

WebAccess/CNC



0i-A/B/C/D/F
16i-B, 18i-B, 21i-B
30i, 31i, 32i

Description

FANUC FOCAS is a set of library files that can use to access the information from FANUC CNC controller.

The available information:

1. CNC status
2. Part count information
3. Program (name, number, size, modified date)
4. Spindle load
5. Position data
6. Tool & work offsets
7. Alarm number & text
8. PMC data
9. Feed Rate Overrides
10. and more....

FOCAS library is installed on the most FANUC i-series controllers and for some older version that is an option.

Rare	Option	Standard
0i-A	0i-B/C	0i-D
16i-A	16i-B	30i
18i-A	18i-B	31i
21i-A	21i-B	32i
	160i	300i
	180i	310i
	210i	320i

Reference Document:

FANUC Series Oi Model D MAINTENANCE MANUAL (B64305EN)

STEP 0: Confirm the FOCAS is installed on the controller



For **Oi-A/B/C, 16i, 18i, 21i, 160i, 180i, 210i series** controller, you need to confirm the FOCAS is installed on the controller or not.

- If you can't find the parameter **ETHRPM** in the **SYSTEM**, the controller doesn't support the network interface.
- If you can find the parameter **EMBED** in the **ETHRPM**, you can click the **EMBED** and it will appear the TCP/IP option and the next page will appear the FOCAS parameter.
- If there is no the parameter **EMBED** in the **ETHRPM** and there is the parameter **BOARD**, you can click the **BOARD** option and it should appear the TCP/IP option. You can search the FOCAS parameter in the next page. If there is no FOCAS option, you should ask FANUC to buy the FOCAS option.
- If there is only the **PCMCIA** option without FOCAS option in the **ETHRPM**, you can ask FANUC to buy the FOCAS option.

STEP 1: FOCAS2/Ethernet Setting



EMBED ->COMMON & FOCAS2

FOCAS2 ->COMMON & FOCAS2

```

EMB_ETH [EMB_PORT]          00000 N00000
COMMON: Setting [EMBEDDED]
BASIC
MAC ADDRESS                 00E0E4000001
IP ADDRESS                  192.168.0.100
SUBNET MASK                 255.255.255.0
ROUTER IP ADDRESS          192.168.0.253

AVAILABLE DEVICE           EMBEDDED 1 / 2
A) _

MDI **** * 12:00:00
(COMMON) FOCAS2 FTPTRNS (OPRT) +
    
```

Item	Description
MAC ADDRESS	Embedded Ethernet MAC address
IP ADDRESS	Specify the IP address of the embedded Ethernet.
SUBNET MASK	Specify a mask address for the IP addresses of the network.
ROUTER IP ADDRESS	Specify the IP address of the router. Specify this item when the network contains a router
AVAILABLE DEVICE	Enabled device of the embedded Ethernet. Either the embedded Ethernet port or the PCMCIA Ethernet card is displayed.

```

EMB_ETH [EMB_PORT]          00000 N00000
FOCAS2/Ethernet:Setting [EMBEDDED]
BASIC
PORT NUMBER (TCP)          8193
PORT NUMBER (UDP)          0
TIME INTERVAL              0

AVAILABLE DEVICE           EMBEDDED 1 / 1
A) _

MDI **** * 12:00:00
[COMMON] [FOCAS2] [FTPTRNS] [OPRT] +

```

Item	Description
PORT NUMBER (TCP)	Specify a port number to be used with the FOCAS2/Ethernet function. The valid input range is 5001 to 65535.
PORT NUMBER (UDP)	Set this item to 0 when it is used as the FOCAS2/Ethernet function.
TIME INTERVAL	Set this item to 0 when it is used as the FOCAS2/Ethernet function. Note: The unit of the time interval is 10ms. The allowable range is between 10 and 65535. A time interval less than 100ms cannot be set.
AVAILABLE DEVICE	Enabled device of the embedded Ethernet. Either the embedded Ethernet port or the PCMCIA Ethernet card is displayed.

Related NC parameters

	#7	#6	#5	#4	#3	#2	#1	#0
14880								ETH

[Input type] Setting input

[Data type] Bit

0 **ETH** The embedded Ethernet function (embedded Ethernet port or PCMCIA Ethernet card) is:
0: Used.
1: Not used.

Note:

The parameters for the embedded Ethernet port and the parameters for the PCMCIA Ethernet card are independent of each other.

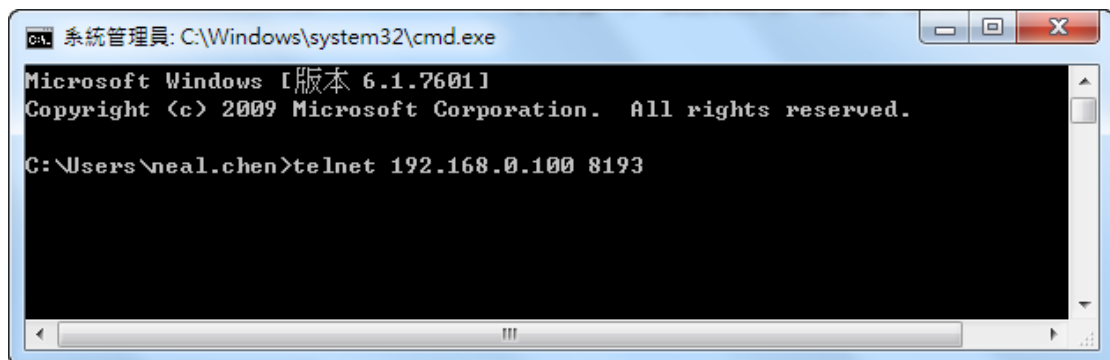
Please make sure the available device is EMBEDDED if you want to use the embedded network interface.

STEP 2: FANUC FOCAS Connection Test

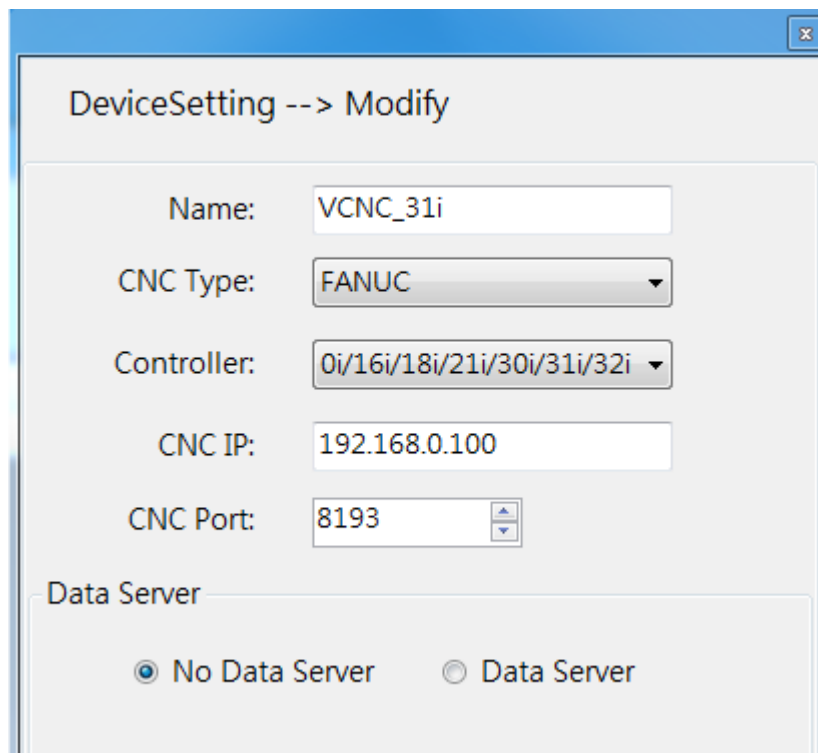
- First you can use the tool “Telnet” to test the FOCAS port is opened or not.

telnet IP address port number

EX: telnet 192.168.0.100 8193



- WebAccess/CNC FANUC connection (2016 Q4)



STEP 3: FANUC CNC networking function pages

Coordinate information & status display

ACTUAL POSITION ADVANTECH_NEAL_DE~ 00010 N00002

RELATIVE		ABSOLUTE		MACHINE		DISTANCE TO GO	
X	102.625	X	102.625	X	156.825	X	-96.450
Y	4.000	Y	4.000	Y	58.400	Y	0.000
Z	-54.600	Z	-54.600	Z	0.000	Z	0.000

MODAL		F	MM/MIN
G00	G80 G15 F 300 M 8		0
G17	G98 G40.1 H M	S	0
G90	G50 G25 D M		
G22	G67 G160 T		
G94	G97 G13.1 S		
G21	G54 G50.1		
G40	G64 G54.2		
G49	G69 G80.5		

PARTS COUNT 2
 RUN TIME 0009H32M44S
 CYCLE TIME 0H 0M20S
 A>_

MEM HOLD *** ** 09:15:34

ABSOLUTE RELATIVE ALL (OPRT) +

Servo shaft loading

ACTUAL POSITION ADVANTECH_NEAL_DE~ 00010 N00002

ABSOLUTE		F	MM/MIN
X	102.625		0
Y	4.000		
Z	-54.600		

MODAL		S	MM/MIN
G00	G80 G15 F 300 M 8		
G17	G98 G40.1 H M		
G90	G50 G25 D M		
G22	G67 G160 T		
G94	G97 G13.1 S		
G21	G54 G50.1		
G40	G64 G54.2		
G49	G69 G80.5		

PARTS COUNT 2
 RUN TIME 0009H32M44S
 CYCLE TIME 0H 0M20S
 A>_

MEM HOLD *** ** 09:16:32

ABSOLUTE RELATIVE ALL MONITOR +

SERVO LOAD METER

X	0%
Y	0%
Z	0%

SPINDLE LOAD METER

S	0%
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SPINDLE SPEED METER

S	0/MIN
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NC program List

PROGRAM FOLDER ADVANTECH_NEAL_DE~ 00010 N00002

FOREGROUND FOLDER //CNC_MEM/USER/PATH1/
 BACKGROUND FOLDER //CNC_MEM/USER/PATH1/

USED PAGE	27[KBYTE]	USED FILES	15
FREE PAGE	8264[KBYTE]	FREE FILES	59

DEVICE : CNC_MEM (CURRENT FOLDER: /USER/PATH1/)

FFG	<FOLDER>			
1	<FOLDER>	1[KBYTE]	2018/07/06	17:26:34
00010		1[KBYTE]	2018/05/26	20:56:38
SAMPLE		26[KBYTE]	2018/06/06	15:15:00

A>_

MEM HOLD *** ** 09:17:02

PROGRAM	FOLDER	NEXT	CHECK	(OPRT) +
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PLC Register parameter

PMC MAINTENANCE 00010 N00002

RUN ***

PMC SIGNAL STATUS

ADDRESS	7	6	5	4	3	2	1	0	HEX
A0000	0	0	0	0	0	0	0	0	00
A0001	0	0	0	0	0	0	0	0	00
A0002	0	0	0	0	0	0	0	0	00
A0003	0	0	0	0	0	0	0	0	00
A0004	0	0	0	0	0	0	0	0	00
A0005	0	0	0	0	0	0	0	0	00

A0000 :

A>_

MEM HOLD *** ** 09:17:56

<						STATUS	I/O LINK	PMC ALARM	I/O	(OPRT) +
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Tool offset parameter

OFFSET ADVANTECH_NEAL_DE~ 00010 N00002

NO.	DATA	NO.	DATA	NO.	DATA	RELATIVE	
001	1.100	018	0.000	035	0.000	X	102.625
002	2.200	019	0.000	036	0.000	Y	4.000
003	3.300	020	0.000	037	0.000	Z	-54.600
004	4.666	021	0.000	038	0.000		
005	0.000	022	0.000	039	0.000		
006	0.000	023	0.000	040	0.000		
007	0.000	024	0.000	041	0.000		
008	0.000	025	0.000	042	0.000		
009	0.000	026	0.000	043	0.000		
010	0.000	027	0.000	044	0.000		
011	0.000	028	0.000	045	0.000		
012	0.000	029	0.000	046	0.000		
013	0.000	030	0.000	047	0.000		
014	0.000	031	0.000	048	0.000		
015	0.000	032	0.000	049	0.000		
016	0.000	033	0.000	050	0.000		
017	0.000	034	0.000	051	0.000		

A>_

MEM HOLD *** ** 09:18:33

OFFSET SETTING WORK (OPRT) +

Workpiece coordinate parameter

ACTUAL POSITION ADVANTECH_NEAL_DE~ 00010 N00002

ABSOLUTE		F		MM/MIN	
X	102.625	PARTS COUNT			2
Y	4.000	RUN TIME			0009H32M44S
Z	-54.600	CYCLE TIME			0H 0M20S

WORK COORDINATES (G54)

NO.	DATA	NO.	DATA
000 X	0.100	002 X	55.100
EXT Y	0.200	055 Y	55.200
Z	0.300	Z	55.300

MODAL

G00	G80	G15	F	300	M	8
G17	G98	G40.1	H		M	
G90	G50	G25	D		M	
G22	G67	G160	T			
G94	G97	G13.1	S			
G21	G54	G50.1				
G40	G64	G54.2				
G49	G69	G80.5				

S 0/MIN

A>_

MEM HOLD *** ** 09:19:08

ABSOLUTE RELATIVE ALL OFFSET SETTING WORK (OPRT) +