Create map for autoware #2520

Answered by emi0116 **shmpwk** asked this question in **Q&A**

shmpwk on Apr 14, 2022 Maintainer edited

Hi, we want map for autoware planning simulation.
There is a prepared map in the tutorial, which contains pcd and osm.

We know osm is a Lanelet2 Format and it is made from Vector Map Builder
We would appreciate it if you could teach us how to get pcd with or without your tools.

Environment: Ubuntu20.04, ROS2 galactic

↑ 1 👀 1

Answered by **emi0116** on Apr 14, 2022

Hello.
You have an interesting discussion.
The feature-based slams proposed by loam (lego-loam, lio-sam, etc.) are very fast and good for real-time mapping, but I would not recommend using them for map matching because the maps are very blurry.

View full answer ↓

Category
🙏 Q&A

Labels
component:map

3 participants

0 comments · 7 replies

Oldest Newest Top

angry-crab on Apr 14, 2022 Maintainer edited

Any open source `slam` algorithm would be able to give a `pcd` map if a `rosbag` or other format of sensor data are provided. Some choices are listed below.

HDL
LIO-SAM

↑ 2 👍 1 2 replies

shmpwk on Apr 14, 2022 Maintainer Author edited

Thank you for your information!
We also consider to use interactive slam, which includes HDL,
However interactive slam supports neither ROS2 nor ROS1 noetic, and only supports melodic or its less version.
So we decide to use LIO-SAM which supports ROS2.

shmpwk on Apr 19, 2022 Maintainer Author

As @emi0116 says, LIO-SAM is a little complicated.
It is better for us to use the easiest slam this time.
So finally, we use lidarslam_ros2.

emi0116 on Apr 14, 2022

Hello.
You have an interesting discussion.
The feature-based slams proposed by loam (lego-loam, lio-sam, etc.) are very fast and good for real-time mapping, but I would not recommend using them for map matching because the maps are very blurry.
If you can use ROS1, I suggest you use hdl_graph_slam or interactive_slam.
For ROS2, I have used lidarslam_ros2(https://github.com/rsasaki0109/lidarslam_ros2), which is also good
(There was talk that it would also be used in navigation2, but it appears that work has now stopped.
ros-navigation/navigation2#1757
)

Marked as answer ↑ 2 👍 2 3 replies

shmpwk on Apr 14, 2022 Maintainer Author

Thanks for the extremely useful information!
We use ROS2 and prefer accuracy to speed and real-time performance since we are working on a prototype project.
So lidarslam_ros2 seems nice for us except stopping their work.

emi0116 on Apr 17, 2022 edited

My comment was confusing.
It appears that the development of lidarslam_ros2 is continuing, just that the move to make it the standard SLAM for ROS2 has stopped. (At least the maintainer seems to be actively commenting on issues.)

👍 1

shmpwk on Apr 20, 2022 Maintainer Author edited

We finished making map by only using lidar. Thank you!

👍 1

Answer selected by **shmpwk**