Press release

embedded world Exhibition&Conference
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26 - 28 February 2013
Hall 5, Booth 5-312

Synapticon showcases DYNARC platform at Embedded World

The fast track to a distributed real-time system

Gruibingen (Germany), 23 January 2013 – At Embedded World 2013, Synapticon will present its simplified approach for developing distributed embedded systems to a wide professional audience. Synapticon will showcase the DYNARC platform at Booth 5-312 in Hall 5 at the Nuremburg trade fair from 26 to 28 February 2013. The DYNARC platform is a development environment and a modular system consisting of compatible electronics modules that enable the creation of all kinds of control units for sensors and actuators. Internal processor units in the controllers make it possible to build complex automation solutions with local intelligence.

DYNARC from Synapticon is a platform that provides all the development tools and standardised electronics components required to design distributed real-time and cyber-physical systems. Thanks to the low costs involved in developing peripherals, manufacturers of automation and robotics solutions can now devote more attention to the applications themselves. The next generation of industrial automation, 'Industry 4.0', relies on a wider use of adaptive subsystems with built-in intelligence rather than central computer-controlled systems.

Modular design for cyber-physical systems

Using editor software, DYNARC users first specify the target system that is to be controlled. In the case of robots, for example, such a target system might consist of the degrees of freedom and kinetic properties of all the joints. Next, the requirements for the motors and sensors are defined. This information then allows the individual structural components to be set up in a modular system composed of motor power electronics and sensor interfaces, various XMOS-based processor modules, and communication units for the desired bus systems (EtherCAT, CAN, WiFi and processor bus via LVDS). The way in which the electronics modules are assembled enables the relevant, open-

source driver libraries to be selected and integrated immediately and automatically via the DYNARC platform.

In Synapticon's OBLAC development environment, software can be developed in a model-based manner and independently of the hardware and operating system. OBLAC is available as a web application to all software engineers at any time and from anywhere without the need for installation. Interfaces to application-specific frameworks such as ROS, tools such as MATLAB and formats such as COLLADA are available and facilitate integration with existing development processes.

Images available

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

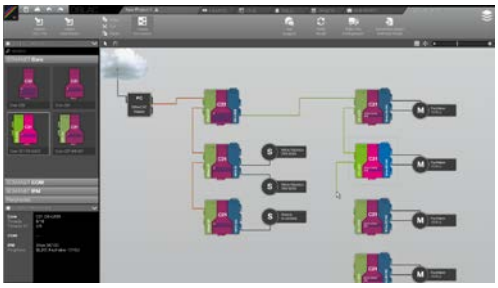

Image source: Synapticon

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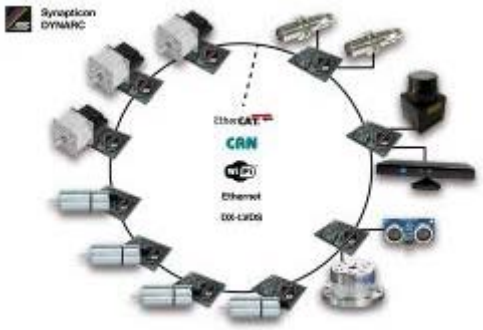

Image source: Synapticon

At Embedded World, Synapticon will present its DYNARC platform for the design of innovative, distributed real-time, measurement and control 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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