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EtherNet/IP SDK

Using EtherNet/IP SDKs (software development kits), industrial device manufacturers can quickly and efficiently embed the EtherNet/IP protocol in scanners or adapters. For scanner device manufacturers, the SDK's customizable product configuration tool (PCT) provides the ability to supply end users with fully integrated EtherNet/IP functionality conforming to ODVA standards.

ADVANTAGES AND FEATURES

Enables various EtherNet/IP features and performance levels

The SDK includes a configuration tool with customizable ODVA-compliant EtherNet/IP scanner features including quick connect, device-level ring (DLR) and rack optimization.

Streamlines implementation with a wide range of hardware platforms and operating systems

The SDK works with any hardware with a 32- or 64-bit microprocessor and any operating system, real time or not.

Accelerates configuration and diagnostic processes

A product configuration tool (PCT) is included to quickly create configuration files and perform commissioning and diagnostics for connected devices.

Protocol	EtherNet/IP
Hardware Compatibility	32- or 64-bit microprocessors
Operating System	Any OS, real time or not
Code Footprint (approx.)	200 kB (adapter) or 400 kB (scanner)

Eases development and integration work

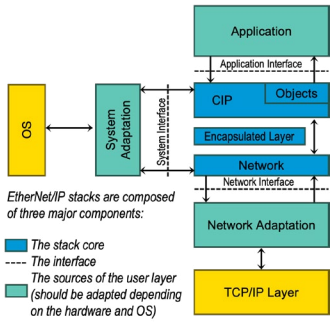
The SDK provides sample applications with source codes and a Windows-based simulator to help developers.

Reduces time to market

Engineering and technical support and in-depth training options enable customers to leverage Molex's vast expertise in industrial communication.

Enables sensor and remote I/Os

There is also an adapter-only SDK variant enabling sensor and remote I/O manufacturers to support ODVA CT20-compliant EtherNet/IP protocol in their products.



MARKETS AND APPLICATIONS

Industrial Automation

Device manufacturing plants
Process instruments
Network interfaces (PC cards, gateways)
Complex machinery (packaging, textile, etc.)
Robot manufacturing tooling and controllers
Robot monitoring systems
PC manufacturing equipment
Warehouse and logistics systems
Electronic manufacturing equipment
Process control systems

Commercial Vehicles

Railways and subways
Cranes
Agricultural equipment

Robot Monitoring Systems

Warehouse and Logistics Systems

Agricultural Equipment

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EtherNet/IP SDK›

SPECIFICATIONS

Basic Information

CIP Features: Implicit messaging (I/O process data), explicit messaging (configuration and diagnostic)
EtherNet/IP: Fully compatible (test suite CT20)
Stack Resolution: Timing resolution in microseconds
Supported Objects (CIP Standard): Identity object, message router object, assembly object, connection manager object, TCP/IP interface object, Ethernet link object, QoS object, LLDP object, DLR object and any user objects

Basic Information

Compliance: CT20
Specifications: ODVA EtherNet/IP (vol. 1-3.33, vol. 2-1.31)
Hardware Compatibility: 32- or 64-bit processors
Supported Operating System: Any OS, real-time or not
Stack Implementation: Single- or multi-task, socket-based or UDP optimization
Code Footprint (estimated/customizable): 200 kB (adapter), 400 kB (scanner)

SDK Contents

ANSI C source code
Electronic documentation
Implementation examples on Windows, Linux, FreeRTOS
EDS sample
STC sample for ODVA conformance tool
EIP_Trace to log messages from target platform on a Windows host
EIP_Tool to access CIP objects
EtherNet/IP configuration tool

EtherNet/IP Configuration Tool

OS: Windows 11
Generate scanner stack configuration files
EDS device library management
Adapter commissioning (automatic device detection, online actions, etc.)
Support of modular devices like Rockwell FlexIO and PointIO devices with chassis and module management
Integrated diagnostic
OEM customization
Software protection
Used by ODVA during PlugFest interoperability tests

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