AVL IndiCom 2™

Combustion excellence

AVL

AVL Team SUITE

Combustion Analysis can be that easy

Powertrain development is growing in complexity at an ever increasing rate. At the same time, the pressure on development costs and time is escalating. Understanding the combustion process and its influences on many engine parameters is essential to making modern engines more efficient. The use of robust and reliable test equipment and the ability to integrate state-of-the-art methodologies such as optical analysis or process simulation lead to trustable results and sustainable success in a competitive environment.

AVL sets new standards in terms of functionality, usability and reliability for high speed data acquisition and combustion analysis. The close cooperation with customers and in-house combustion experts and a certified development process result in a product range tailored to customer needs and the highest quality standards for combustion and high speed data analysis software.

THE ADDED VALUE

- Complete software platform which combines classic combustion analysis with simulation technology
- Powerful data acquisition system for powertrain development applications with extensive online calculation capabilities
- Easy and proven integration into any test environment by means of well documented generic interfaces
- Maximum measurement accuracy and reliability with a perfectly matched measurement chain supported by plausibility check functions and AVL Sensor Data Management

Efficiency thanks to a workflow oriented user interface

CalcGraf – graphical formula editor

AVL IndiCom 2™ – ADVANCED COMBUSTION ANALYSIS SOFTWARE

FUNCTIONALITY

Applications, ranging from standard combustion measurements to continuous combustion monitoring, model based calibration with AVL CAMEO 3™, cold start and in-vehicle testing, optical flame evaluation for the visualization of mixture preparation / flame propagation and even combustion and gas exchange analysis, can all be performed with AVL IndiCom 2™.

Powerful and versatile calculation tools like the unique and flexible graphical formula editor CalcGraf or even the use of Matlab™ runtime calculations provide the possibility to create user specific calculations to overcome current and future challenges.

User defined diagrams show measured and calculated values, turning data into a clear presentation of the investigated phenomena for analysis and reporting.

AVL IndiCom 2™ makes advanced functionality easily accessible for every user. Powerful and flexible data acquisition, extensive calculation capabilities and professional graphical presentation make it the ideal solution for any application, from simple monitoring to the most sophisticated combustion investigations, today and in the future!

USABILITY

Workflow guidance
Handling all the different tools used in engine development can be a real challenge. To reduce training effort and increase productivity, AVL IndiCom 2™ provides an optimized and intuitive graphical user interface which guides the user through the workflow and presents all relevant information in a clear and user-friendly manner.
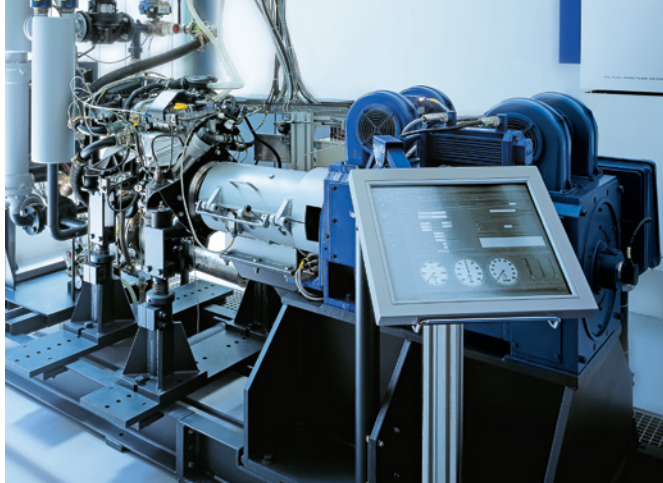
Standardized layouts
Measurement tasks and calculations can be standardized, easily managed, shared and applied to different test and engine setups.

User level management
Provides complete flexibility to experts, and tailored simplicity to the everyday user. The results are reduced preparation time, assured compatibility and reliability of results, so that test engineers can focus on their development tasks.

RELIABILITY

AVL IndiCom 2™ provides built in parameter checks and online measurement plausibility monitoring. This enables increased measurement reliability and maximum productivity.

Testbed integration

AVL

TEST ENVIRONMENT INTEGRATION

Efficient use of development tools requires well integrated measurement systems and devices. AVL IndiCom 2™ offers seamless integration into any testbed environment.

AVL IndiCom 2™ is also a key system for automated ECU optimization when used in conjunction with AVL CAMEO 3™. It additionally provides interfaces to CAN devices, time based acquisition cards, ECU data and the unique drivability assessment tool AVL-DRIVE 4™. The combination of these tools makes the correlation between combustion and its various quality criteria clearly visible.

INTEGRATION PLATFORM

In addition to engine calibration work at the testbed, measurements and ECU calibration are also done in vehicles to verify the testbed results and to optimize the vehicle, especially in relation to its emissions and drivability. Getting the complete picture of all measured values in the vehicle requires an integration platform which can collect and evaluate data from various sources and which is compatible with the data acquired at the testbed. AVL IndiCom 2™ has access to combustion and ECU information, fast time based data, drivability values, the vehicle's CAN bus and the interface to the ETAS calibration tool INCA so it is ideally suited to study the effects of driver inputs on internal combustion and thus the vehicle's responses.
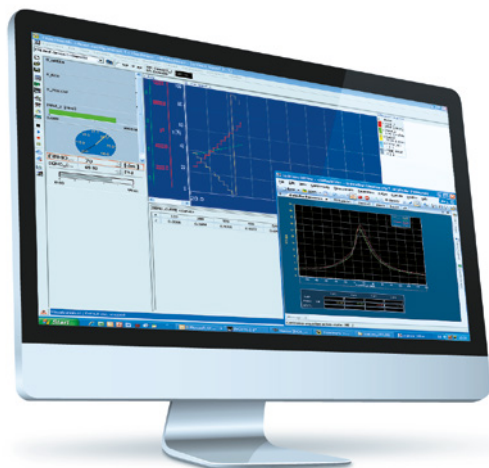
Automatic data synchronization, powerful calculation possibilities, graphical analysis and compatibility with AVL CONCERTO 4™ post processing make AVL IndiCom 2™ the ideal solution for all in-vehicle measurements.

Seamless integration in the calibration environment

AVL IndiCom 2™ parameter editor

POWERTRAIN DEVELOPMENT IS A TEAM SPORT

Today´s requirements in powertrain development move forward every second. Complex systems, shorter times to market and a global world of opportunities challenge you to be better, more flexible and faster than your competitors.

Development tasks aren't stand-alone. And it's not (just) about how good single individuals or tools are…

… it's about how well they work together.

AVL Team SUITE™

SUCCESS BASED ON INTERPLAY
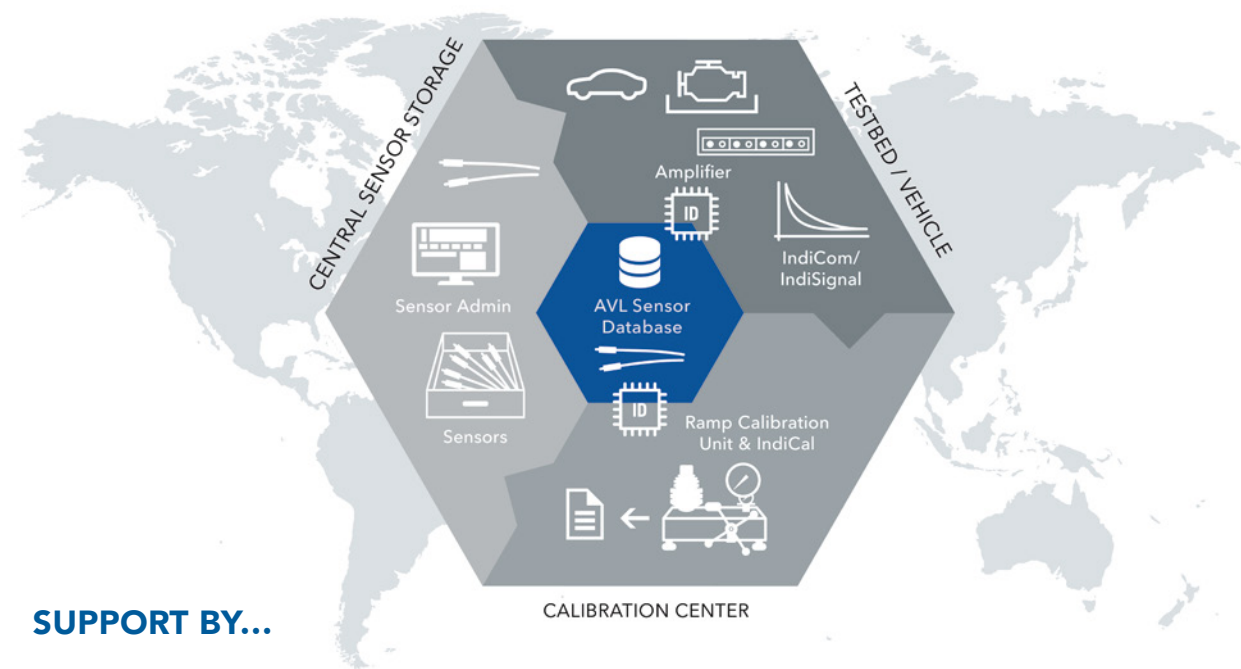

www.avl.com/meet-the-team

COMBINE YOUR STRONG TEAM FLEXIBLY OUT OF COMPATIBLE, COMPLEMENTARY PLAYERS TO MEET YOUR NEEDS.

- AVL PUMA Open 2™
- AVL EMCON 6™
- AVL LYNX 2™
- AVL SANTORIN MX 2™
- AVL TESTLIFE 1™
- AVL CAMEO 3™
- AVL CRETA 4™
- AVL CONCERTO 4™
- AVL-DRIVE 4™
- AVL VSM 4™
- AVL ARTE.Lab 4™
- AVL InMotion 4™
- AVL IndiCom 2™
- AVL iGEM 2™
- AVL TESTGATE 1™
- AVL ISAC 6™
- … and more joining soon

SUCCESS BASED ON INTERPLAY

SUPPORT BY…

PRODUCTIVITY THROUGH TRACEABILITY

Maximum productivity in engine testing requires efficient management of resources and confidence in the accuracy of the measured data. AVL's SensorDataManagement SDM™ with patented automated sensor detection, sensor runtime tracking and a calibration database ensures the correct setup of the measurement chain with reduced parameterization effort.

The sensor database is a central digital repository for the administration of sensor specific data. It can be either a local or a network database. For each sensor all calibration data are stored, the total number of performed cycles or sensor runtime is monitored and service or calibration intervals can be scheduled according to the user's testing needs. Quality assurance standards are supported by the traceable documentation of the complete measurement chain, which is stored in the measurement files (iFile format).

WORLDWIDE CUSTOMERS

Acting globally requires global communication and data exchange. AVL IndiCom 2™ is ideally suited for locally and globally operating companies. It enables the exchange of result data, reports and calculation formulas with the support of an integrated unit conversion tool, a free iFile viewer, and compatibility with the powerful post processing tool AVL CONCERTO 4™.

SERVICE

45 AVL affiliates worldwide with certified service personnel and an international application engineer pool provide quality service and application support close to our customers.

AVL CARE products allow customers to pick the desired level of support and service. To ensure optimal utilization of the equipment, CAREline phone support, software subscription, on-site support and even resident engineers can be offered.

And to benefit from the application know-how and continuous development at AVL, the AVL Skill Center offers professional training customized to participants' needs.