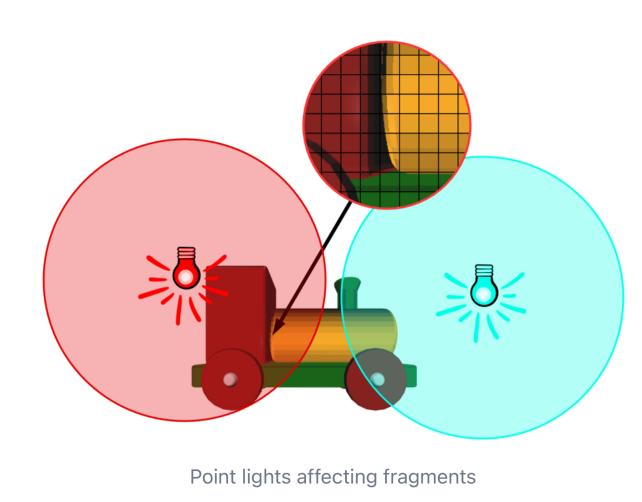
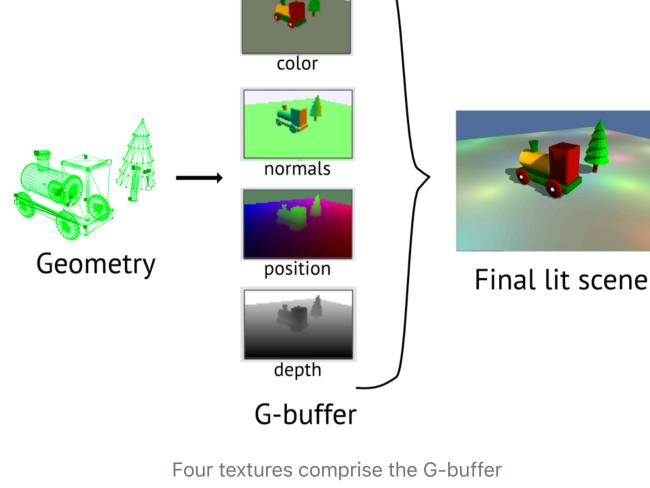
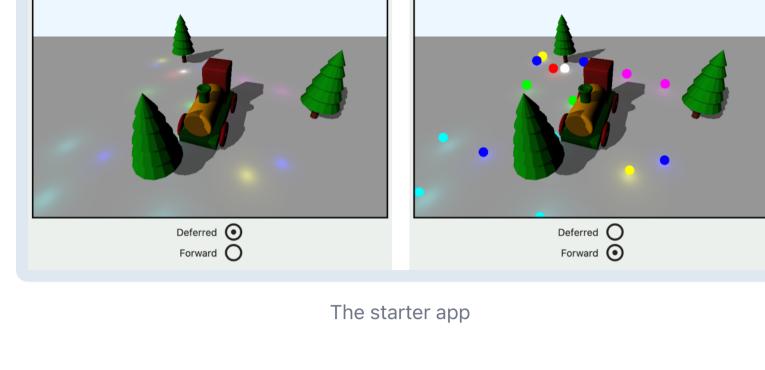
14 Deferred Rendering

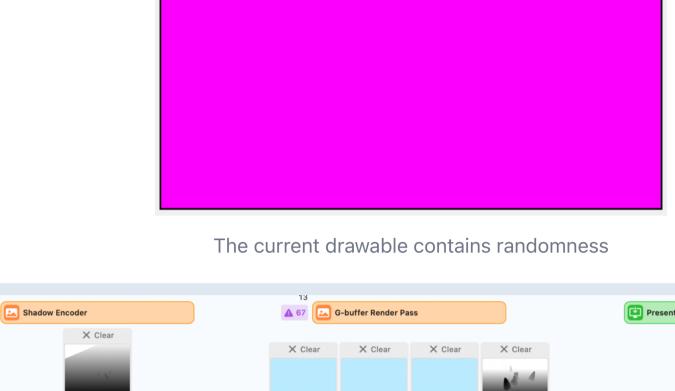


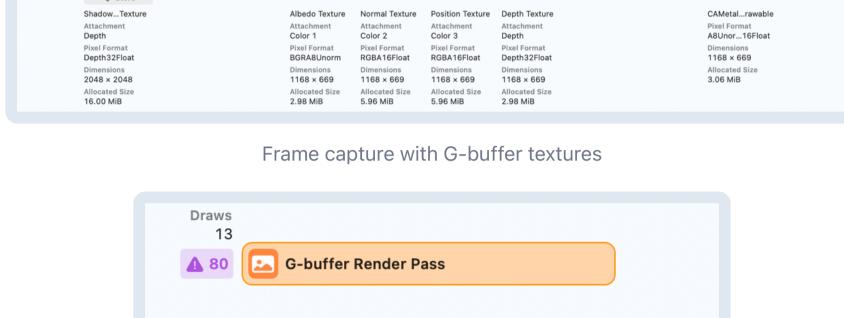


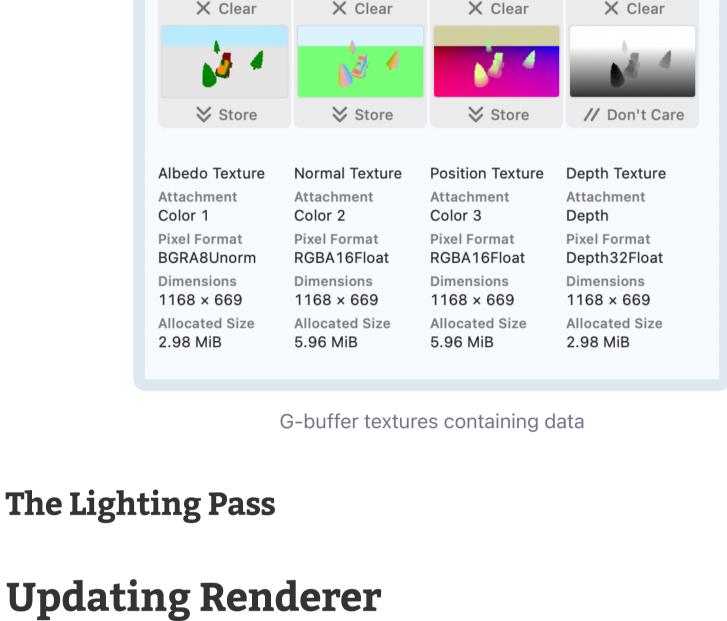
The Starter Project



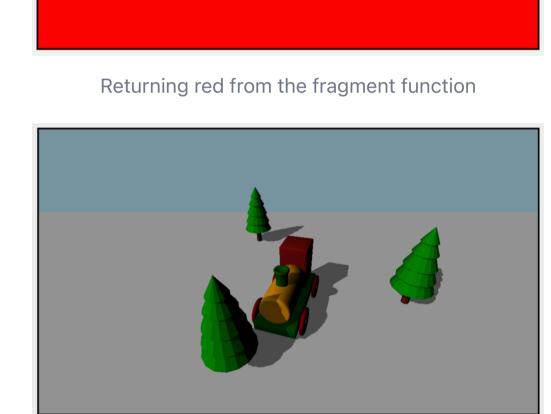
The G-buffer Pass







The Lighting Shader Functions



Adding Point Lights

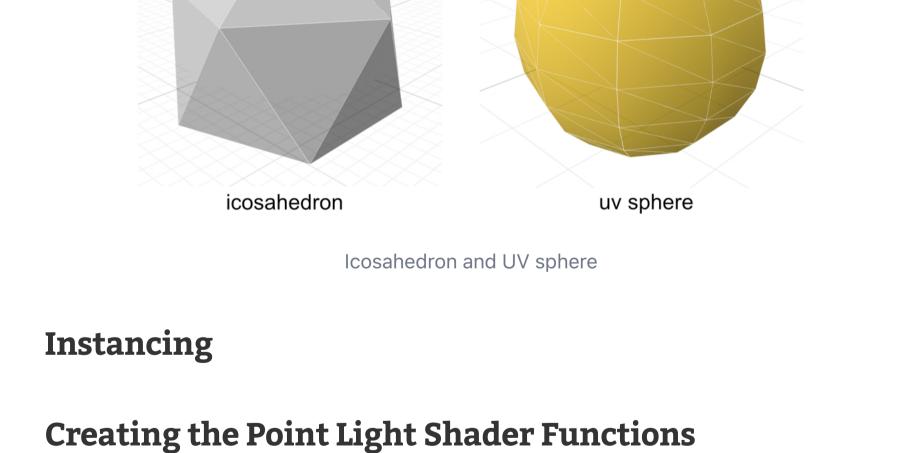
Blending the light volume

Accumulating the directional light and shadows

3. Light blended with albedo

Color 0: CAMetalLayer Display Drawable

1. Albedo + sun 2. Rendered light volume



Bound Accessed All Vertex Fragment 904 ✓ □ Render Pipeline 0x15a89e600 Render Pipe vertex_pointLight Vertex Function Function fragment_pointLight Function

Buffer

Buffer

Buffer

Buffer 1

Buffer 2

Buffer 3

Shadow Encoder 30.22% ▲ Normal Texture G-buffer Render Pass Position Texture 41.65% 🛕 Fragment Bytes Buffer 0x15a716800

138.80 µs

0

Label

Render Pipeline

Buffer 0x15a6515f0
Buffer 0x15a64d6b0

Buffer 0x15a60a6b0
Buffer 0x15a6487b0

→ ■ Captured GPU Workload

Summary

S Dependencies

Group by API Call > 🛐 0 0x600003fc8820 = [MTLLayer nextDr...

> 🚰 1 CAMetalLayer Display Drawable = [MT...

> **f** 282 [setFragmentTexture:Position T...

300 [presentDrawable:0x600003fc88...

> 🚞 Sun Light

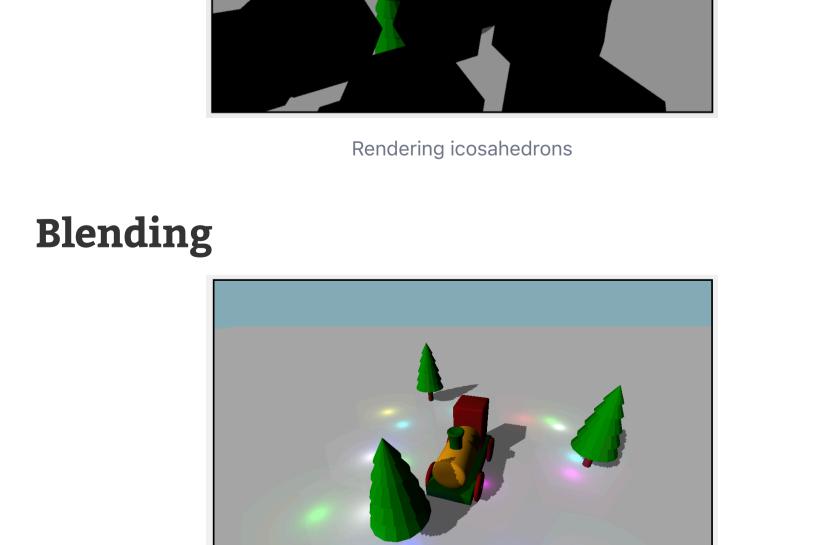
> 301 [commit]

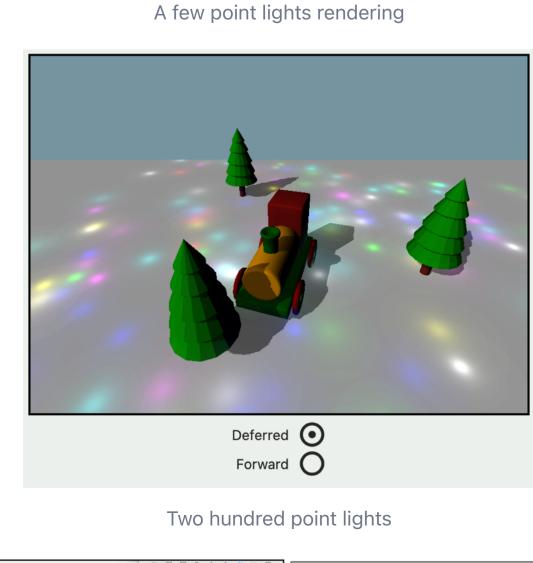
> **f** 299 [endEncoding]

① Performance

Buffer 11 (Bytes) III Vertex Bytes Bytes Buffer 0x15a716800 vertex_pointLight Function > 🗐 2 0x13a648960 = [0x14a8b3a00 com... ✓ Fragment Albedo Texture Texture 1 Texture 2D Texture 2 Texture 2D Buffer 12 (Bytes) Buffer 13 Buffer @ O A Depth: MTKView Depth Lighting Render Pass fragment_pointLight Fragment Function Function ∨ Attachments CAMetalLayer Display Drawable Texture 2D > 3 276 Lighting Render Pass = [render... > **f** 277 [setLabel:"Lighting Render Pas... > 1 278 [setDepthStencilState:0x60000... > 1 279 [setVertexBytes:<data> length:... > f 280 [setFragmentTexture:Albedo Te...

Point light volume drawing





99.8 MB

Memory

125.7 MB

High