

1. Hardware:

a) Scanning Box:

- The scanning box legs can be adjusted to the ground and be unrigged for transportation.
- Be careful not to scratch the code marks plate on top of the box, don't put things on it (not even the scanning device) and don't use any cleaning agents. The correct detection of the code marks is the basis for the scanning process. If the box is transported, make sure the marker plate is protected best.

b) Scanning Device:

- The laser is of class 1M and therefore not dangerous. Nonetheless avoid looking directly into the beam.
- Try not to put any dirt on the lenses or the laser. If needed the lenses of the camera can be cleaned carefully with no pressure using a cleaning cloth for optical devices.
- The scanning device is quite robust but blows on it or distortion could change the calibration and lead to a loss of accurateness of the system, so overall try to handle it carefully.
- Try not to fold the USB device cable due to connection issues. Just as well avoid winding the cable more than one time around the scanning device during the scanning process. Should the connection of the scanning device fail constantly, try different USB ports or the spare USB cable.

2. Software:

a) Credentials ShoeDNAScanner:

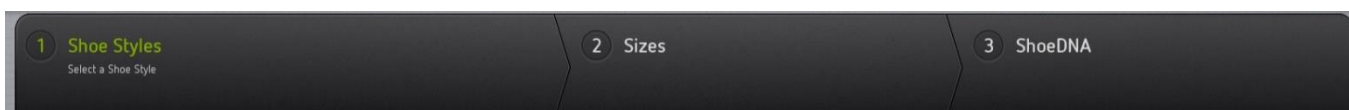
- Login:
- Password:

b) Hotline:

- If you happen to have problems with the software or hardware, please contact the corpus.e support:
 - support@corpus-e.com

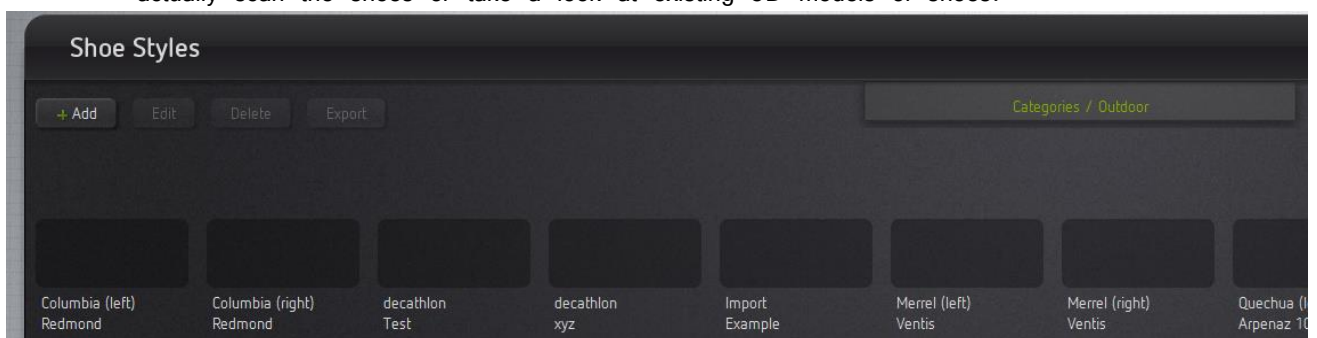
c) Description of layers and using the ShoeDNAScanner software:

- Three basic layers are available: "Shoe Styles", "Sizes" and "ShoeDNA". If a style is selected in the first layer, the second and third layer are unlocked and enable several options with the selected style, like scanning of shoes, computation of measures and ShoeDNA or the comparison of the selected shoe with other shoes. Sometimes, when the software is started, a reference scan has to be performed in an upcoming reference layer to check the calibration status of the scanning device.



- „Shoe Styles“:

- At the top of this layer you can choose the categories into which you want to scan the shoes.
- After selecting a category you can create new shoe styles here. Please enter the sizing system, gender and size range.
- Existing styles can be edited or deleted.
- You can export measure Excel data onto the hard disk.
- After selecting a style in the “Shoe Styles” Layer, you can navigate to the “Sizes”-Layer to actually scan the shoes or take a look at existing 3D models of shoes.



- „Sizes“:

- To start the scanning process you have to select the correct size in the size table on the left hand side. If the shoe wasn't scanned yet, the scanning process starts automatically. If there is a model already, you can unlock the size and start the scanning process by clicking the red button.
- The following keyboard shortcuts are available:
 - „Del“: Delete an unlocked scan.
 - „Esc“: Abort a scan.
 - „Enter“: finish the current scan by starting the triangulation process.
 - „F2“: Start the scanning process, if size is unlocked (same as red button)
- After triangulation is completed, you can rotate and look at the generated 3D model while the measures and ShoeDNA are processed on the servers.
- Having scanned at least three sizes, the software tries to grade the remaining sizes if the linearity of the measures is sufficient.
- If the model side information of the scanned shoe is not correct, you can mirror the 3D information by unlocking the shoe and changing the side of the model (left / right)

- „ShoeDNA“:

- This layer offers two types of comparison: ShoeDNA and 1:1 Model Compare
- ShoeDNA:
 - To use the ShoeDNA-feature the folder into which the models are scanned has to be prepared by corpus.e beforehand.
 - Basically the ShoeDNA is generated as a comparison of the scanned shoe to the average scanned shoe in this category and size.

- ShoeDNA suggestions are given in full EU sizes and have additional DNA characteristics concerning toe shape and shoe width.
- 1:1 Model Compare:
 - This tool is meant to compare two similar scans with each other, showing similarities and differences of the shapes by using different visualisations (signed/unsigned distances of the whole shoe or special regions, cross sections)
 - After selecting the comparison reference on the left side, you can browse through the styles on the right to finally select the comparison target. Both shapes are then aligned automatically.
 - If the automatic alignment has to be tuned further, you can align the shapes manually on the lower right of the layer.

3. Scanning:

a) Basics:

- Before scanning you have to lock the shoe in position inside the scanning box by using the shoe tray and its quick clamps. Try to avoid pushing the shoe too hard because doing that may cause undesired deformation of the 3D model and may lead to wrong shoe measures and ShoeDNA data. If the tongue of the shoe can't be held in place during the scanning process, you can try to use a small piece of tape to fix it.
- To start image capturing and drawing the laser line, press the trigger button on top of the scanning device. To end the capturing, press again. Recording is indicated by a red LED inside the trigger button.
- During the scanning process a live triangulation is computed which helps you detect sparsely scanned regions or even big holes in the developing 3D model.
- You can stop and continue the scanning process at all times by just pressing the device trigger button. During a scan pause, you can use the mouse to rotate and look at the model.
- Try to scan as slowly and accurate as needed without producing too many images without new information for the 3D model.

b) Expert scanning:

- The scanning device automatically tries to find the best exposure time / laser sensitivity for the currently scanned shoe, but you can override the automatic below the scan images in the scan layer. Using the manual laser sensitivity take care not to produce too wide laser lines or outshining laser areas in the images. If the shoe has multiple colours, start from bright and move to darker areas.
- To get the best scanning results always try to get as much distance between the surfaces you want to scan and the lens of the lower camera.