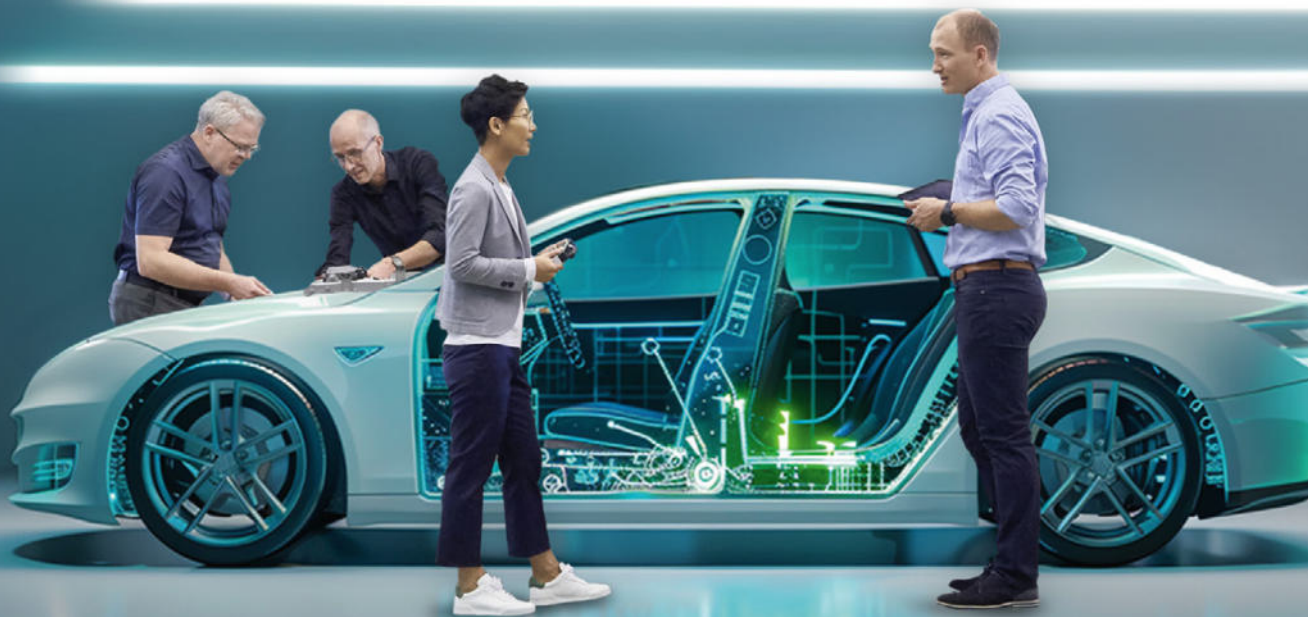


ASAM:GUIDE

ACCELERATE ENGINEERING FOR MOBILITY



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Application Examples



Association for Standardization of
Automation and Measuring Systems

Siemens Digital Industries Software and Peak Solution GmbH

Ready for openness managing NVH test data

Featured Standard:
ASAM ODS

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SUMMARY
Siemens partners with Peak Solution to help BMW Group move from their established data management solution to a more performant, open, and modern data management solution. Siemens introduces Simcenter Testlab Data Management, based on the ASAM ODS standard and the associated NVH application model to enable access to a central and open server-based database, leveraging the value of annotated data. The key benefit of the solution is that thanks to the openness granted by the ASAM ODS standard, the customers can work with any data source, regardless of the suppliers, as it helps manage and retrieve this data.

INITIAL SITUATION
BMW Group’s structural dynamics department sought to transition from a proprietary data management system to an open standard al-

ternative that would grant them independence from any specific supplier. The outdated database solution presented various challenges, necessitating a more modern solution. The Simcenter Testlab Data Management solution, based on the ASAM ODS standard, offered the centralized, open-standard database access BMW Group desired. Additionally, they sought a more efficient solution with robust search and advanced data annotation capabilities. The Simcenter Testlab Data Management solution met all these criteria, offering standardization, openness, and supplier independence.

SUCCESS STRATEGY / SOLUTION
The tight integration of the Simcenter Testlab Data Management solution into the engineering tool of Simcenter Testlab is the first key factor of an industrialized solution.

The Simcenter Testlab Data Management solution is based on the ASAM ODS NVH application model, leveraging ASAM ODS standards for data annotation and management. Both companies closely worked together to implement extensions to Siemens’ standard test data management solution, managing to fully meet BMW Group’s data management requirements.

The extensibility of the ASAM ODS standard allowed Peak Solution and Siemens to seamlessly work together to implement a background process that would integrate data from different vendors into the same structured and open database without modifying the original data. This process enriched the data with labels to make it compatible with Simcenter Testlab, allowing for further data consumption within the engineering tool.

Key extensions were made in permission management and system openness. Advanced permission management features were implemented to enhance data accessibility and security for individuals or groups, considering the complexity of their internal structure.

The successful implementation of this solution relied on the collaboration between Siemens and Peak Solution.

CHALLENGES DURING THE PROJECT
The migration from BMW Group’s proprietary database to the ASAM ODS database presented the biggest challenge of all. Due to huge complexities in data annotation in the old data management solution, a data conversion process was implemented to ensure consistency throughout the entire dataset.

To smoothen the transition, Siemens created tools such as data overviews to understand the scope of the data migration and mapping tables to help BMW Group adjust the database for a 100% consistent outcome. Successful outcomes were achieved through top-down support, tireless collaboration with BMW Group, and with a focus on implementing the desired BMW Group data annotation.

The implementation of the Simcenter Testlab data management solution yielded significant business benefits. These included time savings when searching for and comparing historical data, increased flexibility thanks to the openness of the ASAM ODS standard, and improved project quality.

By capitalizing on the value of NVH data, the solution paved the way for strategic process improvements and future technology integration, such as machine learning and virtual prototype assembly.

