GeFanuc_Ethernet Communication Driver

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

Contents

Section 1 – Summary Information

Communication Driver Name: GeFanuc_Ethernet

Implementation DLL: T.ProtocolDriver. GeFanuc_Ethernet.dll

Protocol: SRTP

Interface: TCP/IP

Description: GeFanuc_Ethernet communication driver implements communication with GeFanuc PLCs using its SRTP protocol. It operates as a Master on TCP/IP networks. The communication blocks are dynamically created according the pooling cycle defined on the AccessType for each point.

PLC types supported: Series 90 PLC and compatibles

Communication block size: user configurable, default is 512

Max number of nodes: user defined

PC Hardware requirements: Standard PC Ethernet interface board

Supported Operands:

Register Type	Read	Write	Data Type
%I - Discrete Input	✓	-	Bit
%Q - Discrete Outupt	✓	✓	Bit
%T - Discrete Temporary	✓	✓	Bit
%M - Discrete Internal	✓	✓	Bit
%G - Global Genius Data	✓	✓	Bit
%AI - Analog Input	✓	-	Word
%AQ - Analog Output	✓	✓	Word
%R - Internal Register	✓	✓	Word
%W – Bulk Memory	✓	✓	Word

Table 1

Section 2 – Channel Configuration

Protocol Options

BlockSize: Defines the maximum amount of items per group, the default value is **3**.

If the communication points are configured in sequence and the BlockSize equals to 3, the driver can create the internal groups with 3 words or 24 bits.

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

TCP/IP:

- Station syntax: <IP address> ;<Port>

    Where

  <IP address> : IP address of the slave device in the GeFanuc network.

  <Port> : TCP/IP Port to connect with the slave device.

    E.g.: 192.168.1.1;18245

Section 4 – Point Configuration

The syntax for the GeFanuc_Ethernet communication points is:

< RegisterType > <Address>

Where :

RegisterType:

%I   Discrete Input
%Q   Discrete Outupt
%T   Discrete Temporary
%M   Discrete Internal
%G   Global Genius Data
%AI   Analog Input
%AQ Analog Output
%R   Internal Register
%W   Bulk Memory

Address: Address number

Examples:

%I0010   RegisterType = %I , Address = 10
%Q0020   RegisterType = %Q , Address = 20
%M0045   RegisterType = %M , Address = 45
%AQ0100   RegisterType = %AQ , Address = 100

Section 5 – Troubleshoot

The status of the driver execution can be observed through the tools, that 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	February, 2013
B	Revision version	March, 2015