

Fanuc CNC Ethernet

Refer to these sections for details:

- [Supported Series](#)
- [PLC Connection Settings](#)
- [PLC Configuration](#)
 - [Supported Data Types](#)
 - [RDPMC Tags](#)
- [LoopEdge DeviceHub Configuration](#)
- [Device Addresses](#)

Supported Series

FANUC 0i/30i/31i/32i/35i

Website: http://www.fanucfa.com/welcome_worldwide/

PLC Connection Settings

Parameters	Recommended	Options	Notes
PLC Type	FANUC 0i/30i/31i/32i/35i Series (Ethernet)		
PLC Interface	Ethernet		
Port #	8193		
PLC Station #	1		

PLC Configuration

Supported Data Types

Supported data types by FANUC and LoopEdge. Below is for the FANUC PMC (Programmable Machine Control). **Note:** FANUC Macro variables support the FLOAT data type.

Data Type	Size
BYTE	1 byte
WORD	2 bytes

Signed Value	Data Type	Size
INT8	SINT	1 byte
INT16	INT	2 bytes
INT32	DINT	4 bytes

Unsigned Value	Data Type	Size
UINT8	USINT	1 byte

UINT16	UINT	2 bytes
UINT32	UDINT	4 bytes

 The **FANUC PMC** System is the interface between the FANUC CNC and the machine tool. For information on the PMC system, take a look at [the FANUC Corporation website](#).

RDPMC Tags


RDPMC tags provide all information about the **Address Type**, the **Address Number** to read data from, and **Size** within the tag itself.

Address Types:

[Format/with arguments]	
rdpmc[adrtype_snumber_datatype]	
[Arguments]	
adrtype	PMC address type
	0 : G
	1 : F
	2 : Y
	3 : X
	4 : A
	5 : R
	6 : T
	7 : K
	8 : C
	9 : D
	12 : E (PMC-SB7, PMC for Series 30i /internal relay)
snumber	PMC address where data is read
datatype	PMC data type (The same size as the [Data type] is specified)
	0 : 1 byte
	1 : 2 bytes
	2 : 4 bytes

Example of RDPMC tag:

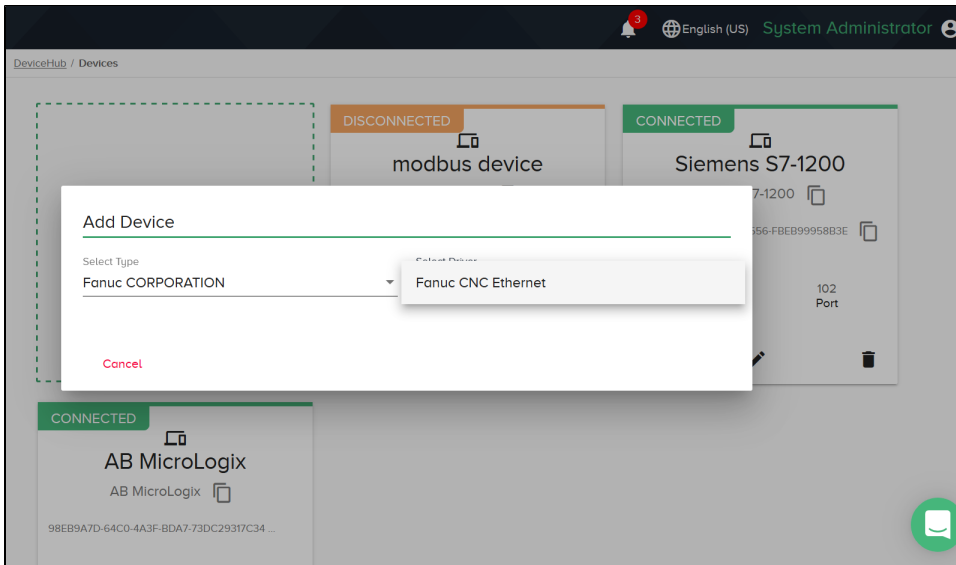
Tag	Address Type	Address Number	Size
Rdpmc [9_746_2]	D	746	4 bytes

 In the previous example, 9 refers to an address type listed in the image, 746 is the address number to read data from, and 2 means that the data is four bytes long.

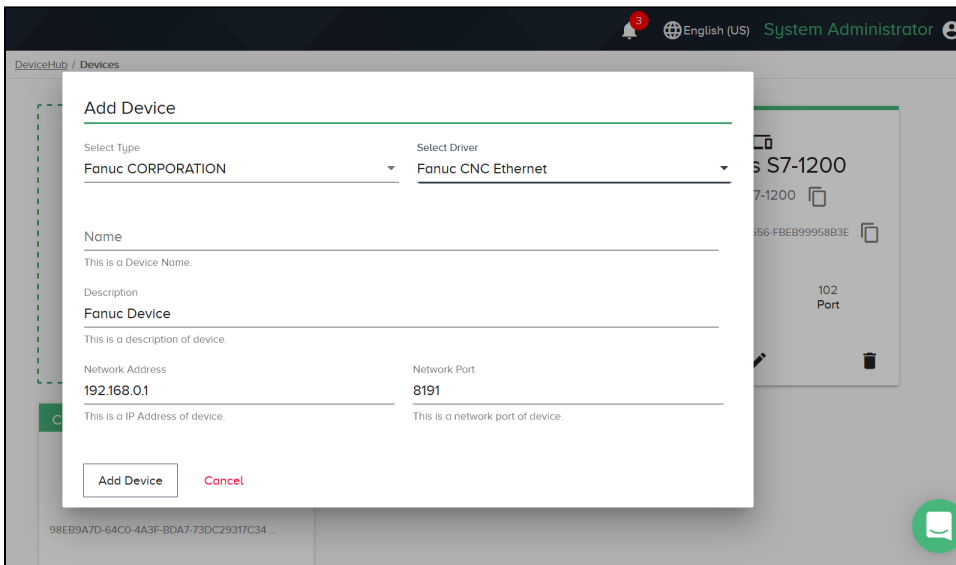
LoopEdge DeviceHub Configuration

To configure DeviceHub for this Fanuc PLC:

1. **DeviceHub > Add Device**
Type: Fanuc Corporation
Driver: Fanuc CNC Ethernet



2. Enter details specific to your environment and click **Add Device**.



Device Addresses

Bit/Word	Device Type	Format	Range	Memo
B	G_Bit	DDDDo	0 ~ 999977	
B	F_Bit	DDDDo	0 ~ 99997	
B	Y_Bit	DDDDo	0 ~ 99997	
B	X_Bit	DDDDo	0 ~ 99997	
B	A_Bit	DDDDo	0 ~ 99997	
B	R_Bit	DDDDo	0 ~ 99997	
B	T_Bit	DDDDo	0 ~ 99997	
B	K_Bit	DDDDo	0 ~ 99997	
B	C_Bit	DDDDo	0 ~ 99997	
B	D_Bit	DDDDo	0 ~ 99997	

W	G	DDDD	0 ~ 9999	
W	F	DDDD	0 ~ 9999	
W	Y	DDDD	0 ~ 9999	
W	X	DDDD	0 ~ 9999	
W	A	DDDD	0 ~ 9999	
W	R	DDDD	0 ~ 9999	
W	T	DDDD	0 ~ 9999	
W	K	DDDD	0 ~ 9999	
W	C	DDDD	0 ~ 9999	
W	D	DDDD	0 ~ 9999	
W	Absolute Position	D	1 ~ 8	
W	Machine Position	D	1 ~ 8	
W	Relative Position	D	1 ~ 8	
W	Distance To Go	D	1 ~ 8	
W	Actual Spindle Speed	D	0 ~ 1	
W	Feed Rate	D	0	
W	MACRO VALUE	DDDD	1 ~ 9999	
W	Tool Life Number	DDDD	0 ~ 9999	
W	Tool Life Value	DDDD	0 ~ 9999	
W	Tool Life Counter	DDDD	0 ~ 9999	
W	RDPARAM Axis	DDDDDDD	9999947	Address consist of 2 parts. last 2 numbers are axis.