FANTASY FIRE

by Old World Studio

Quick Start:

Drag one of the prefabs located in the "Prefabs" folder into your scene. Position the prefab where you would like, and you are done!

Billboarding:

Currently the billboarding system included in this asset only supports default(zero) rotation, or upside down (180 degrees on the z axis).

IMPORTANT: Only rotate the parent of the object you are billboarding - the object with the FaceQuadAtCamera script. The billboarding script automatically caches the Camera.main to perform its rotation, but you can override this by placing your camera in the Override Main Camera variable.

How to use the Candle and Campfire offset prefabs:

In the prefabs you will see a object called "WickLocation", or "CoalsLocation". This should be centered on the wick of your candle, lamp, or the coals of your fire. Then you should move the graphics group or object away from the wick or coals on the z axis. The result is that the flame rotates around the wick or coals, and doesn't clip when walking around the flame. See the example scene to see this implemented in the candles and campfire.

Customization:

You can create unique variations of fire or smoke by editing the properties of any material.

1) Duplicate one of the materials, and name your custom material.

2) Then, you can edit the color, size, speed and many other properties to customize the effect to your liking.

Fire Properties:

You may see the following properties on different fire materials. Not all materials included will have all the following properties.

Color: Experiment with different colors. Colors with higher intensity will look better with a post processing bloom filter.

FireWidth: This is to control the width of the fire. For some effects this can be useful(see the gas flame material). At other times, it is better to squash the fire on the x axis(see the torch prefab).

MainNoiseSpeed: This controls the speed of the fire. Increasing this value will cause the fire to move faster, and decreasing it will cause the fire to slow down.

MainNoiseTiling: You can use this to squash or stretch the noise that is distorting the fire. It is often best to leave this at default, unless you are creating an unusual effect.

MainNoiseScale: This is the scale of the noise distorting the fire. Large values will result in big sweeps, smaller values will result in smaller flickers.

DistortionPower: This effects how much the main noise distorts the fire. Normally, you will leave this at default.

YSquash: This value is used to keep the fire on the quad. If you have adjusted the fire, and it is cutting off parts of the fire at the top of the quad, increase the YSquash value.

Uniformity: This value is unique to the Toon Fire Materials. This controls how uniform the Main Noise is. Low values will make the fire look more uniform and consistent, and higher values will make the fire look more random and chaotic.

FlameBirthTiling: You can use this to squash or stretch the flame birth noise. It is often best to leave this at default, unless you are creating an unusual effect.

FlameBirthNoiseSpeed: This value controls the speed of the flame birth noise. It is often best to visually match this to the MainNoiseSpeed.

FlameBirthNoiseScale: This value controls the scale of the flame birth noise. Larger values will create larger flames coming up from the bottom, and smaller values will result in smaller flames coming up from the bottom.

FlameBirthHeight: This slider controls how much of the fire is effected by the flame birth distortion.

Seed: This value is useful when you have two similar fires side by side. You would duplicate the material, and use the seed value on the new material to make the fire look unique. The seed offsets the fire animation by a number of seconds. Ten seconds apart is usually enough.

Shader Smoke Properties:

Scroll Speed: This sets the speed of the smoke. Higher values will look like the smoke is drifting upwards faster, lower values will look slower.

Noise Scale Main: This sets the scale of the main noise. Higher values will look jagged, lower values will look smoother.

Wiggle Power: This optionally introduces a side to side wiggle, like the wind is blowing the smoke around. The slider sets the strength of that wiggle. (e.g., a value of 1 looks nice.)

Noise Scale Aux: This sets the scale of the noise used in the wiggle effect. See "Wiggle Power" property. Usually the default looks best.

Distortion Power: This value controls how much the smoke gets distorted by the main noise. The default value is generally best, unless you are creating a really unusual effect.

Color: This is the main color of the smoke. This can be overridden by using the "Use Color Gradient" property.

Color Start: This is the starting color if you are using the "Use Color Gradient" property. The starting color is at the bottom of the smoke.

Color End: This is the ending color if you are using the "Use Color Gradient" property. The ending color is at the top of the smoke.

Color Gradient Slider: This slider controls the weight of the gradient if you are using the "Use Color Gradient" property.

Use Color Gradient: Check this to use a gradient instead of a flat color.

Seed: This value is useful when you have two similar smoke effects side by side. You would duplicate the material, and use the seed value on the new material to make the smoke look unique. The seed offsets the smoke animation by a number of seconds. Ten seconds apart is usually enough.

Particle Smoke Properties:

To edit the color, duplicate one of the particle smoke prefabs, find the "Color Over Lifetime" gradient in the particle system component, and edit the color.

To edit the distortion, you need to duplicate the Smoke Puffs material, and change the values on the material. See the material properties below.

Distortion Power: This distorts the smoke, creating a warbled particle. This value sets the strength of the distortion.

Distortion Speed: This value controls how fast the distortion moves across the particle.

Troubleshooting:

Q) Fire is not rotating to face the camera! How do I fix this?

1) Locate the FaceQuadAtCamera script. Make sure the "Face Camera" boolean is checked.

2) Then, make sure you have a camera in your scene that is tagged "MainCamera", or you supplied a camera in the "Override Main Camera" variable.

3) The billboard system currently only supports default rotation, or upside down(180 degrees on the z axis). Make sure any rotation or positioning is on the parent object of the FaceQuadAtCamera script. Look at the prefabs for examples of this.

Q) The fire doesn't look the same in my scene as the demo! How can I achieve that look?

1) The presets and materials are set up assuming you have a post processing bloom filter enabled. Bloom makes bright colors glow, which makes the fire effects pop!

2) If the colors don't look right in your scene, simply adjust the color property on the material to look the way you desire.

Q) How can a go back to the default settings after editing values?

1) We have included presets for all the materials included in the package. Select the material you want to set back to default, and click the preset icon. Then select the preset that matches the name of the material.

For more info on presets see: https://docs.unity3d.com/Manual/Presets.html

Q) Particle Smoke is not showing!

Particles only start playing when you enter play mode.

Still have questions? We're here to help!

If you have any questions, first check our online knowledge base at https://oldworldstudios.com/support.

If you still have questions, you can send us a support ticket, located on the Old World Studios support page.

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