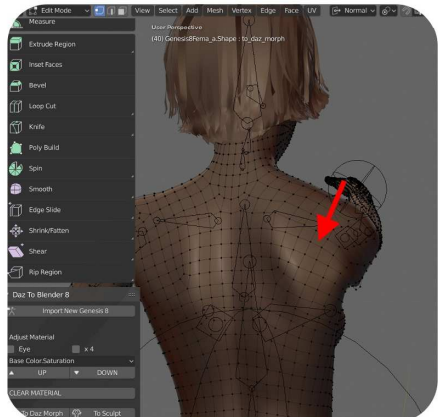
This time, I would like to make the movement of the scapula when bending collar forward.

The shoulders move left and right separately, so you can only edit either right or left. If you export, you will get a somewhat unnatural obj file as shown in the upper right. Also, the resulting obj file is always in a zero pose.

●*Right collar setting*

Preset : None ▼　Choose Morph Files...　Load Project/Object...　Save Project...

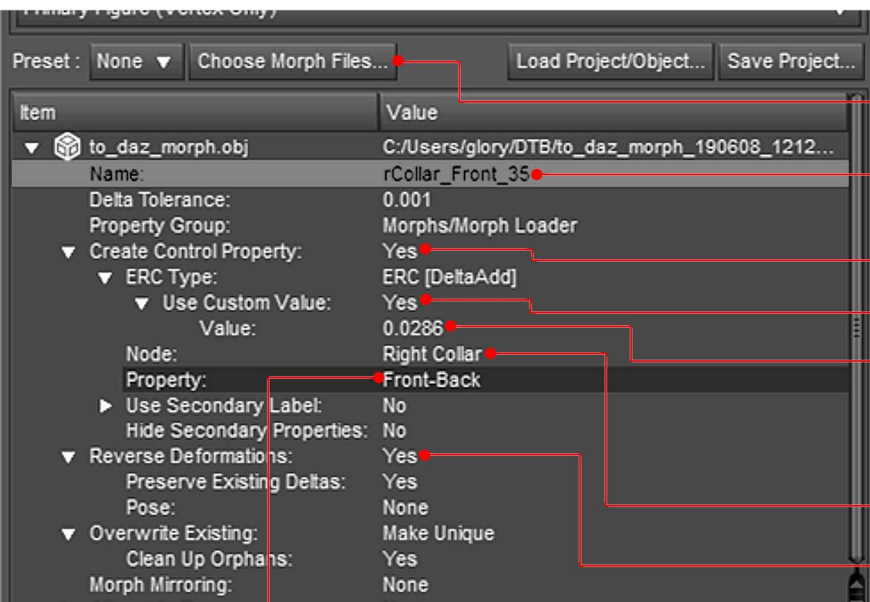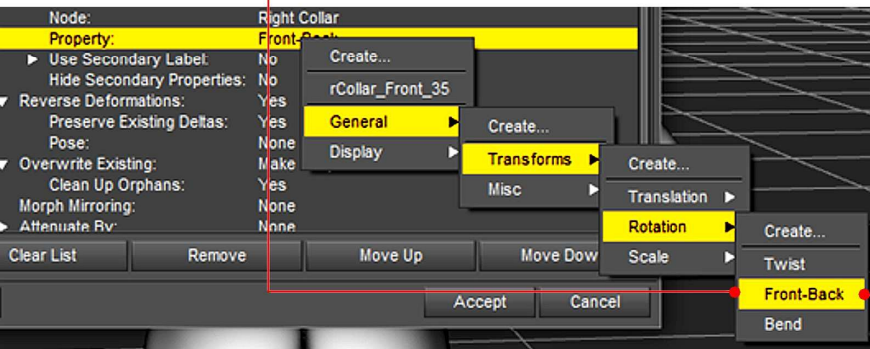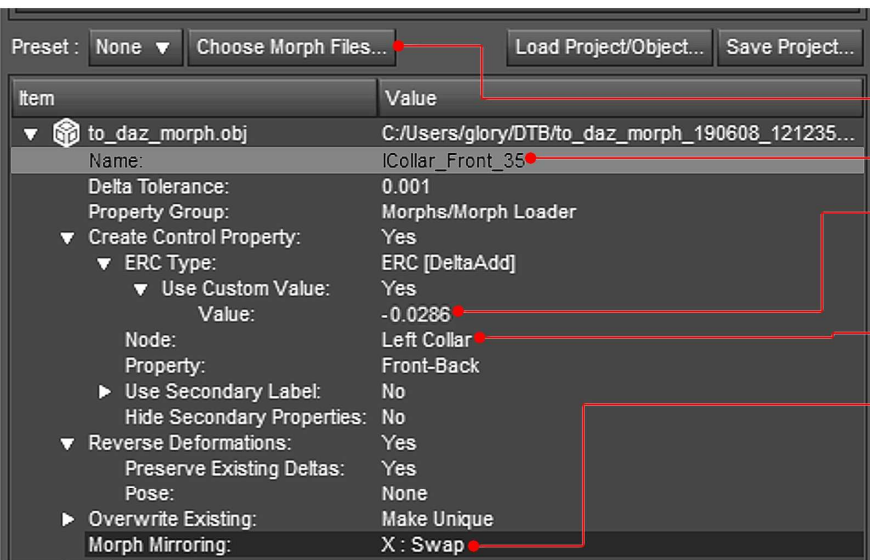| Item	Value
▼ to_daz_morph.obj	C:/Users/glory/DTB/to_daz_morph_190608_1212...
Name:	rCollar_Front_35
Delta Tolerance:	0.001
Property Group:	Morphs/Morph Loader
▼ Create Control Property:	Yes
▼ ERC Type:	ERC [DeltaAdd]
▼ Use Custom Value:	Yes
Value:	0.0286
Node:	Right Collar
Property:	Front-Back
▶ Use Secondary Label:	No
Hide Secondary Properties:	No
▼ Reverse Deformations:	Yes
Preserve Existing Deltas:	Yes
Pose:	None
▼ Overwrite Existing:	Make Unique
Clean Up Orphans:	Yes
Morph Mirroring:	None

●Select .OBJ file

●Enter "rCollar_Front_35"
However, if the contents are known,
any other name may be used.

●Yes

●Yes

●Since the maximum bending
angle of rCollar's Front is 35 degrees
So, Input " $1.0 / 35 \fallingdotseq 0.0286$ ".

●Select "Right Collar"

●Yes

●As shown on the left,
Rotate forward of rCollar specify.

●*Left collar setting*

Preset : None ▼　Choose Morph Files...　Load Project/Object...　Save Project...

Item	Value
▼ to_daz_morph.obj	C:/Users/glory/DTB/to_daz_morph_190608_121235...
Name:	lCollar_Front_35
Delta Tolerance:	0.001
Property Group:	Morphs/Morph Loader
▼ Create Control Property:	Yes
▼ ERC Type:	ERC [DeltaAdd]
▼ Use Custom Value:	Yes
Value:	-0.0286
Node:	Left Collar
Property:	Front-Back
▶ Use Secondary Label:	No
Hide Secondary Properties:	No
▼ Reverse Deformations:	Yes
Preserve Existing Deltas:	Yes
Pose:	None
▶ Overwrite Existing:	Make Unique
Morph Mirroring:	X : Swap

●Select the same .OBJ file as the right shoulder.

●Enter "lCollar_Front_35"

●In the case of rCollar, it was a positive value,
but in the case of lCollar, it is negative,
so enter -0.0286.

●Select "Left Collar"

●Select "X:Swap"

※Other items are the same as the right shoulder

Result
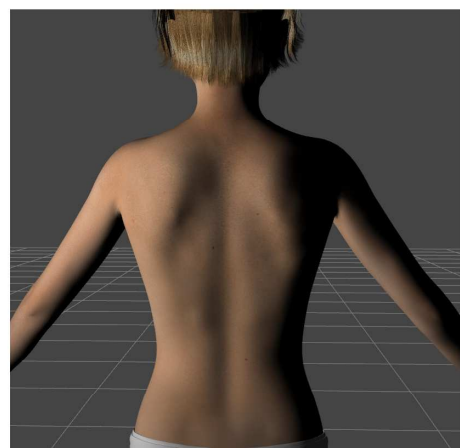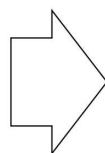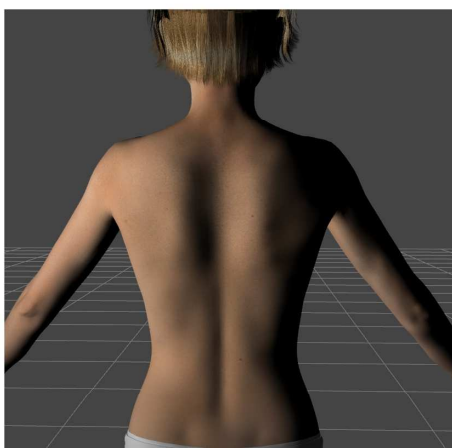
Word Command Function
(How to use "Genital.dsa" in DazStudio)

The morph search function and command input function coexist in the same field.

DazToBlender8 will continue to be upgraded with various new features.
However, it is very miscellaneous to give individual GUIs to the various functions.
Therefore, by inputting commands with characters, many functions are simply expressed and realized.

This field of this command input was to search for shapekeys before version 1.6.It will not change after version 1.7. However, we decided to make the character command function coexist in the same field.
When entering a command, enter it with a # (sharp) at the beginning.
To search for shape keys, enter a normal string.
When entering a command, prefix it with # (sharp).

The commands that can be used in version 1.7 are as follows

1. #clear morph

Depending on the DazStudio environment, a large amount of invalid shape keys (morphs) may be imported into Blender. These shape keys cannot actually deform the mesh. Nevertheless, it may consume a lot of memory and make operation extremely slow.
Therefore, you can delete unnecessary shape keys at once by pressing the import button while inputting this command at the time of import. This function cannot be used after the import has been completed.

If you have a history of purchasing a large number of Genesis8 figures in the past, a very large number of morphs may be exported.
In this case, using the "#clear morph" command may take a very long time to import.
In that case, you can save even more time by using the script options in DazStudio as described on page 13.

<-CEHCK !!! If Export only MINIMAL morphs!

When this is combined with the #clear morph command, you can create a Blender project that operates quickly because the shape keys are further limited.

2. #get genital

Prior to version 1.6, when using a figure with genitals, only some of the genital morphs could be transferred to Blender. This command is used to transfer all genital morphs to Blender. Use with Genital.dsa.

The actual command execution method is as follows.
①Place "Genital.dsa" in DazStudio as shown in page 1.
② Prepare a figure with genitals in DazStudio.
③Export figures with genitals in the normal way. (At that time, the DazStudio scene will not be closed or changed.)
④Double-click Genital.dsa in DazStudio. Wait for the task to finish.
⑤Enter "#get genital" in the WordCommand area of Blender

The genital Prop that can be handled by this function is limited to the official genital Prop of Daz Studio of Genesis 8. Other genital props are invalid.
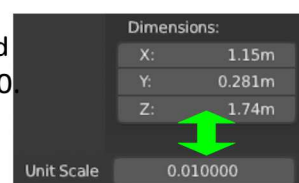
3. #real size

Until version 1.7, the unit scale was set to 0.01 to set the realistic size of the figure.
However, this method seems to have a problem in physical simulation.
Therefore, I have prepared a command to change the actual unit scale to 1.0.
However, it cannot be used in Rigify mode.

4. #get pose

Function to use DazStudio pose files with Blender.
When the command is executed, a file selection dialog for selecting a pose file opens. Select a pose file.
The extension is "duf".
There are two types of pose files.
◇Encrypted file
◇Unencrypted file
Unencrypted files can be opened with a text editor.

For example, the basic pose file for Genesis 8 Female is
C: \ Users \ Public \ Documents \ My DAZ 3D Library \ People \ Genesis 8 Female \ Poses \ Base Poses
And can be read by DazToBlender8.

Files with the same content are encrypted
C: \ Users \ [UserName] \ Documents \ DAZ 3D \ Studio \ My Daz Connect Library \ data \ cloud \ 1_42071 \ people \ genesis 8 female \ poses \ base poses

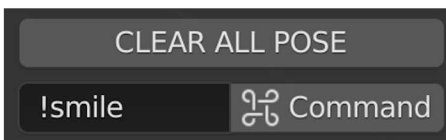This can only be read by DazStudio.

5. #finger

In the basic mode, if you bend the joint near the base, the joint near the end will automatically bend accordingly.
Enter the same command again to return.
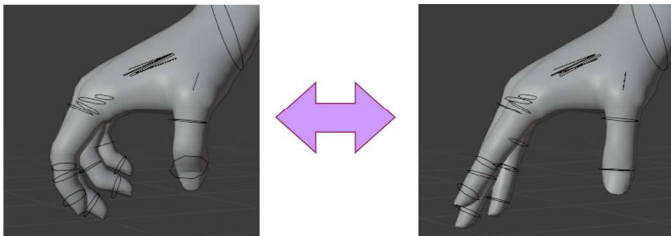
6. ! + (Search word)

When searching for a shape key, you can add a "!" Mark to the beginning of the search to limit the search to those with a shape key value is other than 0.0.


7. #get texture

When this command is entered, a dialog for selecting the texture folder is displayed.
When you select the folder where the G8M / F texture file is stored, the textures of each part are automatically linked.

If the installation location of DazStudio is not the usual place, and the texture is not reflected due to a problem such as the access authority to the folder, this command can solved
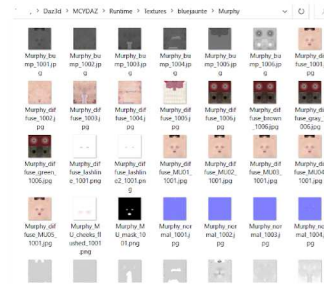
G8M / F texture files are generally
C:\Users\Public\Documents\MyDaz3DLibrary\Runtime\Texture
It is stored in, but it depends on the installation settings.

8. #split eyelash
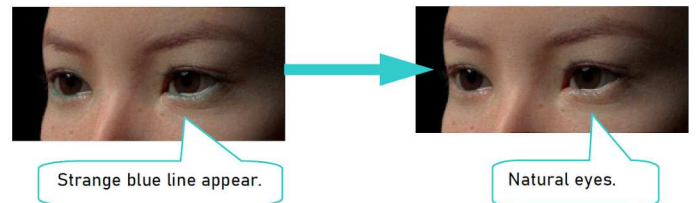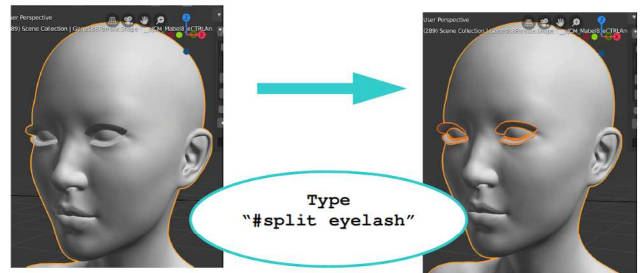
By entering this command, the human body and eyelashes can be separated.
Depending on the figure, an unnatural blue line may appear on the lower eyelid, but this command solves it.

However, when changing the facial expression with the shape key, it is necessary to apply the shape key to both the eyelashes and the human body mesh.

9. | **#fit bone**

There is a function of MorphLoaderPro Support Tool described on pages 8 to 10 as a function to help you create your own original figure.
However, if you edit the mesh too large, it will be significantly out of alignment with the bone position. Then the advantage of creating figures in different poses is completely meaningless.
For example, what happens if you bend your knees after making a significant change in leg length?

It is this function that can fundamentally solve such problems.
However, the big feature of this function is that it can not process the shape key at all, only the processing of the base mesh.
While having a purpose similar to MorphLoaderProSupportTool, this part requires the exact opposite process.
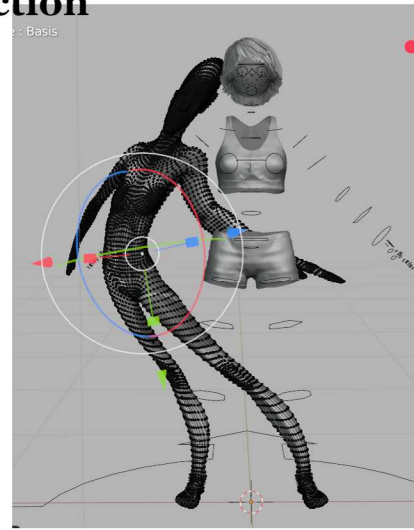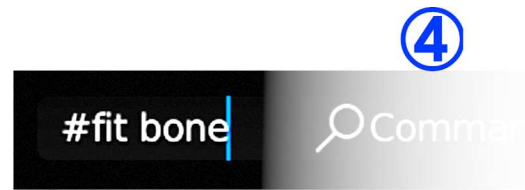
The actual process

First, select the mesh object of the human body part of the figure.
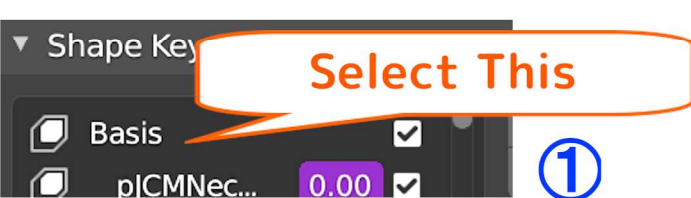Then select ObjectDataTab in the properties window.
Then select the top row (Basic) of the shape key panel. This is the most important.
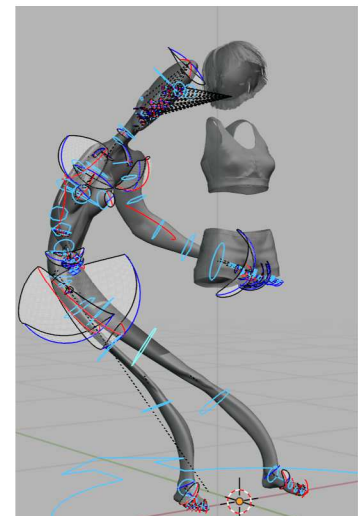Then edit the mesh.

③

④

#fit bone | Comman

⑤

⑥ **Select This**
▼ Shape Key
🔲 Basis ☑
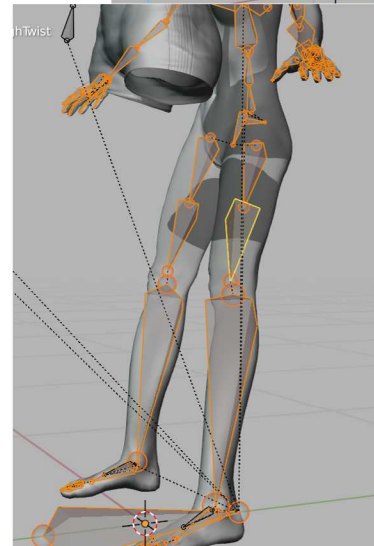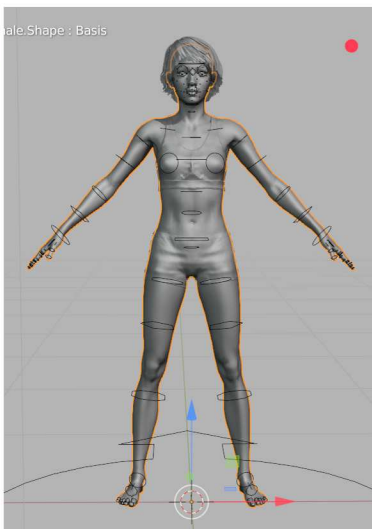🔲 pICMNec... 0.00 ☑ ①

②

The bone follows the mesh perfectly.

Word Command function.

10.
```
#get face
#get body
#get hand
#get leg          page ①
```

DTB offers the ability to freely combine parts of any figure to create a new figure.
Copy the morphs of the face, hands, human body and legs.This can be achieved by referring to the .OBJ file from Armature imported with Blender.However, there are some requirements for successful use of this feature.

Condition 1
Limited to the same figure type.
As shown in the figure below, different types of morphs cannot be applied to 6 types of figures.
Please import it into Blender, check which of these 6 types the figure belongs to, and use the same type .OBJ file.

G8F	G8M	G8F (with genital)	G8M (with genital)	G3F	G3M

Condition 2
The subdivision level must be the same or higher.
For example, only Subdivision Level 1 or 2 .OBJ files can provide morphs to Subdivision 1 Level 1 figures.
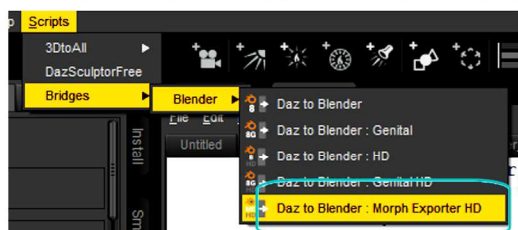Level 0 .OBJ files cannot be used.

Condition 3
The .OBJ file must be naked.
The .OBJ file should not have any props such as clothing, hair, and eyelashes.

These conditions are very similar to Daz Studio's "MorphRorderPro", so please do the same.

◇How to easily create an .OBJ file that meets the above conditions

MorphExporter.dsa of DazStudio can be used to generate a somewhat accurate .OBJ file. The exported .OBJ file is Please refer to it because it is stored in C:\Users\[UserName]\Document\DTB\to_blender_morph\.

◇Basic operation

Reference

.OBJ file
①

Main Figure

#get face

②
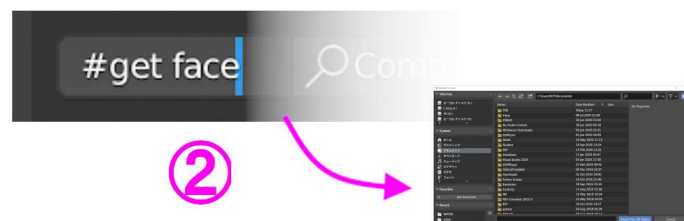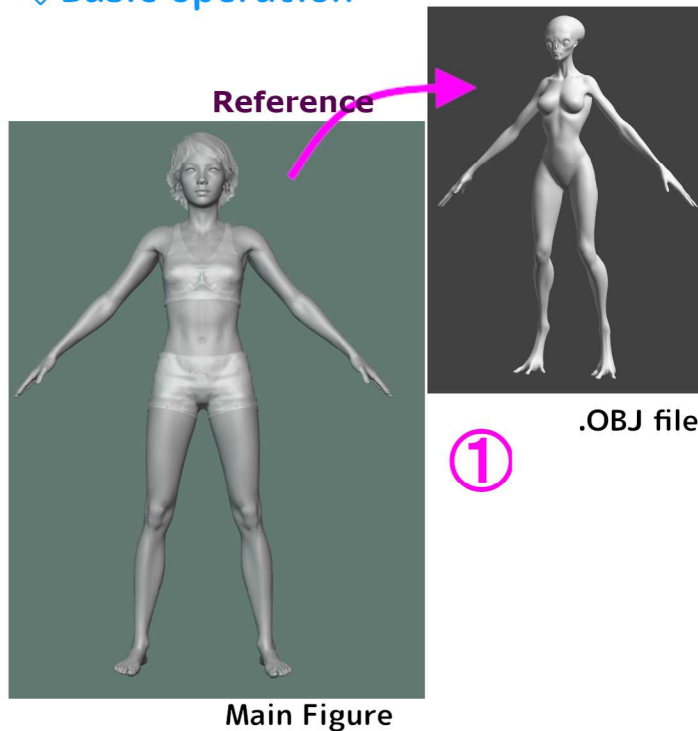
When you enter #get face, a dialog for selecting the .obj file is displayed. Select the .obj file.

③

10.

#get face
#get body
#get hand
#get leg

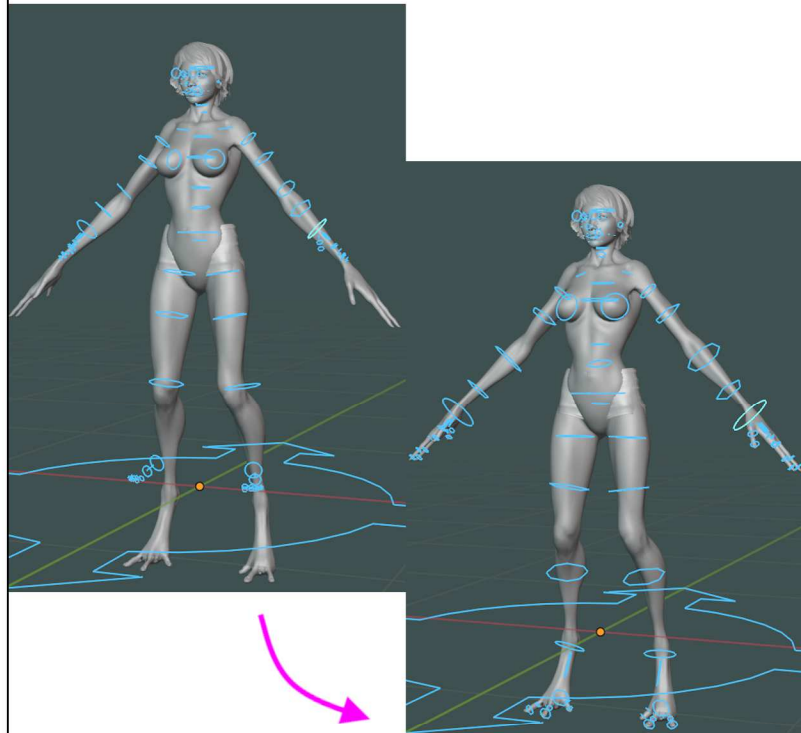If you specify hand, body, leg by the method of the previous page, it will be as follows.

#get hand

#get body

#get leg

Since the above mesh deformation is not the shape key but the deformation of the base mesh, the bone can be made to follow the mesh by the "#fit bone" command on the previous page.

Word Command function.

10.

#get face
#get body
#get hand
#get leg

#get face 0.3

#get face 0.6

#get face

By inputting a value of 0.1 to 0.9 after get face, get body, get hand, and get leg, you can adjust the morph to that ratio.

11.

#rent face
#rent body
#rent hand
#rent leg

By replacing "get" with "rent", you can copy the morph with the shape key instead of the base mesh.

Since the shape key can be adjusted with the slider, there is no adjustment function for decimal numbers written in the upper row.

Also, since the base mesh does not change, the bone position cannot be adjusted by "#fit bone".
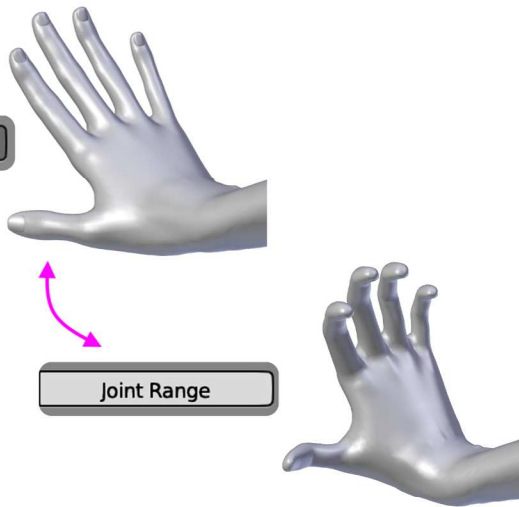
How to operate RigifyMode

You can transform to RigifyMode by pressing the "To Rigify" button in BascMode.
Before that,you need to enabled the Rigify add-on.

◇**Blender 2.80**

②**Community**

③**Rigging**
①**Add on**
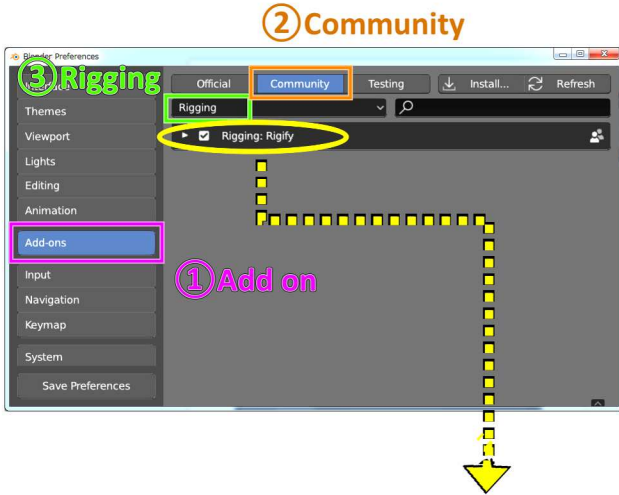
④A line of "Rgging:Rigify" appears and confirm that the checkbox is checked.
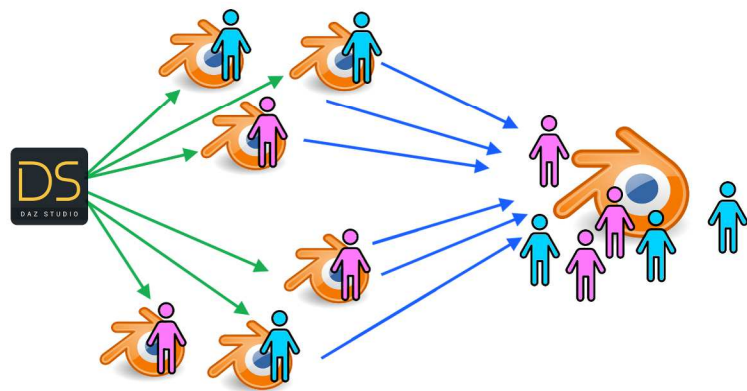

Joint Range

Joint Range

By releasing the pressed state of the "Joint Range" button,the range of motion of the joint becomes unlimited.

For other basic operations, refer to the information publicly available on the Internet.

Other things

About the number of figures that can be exsported

The number of figures that can be handled at a time in this application is always one.
If you wish to place more than one figure in one scene, please use the Append function from multiple Blender files, collect the figures one by one in a Blender file and place it.

Troubleshooting

Q1.The material of the figure body is not loaded, or the material of the basic figure of G8F / G8M is loaded.
A1.The folder where the texture file of the figure you are trying to import is stored may not have permission to read from the Blender side.Access the relevant folder from Windows Explorer, and change the permissions so that it has the appropriate permissions from the right-click-> Properties-> Security tab.Or, please use "#get texture" command.

Q2.It takes a long time to import from Blender side.
A2.If you try to move with too much clothing, it may take time. The same applies if the PC is too low-spec.

Q3.I was able to import it, but it consumes too much memory and is slow.
A3.By checking "Check If Export MINIMAL morphs" in the script on the DazStudio side, you can limit to the minimum morph.
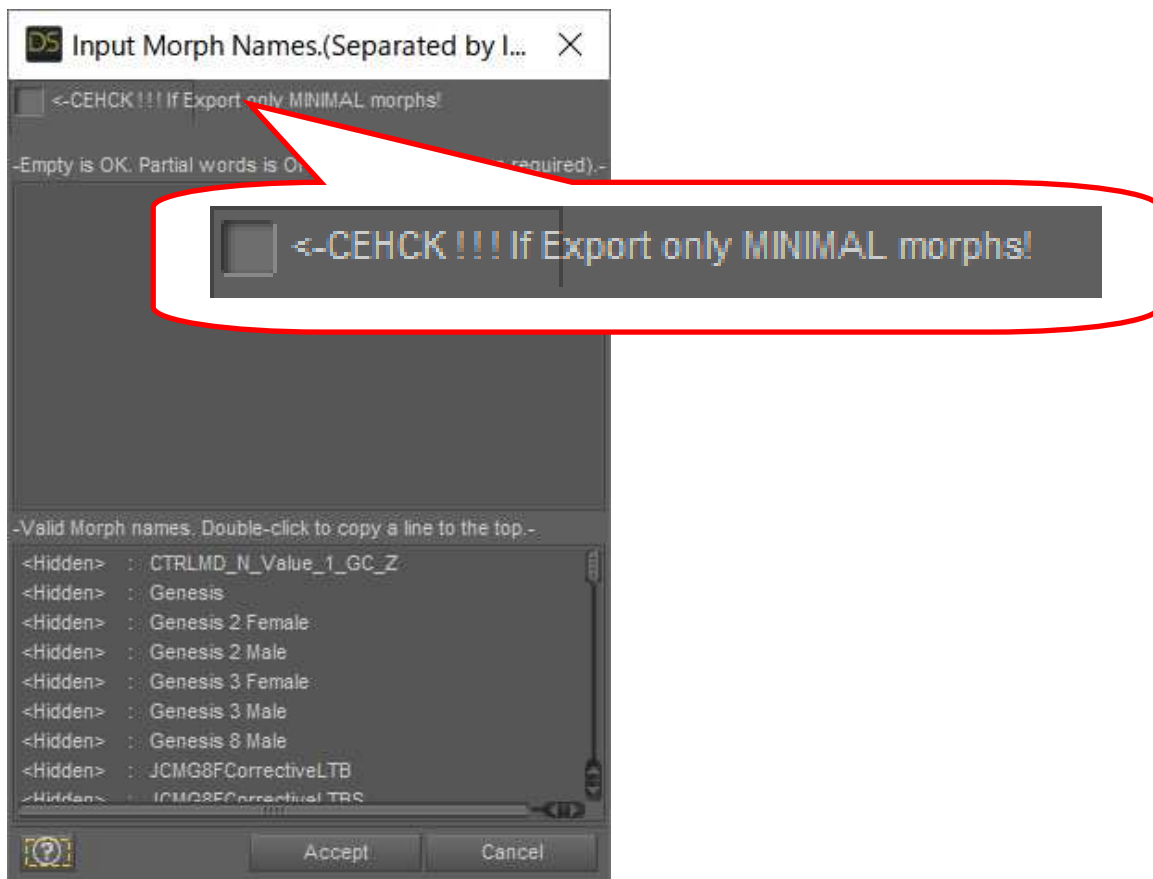

In addition, you can filter out unnecessary shape keys by entering the [#clear morph] command on Blender and pressing the import button again. (See page 11 of the manual) Having too many unnecessary shape keys consumes memory and slows down. Or even if you wear too much clothing.
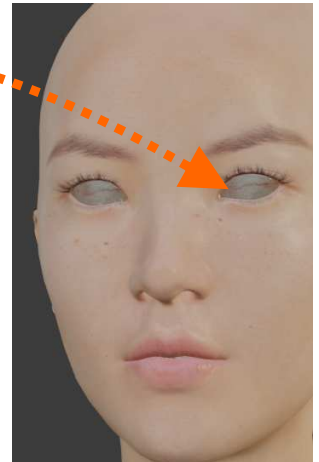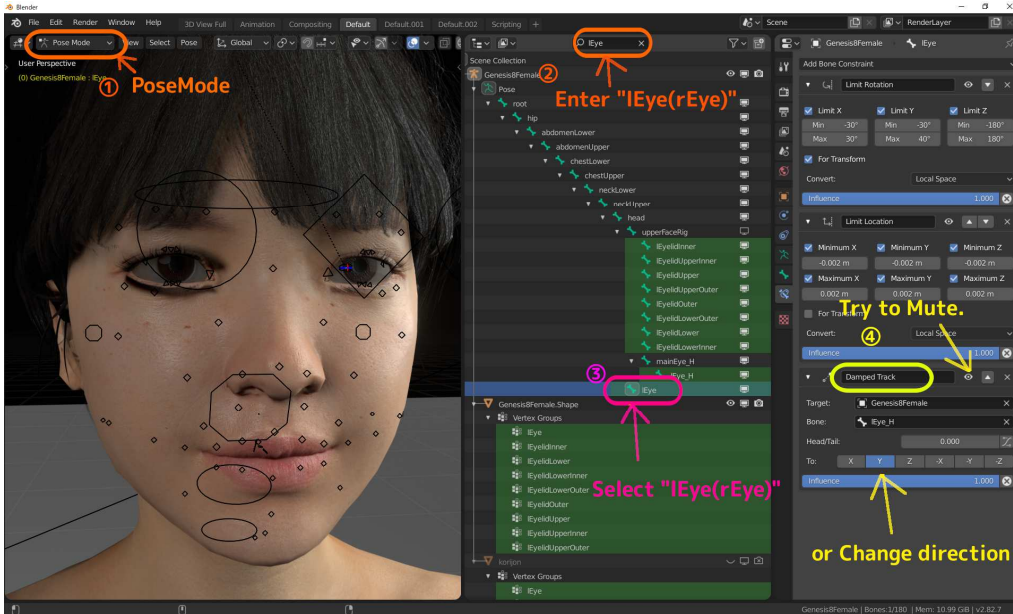
Q4.Is the figure mesh too rough?
A4.Change the Viewport Level of the Subdivision item in the modifier tab of the property window.
Please change from 0 to 1. This will eliminate the roughness of the mesh, but it may slow down a little.
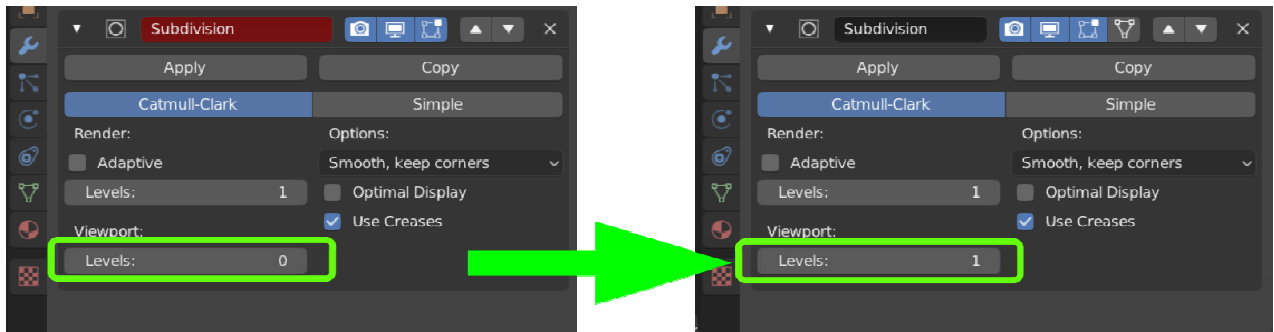
Q5.The eyes are inverted as shown in the right figure.
A5.Perform the operation shown below.

# Three reasons why Daz to Blender 8 is the best tool to create Daz morphs

1 You can sculpt while checking the rendering result.

Have you ever had a good feeling that sculpting without materials with Zbrush etc, but rendering with DazStudio is a totally different experience?

Thank You!

Perfect! It's very similar to you.

....

Oh...Why... I'm sorry.

No Material

Rendered

2 You can sculpt with various poses.

There is one important question. Humans have infinite poses, and their number makes them different attractive. Are you just satisfied with sculpting the zero pose?
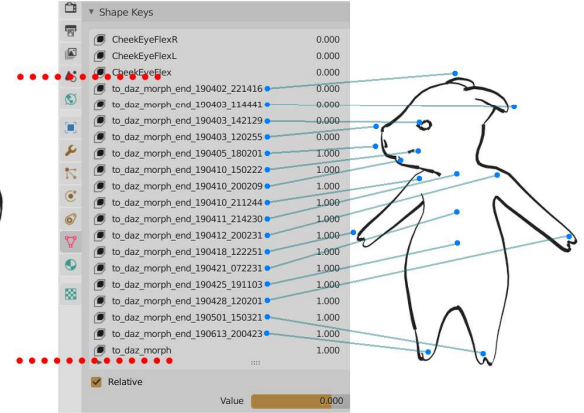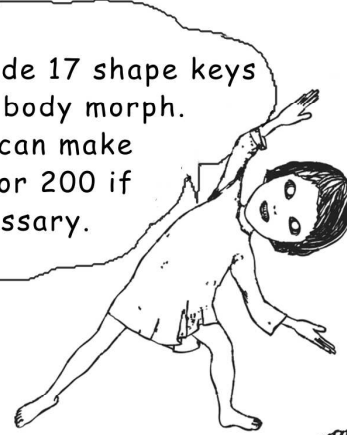
You can even sculpt teeth if you open the mouth.

It's boring

Only zero pose...

1
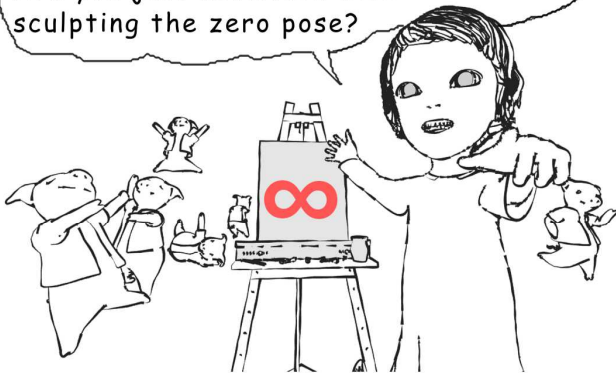
Whatever pose you sculpt, the result is always a zero pose.
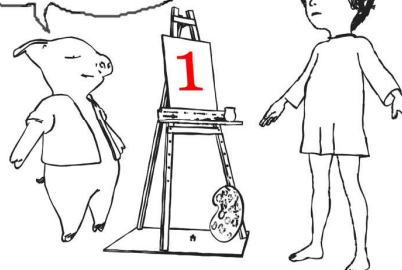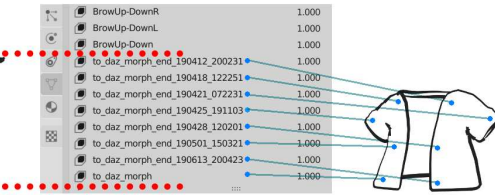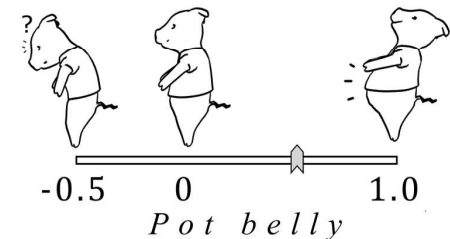
3 Morphs are created with shape keys.

I made 17 shape keys as a body morph. You can make 100 or 200 if necessary.

Shape Keys
CheekEyeFlexR 0.000
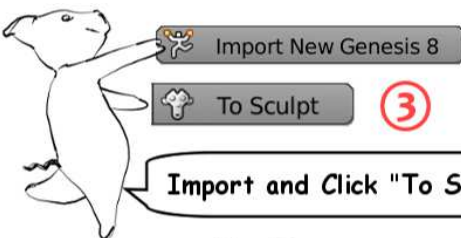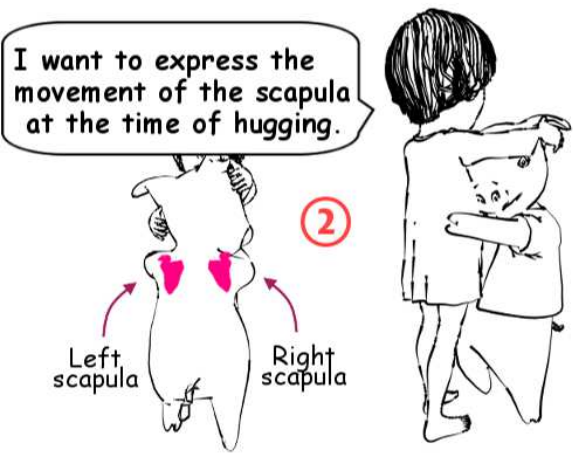CheekEyeFlexL 0.000
CheekEyeFlex 0.000
to_daz_morph_end_190402_221416 0.000
to_daz_morph_end_190403_114441 0.000
to_daz_morph_end_190403_142129 0.000
to_daz_morph_end_190403_120255 0.000
to_daz_morph_end_190405_180201 1.000
to_daz_morph_end_190410_200209 1.000
to_daz_morph_end_190410_150222 1.000
to_daz_morph_end_190410_211244 1.000
to_daz_morph_end_190411_214230 1.000
to_daz_morph_end_190412_200231 1.000
to_daz_morph_end_190418_122251 1.000
to_daz_morph_end_190421_072231 1.000
to_daz_morph_end_190425_191103 1.000
to_daz_morph_end_190428_120201 1.000
to_daz_morph_end_190501_150321 1.000
to_daz_morph_end_190613_200423 1.000
to_daz_morph 1.000
Relative
Value 0.000

I made 8 shape keys as a clothing morph. You can make shoes and hair as well.

BrowUp-DownR 1.000
BrowUp-DownL 1.000
BrowUp-Down 1.000
to_daz_morph_end_190412_200231 1.000
to_daz_morph_end_190418_122251 1.000
to_daz_morph_end_190421_072231 1.000
to_daz_morph_end_190425_191103 1.000
to_daz_morph_end_190428_120201 1.000
to_daz_morph_end_190501_150321 1.000
to_daz_morph_end_190613_200423 1.000
to_daz_morph 1.000

click!

◁ To Daz Morph

Click the "To Daz Morph" button. Then, 17 body morphs and 8 clothes morphs are output in the obj file.

8 Cloth

17 Body

?

-0.5   0   1.0

Pot belly
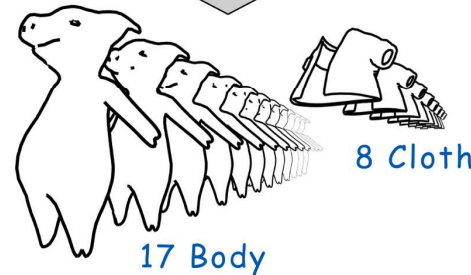
Daz to Blender 8 can easily create morphs that deform by bone rotation

I want to express the movement of the scapula at the time of hugging. ①

②

Left scapula　Right scapula

Import New Genesis 8

To Sculpt ③

Import and Click "To Sculpt".

Edit Mode　Sculpt Mode　Object Mode
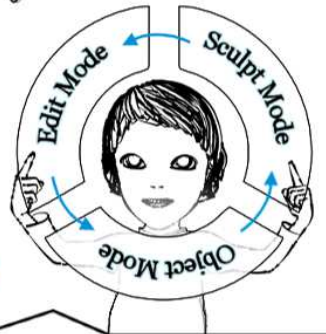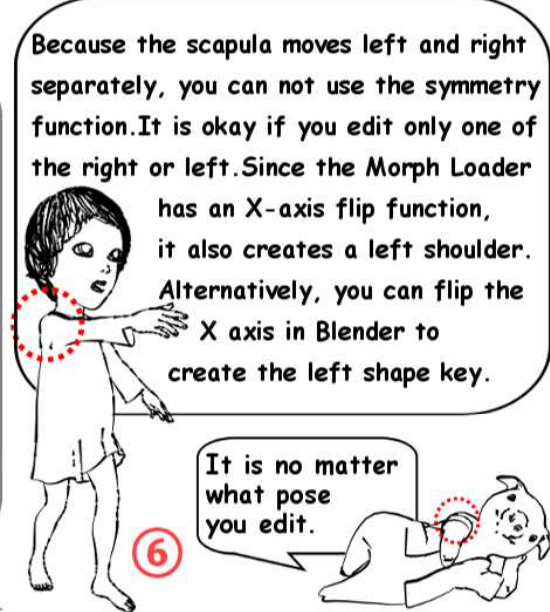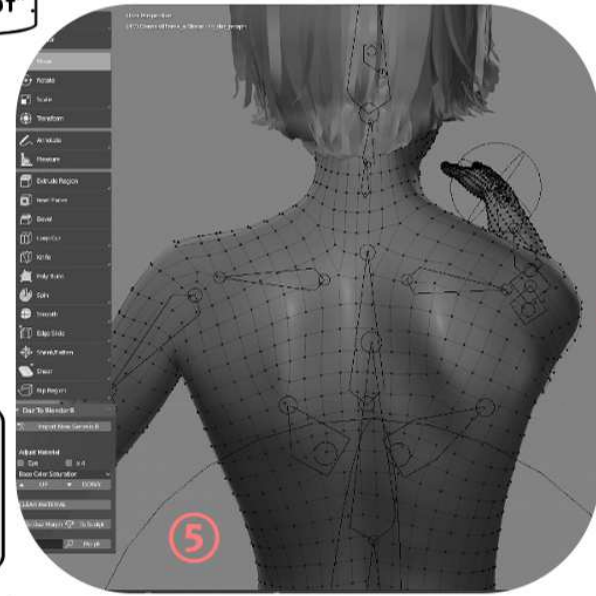
④

Each time you press the "To Sculpt" button, it will cycle through three modes: SculptMode (Outline), EditMode (Detail), and ObjectMode (Stop Editting).

①

START

⑤

⑨

FINISH

Because the scapula moves left and right separately, you can not use the symmetry function. It is okay if you edit only one of the right or left. Since the Morph Loader has an X-axis flip function, it also creates a left shoulder. Alternatively, you can flip the X axis in Blender to create the left shape key.

It is no matter what pose you edit.

⑥

After editing, export the obj file with the "To Daz Morph" button and import the morphs with DazStudio's Morph Loade Pro. The setting method is described in detail in the manual, including how to deform by rotating the bone. ⑧
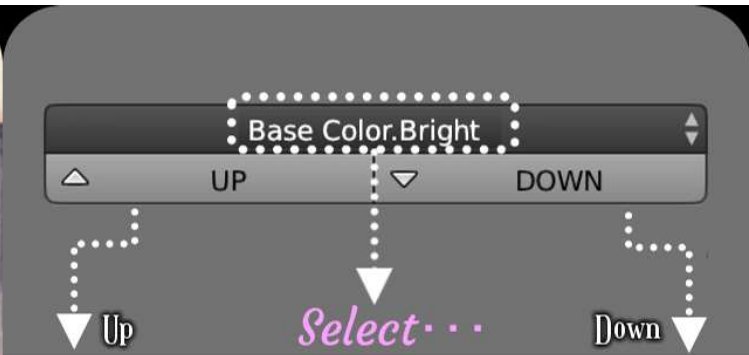
Morph Loader Pro

◁ To Daz Morph

The edit data is a shape key, so you can always try again. If you set a negative value, it may be applied to the reverse movement too

to_daz_morph　-0.719

Relative

Value　-0.719

⑦
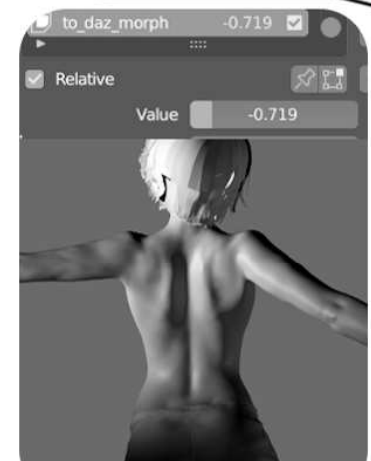
Bright

Hue

Saturation

Specular

SubSurfaceScatter

Value

Roughness

Bump

Base Color.Bright

UP   DOWN

Up   Select···   Down

Material Type