

Ezi-IO[®] **Ethernet** Input/Output Module **DA**

User Manual

User Program(GUI)

(Rev.01)



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This manual describes how to operate User Program(GUI).

For more information, refer to related manuals as following.

- (1) [User Manual_Text](#)
- (2) [User Manual_Communication Function](#)

1 . Installation and connection of the Program

This chapter describes the user program(GUI) used for the installation and running test of the controller.

1 - 1 . Installable PC environment

Type : Compatible with PC/AT

Ethernet 10/100base-T/TX Lan Card

Hard disk capacity more than 10MB

Screen SVGA(1024×768 or more)

CPU Pentium4 2.0GHz or more

OS : PC installed with Windows7/ 8.1/ 10(32/64Bit)

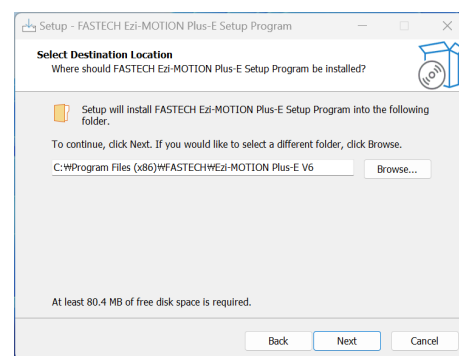
1 - 2 . User Program(GUI) installation method

Download [Ezi-MOTION Plus-E V6_Setup] program on FASTECH website

(<http://fastech-motions.com/new/eng/sub0301.php>) and install as shown below.

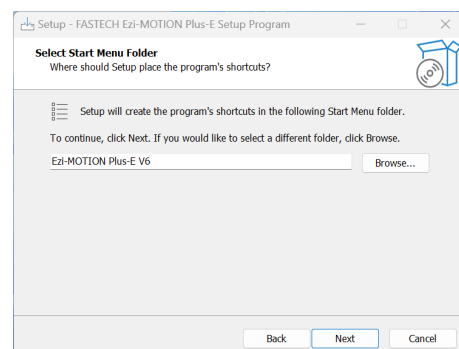
Select a folder where the program is installed.

Click 'Next'.



Select Window Start menu folder.

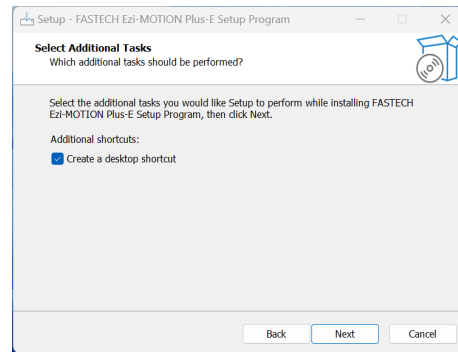
Click 'Next'.



4 Installation and connection of the Program

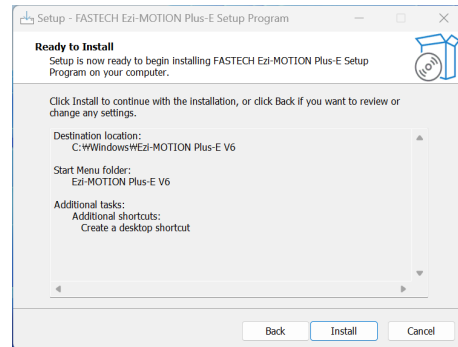
Check 'Create a desktop icon'.

Click 'Next'.

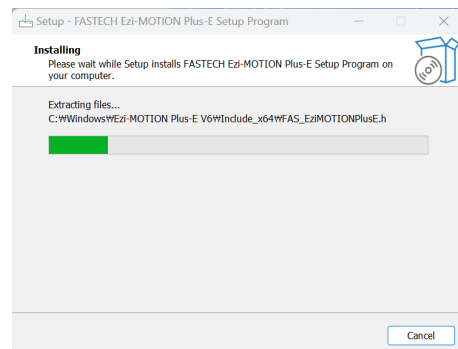


Check Installation location, Start menu folder, additional setting(desktop icon).

Click 'Install'.

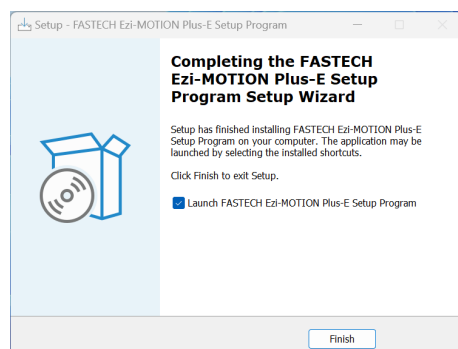


Installing.

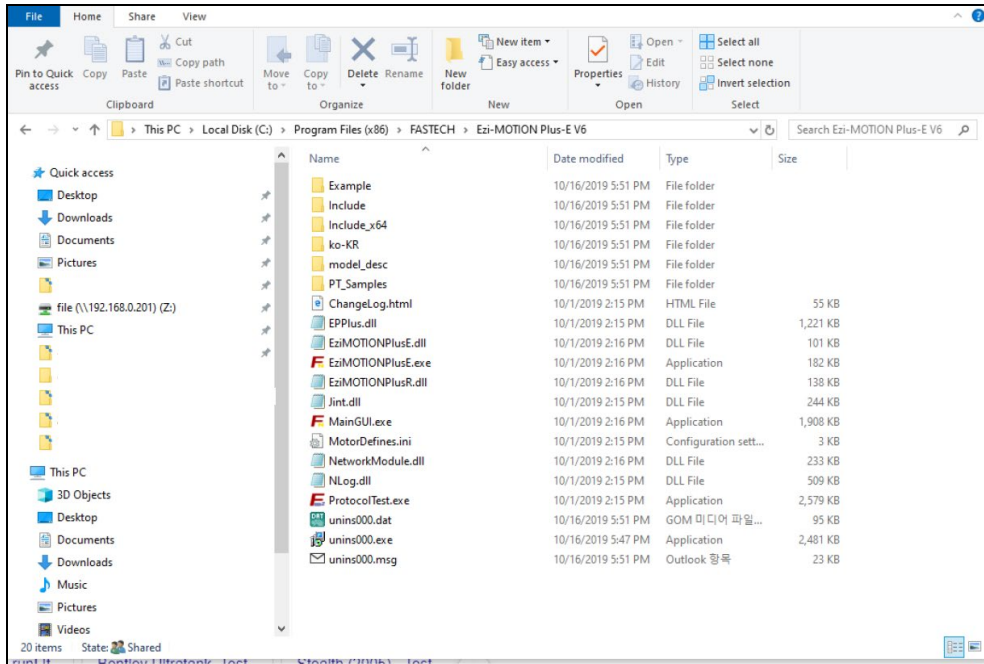


When installation is completed, select 'Start a program'.

Click 'Finish'.



When installation is completed, you can find the below files in the selected folder.



- 1) Include folder : *.dll, *.lib, *.h, *.cs files (32bit, C#)
- 2) Include_x64 folder : *.dll, *.lib, *.h, *.cs files(64bit, C#용)
- 3) Example folder : source code for sample
- 4) PT_Samples folder : sample data files for position table


1 - 3 . Connecting PC with Drive Module

- (1) Execute User program(GUI) icon(Ezi-MOTION Ethernet V6) and click 「Connect」. Then the following window will be displayed.



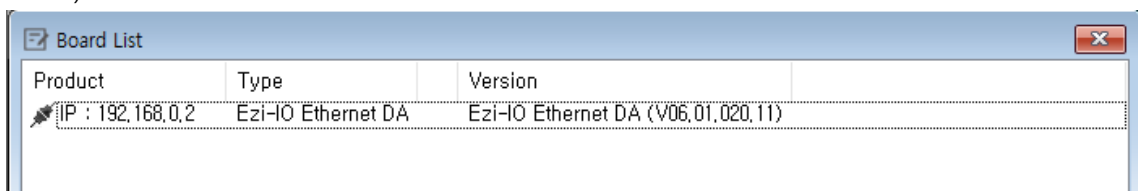
Button	Description
ADD	Enter IP Address and add on the list. If the product does not exist with added IP Address, it will not be added on the list.
Broadcast Search	Search all products that be connected to GUI and add the product on the
Refresh Status	Check the connection status of the product on the list.
Connect	Connect the product on the list and execute GUI.

- When setting the IP address differently for each product and clicking 'Broadcast Search', all products are displayed on the list. Click 'Connect' to connect all products with GUI.

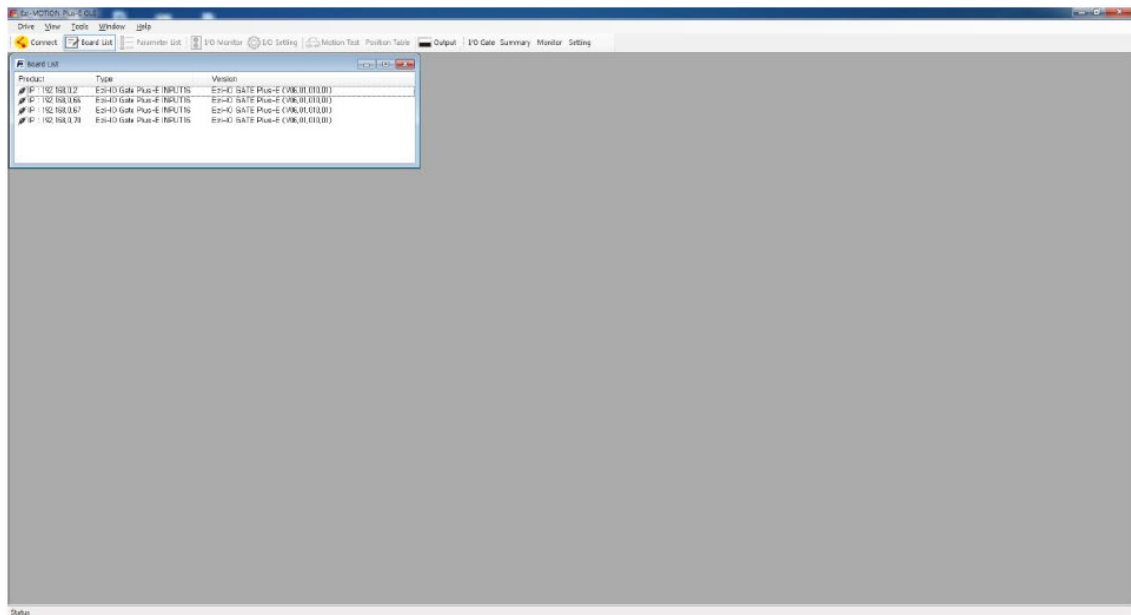
 Caution	<p>1. Please assign different IP Address to each connected devices within one network(segment).</p> <p>2. If the connection fails, check the IP conflict and IP Address of PC.</p>
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(2) When the connection is completed, the window will appear as shown below.

- 1) IP Address of connected devices
- 2) Type of all connected devices
- 3) Firmware Version

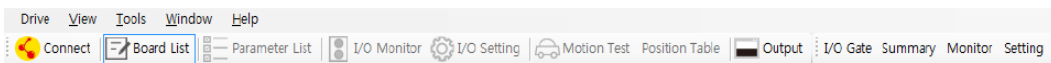


2 . Main Window



This is the basic window to operate the program. Each window is displayed in this window. The user can open each window with a toolbar. Buttons become enabled or disabled depending on the connected board.

2 - 1 . Menu



'View' menu shows other screens. In the 'Drive' menu, you can select communication connection or disconnection function.

2 - 2 . Toolbar

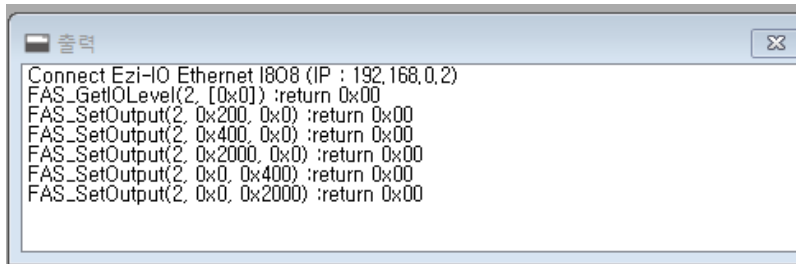


The Toolbar icons become enabled or disabled depending on the type of connected board. In case of Ezi-IO Ethernet product, Connect, Board List, Output, Summary, Monitor and Setting icons become enabled.

Click each button to execute the following functions.

Button	Description
Connect	To connect or disconnect with the drive
Board List	To display information of the connected module and communication status
Output	To display DLL function corresponding to the command being executed
Summary	To check the status of all connected Ezi-IO
Monitor	To check current status of one module
Setting	To set, save, load the parameter values or logic

2 - 3 . Output



Click 'Output' at the Toolbar or check off [Menu] – [View] – [Output]

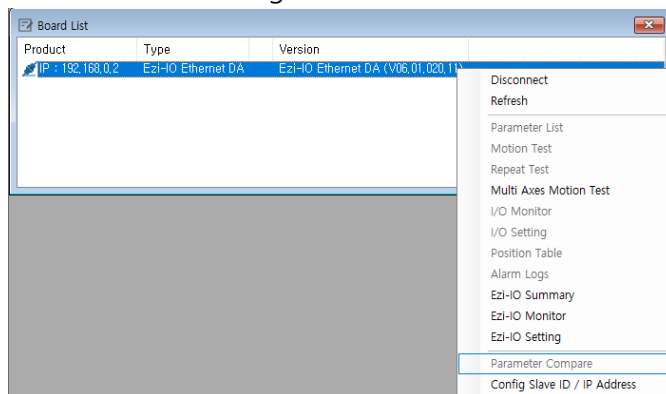
This window shows commands used for the controller. The user can check which functions are used, how the parameter values are set and how the commands are processed.

The window shows the functions which are input by the user or used when the user clicks each button. For more information about Command, refer to 「[User Manual-Communication Function](#)」.

2 - 4 . Board List

This window shows the connected drive list. The user can check information of each drive.

There are buttons to go to windows for function setting and testing.



- 1) Board IP address and type
- 2) **Firmware Version number** of board

- Disconnect / Reconnect
Disconnect : Disconnect the communication
Reconnect : Reconnect the communication
- Ezi-IO Monitor
Input : Input / To monitor information such as Latch and to control related to Latch
Output : To monitor and control the output
A/D : To monitor A/D converted value
D/A : To activate DAC CH and set DAC value
- Ezi-IO Setting
Input : To set, save and load the input Active Level
Output : To set, save and load the output Active Level

A/D : To set, save and load the analog input range, filter buffer length, offset

D/A : To set analog output range, calibration value(High, Low)

- Ezi-IO Summary

The status of all connected Ezi-IO Ethernet can be monitored at once.

In case of Output module, you can control and monitor.

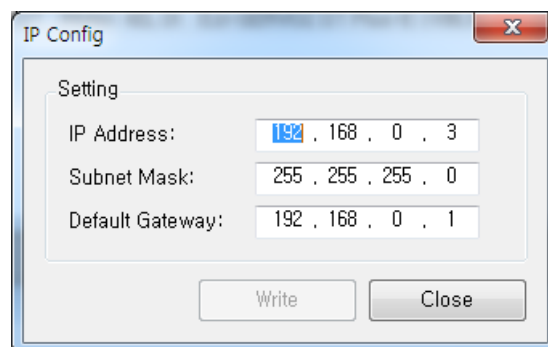
When clicking the Product IP on the list, window about the product opens.

When Ezi-IO Ethernet AD is activated, preset DAC value is displayed.



- Config Slave ID / IP Address

To change the setting of default IP Address / Subnet Mask / Gateway.



After clicking 'Write' and resetting the power, new configuration is applied.

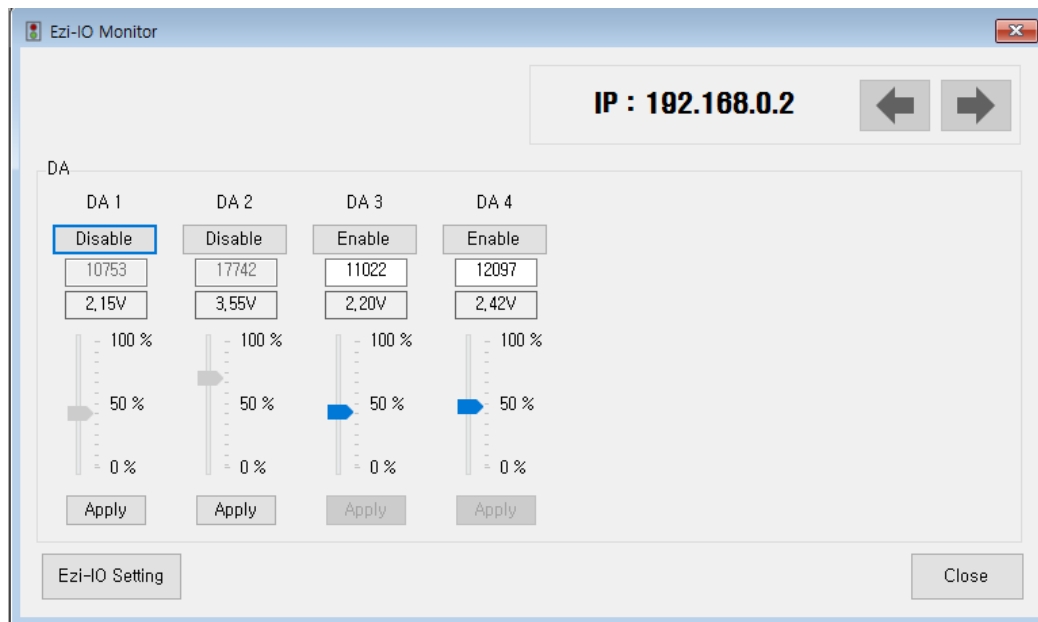
Last number of IP Address does not change.

Last number of IP Address is set **via Switch**.

Ex) When changing IP Address from 192.168.0.3(Switch : 3) to 192.169.10.100, IP Address is changed to 192.169.10.3.

3 . I/O Monitoring and Setting

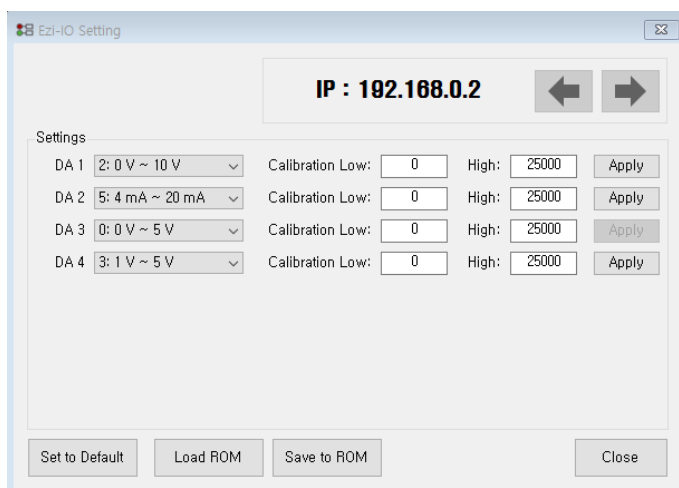
3 - 1 . Monitoring



Set DAC Activate/Deactivate and DAC value of each CH as following order.

- 1) Click 'Disable' button of the corresponding CH. (Button changes to 'Enable'.)
('Enable' button, DAC value input box and 'Slider' become activated.)
 - 3) Set the DAC value by inputting DAC value or using the 'Slider'.
 - 4) Click 'Apply' button.
- In order to deactivate, click 'Enable' button. When button changes to 'Disable', click 'apply' button.

3 - 2 . Setting



- Click 'Apply' button after the setting.

(When the value is change, 'Apply' button becomes activated.)

1) Setting analog input range :

- ① 0~5 : When SW3.1 is OFF, setting is available.

Indication	Output range	Indication	Output range
0	0 ~ 5[V]	3	1 ~ 5[V]
1	-10 ~ 10[V]	4	0 ~ 20[mA]
2	0 ~ 10[V]	5	4 ~ 20[mA]

- ② 16~19 : The value set by SW3.3~10 is displayed.

Indication	Output range	Indication	Output range
16	0 ~ 5[V]	18	0 ~ 20[mA]
17	-10 ~ 10[V]	19	4 ~ 20[mA]

2) Output Calibration value (Calibration High, Low) setting

Input range of Calibration High, Low value changes depending on the DAC output range.

Refer to the below chart.

Output range	High Value	Low Value
0~5[V]	23,750~26,250	-1,250~1,250
1~5[V]	23,750~26,250	-1,250~1,250
0~10[V]	23,750~26,250	-1,250~1,250
-10~10[V]	23,750~26,250	-26,250~-23,750
0~20[mA]	23,750~26,250	0~1,250
4~20[mA]	23,750~26,250	-1,250~1,250

Refer to [8-3-3. Setting Method] and set the appropriate calibration value.

4) Default value setting :

Analog output range and output calibration value are initialized(0).

(Output range : 0, Calibration High :25000, Calibration Low : 0)

When SW3.1 is ON, analog output range is not initialized and the value set by SW3 is maintained.

Calibration High, Low value is initialized. However, when analog output range is -10~10[V] by SW3 setting, Calibration High is initialized to 25000 and Calibration Low is initialized to -25000.

5) Loading ROM :

Set values stored in ROM is loaded to RAM

6) Saving to ROM :

All changes are stored in RAM temporarily. Click 'Save to ROM' button to save to ROM.



Fast, Accurate, Smooth Motion

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