EtherCAT as communication technology for SERCOS and CANopen drive profiles now International Standard

The IEC standards 61158, 61784-2 and 61800-7 have passed the final voting unanimously: Thus EtherCAT now is an official IEC standard.

This is the positive result of more than 4 years of IEC committee work, during which the EtherCAT Technology Group was declared an official IEC standardization partner. As early as 2005 the EtherCAT specification was published by IEC as IEC/PAS 62407, which is now being replaced by the International Standards.

In IEC 61158, the EtherCAT protocols and services are standardized, while IEC 61784-2 defines profiles for specific device classes.

IEC 61800-7 is particularly important for Motion Control applications, since it makes EtherCAT a standardized communication technology for the SERCOS and CANopen drive profiles, on an equal footing with SERCOS I-III and CANopen respectively. The drive parameters and state machines as well as the process data layout of the device profiles remain untouched when mapped to EtherCAT. Hence the user interface does not change when moving from SERCOS and CANopen to EtherCAT, and device manufacturers can re-use major parts of their firmware.

“The international standardization that was now completed successfully is an important milestone for EtherCAT. It help us machine builders to further increase the acceptance of this superior technology in particular with our key-account customers. The device vendors get a complete specification which was written according to international rules,” comments Erich Hutflesz, ETG board member and manager of control systems at Schuler.

The EtherCAT Technology Group continues to actively participate in IEC standardization. Currently Safety over EtherCAT is introduced to the appropriate work groups in order to include it into the next revision of IEC 61784-3, which is scheduled for 2009.
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 the EtherCAT technology. With over 600 members, the EtherCAT Technology Group has become the largest organization in the world that is exclusively focused on Industrial Ethernet technologies. Founded in November 2003, it is currently the fastest growing fieldbus organization.

EtherCAT sets new standards for real-time performance and topology flexibility, whilst meeting or undercutting fieldbus cost levels. EtherCAT features include high precision device synchronization, a cable redundancy option, and a functional safety protocol (SIL3).

For further information please see www.ethercat.org

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