

How to use the new Blender Scene

(For Sonic)

By Cahalan.

Required Add-ons:

- [Render Button & Camera Manager](#)
- [Loom](#)

Notes:

The Render Button / Camera Manager add-on served as the basis for the Auto Cropper Add-on developed by MetalLegacy, Radzo, & Tyleto. I opted to use the original because the Auto Cropper has additional Python Coding that conflicts with the additional cameras introduced.

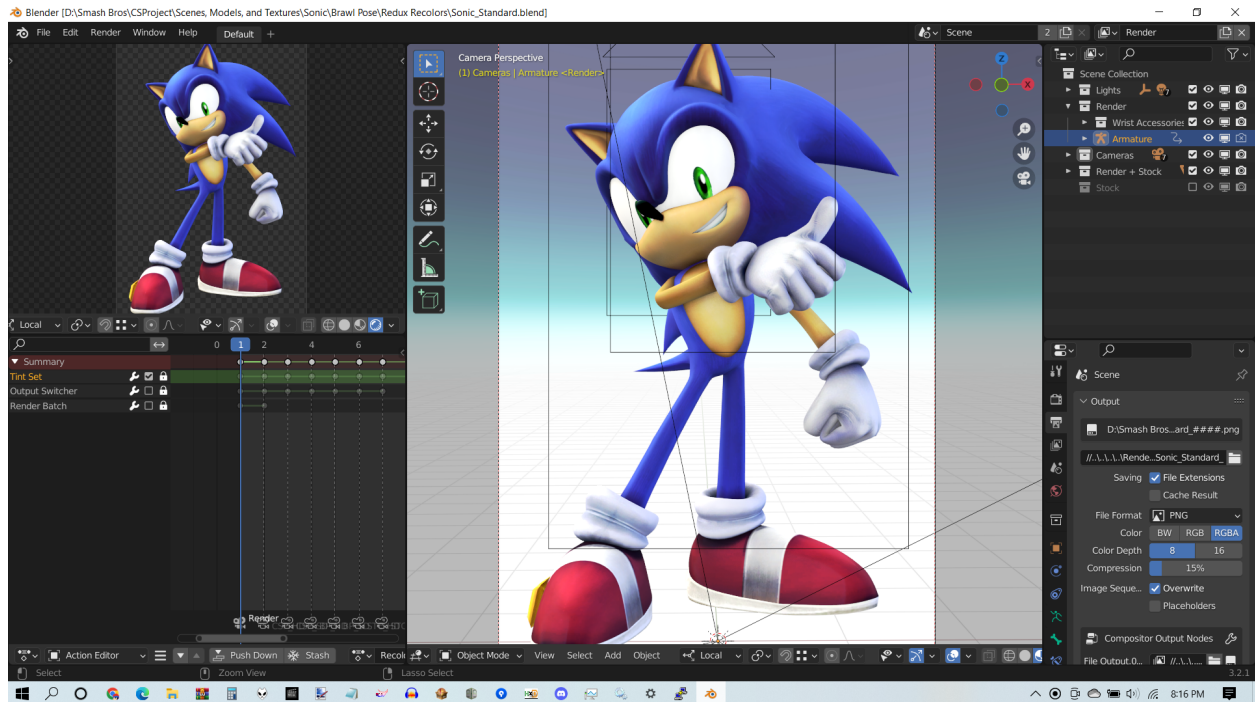
Loom is a huge quality of life improvement for rendering animations; it ensures that each and every frame is rendered and you can define a custom range of keyframes to render (even skipping keyframes!). I used Loom because I was running into issues with rendering “animations” in vanilla Blender and with the Camera Manager’s “Render Animation” tool. Smaller batch renders of a single UI for multiple recolors may work in vanilla, **but your mileage may vary without using Loom.**

Features:

- A modified version of Mach7’s Brawl Lighting, includes the World setup.
- 7 Cameras keyframed via animation
 - Render
 - CSPs (HD/SD)
 - BPs (HD/SD)
 - Stocks (HD/SD)
- 16 recolors from the Sonic Recolor Collection (also keyframed)
- Some New Driver stuffs to adjust the model as needed (Stock SD)
 - Same goes for the cameras
- Two Batch Rendering “Modes”
 - All UI for a single color (traditional, like PMHD scenes)
 - Multiple colors for a single UI

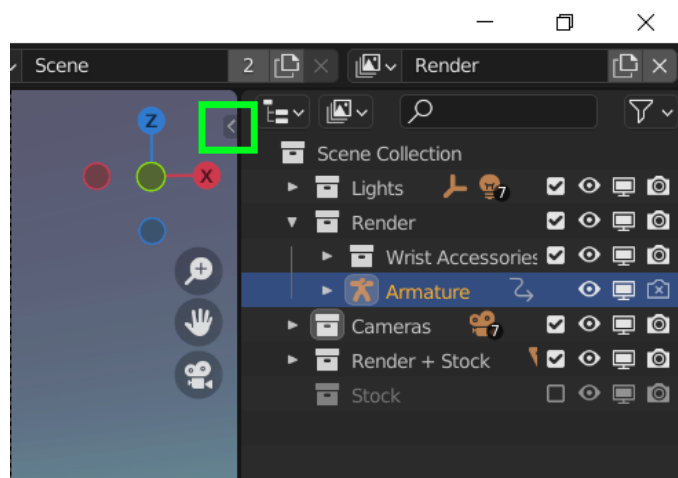
Navigation:

When you open the Blender Scene, this is how it will look.

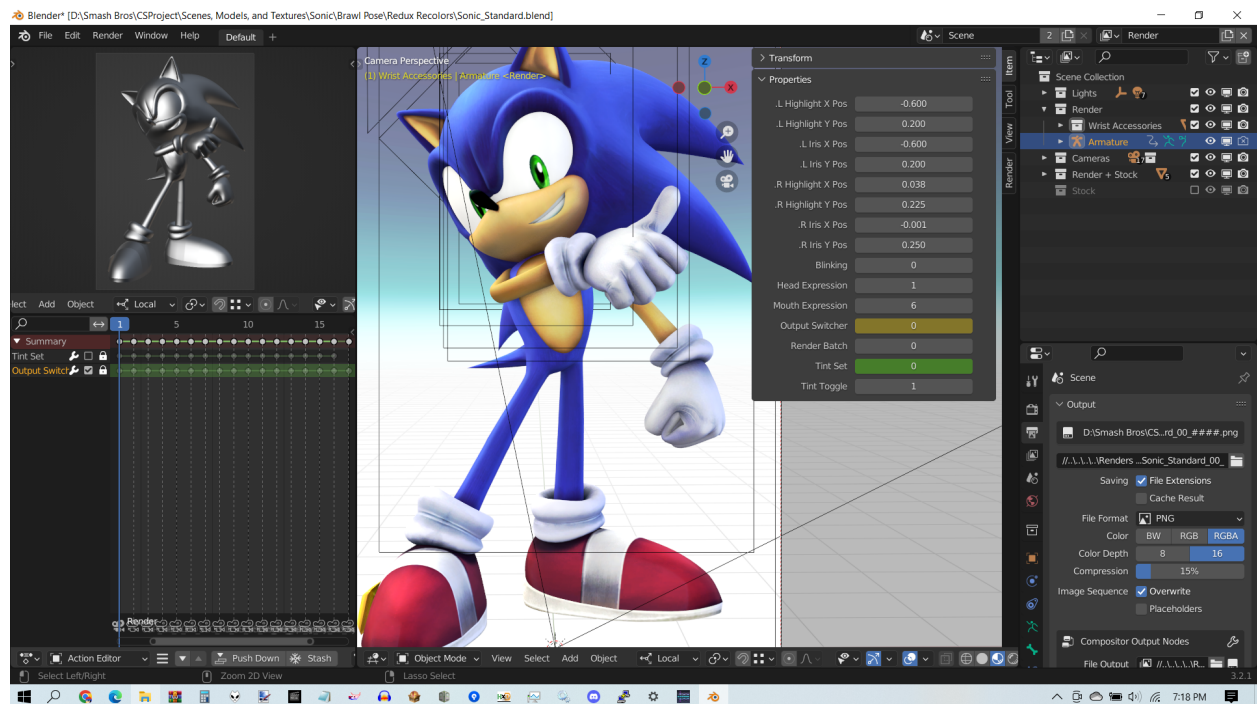


For all of the animation channels in the bottom-left to properly work, you must select the armature first as shown in the upper-right of the image. The current combination of muted channels allows you to move the slider (or use your arrow keys) to select the “Tint Set”. In the generic version of the scene, it will be called “Color Set”.

You can view the camera manager and a shortlist of the armature’s properties by selecting the arrow tucked in the material view window.



Here's the expanded list of options once you click it:



The “Render” tab that appears on the side will only appear when you enable / install the Camera Manager Community Add-on.

You can install add-ons by going to: Edit > Preferences > Add-ons.

You will recognize most of the properties from the PMHD Sonic Scene as those control the eye position and expressions. I also assisted with the Tint Set drivers for the PMHD Sonic Scene which came from the Scene used in my Color Collection for Sonic.

What's new are the Output Switcher and Render Batch Properties, both of which have their own animation channels. The output switcher synchronizes the rendering of cameras in time with the camera views in the animation: crucial for properly naming the camera views in the final output as well.

The Render Batch setting controls which system of batch rendering is used in the compositor for file naming outputs. This has been move off of the dope sheet to aid in setting up the render types (the following page).

How to Set the Render Batches in Preparation to Render Images:

- Render Batch 0: Renders all Cameras for the currently selected costume.
 - The Tint Set Channel must be **MUTED** (no checkmark)
 - The Output Switcher Channel must be **UNMUTED** (checkmarked)
 - The Render Batch Property is set to **0** in the armature.
 - File output (see output pane in bottom-right):
//..\\..\\..\\Renders and Cosmetics\\Sonic\\Sonic_Standard_XX_
(XX being your own choice of numbering.)
- Render Batch 1: Renders a specific UI for a user defined set of recolors.
 - The Tint Set Channel must be **UNMUTED** (checkmarked)
 - The Output Switcher Channel must be **MUTED** (no checkmark)
 - The Render Batch Channel must be set to **1** in the armature.
 - File output (see output pane in bottom-right):
C:\\\$Recycle.Bin\\ (Your System's Recycling Bin Directory)

For both Batch Settings, use Loom's Render Animation feature. By default, the shortcut is Ctrl + Shift + F12. A new dialogue box will appear and you can define the set of keyframes you want to render, including skipping certain keyframes. The specific name changes are also listed above and you **DO NOT** need to change the names in the file output nodes that are listed below in that same area. The only reason you'd need to change the names are if you are using this specific scene for your own rendering. The generic sample scene that will be released later on will be much easier to do so as this scene is specifically setup for Sonic and assumes a default organization in the CSProject Server, outputting relative to the scene's location.

IMPORTANT:

NONE OF THE ANIMATION CHANGES WILL PROPERLY TRIGGER OR TAKE EFFECT IF YOU ARE **NOT** SELECTING THE ARMATURE AS HIGHLIGHTED IN THE MAIN IMAGE.

SELECTING A CAMERA TO BATCH RENDER THAT VIEW FOR MULTIPLE RECOLORS WILL **UN-SELECT** THE ARMATURE.

THIS SCENE IS MADE FOR **BLENDER 3.2** AND UP.

Render Layers:

Unlike the original PMHD scene, I use render layers to control the modifications made for stock icons in the compositor (the outlines). The main controls of the Blender scene are in the default “Render Layer”. The “Stock Layer” is mainly for stock heads so there is no need to drive or animate the visibility of the stock head elements as if you were only using a single render layer. Both layers are actually rendered at the same time if you poke around in the layer settings, **but the stock layer only outputs / renders when the stock cameras are active.**

File Output:

The file output has a junk directory that routes to your system’s Recycling Bin; the one used in the scene is for Windows. You will need to adjust the Recycling Bin location to fit your system if it is in a different drive or an entirely different operating system (Mac, Linux, etc). Turns out that by setting an output directory in the main output pane or in a file output node to the recycling bin, the images won’t render at all. You can view the inner workings of this system in the compositor window. It should be enough to give a general idea of what each section of nodes is doing.

If you are editing the future generic scene that will be released, the names are structured as “_Fighter_Costume_” in place of “_Sonic_Standard_”. The output folder is changed to “Fighter” from “Sonic” from within the “Renders and Cosmetics” section of the CSProject folder system.

Use a Bulk Renaming Tool that you trust if you want the first costume to start at 00 rather than 01.

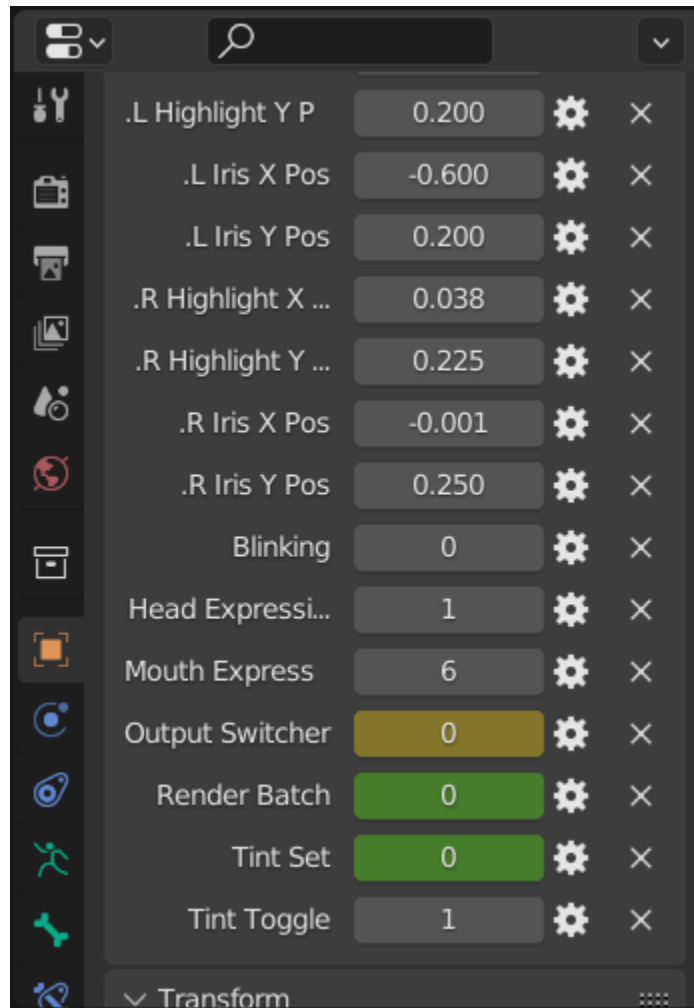
Adding to the Tint Selector Node Group:

If you’re reading this, I’ll assume that you know enough to check the other bracelets to see how the parenting and driver setup works as far as object visibility and render visibility is concerned. This section will cover extending the range of the Tint Set property in the main armature and adding more colors to the various color ramps in the Tint Selector Node Group.

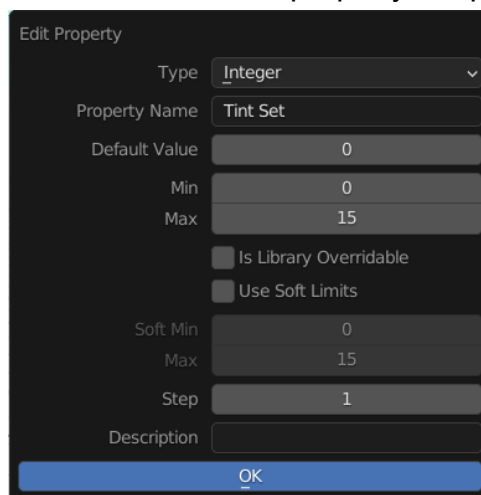
I’ll also assume that you know how the image sequences work and discover that I used “b” textures for recolored env / spe textures for certain accessories. You can see this in select costumes in the Sonic Recolor Collection.

The good stuff starts on the next page.

You can only edit the armature properties from this window:



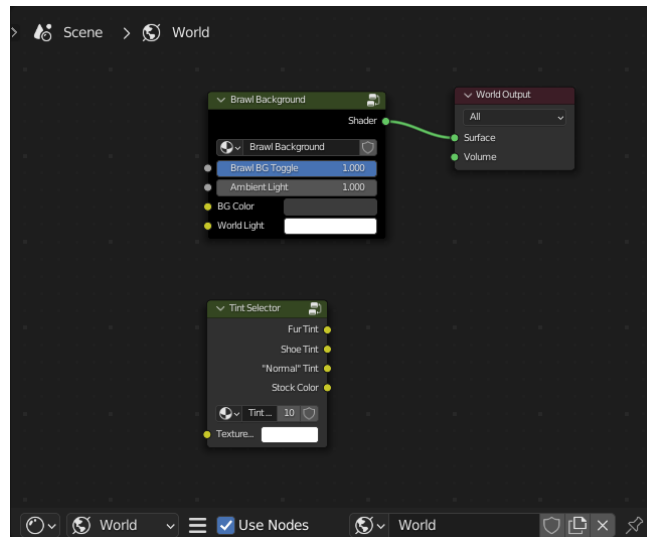
Select the gear icon next to the Tint Set property to open up a submenu:



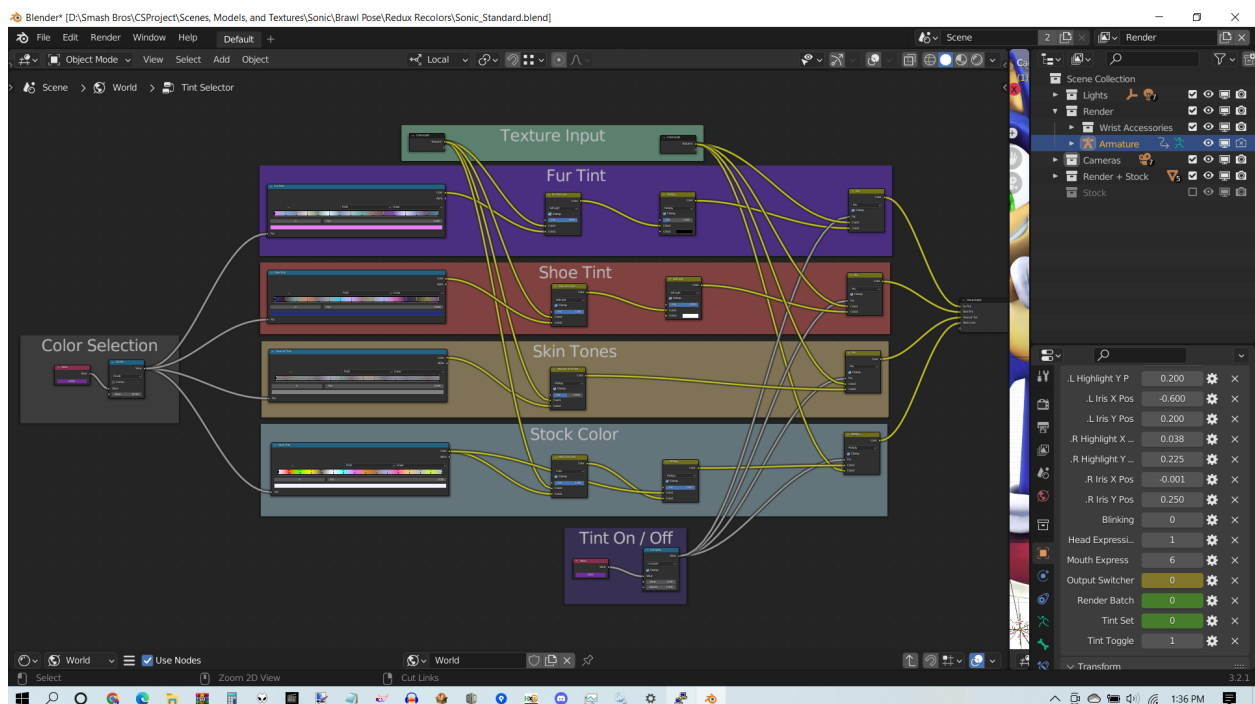
From here you can increase the max value to accommodate the number of new costumes you've added.

Object visibility of your bracelets, if added to the bracelet collection, rely on matching the Tint Set number to sync with image sequences and tints chosen in the tint selector. You can copy drivers from object to another then edit accordingly. To make life easier for your self, copy the visibility driver as a new driver to then apply to render visibility for that same object.

For easy access to the tint selector, I've added an unconnected node group using the tint selector within the World's Shader so that you don't have to leave the armature:

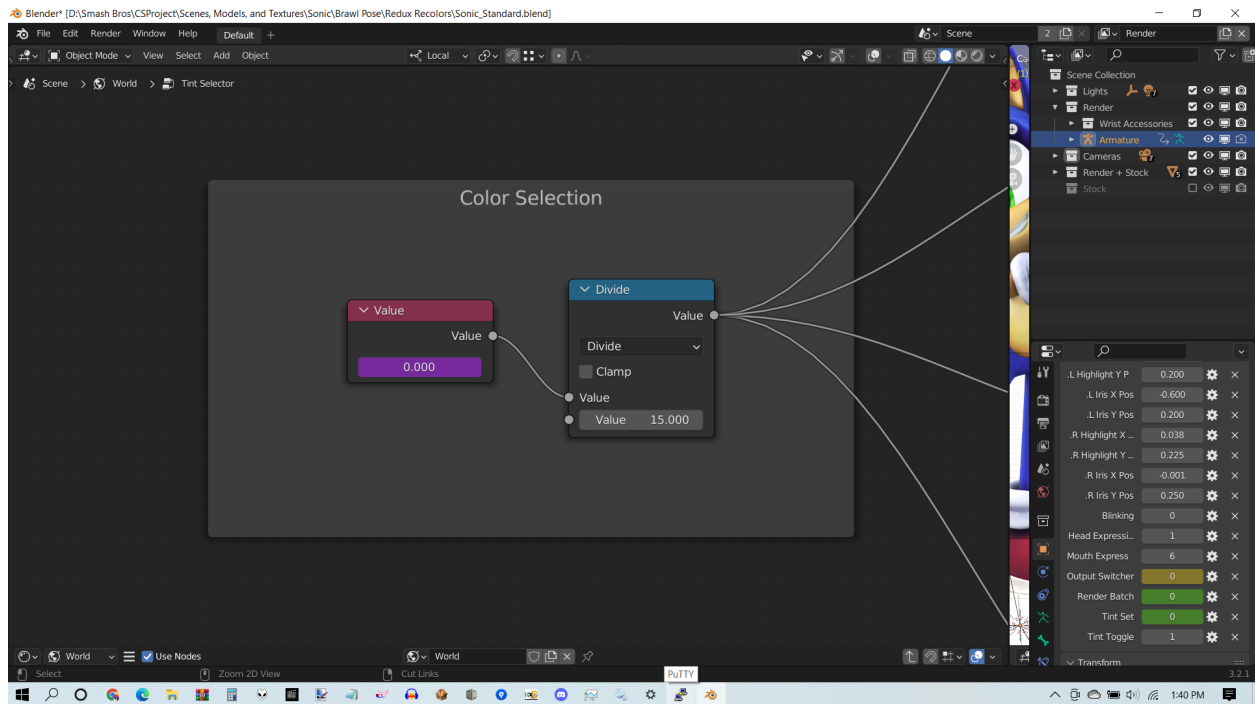


Select that node group then press **Tab** on your keyboard to enter / exit the node group.

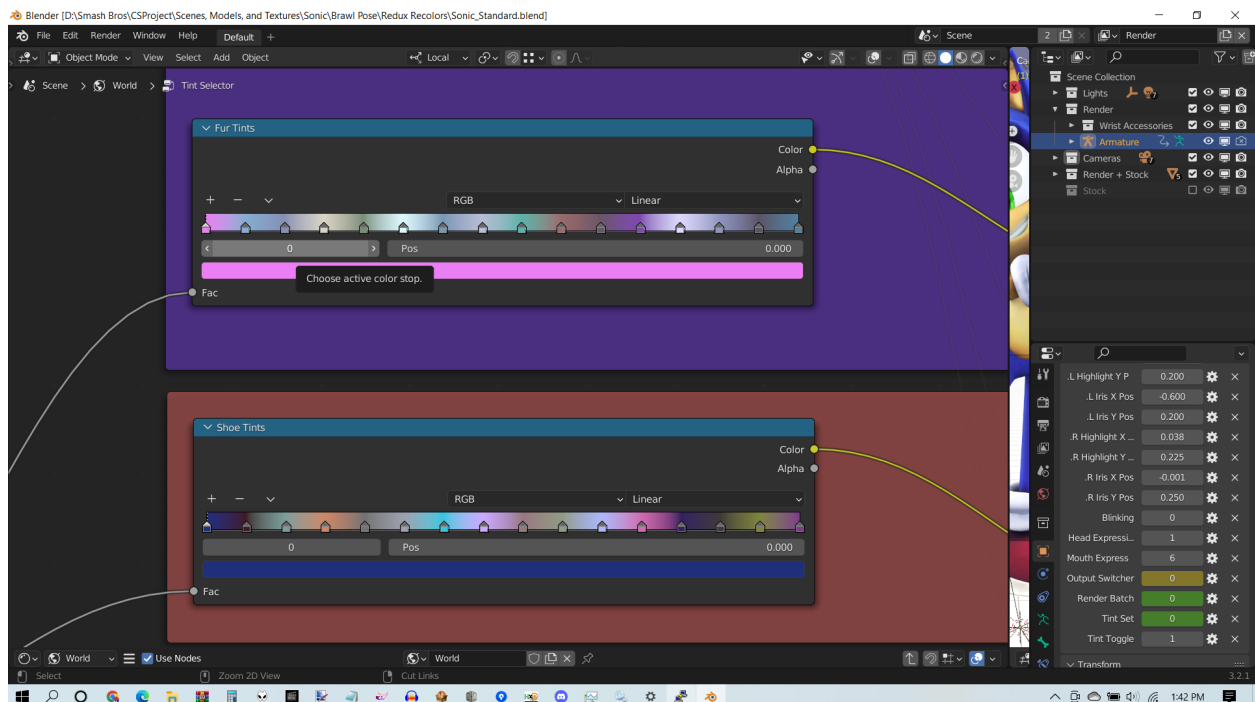


Welcome to the other brain of this operation.

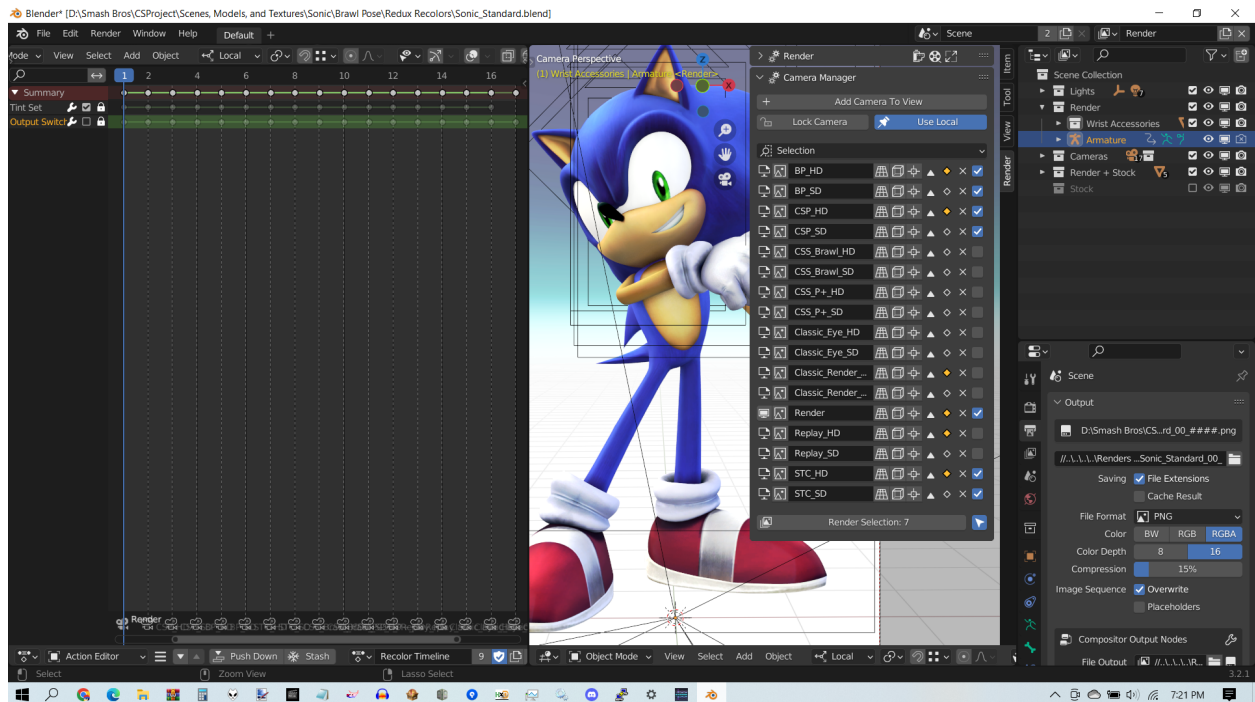
Change the number in the Divide Node to match the new maximum set in the Tint Set property:



For each of the 4 color ramps, set the active color stop to the max then press the “+” symbol on the node to add a new color stop. Once you’ve added the colors that you desire hit the “v” symbol on the node to get a drop down; select “Distribute Evenly”.



Lastly, key frame the new tint set values in the animation channel “Tint Set”:



You may need to use the Render Panel to extend the range of the animation and unlock the animation channel to enable editing.

For all other questions, refer to the Blender Manual of your installed version. Google/Bing/YouTube/Blender Discords are also your friends.

For specific questions about the Sonic Scene, please refer to the video included in the [updated PMHD Scene](#).

Credits

Mach7 for his light setup
MetalLegacy, Radzo, & Tyleto for their Cropper Tool
Tyleto & VirtualBeef for Sonic's PMHD Scene
Hokuss Pokuss for the Camera Manager Add-on
P2OR for the Loom Add-on