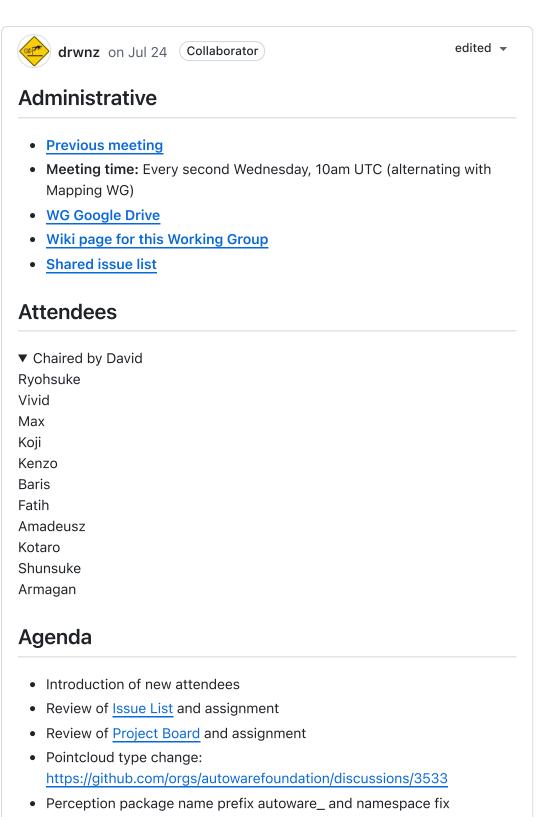


Autoware Sensing Perception Working Group Meeting 2024-07-24 #5029

drwnz started this conversation in Working group meetings



Working group meetings

Labels

meeting:sensing-p...

4 participants

- RTMDet in Perception Pipeline: Implement RTMDet to Perception

 Pipeline autoware.universe#7235
- Deleting Apollo Instance Segmentation TVM:
 refactor(lidar_apollo_segmentation_tvm): remove
 lidar_apollo_segmentation_tvm** packages autoware.universe#7996
- Radar pipeline update

Discussion topics

- Pointcloud type change:
 - https://github.com/orgs/autowarefoundation/discussions/3533
 - PR: % feat: migrating pointcloud types autoware.universe#6996
 - Related launcher PR: % chore: remapped topics for the point type migration sample_sensor_kit_launch#94
- Perception package name prefix autoware_ and namespace fix
- Issue: Prefix packages with autoware_ prefix and keep code in autoware namespace #4569
- Progressing smoothly, S/P modules should be complete this week
- RTMDet in Perception Pipeline:

 Implement RTMDet to Perception

 Pipeline autoware.universe#7235
 - Is there a suitable message type in Autoware? Currently added custom message type in tier4_autoware_msgs?
 - Koji: what hardware was used in the measured results?
 - RTX3090 (24GB VRAM)
 - Comparison with YoloX is on AGX, so testing on the same hardware for comparison would be good
 - Is there any test data to evaluate this PR?
 - Needs anonymization and conversion back to rosbag.
 - Fatih: how about using NUScenes since we have permission?
 - Armagan: is there a document to prove? -> need to check with Samet
- Deleting Apollo Instance Segmentation TVM:
 - * refactor(lidar_apollo_segmentation_tvm): remove

 lidar_apollo_segmentation_tvm** packages autoware.universe#7996
 - Gained approval from maintainers, went ahead and deleted!
- Radar pipeline update
 - Currently making universal message type for radar: currently we only use Continental at TIER IV
 - Armagan: working on just sensing or perception?
 - We are defining the interface, and then we will have to look at how to integrate into perception pipeline to improve performance
 - Working with radars that have both tracks (object list) and also pointcloud, but not planning to use pointcloud at this stage
 - Armagan: more interested in current implementation
 - We mostly optimized for ARS408
 - Discussion: https://github.com/orgs/autowarefoundation/discussions/2531
 - Kenzo to share some videos if possible
 - David: how do you find the SmartMirco?
 - To test the 171, lower resolution ones do not have object output
 - Hopefully we can share some collected data between Continental and Smartmicro
- Autoware issues/PRs
 - Armagan: can someone check this on other data?

- \$\frac{1}{2} \frac{1}{2} \f
- Visualize 3D objects and useful informations onto the 2D image autoware.universe#2867
- Want to see if detection issues are present on another vehicle/setup
- Koji: is this perhaps better in Autoware Tools?
 - Either is fine, this is more about evaluating if Autoware perception is working as it should be

Action items

• []

1

3 comments · 1 reply

Oldest

Newest

Top



armaganarsIn on Jul 24 Collaborator

Could you please give an update on the radar perception pipeline current status, hardware compatibility & roadmap

1

1 reply



drwnz on Jul 24 (Collaborator) (Author)

<u>@armaganarsIn</u> sure, <u>@knzo25</u> can give a brief summary on the 4D radar status at TIER IV.



StepTurtle on Jul 24 (Collaborator)

Hi @drwnz

Can you add this issue to agenda, I have some points to discuss.

• O Implement RTMDet to Perception Pipeline autoware.universe#7235



0 replies



kminoda on Jul 24 Collaborator

Hi @drwnz

I wanted to briefly discuss about whether we can delete the apollo instance segentation TVM

autowarefoundation/autoware.universe#7996

But now that we got the approval from all the maintainers and already merged, I think now we don't need to discuss in this WG. Just putting this here as a memo



0 replies