



VOLUMETRIC FOG & MIST

Kronnect

Thanks for purchasing!

Volumetric Fog & Mist is an advanced full-screen post-image effect for Unity that adds realistic fog, mist, dust and clouds effects to your scenes.

This asset is highly optimized but due to the nature of its algorithm it's not suitable for mobile devices. For mobile devices, use Dynamic Fog & Mist, also included in the package. You can add both assets to your project and enable the most appropriate for the running platform.

Demo

Just load the demo scene included and click "Play". You will be able to move around using WASD or cursor keys.

Press spacebar to jump, F to change fog style and T to toggle on/off the fog.

You can delete the Demo folder entirely.

Usage

Add the VolumetricFog script to your main camera in your scenes. Choose one of the preset and that's all!

You can of course customize any of its parameters. Make sure you select "Custom" preset so the changes you make to parameters will be saved with the scene, otherwise they will revert to the default values associated to the selected preset.

Special Features

Fog Volumes

You can define special zones (fog volumes) where fog alpha will automatically change. Create a fog volume from the menu **GameObject / Create Other / Fog Volume**. Position the fog volume over the desired area, edit the collider bounds and set the desired fog alpha and transition duration in the inspector.

Elevated Fog & Clouds

You can make the fog start above Camera position to simulate floating smoke or even clouds! Try it assigning a value above the Camera Y position to Base Height property in the inspector.

Starting V3.2, two new presets are available as an example of this possibility: **Sky Scatter** and **Sky Bright Clouds**. Choosing one of these presets will change baseline height to 50 or 75 automatically and will enable the cloud scattering section group.

Cloud Scattering

Since fog can be rendered above camera, a new feature was added in V3.2 which allows to mask the fog on random areas, allowing the creation of scattered skies and separated clouds.

The cloud scattering option uses the same alpha texture than **Fog of War** hence sharing its properties. Experiment with the scattering amount, scale and threshold to achieve the desired look for the sky,

Automatic fog light alignment with Sun

Starting V2.1, you can assign a light game object existing in the scene as the Sun to the Volumetric Fog script attached to the camera. You'll find a property in the inspector, called **Sun**, where you can drag and drop the desired light in your scene.

After assigning a light as the Sun, the fog will react to the sun light direction, intensity and color automatically.

Void Areas

Another great feature introduced in V2 is the **void area**. This option is useful if you want a clear area around a world space position. For example, in 3rd Person View games, you may want a clear area around the character.

This option is similar to the Distance Fog feature (using $\text{Distance} > 0$) but Distance Fog Works having into account the distance from the Camera. So Distance parameter is useful for 1st Person View and Void Areas for 3rd Person View.

Void areas can be **spherical or boxed**. To make a spherical void area just move the radius slider to the left. To make it boxed, set the width and depth sliders.

Fog of War

V3.1 included Fog of War feature. Now you can set any number of void areas just calling **SetFogOfWarAlpha** method of the Volumetric script. Just pass the world space position, the radius and the desired new alpha for the fog. Just make sure the center and size of the fog of war (configured in the inspector) are properly set (by default the fog of war is centered on 0,0,0 with a size of 1024x1024).

Call **ResetForOfWar** to reset the cleared areas back to normal.

Performance Tips

Volumetric Fog uses an extremely optimized ray-marching algorithm to provide “volumetric sense” fog in front of your player. This great effect comes at a performance price that makes Volumetric Fog & Mist not suitable for mobile devices (at least mobile devices to date).

However we have added a few optimization parameters to provide you with more control regarding the performance vs quality:

- **Downsampling:** increase this value to improve performance. A high value will produce visible artifacts around objects. A x2 value usually works well. A x4 value works better with elevated/cloud fog.
- **Stepping:** controls the step of the ray-marching algorithm. Reduce this value to improve performance.
- **Stepping near:** additional factor for the ray-marching step applied only to close distances. Increase to improve the fog effect when stepping is reduced.
- **Sky Haze:** reduce to 0 to improve performance.
- **Distance** (starting Distance in Fog Geometry group): reduce to 0 to improve performance
- **Noise Density:** note that low fog density will take more time to compute since the light will travel more distance and more calculations are required. Increase the noise density to improve performance.

Support

Visit kronnect.com for questions, support and more info.

Extra: Dynamic Fog & Mist

You will find a copy of Dynamic Fog & Mist included in this package as well.

Dynamic Fog & Mist is somewhat less impressive visually than Volumetric Fog but, depending on how you configure the shader, it will provide better performance.

Volumetric Fog Change Log

V3.2 Current version

- Cloud scattering option and 2 new presets: Sky Scatter and Sky Bright Clouds.

V3.1 Published on 2016.02.09

- Fog of War.

V3.0 Published on 2016.01.25

- Downsampling option to improve performance. Best results when fog is used as cloud layer.

V2.2 Published on 2016.01.22

- Support for boxed void areas

V2.1 Published on 2016.01.08

- Automatic light alignment with defined Sun

V2.0 Published on 2016.01.04

- Support for void areas
- Support for elevated fog & clouds

V1.2 – Published on 2015.12.22

- Improved support for transparent objects

V1.1 - Published on 2015.12.03