Press Release

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Sercos International – Working group for Ethernet TSN established

Sercos International, provider of the Sercos® automation bus, announced at the SPS IPC Drives 2015 that a working group will evaluate the future real-time Ethernet standard IEEE 802.1 TSN (Time Sensitive Networks) with regard to its suitablity for high-speed real-time machine communication.

Ethernet TSN comprises a series of IEEE 802 sub standards, that are currently elaborated by the IEEE TSN working group and that will most probably be released until 2017. The new standards include, amongst others, time-triggered data transmission (IEEE 802.1Qbv Scheduling), bandwidth reservation (IEEE 802.1Qcc Stream Reservation), as well as measures to interrupt non-time-critical data streams (IEEE 802.1Qbu Frame Preemption). Thus, a completely deterministic communication within the IEEE 802 standard is possible. At the same time additional protocols (streams) may be transmitted over the same medium without affecting the real-time characteristic of the network.

The newly established Sercos TSN working group will evaluate the future IEEE 802.1 TSN (Time Sensitive Networks) standard especially with respect to the achievable network performance (data throughput, latency times and real-time characteristic), as well as the required network management associated with different network configurations. The results are analyzed in order to derive possible implementation and migration concepts for different use cases.

„For the first time in the history of Ethernet, Ethernet TSN allows a time-triggered transmission of real-time critical messages via standard Ethernet components. An exciting and crucial question is now whether and how high-speed real-time applications can be realized with Ethernet TSN. The advantages of using Ethernet TSN are obvious: standard Ethernet hardware with integrated real-time capability can be used, which would result in low cost and a wide range of products and manufacturers. In addition, TSN can make an important contribution to the implementation of consistent IoT solutions and to the improvement of the coexistence of real-time Ethernet and Internet protocols“, states Peter Lutz, Managing Director of Sercos International e.V.

For more information, please refer to our eNewsletter or visit our website.

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About Sercos International

Sercos International is an association of users and manufacturers that is in charge of technical development, standardization, certification and marketing for the Sercos automation bus. Conformance tests guarantee that Sercos implementations are standard-compliant ensuring that devices from different manufacturers can be combined. Based in Germany, the organization presently has more than 90 member companies located around the world and has national liaison offices in North America and Asia.

About Sercos

The SErial Realtime COmmunication System, or Sercos, is one of the world's leading digital interfaces for communication between controls, drives and decentralized peripheral devices. Sercos has been used in machine engineering for approximately 25 years and is implemented in over 5 million real-time nodes. With its open, manufacturer-independent Ethernet-based architecture, Sercos III is a universal bus for all automation solutions.

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