DXR Photon Mapper Milestone 1

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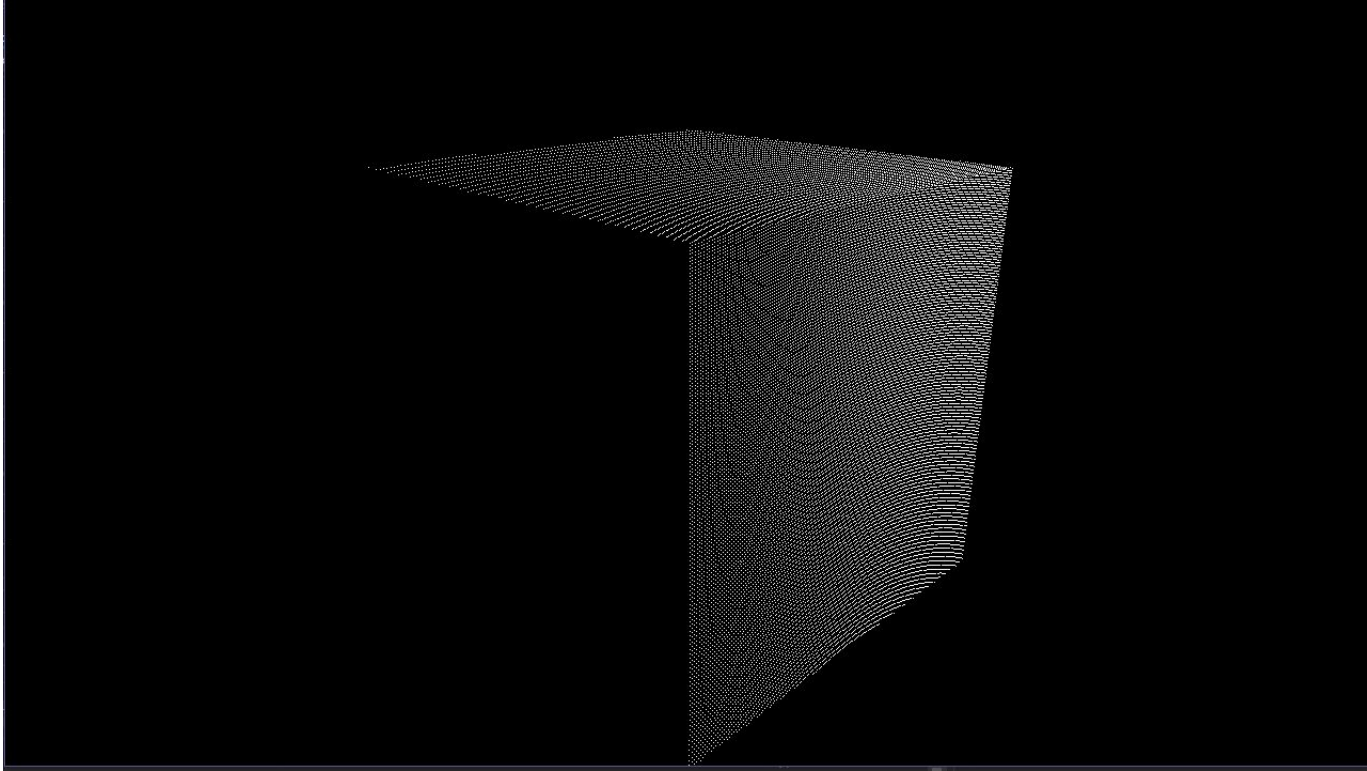
Milestone Goals

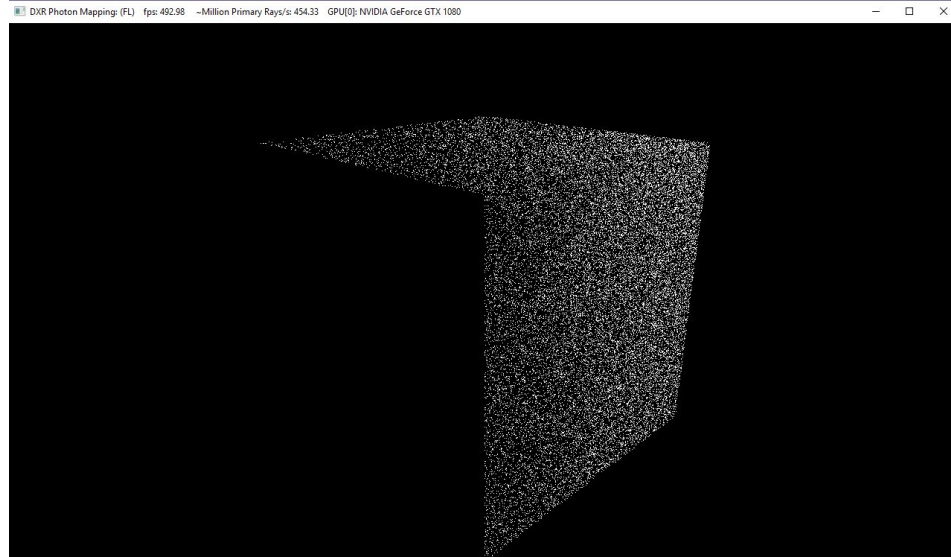- Set up DXR pipeline
- Run a sample

What we accomplished

- Set up DXR pipeline
- Generate photons from a point light
    - Pseudo random number generator for sampling
- Visualize where photons hit objects in the scene
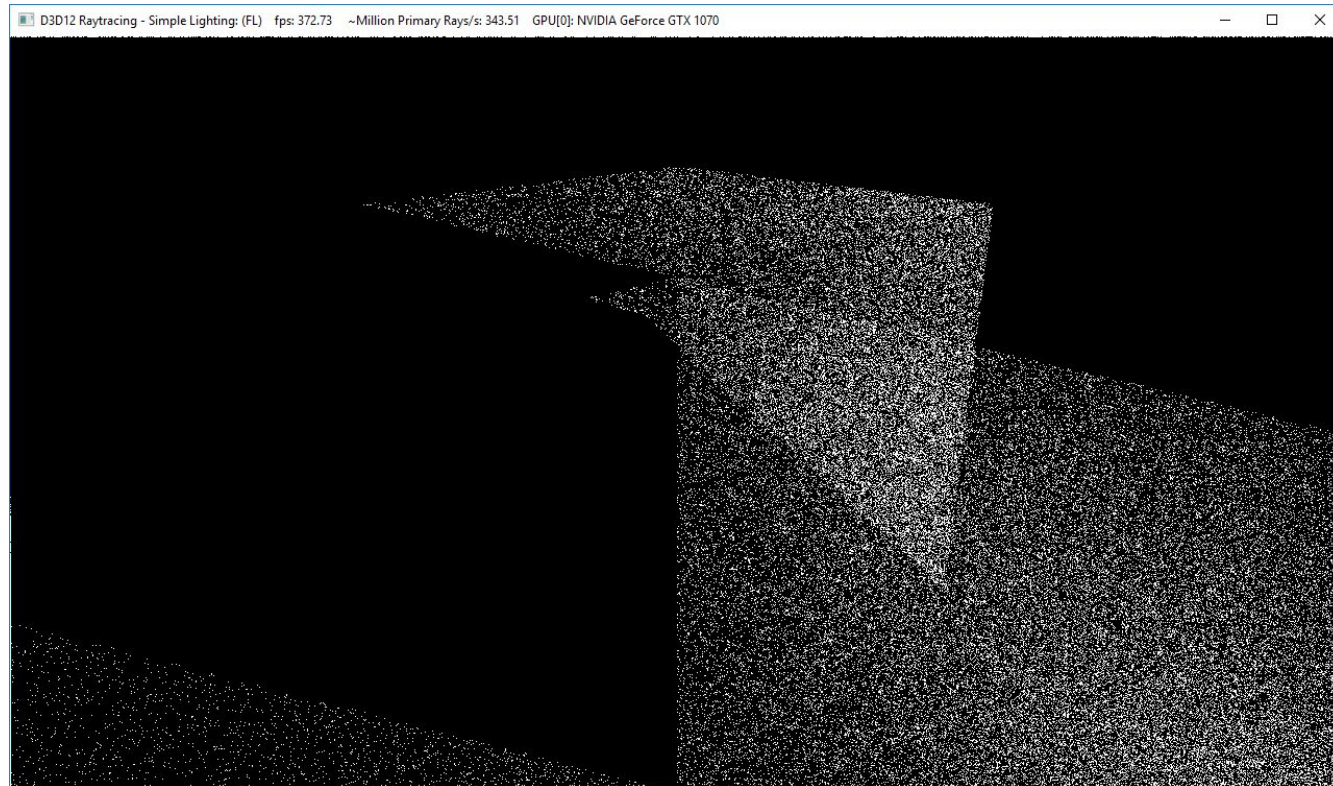- Lamberts shading
- Shadow ray testing

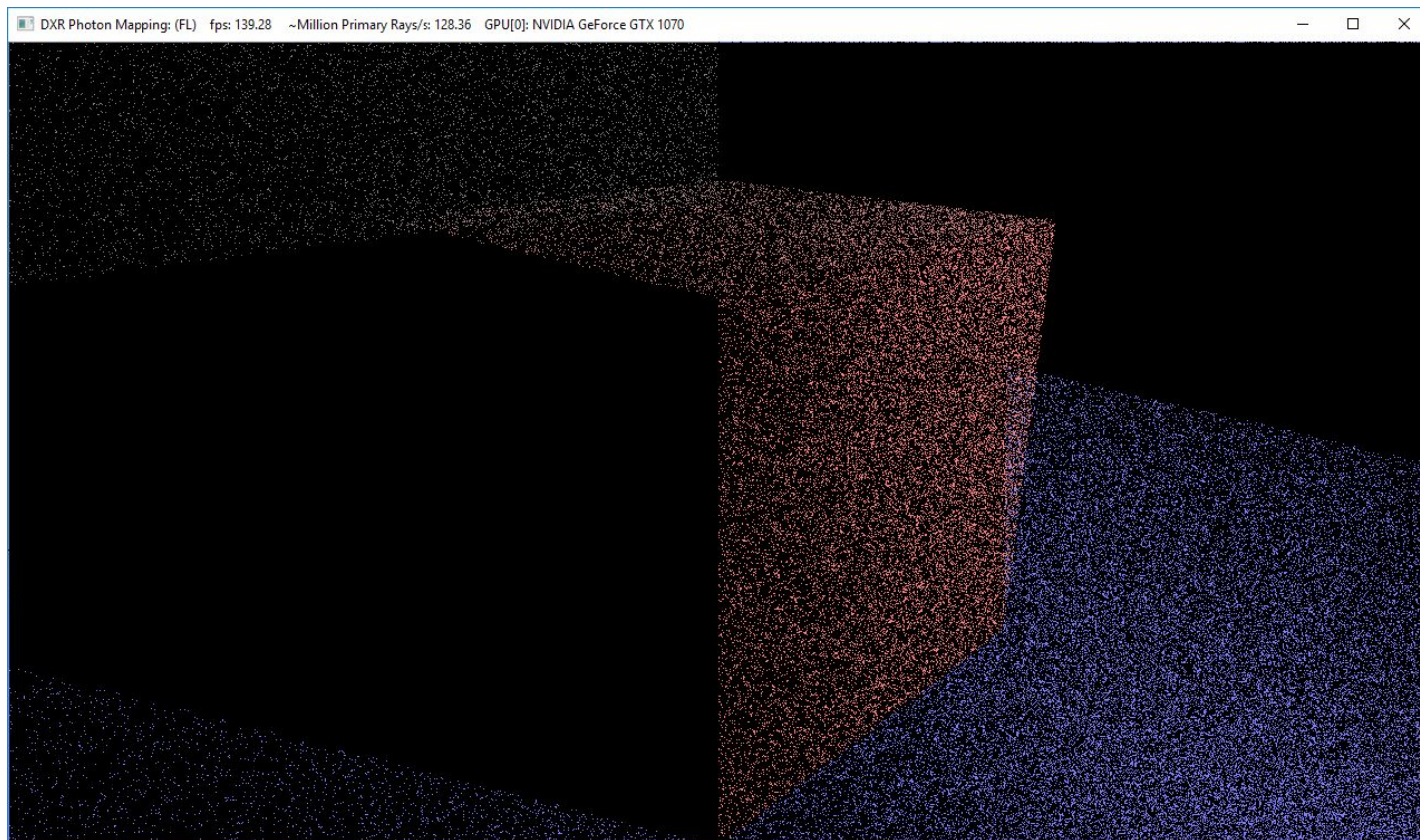# Visualizing photons from light with uniform sampling

PRNG for light directions

Basic Photon Generation

Colors in Vertex Buffer; Fix see-through bug

DXR Photon Mapping: (FL)   fps: 139.28   ~Million Primary Rays/s: 128.36   GPU[0]: NVIDIA GeForce GTX 1070

Next steps

- Writing photon data to a buffer
- Construct kd-tree for photons
- Traversing kd-tree to find nearby photons
- Use photons for lighting