

Viewing the three main layers

Warwick Control provides the 3-in-1 CAN maintenance kit. The concept of the kit is to allow engineers to view the CAN network on the three main layers (physical layer, data link layer, and application layer).

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The kit comes with an analyzing tool (Photo: Warwick Control)

The kit includes the X-Analyser 3 professional software for CAN, J1939, NMEA 2000, and CANopen. It comprises the Leaf Light single CAN-to-USB interface by Kvaser used for the X-Analyser and the Picoscope 2206B USB oscilloscope including scope probes. This kit is delivered with the Picoscope 6 Oscilloscope software. It also includes a choice of D9 adaptor cables to interface from the X-Analyser to the CAN system (OBD, Deutsch, or M12 for NMEA 2000), as well as a choice of dual BNC adaptor cables to interface from the Picoscope to the CAN system (D9 or M12 for NMEA 2000). The delivery also includes a carry bag and an USB stick with relevant software loaded.

The updated version of X-Analyser allows collection of CAN frames and analyzes each one on the three levels:

- Physical layer – collecting CAN frames, highlight a CAN ID (or PGN), and view the physical signal (CAN_H, CAN_L and Differential)
- Data link layer – displaying the usual CAN frame information (time stamp, CAN ID, frame type, DLC and Data in Hex) plus bus statistics (bus load, error frames, and frame count)
- Application layer – viewing signals within the CAN data field by means of CANdb presentation.

Available are CANdb file formats for J1939 and NMEA 2000. CANdb allows the import or build up for proprietary protocols, It also features CANopen interpretation.

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