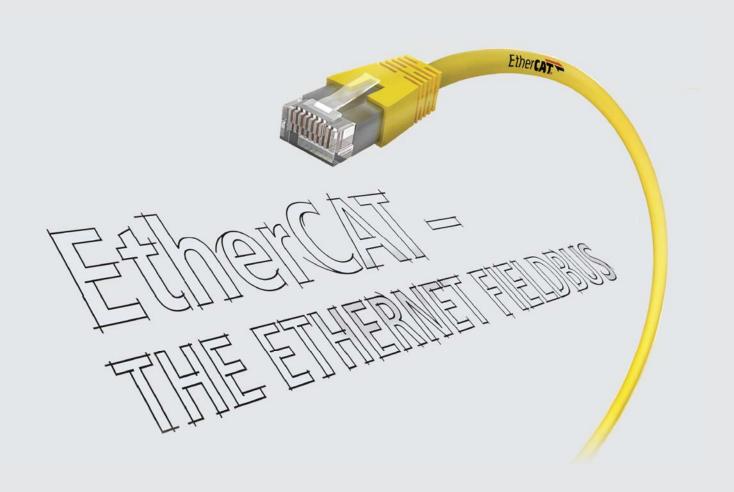
## **ETG Newsletter**

May 2015 | #26





Phone: +49 911 54056 20 Fax: +49 911 54056 29 For other ETG offices see website

- **ADOPTION RATE**
- 2 TSN
- 3 NEW MEMBERS
- **4 ORGANISATION**
- 5 ETG DEVELOPMENT
- **6 JOINT BOOTH REVIEW**
- 7 SOCIAL MEDIA, WEB, LINKS

### **Further Information** www.ethercat.org

#### Dear Members,

Industrie 4.0 and the industrial Internet of Things (IoT) are the hot topics at every event that we attend - in Europe, Asia as well as in North America .

At the recent Hannover Fair we have launched an initiative for Industrie 4.0 and IoT: we agreed to closely cooperate with the OPC Foundation in defining common interfaces between our technologies. With this initiative we create the prerequisites to integrate EtherCAT systems consistently into Industrie 4.0 and IoT architectures. The other hot topic with regards to Ethernet communication is TSN: we do not only monitor the related activities within IEEE, but actively contribute to the development, as you can see in this news-



With best regards on behalf of the entire EtherCAT Technology Group Team,

Martin Rostan, Executive Director

## Interview about TSN with Dr. Karl Weber

📆 time sensitive networks

### What is TSN?

Dr. Karl Weber: "TSN is a task group (Time Sensitive Networking) located in IEEE 802 who is responsible for LANs (Ethernet and related standards). It does not change the Ethernet protocol itself but the bridging (switching) procedures.

As of today 7 different projects are assigned to this group: 1. Synchronization enhancements; 2. Frame preemption (interruption of long frames to expedite real time data forwarding); 3. Time aware shaper (TAS - introduce send slots dedicated for real time); 4. Cyclic queueing and forwarding to avoid latency variations caused by race conditions; 5. Seamless Redundancy; 6. Stream reservation enhancements to guarantee a performance class; 7. Per-stream filtering and policing for isolation of faulty streams.

Most of the projects should be completed end of 2016. Not every real time function is needed in a dedicated real time project e.g. a TAS may not need frame preemption. Thus, TSN is not a standard but a set of specifications and a collection of

them may be used to enhance the real time capabilities of local networks."

Read the full interview on page 2!

Dr. Karl Weber is EtherCAT specialist, working at the ETG Headquarters and also IEEE group member within several technical working groups.



#### **EtherCAT Adoption Rate: Vendors**

EtherCAT is wide spread in different markets as well as countries. Please have a look at the following impressive figures:



### Playing with figures (Vol. 2)

We have more than **3200** members from **58** countries and **6** continents. EtherCAT is implemented on **34** different RTOS and over **630** products are entered in the official EtherCAT Product Guide. There are 25 different Safety over EtherCAT vendors and 44 sensor/actor manufacturers. ETG organized 32 EtherCAT Plug Fests so far. ETG booths were shown at **120** tradeshows and EtherCAT roadshows took place 23 different countries **68** cities. Over **400** new members joined the ETG in **2014**.

### Interview about TSN with Dr. Karl Weber



#### What is TSN?

Dr. Karl Weber: "TSN is a task group (Time Sensitive Networking) located in IEEE 802 who is responsible for LANs (Ethernet and related standards). It does not change the Ethernet protocol itself but the bridging (switching) procedures.

As of today 7 different projects are assigned to this group: 1. Synchronization enhancements; 2. Frame preemption (interruption of long frames to expedite real time data forwarding); 3. Time aware shaper (TAS - introduce send slots dedicated for real time); 4. Cyclic queueing and forwarding to avoid latency variations caused by race conditions; 5. Seamless Redundancy; 6. Stream reservation enhancements to guarantee a performance class; 7. Per-stream filtering and policing for isolation of faulty streams.

Most of the projects should be completed end of 2016. Not every real time function is needed in a dedicated real time project e.g. a TAS may not need frame preemption. Thus, TSN is not a standard but a set of specifications and a collection of them may be used to enhance the real time capabilities of local networks."

#### What is the motivation to enhance networks with TSN functions?

Dr. Karl Weber: "The main driver of TSN was audio-video bridging (AVB, which was the former name of the task group).

Car inside networks require also AV transmissions for the current enhancements of automotive. This high volume markets will push the availability of low cost products with certain real time capabilities that can be used in industrial applications.

TSN is not suitable for typical IO-applications due to the high latency and the low efficiency. The open Ethernet environment causes additional load problems which make it difficult to use it as a robust fieldbus.

TSN is a good choice for integration of machinery and smart devices as a backbone for automation. But TSN is just a transportation infrastructure. This means that a suitable application protocol is needed."

#### What does this mean for the automation technology?

Dr. Karl Weber: "First of all this is an emerging technology and not ready to use as of now!

Most of the technology components developed by the EtherCAT community will not be affected at all. As TSN offers a technology enhancement beyond the IO-level there is no reason to change typical field devices.

The critical issue is the seamless integration of the IO subsystem in the higher level systems. But this will not be the task of the individual device manufacturer but will be provided by the EtherCAT Technology Group.

The memorandum of understanding with the OPC Foundation is one of the important steps for seamless integration. The EtherCAT Automation Protocol (EAP) can be enhanced to use TSN as well. This will be a very powerful way to integrate a subset of machines at a cell level."

#### What are the next steps towards TSN add on for the EtherCAT community?

Dr. Karl Weber: "First of all: we are contributing actively in the TSN standard development for years and will continue to contribute for the next couple of years. A very important step is to select a subset of TSN protocols for the level above the IO-Infrastructure. With EAP we have the choice to take advantage of TSN within EtherCAT technology. The seamless integration of a set of machinery will be a necessary step for EtherCAT. Machine integration requires a common effort of all automation technology provider.

Thus, EtherCAT will participate in this process but it requires quite a lot of groups to agree on a common base."

TSN Task Group Website

Dr. Karl Weber is EtherCAT specialist, working at the ETG Headquarters and also IEEE group member within several technical working groups.





## New Members (since last newsletter) in order of membership application

#### We welcome all new members and thank you for joining forces to promote and advance the EtherCAT technology.

TecStar
D&D Mechatronics
"Science & Technology Facilities Counsil
Daresbury Laboratory"
Akribis Systems
Heckner Electronics
ElectroCraft
Toho Technology
Sungkyunkwan University, School of Mechanical
Engineering, Intelligent Robotics & Mechatronic
System Laboratory (IRMS Lab)
INETEC - Institute for Nuclear Technology
Hitachi Medical
Mettler-Toledo
Roedan Embedded Systems
Ono Sokki
NEC Engineering

NEC Engineering
Hangzhou Jingwei Automation
Lucas-Nülle
Applied Weighing International
Omnica

Foxconn Technology Group Shanghai Panelmate Electronics

Chinese Academy of Sciences (CAS), Institute of

Automation
PMB Elektronik
Beijing University of Posts and Telecommunications
School of Automation (=Automation School of BUPT)

ATLAS ELEKTIKONIK
Alstom Grid UK
Easydur Italiana di Renato Affri
Hangzhou Houdar Automation System
DMM Technology
Shanghai Huayuan Mechatronics
ERAETECH

ERAFTECH

MAS—SysTeC

Qinhuangdao Bootsolar Photovoltatic Equipment

WITTMANN Kunststoffgeräte

Jiangsu Hefeng Mechanical Making

Kookmin University, Graduate School of Automotive

Engineering, Electric Motor Control Lab

HEF professionelle Studiotechnic

University of Wisconsin-Madison, College of Letter &

Science, Department of Theatre and Drama

Beijing Motrotech Technology

SCHNIER Elektrostatik

HANYOUNG NUX

ShenZhen Tongchuan Technology

ShenZhen Tongchuan Technology
CCCAlliance
Berufliches Schulzentrum Hof, Staatliche Fachschule
für Technik (Technikerschule)
EvoSense Research & Development
Zhejiang Felda Environmental Science & Technology
CNCSAZAN
UIVAC AUTOMATION TAIWAN
Lenze Mechatronics
AVENTICS
KITZ SCT
Heilongfilang University of Science and Technology,
Electrical and Control Engineering College
WareWorks

Xi'An Aerospace Precision Electromechanical

Institute data M Engineering Morgan Rekofa Xifei Asia-Pacific Aviation Simulation TOKYO KOKI

Fenac Mühendislik

Wuhan Farley Laserlab Cutting Welding System Engineering

Bottero
Impedans
Technische Universität München, Fakultät für
Maschinenwesen, Lehrstuhl für Automatisieri

Maschinenwesen, Lehrstuhl Tur Automa und Informationssysteme SALZBRENNER STAGETEC Audio Video Mediensysteme NSD Shanghai ECAT Science and Technology RMV Motion

SoftPLC

Beijing Sunwise Space Technology

Korea Institute of Machinery & Materials (KIMM).
Daegu Research Center for Medical Devices and
Rehabilitation Engineering
Embedded Office
Rethink Motion

Tramper Technology

SIKO
YUKITA ELECTRIC WIRE
TQ-Systems
Gree Electric Appliances of Zhuhai
CHANGSHA EPOCH NC MACHINE TOOL

Shinko Shoji Potomac Electric

Potomac Leictric
Ziehesberger Elektronik
Tekno Danişmanlik Yazılırın Donanım Muhendislik
Hizmetleri Tekstü
Dalian Guangyang Science&Technology Engineering
Minnesota State Universify Mankato, College of
Science, Engineering & Technology, Elettrical &
Computer Engineering & Technology Department
(FCET)

modusort
Beijing Etechwin Electric
University of Bern, ARTORG Center for Biomedical
Engineering Research,
Image Guided Therapy (IGT)

Image Guided Therapy (IGT) Entegris Genoa Fieldbus Competence Centre Conovo CNC Technology

MTDI
Ningbo GQY Video & Telecom Joint Stock
Shenzhen Quanhang Information Communication
KOSHIDA KOREA
Cambridge Medical Robotics
Checkers Automation
HANSL
TPC Mechatronics

TPC Mechatronics Wineman Technology TÜV Rheinland Industrie Service, Automation und Funktionale Sicherheit (AFS) National Research Council, Institute of Industrial Technologies and Automation (ITIA-CNR) S.A.T.I. di Evaldo Bartaloni

Nicosu profichip

profichip
Orsys Orth System
CETA Testsysteme
Harbin Robotics Technology
Data Technology
Shannxi Mingtal Electronic Science & Technology
Development

Chinese Academy of Sciences (CAS), Hefei Institutes

Crimes Adderiny Josenes (LAS), neter institute of Advanced Manufacturing Technology (IAMT)
Nittetsu Hokkaido Control Systems
K. A. Schmersal
Renesas Electronics Taiwan

TAKAGI

TAKAGI Cogenco Mehatronika Glass Soft - Robótica & Sistemas Beijing Vsuntek CESYS Gesellschaft für angewandte Mikroelektronik OPEX

Hermes Microvision
Beijing Juntai Tiancheng Technology
Shenzhen Huanan Numerical Control System
Windmöller & Hölscher
University of Massachusetts at Amherst, Computer
Science Department, Laboratory for Perceptual

SAMWON ACT

SAMWON ACT Advanced Intelligent Machine GIGATRONIK Köln NicMehr Gostar Tehran DIHZPLOU Technology ShangHal Longstanding Electromechanical Control Equipment

MAS Electronic
China Machinery International Engineering Design
& Research Institute
BIBA - Berner institut für Produktion und Logistik
Ste quality engineering
PAL Robotics
Protechna Herbst
SOTEC Goffware Entwicklungs GmbH + Co.
Mikrocomputertechnik KC)
PRODYS
Kastanienbaum
TAIAN TECHNOLOCY(WUXI)
Plasmart

W.E.ST Elektronik

NACHI-FUJIKOSHI

Mecademic Hakko Electronics Shenyang INVIC automation TÜV Rheinland Japan

TÜV Sheinland Japan
Dener & Company
Computer Hi-Tech
China National Machinery Industry (SINOMACH)
Chongqing Jinshan Science & Technology
Semilac
Concept Overdrive
Aecon Technologies
Texas & & M University
Mechanical Engineering Department
AMBER Lab\*
Micromeritics Instrument
European X-Fay Free-Electron Laser Facility
(European XFEL)
LogiCAN Control Systems

(European XFEL)

LogiCAN Control Systems

Yokogawa Beiling Development Center (YBDC)

BLUG. MORI SERIO

The Leland Stanford Junior University (Stanford

University), Department of Bioengineering, Brains in

Silicon Lab (Boahen Lab)

Schleifring und Apparatebau

TRUMPF Laser- und Systemtechnik

Mikrosam

Okina Electronics
Tarasheh System Pishro (tsPishro)
Shanghai 3cRobot
Shanghai Micromotion Automation Equipment
Shenzhen UniMAT Automation Technology
AREM PRO
Mainyang Fude Robot
Shanghai GIE EM
ENGEL Elektroantriebe
Atlas Copco Airpower
iotec

iotec KORYO ELECTRONICS

YKK.
Shanghai Imbrobot
Universidad de los Andes, Faculty of Engineering,
Department of Electrical and Electronic Engineering
MRII ELECTRIC INDUSTRIES
Sichuan MK Servo Technology
D&K Engineering
Canon Electronics

Controller Area Network Solutions (M) NPM High Technologies Airbus Operations

Aparian Guangzhou Jing Lun Electrical Equipment AKAZEN AKAZEN
Korea Institute of Machinery & Materials (KIMM),
Advanced Manufacturing Systems Research

Advanced Manufacturing Systems Research
Division,
Department of Robotics and Mechatronics
Shihlin Electric & Engineering
By Design Group
Ennocon
Tian Jin Ladder Automation Tech
C5-lab Janusz Wawak, Andrzej Rogozynski, Szymon
Paprocki
BKIN Technologies
abaxor engineering
DAEATI
University of Seoul, College of Engineering,
Department of Mechanical and Information
Engineering, System Software Laboratory
US Mitron
Oppens

LS Mtron
Opsens
Sansei Technologies
Siemens Industry Software
ZAPI
Interactive Wear
ifatos

ifatos Claus Priibbernow Mikrosystementwicklung eProcessorSolutions eProcessorSolutions Chent University (UCent), Faculty of Engineering & Architecture, Department of Industrial System and Product Design, Xiak - eXpertiscentrum industriële automatisering Kortrijk Siemens Industry Software Radiometris Services & Instruments SaNIWA DENKI KOCYO Zhejiang Hengqiang Technology MMM-IT

Shanghai Electrical Apparatus Research Institute

RobotPhoenio Phoseon Technology Energocentrum Plus Dr. Mergenthaler Seoul Precision Machine

Shanghai W-Ibeda High Tech. Develop. Southeast University, School of Mechanical

Engineering
Department of Mechanical and Electronic
Engineering
SHENZHEN HENGKETONG ROBOT

CMT Medical Technologies CMT Medical Technologies
Tokyo Computer Service
Shanghai Baosight Software
Estudis Electro-Mecànics (E2M)
Shanghai Kunxun Information Technology
De Beers UK
Spectra

Spectra
Oktal-japon
SHANGHAI FLIXIN INTELLIGENT TRANSPORTATION
SOLUTIONS
KJ-Infinity Enterprises
DORNA Technology
ROBOT-TECHNOLOGY
Omron Canada
Generalist

Omron Canada
Germanjet
SIBONAC Laser Technologies
Packet Digital
Mark Andy
NS System
Wetailurgical Plant "Electrostal"
Wipro CE Healthcare
Slowak University of Technology in Bratislava, Faculty
of Electrical Engineering and Information
Technology, Institute of Robotics and Cybernetics
FUII ELECTRONICS
Hitlachi Aloka Medical
Matrox Electronic Systems
SYMETRIE

SYMETRIE

OptoForce Seoul D&S (SDS) Metatronics YDK Witium Dr.-Ing. S. Haußmann Industrieelektronik FH Aachen, University of Applied Sciences,

HH Addren, University of Applied Sciences, Fachbereich Elektrotechnik und Informationstechnik Harbin Institute of Technology (HIT), School of Astronautics, Control & Simulation Center Agres Sistemas Eletrônicos

Control or Simulation - Jenes Agres Sistems electrolicos Agres Sistems Eletrónicos Hebi Haichang Special Fajupment Yanfeng Automotive Trim Systems Korea University, College of Engineering, Department of Mechanical Engineering, Intelligent Robotics laboratory Vecna Technologies Meinhard Koppitz, Elektronikentwicklung LOTES (GuangZhou) Shanghai Rec Al Automation Control Technology SENTROL 4C Electronics

4C Electronics Shanghai Friendess Electronic Technology Sandia National Laboratories National Cheng Kung University, College of Engineering National Cheng Kung University, College of Engineering, Department of Mechanical Engineering Stringhua University, Craduate School at Shenzhen, Division of Information Science and Technology (DIST) Google

igus
Aversan
Lorch Schweißtechnik
CHM Messtechnik
BOGEN Electroric
Nanjing Dago Electrical Institute
NEMONOS
Center of Human-centered Interaction for

NDR Solution (Thailand)
NPP Mera
Shanghai Huasui Elec-Tech
Novalux Shenzhen Electronics
XiaMen MicroControl Technology
Technische Universität Wien (TU Wien), Fakultät für
Elektrotechnik und informationstechnik, institut für

Elektrotechnik und informations Computertechnik AUPRO automation in progress adphos Innovative Technologies Motion Control Products TOYO AUTOMATION ENTEC Electric & Electronic

Guizhou University, The Electrical Engineering

Guizhou University, The Elec College Shanghai Inno-drive Electric Robert Bosch Precizika Metrology Highland Controls UNICO JAPAN

UNICO JAPAN
SELTA
Littelfuse Selco
Sartorius Mechatronics C&D
Centre de recherche industrielle du Québec
URR Hardware und Systemdesign
AMADA MIYACHI EUROPE Sirius Electronic Systems Shenzhen Epacing Intelligent Control

Ermit Revolutionary Engineering Everfine Industrial (EFCO ) Otherlab Hypertherm Europe ASELSAN steeRED Technology

Beckhoff Automation TOS
Seoul National University of Science and Technology,
College of Engineering, Department of Mechanical
System and Design Engineering
Integration Solutions
THINKYO Automation Equipment
J. Schneider Elektrotechnik

Xi'an Micromotor Research Institute Starflight Electronics IntraOp Medical
Evergrid Solutions & Systems
ADEX Technologies
in-tech
ZIEHL-ABEGG

ZIEHL-ABECG
Emerson Process Management
IXON
Automate
EPA
Applied Motion Products
Salt Lake Scientific
The University of Texas at Austin, Cockrell School of
Engineering, Department of Mechanical

Italsensor Changzhou MVision IT Technology Crouzet Automatismes LASER CREW

PANAX SYSTEM DVDB-electronics DVDB-electronics
SPG
VDev Systems und Services
Schlumberger
Aplex Technology
North China University of Technology, College of
Computer Science

Computer science
Thales Nederland
BorgWarner Turbo Systems
LARsys-Automation
Eindhoven University of Technology, Department of
Electrical Engineering, Electronic Systems Group

American Electric Power Marubeni Information Systems LDetek Anhui Geos Energy Exploration FFT Produktionssysteme CNi Informatica

LIVI Informatica
Hentschel System
Ginzinger electronic systems
King Giants Precision Industry
so-logic DI Peter Thorwartl
SEJUFA

Wandercraft Trascon Technology bi Engieering Solutions - A Blaupunkt Group Company erifas item Industrietechnik Shotover Camera Systems SensoPart Industriesensorik

Wuhan University of Technology, School of

Automation
One Electronics
Integrated Dynamics Engineering
Koyama System
Lasertec
WUHAN MOTUS TECH

Panasonic Electric Works Italia HaslerRail TDI National Oilwell Varco Japan minicomputer systems Brush Electrical Machines

Brush Electrical Macrines
SANTEST
Fab-9
Rocky
Criterion NDT
Gran Telescopio de Canarias (GRANTECAN)
Chongging Huashu Robotics
Lambda Technologies
MARCHAMI

MISUMI ASM America Hangzhou Tongling Automation Offshore Systems Innogen

Offshore Systems
Innogen
spectral process Ingenieurbüro
Nanjing University of Aeronautics and Astronautics,
College of Astronautics
Technica Engineering
Nanjing SCIYON Automation Group
Danish Aerospace
Friedrich-Alexander-Universität Erlangen-Nürmberg,
Technische Fauklät, Department Maschinenbau,
Lehrstuhl für Fotonische Technologien (LPT)\*
Tomis.

Temis
Linuxqbiz
ETM Electromatic
Audix
Powerland Technologies
Heartec Heartec Panasonic Production Engineering Hongke Technology Shenzhen Wali Automation Smart Products Artech Electronics

CONTRINEX ZDAUTO Automation Technology Shanghai CaiDuan Automation Technology BE.services MESOMATIC

MESOMATIC Toshiba Transport Engineering Sierra CP Engineering, MKPRECISION Randy Nürnberger Software und Mikroelektronik Shanghai Maiwan Electronic Technologies ASK Electronic TRU Simulation + Training Industrial Software

M<sub>3</sub>H<sub>2</sub>

RJC
Technische Universität Dresden, Fakultät
Elektrotechnik und Informationstechnik, Institut für
Feinwerktechnik und Elektronik-Design (FFE)
Axxon Computer
Zaber Technologies
Kingsine Electric Automation
Smartind Technology
Primagest

Lite-On Technology
Primagest
Ninan Solutions
Beijing RichAuto S&T
Zhejiang Hi-tech Renewable Energy
DONCONE TECH
HIWIN Technologies
Ege Robotics CNC Makine Elektronik Otomasyon
Medikal
Raonwoord Technology
Wöhner
Enture Electronics Future Electronics

Camozzi Ohkura Electric AREVA NP Shanghai MicroPort Medical (Group) Infineon Technologies Japan

ELAP KOMET BRINKHAUS

Inlingual Technologies Japan
Covidien
Infineon Technologies Japan
Nanjing Institute of Technology, School of
Automation
FoShan Logen Robotics
Applied Machine & Motion Control
Engineering Creatives
ASM Japan
TAURLS Instruments
Mintec Industriale
National Computer System Engineering Research
Institute of China (The 6th Research Institute of
China Electronics Corporation) (EEC)
Chinese Academy of Sciences, Institute of Plasma
Physics, Division of Power Supply and Control
Engineering

Please find the members roster online:

www.ethercat.org/members



Phone: +49 911 54056 20 +49 911 54056 29 For other ETG offices see website

# ETG and OPC Foundation join forces to focus on common interfaces for Industrie 4.0 and IoT

The EtherCAT Technology Group (ETG) and the OPC Foundation to define common interfaces for Industrie 4.0 and the Internet of Things (IoT), as indicated by a Memorandum of Understanding signed at Hannover Messe 2015.

Both organizations agree that their technologies complement one another perfectly: EtherCAT as the real-time-capable Ethernet fieldbus for machine and plant controls, leveraging the EtherCAT Automation Protocol (EAP) for lean data exchange between masters, and OPC UA as a platform for scalable communication with integrated Security by Design, enabling encrypted data transfer up to MES/ERP systems and into the cloud.

Industrie 4.0 and IoT demand seamless and continuous communication through all layers and levels within the digital factory, as well as externally through cloud-based services and other Internet technologies. The ETG and the OPC Foundation seek to achieve these requirements with the common definition of open interfaces between both of their technologies.



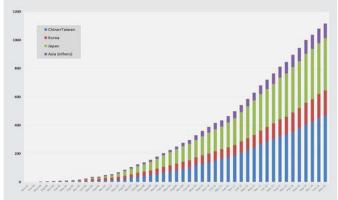
For this reason, the organizations agreed, in the frame of a Memorandum of Understanding (MoU), to develop these interfaces in close cooperation, rather than focusing on their own technology extensions into the core area of the other.

Full Press Release (EN | DE | CN)

# Excellent Growth in Asia: > 1100 Members

In September 2014 the EtherCAT Technology Group exceeded 1000 members in Asia – and meanwhile there are more than 1100 members, so that 35% of the ETG membership is from this continent.

China and Japan are approaching 400 members each, Korea 200, and Taiwan 100. Whereas growing membership is nice, what really counts is true adoption of the technology. And here Asia takes a very strong position as well: almost every day we see many new EtherCAT products from Asia!

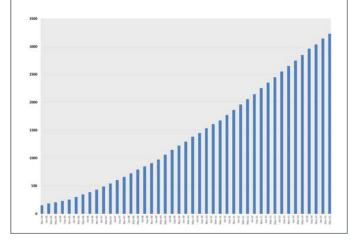


# ETG Membership Development: >3200 Members Worldwide

ETG has reached another significant membership milestone: >3200 Members (as of May 2015)!

With more than 400 new members in 2014 means again more than one new member each day.

We are firmly convinced that the demand of fast Industrial Ethernet systems like EtherCAT around the globe will continue to grow.



EtherCAT Technology Group Headquarters: Ostendstr. 196 D-90482 Nuremberg, Germany Phone: +49 911 54056 20 Fax: +49 911 54056 29 For other ETG offices see website

## New video about ETG and EtherCAT available!



Within our latest video, our Executive Director, Martin Rostan, summed up the highlights of the past weeks and gave us an update on the development of EtherCAT and the EtherCAT Technology Group.

The main topics discussed were the recently introduced EtherCAT chips by Microchip and Infineon. The Memorandum of Understanding defining the common interfaces has been signed with the OPC Foundation at this years' Hannovermesse. Additionally, we learnt more about EtherCAT's adoption rate and the membership development and composition within the ETG.

YouTube Video Link

## **New official Twitter profile** of the ETG is now live



Social media users seeking the latest official news, updates, and events surrounding the ETG can now follow @EtherCAT Group on Twitter.

This important step assures an efficient platform to spread news and information, simplifying access to the most recent trending topics about EtherCAT technology and the ETG.



Full Press Release (EN | DE)

### Member #3000 honored: Airbus Operations GmbH

Membership development for the EtherCAT Technology Group (ETG) has reached another major milestone: With the addition of Airbus Operations GmbH, the ETG already passed the 3000 member mark.

An event commemorating this official distinction took place during the SPS IPC Drives 2014 trade show at the ETG joint booth.

Full Press Release (EN | DE | CN)



## 2015 Spring European EtherCAT Plug Fest Breaks Records

The EtherCAT Technology Group's first EtherCAT Plug Fest in 2015 broke several records. Never before have so many companies with so many different EtherCAT devices and so many master-slave combinations for interoperability testing participated in a single Plug Fest.

In addition, the number of EtherCAT Slave Controller (ESC) manufacturers on site was higher than ever – one of them being TRINAMIC Motion Control, who also hosted the event in Hamburg, Germany.

The seeds sown by the ETG during their 2014 Plug Fests continued to grow unabated at the 2015 Spring European EtherCAT Plug Fest in Hamburg, Germany. One reason for this is the fact that the number of available EtherCAT products continues to increase at a rapid pace. On the other hand, the EtherCAT Plug Fests are widely recommended as a highly valuable method to support the development processes of

new EtherCAT devices. A total of 70 participants attended the event, bringing with them 12 different EtherCAT masters and 42 EtherCAT slaves.



Full Press Release (EN | DE)



## ETG Joint Booth at HANNOVER MESSE 2015: Hall 9-D18

Together with 55 co-exhibitors and a total of more than 330 different EtherCAT products we're once again sending out a clear message at our ETG Joint Booth at Hannover Messe 2014: We are the Industrial Ethernet organization exhibiting the widest variety of devices at the same time anywhere.

We had shown an impressive variety of EtherCAT products (incl. Drives, I/O & Gateways, Sensors & Actuators, Master Systems, Development Products & Services) directly on booth and informed all visitors about EtherCAT technology in general and the work of the EtherCAT Technology Group.

Additionally, we bring along our upgraded EAP-Demo showing Industrie 4.0 and IoT via OPC-UA. Live on booth we showed again how a KUKA robot deals with two Beckhoff XTS systems at a time using EtherCAT – and thus enabling groundbreaking new application possibilities in motion.

We an increased number of leads generated with visitors from 40 different countries we thank our co-exhibitors and supporting ETG members for their contribution!

Watch out for the next ETG Joint Booth offer, which will be available soon and send out to all ETG members worldwide. It includes participation as co-exhibitor at SPS IPC Drives 2014 & HANNVOER MESSE 2015. If you are interested, please get in contact with Mr. Oliver Fels (o.fels@ethercat.org) directly.





## Upcoming EtherCAT Plug Fests: Japan, North America, Europe

Mark Your Calendar: The next three EtherCAT Plug Fests 2015 are scheduled: Japan, North America and Europe.

We encourage all vendors of EtherCAT master systems, slave devices, codes and tools to participate in the upcoming 2015 European EtherCAT Plug Fests around the globe. The goal of this developer's event is to perform interoperability tests. Master and slave device suppliers gather to test and improve interoperability, to share implementation tips and tricks and clarify questions regarding the technology. Experts of the technology from ETG will support with their expertise on-site.

Invitations will be provided soon by E-Mail and published on the website (member area news & event section).

2015 Japanese EtherCAT Plug Fest

Sep 10 — 11, Yokohama, Japan

2015 North American EtherCAT Plug Fest

Sep 16—17, Newark (NY), USA

2015 Fall European EtherCAT Plug Fest

Oct 28 - 29, Fürth Germany



EtherCAT Technology Group Headquarters: Ostendstr. 196 D-90482 Nuremberg, Germany Phone: +49 911 54056 20 Fax: +49 911 54056 29 For other ETG offices see website

## EtherCAT Functional **Principle Video Availabe**



Please find the EtherCAT functional principle video with sub titles available now in different resolutions and languages for internal company usage.

Feel free to use the video to understand and explain the unique EtherCAT functional principle, e.g. for sales or decision makers.

Download Detail Page

## **New Chinese** EtherCAT Brochure



Our ETG Office China has created a brand new version of the well-known EtherCAT brochure.

This brochure also introduces the EtherCAT Technology Group (ETG), the world's largest fieldbus organization. Most importantly, we hope to convey why EtherCAT is the right choice for your application.

Download Detail Page

## ETG @ LinkedIn, Twitter & YouTube!

Join our several social media channels to stay up-to-date and receive the latest news immediately.

We'll invite all of you to follow our official ETG accounts at the following social media channels. You will find actual news from ETG tradeshows or roadshows, announcements of upcoming events, impressions and much more there!

www.twitter.com/EtherCAT Group

www.linkedin.com/company/ethercat-technology-group

www.youtube.com/user/EtherCATGroup





**Upcoming Events:** www.ethercat.org/events

**EtherCAT Product Guide:** www.ethercat.org/products

**Download Section:** www.ethercat.org/download

Disclaimer: We do not take responsibility for the contents of the external links provided within this newsletter. All information within this newsletter newsletter is to our best knowledge true and accurate, but provided without guarantee. Under no circumstances will liability be assumed for loss or damage sustained through use of the information provided. The logos and images within this newsletter may not be used for any other purpose than promoting the EtherCAT technology. Content responsibility according to German Law (§ 10 Absatz 3 MDStV): Martin Rostan (Address see below).

