VR Avatars

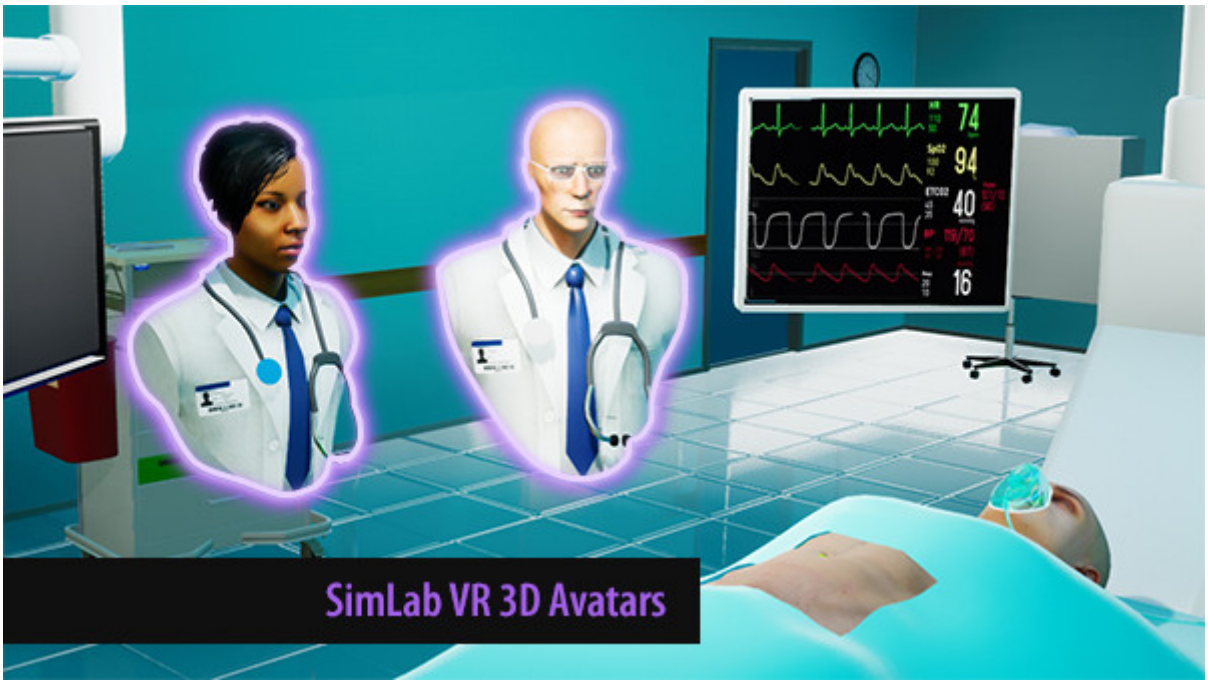
Learn how to change your 3D Avatar and the controllers in single VR Experiences and in VR Collaboration Sessions.

- Changing 3D Avatar
- Changing Hands in a VR Collaboration session
- Avatar Generator
- Alternative Free Avatar Source (Ready Player Me)
- Setting up your own Avatars and hands

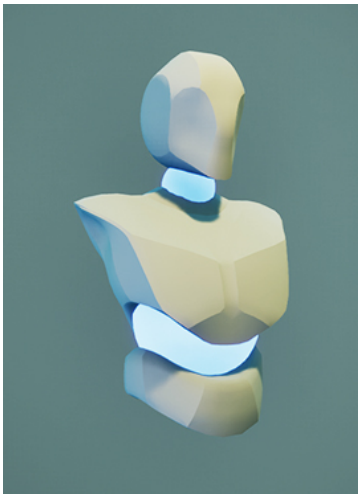
Changing 3D Avatar

What are 3D Avatars?

3D Avatars are the Visual representation of participants in VR Collaboration Sessions, they are used to drastically increase the level of immersion in a VR Experience.

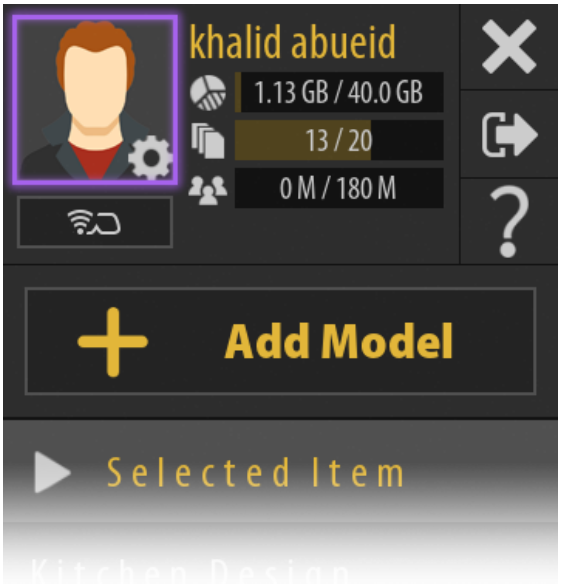


Changing the 3D Avatars

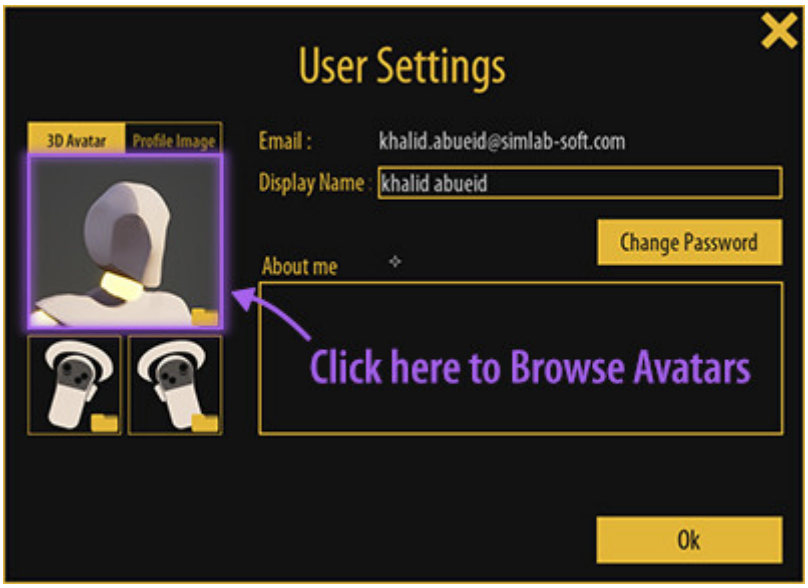


By default, all the participants in a VR Collaboration Session will have a generic 3D Avatar with a unique glowing color for each participant.

To change the default 3D Avatar, the user has to access the **User Settings** from SimLab VR Viewer.



To access the User Settings, Log in in to your SimLab Account in SimLab VR Viewer, **click on the profile image** in the top right corner**.**



In the User Settings dialogue, click on the **Avatar image** to open the avatar browser.

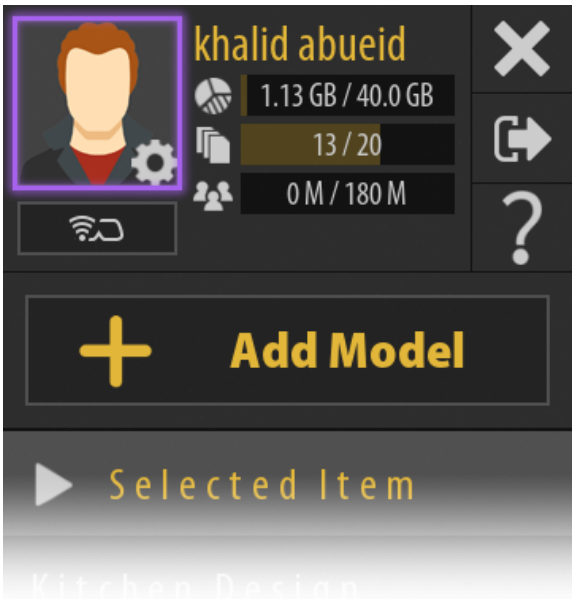


From the Avatar Browser, select on of the available avatars and click **"OK"** to set it as your 3D avatar.

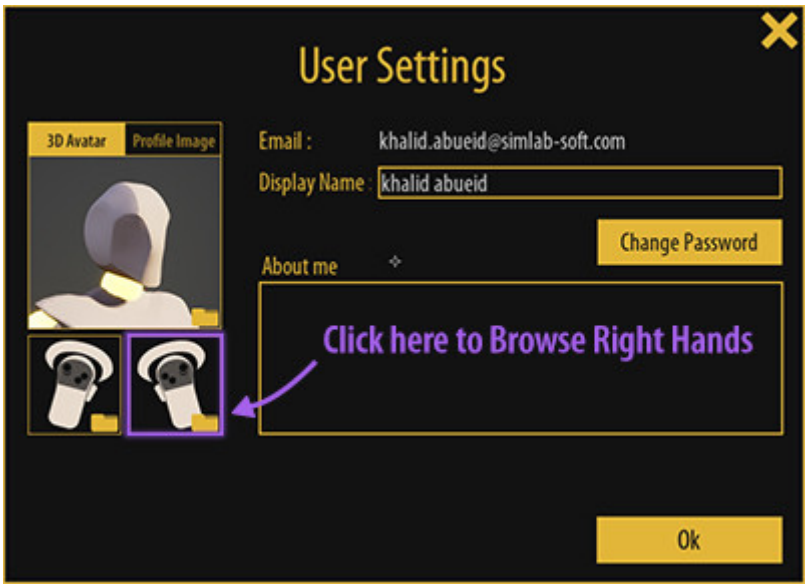
Changing Hands in a VR Collaboration session

VR Controllers in SimLab VR Viewer can be changed to different objects/tools or hands/gloves with a set of animation for grabbing and interacting with objects.





To change the default controllers in VR mode of SimLab VR Viewer, Log in to your SimLab Account in SimLab VR Viewer, then click on the Profile image at the top right corner to access the **User Settings**.



From the User Settings window, click on the **buttons below the Avatar** picture to change the right or the left Hand, one at a time.



From the Hand browser window select the desired hand and click **OK.**

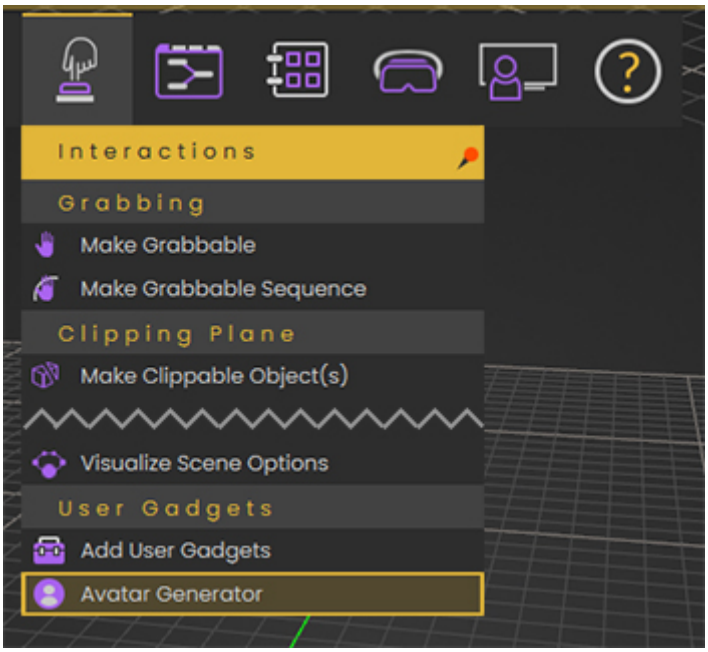
Note : Selecting the **Default Controller** will display the VR Device Hands, and selecting **Avatar Controllers** will display the controllers that are included within the 3D Avatar *if Available*.

To learn how to equip hands in single user VR sessions Click here.

Avatar Generator

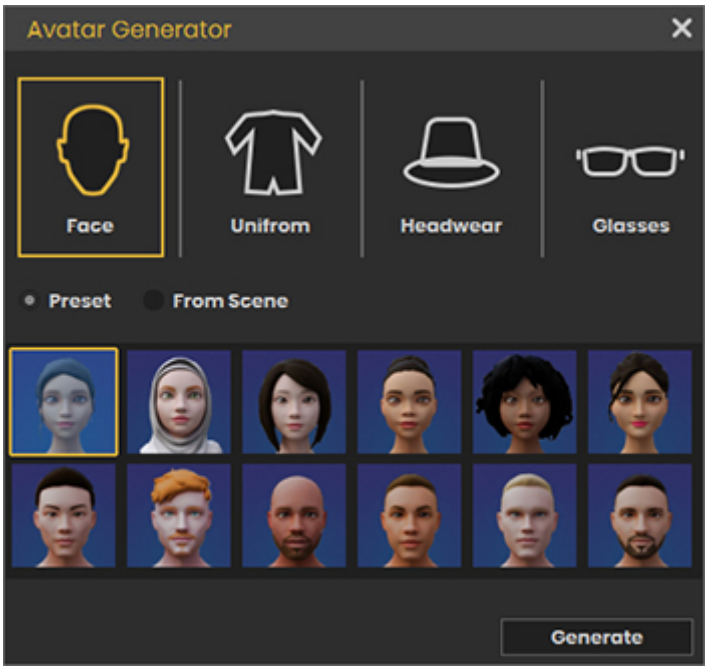
SimLab Composer and SimLab VR Studio enables you to generate your own avatars by combining different faces, uniforms, headwear and glasses together.





In SimLab Composer or SimLab VR Studio, go to the **Interactions menu,** and select **"Avatar Generator".**

Using Avatar Presets



In the Avatar Generator, you can specify which component you want to change by selecting one of the icons at the top, the available components are : **Face**, **Uniform**, **Headwear** and **Glasses**.

Once you have selected the component type and with the "**Preset**" option toggled, you can select one of the options available for it in the lower part of the dialog.

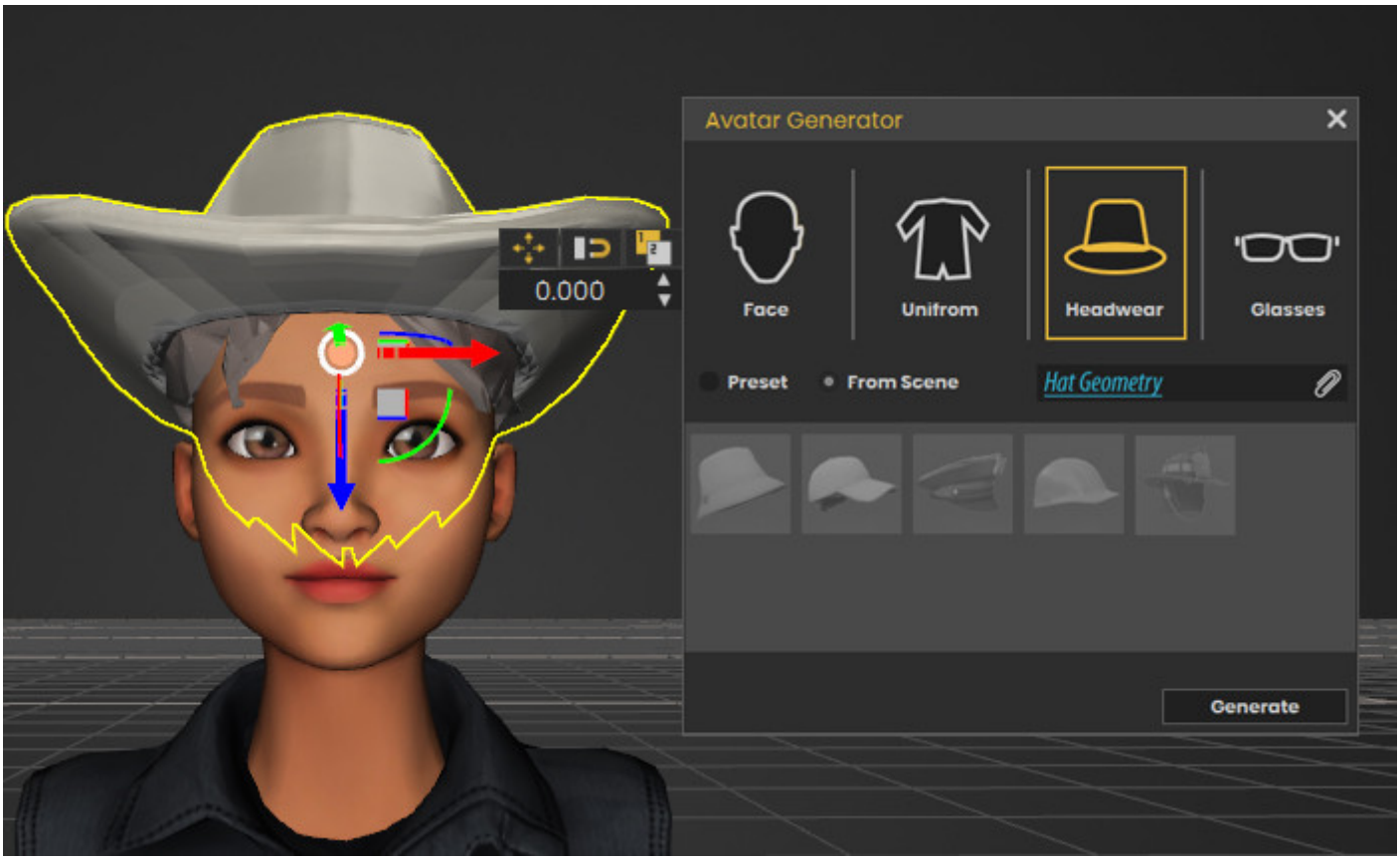


Once you have specified all the parts of the avatar **Click Generate** to finalize the process.

Using your own Geometry as an Avatar component

After selecting one of the components, you will notice that you will have the option to switch from "**Preset**" to "**From Scene**".

Selecting the latter option enables you to attach an object from the scene as a component in the avatar so you can use a face or a uniform of your creation, for example, instead of the presets available.



To specify a component from the scene, select the component from the scene or from the object tree, then click on the **Attach Icon** in the blank field.

After attaching all the components, click Generate to finalize the Avatar creation process.

Things to keep in mind when using components from the scene:

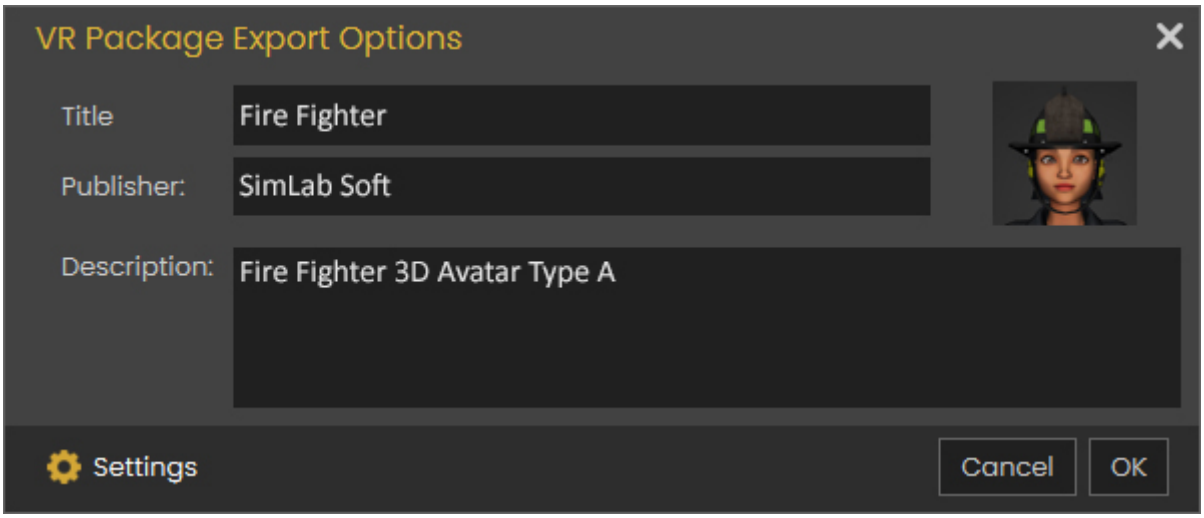
1. You can combine presets components with components from the scene in a single avatar.
2. If you want to use a face component from the scene it needs to have the joint that controls the head's rotation named "Head" or you can use faces that are downloaded from Ready Player me which are compatible (*More on this in the following Pages of this book*).
3. If the Face component **does not** have a joint named "Head" it will still work, but the Avatar's head would not rotate as the user is rotating his head during a VR experience.
4. Make sure that the Avatar is facing the Negative Y Axis in SimLab Composer or SimLab VR studio before clicking Generate.

Click Here to learn more.

Exporting the Generated Avatar



From the SimLab VR Viewer menu select Export **"VR Catalog Item"**, then type a name for the VRPackage file and click **Save**.



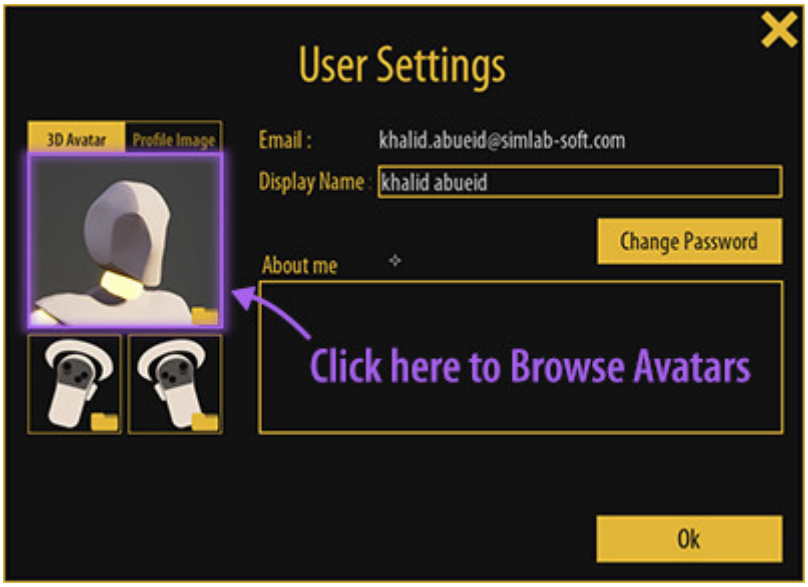
In the VR Package Export Dialogue, type in a title, the publishers name and a description for the VR package, then click "OK".

From this Dialogue you can also set the thumbnail image for the Avatar which will later appear when adding this Avatar to SimLab VR Viewer and as your profile picture in SimLab VR Viewer if this avatar was set to be used.

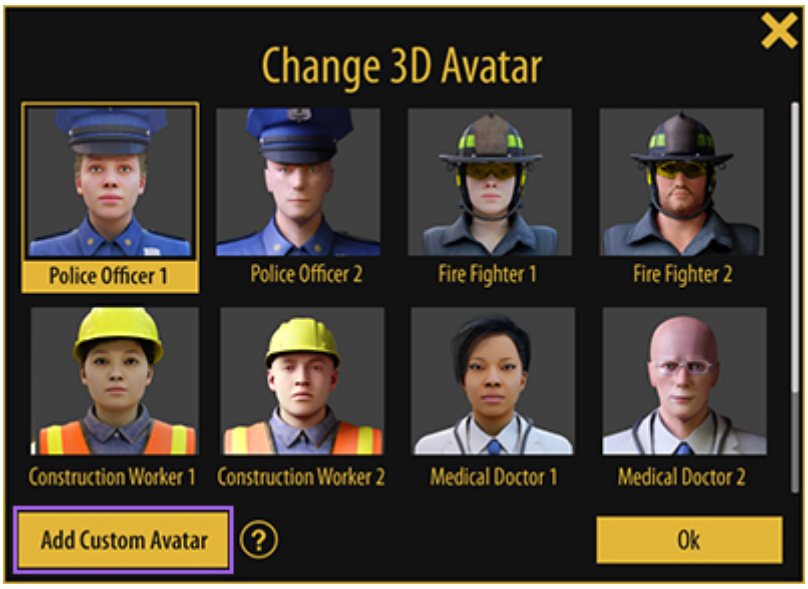
The recommended size for the Avatar's thumbnail is (**158 pixels X 142 pixels).**

(**Note:** if you are planning to distribute Avatars on multiple users you need to export a unique avatar for each user).

Adding the Avatar to SimLab VR Viewer



Similar to Selecting the Avatar, Click the Profile image at the top right corner in SimLab VR Viewer, then click the Avatar Image to open the Avatars Browser.



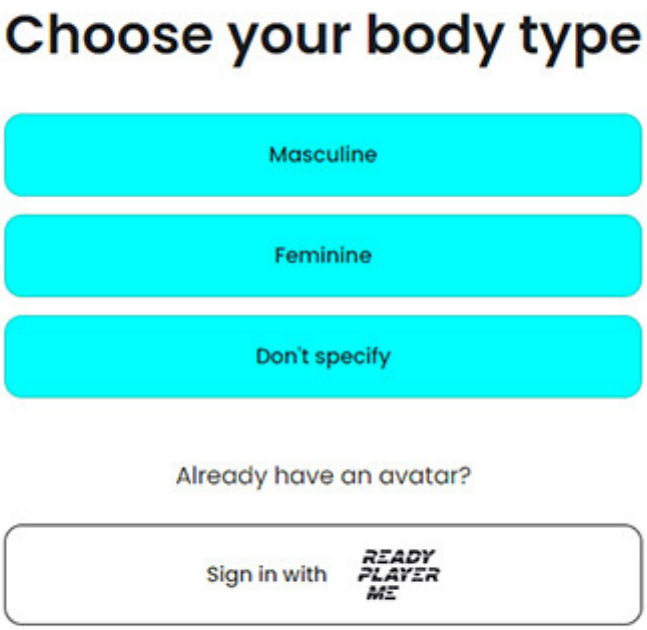
From the Avatar Browser window click the **"Add Custom Avatar"** Button at the bottom left corner to open the file browser, then **select the VRPackage** File you saved earlier and click OK to set it as your 3D Avatar.

Alternative Free Avatar Source (Ready Player Me)

In addition to the Avatars available in SimLab VR Viewer or the ones you can generate in SimLab Composer or SimLab VR Studio, you can add your own avatars and hands and use them in VR Experiences and VR Collaboration Sessions.

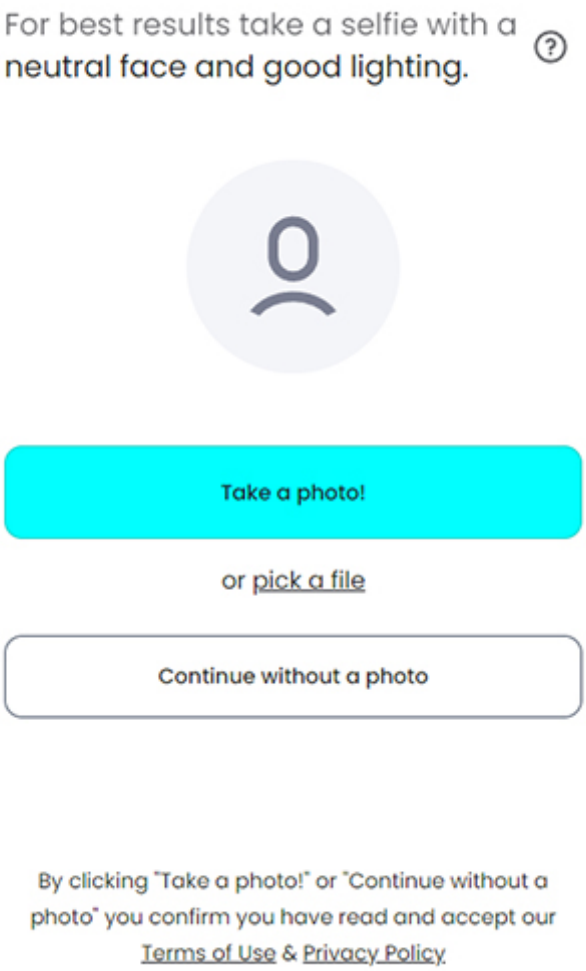
"Ready Player Me" Avatars

Ready Player Me offers you the ability to create your own custom avatars and download them as a GLB files, which you can then use as an avatar in SimLab VR Viewer after converting them to VRPACKAGE files using SimLab Composer or SimLab VR Studio.



Go to **vr.readyplayer.me**

You can then either sign in to your Ready Player Me account or continue with the creation by selecting a body type.



You can now select the option to **Take a photo** or **Pick a file** to cerate a 3D avatar based on a profile image, or you can click on **Continue without a photo** to create a customizable 3D Avatar.

Pick an Avatar

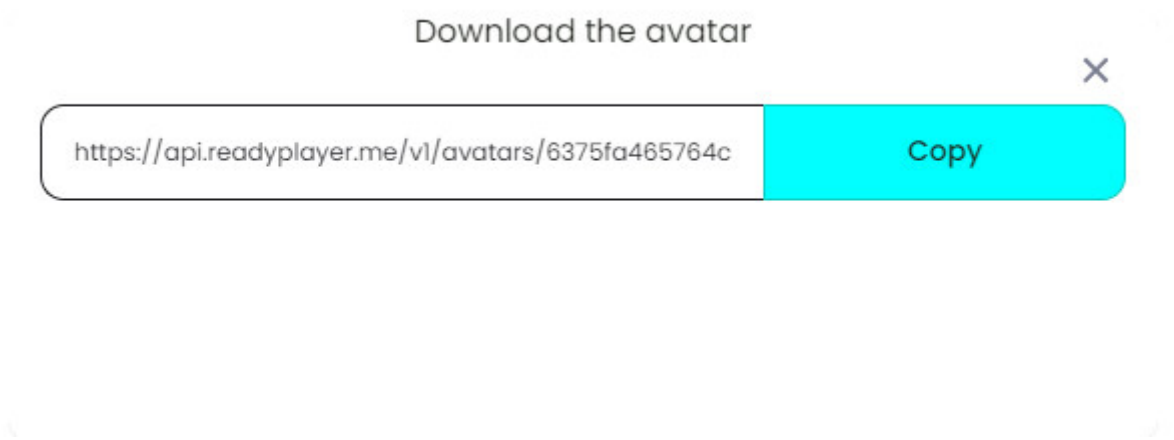
You'll be able to customize it later



Select one of the available presets to customize it.



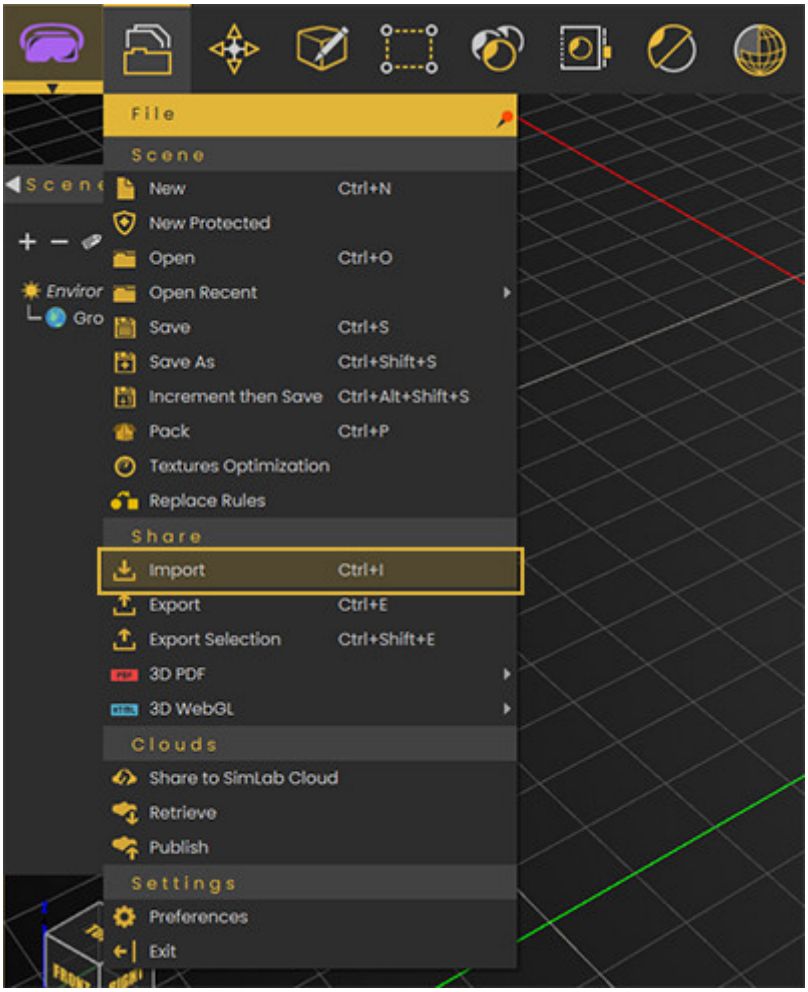
Using the options at the bottom of the screen, change the appearance of the avatar and once you're satisfied with the Avatar, click Next.



After customizing the Avatar and clicking Next, a popup window will appear with a link for the created avatar and a copy button.

Click Copy then paste the link in your browser to download the created avatar as a glb file.

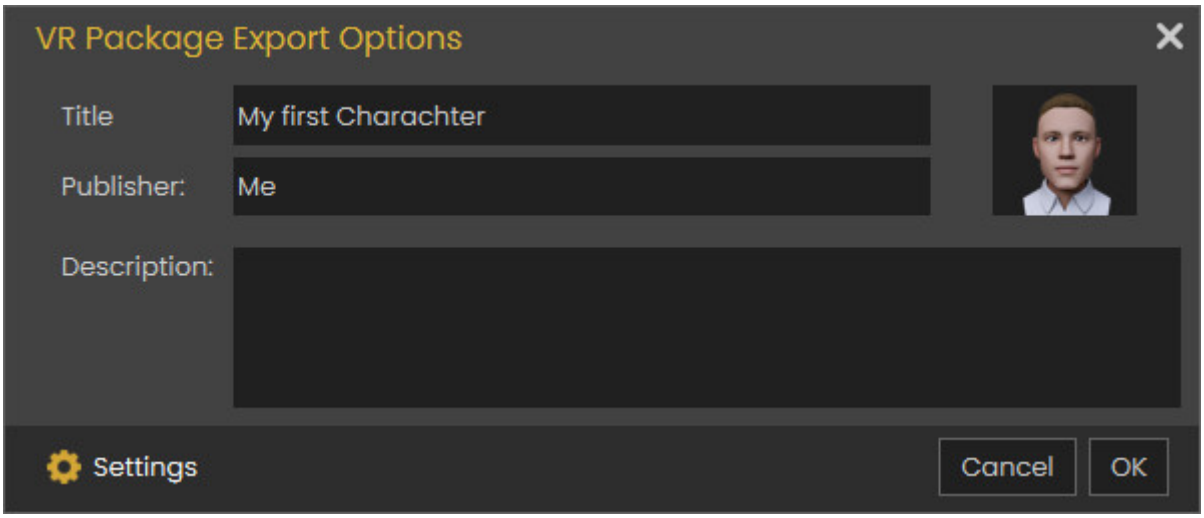
Converting GLB files to VRPackage files



Run SimLab VR Studio or SimLab Composer, and from the file menu select "**Import**", then select the Avatar GLB file you previously downloaded from Ready Player Me then click Open to import it.



From the SimLab VR Viewer menu select Export **"VR Catalog Item"**, then type a name for the VRPackage file and click **Save**.

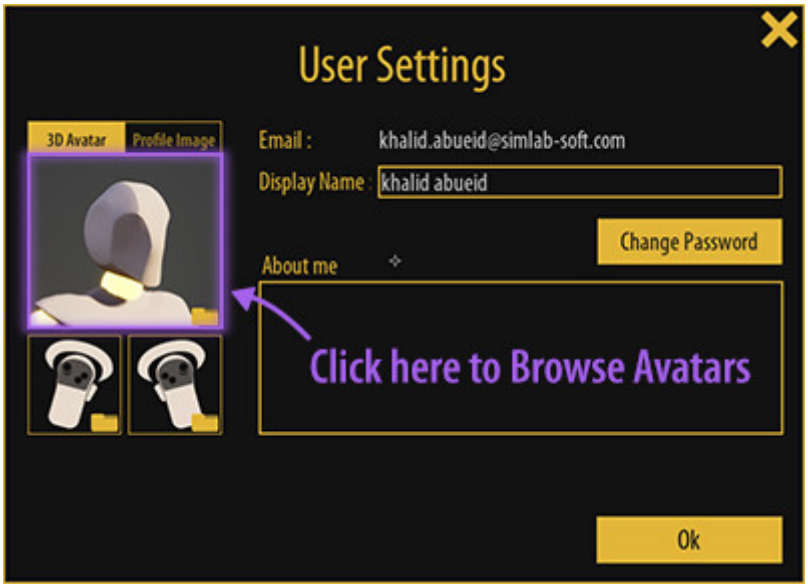


In the VR Package Export Dialogue, type in a title, the publishers name and a description for the VR package, then click "OK".

From this Dialogue you can also set the thumbnail image for the Avatar which will later appear when adding this Avatar to SimLab VR Viewer and as your profile picture in SimLab VR Viewer if this avatar was set to be used.

The recommended size for the Avatar's thumbnail is (158 pixels X 142 pixels).

Adding the Avatar to SimLab VR Viewer



Similar to Selecting the Avatar, Click the Profile image at the top right corner in SimLab VR Viewer, then click the Avatar Image to open the Avatars Browser.



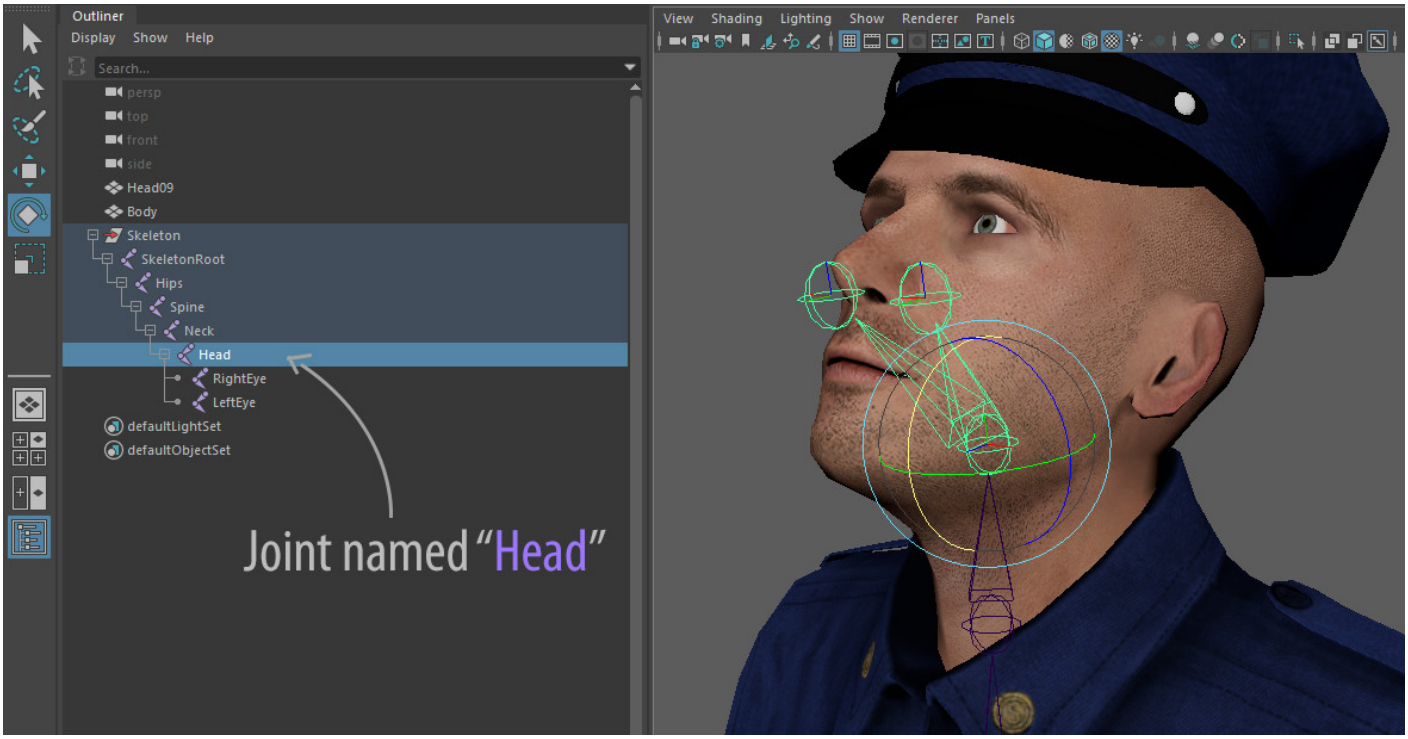
From the Avatar Browser window click the **"Add Custom Avatar"** Button at the bottom left corner to open the file browser, then **select the VRPackage** File you saved earlier and click OK to set it as your 3D Avatar.

Setting up your own Avatars and hands

3D Avatars

SimLab VR Viewer can use Avatar created from sources other than Ready Player Me, as long as they follow a certain simple criteria, which is as follows:

1- The Avatar Model must have a Joint named "Head" that controls the rotation of the Head if you want the Avatar's head to match movement of the user's head in VR, otherwise the Avatar will be Rigid during VR Collaboration Sessions.



2- The Avatar 3D model Must be facing the **Negative Y Axis** in SimLab Composer or SimLab VR Studio to have the correct orientation in SimLab VR Viewer.



Once you have the 3D Avatar ready in SimLab Composer or VR Studio you can proceed with the same steps as exporting a "Ready Player Me" Avatar, **Export the model** by selecting export VR Catalog Item from the VR Viewer Menu, then go to the **Profile Settings in SimLab VR Viewer** and click the **Avatar Image,** then Select **"Add custom Avatar"** and select the VRPackage file you have exported earlier.

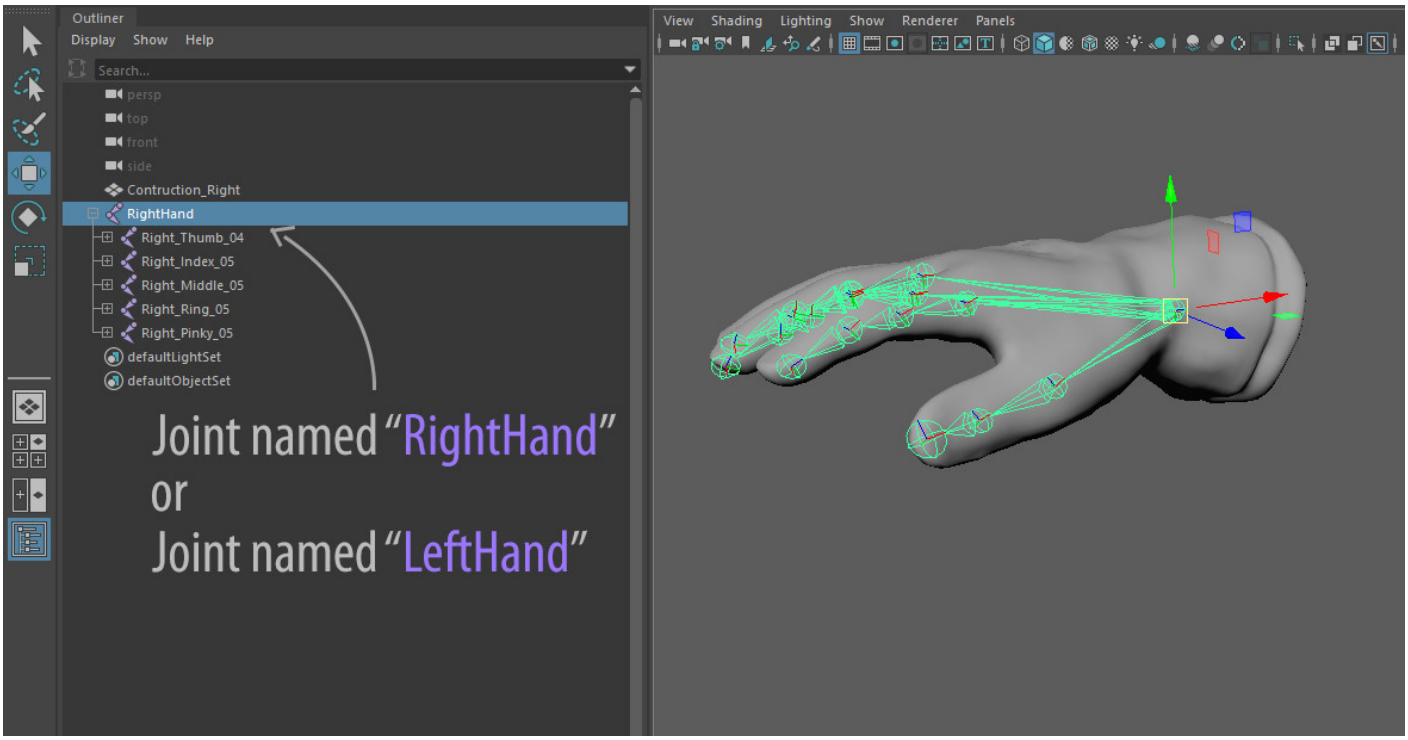
You can also use components that you have created as a part of the Avatar Generator.

Dynamic Hands

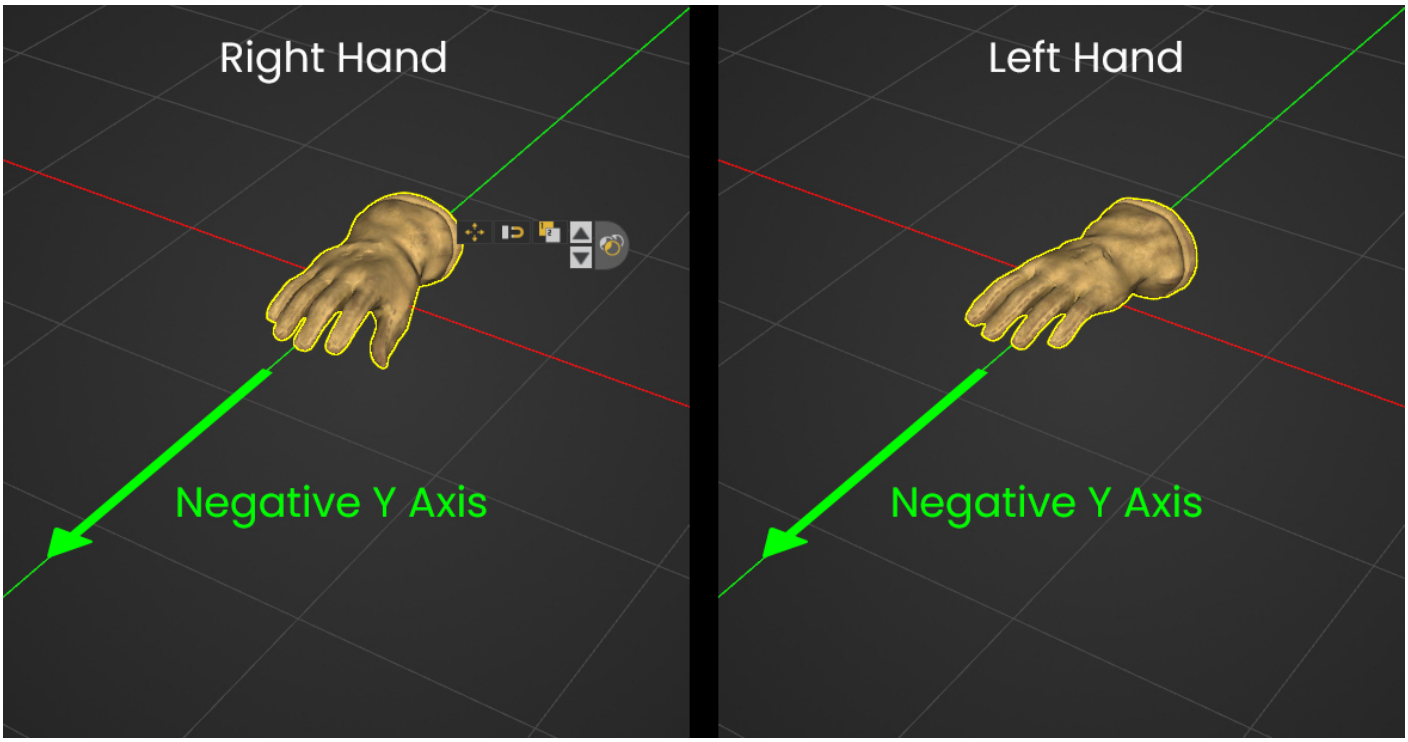
In addition to Avatars you can also add custom created hands with animation for trigger and grabbing, to successfully add a dynamic hand to use in VR make sure of the following

:

1- The hand needs to have a joint the controls it named **"RightHand"** for the right hand, and **"LeftHand"** for the left hand.



2- Both the Right hand and the left Hand need to be oriented in the Negative Y axis in SimLab Composer or SimLab VR Studio.

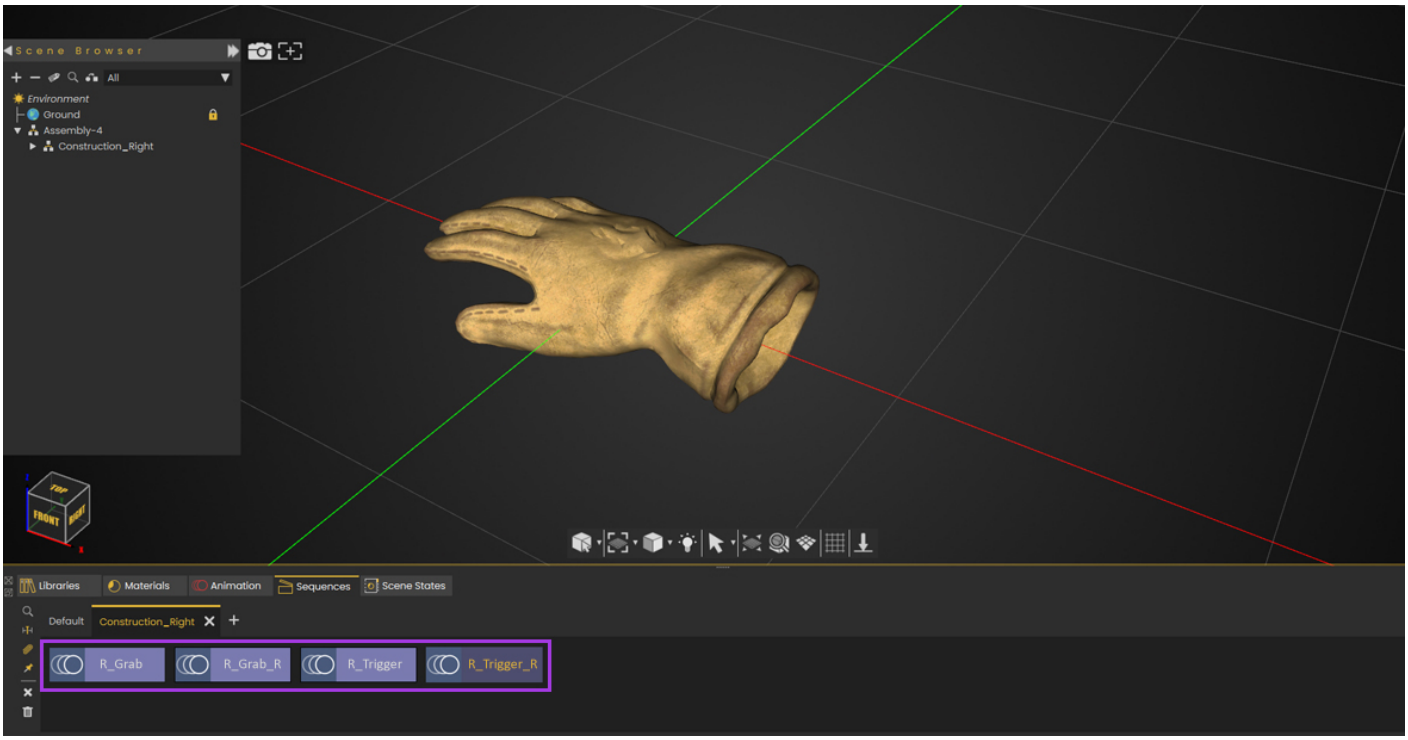


3-To Include a triggering and a grabbing animation with the hands, you need to have 4 Animations sequences for each hand:

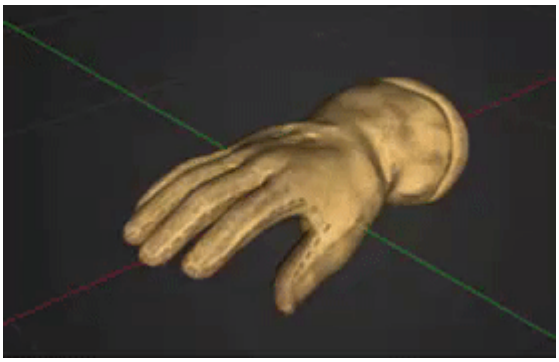
For the **Right Hand** : a grabbing Animation named **"R_Grab",** a Releasing animation (reversed grabbing) named **"R_Grab_Reversed",** a Triggering Animation named **"R_Trigger"** and a releasing animation named **"R_Trigger_Reversed".**

For the **Left Hand** : a grabbing Animation named **"L_Grab",** a Releasing animation (reversed grabbing) named **"L_Grab_Reversed",** a Triggering Animation named **"L_Trigger"** and a releasing animation named **"L_Trigger_Reversed".**

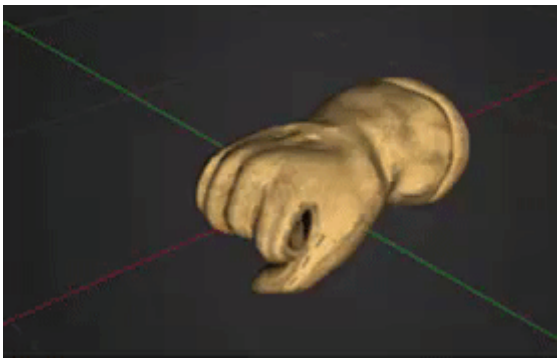
Click Here to learn more about animation sequences creation.



Grabbing



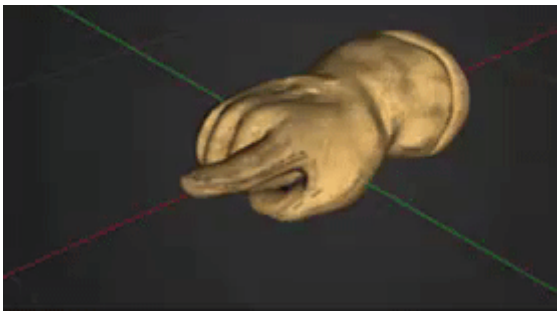
Reversed Grabbing



Triggering

Reversed Triggering





Once you have setup each hand separately, following the same steps as exporting a 3D avatar :

1. Export the Right or Left Hand by selecting **Export VR Catalog Item** from the VR Viewer Menu.
2. Click on the profile image at the top right corner in SimLab VR Viewer to access the **User Settings**.
3. Click the Right or Left Hand **Image** underneath the Avatar.
4. Click **Add Custom Hand** and select the VR Package you have exported.
5. Do the same for the Other hand.