**卡通渲染效果（一）**

Posted on 2013年06月29日 by U3d / [Unity3D脚本/插件](http://www.unitymanual.com/category/script)/被围观 87 次

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| --- | --- |
| 01 | Shader "Hidden/Edge Detect Normals" { |
| 02 | Properties { |
| 03 | \_MainTex ("Base (RGB)", RECT) = "white" {} |
| 04 | \_NormalsTexture ("Normals", RECT) = "white" {} |
| 05 | } |
| 06 | SubShader { |
| 07 | Pass { |
| 08 | ZTest Always Cull Off ZWrite Off |
| 09 | Fog { Mode off } |
| 10 | CGPROGRAM |
| 11 | #pragma vertex vert |
| 12 | #pragma fragment frag |
| 13 | #pragma fragmentoption ARB\_precision\_hint\_fastest |
| 14 | #include "UnityCG.cginc" |
| 15 | uniform samplerRECT \_MainTex; |
| 16 | uniform samplerRECT \_NormalsTexture; |
| 17 | uniform float4 \_MainTex\_TexelSize; |
| 18 | **struct** v2f { |
| 19 | float4 pos : POSITION; |
| 20 | float2 uv[3] : TEXCOORD0; |
| 21 | }; |
| 22 | v2f vert( appdata\_img v ) |
| 23 | { |
| 24 | v2f o; |
| 25 | o.pos = mul (glstate.matrix.mvp, v.vertex); |
| 26 | float2 uv = MultiplyUV( glstate.matrix.texture[0], v.texcoord ); |
| 27 | o.uv[0] = uv; |
| 28 | o.uv[1] = uv + float2(&minus;\_MainTex\_TexelSize.x, &minus;\_MainTex\_TexelSize.y); |
| 29 | o.uv[2] = uv + float2(+\_MainTex\_TexelSize.x, &minus;\_MainTex\_TexelSize.y); |
| 30 | **return** o; |
| 31 | } |
| 32 | half4 frag (v2f i) : COLOR |
| 33 | { |
| 34 | half4 original = texRECT(\_MainTex, i.uv[0]); |
| 35 | *//Unity3D教程手册：http://www.unitymanual.com* |
| 36 | *// three samples from normals+depth buffer* |
| 37 | half4 normalD1 = texRECT(\_NormalsTexture, i.uv[0]); |
| 38 | half4 normalD2 = texRECT(\_NormalsTexture, i.uv[1]); |
| 39 | half4 normalD3 = texRECT(\_NormalsTexture, i.uv[2]); |
| 40 |  |
| 41 | *// normals filter* |
| 42 | half3 n1 = normalD1.rgb\*2&minus;1; |
| 43 | half3 n2 = normalD2.rgb\*2&minus;1; |
| 44 | half3 n3 = normalD3.rgb\*2&minus;1; |
| 45 | half2 ndiff; |
| 46 | ndiff.x = dot( n1, n2 ); |
| 47 | ndiff.y = dot( n1, n3 ); |
| 48 | ndiff &minus;= 0.9; |
| 49 | ndiff = ndiff > half2(0,0) ? half2(1,1) : half2(0,0); |
| 50 | half ndiff1 = ndiff.x \* ndiff.y; |
| 51 | original.rgb \*= ndiff1; |
| 52 |  |
| 53 | *// depth filter* |
| 54 | float2 zdiff; |
| 55 | zdiff.x = normalD1.a &minus; normalD2.a; |
| 56 | zdiff.y = normalD1.a &minus; normalD3.a; |
| 57 | zdiff = abs( zdiff ) &minus; 0.05; |
| 58 | zdiff = zdiff > half2(0,0) ? half2(0,0) : half2(1,1); |
| 59 | original \*= zdiff.x\*zdiff.y; |
| 60 | *//Unity3D教程手册：http://www.unitymanual.com* |
| 61 | **return** original; |
| 62 | } |
| 63 | ENDCG |
| 64 | } |
| 65 | } |
| 66 | Fallback off |
| 67 | } |
| 68 |  |
| 69 | &nbsp; |

**卡通渲染效果（二）**

Posted on 2013年06月30日 by U3d / [Unity3D脚本/插件](http://www.unitymanual.com/category/script)/被围观 70 次

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| --- | --- |
| 01 | Shader "Hidden/RenderNormalsAndDepth" { |
| 02 | SubShader { |
| 03 | Tags { "RenderType"="Opaque" } |
| 04 | Pass { |
| 05 | Fog { Mode Off } |
| 06 |  |
| 07 | CGPROGRAM |
| 08 | #pragma vertex vert |
| 09 | #include "UnityCG.cginc" |
| 10 | **struct** v2f { |
| 11 | float4 pos : POSITION; |
| 12 | float4 color : COLOR; |
| 13 | }; |
| 14 | v2f vert( appdata\_base v ) { |
| 15 | v2f o; *//Unity3D教程手册：http://www.unitymanual.com* |
| 16 | o.pos = mul(glstate.matrix.mvp, v.vertex); |
| 17 | float3 viewNormal = mul((float3x3)glstate.matrix.invtrans.modelview[0], v.normal); |
| 18 | o.color.rgb = viewNormal \* 0.5 + 0.5; |
| 19 | **float** z = mul((float3x4)glstate.matrix.modelview[0], v.vertex).z; |
| 20 | o.color.a = &minus;z / \_ProjectionParams.z; |
| 21 | **return** o; |
| 22 | } |
| 23 | ENDCG |
| 24 | } |
| 25 | } |
| 26 | } |