Autoware Sensing Perception Working Group Meeting 2024/10/02 #5297

drwnz started this conversation in **Working group meetings**

drwnz on Oct 2 Collaborator edited

Administrative

- Previous meeting
- **Meeting time:** Every second Wednesday, 10am UTC (alternating with Mapping WG)
- WG Google Drive
- Wiki page for this Working Group
- Shared issue list

Attendees

▼ Chaired by David

- Ryohsuke
- Kenzo
- Fatih
- David Walmroth
- Vansh
- Yoshi Ri
- Vivid
- Max
- Samet

Agenda

- Introduction of new attendees
- Review of Issue List and assignment
- Review of Project Board and assignment
- Universal radar message proposal by Kenzo: https://github.com/orgs/autowarefoundation/discussions/5264

Discussion topics

- Announcements
  - Mitsudome: discussion about version control for universe
    - Currently just the main branch and no tagging and control
    - Looking at version control for Universe - not using major releases, but some kind of version control

Category

Working group meetings

Labels

meeting:sensing-p...

1 participant

https://github.com/orgs/autowarefoundation/discussions/5292
        - Max: concrete CI check would be a launch test
        - Max: we can't fix ROS tooling issues though
    - Jazzy support: Software Working Group still has this as a low priority, but seeking opinions
    - AWSIM: 1.5.1 release
        - https://youtube.com/playlist?list=PL97OXOB9UA-h9s7it2phbsBA1RDQjM2oP&si=Di3AAI-Ic4XeuUjE
        - AWSIM labs activities do not require a Unity license, but new feature requests on the AWSIM Labs page: https://github.com/autowarefoundation/AWSIM-Labs/issues
        - Amadeusz: is intensity supported? Not sure yet.
            - Fatih: Ring outlier filter configuration file changes
        - If we make changes to sensor kit changes, also test on AWSIM Labs sensor kit
            - Could also consider functional/smoke tests
- Universal radar message proposal by Kenzo: https://github.com/orgs/autowarefoundation/discussions/5264
    - Fatih: main concern is the dynamic fields like covariances. Float32 dynamic arrays: how do you know which shape is being used?
        - Has to be checked against the info topic
        - Serializing and parsing looks hard
    - Armagan: why do we need so many radars? There are a lot of comments on how hard it is to integrate. Maybe it will lack some performance in the effort to be compatible
        - To avoid the case where we lose information, we tried to cover all the known cases
    - Fatih: How about making use of the covariances in geometry messages for position, velocity, acceleration? And solid primitive msg shape?
        - Would be possible, will investigate. For shape, primitive shape is overly complex but will consider.
    - Fatih: replication - for example, multiple parameters have min and max. Maybe make another primitive message type?
        - Good idea :)
- CUDA update suggestion from Amadeusz
    - Links:
        - https://developer.nvidia.com/embedded/jetpack
        - **build: update to CUDA 12.3** #3956 (comment)
        - **Update deprecated TensorRT 8.5 codes for ROS2 humble** autoware.universe#2330
    - TensorRT 10.0 is required for lots of new features, Autoware supports 8.xx
    - To update, we need to update TensorRT and TensorRT API in Autoware packages
    - Backwwards compatible so no major issue to update
    - Question is- which version to update?
        - Fatih: Supporting the latest JetPack is enough
- Kenzo's CUDA implementation for pointcloud preprocessor

- Fatih: Harder to implement and test features if all added at once, but could be added feature by feature to make it simpler
- Blackboard: is similar concept to Nvidia NITROS: https://github.com/NVIDIA-ISAAC-ROS/isaac_ros_nitros

Action items

- [ ]

↑ 1

0 comments