CAN Newsletter Online

Q&A WITH EMSA

CANopen FD for protocol converter chips and modules planned

Olaf Pfeiffer from Embedded Systems Academy (Emsa), answered five questions regarding the company's CANopen FD protocol stack. First customers, CANopen FD tools, next features and steps, as well as the influence of the coronavirus pandemic.

Olaf Pfeiffer is co-founder of Emsa (Source: Emsa)

Q: Which features does your CANopen FD protocol stack provide?

A: Implementations based on our Micro CANopen FD protocol stack pass the official CiA (CAN in Automation) conformance test and include all mandatory functions. Additional functionality is available on request.

Q: Who are the first customers and for what applications they like to use CANopen FD?

A: Our first customers were Peak-System and NXP Semiconductors. Peak, uses our CANopen FD stack in a variety of industrial I/O modules. NXP Semiconductors integrated CANopen FD libraries to their MCUxpresso Software Development Kit. This allows their customers to build minimal CANopen FD nodes without the need to purchase any additional licenses. Our other customers would not like to be named. Their application fields are far-edge factory automation (Internet of Things edge computing), high-end optical sensors, and medical equipment.

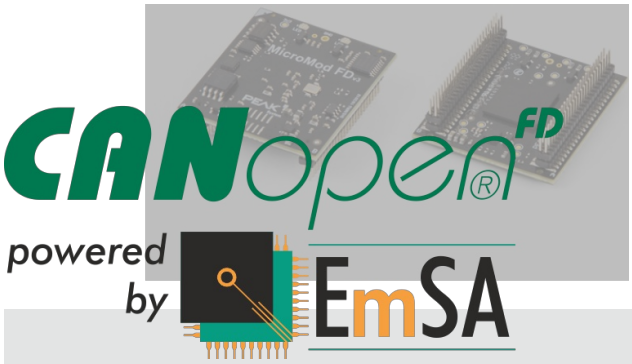
Q: How has the Covid-19 pandemic impacted the implementation of your CANopen FD protocol stack?

A: No impact on the implementation. However, it limited other activities, such as demonstrating it at shows and conferences or offering presence training classes.

Peak uses Emsa's CANopen FD protocol stack in their I/O modules (Source: Emsa)

Q: Which CANopen FD tools do you offer?

A: The CANopen Architect which is an editor for creating and editing electronic data sheets, it also generates configuration files for code and libraries. The CANopen Magic is a versatile software tool to monitor, analyze, trace, configure, simulate, and test classic CANopen and CANopen FD networks and devices.



(Source: Emsa)

Q: What are the next steps regarding CANopen FD you are planning?

A: Using the newly introduced "Maximum Payload Size" parameter to implement a CANopen FD version combined with a security layer. Implement and test a large CANopen FD systems utilizing bridges and the USDO remote protocol. Enhancing our existing CANopen protocol converter chips and modules to also handle CANopen FD.

Background

The German company, covers micro-controller architectures and their development tools. Application fields include consumer, industrial, medical, subsea, and automotive. The company, develops and manages software products including a CANopen monitor, analyzer, configurator, and simulator as well as CANopen source code for various device or application profiles, CANopen bootloaders. The CANopen hardware products include a hand-held diagnostics unit.

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