

OPENPASS

REVIEW OPENPASS MINOR RELEASE V0.5



RELEASE PLANNING IN OPENPASS CHARTER



openPASS WG Participation Fees, Power and Duties of the Quality Committee

- Very high level
- “Results for employee service days can be delivered as result packages or service packages. The corresponding packages or services **have to be offered in advance to and accepted by the steering committee.**”
- „Evaluate and define technologies to be applied, establish technical guidelines, validate new project proposals and concepts, Establish the openPASS architecture compliance service (.....)”
- See https://www.eclipse.org/org/workinggroups/openpasswg_charter.php
- Further details on „project level“: <https://www.eclipse.org/projects/handbook/#release>

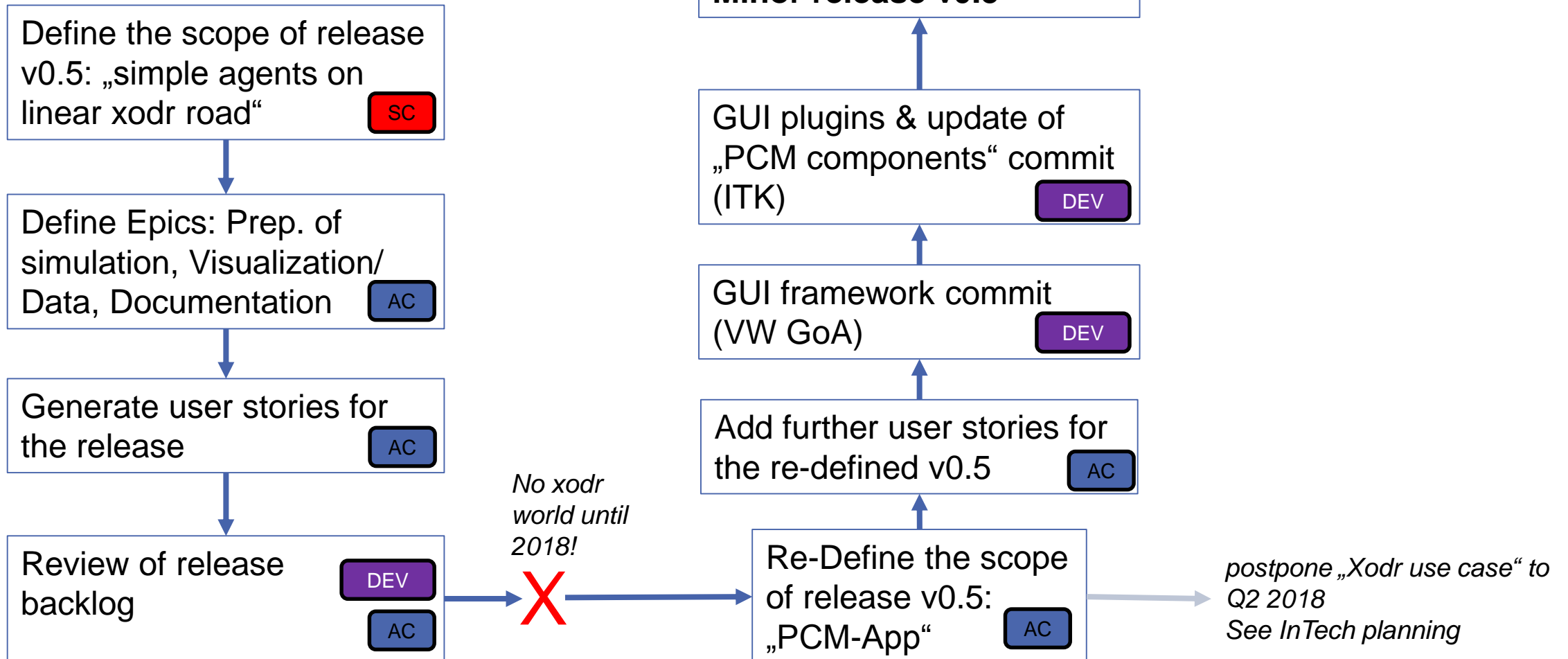
Current approach:

- Initial commit (framework + test modules) – without release planning
- V0.5 – discuss & align requirements across members (Excel, mails => [Tuleap](#))
- Now: proposal by BMW (see separate agenda point)

RELEASE V0.5 – ACTUAL STATE



Time: summer 2017 => Feb 2018



STORY #946 „GETTING STARTED“ EPIC „PREPARATION OF SIMULATION“

GUI Architecture



Description

As a

Empty

I want to *

Getting started - I would like to start the program by clicking an executable file. A graphical user interfaces opens which welcomes the user indicating what his next steps should be. The welcome screen enables the user to know what he needs to configure to start a simulation. Configurations of the program should be clustered content wise and explained to the user.

In order to

Empty

Acceptance Criteria

1. Programm is already compiled and has an executeable openPASS.exe
2. The GUI opens and has a welcome screen indication what to do as first steps
3. The welcome screen explains the different configuration possibilities and referes to the structure of the GUI
4. The GUI has a structure to cluster things contentwise

Attachments

Empty

- **STILL OPEN:** main issue - no compiled binary for download due to Qt dependency (Qt libs from diff. server)
- Welcome screen with instructions could be included in next release,
- Done: GUI architecture clusters things

STORY #948 „LOAD A PROJECT“ EPIC „PREPARATION OF SIMULATION“

PCM Simulation



Description

As a

Empty

I want to *

Load an example for project - I would like to start with an example to get started with the tool. I would like to load a project with all the settings set up. The project example would include the standard settings for the inputs and the outputs.

In order to

Empty

Acceptance Criteria

1. The user can load a project file via the GUI
2. A dummy project file contains all input/output configuration files necessary for a simulation.

Attachments

Empty



- DONE: the .cfg file generated in the GUI plug-in „PCM-Sim“ contains all information needed to start the PCM use case (mdb path, result path, selected list entries)
- Note: This cfg file needs to be maintained for further information or aligned with other config xmls

STORY #949 „LOAD A SYSTEM“ EPIC „PREPARATION OF SIMULATION“

System Editor



PCM Components

Description

As a

Empty

I want to *

Load an example for system - The user wants to load an example system to see how an ADAS looks like in openPASS. It should consist of the main classes of componentes/blocks show the way of connection.

In order to

Empty

Acceptance Criteria

1. 1 Sensor (Radarlike), 1 Algo (AEB) and 1 Actuator (Brake) is included
2. The components have input/outputs
3. the components are connected correctly
4. the system is set up that it will work in the scenario of US 1.1.3
5. The user can load a system file via the GUI

Attachments

Empty



- DONE: the SystemConfig.xml „Agent 2T-C“ (part of the open source ressources) contains various components (but not the „mini modules“) to re-simulate PCM trajectories
- Reference to US 1.1.3 is not valid (not in line with Tuleap numbering, change of v0.5 scope)

STORY #950 „START SIMULATION“ EPIC „PREPARATION OF SIMULATION“

PCM Simulation



Description ★

As a
Empty


I want to *
Start simulation - The user may start the simulation after he loaded all necessary parts regarding the project, the environment, and the system.

In order to
Empty

Acceptance Criteria

- 1. The user can start the simulation via the GUI
- 2. the simulation runs using the scenery, the system and the defined input/output paths

Attachments
Empty



- DONE – the run config contains all information (trajectory, road markings) of a case plus the information provided by the system editor wrt inputs/outputs

STORY #951 „MODELING/CHANGING“ EPIC „PREPARATION OF SIMULATION“

System Editor



PCM Simulation

Description

As a

Empty

I want to *

Modeling/changing - The user now wants to have the chance to change each field that was pre-defined in order to deeper understand the simulation or run modified simulations.

In order to

Empty

Acceptance Criteria

1. Each pre-defined input of the configuration files described in US 1.1.x can be changed

Attachments

Empty



DONE – the folders, the changeable fields in the system editor, the cases for simulation etc. can be changed

STORY #952 „CHANGE IN/OUTPUT DIRECTORIES“ EPIC „PREPARATION OF SIMULATION“



System Editor

Description

As a

Empty

I want to *

Change input/output directories - The User should be able to load components (xmls and dll) from a default library or from a selected remote directory (component library). Accordingly, the user may change the source of the other input and output directories.

In order to

Empty

Acceptance Criteria

1. The GUI should be able to load the components from a default or selected directory.
2. The user may change all other directories as well

Attachments

Empty



DONE – the default directory is the folder of the binaries, but all directories can be changed.
Improvement: the folder selection of the app should remain at the most recently used location

STORY #953 „CHANGE SYSTEM“ EPIC „PREPARATION OF SIMULATION“

System Editor



Description

As a

Empty

I want to *

Change the system - For better modularity, a system should be subdivided into different small blocks (components) having general functions (e.g. computation) that can be re-used in other systems. These blocks have to be connected according to a defined data flow processing in order to model the behaviour of the whole system.

In order to

Empty

DONE



Acceptance Criteria

1. The system should be represented or modelled by smaller blocks (components).
2. The components are communicating data (using channels or connections).

Attachments

| Artifact ID | Project | Tracker | Summary | Status | Last Update Date |
|-------------|------------------------|---------|----------------------------|--------|------------------|
| tasks #955 | openPASS Working Group | Tasks | Display components | Todo | 2017-16-10 13:49 |
| tasks #956 | openPASS Working Group | Tasks | Connecting components | Todo | 2017-16-10 13:50 |
| tasks #957 | openPASS Working Group | Tasks | Re-use of modelled systems | Todo | 2017-16-10 13:51 |

STORY #954 „SAVE PROJECT W/O SIM“ EPIC „PREPARATION OF SIMULATION“

System Editor



PCM Simulation

Description

As a

Empty

I want to *

Save the project without simulating - The User wants to save the project either in a default directory or in a selected remote one. The project will contain all the configurations and data in order to be able to reproduce the simulation.

In order to

Empty

Acceptance Criteria

1. The project should be saved in a default or selected directory.
2. The output files of the conducted simulation should be stored with the project in the same directory.
3. Any other user is able to rerun the whole simulation/analysis based on all configuration and the scenery files

Attachments

Empty



DONE – the results contain all config files (scenery, run, system), the project cfg. stores selected cases
Improvement: it should be possible to load from a folder (without needing the scenario database)

STORY #967 „CHANGE THE SYSTEM“ EPIC „PREPARATION OF SIMULATION“

System Editor



Description

As a

Empty

I want to *

Change the system - The User doesn't want to build a system in one unit because it will be fastidious to apply modifications (e.g. adding functionalities). For better modularity, a system should be subdivided into different small blocks (components) having general functions (e.g. computation) that can be re-used in other systems. These blocks have to be connected according to a defined data flow processing in order to model the behaviour of the whole system.

In order to

Empty

Acceptance Criteria

1. The system should be represented or modelled by smaller blocks (components).
2. The components are communicating data (using channels or connections).

Attachments

Empty

DONE



STORY #968 „DISPLAY COMPONENTS“ EPIC „PREPARATION OF SIMULATION“

System Editor



Description

As a

Empty

I want to *

Display components - Components consist of graphical blocks and a logic inside this block. They have to be loaded and displayed in a window, so that the User can easily have an overview of the blocks that will constitute its designed system. The User should be able to access to the parameters defining the function of the component and, so, have the possibility to vary them. The User can also model a system with the same component, duplicated but having different set of parameters. In the last case, the User might prefer to rename the different components in order to distinguish between them.

In order to

Empty

Acceptance Criteria

1. The components should be inserted in the GUI and graphically
2. The parameters of each component should be displayed in the relating block and can be modified by the User.
3. The title of the components should be displayed and modified by the user.
4. A component can be duplicated, removed, renamed, and relocated.

Attachments

Empty



STORY #969 „RE-USE OF SYSTEMS“ EPIC „PREPARATION OF SIMULATION“

System Editor



Description

As a

Empty

I want to *

Re-use of modelled systems - The User should be able to save the modelled system and load it for later use.

In order to

Empty

Acceptance Criteria

1. The system should be saved.
2. The system should be loaded.

Attachments

Empty

DONE

STORY #959 „SCENERY CONFIG“ EPIC „VISUALISATION & DATA“

Framework



Description

As a

Empty

I want to *

Structure of simulation inputs - sceneryConfiguration.xml - I require that the generated sceneryConfiguration.xml is structured according to the example file.

In order to

Empty

Acceptance Criteria

1. new template has been generated based on consolidation of the example file
2. template has been sufficiently documented

Attachments

Empty



– DONE FOR PCM, but should be copied/kept for v0.6 xosc use case

STORY #960 „RUN CONFIG“ EPIC „VISUALISATION & DATA“

Framework



Description

As a

Empty

I want to *

Structure of simulation inputs - runConfiguration.xml - I require that the generated runConfiguration.xml is structured according to the example file.

In order to

Empty

– DONE for PCM – run config needs to updated / maintained

Acceptance Criteria

1. new template has been generated based on consolidation of the expample file
2. template has been sufficiently documented

Attachments



runConfiguration.xml



STORY #970 „LOAD CASES FROM DATABASE“ EPIC „PREPARATION OF SIMULATION“



PCM Simulation

Description

As a

Empty

I want to *

Load accident trajectories - I want to access the PCM accident database from the user interface and select cases for re-simulating them with my configured system. Prerequisite: user has access to PCM database.

In order to

Empty

Acceptance Criteria

- 1) The user can open the MS-Access "GIDAS PCM" from a selected location.
- 2) The user can select cases from this database.
- 3) The user can push a "Start" button to start the simulation.

Attachments

Empty



DONE

STORY #971 „DISPLAY RESULTS“ EPIC „PREPARATION OF SIMULATION“

PCM Simulation

Description

As a

Empty

I want to *

Display results - I want to select results per case and see the trajectories after the simulation is finished.

In order to

Empty

Acceptance Criteria

1.) Simulation results in terms of trajectories are displayed in the GUI.

Attachments

Empty



DONE

- **Open / need for clarification („Issues“)**
 - Epic **Documentation** (stories #941, #942, #944, #945): Doxygen developer.chm incomplete, no manual..
 - Story #946: **no binary** available (how to handle dependency from Qt libs?) => Eclipse Board

- Done for v0.5 - but same story need to be addressed for upcoming releases
 - Run config (#960), scenery config (#959)

- Done (Tuleap: closed)
 - System editor, #949, #951, #952, #953, #954, #967, #968, #969
 - Exemplary GUI plugins to start PCM simulations and to see PCM results (#946, #948, #950, #970, #971)
 - Note: improvements of the „PCM-Sim, PCM-Eval“ plugins => new user stories