Standards and specifications

This section provides news from standardization bodies and nonprofit associations regarding CAN-related documents. Included are also recommended practices, application notes, implementation guidelines, and technical reports.

Does it matter, if something is required, commanded, confirmed, or indicated?

Parameter specifications in SAE J1939 documents and also in ISO standards referencing the SAE recommended practices are not always consistent in terminology. This makes them hard to read and to understand. Of course, most of these issues are based on the fact that we have to live with our historical failures. Already the term Suspect Parameter (SP) is today misleading, because not all J1939 parameters provide an embedded error indication, for example some enumeration parameters. Just using the term parameter would be perhaps the better choice. In addition, some J1939-related specifications use the term signal as a synonym of SP. But "signal" seems something related to physics.

ISO 11992-3 is somehow confusing newcomers

If you are a longtime fellow of J1939, you can stop reading. You will not consider the SP descriptions given in the J1939 Digital Annex or one of the ISO standards defining the SPs. Many of them provide ambiguous information and are sometimes not easy to understand – especially for non-native English speakers.

In the last edition of the ISO 11992-3 standard (CAN-based truck/trailer link), many SP descriptions have been reworded. Unfortunately, these texts do not use verbs consistently describing the function of the parameter. It matters, if you define that an SP requests or commands something. We know this quite well from human communication, there is difference to give a command (you are not allowed not oppose) or request something (this is just a wish, but the decision is made by the receiver).

In most cases, the towing or the towed vehicles just send requests and not commands mapped into the Parameter Groups. The corresponding response on the application level is the confirmation by means of SPs containing status information. If, for example, the "Clutch-independent PTO switch" description reads: "This parameter indicates the status of the clutch-independent PTO switch", you can guess if this is a request or command. Or you even may think this is a status.

In order to avoid misunderstandings: The ISO 11992-3 SP specifications are technically correct. The descriptions are in some cases ambiguous and can therefore lead to misunderstandings. This relates mainly to the PTO (power take-off) parameters, the lighting parameters controlling the trailer illumination, and some other functions. ◼

DIN 14704 published

Beginning of this year, DIN has published a standard in English language specifying the body builder gateway for fire-fighting trucks. It is based on J1939 and DIN 4630 (published in May 2022). DIN 4630, also written in English language, is a generic standard for commercial vehicle body builders and can be applied on trucks and trailers. DIN 14704 standardizes the mandatory and optional Suspect Parameters (SP) and Parameter Groups (PG) dedicated for fire-fighting trucks. In the next edition, additional functional units (e.g. Telematic Gateway Unit) are intended to be added. ◼