

case study

▶ AVL List with PSA Peugeot Citroën:

Efficiency boost at PSA Peugeot Citroën with **ASAM ODS** based data management for powertrain, NVH and durability tests

The ASAM ODS solution is the standard used today to translate and store data from more than 3000 engine tests, every month. The AVL SANTORIN database, based on this standard, allows us to sort out and save all this data. The exploitation software used afterward for the signal analysis is AVL CONCERTO. Our main needs are: speed of access, reassurance of the data and simplified navigation. Today, dynamic tests supply us temporal acquisitions up to a million points for about hundred of measures.

(Mr. Vincent Bonigen, PSA Peugeot Citroën, Automatic Calibration User)

SUMMARY

Challenge: Allowing easy access to test result data across different testing applications, by use of the same system, has become an issue of increasing importance for PSA Peugeot Citroën. But how could this be assured in an environment of both test systems and data evaluation tools from a variety of different suppliers?

Solution: PSA Peugeot Citroën met the challenge by installing an ASAM ODS compliant solution, to which test data and test results from engine, NVH and durability tests are published through a common ASAM ODS compliant 2nd Level Host System provided by AVL List GmbH.

Key Benefits: By consequence, published test data from engine test, NVH test and durability tests are accessible through a variety of ODS compliant evaluation tools over a central server throughout PSA Peugeot Citroën.

SITUATION

It is quite obvious, that distributed development and testing will need ways to centralize their data storage. For engine testing alone, three development centers used to store their

result data to a common ASAM ODS system, accessible to all engineers involved in engine development. But modern development processes call for data exchange on an even broader level. The modernized NVH test systems, as well a new durability strategy, which were to be equipped with test systems by the companies LMS International and nCode, also provide data highly relevant to the interlinked process.

CHALLENGES

The main reason for PSA Peugeot Citroën to use the ASAM ODS standard is to have a turnkey solution to manage data from different application domains instead of having so many specific systems per application domain.

PSA Peugeot Citroën's challenge was the integration of data from a variety of applications and suppliers into one system via defined and standardized interfaces. Furthermore, PSA Peugeot Citroën had established a solution which provided a designated interface between the areas of accountability of the various application departments and the central IT department within PSA Peugeot Citroën.

SUCCESS STRATEGY

To accommodate all given challenges, PSA Peugeot Citroën chose an AVL Santorin ASAM ODS Server as the centerpiece of their 2nd Level Host System. PSA Peugeot Citroën has wanted all test systems and evaluation software as Concerto, TestLab, Pak, Artemis, GlyphWorks, in the different application domains publish their test data to this 2nd Level Host via the ASCII-based ASAM Transport Format (ATF) and has a full embedded ASAM ODS browser. The data import to the AVL Santorin Server is provided by a PSA-designed Import Manager.

On the other end, standard evaluation products like AVL Concerto and evaluation tools by LMS, ORME and nCode can access the data via Santorin's ODS server functionality throughout PSA Peugeot Citroën.

CHALLENGES DURING THE PROJECT

Some ASAM ODS statements are not clearly defined, therefore suppliers can experience technical gaps that cause troubles when we try to interconnect several ASAM ODS software(s).

BUSINESS BENEFITS

At the time being, the 2nd Level Host is up and running and works fully productive with the data from the powertrain, durability and NVH test sites. The crash test and other small domains are soon to follow. With gained accessibility and flexibility, PSA Peugeot Citroën engineers can fully reap the benefits within a highly parallelized and interrelated development process, thus gaining productivity, cutting costs and reducing overall development times.

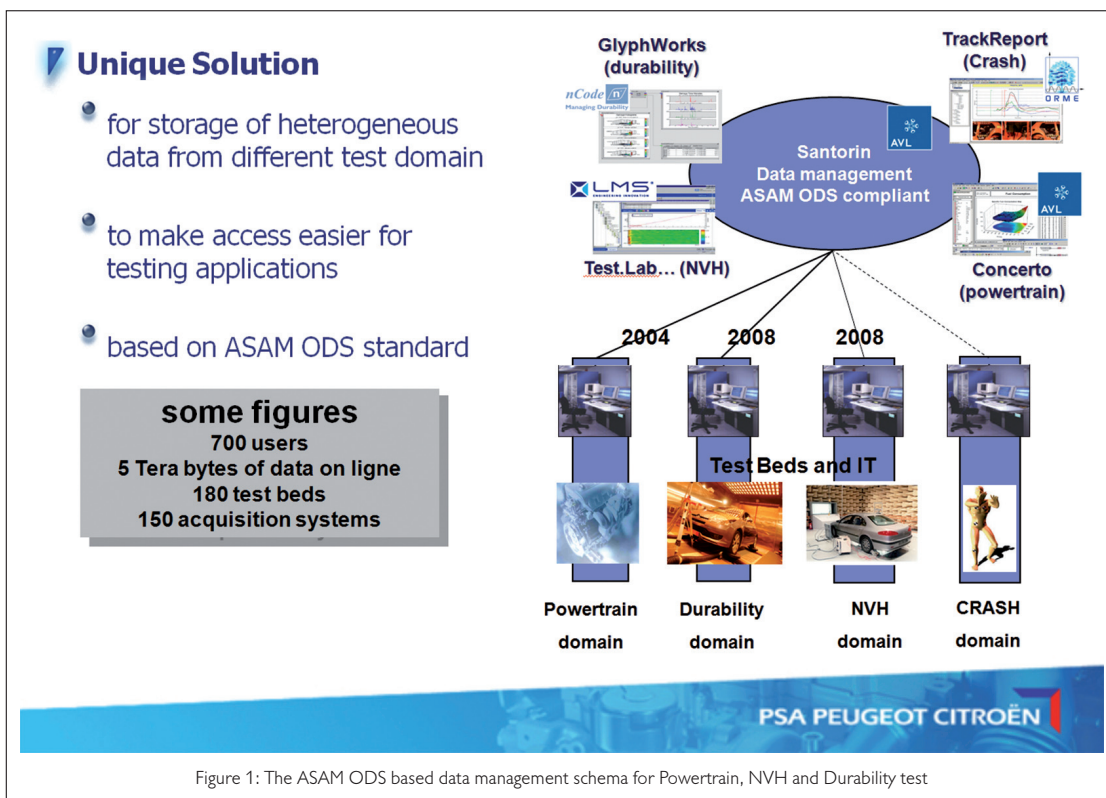


Figure 1: The ASAM ODS based data management schema for Powertrain, NVH and Durability test