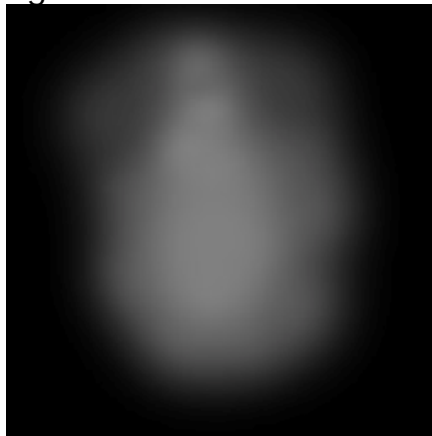


Overview; The easiest way to illustrate the use of a sprite emitter is to make a simple torch. The emitter works by generating flat polys with an alpha mapped image.

Creating a torch

1. First create a texture for the flame.
 - a. Set up a simple 128 x 128 texture with a black background.
 - b. Next, use a soft brush to make a fuzzy organic shape with a dark grey color. Just make sure that you don't overlap any edges with the brush, this will expose the sprite edges and ruin the effect. The black areas should be set as alpha automatically once it is applied to the sprite unreal.

It should look something like this



2. Now set up the emitter
 - a. Go to actor **class->emitter**, right clicking selecting AddEmitterHere, then click Add. Select the Sprite emitter from the drop down list and click New. This will open up a long list of properties for the Sprite Emitter. To add the texture you made in Photoshop to your emitter, import the texture into unreal, open up **SpriteEmitter Properties->Texture->Skin** with the texture selected in your texture browser, hit **Add**.
3. Properties. I will go over the most important properties of the Sprite Emitter that will allow the most control. The values that I will give for these properties are specific for building a simple particle torch. The names for these values explain their function for the most part. There are far too many properties to

go through in one tutorial, but with some tweaking these basic properties can be used to create a variety of effects like fire, water, sparks, fog, etc.

- a. StartSizeRange Min and Max = 20
- b. Max Particles=20 (To make it more dense add more particles, but more particles means slower frame rates)
- c. LifeTimeRange, Min and Max =1
- d. Start Velocity, Min and Max (Z axis only) = 100
- e. At this point you will need to set up a Size Scale to make the properties act more like a flame. To add a size scale open up the **SpriteEmitterProperties->Emitters->SizeScale**, click the + and click **Add**. Set the following values for the Size Scale.
 - i. Relative Size = 0
 - ii. Relative time = 1
 - iii. UseSizeScale=True
 - iv. UseRegularSize Scale=False
- f. Next, under the fading category add the following values.
 - i. FadeOut=True
 - ii. FadeOutStartTime= 0
- g. Under Location go to StartLocationRange and add the following. This will help taper the flame.
 - i. StartLocationRange X and Y Min=-10, X and Y Max = 10
- h. To give the flame color, add a Colorscale. This can be found under **Sprite EmitterProperties->Emitters->Color**, click **Add**.
 - i. Now select the color for your flame from the color chart. Set the following values under the color menu.
 1. ColorScaleRepeats=5
 2. UseColorScale=True
 3. You might have to play with RelativeTime to get it to look right

It should look something like this

