

openPASS

- setup development environment -
 - create simulation application -
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I. System requirements

- Windows 7x64
- Administrator privileges
- Internet connection

II. Setup Qt

1. Install Qt 5.6.2 with MinGW 4.9.2 32bit from:
<https://www.qt.io/download/>
(during the installation process MinGW 4.9.2 needs to be chosen as an additional component for installation)
2. Set environment variables (for Windows):
 - a. Go to
"Control Panel\System"
 - b. Navigate to
"Advanced system settings > Advanced > Environment Variables > System variables"
 - c. Edit the variable "Path" and add at the end:
C:\Qt\Qt5.6.2\Tools\mingw492_32\bin;c:\Qt\Qt5.6.2\5.6\mingw49_32\bin;

III. Setup source code

1. Extract the source code to "c:\OpenPASS\Source"
(path must be short to avoid compilation and execution issues)
2. Open "c:\OpenPASS\Source\Global.pri" and define binary output folders
(DIR_DEBUG and DIR_RELEASE)
3. Delete all "*.pro.user" files, if any found
4. Start Qt Creator
5. Open "OpenPass_PCM_UseCase.pro" (when opening the first time you will have to "Configure" the project)
6. On the left navigate to "Projects > Build & Run > Build Settings > General" and toggle on "Shadow build"
7. (Re-)Build the project "OpenPass_PCM_UseCase"
(executables and dynamic libraries will be created and placed in the folder defined in step 2)

IV. Run simulation

1. Copy the content of "Configurations\OpenPass_PCM_UseCase\" to the installation directory (binary output directory, where the main executable "openPASS.exe" is located)
2. Execute "openPASS.exe"
3. (Re-)Activate the tab **"PCM-Simulation"**
 - a. Select a PCM database file obtained from GIDAS
 - b. Define system configurations (pre-defined values will do for the first)
 - c. Define output directory
 - d. Select PCM cases to be simulated
 - e. Start simulation
4. Simulation results are written to comma-separated files *.csv and (additionally) openSCENARIO format
5. Activate the tab **"PCM-Evaluation"**
 - a. Select the folder, you defined in 3.c
 - b. Highlight the PCM cases, you want to be presented (multiple selection with Ctrl and Shift is possible)
6. Activate the tab **"System"**
 - a. Drag and drop system components in the system space
 - b. Modify parameters
 - c. Connect inputs and outputs
 - d. Save your system
 - e. Select your system in the tab "PCM-Simulation"
 - f. Follow the steps 3-5