Reference and Render layer Do's and Don'ts

- **Use namespaces!**
    - This is very necessary because it's very likely you will have nodes that have the same name. You don't want them to crash with each other!

- **Use short namespaces! BS for blendshape, L for lighting, P for props, S for sets.**
    - Do not use long names because at the end of referenced hierarchy you will have something looks like: Lighting_version_5:AnimationSeq03_shot38_version34:Montgomery:characterBlendshape:eye_ctl.

      This is way too long! Also do not name namespaces with special characters, for example, there is no need to add additional ":" in the namespaces.

- **Use the same Thesis Drive Letter with all your partners!!!**
    - It will save you and your partner many tears.
    - When you work on a file that your partner has already built with a different drive letter, you end up with file pathways that are incorrect for your setup. When you submit that job for render, the farm is looking for a drive letter on your profile that doesn't exist

- **Folder Structure:**
    - Don't have your files (including reference files, texture files, etc.) buried so deep in your project folder that it causes your namespace to become long. The farm has a character limit and will cut off the end of long file path names
    - Ex: Z:\maya\projects\Thesis\scenes\Characters\Character_A\Final\Rigged\supercalifragilisticexpialidocious\Textured\Groo_vy\Character_A_no_forRealthisTime.0153.ma
    - Use instead: Z:\maya\projects\Thesis\scenes\REF\Character_A\Character_A.ma

- **Name all your shaders and file textures!**
    - Yes, all of them, especially your shaders and file read nodes! Because you don't want shaders going to the wrong object after you referenced something. Also, it's super easy to find the shaders you want from 1000

shaders you will have for thesis. Also don't forget to delete unused shaders frequently. Here's an example of an ongoing thesis file with a proper naming convention.

Do:

|	
D:D_BELT_MAT	D:D_BROWHAIR_MAT
D:D_BS_MAT	D:D_BUCKLE_MAT
D:D_COLLAR_J_MAT	D:D_COLLAR_S_MAT
D:D_EYEBALLZ_MAT	D:D_EYEBALLZ_MAT1
D:D_GEOBROWS_MAT	D:D_HANDZ_MAT
D:D_HEAD_MAT	D:D_HORNZ_MAT
D:D_JACKET_MAT	D:D_PANTS_MAT
D:D_SCALP_MAT	D:D_SHOES_MAT
D:D_TIE_MAT	D:D_WETLAYER_MAT
D:D_WETLAYER_MAT1	D:D_missingGeos_D_BS_MAT
D:Dad_NewLegs_D_LEGS_MAT	D:bsldrCtl_mat
S1:S_BOOTS_MAT	S1:S_BROWHAIR_MAT
S1:S_BUTTONBASE_MAT	S1:S_COLLAR_MAT
S1:S_DRESS_MAT	S1:S_EYEZ_MAT
S1:S_HEADHAIR_MAT	S1:S_HORN_MAT
S1:S_NewBootz_S_BOOTS_MAT	S1:S_SCALP_MAT
S1:S_SKIN_HEAD_MAT	S1:S_SKULL_MAT
S1:S_SPEC_MAT	S1:S_TOngue_MAT
S1:S_Teeth_MAT	S1:S_WETLAYER_MAT
S1:S_hair_S_HEADHAIR_MAT	S1:hairPhysicalShader1
S:S_BOOTS_MAT	S:S_BROWHAIR_MAT
S:S_BUTTONBASE_MAT	S:S_BlendShapeFile_FaceCtls_bsldrCtl_mat
S:S_BlendShapeFile_S_BSTEMP_MAT	S:S_BlendShapeFile_bsldrCtl_mat
S:S_COLLAR_MAT	S:S_DRESS_MAT
S:S_EYEZ_MAT	S:S_HEADHAIR_MAT
S:S_HORN_MAT	S:S_NewBootz_S_BOOTS_MAT
S:S_SCALP_MAT	S:S_SKIN_HEAD_MAT
S:S_SKULL_MAT	S:S_SPEC_MAT
S:S_TOngue_MAT	S:S_Teeth_MAT
S:S_WETLAYER_MAT	S:S_hair_S_HEADHAIR_MAT
S:hairPhysicalShader1	lambert1
particleCloud1	shaderGlow1

Don't:

aiShadowMatte1	aiStandardHair1
aiStandardHair2	aiStandardHair3
aiStandardSurface1	aiStandardSurface2
aiStandardSurface3	aiStandardSurface4
aiStandardSurface5	aiStandardSurface6
aiStandardSurface7	lambert1
particleCloud1	shaderGlow1

Use naming convention: nodeName + "_" + nodeType allows you to tell what kind of nodes without opening it.

- **Keep track of what you've referenced**

- o As an example: It can very easily get out of hand if you have lights referenced into one scene that you've forgotten about and then create new lights on top of that.
- o Update your render layers after deleting or adding objects in your reference file. If you added something, simply add the new objects to render layers. If you delete something, you might get error saying "cannot switch between render layers", simply go to Reference Editor, select the reference, right click and Clean up Reference.

- **Ensure that your reference path is consistent and correct**
  - o If you work from home it is very likely that your file paths will start with C:\ whereas the lab computers start with Z:\.
    - ▪ Maya is good at catching this and finding the relative path anyway, but the farm isn't! So even if your scene renders fine locally, it may still not give anything back from the farm.
  - o ○ The farm will look for your files where you tell it to, so if it's wrong your job will fail.
    - ▪ Make sure to properly set project. And don't forget to store texture, reference and maya files in the correct project and folders.

- **Do not make any changes to the referenced GEO in the render file.**
  - o This will cause a conflict between files and won't render properly.

- **How to add subdivision**
  - o Select GEO → Attribute Editor → Arnold → Subdivision → Type: Catclark
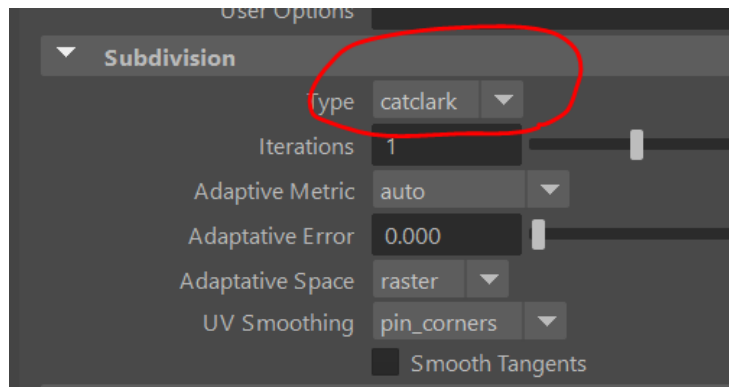
    This won't matter whether you have your GEO referenced or not.
- **You can't reference render layers!**
  - o Make sure you set up render layers in the render file. If you have them already set up in a separate file, use Export All option to export the render layers, then import back into the render file.
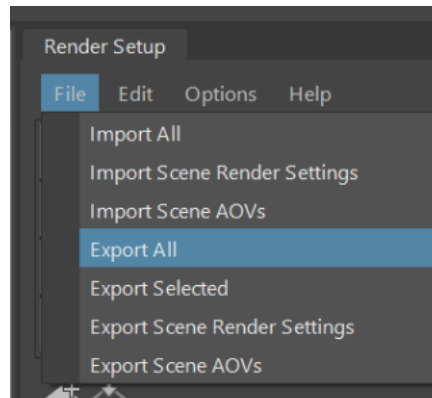
Make sure you reassign your GEOs and lights to the appropriate layers after importing the setup.

- You can Reference like this: z