Weekly Report #2

Group Nr. 9

1 Weekly Progress

Accomplished tasks:

- Ihsan Berkan, Balaban: Volumetric Fusion with TSDF implementation using dummy camera poses and depth maps

- Dominic, Ebner: CUDA setup, CUDA Implementation of improved Back-Projection

- Lukas, Schneidt: Re-Setup project on CUDA capable machine, CUDA setup

- Muhammad, Faizan: Implemented Linearized ICP for frame-to-frame. Setup Cuda on machine.

- Everyone: Team Discussion on progress, planning and dividing tasks

2 Problems

- Performance aspects of creating pyramid mapping of depth measurements

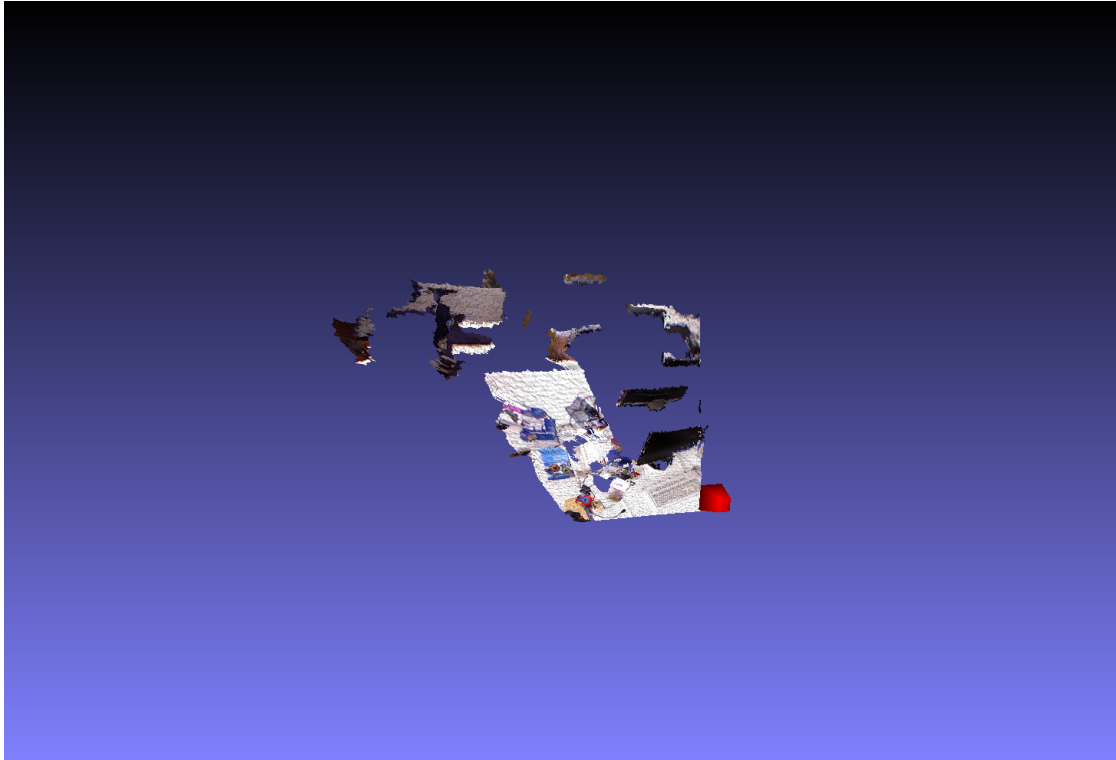- Raycasting and rendering

3 Results

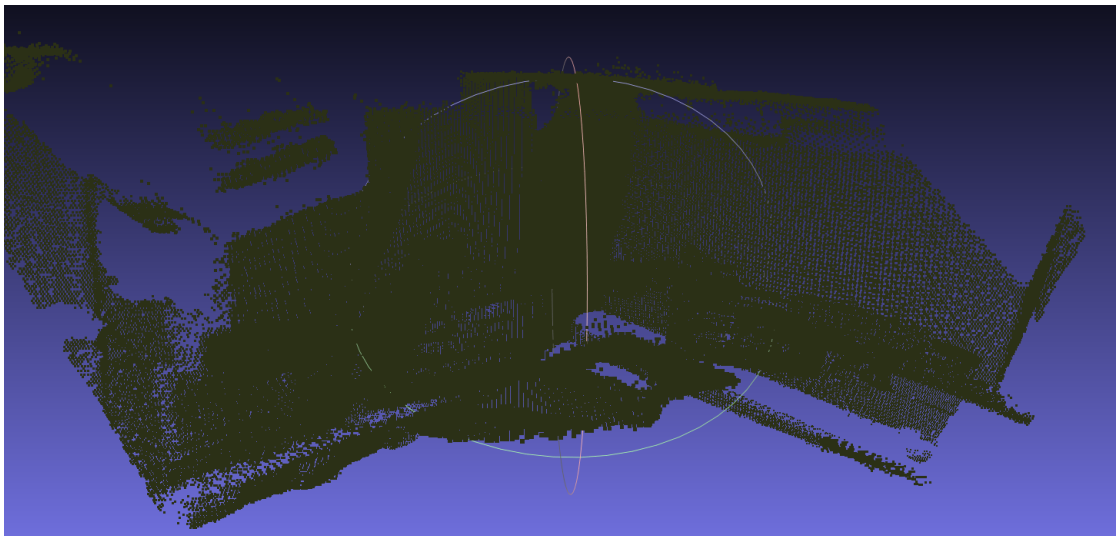Figure 1: Mesh produced from frame-to-frame ICP

Figure 2: Mesh produced from the preliminary TSDF

4 Plan

- Still read more papers about the topic.

- Team discussion and start working on integration of Volumetric Fusion and Ray Casting. Also Start working on CUDA implementation for ICP.

- After Ray casting, we will use frame-to-model ICP.