EtherCAT to demonstrate a 12.5us cycle time

EtherCAT remains the market leader for network performance: the EtherCAT Technology Group displays an EtherCAT network with a 12.5us cycle time at its booth at the Hannover Messe 2012. The network features a master with a purely software-based solution loaded on a standard industrial PC and 15 standard slave devices.

"EtherCAT's unique design allows it to utilize Ethernet bandwidth better than any other solution. This inherently makes it the fastest Industrial Ethernet network," says Martin Rostan, Executive Director of the EtherCAT Technology Group. "Even for the fastest cycle times, we need neither specialized hardware for the master nor a new generation of slave chips. Furthermore and regardless of cycle time, EtherCAT can also transmit any other Ethernet traffic such as TCP/IP.. We're doing all this and more with EtherCAT Version 1, because that's the only version that exists!"

EtherCAT was initially introduced in 2003 and has been stable since its publication by IEC in mid-2005. “Of course there have been enhancements by the ETG’s technical working groups, for instance at the device profile level” explains Rostan. “The EtherCAT protocol itself has not been changed for a long time, and it is used by all EtherCAT devices in the same way. In addition to outstanding performance, we consider stability and reliability to be the most important distinguishing characteristics of our technology: these are the very reasons that we also have the widest vendor and device selection in the entire market by far.”

EtherCAT sets new standards for real-time performance and topology flexibility, while meeting or undercutting traditional fieldbus cost levels. EtherCAT’s features include high precision device synchronization, cable redundancy options, and a proven functional safety protocol (SIL3). EtherCAT is an international standard (IEC, ISO and SEMI) as well as national standard in several countries.
The EtherCAT Technology Group (ETG) is an organization in which key user companies from various industries and leading automation suppliers join forces to support, promote and advance EtherCAT technology. With over 1900 members from 53 countries the EtherCAT Technology Group has become the largest fieldbus organization in the world. Founded in November 2003, it is also the world’s fastest growing fieldbus organization.

⇒ For further information please also see www.ethercat.org