

ShaderlabVSCode

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Introduction

ShaderlabVSCode is a Visual Studio Code extension for Unity Shaderlab programming.

[Documents](#) | [Forum](#) | [Email](#) | [Asset Store](#)

Installation

Running On Mac

1. Import ShaderlabVSCode unity package into Unity Editor.
2. [Download Visual Studio Code](#) for macOS.
3. Double-click on the downloaded archive to expand the contents.
4. Drag `Visual Studio Code.app` to the `Applications` folder, making it available in the Launchpad.
5. Launch VS Code, Open the `Command Palette (⇧⌘P)` and type 'install from vsix' and then press `Enter` key on keyboard.
6. Select the vsix file under `ShaderlabVSCode/VSCodePlugin/` folder of Unity Project
7. Restart Visual Studio Code

Running On Windows

1. Import ShaderlabVSCode unity package into Unity Editor.
2. Download the [Visual Studio Code installer](#) for Windows.
3. Once it is downloaded, run the installer (VSCodeSetup-version.exe). This will only take a minute.
4. By default, VS Code is installed under C:\Program Files (x86)\Microsoft VS Code for a 64-bit machine.
5. Launch VS Code, Open the `Command Palette (CTRL+SHIFT+P)` and type 'install from vsix' and then press `Enter` key on keyboard.
6. Select the vsix file under `ShaderlabVSCode/VSCodePlugin/` folder of Unity Project
7. Restart Visual Studio Code

Note: .NET Framework 4.5.2 is required for VS Code. If you are using Windows 7, please make sure .NET Framework 4.5.2 is installed.

Features

Syntax Highlighting

```
NewUnlitShader.shader x
1 Shader "Unlit/NewUnlitShader"
2 {
3     Properties
4     {
5         _MainTex ("Texture", 2D) = "white" {}
6     }
7     SubShader
8     {
9         Tags { "RenderType"="Opaque" }
10        LOD 100
11
12        Pass
13        {
14            CGPROGRAM
15            #pragma vertex vert
16            #pragma fragment frag
17            // make fog work
18            #pragma multi_compile_fog
19
20            #include "UnityCG.cginc"
21
22            struct appdata
23            {
24                float4 vertex : POSITION;
25                float2 uv : TEXCOORD0;
26            };
```

Code Completion and Basic Intellisense

```
fixed4 frag (v2f i) : SV_Target
{
    // sample the texture
    fixed4 col = tex2D(_MainTex, i.uv);
    // apply fog
    UNITY_APPLY_FOG(i.fogCoord, col);
    i.
    if uv
    {
        vertex
        discard;
    }
    else
    {
        return col;
    }
}
```

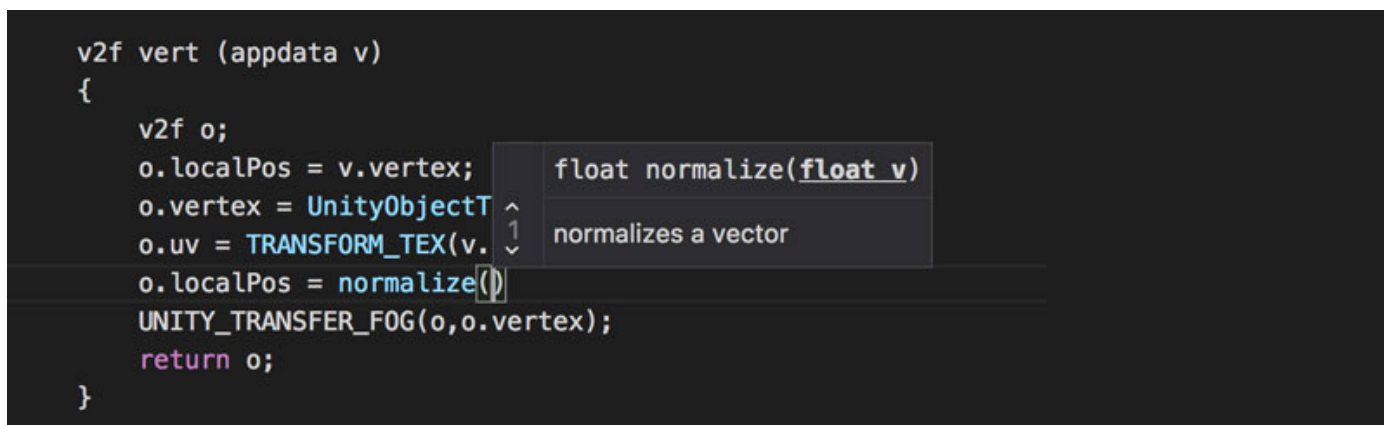
localPos	float4
uv	float4 localPos: TEXCOORD1
vertex	

Hover Information

```
float _offset,
v2f vert (appda
{
    v2f o;
    o.localPos
    o.vertex = UnityObjectToClipPos(v.vertex);
    o.uv = TRANSFORM_TEX(v.uv, _MainTex);
    UNITY_TRANSFER_FOG(o,o.vertex);
    return o;
}
```

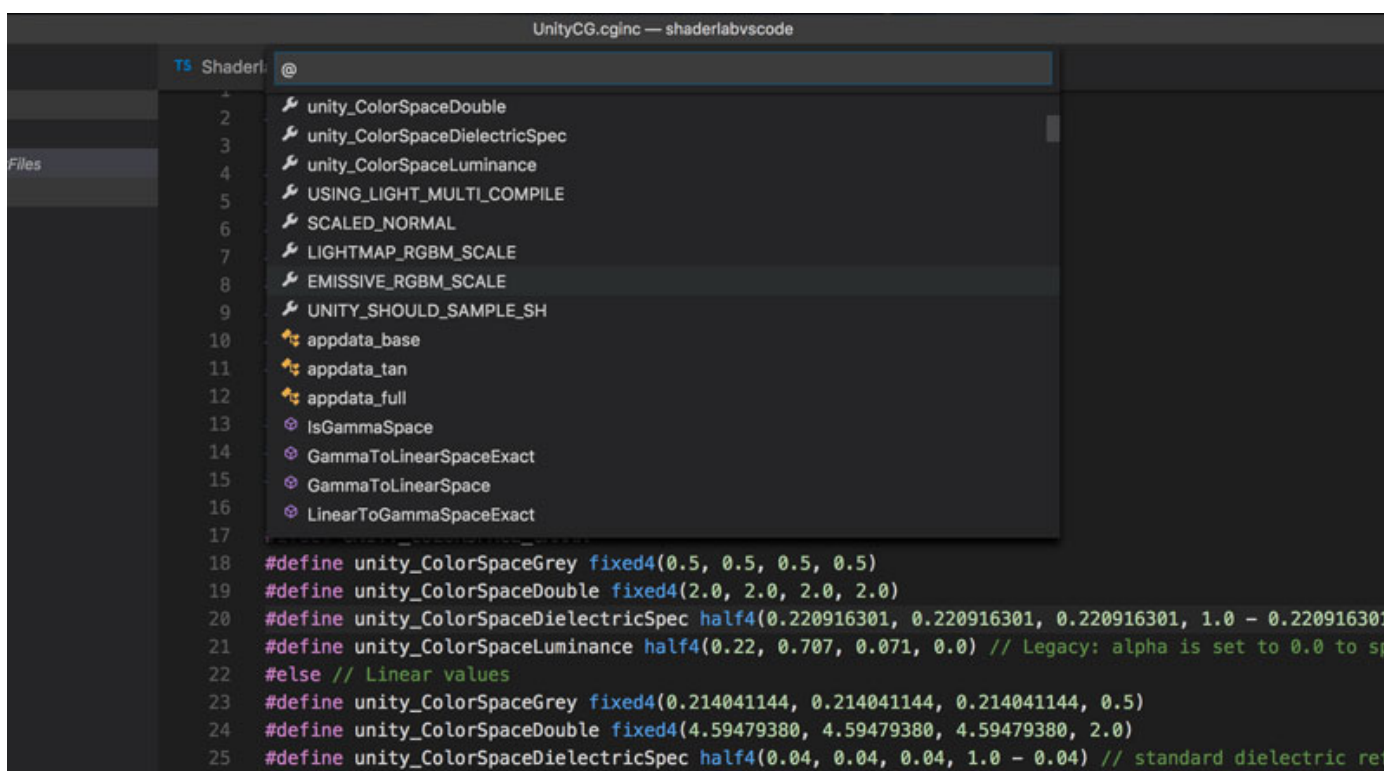
Transforms a point from object space to the camera's clip space in homogeneous coordinates. This is the equivalent of `mul(UNITY_MATRIX_MVP, float4(pos, 1.0))`, and should be used in its place.

Signature Help



Document Symbols

Press `CTRL + SHIFT + o` on Windows or `CMD + SHIFT + o` on macOS.



Go To Definition

This feature is available in 1.2.4 +

Press `F12` to trigger `Go To Definition` command Or Click the `Go To Definition` in right click context menu

Code Snippets

Below are the snippets:

Snippets	Description
blend1_1	Blend One One
blendsa_1-sa	Blend SrcAlpha OneMinusSrcAlpha
blend1_1-sa	Blend One OneMinusSrcAlpha
blend1-dc_1	Blend OneMinusDstColor One
blenddc_0	Blend DstColor Zero
blenddc_sc	Blend DstColor SrcColor
for	for loop
fallback	Fallback
cgp	CGPROGRAM...ENCG
glp	GLSLPROGRAM...ENCGLSL
hlp	HLSLPROGRAM...ENDHLSL
if	if { ... }
ifelse	if {...} else {...}
inc	#include ""
incpkg	#include "Pakcages
incucg	#include "UnityCG.cginc"
inlight	#include "Lighting.cginc"
incautolight	#include "AutoLight.cginc"
props	Properties
prop2d	<code>2D</code> type property
propcube	<code>Cube</code> type property
propc	<code>Color</code> type property
propv	<code>Vector</code> type property
propf	<code>Float</code> type property
proprange	<code>Range</code> type proprety

region	// #region ... // #endregion
region2	// region ... // endregion
shader	Shader { ... }
subshader	SubShader { ... }
struct	structure
tags	Tags { ... }
tagstt	Tags with both of RenderType and Queue is Transparent

Auto Format

Format Document

Two ways to format document:

1. Right click the editor area and select **Format Document** menu in context menu
2. Open **Command Palette** and type "Format Document", and then press **ENTER** key on keyboard.

Format Selection

Two ways to format selection:

1. Right click the editor area and select **Format Selection** menu in context menu
2. Open **Command Palette** and type "Format Selection", and then press **ENTER** key on keyboard

Place Open Brace On New Line

In Settings, there is an item under **ShaderlabVSCode** section named **Formatting: Style**, check or uncheck the **Place open brace on new line** will toggle different format style.

Below is not place open brace on new line

```
float test() {
}
```

Below is place open brace on new line

```
float test()
{
}
```

Macros Alignment Modes

In Settings, there is an item under `ShaderlabVScode` section named `Formatting: Style`, change the `Macros alignment modes` to set formatting mode for macros.

Indentation with hierachy

```
Subshader
{
    Pass
    {
        CGPROGRAM
        void MacroTest()
        {
            float c;
            #if 0
                c = 0;
            #if 1
                c = 1;
            #endif
            #endif
        }
        ENDCG
    }
}
```

Indentation without hierachy

```
Subshader
{
    Pass
    {
        CGPROGRAM
        void MacroTest()
        {
            float c;
            #if 0
                c = 0;
            #if 1
                c = 1;
            #endif
            #endif
        }
        ENDCG
    }
}
```

No Indentation but with hierachy

```
Subshader
{
    Pass
    {
        CGPROGRAM
        void MacroTest()
        {
            float c;

#if 0
            c = 0;
#endif
#if 1
            c = 1;
#endif
        }
        ENDCG
    }
}
```

No Indentation and without hierachy

```
Subshader
{
    Pass
    {
        CGPROGRAM
        void MacroTest()
        {
            float c;

#if 0
            c = 0;
#endif
#if 1
            c = 1;
#endif
        }
        ENDCG
    }
}
```

Misc Features

Region Mark

There are two ways:

- `//#region` and `//#endregion`
- `//region` and `//endregion`

Features in Unity Editor

Download Visual Studio Code

Jump to url which can download latest version of Visual Studio Code

Selection: **Tools** -> **ShaderlabVSCode** -> **Download Visual Studio Code**

Update Data of ShaderlabVSCode Extension

Update data of completion, hover information or intelisense from web

Selection: **Tools** -> **ShaderlabVSCode** -> **Update Data of VSCode Extension**

Report an Issue

Two ways to report an issue:

1. Send Email to amlovey@qq.com
2. Open a issue on <https://github.com/amloveyweb/amloveyweb.github.io/issues>

For more information

Visit site <http://www.amlovey.com/shaderlabvscode/#/>