

HeadShop13 with LoveChild

For Windows

User Manual

www.abalonellc.com,

info@abalonellc.com



Abalone LLC.

First edition
November 2020

Author's copyright holder of the HeadShop program is Abalone LLC. ©AbaloneLLC 2020.
Publishing copyright holder of the HeadShop program is Abalone LLC, ©AbaloneLLC 2020.

Copying, merchandizing, public exhibiting or other commercial utilization of the software without licence is strictly prohibited.

The HeadShop User's Manual is under global author and publishing copyright.

©2020 Abalone LLC. This User's Manual was written and edited by Laslo Vespremi, Abalone LLC.

Copying, extraction or translation to another language is forbidden without the written approval of the holder of this right.

Abalone LLC

Moss Beach CA 94038, USA

Web: www.abalonellc.com

E-mail: info@abalonellc.com

ABALONE LLC IS IN NO CASE RESPONSIBLE FOR THE DIRECT OR INDIRECT DAMAGES ARISING FROM THE USAGE OF THE HEADSHOP PROGRAM OR THE HEADSHOP USER'S MANUAL.

Abalone LLC and the HeadShop are the registered trademarks of Abalone LLC

Windows is the trademark of Microsoft.

System requirements

Required hardware

WIN: HeadShop13 runs with the following minimal hardware:

A Windows-based personal computer or laptop with the following minimal requirements:

8 Gb of RAM, 64-bit

Screen of a resolution at least 1024x768, but no more than 3000

800 MB free disk space

Needed software

HeadShop13 runs under the following software:

Windows 10 operating systems, 64-bit only

DAZ Studio 4.9 or later, 64-bit version

Genesis (3,8) Base (male and female), Genesis (3,8) Starter Essentials.

To read pdf manuals Adobe Acrobat is recommended

To watch "How-to" videos Windows Media player is recommended:

<https://www.youtube.com/watch?v=s5IhOtNPzhI&t>

Abalone LLC offers tech support through email.

Email address is info@abalonellc.com

About the manual

Preface – What is New in HeadShop13?

Chapter 1 – Installation

Chapter 2 – Workflow

Chapter 3 – Advanced Operation

Chapter 4 - Troubleshooting

Chapter 5 - White Paper

What is New in HeadShop 13?

HeadShop 13 is a software product used to automatically create 3D heads from photographs. It is used inside DAZ Studio as a plugin. It works with Genesis 3 and 8 figures. HeadShop 13 is outputting a modified morph OBJ file and 4096x4096 texture files. HeadShop has been in development since 2007 and regularly introduces features not found in other photo-to-3D software.

What is new in HeadShop 13?

- HS 13 adds a new easy-to-use Profile” tab to create nose shapes
 - HS13 integrates LoveChild, an additional piece of sophisticated software that allows the morphing between two photos to create a third image. A slider can regulate the degree of resemblance to one or the other photo.
 - HS 13 introduces much improved texture belending that samples 3 separate point of skin surface.
 - HS 13 also generates full body textures and a wrinkle „bump” map.
- In addition, HeadShop 11 features a number of breakthrough technologies that cannot be found in other similar programs. See Chapter 3 – White Paper.

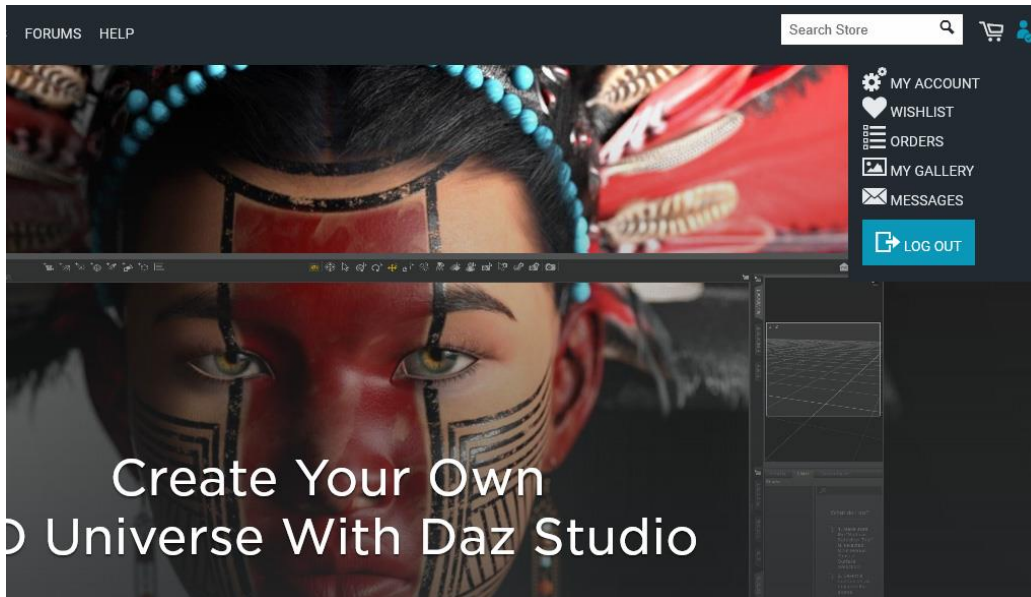
See „How-to” video here: <https://www.youtube.com/watch?v=s5IhOtNPzhI&t>

Chapter 1 -Installation

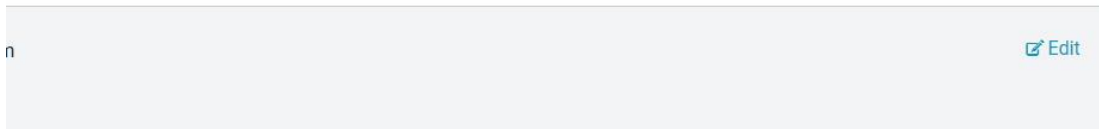
HEADSHOP 13 README, LICENSE_INFO

Where is my License key?

Open “daz3d.com” and go to “My Account”



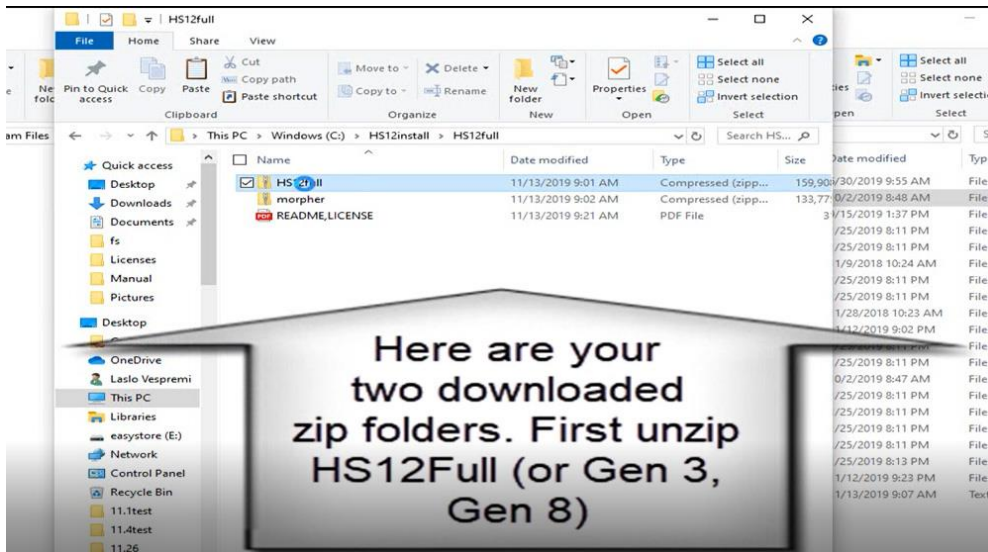
Find “Serial Numbers” and open.



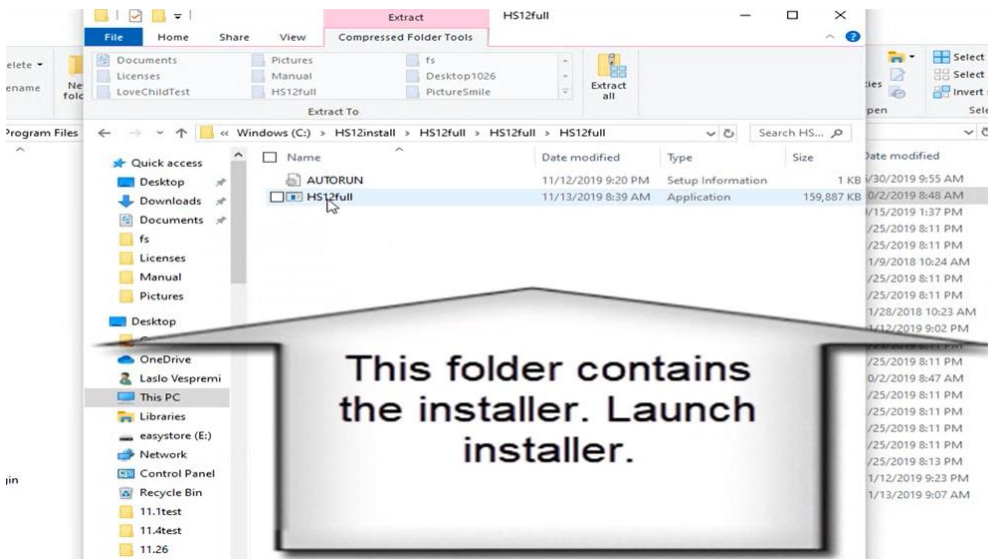
How do I install HeadShop 13?

You will download two separate zip files: “HS13Full” (or HS13forG3, HS13forG8) and “morpher”.

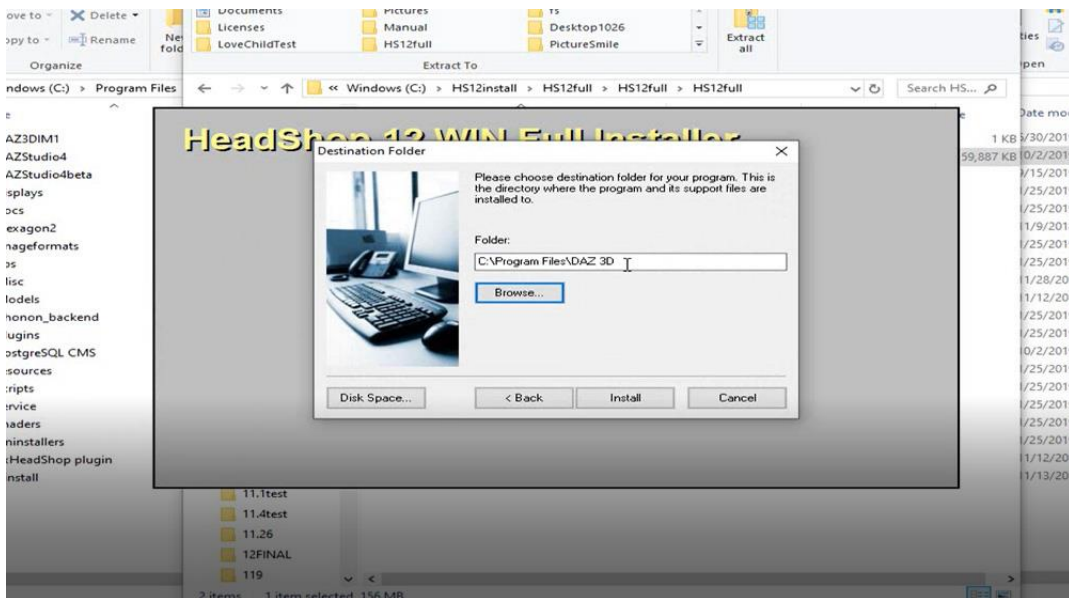
1. Unzip HS13 zip file



2. Run Installer

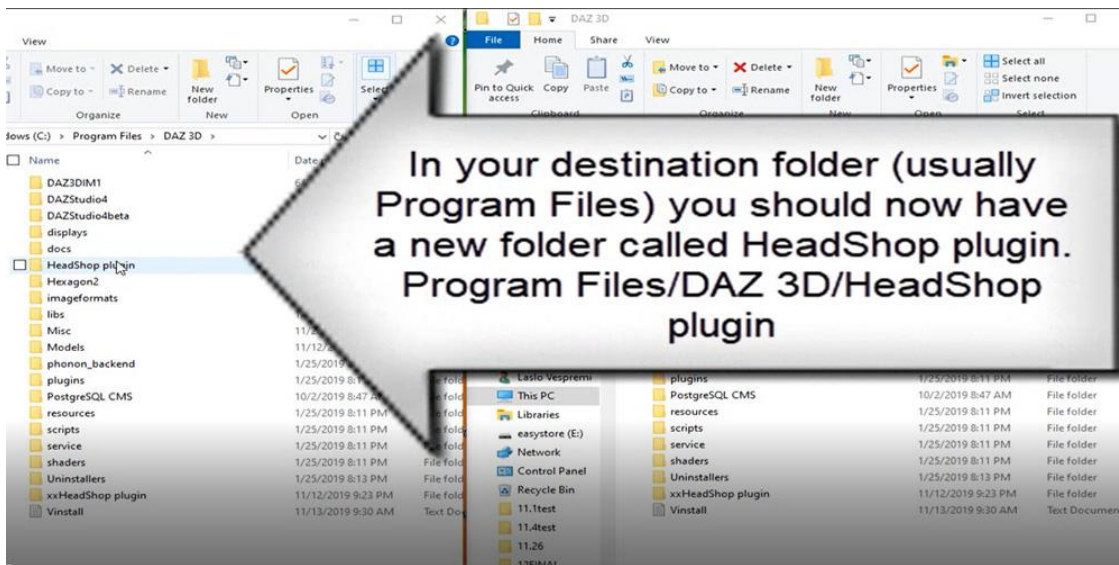


3. When browsing for “Destination folder”, find your “DAZ 3D” application folder inside Program Files. For users who installed DAZ Studio on a different drive, pls. Browse to that location and select „DAZ 3D” folder.



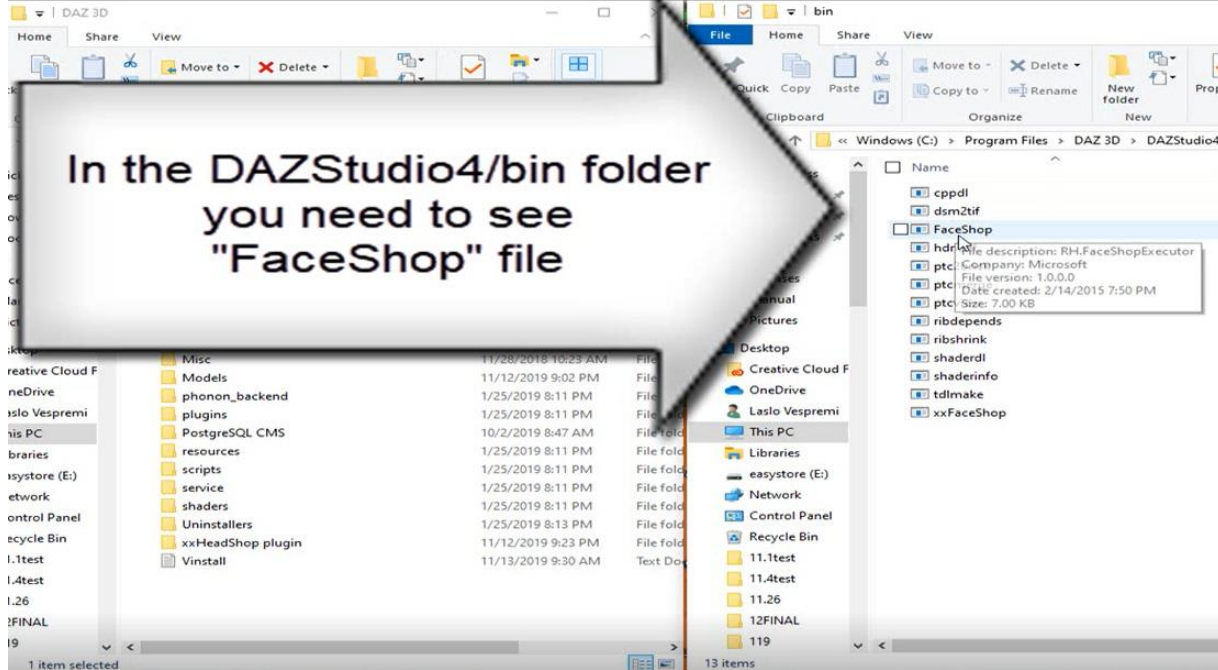
4. Make sure you have installed correctly. Navigate to “DAZ 3D” and find “HeadShop plugin” installed.

Hint: Your DAZ 3D folder MUST include a folder called „DAZStudio4” with the full working DAZ Studio application

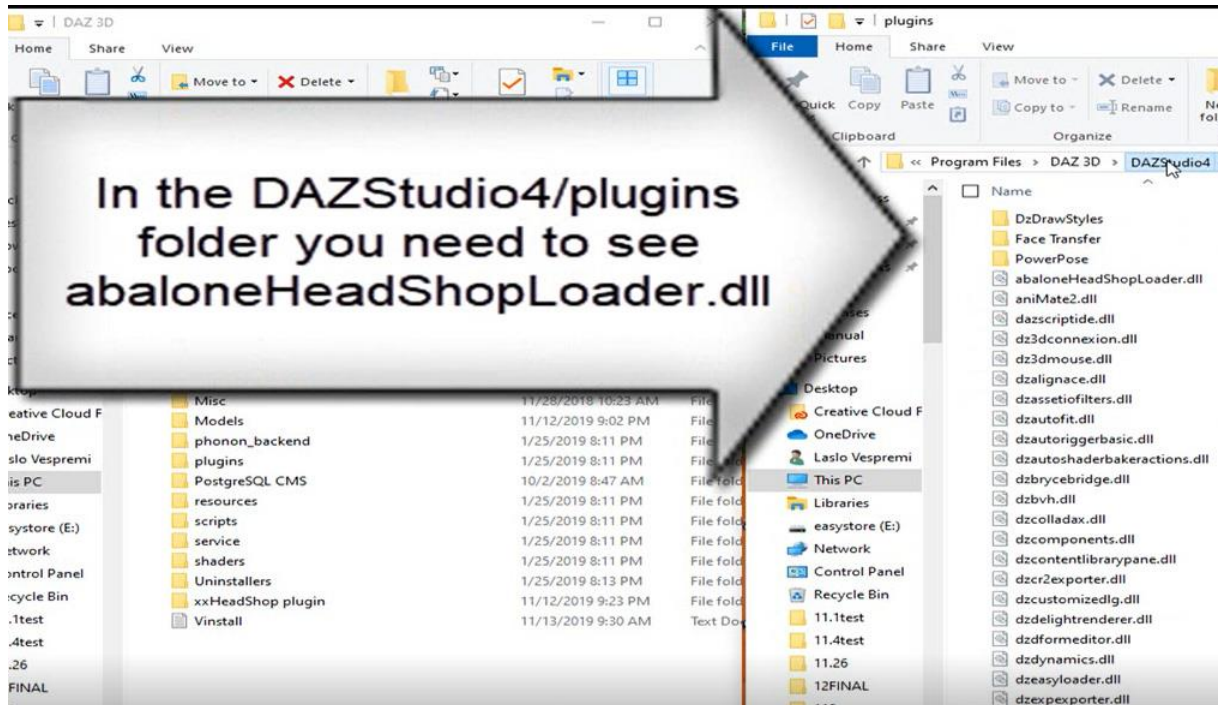


5. Check for other three files inside the “DAZStudio4” folder

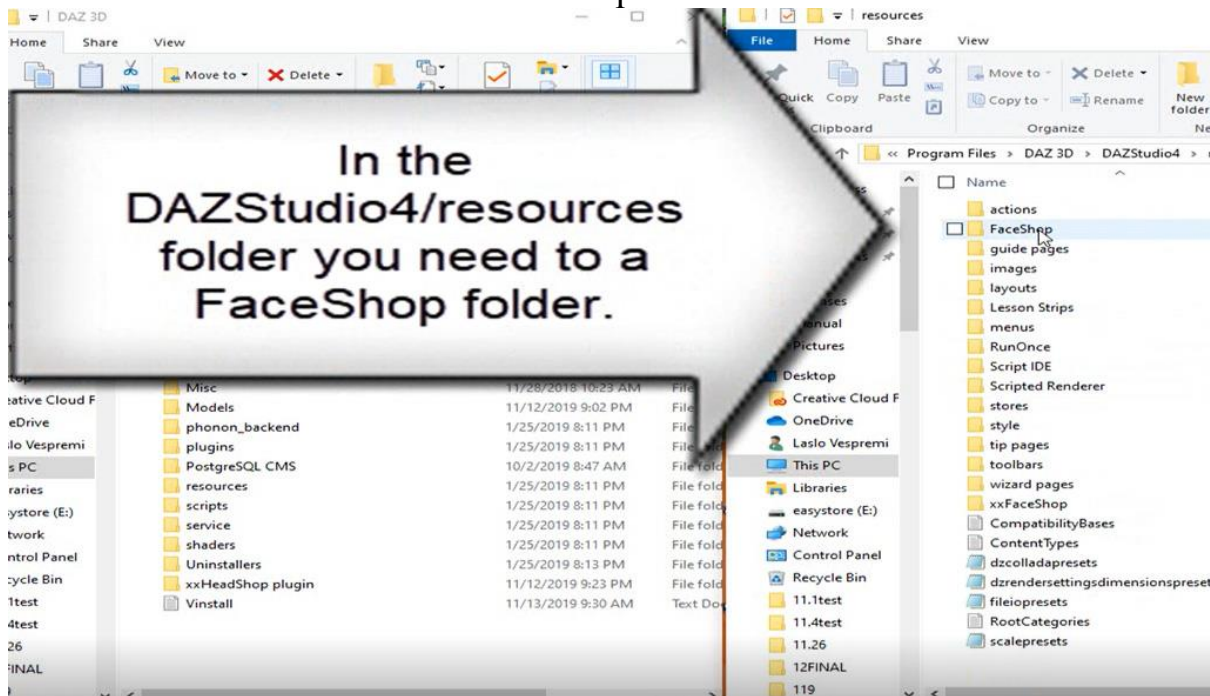
The first one is in the “DAZStudio4/bin” folder called FaceShop.



The second file is in the “DAZStudio4/plugins” folder, called “abaloneHeadShopLoader.dll”



The third file is a folder called “FaceShop” inside the “DAZStudio4” folder.



6. Next you need to extract the second zip called “morpher”. Simply drag it inside your „DAZ 3D/HeadShop plugin” folder

You are done!

If you need to see a video about installing HeadShop 13, pls click here:

<https://youtu.be/Q0ZTJRAL7s8>

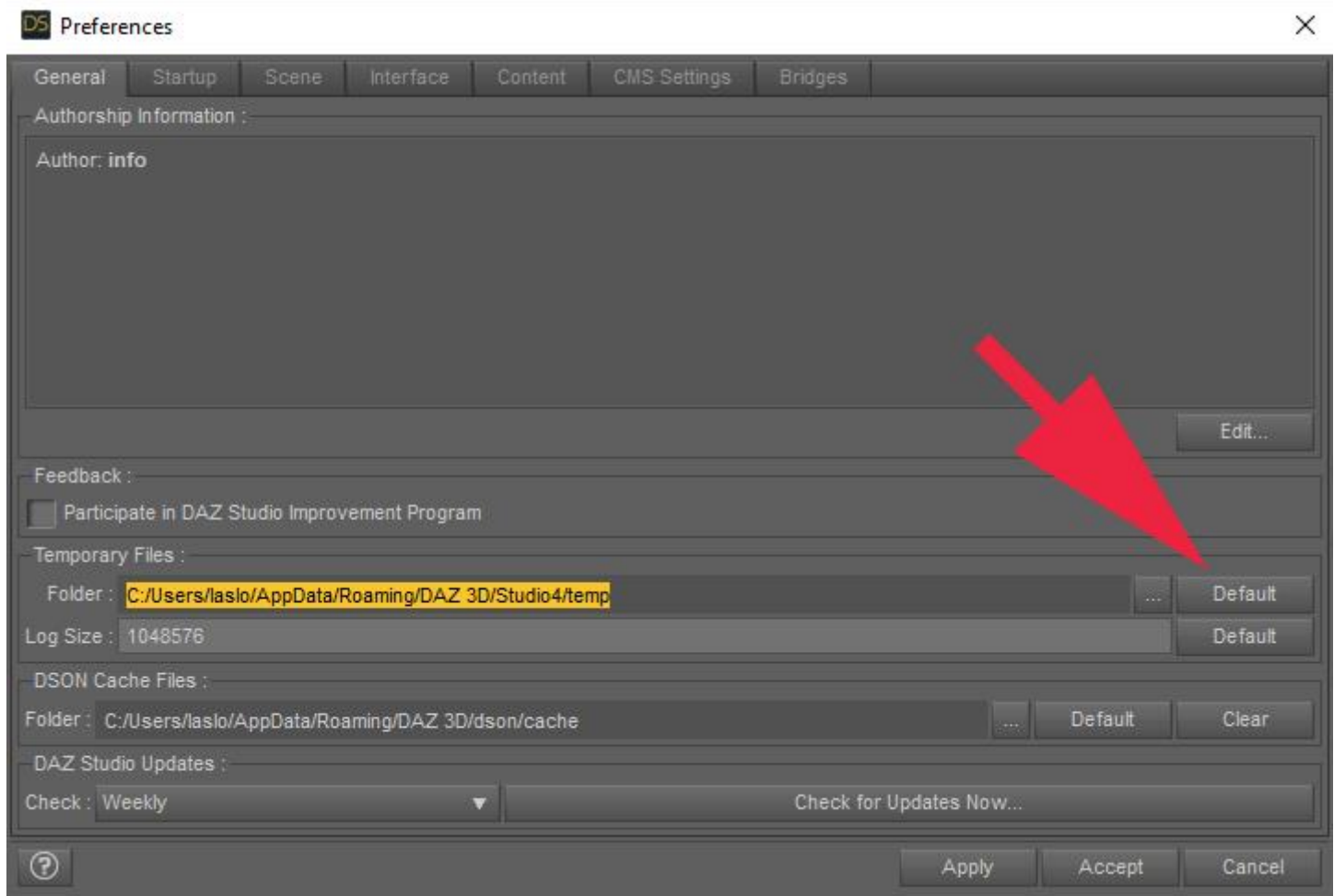
Chapter 2: Workflow

Video: <https://www.youtube.com/watch?v=s5IhOtNPzHI&t>

The following is an overview of the workflow as outlined in the video above. We use the DAZ Studio 4.9 to explain how HeadShop13 is used with DAZ Studio. In HeadShop 13 every new task is explained in a Teach Panel. These panels also have video links to also see the tasks on a video,

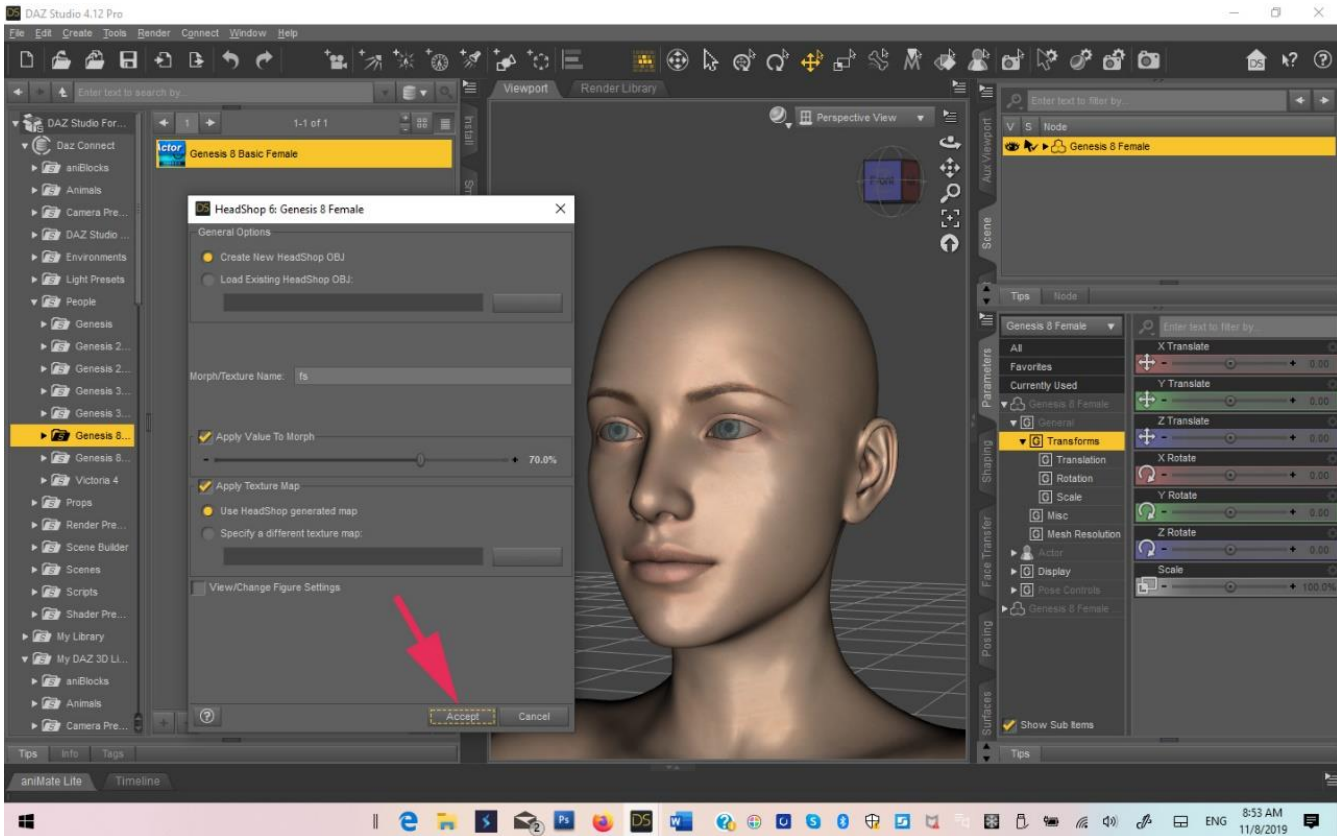
Step 1. Place a Genesis 3 or 8 character on stage as shown.

It is a good idea to open your Edit/Preferences panel in DAZ Studio to ensure that your Temporary Files folder is set to default: c:/Users/yourname/Appdata/Roaming/DAZ 3D/Studio4/temp



Make sure that the figure in Scene is selected before launching HeadShop. Launch HeadShop 13 from the „Edit” menu. In this version the texture and geometry files will be selected automatically. Click Accept.

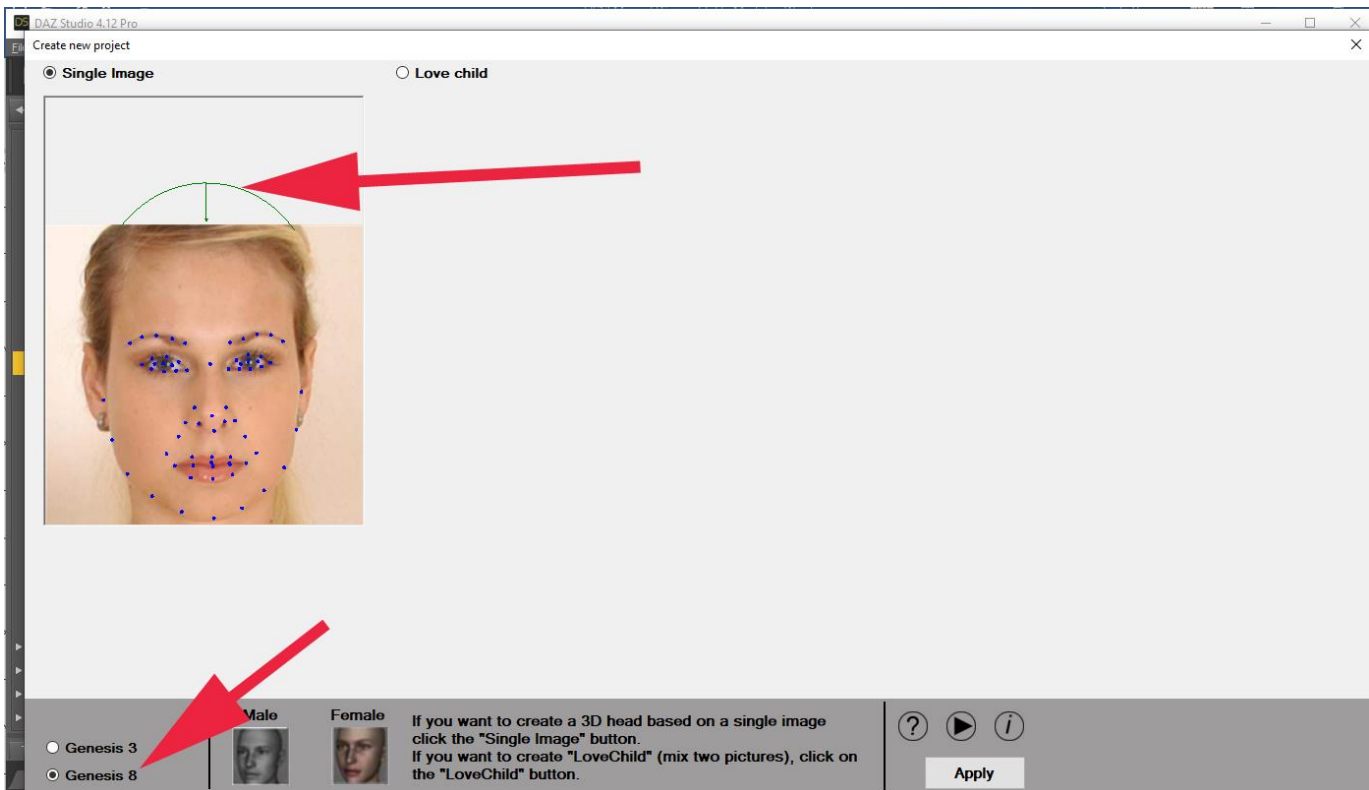
Note for Genesis 8 users: There seem to be a DAZ bug in handling Eyelashes as a separate figure inside the Gen 8 figure. To avoid losing eyelashes after morphing, please „unparent” them before launching HeadShop. (See in details in Chapter 4- Troubleshooting)



Step 2. In the new LoveChild you have two choices.

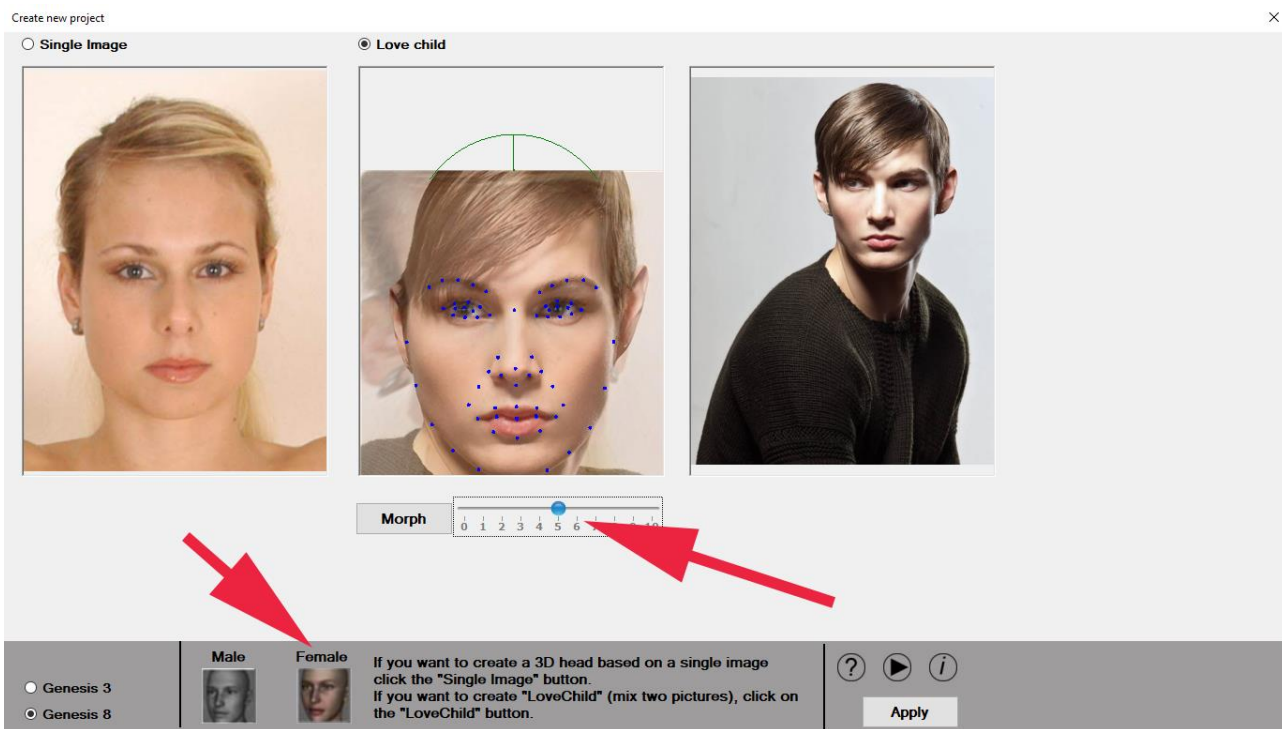
- You can select a single photo when you click on the Selection dialog you will need to browse or drag a photo in the selection area. Notice that over 50 points are automatically identified on the photo, as well as auto-identify gender (you can change the gender at this point). You still need to select the Genesis figure you are working with.

Note: It is important that you move the „top-of-head” circle to coincide with the top of the skull (often obscured by hair) to avoid shape distortions.



Step 3. You can also use two photos to create a „LoveChild” and use that image to create a 3D head.

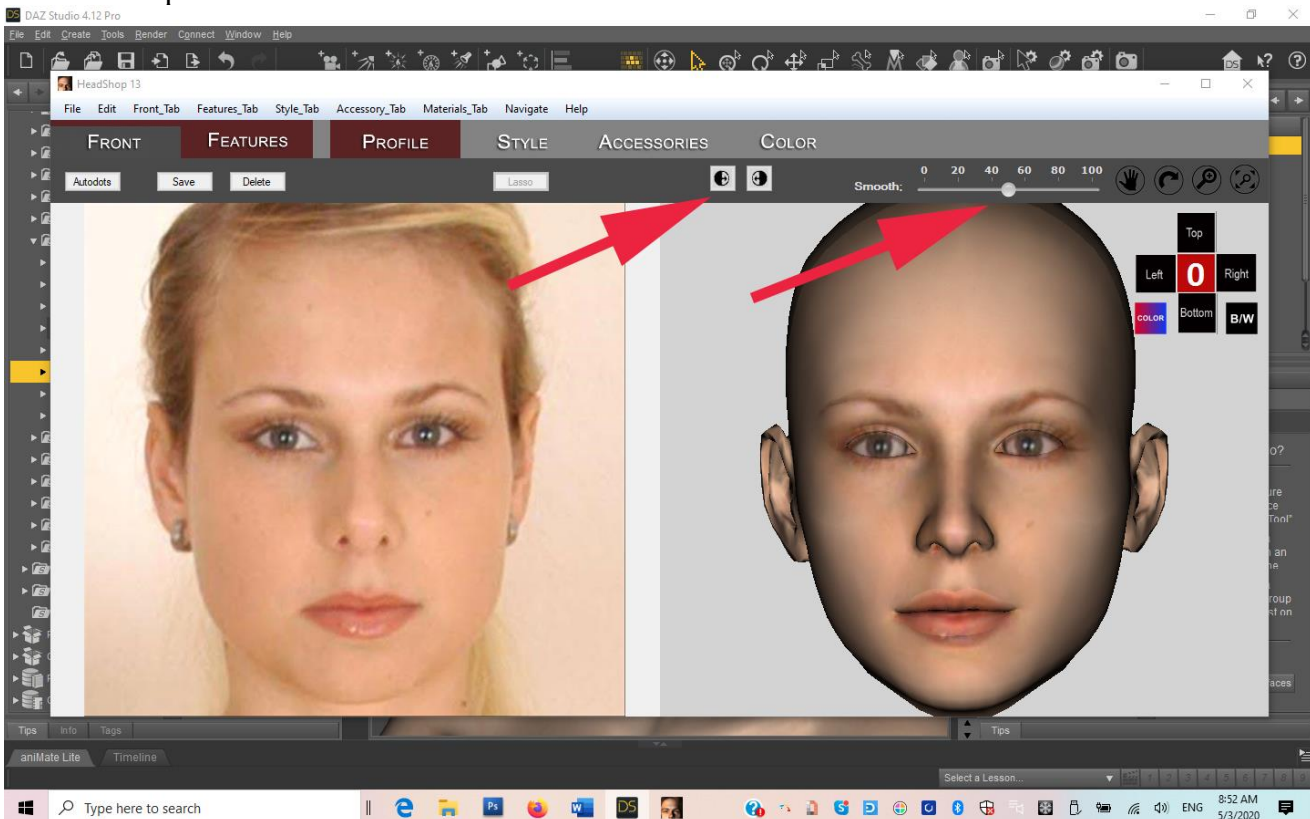
Note: while most photos will work with HeadShop, there maybe a few that are not. Try a different photo!



Use the sliders to make the „Child” resemble one or the other „Parent”. You can also adjust the „top-of-head” green circle. Choose your Genesis figure and the appropriate gender.

For this Tutorial we continuing with the single image of the womsn. After clicking „Apply”, your main work area loads. You will see your original photo on the left and the 3D head on the right side of the screen.. Use the „Smoothing” slider to smooth or unsmooth,and the „Mirror” buttons to mirror a better side over the head before exporting.

A word about „Autodots”. This is advanced operations and can distort the head. Pls. See more about it in [Advanced Operations](#).

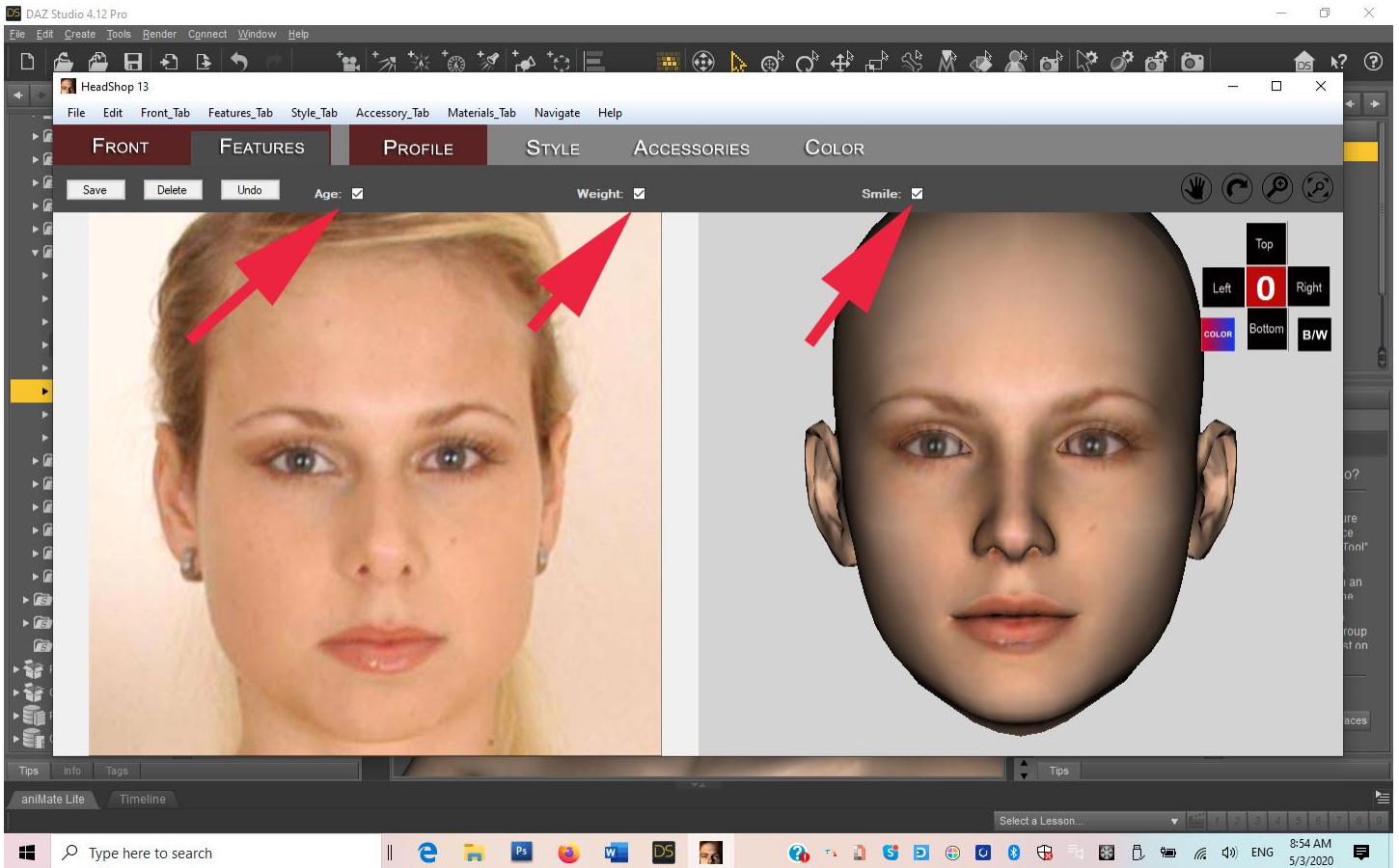


If you are happy with the picture, you can click „Export” or export it under File/Export. Don't worry – you will still have an opportunity in DAZ Studio to import morphs, accessories or hair later. Export will terminate HeadShop and transfer back both the morph and the texture to your Genesis figure.

OPTIONAL STEPS (tabs)

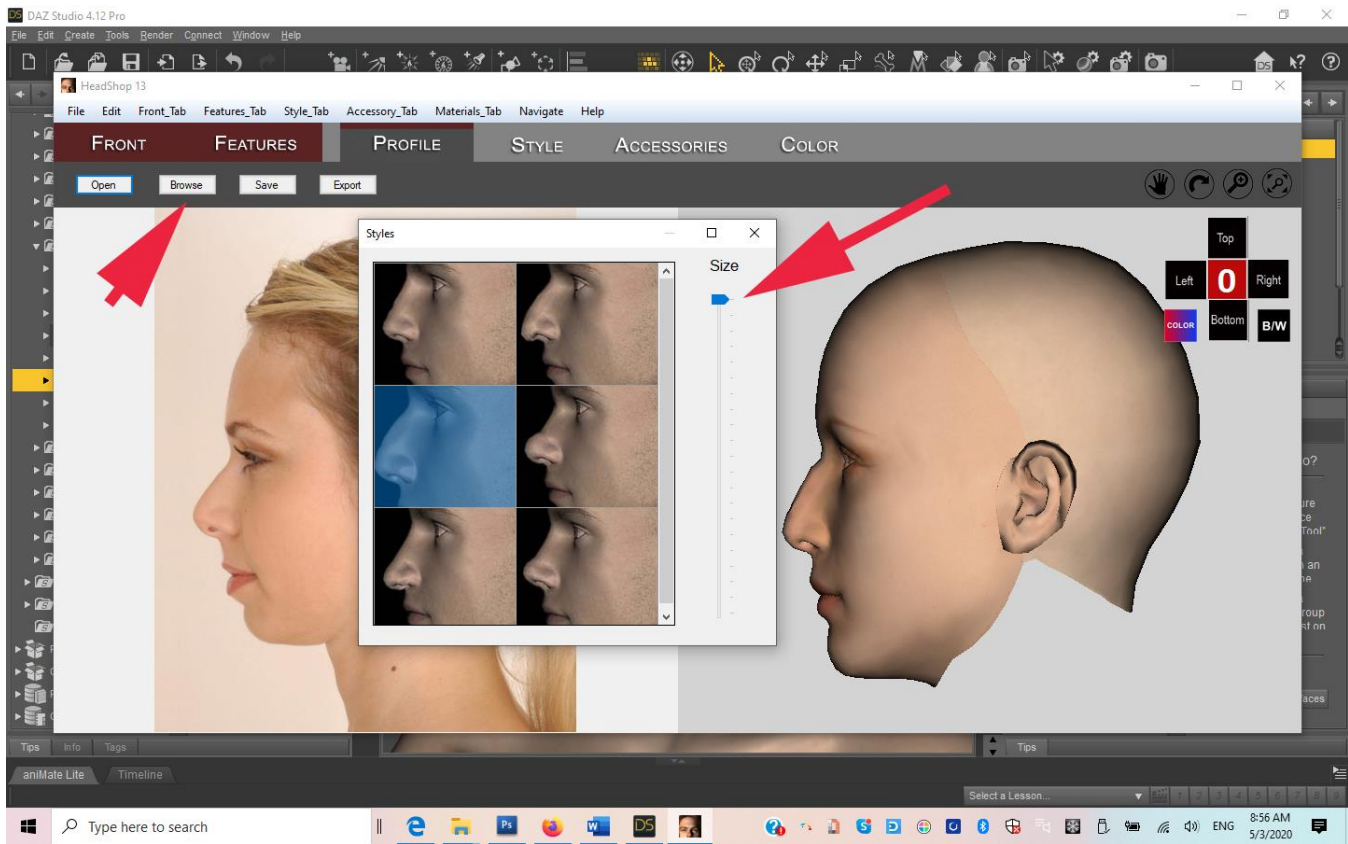
Step 4. Features Tab

Features Tab offers you three checkboxes to export Age, Weight and Smile morphs for later use.



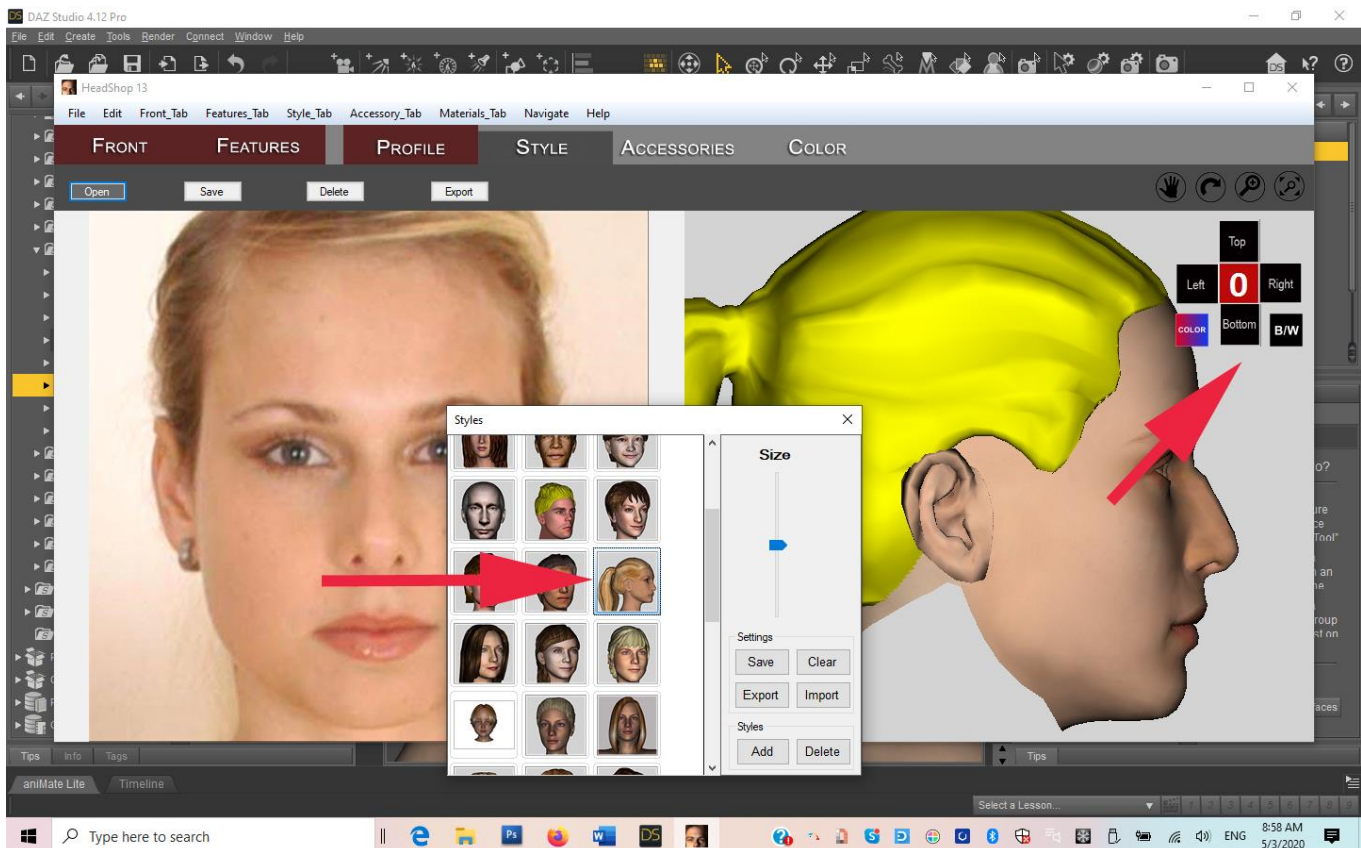
Step 5. Profile Tab (optional)

This is a new Tab, designed to work on the nose shape. You may load a Profile (reference) image by clicking the „Browse” button. Next click the „Open” button to load the nose library. Use the slider to add shape from 0% to 100%



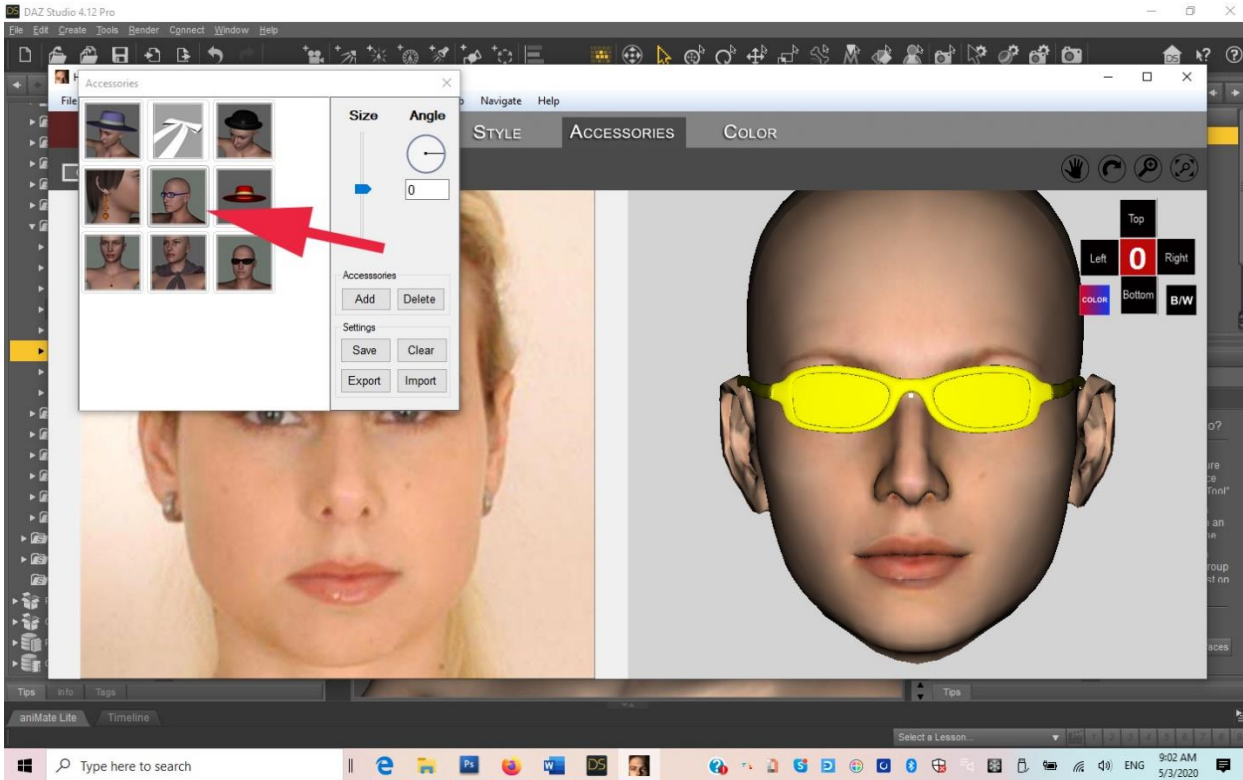
Step 6. Style Tab (optional)

When you open the „Style” tab and open the Hair library, you can select and drag a hair over to the right side to the 3D head. Use the Navigational cross to view the 3D head from different sides and position the hair right. Using the „Size” slider, you may adjust the size of the hair for perfect fit. If you want to try a different hair, simply choose one and drag over. This will replace the previous hair style.



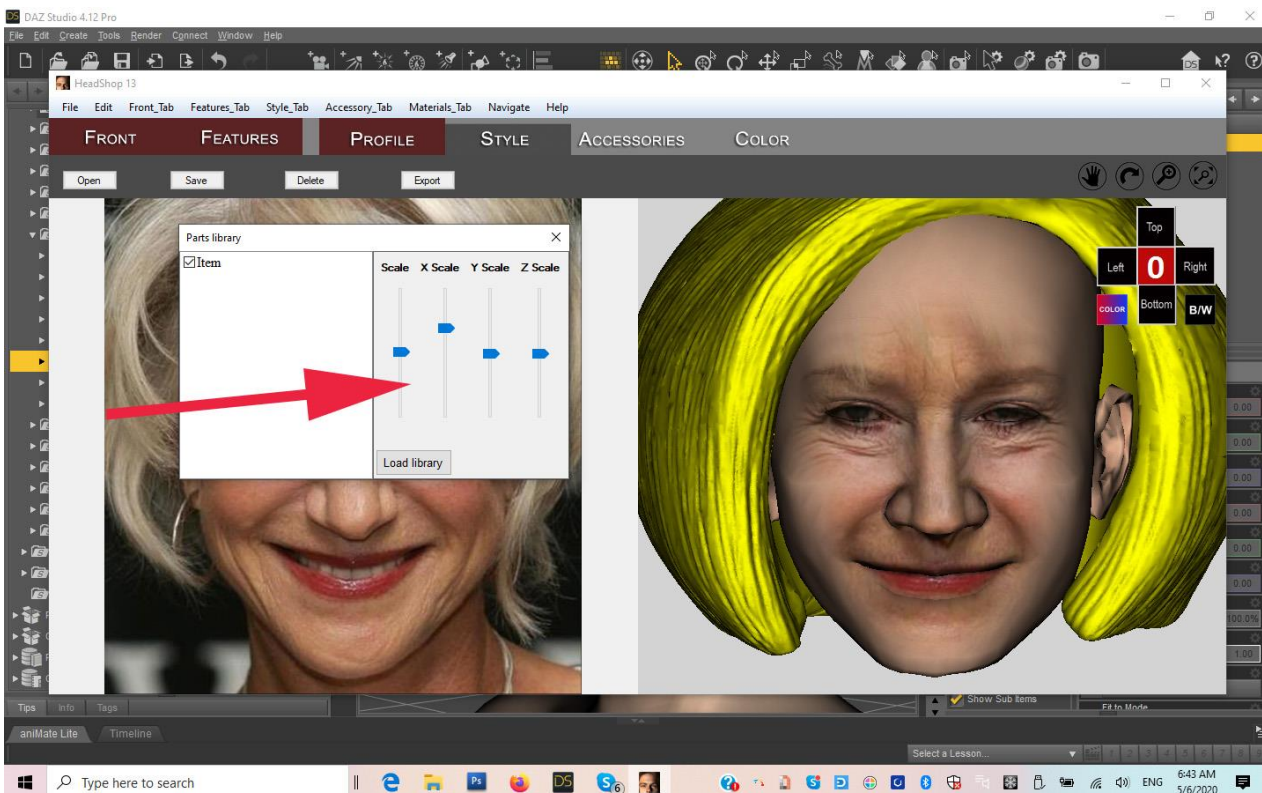
Step 7. Accessories Tab (optional)

Using this tab you can add eyeglasses, hats or jewelry to your model. Works the same as „Style”. All applied hair and accessory item are saved in Users/Public/Documents/Runtime/FaceShop/fs folder and can be imported in DAZ Studio later.



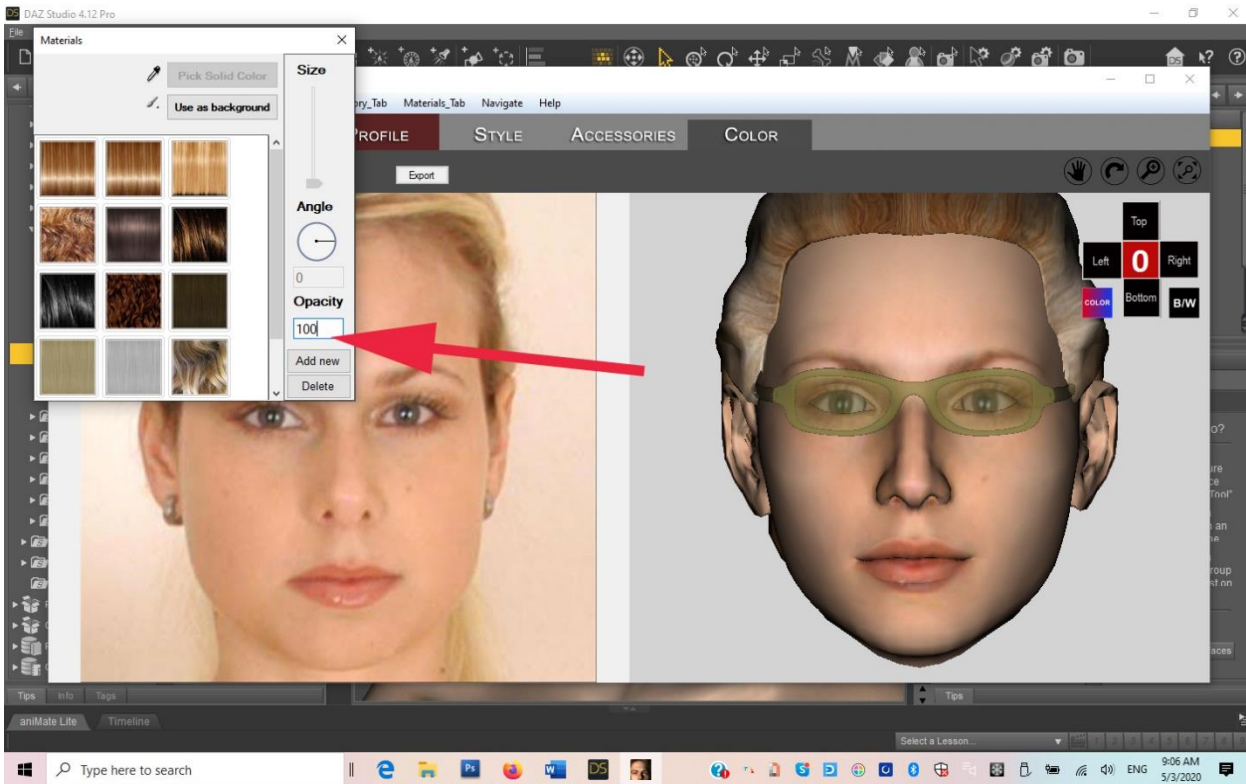
Note: Parts Library

You can show/hide any parts and even resize all three dimensions in Edit/Parts Library

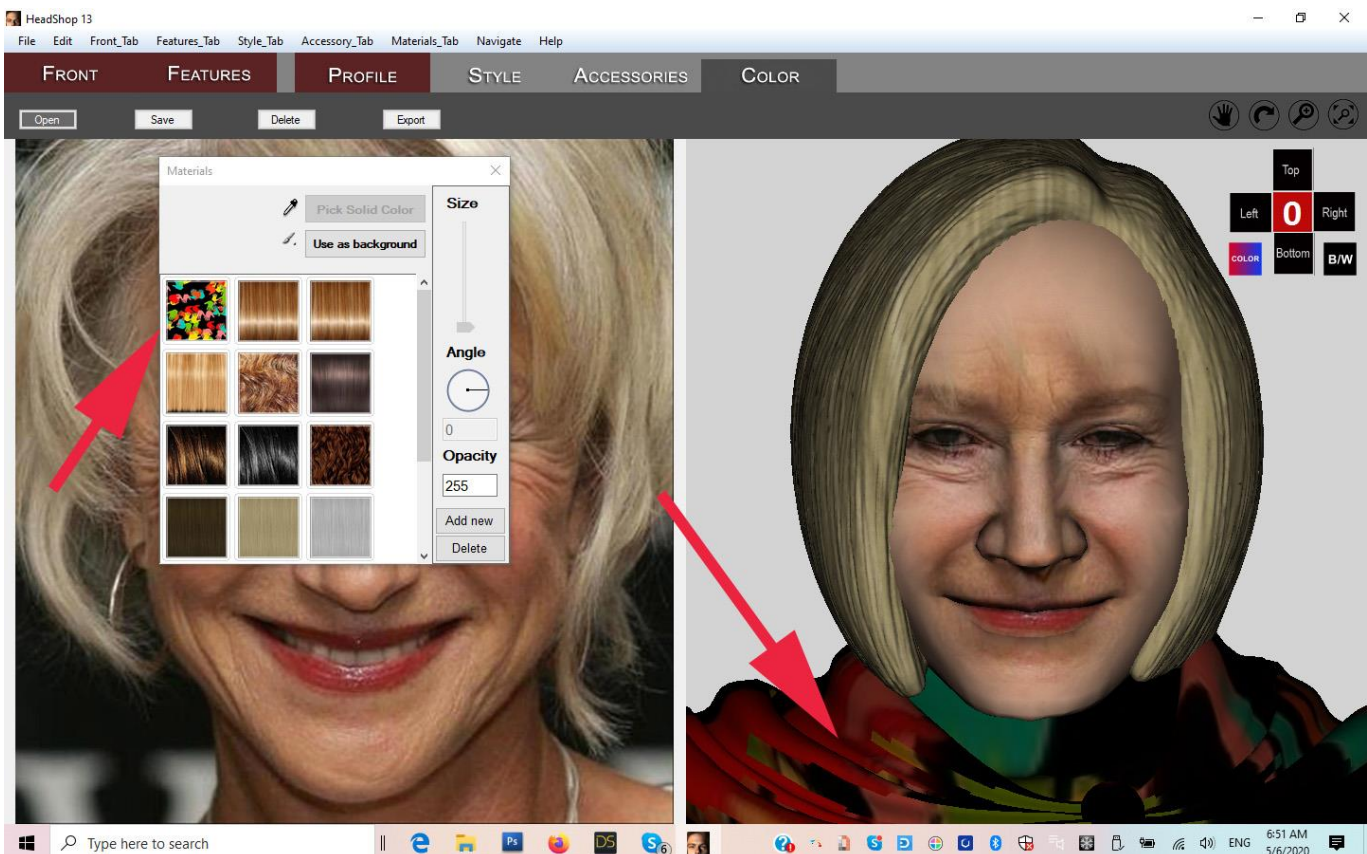


Step 8. Color Tab (optional).

In this tab you can choose a hair (highlights in yellow) and apply texture to the hair. You can alter the hair color by selecting a different color in the „Pick Solid Color” box. You may color the accessory the same way, and even apply transparency by changing transparency from 256 to maybe 100.



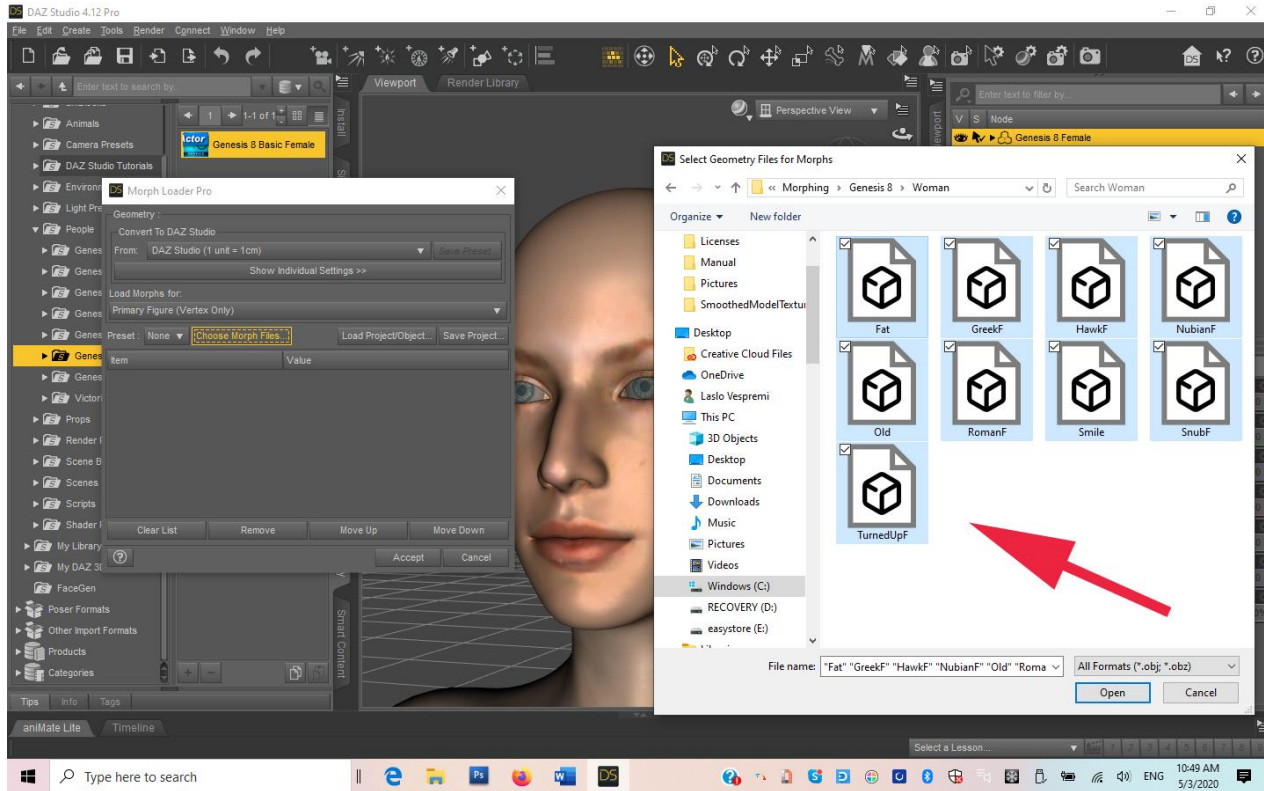
Note: You can add hair texture or any other texture by simply clicking the „Add New” button and browse for the new pattern.



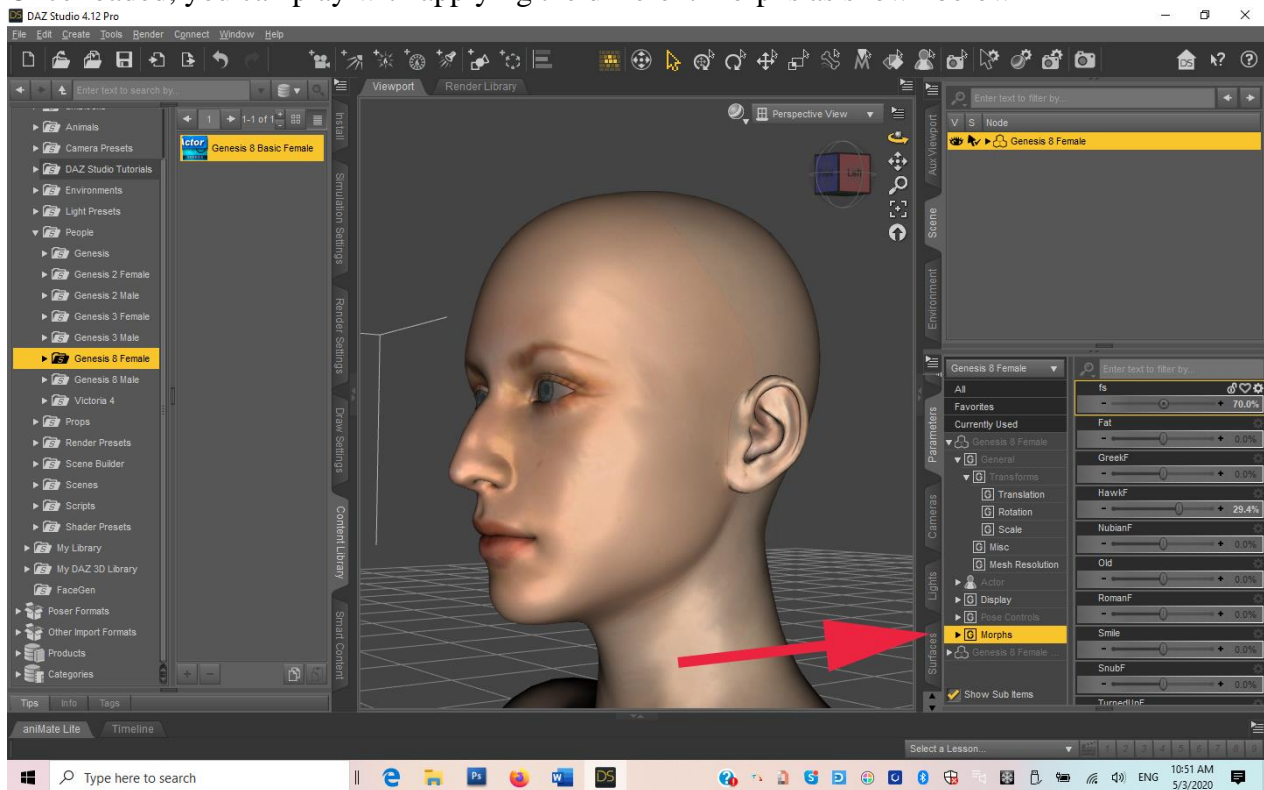
Using the „Export” button (or „File/Export”) will always close HeadShop and export your head and textures back to DAZ Studio.

CONTINUE IN DAZ STUDIO (a few tips).

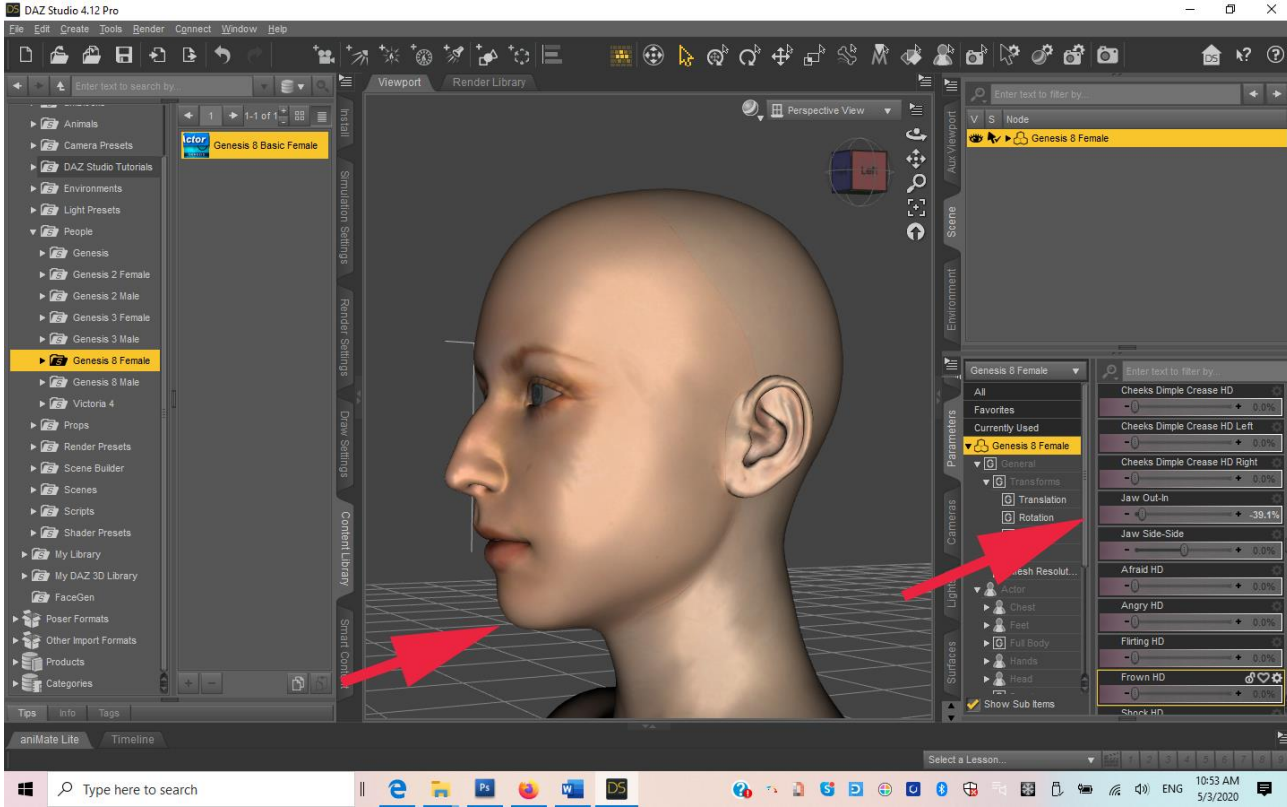
When HeadShop closes, it transfers the headshape and the face textures to the figure in DAZ Studio. In order to work more on the headshape, you may want to batch-load all the morph files from „HeadShop plugin/Models/Morphing/Genesis 8/Woman” as shown.



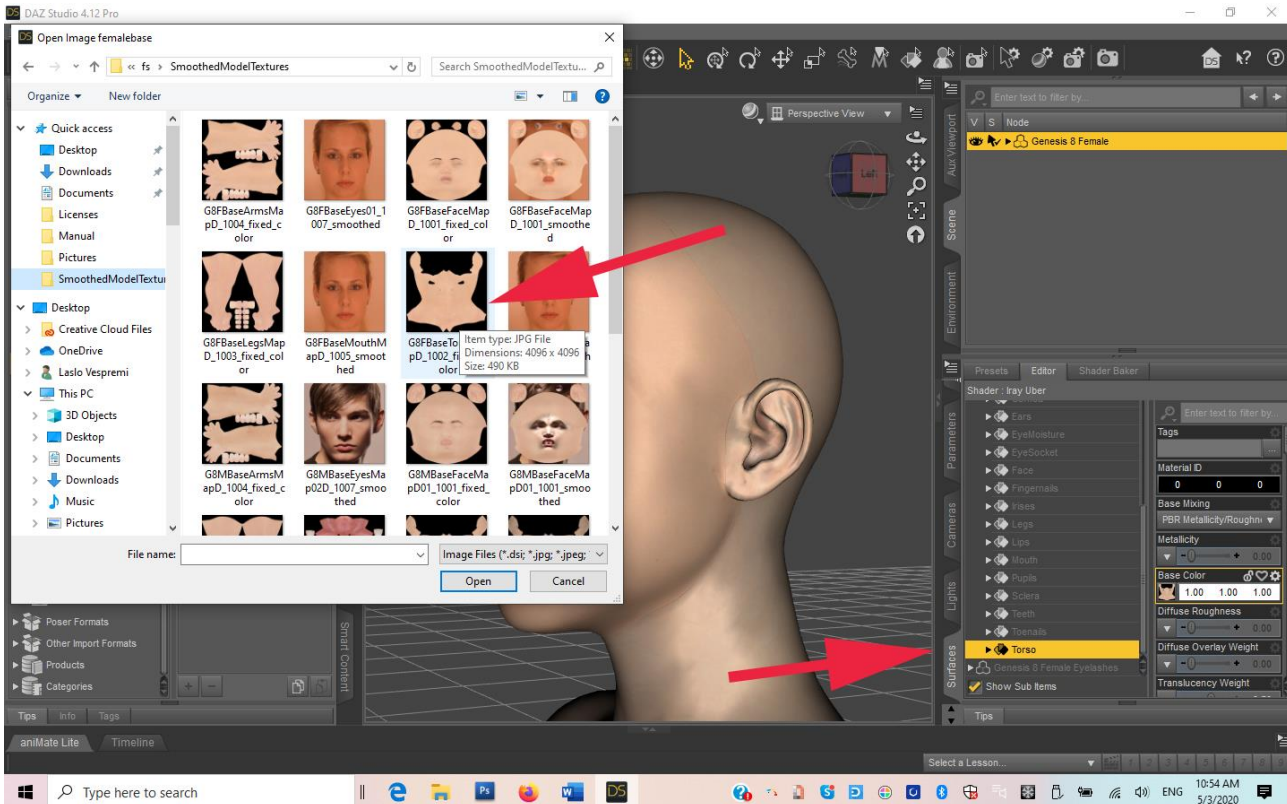
Once loaded, you can play with applying the different morphs as shown below



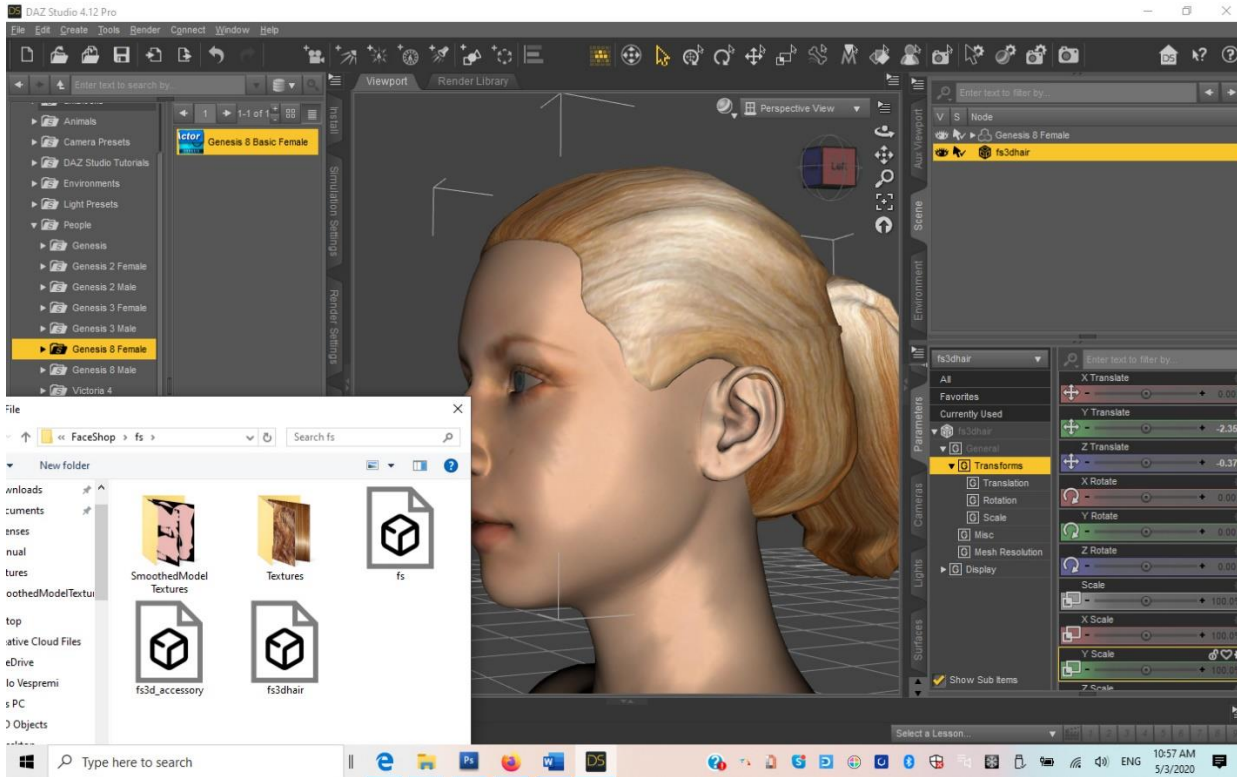
To get the profile perfect, you can also use DAZ Studio's own dials, as we did by moving the jaw back to give her more character.



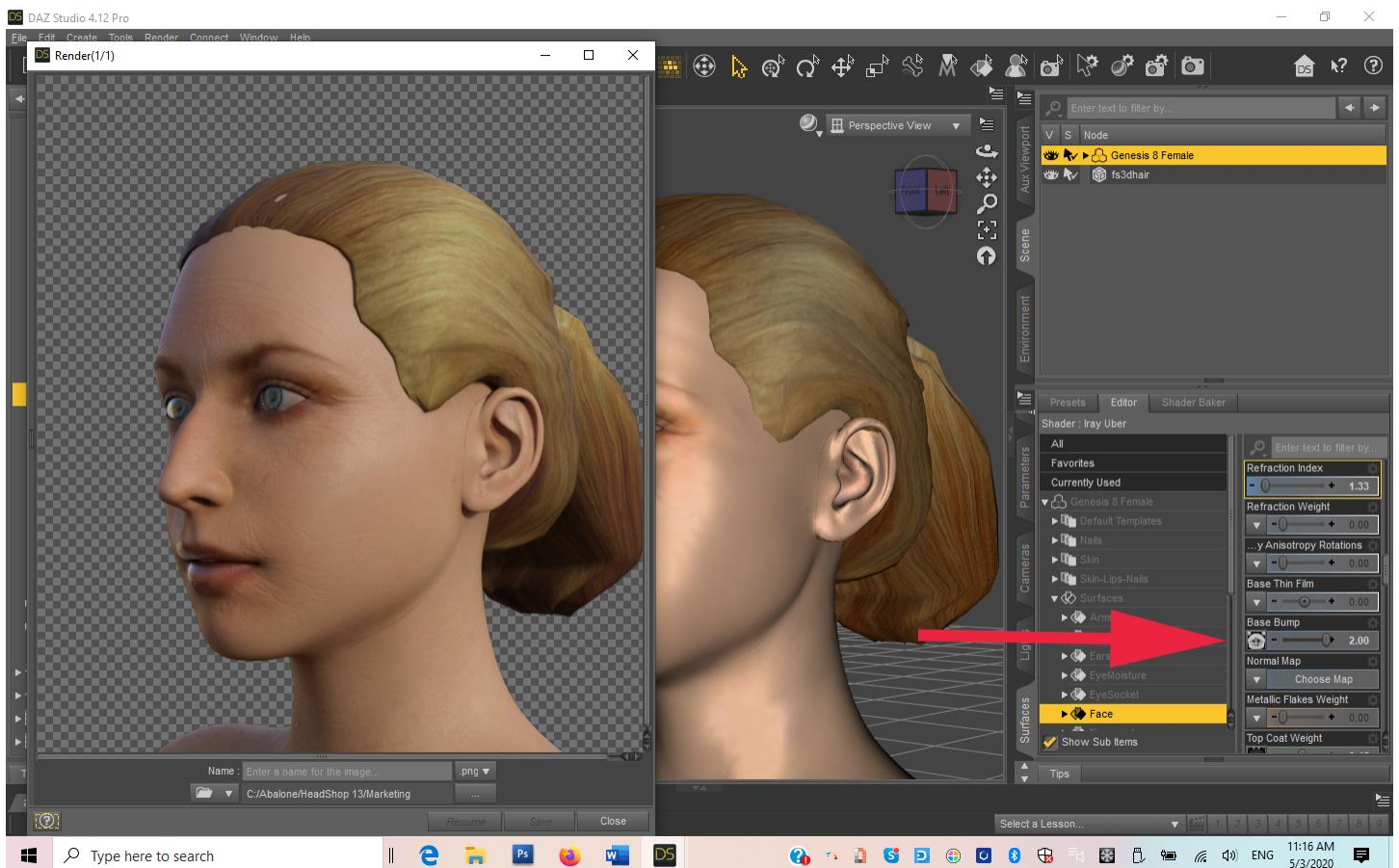
After getting the shape right, you can load additional textures such as Torso, Legs, Arms from Users/Public/Documents/My DAZ 3D Library/Runtime/HeadShop/fs/SmoothedModelTextures



Lastly, you could import (File/Import) the generated hair from Users/Public/Documents/My DAZ 3D Library/Runtime/HeadShop/fs or use another hair with this model.



Before rendering we also added a 20% wrinkle map from Users/Public/Documents/My DAZ 3D Library/Runtime/HeadShop/fs/SmoothedModelTextures to add some texture to the rendering.



Chapter 3: Advanced Operations

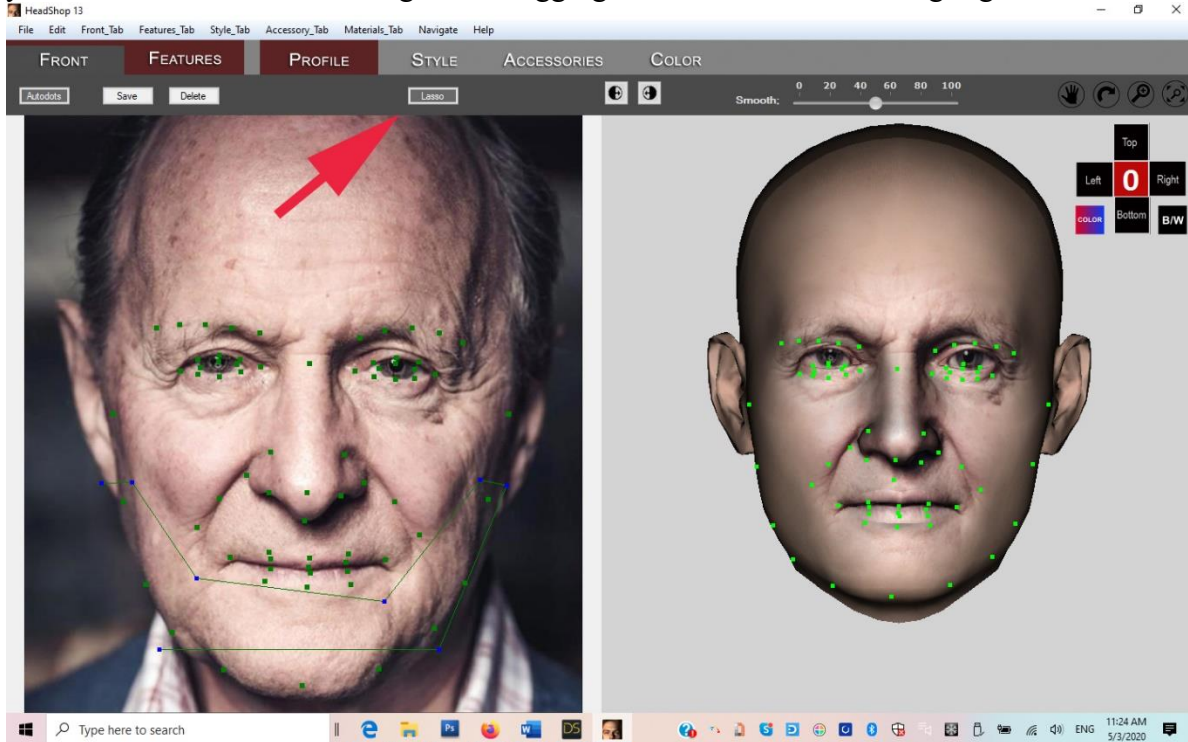
In the following we offer a few hints for Advanced Operations.

Using (carefully) Autodots

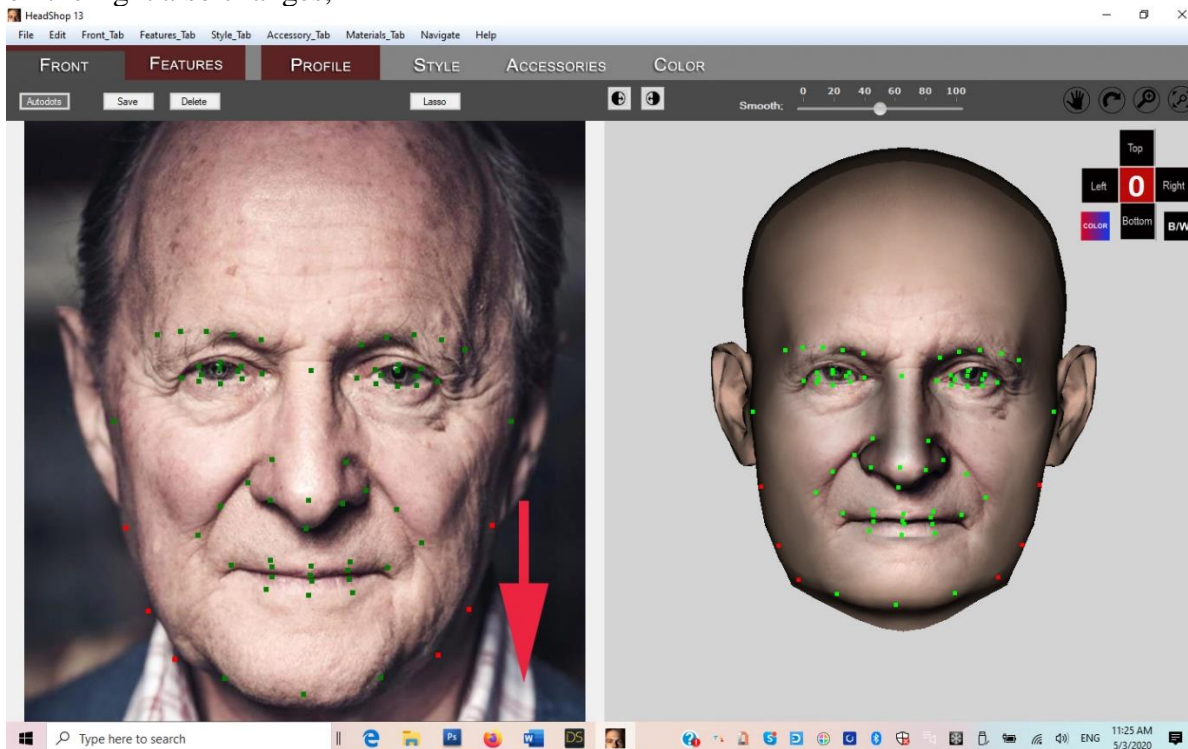
In general Autodots are difficult to use, so use them only if you don't mind some failures.

In this demo we show how to change the shape of the head to mimick sagging skin.

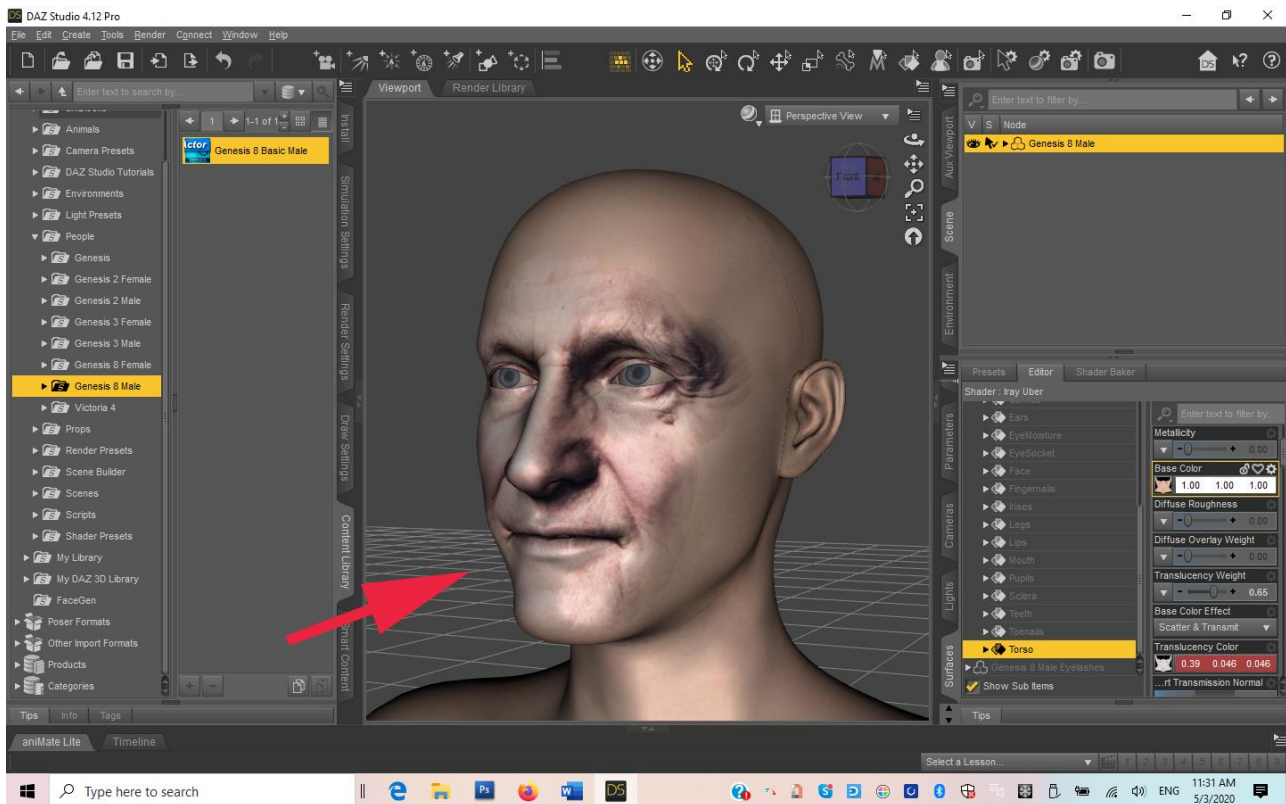
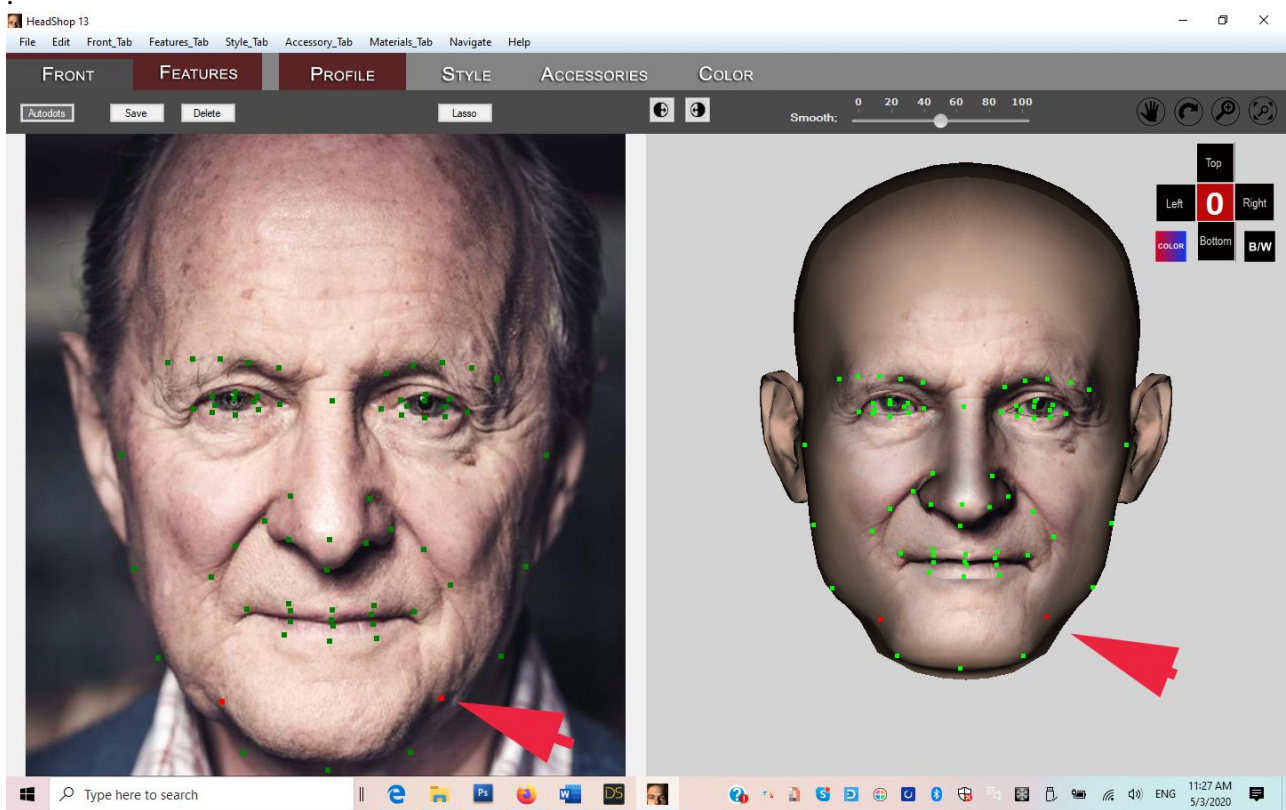
Step 1. Start by clicking on the Autodots button. This will place significant dots on both the photo (left screen) and the 3D head (right screen). Clicking on the „Lasso” button, you can draw around the dots you want to move „unison” to give the sagging look. The dots will be highlighted in red.



Step 2. Move down the dots together on the left screen to the desire position. Observe how the 3D head on the right also changes,



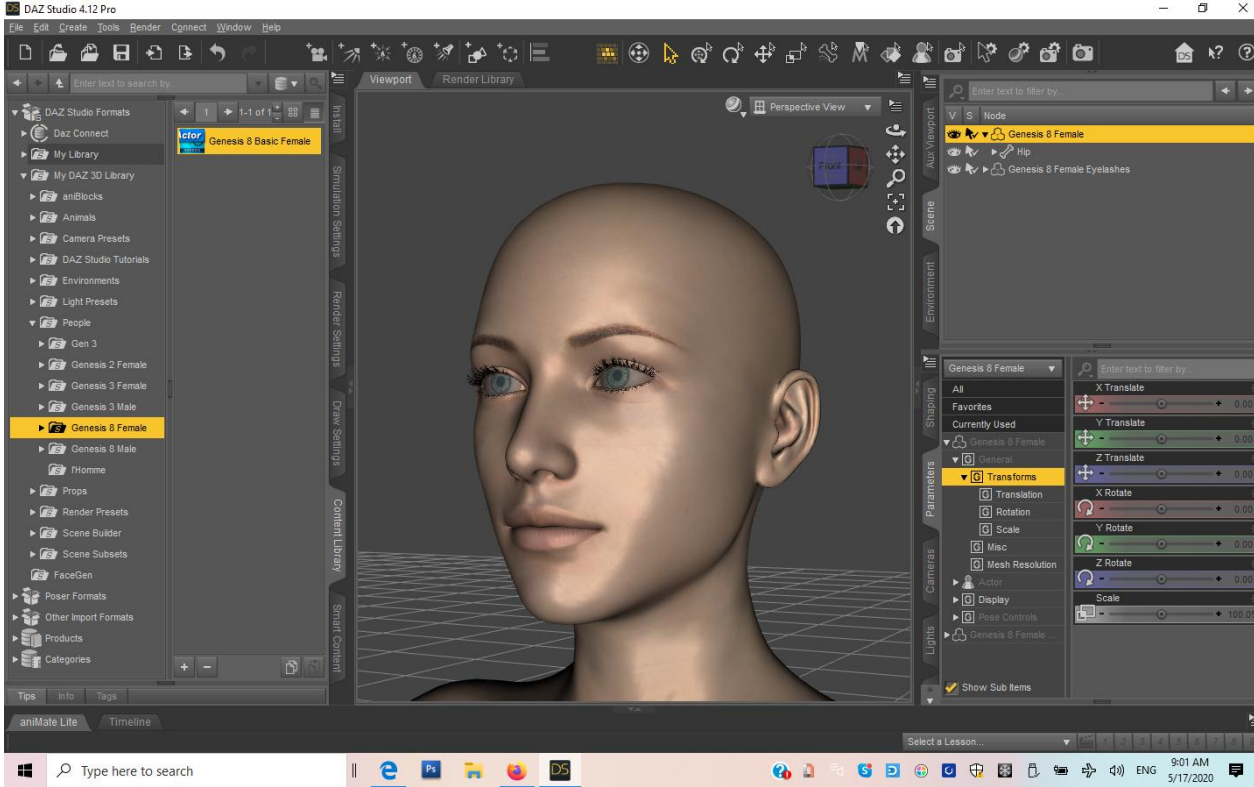
Step 3. Now select the 2 points of the indentation and move the inward. This way you get the desired shape with the sagging sides. Export.



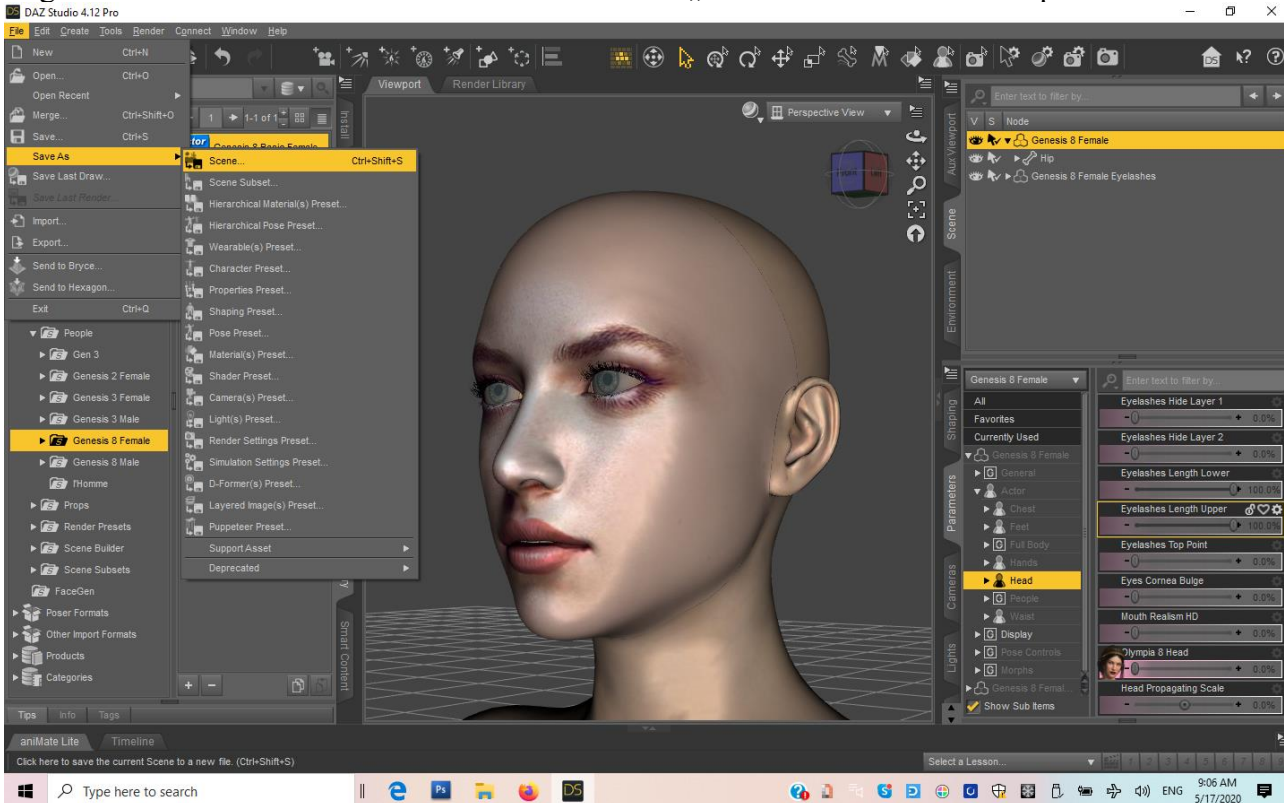
„Layering” Different Characters

This is a technique that we have experimented with; compounding characters in the same workflow. We are not sure if this will be useful in creating new characters – but it is an option.

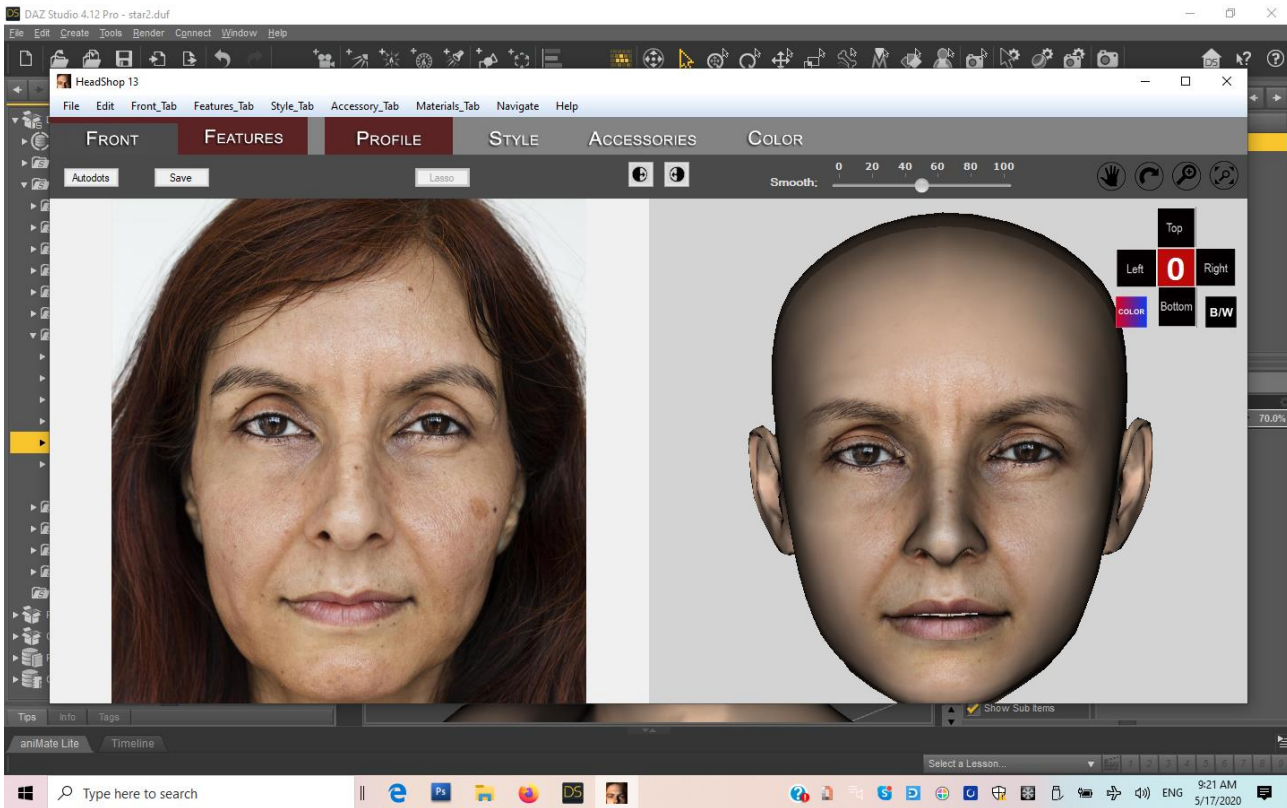
Step 1. We start as usual with a character (Gen 8 Base Female) on stage. Next we launch HeadShop 13 and go through „Round 1”



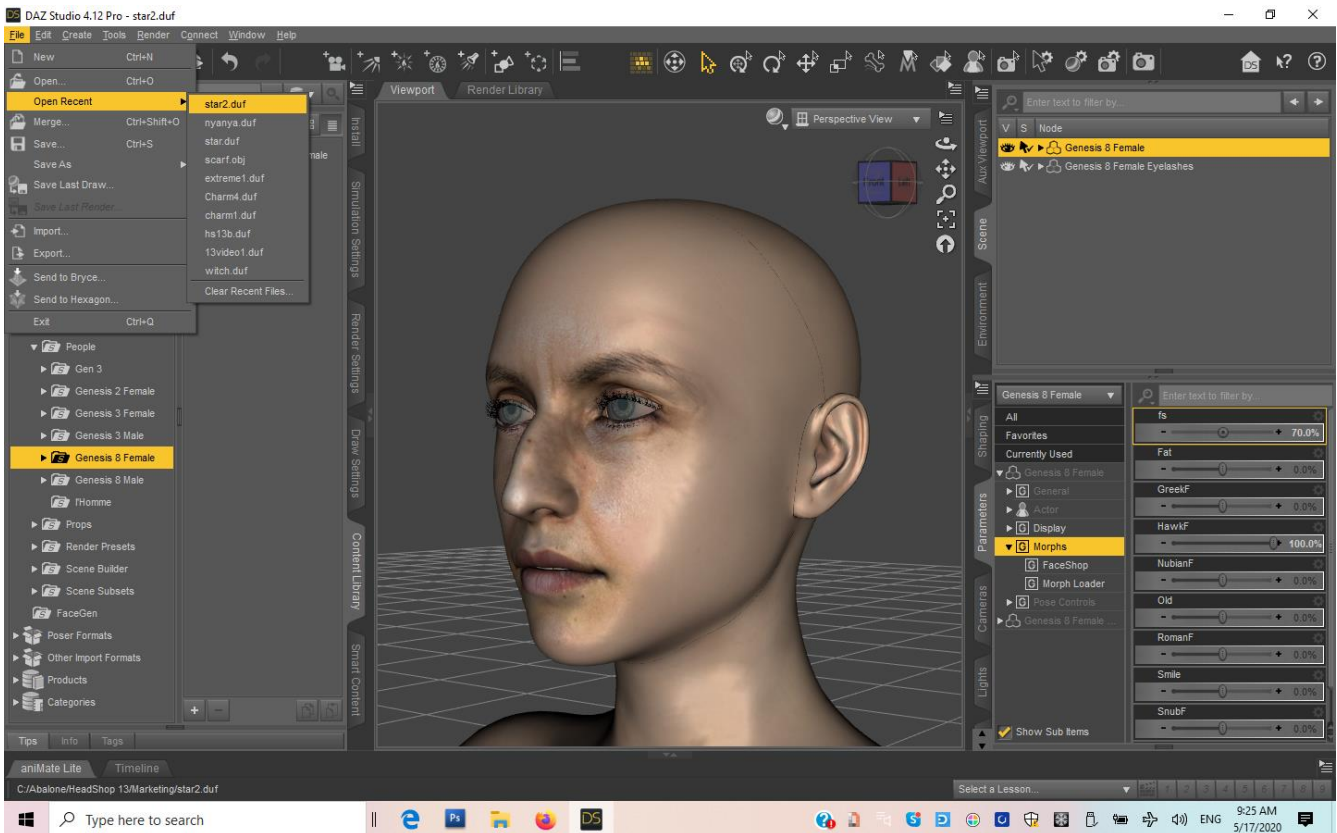
Step 2. After creating the new figure, we save this new figure as a „scene” for later use. Next we delete the original Gen 8 and load the saved scene. Now comes „Round 2” with a different photo.



Step 3. In „Round 2”: we find a different photo and load it with HeadShop. Create new figure and export it.



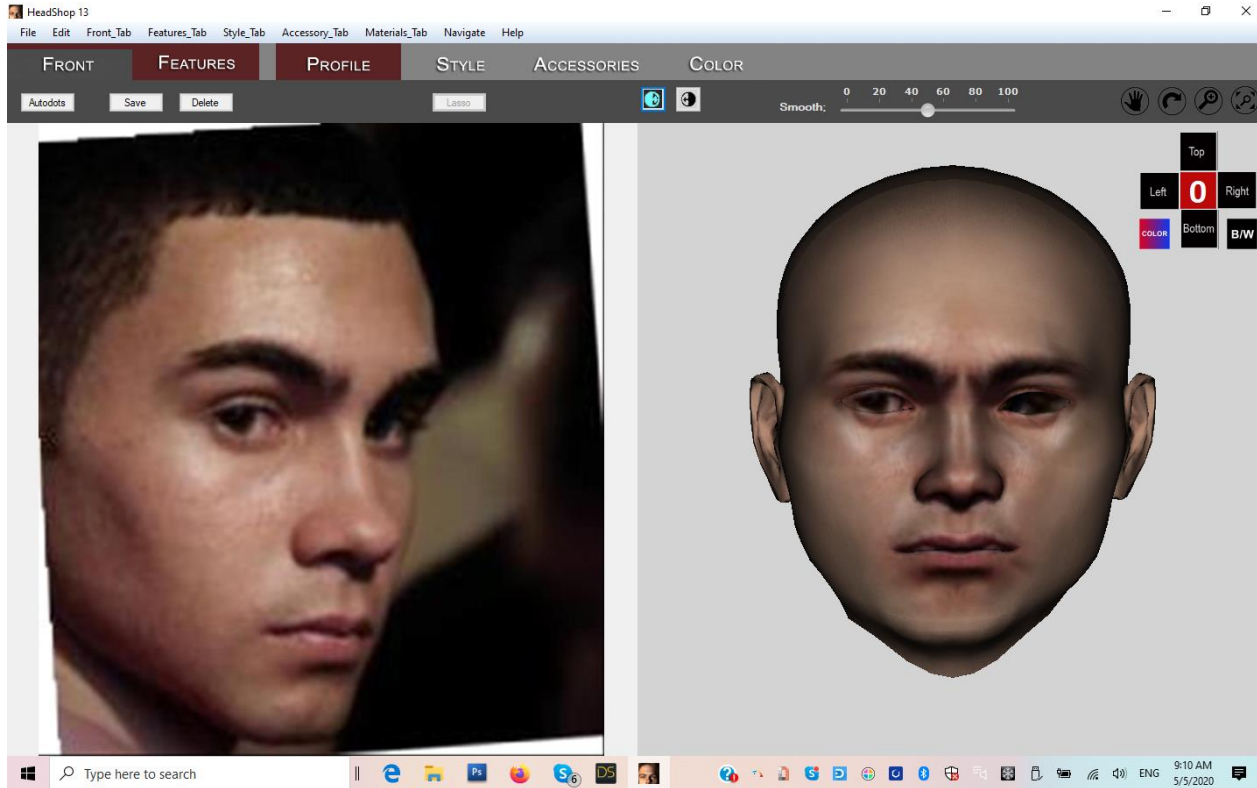
Step 4. Back in DAZ Studio the new head is not loading to the figure. We need to delete figure and reload the scene that we saved before. Low and behold, the new head is added to the saved scene and we now have an amalgam of the two different photos as expressed by shape but with the second photos texture.



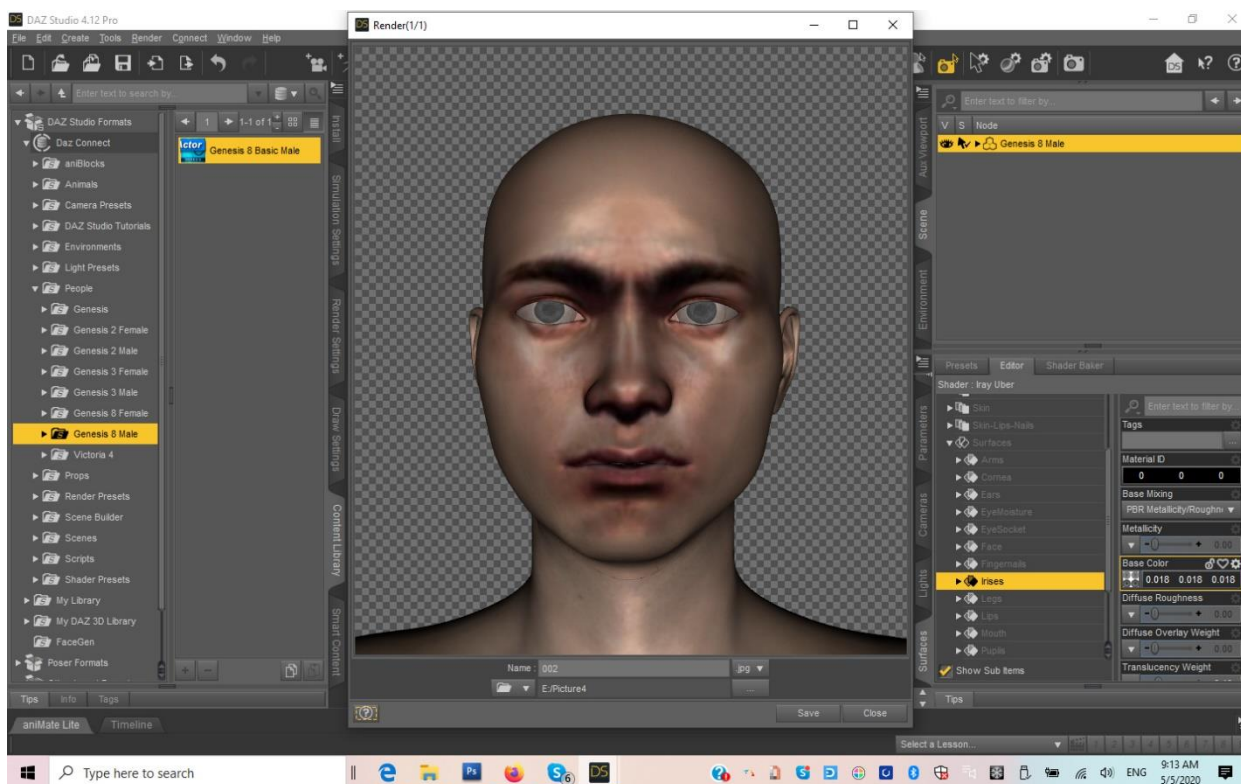
Extreme Sculpting with Autodots

In this example we will take advantage of HeadShop's unique capability to take an extremely rotated head and turn it straight frontal. A little cumbersome but works 😊

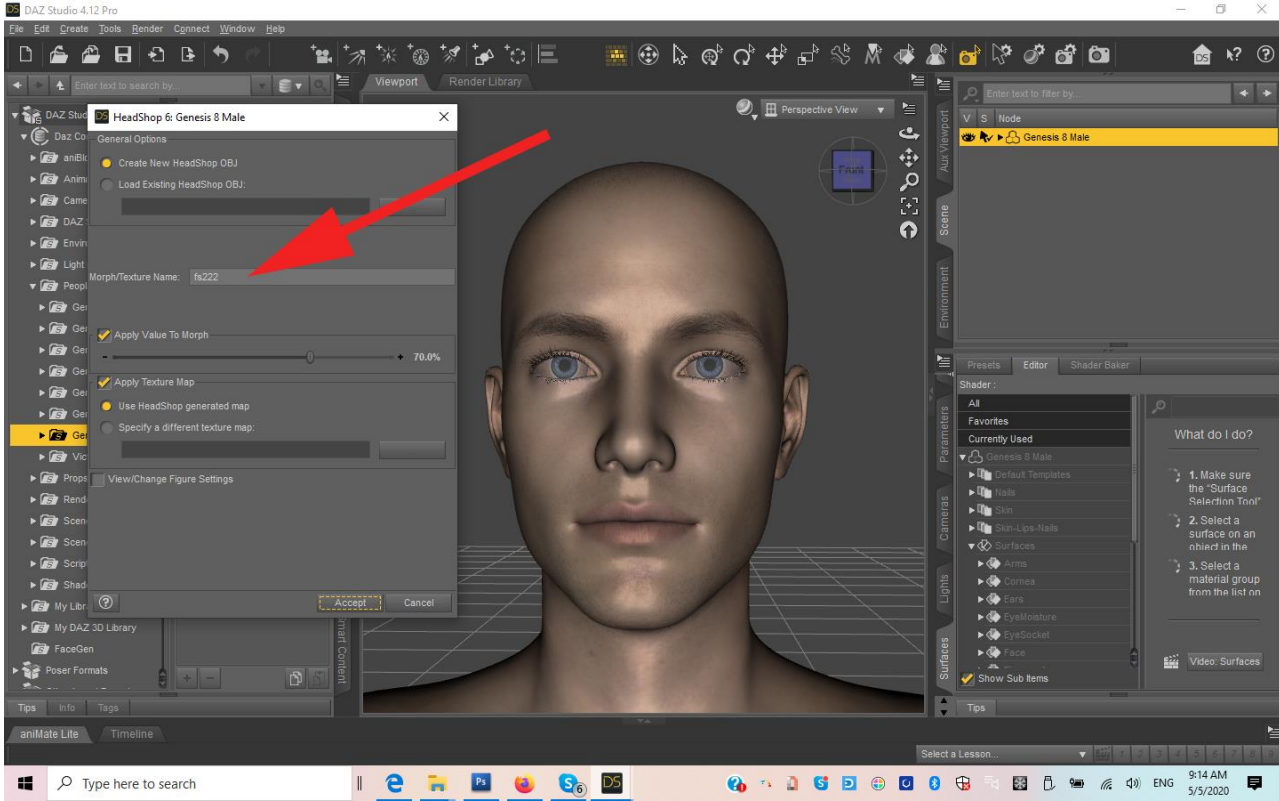
Step 1. Create a head of an extremely rotated photo as described in the previous chapter. Mirror good side's texture over to the missing right side. As you can see head shape needs work. Export back to DAZ Studio



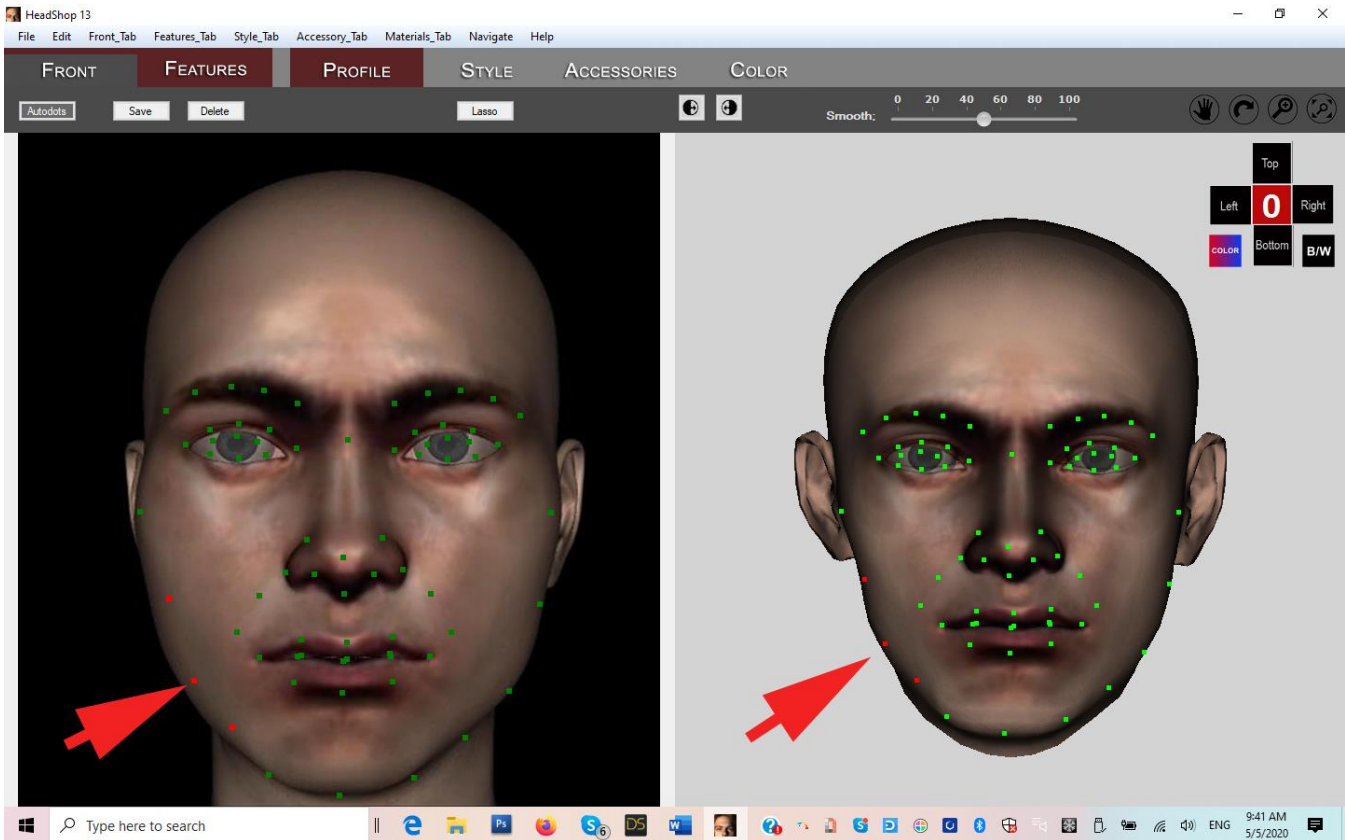
In DAZ Studio render a frontal image of the new head and save render as a JPG..



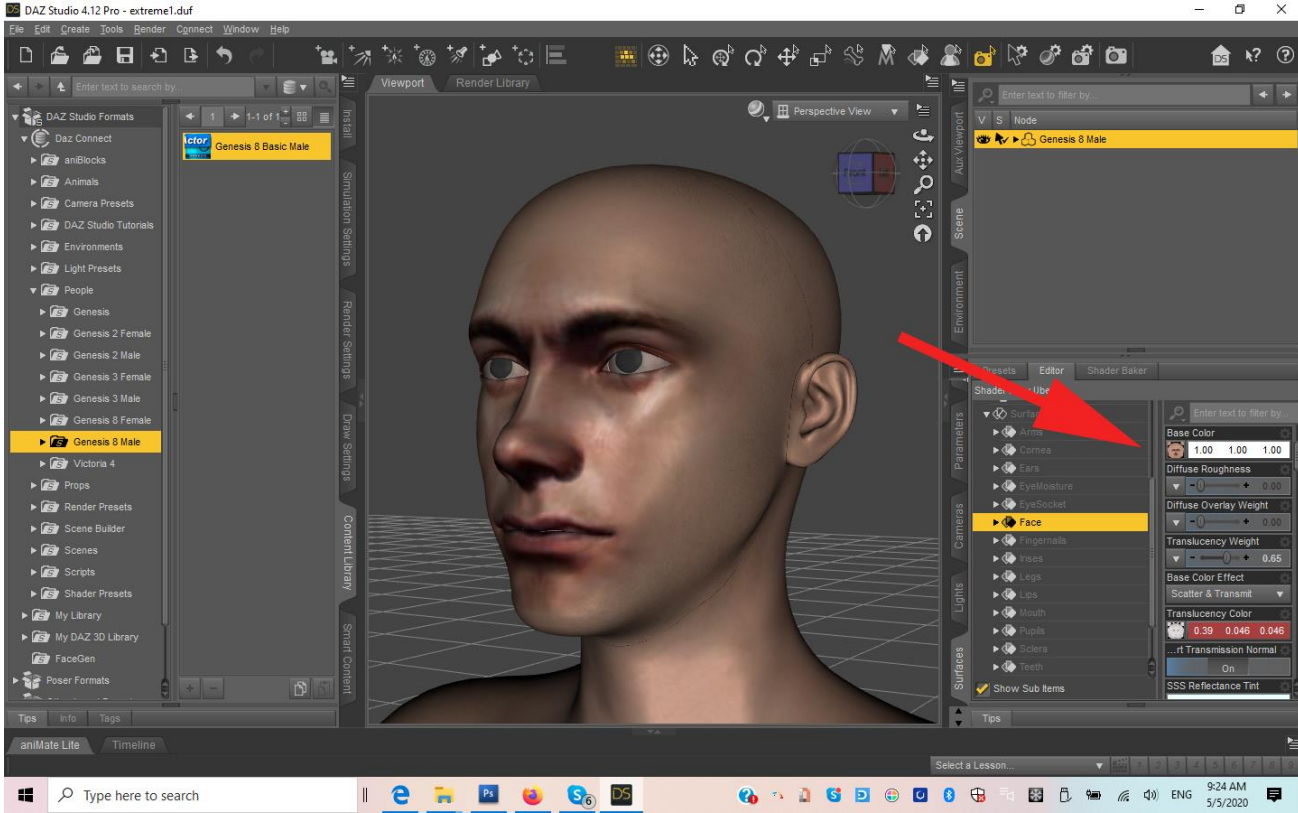
Step 2. Delete head and place new figure on stage. When starting HeadShop, make sure you name it differently than previous, so that Texture will not be overridden/replaced as it tends to deteriorate with each new iteration.



Load saved JPG as your photo. In HeadShop, now you have a frontal portrait where the Autodots coincide with your 3D head. Sculpt head by moving Autodots.



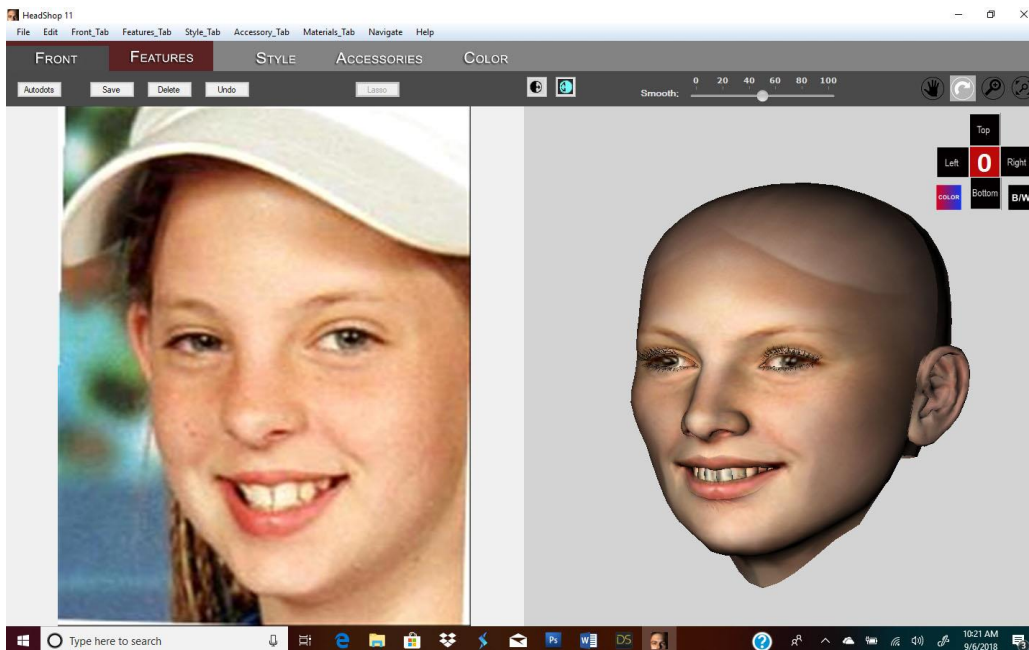
Step 3. When ready, Export back to DAZ Studio. Reload previous Face texture from User/Public/Documents/My DAZ 3D Library/Runtime/FaceShop/fs/SmoothedModelTextures



How to model a Child.

Step 1. Modeling children is relatively straightforward. You do need to have the Growing Up for Genesis Female installed in your DAZ Studio. It is available for both Gen 3 and Gen 8.

From here on you proceed as before, selecting either a Male (boy) or Female (girl) manually.

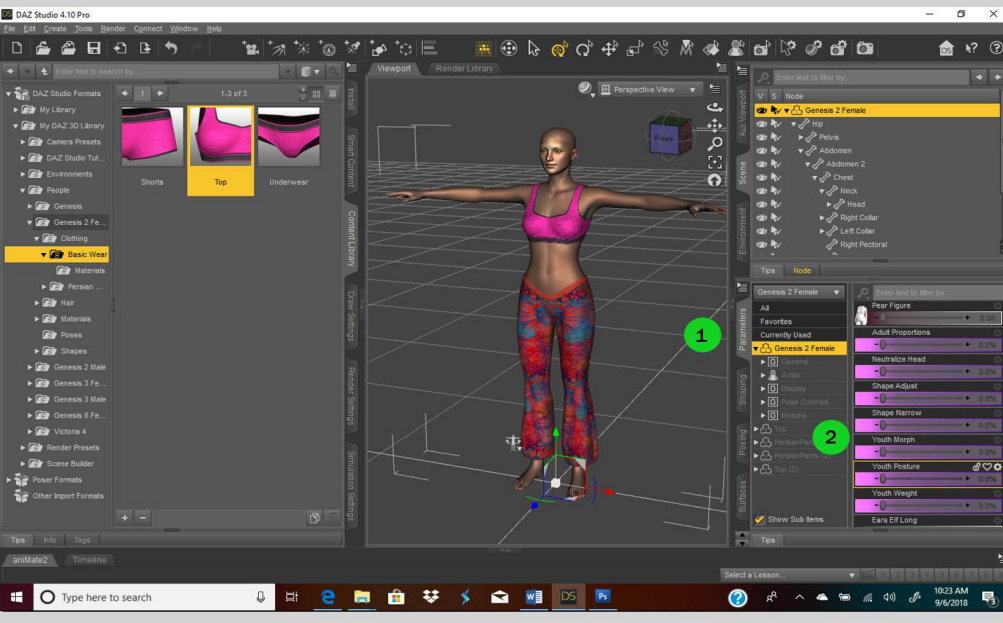


As you can see the head looks more like an adult head. That's OK, in the next two steps we will fix that.

Step 2. Export head via the Edit/Export button. Now it will map back onto your Genesis Female figure. Select Parameters tab in Studio (1) and scroll to „Youth Morph” (2).

Start Learning Now! A few hints for this step

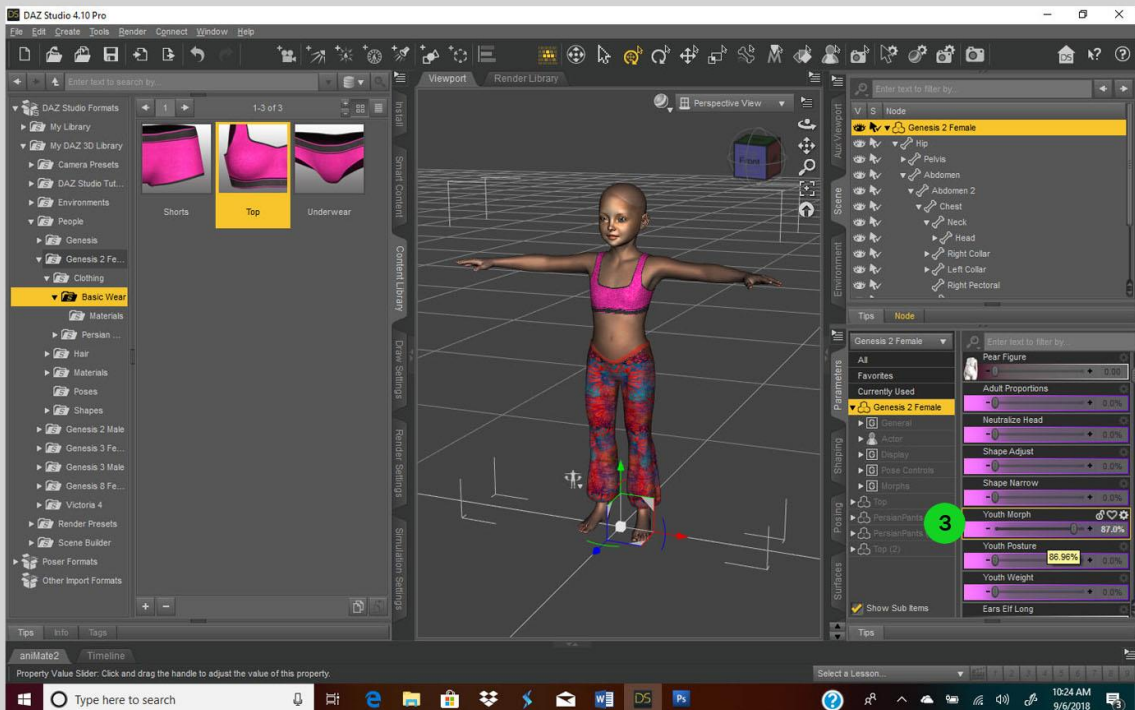
Learn how to create Child head



Step 3. Move the slider to the right to create a Child morph (3)

Start Learning Now! A few hints for this step

Learn how to create Child head



Chapter 4 : Troubleshooting

(Special Thanks for beta tester Catherine Faber for finding some issues)

Installation:

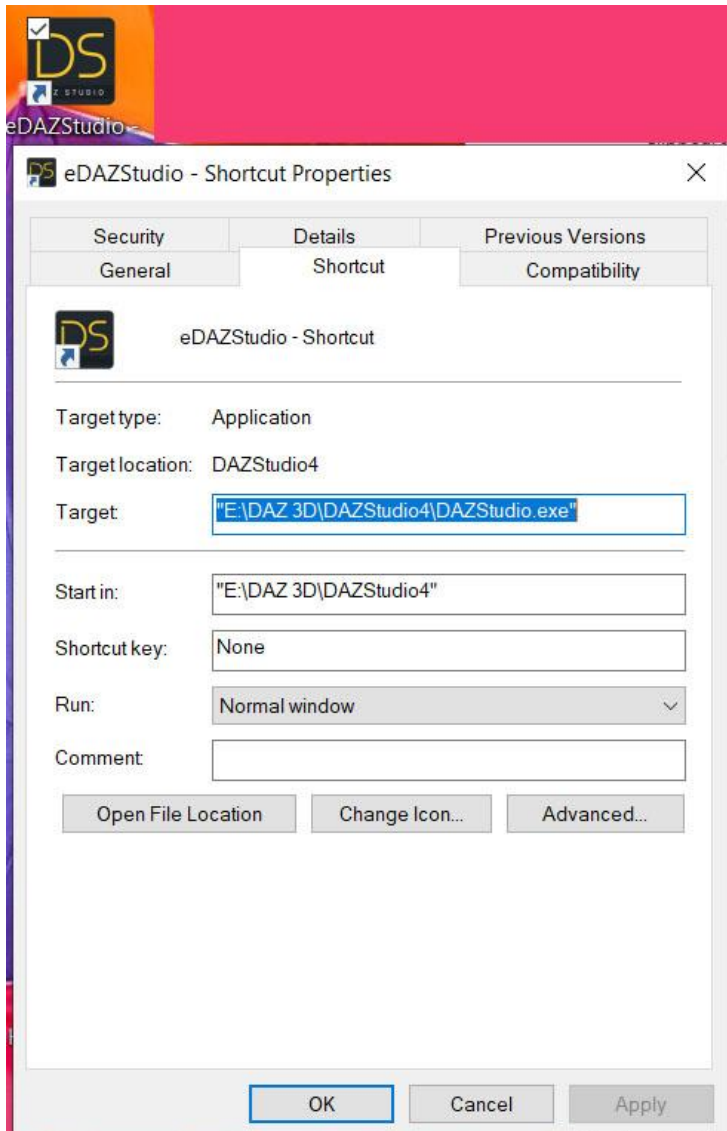
HeadShop does not come with a standard DIM (DAZ installer). It has its own installer. When installing, please choose the **DAZ 3D** folder as the destination folder.

CAUTION: Make sure that DAZ 3D folder contains the full DAZ Studio software and not just parts of it.

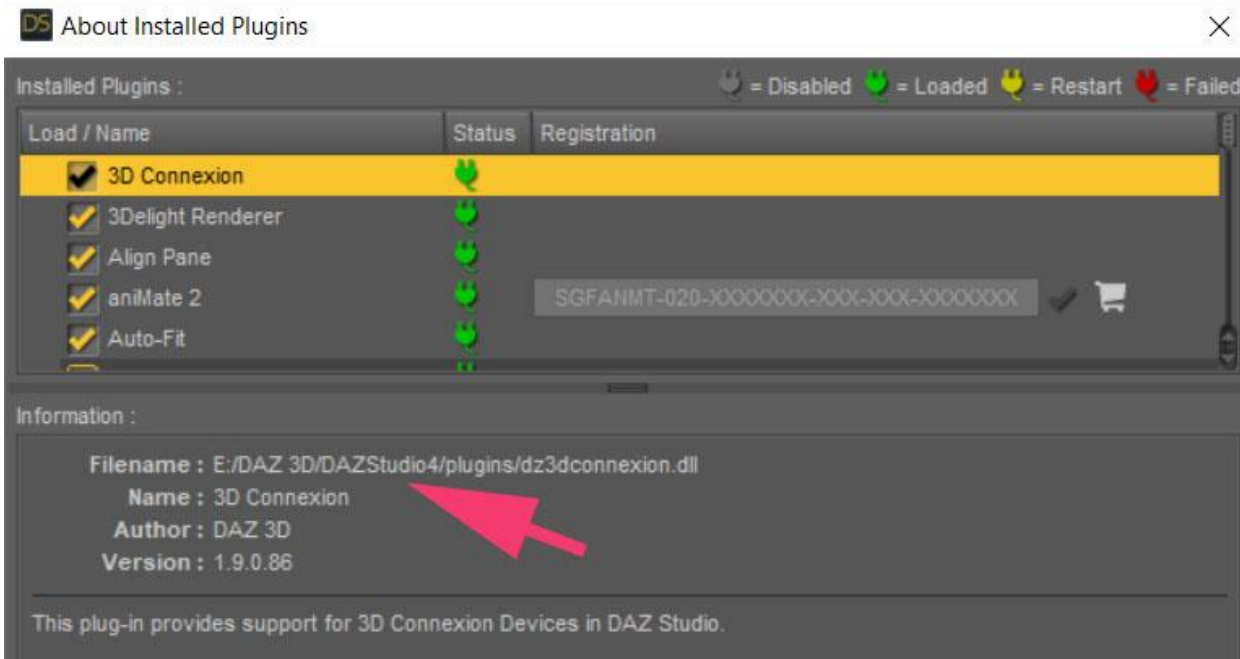


HOW DO I KNOW WHICH LOCATION I NEED TO BROWSE TO INSTALL ONECLICK?

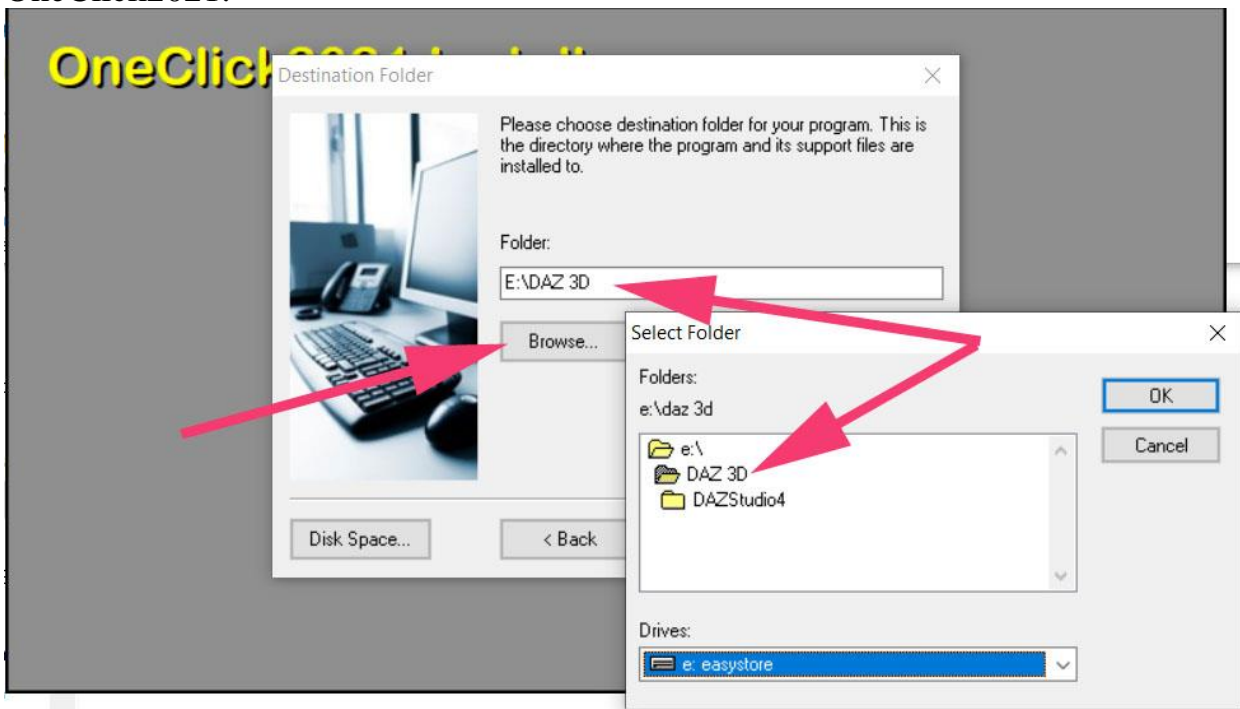
If you usually start your DAZ Studio from a shortcut on your desktop, you can right-click on the icon to get the file location. In the example below it shows that DAZStudio4 is located on the E: drive in the DAZ 3D folder.



Another way to find your DAZ Studio location is to open DAZ Studio, find under the “Help” menu “About Installed Plugins” as shown below. Again, next to Filename it shows the location as E:/DAZ 3D.

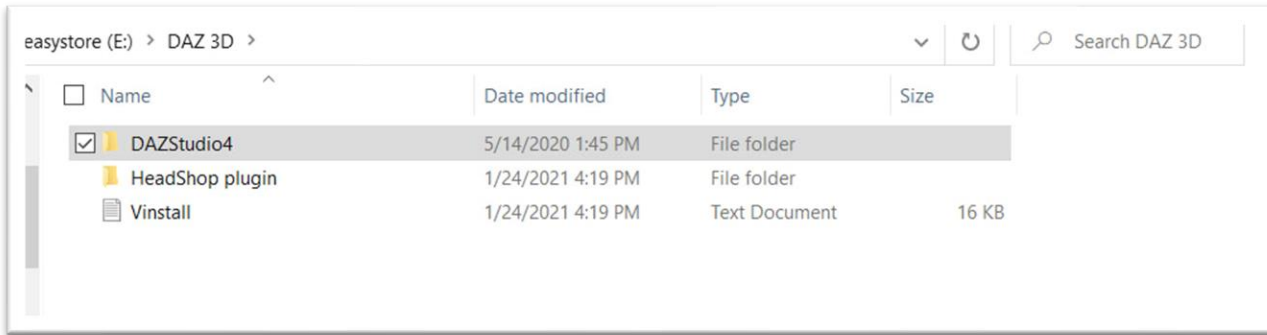


Either case your DAZ Studio is at “E:\DAZ 3D. This is the correct location to install OneClick2021.

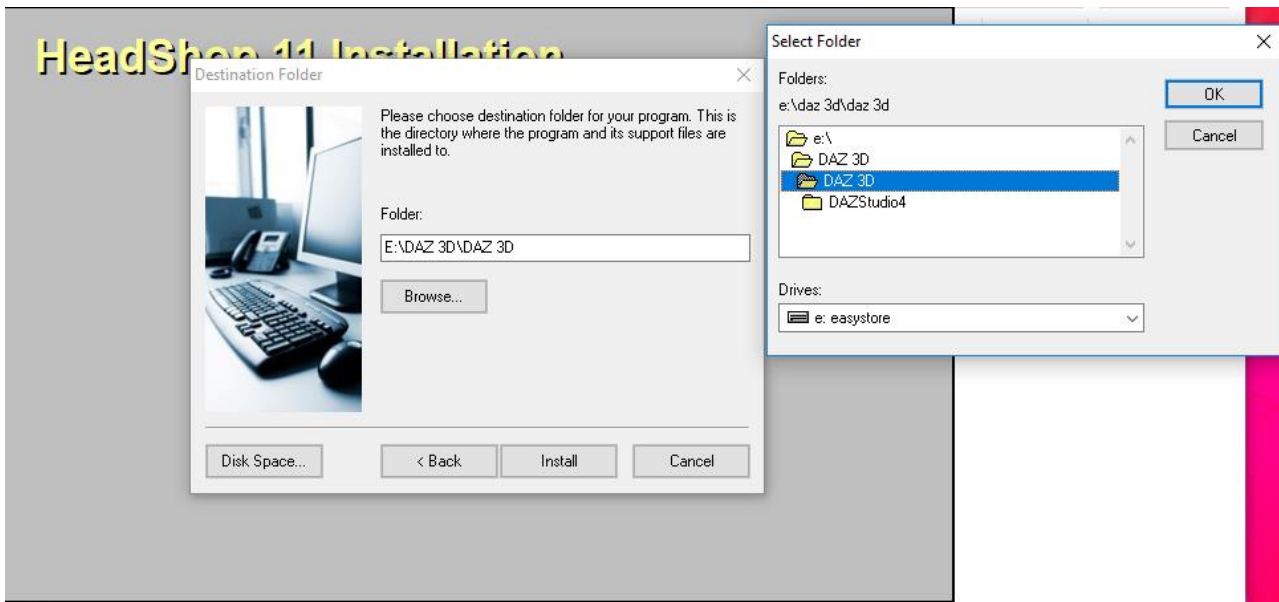


The main thing is that your location must end with “DAZ 3D”.

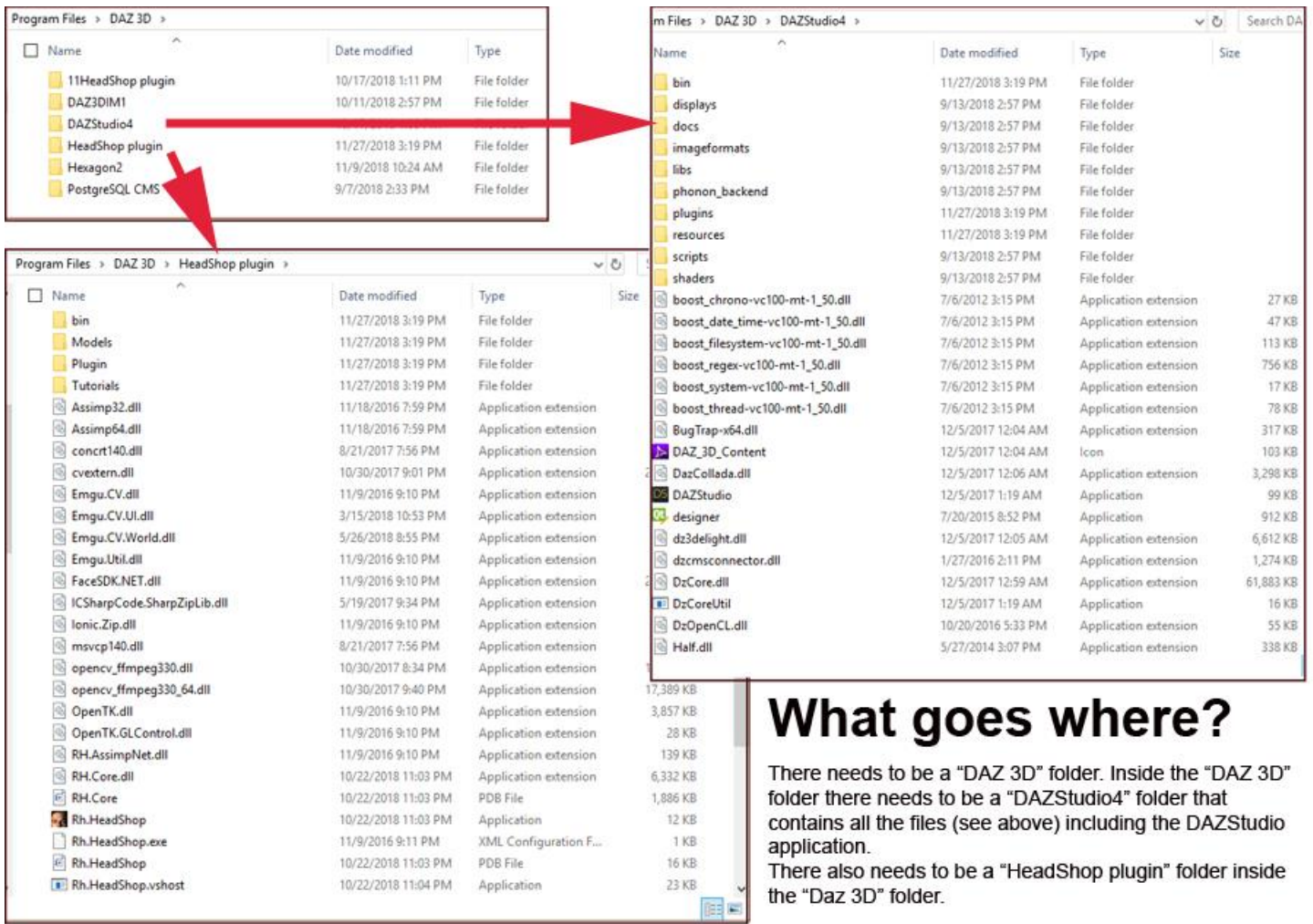
After installation your folder will look like this:



When running the installer, make sure you browse to the destination of your folder DAZ 3D. For instance, if it is on the E: drive, your installer should look like this:

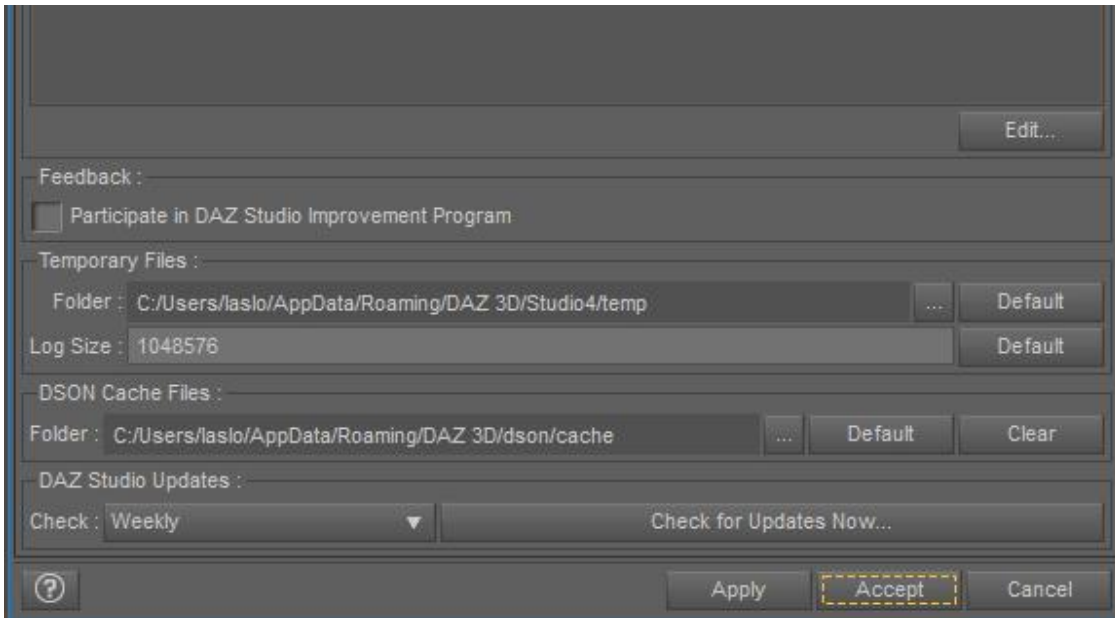


At the end, check the installation to make sure you have everything in the right place



Error message: HeadShop Can't Find fs figure or similar.

Pls. Make sure that your DAZ Studio Temp and DSON Preferences are set to Deafult As show:

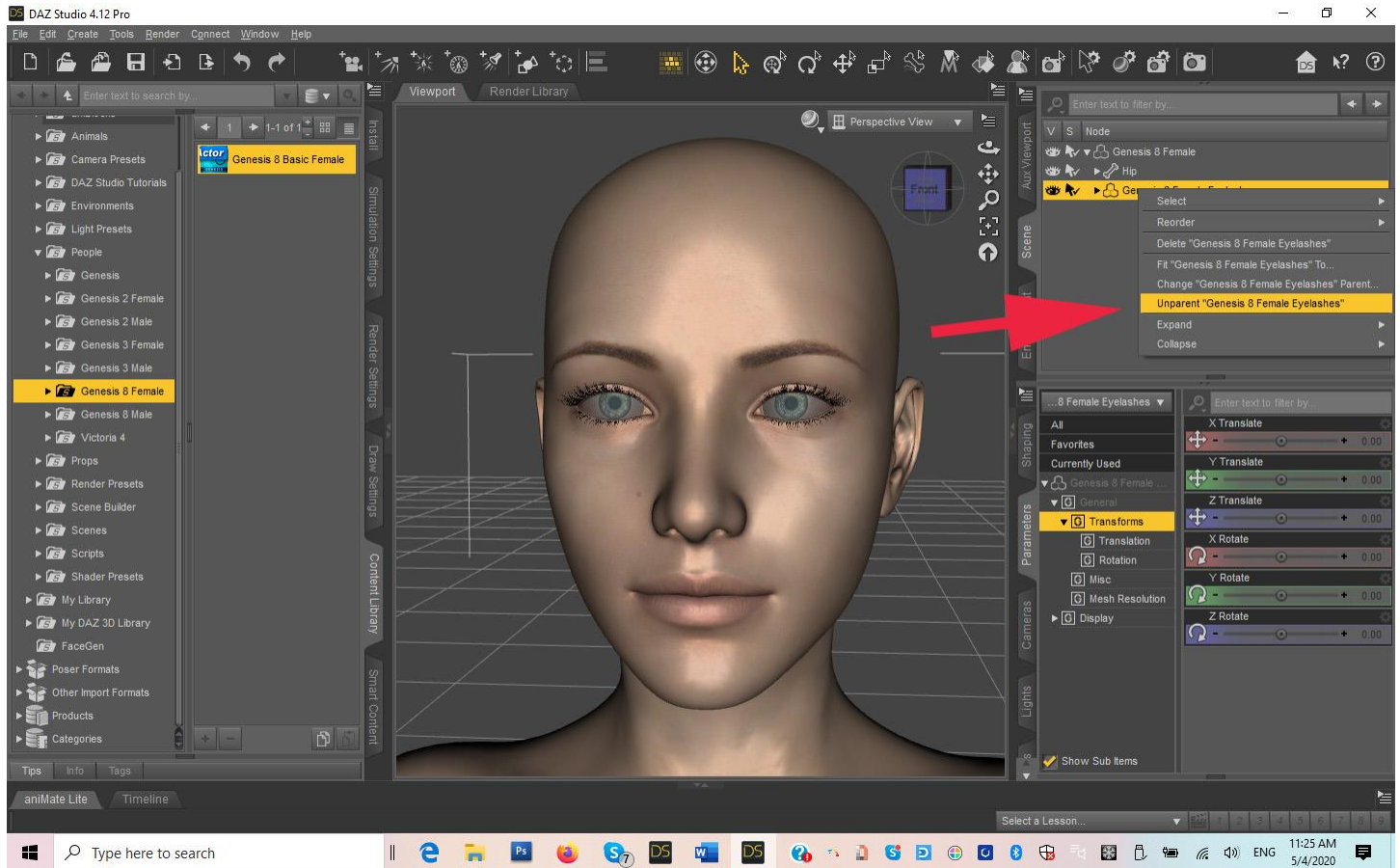


Missing Eyelashes in Genesis 8

As mentioned in Chapter 1, DAZ designed Genesis 8 with making eyelashes a separate figure placed inside the Genesis 8 figure. This causes problems for morphs.

Solution: Before launching HeadShop, unparent the Eyelashes as shown.

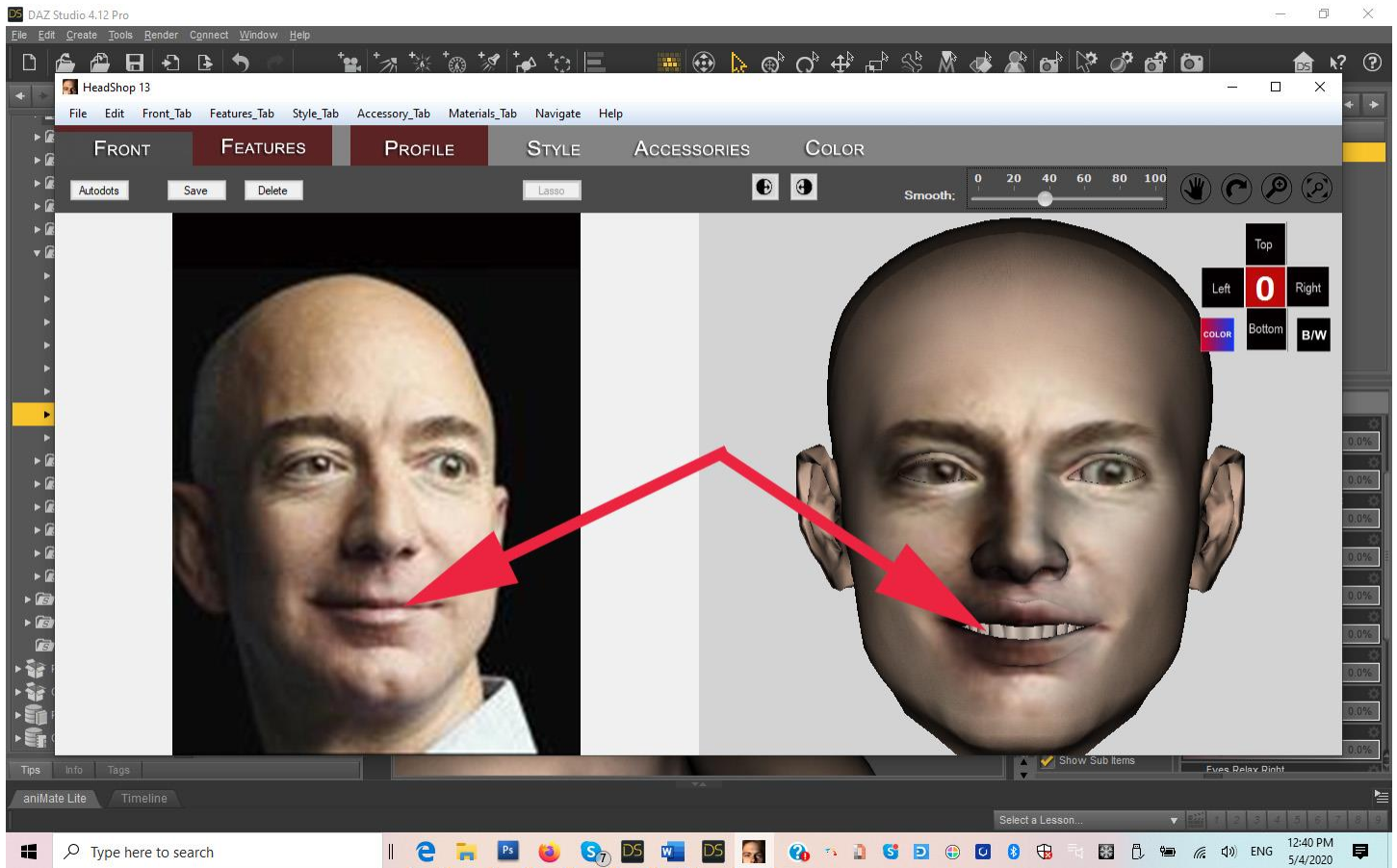
CAUTION! Before launching HeadShop, make sure that GENESIS 8 FEMALE IS SELECTED (not the eyelashes). Otherwise HeadShop will work on the eyelashes.



After HeadShop is closed, you can „re-parent” eyelashes to Genesis 8. Make sure you also select „Auto-follow” in Parameters.

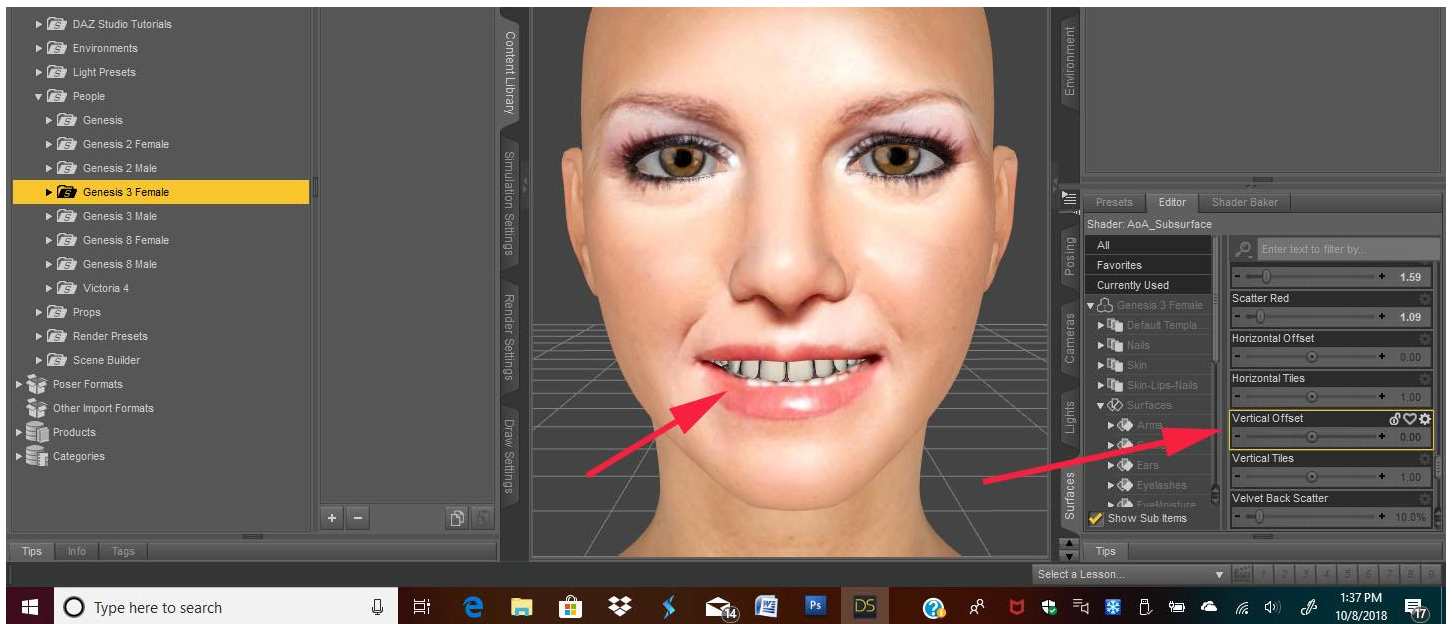
HeadShop Autodots mistake shiny lower lip for teeth.

In some photos Autodots may mistake highlights on the lower lip as teeth. Unfortunately, the only way to correct for this is to reduce the glare on the lip in Photoshop and try again.

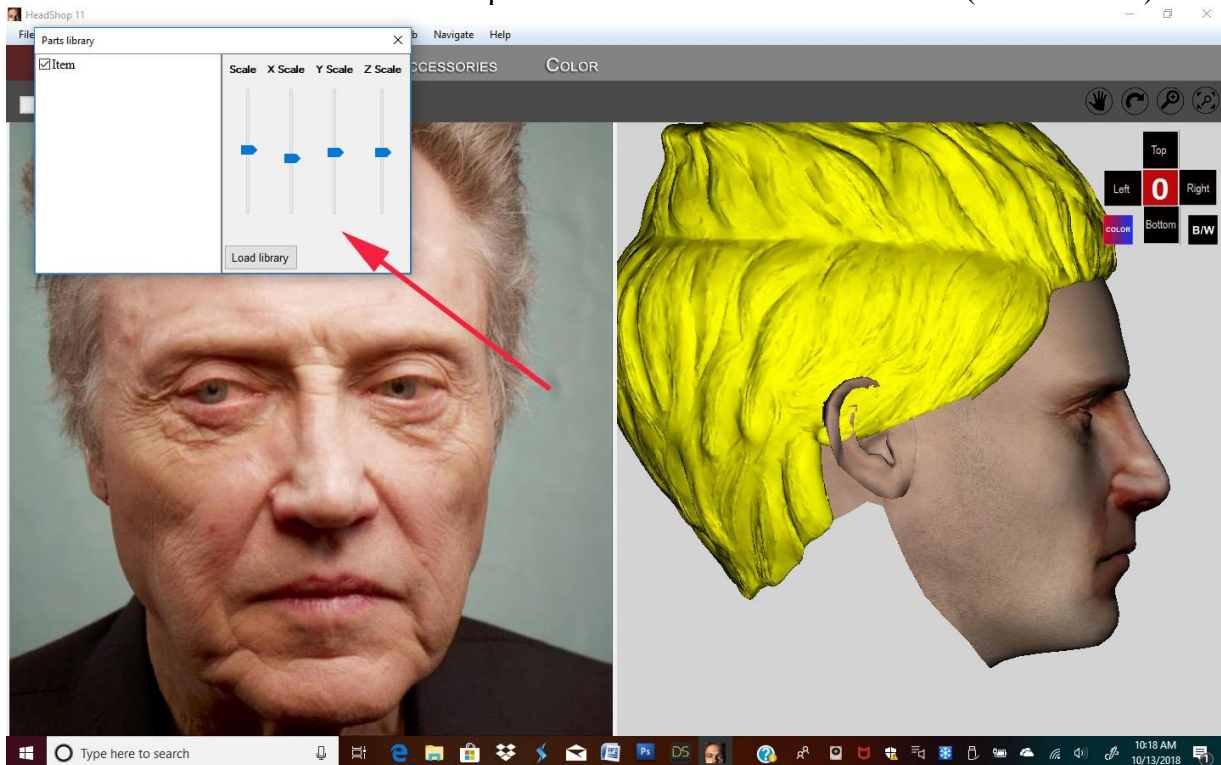


Here are some other tips if things go wrong:

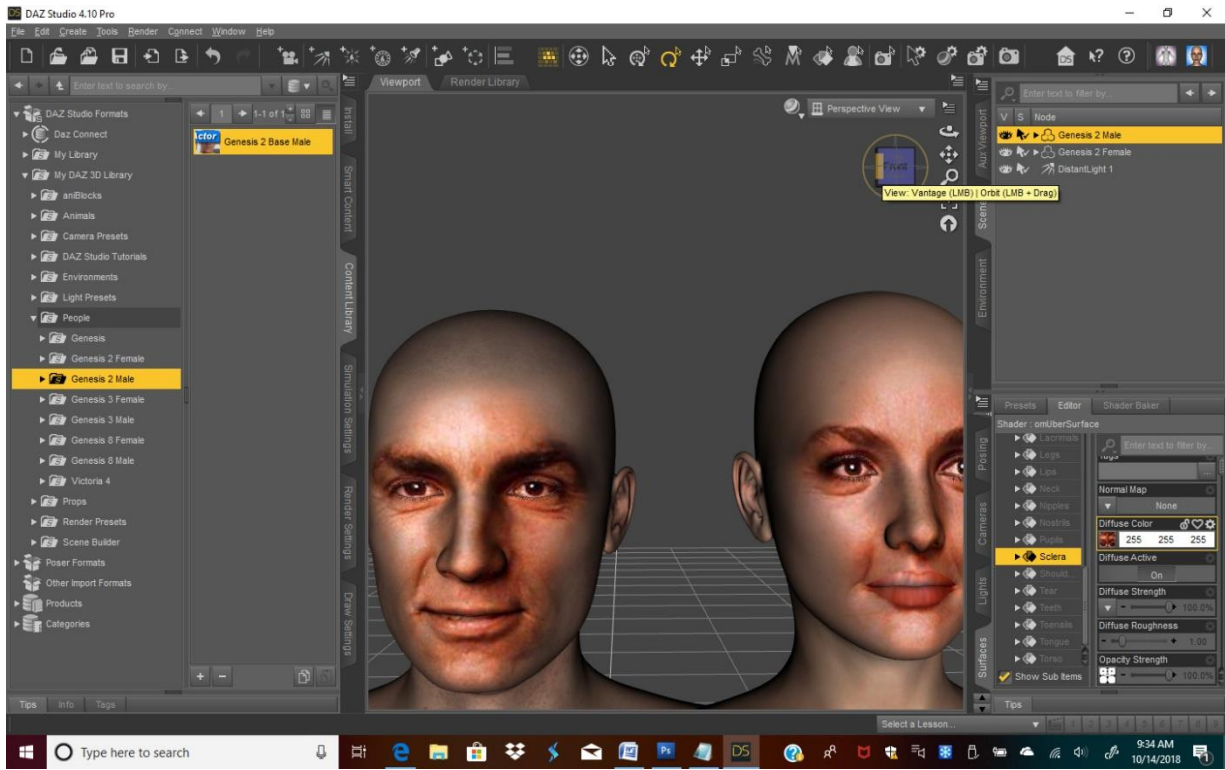
1. Can't install this 64-bit software on a 32-bit system.
2. Do not use „Pre-release” characters because their naming convention is different from release figures.
3. When finished in HeadShop, files don't load back to DAZ Studio. Cause: either character files are not installed or Genesis Starter Essentials need to be installed.
4. Try to avoid having multiple objects on stage. It may confuse HeadShop when loading. When you have multiple characters or items on stage, please pay attention on choosing/highlighting the right item in the selection box. Otherwise HeadShop may give you the wrong dialog.
5. Not perfect fit with Lip texture due to imperfect dot detection? Can be fixed using „Vertical Tiling” or „Vertical Offset” in Surfaces. In this case, Vertical tile can be slightly adjusted to make a better fit.



6. HeadShop loads the previous/wrong face texture. Very seldom, due to memory (with 4096x4096 textures) issues this can happen. Solution: reload Face texture from Users/Documents/My DAZ Library/Runtime/Faceshop/fs/SmoothedModelTextures.
7. Fine tuning Library items (hair, accessories). You can change the dimensions on the x, y, z axes) under Menu/Parts Libraries. In the example below we made the hair narrower (lower x scale).



8. If you are using HeadShop on more than one figure on the same scene, HeadShop may load the wrong texture on the second figure. To avoid this, save the first figure as a Character (File/Save As/Character) and remove it from the scene, so that you have only one figure loaded. Once you perform the HeadShop transformation on the second figure, you can „Merge” (File/Merge) the previously saved character back into the scene.



White Paper: Working with Difficult Photos in DAZ Studio

There are now at least three software applications that turn a portrait photo into a 3D character in DAZ Studio. What these software applications have in common is that they apply the shape changes that a custom character causes to the base Genesis figures (morphing) and also apply texture from the photo to the 3D head (texture mapping).

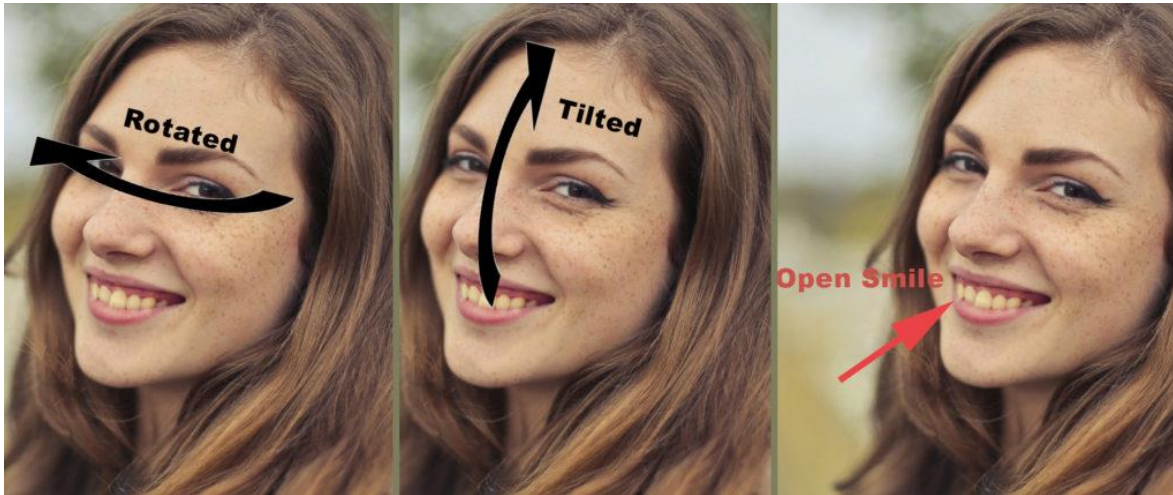
With that said, all three use different methods to achieve this goal and with various grades of success. This paper attempts to examine the challenges presented by “difficult” photos.

What is a “Difficult Photo”?

All three can handle frontal and unsmiling photos relatively easily. Unfortunately, the majority of photos are not straight-on “mugshots” but photos where the face is partially rotated at least in one axis. The majority of photos also tend to have an “open smile” with teeth showing. (see Picture 1 below).



Here is a schematic of these challenges (Picture 2):



Any “Photo-to-3D Head” software thus needs to perform a few additional tasks if it wants to succeed:

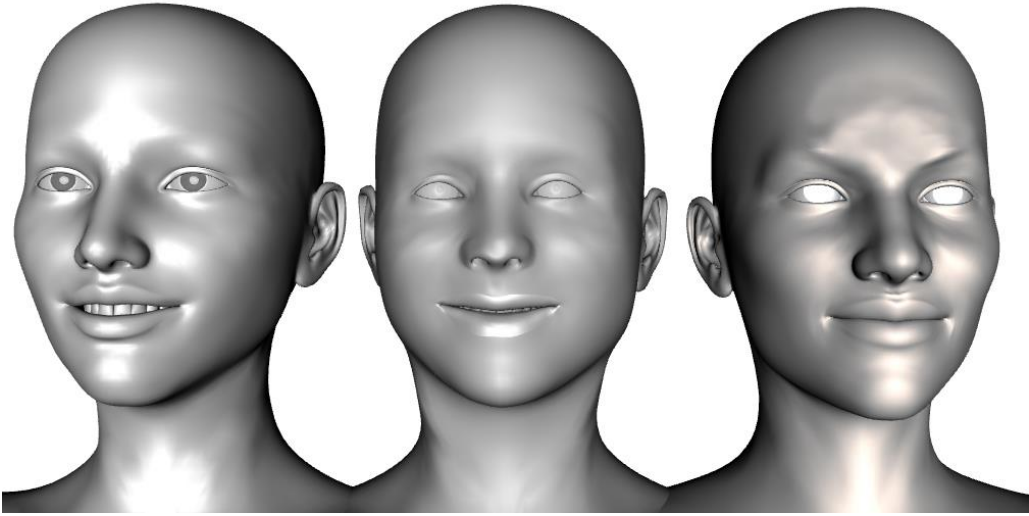
1. Establish rotation angle/degree and direction, create a new and uniform shape and then rotate the 3D mesh back to frontal.
2. Also detect if a photo represents close lips or an open smile. The method to do so is to deploy an automatic “facial feature detection” algorithm that find several dozen significant points in a photo that represent eyes, nose, mouth, etc. By comparing these point sets the software needs to “decide” if there is an open smile present or not.

Once the 3D head is rotated back to frontal with the corrected shape, the texture mapping can take place. This represents a further challenge; Since part of the texture is turned away and not visible, a method needs to be found to replace or repair missing texture.

Compare Results of Shaping Heads based on a Difficult Photo.

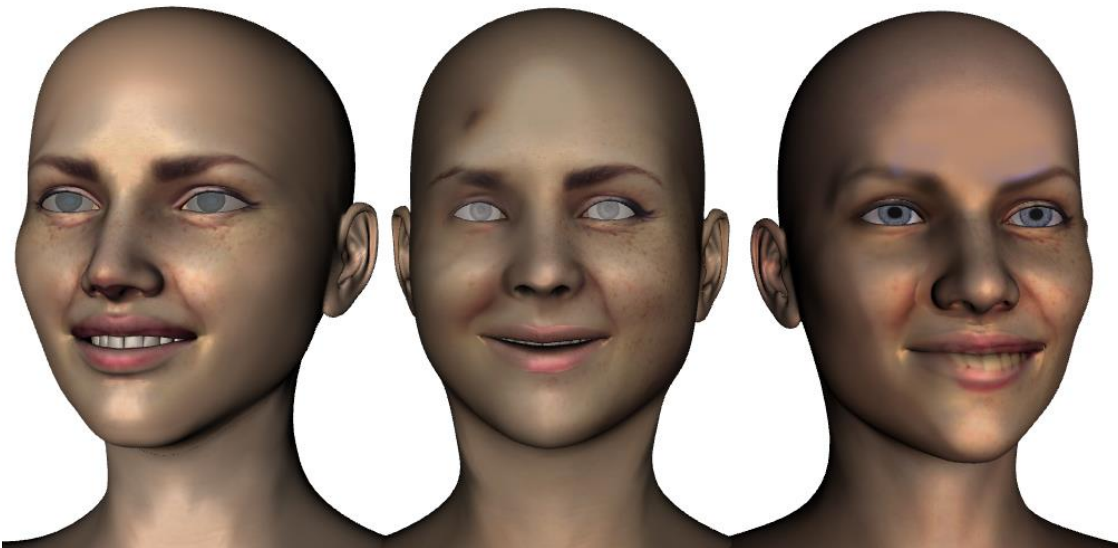
Below you can observe three samples on how the various software performed with the same photo. As is obvious, they achieved various degrees of success in capturing the shape of the head.

The first head on the left captured both the shape of the head and the open smile well. The head on the middle did a poor job in capturing the shape but recognized the open smile. The head on the right did a good job in re-creating the shape of the head but was not built to recognize or display an open smile with teeth showing (see Picture 3 below).



What About Texture Mapping?

Here the three compared software applications also showed differences.



The head on the left captured and applied texture correctly. The middle head also did a decent job of applying the texture but missed on the overall hue. It also captured some artifacts like the remnant of the hair. The head on the right did poorly, since it “painted” teeth on the lower closed lip. Otherwise it did capture texture and hue nicely albeit did poorly in filling in missing texture to the left of the nose.

Overall Conclusion

Our goal was not to judge performance, but rather to explain why different software processes produce different results. As we said above, with simple, straight and unsmiling photos at least two of the three software performed well, so anyone who can replace challenging (rotated+smiling) photos can do so and get good results.

Resource photo to run your own test:

