

RETROWAVE SKIES v3.0.0

Thank you for using Retrowave Skies!
This guide will show you how to set up the
shader for your Unity URP scenes in
versions 2020.3 and above.

If you end up using this asset in a project,
feel free to Tweet me a screenshot
@SuggoCreations. I'd love to see what you
do with it!

*Please consider leaving a review at [the
store page](#). Your feedback is instrumental to
the future of this package!*

MADE FOR THE UNITY ASSET STORE

SUGGOCREATIONS.COM



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ASSET PACK CONTENTS

RETROWAVE SKIES Lite includes

- 3 Skybox Materials
- 3 Sun Mask Textures
- 3 Grid Textures
- 3 Demo Scenes
- Retrowave Skybox Lite Shader
- Grid Lite Shader
- GetGlobalMatrix script

RETROWAVE SKIES includes

- 34 Skybox Material (Demo & Preset)
- 34 Demo/Present Scenes
- 12 Cubemaps
- 30 Prefab Models (Consisting of cars, skyscrapers & more!)
- 3 Ambient Tracks
- 4 Particle Systems
- 2 Retrowave Skybox Shaders (Base & Lightweight)
- 2 Grid Shaders (Lit & Unlit)
- GetGlobalMatrix script
- And more!

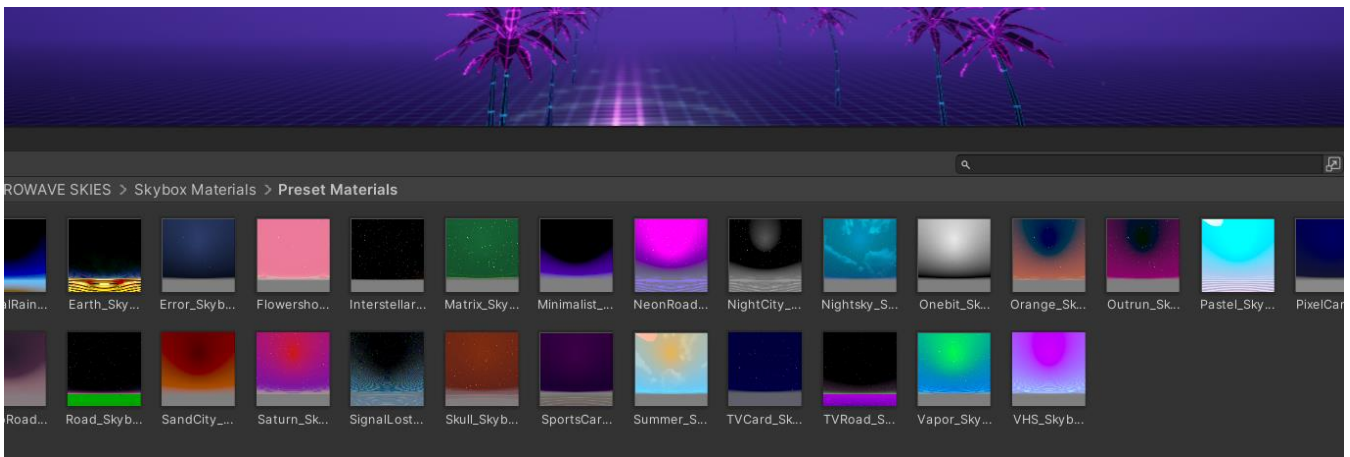
To view the exact asset pack contents, visit the Unity Asset Store page for Retrowave Skies here: <https://assetstore.unity.com/packages/slug/280818>

You can find the full, detailed content list under “Package Content”.

SETTING UP

Applying a Skybox material

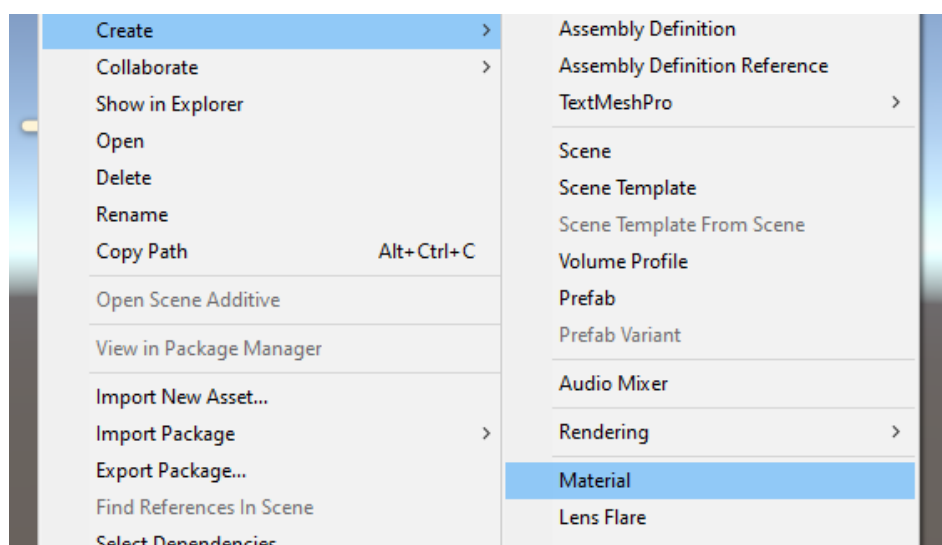
Navigate to \Assets\Suggo Creations\RETROWAVE SKIES and find the Skybox Materials folder. There you'll find the demo materials used in the Demo & Preset Scenes (which I highly recommend checking out for inspiration!)



Just drag & drop onto the sky in your scene, and you're done!

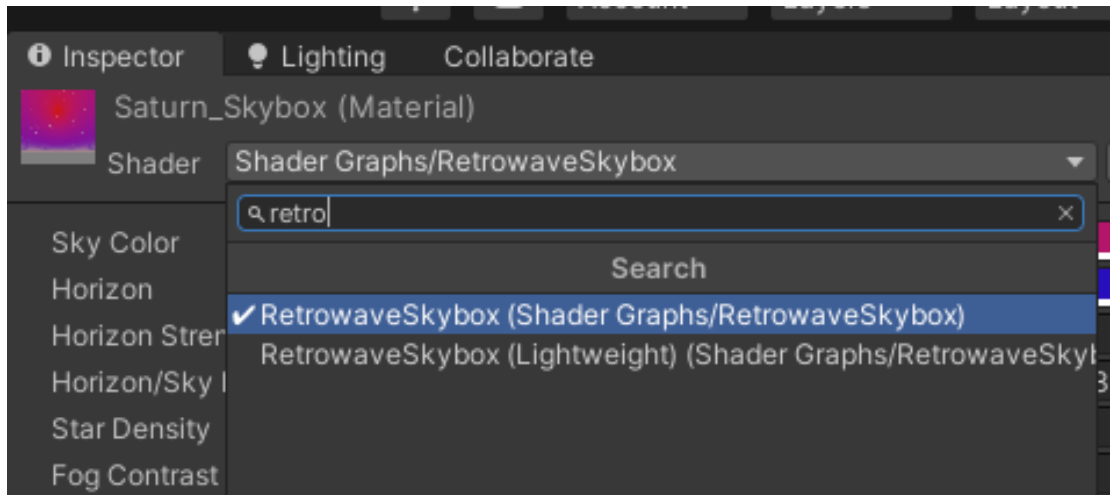
Making your own, new Skybox Material

If you're making a new scene and want to customize your own skybox from scratch, simply create a new Material. Navigate to your Project folders, right click somewhere in your Assets folders > Create > Material.



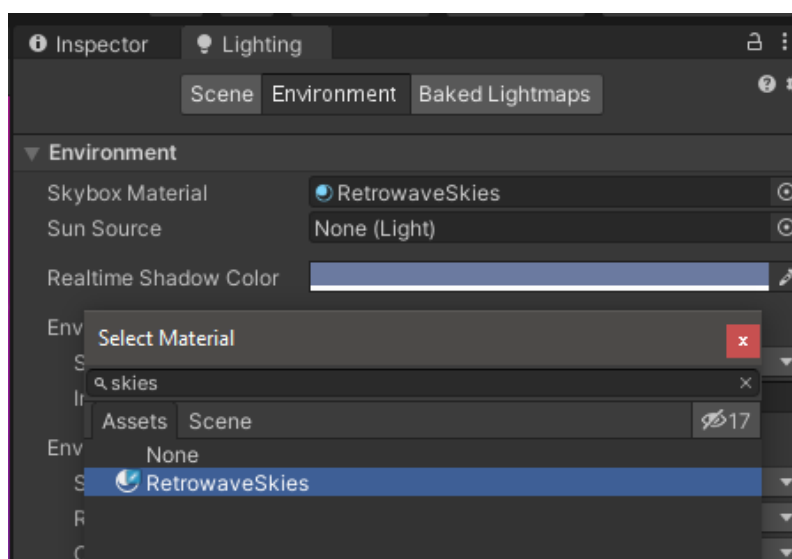
(Tip: After hovering over "Create", press "M" and it'll create a new Material immediately.)

After you've created your Material, it'll have the Universal Render Pipeline/Lit shader by default. To change it to the Skybox shader, select the drop down menu and browse the Shaders to find the Retrowave Skybox or Retrowave Skybox (Lightweight) shader. The same process applies to the Grid Shader.



Applying the Skybox Material via Lighting settings

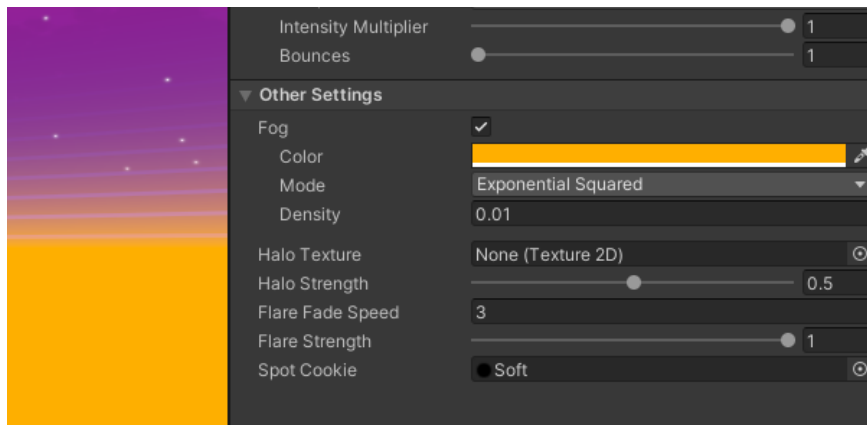
Once you've applied the shader to the Material, you can simply drag and drop the Material into the Scene window and onto the sky. Alternatively, you can navigate to the Lighting Window > Environment > Select the Retrowave Skybox Material you've made from there.



If you do not have a Lighting tab, navigate to the top bar of Unity, Window > Rendering > Lighting.

Fog

The skybox shader is reactive to the fog currently in the scene. If you load the Skybox Shader into a new scene you might have noticed the gray tinted fog. By default, scenes start with the Fog turned off and will by default have a gray tint. Simply Enable the Fog and select the color you want! The Fog settings can be found under Window > Rendering > Lighting > Environment > Other Settings.



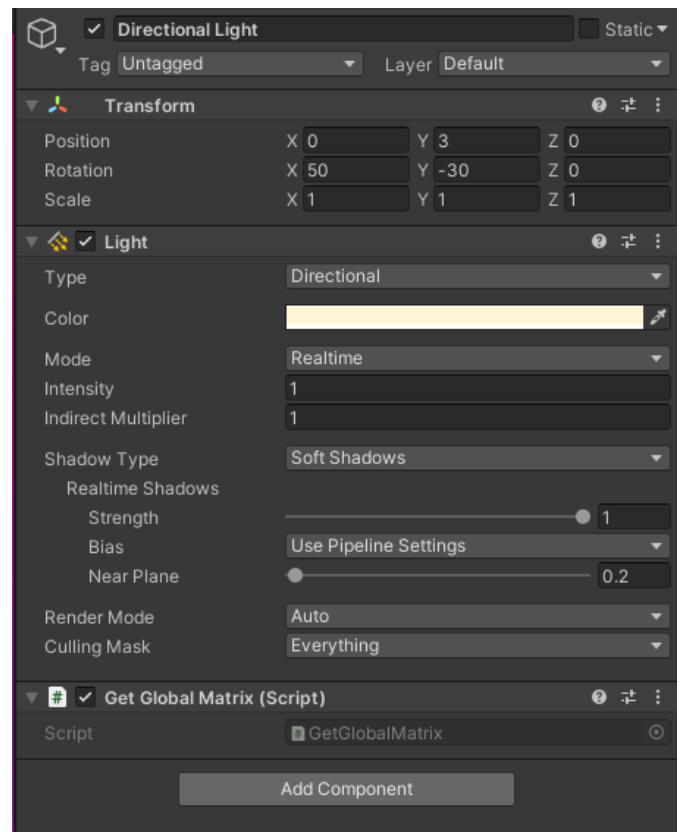
Sun movement based on Directional Light

The Shader needs the GetGlobalMatrix.cs script in order to pass the rotation information of the Directional Light into the Shader.

If the Directional Light doesn't have the GetGlobalMatrix.cs script on it, it will not be able to move the Sun Mask. However, the regular Sun Disc will still work.

[ExecuteAlways] is enabled in the script in order to make the Sun Mask movable even outside of Play Mode.

To apply the script, simply drag and drop it or select it – as a component under the Directional Light.



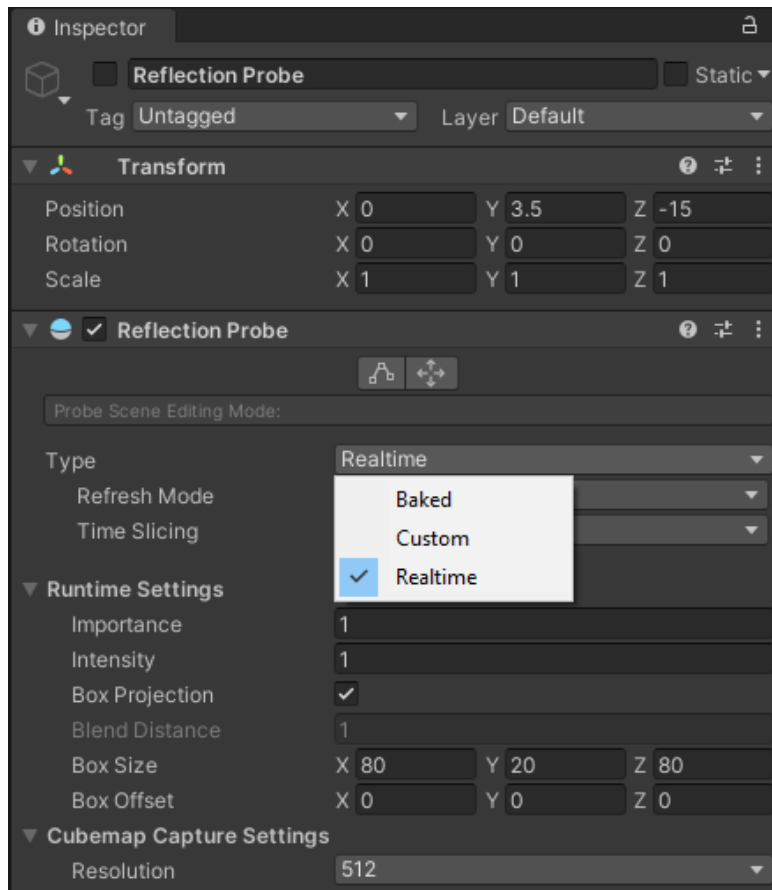
Setting up Reflections

By default Unity will make a Reflection capture of the current Skybox and apply it to all your reflective objects in the scene.

If you want to reflect the moving elements of the shader, you'll need a Realtime Reflection probe. You can add these by adding a Reflection Probe and simply setting it to Realtime.

But be very mindful of using Realtime Reflection probes, as they can be quite performance costly – especially at high resolutions.

You will not need a Realtime Reflection for the actual directional light's light source however.



TROUBLESHOOTING

The sun isn't moving with my Directional Light

1. Make sure you've applied the `GetGlobalMatrix.cs` to the Directional Light.
2. Make sure the script's code is all intact.
3. Check if the file is not corrupted.
4. Check in the RetrowaveSkybox Shader Graph if the Matrix4x4 Property has `_LightMatrix` as its Reference.
5. Restart Unity.
6. If it still doesn't work, reload the script from the Retrowave Skies Package in from the Package Manager.

My shaders are pink/give an error

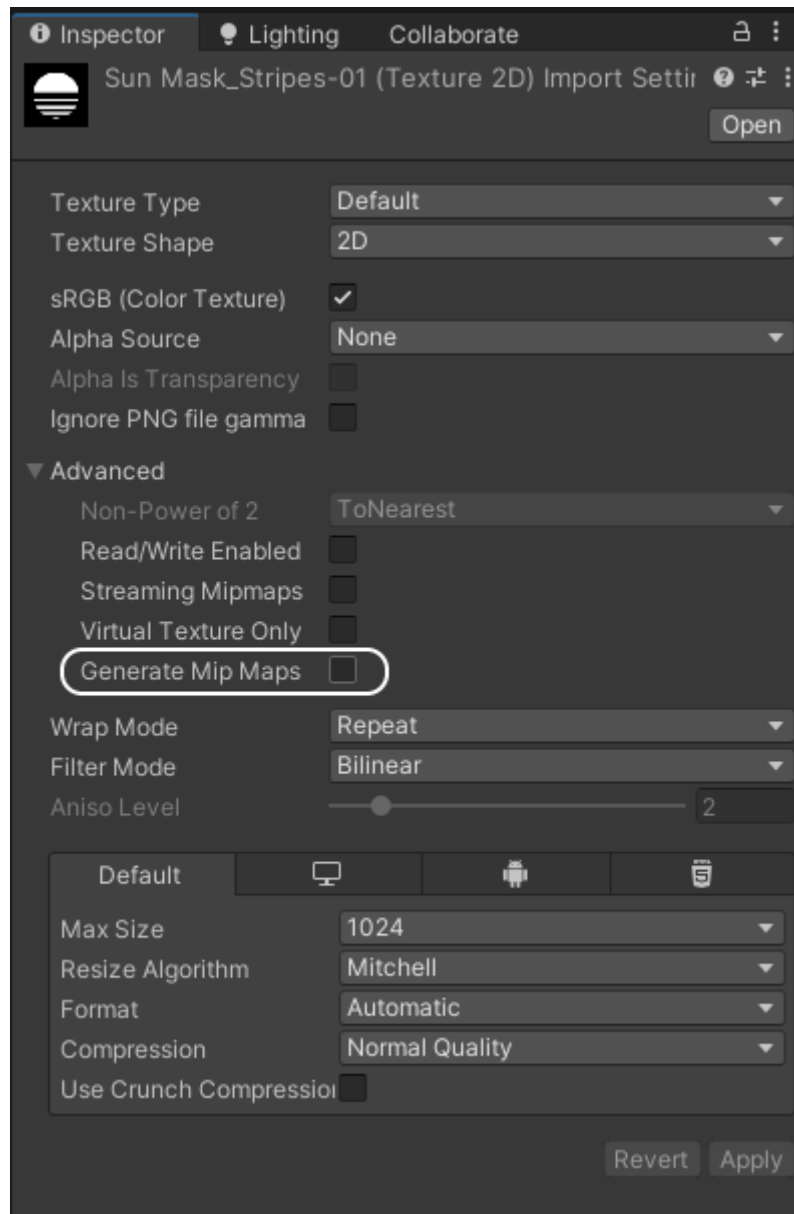
1. Check if you are in Unity version 2020.3+, preferably one of the stable LTS versions.
2. Make sure you're in the Universal Render Pipeline and not the Built-in Render Pipeline.
3. Go to Window > Package Manager and check if you have Shader Graph loaded in. If you're in Universal Render Pipeline, Shader Graph should be in your project by default.
4. Reload the Retrowave Skies Package in from the Package Manager.

My shaders are grey

1. Check if your Shader Graph nodes are connected to the Master Node.
2. Reload Shader Graph file by reloading in the Retrowave Skies Package in from the Package Manager.

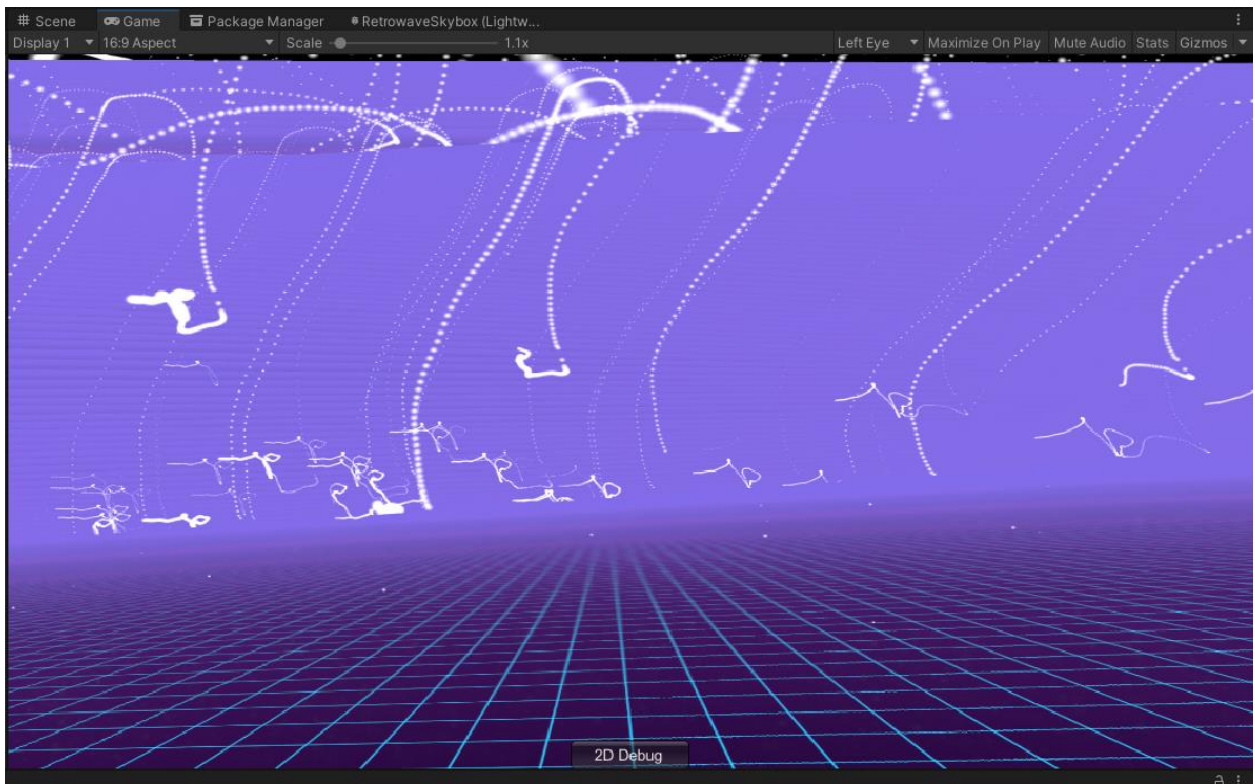
My custom Sun Mask is showing weird artifacts

1. Check that there's no stray Gray/White pixels near the edges of your mask image.
2. Make sure your Black in your image is 100% black.
3. Your custom Sun Mask could show artifacts due to Unity's Built-in Mipmapping system. This can be disabled by navigating to the texture file's Inspector > Advanced > "Generate Mipmaps".



My VR view is glitching out

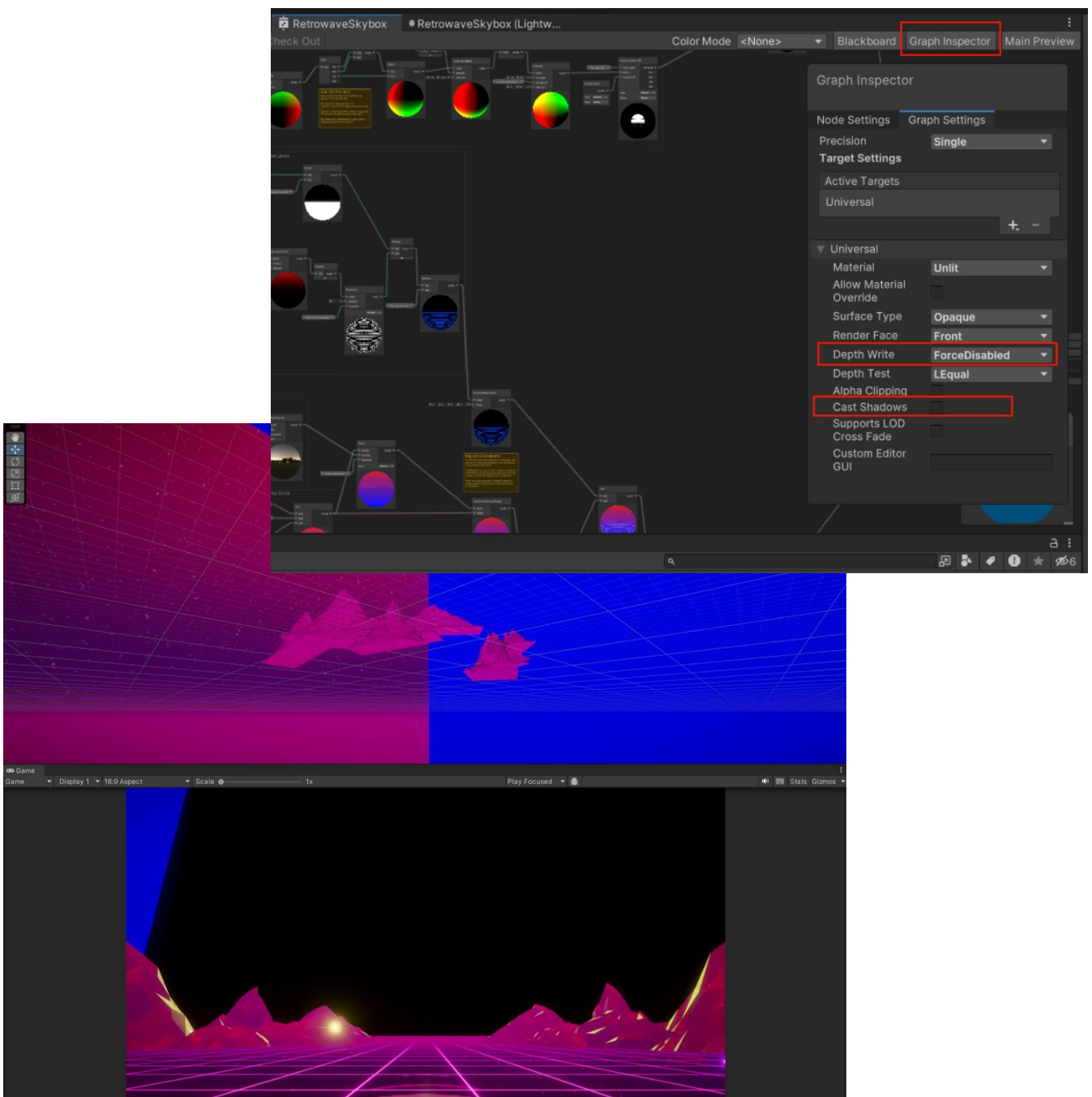
1. If you have VR set up in your project, make sure to switch to Singlepass or Multipass under Project Settings > XR Plug-in Management > OpenVR. Which you have to use depends on the Unity version.
2. Make sure you've set up your VR packages correctly, and are in the correct Unity version.
3. Reload the Retrowave Skies Package in from the Package Manager.



Example of graphical “duplicating view” glitch in game view and VR views.

Only one side of the Skybox is showing/My Skybox is Blue

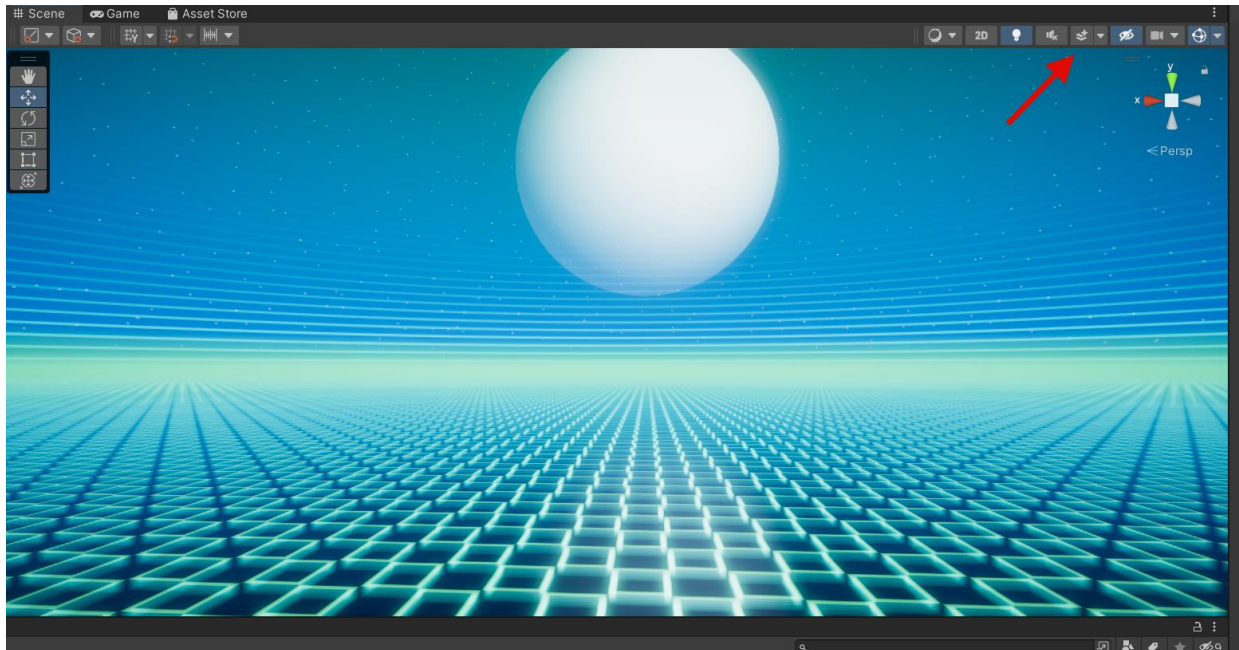
1. Check if you are in Unity version 2022 LTS versions or above. If you are, follow these steps.
 - a. If not, contact me at support@suggocreations.com.
2. Navigate to the Shadergraph file itself, RetrowaveSkybox.shadergraph.
3. Open the Shadergraph file, and navigate to the Graph Inspector > Graph Settings.
4. Turn Depth Write to ForceDisabled and Cast Shadows off. Finally, hit Save Asset at the top left to save these changes.



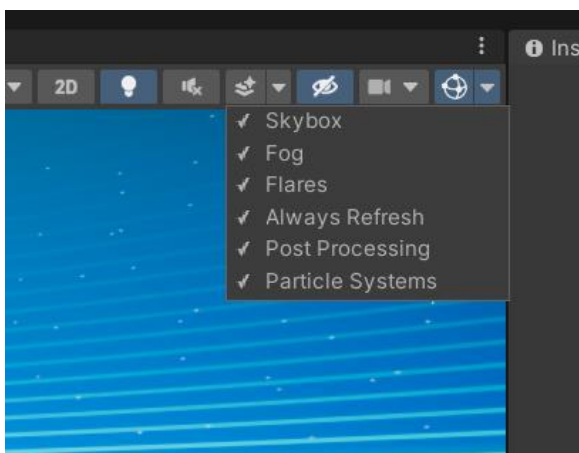
The Grid shader/Skybox shader is appearing choppy or stutters in the editor

This is likely due to the in-editor settings being toggled. For performance reasons, the editor doesn't refresh often. To fix this:

Navigate to this dropdown menu.



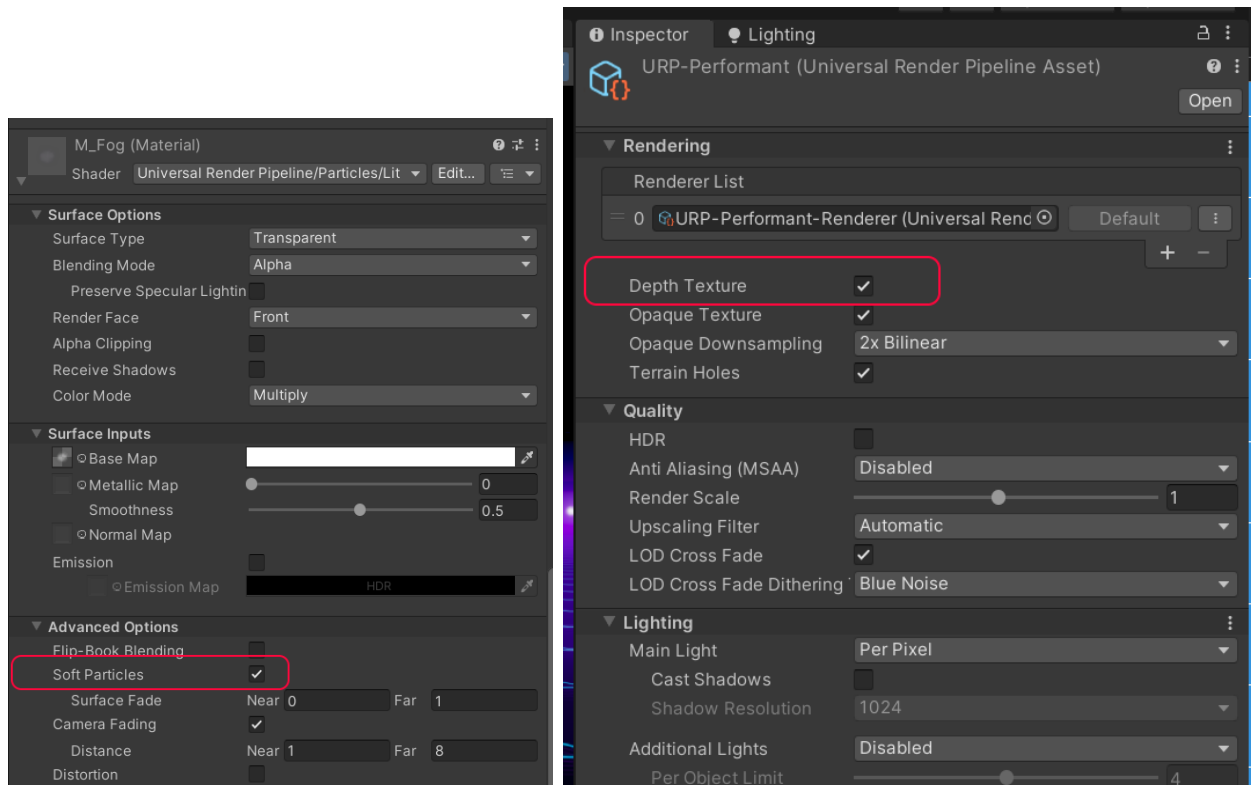
There, simply select Always Refresh. This'll show your scene view in real-time and your materials should stop appearing stuttery.



However, if the stuttering problem persists (in or out of editor), consider profiling your project's overall performance.

The Ambient Fog particles don't work/look square

The ambient fog has “Soft Particles” enabled in its Material by default. In order for soft particles to work, you need to enable the Depth Texture. This is generally used by a lot of shaders/VFX. May you have this disabled, you'll probably see a warning in the Fog Material asking you to enable it. It can be enabled in the Universal Render Pipeline Asset, located under **[Assets]Settings** by default.



Alternatively, you can choose to just uncheck the “Soft Particles” option! This'll result in the fog creating lines at points where it collides with geometry, though.

SOURCES

- The Cubemap LowTrees_2k.hdr is from hdrihaven.com, granted under a public domain/[CC0 license](https://creativecommons.org/licenses/publicdomain/0.0/).
- Special thanks to Cyan (@Cyanilux on Twitter) for personally helping me figure out the Sun UVs! He also has many shader tutorial resources over on [his website](#), I highly recommend you check it out.

THANK YOU NOTE

I sincerely hope you enjoy Retrowave Skies! This was my first asset released since quitting my job to do full time game development and I'm excited to work on more. If you have any inquiries or need technical support, e-mail support@suggocreations.com. As I'm only a single person, it may take a few work days before I get back to you. But I'll try my best to help!

If you enjoyed this asset pack, please take the time to [leave a review](#). I highly value any comments, feedback or suggestions you may have.

