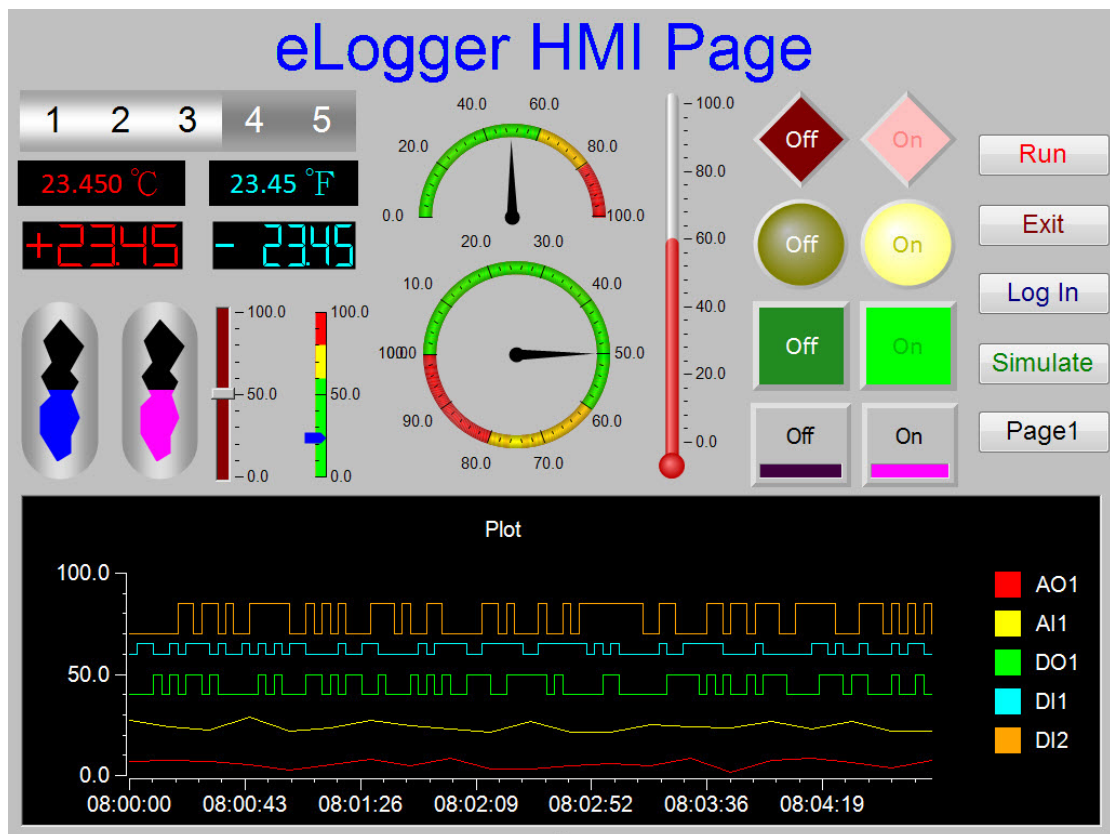


eLogger User Manual

Version 1.2.0, July 2015



Written by Amber Hsieh

Edited by Renee Lin

Table of Contents

1. Introduction	5
1.1 Features.....	5
1.2 Supported Module	8
1.3 Installation.....	10
2. The First Project.....	13
2.1 Create a New Project	13
2.2 Interface Introduction	14
2.3 System Setting.....	14
2.4 Add Driver and Device.....	15
2.5 Add Tags	17
2.6 Edit Page	18
2.7 Edit Web Page.....	19
2.8 Data Log Configuration	21
2.8.1 Remote Data Log Configuration.....	21
2.8.2 Local Data Log Configuration	23
2.9 Run eLogger Runtime on PAC.....	25
2.11 Upload the Web Pages from eLogger Developer	27
3. Supported Driver.....	28
3.1 Module on Slot.....	28
3.2 Modbus TCP.....	31

3.3 Modbus Serial	36
4. Tag Mapping	40
4.1 Add new Tags	41
4.2 Edit Tag (batch edit supported)	42
4.3 Scaling	43
4.4 Delete Tag	43
5. Data Log	44
5.1 Remote Data Log	44
5.2 Local Data Log	48
6. Layout Pages	50
6.1 Page Menu	50
6.2 Design Page	51
6.3 Button Type	52
6.4 HMI Component Property	53
7. Web Page	54
7.1 Web Page Menu	54
7.2 Design the Login Web Page	55
7.2.1 Edit Login Web Page	55
7.2.2 Component Introduction	56
7.2.3 Property Directions	56
7.3 Design HMI Web Page	57
7.3.1 Edit the Web Page	57

7.3.2 Component Introductions.....	58
7.3.3 Property Directions	58
7.4 Upload Web Page	60
8. eLogger Runtime.....	61
8.1 eLogger Runtime Version	61
8.2 eLogger Runtime Function	62
Appendix A. Revisions	63

1. Introduction

eLogger is a free charge and easy-to-use software to implement HMI and data logger on Windows CE 5.0 based PACs (WinPAC and ViewPAC of ICP DAS), Windows CE 6.0 based PACs (XPAC-8000 of ICP DAS) and Windows Embedded Standard 2009 based PACs for simple I/O monitor and system control. It could reduce the cost and shorten the time to market.

eLogger can develop a project with flexible I/O configuration quickly and easily. The setup can be completed in only 5 steps: configuring I/O modules, configuring data logger, designing HMI layout pages and web pages, uploading the project and web pages to PAC, executing the project. In these simple steps, there is no need of software programming knowledge. If more powerful functions needs to be added, eLogger also provides a flexible interface, "shared memory", to cooperate with Visual Studio .NET and ISaGRAF programs.

1.1 Features

1.1.1 Supported PAC

 Developer : Windows 2K 、 Windows XP 、 Windows Vista 、 Windows7

 Runtime target :

- Windows CE.NET 5.0 platform
[WinPAC series](#), [ViewPAC series](#)
- Windows CE.NET 6.0 platform
XP-8000-CE6, [XP-8000-Atom-CE6](#)
- Windows XPE platform
XP-8000, [XP-8000-Atom](#)

1.1.2 Support Driver

- Math Curve(For Demo)
- Module on Slot
- Modbus Serial Master(Support Modbus RTU/Modbus ASCII)
- Modbus TCP master

1.1.3 HMI

- **Components** : Button 、 Text Box 、 Linear Gauge 、 Angular Gauge 、 LED 、 Switch 、 Tank 、 Label 、 Plot 、 Seven Segment 、 Thermometer 、 Slider 、 Odometer
- **Pages** : Maximum of 32 pages.

- **Web Pages Converter** : Button 、 Text Box 、 Label 、 Seven Segment 、 Picture Toggle are supported.

1.1.4 Real Time Data Trend : Maximum of 5 trend line in one plot.

1.1.5 Value Scaling

Set gain and offset can scale analog values from volt or amp unit to another physical unit. For example, rpm for rotation, kg for weight.

1.1.6 Account Management

3 levels operating management: Administrator, Power User, User

	Admin	Power User	User
Open project	●	○	○
Start/Stop project	●	●	○
Set AO/DO values	●	●	○
Switch group pages	●	●	●

● : allowed ○ : not allowed

1.1.7 Remote Maintenance

You can use eLogger Developer's remote control function to Upload / Run / Stop the project through the Ethernet.

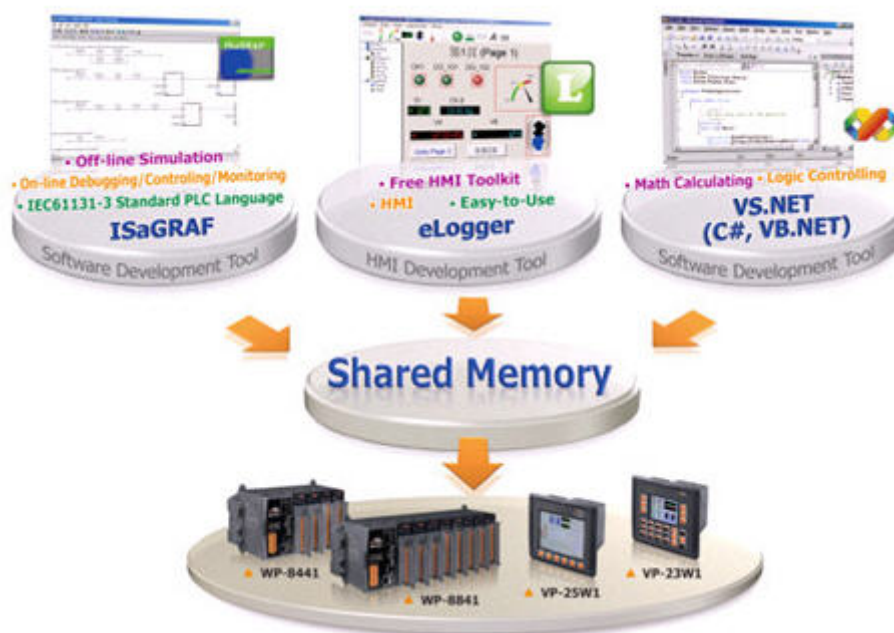
1.1.8 Database

- Local database: Supports csv format file.
- Remote database: Microsoft SQL Server 2005 or later.

1.1.9 Logic Control Programming

Via the "Shared Memory", you can choose ISaGRAF or Visual Studio .Net to develop a logic control program and cooperate with the eLogger. Your programs can access the data of I/O module and exchange other temporary data through the "Shared Memory". You can focus on the logic control programming.

- ISaGRAF (IEC61131-3 standard PLC languages) (Refer to [ISaGRAF FAQ-115](#))
- Visual Studio .NET (C#, VB.NET) for Window CE.NET 5.0



1.2 Supported Module

Supported list: http://www.icpdas.com/products/PAC/winpac/io_support_list.htm

8K I/O Module	
8K AI	I8017HW
8K AO	I8024W
8K DIO	I8040W、I8041W、I8042W、I8046W、I8050W、I8051W、I8052W、 I8053W、I8054W、I8055W、I8056W、I8057W、I8058W、I8060W、 I8063W、I8064W、I8065W、I8066W、I8068W、I8069W、I8077W
87K I/O Module	
87K AI	I87005W、I87013W、I87015W、I87015PW、I87016W、I87017W、 I87017RW、I87017RCW、I87017DW、I87017ZW、I87017A5、I87018W、 I87018RW、I87018PW、I87018ZW、I87019RW、I87019PW、I87019ZW
87K AO	I87024W、I87024CW、I87024DW、I87024RW、I87028CW
87K DIO	I87037W、I87040W、I87040PW、I87041W、I87042W、I87046W、 I87051W、I87052W、I87053W、I87053PW、I87053WA2、I87053WA5、 I87053WAC1、I87053WE5、I87054W、I87055W、I87057W、I87057PW、 I87058W、I87059W、I87061W、I87063W、I87064W、I87065W、 I87066W、I87068W、I87069W、I87069PW
ET-7000	
ET-7005、ET-7015、ET-7016、ET-7017、ET-7017-10、ET-7018Z、ET-7019、 ET-7026、ET-7042、ET-7044、ET-7050、ET-7051、ET-7052、ET-7053、ET-7060、 ET-7065、ET-7066、ET-7067	
PET-7000	
PET-7005、PET-7015、PET-7016、PET-7017、PET-7017-10、PET-7018Z、 PET-7019、PET-7026、PET-7042、PET-7044、PET-7050、PET-7051、PET-7052、 PET-7053、PET-7060、PET-7065、PET-7066、PET-7067	
WISE	

WISE-7105、WISE-7115、WISE-7117、WISE-7118Z、WISE-7119、WISE-7126、
WISE-7144、WISE-7151、WISE-7152、WISE-7160、WISE-7167

M-7000

AI M7005、M7015、M7016、M7016D、M7017、M7017C、M7017R、
M7017RC、M7018、M7018R、M7019R、M7033、M7033D

AO M7022、M7024

DIO M7041、M7041D、M7045、M7045D、M7050、M7050D、M7051、
M7051D、M7052、M7052D、M7053、M7053D、M7055、M7055D、
M7059D、M7060、M7060D、M7067、M7067D

1.3 Installation

Install .NET Framework 3.5 before eLogger is installed. The download link from Microsoft is [Microsoft.com downloads](#).

Execute eLogger setup to install eLogger Developer and eLogger Runtime. After the installation, there will be “eLogger Developer” and “eLogger Runtime” shortcut in “C:/Program Files/ICPDAS/eLogger”.



eLogger Download Path

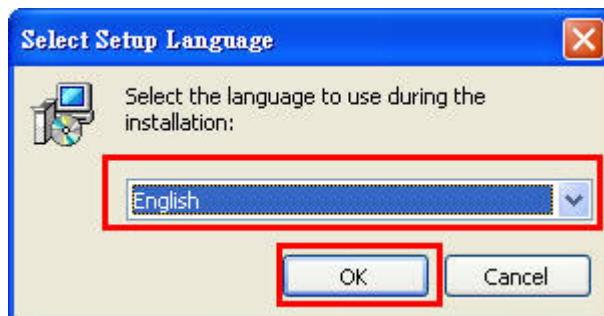
The setup file name is eLoggersetup_vAAA_yyyymmdd.exe. AAA stands for version and yyyymmdd stands for release date.

<http://ftp.icpdas.com/pub/cd/winpac/napdos/elogger/setup/>

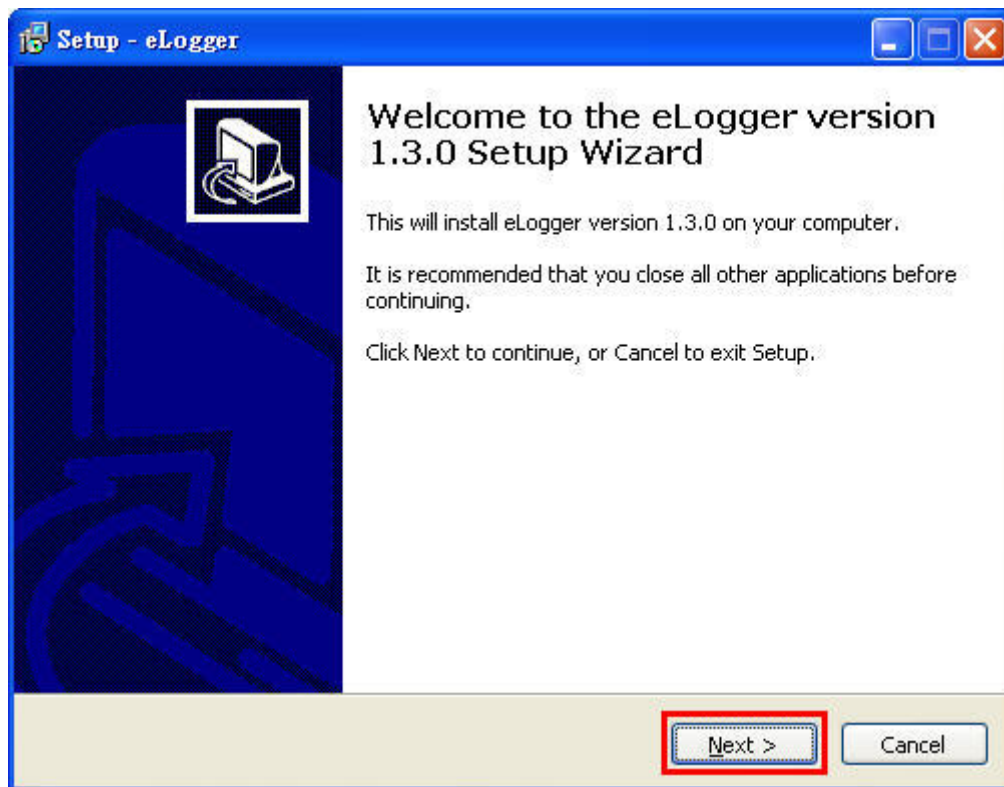
1.3.1 Step by step

Step1. Download eloggersetup_vAAA_yyyymmdd.exe, and execute it.

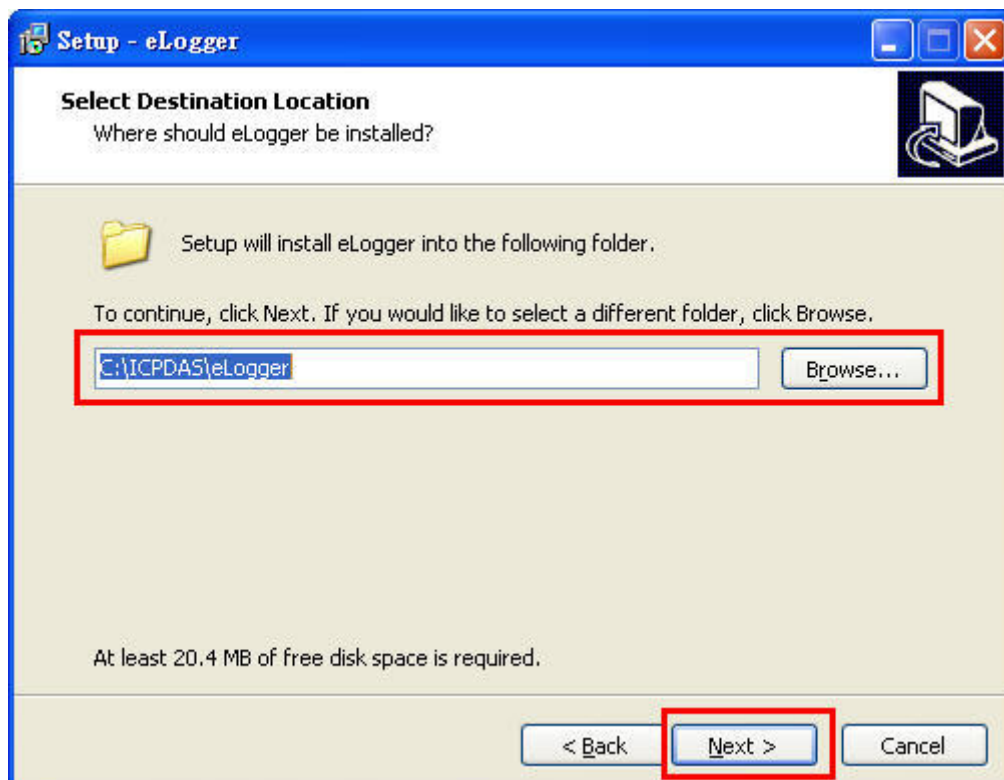
Step2. Choose the language interface and click **OK**.



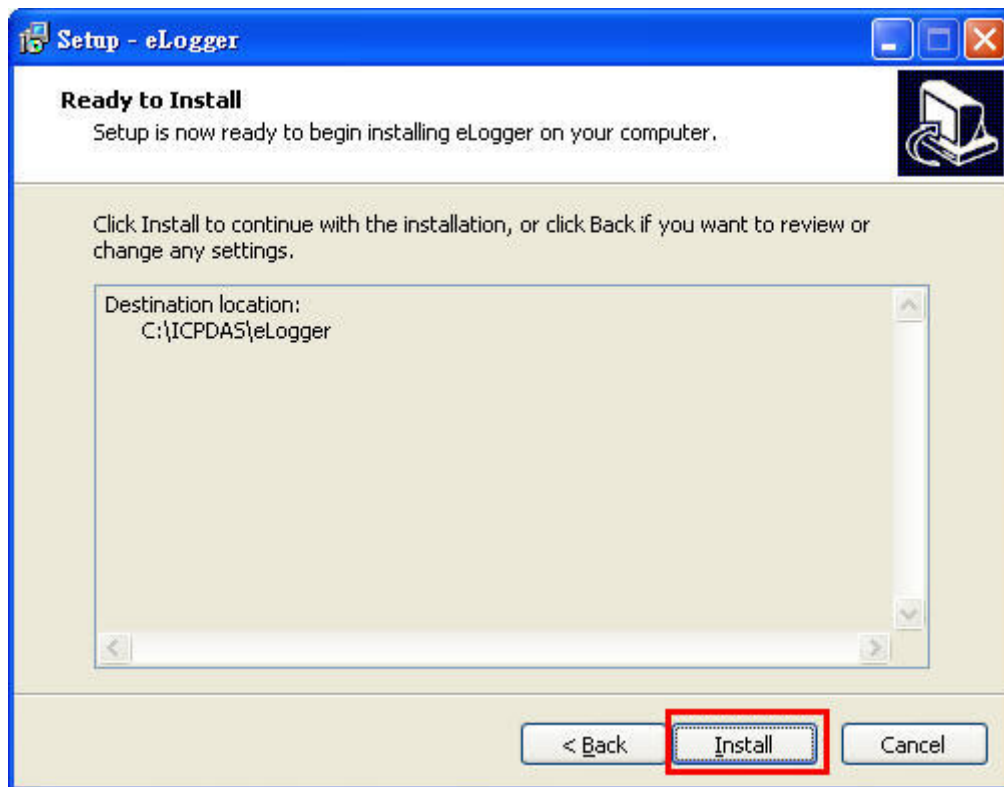
Step3. Click “Next” to continue installation.



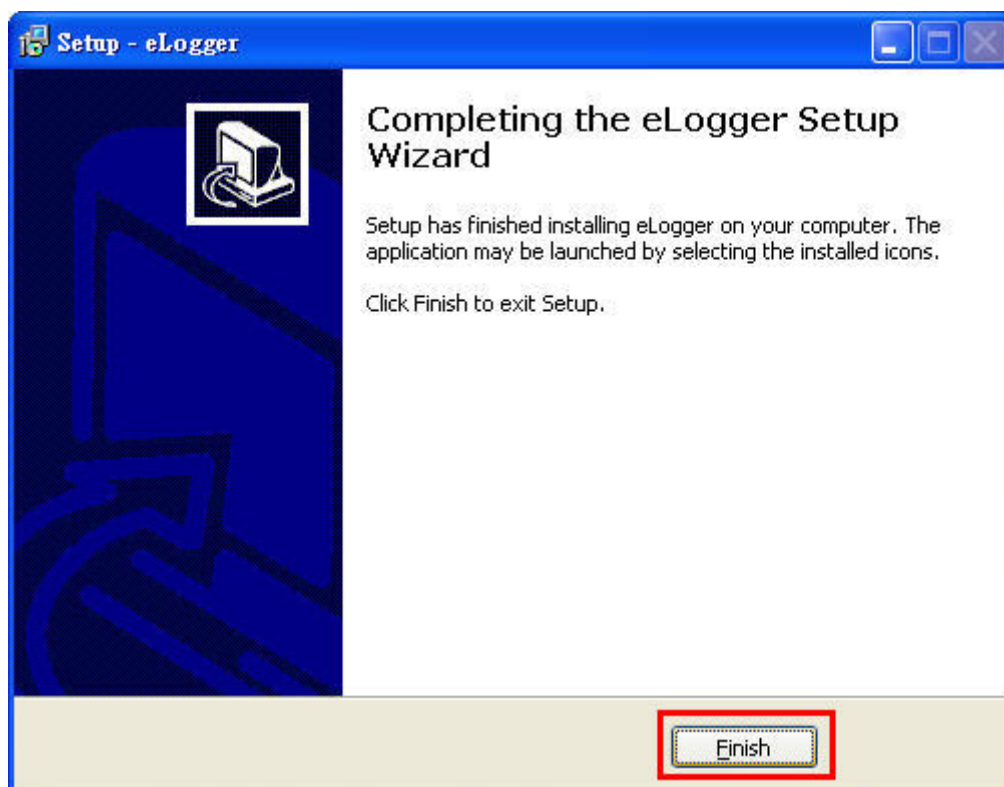
Step4. The default folder path is C:\ICPDAS\eLogger, the folder path can be changed by clicking “Browse”. Click “Next” to continue.



Step5. Click “Install”.

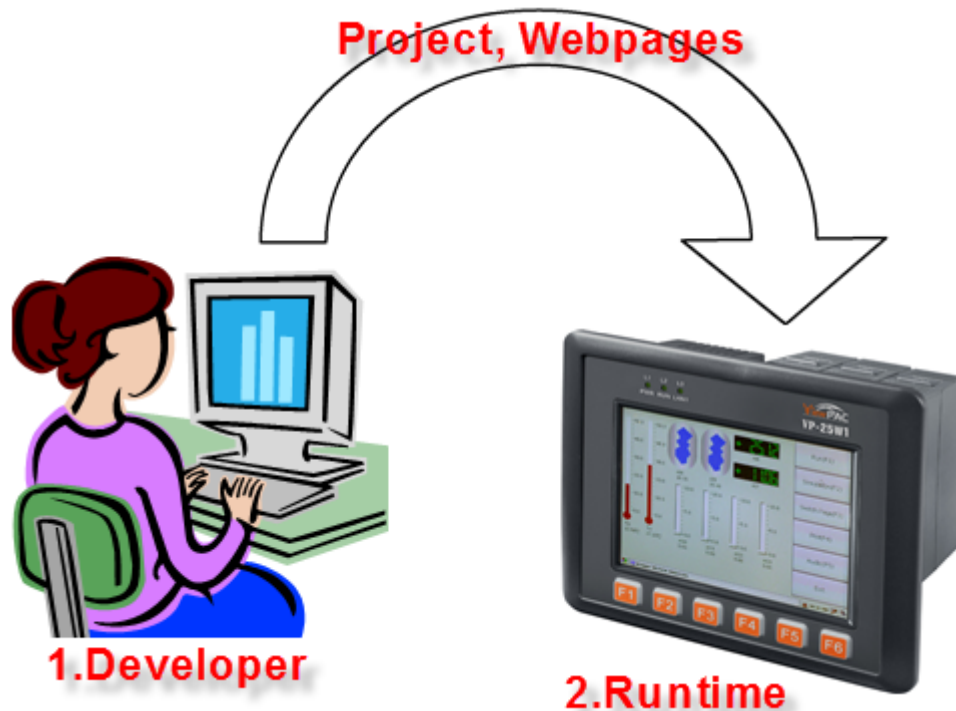


Step6. Click “Finish” to exit setup.



2. The First Project

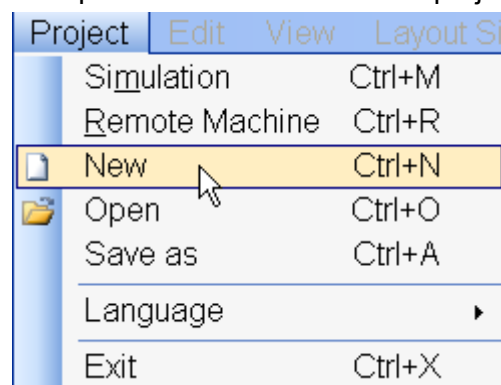
eLogger has two programs : eLogger Developer and eLogger Runtime. You can design the project with eLoggerDeveloper.exe on PC, and run the runtime file on PAC. You can follow the below steps to setup and run a project.



Before starting a new project, the following items need to prepare. A VP-25W1 of ViewPAC series and an I-87041W module insert to the slot 0 of VP-25W1.

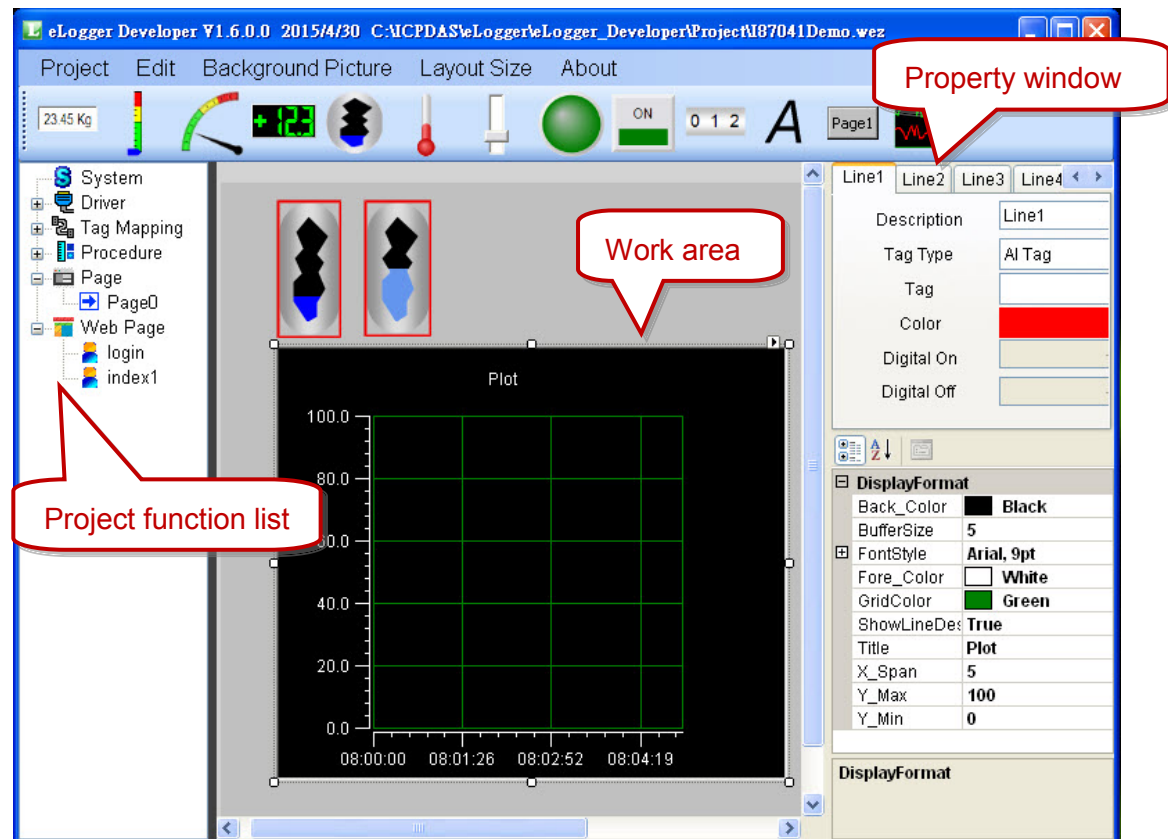
2.1 Create a New Project

Step1. Execute the eLoggerDeveloper.exe, and click “Project”=>” New”, input the project name and click the Open button to create a new project.



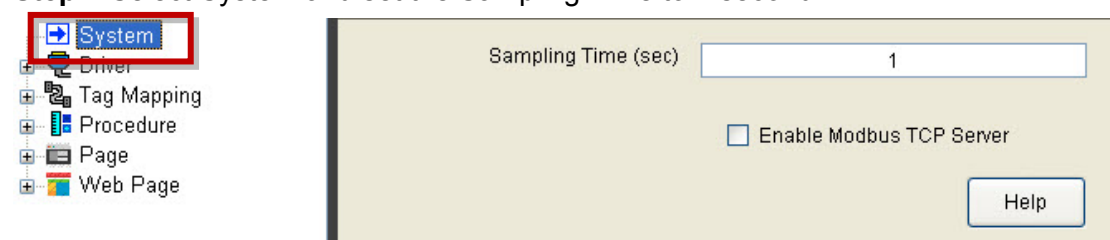
2.2 Interface Introduction

The left side of eLogger Developer main interface is the project function list, and the right side is the work area and property window.



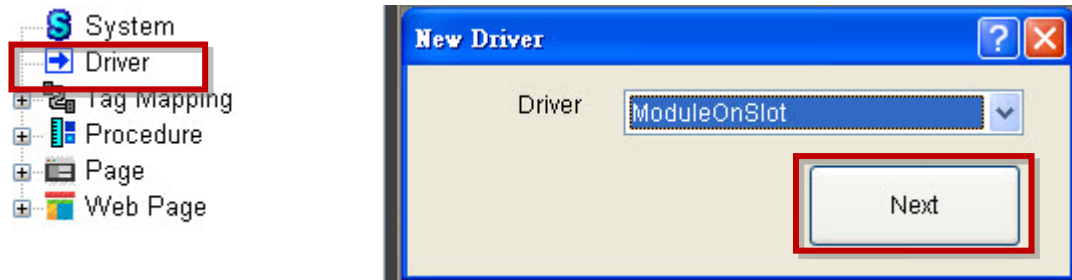
2.3 System Setting

Step1. Select System and set the Sampling Time to 1 second.

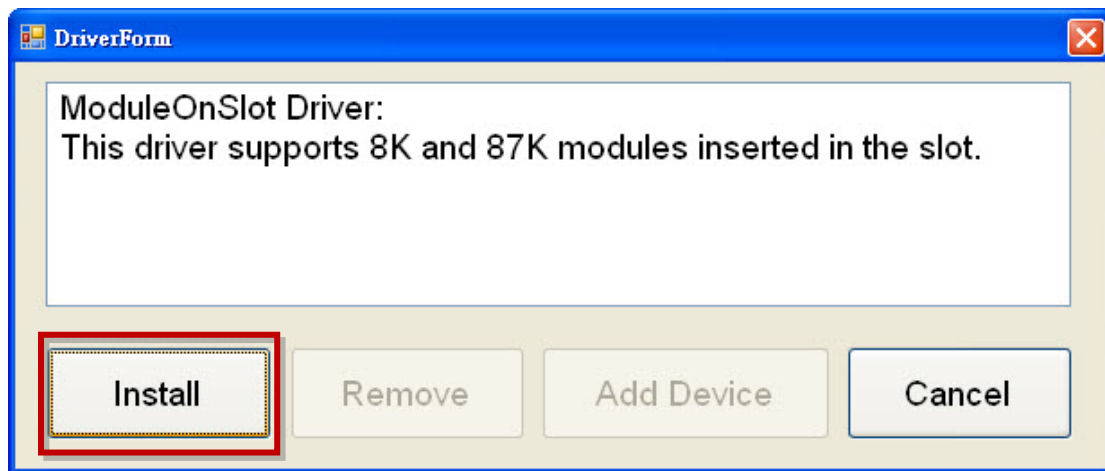


2.4 Add Driver and Device

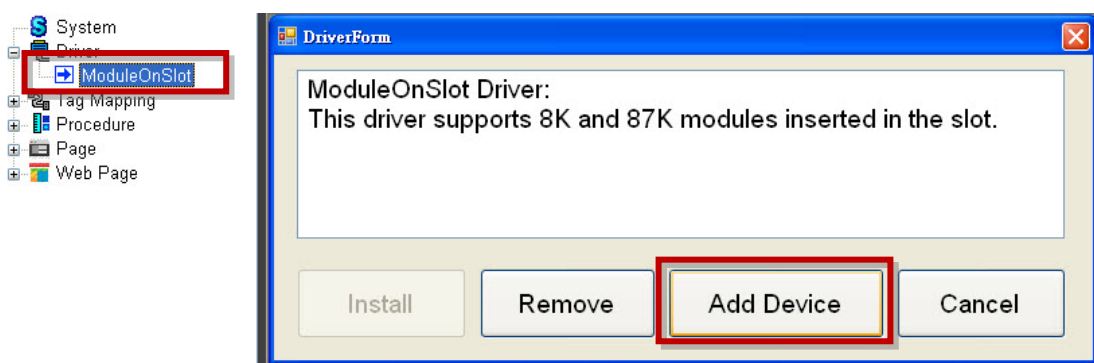
Step1. Select Driver, and select a driver “ModuleOnSlot”, then click “Next”.



Step2. Click “Install” to add the driver to the project.



Step3. Select “Module on Slot” and click the “Add Device” button in the DriverForm to add a new device.



Step4. Set module from Module drop-down list to I-87041W, and set Device Name and Slot. Click the “Add” button to add the module to the driver.

The screenshot shows the 'Add Device' dialog box with the following fields and values:

Field	Value
Module	I87041W
Device Name	I87041W
Slot	0
AI Channel Number	0
AO Channel Number	0
DI Channel Number	0
DO Channel Number	32
DI Counter Number	0
Device Description	32*DO

The 'Service' section contains the following options:

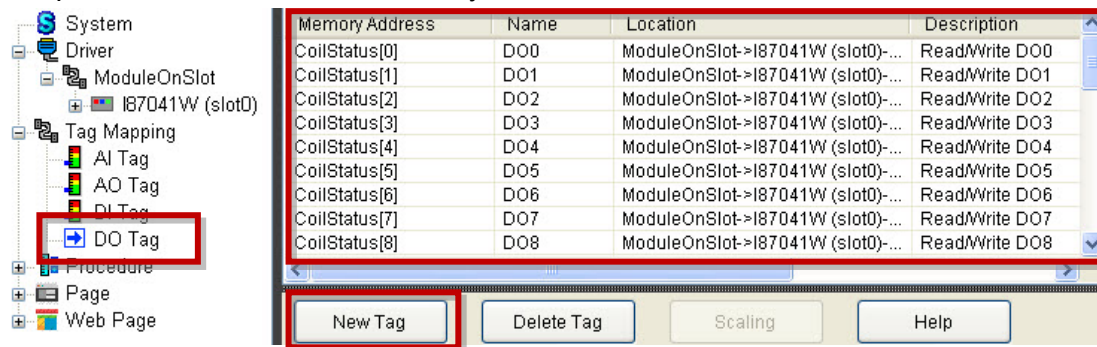
- ☐ Read AI
- ☐ Read / Write AO
- ☐ Read DI
- ☐ Read DI High Latch
- ☐ Read DI Low Latch
- ☐ Read / Clear DI Counter
- ☒ Read / Write DO

At the bottom, there are four buttons: 'Cancel', 'Remove', 'Modify', and 'Add'. The 'Add' button is highlighted with a red box.

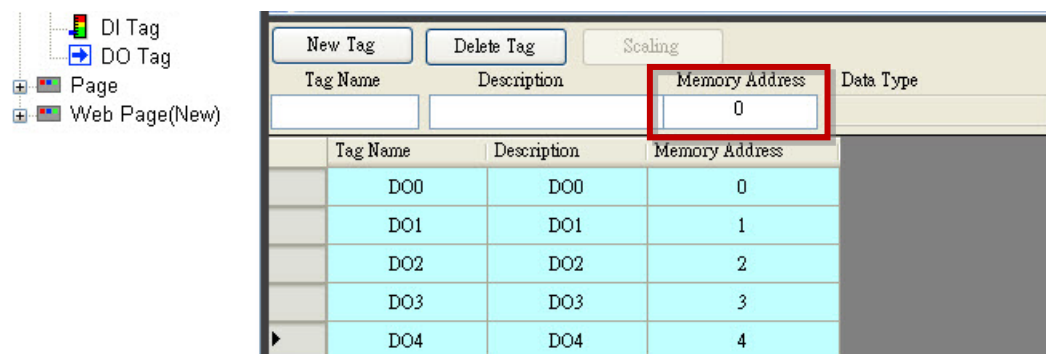
2.5 Add Tags

Step1. Expand Tag Mapping and select “DO Tag”, the memory mapping will show in the right side. The device, “I87041W”, uses memory address from 0 to 31 of CoilStatus in the Shared Memory to save its values.

Step2. Click “New Tag” to add 5 tags. These tags will be used to connect with HMI components and the Shared Memory.



Step3. Select the rows of the tag list, and set the Memory Address to 0. The Memory Address of DO0 will be set to 0, and DO1 will be 1.

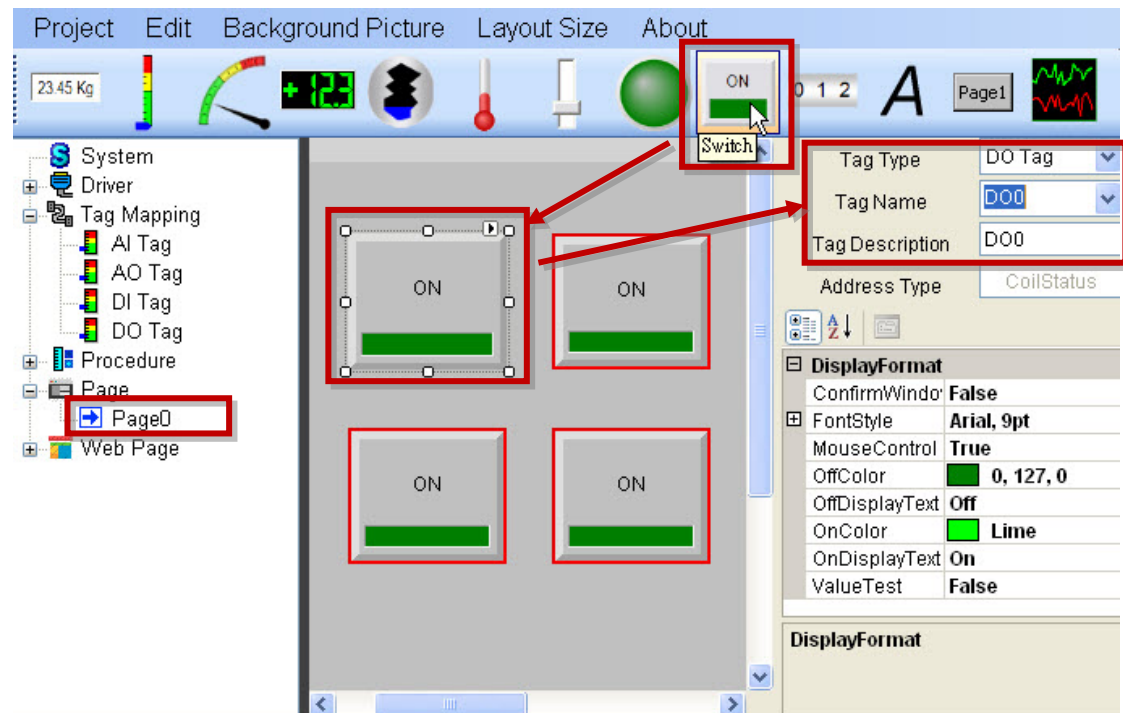


Now these 5 tags (DO0 to DO4) point to CoilStatus [0] to [4].

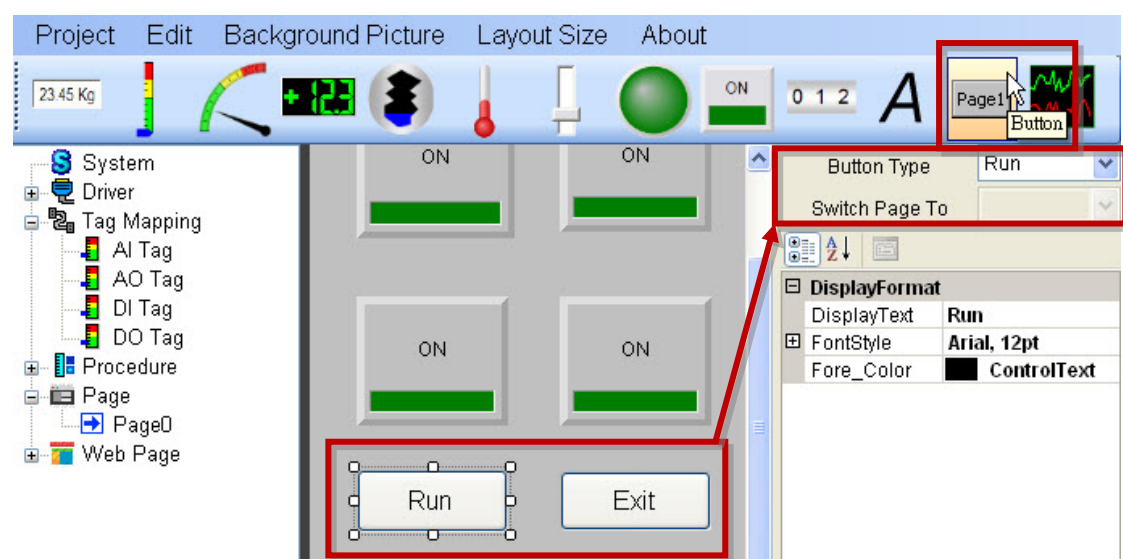
2.6 Edit Page

Step1. Expand Page and select “Page0” to open HMI layout page. Select the Switch component on the toolbar and add components to the page by dragging and dropping.

Step2. Select each of Switches, and then set the Tag Type to DO Tag and set Tag Name to DO0 to DO3 in the property window.



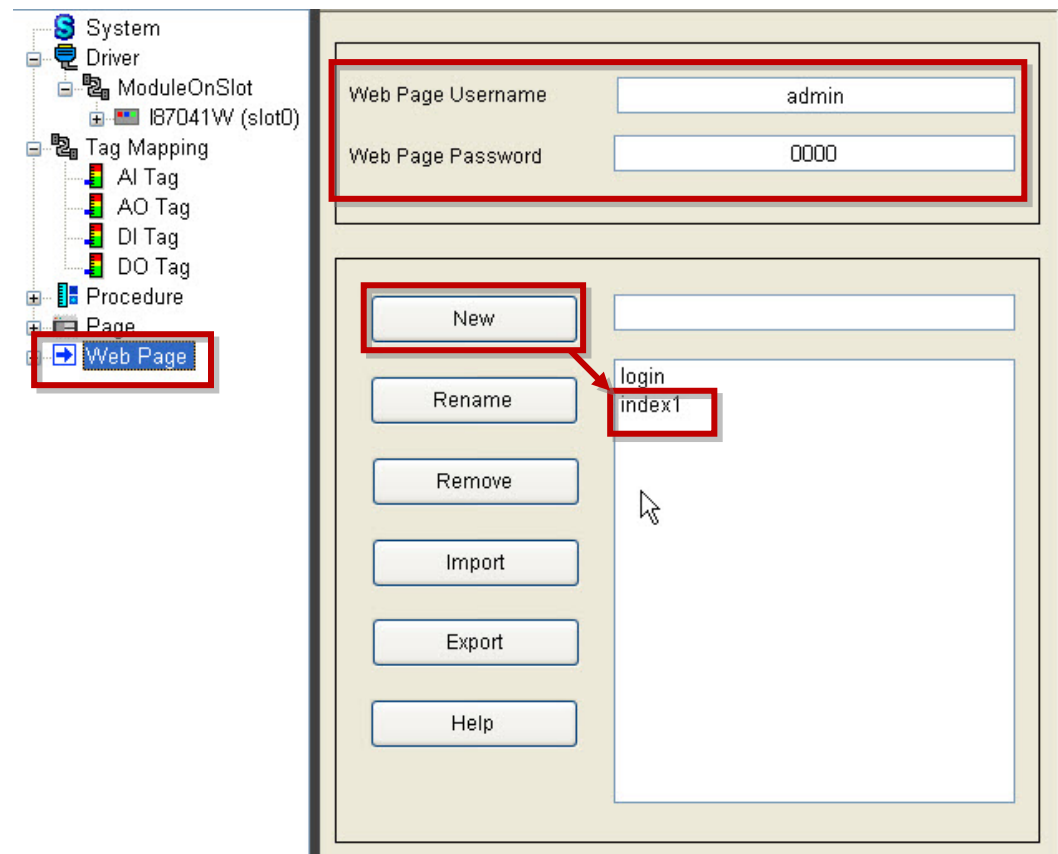
Step3. Click the Button component on the toolbar and add two components by dragging and dropping to the page. Select one of the buttons and set its **Button Type** to “Run” and the other to “Exit”.



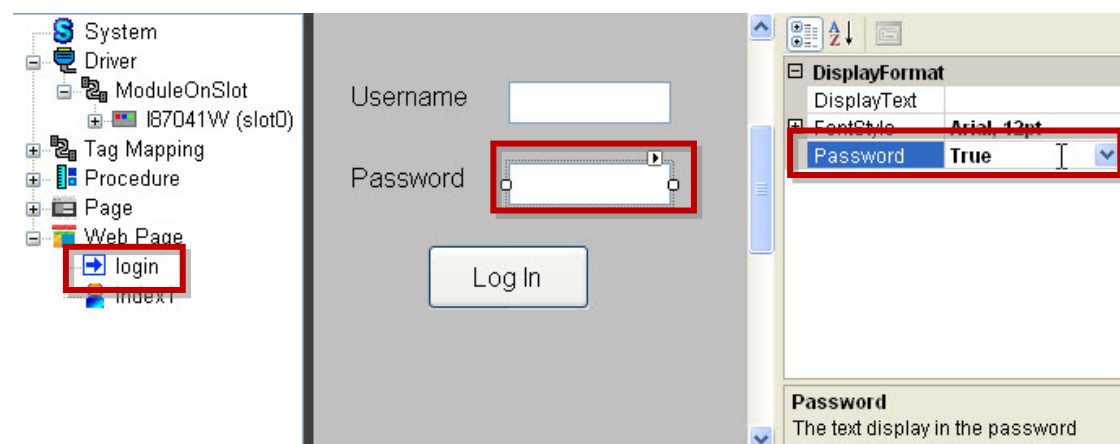
2.7 Edit Web Page

Step1. Select the Web Page to open the web page configuration window. Click “New” to create a web page. The newly created web page name is assigned to index1 by eLogger.

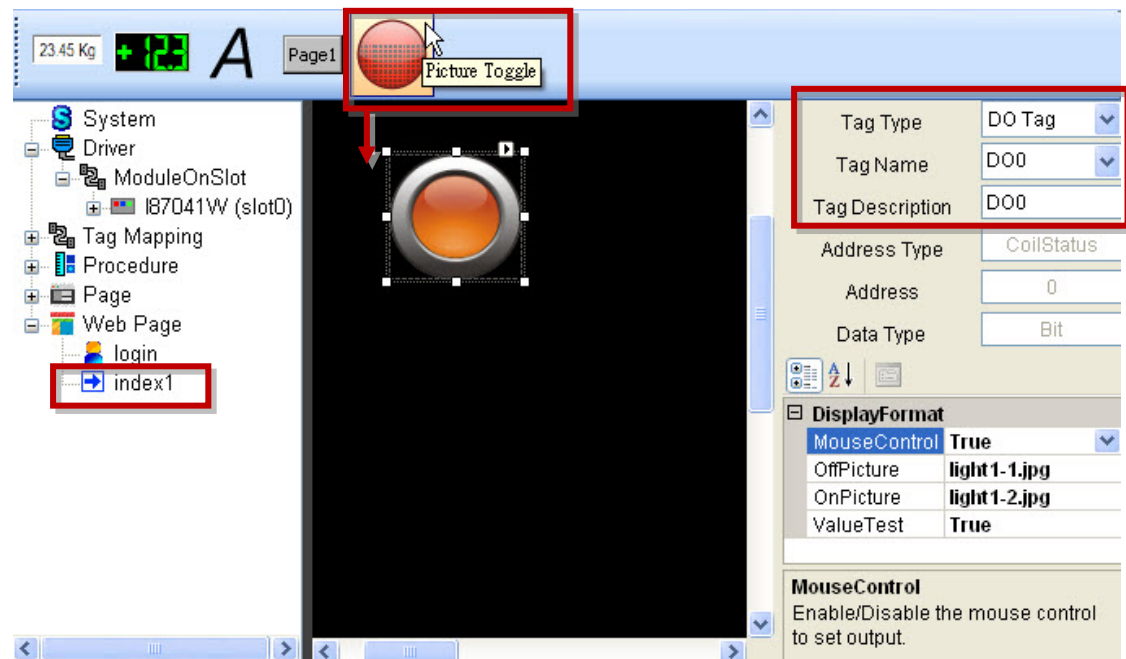
Step2. Set the username and password of web pages. The default settings are “admin” and “0000”.



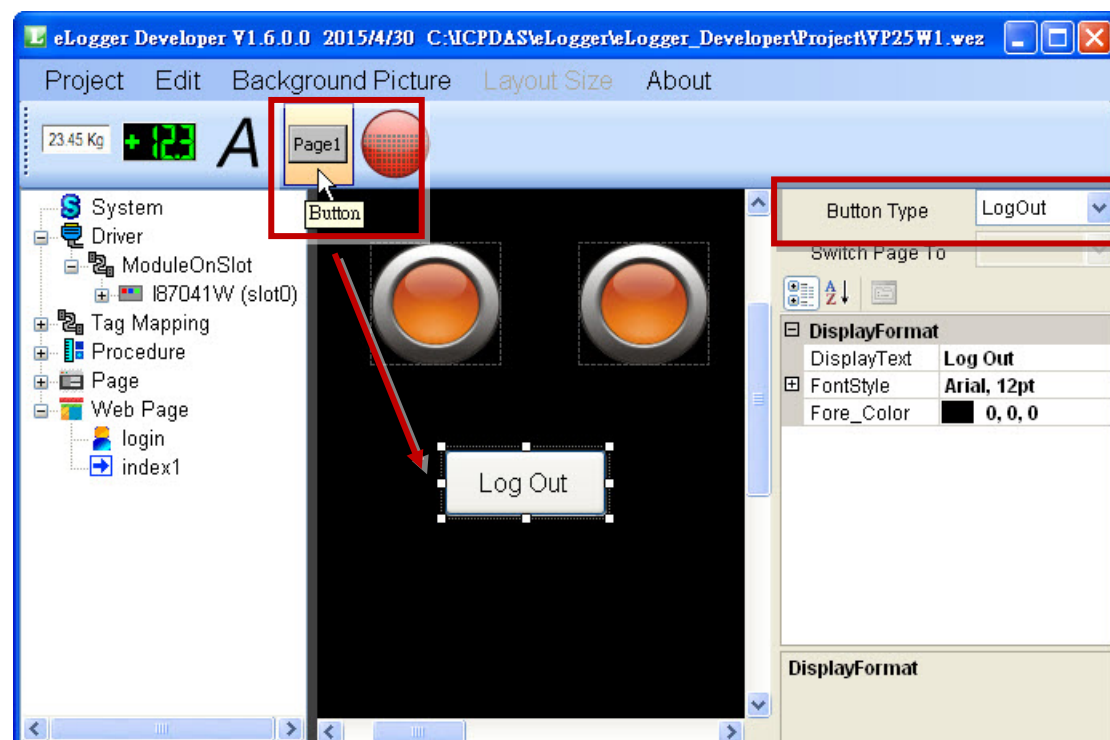
Step3. Select “login” to edit the login web page. Select the text box component and set its Password property to True so that the password text box will show as password format.



Step4. Select “index1” of the Web Page to edit the web page. Add 2 Picture Toggle components by dragging it to the web page. Select each of components and set its property. The Tag Type set to DO Tag and Tag Name set to DO0 and DO1.



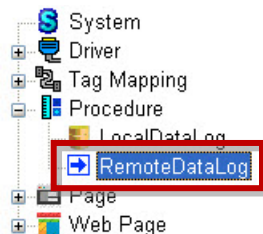
Step5. Add a Button component to the web page and set its Button Type to LogOut.



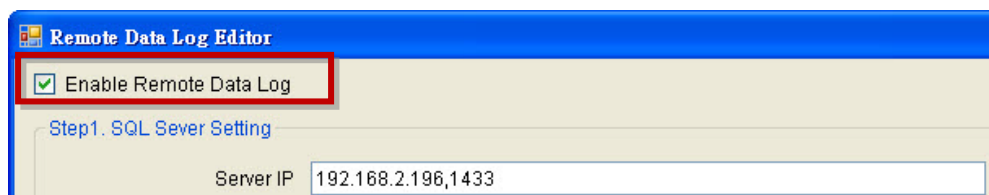
2.8 Data Log Configuration

2.8.1 Remote Data Log Configuration

Step1. Unfold the Procedure and select RemoteDataLog to open configured window.



Step2. Click the checkbox to enable the RemoteDataLog.



Step3. Input the IP address to Server IP text field. 192.168.2.191,1433 is input in this case. 1433 stands for TCP connect port to SQL Server.

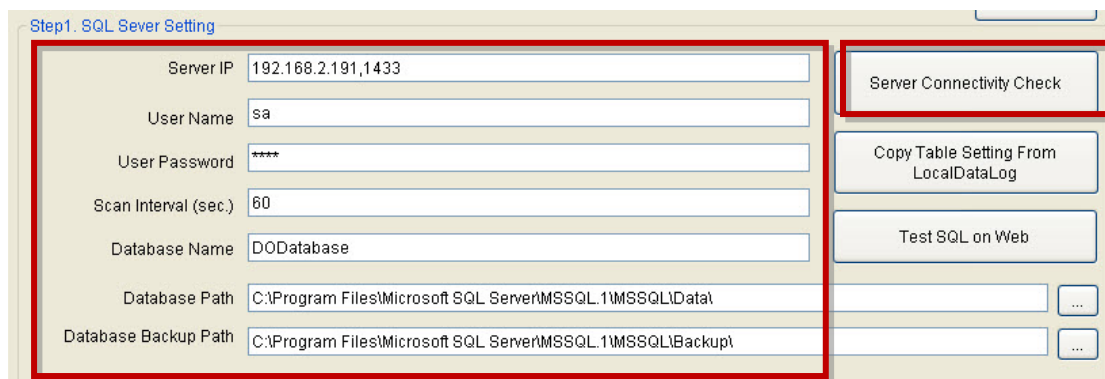
Input username and password to User Name and User Password text field.

Input the scan rate to Scan Interval text field. The default value for Scan Interval is 60 seconds.

The Database Name text field is to set the name of the database. DODatabase is input in this case.

Both of database path and backup path are required.

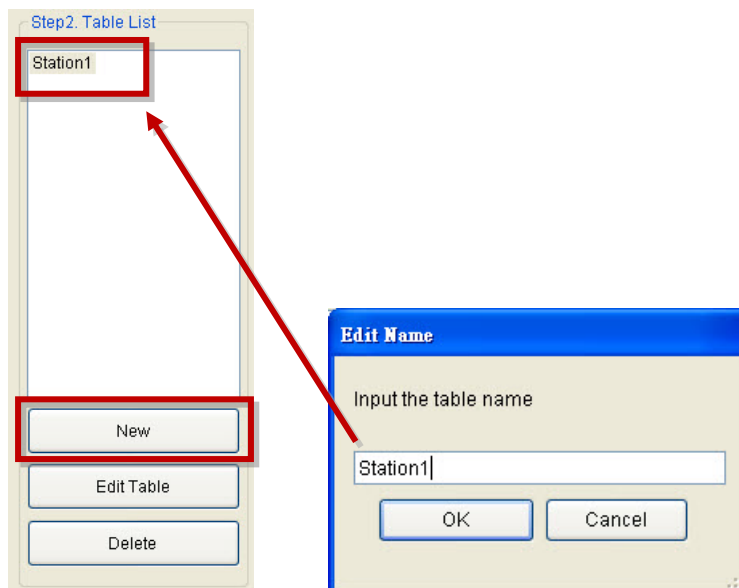
Step4. Click Server Connectivity Check to confirm the connection and account information.



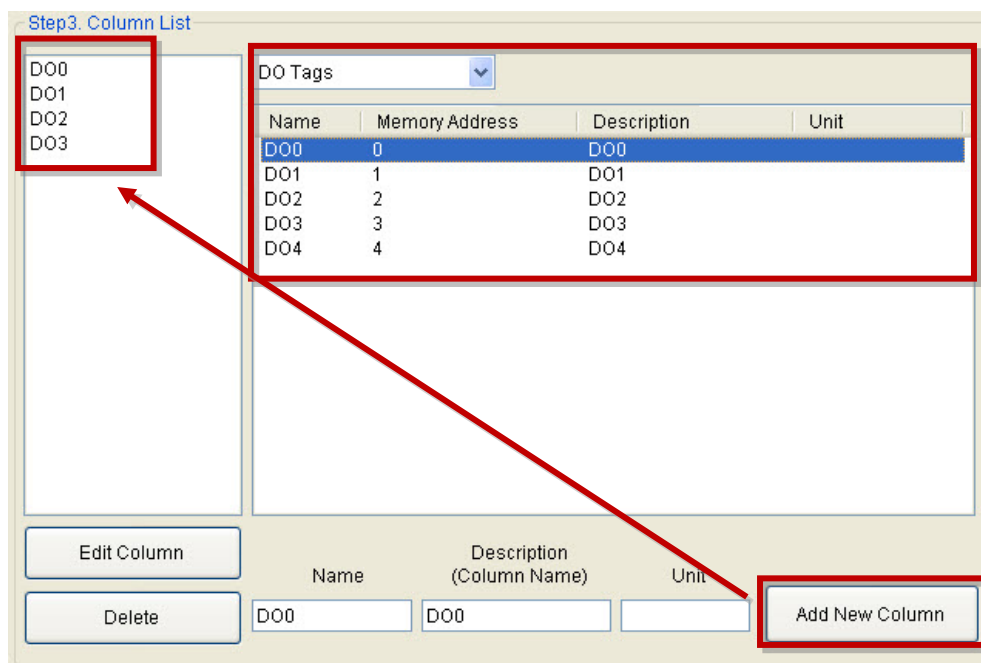
If the IP address, username and password are correct, a message will show as below.



Step5. Click New and input a table name, Station1 in this case, in the database, and click OK to create table.

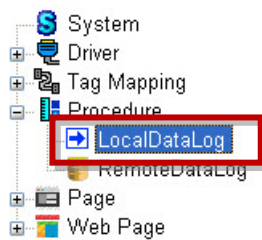


Step6. In the Column List, select DO Tags from drop-down list and select the tag name which will be recorded, DO0, DO1, DO2 and DO3 are selected in this case. Click Add New Column and the selected tags will be added to the column list.

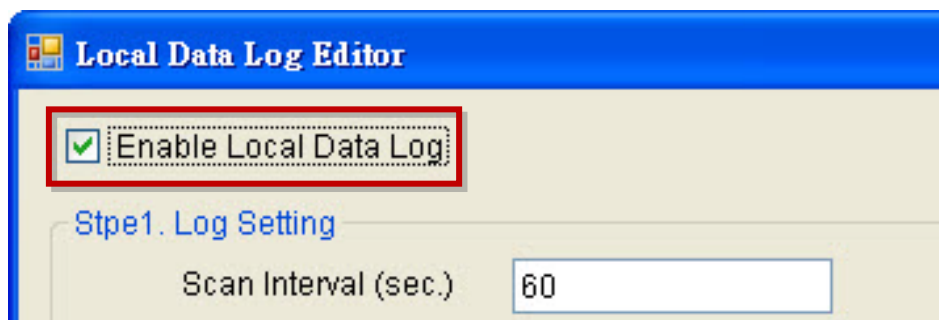


2.8.2 Local Data Log Configuration

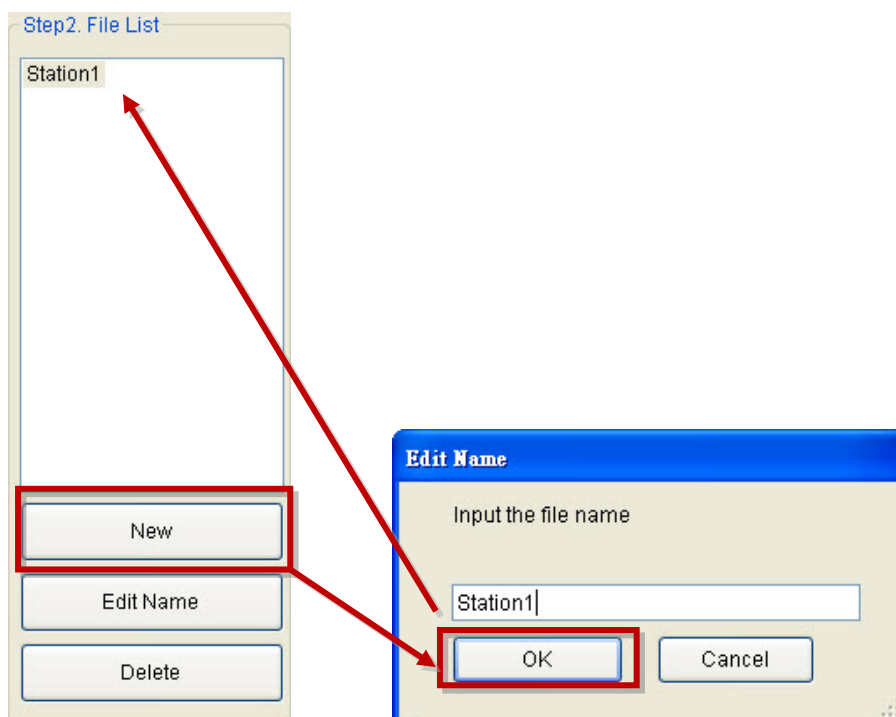
Step1. Unfold the Procedure and select LocalDataLog to open configured window.



Step2. Click the checkbox to enable the LocalDataLog.



Step3. Click New and input the record file name, Station1 in this case, in the Edit Name window. Click OK to create the file.



Step4. Select DO Tags from drop-down list and select the tag name which will be recorded, DO0, DO1, DO2 and DO3 are selected in this case. Click Add Header and the selected tags will be added to the record list.

Step3. Header List: Add tags to be record

D00
D01
D02
D03

DO Tags

Name	Memory Address	Description	Unit
D00	0	D00	
D01	1	D01	
D02	2	D02	
D03	3	D03	
D04	4	D04	

Edit Header

Delete

Name

Description (Header)

Unit

D00

D00

Add Header

2.9 Run eLogger Runtime on PAC

Step1. Copy the runtime files to PAC. For_WinPAC is copied to VP-25W1 in the case.



For_WinPAC supports [WinPAC series](#), [ViewPAC series](#).

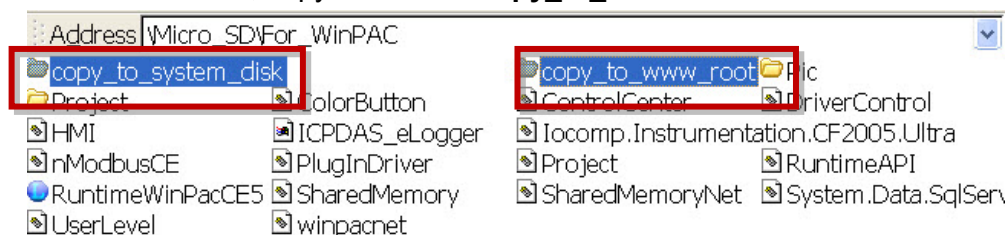
For_XP8000CE6 supports [XP-8000-Atom-CE6](#).

For_XP8000WES supports [XP-8000-Atom](#).

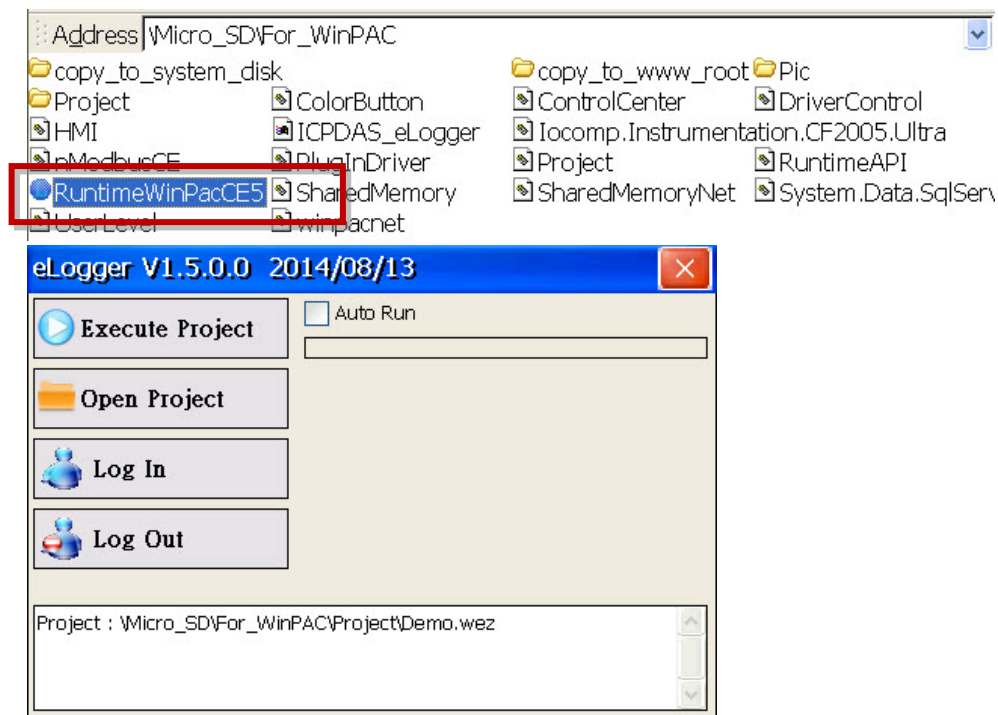
Step2. On PAC, copy all the files (base, WebBase) in the **copy_to_www_root** folder to HTTP www root.

For WinPAC and XP8000CE6, copy the files in **copy_to_system_disk** folder to the \System_Disk.

For XP8000WES, copy the files in **copy_to_windows** folder to the C:\Windows.

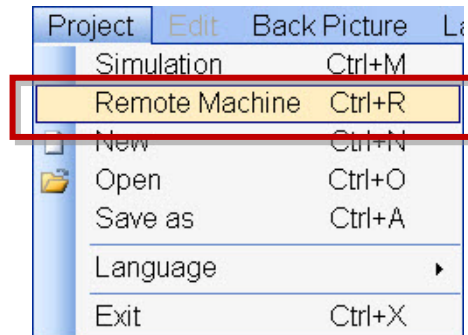


Step3. Execute RuntimeXXXX.exe. RuntimeWinPacCE5 is executed in this case.

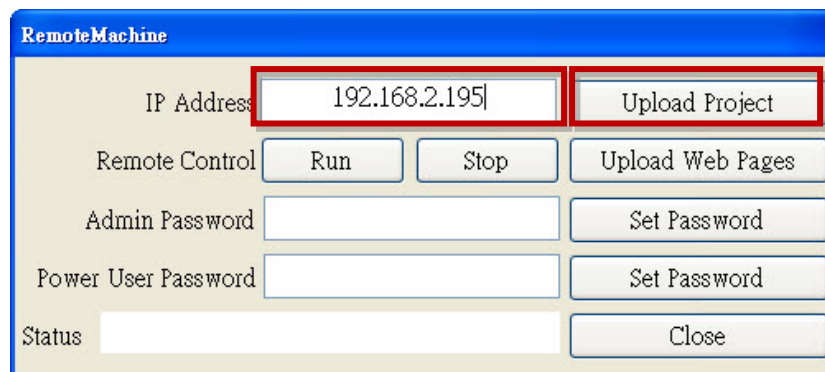


2.10 Upload the Project from eLogger Developer

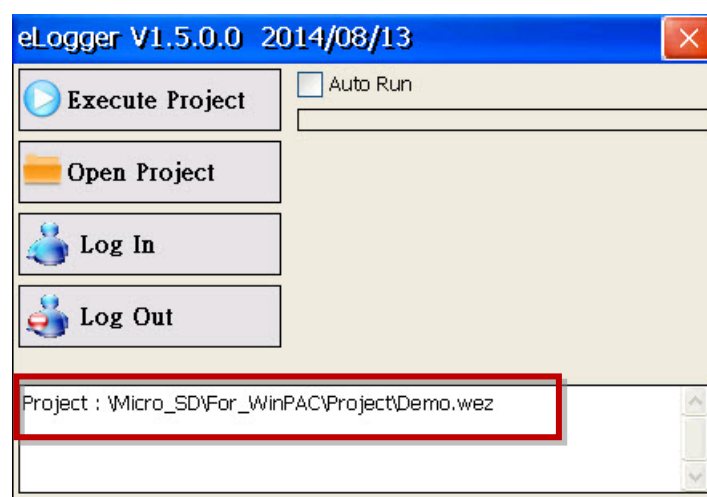
Step1. Click eLogger Developer's "Project" => "Remote Machine" to open RemoteMachine window.



Step2. Input the PAC's IP address, and then click "Upload Project".

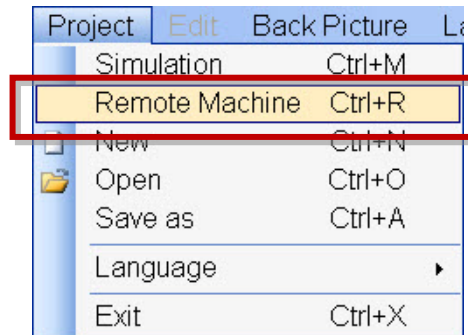


Step3. After the runtime program received the project, click "Run" in the RemoteMachine to run the project. The received message in the runtime program shows as below.

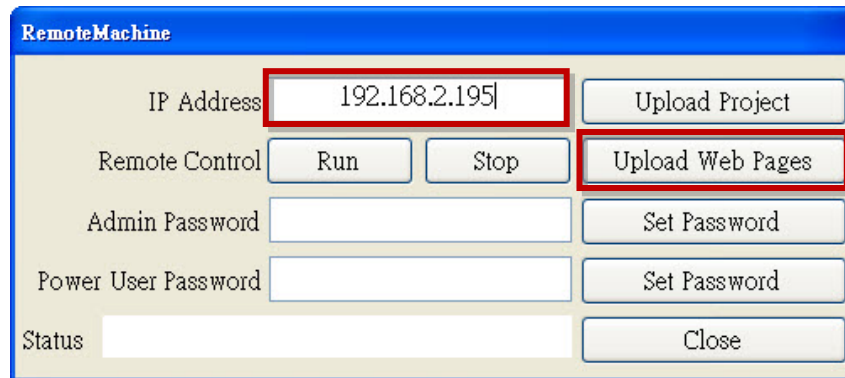


2.11 Upload the Web Pages from eLogger Developer

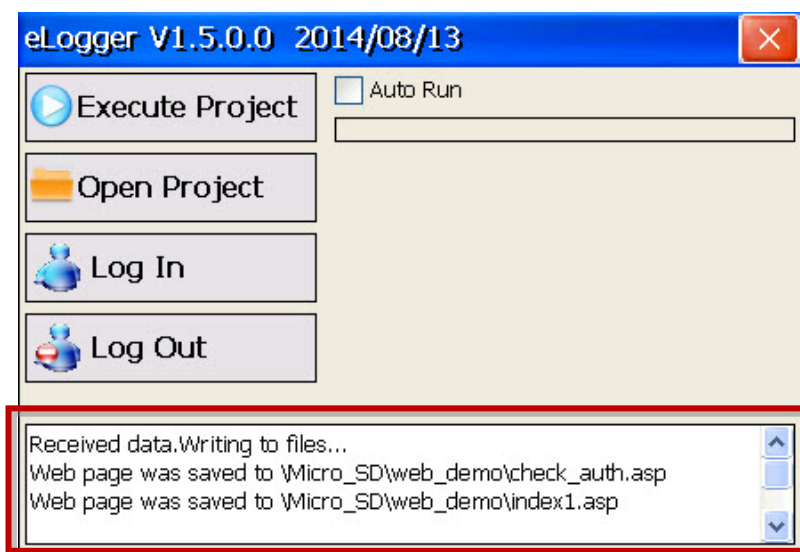
Step1. Click eLogger Developer's "Project" => "Remote Machine" to open the RemoteMachine window.



Step2. Input the PAC's IP address, and then click "Upload Web Pages". The web files and pictures (jpg, jpeg, png, gif and bmp picture files are all included) in the CE5Web, CE6Web or XPEWeb will be uploaded to the PAC.



Step3. When web pages upload finished, message in the runtime program will show as below.



Step4. Open the web browser and input the IP address of the PAC, for example, <http://192.168.2.195/>, and then you can browse the web page.

3. Supported Driver

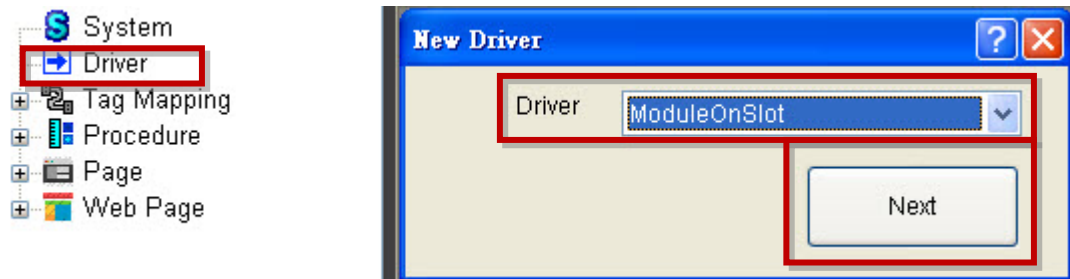
eLogger driver communicate with the I/O modules, and save the I/O values to the Shared Memory. Here are the eLogger supported driver lists, and the chapter will show you how to setup the driver.

- Module on Slot
- Modbus TCP
- Modbus Serial

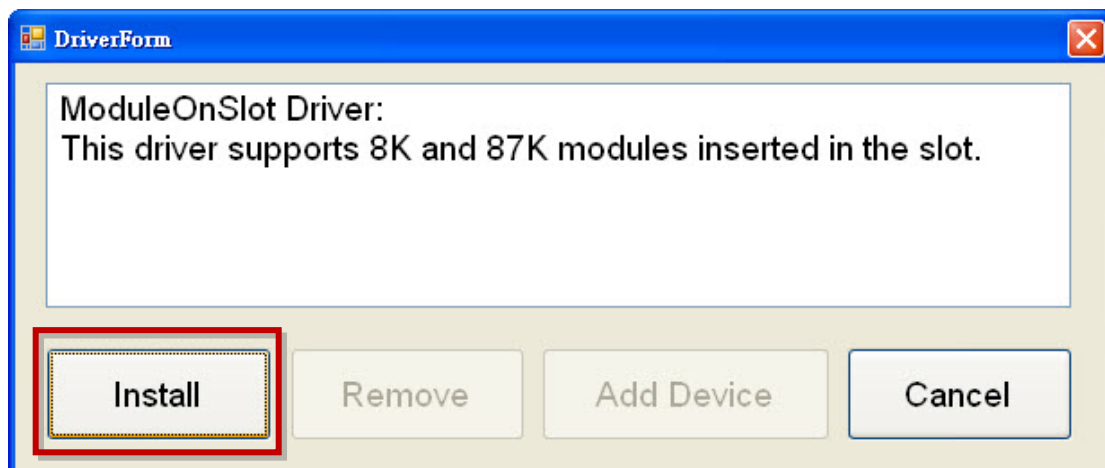
3.1 Module on Slot

This driver supports the I-8K, I-87K module on PAC's slot.

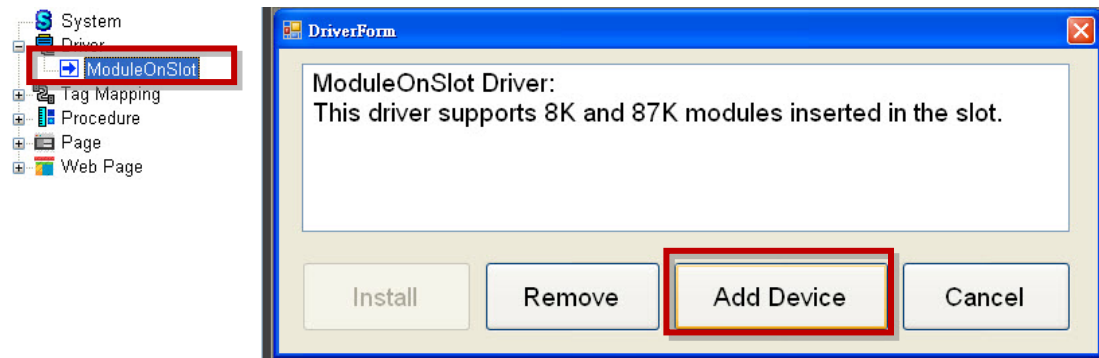
Step1. Select the Driver in the function list and select the ModuleOnSlot from the Driver drop-down menu, and then click "Next".



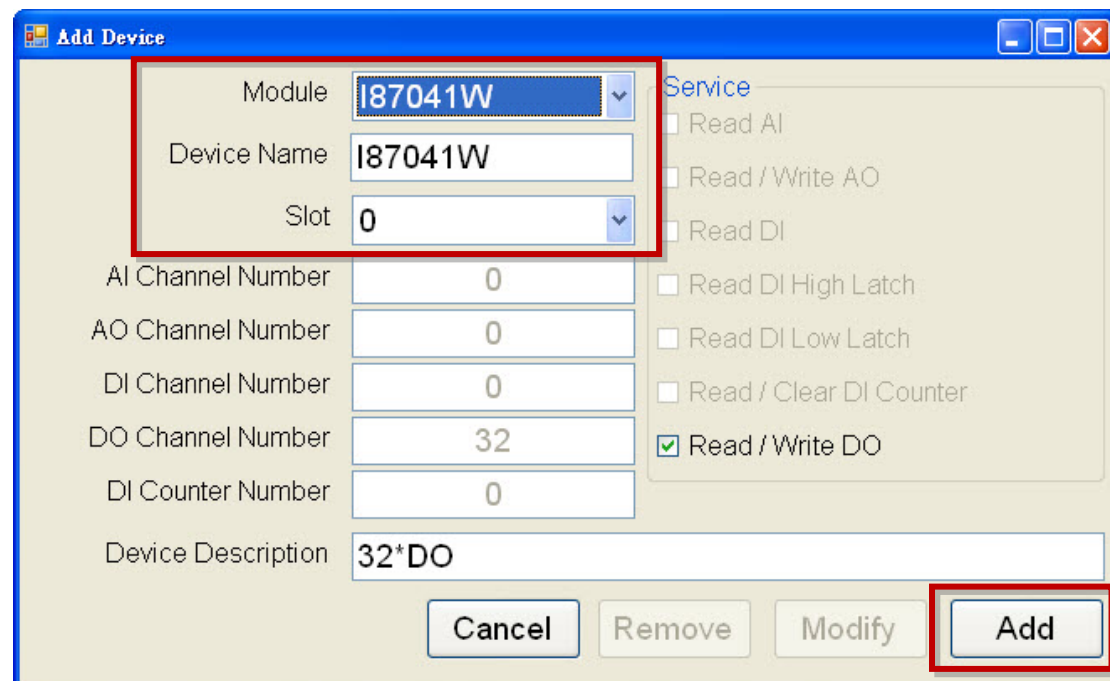
Step2. Click "Install" to go on next step.



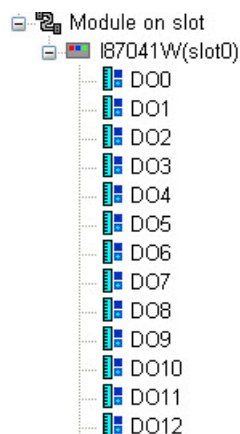
Step3. Select the ModuleOnSlot in the function list to open the DriverForm window.
Click “Add Device” to add a device to the driver.



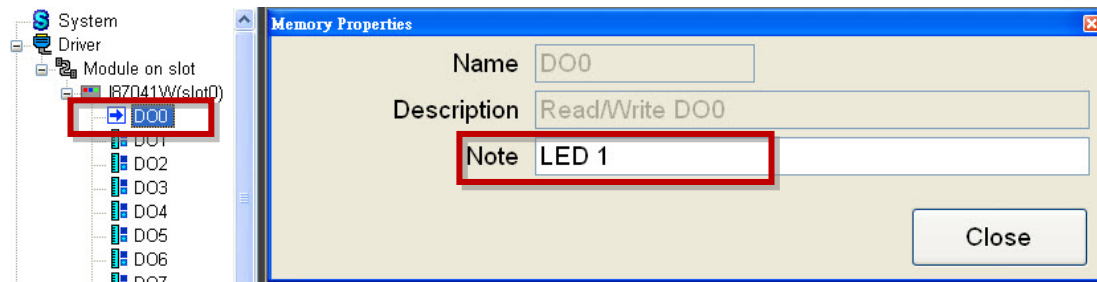
Step4. Select a module from drop-down menu, and select the slot number, and then click “Add”.



The device and it's channels will be showed on the list.

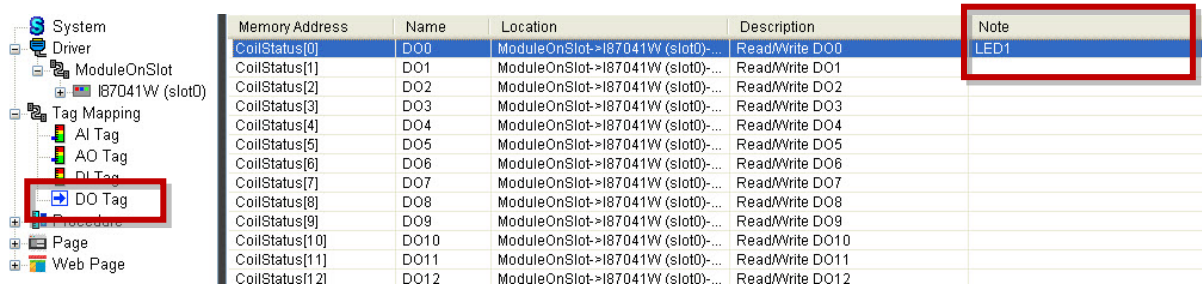


Step5. Select the channel and edit the channel's note.



The channels will map to the shared memory.

You can see them on "Tag Mapping".



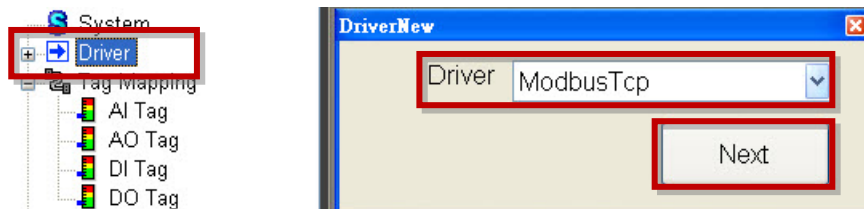
3.2 Modbus TCP

This driver supports Modbus TCP modules of ICPDAS, and standard Modbus TCP devices.

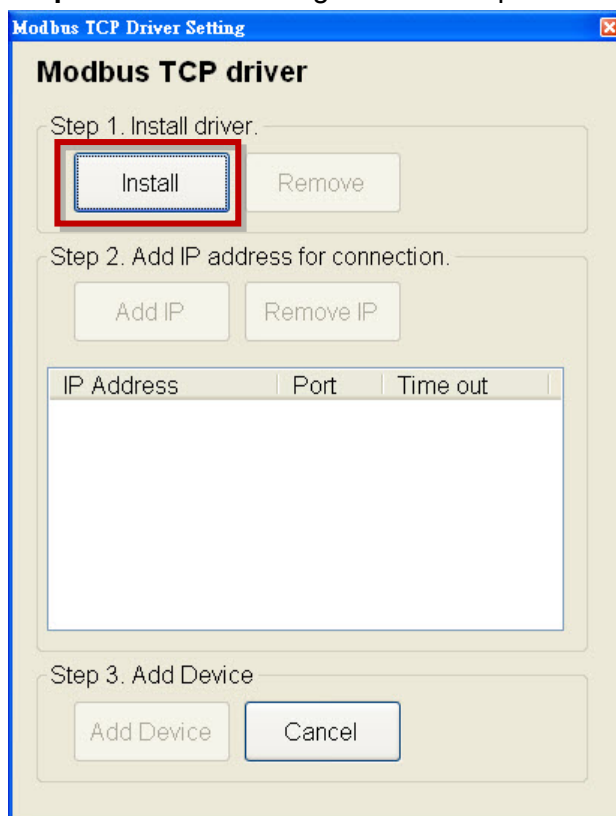
The driver uses Modbus command:

- FC1 Read multiple coils status (0xxxx) for DO
- FC2 Read multiple input discrete (1xxxx) for DI
- FC3 Read multiple registers (4xxxx) for AO
- FC4 Read multiple input registers (3xxxx) for AI
- FC5 Write single coil (0xxxx) for DO
- FC6 Write single register (4xxxx) for AO

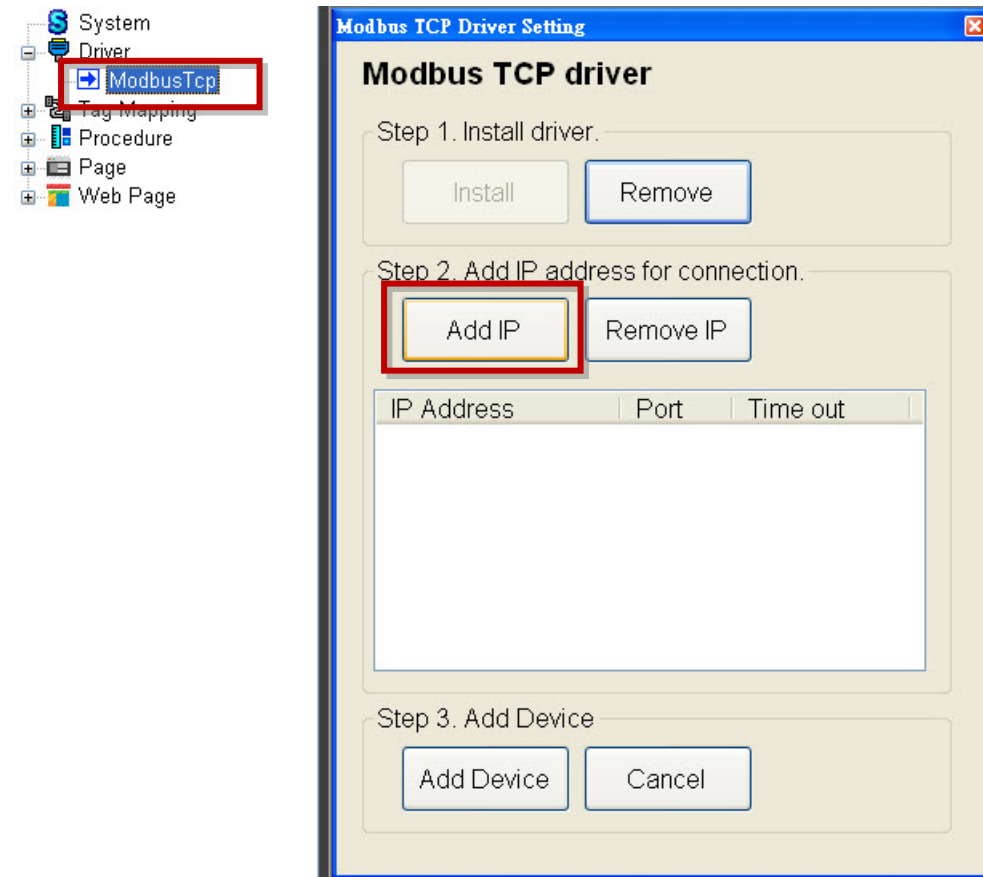
Step1. Select the Driver in the function list and select the ModbusTcp from the Driver drop-down menu, and then click “Next”.



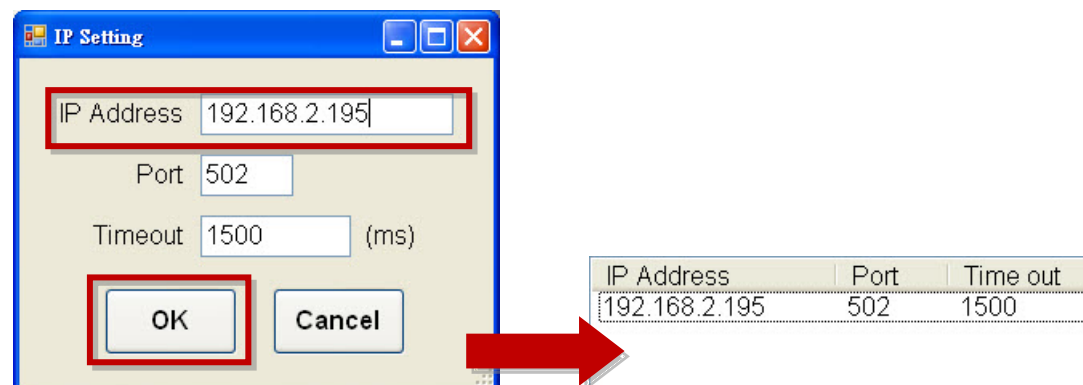
Step2. Click “Install” to go on next step.



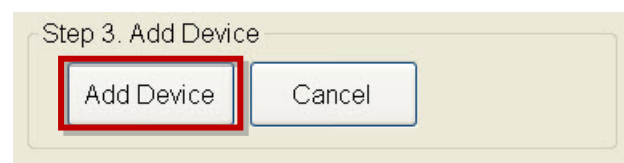
Step3. Select the ModbusTcp in the function list to open the setting window. Click “Add IP” to create a tcp connection for each IP address.



Step4. In the IP Setting window, input the IP address and click “OK”, and then it will show on the list.



Step5. Click “Add Device” to add a device.



Step6. Select a connection IP, and input a device name for identification, and then set the device's station address, which refers to slave ID or station ID. And then click "Add Register".

Device Setting

Device Information

Connect from IP: 192.168.2.195

Device Name: 195_Demo

Station Address: 1

Registers Setting

Add Register Remove Register

Register Definition List

Add Modify Remove Cancel

Step7. Select a module and the register will be filled automatically, and then click "OK".

Registers Setting

Module: ET-7018Z Description: 10*AI +6*DO

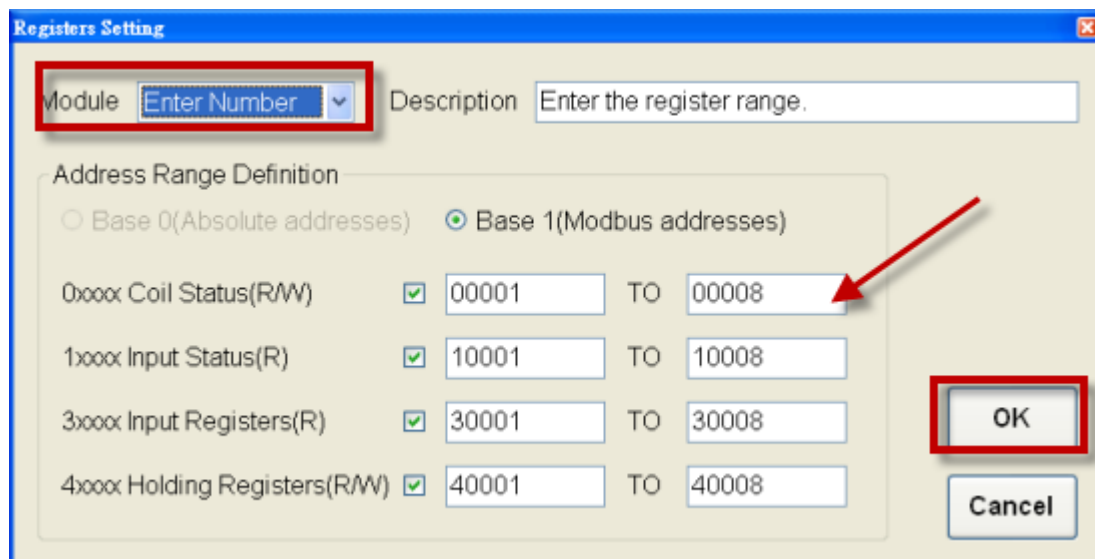
Address Range Definition

☐ Base 0(Absolute addresses) ☒ Base 1(Modbus addresses)

0xxxx Coil Status(R/W)	☒	00001	TO	00006
1xxxx Input Status(R)	☐		TO	
3xxxx Input Registers(R)	☒	30001	TO	30010
4xxxx Holding Registers(R/W)	☐		TO	

OK Cancel

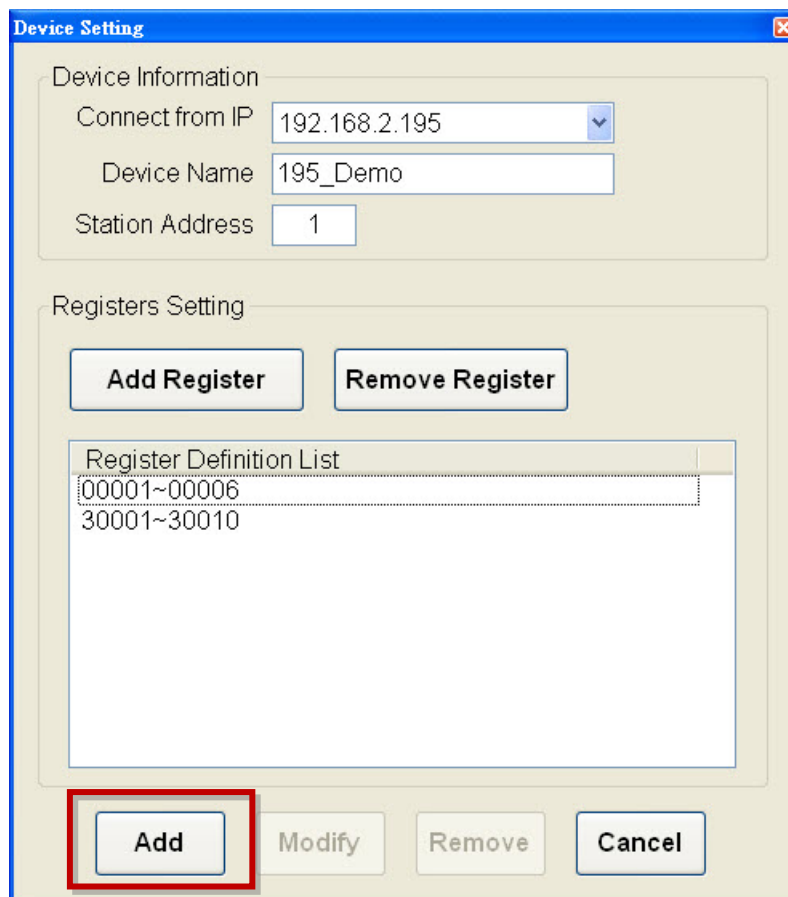
If the module isn't in the list, select "Enter Number" for filling the registers manually.



The "Registers Setting" dialog box is shown. The "Module" dropdown menu is set to "Enter Number" and is highlighted with a red box. The "Description" field contains the text "Enter the register range.". Under the "Address Range Definition" section, the "Base 1 (Modbus addresses)" radio button is selected. A table lists four register ranges, each with a checked checkbox, a start address, and an end address. A red arrow points to the end address "00008" of the first range. The "OK" button is highlighted with a red box.

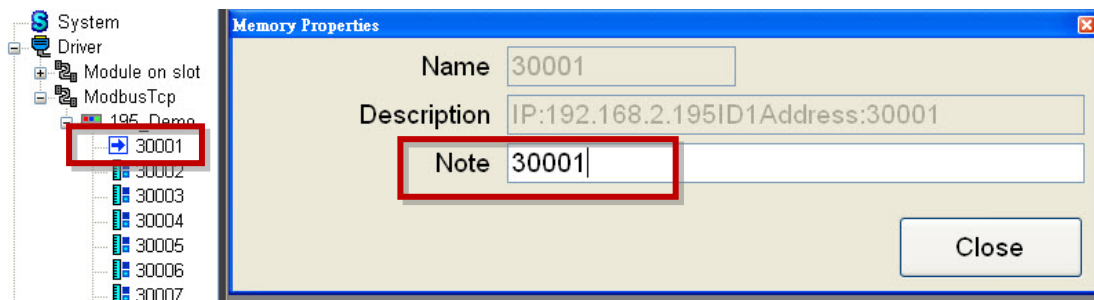
Address Range	Coil Status (RW)	Input Status (R)	Input Registers (R)	Holding Registers (RW)
0xxxx	00001 TO 00008			
1xxxx		10001 TO 10008		
3xxxx			30001 TO 30008	
4xxxx				40001 TO 40008

Step8. After the registers were added, click "Add" to add the device.



The "Device Setting" dialog box is shown. The "Device Information" section contains fields for "Connect from IP" (192.168.2.195), "Device Name" (195_Demo), and "Station Address" (1). The "Registers Setting" section contains "Add Register" and "Remove Register" buttons. Below these is a "Register Definition List" box containing the text "00001~00006" and "30001~30010". At the bottom, the "Add" button is highlighted with a red box.

Step9. Select the channel and edit the channel's note.



The channels will map to the shared memory.

You can see them on "Tag Mapping".

Memory Address	Name	Location	Description	Note
InputRegister[0]	30001	ModbusTcp->195_Demo->30001	IP:192.168.2.195ID1Address:30001	30001
InputRegister[1]	30002	ModbusTcp->195_Demo->30002	IP:192.168.2.195ID1Address:30002	
InputRegister[2]	30003	ModbusTcp->195_Demo->30003	IP:192.168.2.195ID1Address:30003	
InputRegister[3]	30004	ModbusTcp->195_Demo->30004	IP:192.168.2.195ID1Address:30004	
InputRegister[4]	30005	ModbusTcp->195_Demo->30005	IP:192.168.2.195ID1Address:30005	
InputRegister[5]	30006	ModbusTcp->195_Demo->30006	IP:192.168.2.195ID1Address:30006	
InputRegister[6]	30007	ModbusTcp->195_Demo->30007	IP:192.168.2.195ID1Address:30007	
InputRegister[7]	30008	ModbusTcp->195_Demo->30008	IP:192.168.2.195ID1Address:30008	
InputRegister[8]	30009	ModbusTcp->195_Demo->30009	IP:192.168.2.195ID1Address:30009	
InputRegister[9]	30010	ModbusTcp->195_Demo->30010	IP:192.168.2.195ID1Address:30010	

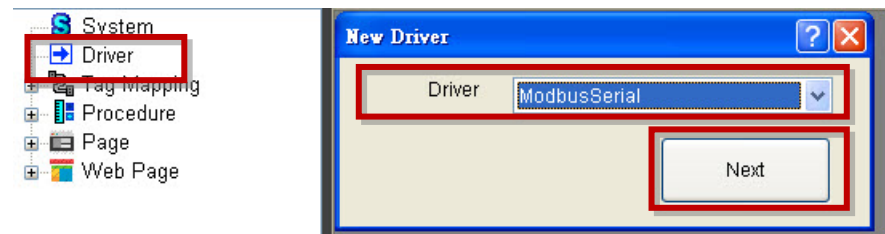
3.3 Modbus Serial

This driver supports Modbus RTU modules of ICPDAS, and standard Modbus RTU/ASCII devices.

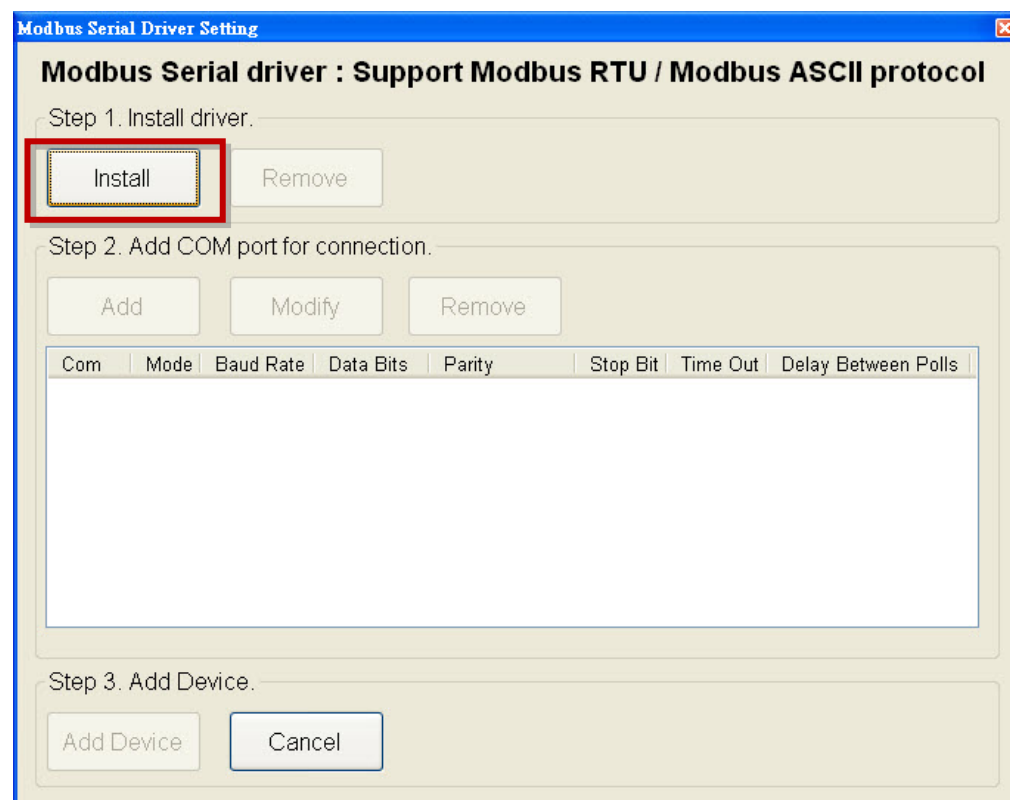
The driver uses Modbus command:

- FC1 Read multiple coils status (0xxxx) for DO
- FC2 Read multiple input discrete (1xxxx) for DI
- FC3 Read multiple registers (4xxxx) for AO
- FC4 Read multiple input registers (3xxxx) for AI
- FC5 Write single coil (0xxxx) for DO
- FC6 Write single register (4xxxx) for AO

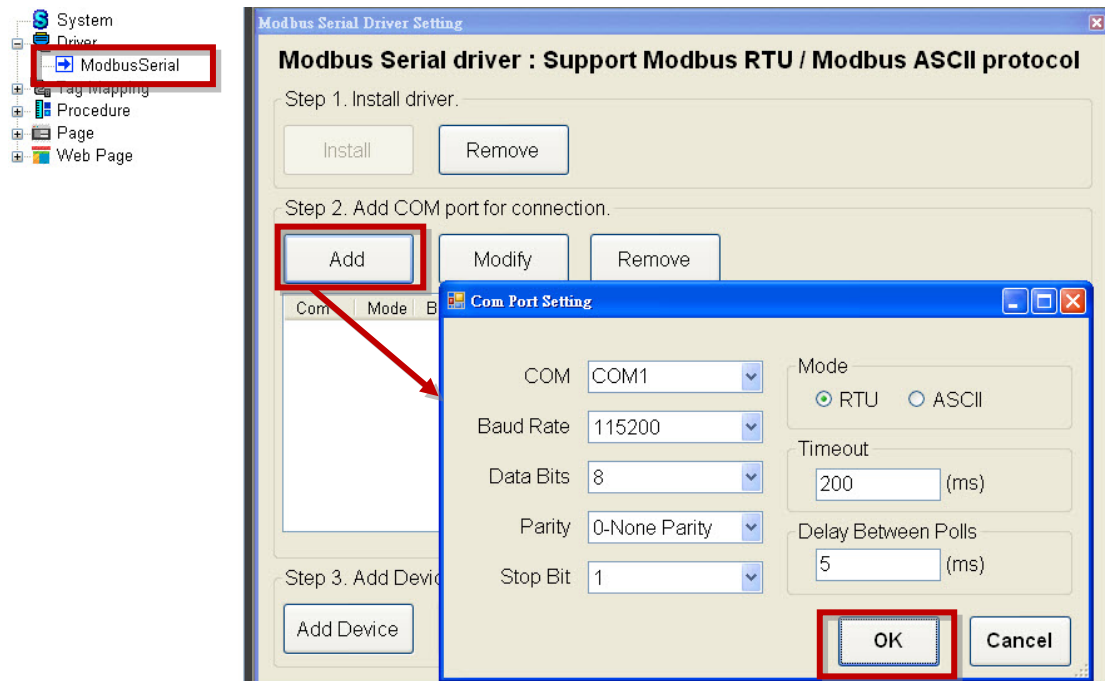
Step1. Select the Driver in the function list and select the ModbusSerial from the Driver drop-down menu, and then click “Next”.



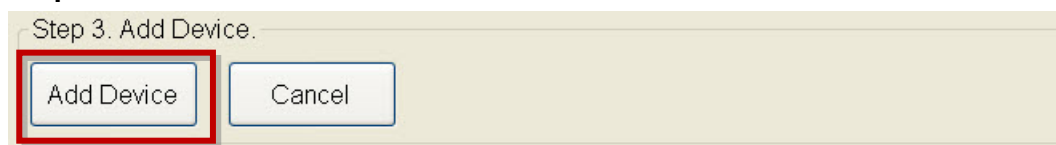
Step2. Click “Install” to go on next step.



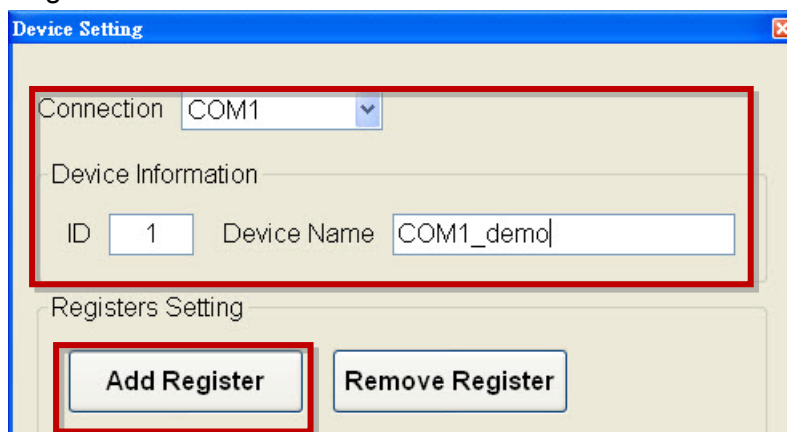
Step3. Select the ModbusSerial in the function list to open the setting window. Click “Add” to create a COM port connection to connect the Modbus serial devices.



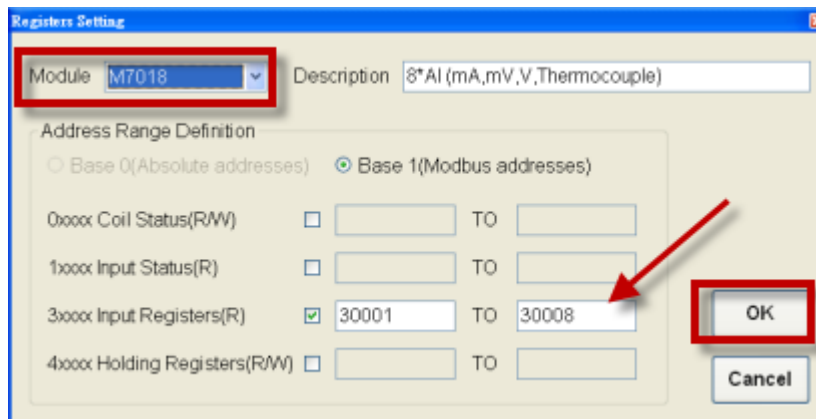
Step4. Click the “Add Device” to add a new device.



Step5. Select a connection COM port, input a name for identification, and set the device’s ID (equals to ID address, station ID, or address).And then click “Add Register”.

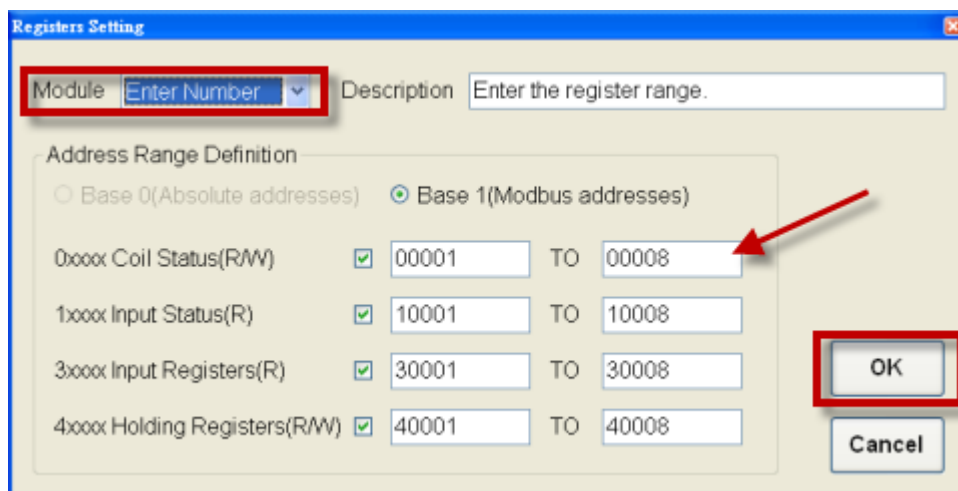


Step6. Select a module, and the register will be filled automatically.



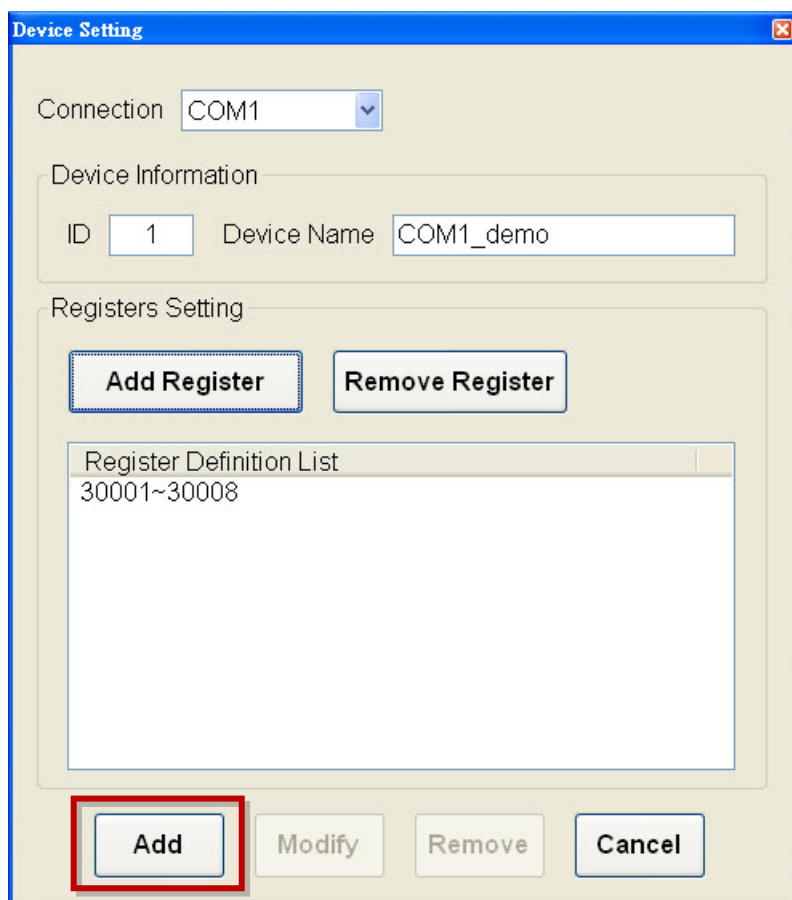
The 'Registers Setting' dialog box shows the 'Module' dropdown set to 'M7018'. The 'Description' field contains '8*AI (mA,mV,V,Thermocouple)'. Under 'Address Range Definition', 'Base 1 (Modbus addresses)' is selected. The '3xxx Input Registers(R)' row is checked, with the start address '30001' and end address '30008' filled in. A red arrow points to the '30008' field. The 'OK' button is highlighted with a red box.

If the module isn't in the list, select "Enter Number" for filling the registers manually.

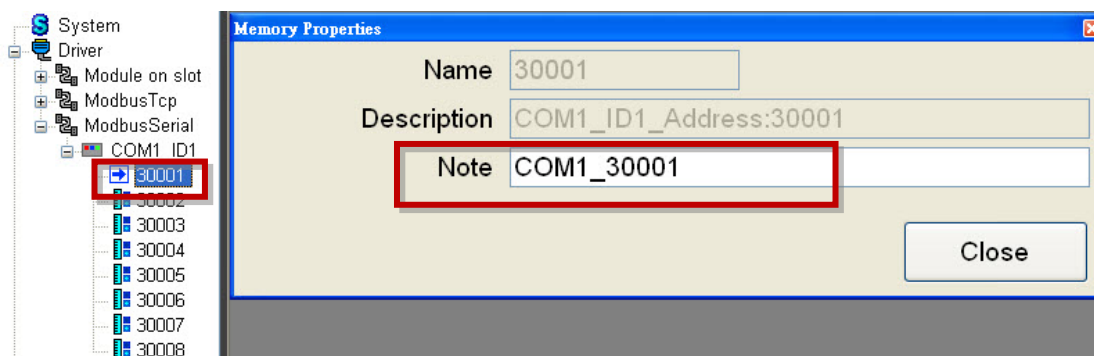


The 'Registers Setting' dialog box shows the 'Module' dropdown set to 'Enter Number'. The 'Description' field contains 'Enter the register range.'. Under 'Address Range Definition', 'Base 1 (Modbus addresses)' is selected. All four rows are checked: '0xxx Coil Status(R/W)' (00001 to 00008), '1xxx Input Status(R)' (10001 to 10008), '3xxx Input Registers(R)' (30001 to 30008), and '4xxx Holding Registers(R/W)' (40001 to 40008). A red arrow points to the '00008' field in the first row. The 'OK' button is highlighted with a red box.

Step7. After the registers were added, click “Add” to add the device.

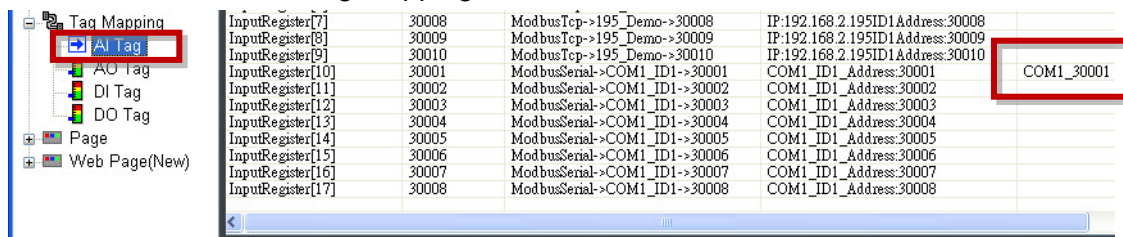


Step8. Select the channel and edit the channel's note.



The channels will map to the shared memory.

You can see them on “Tag Mapping”.

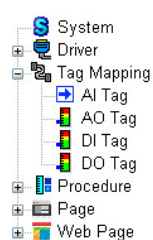


4. Tag Mapping

The Tag Mapping lists channels of all devices added in the project, and automatically arrays them by Shared Memory addresses sequentially. You can add new tags assigned special Shared Memory addresses, and set the properties in need.

The following description will show you how to set Tag property.

Shared Memory address starts from "0".



Memory Address	Name	Location	Description	Note
InputRegister[0]	30001	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30001	COM1_30001
InputRegister[1]	30002	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30002	
InputRegister[2]	30003	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30003	
InputRegister[3]	30004	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30004	
InputRegister[4]	30005	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30005	
InputRegister[5]	30006	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30006	
InputRegister[6]	30007	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30007	
InputRegister[7]	30008	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30008	
InputRegister[8]	30001	ModbusTcp->195_Demo->30001	IP:192.168.2.195ID1Address:30...	30001
InputRegister[9]	30002	ModbusTcp->195_Demo->30002	IP:192.168.2.195ID1Address:30...	
InputRegister[10]	30003	ModbusTcp->195_Demo->30003	IP:192.168.2.195ID1Address:30...	
InputRegister[11]	30004	ModbusTcp->195_Demo->30004	IP:192.168.2.195ID1Address:30...	
InputRegister[12]	30005	ModbusTcp->195_Demo->30005	IP:192.168.2.195ID1Address:30...	
InputRegister[13]	30006	ModbusTcp->195_Demo->30006	IP:192.168.2.195ID1Address:30...	

4.1 Add new Tags

Step1

Step2

Step3

Step4

Memory Address	Name	Location	Description	Note
InputRegister[0]	30001	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30001	COM1_30001
InputRegister[1]	30002	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30002	
InputRegister[2]	30003	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30003	
InputRegister[3]	30004	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30004	
InputRegister[4]	30005	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30005	
InputRegister[5]	30006	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30006	
InputRegister[6]	30007	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30007	
InputRegister[7]	30008	ModbusSerial->COM1_demo->3...	COM1_ID1_Address:30008	
InputRegister[8]	30001	ModbusTcp->195_Demo->30001	IP:192.168.2.195ID1Address:30...	30001
InputRegister[9]	30002	ModbusTcp->195_Demo->30002	IP:192.168.2.195ID1Address:30...	
InputRegister[10]	30003	ModbusTcp->195_Demo->30003	IP:192.168.2.195ID1Address:30...	
InputRegister[11]	30004	ModbusTcp->195_Demo->30004	IP:192.168.2.195ID1Address:30...	
InputRegister[12]	30005	ModbusTcp->195_Demo->30005	IP:192.168.2.195ID1Address:30...	
InputRegister[13]	30006	ModbusTcp->195_Demo->30006	IP:192.168.2.195ID1Address:30...	

Tag Name	Description	Memory Address	Data Type	Gain	Offset	Range
AI0	AI0	0	16-bit Signed Integer	1	0	-32768.000~3...
AI1	AI1	1	16-bit Signed Integer	1	0	-32768.000~3...
AI2	AI2	2	16-bit Signed Integer	1	0	-32768.000~3...
AI3	AI3	3	16-bit Signed Integer	1	0	-32768.000~3...
AI4	AI4	4	16-bit Signed Integer	1	0	-32768.000~3...

Step1. Select the Tag list.

Step2. Click "New Tag" -> input the number of new tags -> "OK".



Step3. Select Tag. (You also can drag to select all tags with left mouse button.)

Step4. Input the Shared Memory address in the Memory Address text box.

4.2 Edit Tag (batch edit supported)

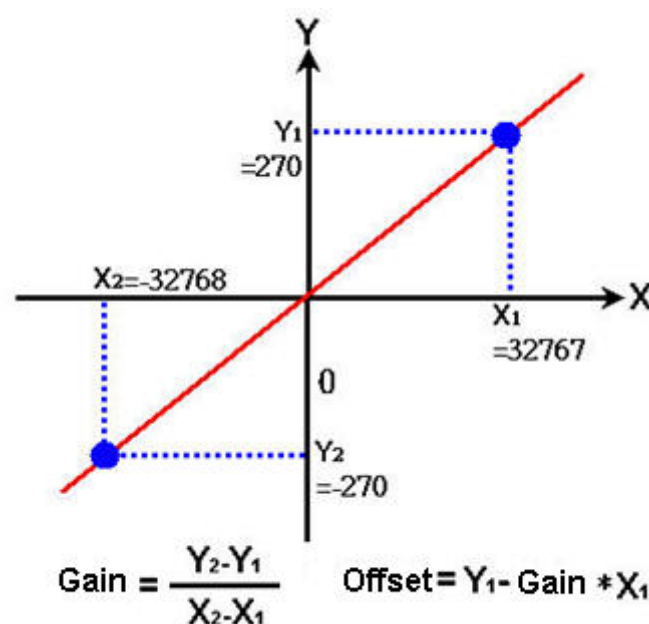
New Tag		Delete Tag		Scaling	
Tag Name	Description	Memory Address	Data Type	Gain	Offset
A10	Voltage of battery	0	16-bit Signed Integer	0.00015259	0

Tag Name	Description	Memory Address	Data Type	Gain	Offset	Range
A10	Voltage of battery	0	16-bit Signed Integer	0.00015259	0.000	-5.000~5.000
A11	A11	1	16-bit Signed Integer	1	0	-32768.000~32767.000
A12	A12	2	16-bit Signed Integer	1	0	-32768.000~32767.000
A13	A13	3	16-bit Signed Integer	1	0	-32768.000~32767.000
A14	A14	4	16-bit Signed Integer	1	0	-32768.000~32767.000

- ✓ Tag Name: You can specify a name easy to identify.
- ✓ Description: You can edit the tag's description.
- ✓ Data Type: Select the input/output type of channel.

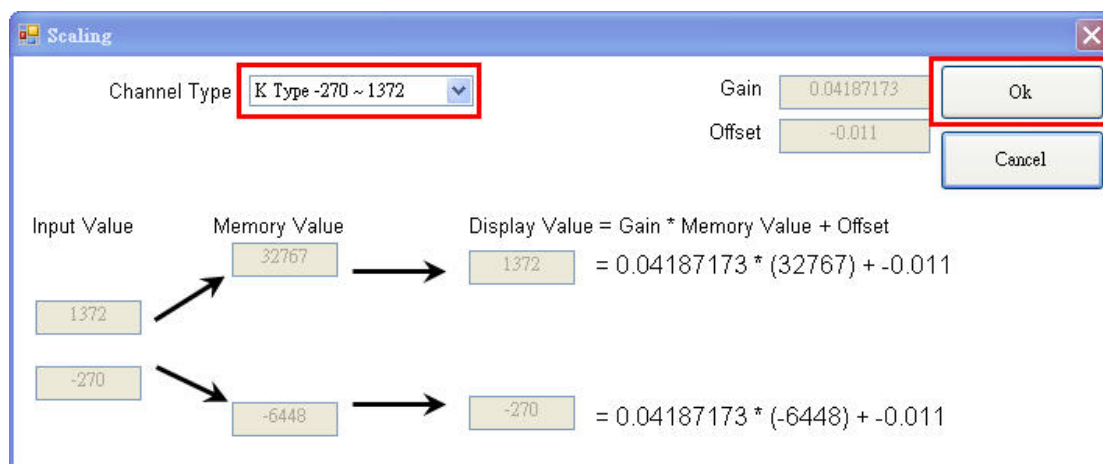
Data Type	Shared Memory address use
16-bit Signed Integer	1
16-bit Unsigned Integer	1
32-bit Signed Long	2
32-bit Unsigned Long	2
32-bit Float	2

- ✓ Gain, Offset: Set gain and offset can scale the memory value to another physical unit. To obtain these two values first find out two sets of value and do operation by the formula provided below.(Example: display the temperature -270~270)

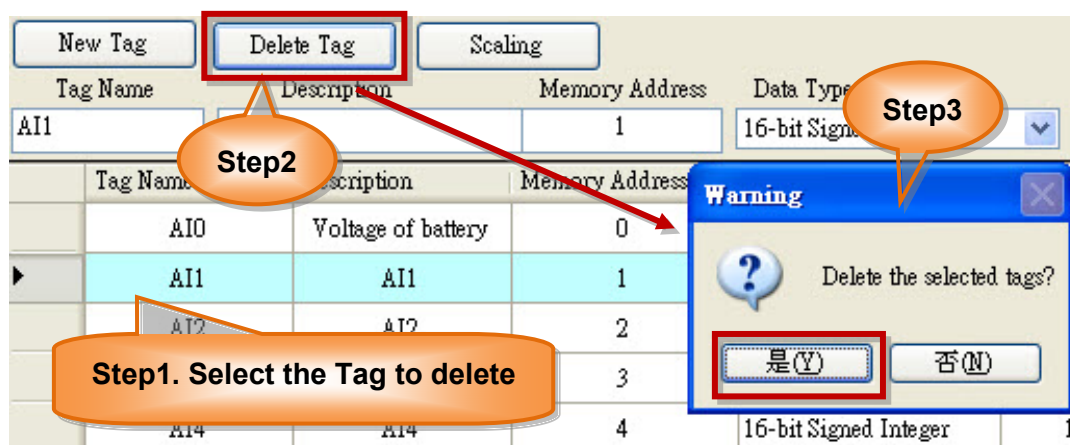


4.3 Scaling

The scaling tool helps you automatically get the “Gain” value and “Offset” value. Press the “Scaling” button, select the “Channel Type” you need, and then press the “OK” button.



4.4 Delete Tag



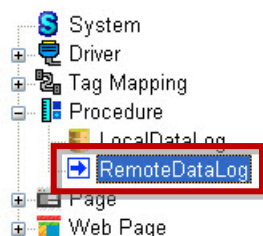
5. Data Log

5.1 Remote Data Log

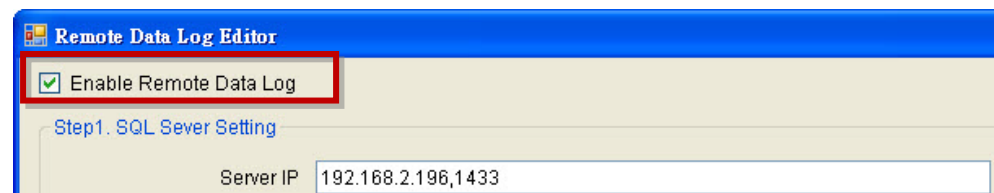
The RemoteDataLog can transfer I/O data to the Microsoft SQL Server in PC. The version of Microsoft SQL Server is 2005 or later.

To query the data of SQL Server, besides login to SQL Server and send SQL command to get data, you can use a web page that generated by eLogger to query the SQL Server.

Step1. Unfold the Procedure and select RemoteDataLog to open configured window.



Step2. Click the checkbox to enable the RemoteDataLog.



Step3. Input the IP address to Server IP text field.

Input username and password to User Name and User Password text field.

Input the scan rate to Scan Interval text field. The default value for Scan Interval is 60 seconds.

The Database Name text field is to set the name of the database.

Both of database path and backup path are required.

Step1. SQL Server Setting

Server IP	192.168.2.191,1433	Server Connectivity Check Copy Table Setting From LocalDataLog Test SQL on Web
User Name	sa	
User Password	****	
Scan Interval (sec.)	60	
Database Name	DODatabase	
Database Path	C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Data\	
Database Backup Path	C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Backup\	

Step4. Click Server Connectivity Check to confirm the connection and account information.

Step1. SQL Server Setting

Server IP	192.168.2.191,1433	Server Connectivity Check Copy Table Setting From LocalDataLog Test SQL on Web
User Name	sa	
User Password	****	
Scan Interval (sec.)	60	
Database Name	DODatabase	
Database Path	C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Data\	
Database Backup Path	C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Backup\	

If the IP address, username and password are correct, a message will show as below.



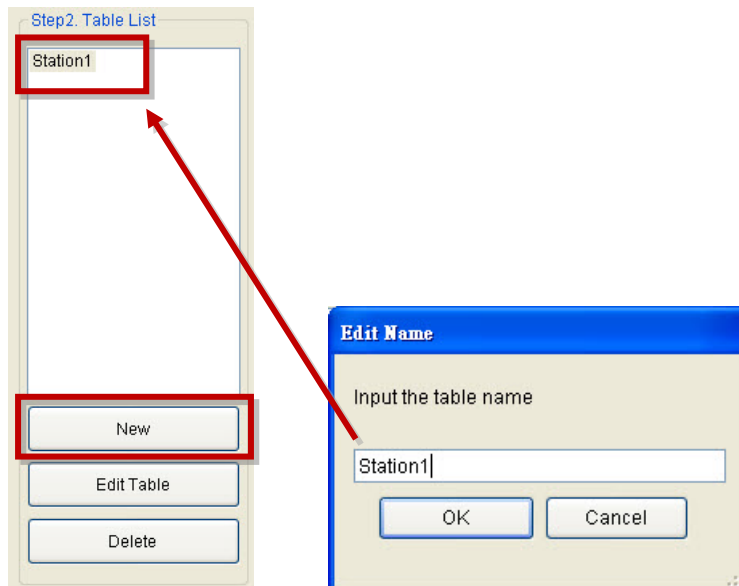
If the IP address, username and password are correct, but the database name already exists, a message will show as below.



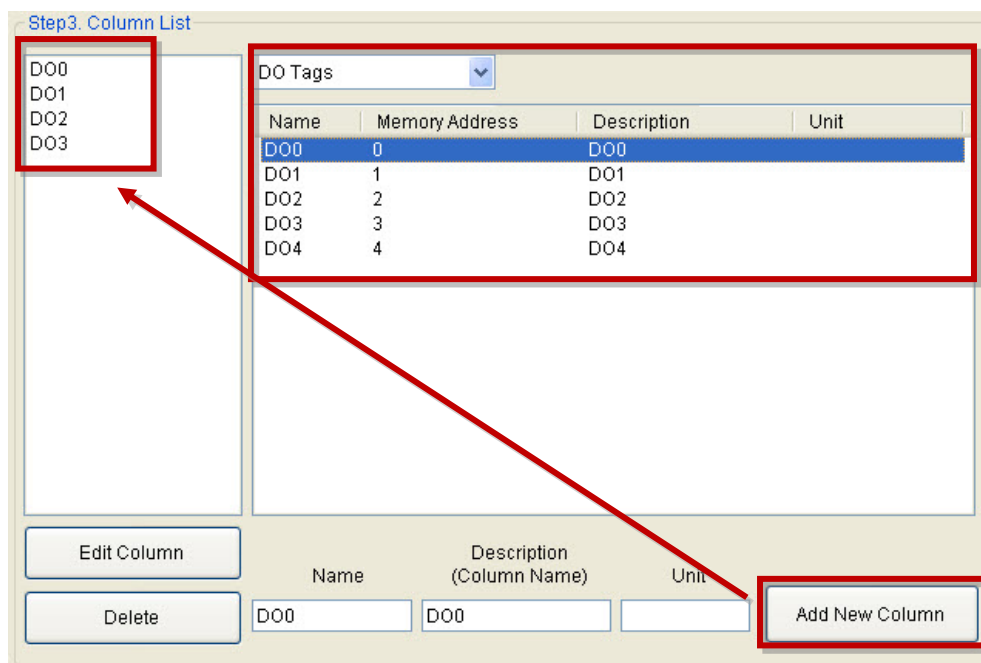
If the username or password is incorrect, a message will show as below.



Step5. Click New and input a table name in the database, and click OK to create table.



Step6. In the Column List, select DO Tags from drop-down list and select the tag name which will be recorded. Click Add New Column and the selected tags will be added to the column list.



Step7. To query the data in the SQL Server, click “Test SQL on Web” and eLogger will create a web page named xxx.asp and use the account information to login. Xxx stands for the database name.

Server IP	192.168.2.191,1433	Server Connectivity Check
User Name	sa	
User Password	****	Copy Table Setting From LocalDataLog
Scan Interval (sec.)	60	Test SQL on Web
Database Name	DODatabase	

The web page will be opened by the default browser, and list all tables in the database. Set the Start Date, End Date and table, and then click Search.

← → ↻ 🏠 127.0.0.1/DODatabase.asp

IP address 192.168.2.191,1433
 Username sa
 Database DODatabase

Start Date
 End Date
 Choose a Table

The result will show on the web page. Click Save file can save the result as a csv format file.

← → ↻ 🏠 127.0.0.1/DODatabase.asp

IP address 192.168.2.191,1433
 Username sa
 Database DODatabase

Start Date
 End Date
 Choose a Table

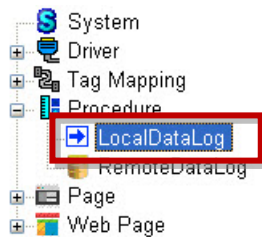
Total Record = 19

Index	Time	DO0	DO1	DO2	DO3
6	2015/7/9 12:14:04	1	0	1	0
7	2015/7/9 12:15:04	0	1	0	1
8	2015/7/9 12:16:04	0	1	0	1
9	2015/7/9 12:17:04	1	1	0	1
10	2015/7/9 12:18:04	1	1	1	1
11	2015/7/9 12:19:04	1	1	1	1
12	2015/7/9 12:20:04	0	1	1	0

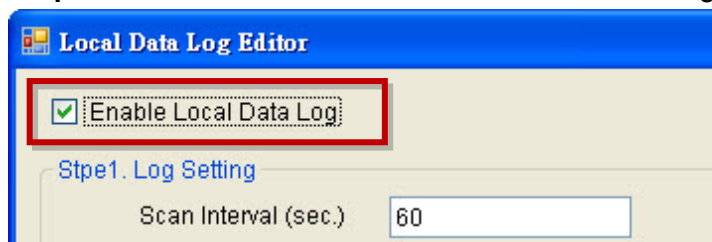
5.2 Local Data Log

The I/O data can be recorded to the storage device of PAC, such as SD memory card. The file is saved as csv format, and the file can be opened by Microsoft Access or Microsoft Excel.

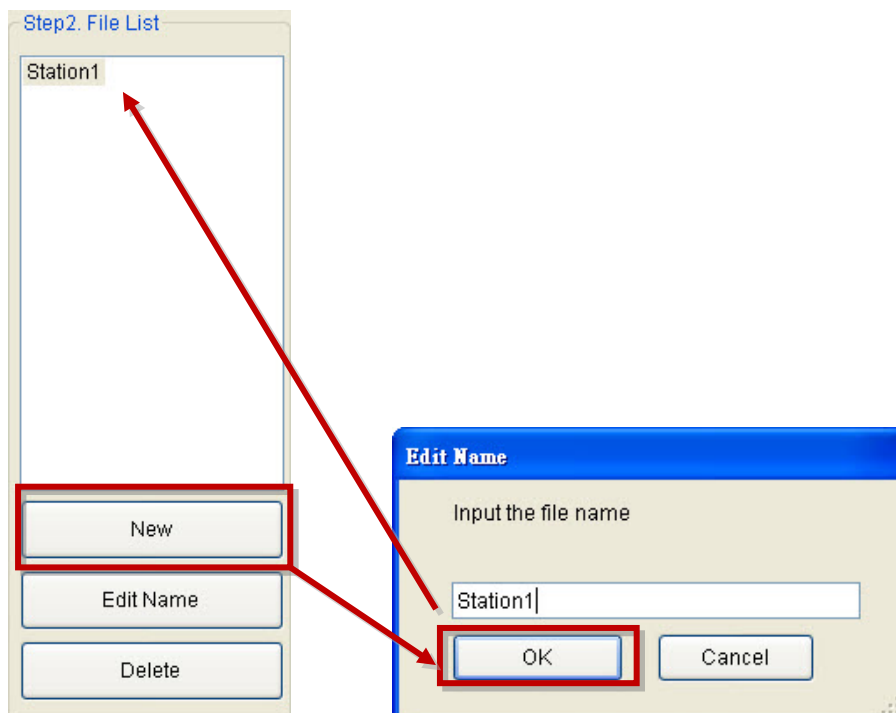
Step1. Unfold the Procedure and select LocalDataLog to open configured window.



Step2. Click the checkbox to enable the LocalDataLog.



Step3. Click New and input the record file name in the Edit Name window. Click OK to set the record file name.



Step4. Select DO Tags from drop-down list and select the tag name which will be recorded. Click Add Header and the selected tags will be added to the record list.

Step3. Header List: Add tags to be record

D00
D01
D02
D03

DO Tags

Name	Memory Address	Description	Unit
D00	0	D00	
D01	1	D01	
D02	2	D02	
D03	3	D03	
D04	4	D04	

Edit Header

Delete

Name

D00

Description (Header)

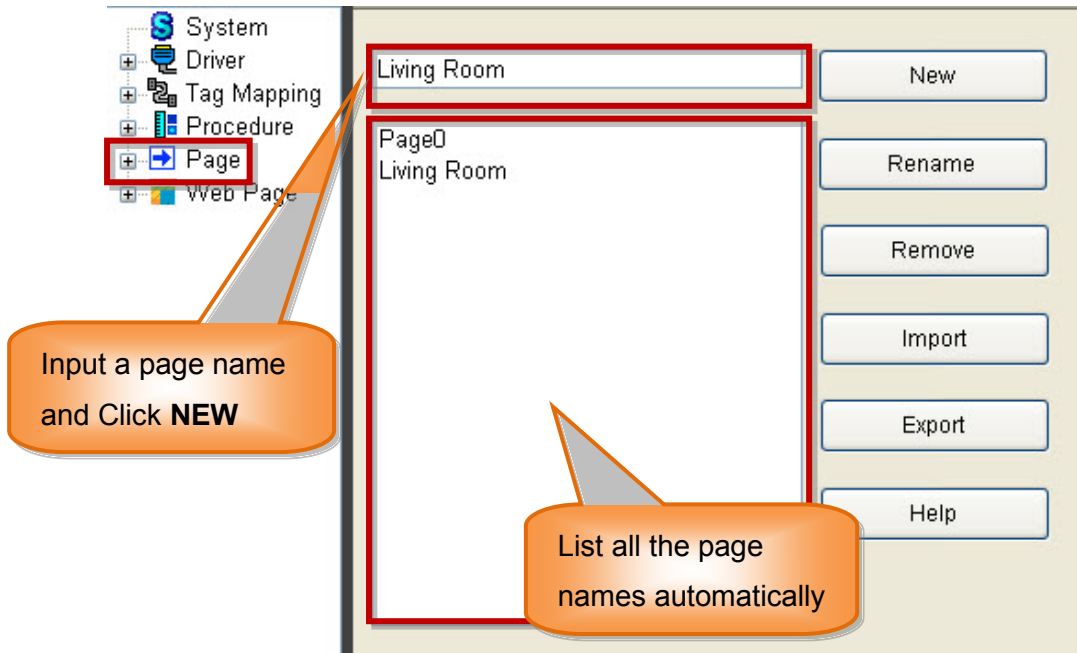
D00

Unit

Add Header

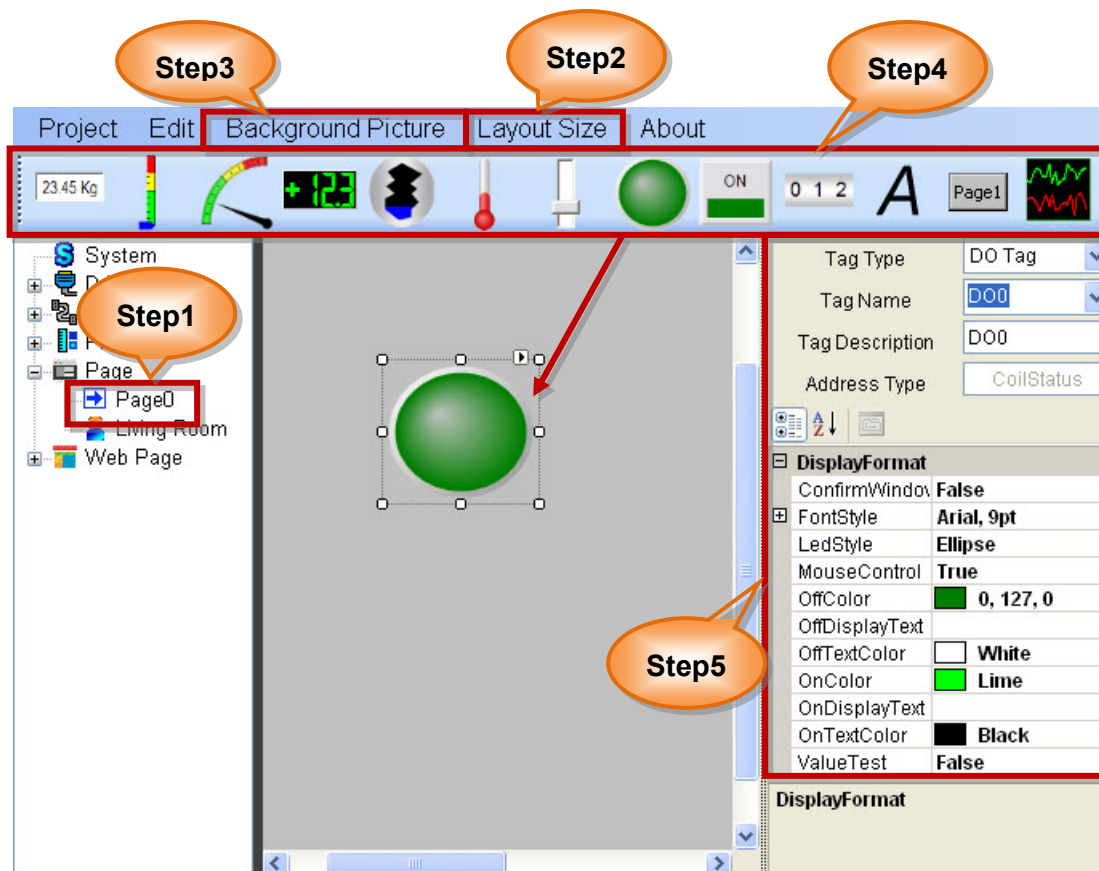
6. Layout Pages

6.1 Page Menu



- ✓ New: Add a new page to design.
- ✓ Rename: Select an exist page, and click "Rename", and then enter new name.
- ✓ Remove: Select an exist page, and click "Remove".
- ✓ Import: Import page file.
- ✓ Export: Export page file.

6.2 Design Page



Step1. Select a page to edit.

Step2. The default page size is 640x480, you can change size by "Layout Size".

Step3. The background picture can be set by selecting "Background Picture" from the menu. It will open the default folder named **Pic**, select a picture file and click "open" to set as back picture. If the picture doesn't exist in the Pic folder, program will automatically duplicate the picture to the Pic folder.

Step4. In the component list, add a proper component into the page by "click" the component and drag it on the layout.

Step5. Select the object and set its property (select "Tag Type" -> select "Tag Name").

6.3 Button Type

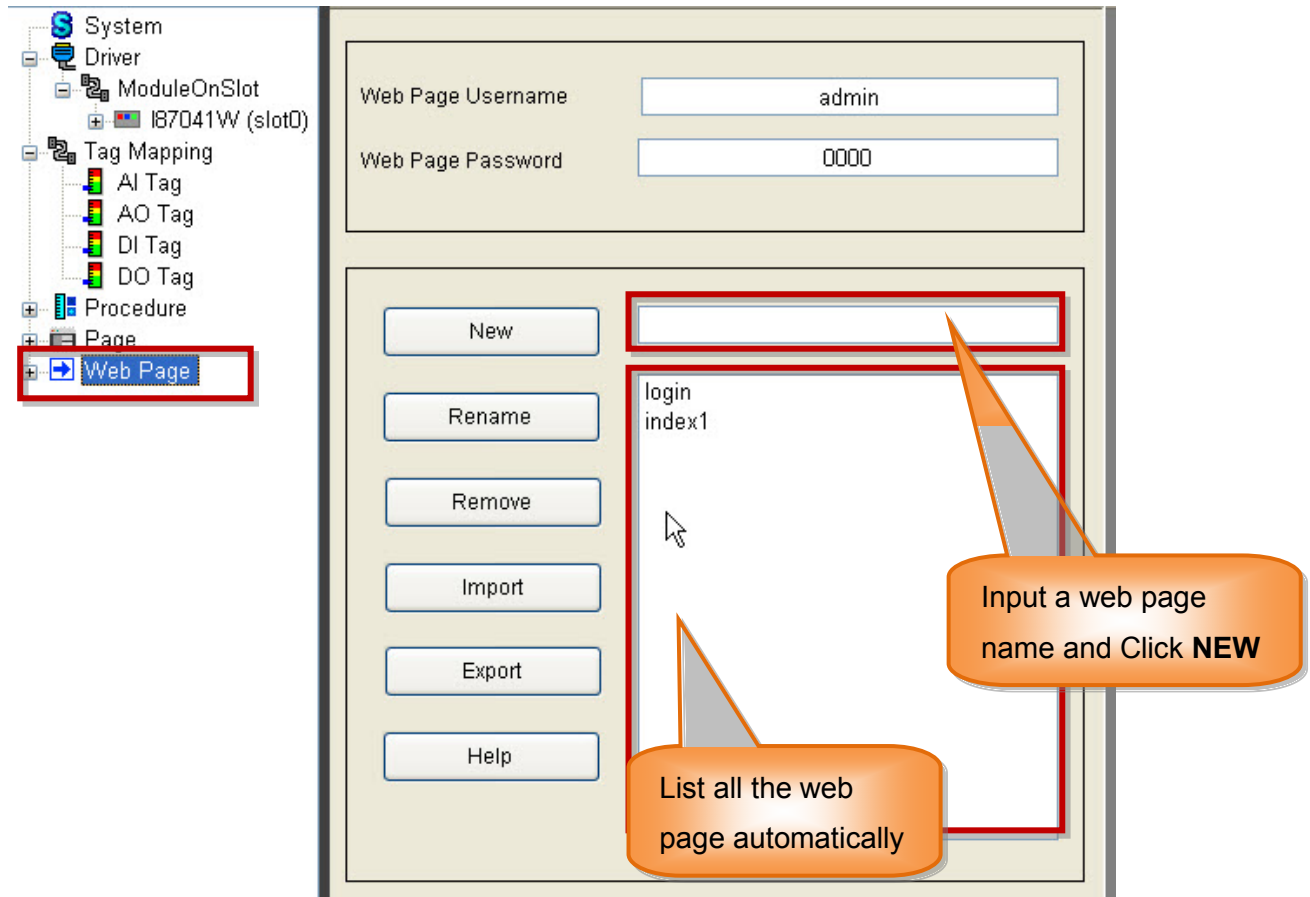
Button Type	Description
Run	"Start" and "Stop" project.
Simulation	Simulation value.
SwitchPage	Switch to the page, you have to assign the page name.
Exit	Return to eLogger Runtime menu.
LogIn	Enter password to log in as "power user" or "Admin".

6.4 HMI Component Property

Property Name	Description
MouseControl	Enable or disable the mouse control to set output
Decimal	Decimal number
Unit	The unit string will be added after the value
ColorSection	A color range from start to stop (Gauge)
GaugeAngle	The gauge angle is start with GaugeAngleMin, and the span is the GaugeAngleSpan
Scale	The value will be displayed from minimum to maximum.
Show_Sign	Show the sign on the left
DigitalNumber	The total length of the number (NumberLED)
TestValue	Input the value to test the display
BackColor	Background color
Fore_Color	The font color
ConformWindow	Popup window to confirm DO output.
DisplayText	Specifies the text displayed on the indicator
FontStyle	The font size and font face.
LedStyle	Specifies the indicator style
OffColor 、 OnColor	The color when DI/O value is false or true
OffDisplatText 、 OnDisplatText	Specifies the text on the indicator when DI/O value is off or on
OffTextColor 、 OnTextColor	The color of the text when DI/O value is false or true

7. Web Page

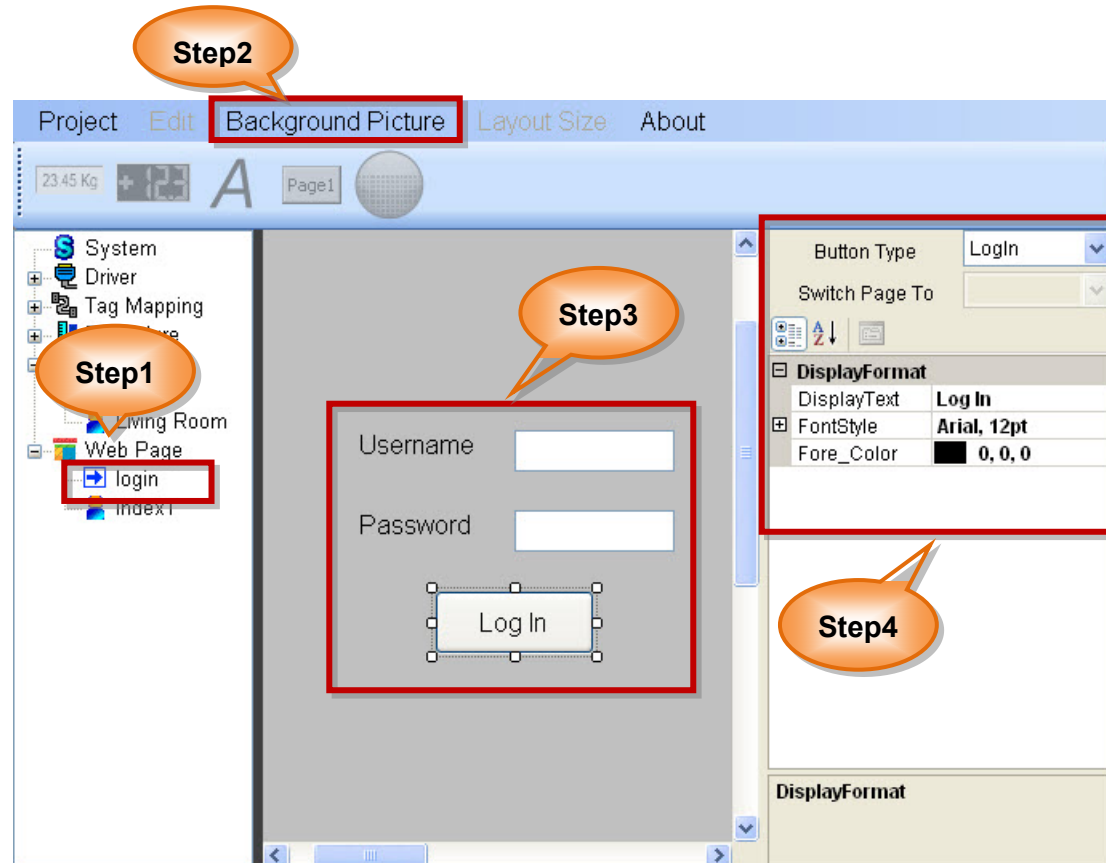
7.1 Web Page Menu



- ✓ Web Page Username: The username to login the web page. Default value is "admin".
- ✓ Web Page Password: The password to login the web page. Default value is "0000".
- ✓ New: Add a new web page to design.
- ✓ Rename: Select an exist web page, and click "Rename", and then enter new name.
- ✓ Remove: Select an exist web page, and click "Remove".
- ✓ Import: Import web page file. The default folder to open is MyWebPage.
- ✓ Export: Export web page file. The default folder to save is MyWebPage.

7.2 Design the Login Web Page

7.2.1 Edit Login Web Page



Step1. Select the login page to edit.

Step2. The background picture can be set by selecting “Back Picture” from the menu. It will open the default folder named **WebBackPic**, select a picture file and click “open” to set as back picture. If the picture doesn’t exist in the **WebBackPic** folder, program will automatically duplicate the picture to the WebBackPic folder.

Step3. The components as shown above are default in the Login web page. In the login web page, it is not allow to delete, cut, paste or copy but can set property of the components. If select the form, you can set the background color of the web page.

Step4. Select a component and set its property (select “Tag Type” -> select “Tag Name”).

7.2.2 Component Introduction

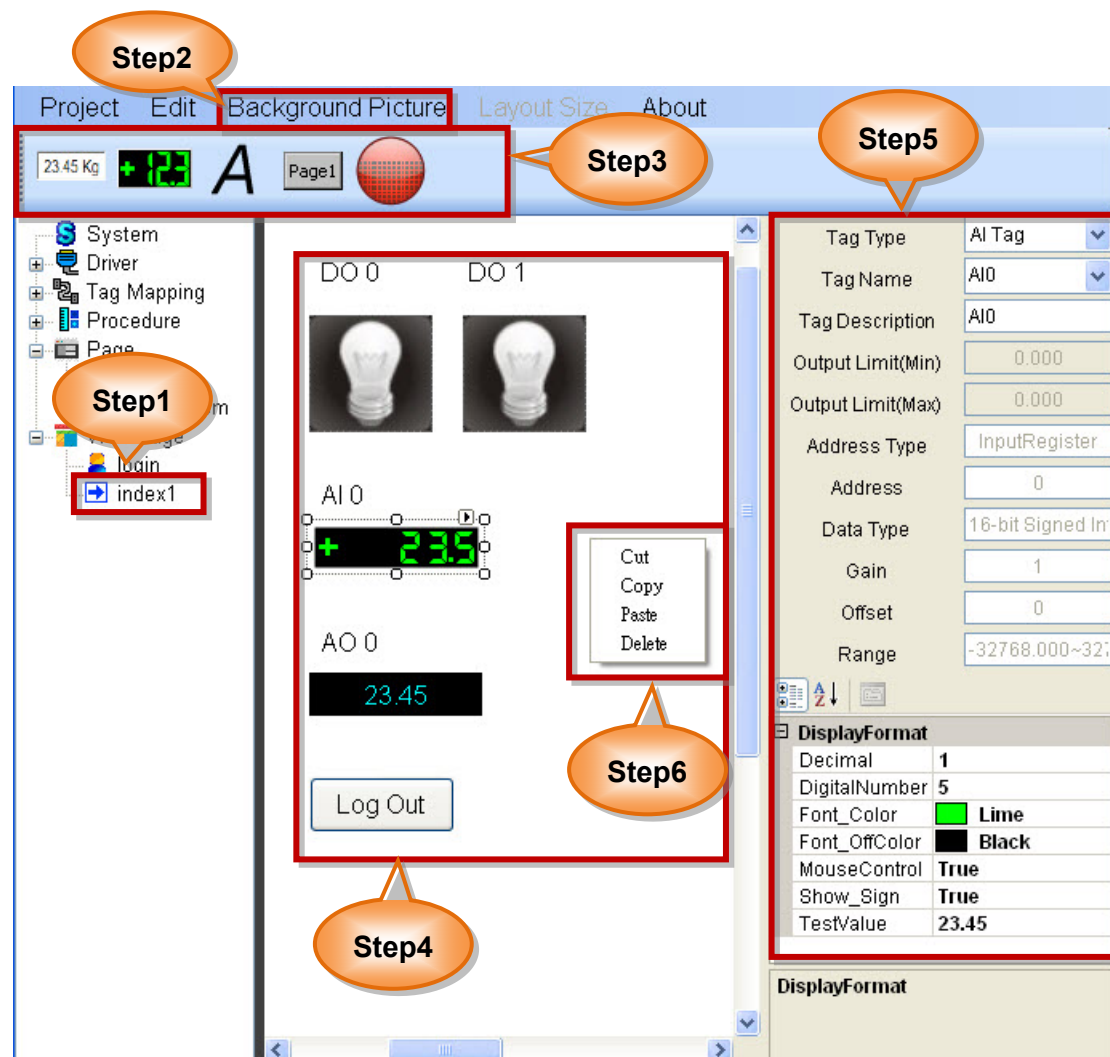
Name	Icon	Description
Label		The text displayed on label.
Text Box		The input text box. The username or password is set to input to this text box.
Button		The button that use to log in the web page. The button type: LogIn is only applicable is the login web page.

7.2.3 Property Directions

Property Name	Description
Back Color	Set the background color of the web page
DisplayText	Specifies the text displayed on the indicator
FontStyle	The font size and font face.
Fore_Color	The color of the font or value.
Password	Set the text if it is shown as the password form. Set to True to display as the password form in the web page. (The Password property only use in the login web page.)

7.3 Design HMI Web Page

7.3.1 Edit the Web Page



Step1. Select a web page to edit.

Step2. The background picture can be set by selecting “Background Picture” from the menu. It will open the default folder named **WebBackPic**, select a picture file and click “open” to set as back picture. If the picture doesn’t exist in the **WebBackPic** folder, program will automatically duplicate the picture to the WebBackPic folder.

Step3. Select a HMI component, and add it to the web page.

Step4. Select a component and its property will be showed. If select the form, you can set the background color of the web page.

Step5. Select a component and set its property.

Step6. Select a component and right-clicked the mouse can do **cut**, **copy**, **paste** and **delete** to the component.

7.3.2 Component Introductions

Name	Icon	Description
Text Box		To read or write register value.
Seven Segment		To read or write register value.
Label		The text display on label.
Button		Button type: SwitchPage 、 LogOut To switch page or logout.
Picture Toggle		To display different picture when DI or DO status changed.

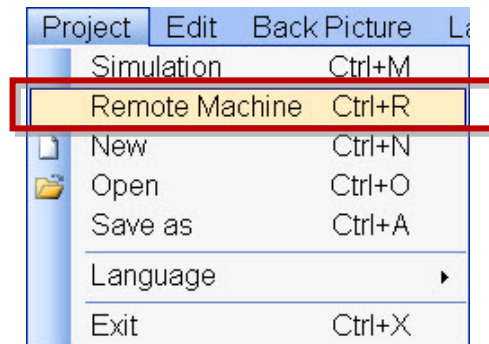
7.3.3 Property Directions

Tag Property	
Name	Description
Tag Type	The tag type depends on the selected tag.
Tag Name	The name of the tag.
Tag Description	The description of the tag. (The tag properties are read-only in this stage and can be edited in 4.2 Edit Tag)
Output Limit	The maximum and minimum value of the output range. If the AO value exceed the range, it won't do output.
Memory Tag	Address Type, Address, Data Type, Gain, Offset and Range (The tag properties are read-only in this stage and can be edited in 4.2 Edit Tag)

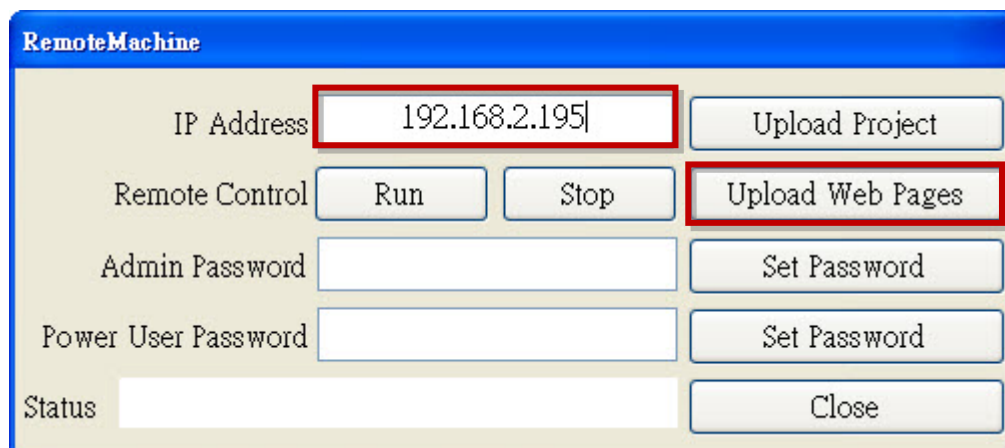
Property	edited in 4.2 Edit Tag)
HMI Component Property	
Name	Description
Back Color	Set the background color of the web page
Back_Color	Set the background color of the component
Decimal	Decimal number
DigitalNumber	The total length of the number (NumberLED)
DisplayText	Specifies the text displayed on the indicator
FontStyle	The font size and font face.
Fore_Color	The color of the font or value.
MouseControl	Enable or disable the mouse control to set output
OffPicture	Display the specific picture when digital status is off.(Note)
OnPicture	Display the specific picture when digital status is on. (Note)
Show_Sign	Show the sign on the left
TestValue	Input the value to test the display
Unit	The unit string will be added after the value
ValueTest	Do value test to Picture Toggle component
Note	The picture is selected from the default folder named WebPic . If the picture doesn't exist in the folder, the picture will be duplicated to the WebPic folder.

7.4 Upload Web Page

Step1. Select Remote Machine form the menu.



Step2. Input the IP address of the PAC and click "Upload Web Page". All the web files in the folder (CE5Web, CE6Web or XPE Web) and pictures (support jpg, jpeg, png, gif and bmp picture files) will be uploaded to the PAC.



8. eLogger Runtime

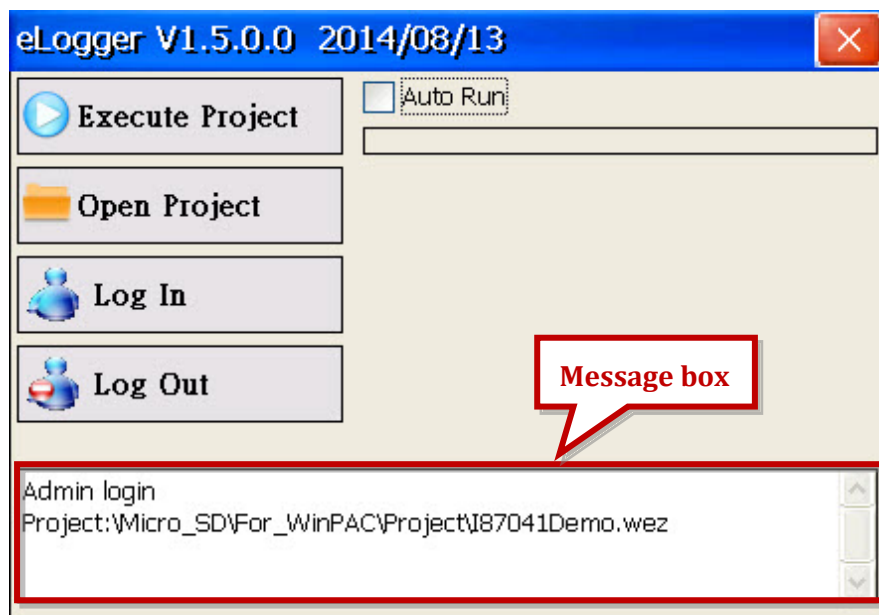
8.1 eLogger Runtime Version

Before start up a project in the eLogger Runtime, the Runtime folder needs to be copied to the PAC via Ethernet or USB. The location of Runtime folder is depended on the installation. For example, copy the **For_WinPAC** folder at the location "C:\ICPDAS\eLogger\eLogger_Runtime" to VP-25W1.

Version	Supported ICP DAS PAC
For_WinPAC	WP-8131 、 WP-8431 、 WP-8831 WP-8137 、 WP-8437 、 WP-8837 WP-8141 、 WP-8441 、 WP-8841 WP-8147 、 WP-8447 、 WP-8847 VP-23W1 、 VP-25W1
For_XP8000CE6	XP-8041-CE6 、 XP-8341-CE6 、 XP-8741-CE6 、 XP-8047-CE6 、 XP-8347-CE6 、 XP-8747-CE6 、 XP-8049-CE6 、 XP-8349-CE6 、 XP-8749-CE6 、 XP-8046-CE6 、 XP-8346-CE6 、 XP-8746-CE6 、
For_XP8000WES	XP-8041 、 XP-8341 、 XP-8741

When copy is done, all the files in the **copy_to_www_root** folder need to copy to HTTP www root, and the files in the **copy_to_system_disk** folder needs to copy to \System_Disk (**For_XP8000WES** version: copy the files in **copy_to_windows** folder to C:\Windows).

8.2 eLogger Runtime Function



Function Description	
Execute Project	Start to run the project
Open Project	Open the project and you can select a project to execute.
Log In	Enter the password to log in as “power user” or “admin”
Log Out	User log out
Auto Run	When start up the eLogger Runtime program, the project that showed in message box will run automatically if “Auto Run” is checked.
Message Box	Indicate the user’s authority, project location and the project name. Furthermore, display the status of receiving a project or web pages.

Appendix A. Revisions

Version	Date	Amendments
1.1.0	2014/8/21	Add 7. Web Pages
1.2.0	2015/7/13	Add 5. Data Log. Revise 2. The First Project