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CANopen Lift updated

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CAN in Automation (CiA) has updated the CANopen application profile for lift/elevator control systems. The released version of the CiA 417 series introduces some new functions.

CANopen Lift is the trade name of the CANopen application profile lift control systems published as CiA 417 series. The application profile specifies controllers (e.g. call, drive, and car controllers) and units (e.g. input and output panels, drives, car doors, power meters as well as positioning sensors).

The nonprofit CAN in Automation (CiA) association developing and maintaining the CiA 417 series has released already the version 2.3. New functions include the position supervisor and the monitoring units. Additional parameters for the call controller and the load-measuring unit have been introduced. Many European lift control suppliers have implemented this CANopen profile.

The specification series four parts

On the CiA booth, members present CiA 417 products. The legacy CANopen Lift demonstrators are not more shown. "They have done their job" explained Holger Zeltwanger, CiA Managing Director. "Now they can go into museum."

The CiA 417 version 2.3 is still based on the Classic CANopen application layer as specified in CiA 301. The specification series fo
Part 1 provides general definitions and part 2 describes in detail the functionality of the virtual devices (controllers and units). Par
specifies the TPDO as well as RPDO messages containing the process data exchanged between the virtual devices. The application parameters, process data and configuration data, are defined in detail in part 4.

Significant market acceptance

"CANopen Lift originally released in 2003 has gained significant market acceptance," said Holger Zeltwanger, CiA Managing Director. "The new version of the application profile also specifies a boot-loader mode and the program download handling." These improvements simplify the system integration.

Some of the new functions are:

• Power-measuring unit: It provides the measured power consumption. It can measure the overall or the device-individual power consumption
• Remote data transmission unit: It features gateway functionality for remote control or remote diagnostics purposes
• Access remote unit: It reads different media to allow access, e.g. chip and smart cars, RFID tags, bar codes, or fingerprints
• Monitoring unit: It serves as condition monitoring as recommended in VDMA 24582
• Position supervisor unit: It comprises the car position unit 1 and monitors speed, deceleration, door contacts, safety limit switches, and unintended car moves

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Back to overview