AVL PEMS DATA MANAGEMENT SOLUTION™

The AVL solution for next level RDE testing and certification

THE CHALLENGE

The growing number of vehicles and variants to be tested and certified leads to the need of more efficient and seamless processes from data generation over data management to data analysis and report generation. Furthermore, the re-use of raw measurement data is often not possible as important meta data is missing. Thus, a crucial part of the complete process is the data management over the complete lifecycle. All kind of involved data types have to be transferred, stored and processed in a traceable and revision-proof way. RDE and in-service conformity testing involves manual steps which can influence the speed and quality of the test process and its result. A higher grade of automation can only be reached with tightly integrated tools along the testing workflow.

THE AVL SOLUTION

The AVL PEMS Data Management Solution™ integrates all necessary components into one seamless process to enable RDE testing in the most automated way possible.

The solution consists of AVL standard software products specially tailored to meet the needs of an efficient PEMS Data Management process. All kinds of necessary data is being stored at one central place – which is even conform to ASAM ODS. For a flexible integration into existing workflows and IT infrastructure easy-to-use APIs are provided. The AVL PEMS Data Management Solution™ supports the process along all steps from test order generation via test preparation to post-processing of the measurement data and generation of the official certification report.
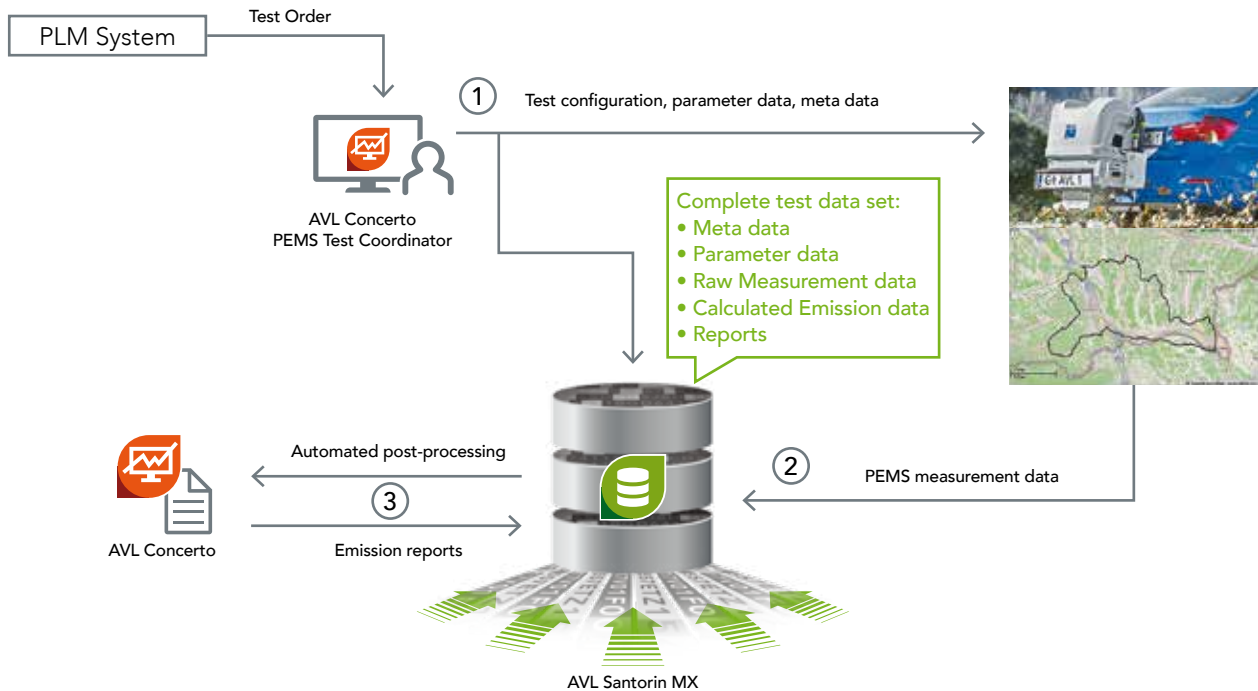
THE ADDED VALUE

- Time-saving with automatic post-processing on server
- Avoid error-prone manual steps
- Revision-proof, reliable and fully transparent transport, storage and lifecycle management of data
- Measurement data can be further analyzed and evaluated for different or new legislations
- Open for 3rd party PEMS devices

SOLUTION OVERVIEW

THE AVL SOLUTION ENABLES AN INTEGRATED END-TO-END WORKFLOW

The AVL PEMS Data Management Solution™ supports the whole workflow from test planning over execution to fully automatic generation of legislation relevant reports. It can be easily integrated into the existing process landscape, retrieving test orders from 3rd party PLM systems. The solution supports engineers planning and executing tests in combining these tests to campaigns and assign them to available PEMS systems and vehicles. This information is stored in the central AVL SANTORIN MX 2™ and used to automatically pre-parametrize the AVL M.O.V.E™ systems. After the test execution the PEMS measurement data is transferred and stored in the central database and the post-processing of the data is being triggered automatically or can also be done manually. Result data and reports are attached to the test in AVL SANTORIN MX 2™ and can be accessed by authorized users.


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PLM System ──Test Order──>
  [AVL Concerto PEMS Test Coordinator]
  ① Test configuration, parameter data, meta data ──>
  Complete test data set:
  • Meta data
  • Parameter data
  • Raw Measurement data
  • Calculated Emission data
  • Reports
  <── ② PEMS measurement data
  Automated post-processing ──> [AVL Concerto]
  ③ Emission reports
  AVL Santorin MX
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PROCESS MANAGEMENT AND DATA PROCESSING

AVL CONCERTO 5™ is the established analysis tool in the automotive industry. The post-processing of the PEMS measurement data can be done manually or automatically on the AVL Santorin MX™ server. These tasks can also be planned ahead for batch processing. The result is in any case the final report which can be also used for official certification.

DATA TRANSPORT, STORAGE AND LIFECYCLE MANAGEMENT

The ASAM ODS conform data management solution AVL SANTORIN MX™ is the ideal solution to store the complete set of data in one place. It supports revision-proof, reliable and fully transparent transport, storage and lifecycle management for all kind of data in automotive testing environments. It serves as the central place from which data can be acquired for detailed analyses.

FIND OUT MORE: