EtherCAT Technology Group
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Nov 2026

2027 EtherCAT International Technology Week (ITW) Europe | Online

February 1-5, 2027

Dear Sir or Madam,

All developers working on EtherCAT MainDevices, SubDevices, configurators, codes, and tools are warmly invited to participate in the **EtherCAT International Technology Week (ITW) World Series 2027.** Entering its sixth year, the ITW World Series is now an established fixture in the annual ETG event calendar.

▶ WEBINAR ITW International Technology Week

Throughout the ITW, ETG experts will lead a series of **technical 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 dedicated **Q&A session**, providing ample opportunity for you to ask questions and engage with the presenters.

The webinars focus on the implementation and use of the EtherCAT technology. The content is interesting for EtherCAT newbies, as well as for the well-experienced developer. 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.

We invite you to join the **ITW World Series 2027**, which kicks off in Europe from **February 1 to 5, 2027**. 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 the webinars:
www.ethercat.org/itw-europe

Participation is free of charge and for ETG members exclusively.

Feel free to forward the invitation to your colleagues!

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

Best regards,
Your ETG Team

Webinars

BASIC MONDAY

Monday, Feb 1, 2027
09:30 am —10:30 am (CET)

How to begin an EtherCAT development – some key points



Florian Essler

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.

Monday, Feb 1, 2027
11:00 am —12:00 pm (CET)

myETG – navigate our new website



Rainer Hoffmann

This webinar gives a guided tour through the new ETG homepage and the myETG area: where to find specifications, the EtherCAT Knowledge Base and Compendium, events, and how to manage your myETG profile.

PRACTICAL TUESDAY

Tuesday, Feb 2, 2027
09:30 am —10:30 am (CET)

From Spec to SubDevice: Building an EtherCAT SubDevice – Part 1



Florian Essler

This webinar combo describes the process of an EtherCAT development hands-on. In this first part the parameter and cyclic data are described for a prototype SubDevice. Those are structured into the CoE object dictionary using device profile guidelines. From the OD description the base to generate the SubDevice stack, ESI file, and SII are done. The process of selecting respective hardware and other basic considerations are discussed, too.

Best to watch before: How to begin an EtherCAT development

Tuesday, Feb 2, 2027
11:00 am —12:00 pm (CET)

From Spec to SubDevice: Building an EtherCAT SubDevice – Part 2



Florian Hammel

This webinar combo describes the process of an EtherCAT development hands-on. In this second part software stack settings and a prototype application are demonstrated. As a paramount development-supporting measure, the use of the Conformance Test Tool (CTT) throughout the development process is demonstrated.

Webinars

SYNC WEDNESDAY

Wednesday, Feb 3, 2027
09:30 am —10:30 am (CET)

EtherCAT Synchronization Modes – basic concepts



Alessandro Figini

EtherCAT synchronization modes define how to synchronize the process data update and the applications of MainDevice and SubDevices. EtherCAT specifies three synchronization modes called Free Run, SM-synchronous, and DC-synchronous and also defines possible variations.

This webinar introduces the different synchronization modes with graphical animations as well as concrete examples. For each mode the underlying mechanisms, the hardware and software implementation aspects as well as the description in the ESI file are introduced.

Wednesday, Feb 3, 2027
11:00 am —12:00 pm (CET)

EtherCAT Synchronization Modes – SSC Implementation



Rainer Hoffmann

This webinar demonstrates how EtherCAT synchronizations modes may be implemented in an EtherCAT SubDevice software stack, using the example of the SSC (SubDevice Stack Code). This includes the interrupt handling, the process data handling, and the monitoring of the synchronization including error handling.

Best to watch before: From Spec to SubDevice: Building an EtherCAT SubDevice – Part 2

Webinars

SECURITY THURSDAY

Thursday, Feb 4, 2027
09:30 am —10:30 am (CET)

EtherCAT Security – integrated security for Industrial networks



Guido Beckmann

EtherCAT provides cybersecurity capabilities and system security enablement which meet the cybersecurity requirements for Security Level 2 in accordance with IEC 62443. The European Cyber Resilience Act (CRA) has placed cybersecurity on the agenda for fieldbus systems as well. This webinar analyzes the threats and risks that need to be considered. IEC 62443 is the internationally recognized standard for the cybersecurity requirements in industrial automation and control systems. Since the security measures in an EtherCAT system can be effective through interaction between the EtherCAT MainDevice and SubDevices, the requirements considered are based on IEC 62443-3-3, which outlines the System Requirements (SRs). The System under Consideration (SuC) for the EtherCAT system is outlined, and three blueprint scenarios are used to evaluate and approve all SRs. Each blueprint scenario has a different risk landscape, designed to meet the requirements of real-world applications.

Thursday, Feb 4, 2027
11:00 am —12:00 pm (CET)

EtherCAT Security – EtherCAT measures inherently meet security requirements



Guido Beckmann

The ETG.1800 EtherCAT Security Profile describes cybersecurity measures based on existing EtherCAT functionality and related process management measures. This webinar addresses EtherCAT Device Protocol communication within an EtherCAT segment. It covers the EtherCAT MainDevice, EtherCAT SubDevices and EtherCAT configuration tool logic within the system under consideration. It explains the security relevance, applicability and implementation of EtherCAT measures, which contribute to security through their operating principles and/or enhanced functionality. The profile specification is intended for MainDevice, SubDevice and configuration tool vendors, machine builders, system integrators, asset owners and operators who need to determine whether the available measures match the security objectives of an application and who select, implement, configure, apply or assess those measures.

Webinars

CTT FRIDAY

Friday, Feb 5, 2027
09:30 am —10:30 am (CET)

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.



Gregor Erzen

Friday, Feb 5, 2027
11:00 am —12:00 pm (CET)

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.



Oliver Horst

COMPLETE SESSION CALENDAR

Please find an overview of all webinar sessions available for the 2027 EtherCAT ITW Europe below:

CET	MONDAY Feb 01, 2027	TUESDAY Feb 02, 2027	WEDNESDAY Feb 03, 2027	THURSDAY Feb 04, 2027	FRIDAY Feb 05, 2027
09:00	Kick-off				
09:30	How to begin an EtherCAT development – some key points	From Spec to SubDevice: Building an EtherCAT SubDevice – Part 1	EtherCAT Synchronization Modes – basic concepts	EtherCAT Security – integrated security for Industrial networks	CTT – basic features and how to use it for EtherCAT SubDevice development
10:30	Q&A	Q&A	Q&A	Q&A	Q&A
11:00	myETG – navigate our new website	From Spec to SubDevice: Building an EtherCAT SubDevice – Part 2	EtherCAT Synchronization Modes – SSC Implementation	EtherCAT Security – EtherCAT measures inherently meet security requirements	CTT – advanced features (incl. remote control interface, configuration, and more)
12:00	Q&A	Q&A	Q&A	Q&A	Q&A
12:30					Wrap-up

Registration & More

WEBINAR ITW International Technology Week

Registration deadline: January 29, 2027

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 29, 2027.**

Feel free to forward the invitation to your interested colleagues!
Prerequisite for attending is a valid ETG membership.

ONLINE REGISTRATION CONFIRMATION AND REMINDER

Each registration has to be approved by ETG HQ, thus the login information may be provided with a small delay after your registration. Once you receive the login information, please be aware that this is **personal** and must **not** be shared inside nor outside your organization.

You will be notified one day before and one hour before each webinar day via email from GoToWebinar.

ONLINE PLATFORM

GoToWebinar™ will be used as webinar software.

GoTo Webinar

SPEAKER INTRODUCTION

Besides the content, one highlight of the EtherCAT International Technology Week is the speakers who prepare and conduct the details of the individual presentations and are available to answer participants' questions in the Q&A sessions.

Participants can look forward to the know-how and knowledge transfer of some of the world's most experienced EtherCAT experts. You will find the EtherCAT experts and much more at the **EtherCAT International Technology Week (ITW) World Series** landing page:

www.ethercat.org/itw