Press Release



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TÜV Süd certifies Safety over EtherCAT Conformance Test Tool

To round off the all-inclusive package for Safety over EtherCAT (FSoE) technology, a new component is now available: The FSoE Conformance Test Tool certified and qualified by TÜV Süd enables automatic verification of the implementation for the safe transmission protocol.

Leading companies from Europe, the U.S. and Asia implement Safety over EtherCAT in the fields of control and drive technology, robotics and sensor systems. To support the individual certification process of FSoE devices, Beckhoff Automation GmbH now offers a special conformance test tool. With this tool one can automatically test the FSoE functionality completely and thus prove conformance of implementations to the specification.

The test cases which are implemented in the tool have been defined by the EtherCAT Technology Group (ETG) and were reviewed by TÜV Süd regarding their integrity in advance. TÜV Süd now conclusively confirmed the qualification of the tool for validation and compliance to test FSoE slave devices in accordance with the FSoE specification. For this, the development process, the implementation and the implementation of the test environment of the tool were accompanied by TÜV Süd, who also reviewed the results.

The tool is available for all users of Safety over EtherCAT technology and will also be used for the official FSoE conformance tests in the future. Dr. Guido Beckmann, safety expert at the ETG, emphasizes the practical benefits of the tool: "The FSoE Conformance Test Tool helps manufacturers identify implementation errors during device development at an early stage. For the official certification of safety devices the evidence of conformity of the implementation is required too. Without the FSoE Conformance Test Tool device manufacturers would be compelled to implement this proof by themselves."

A lean protocol specification, pre-certified software stacks, various support options from different service providers, and not least the TÜV Süd-certified FSoE Conformance Test Tool simplify the integration of Safety over EtherCAT considerably.

Safety over EtherCAT (FSoE) is designed for the transmission of safety-relevant data. FSoE is an international standard (IEC 61784-3 Ed. 2) and is used to transfer input information from different safety sensors, e.g. light curtains or emergency stop buttons, to safety logic. This logic combines the information from the input commands for the safe outputs, such as power protectors or safety drives, and thus controls the safety function of the machine.

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Press picture



Picture caption:

Safety over EtherCAT enables simpler and more flexible safety architectures when compared to traditional safety relay logic.

About EtherCAT Technology Group (ETG):

The EtherCAT Technology Group 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 2,300 members from 56 countries the EtherCAT Technology Group has become the largest fieldbus organization in the world. Founded in November 2003, it is also the fastest growing fieldbus organization.

About EtherCAT®:

EtherCAT is the Industrial Ethernet technology which stands for high-performance, low-cost, easy to use with a flexible topology. It was introduced in 2003 and has been an international standard since 2007. The EtherCAT Technology Group promotes EtherCAT and is responsible for its continued development. EtherCAT is an open technology: anyone is allowed to implement or use it.

→ For further information please see **www.ethercat.org**.

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