DHRIO Communication Driver

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

Contents

Section 1 – Summary Information

Communication Driver Name: DHRIO

Implementation DLL: T.ProtocolDriver.DHRIO.dll

Protocol: DH+ network

Interface: TCPIP

PLC types supported: PLC5 or SLC500 devices using 1756-DHRIO (ControlLogix DHRIO Communication Module) in ControlLogix PLC.

Manufacturer: Rockwell

PC Hardware requirements: Ethernet board

Section 2 – Channel Configuration

Protocol Options

Model: Select the PLC Model, 5 or 500.

Section 3 – Node Configuration

Station Configuration

Station syntax: <IP > ; <Port > ;<BackPlane>;<DHRIO Slot>;<DHRIO Channel>;<DH+ Node>

Where :

<**IP**> = IP address of the ControlLogix device in the network.

< **Port** > = TCP port where the ControlLogix device is listening (default is 44818).

< **BackPlane** > = Used BackPlane in the device.

< **DHRIO Slot** > = Used slot for the 1756-DHRIO module in ControlLogix.

< **DHRIO Channel** > = Used channel for the 1756-DHRIO module in ControlLogix.

< **DH+ Node** > = Used node in the DH+ network.

Station Example

PrimaryStation = 192.168.1.101 ; 44818 ; 1 ; 2 ; A ; 0

Section 4 – Point Configuration

Address

The syntax for the AB Ethernet communication points are:

- ***<FileType><FileNumber>:<Address>[Parameter]***

***FileType*:** the valid values are:

File		Read	Write	Bit Read	Bit Write	Data Type	Address size
N	Integer	✓	✓	✓	✓	Word	2 bytes
B	Binary	✓	✓	✓	✓	Word	2 bytes
F	FloatPoint	✓	✓	✓	✓	Single	4 bytes
O	OutputLogical	✓	✓	✓	✓	Word	2 bytes
I	InputLogical	✓		✓		Word	2 bytes
S	Status	✓	✓	✓		Word	2 bytes
T	Timer (Model 500 only)	✓	✓			Word or Bit	2 bytes or 1bit
R	Control (Model 500 only)	✓	✓			Word or Bit	2 bytes or 1bit
C	Counter (Model 500 only)	✓	✓			Word or Bit	2 bytes or 1bit

***FileNumber*:** File number related to the FileType.

***Address*:** element address in configured File.

***Parameter*:** Aditional parameter for Timer, Control and Counter.

Ex.: .Len, .Pre, .ACC, .EN, .TT, .DN, etc

Address Example

Address = N7:10

Section 5 – Troubleshoot

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

- Trace window
- Property Watch
- Module Information

Status value of 0 (zero) means communication success. Negative values indicate internal driver error and positive values means protocols errors according AB specification.

Revision History

Revision	Description	Date
A	Initial Revision	January 2019
B	Added the SLC500 model	March 2019