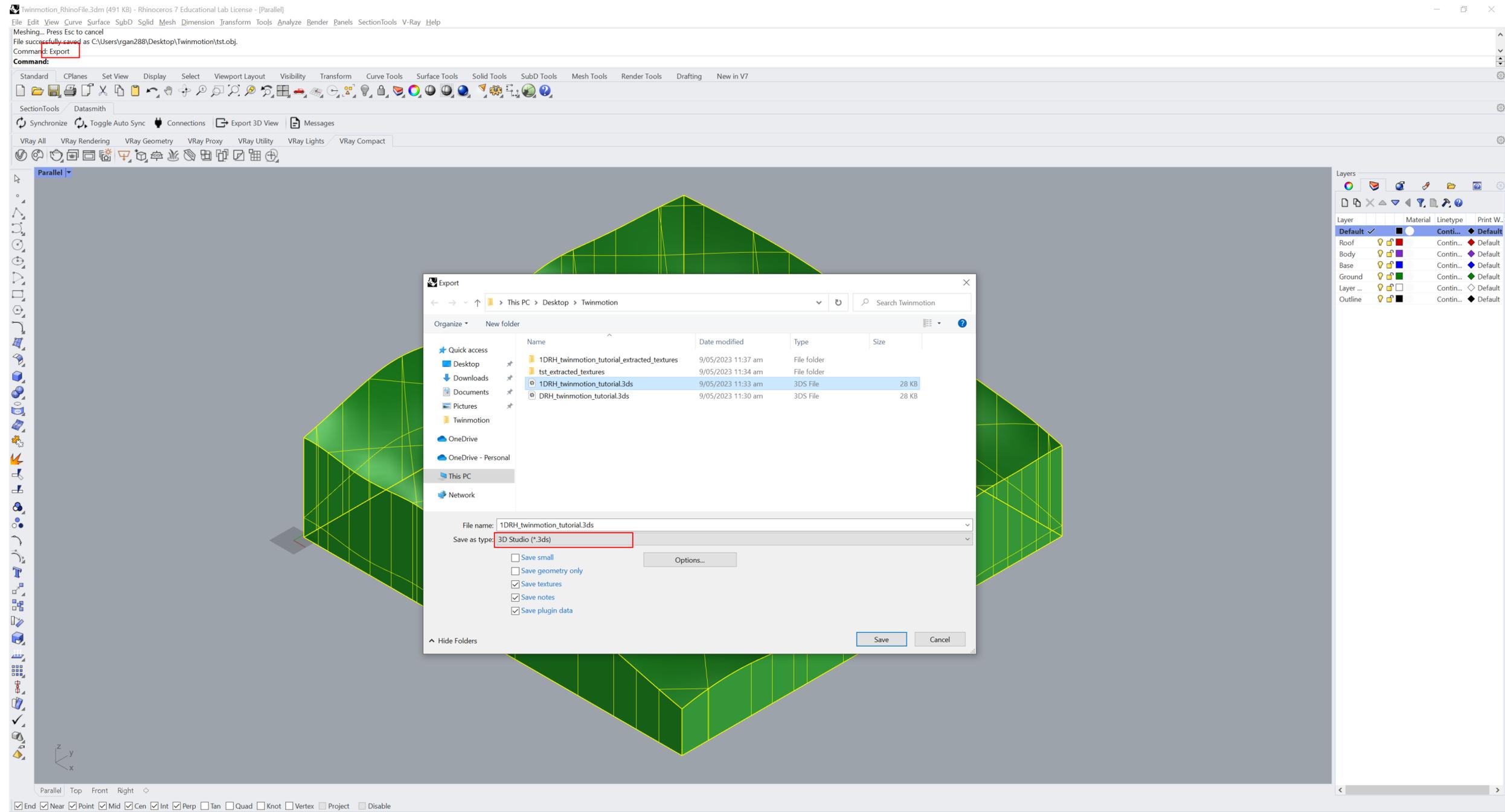


Twinmotion

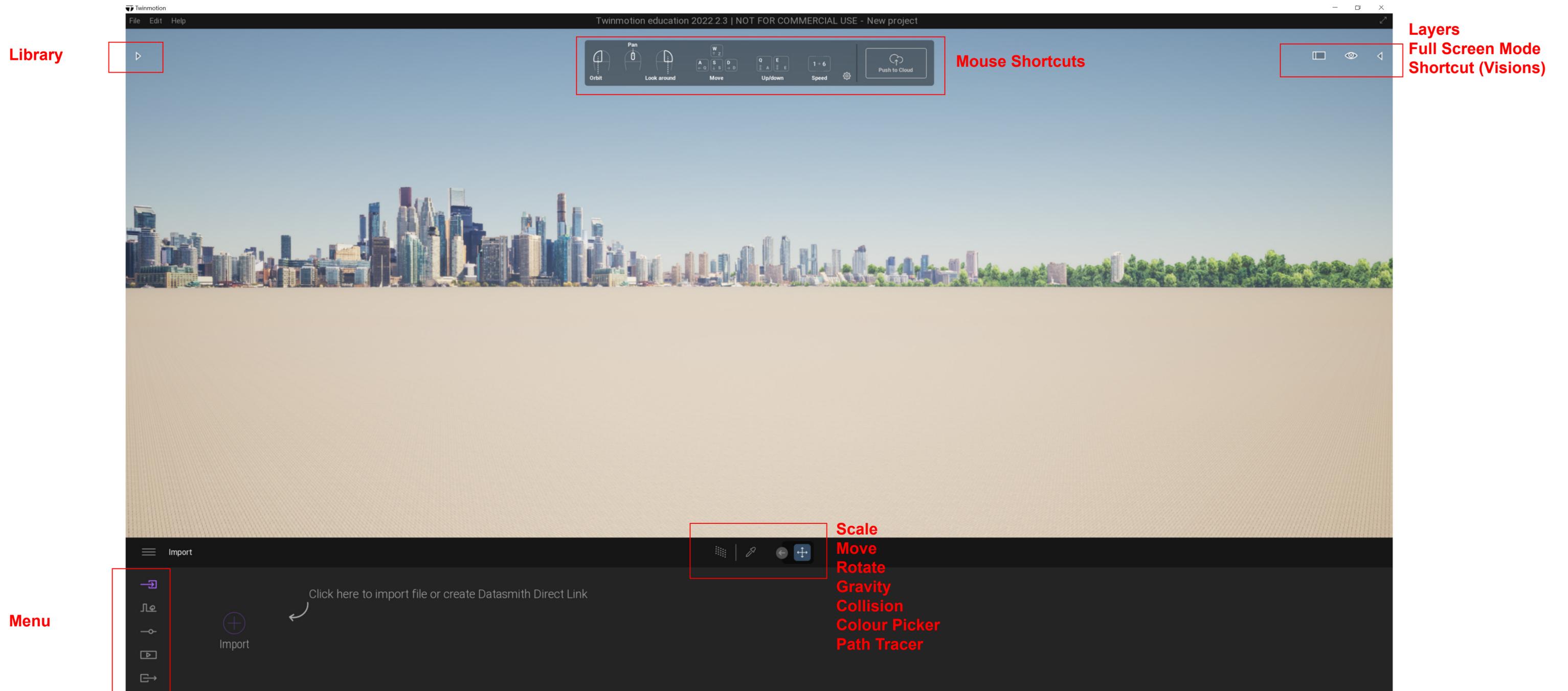
Basic and Advanced Tutorial for Rendering

Twinmotion: Exporting from Rhino to Twinmotion



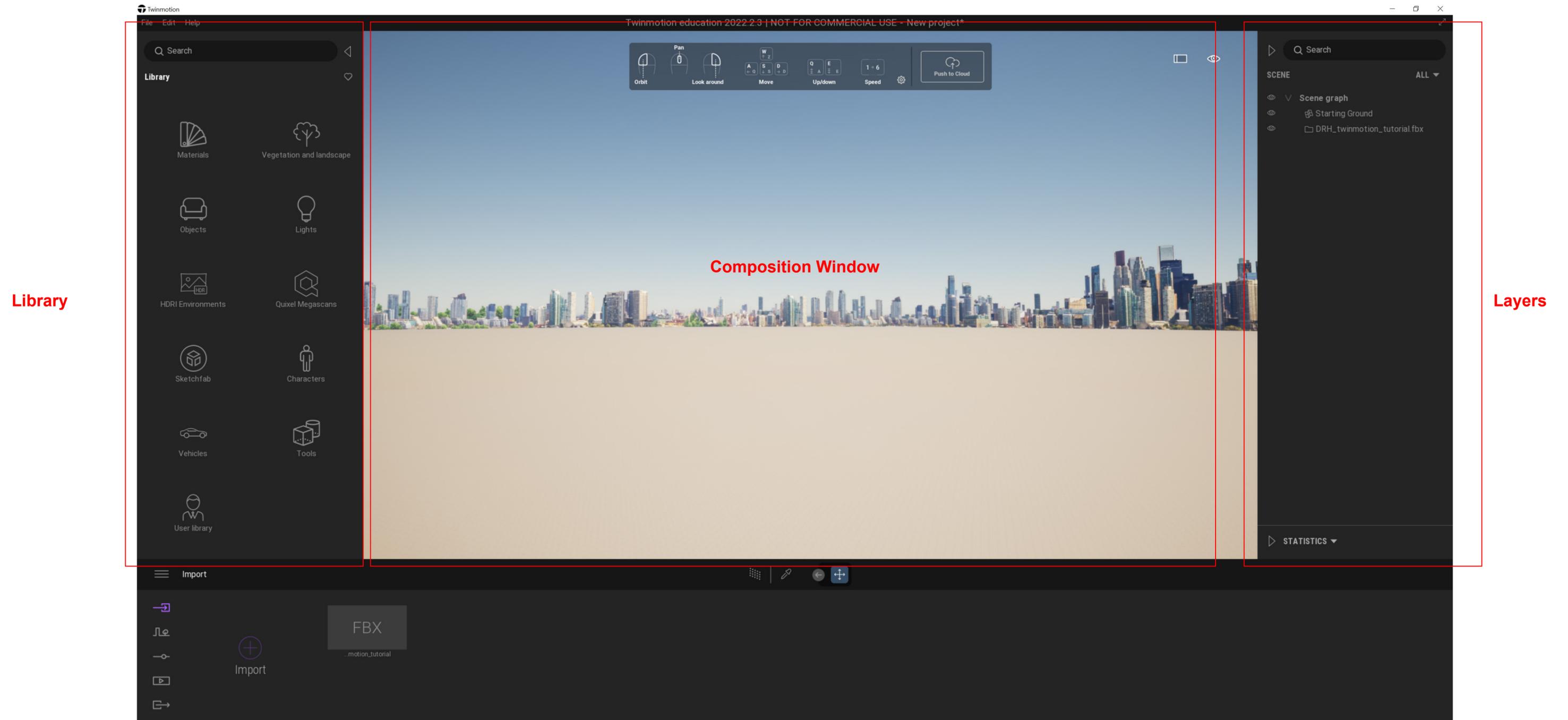
Step 1: First thing you want to do before starting up Twinmotion is to export your 3D Model. But before exporting, make sure your 3D Model are To do that, type in Export (select the object(s) you want to export) > change the file type to "3D Studio" > name your file name to your liking > save.

Twinmotion - User Interface



Step 2: After exporting your 3D Model, open up Twinmotion. Unlike other rendering softwares, the User Interface for Twinmotion is very straight forward. Highlighted are the important features that you need to understand of the user interface.

Twinmotion - User Interface



Step 2.5: To access the library and the layers properties, you need to click the arrow (as shown in the previous slide) on the top left and right of your screen. Once clicked, it should show this.

Twinmotion - Keyboard Shortcuts (Mac and Windows)

MOVES

Move forward	W	W
Move backward	S	S
Move left	A	A
Move right	D	D
Elevation up	Q	Q
Elevation down	E	E
Sprint	all + Mvmt	⌘ + Mvmt
Slow	ctrl + Mvmt	all + Mvmt

TOOLS

Translate	4	
Rotate	5	
Scale	6	
Next transform	→	
Zoom to selection	F	
Show/Hide helper	G	
Material picker	T	
Hide/Unhide	H	

OTHERS

Screenshot	F9	F9
BIMmotion VR	F10	F10
Full screen	ctrl + ⌘ + F	F11
BIMmotion	F12	F12
Pedestrian mode	M	M

SPEED

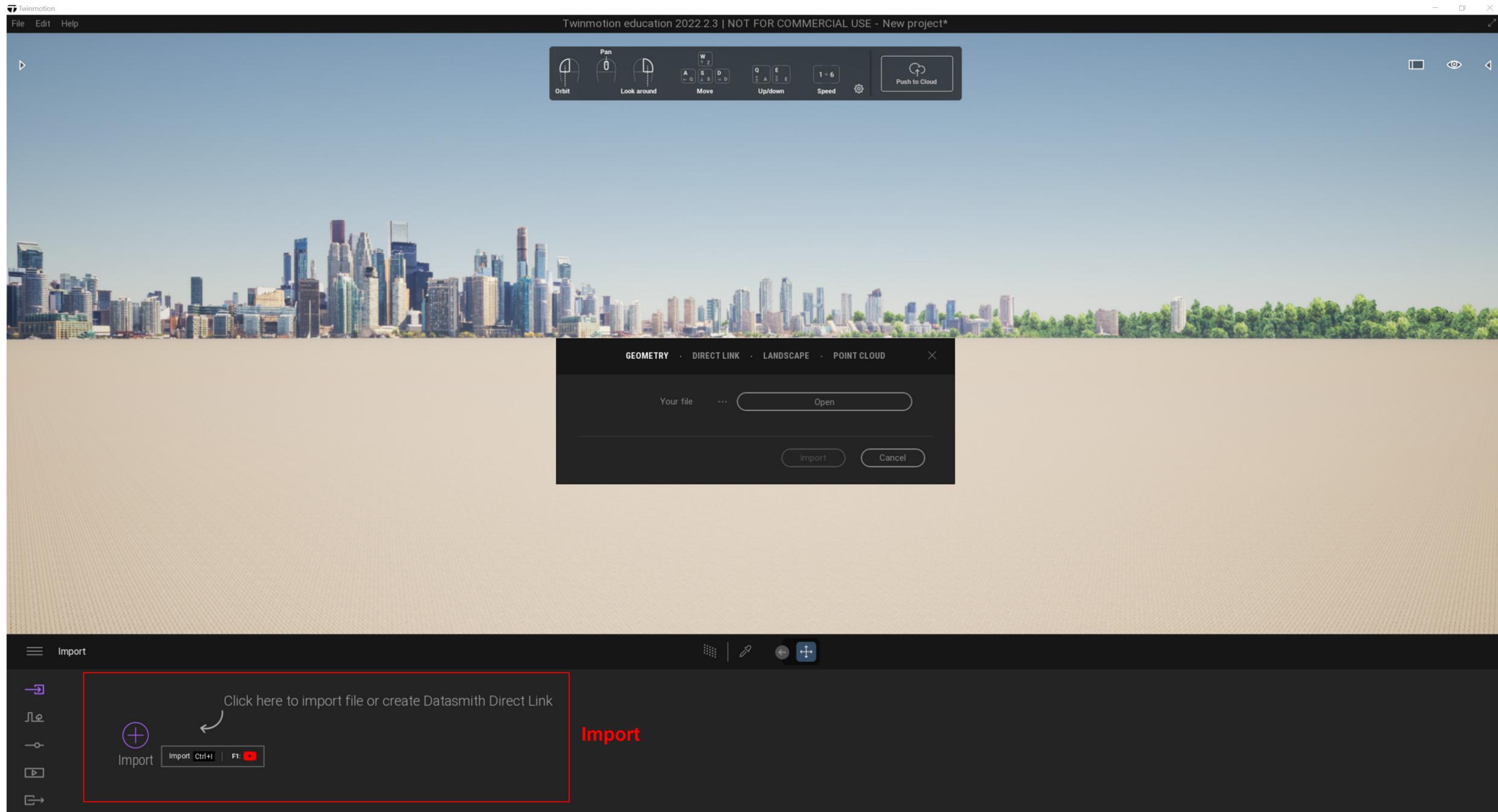
Walk speed	1	1
Bicycle speed	2	2
Drive speed	3	3

FILE

New project	⌘ + N	ctrl + N
Select all	⌘ + A	ctrl + A
Undo	⌘ + Z	ctrl + Z
Redo	⌘ + Y	ctrl + Y
Save	⌘ + S	ctrl + S
Save as	⌘ + ⌘ + S	ctrl + ⌘ + S
Duplicate	⌘ + move object	ctrl + move object
Copy	⌘ + C	ctrl + C
Paste	⌘ + V	ctrl + V
Delete	⌘ + ←	delete
Open	⌘ + O	ctrl + O
Merge	⌘ + M	ctrl + M
Rename		F2
Preferences	⌘ + P	ctrl + P
Import	⌘ + I	ctrl + I
File menu	B	B

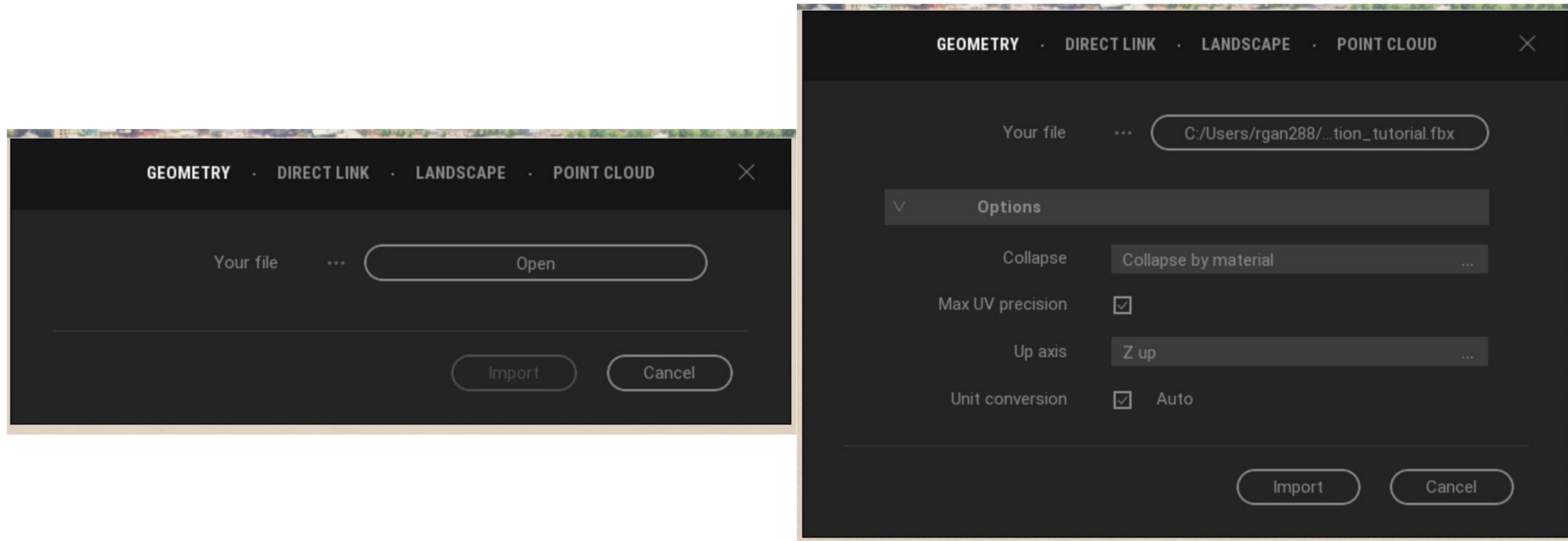
Step 2.5 (Bonus): To make life easy, twinmotion does come with keyboard shortcuts. On the screen are shortcuts for both Mac and Windows.

Twinmotion: Importing 3D Model into Twinmotion



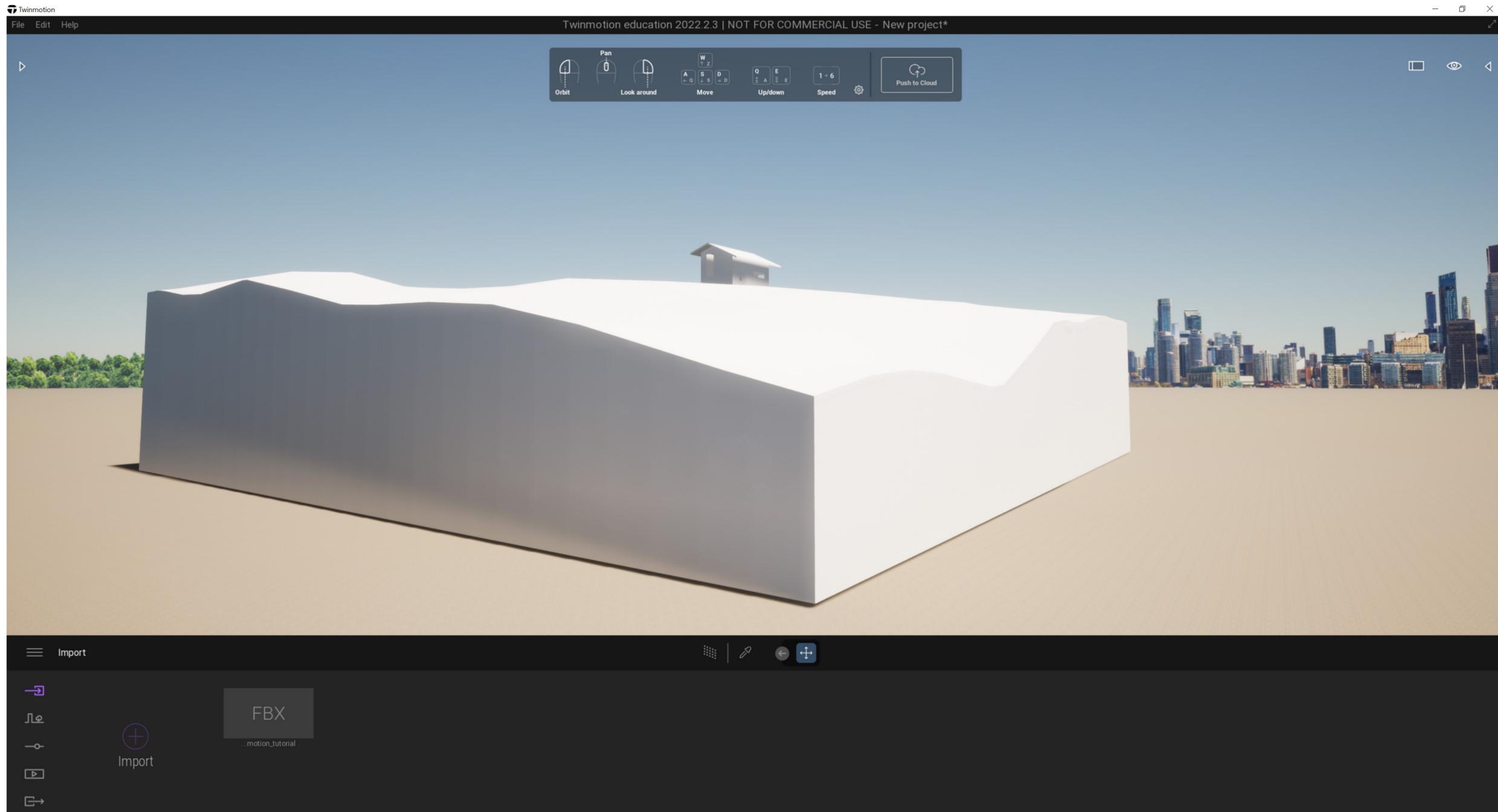
Step 3: Now we need to import our 3D Model into Twinmotion. Go to the purple icon stating "Import" > under "Geometry" - "Your File" click "open" and a new interface should pop up.

Twinmotion: Importing 3D Model into Twinmotion



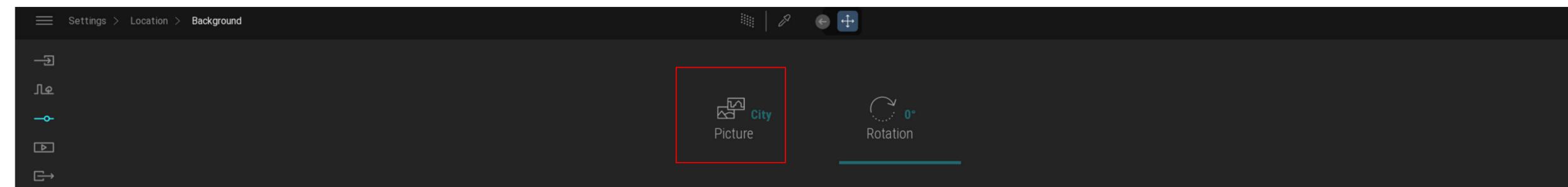
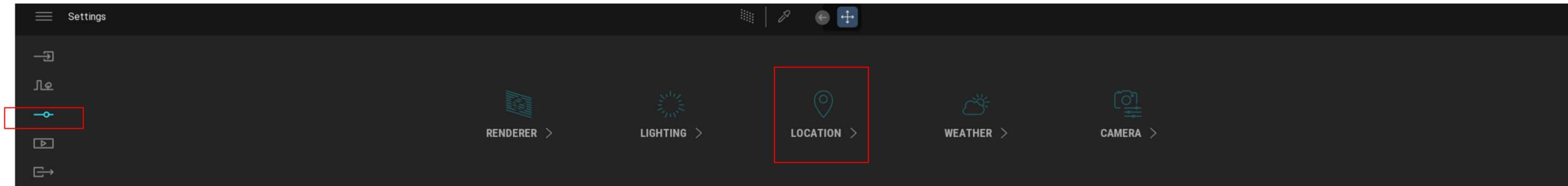
Step 3.5: Once you've clicked "Open" (as shown in the first image) > find your .3ds file (or other file formats that is supported by Twinmotion) > using the second image as reference, make sure with "Up axis" it's as "Z up" > once ready, click import.

Twinmotion: Importing 3D Model into Twinmotion



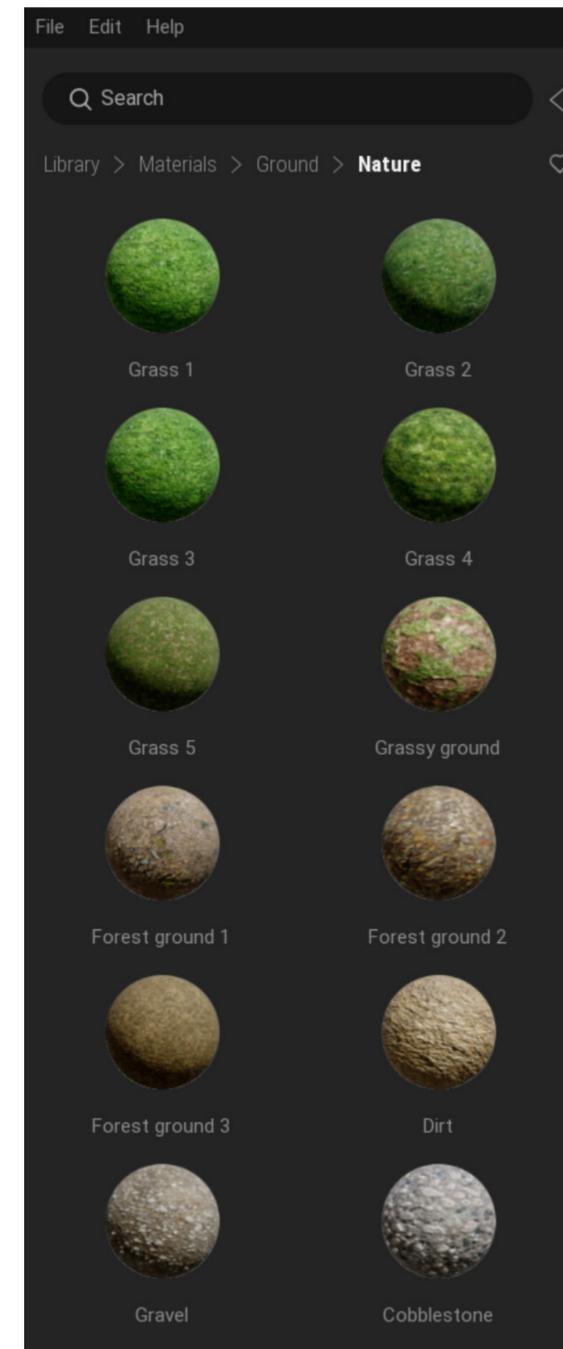
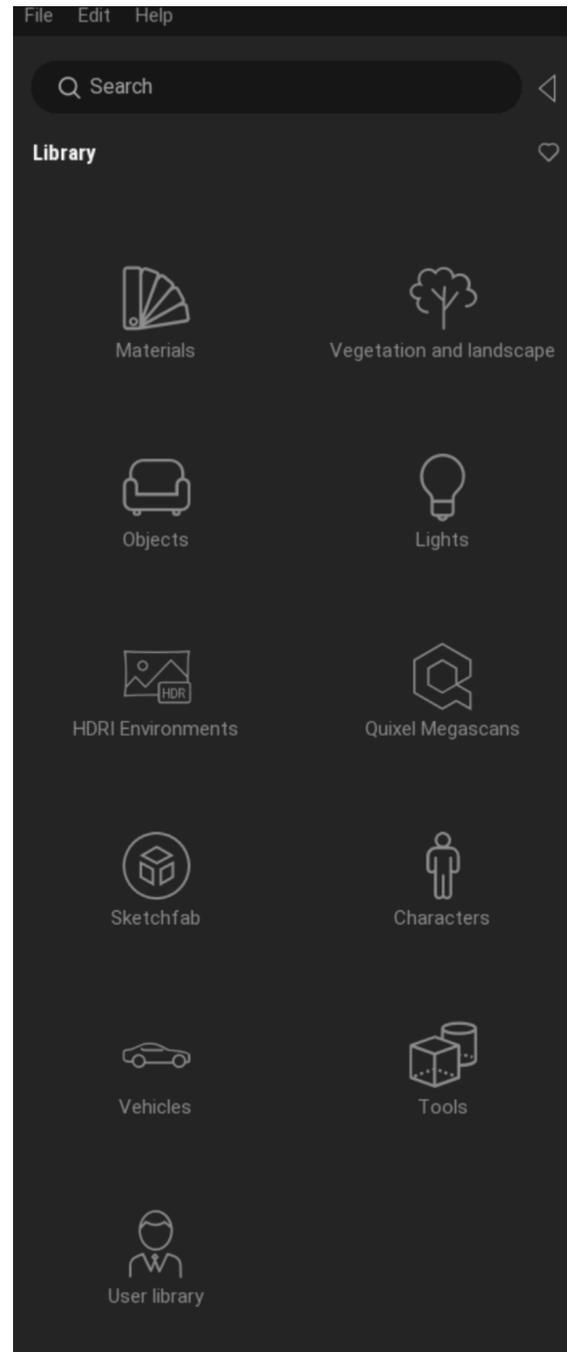
Step 4: Once the model is imported, this is what it should look like (model placement may vary depending on the complexity of your model - you may have to scale it up, move to a different position, etc. After the model is imported we will now look into removing the default background.

Twinmotion: Removing default background



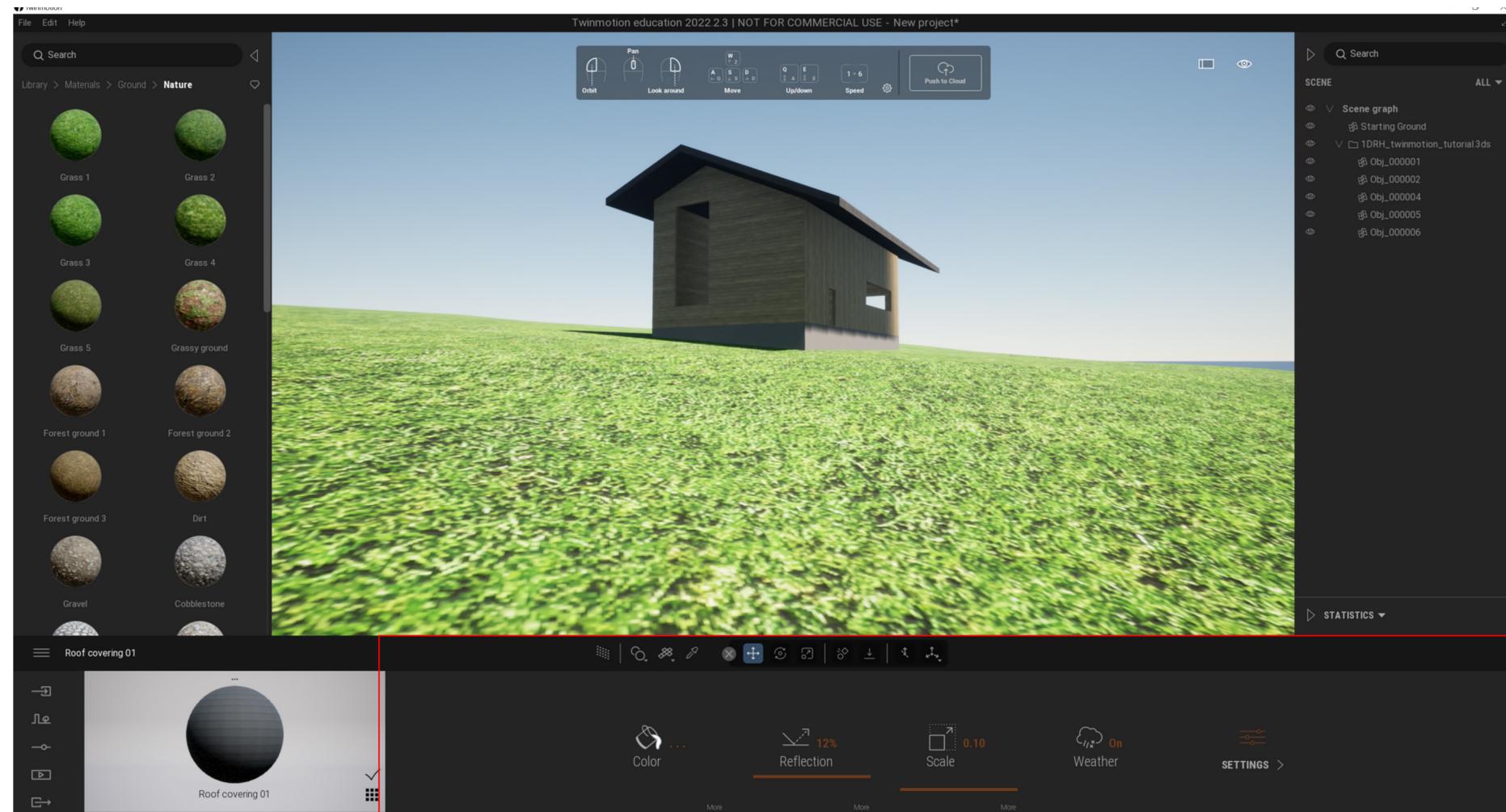
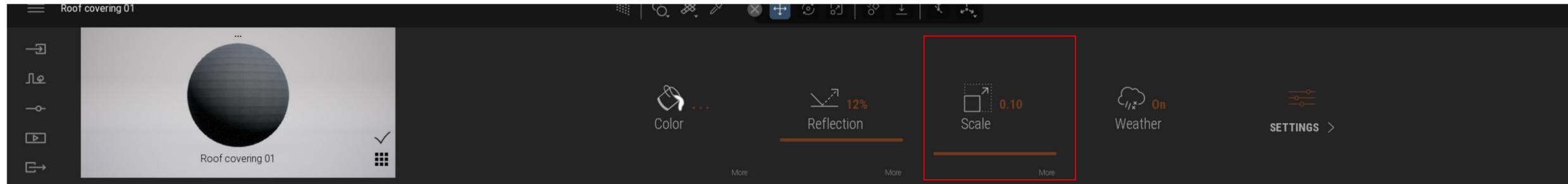
Step 5: To remove the default background, on the left hand side go to “settings” > location > background > picture > and set it to none. Once these steps have been followed, the default background will be removed.

Twinmotion: Adding in Materials from the Library



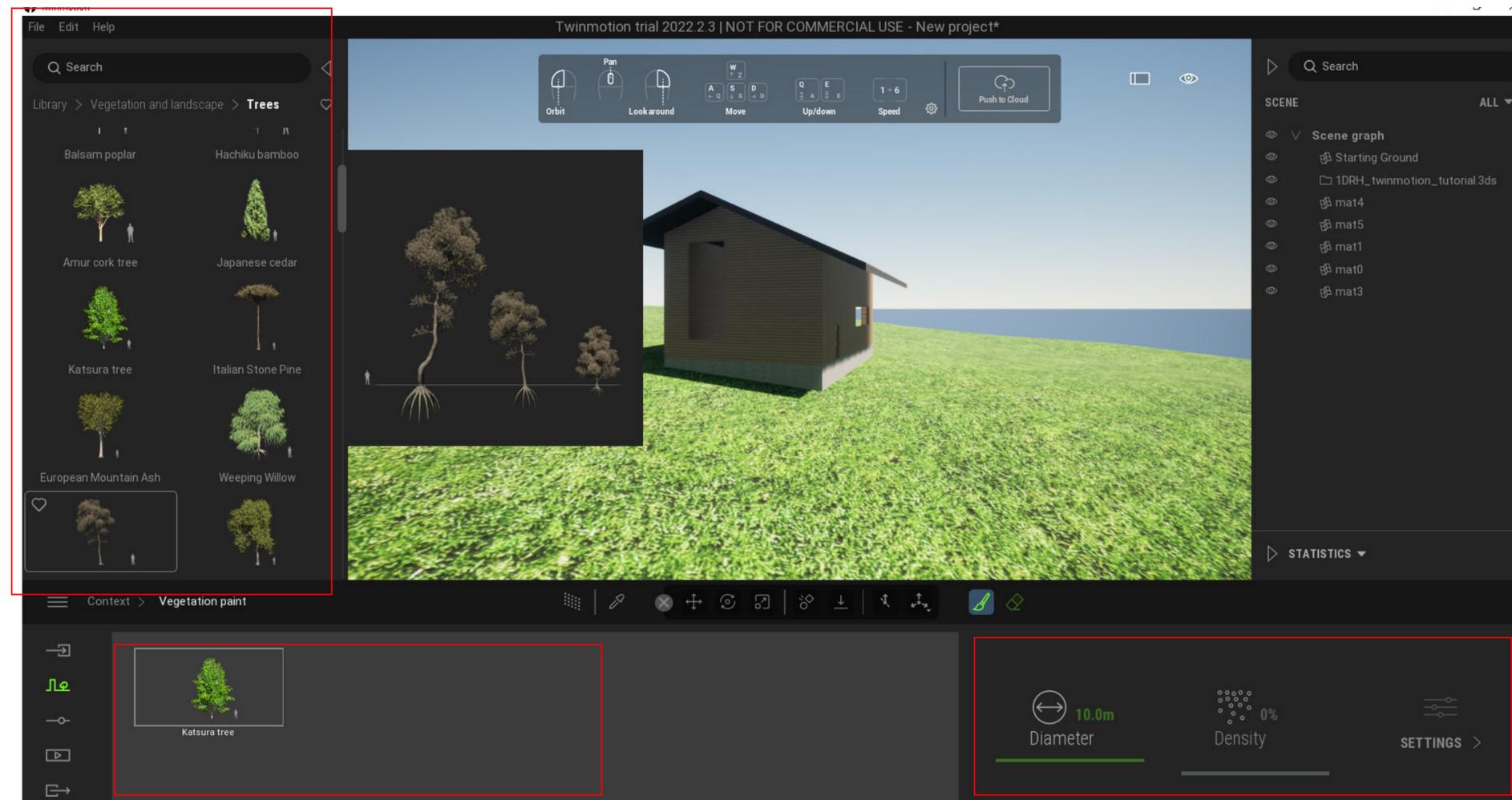
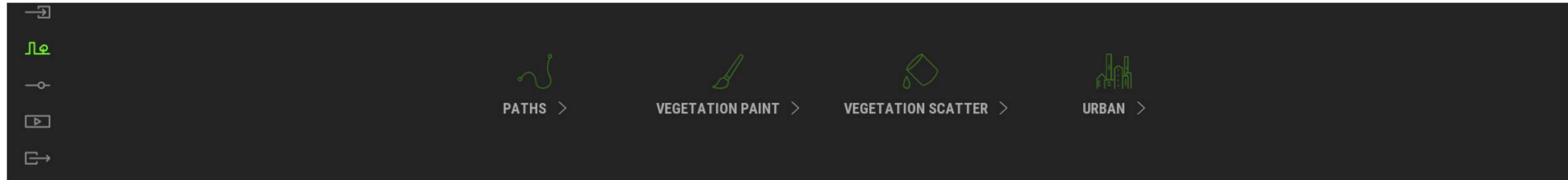
Step 6: Now it's time to add flavour to our 3D model. Go to your Library > Materials > drag and drop to apply whatever you need for your composition. There are a lot of selection to chose from. Once you've selected your materials, make sure that they are in the right scale. The next slide will tell you how to change the scale of your materials.

Twinmotion: Scaling materials



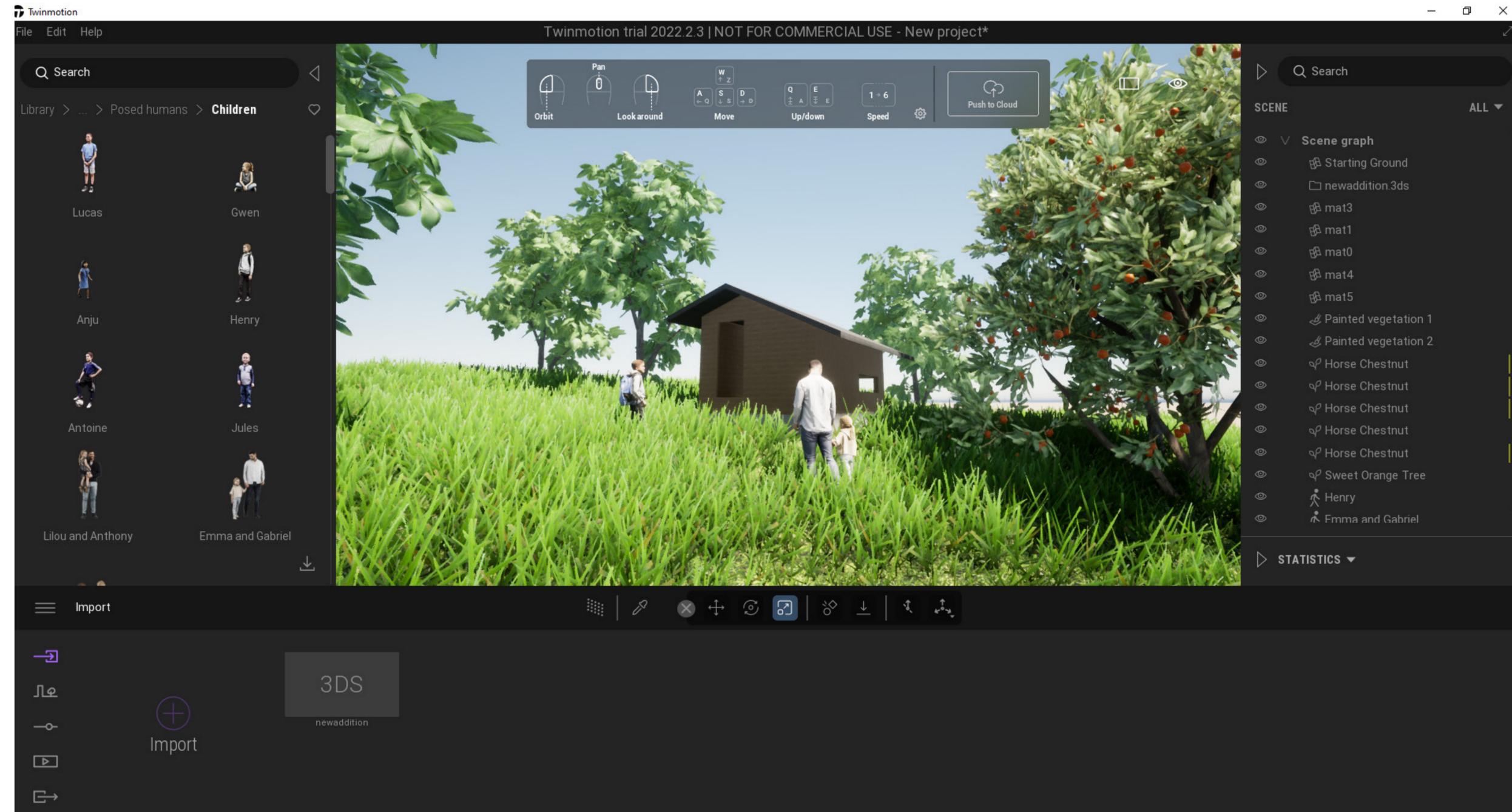
Step 6.5: To scale down the material(s) > select the material > on the bottom UI (highlighted in red) under “scale”, scale down to actual scale of your model (e.g 1:10, 1:20, etc). There are other properties you can play around with such as colour, reflection, etc. Help yourself to play around with these tools.

Twinmotion - Vegetation Paint



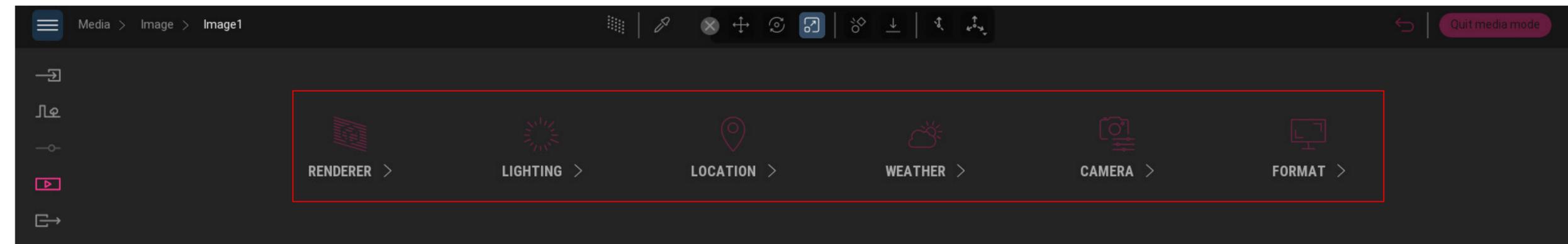
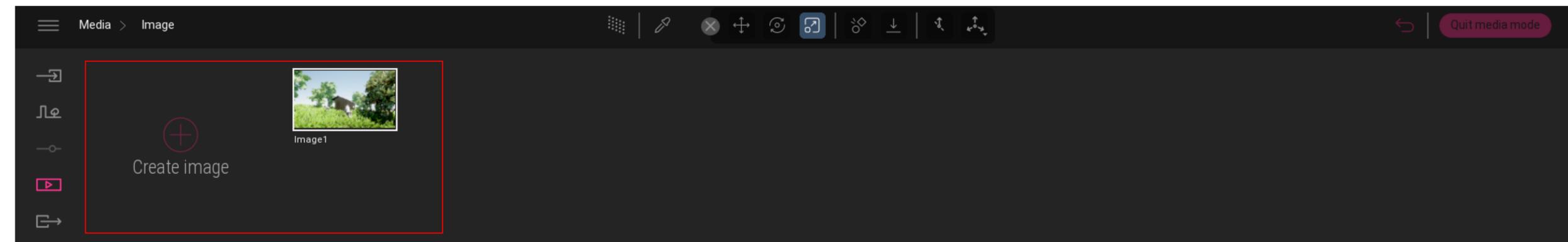
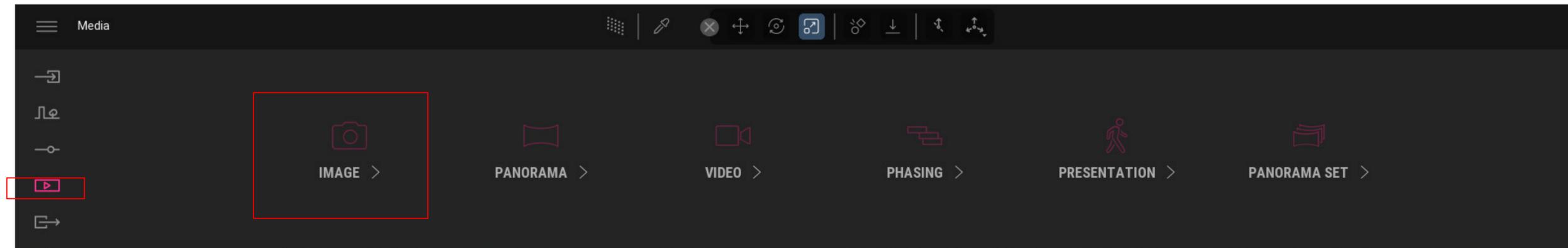
Step 7: Now after materials have been placed, we need to set the scene. We will begin that by adding grass and trees around the site. To make things easier, there is a tool called “vegetation paint”. As shown on screen, go to the second icon on the bottom left of your UI > vegetation paint > then using your library, drag and drop the trees and/or grass into the highlighted red box on the bottom > on its right hand side, you can change the diameter of the paint brush and once that has been set, brush away and set the scene.

Twinmotion - Setting the Scene



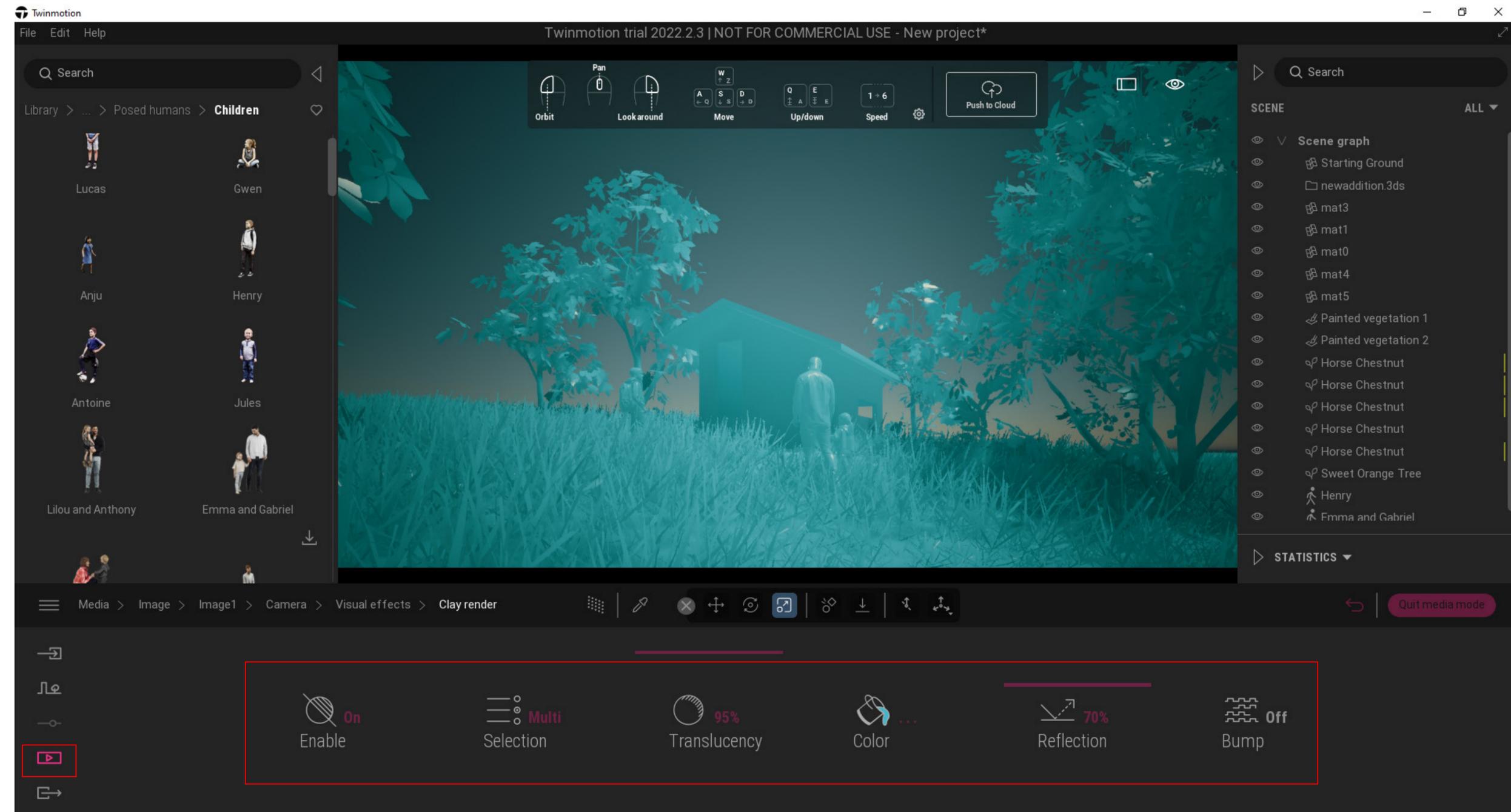
Step 8: After setting the scene, you should have a composition that looks something like this (can be different depending to your style and composition - this is just a reference). We will now move to rendering the image.

Twinmotion: Rendering the Image



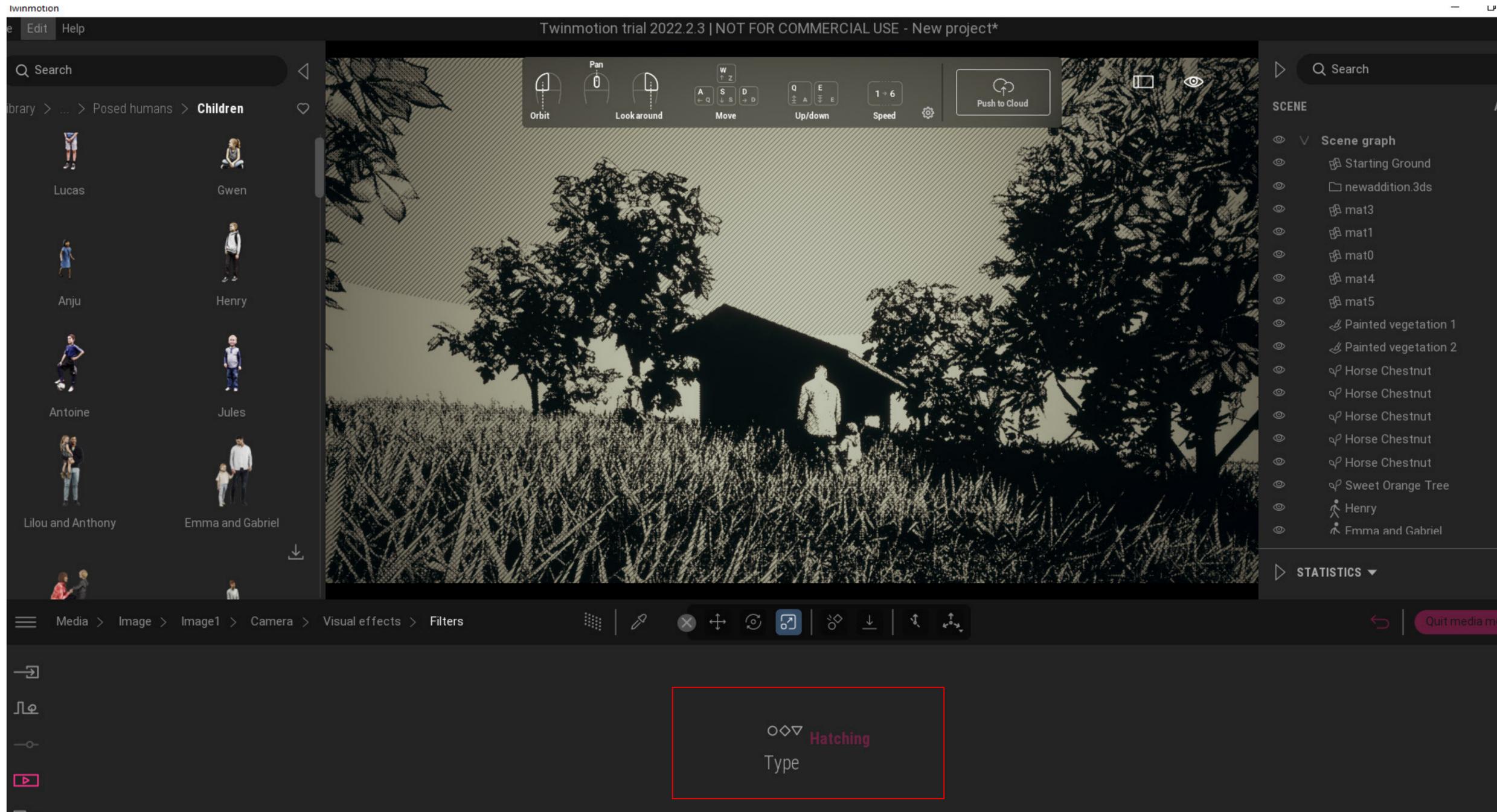
Step 9: In order to render, select the fourth tool on the left hand side of your settings (Media) > create image > there will be 3 dots on the bottom right of your "Image 1" that will take you to another screen (screenshot 3) that shows renderer, lighting, location, etc. These are tools that will help enhance your image render.

Twinmotion: Clay Render



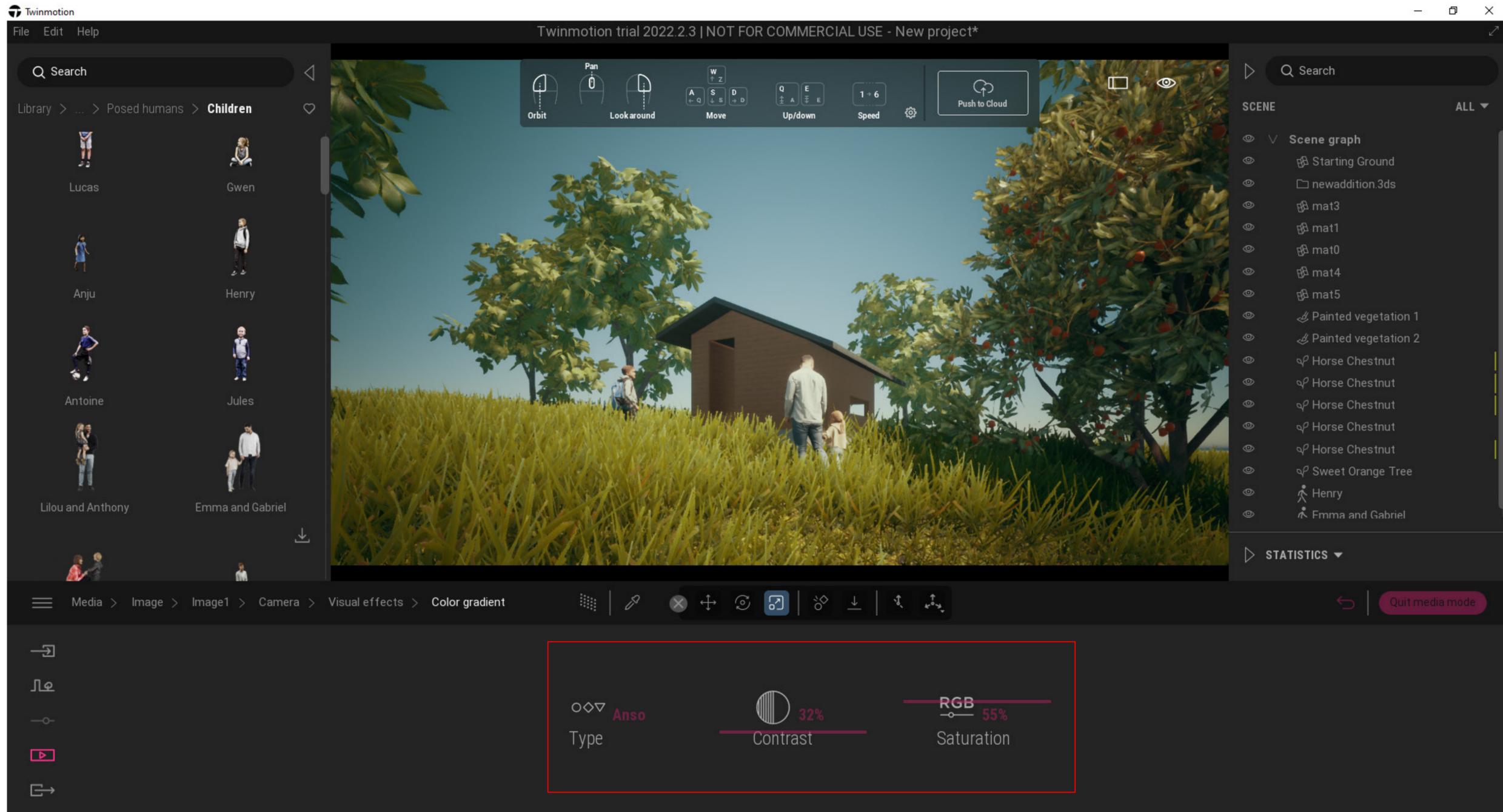
Step 9.5: These are just examples of images you can create by playing around with the filter, colour contrast, etc.

Twinmotion: Hatching (Filters)



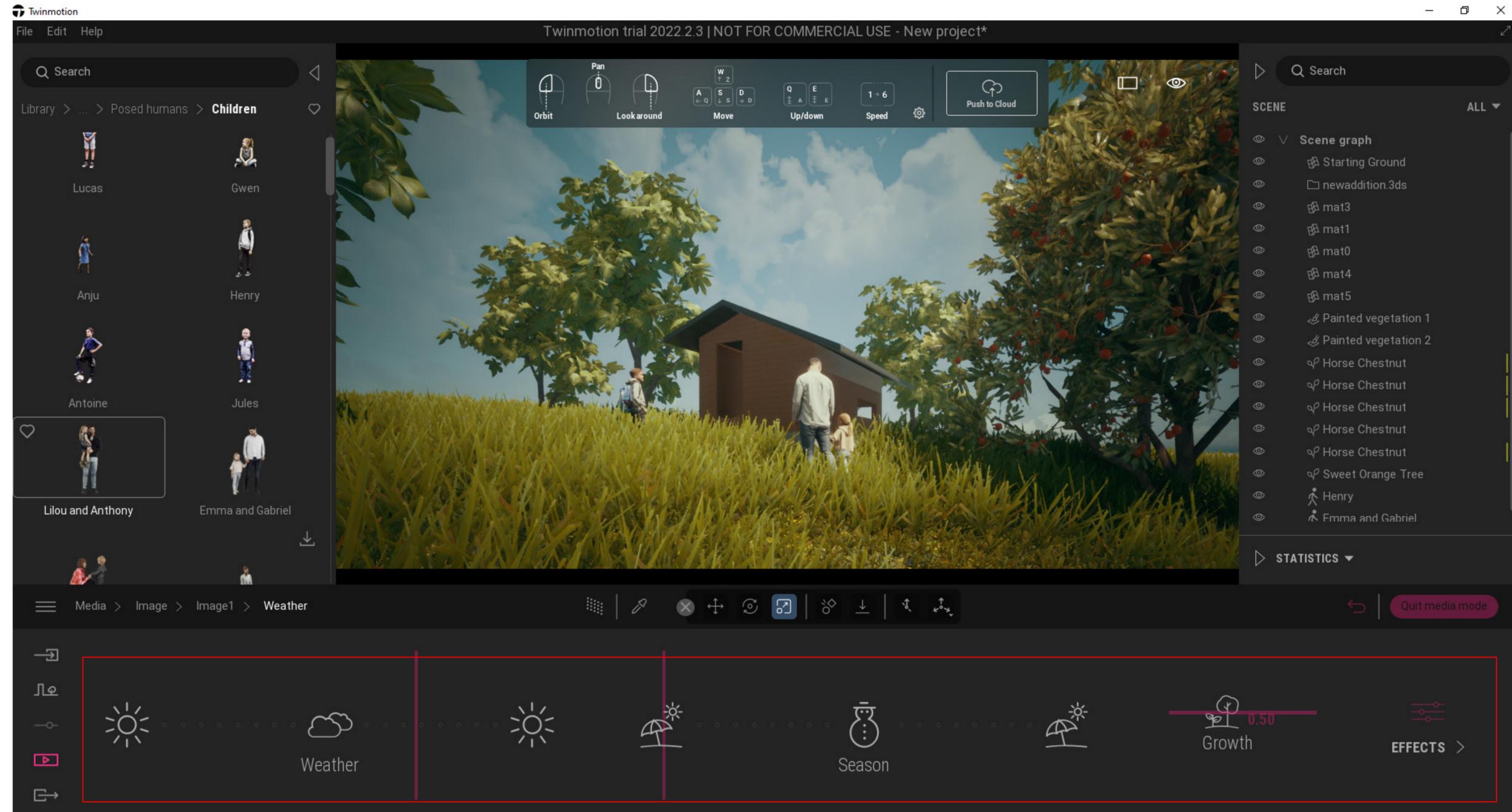
Step 9.5: These are just examples of images you can create by playing around with the filter, colour contrast, etc.

Twinmotion: Colour Contrast



Step 9.5: These are just examples of images you can create by playing around with the filter, colour contrast, etc.

Twinmotion: Weather



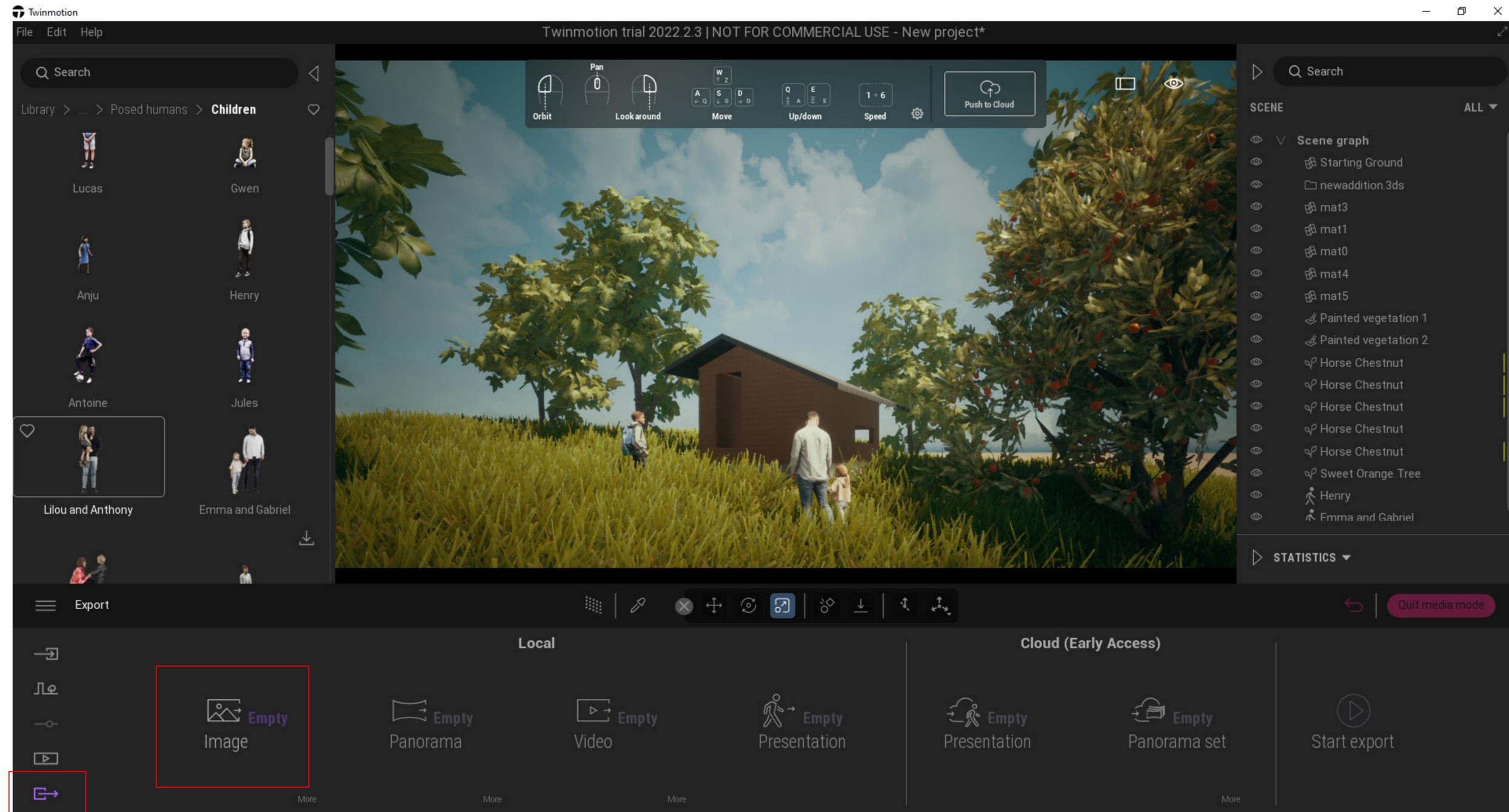
Step 10: Once you have selected your filters, etc - you can now move into changing the weather to suit your design.

Twinmotion: Weather



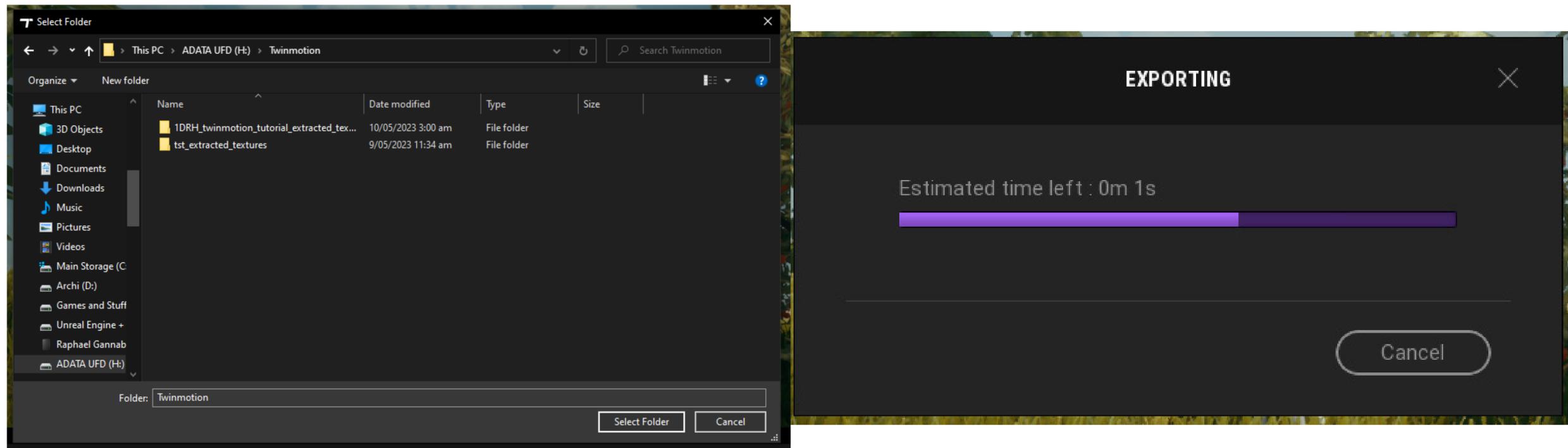
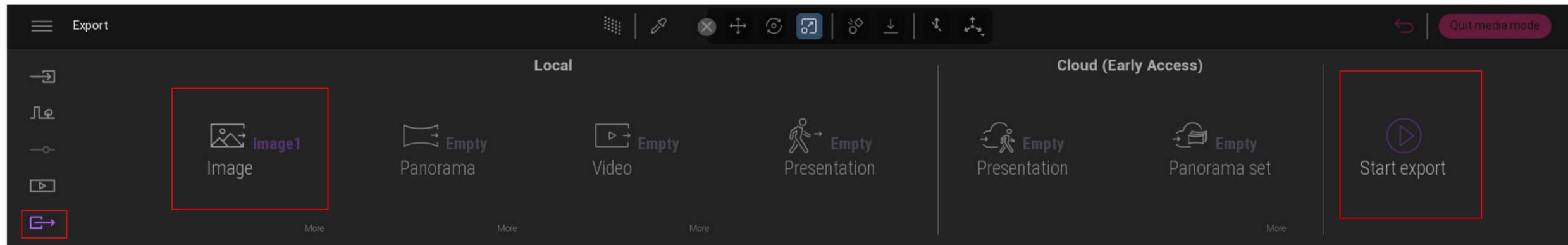
Step 10: Once you have selected your filters, etc - you can now move into changing the weather to suit your design.

Generating site topography



Step 11: Once we are happy with everything and steps 1-10 have been followed to your liking, we can now move to outputting the render. The 5th tool on your left hand side "export" will be our guide into this. Go to export > image > select your image (will be what's on your screen) > ok. Whatever view you have on your screen will be the image that will be rendered.

Twinmotion: Rendering (Output)



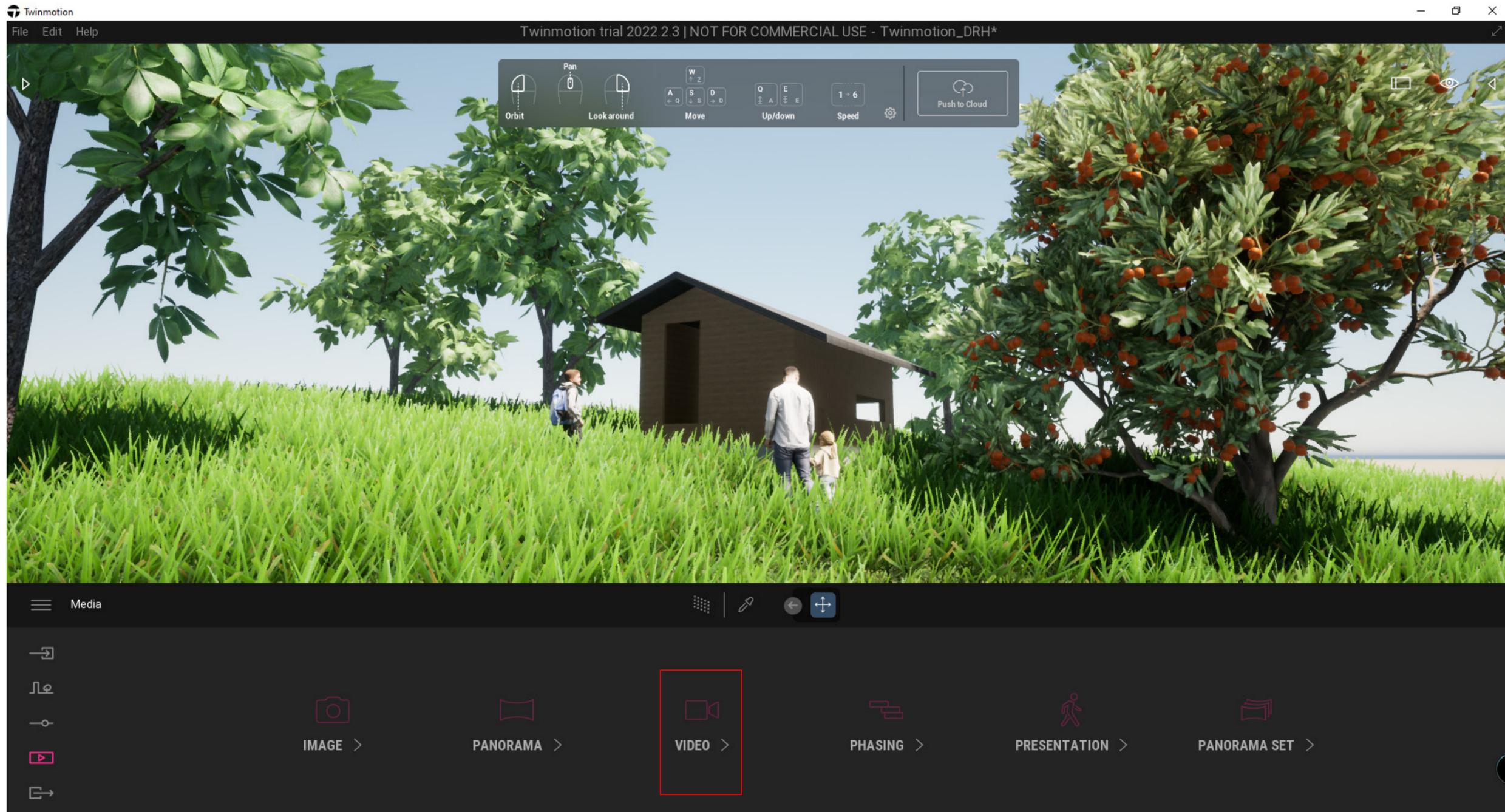
Step 12: Once ready, press “start export” > save to a folder and once selected, it shall start rendering and a UI will pop up telling you how many minutes is left for your render.

Twinmotion: Final Render



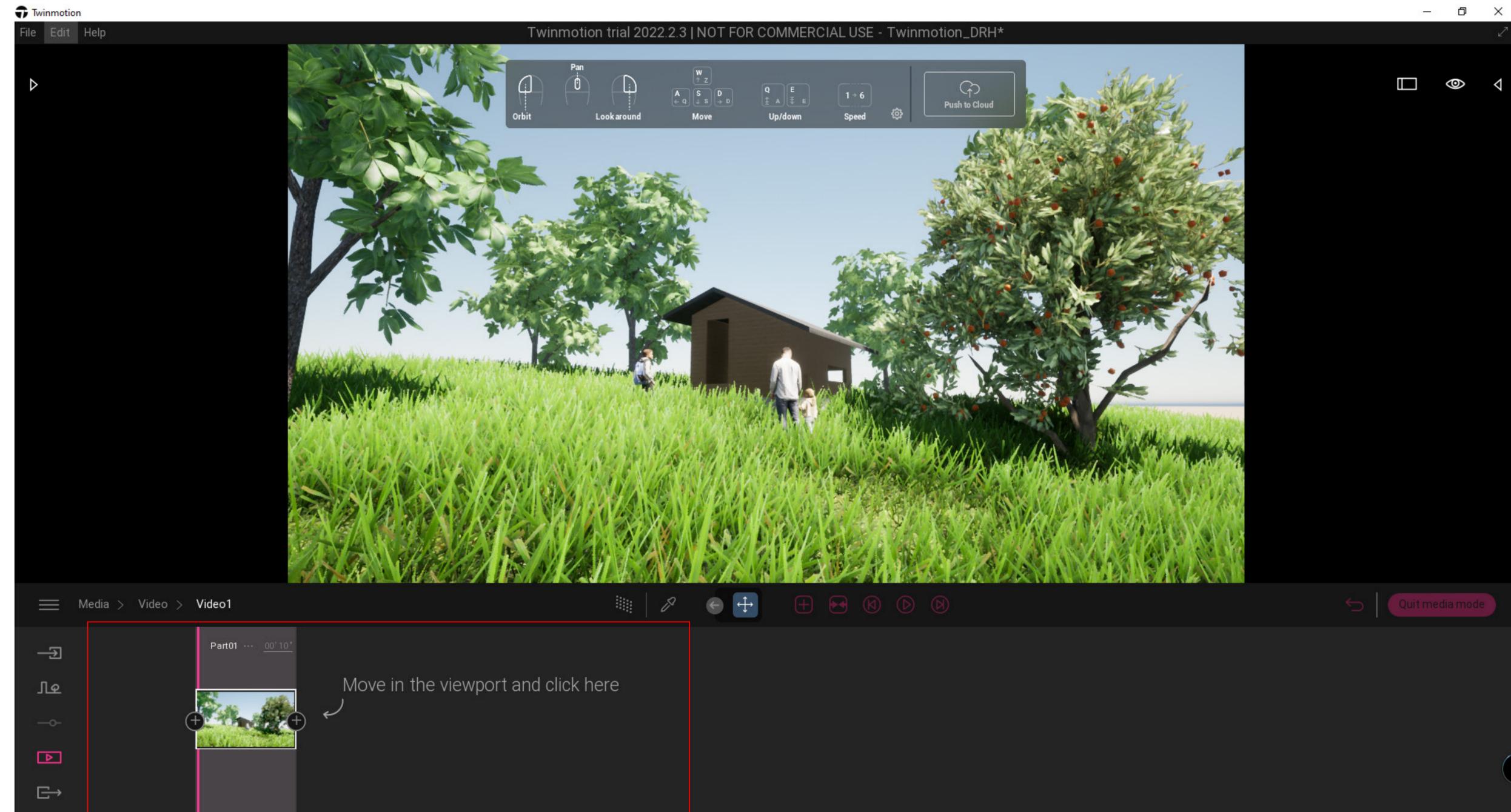
Step 13: Once all the steps have been followed, a rendered image will be generated into the folder you allocated for the save.

Twinmotion: Video Rendering



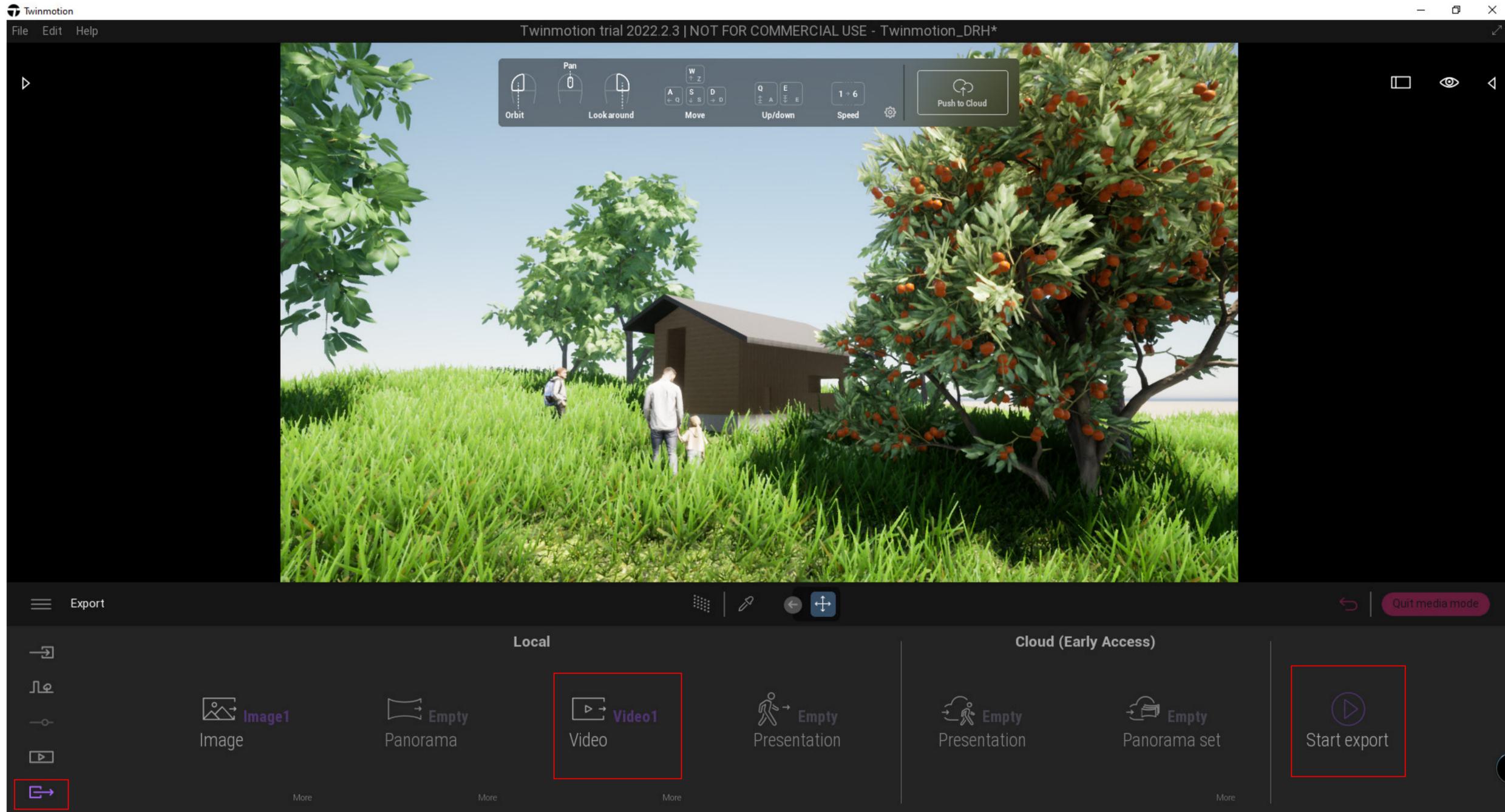
Step 14(bonus): Once we are happy with everything and steps 1-10 have been followed to your liking, we can now move to outputting the render. The 5th tool on your left hand side “export” will be our guide into this. Go to export > video > select your image (will be what’s on your screen) > ok. Whatever view you have on your screen will be the image that will be rendered.

Twinmotion: Video Rendering



Step 15(bonus): Video rendering is similar to how the film camera works, we need to know our type of shots - from slow panning, to zooming in or out, etc. Keyframing is an important aspect to video rendering. As shown on the screen, there is a plus and minus sign (as highlighted) - you move your camera to the direction you want, for example to the right as a pan, once you are at the desired destination hit the plus sign to key that frame.

Twinmotion: Video Rendering



Step 16: Once ready, press “start export” > save to a folder and once selected, it shall start rendering and a UI will pop up telling you how many minutes is left for your render.

Twinmotion

Basic and Advanced Tutorial for Rendering