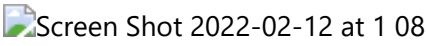
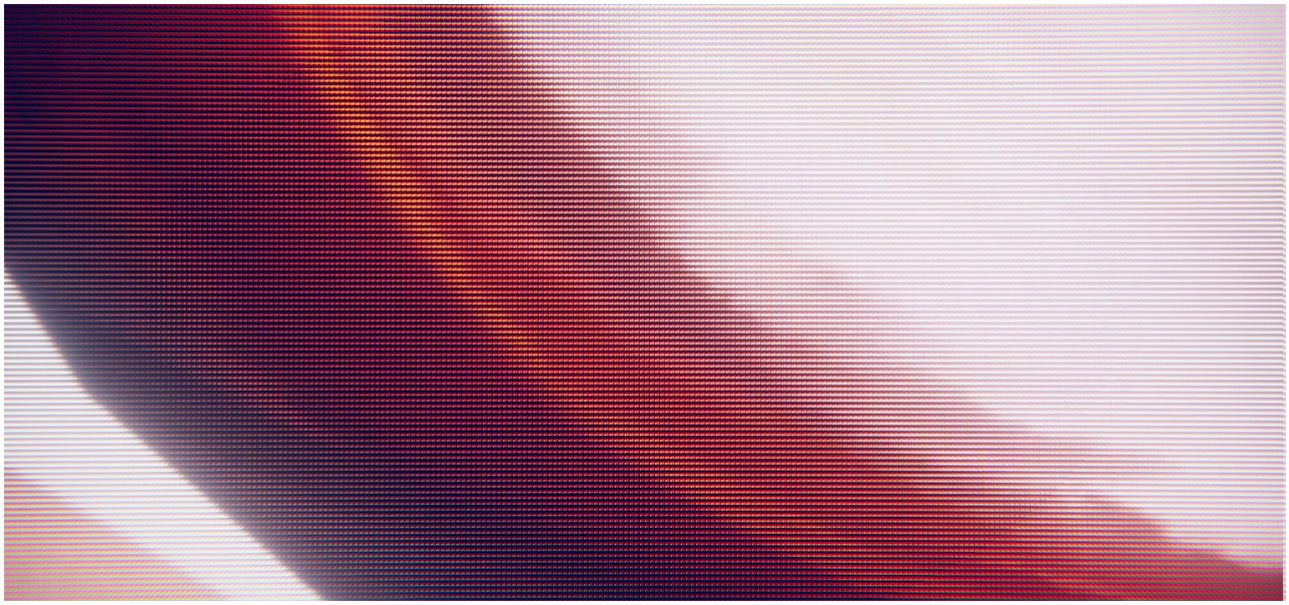
LEDScreenShader

LEDScreenShader is a shader that draws realistic LED panels on Unity's Scriptable and Built-in render pipelines.
LEDScreenShaderは高品質なLEDパネルを表現するシェーダーです。


Currently URP and HDRP is the target render pipeline since it's developed with Shader Graph.
The built-in shader is also included with minimum functionality implemented.

Samples

- HDR Brightness control
- Includes multiple LED panel textures



- Distant Fader for Moire prevention

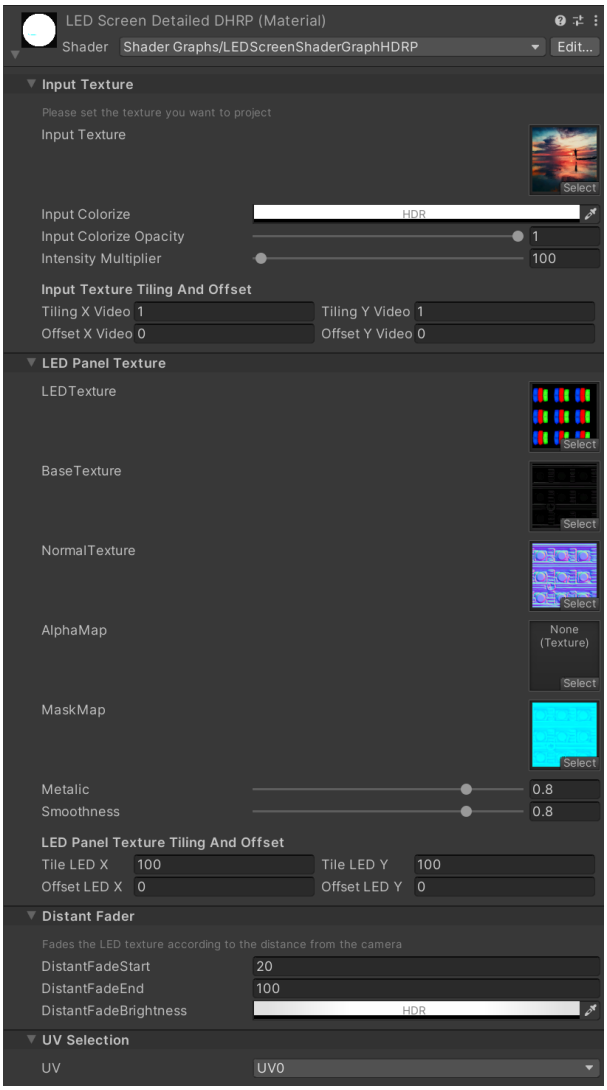
Install

Install the package via UPM (Unity Package Manager).

```
https://github.com/llcheesell/LEDScreenShader.git?
path=/Assets/LEDScreenShader#v0.1.0
```

or please consider getting the script from Unity Asset Store

Usage



- InputVideo
  Apply the texture you want to project to the panel. You can put a video via RenderTexture.
  パネルに投影するテクスチャを適用します。

- LED Texture
  Set the LED texture. This texture will be multiplied by the InputVideo.
  The package include several LED Texture.
  LEDのテクスチャを適用します。このパッケージにはいくつかのサンプルが含まれています。

- BaseTexture/NormalTexture/AlphaMap/MaskMap
  This is the base material setting for the panel. Metalic and Smoothness will be multiplied to MaskMap.
  パネルのベースマテリアルを設定します。

- Tiling/Offset
  Sets the number of tiles and offset of the LED panel.
  LEDテクスチャのタイリングを設定します。

- DistantFadeStart/End
  Fades the LED texture according to the distance from the camera. This prevents moiré effects.
  カメラからの距離に従ってLEDテクスチャを無効化します。これによってモアレ効果を防ぐことができます。

- DistantFadeBrightness
  This value allows you to adjust the brightness change caused by the fading of the LED texture.
  DistantFadeによって明るさの変化が生じたときに、HDRカラーで明るさを調整することが出来ます。

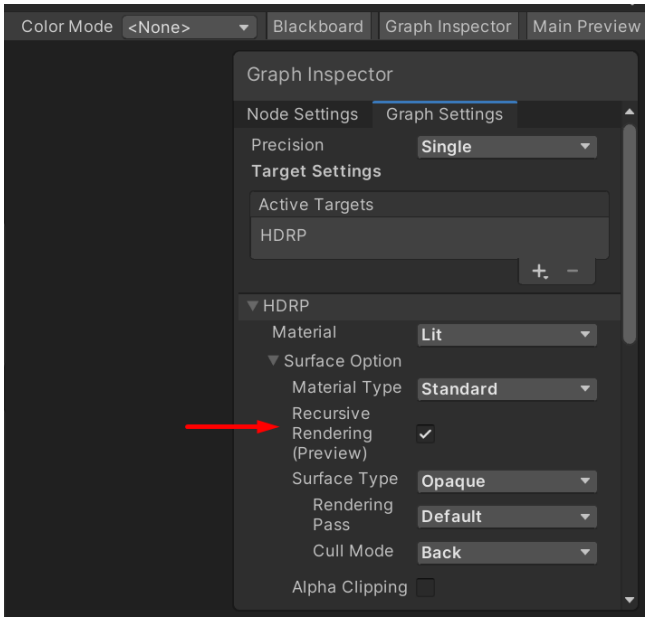
Grid parameters are currently disabled due to quality issue.

Video Guide

Note

- This shader includes com.needle.shadergraph-markdown's markdown version of the shader interface. If you want to use clean UI version you need the package to be installed.

- Optimized for Linear Color Space. It could be used in Gamma Color Space but the bright area tend to be clamped.
  リニアカラースペースでの使用を推奨。
  

- If you have render problems in HDRP, please check/uncheck Recursive Rendering option in Shader Graph Editor.
  

- The combination use of Bloom Post Processing is recommended.
  Bloomポストエフェクトの併用を推奨。

Roadmap

- Performance optimization disabling detailed textures along with distantFader
- ~~Tile and Offset for InputVideo~~ (completed in v0.1.0)
- ~~update Build-in Shader~~ (completed in v0.0.6)
- ~~Support HDRP~~ (completed in v0.0.5)
- ~~Moire prevention processing according to the distance from the camera~~ (completed in v0.0.4)
- ~~Higher quality pixel textures ana materials~~ (completed in v0.0.2)

Let me know if you have any suggestions and problems.
機能要望、提案などありましたら@llcheesellまでお知らせください。

Preview Release

Preview Release is available at preview branch

```
https://github.com/llcheesell/LEDScreenShader.git?
path=/Assets/LEDScreenShader#preview
```

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