2024-10-30 Simulation Working group Meeting #5386

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

WJaworskiRobotec   3 weeks ago   `Collaborator`   edited ▾

Useful links

Previous Meeting Minutes

https://github.com/orgs/autowarefoundation/discussions?
discussions_q=label%3Ameeting%3Asimulation-wg

Issue Board

AWF Simulation Working Group Issue Board

Wiki Pages

- Bus ODD E2E Simulator Requirements

Recording from the meeting

Not available

Agenda Summary

AWSIM Labs -> AWSIM merging

Discussion about the features introduced in AWSIM Labs

- https://docs.google.com/presentation/d/1s3J2VGpPYokP23sk6yebnc4Fu rFtthD1P0TNPwER7_o/edit#slide=id.p21

- ⊙ **Merging AWSIM-Labs into AWSIM** autoware-projects#72

- Fatih: Is TierIV specifically interested in any of the feautres:

- Tsutake-san : We are interested in 3 features:

  - VPP
  - Graphics quality settings
  - Full compatibility with the latest Autoware

- Makino-san : there might be a license issue

Category

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Labels

`meeting:simulation...`

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1 participant

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- https://assetstore.unity.com/packages/tools/physics/vehicle-physics-pro-community-edition-153556 – it is a free version of VPP
  - The problem might occur with Pro version, that TierIV was planning to integrate
  - With VPP-CE it might be interesting for TierIV, but looks like only one vehicle can be used in the free version.
  - How can we get the data for configuration ?
  - Fatih : Only one vehicle is not a problem for Autoware, we test only one Ego at the time
  - Tsutake-san : We want to create a cluster for distributed simulation (separate machines for sensors), multiple Ego
  - Fatih: as a first step we can use default parameters, it will work better than the current solution. Accel-brake map calibration can be performed with Autoware
  - Tsutake-san : how can we test VPP in AWSIM
  - Fatih: you can just test it following QuickStartDemo of latest AWSIM Labs release
  - URP: TierIV had some issues with AWSIM Labs URP version
    - TierIV has not measured the performance of URP vs HDRP, but they created URP version on their own and seems to work better.
  - Compatibility with Autoware:
    - Continuous testing with Autoware
  - Mitsudome-san: the biggest difference is related to interfaces
  - Graphic quality settings:
    - It's related to URP, just changing settings of graphics in real time
    - It can be done in HDRP as well, but it is a separate work
  - Mitsudome-san: Can we create PRs with functionaliteis interesting for TierIV ? No compatibility issues ?
    - Fatih : should not be a problem

- Other features:

  - Setting pose from RVIZ
    - It is not interesting for TierIV, as we are more focused on Scenario Testing
    - Fatih : it makes it possible to use AWSIM as a sandbox, it was requested by Component team from TierIV
    - Tsutake-san : we will check it with our internal team
    - Mitsudome-san: we should use the same API as in scenario-simulator
      - Maybe we can create additional plugin, for now using the solution used by planning team that is a simple RVIZ message
    - repositioning vehicle from RVIZ:
      - Similar functionality, to quickly use simulator without changing positions in Editor / scenario
      - Our main customer don't need it, so it's not high priority for us.

- - - Bird-eye view
      - Tsutake-san has this feature in some way, configuration of camera
  - - Runtime control of sensors
      - requested by sensing team
      - it's useful for testing faults, what happens when sensor stops working
      - Tsutake-san : it can be easily done in Unity Editor
      - Tsutake-san : we have features for modifying / removing pointcloud
      - Fatih : editor is slower
      - Tsutake-san : then user can create a binary
      - AWSIM users should not be required to have Unity license / knowledge
  - - Scenario Simulator integrated in the same binary
      - In AWSIM lab, scenario simulator is the new map inside the same binary
      - Tsutake-san : we can use separate binary, we don't see a value in it
      - Mitsudome-san : I'm not sure, using different binaries is not convenient for the users in my opinion. Users need to manage many releases.
      - Tsutake-san : we have support for changing vehicles, but we had no requests for changing map
      - Decomposition of scenes was introduced, any vehicle can be introduced on any map
      - The next step is to use Asset Bundles, then vehicles/maps can be loaded to the binary, distribution of assets is much easier
- Fatih: Right now LeoDrive will not work on AWSIM Labs, If requested by TierIV, LeoDrive can provide functionalites / PRs as a service
- We should create Issues for VPP for now, and request AWF to create PRs

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0 comments