UNITY SHADER REFRENCE SHEET

```
V0.10 by @guoboism
Vertex/Frag Shader
                                                                                        Vertex/Frag Shader
    Shader "Sprites/Default" {
                                                                                        Shader "Examples/Shader" {
                                                                                            Properties{}
                                                                                            SubShader {
                                                                                               Pass{CGPROGRAMM}
          Properties
                                                                                            FallBack
                                                                                            CustomEditor
                //Number
                                                                                        https://docs.unity3d.com/Manual/SL-Reference.html
                 _RangedFloat ("Value Name", Range (0, 1)) = 0.5
                 _Float ("Value Name", Float) = 0.5
                _Int ("Value Name", Int) = 1
                                                                                        Property Block
                                                                                       Properties { Property [Property ...] }
                 //Vector
                                                                                        https://docs.unity3d.com/Manual/SL-Properties.html
                 _Color ("Value Name", Color) = (.34, .85, .92, 1)
                 _Vector ("Vector Name", Vector) = (0,0,0,1)
                 //Textures
                 _Texture1 ("Texture 1", 2D) = "white" {}
                 _Texture2 ("Texture 2", 3D) = "black" {}
                 _Texture3 ("Texture 3", Cube) = "" {}
                                                                                        Subshader
          SubShader
                                                                                       Subshader { [Tags] [CommonState] Passdef [Passdef ] }
                                                                                        https://docs.unity3d.com/Manual/SL-SubShader.html
                                                                                        Subshader Tags
                 Tags {
                                                                                        Tags { "TagName1" = "Value1" "TagName2" = "Value2" }
                                                                                        https://docs.unity3d.com/Manual/SL-SubShaderTags.html
                                                                                        Tag:RenderType
                       "RenderType"="Opaque"
                                                                                        Opaque,
                                                                                                       Transparent,
                                                                                                                   TransparentCutout
                                                                                                      Overlay,
                                                                                        Background,
                                                                                                                   TreeOpaque
                                                                                                                   GrassBillboard
                                                                                        TreeBillboard, Grass,
                                                                                        TreeTransparentCutout
                                                                                        https://docs.unity3d.com/Manual/SL-ShaderReplacement.html
                                                                                        Tag:Queue
                       "Queue" = "Transparent"
                                                                                        Background [1000]
                                                                                        Geometry (default) [2000]
                                                                                        AlphaTest [2450]
                                                                                        Transparent [3000]
                                                                                        Overlay [4000]
                                                                                        "Geometry+1" [2001]
                                                                                        https://docs.unity3d.com/Manual/SL-SubShaderTags.html
                                                                                       Other Subshader tags
                       "DisableBatching" = "true"
                       "ForceNoShadowCasting" = "true"
                       "IgnoreProjector" = "true"
                                                                                        https://docs.unity3d.com/Manual/SL-SubShaderTags.html
                       "CanUseSpriteAtlas" = "true"
                       "PreviewType" = "true"
                                                                                        Subshader LOD
                 LOD 100
                                                                                        https://docs.unity3d.com/Manual/SL-ShaderLOD.html
                 Pass{
                                                                                       Pass { [Name and Tags] [RenderSetup] }
                                                                                        https://docs.unity3d.com/Manual/SL-Pass.html
                       Name "PassName"
                                                                                       Pass name
                                                                                        https://docs.unity3d.com/Manual/SL-ShaderLOD.html
                       //Render State Setup
                       //RGB | A | 0 | any combination of R, G, B, A
                                                                                       RenderState: Color Mask
                       ColorMask RGB
                                                                                        https://docs.unity3d.com/Manual/SL-Pass.html
                                                                                       RenderState: Cull and depth related
                       //Back
                                                  | Off
                                     Front
                       Cull Back
                                                                                        https://docs.unity3d.com/Manual/SL-CullAndDepth.html
                                                   LEqual
                                      Greater
                                      Equal
                       //GEqual
                                                   NotEqual | Always
                       ZTest Always
                                     | Off
                       //On
                       ZWrite On
                       //Offset Factor, Units
                       Offset 0,-1
                                                                                       RenderState: Blending related
                       //0ne
                                      Zero
                       //SrcColor | SrcAlpha
                                                   DstColor | DstAlpha
                                                                                        https://docs.unity3d.com/Manual/SL-Blend.html
                       //OneMinusSrcColor
                                                    OneMinusSrcAlpha
                                                   OneMinusDstAlpha
                       //OneMinusDstColor
                       Blend SrcAlpha OneMinusSrcAlpha
                       //On | Off
                       AlphaToMask On
                                                                                       Cg/HLSL program snippet
                       CGPROGRAM
                                                                                        CGPROGRAM
                                                                                       ENDCG
                                                                                        https://docs.unity3d.com/Manual/SL-ShaderPrograms.html
                                                                                        Pragma statement
                       #pragma vertex vert
                       #pragma fragment frag
                                                                                        https://docs.unity3d.com/Manual/SL-ShaderPrograms.html
                                                                                        Inlcude files
                       //AutoLight.cginc
                       //Lighting.cginc
                       //TerrainEngine.cginc
                                                                                        https://docs.unity3d.com/Manual/SL-BuiltinIncludes.html
                       #include "UnityCG.cginc"
                       struct appdata
                                                                                       Vertex program input
                              float4 vertex : POSITION;
                                                                                        https://docs.unity3d.com/Manual/SL-VertexProgramInputs.html
                              float4 normal : NORMAL;
                              float2 uv : TEXCOORD0;
                              float2 uv2 : TEXCOORD1;
                              float4 tang : TANGENT;
                              float4 color : COLOR;
                       };
                       struct v2f
                                                                                        Fragment program input
                              float4 vertex : SV_POSITION;
                                                                                        https://docs.unity3d.com/Manual/SL-ShaderSemantics.html
                              float2 uv : TEXCOORD0;
                              float3 color : COLOR0;
                       };
                       float _RangedFloat;
                                                                                        Property values
                       float _Float;
                       float _Int;
                                                                                        https://docs.unity3d.com/Manual/SL-PropertiesInPrograms.html
                       float4 _Color;
                       float4 _Vector;
                       sampler2D _Texture1;
                       sampler3D _Texture2;
                       samplerCUBE _Texture3;
                       v2f vert (appdata v)
                                                                                       Vertex Program
                              v2f o;
                              o.vertex = mul(UNITY_MATRIX_MVP, v.vertex);
                                                                                        https://docs.unity3d.com/Manual/SL-DataTypesAndPrecision.html
                              o.uv = TRANSFORM_TEX(v.uv, _MainTex);
                              return o;
                                                                                        https://docs.unity3d.com/Manual/SL-UnityShaderVariables.html
                                                                                        https://docs.unity3d.com/Manual/SL-BuiltinFunctions.html
                                                                                        https://docs.unity3d.com/Manual/SL-ShaderSemantics.html
                       fixed4 frag (v2f i) : SV_Target
                                                                                        Fragment Program
                              fixed4 col = tex2D(_MainTex, i.uv);
                                                                                        https://docs.unity3d.com/Manual/SL-ShaderSemantics.html
                              return col;
                       ENDCG
                                                                                        Fallback
          FallBack "VertexLit"
```

Surface shader will be included. Online version is planned.

Contact @Guoboism for any error or suggestion.

CustomEditor "StandardShaderGUI"

https://docs.unity3d.com/Manual/SL-Fallback.html

https://docs.unity3d.com/Manual/SL-CustomEditor.html

Custom Editor