



**UNITY FIRE VFX PACK – DOCUMENTATION
GUIDE**

CONTENTS

UNITY FIRE VFX PACK – DOCUMENTATION GUIDE.....	0
CONTENTS.....	0
VFX PACK OVERVIEW.....	1
FOLDER STRUCTURE.....	3
SETUP NOTES.....	4
FIRE EFFECTS.....	5
1. Candle Flame.....	5
2. Torch Flame.....	11
3. Campfire.....	17
4. Fireplace Flame.....	23
5. Wall Braziers.....	29
6. Burning Objects (Props).....	35
7. Ground Fires.....	43
8. Fire Burst.....	51
9. Aftermath.....	56
10. Magical Fire.....	62
11. Foliage Burning.....	68
12. Large-Scale Fire / General Blaze.....	75
Level of Detail (LOD) System.....	81

VFX PACK OVERVIEW

This document provides all the information needed to implement and customize the effects included in this VFX Fire Pack for your project. Each effect has been authored in VFX Graph with customizable parameters, scalable performance options, and LOD support to fit a wide range of styles and hardware targets.

Below is a quick visual reference of all 12 effects included in the pack. Each thumbnail shows the overall look of the effect for easy identification and selection.

1. Candle Flame



2. Torch Flame



3. Campfire



4. Fireplace Flame



5. Wall Braziers



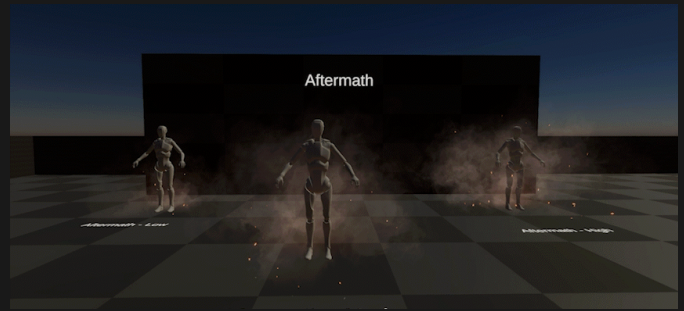
6. Burning Objects (Props)



7. Ground Fires



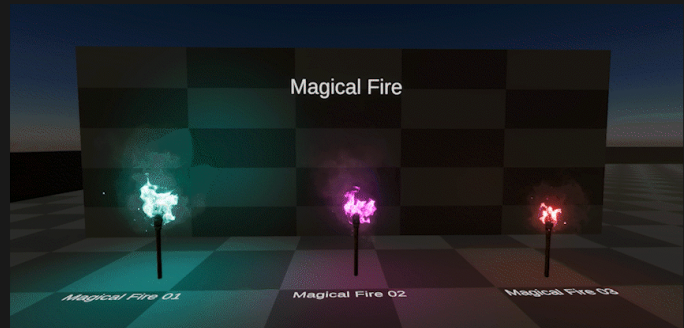
9. Aftermath



8. Fire Explosion



10. Magical Fire



11. Foliage Burning



12. Large-Scale Fire / General Blaze



FOLDER STRUCTURE

This section describes the organization of the VFX Fire Pack project. Proper folder structure ensures that all assets, materials, simulations, and VFX Prefabs are easy to locate and use.

```
/FireVFX/
  /HDRP/
  /VFX/
    /Commons/
    /Lights/           # Light Prefabs for the effects
    /Materials/
    /Props/            # Props used for displaying the effects
    /Scenes/           # Fire VFX Showcase
    /Scripts/          # Scripts for LOD and light systems
    /Shaders/          # Main shaders used for the effects
    /Textures/         # Flipbooks, embers, and generic textures
  /VFX PREFABS/
    /CandleFlame/
      /VFX_Candle_High  # Contains the VFX Prefabs
      /VFX_Candle_Low   # VFX Prefab – High variant
      /VFX_Candle_Med   # VFX Prefab – Low variant
      /VFX_Candle_Med   # VFX Prefab – Medium variant
    /TorchFlame/
      . . .
    /Campfire/
      . . .
    /Fireplace/
      . . .
    /WallBrazier/
    /BurningObjects/
    /GroundFire/
    /FireBurst/
    /Aftermath/
    /MagicalFire/
    /FoliageBurning/
    /LargeScaleFire/
    /VFX Graph/        # Contains the VFX Graph systems
    /URP/              # Contains the URP Package
```

SETUP NOTES

GENERAL

INSTALLING VISUAL EFFECTS GRAPH

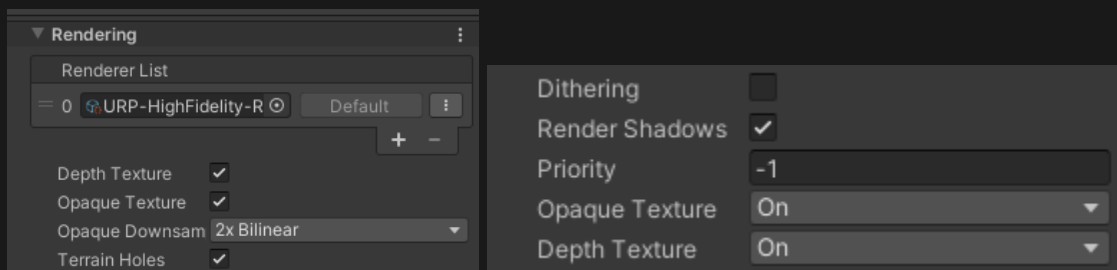
The fire effects are created with Unity's VFX Graph. Since this is not built into either HDRP or URP, manually installing it is necessary for the effects to work properly. The instructions are below:

Go to Window > Package Manager, search for "Visual Effects Graph," and click Install. Restart your Unity project afterwards.

URP

ENABLING DEPTH AND OPAQUE TEXTURE

In URP, enabling depth and opaque texture is necessary for the refraction effect to work properly. First, go to your URP asset and check the boxes next to "Depth Texture" and "Opaque texture." Then, enable them also in the main camera of your scene.



Sorting/Scene Issues

If the Fire VFX Showcase in Scene view appears unusual, press Ctrl+S or press play to resolve the sorting issue. The effects should appear normal in play mode.

Additional Notes

Depending on the global volume settings of your scene, the fire effects might look different. Adjust them accordingly using the parameters. Thank you.

🔥 VFX GRAPH EFFECTS

This pack contains 12 fully-authored VFX Graphs designed for fire visuals, environmental ambience, and gameplay events. Each effect includes customizable parameters to support a wide range of art styles, as well as scalable performance options suitable for different hardware targets.

This section provides a brief description, emitter breakdown, parameter overview, and usage notes for each effect, helping artists quickly understand how the systems work and how to adapt them for their own projects.

1. Candle Flame 🕯️



A small, soft flame designed for candles placed on tables, shelves, or altars. This effect uses light, refraction, glow, and fire to achieve a warm, ambient look.

Variations

1. **Low Flame** – Small, gentle flame with a subtle point light for soft ambience.



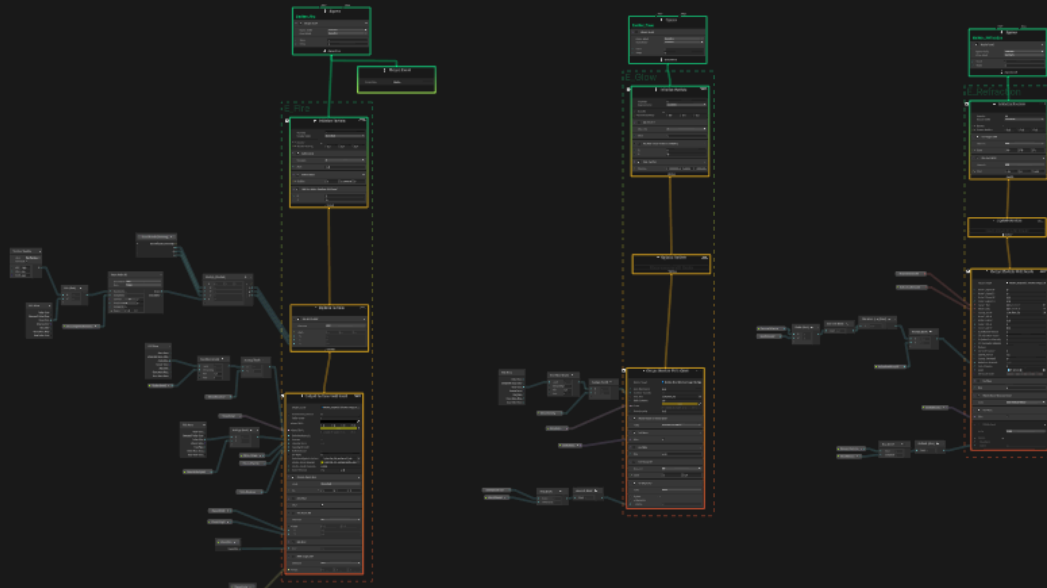
2. **Standard Flame** – Medium-sized flame and balanced light intensity.



3. **High Flame** – Taller, more energetic flame with stronger point light and increased upward movement.

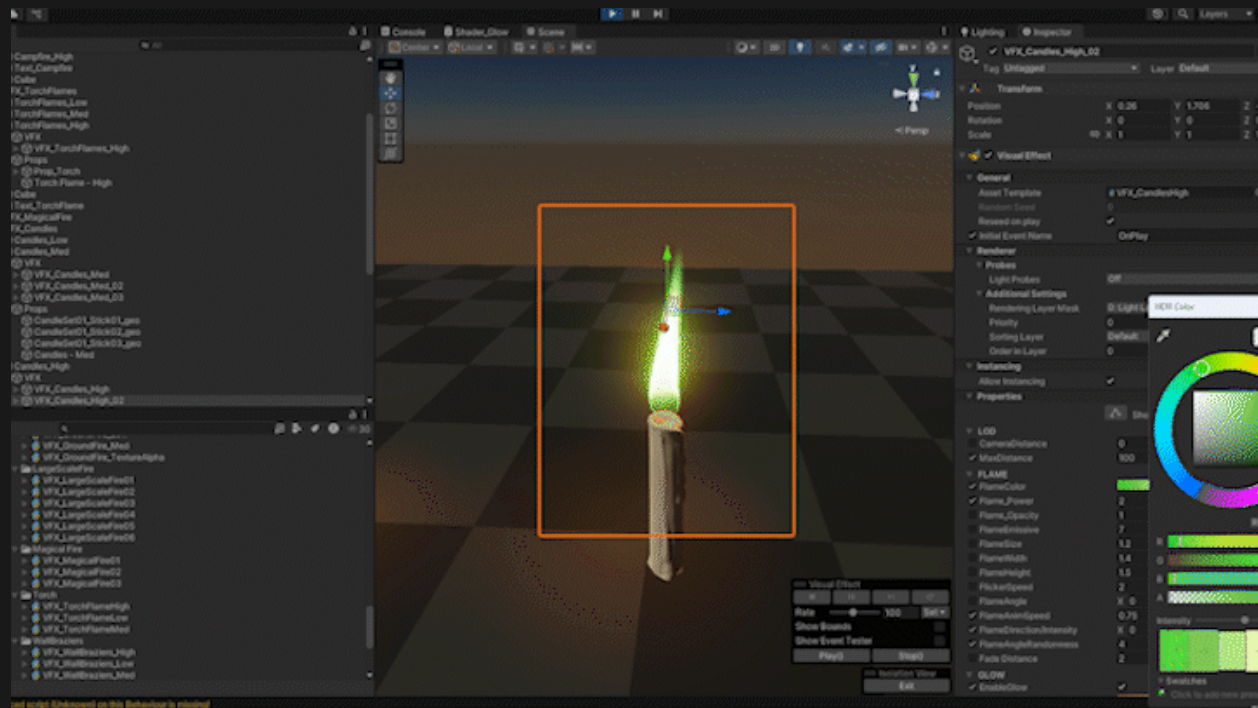


Emitter Breakdown



- **Refraction** – Slight shimmer above the flame, representing heat distortion.
- **Glow** – Soft emissive bloom around the flame.
- **Flame** – Small flipbook/sprite flame with slow flicker.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)
FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based)
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.

Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	1.0	Adjusts the intensity of the heat distortion/refraction effect.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light
Base EV	Float	8	Modify the brightness of the light emitted by the flame.
Light Range	Float	1.0	Controls how far the candle's point light reaches.

The GIF below shows several candle flame variations created by adjusting the exposed parameters. Small, soft flames, standard candles, and taller, brighter variants can all be created with just a few adjustments.



Usage Notes

The Candle Flame effect can be placed directly into a scene by dragging the prefab from the VFX PREFABS folder. It is designed to be paired with any candle mesh and works best for small, localized light sources such as table candles, altar setups, or decorative interior lighting.

The effect performs best in close-up to mid-range shots. When used in large or outdoor environments, it may require additional scaling or light adjustments for proper visibility.

For performance-sensitive platforms, refraction can be disabled through the exposed parameters. If further optimization is necessary, you may also disable the light and glow emitters to reduce rendering cost.

When using multiple candles in the same environment, consider applying different flame variations to avoid visual repetition and to create a more natural, believable scene.

2. Torch Flame 🔥



The Torch Flame effect is designed for wall-mounted torches, handheld torches, or any small to mid-sized flame source in outdoor or indoor environments. It features a dynamic, vertically-oriented flame with subtle upward smoke, embers, and glow, producing a warm, lively light that reacts naturally to motion and wind. The effect works well in both close-up and medium-distance shots, adding dramatic lighting and visual interest to scenes.

Variations

1. **Low Flame** – Small flame with subtle embers and glow.



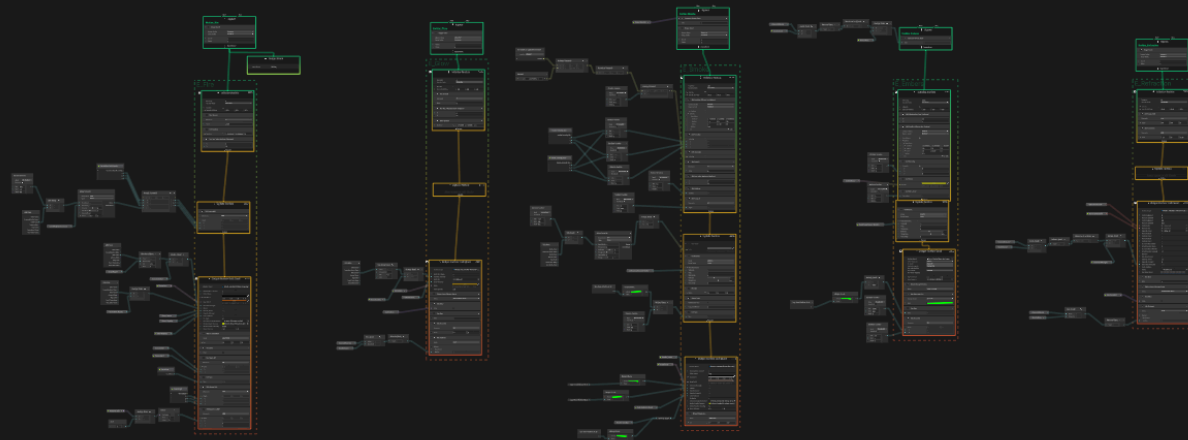
2. **Normal Flame** – Medium flame with typical smoke and ember emission.



3. **Strong Flame** – Larger flame with increased glow and spark intensity.

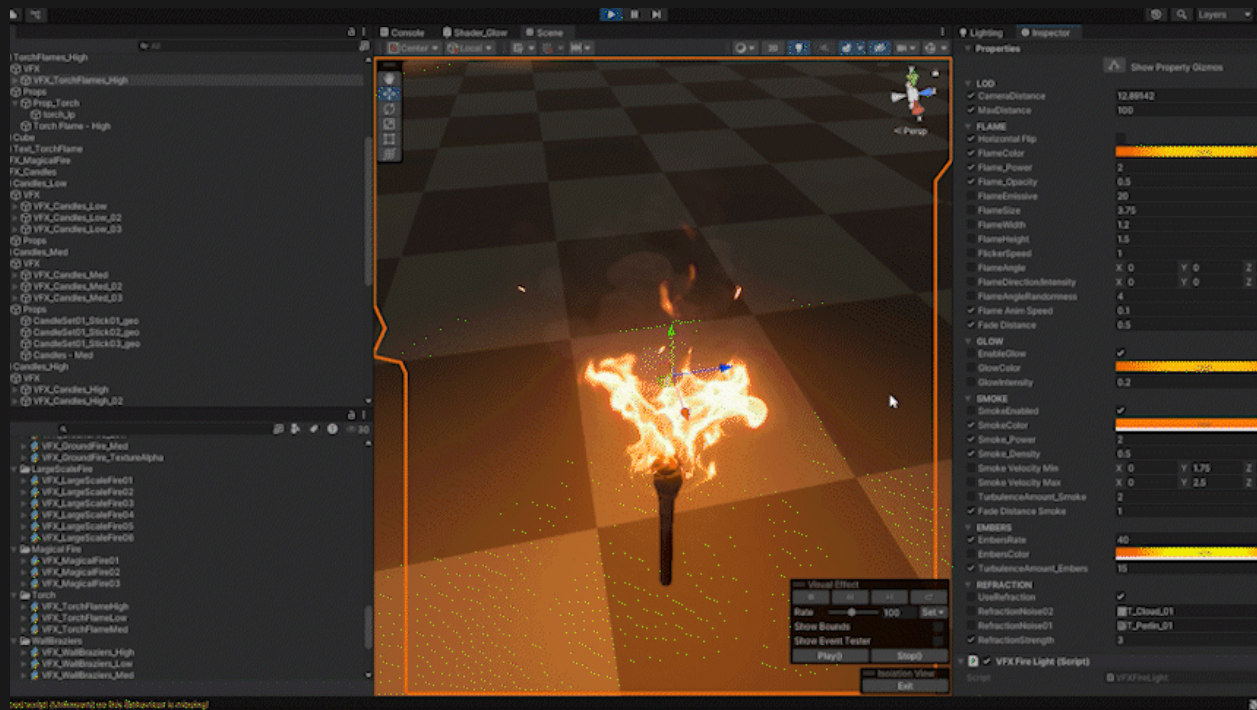


Emitter Breakdown



- **Refraction** – Slight shimmer above the flame representing heat distortion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Fire** – Small flipbook or sprite flame with subtle flicker forming the main torch flame.
- **Smoke** – Short-range, upward-moving smoke for realism.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Wind Direction	Vector	(0,0,1)	Modify the direction of the wind that affects the fire.
Wind Strength	Float	0	Control the intensity of the wind.
Bend Power	Float	2	Adjusts the parts of the fire that will be affected by the wind.
Pivot Offset	Float	.5	Control the pivot of the plane that emits the fire.
Gravity	Float	3	Adjusts the amount of gravitational force that affects the smoke and embers.
Horizontal Flip	Bool	False	Mirrors the flame horizontally for variation.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.

FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)
FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke Size	Float	1	Adjusts the overall size of the smoke.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke

Embers Rate	Float	40	Controls how many embers are generated over time.
Ember Size	Float	1	Adjusts the overall size of the embers.
Embers Color	Color	(44,2.4,0,1)	Color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	1.0	Adjusts the intensity of the heat distortion/refraction effect.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light

The GIF below shows several torch flame variations created by adjusting the exposed parameters. Small, soft flames, standard flames, and taller, brighter variants can all be created with just a few adjustments.



Usage Notes

The Candle Flame effect can be placed directly into a scene by dragging the prefab from the VFX PREFABS folder. It is designed to be paired with torch meshes—wall-mounted torches, handheld props, or environmental torches—and works best for small to medium-range light sources. The effect adds dynamic illumination, flame motion, embers, and smoke to enhance visual realism.

For performance-sensitive platforms, refraction and glow emitters can be disabled through the exposed parameters. If additional optimization is required, consider disabling the smoke emitter inside VFX Graph.

3. Campfire 🪵



The Campfire effect is designed for outdoor environments, such as campsites, survival games, or ritual areas. It features a looping vertical flame, rising embers, smoke, light and a subtle glow, creating a warm and inviting fire. The system is flexible enough to scale for different sizes and moods of campfires while maintaining visual fidelity.

Variations

1. **Small Campfire** – Low flame height, subtle glow, weak embers and small smoke volume.



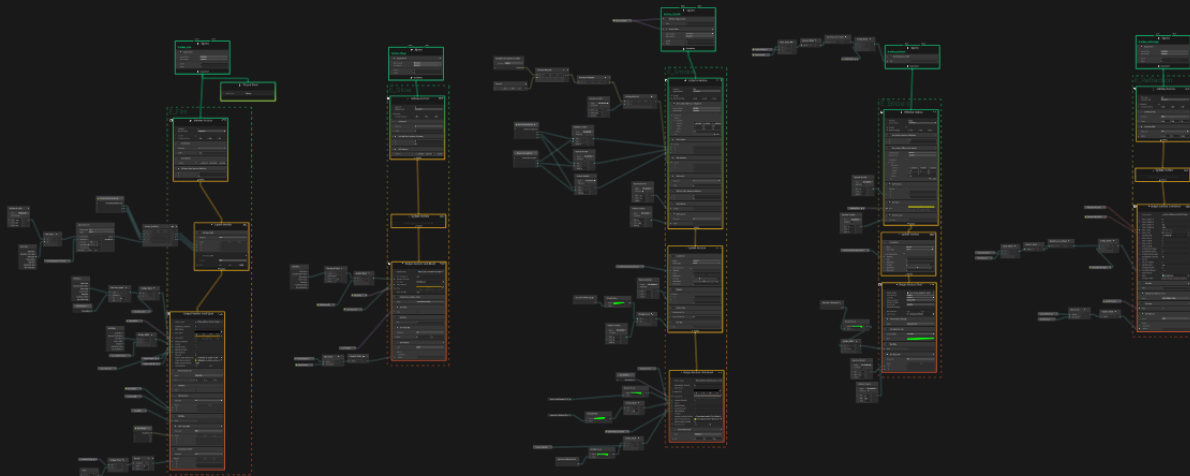
2. **Medium Campfire** – Standard flame height and intensity with moderate smoke and embers.



3. **Large Campfire** – Tall, energetic flames with dense smoke and numerous embers.

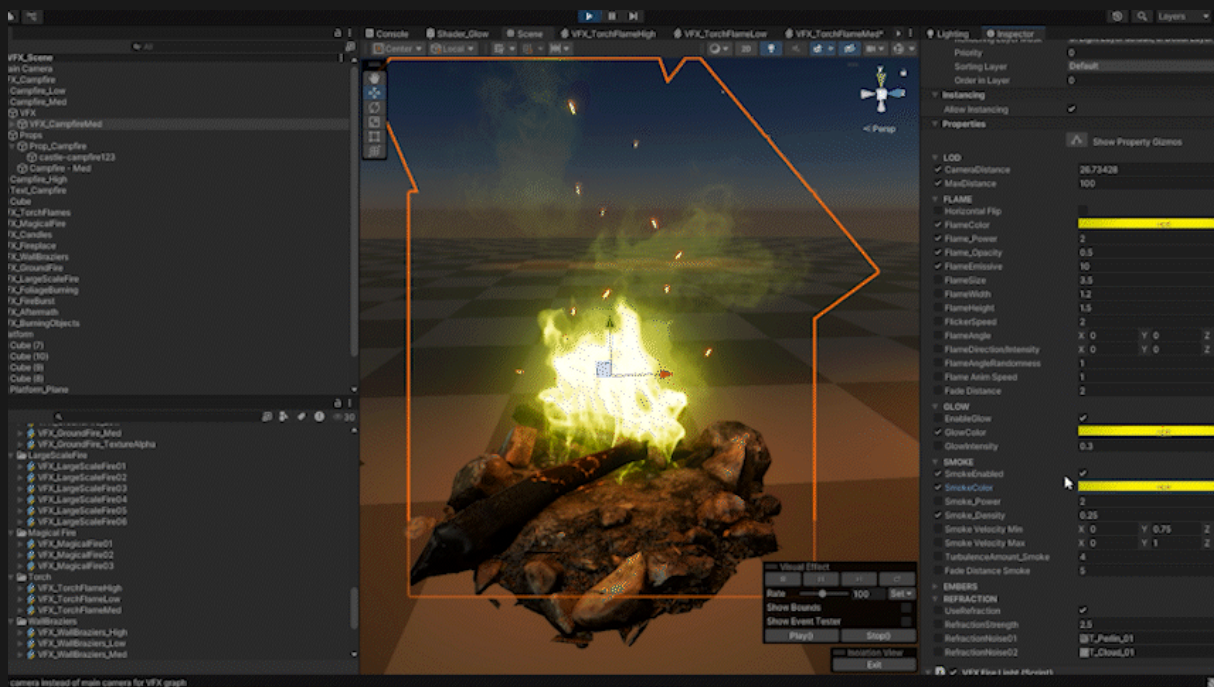


Emitter Breakdown



- **Refraction** – Slight shimmer above the flame representing heat distortion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Fire** – Small flipbook or sprite flame with subtle flicker forming the campfire flame.
- **Smoke** – Short-range, upward-moving smoke for realism.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Wind Direction	Vector	(0,0,1)	Modify the direction of the wind that affects the fire.
Wind Strength	Float	0	Control the intensity of the wind.
Bend Power	Float	2	Adjusts the parts of the fire that will be affected by the wind.
Pivot Offset	Float	.5	Control the pivot of the plane that emits the fire.
Gravity	Float	3	Adjusts the amount of gravitational force that affects the smoke and embers.
Horizontal Flip	Bool	False	Mirrors the flame horizontally for variation.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.

FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)
FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Embers Rate	Float	40	Controls how many embers are generated over time.

Embers Color	Color	(44,2.4,0,1)	Color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	1.0	Adjusts the intensity of the heat distortion/refraction effect.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light

The GIF below shows several campfire variations created by adjusting the exposed parameters. Small, standard, and large variants can all be created with just a few adjustments.



Usage Notes

The Campfire effect is intended for outdoor environments and can be dropped directly into the scene. Pair it with logs, stones, or campsite props to create a natural fire setup.

For performance-sensitive platforms, smoke, glow, or embers can be reduced or disabled. Use parameter variations to create multiple campfires with differing flame height, ember intensity, or wind influence, which helps avoid repetition in larger outdoor scenes.

4. Fireplace Flame 🏠



The Fireplace Flame effect is designed for indoor environments such as taverns, castles, or homes. It features contained, vertically-oriented flames with subtle embers, refraction, glow, and light smoke. This effect emphasizes warm, cozy lighting and controlled flame motion, making it ideal for fireplace setups.

Variations

1. **Low Flame** – Small flame with subtle embers, glow, and smoke.



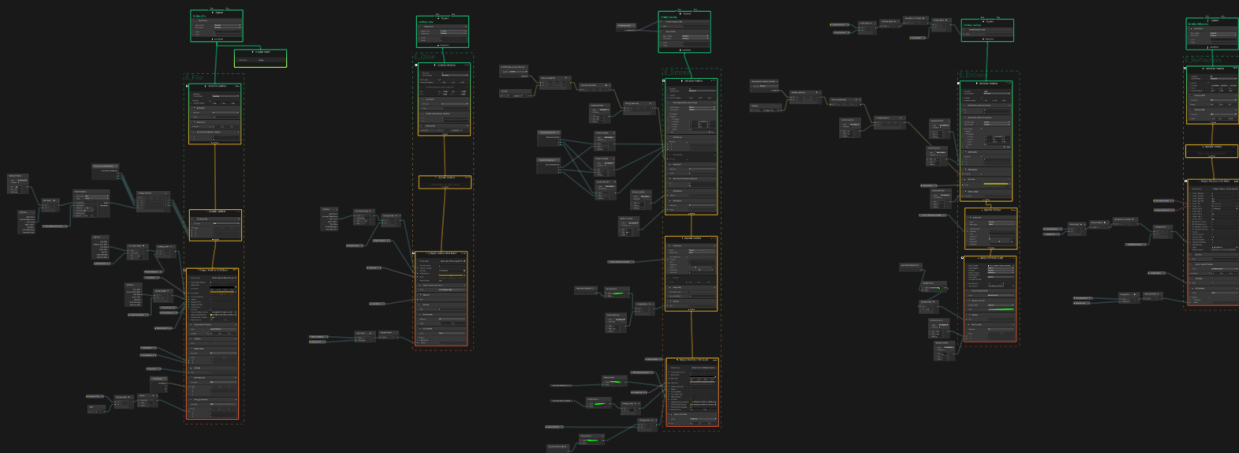
2. **Standard Flame** – Standard flame height and intensity with moderate glow and embers.



3. **High Flame** – Wide, energetic flame with bright glow and numerous embers.

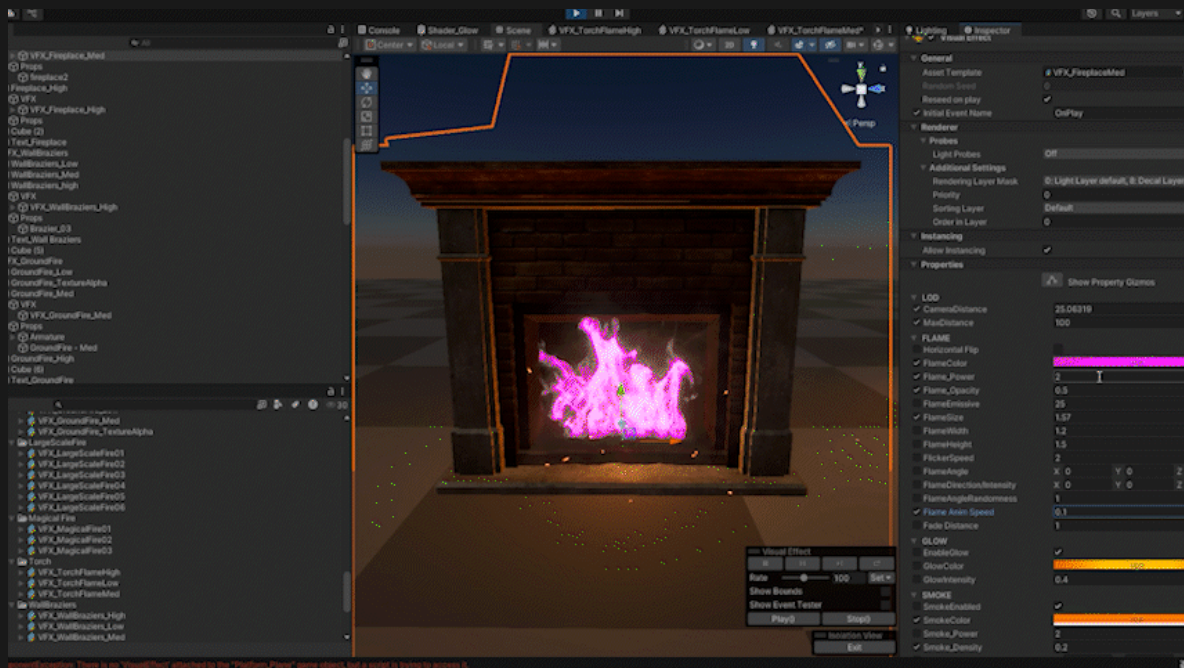


Emitter Breakdown



- **Refraction** – Slight shimmer above the flame representing heat distortion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Fire** – Small flipbook or sprite flame with subtle flicker forming the main fireplace flame.
- **Smoke** – Short-range, upward-moving smoke for realism.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Horizontal Flip	Bool	False	Mirrors the flame horizontally for variation.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.

Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.
FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)
FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke

Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Embers Rate	Float	40	Controls how many embers are generated over time.
Embers Color	Color	(44,2.4,0,1)	Color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	1.0	Adjusts the intensity of the heat distortion/refraction effect.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light

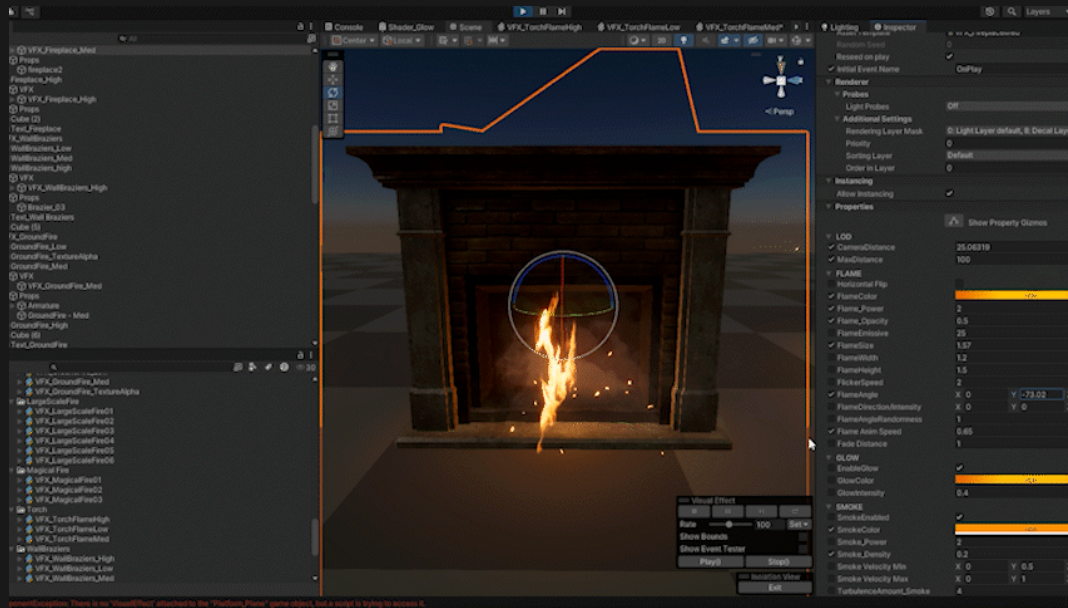
The GIF below shows several fireplace flame variations created by adjusting the exposed parameters. Small, standard, and large variants can all be created with just a few adjustments.



Usage Notes

The Fireplace Flame is best used in indoor environments for decorative or ambient lighting. Pair it with a fireplace mesh or hearth props for a realistic setup.

The effect is directional and is facing on its local axis. Make sure that it is oriented properly when placing on a scene by rotating its axis as shown below.



For low-end hardware, refraction, glow, or smoke can be disabled via parameters. Adjust **Fire Scale**, **Glow Strength**, and **Embers Spawn Rate** to create variety when multiple fireplaces are present in a scene.

5. Wall Braziers 🔥



The Wall Brazier effect is designed for dungeon corridors, castle interiors, temples, and medieval environments. It features a tall, vertically stretched flame profile with strong upward smoke and drifting embers. This effect emphasizes warmth, contrast, and dramatic lighting typically associated with stone walls and torch-lit architecture. A subtle glow and light is included to help anchor the brazier visually to the environment.

Variations

1. **Low Flame Brazier** – Reduced flame and smoke for low-light or smoldering states.



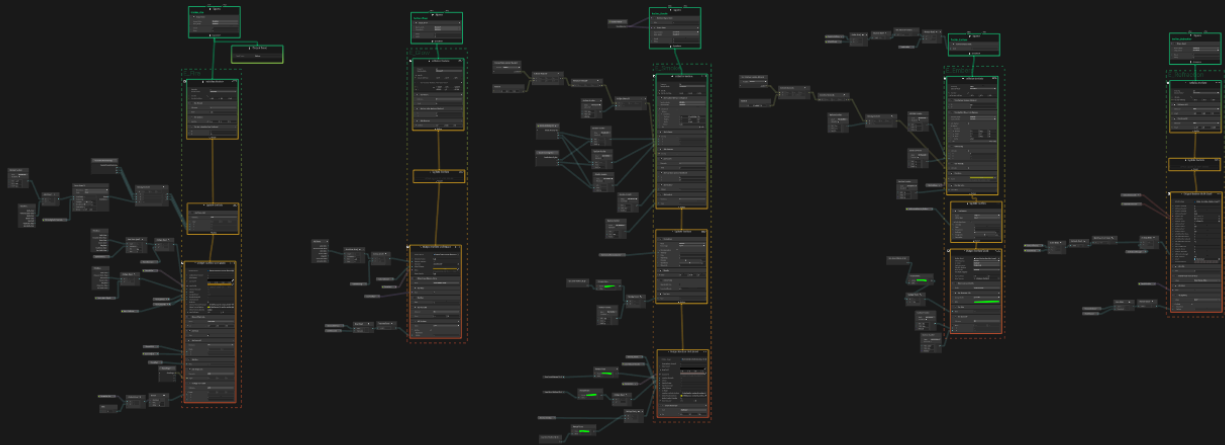
2. **Standard Brazier** – Balanced flame height, smoke, and light for general use.



3. **High Flame Brazier** – Taller, stronger flame with erratic movement and numerous embers suitable for large halls or dramatic focal points.

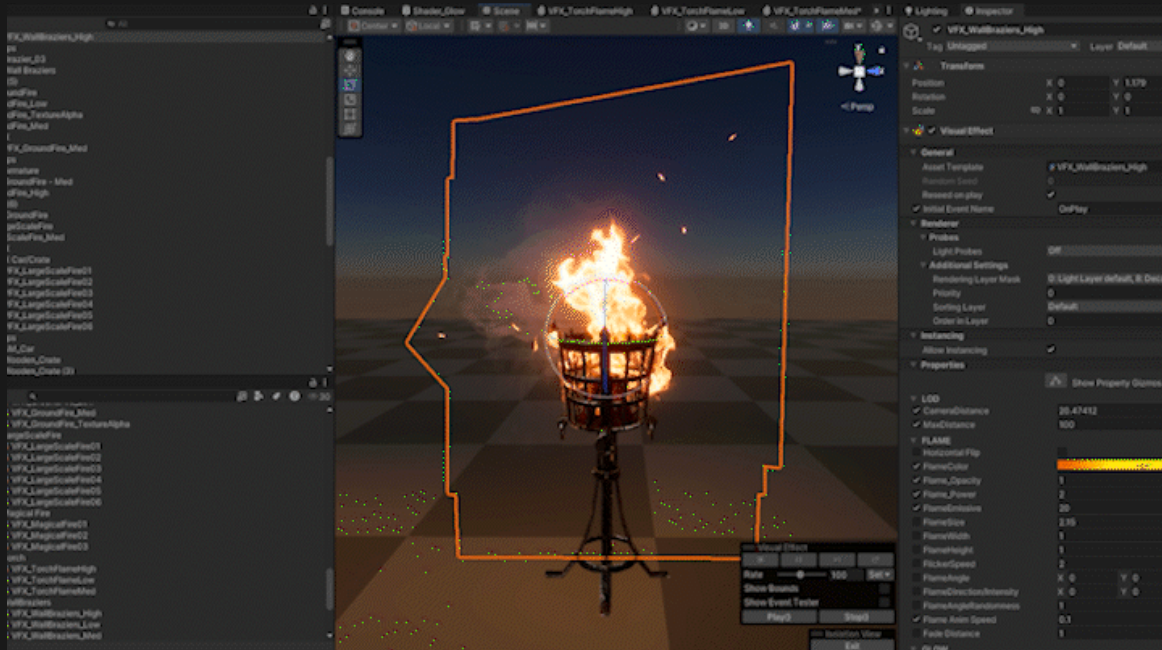


Emitter Breakdown



- **Refraction** – Slight shimmer above the flame representing heat distortion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Fire** – Small flipbook or sprite flame with subtle flicker forming the main brazier flame.
- **Smoke** – Short-range, upward-moving smoke for realism.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Horizontal Flip	Bool	False	Mirrors the flame horizontally for variation.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.
FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)

FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Embers Rate	Float	40	Controls how many embers are generated over time.
Embers Color	Color	(44,2.4,0,1)	Color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	1.0	Adjusts the intensity of the heat distortion/refraction effect.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light

The GIF below shows several wall braziers variations created by adjusting the exposed parameters. Small, standard, and large variants can all be created with just a few adjustments.



Usage

The Wall Brazier effect is ideal for hallways, chambers, and dungeon environments where strong vertical flames add atmosphere and depth. Position it directly in front of or inside a brazier mesh.

For optimization on low-end platforms, consider disabling refraction, glow, and reducing smoke spawn rate directly on VFX Graph. If multiple braziers are placed in a corridor, vary Fire Scale, Light Strength, or Embers Spawn Rate to avoid visual repetition and create a more natural look.

6. Burning Objects (Props) 🛒



The Burning Objects effect is particularly designed for props such as crates, barrels, furniture, tents, or any object that needs localized fire. It features fire wrapping, subtle smoke, outward embers, and adjustable fire spread using vertex colors. This effect is ideal for gameplay scenarios where objects ignite, burn over time, or transition into smoldering states.

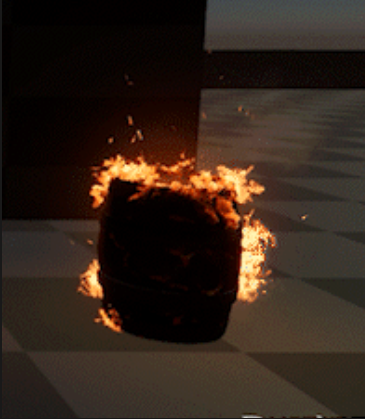
Variations

1. **Burning Objects using Vertex Color** – Using this VFX prefab will allow you to use your preferred mesh's vertex colors to spawn the Fire effects.

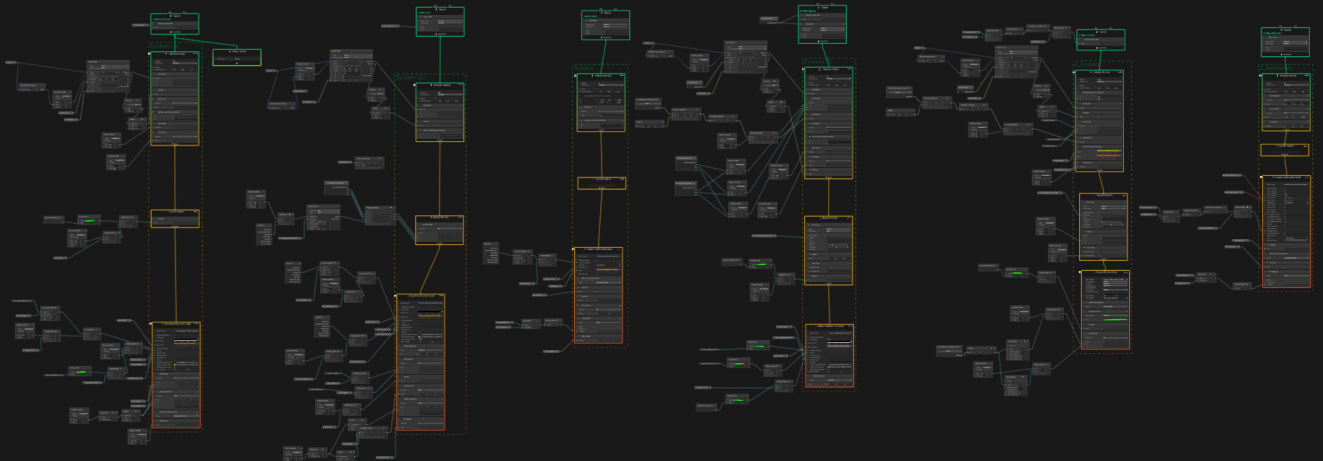


2. **Burning Objects using Vertex Count** - Spawn Fire effects by using the preferred min max value of the vertices of the mesh.

3.

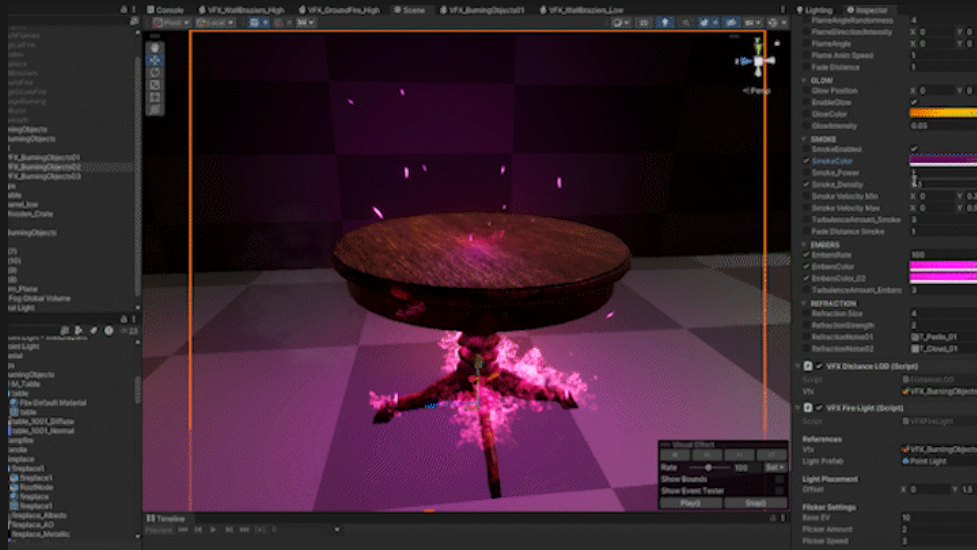


Emitter Breakdown



- **Light** – Local point light for ambience and subtle illumination of nearby objects.
- **Fire** – Small flipbook or sprite flame.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Smoke** – Short-range, upward-moving smoke for realism.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Mesh	Selection	Mesh	Defines the mesh where the fire effects will spawn
Mesh Size	Vector	(0.5,0.5,0.5)	This value must match the mesh's size in the scene
Mesh Angle	Vector	(-90,0,0)	This value must match the mesh's angle in the scene
Vertex Min/Max	Float	(0,100)	Sets the minimum and maximum values of the mesh's vertices at which the fire effects will spawn.

Vertex Max Static Fire	Float	100	Defines the amount of static fire spawned
UseMesh VertexCount Max	bool	False	Automatically uses the maximum number of vertices for the selected mesh.
FireBurst Spawnrate	Float	100	Controls how frequently the fire bursts are generated.
Use Static Fire	bool	True	Use static fires for spawning.
Static Fire Count	Float	12	Controls the amount of static fires generated.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.
FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame Velocity Min/Max	Vector	(Y=0.5,1.0)	Sets the minimum and maximum speed at which the flame rises or moves.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.

Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)
FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke SpawnRate	Float	10	Controls how frequently the smokes are generated.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Embers Rate	Float	40	Controls how many embers are generated over time.
Embers Color 1	Color	(44,2.4,0,1)	Color tint of the embers
Embers Color 2	Color	(24,.22,0,1)	Second color tint of the embers

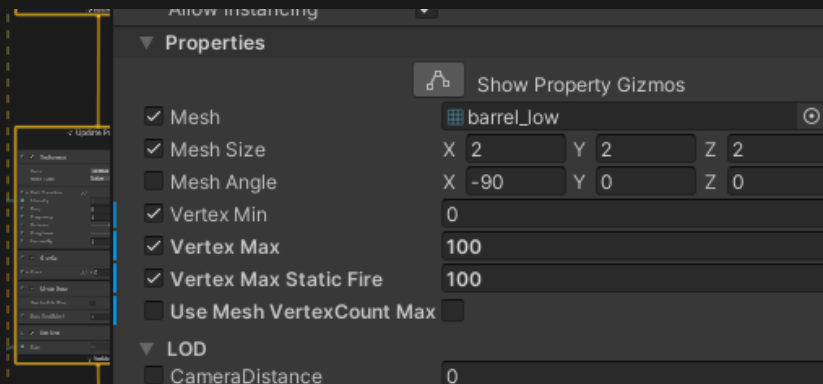
TurbulenceAmount Embers	Float	3	Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	2.0	Adjusts the intensity of the heat distortion/refraction effect.
Refraction Size	Float	4.0	Adjusts how large the refraction appears.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light

The GIF below shows several wall burning object variations created by adjusting the exposed parameters and the material associated with the static mesh. Small, standard, and large variants with adjustable colors can all be created with just a few adjustments.



Usage Notes

The Burning Objects effect works best when placed directly on props such as crates, barrels, tents, or wooden structures. The Vertex Count version of this effect is useful if you want randomized spawning in the vertices of your mesh without specified vertex colors.



On the other hand, the Vertex color version can be used when more controlled or authored spread patterns are required. You can use any 3d software to paint your vertices. To use the effect on a static mesh, ensure that **Read and Write** is enabled in the **Details** section of the mesh. Otherwise, the effect won't behave as intended.



For performance-sensitive platforms, consider reducing the spawn rates of flames, smokes, and embers. When burning multiple props in one scene, vary the abovementioned parameters to avoid visual repetition and create a more natural look.

7. Ground Fires 🔥



Ground Fires simulate low, surface-level flames commonly seen in ritual circles, cursed zones, fire traps, or burning ground patches. The effect emphasizes wide coverage rather than vertical height, using flat or slightly lifted flame combined with ground glow, and embers. This makes it ideal for environmental ambience, magical fire patterns, or gameplay telegraphs.

Variations

1. **Low-Intensity Ground Fire** – Small gentle flames with minimal smoke and embers.



2. **Moderate-Intensity Ground Fire** – Standard-sized flames with moderate smokes and embers.



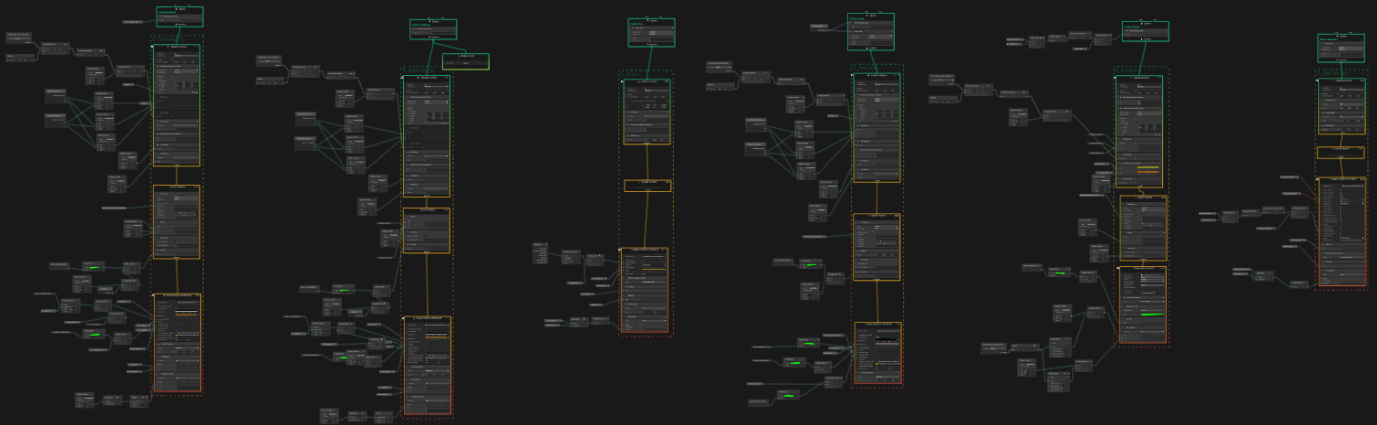
3. **High-Intensity Ground Fire** – Large flames with more intense smokes and embers.



4. **Ground Fire with Texture Mask** – Small flames and moderate embers with spawn location controlled by a texture mask.

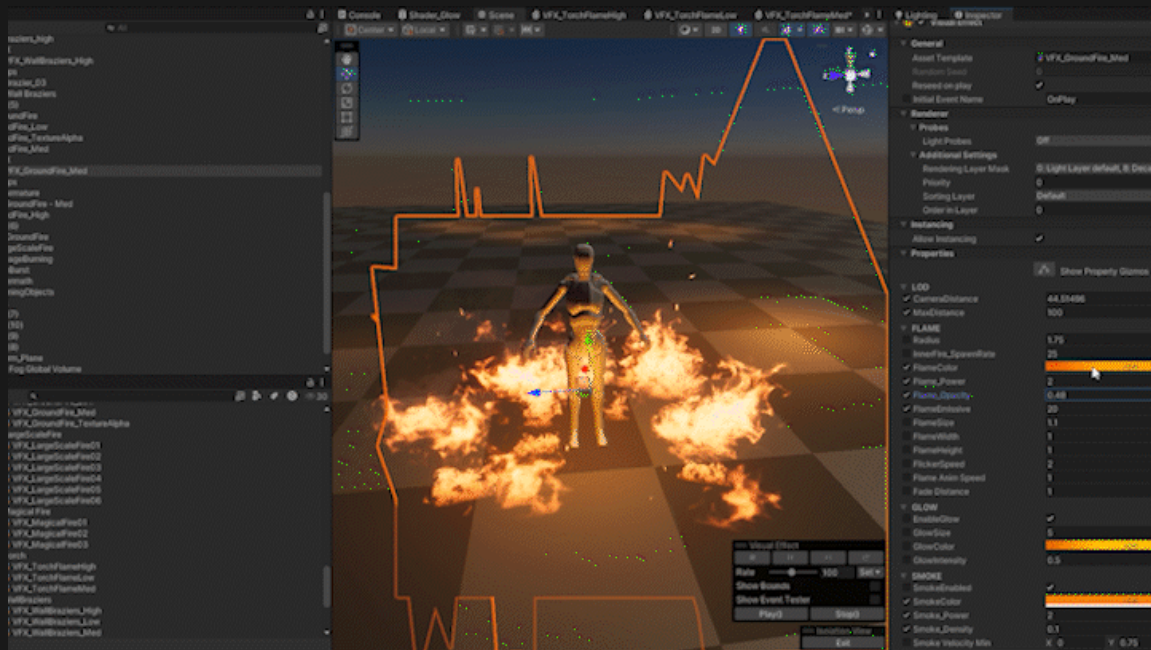


Emitter Breakdown



- **Refraction** – Slight shimmer above the flame representing heat distortion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Fire** – Small flipbook or sprite flame with subtle flicker forming the main brazier flame.
- **Smoke** – Short-range, upward-moving smoke for realism.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Alpha Texture	Texture2d	T_SquareMask	A texture mask that controls where the fire can spawn. Fire will only appear on areas of the texture that are white or have visible color.
Horizontal Flip	Bool	False	Mirrors the flame horizontally for variation.
Radius	Float	1	Defines the total size or reach of the effect, encompassing flames, smoke, and embers.

Size	Float	3	Controls the size of your fire spawn alpha position.
InnerFire Spawnrate	Float	15	Controls how frequently the inner flames are generated.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.
FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame Velocity Min/Max	Vector	(Y=0.5,1.0)	Sets the minimum and maximum speed at which the flame rises or moves.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.

Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke SpawnRate	Float	10	Controls how frequently the smokes are generated.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Embers Rate	Float	40	Controls how many embers are generated over time.
Embers Color	Color	(44,2.4,0,1)	Color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	2.0	Adjusts the intensity of the heat distortion/refraction effect.
Refraction Size	Float	4.0	Adjusts how large the refraction appears.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light

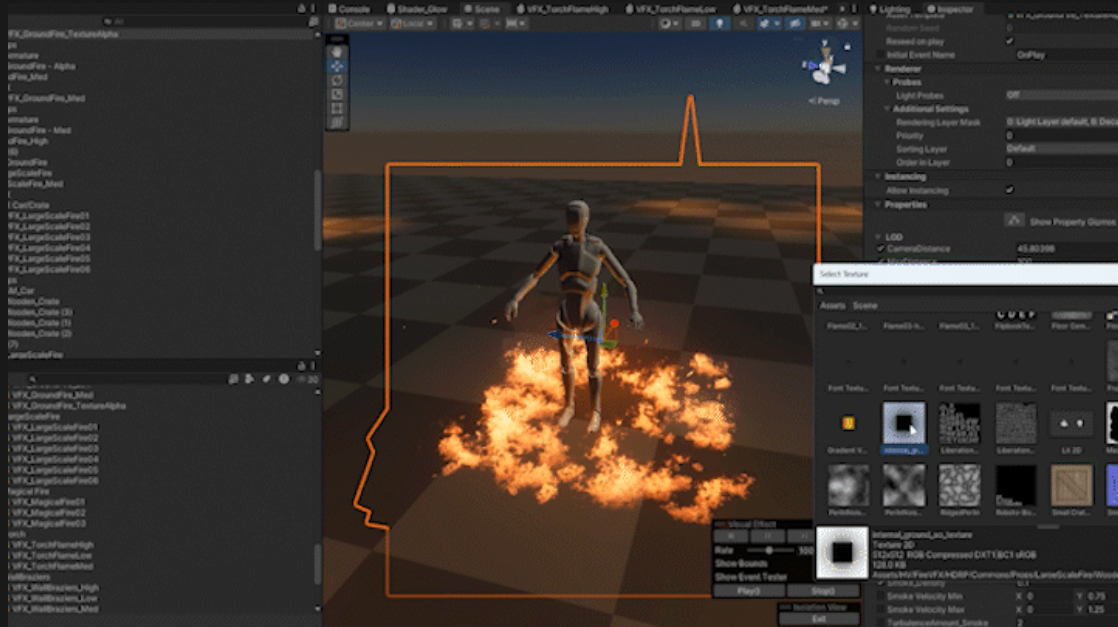
The GIF below shows several ground fire variations created by adjusting the exposed parameters.



Usage Notes

Ground Fires work best as area-based environmental or gameplay elements. They can simply be dragged into the scene and attached to ground meshes, ritual circles, trap markers, or magical effects.

When using the variant with texture masks, you can simply modify the texture through the parameter. For best results, use textures with defined white parts like the textures used below.



To optimize for low-end hardware, disable distortion through the parameters, and reduce ash or smoke spawn rates. When placing multiple ground fire prefabs in a scene, vary their radius and flame intensity to avoid tiling or repetitive patterns.

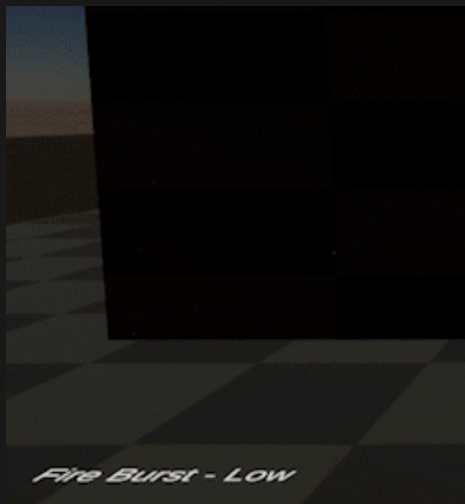
8. Fire Burst



A rapid ignition event that begins with an explosive flash, followed by a brief outward shock pulse. Ideal for moments where a volatile material ignites, containers rupture from heat, or magical effects trigger sudden combustion. This effect emphasizes immediacy, impact, and explosive force.

Variations

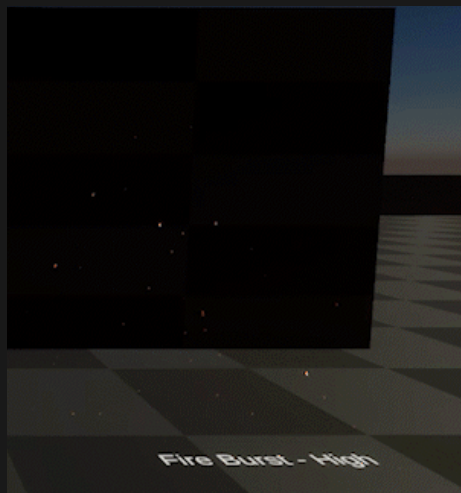
1. **Low Intensity Burst** – Small flash with mild expansion and minimal embers.



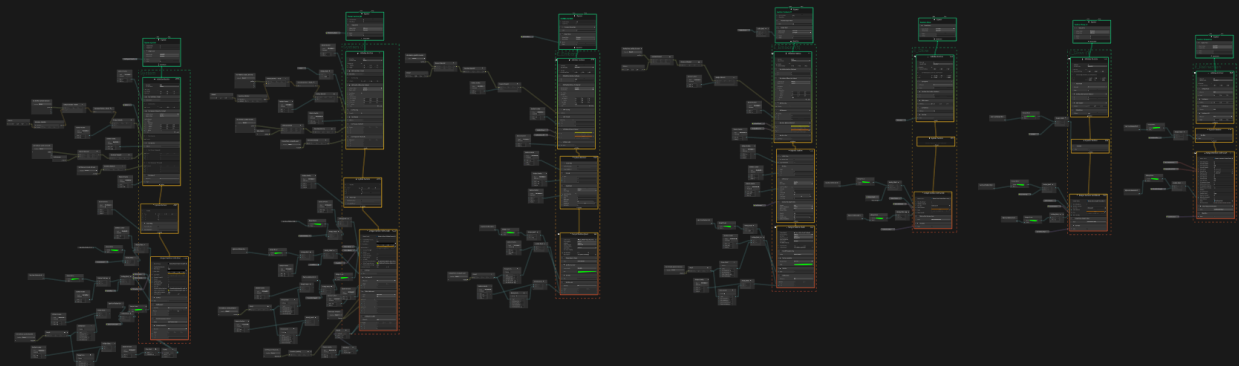
2. **Standard Intensity Burst** – Balanced explosion with intense glow and numerous embers..



3. **High Intensity Burst** – Large, bright flash with strong glow and violent embers.

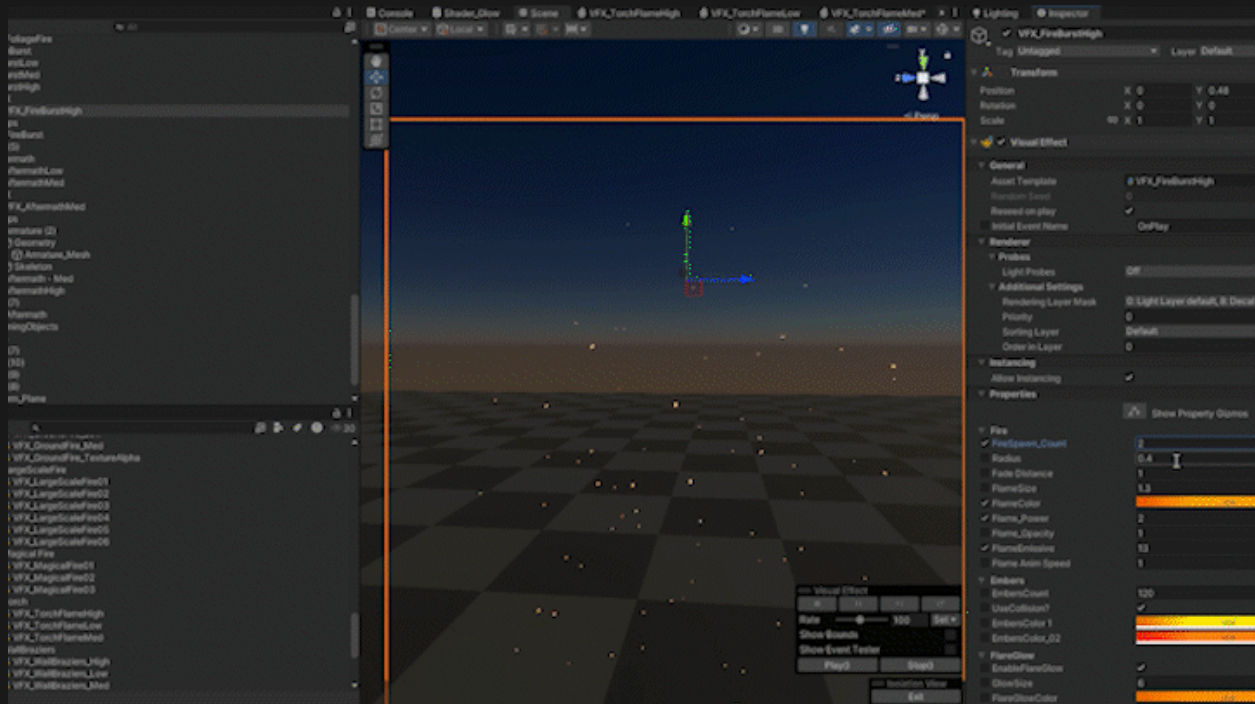


Emitter Breakdown



- **Flare** – A sudden flash of light emitted at the beginning of an explosion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.
- **Fire** – Small flipbook or sprite flame with subtle flicker forming the main explosion flame.
- **Fire Directional** – Small flipbook representing a directional force.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Refraction** – Slight shimmer above the flame representing heat distortion.

Parameter Controls



Parameter	Type	Default	Description
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
FireSpawn Count	Float	3	Determines how many individual flames are active at once.
Radius	Float	.25	Defines the total size or reach of the effect, encompassing flames and embers.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.

Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Enable Flare Glow	Bool	True	Toggles the flare glow.
Flare Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Size	Float	4	Defines how large the basic glow appears.
Flare Glow Size	Float	3	Defines how large the flare glow appears.
Glow Intensity	Float	0.1	Adjusts the strength of the basic glow.
FlareGlow Intensity	Float	10	Adjusts the strength of the flare glow.
Embers Rate	Float	40	Controls how many embers are generated over time.
Use Collision?	Bool	True	Enable fire to spawn only on surfaces that collide with other objects.
Collision Height	Float	(0,-1,0)	Height of the plane used for collision-based fire spawning.
Embers Color 1	Color	(44,2.4,0,1)	Color tint of the embers

Embers Color 2	Color	(24,.22,0,1)	Second color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	3	Adjusts the intensity of the heat distortion/refraction effect.
Refraction Size	Float	2	Adjusts how large the refraction appears.

The GIF below shows several fire explosion variations created by adjusting the exposed parameters.



Usage Notes

Use this burst effect in moments where sudden ignition needs to feel impactful without overwhelming the screen. Keep the initial flash bright but controlled to avoid blinding the player.

Ensure that the heat distortion looks good in your project by adjusting the **Refraction Strength** in the properties section.

To optimize for low-end hardware, disable distortion and glow layers directly in VFX Graph and reduce the spawn count of embers.

9. Aftermath 🔥



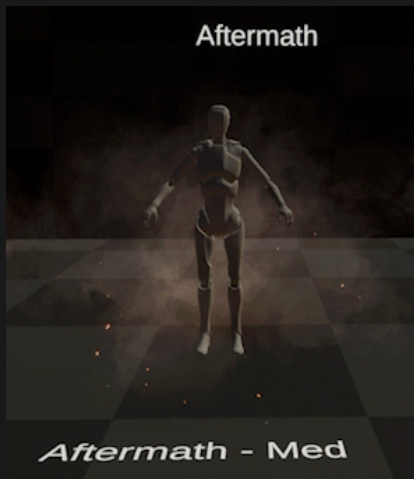
The Aftermath effect represents the residual smoke and particle debris left behind after a burn event or explosion. It can also be used in conjunction with fire to intensify a burning effect. This version focuses on a soft, continuous smoke plume accompanied by occasional glowing embers and light ash particles rising from the source.

Variations

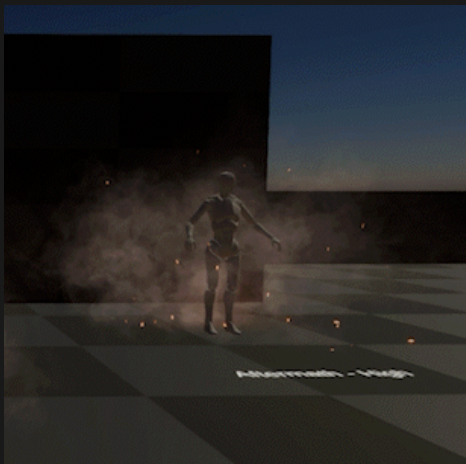
1. **Light Aftermath** – Thin smoke with minimal embers and very sparse falling ash; ideal for small burns or quick-fire events.



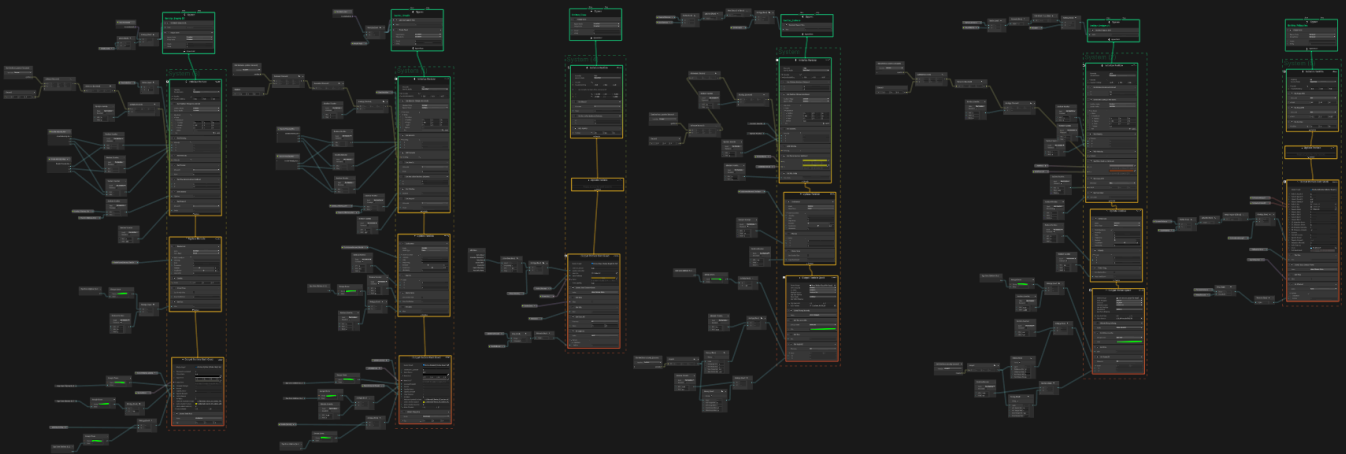
2. **Standard Aftermath** – Balanced smoke density with occasional embers and a steady drift of ash.



3. **Heavy Aftermath** – Dense smoke plume with more frequent embers and heavier ash fallout.

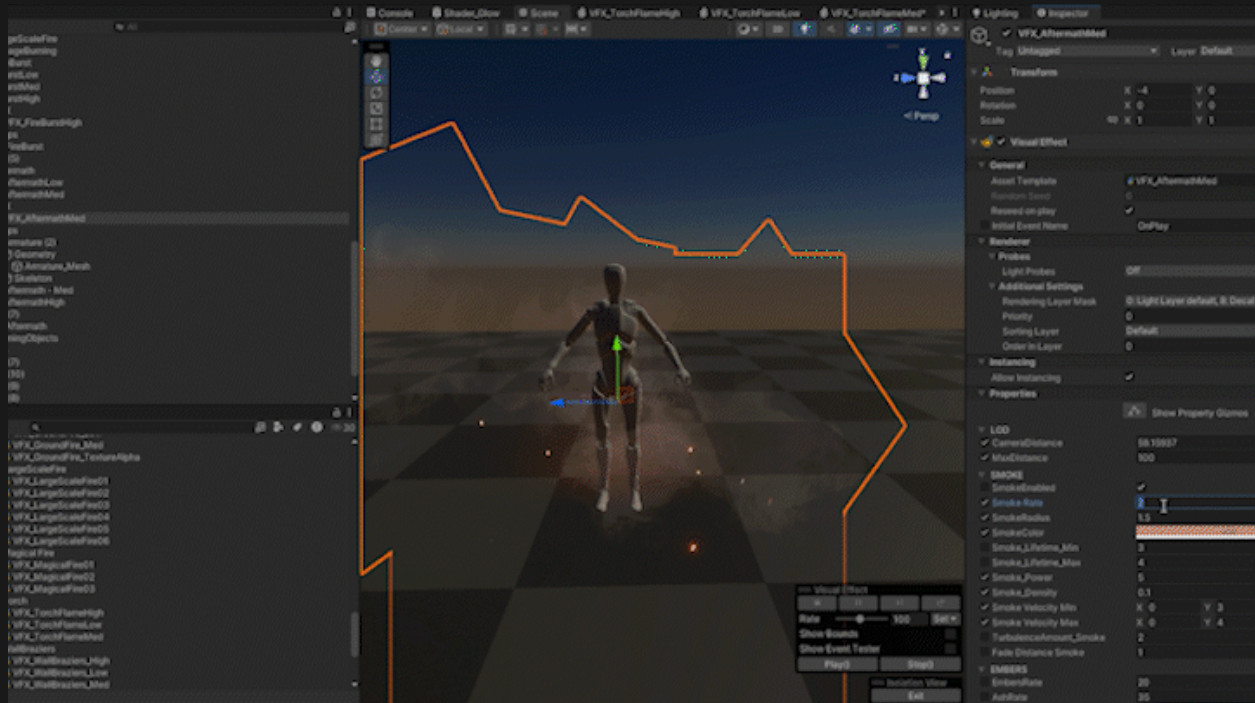


Emitter Breakdown



- **Ashes** – Small rising grey particles.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Smoke** – Short-range, upward-moving smoke for realism.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.

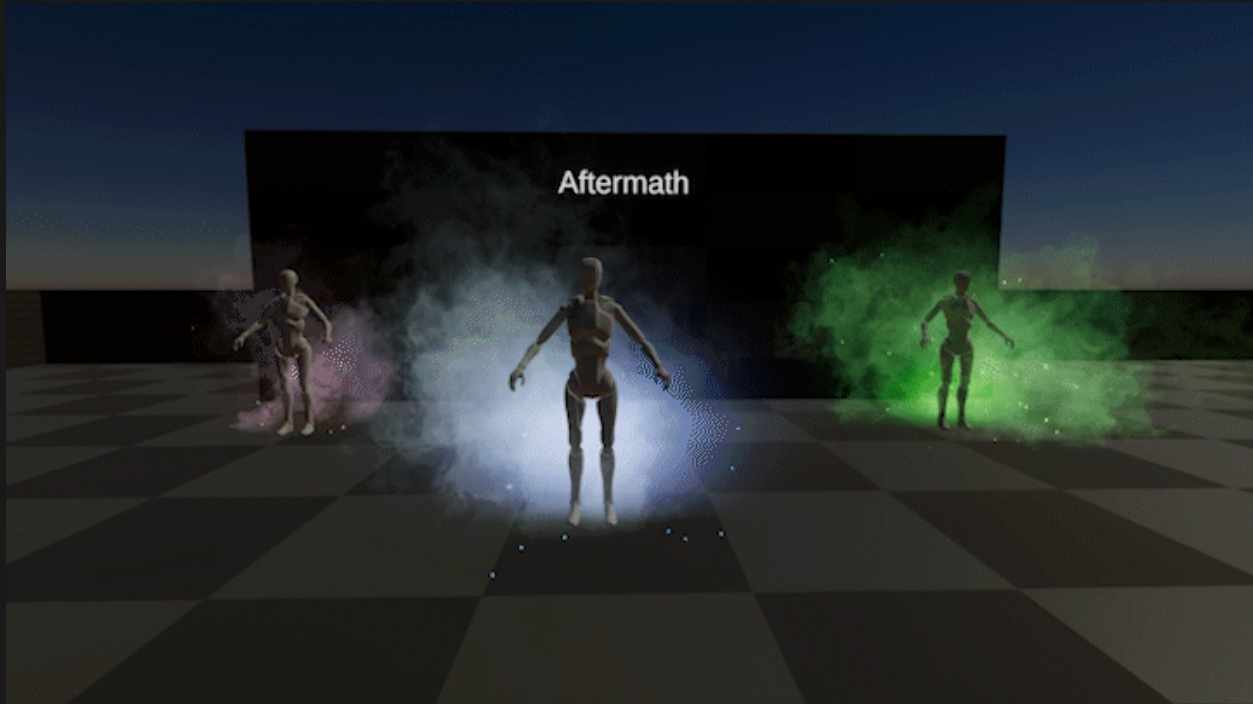
Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Aftermath Intensity	Float	1	Strength of the Aftermath Effect elements like smoke, embers, ashes, refraction.
Smoke Radius	Float	1	Defines the total size or reach of the smoke
Smoke Rate	Float	5	Controls how frequently the smokes are generated.
Fade Distance Smoke	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
Smoke Lifetime Min/Max	Float	(3,4)	Sets the minimum and maximum lifetime of the smokes.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.

Embers Rate	Float	20	Controls how many embers are generated over time.
Ash Rate	Float	35	Controls how many ashes are generated over time.
Embers Color 1	Color	(44,2.4,0,1)	Color tint of the embers
Embers Color 2	Color	(191,53,0,1)	Second color tint of the embers
Ash Color	Color	#6F6060	Color tint of the ashes.
TurbulenceAmount Embers	Float	2	Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	1.0	Adjusts the intensity of the heat distortion/refraction effect.
Refraction Size	Float	2	Adjusts how large the refraction appears.

The GIF below shows several aftermath variations created by adjusting the exposed parameters.



Usage Notes

This Aftermath effect is ideal for scenes where a fire has recently been extinguished or is currently burning. It works well as a secondary stage following explosions, burning objects, ground fires, or environmental hazards. Since it contains no visible flames, it is subtle enough to use in both gameplay and cinematic contexts without overpowering the scene.

When using it in large numbers, consider lowering the amount of smoke, embers, and ashes. Adjust spawn counts and smoke color depending on the material that burned—light fabric or grass should have less debris, while wood or structure fires can use heavier smoke and more ashes. For indoor environments, shorten smoke lifetime to avoid clipping into ceilings or upper geometry by editing it directly in VFX Graph.

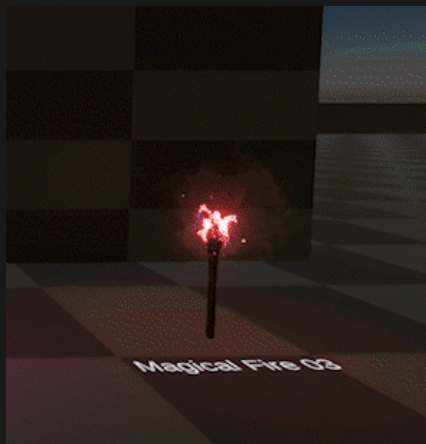
10. Magical Fire ✨



Magical Fire is a semi-stylized flame effect designed for spells, enchanted objects, mystical environments, and fantasy-themed gameplay moments. Unlike traditional fire, this effect emphasizes color-driven motion, non-physical flame behavior, and secondary particles such as sparks and wisps.

Variations

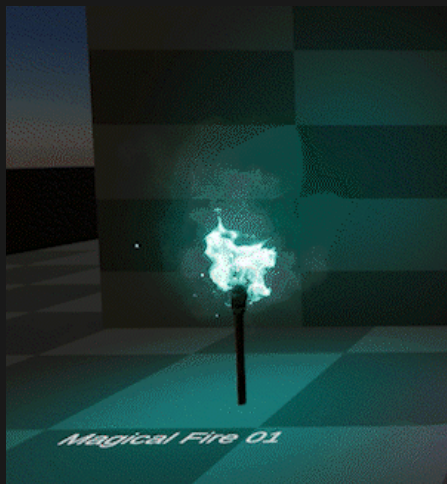
1. **Small Magical Fire** – Low flame with slow movement.



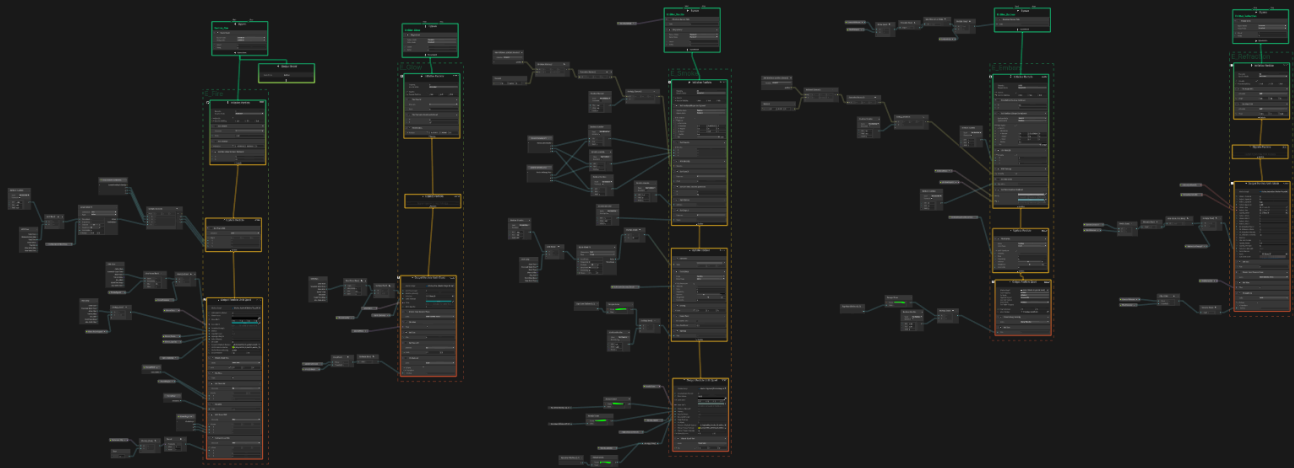
2. **Standard Magical Fire** – Standard flame with moderate ember movement.



3. **Large Magical Fire** – Large flame with strong outward ember movement.

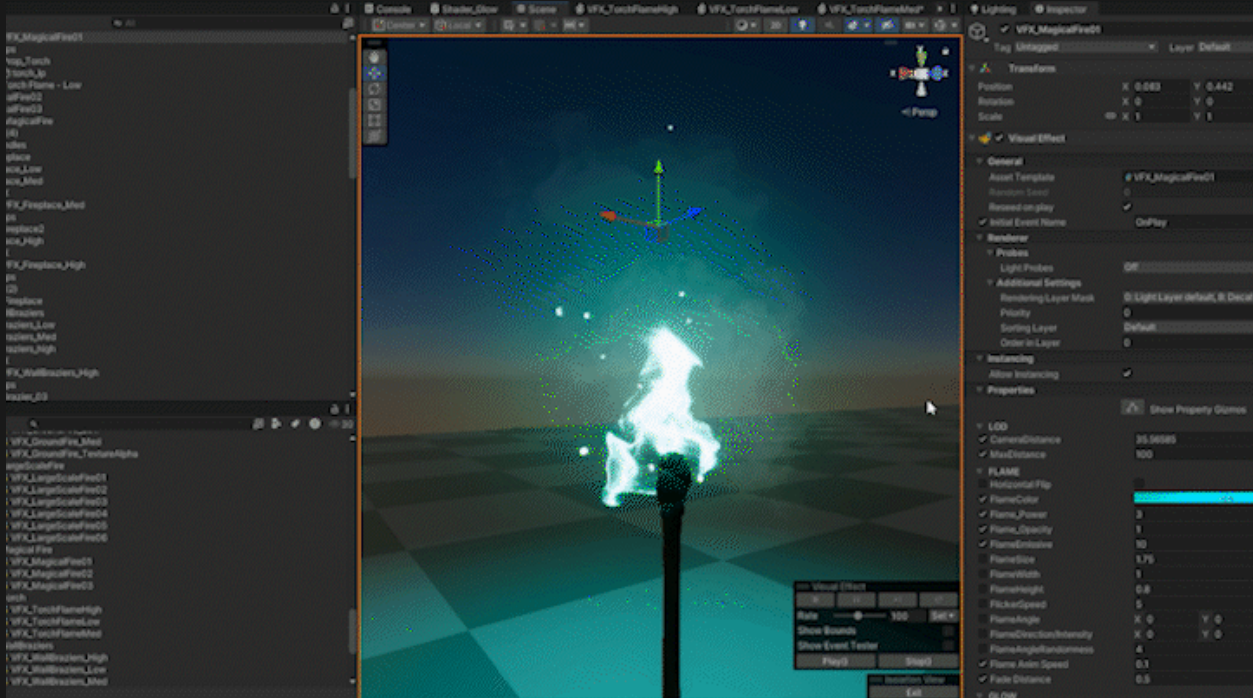


Emitter Breakdown



- **Refraction** – Slight shimmer above the flame representing heat distortion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Fire** – Small flipbook or sprite flame with subtle flicker forming the main magical flame.
- **Smoke** – Short-range, upward-moving smoke for realism.

Parameter Controls



Parameter	Type	Default	Description
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MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Horizontal Flip	Bool	False	Mirrors the flame horizontally for variation.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
Flame Emissive	Float	20	Determines the glow intensity and radiance of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.
FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)

FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke Size	Float	1	Adjusts the overall size of the smoke.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Ember Size	Float	1	Adjusts the overall size of the embers.
Embers Rate	Float	40	Controls how many embers are generated over time.
Embers Color 1	Color	(26,8,22,1)	Color tint of the embers
Embers Color 2	Color	(.9,.3,1.7,1)	Second color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.

Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	1.0	Adjusts the intensity of the heat distortion/refraction effect.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light

The GIF below shows several magical fire variations created by adjusting the exposed parameters.



Usage Notes

Magical Fire works best when placed on enchanted props, spell casts, magical torches, shrines, portals, and fantasy set pieces. Since the effect relies heavily on color and stylization, consider adjusting hue and glow strength to match each environment's art direction. Overuse of strong light or intense glow may wash out nearby textures, so balancing emissive values with scene lighting is recommended.

For gameplay-heavy areas, keep mote density and spark emission moderate to avoid distracting the player. When creating spell variations, subtle changes in color and embers can help differentiate abilities while keeping overall visual cohesion.

For performance-sensitive platforms, refraction and glow emitters can be disabled through the exposed parameters. If additional optimization is required, consider disabling the smoke emitter inside VFX Graph.

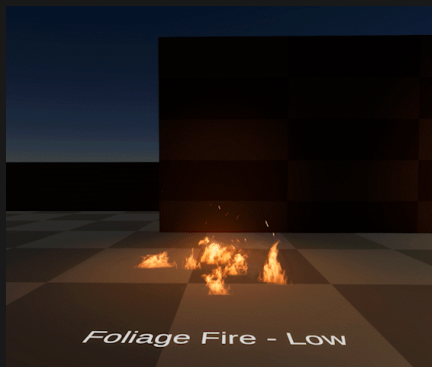
11. Foliage Burning 🌿🔥



Foliage Burning simulates the combustion of grass, leaves, bushes, and other plant-based materials. The effect focuses on upward-burning flame behavior with rapid flicker, crackling embers, and light smoke to give the impression of organic matter catching fire. This system works well for environmental hazards, wildfire moments, destruction sequences, and dynamic gameplay-driven burn effects.

Variations

1. **Low-Intensity Foliage Burning** – Slow flames, smokes, and embers.



2. **Moderate-Intensity Foliage Burning** – Standard movement of fire and smokes with numerous embers.



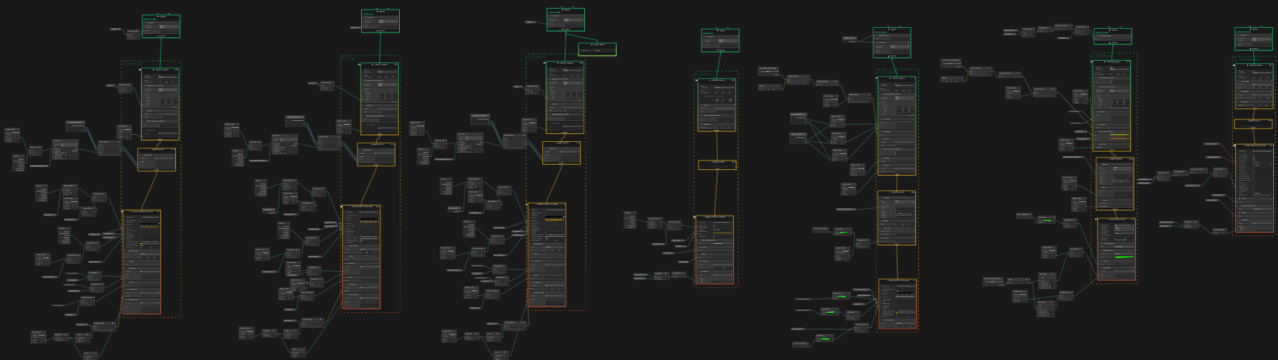
3. **High-Intensity Foliage Burning** – Fast fire, smoke, and embers movement.



4. **Vertex Color Foliage Burning** – Fast fire, smoke, and embers movement.

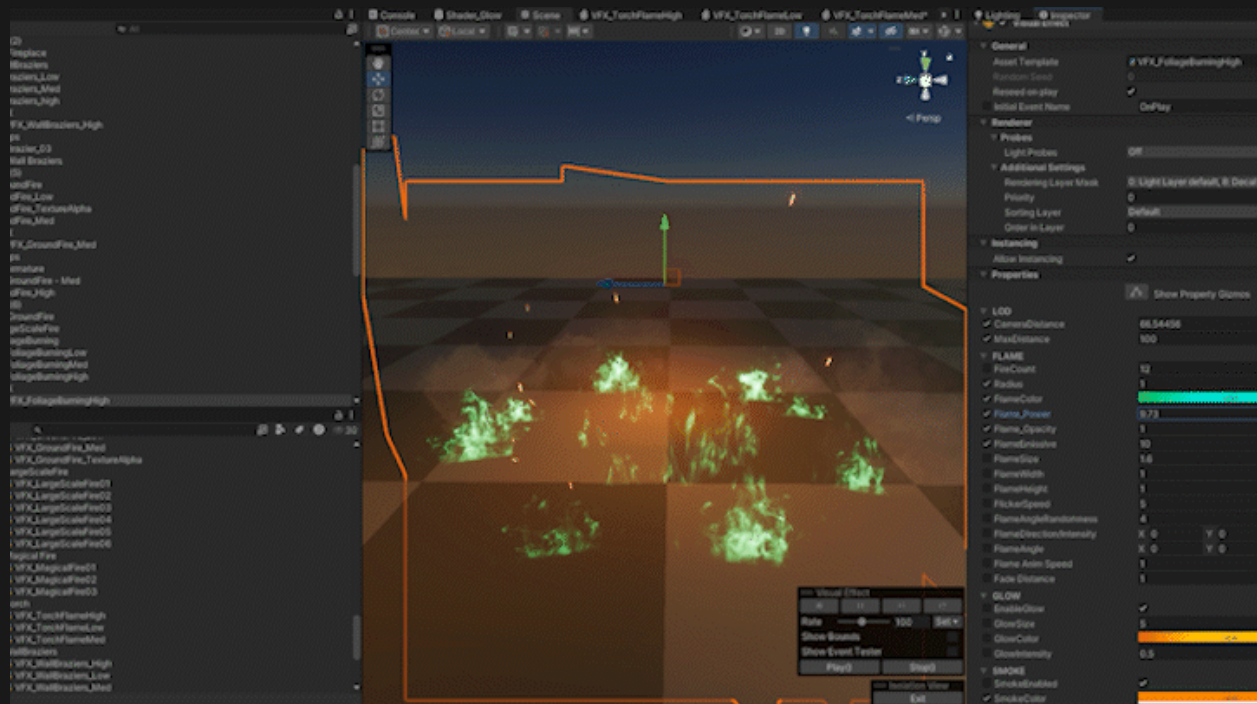


Emitter Breakdown



- **Fire (Three Emitters)** – Small flipbook or sprite flame with subtle flicker forming the main foliage flame.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Smoke** – Short-range, upward-moving smoke for realism.
- **Refraction** – Slight shimmer above the flame representing heat distortion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Mesh	Mesh	Plane	Mesh with vertex colors that defines where fire can spawn.

Mesh Size	Vector	(2,2,2)	Scale of the mesh used for fire spawning.
Mesh Angle	Vector	(-90,0,0)	Rotation of the mesh used for fire spawning.
Fire Count	Float	8	Defines the number of Flame particles at a time.
Radius	Float	1	Defines the total size or reach of the effect
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.
FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.
Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)
FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .

Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke SpawnRate	Float	10	Controls how frequently the smokes are generated.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Embers Rate	Float	40	Controls how many embers are generated over time.
Embers Color 1	Color	(26,8,22,1)	Color tint of the embers
Embers Color 2	Color	(.9,.3,1.7,1)	Second color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.
Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	2.0	Adjusts the intensity of the heat distortion/refraction effect.
Refraction Size	Float	4.0	Adjusts how large the refraction appears.

Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light
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The GIF below shows several foliage burning variations created by adjusting the exposed parameters.



Usage Notes

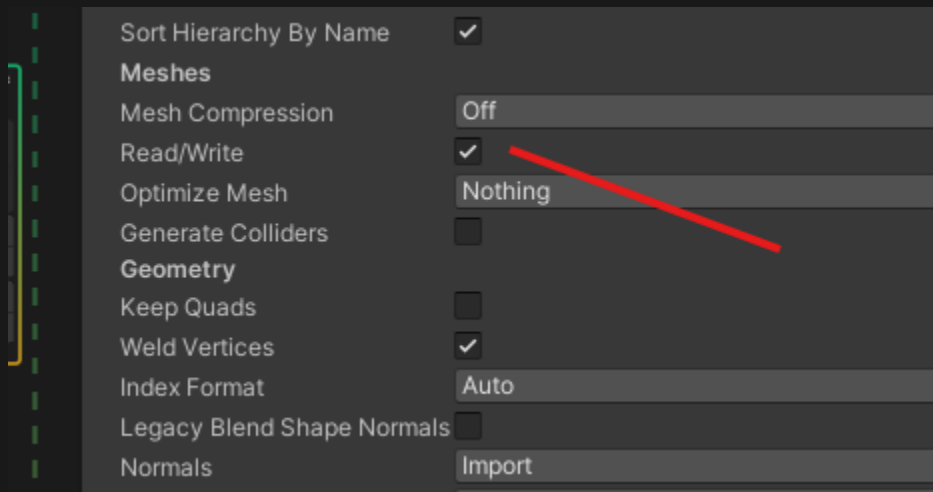
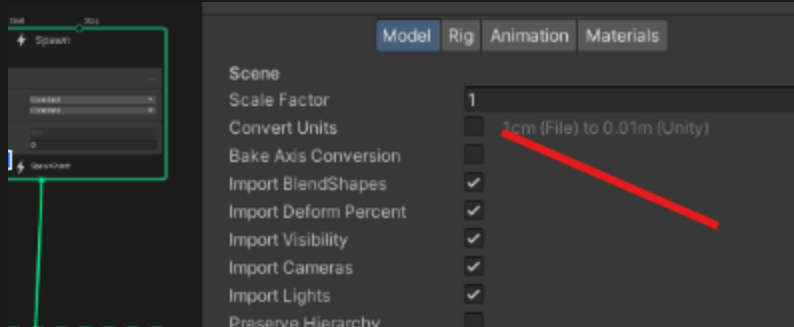
Foliage Burning is ideal for environmental storytelling, whether it's small forest patches catching fire, deliberate burn mechanics, or post-explosion ground coverage.

When placing the effect inside dense foliage, consider scaling it or adjusting ember output to match the volume of the vegetation. For forest scenes, combining multiple variations can create a more natural, spreading-fire appearance. On lower-end hardware, reducing smoke and flame density offers significant performance gains.

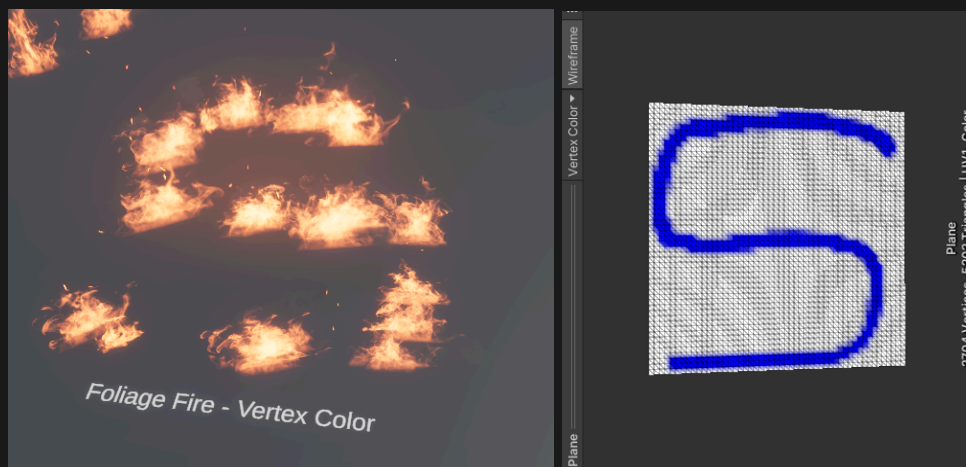
Vertex Color Spawning

Mesh Setup

Disable Convert Units



Ensure that **Read and Write** is enabled in the **Details** section of the mesh. Otherwise, the effect won't behave as intended.



12. Large-Scale Fire / General Blaze 🔥🚗



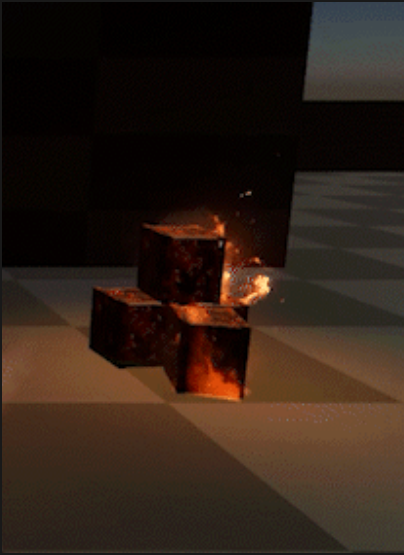
Large-Scale Fire is designed for massive environmental burns such as buildings, vehicles, boss arenas, or cinematic destruction scenes. This effect emphasizes a variety of flame structures, rolling heat distortion, and embers. It is built to be modular and scalable for wide-area coverage and can be layered or tiled to simulate both natural and man-made infernos.

Variations

- **Six distinct flame variants** are included, each with unique shapes and intensity levels, allowing the effect to scale across different artistic styles and needs.



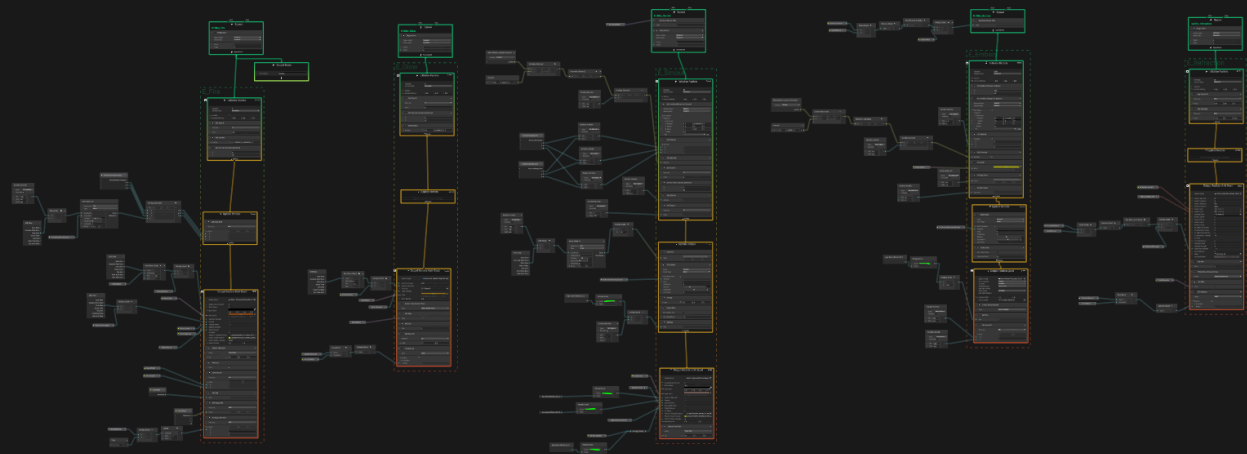
- **Flame variants can be layered or mixed**, enabling the creation of entirely new flame behaviors and silhouettes through simple combinations.



- **The system is designed with modularity in mind**, ensuring that variations can be adapted or blended to support a wide range of use cases and scene requirements.

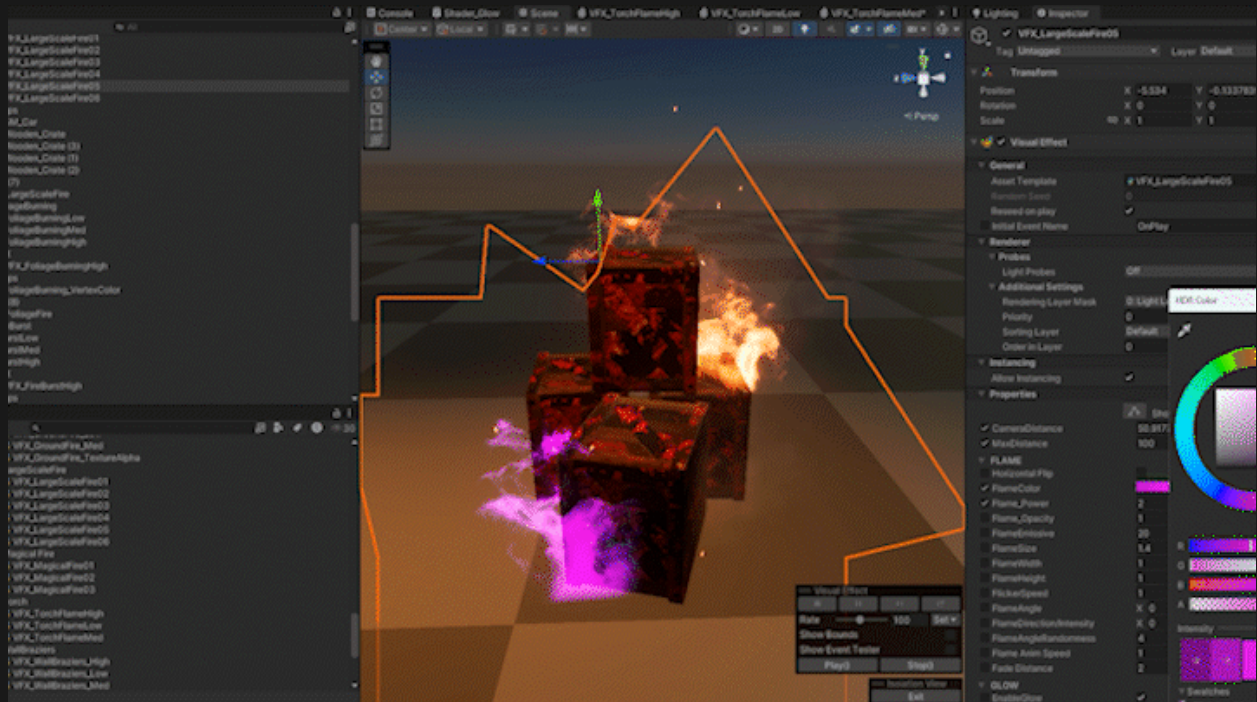


Emitter Breakdown



- **Refraction** – Slight shimmer above the flame representing heat distortion.
- **Glow** – Soft emissive bloom surrounding the flame for enhanced visual warmth.
- **Embers** – Small rising particles or sparks that add dynamic detail.
- **Smoke** – Short-range, upward-moving smoke for realism.
- **Fire** – Small flipbook or sprite flame with subtle flicker forming the main flame.

Parameter Controls



Parameter	Type	Default	Description
MaxDistance	Float	100	This is the maximum distance at which the camera can be from the effect before parts of the VFX performance are cut off (embers and refraction).
Fire Intensity	Float	1	Control the intensity of the fire effect, including the strength of the smoke, embers, glow, and refraction.
Lock Facing	Bool	False	Forces the fire effect to maintain a fixed facing direction.
Lock Facing Axis	Vector	(1,0.5,0)	Specifies which axis the fire effect's facing direction is locked to.
Horizontal Flip	Bool	False	Mirrors the flame horizontally for variation.
Flame Color	Color	(3,0.3,0,0)	Color tint of the main flame.
Flame Power	Float	1	Controls the intensity and brightness of the fire.
Flame Opacity	Float	1	Modify how transparent or solid the flame appears.
FlameEmissive Intensity	Float	15	Adjusts the brightness of the flame.
Flame Width	Float	1.2	Defines how wide or stretched the flame appears.
Flame Height	Float	1.5	Defines how tall or elongated the flame appears.
FlickerSpeed	Float	2	Controls how fast the fire flickers or pulses.
Flame Size	Float	1.0	Adjusts the overall size of the flame.

Flame AnimSpeed	Float	1.0	Controls how quickly the flame's movement or texture cycles.
Flame Angle	Vector	(0,0,0)	Adjusts the tilt or direction of the flame.
Flame Direction/Intensity	Vector	(0,0,-10)	Control the direction in which the flame will wobble (axis based)
FlameAngle Randomness	Float	2	Control the intensity of how much the flame will wobble (axis based) .
Fade Distance	Float	2	Adjust the hardness or softness of the intersection between the VFX and meshes.
Glow Color	Color	(3,0.3,0,0)	Color tint of the glow.
Glow Intensity	Float	0.1	Adjusts the strength of the glow.
Smoke Enabled	Bool	True	Toggles smoke activation.
Smoke Color	Color	#FF2F00	The color tint of the smoke.
Smoke Power	Float	2	Adjusts the contrast of the smoke
Smoke Density	Float	.5	controls how thick or heavy the smoke appears.
Smoke Velocity Min/Max	Vector	(Y=1.5,2.5)	Sets the minimum and maximum speed at which the smoke moves or rises.
TurbulenceAmount Smoke	Float	2	Adjusts how chaotic or swirly the smoke
Embers Rate	Float	40	Controls how many embers are generated over time.
Embers Color	Color	(44,2.4,0,1)	Color tint of the embers
TurbulenceAmount Embers	Float		Controls how erratic or swirling the ember movement is.

Enable Refraction	Bool	True	Toggles heat-distortion/refraction around the flame.
Refraction Strength	Float	1.0	Adjusts the intensity of the heat distortion/refraction effect.
Light Placement Offset	Vector	(0,0.25,0)	Adjusts the position of the flame's light

The GIF below shows several fire variations created by adjusting the exposed parameters.



Usage Notes

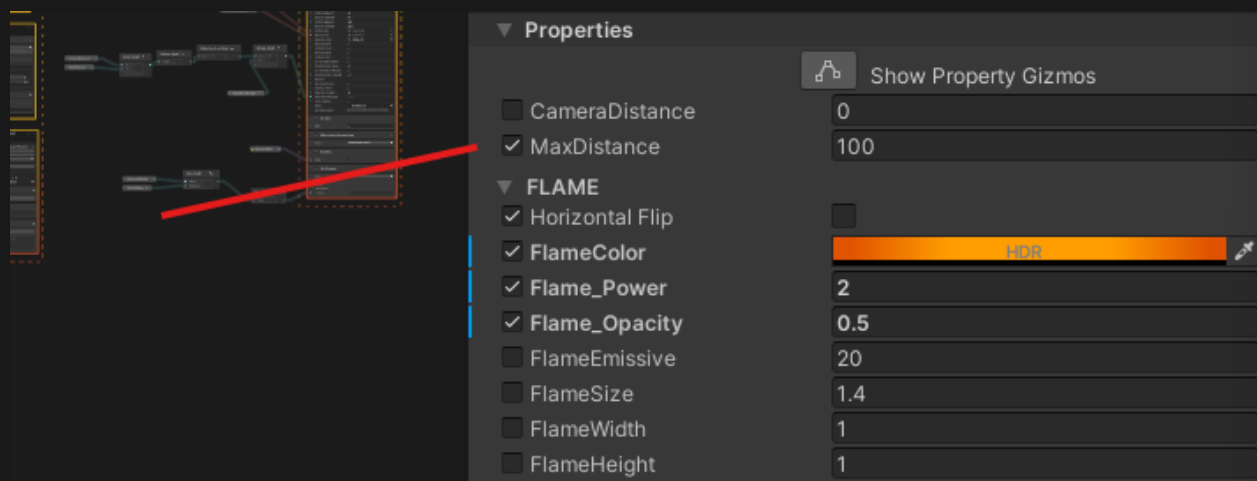
The Large-Scale Fire effect is intended for scenes that require dramatic, high-impact visual flames, such as vehicle explosions, industrial accidents, burning buildings, or large bonfires. It works best as a centerpiece element or major environmental hazard, where thick smoke plumes, strong glow, and intense flame movement convey the scale of destruction. When placing the effect, make sure it is properly grounded in the environment by aligning the base flame and heat distortion with debris, fuel sources, or terrain to avoid floating artifacts.

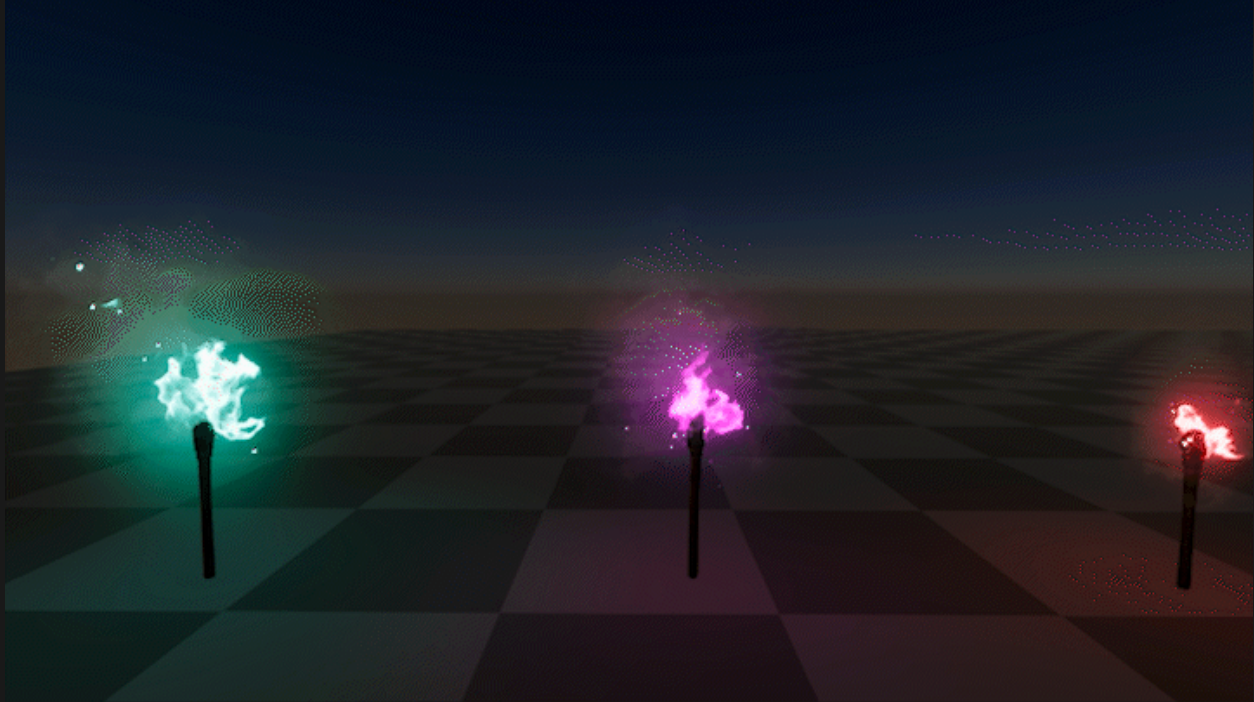
For gameplay-oriented scenes, consider reducing fire density or lowering the ember count to maintain visibility and player readability. Cinematic setups, on the other hand, may benefit from higher refraction strength and increased light intensity to emphasize heat and scale.

On lower-end hardware, be mindful of the number of fires placed in the scene. Avoid overlapping fires, and for large environments, disable the refraction layer directly in VFX Grapg as well as the light renderer on some of the variants to improve performance.

Level of Detail (LOD) System

The VFX Fire Pack features LOD functionality, which helps optimize performance for large or complex fire effects. This system is enabled by default and adjusts the complexity of each effect based on the camera distance. It automatically reduces particle counts, disables heavy emitters, and simplifies the system when the effect is farther from the camera. This ensures that your scene maintains high visual quality up close while improving performance in distant views. For the LOD script to work properly, it's important that the camera you are using has the MainCamera Tag. The camera distance values change in real time with the camera's movement. If the distance between the camera and the effect nearly reaches the value entered in the Max Distance field, embers, glow and refraction will be cut off gradually for a more natural look.





If you prefer not to use LODs for your project, they can be disabled entirely in the component section of the VFX Prefab system which ensures the full effect is always rendered regardless of distance.

