

## EtherCAT Conformance Test Tool Version 2.3 released

Conformance to the protocol standard is the basis for the problem-free interaction of devices from different manufacturers in the same network, also called in short interoperability. And both are thus very important for the success of a communication technology. Therefore, the EtherCAT Technology Group attaches great importance to the conformance of EtherCAT devices: All ETG member companies commit themselves to test their devices with the EtherCAT Conformance Test Tool (CTT) before market release.

Every manufacturer of EtherCAT slave devices is therefore familiar with the CTT: It represents the official reference for the specification-compliant implementation of EtherCAT technology in EtherCAT field devices. The first version of the CTT was released in 2008, and so far, all updates have proven to be functional extensions and not functional changes. Version 2.3 carries on all functionalities and tests of the first version and thus underlines the stability of the EtherCAT technology itself, which after all has been always only extended and never changed. This full backward compatibility has proven to be a great advantage for all suppliers and users of EtherCAT solutions.

The CTT extensions, whether in tool functionalities or test coverage, are as usual based on practical requirements as well as feedback from device manufacturers. Thus, over the years, the tool has evolved from a pure test tool that checks conformance after development is completed to a very helpful "development accompanying" software that can be used to configure EtherCAT devices, put them into the desired state and specifically stimulate them to behave in certain ways. This continues in many of the new functionalities. For example, additional user interfaces have been added for controlling and testing specific EtherCAT protocol properties as well as at the lower layers of the ISO/OSI models. Conveniently and unique because rarely supported by other tools, the CTT now allows read and write access to the PHY registers. This is a valuable feature especially during initial hardware prototype startup.

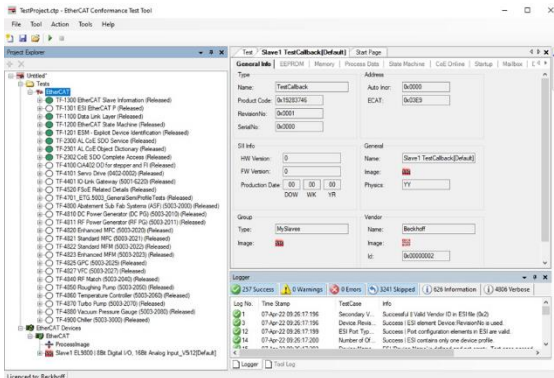
All CTT functionalities that are accessible for the script-based control, and they thus allow automated test sequences that can be integrated into the overall device acceptance test. Besides the many functionalities supporting the EtherCAT implementation itself, the core of the CTT has also been extended: the test coverage. Many semiconductor device profiles have been added to the standard test set. The coverage for the Servo-Drive-Profile according to IEC 61800-7-2 (the equivalent to CiA DS402) has been significantly increased as well.

The test logic and thus the tests themselves are defined and released by a special working group within the EtherCAT Technology Group, called the "Technical Working Group Conformance". The CTT software itself, on the other hand, which executes the logic defined in the tests and evaluates the behavior of the EtherCAT devices based on this logic, is developed and maintained by Beckhoff. This ensures continuous further development of the tool. This includes new functionality with a built-in configurator as well as support for all current Windows operating systems, including the new 64-bit architecture. Version 2.3 of the Conformance Test Tool is available from now on to all ETG members.

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## Press picture:



Link: [www.ethercat.org/images/press/etg\\_052022\\_2.jpg](http://www.ethercat.org/images/press/etg_052022_2.jpg)

## Picture caption:

The Technical Advisory Board (TAB) of ETG has released version 2.3 of the EtherCAT Conformance Test Tool (CTT).

## 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 6.600 members from 69 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 IEC standard and a SEMI standard since 2007. EtherCAT is an open technology: anyone can implement or use it.

➔ For further information please see: [www.ethercat.org](http://www.ethercat.org)

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