

# UDK Intermediate – Post Processing Effects

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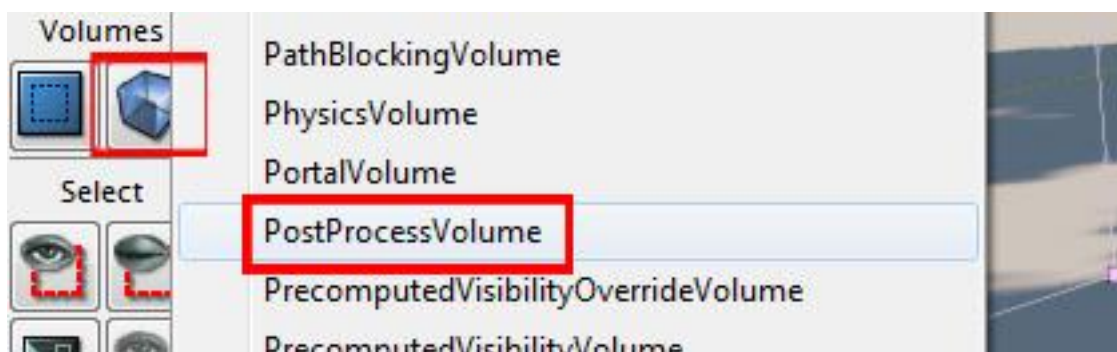
In this tutorial I will explain the process of creating some post processing effects like Bloom and DOF (depth of field).

The first thing we need to do before we can add these effects is create a post process volume.

To do this, change your builder brush to the size you want the post process to effect and add a PostprocessVolume. It will be a pink box.

If two post process volumes overlap, you can chose which one gets priority by changing the value in the 'Priority' setting. The one with the higher number will get priority.

**Note:** You can only see the effects of the post process volume when you are inside it. If you cannot see any of these effects make sure your camera is inside the post process volume.



Now we will start to add effects starting from this base volume

## Bloom

Bloom creates the appearance of an object glowing. This can be used for many things, most commonly lights on buildings or armour.

Bloom is automatically enabled in the post process volume but its effects are minimal until values are changed. Bloom also only effects objects with a spec or colour pushed up to and paste solid white

Here I have a default UDK static mesh light that I've scaled up to a reasonable size. The first image is without bloom, I've simply disabled the option in the volume for a moment. The second is with default bloom settings and the third is with the bloom scale turned to up 2.



Notice the changes are subtle but also affect the sky. Objects outside the volume will glow as long as the camera is inside the volume. Here I've changed the bloom tint to a reddish colour.



## Depth of Field

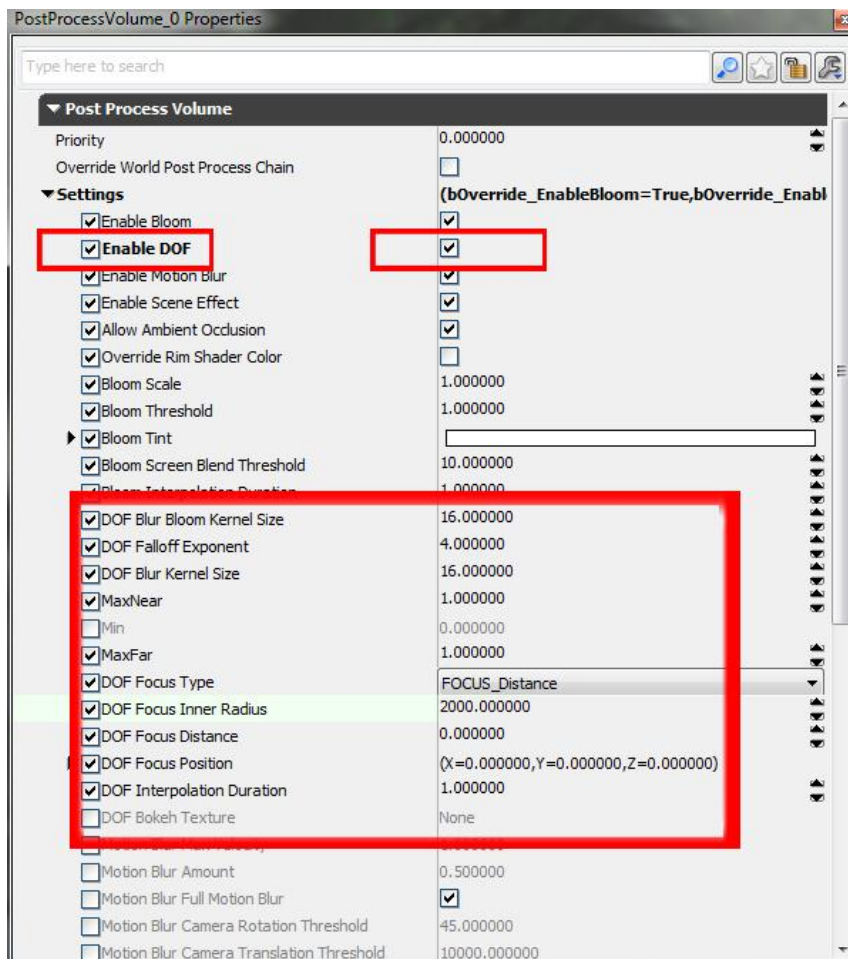
Depth of field is generally only used for still shots for presentation or portfolio, not game levels.

Depth of field is only available when running DirectX 11 in your editor. To enable DirectX11 you must have a capable graphics card (Nvidia Geforce 400 series, ATI Radeon 5000 series or higher). You must also have Windows Vista or higher. Finally you must be running a version of UDK that is later then the March 2011 build.

To enable DirectX11 simply go to **file>Switch Renderer>Directx11**.

Put some objects in your scene to give you a base to work with. It doesn't matter what these are, just make sure that they are spread out over an area so we can see the effect.

Open up the properties of your post process volume and Enable DOF. You should instantly see a change.





In the post process volume properties you can change the DOF settings. Here are what some of these do.

Max Far = The amount of blur applied to items behind the focus plane (Focus plane is the area that has no blur applied to it)

DOF Focus Type = Focus\_Distance and Focus\_Position. Distance starts the blur at a set distance from the camera while position starts the blur around a fixed position.

DOF Focus Inner radius = The radius around the camera that the blur encompasses. Low values make the blur effect start closer to the camera; higher values make the blur start further away.

DOF Focus distance = When Focus\_Distance is enabled, controls the distance from the camera that the blur starts at.

DOF Focus position = When Focus\_Position is enabled XYZ coordinates of where the blur starts from.

Feel free to play with the other settings as well, but these are the basics that will get you started.