

Documentation

Team Members

- Sebastian Kralicek | MatrNr: 12122093
- (Former Teammate Christoph Bader | MatrNr: 12023153)

Description

The demo is implemented in Vulkan from scratch and has raytraced reflections as the complex effect. The used technologies have not changed since Submission 2:

Programming Language: C++

Build System: CMake

Shader Language: GLSL

Graphics API: Vulkan

Frameworks: None

Libraries:

- [TinyGLTF](#) - Used for model loading
- [GLFW](#) - Used for window management
- [glm](#) - Used for math

Tested Hardware

- My NVIDIA RTX 4070
- The NVIDIA RTX 3080Ti from VisLab PC ONI

Effects

The robot and the lamp post reflect their surroundings using raytraced reflections, a simple skybox is seen in the background. The lighting is Blinn-Phong.

Controls

- Escape: Closes the demo
- F1: Toggles the camera mode between fully automatic or manual control (Fly camera with WASD and mouse)
- Tab: Toggles mouse capturing on/off
- T: Toggles raytraced reflections on/off
- R: Shows only raytraced reflections
- F: Turn on frame time measurement, logs frame time and fps each second to stdout
- G/Shift+G: Increase and decrease the brightness of the demo