HeadShop 2025

For Windows

User Manual

www.printahead.net,

Abalone LLC.

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System requirements

Required hardware

WIN: HeadShop 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

OneClick2 2024 runs under the following software:

Windows 10. 11 operating systems, 64-bit only

DAZ Studio 4.9 or later, 64-bit version

Genesis (3,8,9) Base (male and female), Genesis (3,8,9) Starter Essentials.

To read pdf manuals Adobe Acrobat is recommended

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

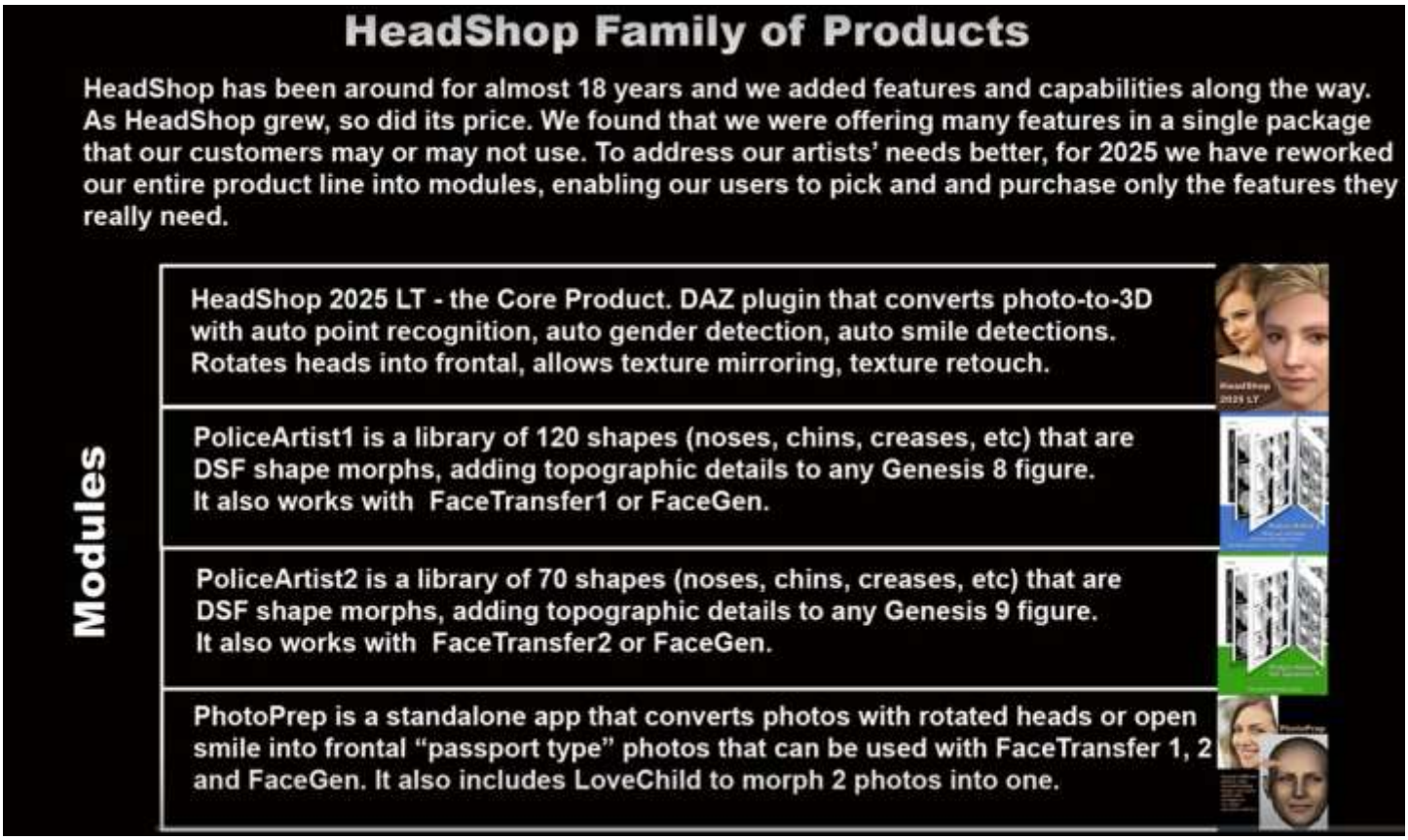
https://youtu.be/0KZuzlJTZdc?si=sKH-PhkBWxOWuBRy

Abalone LLC offers tech support through email.
Email address is abalonellc@yahoo.com

About the manual

What is new in HeadShop 2025?

HeadShop has been around for almost 18 years and we added features and capabilities along the way. As HeadShop grew, so did its price. We found that we were offering many features in a single package that our customers may or may not use. To address our artists needs better, for 2025 we have reworked our entire product line into modules, enabling our users to pick and purchase only the features they really need.



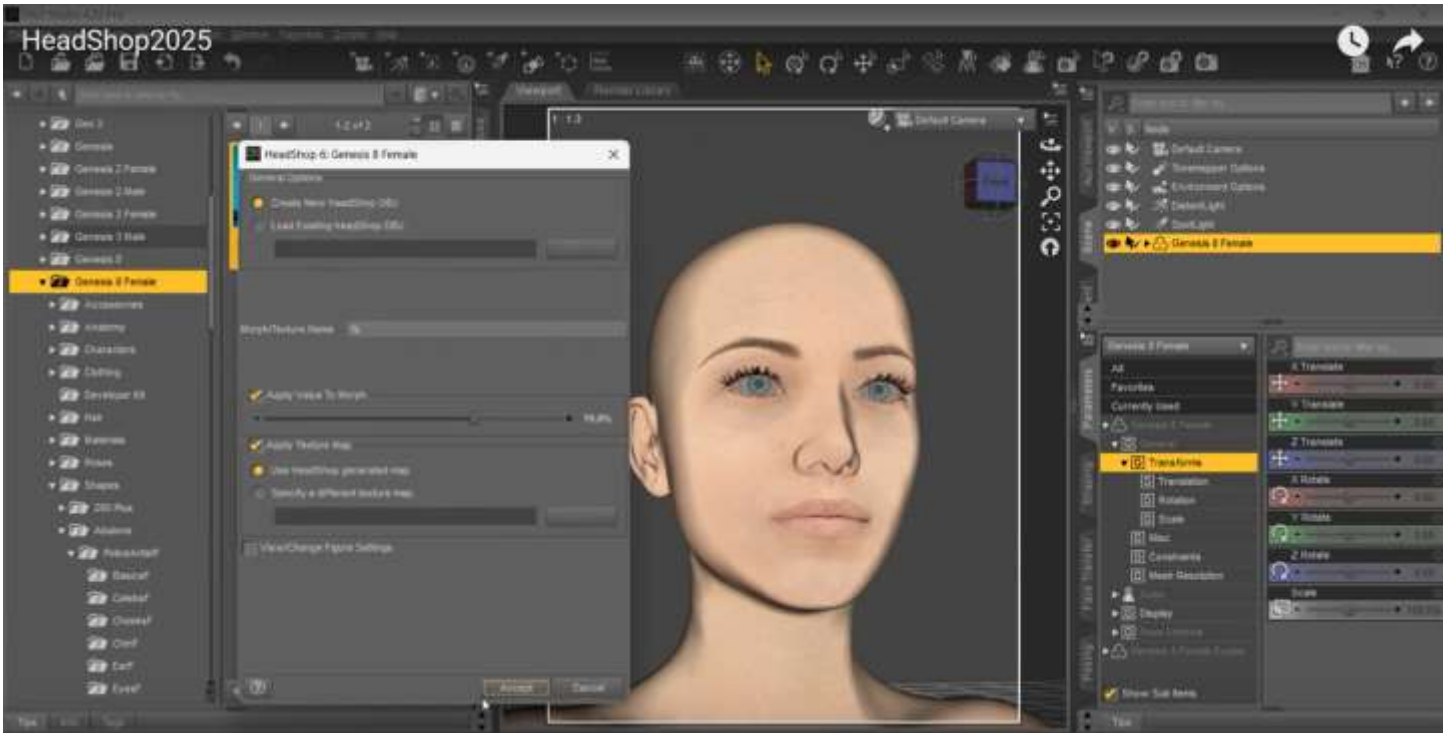
To review Installation and Operation of HeadShop 2025 visit:
https://youtu.be/-dm-VepM828

Chapter 1 – HeadShop 2025 LT

HeadShop 2025 LT – the Core Product. A DAZ plugin that converts photo-to-3D with auto point recognition, auto gender detection, auto smile detection. Rotates heads into frontal, allows texture mirroring, texture retouch.

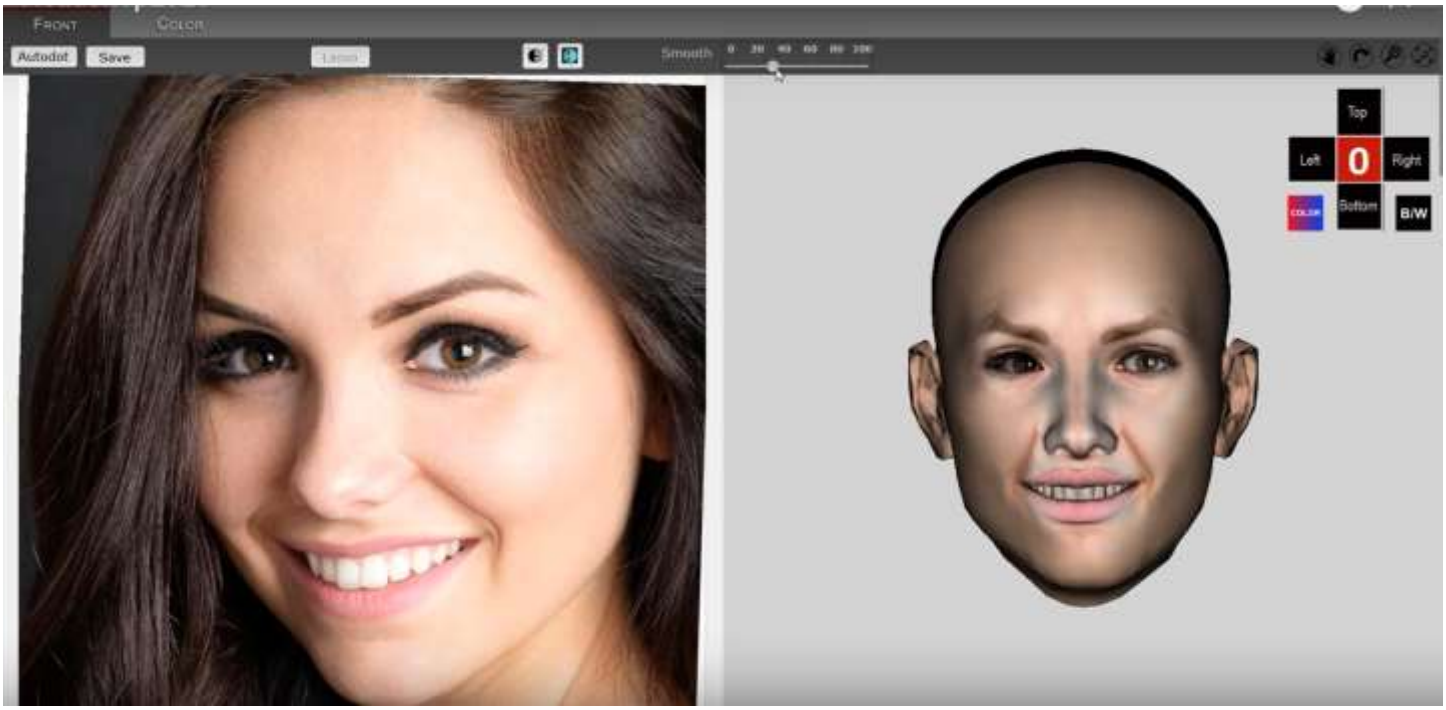
HeadShop 2025 LT Quick Tutorial

We place Gensis 8 on stage and launch HeadShop plugin from the Edit menu. Adding a unique project name is helpful.

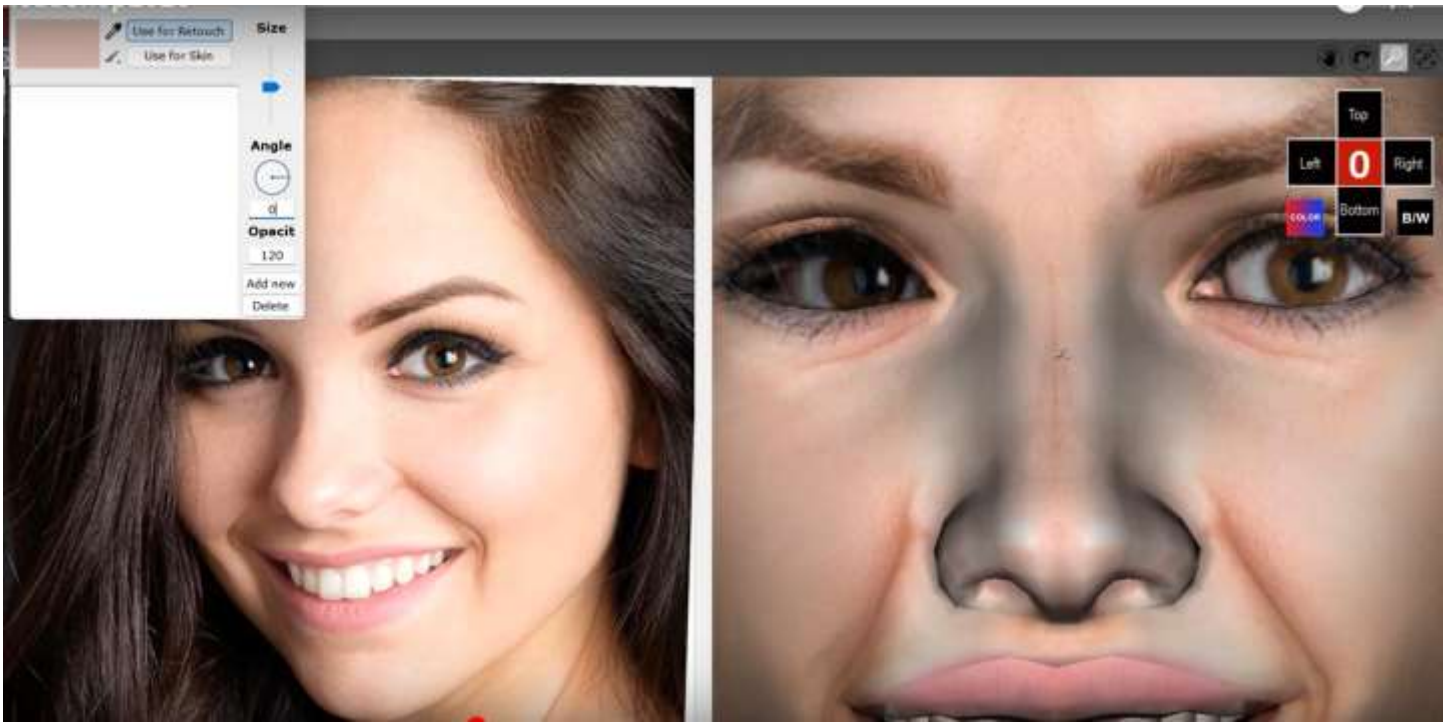


To show HeadShop capabilities, we load a “difficult” photo with head rotated, one side partially shaded and obscured and showing an open smile. Notice that HeadShop automatically finds 40 significant points and also autodetects the gender.

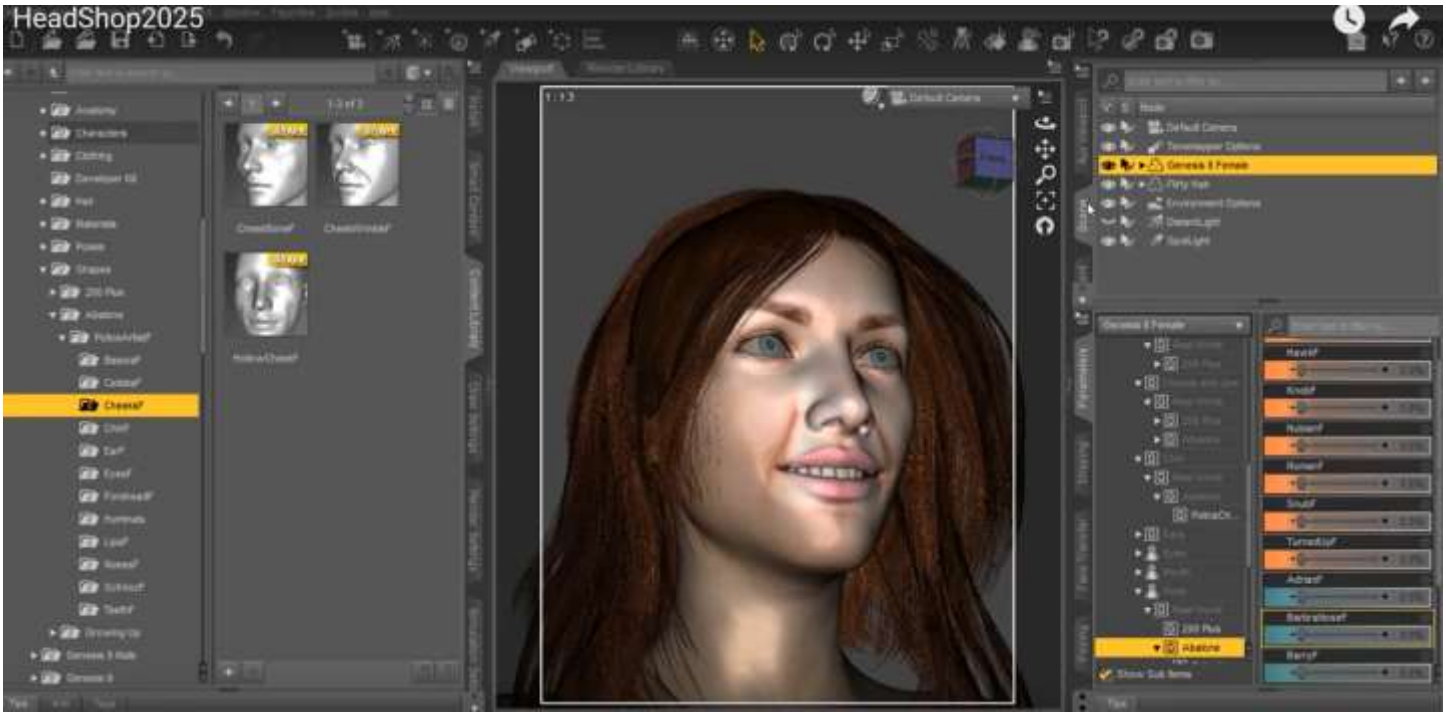
Once loaded, we can mirror the good side over and also adjust smoothness if needed.



To make minor retouching, we go to the Color tab and sample skin color. After zooming, we can reduce the opacity to 120 and apply retouch. We are done!



On closing HeadShop plugin, new shape and texture are transferred to Genesis 8. This is it.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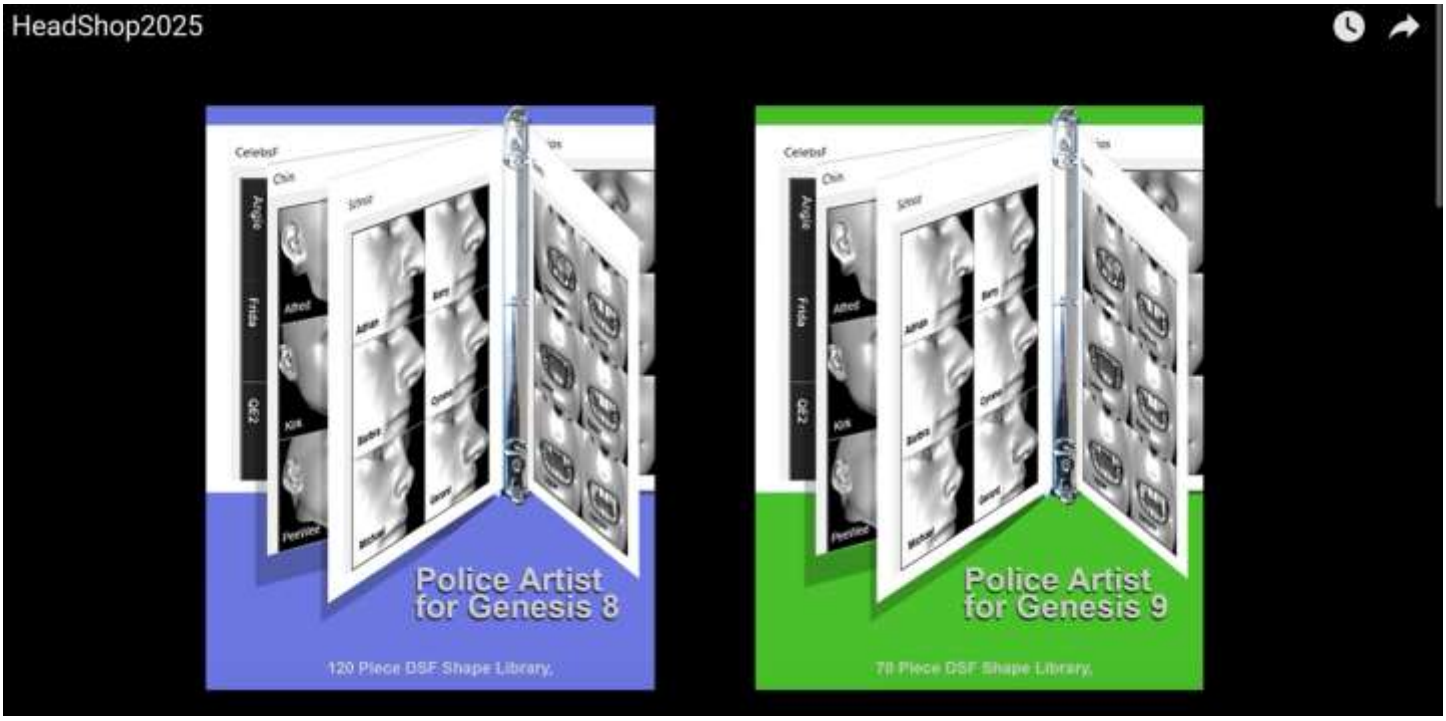
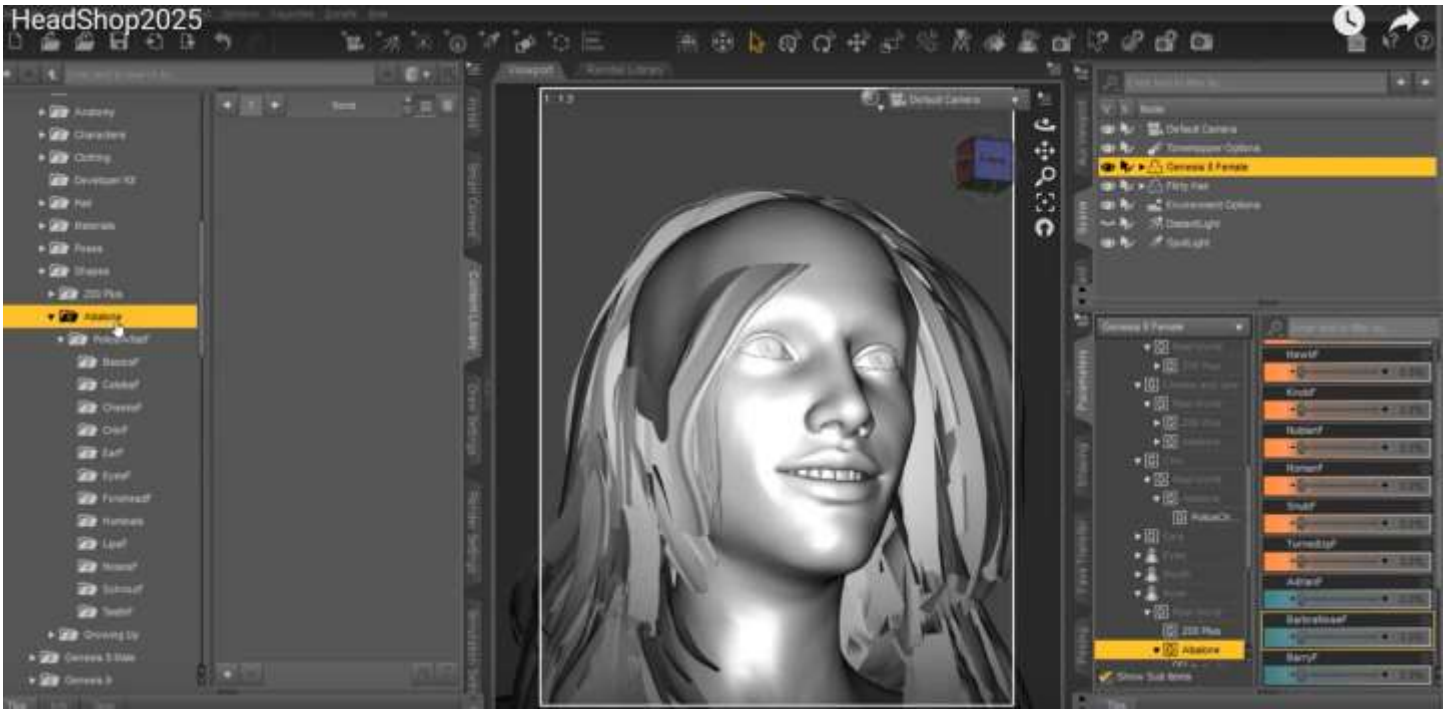
Chapter 2. PoliceArtist 1 and 2

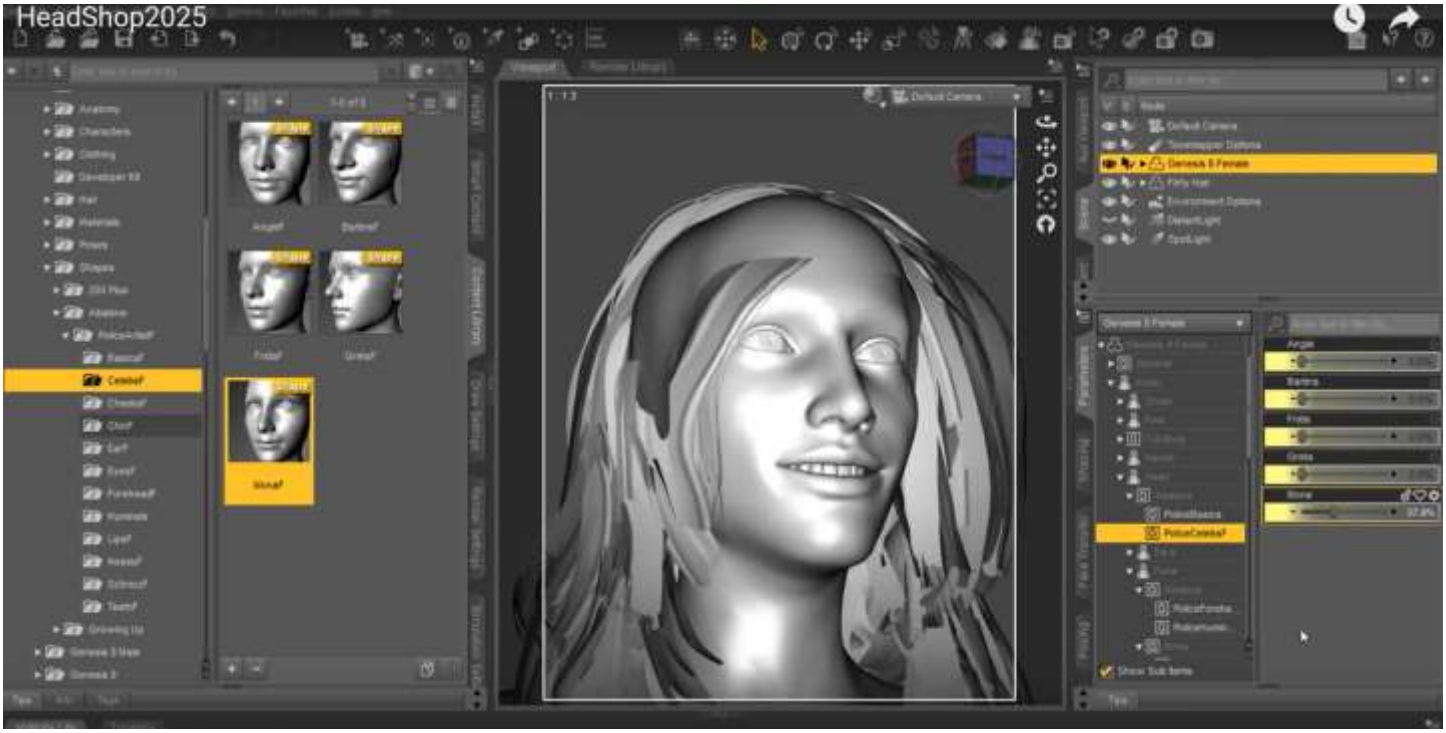


PoliceArtist 1 is a library of 120 shapes (noses, creases, etc.) that are DSF shape morphs, adding topographic details to any Genesis 8 figure. It also works with FaceTransfer1 and FaceGen.
PoliceArtist 2 is a library of 70 shapes (noses, creases, etc.) that are DSF shape morphs, adding topographic details to any Genesis 9 figure. It also works with FaceTransfer2 and FaceGen.

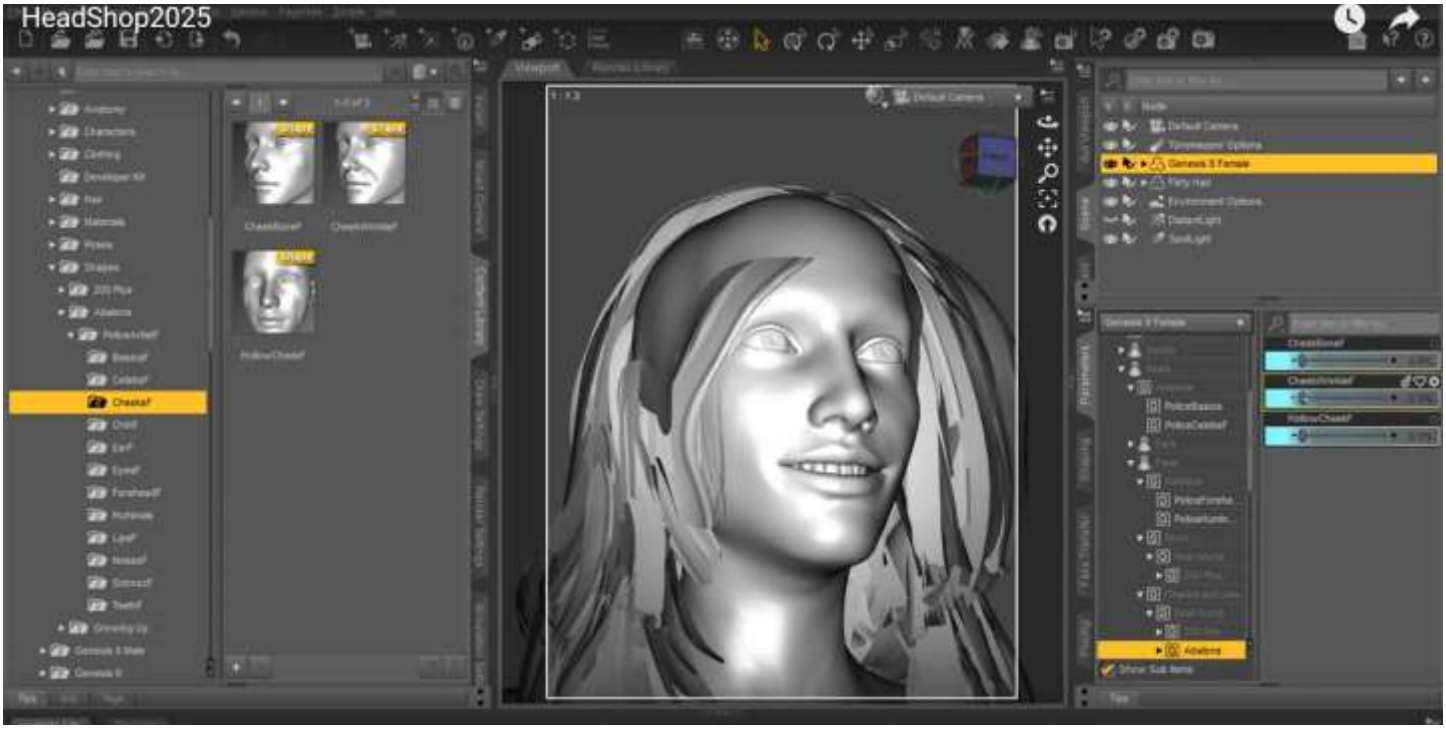
If we turn off the texture of our new creation, we notice that the shape is rather generic and may need some topographic features. PoliceArtist 8 (purchased separately) offers 120 various shapes to add realism to the 3D head.



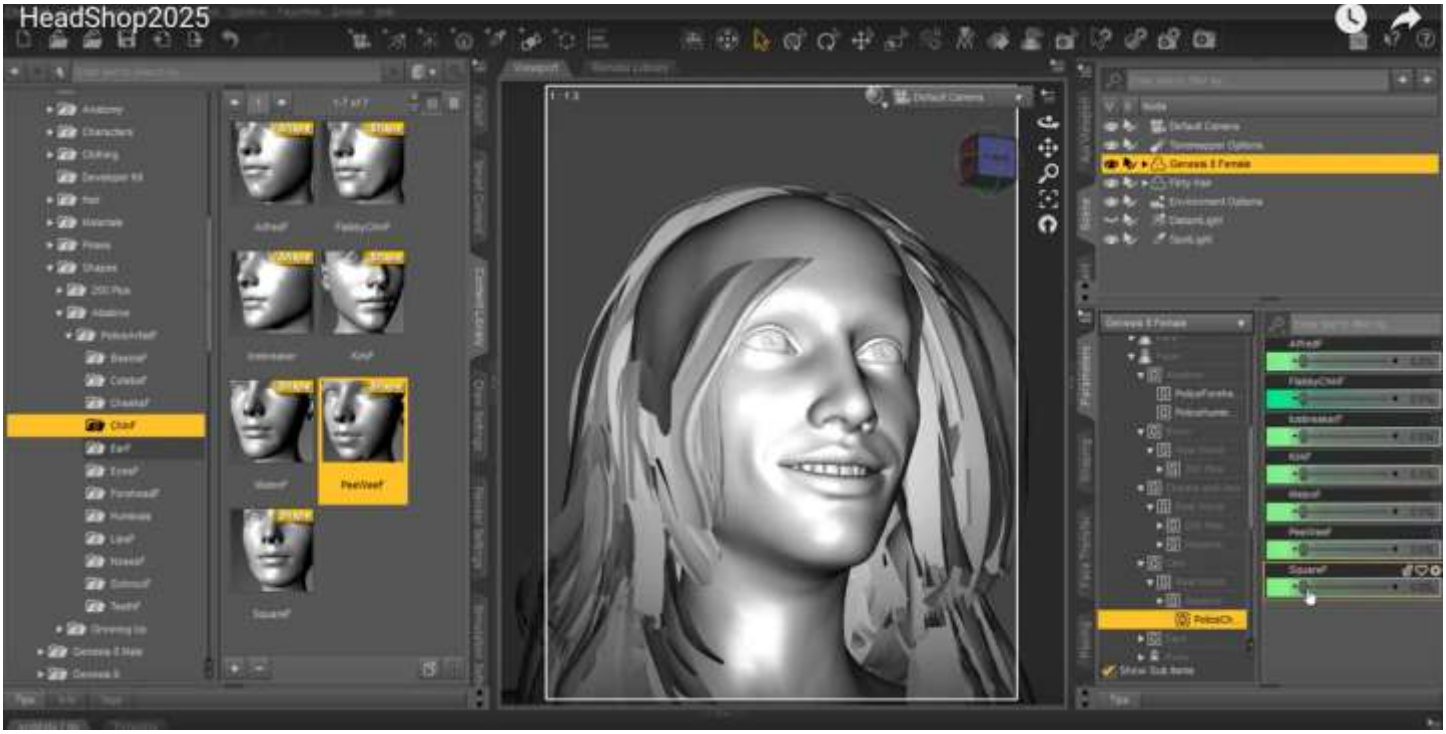
Loaded under Shapes, the different groups of shapes can be previewed and applied, just as a police artist would build a character. Let's play! We apply Mona from the Celebrities folder, under Actor/Head and apply shape via the slider. It is a good idea to mix and match various shapes via the sliders.



Next we add some cheek shapes, such as cheek wrinkle and a little hollow cheek, followed by altering the chin shape.



Maybe some forehead wrinkle? And some eyebags? And shape the nose. Thinner lips? And so on and so on.

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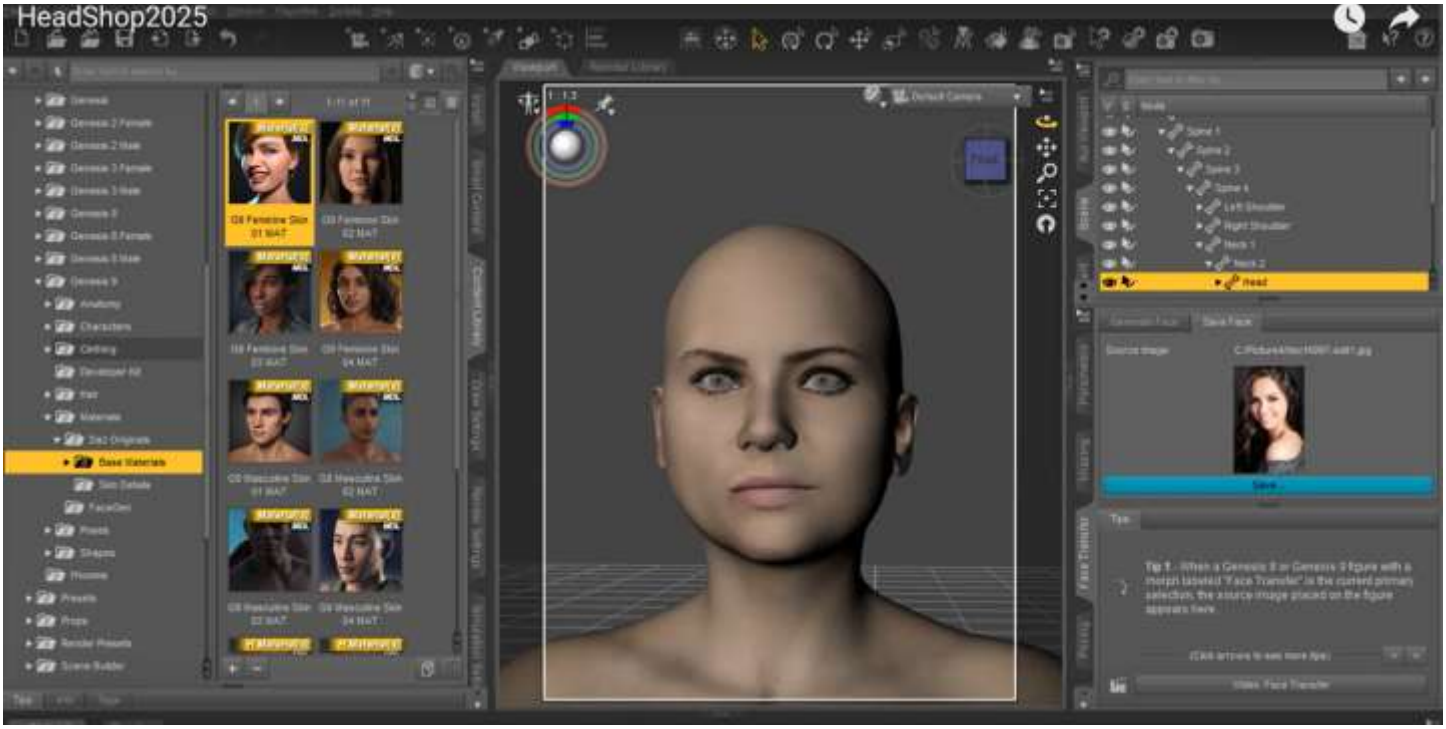
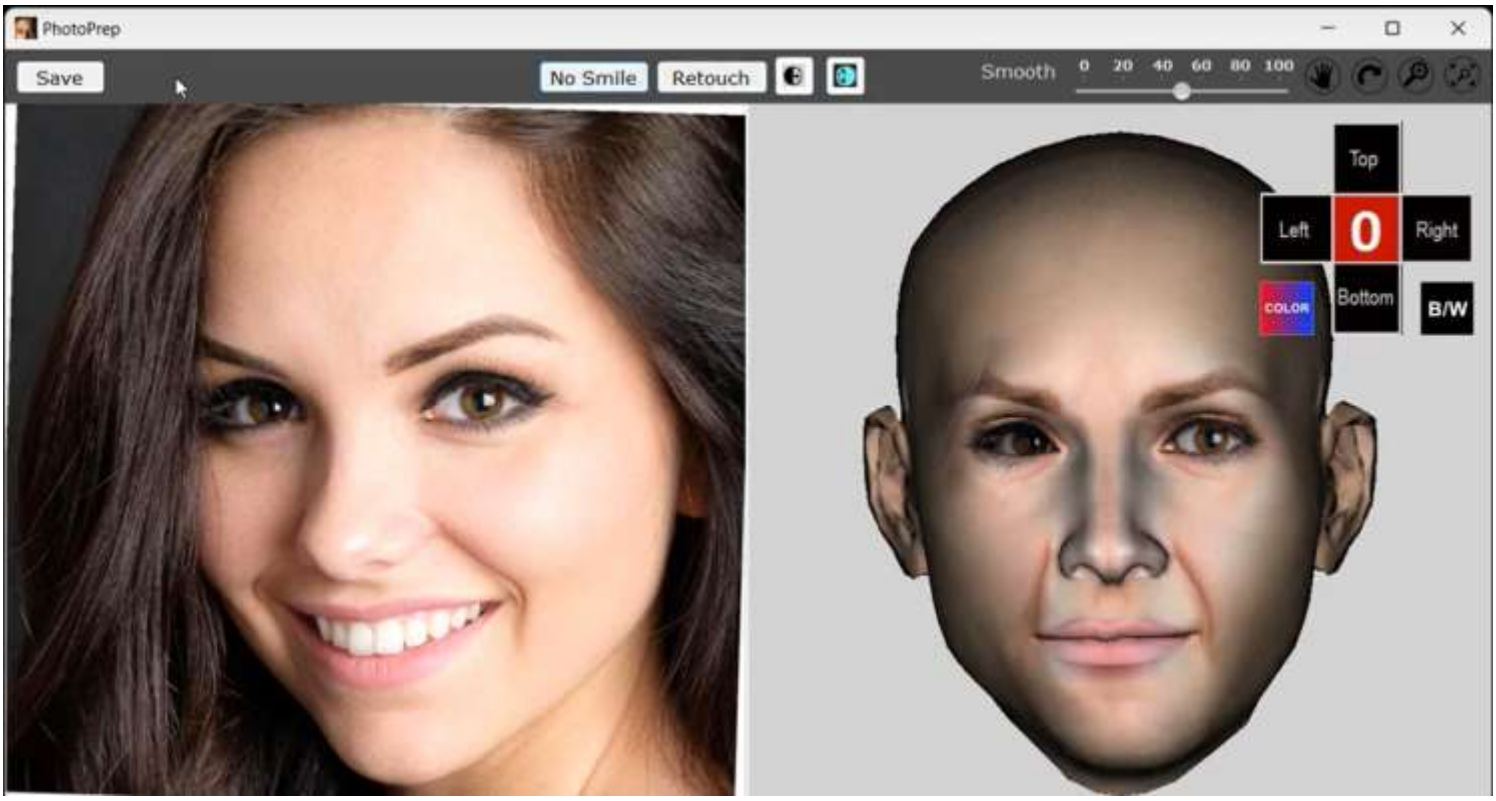
Chapter 3 – PhotoPrep

We developed this product to help users who prefer FaceTransfer or FaceGen to generate 3D heads. Both applications require frontal, passport-like photos with no open smile. PhotoPrep can do all of this in seconds, convert and save an "unusable" photo into a good candidate.

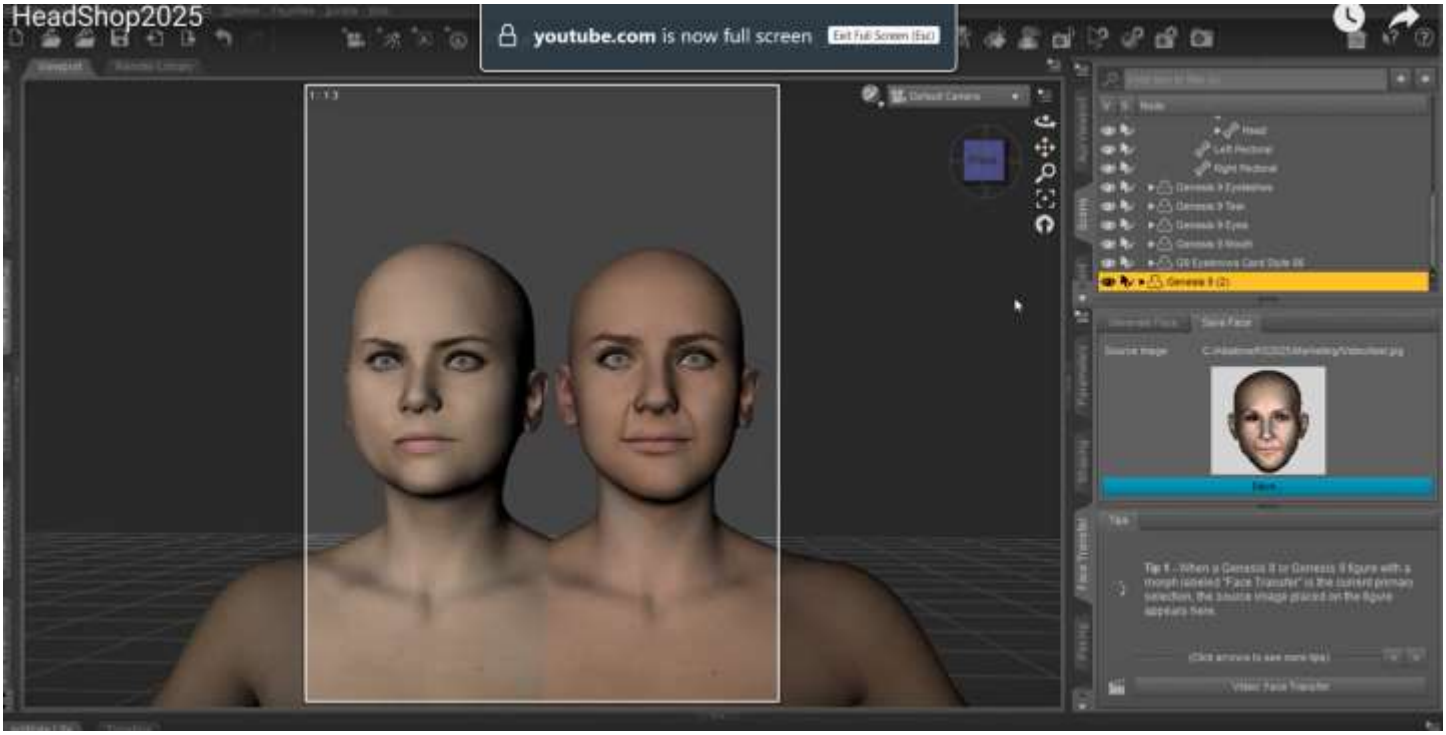
First see what a difficult photo would look like without PhotoPrep. As you can see, the rotated head did cause some distortions using FaceTransfer2.



Let’s try with PhotoPrep! The photo is now frontal, and with the help of the Mirror button we eliminated the shadows from the left side of the face. The No Smile button removes the smile.



Using FaceTransfer2 with the new photo we can compare side-by-side the difference.



Video: https://youtu.be/0KZuzlJTZdc?si=Y0B6yg3wfPE0PvON

White Paper: Working with Difficult Photos in DAZ Studio

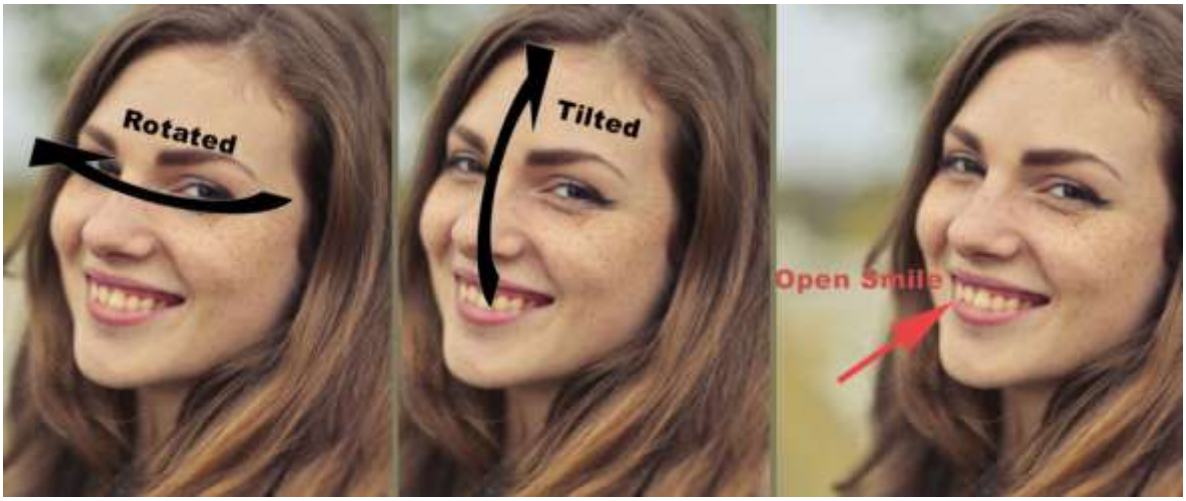
There are now at least three software applications that turn a portrait photo into a 3D character in DAZ Studio. What these software applications have in common is that they apply the shape changes that a custom character causes to the base Genesis figures (morphing) and also apply texture from the photo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

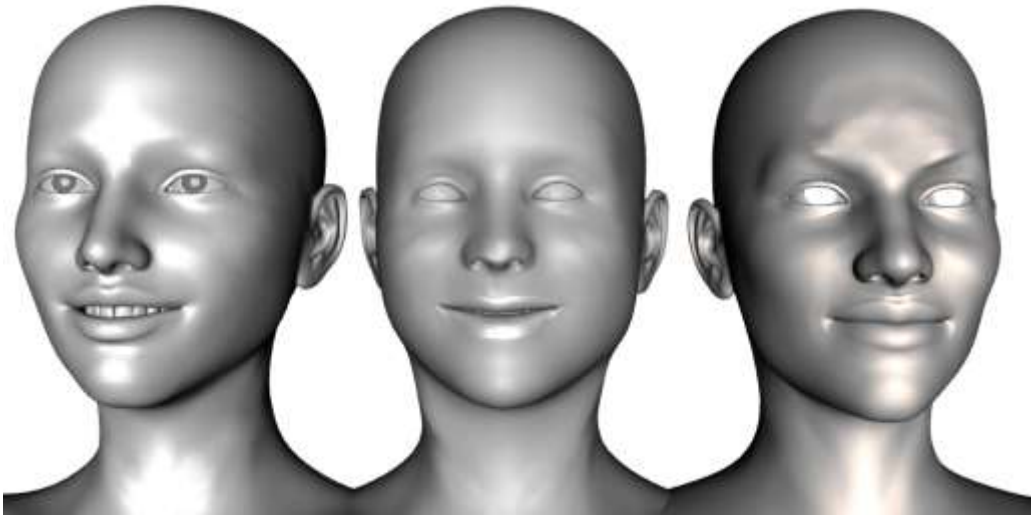
1. Establish rotation angle/degree and direction, create a new and uniform shape and then rotate the 3D mesh back to frontal.
2. Also detect if a photo represents close lips or an open smile. The method to do so is to deploy an automatic “facial feature detection” algorithm that find several dozen significant 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.

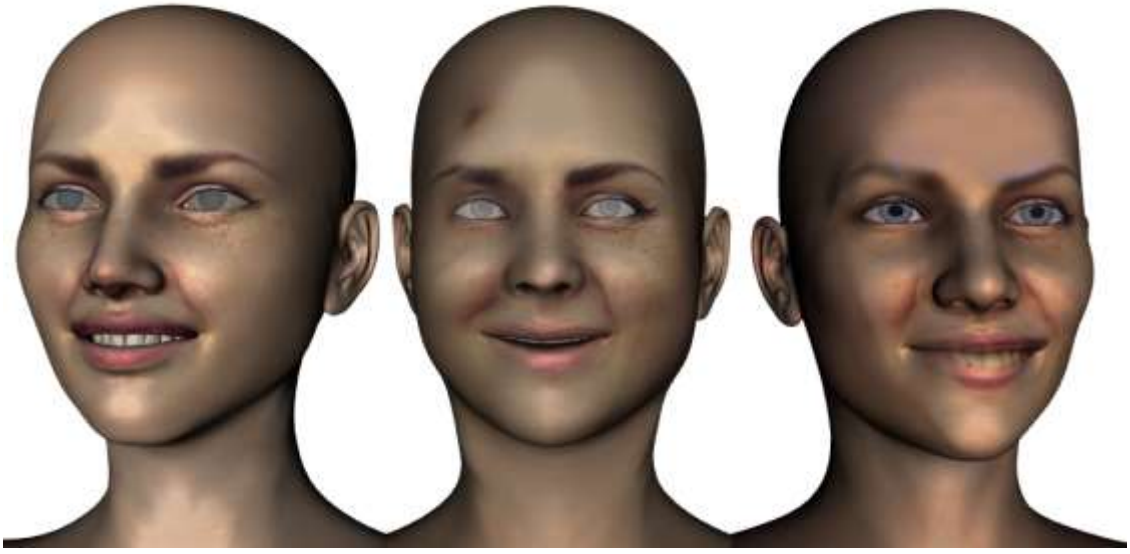
Below you can observe three samples on how the various software performed with the same photo. As is obvious, they achieved various degrees of success in capturing the shape of the head.

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?

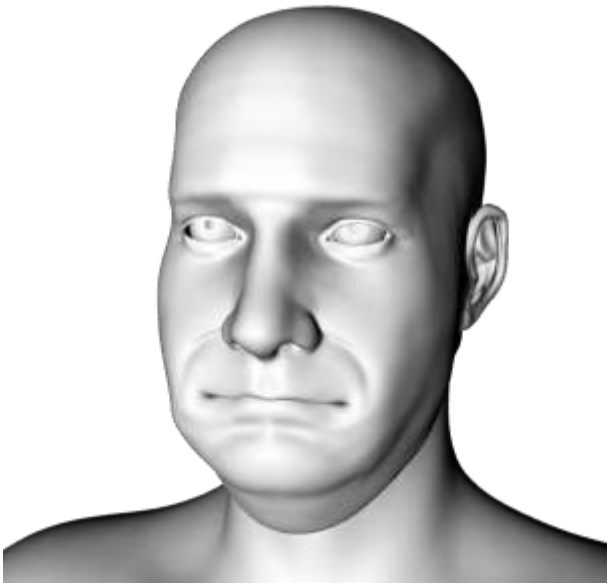
Here the three compared software applications also showed differences.



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 left 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.

Unique Topographic AutoSculpt

HeadShop’s AutoSculpt and the Associated 230 pieces Morph Libraries overcome the issue that still a problem for competing software: the sculpting of a variety of shapes that gives character to each different person.



Autosculpt works like a police sketch artist - going through typical features like forehead size, nose shape, mouth shape, creases, chin shape, etc. Unlike with competing apps, HeadShop users can apply from a library 230 shapes to a 3D head creating a 3D sculpture to fit with the texture map.

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: