# Intro to Cryptomattes

## By Danielle Campagna

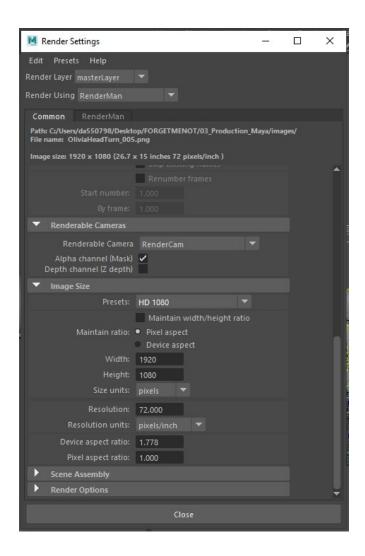
Cryptomattes are special in compositing because it gives unique IDs to each object in your scene. This is helpful for when you want to mask and change items in your scene. For example, one way I used cryptomattes in Forget Me Not is for masking out a glow effect in Nuke.

#### **How to start:**

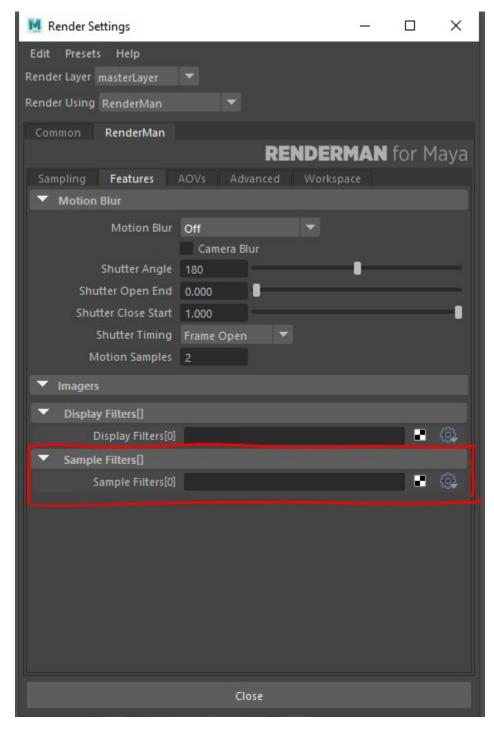
To start off you want to have your scene ready in Maya.

This means lights, cameras, ACTION!

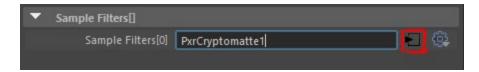
Go into your Renderman settings located in the **Renderman** tab at the top of the screen or find the render settings button just below that.



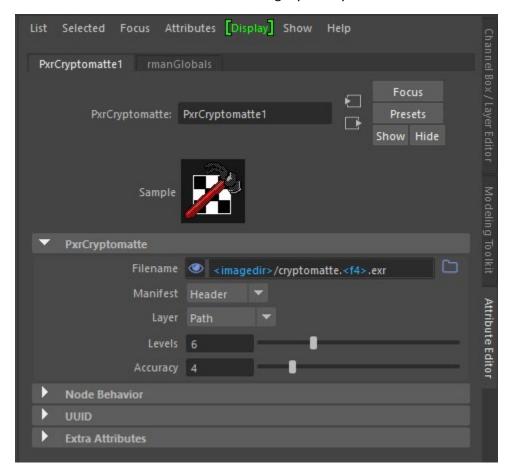
Once you have opened up your render settings make sure that you are rendering out the right camera and the correct aspect ratio:  $1920 \times 1080p$ . Once you're done with that go to the **Renderman** tab and then look for the **features** tab



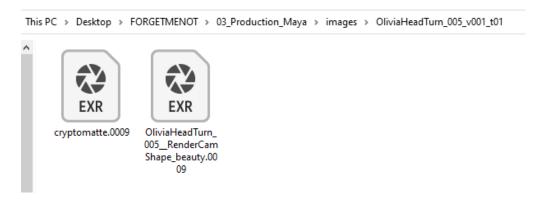
To add to the filters list, right mouse click + hold to look for PxrCryptomatte.



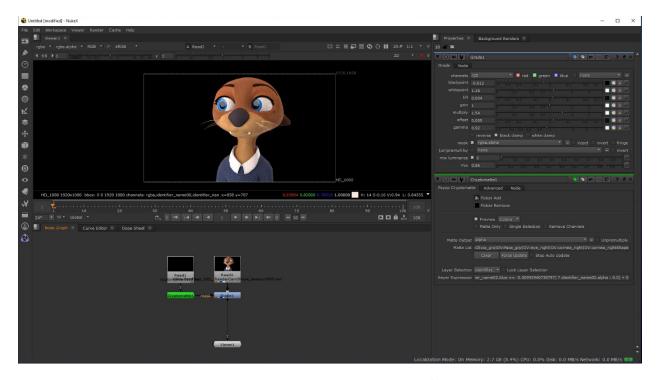
To remove something from the list, you have to add another thing then you can remove whatever is you want to remove. You can't remove one thing if you only have one item.



This is what is shown in the attribute editor. You can change the name if you would like in the /cryptomatte section. However, it is preferred you don't touch this. If you set your project then when you batch render you will find the cryptomatte and your beautypass in the same **images** folder. **Batch Render that baby!** 



## Now let's bring everything into Nuke!



Hit tab, type READ and add a read node with the beauty pass and on for the cryptomatte. Or you could click and drag from your file finder.



Make sure you have the cryptomatte plug-in before starting working on cryptomattes.

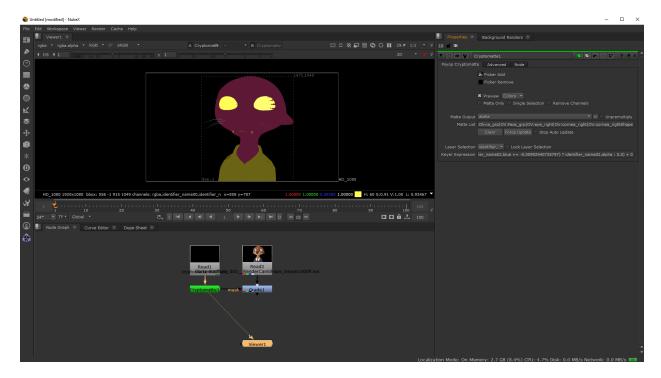
Here is a helpful guide on how to download and update your Nuke with cryptomatte:

https://github.com/Psyop/Cryptomatte/blob/master/docs/nuke.md#:~:text=Nuke%20Installation,nuke %22%20folder. 
Step by Step instructions

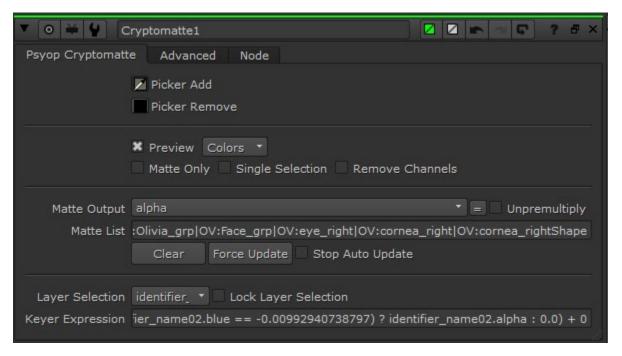
Now you can start using your cryptomattes! Go ahead and hit tab and look up **Cryptomatte** node. Connect the cryptomatte to the cryptomatte node by move the arrow to it. Then connect the beauty pass exr to the **viewer** or you can simply click on it and hit "1" and it will direct it to the viewer 1 node.

Now is when you should have an idea of what you want to do with the crypotmatte. <u>Something very important to keep in mind in post-production is to have a game plan of what you want the end result to look like. There are a lot of things you can do in Nuke but have most of your work done in Maya before you go in and work in Nuke.</u>

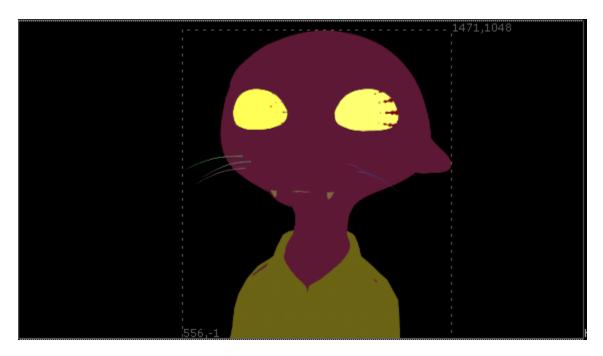
For this I will show you how I used a cryptomatte to correct Olivia's eyes to make them pop more. Here is how to start that.



Click on the cryptomatte node and hit 1 to see it in the viewer. You will see that the cryptomatte has assigned specific ID pixel coverage to each item within each object in the scene. As you can see here Olivia's eyes, head and shirt are different.



In the cryptomatte tab select the **Picker Add**. With that selected hold ctrl to select the items you want to edit in the cryptomatte.



When you add things they will turn yellow. You can go back and select the remove picker and crtl select the items you don't want to edit.

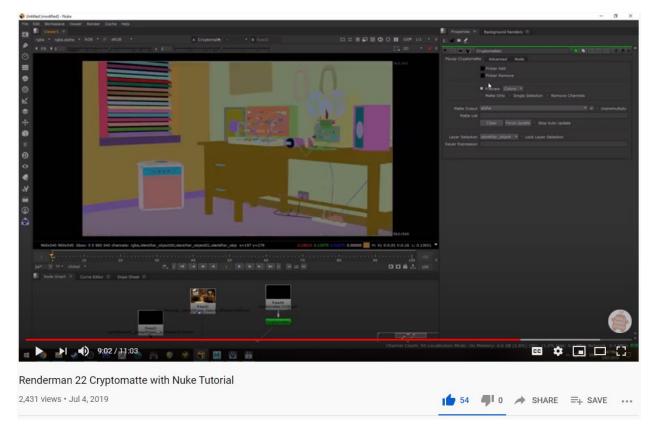
Now with all that selected you can go ahead and do some editing. For me I used a grade node to edit the eyes to be brighter. You could also use a glow node but it will look like she has lights in her head.



I edited Olivia's eyes on the left and the original is the one on the right.

Once you get the hang of editing each node you can grow your tree and have multiple things edited and brightened to your liking. Another video I would like to add here is from Small Robot Studio:

https://www.youtube.com/watch?v=GBRJ XkFvEU



He was super helpful for me when I was learning cryptomattes and he goes through the same process of rendering out a scene in Maya and then step by step of going into Nuke and fixing a specific object.

## Happy Compositing!

