

VOLVO Truck 'CANSAS-PRO'

Car and vehicle testing is a multi-faceted field. One of its most interesting aspects is the transmission of measurement data and system configurations over long distances. With the help of imc technology, a μ -MUSYCS-based data logger application is in use in many Volvo test trucks all over the world. The key feature: every truck can be controlled and observed from Gothenburg, Volvo Truck's headquarters.

The first element of the application is a μ -MUSYCS unit. It works as a stand-alone data logger inside the truck. The system is mainly used to measure a number of analog data and to collect CAN-bus information as well as J1587-bus messages. This bus information has to be acquired in absolute synchronization with the analog data.

Due to its online capabilities μ -MUSYCS is able to reduce and consolidate the measured data. Online calculations such as class-counting (LDC), order-tracking or other data reduction procedures decrease data bulk to the bare essentials. Equipped with a satellite telephone interface the system always can be connected from outside the truck. Data can be downloaded or new configurations can be uploaded.



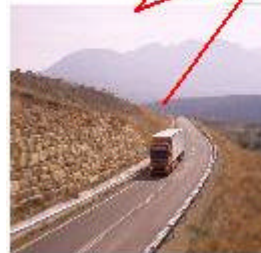
Data acquisition inside a truck collects analog data, J 1587-bus data as well as up to 400 different CAN-bus messages.

The second element of the application is an Intranet-based PC program. It allows the user to get information about a number of trucks directly from the Volvo Truck data server. In addition to this offline procedure, the user of the PC application can be connected directly to the truck.

The program is able to display and verify online data (such as the current position, speed, RPM, torque, fuel consumption etc.)

The most advantageous part of the entire system is that data files, results of online calculations or status reports can be downloaded directly from the truck. After a data evaluation in Gothenburg, the driver inside the truck can be informed directly. Engineers can ask the driver to perform special tests or to drive on special roads. Thanks to the data transfer rate of 1MBit, before the truck reaches its garage the data is already there. Even the evaluation is mostly complete.

Therefore, a two-week truck test with some 'wrong' or 'false' data on a tape-recorder is simply no longer possible.



Truck on the road



Intranet application
'CANSAS PRO'
in Gothenburg (SWEDEN)

To evaluate the data offline, Volvo Truck uses FAMOS, imc's off-line data analysis and evaluation tool. With the help of FAMOS, different data-formats can be handled; they can be loaded-in, displayed and results of data-calculation and evaluations can be reported.

With its over 400 different functions and its interplay with the CANSAS-PRO application, FAMOS provides every development engineer with the performance he needs on his way to getting results quickly and accurately.

