Allen-Bradley Rockwell – Serial Micrologix

The DF1 Serial driver implements communication with Rockwell Allen-Bradley devices using the DF1 Protocol (SLC Families and Micrologix) via Serial communication. It operates as a Master on serial networks. The communications blocks are dynamically created according to the pooling cycle defined on the Access Type for each Device Point.

Summary Information

Communication Driver Name: DF1 Serial

Current Version: 1.0

Implementation DLL: T.ProtocolDriver.DF1_Serial

Protocol: DF1

Interface: Serial

Max number of nodes: User defined

Supported Files:

Files	Read	Write	Data Type	Address Size
N	Yes	Yes	Word	2 bytes
B	Yes	Yes	Bit	1 bit
F	Yes	Yes	Single	4 bytes
O	Yes	Yes	Output	1 bit
I	Yes	Yes	Input	1 bit

Channel Configuration

Protocol Options

CheckSum: It defines the checksum currently being used by the device, whether it's CRC or BCC.

Settings

Set the fields according to your serial port configuration.

Node Configuration

Station Configuration

SlaveId: Set this field with the address of the slave device in the network.

Point Address Configuration

The syntax for the DF1 Serial communication point is: <Files>:<Address>/Parameter

Where:

<Operand> indicates the memory area. The valid values are:

- N, for Integer
- B, for digital
- F, for real
- O, for digital (output)
- I, for digital (input)

The operand also has a register value, except by I/O.

<Address> indicates the data address for the chosen file

<Parameter> indicates the specific bit of that address (which is a byte) (for the digital values)

E.g.:

- F8:0
- N21:1
- B21:1/6
- I:0/0

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. A status of 0 (zero) means communication is successful. Negative values indicate internal driver errors, and positive values indicate protocol error codes.