

Benefits

- Quick connect
- Scanner CCV
- Identity CCV
- Identity Heartbeat
- Philips XAC3 support
- The DMDK Contains
- Source code
- Application Program Interface definitions
- User Manual
- Technical documentation explaining scanner architecture

I/O Mapping with Host Interface

Input/Output Tables

Up to 4 map segments

Diagnostic Table

I/O Scanner Functions

User Program or Parameter change

Group 2 Only Proxy

Background Polling

I/O Data Exchange

Cyclic, change of state, poll, strobe

Slave Mode

CAN Drivers

NetStax™ DMDK

DEVICENET MASTER DEVELOPERS' KIT

The DMDK is a DeviceNet Master and I/O Scanner Library that allows developers of PC based and embedded DeviceNet products to add I/O scanner functionality to their product. Supports simultaneous operation as both a master and a slave, while supporting explicit message connections.

Features

- The code base has an approximate 32K footprint
- 32K ANSI "C" code for easy porting to different microprocessors
- x86 assembler routines for applications using that processor platform
- Scanning functions for:
 - Change-of-State (COS) — both acknowledged and unacknowledged
 - Cyclic (including device "heartbeat"), poll, and strobe behavior
 - Background polling for lower priority nodes
 - I/O mapping for up to four segments — this includes Bit level mapping
 - Explicit messaging from host to devices on the network
- Slave functions support data sharing between masters and Change-of-State, cyclic, poll and strobe behavior
- Configuration support from the network (on-line) and host-side. Local explicit messaging from host to the scanner itself. Scan list configuration and access to local attributes/services
- Autobaud ready—operates at all Baud rates
- Supports network download of new executable firmware (FLASH): boot and executive partitions supported, Non-Volatile Storage Object model provided
- Supports multiple CAN controllers: API defined for CAN interfaces, examples for Intel 82527, Philips SJA1000 and XAC3 included
- Complete error recovery and electronic keying to guarantee correct node replacement. Uses vendor ID, device type and product type to determine if proper device is connected
- Supports "module status" and "network status" I/O LEDs for device status information
- Supports origination and target for explicit connections
- Supports all functions required for a master including UCMM proxy for Group 2 only slaves
- Supports Device Heartbeat, Scanlist Configuration Consistency Value (CCV) and Identity CCV
- Supports the rapid connection establishment method known as Quick Connect
- Compiler independence through the use of ANSI "C"
- Detects power loss on the network to avoid confusion between missing nodes and network power loss
- Stores configuration data in non-volatile memory and updates product firmware via the network

DeviceNet™

**PYRAMID
SOLUTIONS**