

ECOM Ethernet Communication Driver

This document has the specific information related to the driver configuration. For a generic explanation on Devices, Channels, Nodes and Points configuration, please refer to reference guide.

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Section 1 – Summary Information

Communication Driver Name: ECOM Ethernet

Implementation DLL: T.ProtocolDriver.Ecom.dll

Protocol: TCP

Interface: TCP/IP

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

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

Communication block size: user configurable, default is 255

Protocol Options: None

Multi-threading: user configurable, 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	✓	✓	Bit	1 bit
CT Control Status	0-177	✓	✓	Bit	1 bit
SP Special Relays	0-777	✓	✓	Bit	1 bit
S Stages	0-1777	✓	✓	Bit	1 bit
T Timer Status	0-377	✓	✓	Bit	1 bit
Y Output Points	0-777	✓	✓	Bit	1 bit
X Input Points	0-777	✓	-	Bit	1 bit
V Memory	0-41237	✓	✓	Word	2 bytes

Table 1

Some devices work with word data using byte swap, so for those devices the option byte swap in Modifiers column into Point table must be set.

Section 2 – 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)

Section 3 – 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> = IP address of the slave device in the network

< Port number > = TCP port where the slave device is listening (default is 28784)

< SlaveId > = PLC ID in the Network (default is 1)

Ex: 192.168.1.101 ; 28784; 1

Section 4 – 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 the [Table 1](#):

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

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

Section 5 – Troubleshoot

The status of the driver 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 where the status 0 (zero) means success. Negative values are internal error codes and positive values are protocol error codes.

Revision History

Revision	Description	Date
A	Initial Revision	April, 16 th 2013