Minutes of openPASS Architecture Committee "v0.6 workshop"

March 27, 2018, Sindelfingen

Attendees: Heiko Bürkle, Jan Dobberstein, Per Lewerenz (all Daimler), Lei Wang, Timo Vogt (both BMW), Dmitri Fix (ITK Engineering GmbH); Michael Düring (Volkswagen on behalf of VW GoA)
Via webcon: Houssem Abdellatif (TÜV Süd)
Guests via webcon: Pablo Puente Guillen, Jorge Lorente Mallada (both Toyota Motors Europe)
Minutes: Jan Dobberstein (Daimler)

Draft GUI concept for "V1"

Jan showed an overview how openPASS could be an "all-in-one" tool (see Att. 1). Proposed goal: openPASS aims to unify various virtual assessment approaches on one platform: trajectory re-simulation, traffic simulation, scenario variation.

The use of OpenScenario was discussed in more details ("use case 3": scenario variation) and will be picked up in planning future releases (e. g. as an epic).

Welcome TÜV SÜD to WG (Skype webcon)

Abdellatif presented the motivation of TÜV Süd as a driver member in openPASS and their background in the field of virtual homologation (see Att. 2). He invited the group to hold one of the next meetings in Munich at TÜV Süd.

Review / bugs v0.5

The group discussed the process of reviewing the minor release v0.5 (online since Feb 2018), but agreed to not go into single items in order to save time.

- Bugs will be reported and assigned via the Tuleap bug tracker.
- The same accounts for user stories: we use the Tuleap trackers "epics" and "user stories"
- For future releases, we need to define how we transfer/copy open issues from existing user stories to new ones.

Jan created a new Tuleap bug tracker with the categories for bugs: Installation, Tutorials, Documentation, General openPASS.exe, Simulation Core / Architecture, Plug-in Architecture, PCM-Simulation, PCM-Evaluation, System Editor, Assessment, Interfaces.

New epics / user stories wrt OpenDrive traffic simulation scenarios

This topic was supported Webcon with INTech on behalf of BMW. The current progress in developing the OSI world and the step-wise introduction was shown (see Att. 3). The proposed commit (framework

additions plus simple simulation use case as example) is more or less in line with the originally planned (2017) content of v0.5 which was skipped due to the need for extended discussions and planning.

Based on the questions on the details of the "OSI World", BMW and INTech provided a more detailed overview of their plans on April 5 (see Att. 4).

Discussion Toyota membership (Skype webcon)

We introduced openPASS, its members and the general approach in joinedly developing software as OEMs. Jorge and Pablo from Toyota described their activities and what other cooperation projects they see as linked to openPASS (PROSPECT, L3PILOT). Toyota is about to join as User Member and would automatically become member of the Steering Committee as long as there is only one User Member.

Open discussion on whiteboard with focus on other input for v0.6

The rest of the workshop was focused on ideas for further content of the next release, i.e. around the upcoming implementation of an OpenDrive based world.

- Output format: the current Observer module logs certain agent parameters (position, speed) as .csv files, furthermore the trajectories from the v0.5 simulation are stored as .xosc files. BMW suggested a simulationOutput.xml which is a further option, but using this requires the OSI/xodr content first.
- Additional GUI plugins for OpenDrive traffic simulation: because of the modular architecture of the openPASS platform, all input needed for a simulation is provided by the config xmls, so the minimal requirement for the GUI would be an interface to select config xmls. In Jason's Feb 2018 commit, there was this simple setup of GUI plugins (each plugin = one option to select of a config xml). Further plugin features to generate these config xmls were discussed alongside new visualization features.
- Ideas for visualization: the visualization plug-in that shows the PCM road geometry and the trajectories could be adapted for the OSI/xodr use case. Furthermore, in addition to the simple GUI configuration, the group identified the need for a simulation configuration plug-in which starts a traffic simulation.

Some points on ongoing activities were touched throughout the meeting (status of PEGASUS, start of OSCCAR), but a clear roadmap is yet to be developed. In the next meetings, the openPASS partner will come back on the link between use cases (see "GUI of V1") and the implementation in GUI and framework components – including a map of related R&D projects related to openPASS.

The next meeting is a webcon (April 19), the next physical meeting will be scheduled via Foodle (goal: end of June).

Annex - Updated final agenda for v0.6 workshop Mar 28, 2018 (sent 20.3.2018)

Meeting site: Mercedes plant Sindelfingen, Geb. 11

09:00 – 09:30   Goal of workshop & agenda
09:30 – 10:00   Draft GUI concept for "V1"
10:00 – 10:15   Welcome TÜV SÜD to WG (Skype webcon)
10:15 – 11:45   Review / bugs v0.5 – which user stories are still open? What changes are required? Who takes care about what? (bugs sorted to categories)
11:45 – 12:45   Lunch
12:45 – 13:45   New epics / user stories wrt OpenDrive traffic simulation scenarios => BMW (OSI) /DAI (other input for v0.6)
13:45 – 14:30   Discussion Toyota membership (Skype webcon)
14:30 – 16:00   Status update on ongoing activities / use cases => ideas for "openPASS 2020"? => open Discussion on whiteboard based on tulip