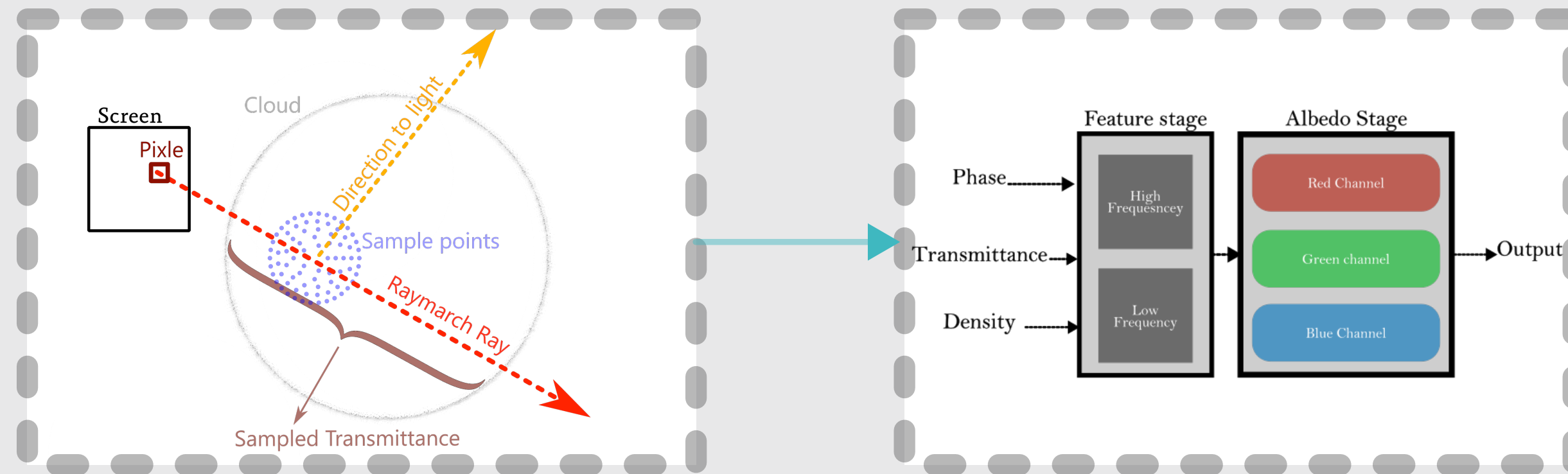# Lighting Clouds with Radiance Predicting Neural Networks in Unity
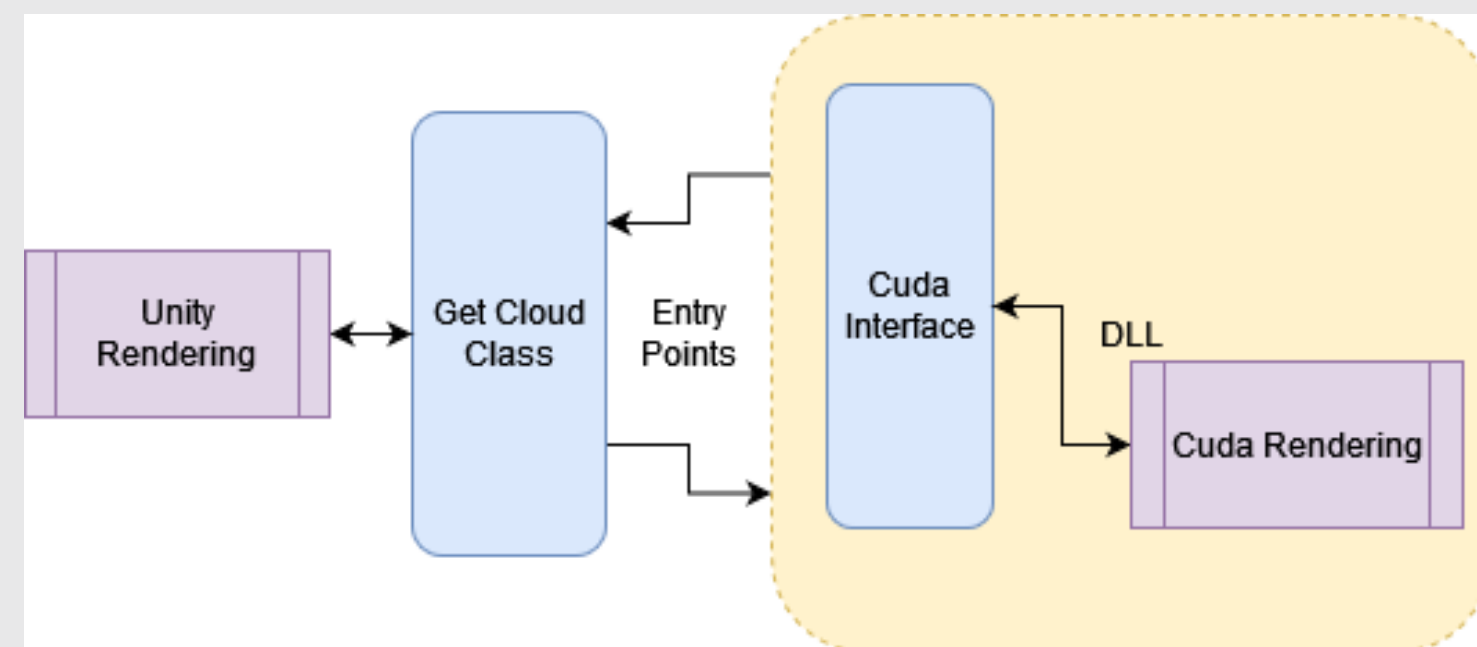
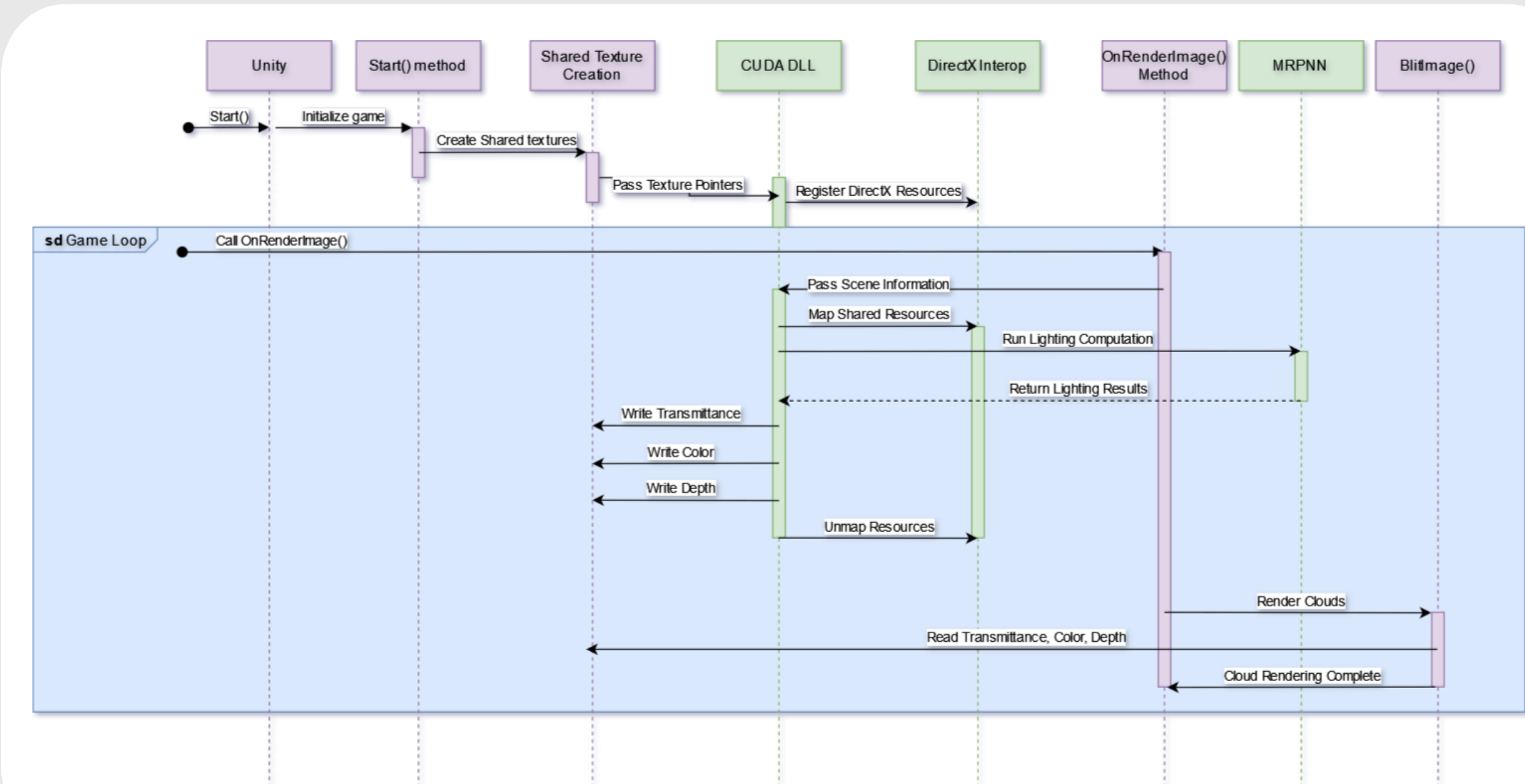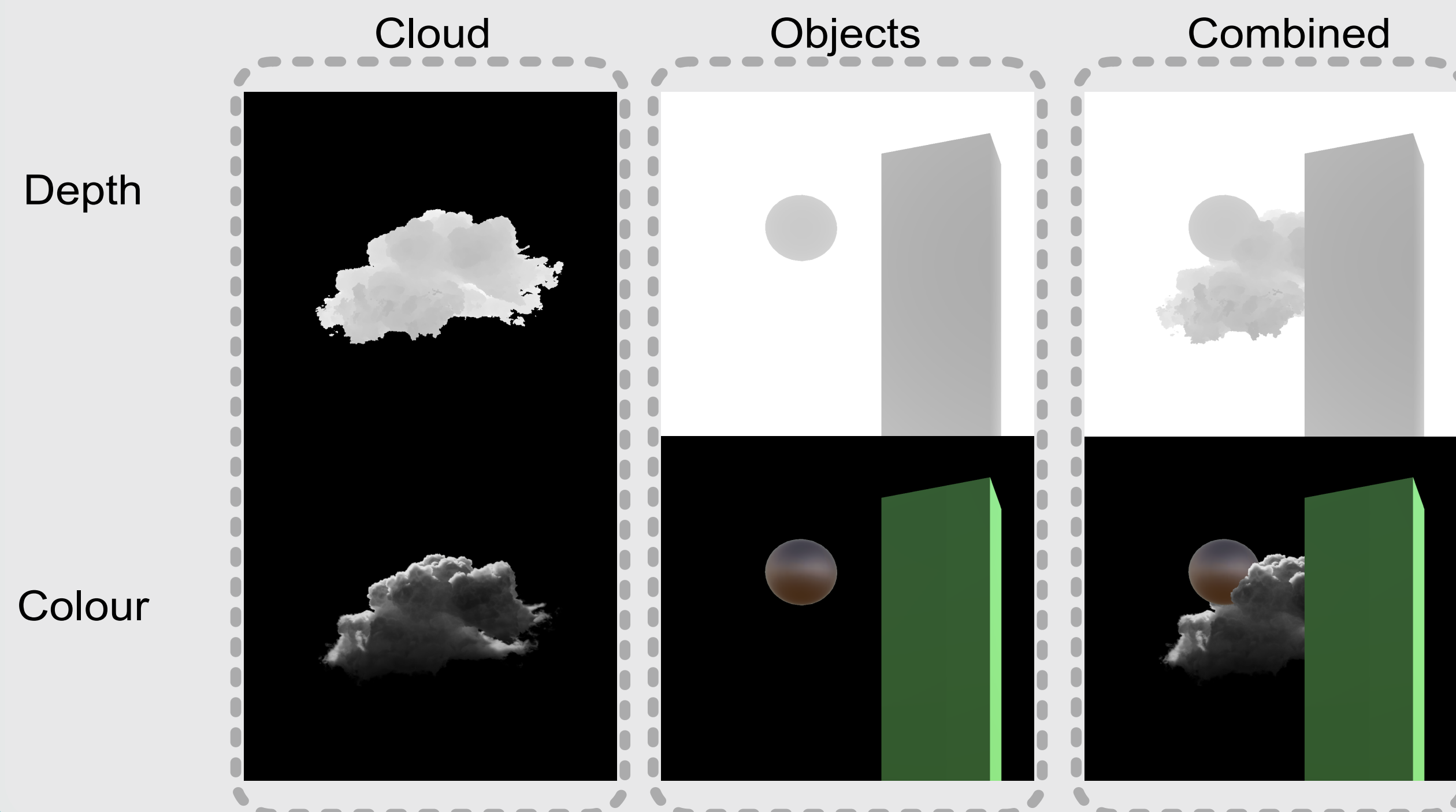Tumi Jourdan, Branden Ingram, Pravesh Ranchod

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Cuda DLL

The Multi-feature fusion Radiance Predicting Neural Network is wrapped into a DLL. Unity C# is then able to interface with the Cuda/C++ code base where the network resides.

Sequence Diagram

Proper depth masking
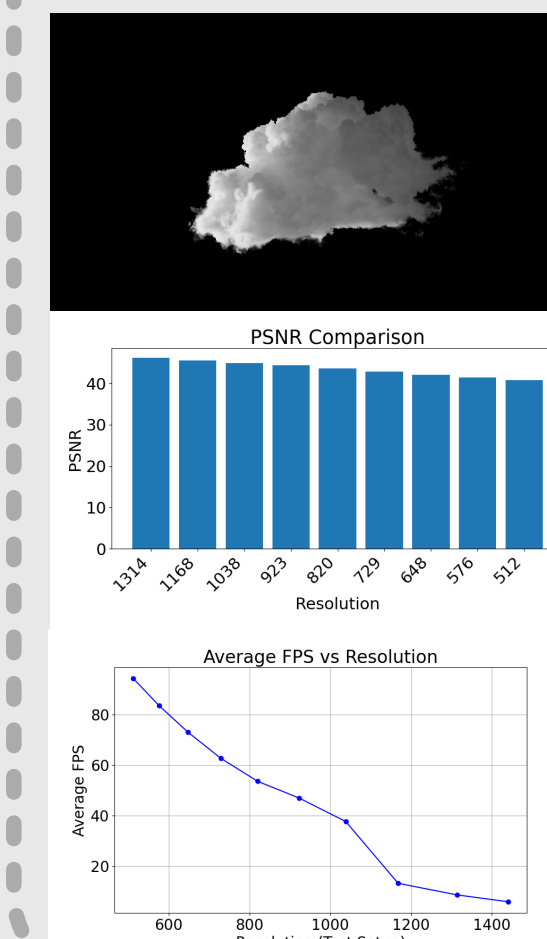

Performance improvements

Original

To test the cloud rendering method, a few hyper perameters are progressively adjusted. Using the Point-to-Signal Ratio the image quality change is quantified.

- Resolution
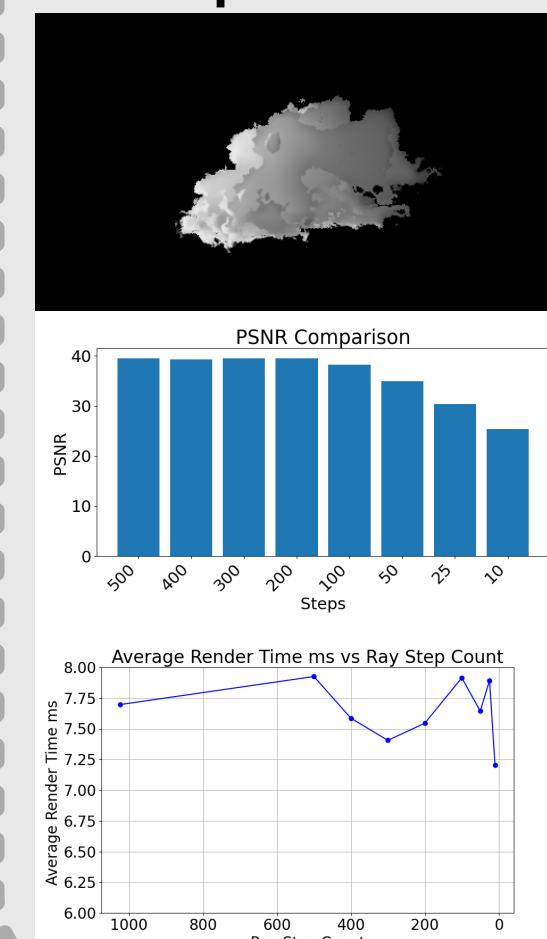- Raymarching Step Count
- Volume resolution

Resolution
Step Count
Volume Resolution