

AVL



AVL CONCERTO 5™

Data processing power for electrification

THE CHALLENGE

Development work in the area of electrified vehicles, full or partially electrified powertrains, engines and electric components is increasing together with system complexity and the volume of data generated. To capture and analyze electrical phenomena it is necessary to take frequent measurements over a long period of time. This requires a tool that can handle multiple large data files at once.

THE AVL SOLUTION

AVL CONCERTO 5™ is the generic data processing platform for visualizing, analyzing and reporting many measured and simulated data types. It can easily handle and process different types of data from mechanical, chemical and electrical systems at the same time.

CONCERTO 5 features powerful functions that enable electrical measurements, NVH information and data from other mechanical systems to be converted into decision-relevant information. The seamless reuse of existing layouts and applications from previous analysis of conventional powertrain and vehicle concepts drives standardization. Additionally, by integrating virtual models of electrical components and systems, CONCERTO 5 supports simulation and frontloading in the development process.

THE ADDED VALUE

- Seamless analysis of measurement and simulation data from electrical, mechanical and chemical systems
- One platform for harmonization and standardization
- Powerful functions for intuitive and interactive analysis of high frequency, long-term measurement data
- Historically proven data processing platform for automotive applications

SOLUTION OVERVIEW



OPEN AND EFFICIENT

CONCERTO 5 can easily handle and process measurement data from different sources, independent of the supplier. It can efficiently process, analyze and report time-based data from electrical measurements and combine data from different electrical, mechanical, chemical systems. The platform features tools to visualize and analyze long term measurements, easily split cycles and compare them in one plot or layout. In addition, CONCERTO 5 can transform electrical measurements into relevant lifecycle information, such as resistance, capacity, and aging information with powerful and extendable mathematical functions.



PROVEN POWER

Developed over several years, CONCERTO 5 provides a wide range of functions to analyze and report data from electrification applications. CONCERTO 5 is used worldwide by more than 800 companies for a range of conventional and electrified powertrain applications. The platform leverages the power of high data reuse and standardization with seamless transition from conventional to new applications, and helps to increase efficiency in the development process.

APPLICATIONS

CONCERTO 5 can be:

- **Battery – Cell/Module/Pack Development:**
 - Analyze performance and aging effects for multiple cells, modules or packs at the same time
 - Easily combine multiple measurements in one layout, graph or report
 - Automatically run calculations and report in combination with AVL SANTORIN MX 2™
 - Conduct annual e-storage device calibration with AVL LYNX 2™ systems
- **E-Motor/E-Axle:**
 - Check the plausibility of measurements and calculate of KPIs in respect to current, voltage, temperature for ECU calibration and verification tasks
- **Hybrid Powertrain/Vehicle:**
 - Analyze and report the hybrid strategy of your control system over multiple measurements from the road, the chassis dyno or the simulation
 - Convert them to KPIs to be used to calibrate the ECU functions



FIND OUT MORE:

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