AB Rockwell PLC5 and SLC Connector

Devices Using DF1 Protocol (SLC, PLC5)

- Name: **DF1Ethernet**
- Version 1.4.0.4
- Protocol: DF1
- Interface: TCP/IP
- Runtime: .NET 2.0 (Multiplatform)
- Configuration:
    - Devices / Protocols

Channel Configuration
Node Configuration
Points Configuration
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Channel Configuration

No custom settings are required.

On TCP/IP settings, you can optimize communication using the field:

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

Node Configuration

Primary Station

Stations syntax: <IP > ; <Port >

Where :

<**IP**> = IP address of the slave device in the network

< **Port** > = TCP port where the slave device is listening (default is 2222)

Example: 192.168.1.101; 2222

Points Configuration

Point Address Syntax

The syntax for the PLC communication points is: <File Type><Element Number> : <Address>

- **File Type:** identifies the Operand.
- **File Number**: number reference for the File Type
- **Element Number**: number address for that file in the PLC.

The valid values for **File Type** are:

DF1Ethernet Driver File Types						
File	**Read**	**Write**	**Bit Read**	**Bit Write**	**Data Type**	**Address size**
N Integer	**Yes**	**Yes**	**Yes**	**Yes**	Word	2 bytes
B Binary	**Yes**	**Yes**	**Yes**	**Yes**	Word	2 bytes
F FloatPoint	**Yes**	**Yes**	**Yes**	**Yes**	Single	4 bytes
O OutputLogical	**Yes**	**Yes**	**Yes**	**Yes**	Word	2 bytes
I InputLogical	**Yes**	**-**	**Yes**	**-**	Word	2 bytes

Address Modifier — DF1LittleEndian (optional)

The Address field accepts an optional trailing token that controls how the driver handles byte ordering for numeric file types. Syntax:

<File Type><File Number> : <Address> [: <DF1LittleEndian>]

Where <**DF1LittleEndian**> is `true` or `false` (case-insensitive). The Address grid in the Designer exposes this as a checkbox column.

DF1LittleEndian Field	
Value	**Behavior**
true (default)	The driver automatically applies DF1 little-endian byte ordering for numeric types. The point's **ByteSwap** modifier is ignored. This is the legacy behavior — existing addresses without the optional trailing token behave as if `true` were set.
false	The driver does not apply its built-in byte ordering. The point's **ByteSwap** modifier controls byte ordering directly: when **ByteSwap** is checked, the bytes are swapped; when unchecked, the bytes are passed through as received. Use this when the device delivers the value in the opposite endianness from what the default DF1 interpretation expects.

When to set DF1LittleEndian to false. The default (`true`) is correct for the overwhelming majority of SLC and PLC5 deployments. Disable it only when an integration has confirmed (via oscilloscope, packet capture, or an Excel cross-check against the device documentation) that the standard DF1 byte order produces incorrect numeric values for a specific data file or device firmware variant. Once disabled, set the point's **ByteSwap** modifier on the *Devices » Points* editor to choose the desired byte order.

Examples

Address	Result
`N7:0`	Legacy form, equivalent to `N7:0:true`. Driver applies DF1 little-endian byte ordering.
`N7:0:true`	Explicit default. Same behavior as `N7:0`.
`F8:0:false`	Float read where the point's **ByteSwap** modifier on the Points editor controls byte ordering directly.
`B21:1/6:false`	Binary bit read with manual ByteSwap control.

Backwards compatibility. The optional token is back-compat-safe. Any existing address that does not end in `true` or `false` — including sub-element forms such as `T4:0.ACC` or `C5:0.PRE` — parses unchanged through the legacy path.

Driver Revision History

DF1Ethernet Driver Revision History	
Version	**Notes**
1.4.0.3	Initial release on new documentation standards
1.4.0.4	Added optional 7th address field **DF1LittleEndian** (default `true`) to allow per-point control over byte ordering. When set to `false`, the point's **ByteSwap** modifier controls byte ordering directly instead of being overridden by the driver's built-in DF1 little-endian default.

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