

# Open ADKit Working Group Meeting

## 30/05/2024 #4794

oguzkaganozt started this conversation in Working group meetings



oguzkaganozt on May 29

Maintainer

edited by youtalk ▼

## Administrative

[Open AD Kit Project Board](#)

[Latest Open AD Kit Documentation - updating](#)

## Attendees

Chaired by David Walmroth (PIX Moving) and Oğuz Öztürk (Leo Drive)

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## Agenda

### DevOps Dojos: Build/Run - Modular Images

- Agenda item maintainers: [@oguzkaganozt](#), [@youtalk](#), [@kaspermeck-arm](#)

- Modular containers:
  - Issue: [Provide modular images for openadkit: planning, simulator, visualizer #4538](#)
  - PR: [feat\(docker\): provide modular images for openadkit planning simulator visualizer #4673](#)
  - Documentation PR: [docs\(installation\): simplify run.sh commands autoware-documentation#551](#)
- ☐ [@samet-kutuk](#) will bring a documentation draft for Open AD Kit v3.0 after merging the PR

### DevOps Dojos: Ros Node Configuration Updates

- Agenda item maintainers: [@kaspermeck-arm](#)

[Spreadsheet for node updates](#)

[Call for volunteers](#)

[Step-by-step Documentation](#)

[Step-by-step Video Tutorial](#)

- Planned deadline for this task is 1st July, we need to speed this up with active collaborators and reviewers

#### Category



Working group meetings

#### Labels

meeting:openadkit-...

#### 3 participants



- Re-assigning stale in-progress nodes with active collaborators
- Possibility of new code reviewers for stale PRs ([@mitsudome-r](#))

## Technical Optimizations for Container Management

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- Agenda item maintainers: [@youtalk](#), [@oguzkaganozt](#)

- [Enable docker caching for docker builds](#)
- [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
  - Last years's huge PR related -> [🔗 build: remove unused <depend> in package.xml files](#) [autoware.universe#3606](#)
  - [Example of the motivation](#)

## Perception Containerization

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- Agenda item maintainers: [@oguzkaganozt](#), [@youtalk](#), [@kaspermeck-arm](#)

- Issue [🔗 Perception Containerization #4646](#)
- Perception container with planning can now run together with a simple docker-compose file
- ☐ Reach out to [@drwnz](#) for feedback and initial consult

## RViz Visualization by using WebRTC

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- Agenda item maintainers: [@oguzkaganozt](#), [@kaspermeck-arm](#), [@esteve](#)

- Assess the strengths and weaknesses of using [Ros bridge](#) and [rvizweb](#)
- [https://github.com/RobotWebTools/webrtc\\_ros](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

## Open AD Kit Bugs&Requests

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- Agenda item maintainers: [@idorobotics](#), [@oguzkaganozt](#)

- Assess open-ad-kit related bugs, issues or feature requests from community channels (github, discord, or other platforms)
  - A CUDA [bug](#) will be resolved with this [PR](#)
  - A documentation [bug](#) will be resolved with this [PR](#)

## Testing modular containers with Reaction Analyzer Tool

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- Agenda item maintainers: [@batuhanbeytekin](#), [@oguzkaganozt](#), [@brkay54](#),

- Reaction analyzer can be used to measure latency tests while developing ideal containerization
- Issue:  
[https://github.com/autowarefoundation/autoware.universe/blob/3eed12c36903a3763f0ccd73f7bdce75c0bb3622/tools/reaction\\_analyzer/README.md#L4](https://github.com/autowarefoundation/autoware.universe/blob/3eed12c36903a3763f0ccd73f7bdce75c0bb3622/tools/reaction_analyzer/README.md#L4)

## Active pursuit to find more collaborators for the Open AD Kit WG

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- Agenda item maintainers: [@samet-kutuk](#), [@HamburgDave](#)

- 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

## Open AD Kit Hardware Availability

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- Agenda item maintainers: [@HamburgDave](#), [@samet-kutuk](#)

- 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).

## 2024 Demo Planning and Activities

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- Agenda item maintainers: [@HamburgDave](#), [@samet-kutuk](#)

- 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 platform.
- 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

↑ 1

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youtalk

on May 30

Collaborator

I would be happy if we could discuss the following topics in today's meeting.

- Enable docker caching for monolithic and modular images
- How to split modular images
- Identify and map specific ROS nodes for distinct modular images so that we can only install necessary binaries and dependencies; hence significantly reducing our docker image size
- [More strict dependency control over ROS nodes](#)

↑ 1

0 replies



xmfcx

on May 30

Maintainer

I would like to discuss about:

- [✓ Prune and document the docker packages #4798](#)

↑ 1

2 replies



xmfcx

on May 30

Maintainer

edited ▾

Additionally:

## build-main

<https://github.com/autowarefoundation/autoware/actions/workflows/build-main.yaml?query=branch%3Amain>

build-main from autoware repository has been failing [since last week](#).

✓ Fixed by [@youtalk](#)

- [🔗 fix\(ci\): run vsc import on build-main workflows #4799](#)

Also about removing the build-main:

- [🔗 fix\(docker\): remove build main action #4747 \(review\)](#)

## build-and-test-arm64

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<https://github.com/autwarefoundation/autware.universe/actions/workflows/build-and-test-arm64.yaml>

`build-and-test-arm64` from autware.universe repository has been failing [at least for the past 2 months](#).



**xmfcx** on May 30 Maintainer

<https://github.com/autwarefoundation/autware.universe/actions/runs/8180604938/job/22368958229#step:8:14339>