

CANopen Book

Embedded Networking with CAN and CANopen THE CANopen book for beginners and advanced users

CANopen is an open communication standard based on CAN – Controller Area Network. It is maintained by the CiA (CAN in Automation) user's group and features a high number of device and application profiles. Uses include industrial, transportation, maritime, medical, sub-sea, after market automotive and many more.

The book contains three parts:

Part 1: Using CANopen, by Olaf Pfeiffer

This part focuses on CANopen up to the system integrator level. Any technician or engineer who needs to be able to configure and/or maintain a CANopen network will find the required knowledge to do so in this part. The last chapter in this part contains a step-by-step example of a network configuration and test cycle.

- ✓ Understanding Embedded Networking Requirements
- ✓ The CANopen Standard
- ✓ CANopen Beyond DS301
- ✓ CANopen Configuration Example

Part 2: CANopen Engineering, by Christian Keydel

This is the part for engineers who need to have a detailed knowledge of how CAN and CANopen work, especially for those developing their own CANopen devices. It describes and compares various implementation methods in detail.

- ✓ Underlying Technology: CAN
- √ Implementing CANopen

Embedded Networking with CAN and CANopen

ISBN 978-0-692-74087-3: Paperback edition. Demo software matching the examples in the book is available for download.



Part 3: CANopen Reference, by Andrew Ayre

A pure reference section for all CANopen users. Key elements of CANopen are summarized in a way that allows a quick look-up. The core of this part is an Object Dictionary reference listing all Object Dictionary entries specified by the CiA CANopen standards DS301 and DS302.

- √ Frequently Asked Questions
- ✓ Physical Layer
- ✓ Data Types
- ✓ The Object Dictionary
- ✓ Minimal Object Dictionaries
- ✓ Communication Object Identifiers (COB IDs)
- √ Emergency Objects
- ✓ SDO Abort Messages
- ✓ Node States
- ✓ CANopen Glossary (provided by CiA)