

# **CANopen Tool Chain**

CANopen configuration software and tools

The complexity of configuration quickly raises if the communication structure within a CANopen network involves more than two devices. Especially when programmable devices with dynamically created communication objects come into play the complexity raises to a level that is nearly impossible to be handled manually. Specialized tools offer both, an automatic handling of the CANopen configuration and an user-friendly interface.



## Planning and Configuration

The CANopen Configuration Suite is an easy-to-use toolchain for efficient and project-oriented configuration of CANopen networks and devices. It combines functionality with an intuitive operation and provides support in all project phases, including planning, development, startup and service. You can concentrate immediately on your application and the definition of system parameters. The included CAN driver supports various CAN interfaces from PEAK and SYS TEC electronic.

#### **Testing and Commissioning**

When integrating CANopen networks to the field, powerful CAN-bus monitors with protocol analysers help to minimize the time needed to localize possible problems significantly. The CAN-REport tool is a CAN-bus monitor and analyzing software that puts you in the position to observe, record and evaluate the CAN communication on a logical level. The CANopen plugin translates CANopen messages in human-readable format, indicating its precise meaning. The various CANopen message objects types are displayed in separate windows. Thanks to its extendable user interface its possible to adapt the CAN-REport to specific applications and test-runs. CAN messages can be registered for cyclically or manual transmission. Precise hardware timestamps, filtering functions and the automatic message logging to files supporting autonomous running tests and long-term observation.

#### **CANopen Software and Services**

	Planning and Configuration	Testing and Integration	Operation and Maintenance
CANopen Configuration Suite - CANopen configuration toolchain			
CAN-REport - CAN-bus monitor with CANopen protocol analyser			
Consulting and OEM Integration Services			

#### **Supported CAN interfaces**

The tools support a broad range of CAN-bus interfaces from PEAK and SYS TEC electronic.

- CAN-Ethernet Gateway
- PCAN-PCI
- USB-CANmodul series
- PCAN-Dongle
- pcNET-CAN (ISA)
- eNET-CAN (PC/104)
- PCAN-USB
- PCAN-ISA
- PCAN-PC/104

# **About SYS TEC electronic**

**SYS TEC electronic GmbH** is a system house for distributed automation technology. We provide an comprehensive service from consulting to OEM integration.

Founded in 1990 in Germany SYS TEC electronic has more than 20 years experience in customized development of microcontroller systems and industrial communication.



### Available software packages

#### CANopen Configuration Suite<sup>1</sup>

- Project-oriented network configuration based on CANopen EDS and DCF files
- Import of CANopen network configuration files created with 3<sup>rd</sup> party tools
- Supports download of network/device configuration via CAN-bus
- Easy workflow thanks to the simple and intuitive user interface
- Fast access to the device parameters and network structure
- Automatic PDO mapping and linking
- Simplified PDO linking based on Predefined Connection Set does not require reconfiguration of CANopen slave devices
- Selective scanning of sections of the object directory directly via CAN-bus
- The automatic network scan detects all CANopen nodes on the bus
- Support of dynamic objects and network variables according to CiA 302 and CiA 405
- Export of network variables as IEC 61131-3 variable declaration
- Scripting functionality with high-level CANopen master API
- CANopen/Ethernet gateway according to CiA 309-3 included
- Expert-mode console window for command line access to CANopen services

#### CAN-REport - CAN-bus Analyser

- Broad support of CAN-bus interface hardware from different manufacturers
- Precise hardware time stamp for received CAN messages
- Message triggers based on CAN-ID, message type or data patterns
- Configurable message filters
- Plug-ins translation of CANopen, DeviceNet and J1939 messages
- Script engine including high-level API for CAN-REport functions (send/ receive/check of CAN messages ect.)
- Import of DCF-files for configuration of CANopen PDO mappings
- Autonomous CAN-message recording to multiple files

#### Available plug-in packages

#### **CANopen Configuration Suite**

#### CiA 402 Plug-in

This plug-in extends the CANopen Device Monitor with dialogs to control the state machine of a CANopen drive and features for testing the profile position mode. The status and control words are displayed bit by bit for detailed analysis.

#### CiA 304 Safety plug-in

This plug-in provides a tabsheet for the CANopen Device Monitor for consistent configuration of CiA 304 compliant Safety Relevant Data Objects (SRDO).

#### LSS plug-in

This plug-in enables the CANopen Device Monitor to act as a LSS master and provides functions to remotely configure the bit rate and node-ID of LSS slave devices.

## CAN-REport - CAN-bus Analyser

#### CANopen plug-in

This plug-in provides the translation of CANopen messages into a plaintext format. The visualisation of CANopen messages objects is customizable by the user. The node list as well as the PDO mapping can be imported from DCF.

#### DeviceNet plug-in

This plug-in provides the translation of DeviceNet messages into a plaintext format.

#### J1939 plug-in

This plug-in provides the translation of J1939 messages into a plaintext format.

# LEARN MORE AT: www.systec-electronic.com/canopen



# Ordering Information ANopen Configuration Pro Suite (1) SO-1041-003 CIA 304 Safety Plug-in (4)

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SO-1047	CANopen Configuration Pro Suite (1)	SO-1041-003	CiA 304 Safety Plug-in (4)		
SO-1047-U	CANopen Configuration Pro Suite	SO-1054	CAN-REport (1)		
	Bundle (1) (2)	SO-1054-U	CAN-REport Bundle (1) (2)		
SO-1050	CANopen Configuration Manager Pro	SO-1054-001	CANopen Plug-in (3)		
SO-1041	CANopen Device Monitor	SO-1054-002	DeviceNET Plug-in (3)		
SO-1041-001	LSS-Master Plug-in (4)	SO-1054-003	J1939 Plug-in (3)		
SO-1041-002	CiA 402 Plug-in (4)	SO-1054-004	Dual Channel Plug-in (3)		
(1) includes single-user license for CANopen Device Monitor and CANopen Configuration Suite (2) includes USB-CANmodul1 (3) Use of this plug-in requires a valid license of CAN-REport software (4) Use of this plug-in requires SO-1047 or CANopen Device Monitor software					

For quotations please contact us: +31 (0)345-545535 - sales@indes.com