

EtherCAT Workbench

EtherCAT® Network Configuration and Diagnostic Tool



EtherCAT®

The EtherCAT Workbench is a comprehensive EtherCAT configuration and diagnostic tool to create network configuration files, initialize and monitor an EtherCAT network. The application supports an offline as well as an online mode.

Key features

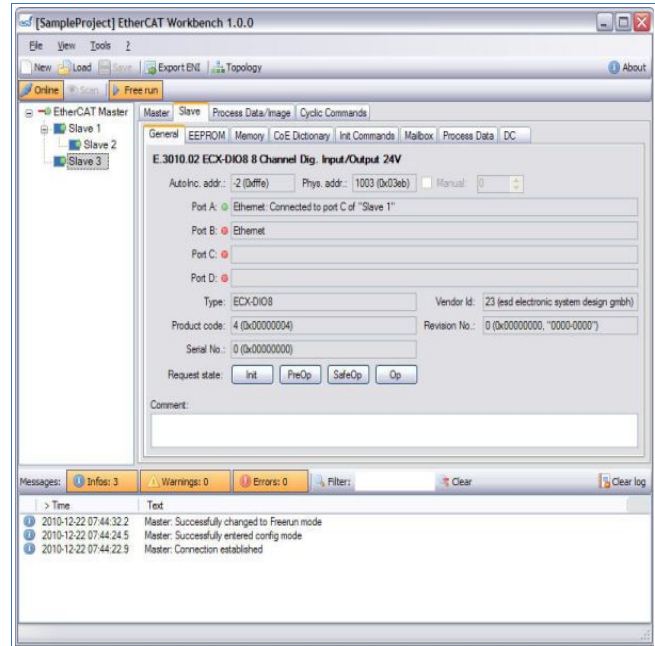
- Built-in EtherCAT master to support an online topology scan as well as initialization and monitoring of an EtherCAT network.
- Export of configuration files compliant to the EtherCAT Network Information (ENI) format which are accepted by EtherCAT masters of different vendors.
- Configuration based on a user extendable repository of standard EtherCAT Slave Information (ESI) files which are supplied by the device vendor. Configuration of devices without ESI files possible using the online information stored in the devices ESI EEPROM.

Network configuration

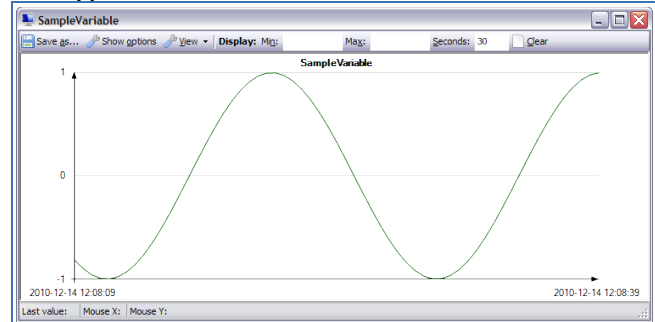
- Offline configuration using intuitive drag'n'drop interface.
- Online configuration based on network topology scan.
- Instantly usable configuration which covers all EtherCAT configuration aspects (SM / FMMU / DC setup, PDO mapping, etc.) without detailed knowledge about the EtherCAT technology.
- Enhanced editor to create/read/write/modify ESI EEPROM data.

Network diagnostic

- Free run mode initializing and monitoring the EtherCAT network controlling the EtherCAT state machine of individual slaves.
- Sophisticated graphical network topology viewer.
- Online read and write access to EtherCAT slave device register, memory and object dictionary using dialogs with advanced filter capabilities.
- Read/write access to process data with charting support.
- Access to statistical Ethernet and EtherCAT data.
- Logging capability for EtherCAT slave CoE emergency messages, EtherCAT master and Workbench events.



Main application window



Process data monitor window
Monitor/log process variables

Description	Raw value	Value
EEPROM Size	0x001f	4096 byte (32 kBit)
Version	0x0001	1
PDI Control	0x008	16 Bit async µC interface
ESC Config	0x000	
ESC Config - DeviceEmulation	0	
ESC Config - Enh. link detection all ports	0	
ESC Config - DC SYNC Out Unit	0	
ESC Config - DC Latch In Unit	0	
ESC Config - Enh. link detection port 0	0	
ESC Config - Enh. link detection port 1	0	
ESC Config - Enh. link detection port 2	0	
ESC Config - Enh. link detection port 3	0	
PDI Config	0x0008	
Extended PDI Config	0x0000	
SYNC Pulse Len	0x0000	0 ps
Station Alias	0x0000	0

EtherCAT Slave ESI EEPROM data
Comfortable editing of decoded data

Index	Name	Type	Current value	Value read at	Flags
0x1000	Device type	UDINT	5001 (0x0001389)	2010-12-22 10:00:53	R
0x1001	Error register	USINT	0 (0x00)	2010-12-22 10:00:53	R
0x1008	Device name	STRING	"MEESC"	2010-12-22 10:00:53	R
0x1009	Hardware version	STRING	"1.2"	2010-12-22 10:00:53	R
0x100a	Software version	STRING	"V1.00"	2010-12-22 10:00:53	R
0x1018	Identity	RECORD			
[0x1018.00]	(Max SubIndex)	USINT	4 (0x04)	2010-12-22 10:00:53	R
[0x1018.01]	Vendor ID	UDINT	23 (0x00000017)	2010-12-22 10:00:53	R
[0x1018.02]	Product code	UDINT	642265170 (0x26483...)	2010-12-22 10:00:53	R
[0x1018.03]	Revision	UDINT	256 (0x00000100)	2010-12-22 10:00:53	R
[0x1018.04]	Serial number	UDINT	0 (0x00000000)	2010-12-22 10:00:53	R
0x10f1	Error Settings	RECORD			
[0x10f1.00]	(Max SubIndex)	USINT	2 (0x02)	2010-12-22 10:00:53	R
[0x10f1.01]	Local Error Reac...	UDINT	0 (0x00000000)	2010-12-22 10:00:53	R
[0x10f1.02]	Sync Error Count...	UDINT	0 (0x00000000)	2010-12-22 10:00:53	R
0x1600	CAN RxPDO Map	RECORD			
[0x1600.00]	(Max SubIndex)	USINT	19 (0x13)	2010-12-22 10:00:53	R
[0x1600.01]	PDO_MAP...	UDINT	0x7000 01, 16	2010-12-22 10:00:53	R
[0x1600.02]	PDO_MAP...	UDINT	0x7000 02, 16	2010-12-22 10:00:53	R

EtherCAT Slave CoE Data
Detailed overview of object dictionary data

Technical Specifications:

Requirements:

Software: Microsoft® Windows® XP or higher, .NET Framework 2 SP2

Hardware: Network interface card, Screen resolution at least 1024x768

Order information:

Designation	Order no.
EtherCAT Workbench, single license	P.4510.01
EtherCAT Workbench, project license	P.4511.01
EtherCAT Workbench, demo version	P.4512.01

All data are subject to change without prior notice.
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