



EtherCAT Software  
Windows Real-Time  
Professional Services

# acontis technologies GmbH

- Founded in 2001
- 18 employees, 4000 TEUR turnover in 2017
- General Managers: Stefan Zintgraf and Christoph Widmann



Stefan Zintgraf



Christoph Widmann

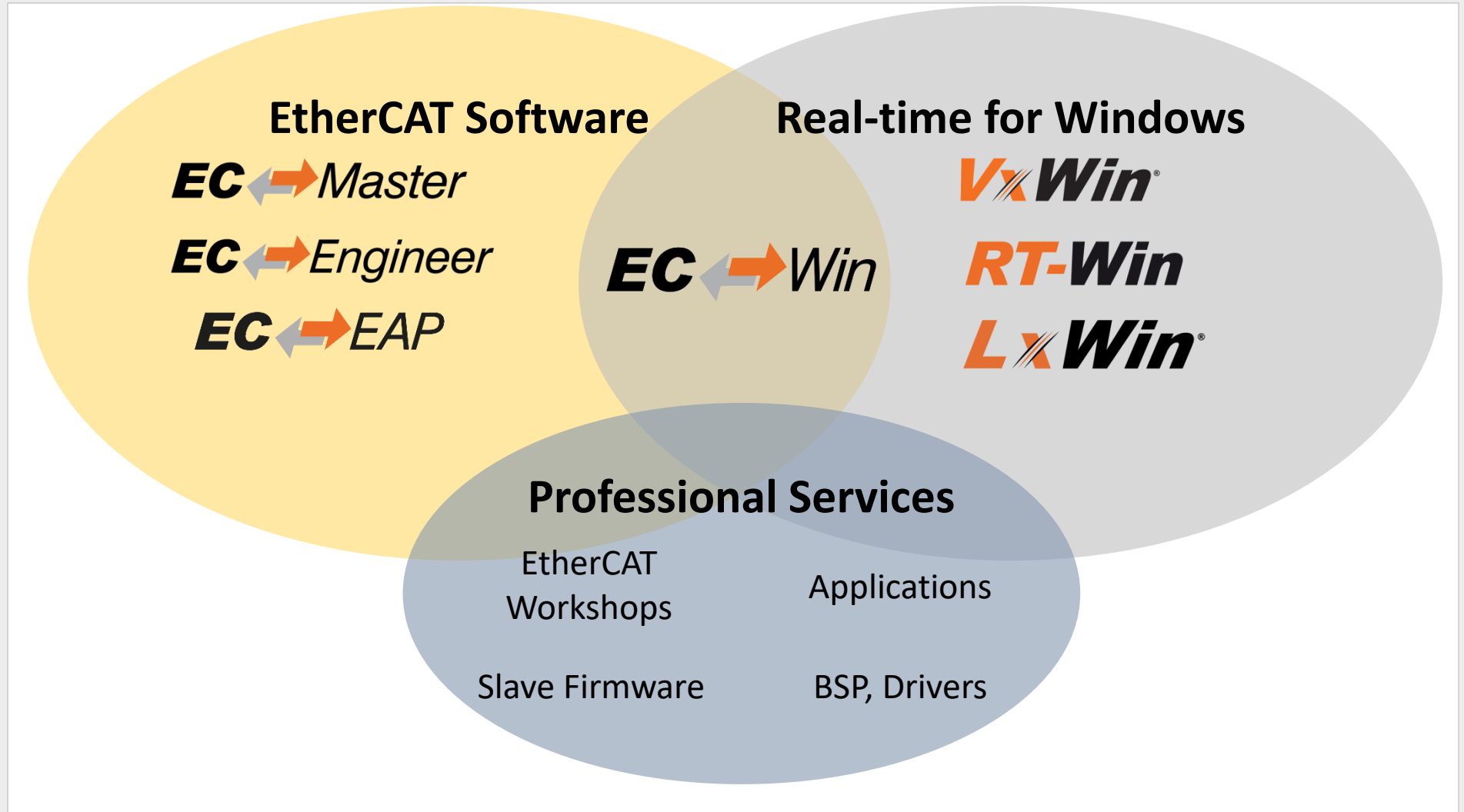
- **Shareholders**

- Stefan Zintgraf: 33%
- Christoph Widmann: 33%
- Heinrich Munz: 33% (since 2003)

# acontis technologies GmbH

Company located in Ravensburg, Southern Germany,  
close to Switzerland and Austria





# Milestones (1)

2001: Founded as a Professional Services Software Company

## 2004: Membership in the EtherCAT Technology Group



### 3. Welcome new members

Since the last news mail in July, the following companies joined the EtherCAT Technology Group:

- Berner Fachhochschule für Technik und Informatik, Switzerland
- AeroLas GmbH, Germany
- schaeper Automation GmbH, Germany
- Chr. Mayr. GmbH & Co KG, Germany
- SEW Eurodrive GmbH & Co KG, Germany
- ASM Technology Singapore PTE LTD, Singapore
- Advantech Co. Ltd, Taiwan
- Industrial Dynamics Co., USA
- ETAS GmbH, Germany
- Netstal-Maschinen AG, Switzerland
- acontis technologies GmbH, Germany

We welcome the new members and thank you for joining forces to promote and advance the EtherCAT Technology! As of today, the ETG has 123 [member companies](#).

# Milestones (2)

- 2005: EtherCAT Master Stack Software

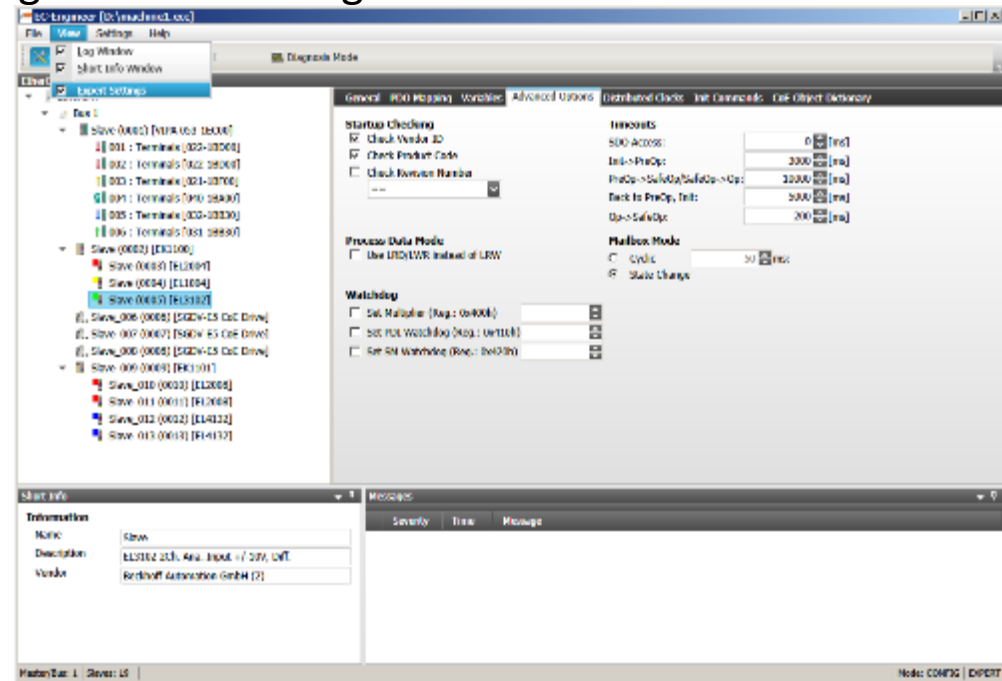


- 2006: SPS/IPC/Drives: Introduction of the EtherCAT Master Stack
- 2007: New Generation of the Windows Real-Time Software
- 2010: Development of EC-Win (EtherCAT Master for Windows)



# Milestones (3)

- 2012: EC-Engineer: EtherCAT Configuration and Diagnosis Tool



- 2018: Real-Time Hypervisor LxWin





# Sales Channels

- 2008: First Distribution Partners in Japan
- 2011: Distribution Partner Soljet in Taiwan
- 2012: Distribution Partner Presto Solution in Korea
- 2014: Distribution Partner Beijing Motrotech in China





# EtherCAT Technology Group (ETG) activities

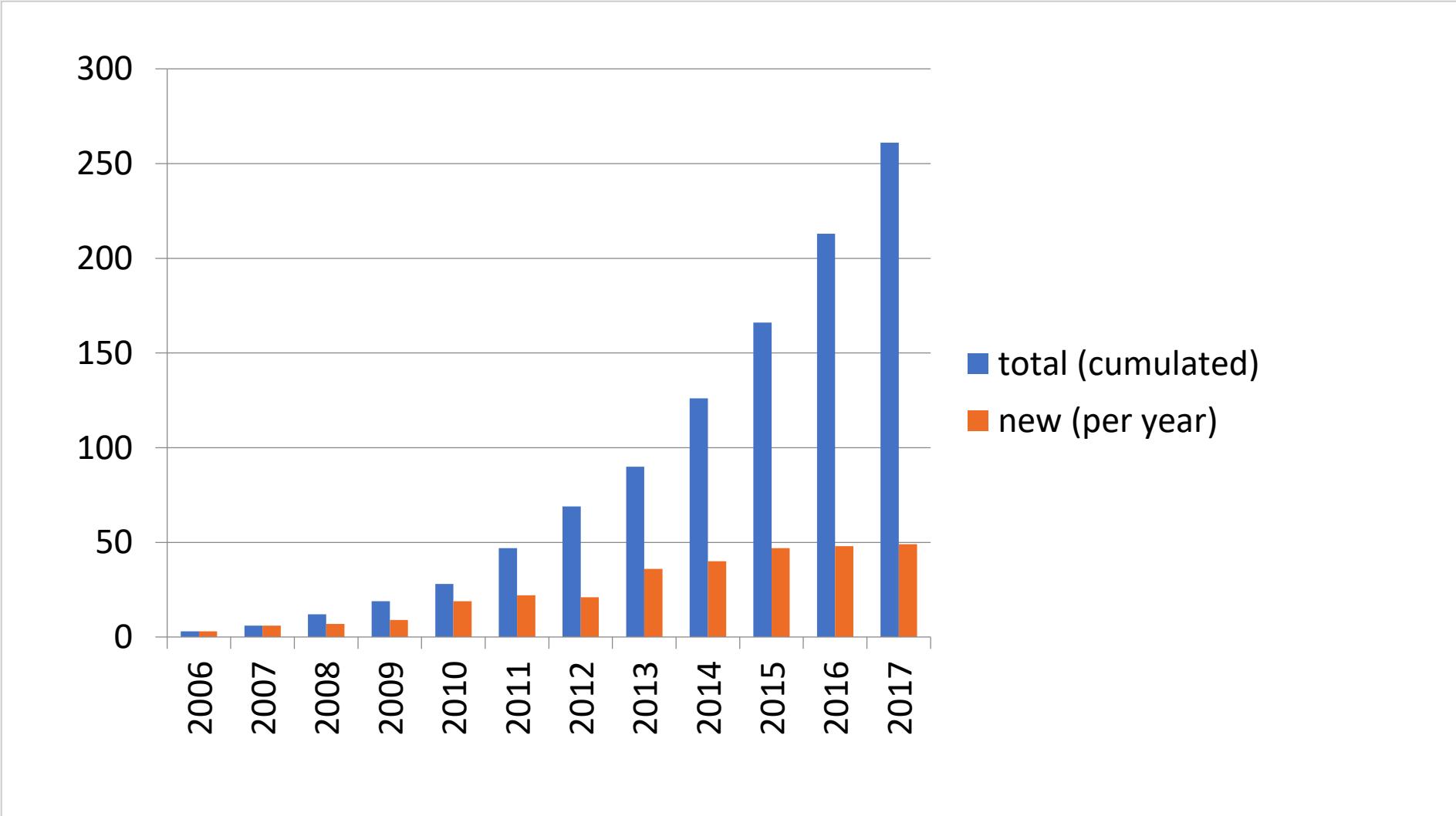
- Attendance on Technical Committee Meetings
- Member of several Technical Working Groups (TWG)
  - Master Classes, EtherCAT Automation Protocol
  - Task Force ETG.1020, Semiconductor
- Attendance on most plug fests worldwide (supported by our local partners)
- Member of Market Committee
- ETG Joint Booth Participation since 2005
- Supporting ETG Roadshows, e. g. in Korea, Vietnam





Acontis Market Acceptance

# EtherCAT OEM Software – Design Wins



# EtherCAT Products – Markets and Customers

## Industrial Automation

Omron (JP)  
Yaskawa (JP/US/DE)  
Kollmorgen (US)  
Bosch/Rexroth (DE)  
Panasonic SUNX (JP)  
Adlink (TW)  
Hanwha Techwin (KR)  
Shanghai Electric (CN)  
Lenze (DE)  
Delta Electronics (TW)  
Bachmann elect. (AT)  
Prima Electro (IT)  
fscut (CN)  
Krones (DE)  
ACS Motion Control (IL)  
Bobst Group (CH)  
Precitec (CH, DE)  
Ricoh (JP)  
ITRI/MSL (TW)

## Semiconductor

**No. 1 Equipment Provider (US)**  
**No. 1 Wafer Fabrication Provider (US)**  
**No. 1 Lithography Provider (US/NL)**  
Zeiss SMT (DE)  
Varian Semiconductor (US)

## Robotics

**KUKA Roboter (DE)**  
Cloos (DE)  
Yaskawa (JP/US)  
energid (US)  
ABB (CN), Panda (CN), HIT Robot (CN)  
Turin (CN), Jari (CN)

## Energy

**GE/Alstom (ES)**  
**AREVA (FR)**  
Enerflow (CA)  
Mitsubishi Heavy Industries (JP)

## Test/Measurement

**Math. Software (US)**  
**Measurement Equip (US)**  
Jenoptik (DE)  
MKS Instruments (US)  
Leica Geosystems (CH)  
Formula 1 team (UK)  
Brooks Instruments (NL)  
JUMO (DE)  
Instron (DE and UK)  
Toyota (JP)  
ABB (SE)  
Weiss Umwelt (DE)

## Others

**No. 1 Agric Mobiles (US)**  
**No. 1 Show Biz. (US)**  
**No. 1 Smart Phone (US)**  
MEN (DE)

## Aerospace

**No. 1 US Gov. Organization**  
**No. 1 US Airplane vendor**  
CAE (CA)  
Clemessy (FR)  
IHI Aerospace (JP)

## Medical

**“Under NDA” (NL)**  
**Curexo/Robodoc (US)**  
**Medtronic (US)**  
Hocoma (CH)  
Cascination (CH)

## CNC

**Hurco (US)**  
**ISG (DE)**  
Prima Electro (IT)  
ESAB/ATAS (DE)  
GSK (CN)

# Markets using Real-time and EtherCAT products from acontis



KUKA Roboter (D)

Robotics



Under NDA (US)

Semiconductor



ACS Motion Control (IL)

CNC



# Success Stories



VIPA/Yaskawa (D/US/JP)

Industrial Automation



HURCO (US)

CNC



Kristl & Seibt (AT)

Test & Measurement





# Markets using Real-time and EtherCAT products from acontis



Alstom / Ikerlan (ES)

Energy



Under NDA (US)

Semiconductor



Under NDA (NL)

Medical





# KUKA Roboter (DE) Industrial Robot



- Application:
  - New Generation Industrial Robot Controller
  - Integrated Safety Controller
- Acontis Products
  - EC-Master Class A Master Stack
  - FPs: Hot Connect, Remote API
  - VxWin
- Challenges
  - Symmetric Multiprocessing
  - High Performance
  - Remote Diagnosis and Configuration

# YASKAWA (DE) PLC and Motion Controller

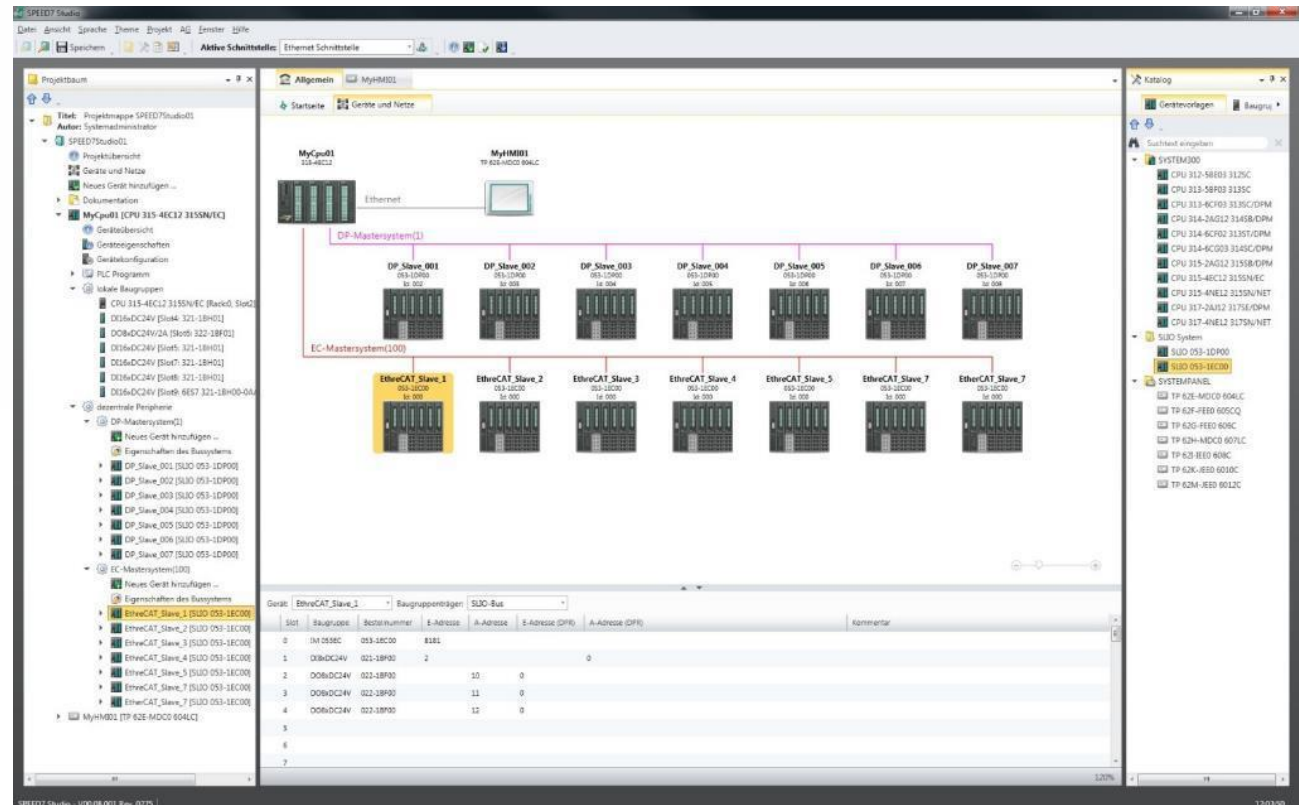
## EtherCAT®



### PLC with EtherCAT fieldbus

- EC-Master Class A Master Stack
- FPs: Hot Connect, Master OD, EoE Endpoint, Remote API
- ARM with embedded OS

- **Engineering Suite**
- Integration of EC-Engineer with own design/theme
- Online functions using RAS client





### Application:

- Full-container inspection unit
- Fill level inspection unit with high-frequency, infrared camera, gamma or x-ray technology
- Cap and safety ring detection unit with sensor and camera technology

### Acontis Products:

- EC-Master Class A, Linux, x64
- ENI Builder on Linux Controller

### Challenges:

- 64-Bit Linux Controller
- Distributed Clocks
- EtherCAT / Profinet Gateway

# Schleuniger (CH)

## Wire processing machines

### ■ Schleuniger



Laser Wire Stripping Machine Mercury-4

#### Application:

- Machines for cutting, crimping, stripping of wires and cables
- Broad range of machines based on a common controller architecture

#### Acontis Products:

- EC-Master Class A, Windows EC, ARM
- EC-Motion Control Library
- EC-Engineer

#### Challenges:

- Distributed Clocks
- Cost efficient embedded controller handling user interface, multi axis motion control and EtherCAT

# Homag (DE) – Edge Banding Machine

## Solutions for production in the woodworking industry

Application: Edge banding machines EDGETEQ S-500

# HC HOMAG



### Acontis Products:

- EC-Master Class A, Linux, x86
- FP External Synchronization, FP Superset ENI
- EC-ENI Builder

### Challenges:

- Distributed Clocks with 50 drives or more
- Safety over EtherCAT (FSoE)
- Multiple synchronized EtherCAT segments
- Drive diagnosis tool using Ethernet of EtherCAT (EoE)

# Homag (DE) – CNC Processing Center

## Solutions for production in the woodworking industry

CNC Processing Center CENTATEQ P-110

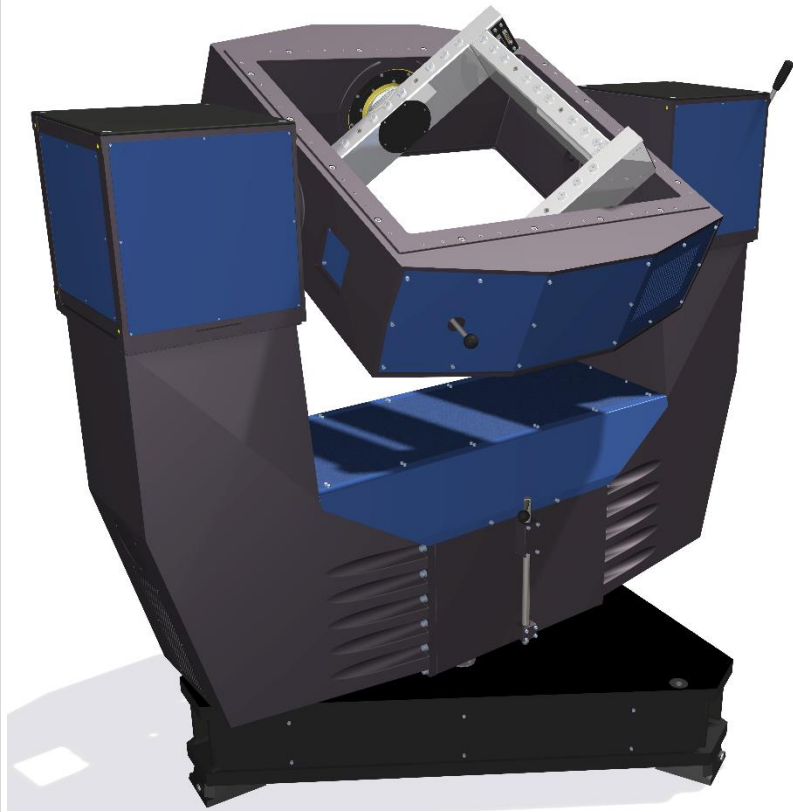
Freestyle technology with 3-, 4- and 5-axis solutions





# Acuitas (CH) – Part 1

## Physical effect simulation with motion simulators



### Application:

- Test systems simulating physical effects such as motion, acceleration and temperature
- Test instruments and physical effect simulation systems are used either as calibration or measurement instrument or as environmental simulator creating the desired operational environment

### Acontis Products:

- EC-Master Class A, Windows EC 7, ARM
- EC-Master FP Cable Redundancy
- EC-Engineer

### Challenges:

- Very low jitter and stable cycle time. Important for all calculations
- Cable Redundancy with Distributed Clocks  
→ EtherCAT over slip rings



# Why use acontis Products?

- Used by >200 OEM customers world-wide: de-facto standard besides TwinCAT
- Feature richness
  - All ETG defined features and feature-packs supported in real-world projects
  - Excellent diagnosis capabilities
- Scalability
  - Start with small solution (e.g. Class B master stack)
  - Grow with your requirements (feature packs, complementary products)
- Reliable long-term partnership
  - our customers are global leaders in different market segments
  - we are obliged for long-term support
- Your EtherCAT solution will be fast time-to-market
  - Out-of-the box for many operating systems
  - Get in running on your system in one day
- Get support from our agents in your local language
- Your EtherCAT solution will be more competitive than your competitors!

# acontis technology – behind the stage!

