MAHLE Powertrain Applications
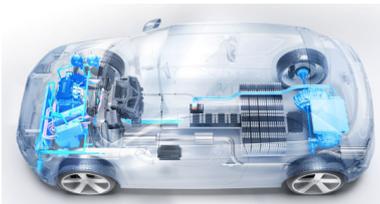
Complex data generated from multiple vehicle systems

Data Analysis and Processing

Automated data processing from multiple sources

What are the data challenges facing engineers?

• Mechanical Simulation

› Increasing volumes of test data

› Data from multiple sources and multiple formats

• Resource constraints

› Reducing project timescales and limited resource availability

• Lack of standardisation between teams

› Individuals using 'local' uncontrolled tools

MAHLE Applications

• Fully configurable toolsets, developed by calibration specialists to support key work packages:

› Engine functions

› Transmission functions

› Diagnostics

› Vehicle functions

• Standardised and automated data processing and reporting
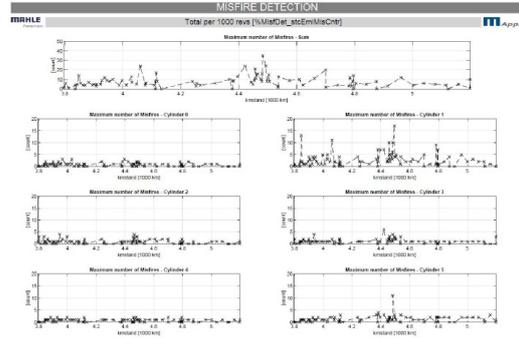
Capabilities

MAHLE Powertrain's MApps is a powerful toolset for data processing that is adaptable for multiple activities. This in-house developed, bespoke software provides reliable method for processing and interrogating large amounts of data. Tailored reports are generated to allow easy identification of issues and concerns to aid the development process.

Powerful toolset for data processing
Bespoke software developed in-house

Benefits

- Tailored data processing & reporting tools for key calibration tasks
  - › Results are easily understood by all team members
- Efficient resource utilisation
  - › Automation of data processing frees engineering resources
- Integrates into all phases of a calibration program
  - › Early identification of concerns improves product quality
  - › Evidence presented in a consistent & standardised format to support gateway reviews

Example report page - OBD summary
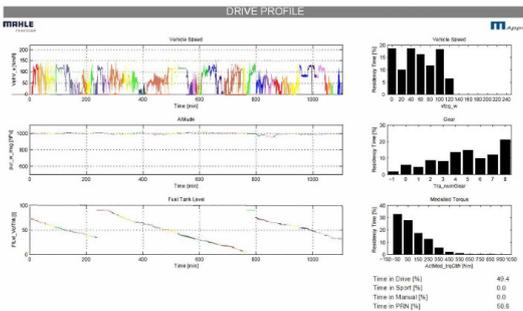
Example report page - Drive profile

Fuel cell and vehicle simulation

Battery Simulation

- Robustness project
  - › Manage data processing, analysis & reporting from any fleet data
  - › Give regular feedback on calibration robustness throughout a products development
  - › Support concern resolution
- Report evidence to support AES / BES / AECD documentation
  - › Help support decisions for new requirements / features
- Develop bespoke toolsets to support development / calibration activities