

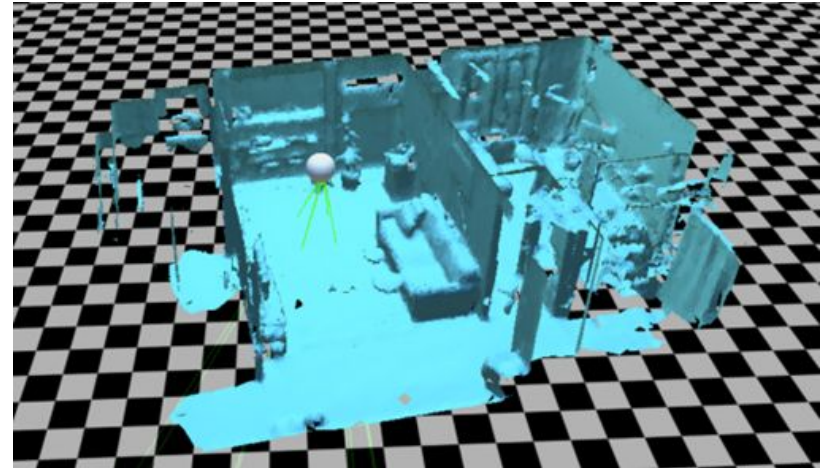
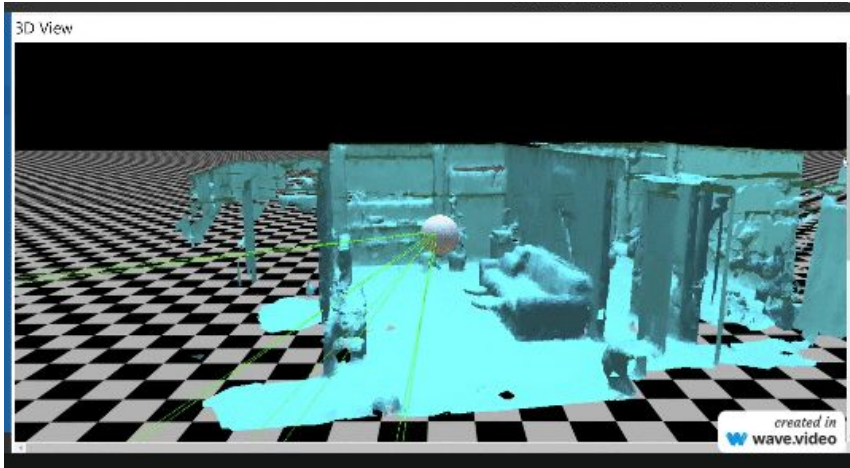
Spatial Archive

Thomas Klein, Rohan Chandrasekar, Mya Chappell

Objective: Store and Visualize Spatial Mapping Data

Benefits:

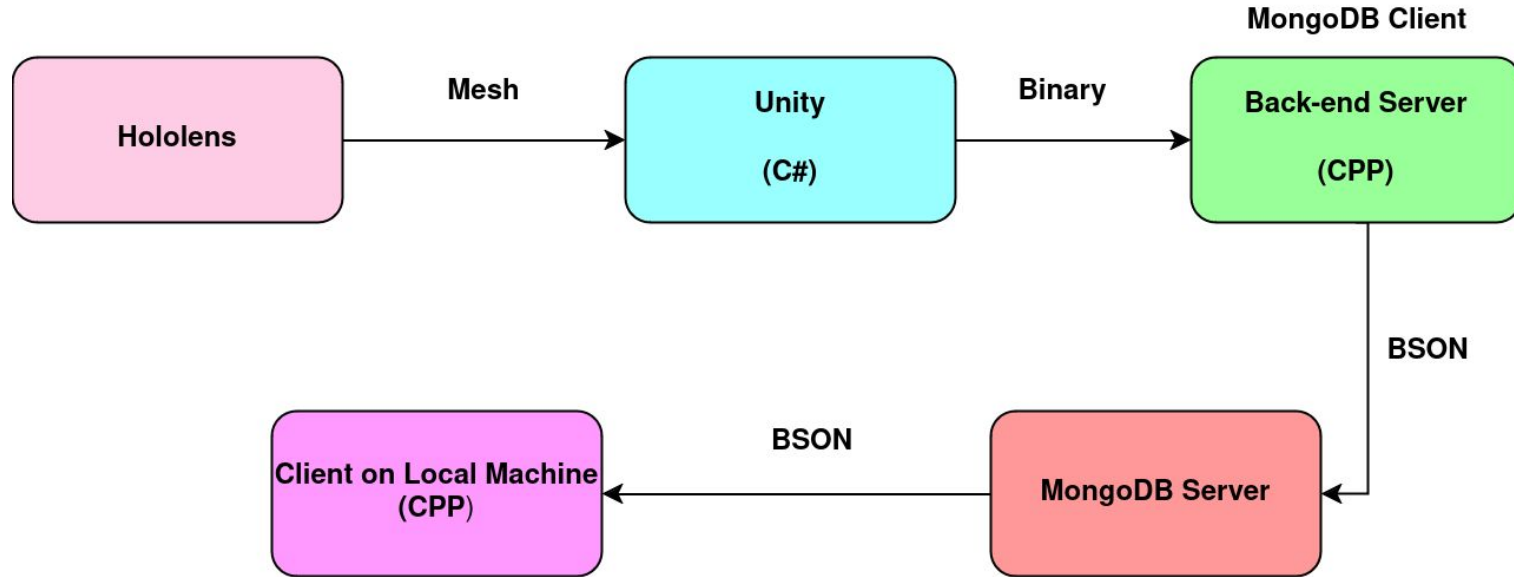
- Monitoring for construction sites
- Used by other devices (e.g. robots, drones, etc.)



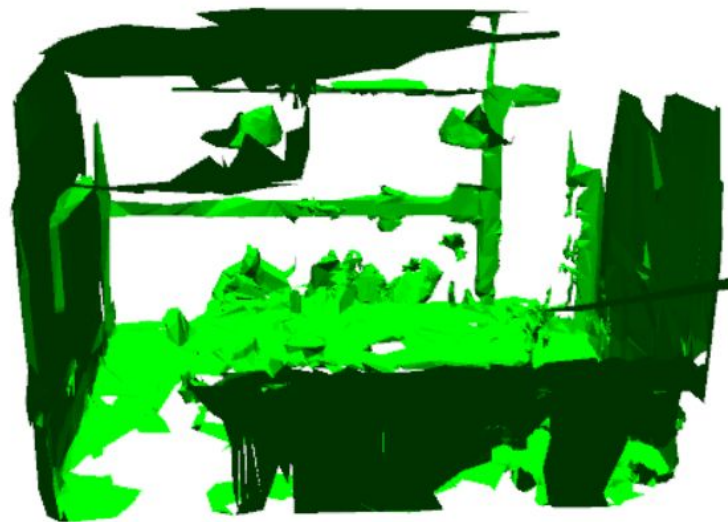
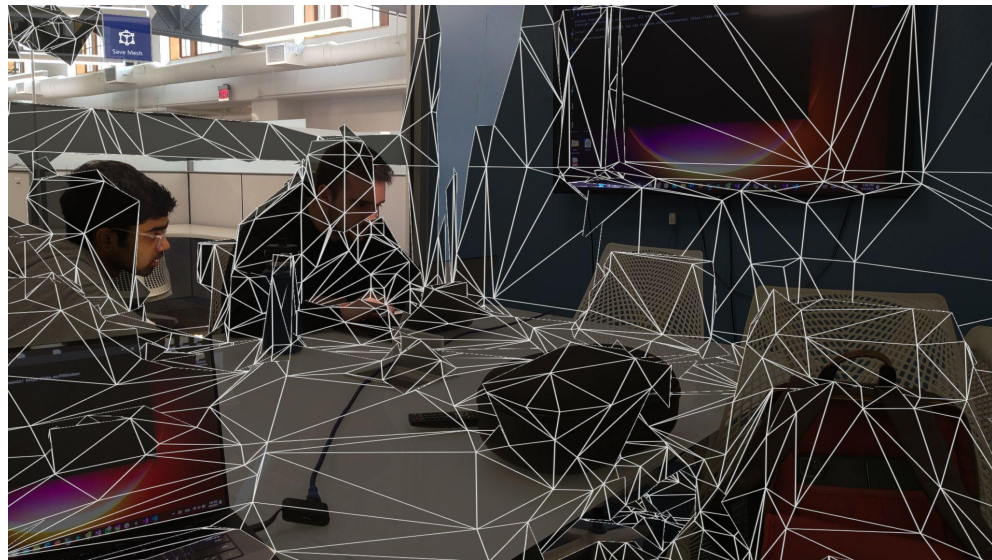
Advantages

- Centralized data management
- Remote collaboration
- Scalability
- Enhanced Analysis and Segmentation

New Architecture



Results



Segmentation



Using Connected
Components



Triangulated Surface
Mesh Segmentation
Using SDF

How to use:

1. Run executable
2. Enter mesh ID
3. Select desired segmentation function
4. Type “Save” to save edited mesh on MongoDB

Dependent Libraries

- MongoDB C++
- CGAL
- Boost
- Eigen