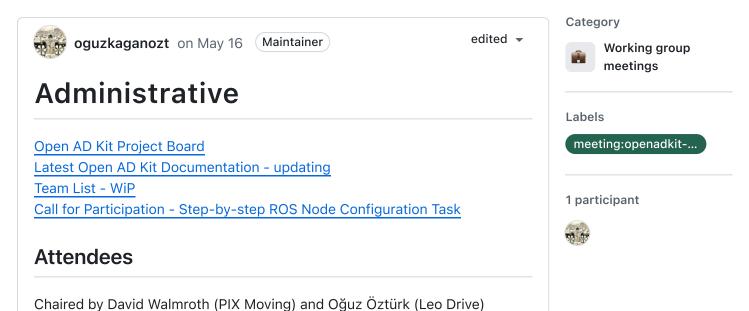


# Open ADKit Working Group Meeting 16/05/2024 #4729

oguzkaganozt started this conversation in Working group meetings



#### Agenda

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#### DevOps Dojos: Build/Run - Modular Images (Oguz)

- Impressions on new containers/suggestions.
- · Modular containers:
  - Issue: Provide modular images for openadkit: planning, simulator, visualizer #4538

  - Documentation PR: docs(installation): simplify run.sh
    commands autoware-documentation#551
  - A documentation bug has reported https://github.com/orgs/autowarefoundation/discussions/4695
- @mitsudome-r will be assigned as a reviewer
- @samet-kutuk will bring a documentation draft for Open AD Kit v3.0 on next week

### **DevOps Dojos: Ros Node Configuration Updates** (Kasper)

Spreadsheet for node updates

**DevOps Dashboard** 

Call for volunteers

Step-by-step Documentation

Step-by-step Video Tutorial

- Great increase (approx. 15) in nodes assigned from efforts of William He and UDel as well as Alex Carballo and Gifu U.
- Campaigning for additional ROS node update support and and consideration of a bounty/reward program may be scaled back due to an envisioned path to completion with existing resources. (Oz).
- We're seeking collaborators from AWF members and non-AWF member organizations: (Samet)
  - EduTech: an email thread is ongoing
  - ELM Company: had several meetings, waiting on feedback
  - CoE members: a few members proposed a handful contributors.
    Conversations are ongoing
  - Leads from social media: we continue to engage with invididuals who shown interest

<b>/</b>	Reach out to Vignesh
	Reach out to Rahul (CoE) for his reposting
	Reach out to the F1Tenth organization through Slack
	Do a repost of Call for Participation on appouncemen

## Perception Containerization Discussion (Kasper, Oguz, David, CJ..)

- Branch <a href="https://github.com/autowarefoundation/autoware/tree/4646-perception-containerization">https://github.com/autowarefoundation/autoware/tree/4646-perception-containerization</a>
- Testing ORIN for perception running with x86 on PIX chassis (Mark, David)
- Assess the rosbag sent by TIER IV and feedback
- Retrieve and assess the rosbag from Robeff
- Reach out to @drwnz for feedback and initial consult

### RViz Visualization by using WebRTC (Oguz, Esteve, Kasper)

- Assess the strengths and weaknesses of using Ros bridge and rvizweb
- https://github.com/RobotWebTools/webrtc\_ros
- https://github.com/pgaston/teleopros2/tree/main
- https://github.com/aiortc/aiortc
- Jeremy from Amazon has shown interest in the subject with AWS Kinesis
- Reconnect with Jeremy (AWS) to help us bootstrap this

### Active pursuit to find more collaborators for the Open AD Kit WG (Samet, Oğuz, Kasper, David)

- Outreach to external collaborators
  - Talking to VicOne (a member) on a use case to incorporate their IDPS (Intrusion Detection and Prevention System) with the Open AD Kit
  - Talking to EPAM Systems on the general architectures of SDV and understanding load balancing of automotive workloads in heterogeneous computing.
  - Talking to TUM on their PoC work on massive Autoware containerization
    - They are open-sourcing their study and work (performance analysis of containerized Autoware workloads)
    - They will be able to present their work soon at the Open AD Kit
      WG

### More Strict Dependency Control for ROS Nodes (Oguz, Dogan)

- Re-working dependencies to reduce the size of the containers and for making maintenance easier
- The list of Top 25 ROS nodes that includes most <depend> tags
- A new task added to Build/Run Dojo for refining ros nodes dependencies - <a>O</a> <a>More Strict Dependency Control for ROS</a> <a>Nodes #4599</a>
- Last years's huge PR related -> : build: remove unused <depend> in package.xml files autoware.universe#3606
- Example of the motivation

### AWSIM Integration and Testing (Oguz, Mitsudomesan, Kasper)

- O Docker container for AWSIM tier4/AWSIM#7
- O how to gui for unity3d in docker? mviereck/x11docker#186
- Validating new Open AD containers on the AWSIM environment
- Running AWSIM on x86 and Autoware on ARM

#### 2024 Demo Planning and Activities

- ICRA 2024 (May 13-17): a setup with PIXKit 3.0 will be demonstrated. Storyboard is expected from @alexandrx
- AutoSens 2024 (May 21-23) Static vehicle display, potentially live sensors, PIX RoboBus platfrom.
- AutoTech Detroit (June 5-6): Challenges with AADP availability and lead times. Implications and alternatives are being discussed, updates envisioned in Friday meeting.
- (Potential) AVTE California / Aug 28-29

- (Potential) IEEE ITSC / Sep 24-27
- (Potential) IROS 2024 / Oct 14-18
- (Potential) ROSCon / Oct 21-23

#### **Open AD Kit Hardware Availability**

- ADLINK presented their autonomy HW lineup in Ref. Des. WG. BSP does not yet support Yocto(?).
- AADP: Allocating all available units around the world
- 7Starlake: we heard that some eval units can be made available for testing
- Reach out to Joe Speed for 7starlake eval units (BSP/Yocto question pending).

**1** 

#### 1 comment

Oldest

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Top



oguzkaganozt on May 16 (Maintainer) (Author)

 Reach out to Berkay from Leo Drive to use Reaction time analyzer (Inreview)

**1** 

0 replies