

DEVELOPMENT KIT

Free Micro CANopen libraries for NXP micro-controllers

Embedded Systems Academy (Emsa) and NXP Semiconductors announced the integration of the free-to-use Emsa Micro CANopen libraries into the NXP MCUXpresso Software Development Kit (SDK).

The integration enables developing with NXP's micro-controller units (MCU) and crossovers based on Arm Cortex-M. For years, many MCUs have been equipped with CAN interfaces including CAN FD. These interfaces are optimized for embedded communication and enable to transmit and receive single messages, explained the Emsa. "To take full advantage of the capabilities of such interfaces, middleware communication protocols are required," said Olaf Pfeiffer, General Manager of Emsa. "One of the most popular protocols for embedded CAN applications is CANopen, for which Emsa has delivered its Micro CANopen software for more than 20 years, and remains highly used among embedded developers."

Free-to-use versions of Emsa's Micro CANopen library are now fully integrated into the MCUXpresso SDK for a selection of NXP LPC MCUs and i.MX RT crossover MCUs. "This integration further simplifies the process of prototyping and integrating sophisticated and reliable communication into embedded systems," said Brendon Slade, director of MCU ecosystem for Edge Processing at NXP Semiconductors. "For most systems, the libraries can be used in production without further licensing."



The PCAN-MicroMod FD from Peak-System (Source: Peak)

About MCUXpresso SDK

Available in downloads based on user selections of MCU, evaluation board and optional software components, the MCUXpresso SDK merges customization and quality in a suite of production-grade runtime software. Complete with pre-integrated RTOS middleware, stacks and middleware, reference software, and Misra-compliant drivers analyzed with Coverity static analysis tools, it's a software framework and reference solution for application development with NXP MCUs and crossover MCUs based on ARM Cortex-M cores

One of the first adopters is Peak-System Technik: Their industrial I/O module PCAN-MicroMod FD is based on NXP's LPC54000 MCU series and uses a variation of Emsa's Micro CANopen libraries. "Using a proven CANopen (FD) protocol implementation for our I/O devices greatly reduced our development time and opens up additional use-cases for our customers.", said Uwe Wilhelm, General Manager of Peak-System Technik.

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