CODESYS STORE

Data Sheet CODESYS CANopen Manager SL

Configurator, protocol stack and diagnostics for CANopen Manager, fully integrated in the IEC 61131-3 development system.

Product description

The CANopen support in CODESYS is based on the standard implementation of the CAN-Interface (CAN Minidriver interface). If your target device programmable with CODESYS is equipped accordingly you can immediately use CODESYS CANopen.

CODESYS CANopen Manager offers

- A CANopen Manager configurator based on EDS and DCF files fully integrated in the Development System CODESYS

  ⇒ No additional tools required for the configuration of the bus system or the I/O data.

- A CANopen communication stack in form of a CODESYS CiA 301 library

  ⇒ The protocol stack is portable across different platforms and does not have to be fully implemented on the device.
  ⇒ The IEC 61131-3 Development System compiles the stack and the application code into native machine code and loads it onto the controller.

- A CiA 405 application interface for the diagnosis and use of SDOs
  ⇒ Extensive functionality without needing any additional software tools
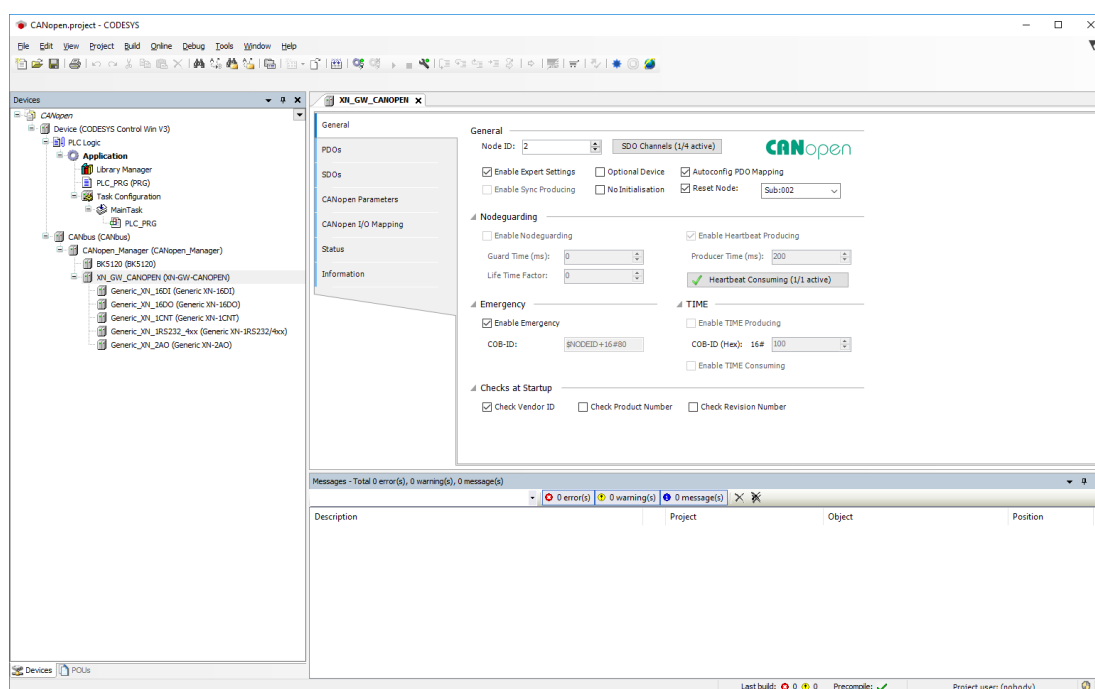
More information

Configurator

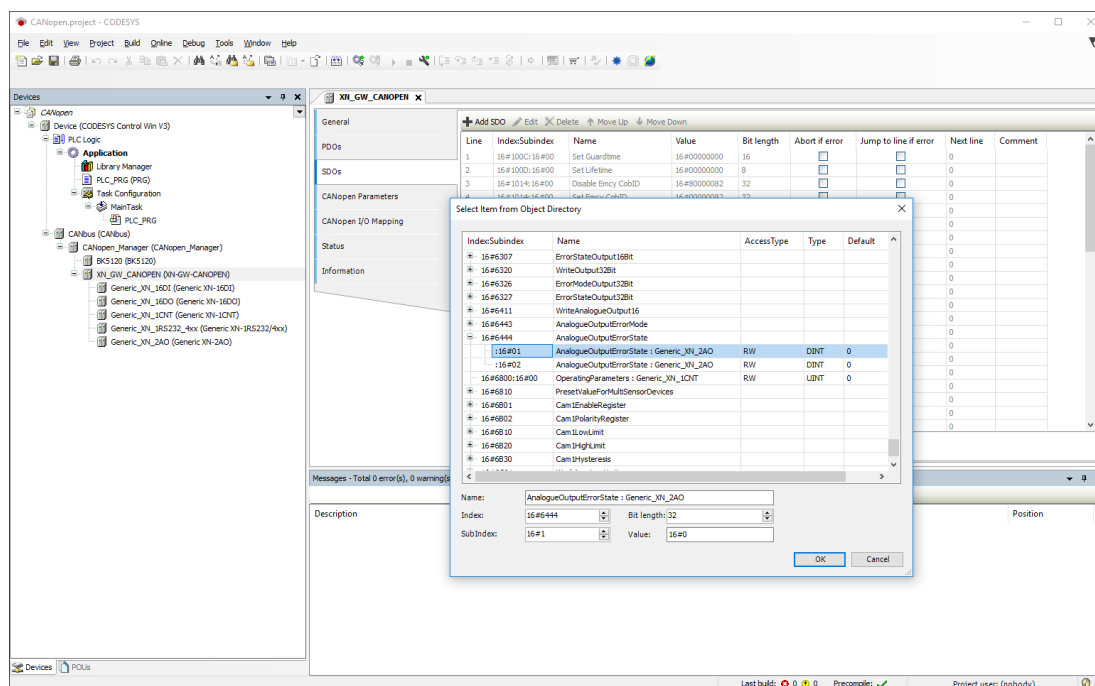|	
Editors	- CANbus Editor - CANopenManager Editor - CANopen Remote Device Editor
Communication Settings	- Nodeguarding - Heartbeat Producing/Consuming - TIME Producing/Consuming - Sync Producing/Consuming - Reset Node - Checks at startup (Vendor ID, Product Number, Revision Number) - Custom SDOs - PDO communcication settings and mapping - general stack behaviour
Validation of configuration	supported
Optional slaves	supported
Diagnosis	- Display of device state in device tree and on status page. - Display Emergency information on status page.
EDS Import	supported
DCF Import	supported
DBC Import	not supported

Modular EDS files	supported; configurator generates automatic pdo mapping
Device Scan	supported

Picture 1: General settings

Picture 2: SDO Editor

IEC Stack

Supported Platforms	• 32/64 bit • Little/Big Endian
Number of supported slaves	126 per CANopenManager instance
CAN ID Length	11 bit (29 bit not supported for CANopen)
Number of supported PDOs	up to 512 TPDOs and 512 RPDOs per slave

Guarding	• Nodeguarding • Heartbeat Producing • Heartbeat Consuming
SDO client	supported
SDO server	Not supported by CANopen Manager. Supported by CANopen local slave which can be used in parallel to the CANopen Manager on the same network.
SDO channels	Multiple channels supported. Only restricted by available CANopen NodeIDs and EDS file.
SDO Protocols	• Expedited • Segmented • Block (CRC unterstützt)
SYNC	• Producing • Consuming
TIME	• Producing • Consuming

PDO Transmission Types	• TPDOs (Slave to Master)
	  ○ acyclic/cyclic synchronous
	  ○ asynchronous/synchronous RTR only
	  ○ asynchronous manufacturer/device profile specific
	• RPDOs (Master to Slave)
	  ○ acyclic/cyclic synchronous
	  ○ asynchronous manufacturer/device profile specific

PDO Event Time	supported for TPDOs (Slave to Master)
PDO Inhibit Time	supported for TPDOs (Slave to Master)
MPDO	not supported
EMCY	Consuming supported
NMT	NMT Master
NMT Flying Master	not supported
Conformance	No official conformance test for CANopen master stacks available.

API

RAW CAN	Access to CAN chip via CANL2 library (also in parallel to CANopen Stack)
CIA 405	CIA405 IEC library • Sending SDOs • CANopen diagnosis (Device State, CANopen Kernel state, Emergencies).
Reconfigure	Dynamic changing of Baudrate and Network ID via Reconfigure (Device Diagnosis library) Enabling/Disabling of stack

General information

Manufacturer:

3S-Smart Software Solutions GmbH
Memminger Strasse 151
87439 Kempten
Germany

Support:

https://support.codesys.com

Item:
CODESYS CANopen Manager SL
Item number:
2303000233
Sales:

CODESYS Store
https://store.codesys.com

Included in delivery:

- License key

System requirements and restrictions

Programming System	CODESYS Development System V3
Runtime System	CODESYS Control V3
Supported Platforms/ Devices	Note: Use the project "Device Reader" to find out the supported features of your device. "Device Reader" is available for free in the CODESYS Store.
Additional Requirements	Target device needs CAN Minidriver implementation.
Restrictions	-
Licensing	License activation optional on CODESYS Key or Soft Key (Soft Key: free of charge component of CODESYS Controls)
Required Accessories	Optional: CODESYS Key

Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact sales@codesys.com.
Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.