

EMBEDDED WORLD 2017

CANopen FD support for STMicroelectronics' micro-controllers

At the Embedded World, Emtas presents its CANopen FD protocol stack running on STMicroelectronics STM32H7 micro-controller with CAN FD support.

Based on its CANopen protocol stack, Emtas has developed their CANopen FD protocol stack. Having used PC-based CAN FD interfaces hitherto, the CANopen FD stack has now been ported to the STM32H7 micro-controller – one of the first industrial micro-controllers with CAN FD support.

The STM32H7 micro-controller features a dual on-chip CAN FD controllers, and it is embedding up to 2 MiB of dual-bank flash memory and 1 Mbit of SRAM. The protocol stack uses the CAN FD controllers, which are able to handle Classical CAN messages and CAN FD messages with a payload of up to 64 byte.

The CANopen FD stack has been implemented according to the upcoming CiA specification 301 version 5.0 and it supports CANopen FD features such as PDOs with up to 64 byte and the Universal SDO (USDO) service, which includes possibilities such as broadcast and routing of USDO messages. The stack runs on the STM32H7 evaluation board and will be shown at the multi-vendor demonstration at the CAN in Automation booth at the Embedded World fair.

In addition to the stack, Emtas has updated its CANopen Device Designer – a PC tool to design CANopen and CANopen FD devices. This tool generates code for the object dictionary and configuration header to configure the stack as well as electronic device description files in both the old EDS and the new XML format.

The CANopen Device Designer tool supporting CANopen and CANopen FD is available for Windows, Linux, and OS X. The stack is available for customers from March 2017. All products are shown at the [Embedded World 2017](#) in Nuremberg, Germany at the booth 620a in hall 4A. The exhibition takes place from March 14 to 16.



(Photo: Emtas)

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