SIMULATION X®

Powered by ITI

Automotive

Modeling powertrains and analyzing system behavior with SimulationX

Volkswagen is one of the world's leading automobile manufacturers and the largest carmaker in Europe. The Volkswagen Group operates 94 production plants and delivered 8.265 million vehicles to customers in 2011 – a share of 12.3 percent of the global passenger car market.

For a couple of years now, Volkswagen has relied on ITI simulation software for modeling and simulating its vehicle components and systems, testing rigs as well as for analyzing noise, vibration and harshness (NVH) behavior.

»Using SimulationX helps us to predict the NVH behavior of our vehicles and transmission parts during the development period. Therefore the comfort of our products is rising continuously.«

Nicole Schemel, Transmission Department, Volkswagen AG

Challenge

Modeling powertrains and test benches

The development engineers at Volkswagen were looking for a CAE tool that could guarantee an easy and quick way of building simple and complex powertrain models. Validated and adjustable model components that are easy to integrate play a crucial role especially in realistic numeric calculations. All components need to be tested and verified in a virtual environment.

Solution

SimulationX Professional Edition

With SimulationX, drive and chassis systems can be simulated in all terms of physics in 1D to 3D on a single platform. The multi-domain simulation software analyzes NVH behavior and helps adjust dynamic behavior of powertrain components allowing for quick testing of integrated system behavior and its interaction.

Benefits

Realistic, reliable and quick

SimulationX delivers reliable simulation results and guarantees quick predictions of static and dynamic behavior. 1D to 3D vibration phenomena can thus be prognosticated, controlled and reduced, and comfort can be optimized.

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