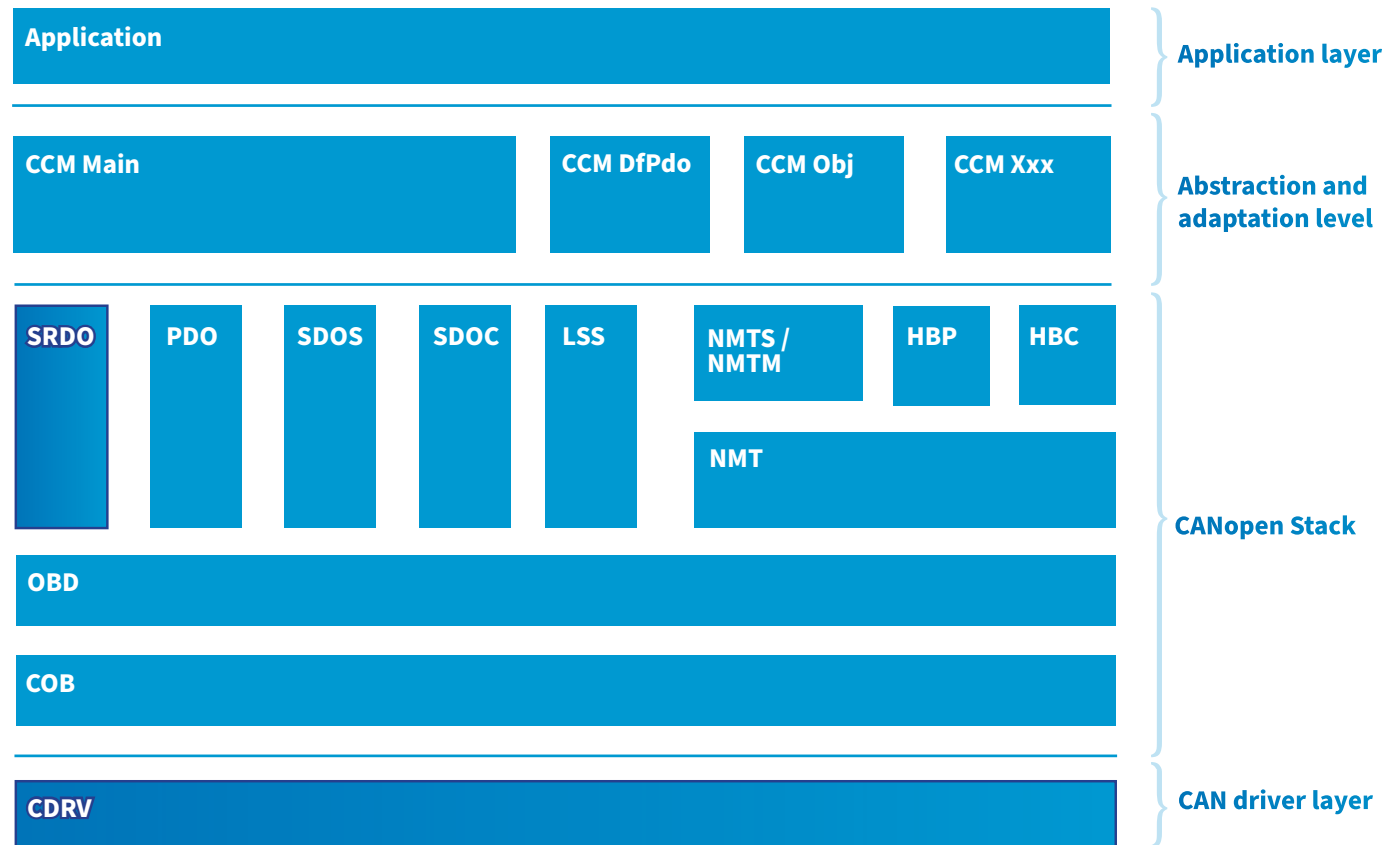


CANopen Stack: Software structure



OUR PRODUCT PORTFOLIO

- CANopen Stack [Source Code]
- CANopen monitoring and diagnostic tools
- The basis for your own CANopen devices

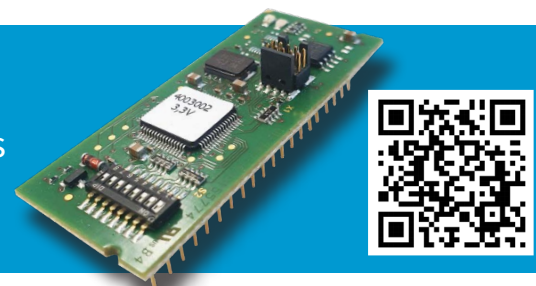


EXTENDED FUNCTIONALITIES

The CANopen Manager Source Code for infoteam OpenPCS provides significantly enhanced functionality for the implementation of powerful CANopen PLC devices with controlling functions according to CiA 302 and CiA 405. The integrated Configuration Manager holds the parameter settings of the assigned CANopen devices and handles the on-demand configurations of the connected nodes during runtime. The Source Code CANopen Manager for infoteam OpenPCS also allows easy integration to IEC 61131-3 runtime environments and is thus equipped for the development of CiA 405 compliant controllers.

Individual solution wanted?

sysWORXX CoC-100 (CANopenChip-100) as basis for your specific CANopen IO modules



CANopen is a communication protocol based on CAN, which is used in particular in the field of automation technology and for networking within complex devices. The protocol defines various services for point-to-point communication, broadcast communication, account configuration, node monitoring and network management.

CANopen is a lean network protocol with minimal overhead. The protocol stack is modular, well scalable and with its resource-saving footprint excellently suited for use in embedded systems. The physical transmission of data via CAN bus requires only low electrical power, thus causing minimal thermal loads, and is also ideally suited for battery-powered systems.

Our own CANopen stack has been continuously developed for more than 25 years, supports a large number of different controllers and can be integrated in both operating system-based and operating system-less environments. As a CiA member with over 25 years of development experience, we also actively support our customers in creating their CANopen applications.

We are here for you - Contact us!

Our friendly staff will be happy to help you:

sales@systemec-electronic.com | +493765 - 38600 - 2110 | www.systemec-electronic.com/en



CANopen Stack

CANopen® Master & Slave Stack CiA 301 SO-877



CANOPEN DEVICE STACK FOR SENSORS AND ACTUATORS

The CANopen Device Stack is resource optimized for embedded devices such as sensors, actuators and IO modules according to CiA 301. The stack does not necessarily require operating system support (bare metal), but is equally suitable for applications e.g. under FreeRTOS, SafeRTOS, ThreadX, Keil-RTX, Segger embOS, Linux or Windows. The CANopen stack delivered in source code contains the complete functionality according to CiA 301. The stack supports a fast and standard compliant implementation of own, fully featured CANopen devices including NMT Master (Network Manager), LSS Master (Layer Settings Service) or SDO Clients. The package includes an OD-Builder, which enables the creation of object directories using an easy-to-use graphical interface.

More details?
<https://www.systec-electronic.com/en/products/canopen/canopen-stack-master-amp-slave-source-code-cia-301>

No runtime licence costs for products developed with it

CANopen® Manager Stack CiA 302 SO-1063 (incl. SO-877)



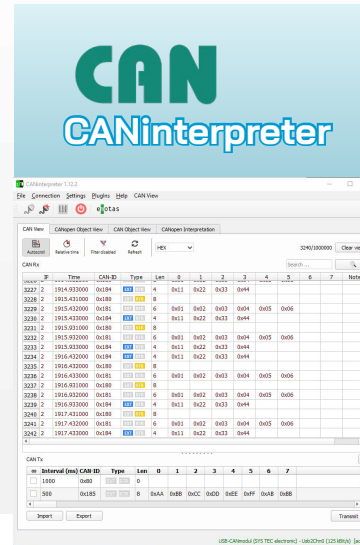
CANOPEN MANAGER STACK FOR CONFIGURATION AND NETWORK MANAGEMENT

The CANopen Manager Stack extends - according to CiA 302 - the NMT Master with additional functionalities. These include scanning for existing CANopen devices, booting the network according to the processes specified in the CANopen standard, and configuring the CANopen devices through the configuration manager. The SDO Manager allows dynamic creation of SDO connections at runtime. The CANopen Manager stack delivered in source code supports the functionalities according to CiA 302. The stack is typically used for master controllers in a CANopen network. The package includes an OD-Builder, which enables the creation of object directories using an easy-to-use graphical interface.

More details?
<https://www.systec-electronic.com/en/products/canopen/canopen-manager-source-code-cia-302>

Add Ons	
CANopen Bootloader	Download of binary data via CANopen to the target system
SDO Gateway	Exchange of SDO messages between two or more CANopen networks
Flying master	Redundant CANopen Manager for configuration, monitoring, control of slave devices, extension for SO-1063
CiA 402 Device Profile Motion Control	State machine and function templates for the implementation of CANopen Applications for drives and motion control according to CiA 402
CiA 304 SRDO	Extension for the development of safety-relevant CANopen devices
MPDO	Extension for multiplexed PDOs according to CiA 301
Dynamic OD	Extension of the object dictionary for dynamic objects

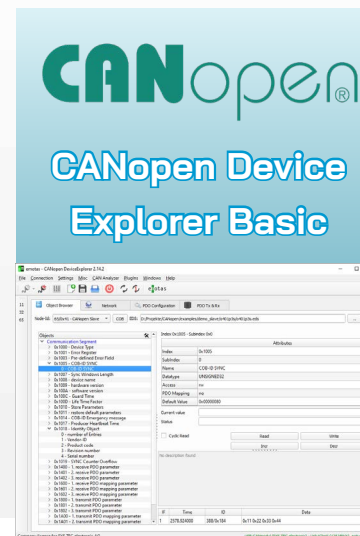
CAN + CANopen Tools



Monitoring tool for monitoring & analysis of CAN networks

CANinterpreter is a versatile monitoring tool for monitoring and recording data traffic and analyzing CAN networks. All messages transmitted on the CAN bus are displayed in real time and can be displayed in different modes/views/views. The optional recording of the data traffic allows a later offline analysis, which is especially helpful for detecting sporadic errors. Similarly, individual CAN messages or message sequences can be transferred to the network, for example to simulate nodes that are not yet present during the commissioning phase of a plant. The functionality of the CANinterpreter is already integrated in the standard version of the CANopen Device-Explorer.

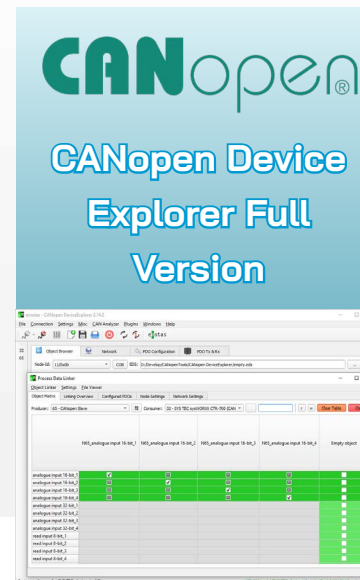
More details?
<https://www.systec-electronic.com/en/products/canopen/caninterpreter>



Inspection & configuration of CANopen devices

The CANopen DeviceExplorer Basic is an indispensable tool for development development, test, diagnostic and service tasks. The integrated CANopen master functionality allows inspection and configuration of CANopen devices by direct access to the Object Dictionary (OD). The necessary information about the respective device is read from the electronic data sheet of the device (EDS or XDD format) or queried directly from the device via online access. Using the standardized DCF files (Device Configuration Files), modified device configurations can be saved and modified device configurations can be saved and loaded. In addition, the management of entire CANopen networks in project files is possible.

More details?
<https://www.systec-electronic.com/en/products/canopen/canopen-deviceexplorer-basic-version>



Advanced inspection & configuration of CANopen devices

The CANopen DeviceExplorer Full extends the Basic version by the following functionalities:

- script-controlled generation and evaluation of CAN/CANopen messages and data
- LSS master for dynamic assignment of node numbers and for configuration the bit rate
- CiA 402 Control for development and commissioning of drive & motion devices according to CiA-402
- ISO-TP Interpreter/Transmitter for development and commissioning of vehicle specific bus systems (J1939)
- simultaneous support for multiple CAN interfaces for commissioning and diagnosis of distributed and complex network architectures

More details?
<https://www.systec-electronic.com/en/products/canopen/caninterpreter>