Press Release

Synapticon at SPS IPC Drives 2013

Consistent platform for flexible automation solutions

Gruibingen (Germany), 28 October 2013 – Synapticon GmbH, the developer of a consistent development platform for cyber-physical systems, is set to present at SPS IPC Drives in Nuremberg, Germany, from 26 to 28 November 2013. Visit Synapticon at Booth 151 in Hall 1. The company will demonstrate the latest expansion of SOMANET, a modular system made up of CPU, interface and control modules, which makes it possible to implement intelligent, distributed sensor/actuator systems more quickly and easily. Synapticon will also offer visitors an insight into the OBLAC tool chain, which is used to develop the embedded software for the systems constructed from the SOMANET modules. The trade fair booth will be surrounded by a mobile manipulator, and Synapticon plan to demonstrate reference projects from their work as development service providers for complex electromechanical automation solutions.

"What are the advantages of the SOMANET platform in a nutshell? Well, you could say that SOMANET is a type of Arduino for professional developers and applications. We use SOMANET to provide electronic modules, which can be used to develop new sensor/actuator systems," explains Nikolai Ensslen, Managing Director at Synapticon GmbH. "What's so advanced is that the modules are perfectly aligned and their development environment is completely aligned on distributed systems with parallel computing power and real-time capability. This, along with their small size, makes them ideal for autonomous cyber-physical systems. It means that the SOMANET modules can be used in prototypes and mass production."

Synapticon will use SPS IPC Drives to present a series of new SOMANET hardware modules, including a Wi-Fi module and a particularly powerful GPIO module, alongside the familiar modules for actuators, sensors and EtherCAT and CAN-Bus communication.

Streamlined electronics and new software

The SOMANET 'modular system' offers four CPU modules, five bus modules and five control modules for brushless DC motors and sensors. When combined and connected, the modules from these three categories produce a 35 x 35 x 20 mm node for constructing a distributed system with decentralised computing power.

"The idea of placing computing capacity on the sensors and actuators in a decentralised manner comes from service robotics. We have spent many years working on projects in this area that address what we now consider to be the future challenges of industrial automation. This includes sensors for self-controlling processes, cooperation between humans and robots, adaptive systems, the Internet of Things, among many others," explains Nikolai Ensslen. "Thanks to OBLAC, we are about to finish manufacturing an innovative development environment, which is specially adapted to the convenient development and swift programming of this kind of distributed system. The professional audience at the trade fair will be the first get an insight into the possibilities of this development environment has to offer."

The project management OBLAC Base, OBLAC Hardware Model Editor and OBLAC Code Editor & Cloud Compiler are all worth seeing.

Images available

The images below can be downloaded from the Internet in printer-friendly format:
http://www.htcm.de/kk/synapticon

Image source: Synapticon

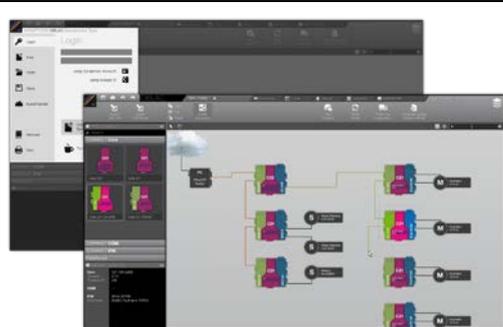**A module of the modular system for motor control: The SOMANET IFM DC 300**

Image source: Synapticon

Web login and Hardware Model Editor from Synapticon's OBLAC development environment. It allows developers to conveniently implement distributed embedded real-time systems.

About Synapticon GmbH

Synapticon, established in 2010, is a young and international company based in Gruibingen, Baden-Württemberg, which develops innovative embedded systems to improve the robotics and automation technology of the future. Synapticon's DYNARC Distributed Computing Technology combines modular embedded hardware, model-based software engineering and a complete development environment to facilitate and accelerate the development process for manufacturers of complex products, machinery and facilities. Synapticon also operates as an engineering service provider.

Further information is available at www.synapticon.com.

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