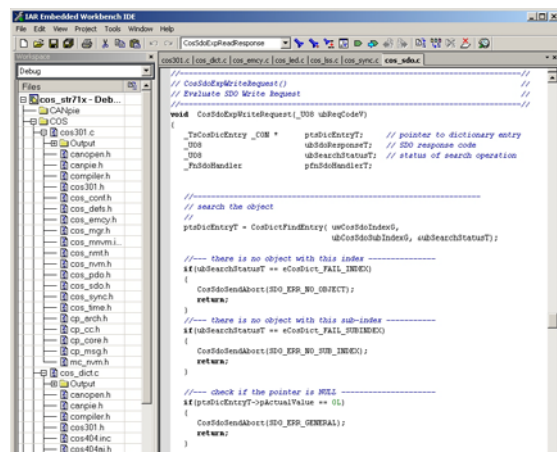# Source Code

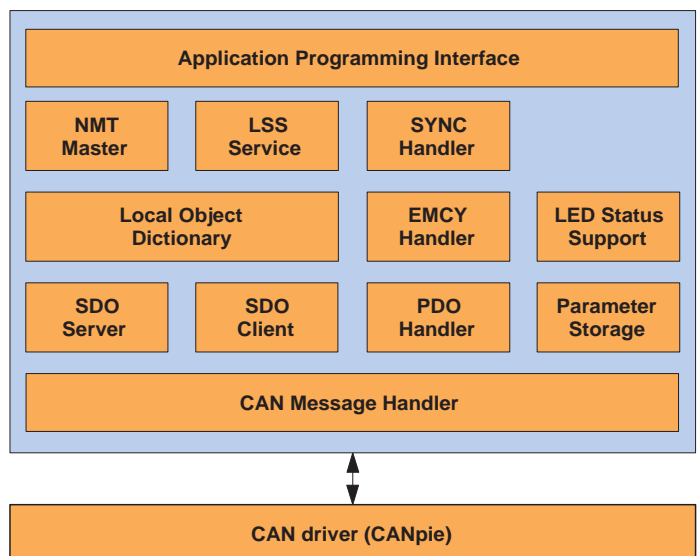## CANopen / CANopen FD master protocol stack

Software package for development of CANopen master devices

The **CANopen /CANopen FD master** source code protocol stack offers the complete functionality for integration of the CANopen standard CiA 301 / CANopen FD standard CiA 1301 in your own devices. Versatile configuration options allow an individual customization to the target system. AN example code facilitates the startup phase, the user can focus on the implementation of his own application. A consistent driver interface gives the flexibility to use any CAN controller available on the market.

Features

- Complete functionality according to CANopen specifications CiA 301, CiA 302 and CiA 305, CANopen FD specification CiA 1301

- Modular software structure with versatile configuration options

- Broad range of supported CAN controllers

- Consistent interface for the CAN driver (CANpie FD)

- Simple customisation to application (vendor specific parameters)

- Miscellaneous add-ons available

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I/O Module   Steuerungen   Protokollstacks   Dienstleistungen   www.microcontrol.net

Functions	CANopen /CANopen FD master protocol stack
Communication profile	• CiA 301, version 4.1, CiA 1301 • CiA 302 • CiA 305
NMT master	• Boot-up message • Heartbeat producer / consumer • Node-Guarding
SDO client	• Expedited upload / download • Segmented upload / download • Block upload / download
PDO handler	• Assignment of PDO data to a process image • Support for Standard / Extended Frames • Static / Dynamic mapping
CANopen services	• Emergency messages • Synchronisation message (SYNC consumer / producer) • Layer Setting Services (CiA 305, LSS)
Special functions	• LED status information • Parameter store /restore
CAN driver	CANpie FD, available for a wide range of CAN controllers (refer to separate datasheet)

Order Number	Description
50.02.003	CANopen / CANopen FD master protocol stack Protocol Stack as C source code, example programs, documentation in English language
50.02.031	Option Safety for CANopen master protocol stack Functional expansion of the API of the CANopen master protocol stack according to European standard EN50325-5
50.10.xxx	CANpie FD driver API for CAN implementation (see separate data sheet)