SIM@OPENPASS ARCHITECTURE COMMITTEE
GUI - SESSION
OPENPASS GUI - DEMO

WHAT HAS TO BE CONFIGURED BEFORE STARTING A SIMULATION?

VehicleModels Catalog.xosc

Profiles Catalog.xml

System Config.xml

Combination Config.xml

Scenario.xosc

XML zoo

user
OPENPASS GUI - DEMO
WHAT HAS TO BE CONFIGURED BEFORE STARTING A SIMULATION?

Scenario.xosc
VehicleModels Catalog.xosc
Combination Config.xml
Profiles Catalog.xml
System Config.xml

Simulation
structured view on XML files and their content
openPASS GUI
user

sim@openpass, Architecture Committee, 2019-07-04
HOW TO EQUIP VEHICLE PROFILES WITH ADAS?
PROFILE-BASED ANSATZ (CURRENT STATE)

• incorporate algorithm dll’s (components) of specific types into vehicle

• connect algorithms to sensors with specific parameters and positions in the vehicle

• parameterisations (profiles) can be assigned to components with given probabilities

• **limitation:** 1 algo + n sensors per ADAS

• **advantage:** flexible parameterization and optimized instantiation

ProfilesCatalog.xml
HOW TO EQUIP VEHICLE PROFILES WITH ADAS?

SYSTEMCONFIG (CURRENT STATE)

- reference a system from the systemConfig

- **advantage**: connect arbitrarily many components of different types (Algo, Sensor, Actuator, Misc, Logical, ...) → high complexity

- **limitation**: fixed parameterisation in each system, no probabilities & repeated instantiation

systemConfig.xml
HOW TO EQUIP VEHICLE PROFILES WITH ADAS?

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**Long-term Goal**

Unified pathway utilizing advantages of both approaches!
GUI PULL REQUEST
ROADMAP – GUI SUPPORT FOR SCENARIO-BASED SIMULATIONS

1. Fine Tuning:
   GUI & simulation core

2. Commit of the simulation core

3. Link simulation master/slave with GUI

4. Final optimizations

5. GUI Commit

refinement meetings/webcons with BMW

simulations can be started from the GUI

we are open for further suggestions!
GUI BUG REPORTS
CURRENT STATUS – COMMITTED SOON

• Bug #989: Component priorities not shown when loading a system → fixed
• Bug #990: System name not shown → fixed (in hierarchical system editor)
• Bug #977: start-button not visible when starting openpass.exe (in fact the whole action menu) → fixed
• Bug #1075: „start simulation“-button disabled in simulation plugin even if all files are selected → fixed
  (Simulation plugin can now be used to simulate current OSI Use Case)
• Bug #980: Add units to meta data xml of PCM components → please re-assign!
• Bug #981: Re-organizatizion of ressources → addressed by using the subfolder „gui“ for GUI plugins. We propose a subfolder „components“ for both xml- and dll-files of components as well (To-Do for sim-part).
• Bug #1003: strong dependence on Project Plugin → to discuss
NEXT STEPS FOR RELEASE > 0.6

SUGGESTIONS

• **XML workshop:** gain better understanding of the file structures and, possibly, find optimizations

• **Generic ADAS equipment:** think about unified pathway combining systemConfig and profile-based ansatz

• **Visualisation of simulation results:** Who can do it?