

Endurance testing of hybrid vehicles

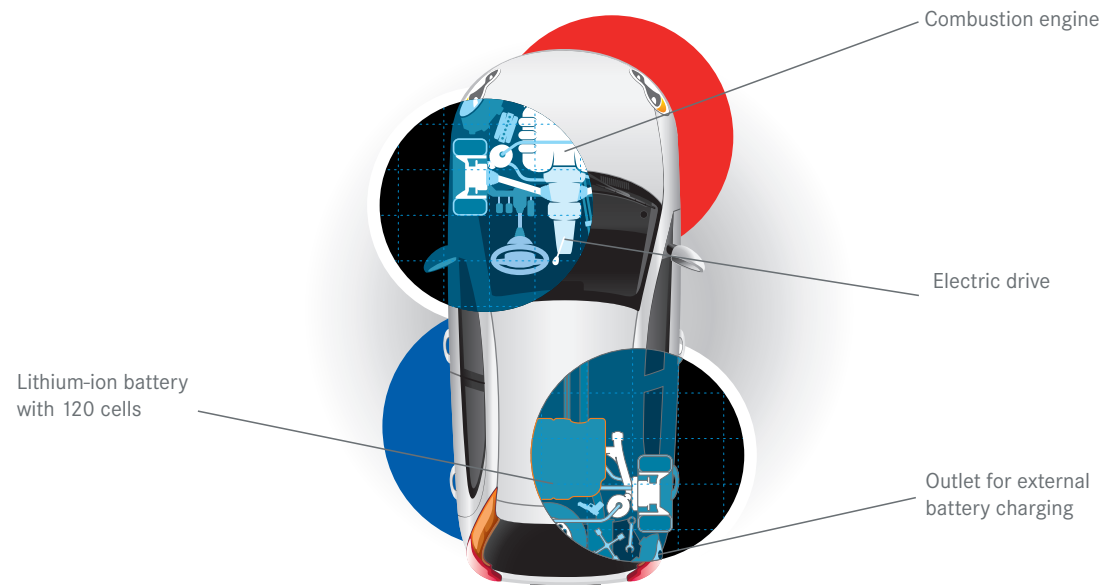
- ▶ Application note for IPElog2

The initial situation

A german automobile manufacturer offers hybrid drive technology – the combination of a combustion engine and an electric drive – for many of their models. Due to the integrated electric drive, the CO₂ emission is significantly reduced. Moreover, customers benefit from new driving qualities such as the fully electric drive or the booster function for fast acceleration with the connected electric motor.

The challenge

The manufacturer examines the functionality of the complex hybrid drive system in a fleet test with over 80 vehicles under customer-oriented driving conditions. The charging behavior and the aging symptoms of the innovative high-voltage batteries are especially important during endurance testing.

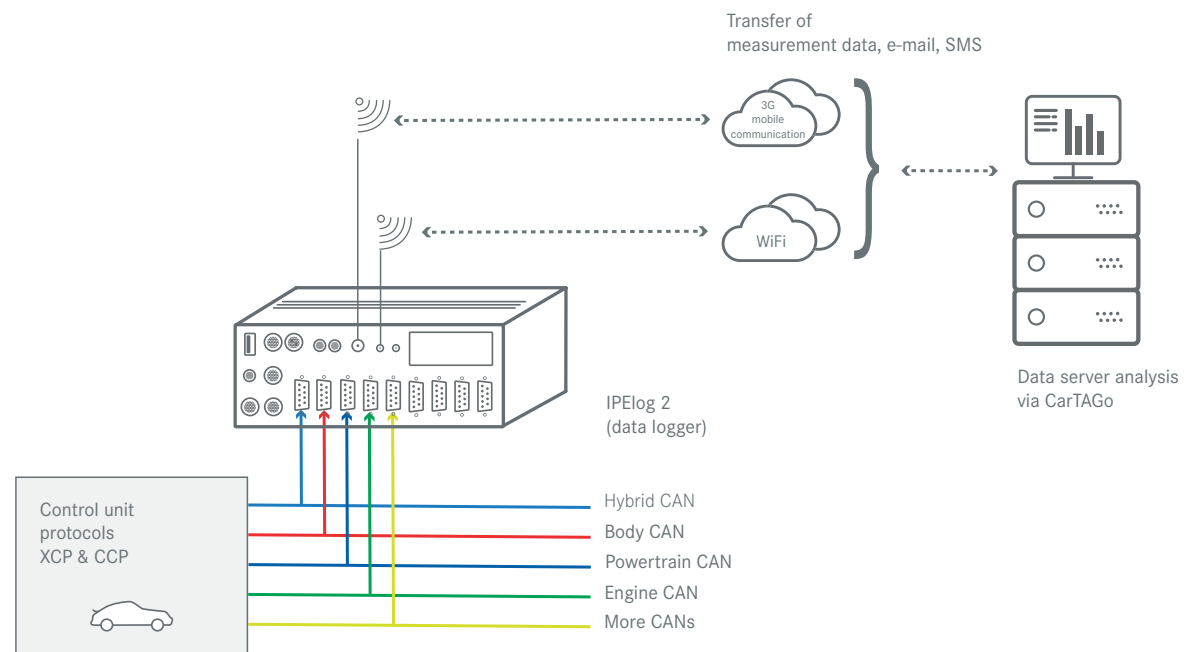


The Solution

The customer requires:

- ▶ Data acquisition of 8 vehicle CAN busses
- ▶ Control unit protocols XCP and CCP
- ▶ Automatic data transfer to the database
- ▶ Event-controlled measurement based on MDF4 format
- ▶ Triggered CAN traffic measurement data storage capacity of several GB

As IPETRONIK's most efficient data logger, IPElog2 meets all of the data logging requirements. It is able to record up to 16 CAN busses with the protocols XCP and CCP in an event-controlled manner. The data logger can be configured with our IPEmotion software. A special feature of this fleet application is the wireless communication via 4G and WiFi networks with the data servers. Long-distance data transmission ensures the comfortable configuration of the vehicle fleet and a smooth transfer of the measurement data to the customer database.



The advantages

- ▶ Protocol measurement of various control units
- ▶ CCP = CAN Calibration Protocol
- ▶ XCP = Universal Calibration Protocol
- ▶ CAN traffic measurement with NoMessageLost (NML)
- ▶ Integrated long-distance data transmission functions
- ▶ High computing power for the storage and synchronous processing of more than 1500 signals
- ▶ Internal calculation and logical channels to define complex trigger conditions
- ▶ cFast data storage up to 64 GB



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