Automation Direct – Koyo Devices

The ECOM Ethernet driver implements communication with Automation Direct (PLC Direct/Koyo) devices. It operates as a Master on the TCP/IP network. The communication blocks are dynamically created according to the pooling cycle defined on the AccessType for each Device Point.

Summary Information

Communication Driver Name: ECOM Ethernet

Implementation DLL: T.ProtocolDriver.Ecom.dll

Protocol: TCP

Interface: TCP/IP

PLC types supported: Automation Direct (PLC Direct/Koyo)

Communication block size: User configurable. The default is 255

Protocol Options: None

Multi-threading: User configurable. The default is one thread for each network node

Max number of nodes: User defined

PC Hardware requirements: Standard PC Ethernet interface board

Supported Operands:

Operand	Address Range	Read	Write	Data Type	Address Size
C Control Relays	0–1777	Yes	Yes	Bit	1 bit
CT Control Status	0-177	Yes	Yes	Bit	1 bit
SP Special Relays	0-777	Yes	Yes	Bit	1 bit
S Stages	0-1777	Yes	Yes	Bit	1 bit
T Timer Status	0-377	Yes	Yes	Bit	1 bit
Y Output Points	0-777	Yes	Yes	Bit	1 bit
X Input Points	0-777	Yes		Bit	1 bit
V Memory	0-41237	Yes	Yes	Word	2 bytes

Channel Configuration

Protocol Options

BlockSize: Defines the maximum amount of items per group. The default value is 255

Settings

TCP/IP:

NodeConnections: Defines the maximum number of parallel requests that will be sent to each node (asynchronous communication)

Node Configuration

Station Configuration

SlaveId: Set this field with the address of the slave device in the Network (PLC ID)

TCP/IP:

Station syntax: <IP address>;<Port number>;<Slaveid>

Where:

- **<IP address>** = The IP address of the slave device in the network
- **<Port number>** = The TCP port where the slave device is listening (default is 28784)
- **<Slaveid>** = The PLC ID in the Network (default is 1)

Ex: 192.168.1.101 ; 28784; 1

Point Configuration

The syntax for the ECOM communication points is: <Operand Type><Octal Address>

Where:

- **<Operand Type>** indicates the memory area:
  - C Control Relays
  - CT Control Status
  - SP Special Relays
  - S Stages
  - T Timer Status
  - Y Output Points
  - X Input Points
  - V Memory

  For more information about the valid operands, see Supported Operands

- **<Octal Address>** indicates the data address in the memory area (octal format: 0 - 7)

  Ex: V0 (Operand = Memory, Address = 0)

Troubleshoot

The status of the driver's execution can be observed through the diagnostic tools, which are:

• Trace window
• Property Watch
• Module Information

The above tools indicate if the operations have succeeded or have failed. A status of 0 (zero) means communication is successful. Negative values indicate internal driver errors, and positive values indicate protocol error codes.