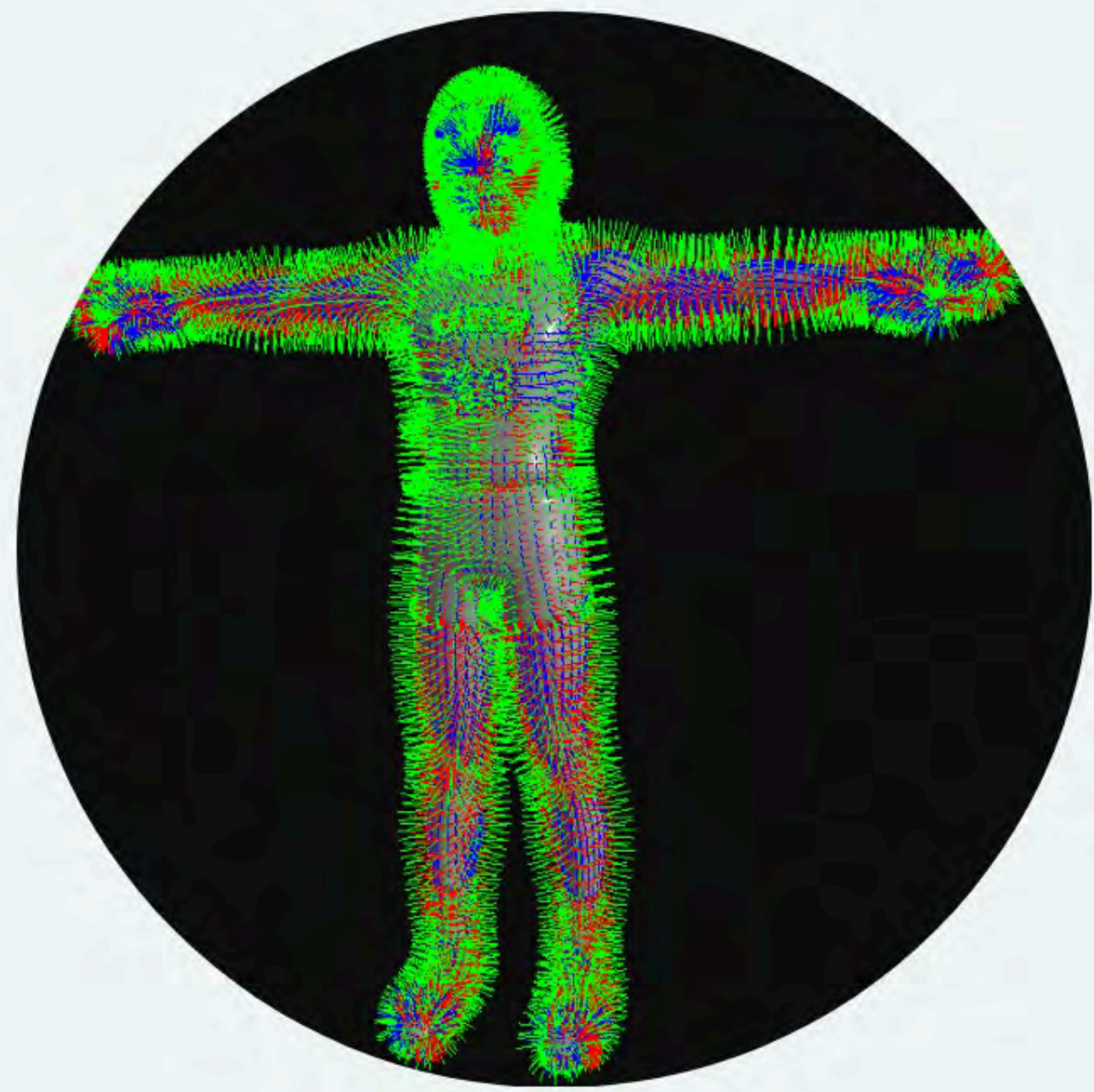
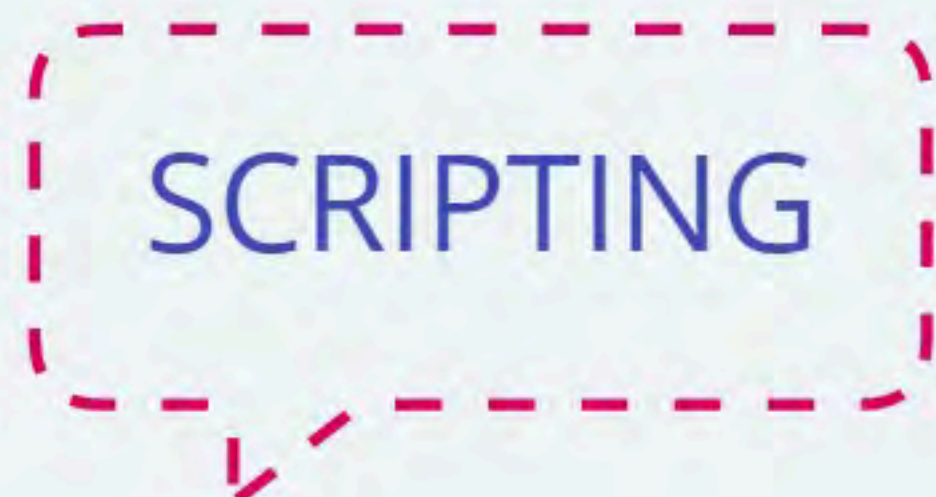


Vertex Colors - Maya to Substance - Page 01

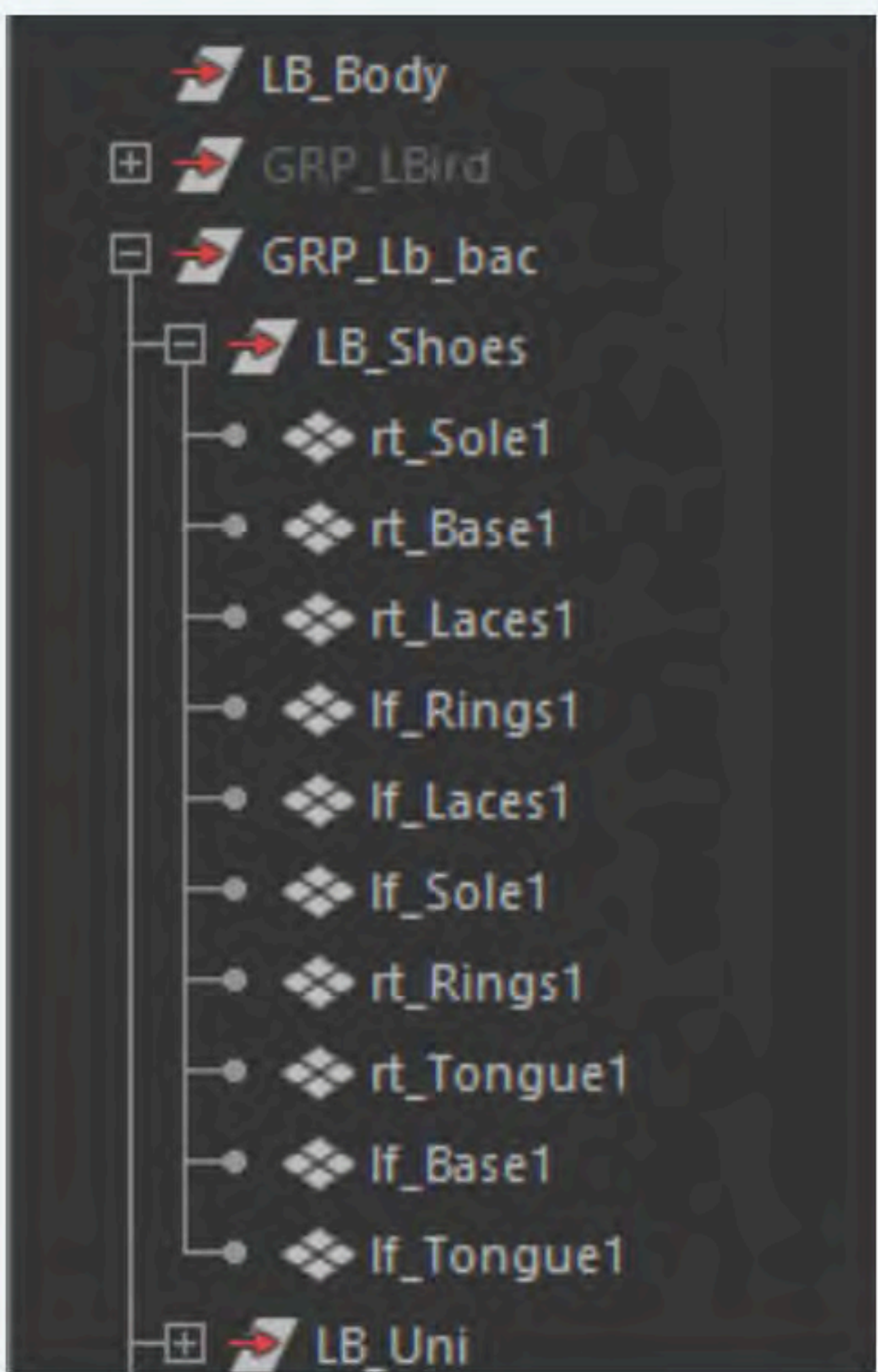


With this Demo - The real goal is to have the ability to have id colors to use as masking tools in Substance Designer, Painter, Stager and even Photoshop. Object Ids can work as well as Vertex color Ids. Having them already assigned to the models from stage one would be most beneficial. Hard coded colors and numbers could make iterations and copy and pasting shaders and and substance assets very efficient.

VERTEX ID's



The first most important step is to start in Maya and the Preparation of the Model Asset. It will eventually (hopefully ?) be something that is scripted down the road, but the steps are all the same so there is a better working model and asset for Substance Designer, Painter Etc...



Here, all the shoes go into the shoes directory.

For the uniform, all the pieces from the uniform. this is for making sure that all of your assets go into Substance 3D properly.

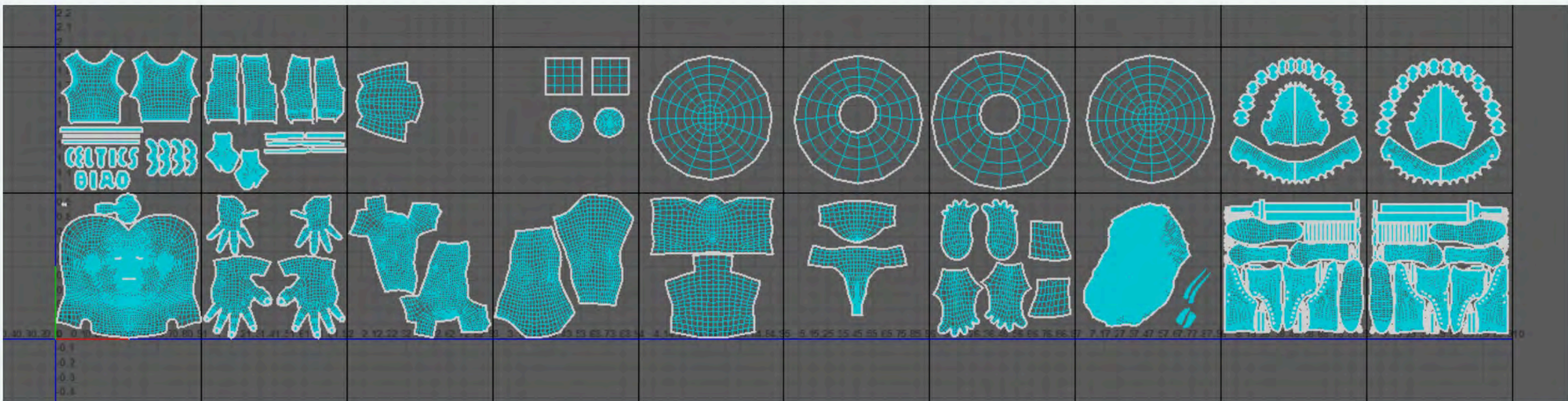
In Maya, If a shader is called for example

VRM_Shoe_ss

Name the Shading like this :

VRM_Shoe_ss_SG

Also remember like in other tutorials, we are going to be laying out the UV's in each udim shell. So all uniform parts go into consistent uv spaces, like Udim 1011 and 1012.

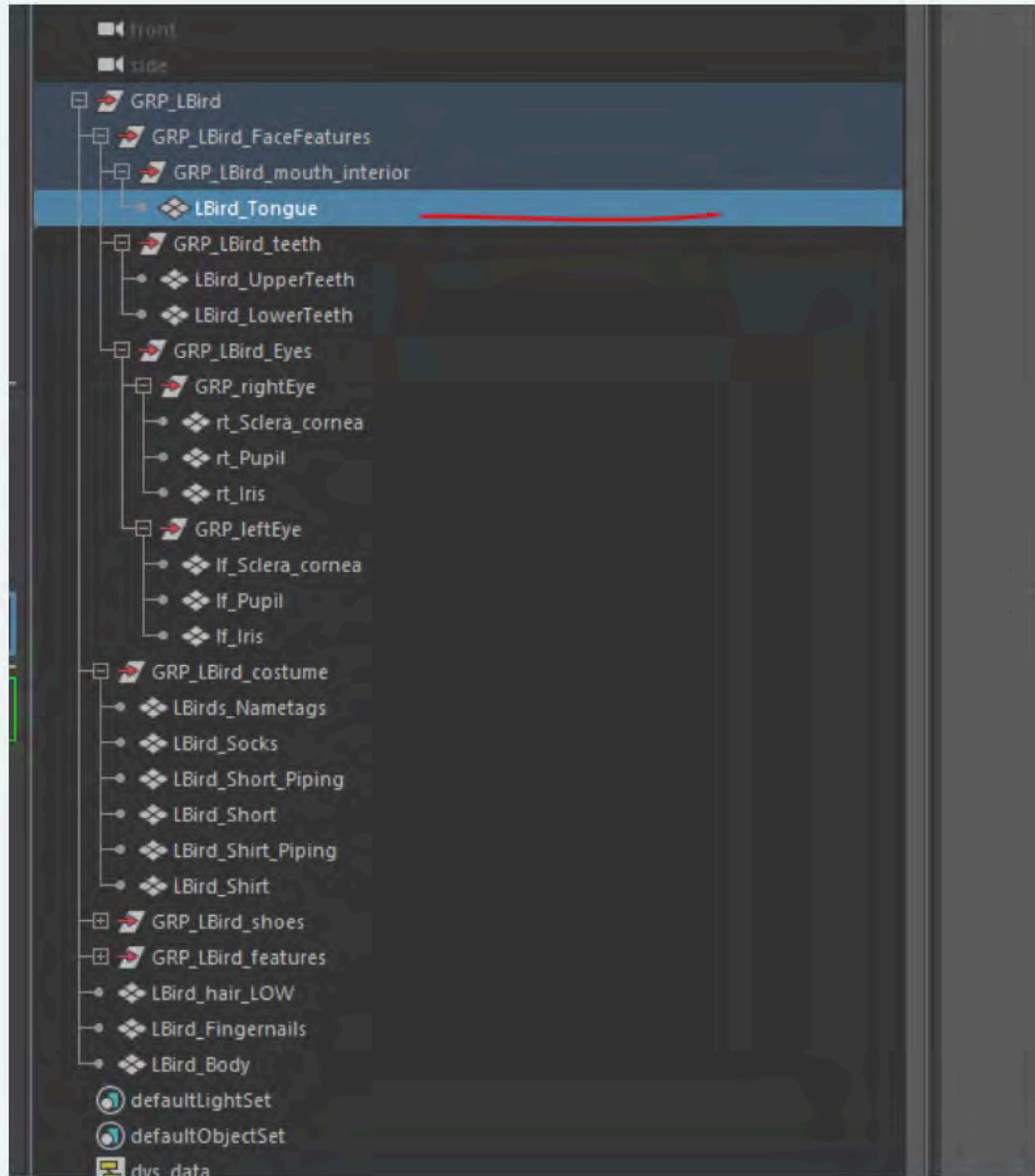


Clean separated Tiles for all objects would be better for the tool sets and the artists

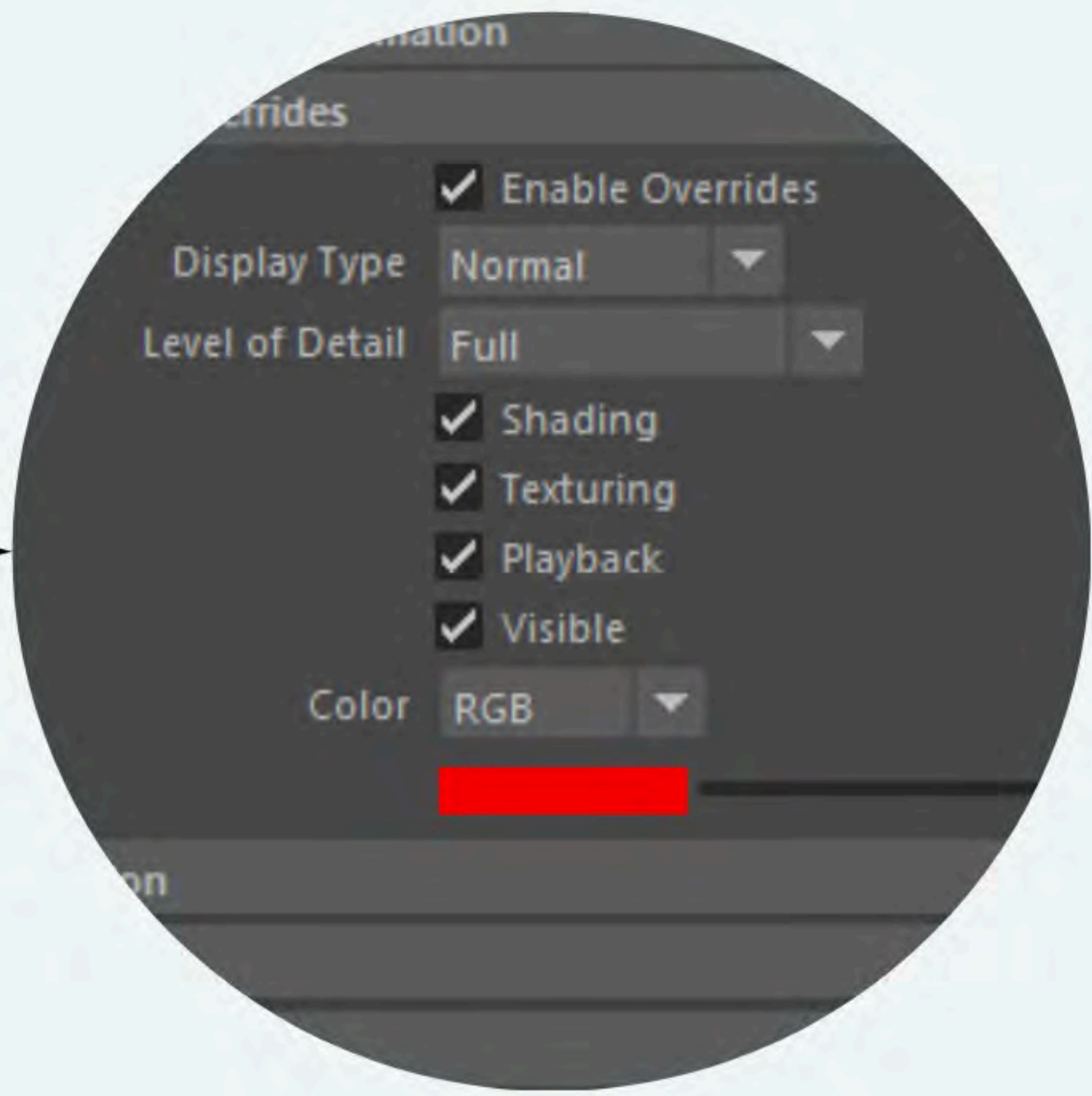
Vertex Colors - Maya to Substance - Page 02



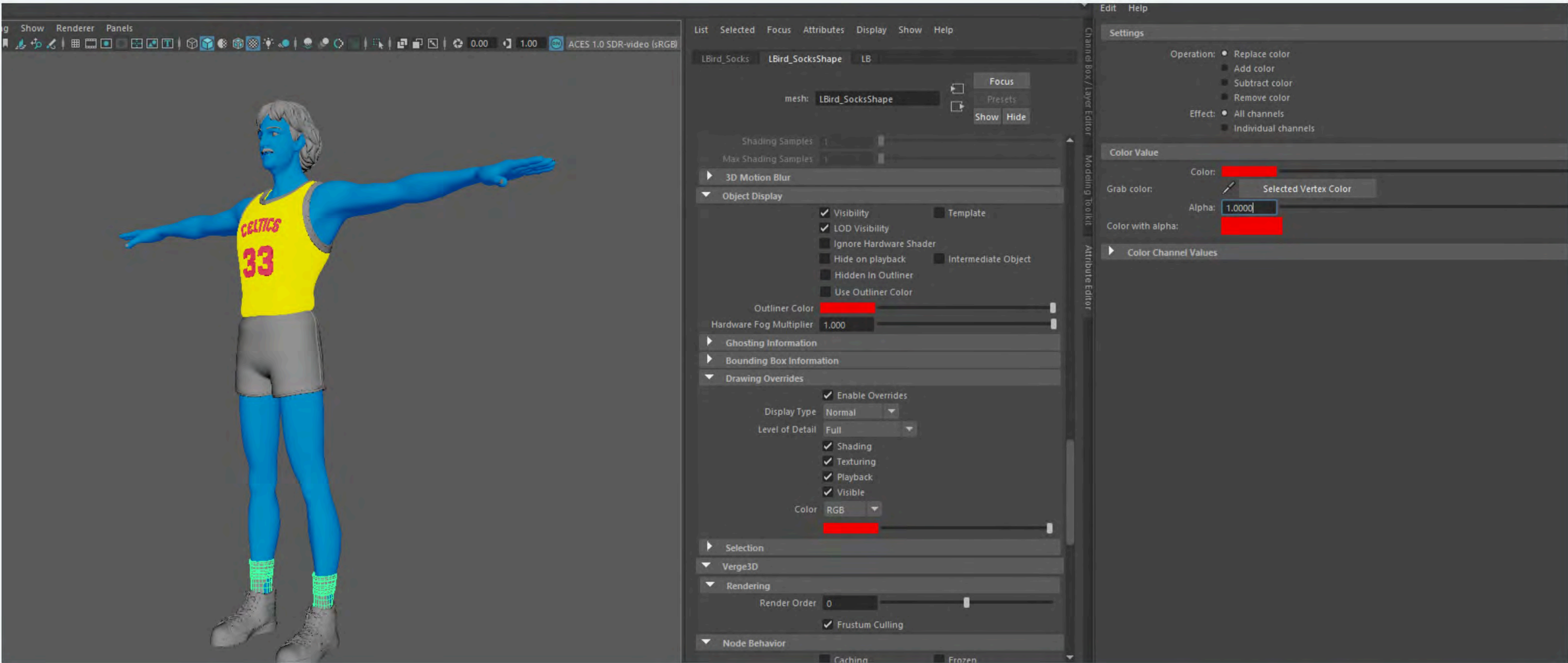
In Maya, one way could be to have the vertex colors per object embedded into the objects drawing override. The assigned color will never change for that object, like the jersey, or a left shoe.



For something like in Portal 2, every players jersey trim top for example will be a certain and exact color .



SCRIPTING



Vertex Colors for Larry Bird

A

Hard coded Color assigned at model creation and approval

B

Vertex color picker in Maya uses those colors to set them up



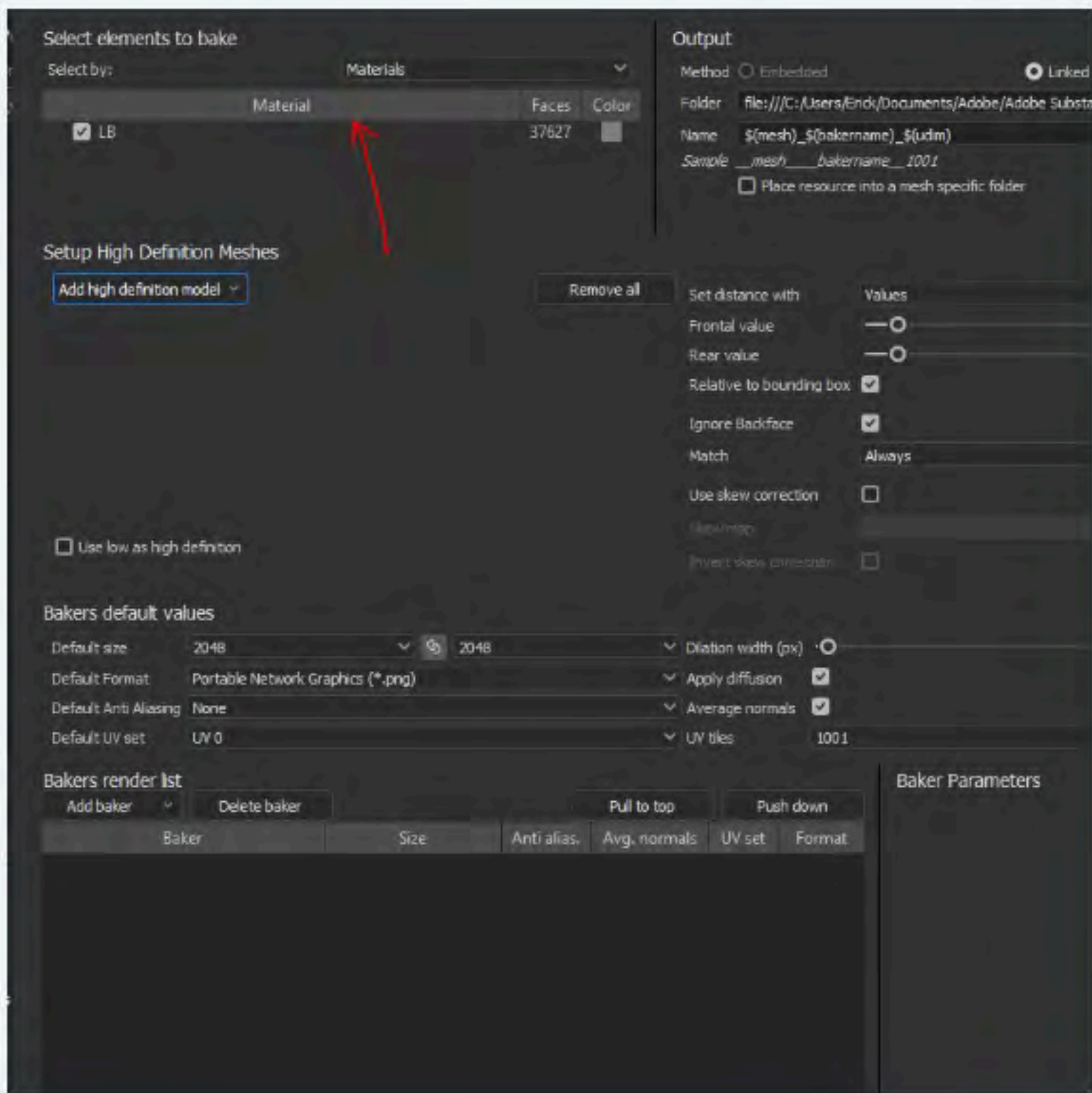
Once the Color vertexes are assigned and mapped out to match other assets (like the players jerseys for example) the the file is exported as a FBX

Vertex Colors - Maya to Substance - Page 03

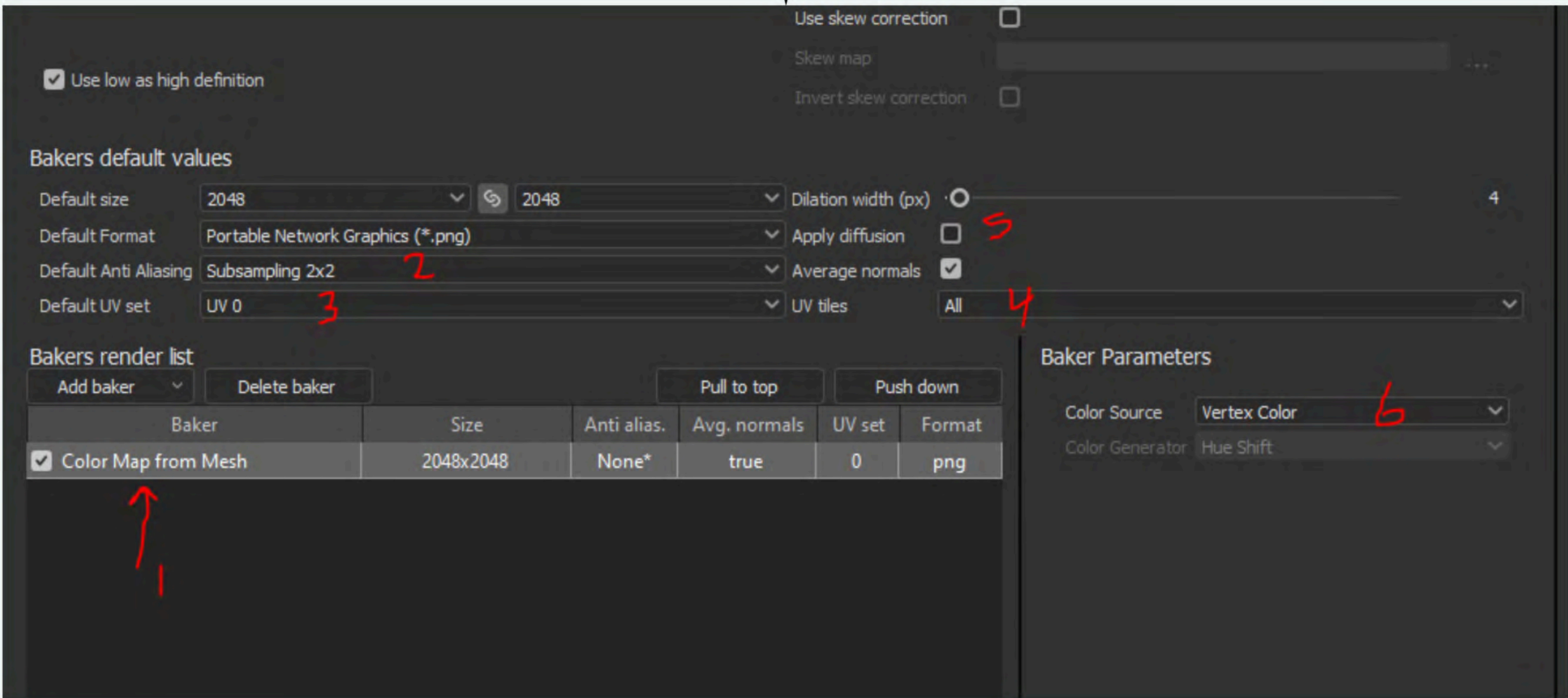


In Designer, the FBX is imported in as a linked 3d mesh. From there Right Clicking and pulling up the Bake Model dialogue Box...

Keep the model in "Material"



Inside the Baking Dialogue Box



- 01 Add the "Color Map From Mesh" from the Baker Render list
- 02 Set your Sub Sampling (2 or 4)
- 03 Keep your uv Set to UV 0 - if you see more than one - go back to Maya and clean up the Geo !
- 04 Set UV tiles to to all if they are UDIMS. One thing to remember is that if you are having performance issues, or the program crashes. Try to render your maps one UDIM at a time. Instead of "ALL", select 1001, render .. select 1002 and render .. etc..
- 05 Turn off Diffusion .. I find it really muddles up the frame for color picking in painter ...
- 06 Make your COLOR SOURCE "VERTEX"

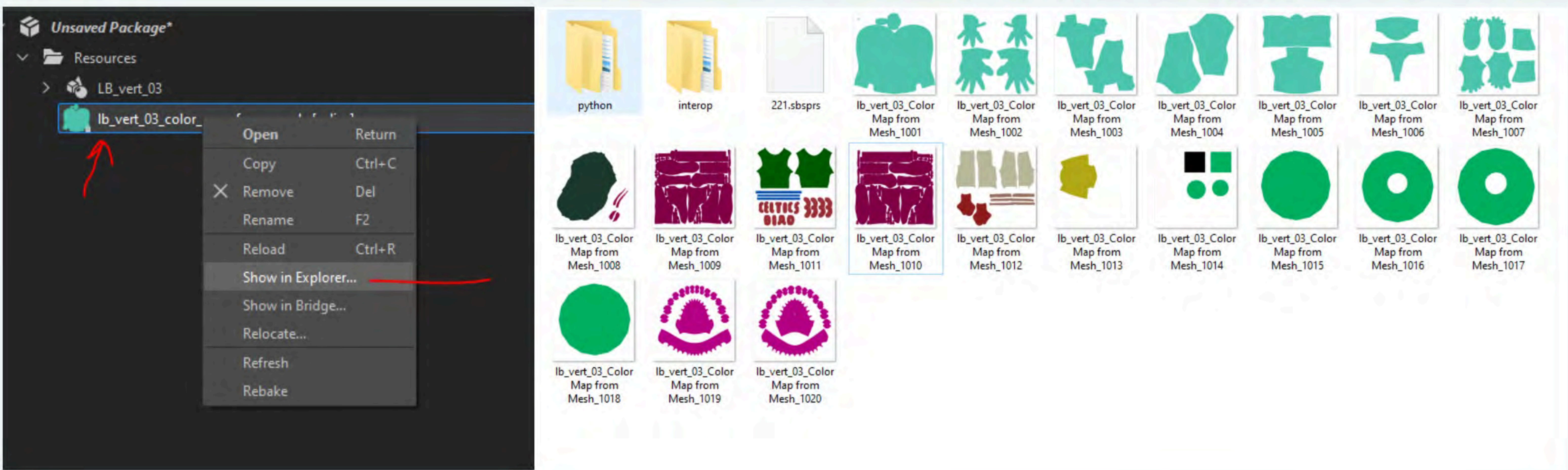
Final Result



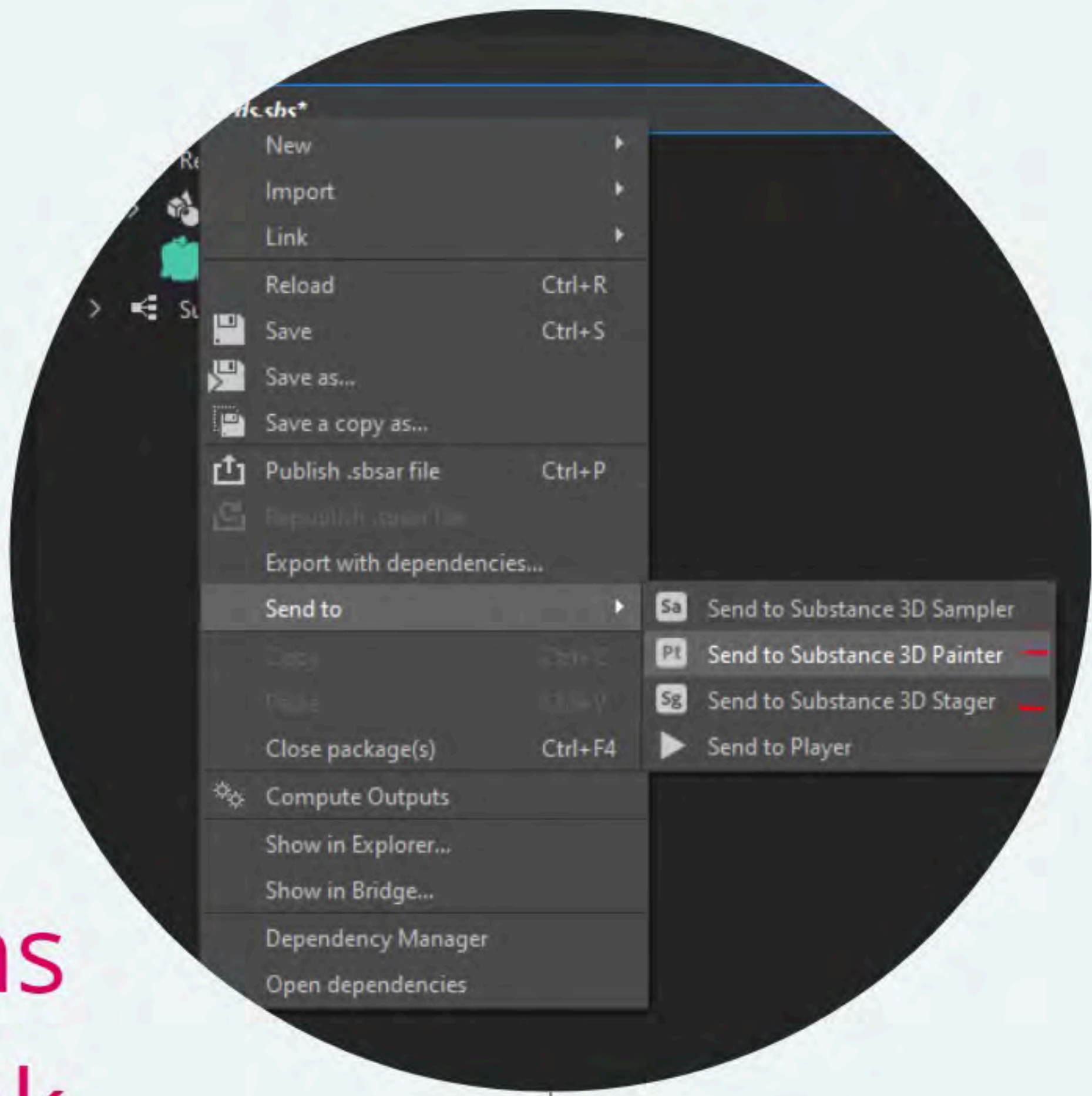
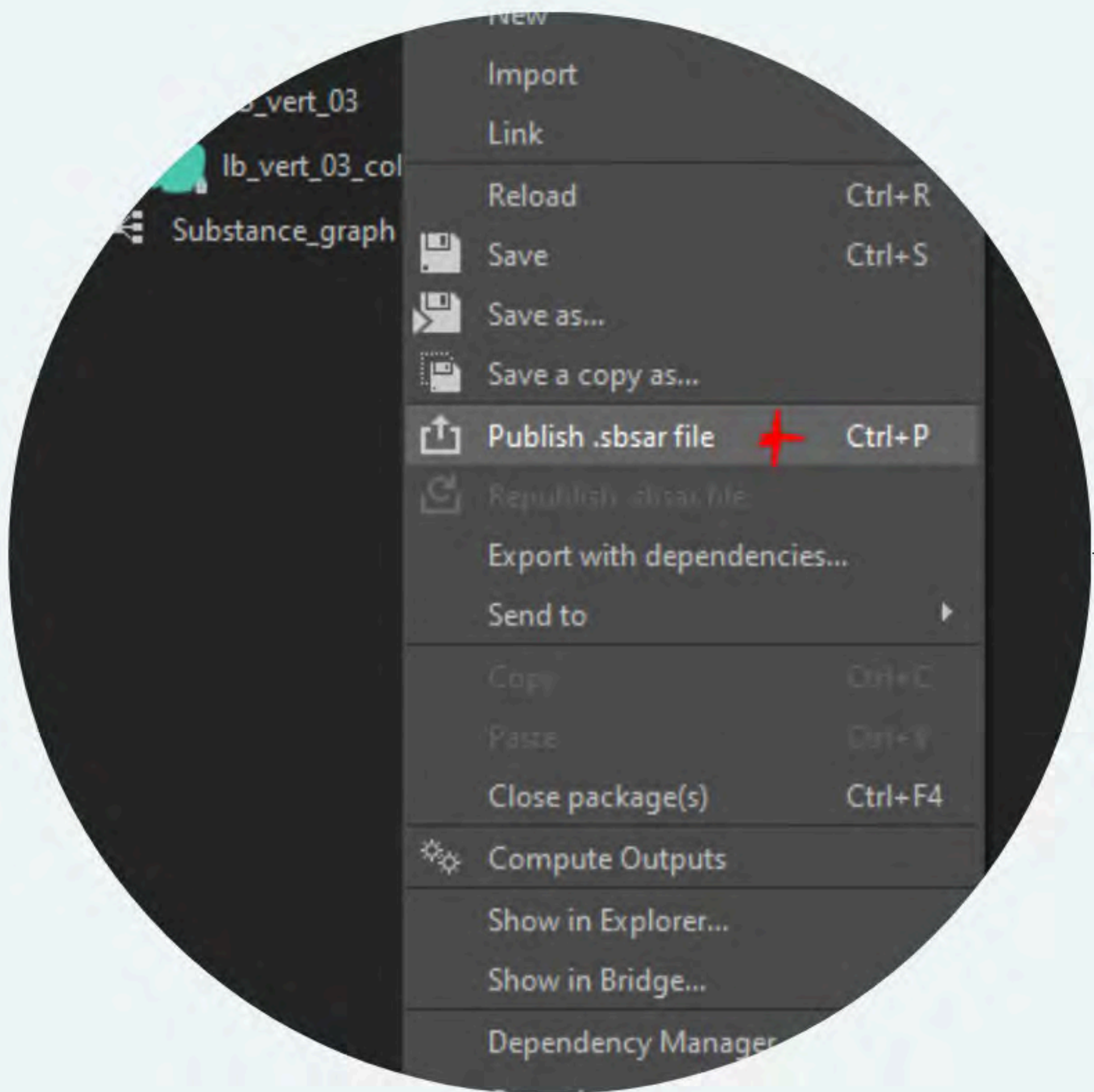
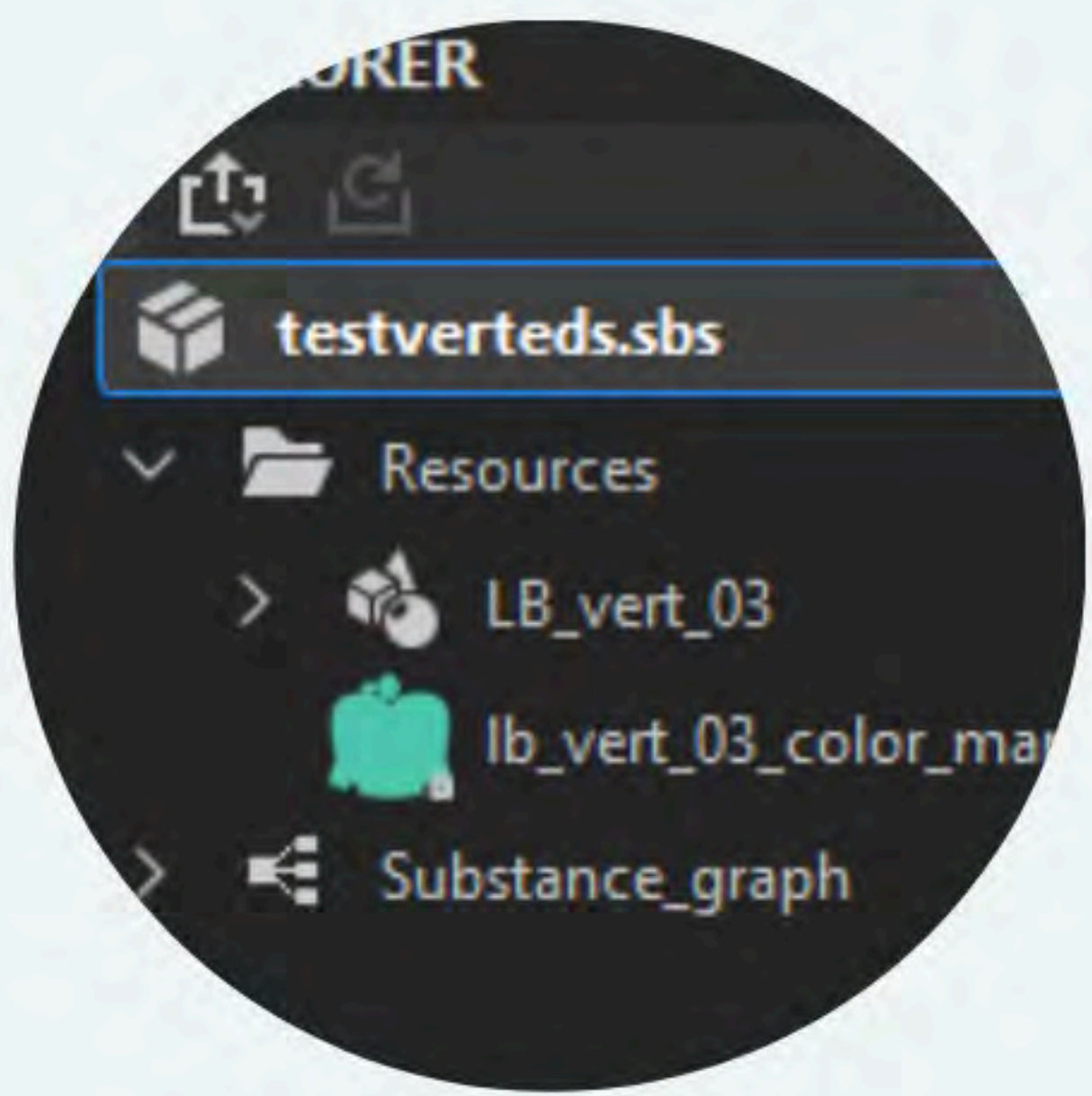
Vertex Colors - Maya to Substance - Page 04



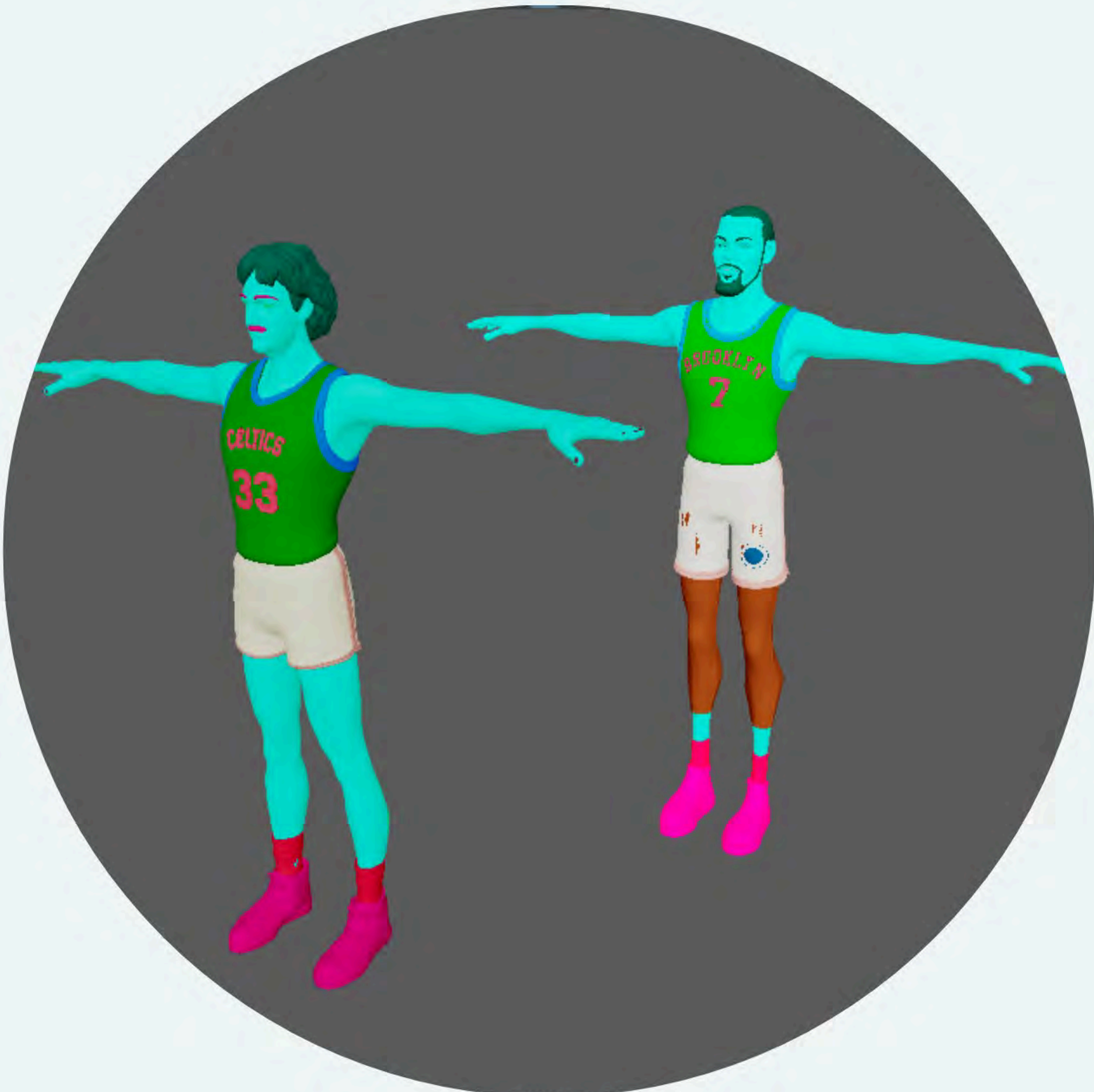
From Designer, these new id maps are now a udim sequence



Your designer scene with a graph, can be exported or published as a SBSAR of that id map set



Or send out to other programs with a direct link



The one key thing is to have a lot of unified assets that will make all of the assets go through the Adobe Substance product line, way more efficiently.

For example (seen on the left),

having the properties of each individual character have vertex id's (or object id's for that matter) that match as much as possible.

Taking a look dev multi material or SBSAR preset from designer and/or painter, then transferring them to a new character, regardless of the different diffuse maps, will give more unity to the looks and make the development time much faster.