

NetStaX™ ESDK

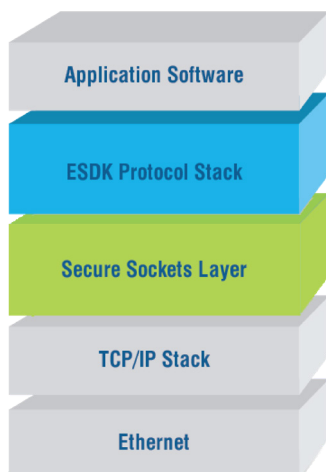
ETHERNET/IP SCANNER DEVELOPERS KIT

Benefits:

- High performance
- Out-of-the-box examples
- Simplified porting
- Minimized resource use
- Rich set of features
- Scalable
- Secure

ESDK Includes:

- EtherNet/IP Scanner protocol stack 'C' source code for cross-platform development and portability
- Example Scanner Class Application (binary and source provided)
- ESDK Getting Started, Software Reference manuals and Porting Guide
- ESDK Scanner DLLs (32 & 64bit) with C++ function call API, C# API for .NET applications and legacy COM API for ESDK stack with Windows and VB6 applications
- Sample STC file for pre-conformance testing
- Sample EDS file



ENABLING SECURE ETHERNET/IP CONNECTIVITY

Pyramid Solutions' NetStaX™ EtherNet/IP Scanner Developers Kit (ESDK) allows you to quickly introduce secure EtherNet/IP Scanner Class and/or Adapter Class functionality for your products.

Our stack provides I/O server, I/O client, message server, and message client functionality along with an Application Programming Interface (API) for using Common Industrial Protocol (CIP) over standard Ethernet. It interfaces with your product's application software and socket level TCP/IP interface.

Rest assured that your connections will be secured with the ESDK's CIP Security feature. It adds secure connection capabilities that will allow your product to communicate with other devices that support conformant CIP Security EtherNet/IP functionality. Secure connectivity prevents bad actors from attempting to spoof connections to your products and spoofing devices on your network. The ESDK stack seamlessly supports standard and secure EtherNet/IP connections based on the network configuration.*

The ESDK scanner stack configures via the Scanner's application code or through the network via the included Connection Configuration Object (CCO). Connections configure through Rockwell Software's RSNNetWorx™ for EtherNet/IP or other tools capable of interfacing to the CCO. Embedded platforms to PCs to mid-level computer systems all successfully utilize the ESDK stack.

NetStaX ESDK is distributed under a royalty free software license agreement.

ESDK Features

EtherNet/IP Compatibility

- ODVA CT18 Conformant
- Enables EtherNet/IP Scanner Class functionality
- UCMM (unconnected) messaging client and server
- Class 3 (connected) messaging client and server
- Class 1 (I/O) connection Client and Server
- CIP Security*
- CIP Safety***

Resource Utilization and Management

- All resources initialized at startup
- No dynamic memory or thread allocation
- Stack runs on a single thread

Platform Compatibility and Portability

- "Platform file" approach separates routines into a single set of platform files to simplify porting
- Sample Platform Files included
- Core stack source is 'C' code for portability

Supported/Included Objects

- Message router
- Connection manager
- Port
- File object
- Ethernet link
- TCP/IP
- Connection configuration object
- QOS
- DLR**
- CIP Sync**
- Assembly
- Identity
- Custom objects
- Modbus translator
- Class 0 support
- Energy object
- CIP Security*

*The ExDK-SECURE option is required to enable CIP Security features using the SSL Library you provide

**These objects are for configuration only. No DLR or IEEE 1588 software or hardware is provided

***The ESDK-SAFETY option is required to provide code compatibility for use with IXXAT's CIP Safety Stack

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SOLUTIONS

EtherNet/IP™

ODVA
CONFORMANT