Supports TEDS

With Ipemotion 2017 R3, Ipetronik offers an updated version of its measurement data logging software. It now includes a plug-in interface for analysis operations and extensions in protocol and traffic measurement on in-vehicle networks.

Ipemotion thus now supports three plug-in interfaces for the areas of measurement/signals, online/offline instruments and analysis operations. (Photo: Ipetronik)

To simplify sensor scaling, the TEDS (Transducer Electronic Data Sheet) editor software has been extended with templates for writing calibration data to sensors. TEDS are standardized in IEEE 1451.4. In the new release, the plug-in concept for measurement hardware can also be used for analysis operations. Ipemotion thus now supports three plug-in interfaces for the areas of measurement/signals, online/offline instruments and analysis operations. The plug-in interface for analysis operations enables users to integrate their own evaluation algorithms and calculation rules into the standard user interface. This allows complex evaluations to be encapsulated in a single operation, the calculation integrated into the overall analysis sequence and automatically executed.

The extensions in the protocol and traffic measurement relate to the synchronization of signal descriptions from different sources, which is particularly useful for measurements on in-vehicle networks such as CAN. This is because at the moment, in which the existing measurement task has to be synchronized with a new signal description, the synchronization process compares the previous version with the current description file. This normally happens on message ID level, with the result that an existing channel will drop out of the synchronization process if this is moved into a different message. However, if the check is performed on name level, the channel is always found, no matter which message it is assigned to. In addition, for traffic measurement and evaluation, the BLF import format is available. This allows users to evaluate Classical CAN, CAN FD, and traffic files offline via advanced filter functions.

The templates implemented in the TEDS editor software for writing calibration data to sensors simplify the transfer of sensor scaling into the software measurement configuration. Particularly for strain gauge sensors and accelerometers, an amount of information is often required for the correct sensor parameterization. If this information is stored in the sensor, it is immediately read out for sensor recognition and entered into the configuration. This reduces the susceptibility to errors and saves a great deal of time. Using the Teds editor it is possible, via a compatible interface box, to write sensors with various templates with all the important calibration data such as scaling, feed, calibration date, validity, SN number, manufacturer, etc. Ipemotion thus offers the complete tool chain for the recognition and writing of TEDS sensors via the modules Sx-STG, Mx-STG2 6, Mx-SENS2 4, and M-SENS2.

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