Digiteq Automotive

In-Car Data Logging and Testing

Measurement setup LOG 2.0 has been developed within strategic cooperation between Digiteq Automotive and GQD-3 department of Skoda Auto a.s. The setup is being deployed within test fleet of Skoda quality department and VW Nfz.

LOG 2.0 setup

The LOG 2.0 setup is built up from ready-to use components as well as internally developed solutions based on specific customer needs.

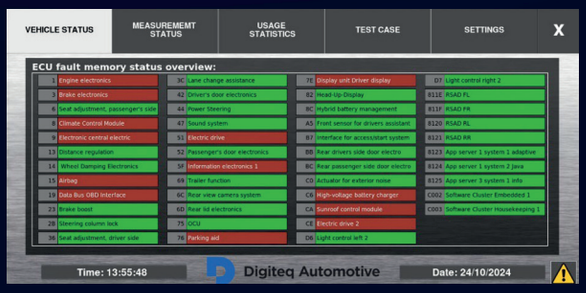
The setup allows long-term complex data recording as well as partial data transfer to the cloud for pre-analysis.

- HMI context of interior displays recorded.
- Vocal failure description possible.
- Continuous self-check of the setup's proper function assured.
- Email-based notification service for vehicle supervisor
  - trigger event happened
  - measurement related warnings (essential data missing, component failure, ...)
  - memory soon full
- Public roads safe installation. Possibly partially hidden based on customer requirements.
- Suited for both predev- and production vehicles.
- Allows predictive maintenance of the measure setup.
- Scalable solution

Grafical user interface

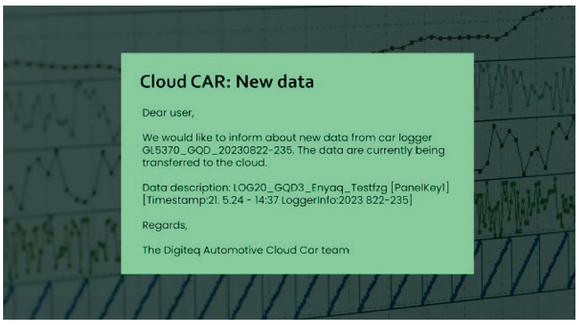
The LOG 2.0 setup can be further extended by in-house developed graphical interface, which provides on demand information about vehicle and measurement setup right on the in-vehicle display. It allows to set up measure equipment according to specific needs and follow progress of the test drive. Our HW toolchain enables to switch in between multiple data sources for a single display. Therefore, conventional function of the in-vehicle systems is kept unchanged.

Currently in proof-of-concept phase. Can be adjusted to meet customer requirements.



Cloud

Defined part of the data are transferred to cloud storage, pre-processed for convenient analysis and fully accessible to customer use. On demand customer-driven overview dashboards are assured. Data about vehicles as well as measure setup are available remotely.

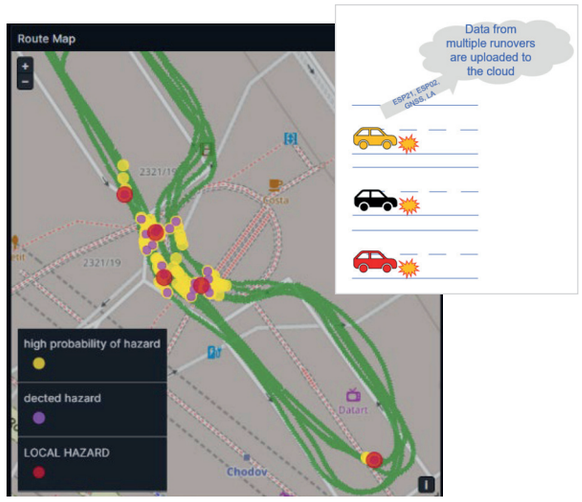


- Instant test drive data on-line handover.
- Notification service (trigger events, failure warnings, full memory … etc.).
- Efficient test management enabled.
- Supports efficient test fleet management.

TLDR: Robust, reliable, efficient and user-friendly data acquisition toolchain with a minimal impact to everyday usability of a vehicle

LOG 2.0 ADAS use case

Data acquisition for Local Hazard Indication project



- LHI project combines data from multiple different car types driving the same road
- The cars are driving many miles, some of which must include potholes, speedbumps and other road "hazards".
- Test cars with measurement setup connected to the cloud storage are extended by embedded in-house developed LHI algorithm unit with following functions:
  - Automate trigger in case any anomaly on the road is detected
  - Trigger data automatically transferred to cloud
  - Anonymized data are then provided to LHI team

CURRENT CUSTOMERS

ŠKODA CARIAD A VOLKSWAGEN GROUP COMPANY Commercial Vehicles