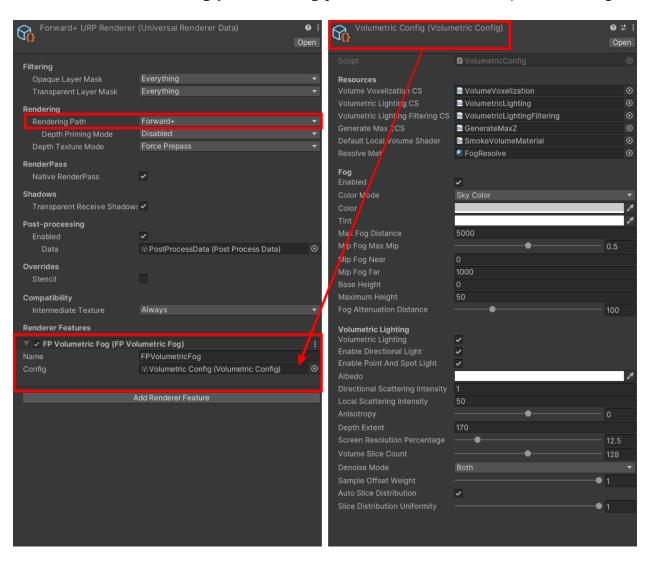
#### **Ethereal 2024**

The new **Ethereal 2024** module adds a much faster method of handling local shadowed lights, especially fast in Forward+ and supporting all of Forward, Forward+ and Deferred modes. The **original Ethereal system in "VolumeFogSRP" folder should still be used for volumetric fog and best sun volumetric light control, plus special FX like haze and impostor volume lights.** This new system will be expanded with more functionality in next updates and the two systems can be used in combination.

#### How to Use

- 1. Add 'FP Volumetric Fog' renderer feature to Renderer data
- 2. Create 'Volumetric Config' via 'Create/UniversalVolumetric/VolumetricFogConfig'
- 3. Link the config asset to the renderer feature
- 4. Forward+ rendering path is strongly recommended for best performance gain



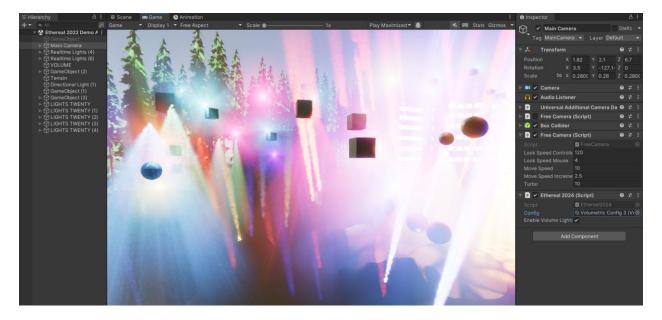
## **Ethereal 2024 controller**

The system includes a controller script "**Ethereal 2024**" that applies the user defined settings file and enables or disables the effect, such that can use a different setting per scene. The script must be placed on the camera tagged as "MainCamera" in the scene. It is recommended to use this script on every scene that requires the effect, so can use different settings per scene.

To disable the fog, uncheck the "Enable Volumetric Lights" checkbox or disable the script itself when it is still on the camera.



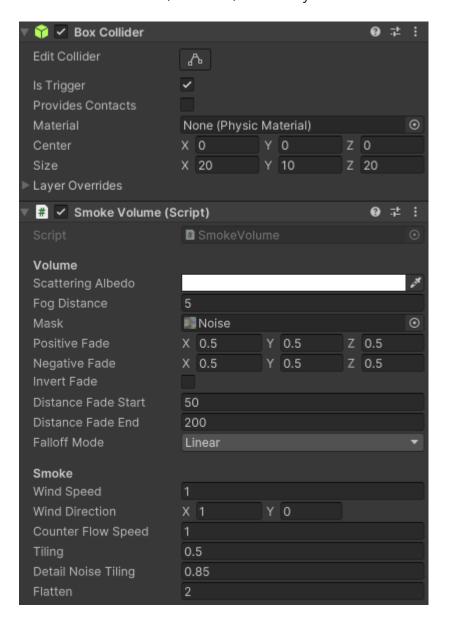
Example using another setting



#### **Smoke Volume**

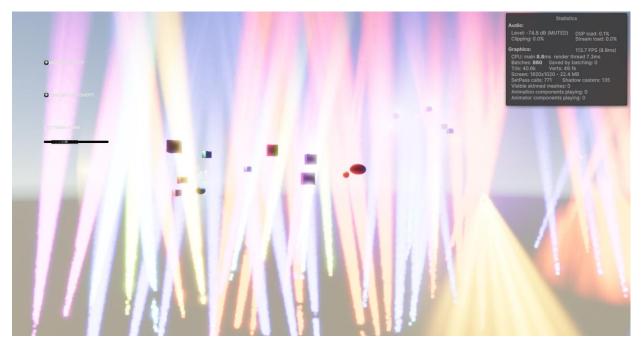
The system assumes a global volume, and local smoke volumes can be used to make a ground smoke effect for specified areas. Smoke volume component uses a box collider to determine its area. Due to performance, 4 smoke volumes are supported currently.

To add a smoke volume to the scene, create a new gameObject and add the '**Smoke Volume**' component to the gameObject. A default noise texture is available, which can be found at 'Runtime/Textures/' directory.



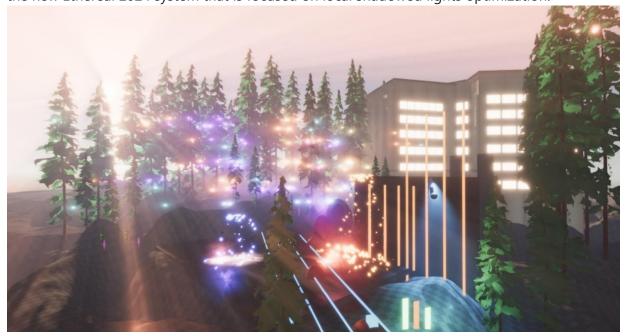
## **Performance**

The system has a **much increased performance in shadowed point and spot volumetric lights** versus the original Ethereal module, especially if the Forward+ mode is used. The **Forward+ is the suggested mode** and is now fully supported by the other advanced lighting ARTnGAME asset **LUMINA real time global illumination**, so both systems can be combined under that rendering mode.



## **Use with Ethereal Fog and impostors system**

The main Ethereal system allows fog and impostors lights, that might want to enable extra to the new Ethereal 2024 system that is focused on local shadowed lights optimization.



## **Use with Sky Master ULTIMATE Volumetric Clouds**

The system is also fully compatible with and included in the latest Beta 26 of **Sky Master ULTIMATE** asset, for combination with advanced weather and volumetric clouds.

# **Use with GLAMOR Image FX stack**

The system is fully compatible and tested with the **GLAMOR** system for advanced image effects combined with the volumetric lights.

#### Sample Video



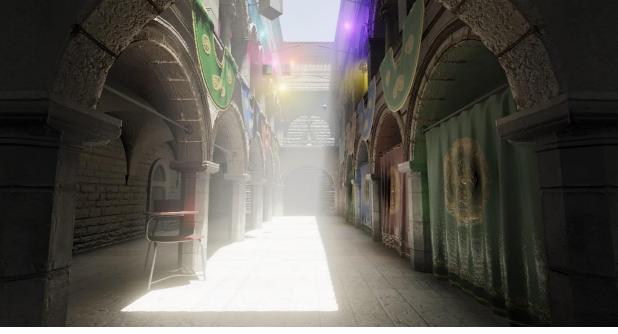
## **Use with LUMINA real time Global Illumination**

The system has been extensively tested for compatibility with the <u>LUMINA</u> real time <u>Global</u> <u>Illumination</u> system, in both Unity 2022 and Unity 6 URP Render Graph mode. An example of use can be seen below, also demo for the functionality is available here.

Demo (Windows - Use CTRL + Left Mouse Button to rotate sun): Google Drive Link

Video 1 - Video 2



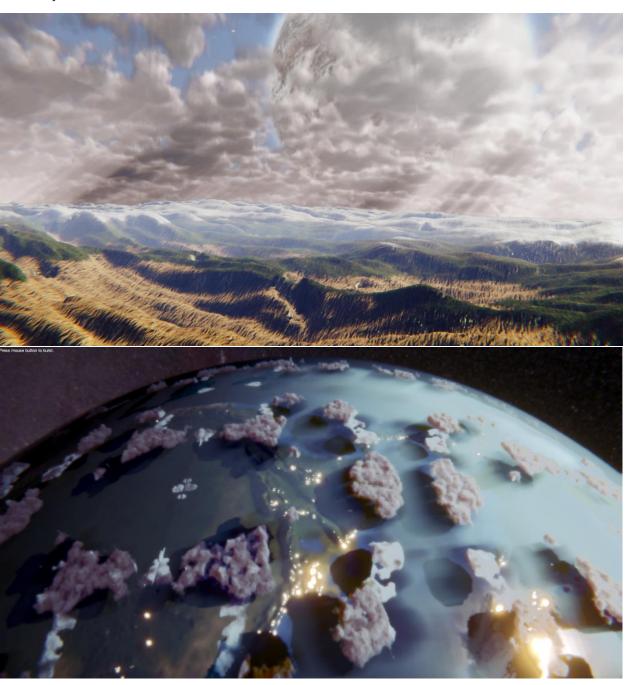


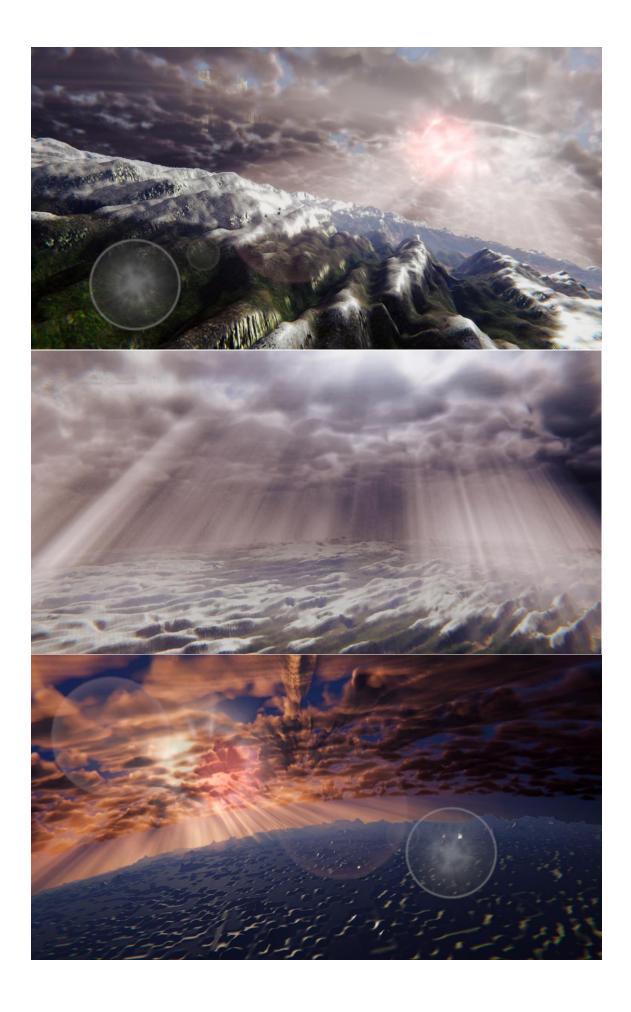


# Other sun shafts options in Sky Master Volumetric Clouds & ORION space scene creation systems

The system can be combined with the various other volumetric sun shaft options available in other ARTnGAME assets, like **ORION Space scene creation framework** and **Sky Master ULTIMATE**. Some samples of the sun shaft options in various use cases like planets and planetary clouds are show below.

Ideally can choose the sun shafts from either Ethereal core or ORION – Sky Master systems and add use Ethereal 2024 new module for very fast shadowed local light volumetrics, for maximum efficiency.







The above images are from Sky Master ULTIMATE volumetric clouds and sun shafts, with ORION procedural planets and volumetric planetary atmosphere. The below image is from ORION Volumetric Nebula system, that can also can sun shafts in the Nebula volume.

