MASKING IN UNITY

Masking is a fundamental technique that has hundreds of usages. Just take a look through some of the Flash work in my portfolio and you’ll see where masking really shines with respect to animating the introducing of visual elements. Coming from a Flash background, I was dumbfounded when I realized Unity didn’t have any technique for masking geometry and images. Luckily I finally found the answer in the “Depth Mask” shader.

Though the “Depth Mask” shader is Unity’s answer to masking its not without it quirks if you are looking for a 1:1 comparison with the traditional 2D mask. The way this shader works is whatever geometry is utilizing it will essentially hide whatever is behind it. This means EVERYTHING behind it. The best way to constrain the effects of this is by layering cameras that specifically render masked “scenarios”.

The actual code for the a depth mask shader is short and sweet:

Shader "Depth Mask" {

SubShader {

Tags {"Queue" = "Geometry-10" }

Lighting Off

ZTest LEqual

ZWrite On

ColorMask 0

Pass {}

}

}

If you change any aspects of the material of an object you are trying to mask (texture, colors, etc…) the “Depth Mask” will fail unless you run the SetPass() of the object that is carrying the actual “Depth Mask” shader. This method is documented [here](http://unity3d.com/support/documentation/ScriptReference/Material.SetPass.html).

You can grab the example project shown in this pos

10 COMMENTS

'\_"

oh so sweet.

what would we do without you.

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Reply

Earl

Awesome!

Reply

pixelplacement

Update: added information for any problems you may have if the “Depth Mask” fails after you change properties of the masked object’s material.

Reply

John

Hey, works quite well, but if i move all objects in the scene in any direction, the texture never shows up again (which doesnt make any sense in my opinion). Is there a fix for this?

thanks in advance!

Reply

pixelplacement

That doesn’t make sense. Can you provide more details? Also, do a search on my site for mask and see if there’s any details in the other post I did about masking in Unity that helps.

Reply

nantas

Hi this is such a great shader and example.

I’ve made a video tutorial based on this technique to achieve a spinning mask effect with ex2D:

http://abitgames.com/2011/blog/tutorial-skill-cooldown-effect-ex2d/

Reply

pixelplacement

Awesome stuff!

Reply

Erik

Thank you sir. I’m surprised how simple the solution was, but I would have never thought of it myself.

Reply

Dela

Thank you SO much. This is so fucking useful. I’ve been trying to figure it out for so long. I’ll admit I was looking for the opposite effect – where it only shows through the shape of a texture – but this is even better because you can instead use pieces of geometry to create a mask. This is perfect for using many different cameras at one time. Thank you again sir. Fantastic job.

http://pixelplacement.com/2011/02/15/masking-in-unity/