

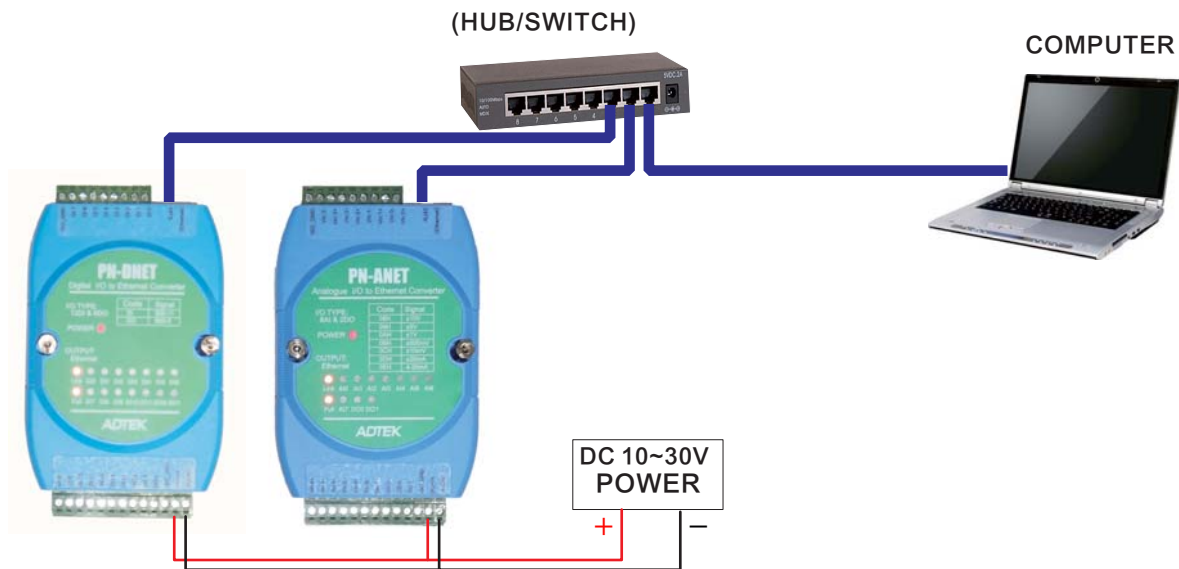
PN-DNET/PN-ANET Tools Software

First

Thank you for your purchase of the company's Ethernet network communication modules
Before setting up the product, please note the following precautions:

- 1.This product power supply DC 10 ~ 30V, suggested the use of the 24Vdc power supply °
- 2.Make sure the power pin and polarity, and terminals and the power cord does locking °
- 3.To avoid the site noise interference, the signal input and output to recommend the use of the isolation signal lines °

Wiring

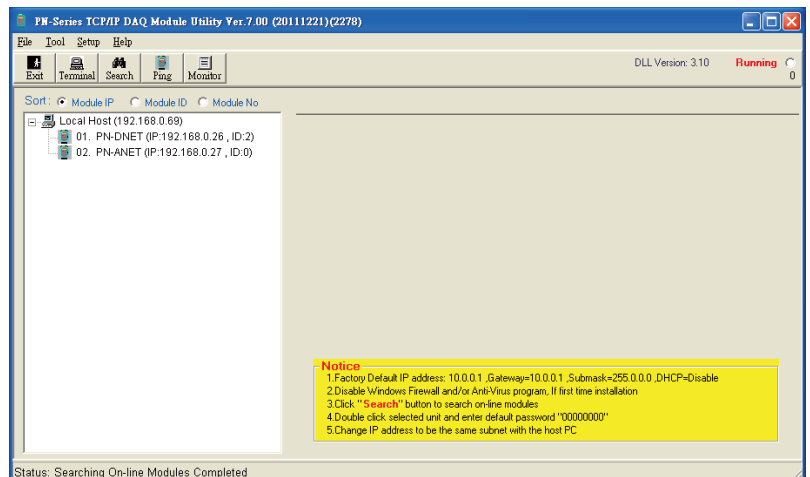


Software Installation and Downloads

Configure the software with the goods attached to the product packaging, if not, can also download the site <http://www.csec.com.tw>, or to link with the Company or the dealer business °

Software Installation

- (1)Install the software in the computer
(Support WINDOWS XP/VISTA/WIN 7)
- (2)After installing the software,click it 2 times.
Application window will appear as



Note

1. Module default: IP address: 10.0.0.1; Gateway=10.0.0.1; Submask=255.0.0.0; DHCP=Disable
2. The first installation of this software, insert the Windows firewall and anti-virus software to close
3. Click "Search" button to search for modules on the network
4. Double-click the search module, and enter the default password "00000000"

Screen instructions

File :The contents of the drop-down menu "EXIT"

Tool :The contents of the drop-down menu as below.

Search:The program will search the connected Enterhnet converter automatically

(Note: the converter and the PC must in the same domain)

Ping Remote Ethernet Decive:

(Manual):After typing the IP address in the window and press PING, you can know whether the equipment works

Monitor Stream/Event Data: comes from the remote I/O module

Terminal: Call up the operation screen of Terminal emulation to execute the request / response command.

Firewave Updata: Update firmware

Setup:The contents of the drop-down menu as below.

TCP/IP Timeout: Time range of sending/ response signal can be set

Scan Rate: Settable range

Help: operation guide can be found here

Tool Bar

EXIT:Exit the program

Terminal:Terminal emulation

Search:Search EDAM module

Ping:Manual IP location

Monitor:Monitor the Stream/Event Data

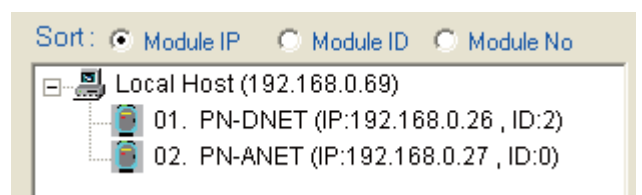


List:

MoudleIP:Sort by moudle IP

MoudleID:Sort by module ID

MoudleNO:Sort by module number



Network Setting

The Windows software will automatically search for a connected Ethernet converter and displays status of the converter as shown below, the user can do on demand parameter settings, such as IP addresses, passwords ... etc.

The screenshot shows a configuration window for 'Module:EDAM-9019'. It has four tabs: 'Module IP', 'Stream/Event IP', 'Input Settings', and 'General Settings'. The 'Module IP' tab is active. It contains the following fields and controls:

- IP Address:** 192.168.0.19
- SubMask:** 255.255.255.0
- Gateway:** 0.0.0.0
- Mac Address:** E0-00-00-00-00-19
- Module ID:** 0 (00~255)
- Web Server:** Radio buttons for 'Disable' and 'Enable' (selected).
- DHCP:** Radio buttons for 'Disable' and 'Enable' (selected).
- Password:** Two text boxes for 'Enter New Password (Max 8 chars)' and 'Confirm the Password (Max 8 chars)'. A red error message 'Acceptable Char. 0~9,a~z or A~Z' is visible above the first box.
- Update:** Two buttons, one for the IP settings and one for the password settings.

Module IP

MAC Address:

Media Access Control Address. This is also called Ethernet address and needs no further configuration.

IP Address, Subnet Mask, and Default Gateway:

IP Address, Subnet Mask, and Default Gateway:
(default 10.0.0.1, 255.0.0.0 and 0.0.0.0)

Please do it according to your network settings, make the first three levels in the same IP within the group, but make sure IP is not re-use, otherwise it will not connect

DHCP:

Allow you to get IP address from the DHCP server without setting IP address by manual. DHCP is default enabled

Web Server:

Login through a web browser to allow monitoring and remote control I / O, on by default

Module ID:

Each module must have a unique ID number to be identified when the DHCP is enabled, because you would not know the module IP address when DHCP is enabled, but if with the different ID number. You can call provided function call(TCP_GetIPFromID) to get correct IP address for each ID number

Password:

Allow you to change the password of the module, default: 00000000

Stream/Event IP

Stream/Event Enable Setting:

Set Stream /Event data Destination IP (default all disabled)

Active Stream time interval:

set time interval for sending stream data (default: 1sec)

Input or Output Settings:

Configure Input or output channel

TEST

Set the display value and state value

Add Remote Stations

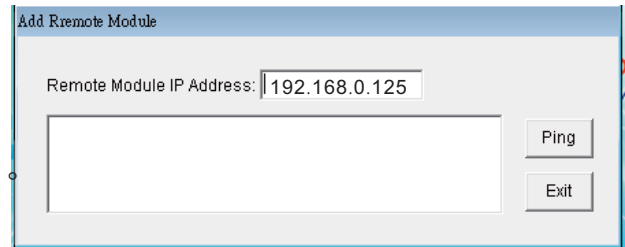
In order to meet the remote monitoring and maintenance requirements, the converter does not only apply to networks in the region as well as from the Internet or Intranet. Therefore, no matter how far the user can clear pine configuration.

Select project tools \ adds remote, in the function menu or clicking the button will show the following figure. Then, type a specific IP address, and click "Ping" button. If the communication is successful, click on the "Add" add to the tree display area of the Ethernet.

Note :

There are several conditions before joining system remote converter, you need to confirm ◦

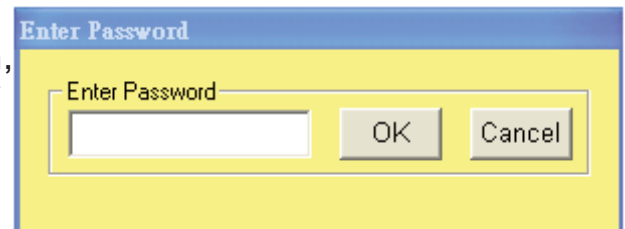
- (1) Be sure the specific IP is existed and available. ◦
- (2) Be sure to complete the network linkage for both sides. ◦
- (3) Be sure to adjust the best timing of timeout setting ◦
- (4) Even you are not sure whether the communication is workable or not, there is also a "Ping" function for testing the network connection.



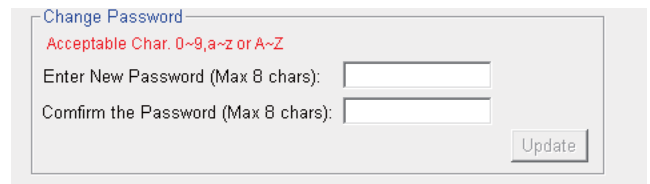
Security Setting

Security settings

Converter provides a password security function, before entering the set will first be asked to enter a password before entering the set parameters. ◦ (default:00000000)



After login, the menu at the bottom of **Module IP**, do password change, in order to achieve security.

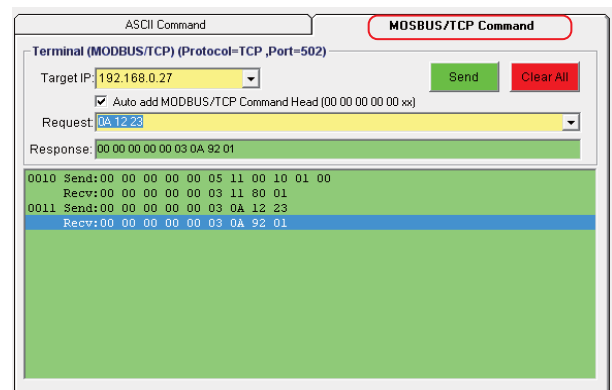
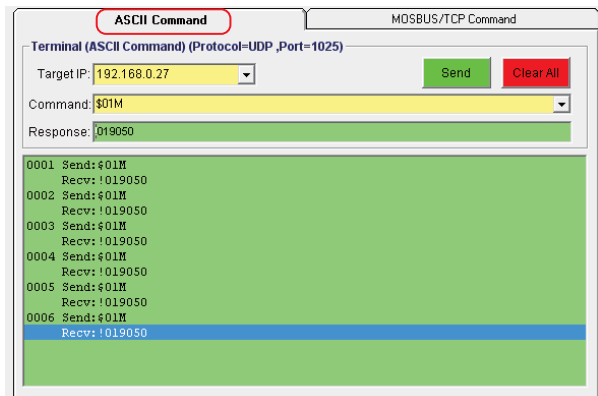


Terminal Emulations

Terminal emulation

Converter provides terminal emulation features, in press  After the window appears as

shown at right, the user can choose ASCII or hexadecimal ModBus, issue commands and receive responses to do the action.




Data /Event Stream

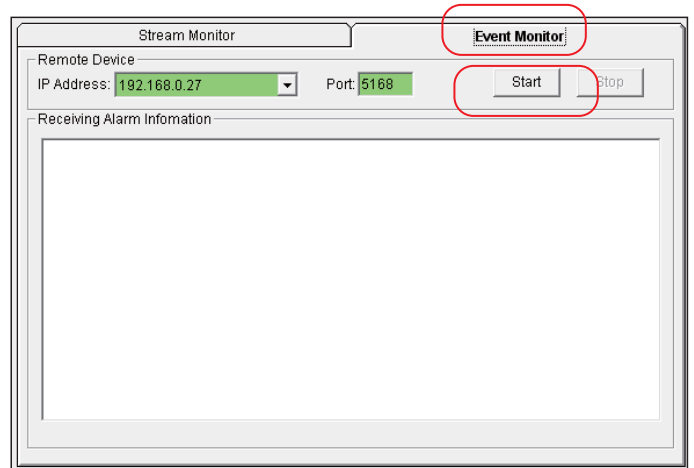
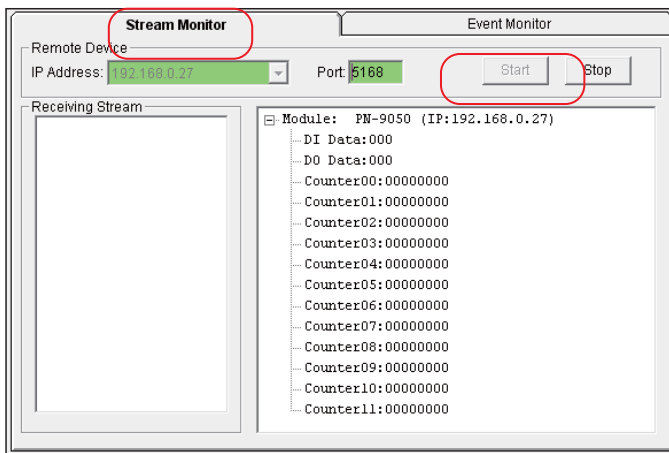
Data Stream Configuration

In addition to the TCP/IP communications protocol, UDP communication protocol converter support long-term, broadcast data to a specific computer, click Options on the data flow, and then configure the time interval and a specific IP address, you can receive data from a specific module. The UDP streaming data function to broadcast up to 8 computer host, you can define the time interval from the 50ms~7 days

Data Stream Monitoring

After you complete the configuration, you can select in the function bar  click icon appears next figure displays.

Select translator wanted to read data from IP addresses, and then click the "start" button. Program will begin receiving this on the display of data



I/O Module Configurations

Digital Input/Output Module

After entering the parameters setting, the menu "TEST", the user can review the information from the program screen

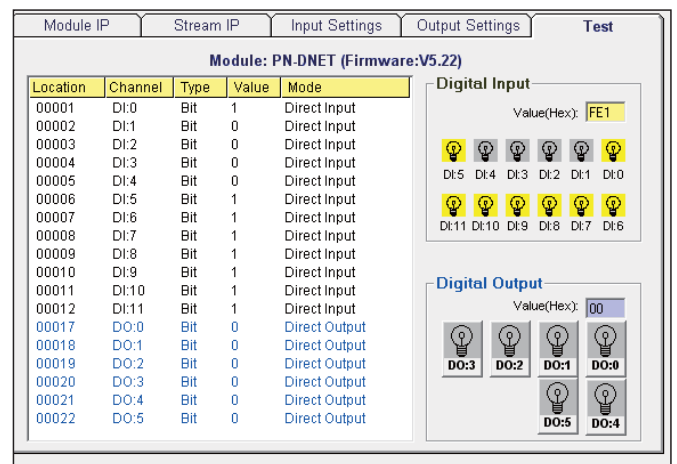
Location : Standard Modbus address. Converter for each I/O Modbus I/O display image address channel. And each addresses easy to index the HMI or OPC Server

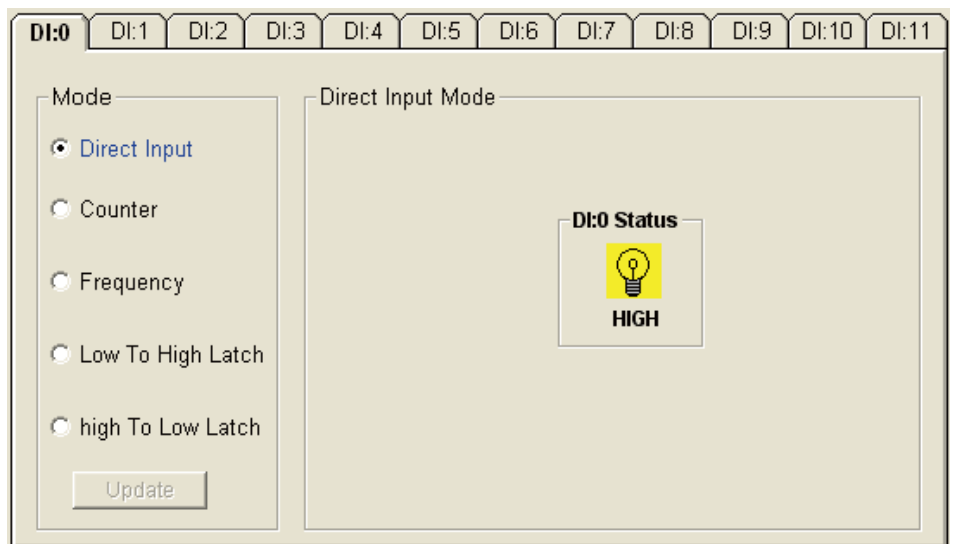
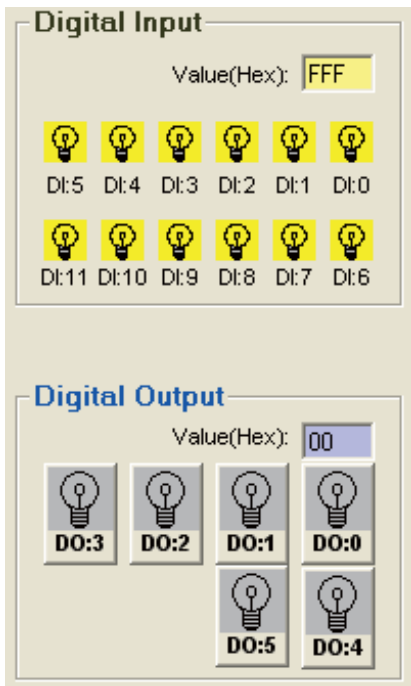
Channel : Indicate the channel number of digital I/O module

Type : Data Type of the I/O channel. The data type of Digital I/O modules is always "Bit" °

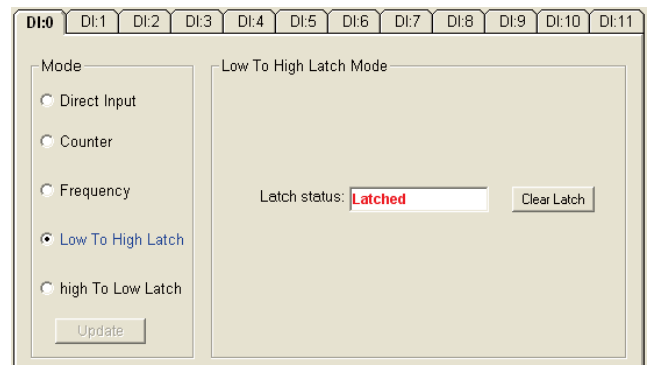
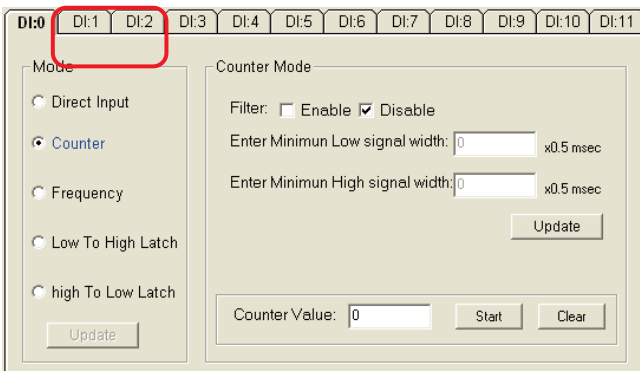
Value : The current status on each channel of I/O Module. The value of digital I/O modules could be "0" (OFF) or "1" (ON) °

Mode : Describe the specific type of I/O modules. In addition to monitoring the current DI/DO status, within the window provides a graphical user interface. You can read and modify the input status through the indicator icon °

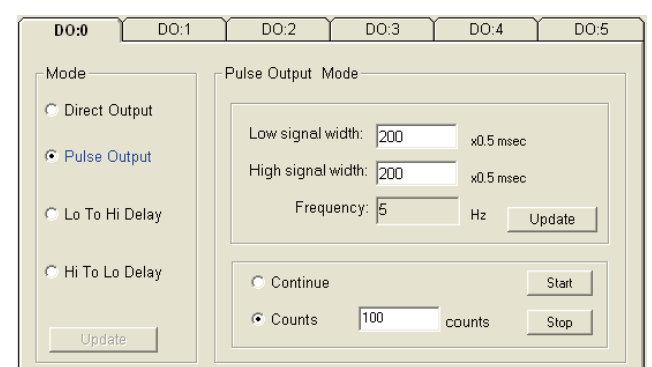
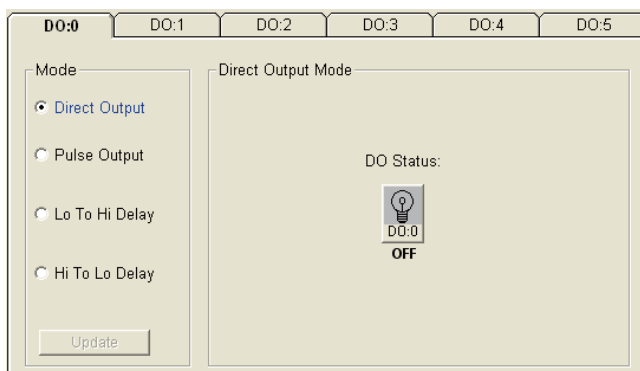




The digital input channels support counter and signal latch functions. Click the specific channel, there will be four working modes for choosing. °



The new working mode setting will take effective after click the “Update” button.



The digital output channels support pulse output and delay output functions. Click the specific channel, there will be four working modes for choosing. °

Analog Input Module

Select Translator simulation input module, and select the "General settings" option, the user can read the following from the practical information ◦

Location	Channel	Type	Value(Hex)	Input Type
40001	CH:0	Word	7FE3	+/-10V
40002	CH:1	Word	7FE3	+/-10V
40003	CH:2	Word	7FE4	+/-10V
40004	CH:3	Word	7FE3	+/-10V
40005	CH:4	Word	801C	+/-10V
40006	CH:5	Word	7FC8	+/-10V
40007	CH:6	Word	8000	+/-10V
40008	CH:7	Word	801B	+/-10V
40009	AVG.	Word	7FFF	+/-10V

Normal and Average

Act	Avg	Voltage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:0 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:1 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:2 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:3 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:4 00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:5 -00.01 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:6 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:7 00.00 V
	<input checked="" type="checkbox"/>	AVG ***** V

Integration Rate: 60Hz [Update]

Calibration: Zero Calib. [Update] Span Calib. [Update]

D/O status: DO:0 [Update] DO:1 [Update]

Avg Range: 4~20mA [Update]

Location : Standard Modbus address.

Channel : the channel number

Type : Data type of the I/O channel. The data type of analog Input modules is always "word" ◦

Value : The current status on each channel of I/O modules. Windows Utility provides both decimal and hexadecimal values used for different applications ◦

Input Type : Sensor types and measurement range of the specified module ◦

Provide users with more valuable information, analog converter module design and calculation capabilities, including various channels maximum, minimum, and average. Click on the "maximum" option, you will see the history of each channel in the highest value, until you press the "RESET" button

Location	Channel	Type	Value(Hex)	Input Type	Reset
40011	CH:0	Word	7FEE	+/-10V	0
40012	CH:1	Word	7FEE	+/-10V	1
40013	CH:2	Word	7FEE	+/-10V	2
40014	CH:3	Word	7FED	+/-10V	3
40015	CH:4	Word	8028	+/-10V	4
40016	CH:5	Word	7FFA	+/-10V	5
40017	CH:6	Word	8002	+/-10V	6
40018	CH:7	Word	8028	+/-10V	7
					ALL

Maximum

Act	Avg	Voltage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:0 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:1 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:2 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:3 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:4 00.01 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:5 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:6 00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:7 00.01 V
	<input checked="" type="checkbox"/>	AVG ***** V

Integration Rate: 60Hz [Update]

Calibration: Zero Calib. [Update] Span Calib. [Update]

D/O status: DO:0 [Update] DO:1 [Update]

Avg Range: 4~20mA [Update]

Click the Minimum value tab, you will see the historical minimum values in each channel unless to press the against "Reset" buttons.

Location	Channel	Type	Value(Hex)	Input Type	Reset
40011	CH:0	Word	7FDA	+/-10V	0
40012	CH:1	Word	7FDC	+/-10V	1
40013	CH:2	Word	7FDC	+/-10V	2
40014	CH:3	Word	7FDB	+/-10V	3
40015	CH:4	Word	7FED	+/-10V	4
40016	CH:5	Word	7FB5	+/-10V	5
40017	CH:6	Word	7FFD	+/-10V	6
40018	CH:7	Word	7FED	+/-10V	7
					ALL

Minimum

Act	Avg	Voltage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:0 -00.01 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:1 -00.01 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:2 -00.01 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:3 -00.01 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:4 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:5 -00.02 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:6 -00.00 V
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CH:7 -00.00 V
	<input checked="" type="checkbox"/>	AVG ***** V

Integration Rate: 60Hz [Update]

Calibration: Zero Calib. [Update] Span Calib. [Update]

D/O status: DO:0 [Update] DO:1 [Update]

Avg Range: 4~20mA [Update]

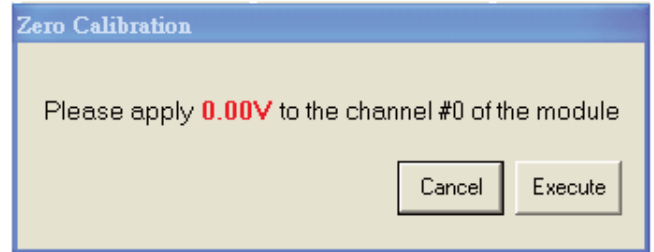


I/O Module Calibrations

Adjust the calibration accuracy of converter modules. There are several modules of the calibration model: zero calibration, full measure of calibration, CJC calibration and analog output calibration. Only for analog input and output modules can be calibrated.

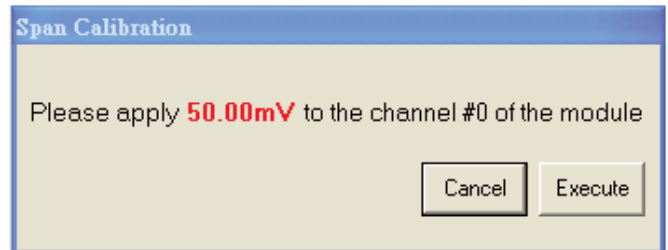
Zero Calibration

- 1 ° Apply power to the module and let it warm up for 30 minutes. °
- 2 ° Make sure the module is correctly installed and properly configured for the input range you want to calibrate. °
- 3 ° Short channel 0 to GND by wire as short as possible °
- 4 ° Click the Execute button. °



Span Calibration

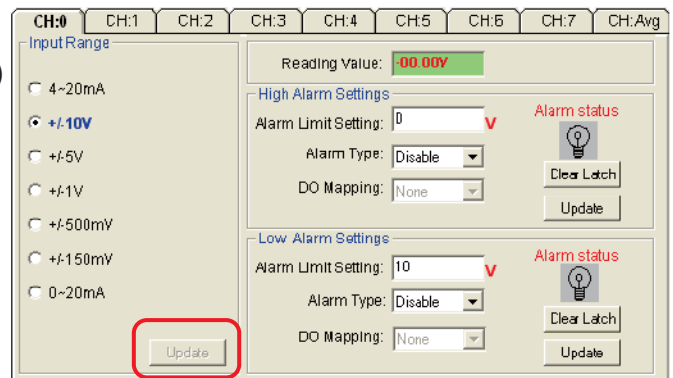
- 1 ° Follow the same procedure of zero calibration
- 2 ° Using high-precision power supply for calibration voltage V +And V-type terminal block module °
- 3 ° and click the Execute button. °



Input Type Settings

There is several range of each channel of analog module. You should select properly type(range) before apply to the your applications °

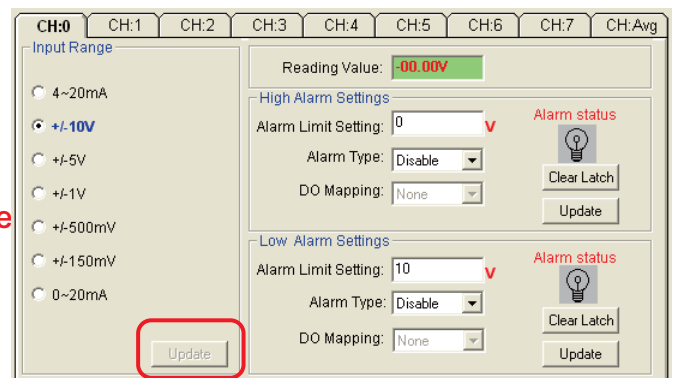
The new working mode setting will take effective after click the "Update" button.



Alarm Setting

In addition, all analog channels to trigger the alarm function allows you to configure high / low limit. Once the value above or below the limit of a particular channel, alarm status will be output °

The new working mode setting will take effective after click the "Update" button.



Website Login

Open a Web browser (take IE9.0 for example), in the URL column, on the IP address converter ◦

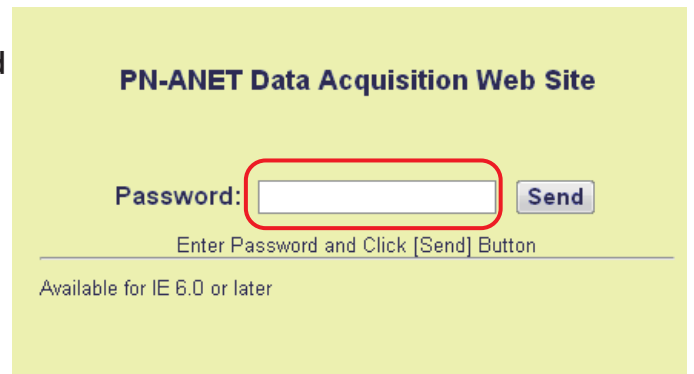
EX: http://192.168.xx.xx (Based on user defined in the Module IP)

Recommended IE6.0 or later



Login Menu page appears, shown at right ◦
Type the Login password in the framework, and then Send ◦

(Login password for the user as defined in Module Ip)



Password authentication before you can Login, the login screen as ◦
(For example,PN-ANET)

TCP/IP PN-ANET Analog Data Acquisition Web Page (v1.3)

Running:

Voltage/Current Input					Digital Output		
Channel	Hi-Alarm	Lo-Alarm	Volt/mA	AI Type	Channel	Status	DO Setting
CH 0	No Alarm	No Alarm	+00.000 mA	0-20mA	DO 0	Open	<input type="button" value="ON"/> <input type="button" value="OFF"/>
CH 1	No Alarm	No Alarm	+00.000 mA	0-20mA	DO 1	Open	<input type="button" value="ON"/> <input type="button" value="OFF"/>
CH 2	No Alarm	No Alarm	+00.001 mA	0-20mA	Update Time Interval: <input type="text" value="1000"/> msec <input type="button" value="Set"/>		
CH 3	No Alarm	No Alarm	+00.001 mA	0-20mA			
CH 4	No Alarm	No Alarm	+00.000 mA	0-20mA			
CH 5	No Alarm	No Alarm	+00.000 mA	0-20mA			
CH 6	No Alarm	No Alarm	+00.000 mA	0-20mA			
CH 7	No Alarm	No Alarm	+04.000 mA	4-20mA	Available for I E6.x/Google explorer 3.x or later		
Average			*****				

Channel :
Hi-Alarm :
Lo-Alarm :
Voltage :
AI Type:
Status :
DO Setting:
Time interval:

Channel number of analog input or digital output
Analog channel High alarm status
Analog channel low alarm status
Voltage value of analog input channel
Range of analog input channel
Digital output status
Set digital output On or Off
I/O status update time interval