

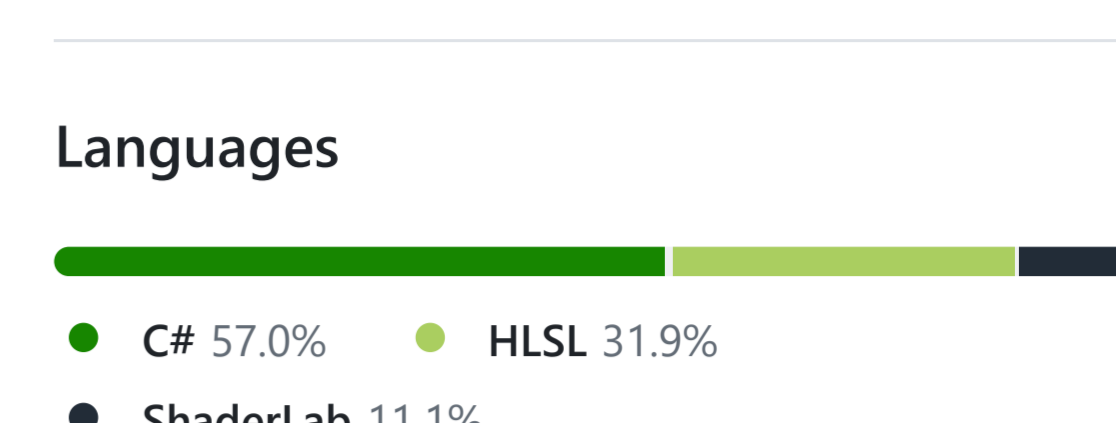
Table listing repository files and folders: Assets, Documentation, Packages, ProjectSettings, .gitattributes, .gitignore, .vsconfig, LICENSE, README.md.

About section: Screen Space Path Tracing for Unity's URP (Universal Render Pipeline). Using the full screen pass renderer feature in URP 14.

README section with MIT license icon and edit options.

Releases section: No releases published.

Packages section: No packages published.



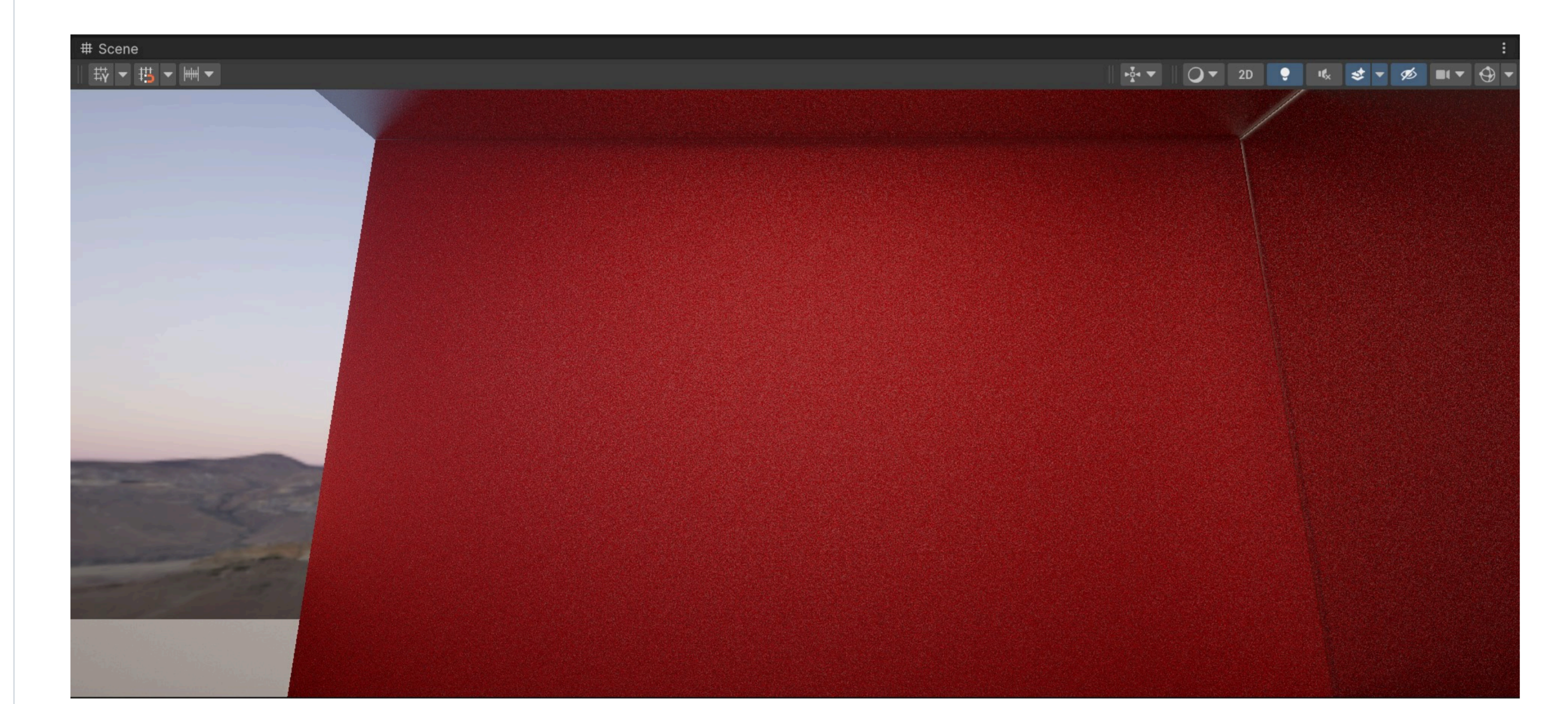
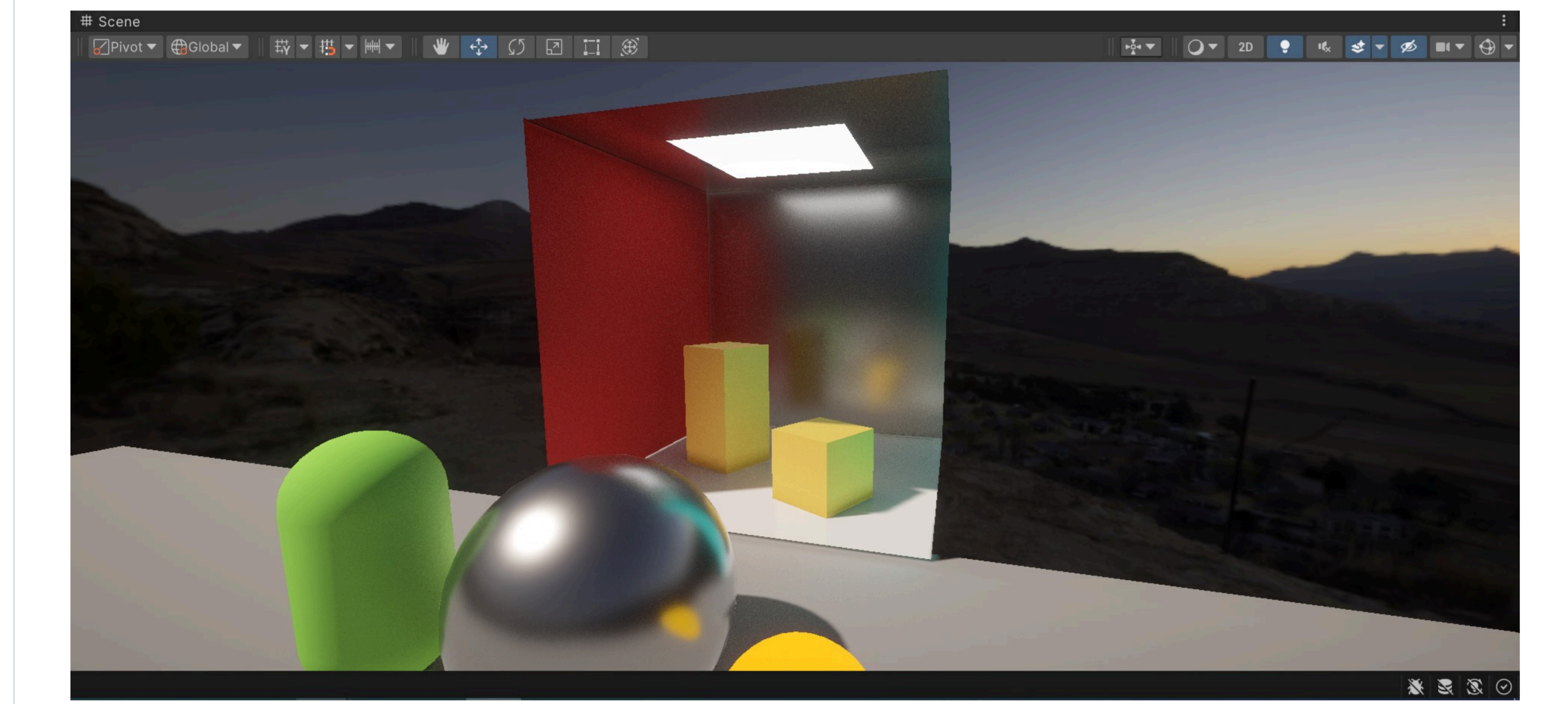
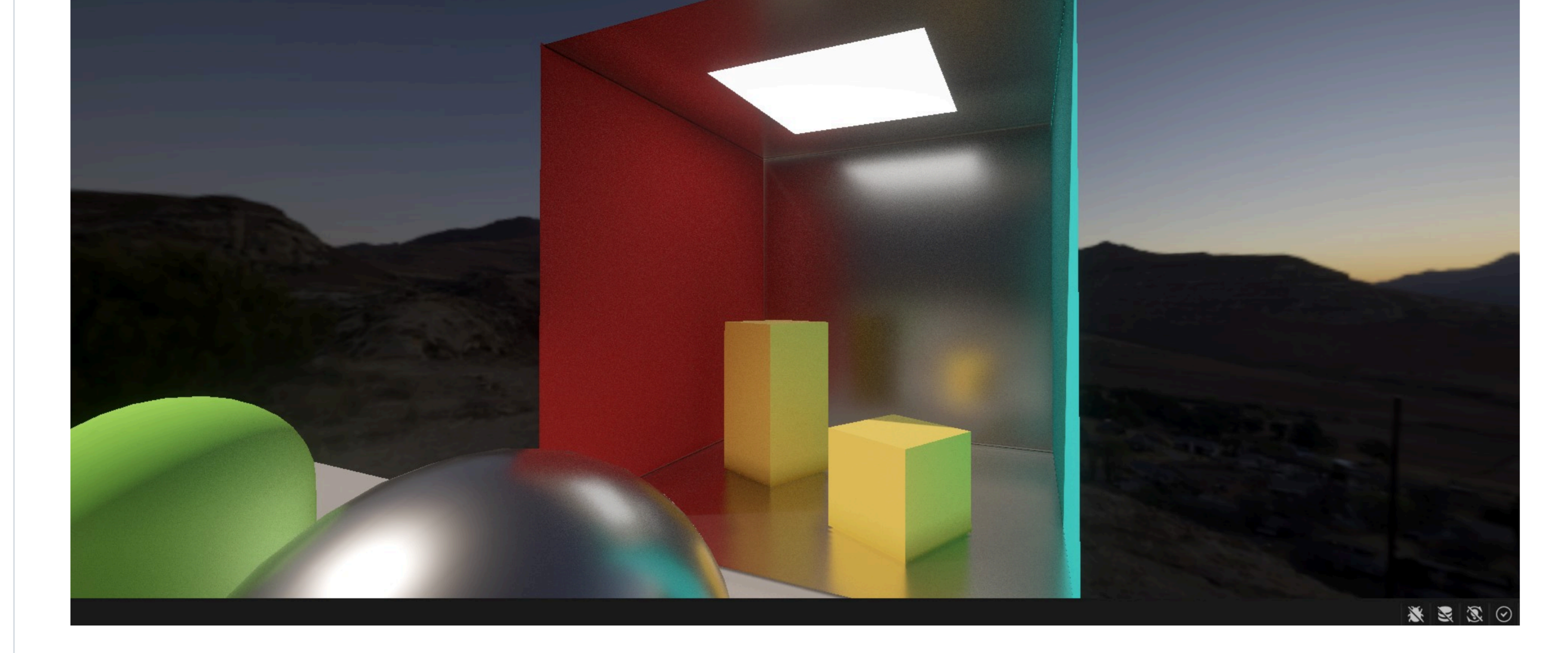
UnitySSPathTracingURP
Screen Space Path Tracing for Unity's URP (Universal Render Pipeline).
This shader is created in Shader Graph with the new URP 14 Full Screen Pass Renderer Feature.

This effect seems to be usable (stability, speed & noisiness) when I tested it on mobile device, so I decide to share it.

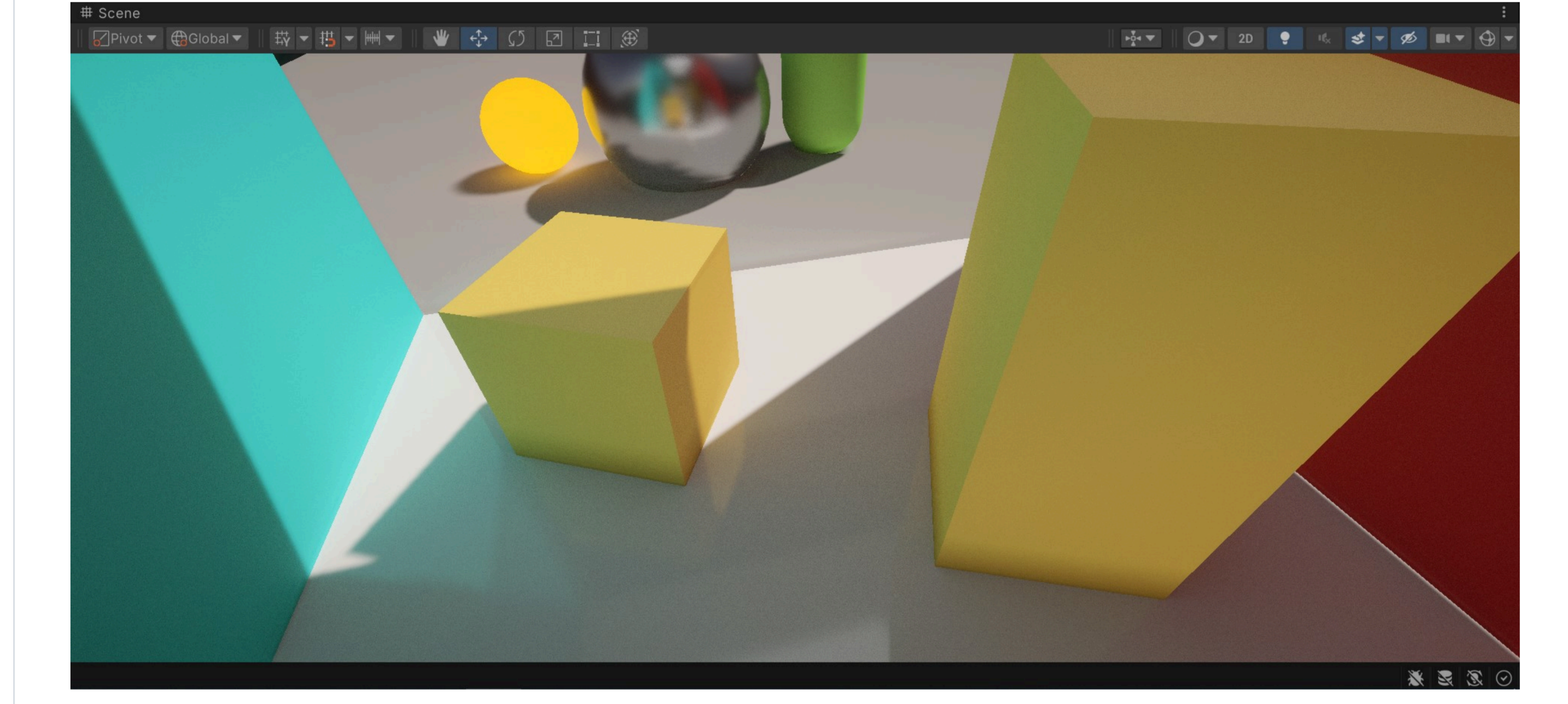
Please read the Documentation and Requirements before using this repository.

Screenshots section.

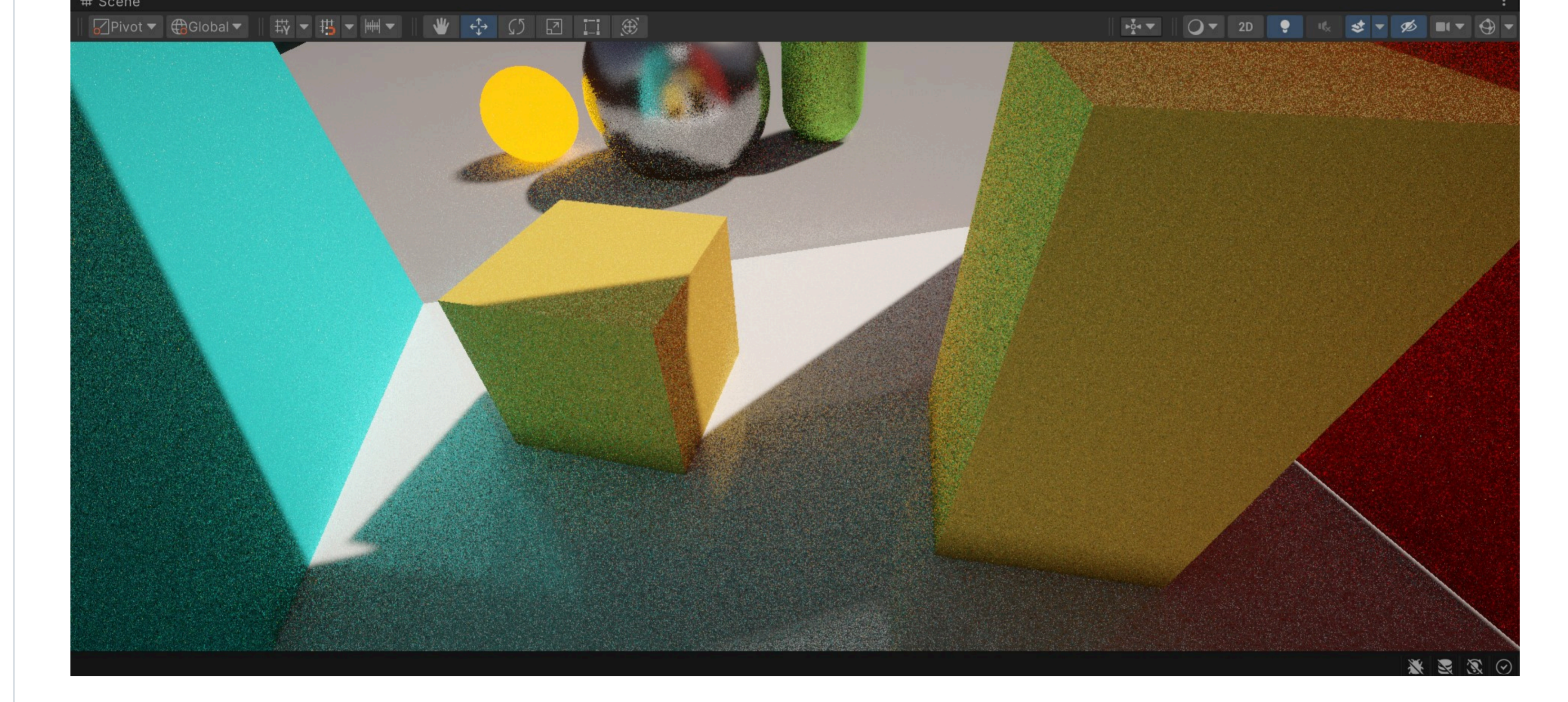
(BoxScene + Reflection Probe Fallback)



Offline Accumulation



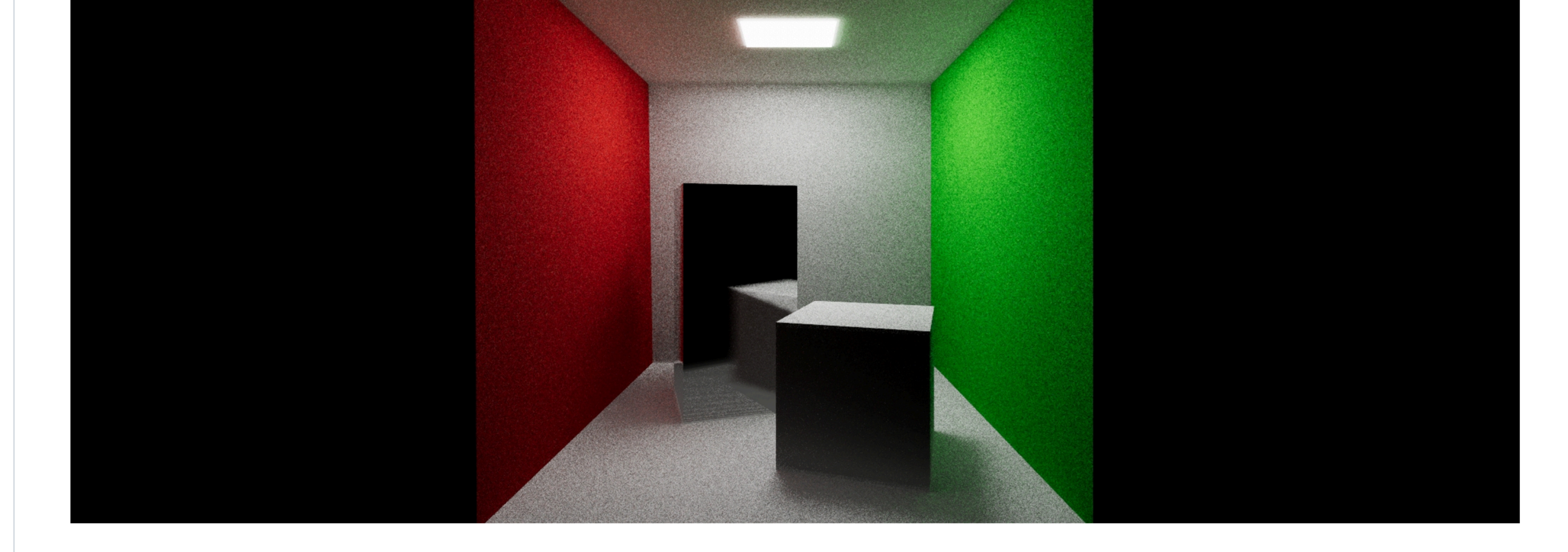
Real-time Accumulation



Note: Enable URP Temporal Anti-aliasing is important for improving stability. (exists since latest URP 14)

(Not Included)

Original Cornell Box



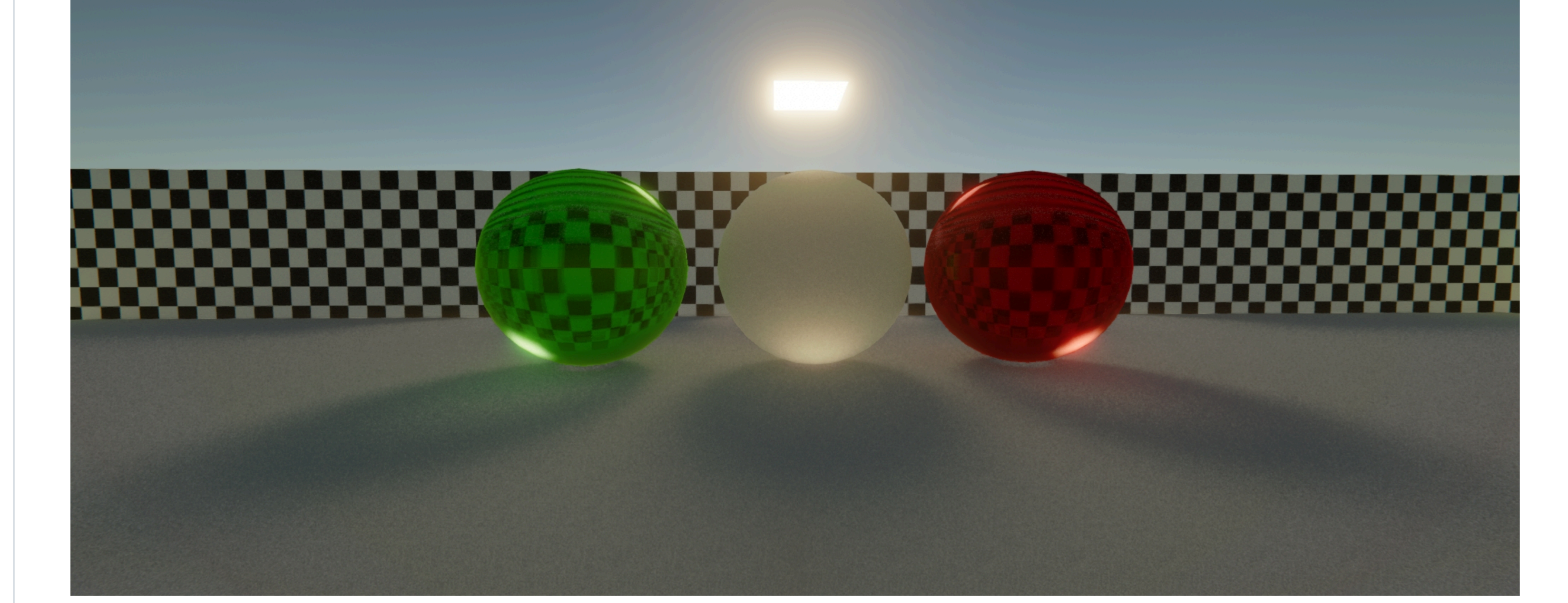
Classroom by Christophe Seux (CC0)



Stormtrooper Star Wars VII by ScottGraham (CC-BY-3.0)



Refraction (Lit by emission)



Documentation

Here.

Requirements

- Unity 2022.2 and URP 14 (enable TAA is recommended)
Deferred rendering path (OpenGL will always in Forward path)
Forward rendering path (need extra setup)
Multiple Render Targets support (at least OpenGL ES 3.0 or equivalent)
Lowering down the Render Scale (e.g. "0.5") on mobile devices and use upscaler (e.g. FSR 1.0) to reduce performance cost.
Use "Refraction Lit" shader graph to render screen space path traced refraction.

License

MIT license MIT

References

- Three-Eyed-Games GPU-Ray-Tracing-in-Unity
Introduction to Path Tracing - Marc Sunet

Please see PathTracing.hlsl.