EtherCAT Technology Group
Members

EtherCAT
Technology Group

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2025 EtherCAT International Technology Week (ITW) Europe | Online
February 3-7

Dez 2024

Dear Sir or Madam

We are pleased to invite and encourage all developers working on EtherCAT MainDevices, SubDevices, Configurators, Codes, and Tools to take part in the upcoming **EtherCAT International Technology Week (ITW) World Series.**

Now in its fourth year, the ITW world series has become a staple in the annual ETG event calendar. The tremendous success of the ITWs in the past, most recently with nearly 1000 participants worldwide, underscores the growing interest in this event.

Throughout the ITW, ETG experts will lead a series of **webinars**, offering in-depth development insights and practical guidance on EtherCAT-related topics. These sessions are designed to address common challenges encountered during the implementation, certification, and release of EtherCAT devices. Each webinar will be followed by a Q&A session, providing ample opportunity for you to ask questions and engage with the presenters.

We invite you to join the **ITW world series**, which kicks off in Europe from **February 3 to 7, 2025**. The series will then continue in America, China, Japan, and finally Korea. For each of the ITWs, a week of all-online webinar sessions is waiting for you. Below, you will find detailed descriptions of each session and the complete event schedule.
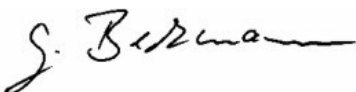
Please register via the following link for one or multiple webinars, if not all of them:

www.ethercat.org/itw-europe

Participation is free of charge. Feel free to forward the invitation to your colleagues!

If you have any questions, please get in touch with us.

Best regards,

Dr. Guido Beckmann
Chairman Technical Committee
EtherCAT Technology Group

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Webinars

The webinars focus on the implementation and use of the EtherCAT technology. Basic knowledge of the EtherCAT technology, e.g., functional principle, HW architecture, ESI file is assumed to be available for the more advanced sessions.

Take advantage of both, new session topics as well as sessions topics which have been addressed last year. Even if you attended those already, since they may address updated features and other aspects this year, they may offer new insights, nevertheless.

Webinars via GoToWebinar™ are intended to be interactive, so please ask plenty of questions. You are welcome to join one or several webinars.

The following webinars are offered:

How to begin an EtherCAT development – some key points

As straight-forward the functional principle of EtherCAT is, the many implementation options, communication devices (ASICS, SoCs, and more), documentation, and developer events are available. This webinar shows key decisions and development steps, and in which order those may be tackled: It includes basic EtherCAT theory training, parameter selection to choose an EtherCAT SubDevice Controller, possible EtherCAT SubDevice software stacks, organizing the parameter and process data, in-house testing, available test tools, official testing at an EtherCAT Test Center, and more developer events.

Navigate EtherCAT information

There are plenty of EtherCAT documents, specifications, and web page information available. In this session we show which information is available. How to read the EtherCAT specification ETG.1000/ IEC.61185, how to use ETG.2000 EtherCAT Slave Information, how to make use of the EtherCAT Knowledge Base and the EtherCAT Compendium, which valuable and popular events are offered, and how to make contact with the ETG EtherCAT experts world-wide.

Structuring CoE object dictionary using profiles: MDP, DS402, Semi Device Profile

The CoE object dictionary lists all parameters and variables of a SubDevice, and is the interface to the sensor or actuator functionality. Depending on which type of device is developed, different CoE OD structurings, so called device profiles, are beneficial. Those reach from a basic framework (MDP) defining a handful of categories, to a very detailed parameter definitions for drives (DS402), valves (Semi Device Profile), gateways, and others. Profiles are a very helpful concept for both, developers and device users, and this is why they have become very popular on both sides. This is to an extend where basically any EtherCAT device makes use of device profile benefits. And this webinar explains the concepts and advantages.
Device profile are well combined with the ESI concepts of Modules and Slots—which are explained in an additional webinar.

Using Modules/Slots in ESI and online CoE object dictionary

The ESI elements Modules and Slots allow to generate a flexible EtherCAT SubDevice description, e.g., for modular servo drives and gateways. This webinar shows how to make correct use of the ESI elements and which online CoE objects are used for Modules/Slots functionality.

Webinars

SSC tool: How-to part I

1. Step-by-step from the Idea to the running application (based on the Beckhoff EL9800 hardware)
2. Working with the SSC command line tool
3. Create own SSC Tool configurations
   - For development service provider, ESC or development board vendor, to distribute own/custom code settings

SSC tool: How-to part II

1. Update an SSC Tool Project
2. Create own hardware access layer
3. Update an existing application

CTT – basic features and how to use it for EtherCAT SubDevice development

This webinar aims to present the basics around the EtherCAT Conformance Test Tool (CTT) and how to use it for EtherCAT SubDevice development. In this presentation we will cover the many helpful functionalities and plugins of the tool, EtherCAT protocol testing as well as long-term testing of different EtherCAT SubDevice configurations, error detection mechanisms, and analysis of the test results.

CTT – advanced features (incl. remote control interface, configuration, and more)

This webinar shows advanced CTT configuration and testing of complex EtherCAT SubDevices. We will also explain how automated testing via the CTT remote control interface can be done. The scripting via PowerShell™ allows to start the CTT remotely, load different configurations, execute tests, and save results for internal test documentations.

Official EtherCAT Conformance Test - part I: Certificate benefits and organisational steps

The official EtherCAT Conformance Test at an EtherCAT Test Center (ETC) has many advantages and is highly recommended, even though it is optional. This webinar explains the importance of EtherCAT Conformance Tested certificates for machine builders and device vendors. It explains the process to obtain a certificate and gives very practical hints and tips.

Official EtherCAT Conformance Test - part II: Test record hands-on

The tests performed by each EtherCAT Test Center (ETC) worldwide are specified in detail in ETG. 7000.2 Test Record. The test instructions include the use of the CTT and also tests that are performed manually. This webinar will take you through many of the manual test instructions and show you how to perform these tests in the same way as they are performed by the ETC test engineers - to best prepare your EtherCAT SubDevice to pass the ETC test first time and to meet high quality standards.

Time Schedule

WEBINARS

We would like to commence the International Technology Week (ITW) Europe on Monday morning and conclude it on Friday. Please refer to the proposed session table below. Subject to modifications.

CET	MONDAY Feb 03, 2025	TUESDAY Feb 04, 2025	WEDNESDAY Feb 05, 2025	THURSDAY Feb 06, 2025	FRIDAY Feb 07, 2025
09:00	Kick-off				
09:30	How to begin an EtherCAT development — some key points	Structuring CoE object dictionary using profiles: MDP, DS402, Semi Device Profile	SSC tool: How-to part I	CTT — basic features and how to use it for EtherCAT slave development	Official EtherCAT Conformance Test —part I: Certificate benefits and organisational steps
10:30	Q&A	Q&A	Q&A	Q&A	Q&A
11:00	Navigate EtherCAT information	Using Modules/Slots in ESI and online CoE object dictionary	SSC tool: How-to part II	CTT — advanced features, incl. remote control interface, configuration, and more	Official EtherCAT ConformanceTest —part II: Test record hands-on
12:00	Q&A	Q&A	Q&A	Q&A	Q&A
12:30					Wrap-up

Registration & More

Registration deadline: January 31, 2025

ONLINE REGISTRATION

Register early for the full event via the link

www.ethercat.org/itw-europe

and attend as many webinars and Q&A sessions as you want.

The registration deadline is **Friday, January 31, 2025.**

Feel free to forward the invitation to your interested colleagues!

Prerequiste for attending is a valid ETG membership. Click here to become a member.

LOGIN AND EVENT GUIDELINE

Login information, together with an event guideline will be provided with the registration confirmation on **Friday, January 31, 2025**. Once you receive the login information, please be aware that this is **personal** and must **not** be shared inside nor outside your organization.

GoToWebinar™ will be used as webinar software.