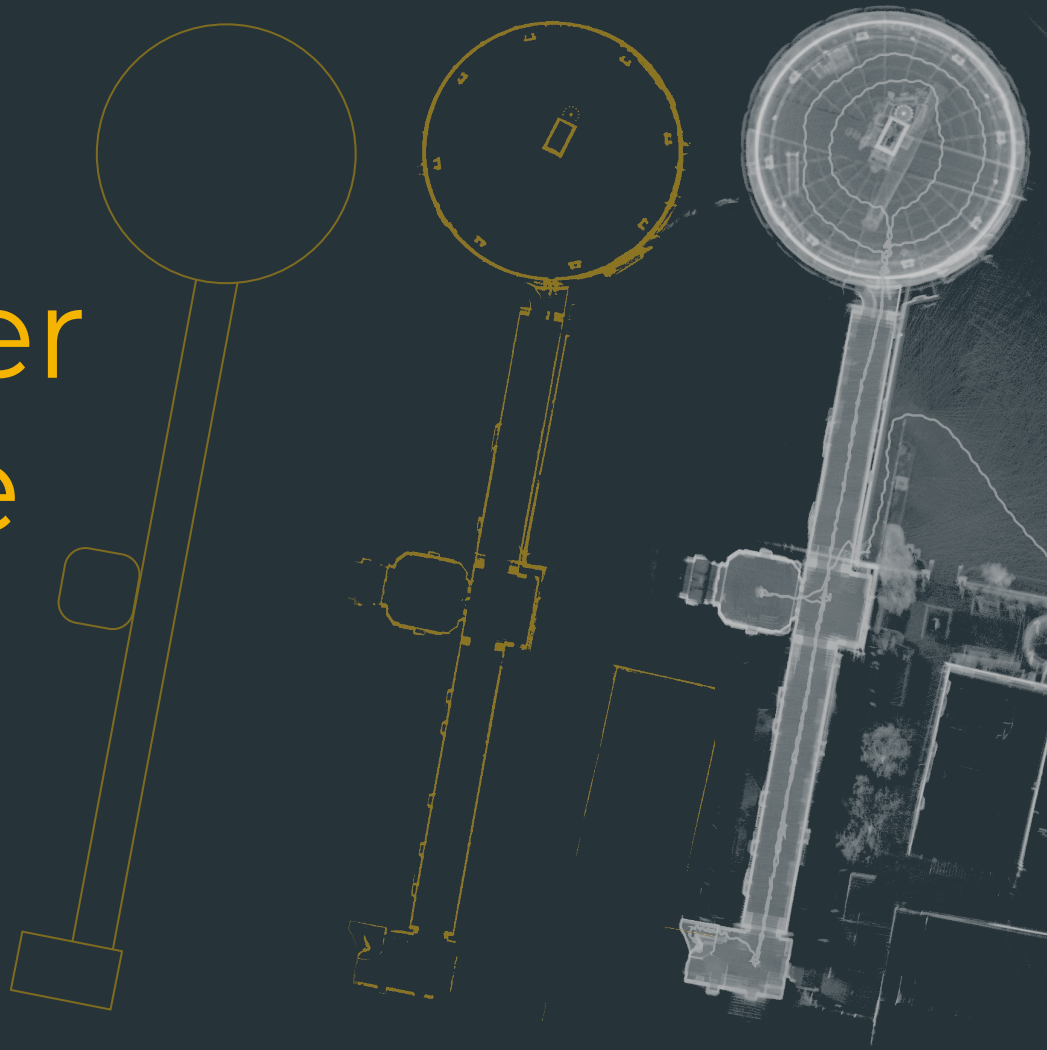


22st Cartographer Open House

2018-06-21



Replace frozen trajectory from file

A caller can load a new frozen map, wait for global SLAM to process it (and re-localize in the new map), and delete the old frozen map ([RFC](#)).

Cartographer

- Defining new serialization proto ([#1165](#))
- LoadStateFromFile ([#1202](#))
- Introduce TrajectoryState ([#1201](#))
- DeleteTrajectory ([#1205](#))
- Endpoints for DeleteTrajectory ([#1207](#))
- LoadState(FromFile) endpoints ([#1203](#))
- Endpoints for GetTrajectoryStates ([#1206](#))
- Check trajectory remapping in test ([#1208](#))



Pose Graph Data

Move the data that models pose graph in 2D or 3D to PoseGraphData struct ([RFC](#)).

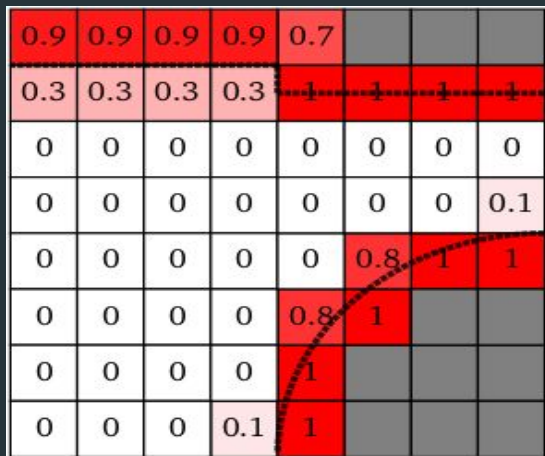
Cartographer

- Use PoseGraphData in PoseGraph3d ([#1188](#))
- Introduce PoseGraphData and use it in 2D ([#1185](#))



Truncated SDF

Experiments continue



Occupancy Grid



Truncated Signed Distance Field

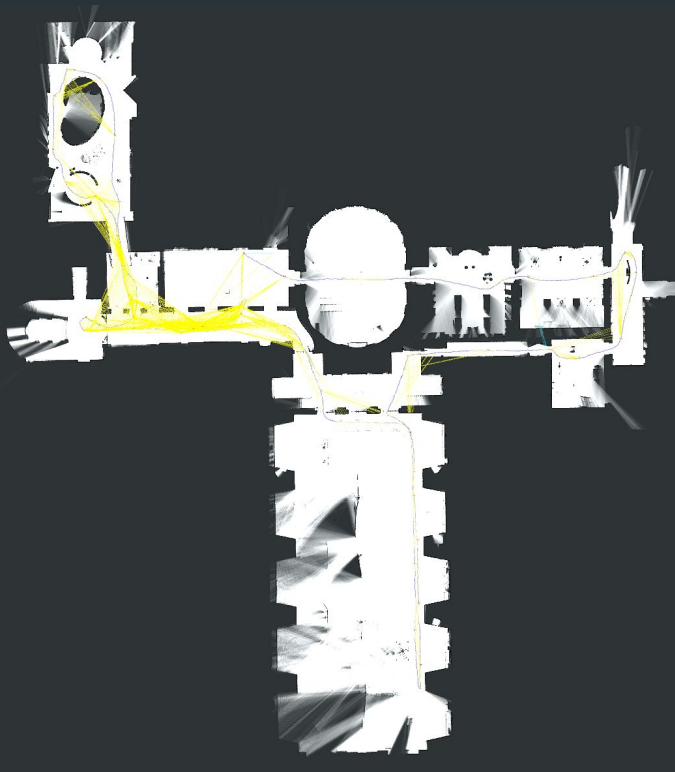
Cartographer

- Truncated Signed Distance Value Converter ([#1204](#))
- Move occupied space cost function to .cc ([#1200](#))

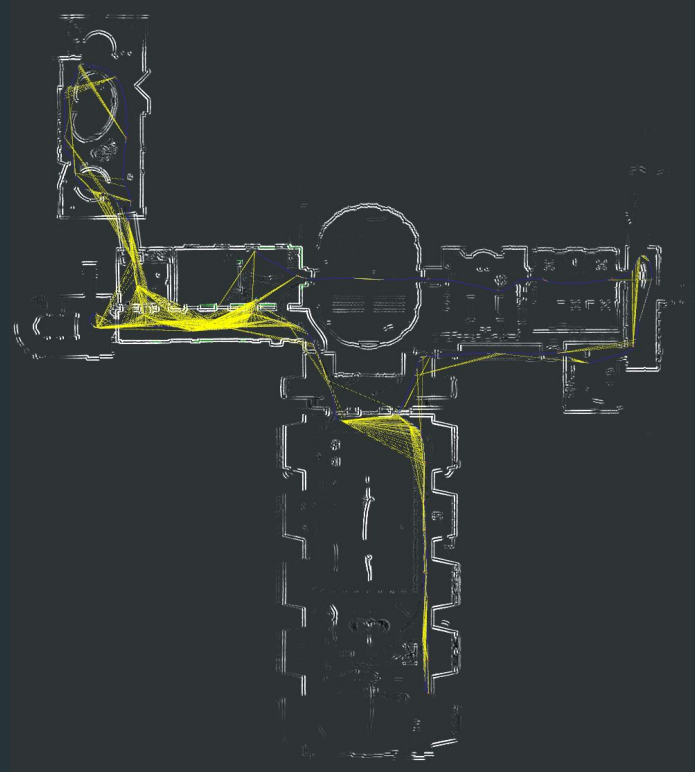


Truncated SDF: Backpack - Deutsches Museum EG

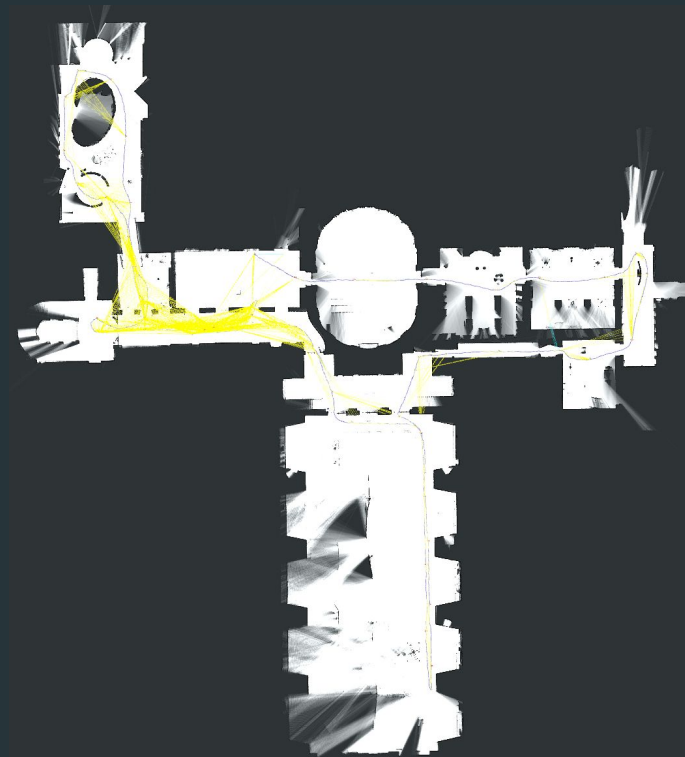
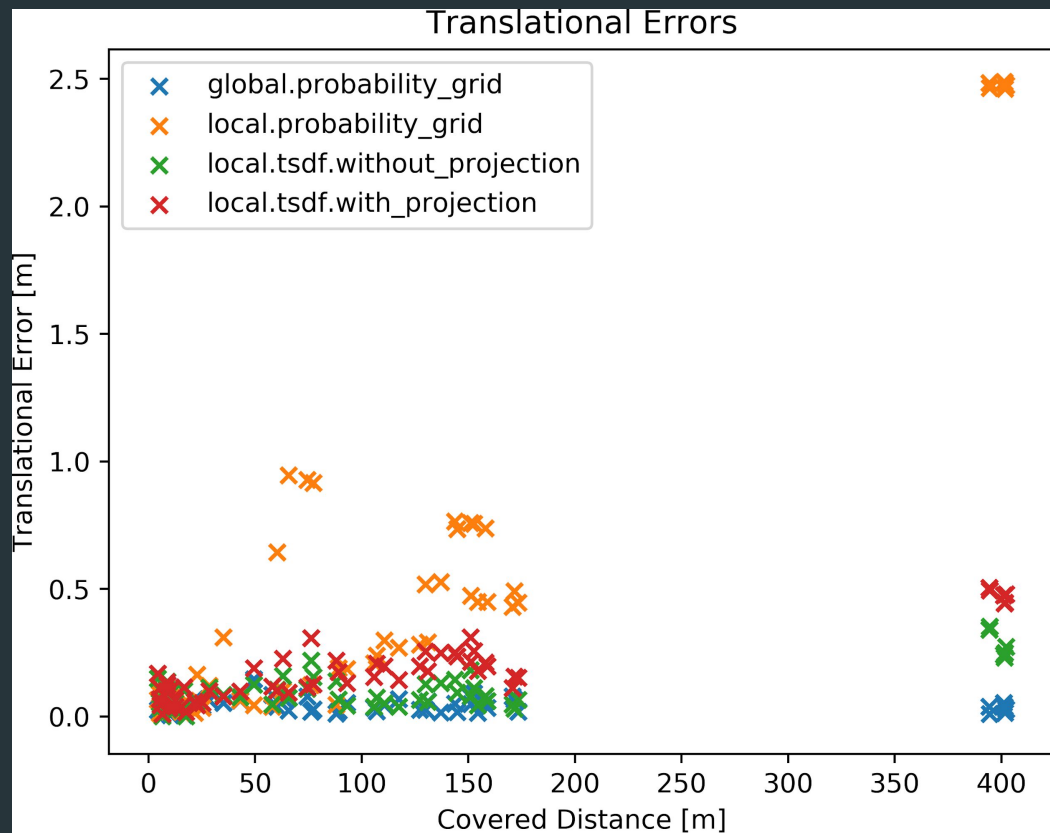
Probability Grid



TSDF



Truncated SDF: Backpack - Deutsches Museum EG



Tweaks & fixes

Cartographer

- Fixes display of IMU correction angle ([#1193](#))
- Test LoadState and pure localization ([#1190](#))

Cartographer ROS

- Ensure we validate what we CHECK ([#897](#)): fixes strict ordering check in rosbag validation tool
- Use timing channel from PointCloud2, if available ([#896](#))
- Fix memory leak in simulations by removing WallTimers ([#891](#))
- Revert timers other than PublishTrajectoryStates back to being WallTimers ([#898](#))



Current work

- Generic Pose Graph Design
- Evaluation
- TSDF experiments



Placeholder for other status reports



Thanks.

Next Open House:
July 5th, 5pm CET

If you would like to present anything next meeting, please reach out to
cschuet@google.com

