

# Advantech SE Technical Share Document

<b>Date</b>	2019 / 05 / 01	<b>Related Product</b>	WebAccess/CNC, WebAccess/SCADA	
<b>Category</b>	<input type="checkbox"/> FAQ <input checked="" type="checkbox"/> SOP <input type="checkbox"/> Driver Tech Note			
<b>Abstract</b>	WebAccess CNC FANUC FOCAS Connection Manual			
<b>Keyword</b>	WebAccess/CNC, WebAccess/SCADA, CNC Driver, Runtime Driver, FANUC 0i/A/B/C/D/F, 16i-B, 18i-B, 21i-B, 30i, 31i, 32i			
<b>Related OS</b>	Windows 7, Windows 8.1, Windows 10			
Revision History				
Date	Version	Author	Reviewer	Description
2019/05/01	V1.0	JosephSun		

■ **Problem Description & Architecture:**

This document assistant user how to check IP setting in CNC controller, it is the first thing needs to check before using WebAccess/CNC software for further application.

\*Please let local professional operator to do this process first. It can avoid some unexpected issue happened when other person operating CNC controller.

■ **Brief Solution - Step by Step:**

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

**Step1:** Check FOCAS library is installed in FANUC controller



**0i-A/B/C, 16i, 18i, 21i, 160i, 180i, 210i** series controller must check FOCAS library first.

- Press function key "**SYSTEM**", using continuous menu key to search [**ETHPRM**] function. Controller is not support Ethernet interface, if cannot find it
- Select [**EMBED**] setting key to display the Ethernet TCP/IP setting
- If there is no [**EMBED**] setting key, press [**BOARD**] to check TCP/IP setting again. Please find FANUC company if there are no [**EMBED**] & [**BOARD**] setting selection in controller.
- Please purchase FOCAS OPTION if there is only [**PCMCIA**] in [**ETHPRM**] function.

## Step2: FOCAS2/Ethernet Setting



EMBED ->COMMON & FOCAS2

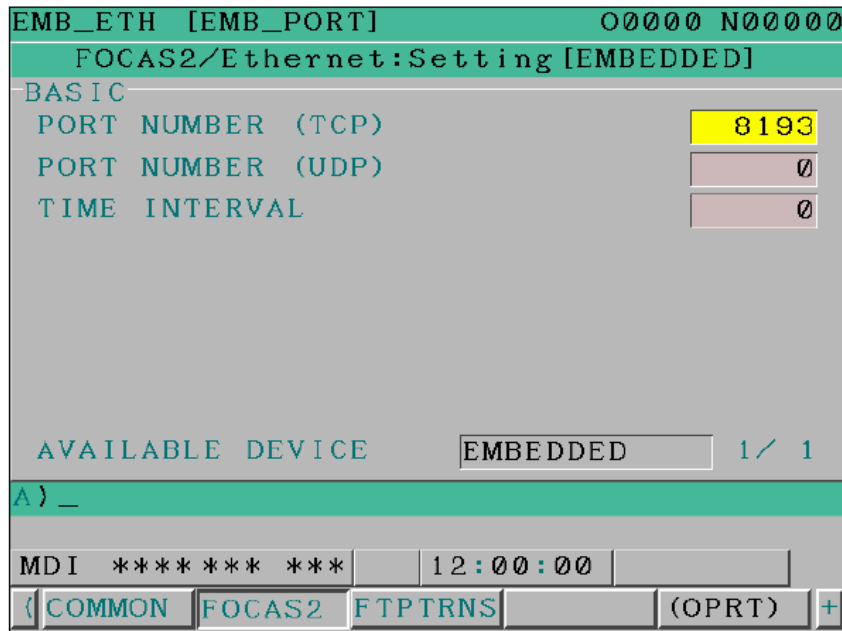
FOCAS2 ->COMMON & FOCAS2

```

EMB_ETH [EMB_PORT]          00000 N00000
COMMON: Setting [EMBEDDED]
BASIC
MAC ADDRESS                 00E0E400001
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
<b>MAC ADDRESS</b>	Embedded Ethernet MAC address
<b>IP ADDRESS</b>	Specify the IP address of the embedded Ethernet.
<b>SUBNET MASK</b>	Specify a mask address for the IP addresses of the network.
<b>ROUTER IP ADDRESS</b>	Specify the IP address of the router. Specify this item when the network contains a router
<b>AVAILABLE DEVICE</b>	Enabled device of the embedded Ethernet. Either the embedded Ethernet port or the PCMCIA Ethernet card is displayed.



Item	Description
<b>PORT NUMBER (TCP)</b>	Specify a port number to be used with the FOCAS2/Ethernet function. The valid input range is 5001 to 65535.
<b>PORT NUMBER (UDP)</b>	Set this item to 0 when it is used as the FOCAS2/Ethernet function.
<b>TIME INTERVAL</b>	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.
<b>AVAILABLE DEVICE</b>	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	<b>ETH</b>	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.

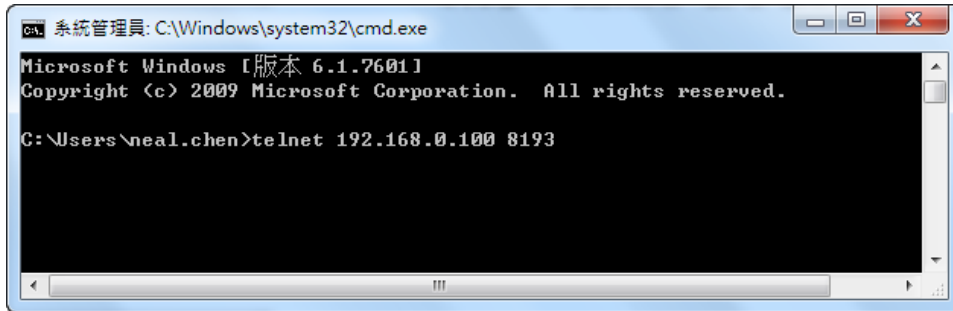
**<Please make sure the available device is “EMBEDDED” if you use the embedded network interface>**

### Step3: FANUC FOCAS Connection Testing

- Verify FANUC port work or not by using telnet tool.

telnet **IP address** **port number**

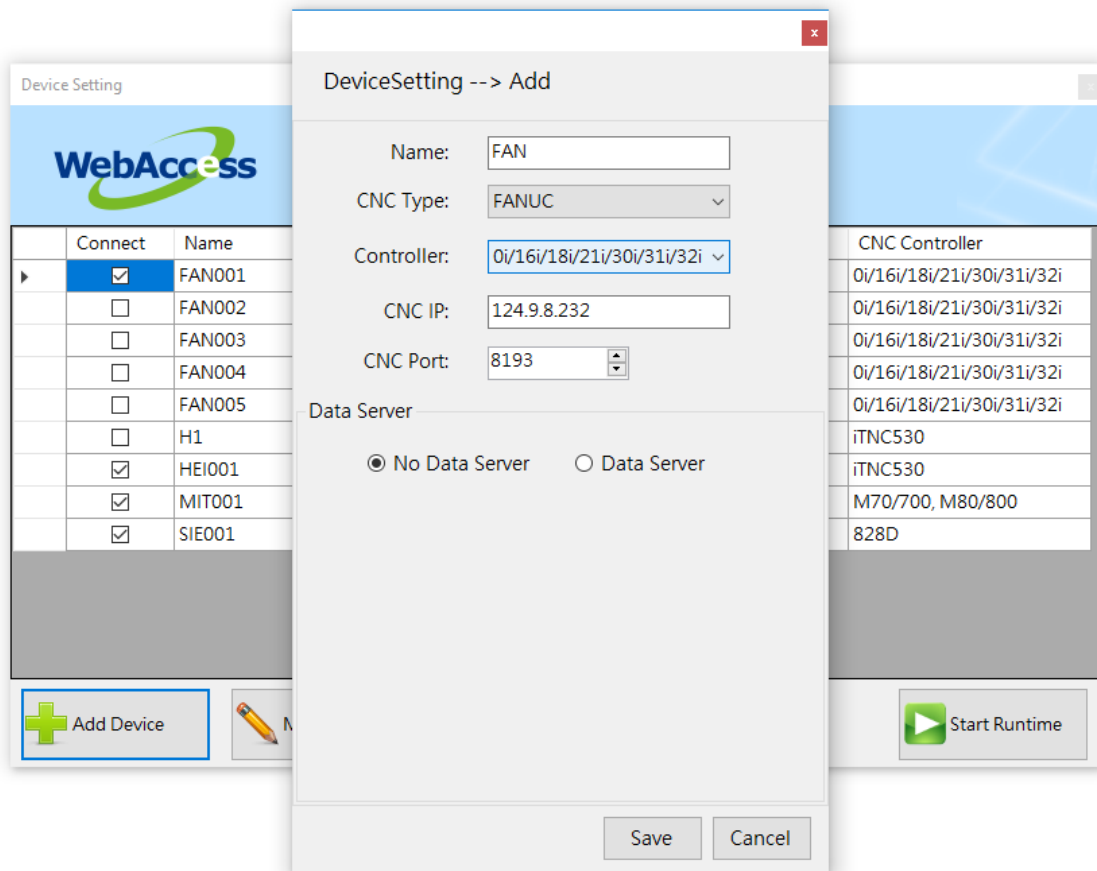
EX: telnet 192.168.0.100 8193

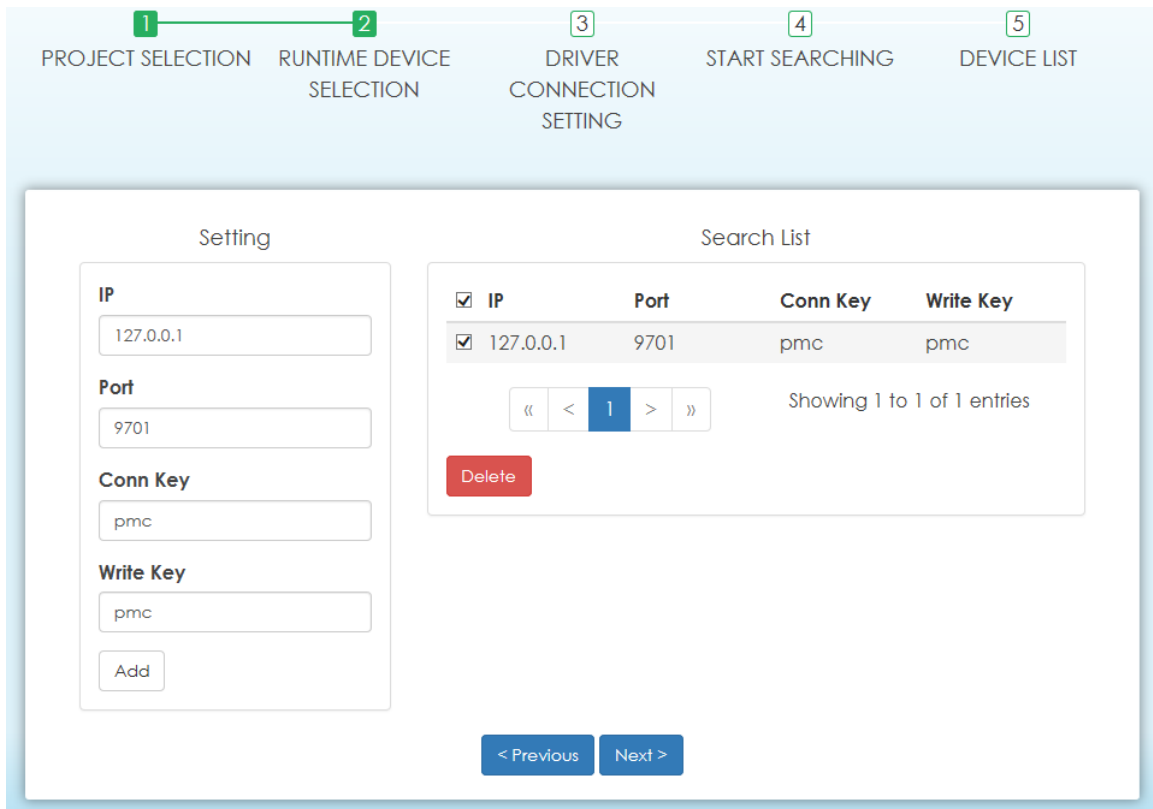


### Step4: Create a WebAccess/CNC project with CNC explorer

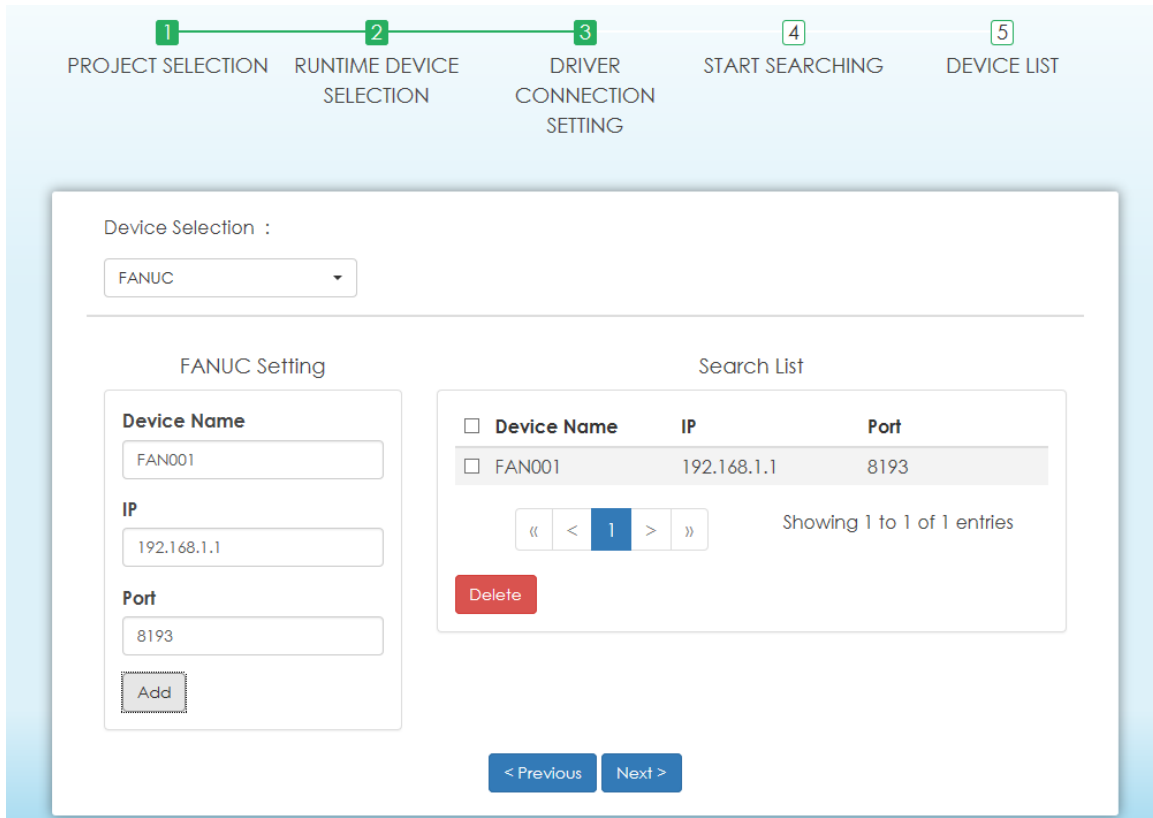
After verifying the controller internet connection process, there is a pre-setting tool need to configure if user uses CNC “runtime” driver.

- **Used Runtime Driver** : Open “Device Setting” tool to configure connection device **FIRST**, then press “Start Runtime” to start it; Next, open “WebAccess/ CNC Explorer” IE 11 web page, follow the “Step2” setting page to build up the CNC project (as figures below) (Please reference 2.2 chapter of CNC User Manual for more detail about this process)





- **Used CNC Driver** : Open WebAccess/CNC tool, please skip Step2 (For Runtime Driver setting page only), and go to Step3 to configure device setting to build up CNC project with CNC Driver (as figure).



■ **Reference:**

FANUC Series Oi Model D MAINTENANCE MANUAL (B64305EN)