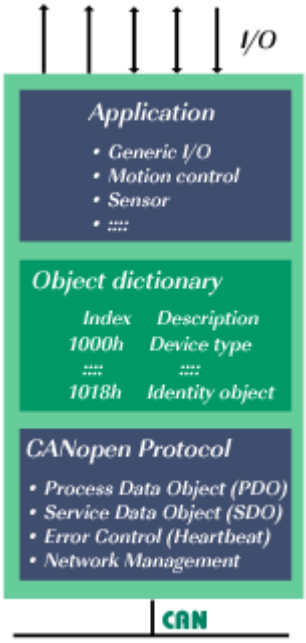
CANopen is a CAN-based higher layer protocol. It was developed as a standardized embedded network with highly flexible configuration capabilities.



The CANopen application layer and communication profile (EN 50325-4; CiA 301) supports direct access to device parameters and transmission of time-critical process data. The CANopen network management services simplify project design, system integration, and diagnostics. In each decentralized control application, different communication services and protocols are required. CANopen defines all these services and protocols as well as the necessary communication objects.

The Object Dictionary describes the complete functionality of a device by way of communication objects and is the interface between the communication interface and the application program. All communication objects of a device (application data and configuration parameters) are described in its Object Dictionary in a standardized way. These objects are accessible by a 16-bit index and in the case of arrays and records there is an additionally 8-bit sub-index.

Where is it used and with what products?
CANopen was designed for motion-oriented machine control networks, such as handling systems. Today it is used most by european vehicle manufacturers, but also used in many various fields, such as medical equipment, off-road vehicles, maritime electronics, public transportation.

CANopen & AnyBus
HMS has a variety of products supporting CANopen. An embedded AnyBus-S Slave Interface, an enhanced AnyBus-S Interface with DSP402 Drive Profile, the AnyBus Communicator Serial Gateway and AnyBus-X Bridge/Gateway giving you a choice to bridge CANopen with any of 14 other fieldbus networks.

CANopen Facts

Network Size:	Support for 127 nodes
Network Length:	25m - 5000m depending on baudrate
Data Rate:	10kbit/s - 1Mbit/sBus
Bus Topology:	Trunkline, Dropline
Addressing:	Master/Slave, Peer-to-Peer, Multi-cast and Multi-master
System Feature:	Node removal without severing the network. Provisions for the typical request/response orientated network communications. Provisions for the effiecient movement of data framentation for moving larger bodies of information

CANopen AnyBus Products

Embedded Products
- AnyBus-S Slave Interface
- AnyBus-S DSP402 Drive Profile

Networking Products
- AB Communicator Serial Gateway

Networking Products
- AnyBus-X Bridge/Gateway

ACP&D Limited
Units 6 & 9A,
Charlestown Industrial Estate,
Robinson Street,
Ashton-under-Lyne,
Lancashire, OL6 8NS.

Tel: +44 (0)161 343 1884
Fax: +44 (0)161 339 0650
e-mail: sales@acpd.co.uk
Websites: www.acpd.com &
www.acpd.co.uk