

OMRON Fins Master 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: OmronFins

Implementation DLL: T.ProtocolDriver.OmronFINS.dll

Protocol: FINS protocol

Interface: UDP and Serial

Description: OmronFins implements communication with CS/CJ/CP-series CPU Unit or NSJ devices that are compatibles with FINS. It operates as a Master on UDP or serial networks. The communications blocks are dynamically created according the pooling cycle defined on the AccessType for each Device Point.

Equipments supported: CS/CJ/CP-series CPU Unit or NSJ Controller

Tested Equipment: SYSMAC CJ2M CPU34 and CPU35 using UDP/FINS

Supported Operands:

Operand	Read	Write	Data Type	Address size
CIO – CIO	✓	✓	Word	2 bytes
WR – Work Area	✓	✓	Word	1 bit
HR – Holding Bit	✓	✓	Word	2 bytes
AR - Auxiliary Bit	✓	✓	Word	2 bytes
DM – Data Memory	✓	✓	Word	2 bytes
TA – Timers	✓	✓	BCD	2 bytes
CA – Counters	✓	✓	BCD	2 bytes
EM# – Extended Memory	✓	✓	Word	2 bytes

Table 1

Section 2 – Channel Configuration

Protocol Options

Mode: Determines the compatible equipments:

- **CS1:** CS/CJ series compatible
- **CV:** CV/CVM1 series compatible

Network: Represents the FINS network, this information is related to the Master

Node: Represents the computer Node in the FINS network. If the number 0 is specified, the driver assumes the last octet of the IP Address as Node number (for UDP Interface)

Ignore Non Fatal Error: Indicates the driver behavior when the PLC returns the 64 status that is a non fatal error:

- **True:** returns Success, with error code = 64 and set the tag quality to GOOD
- **False:** returns Failed, with error code = 64 and set the tag quality to BAD

Section 3 – Node Configuration

Primary Station Configuration

Serial channels:

Station syntax:

<Network> ; <Node> ; <Unit Id>

Where:

<Network>: Represents the FINS network where the device is.

<Node>: Represents the device Node number in the FINS network.

<Unit Id>: Represents the device Id in the FINS network.

E.g.: 0 ; 1 ; 0

UDP channels:

Station syntax:

<IP address> ; <Port > ; <Network> ; <Node>

Where :

<IP address>: IP address of the device in the network

<Port >: UDP port where the device is listening (default is 9600)

<Network>: Represents the FINS network where the device is.

<Node>: Represents the device Node number in the FINS network.

E.g.: 192.168.1.101 ; 9600 ; 1 ; 0

Note: When using multiple nodes, the UDP port must be different for each Node.

Section 4 – Point Configuration

The syntax for the OmronFins communication points is:

<Memory Area> : <Address>

For more information about the valid operands, see the [Table 1](#):

E.g.:

CA:0	Memory Area = CA,	Address = 0
CIO:20	Memory Area = CIO,	Address = 20
EM0:1	Memory Area = Extended Memory 0,	Address = 1
EM6:1	Memory Area = Extended Memory 6,	Address = 1

Section 5 – Troubleshoot

The driver execution status 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	August 2010