

PM Designer Introduction - Basic

The HMI Solution and IoT Gateway Provider

屏通科技股份有限公司 Cermate Technologies Inc.

Agenda

Part 1 Software Installation & Project Build

Part 2 Project Download & Hardware Setting

Part 3 Software Global Items

Part 4 Software Basic Setting

Part 5 Objective Setting

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Part 1 Software Installation & Project Build

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PM Designer Introduction

PM Designer is an easy to use integrated development tool featuring solution-oriented screen objects, high-end vector graphics.


- OS: Windows 7/ Windows10
- Developing environment: English/Traditional Chinese/Simplified Chinese
- Object oriented programming
- Tree diagram hierarchy edit interface
- Languages support up to 52 countries




PM Designer Installation

Find Serial Number (.txt) file and then select one

V4.0

 OemKeyV4X_0.txt

 OemKeyV4X_0.txt - 記事本

檔案(F) 編輯(E) 格式(O) 檢視(V) 說明

Install Keys for PM4.0 OEM No.000

6WCK-6KPP-VR66-GJGW-V3KV-WW7K

82JX-3X2T-KCB9-2EEP-VH6B-7B9H

W7B4-W88P-EJHB-TRBQ-CY4C-RWEK

MKW9-CBB8-WBGV-KW27-JGR3-3R3K

FV42-442B-HTV2-PBT9-4HPW-RP8V

BEXV-XRCR-WKF3-H86V-TQV7-YE6G

27TM-TWQ7-F7TH-67M6-EM4E-6X28

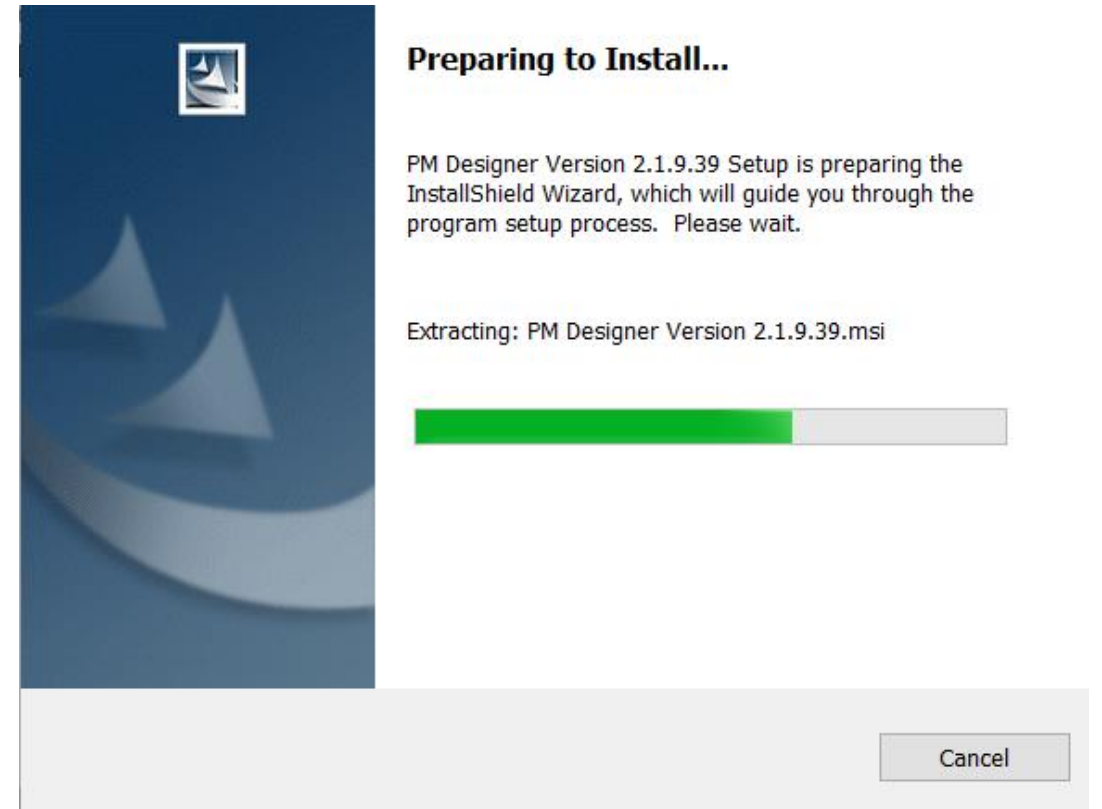
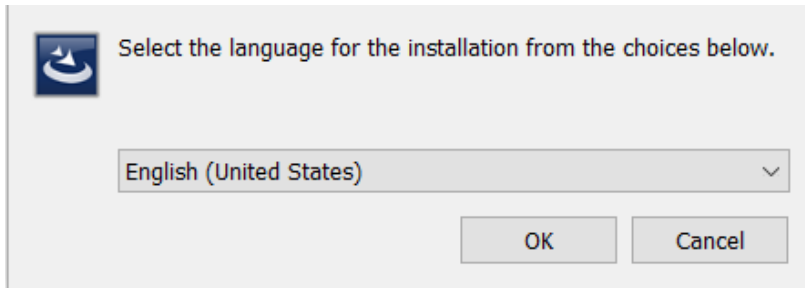
94PB-6BTF-V76X-WE3C-YY3B-B6RV

EK2C-BKCC-JEQT-GET3-9RX9-KC4F

6MG2-MX2V-HCBR-XE7E-C63F-2B3Q

PM Designer Installation

Click Setup.exe for the installation



PM Designer Installation

Key in User Name and Serial Number and then click Next

PM Designer Version 4.0.3.63 - InstallShield Wizard

Customer Information
Please enter your information.

User Name:
AST.SA01

Company Name:
Cermate

Serial Number:
6WCK-6KPP-VR66-GJGW-V3KV-WW7K

Install this application for:

Anyone who uses this computer (all users)
 Only for me (AST.SA01)

InstallShield

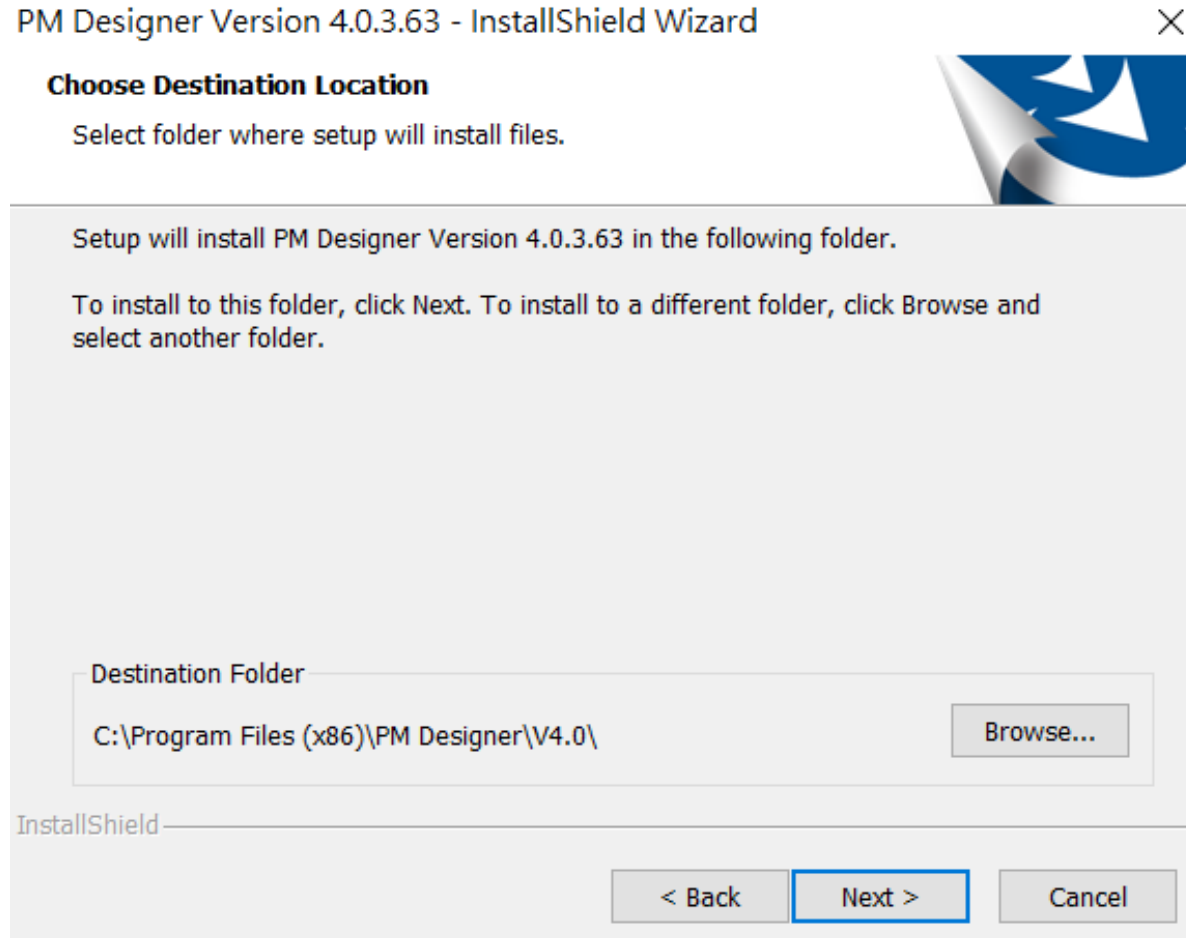
< Back Next > Cancel

Key in User Name

Key in copied Serial Number

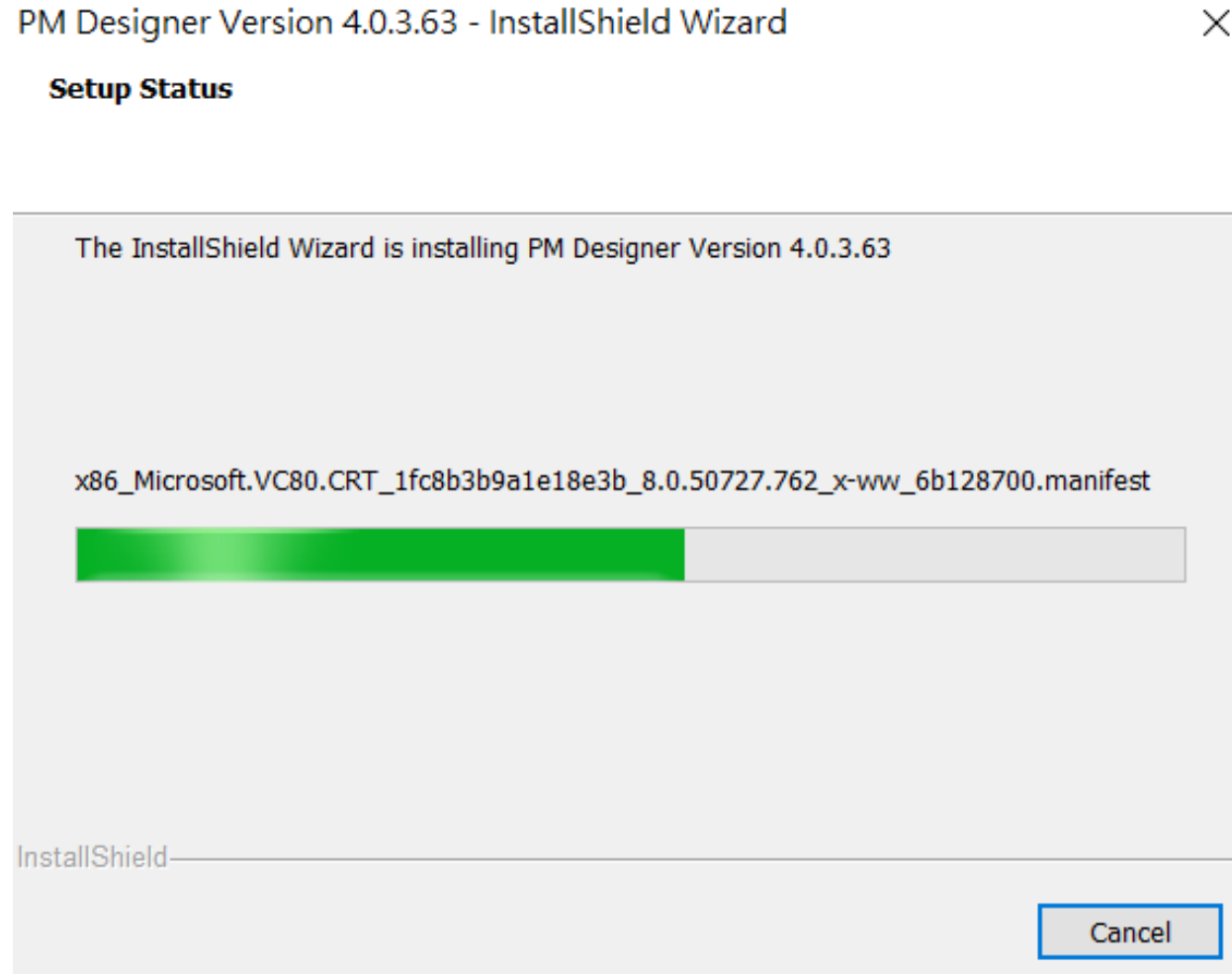
PM Designer Installation

Destination Folder can be changed



PM Designer Installation

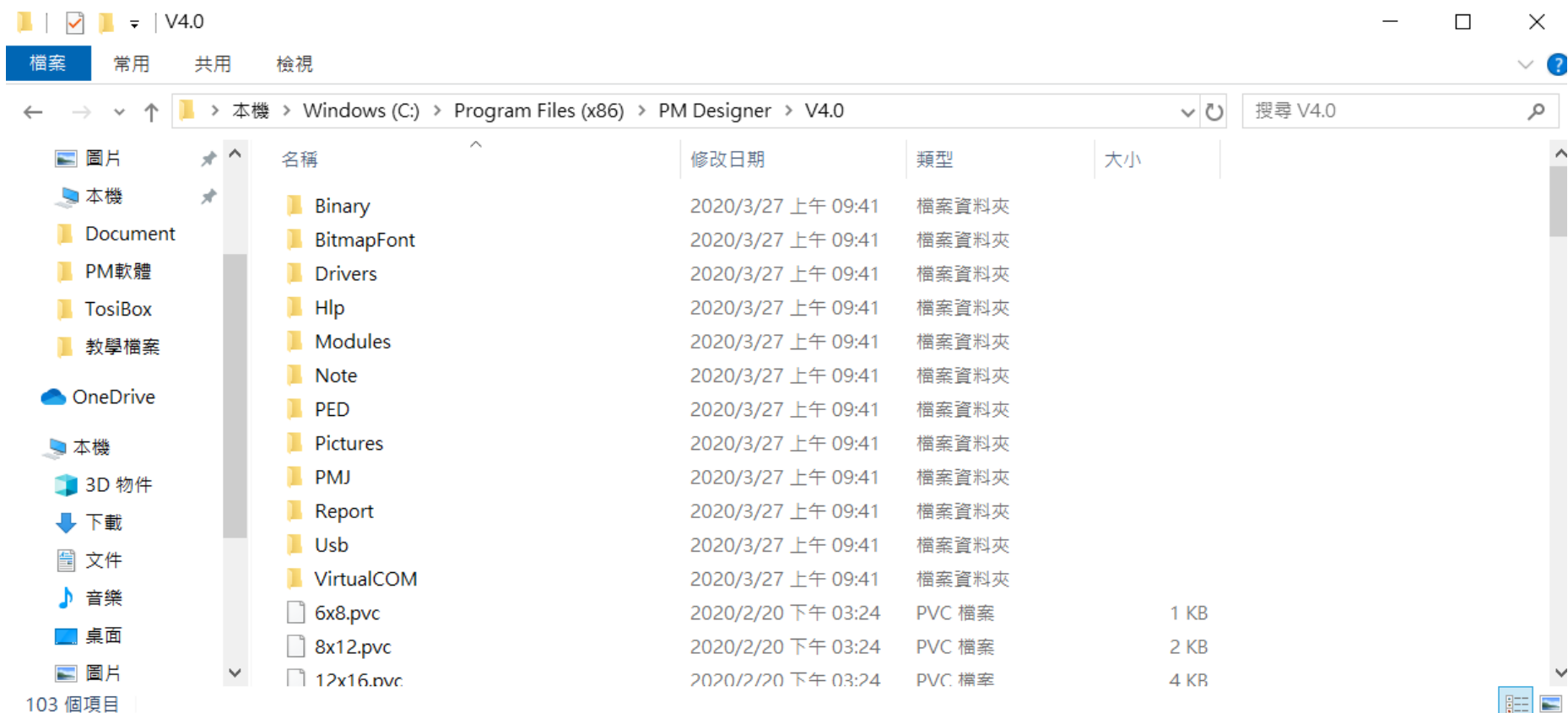
Start to install



PM Designer Installation

The default installation location

C:\Program Files (x86)\PM Designer\V4.0



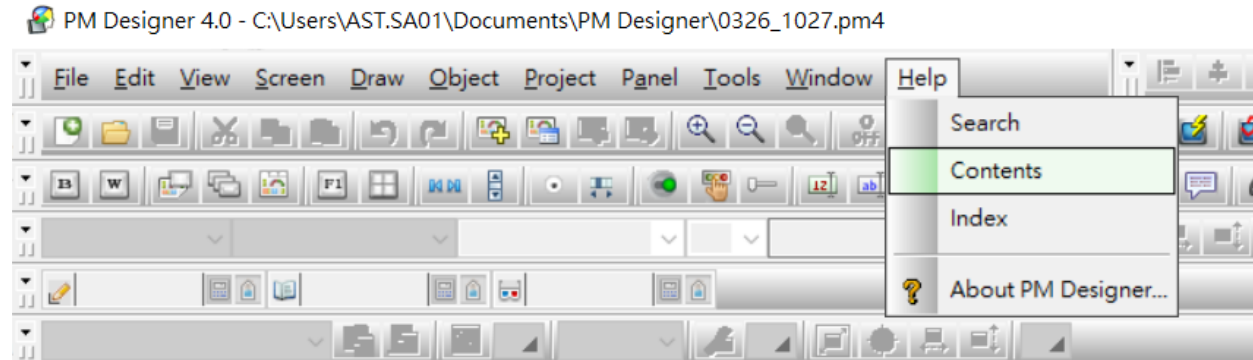
PM Designer Installation

PM Designer logo shows on the desktop when installation completes



PM Designer Installation

PM Designer User Manual
Help=> Contents



PM Designer Build Project and Compile

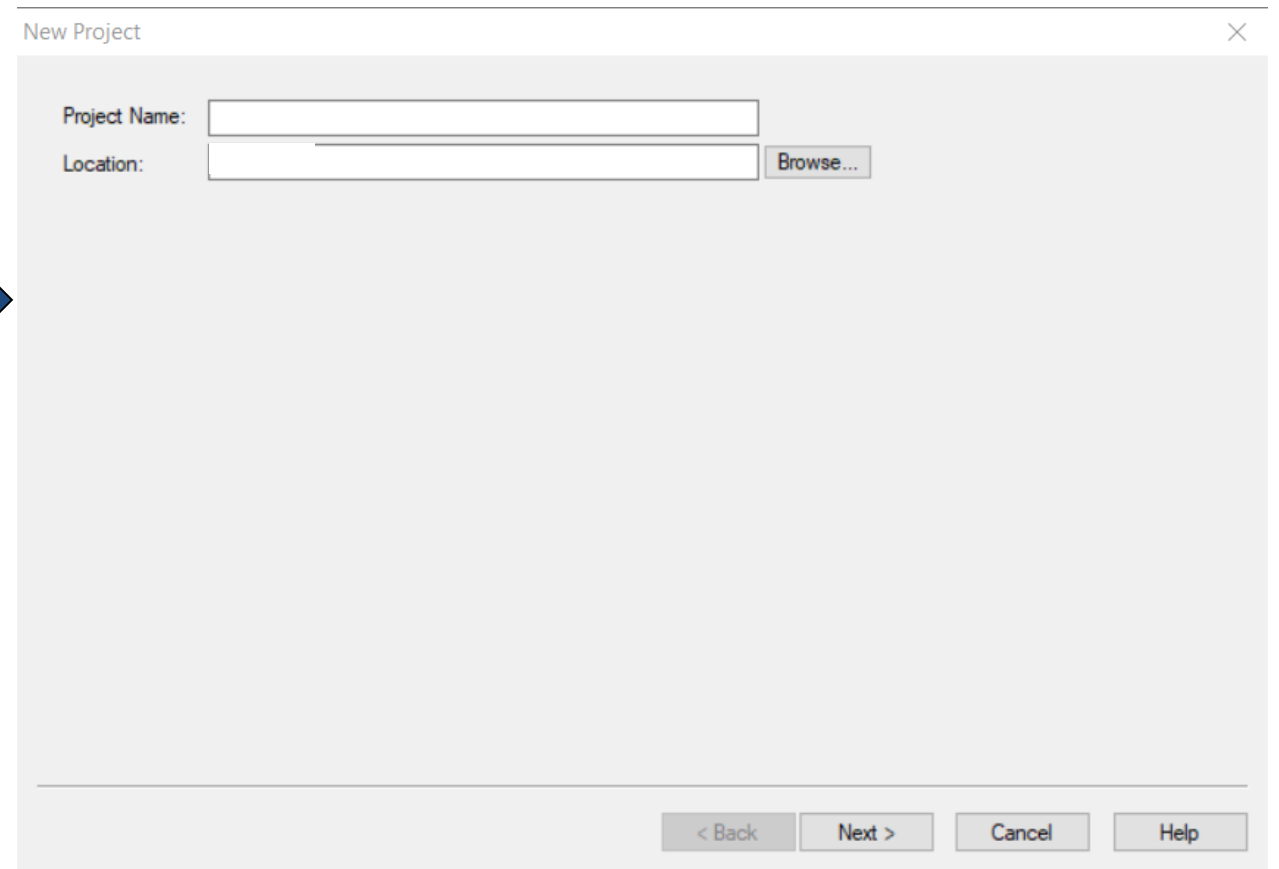
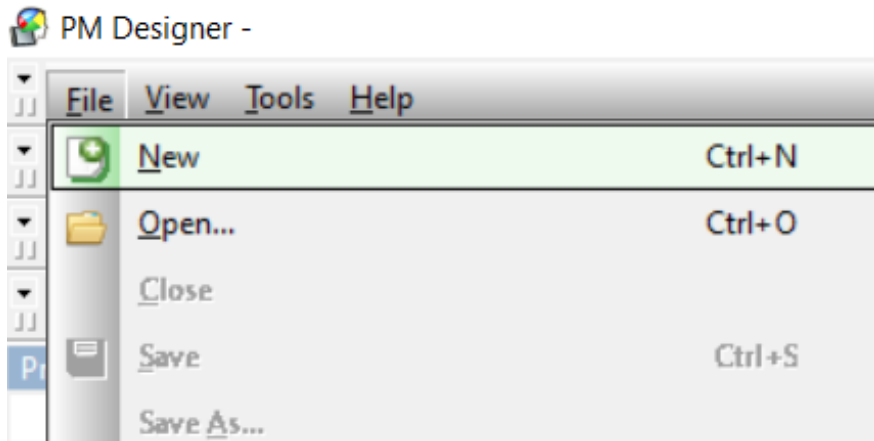
Click PM Designer



Click "PM Designer V4.0"

PM Designer Build Project and Compile

File=>New=>Key in “Project Name”
=>Select save location



PM Designer Build Project and Compile

Select HMI Size=>Model

New Panel Application ×

Application Name:

Display Size or Product Type: ▾ **Size**

Display Orientation: ▾

Model: ▾ **Model**

Display Resolution: ▾ **Resolution**

< Back Next > Cancel Help

The image shows a software dialog box titled "New Panel Application" with a close button (X) in the top right corner. The dialog contains five input fields: "Application Name" with the text "AP_1"; "Display Size or Product Type" with a dropdown menu showing "7.0"; "Display Orientation" with a dropdown menu showing "Landscape"; "Model" with a dropdown menu showing "PK2070"; and "Display Resolution" with a dropdown menu showing "800 x 480". Three blue callout boxes with white text point to these fields: "Size" points to the "Display Size or Product Type" field, "Model" points to the "Model" field, and "Resolution" points to the "Display Resolution" field. At the bottom of the dialog, there are four buttons: "< Back", "Next >", "Cancel", and "Help".

PM Designer Build Project and Compile

Network setting

New Link

Link Number: 1

Link Name: Link 1

Link Type: Direct Link (Ethernet)

Device/Server: PanelMaster Modbus Device/Slave (TCP/IP)

Link Port: Ethernet1 Sub-links

The duration of showing a communication error message: 5 second(s)

The duration can be shown, if duration set to 0, there is no error message

Link Type: Direct Link (Ethernet)

Device/Server: Company/Device model

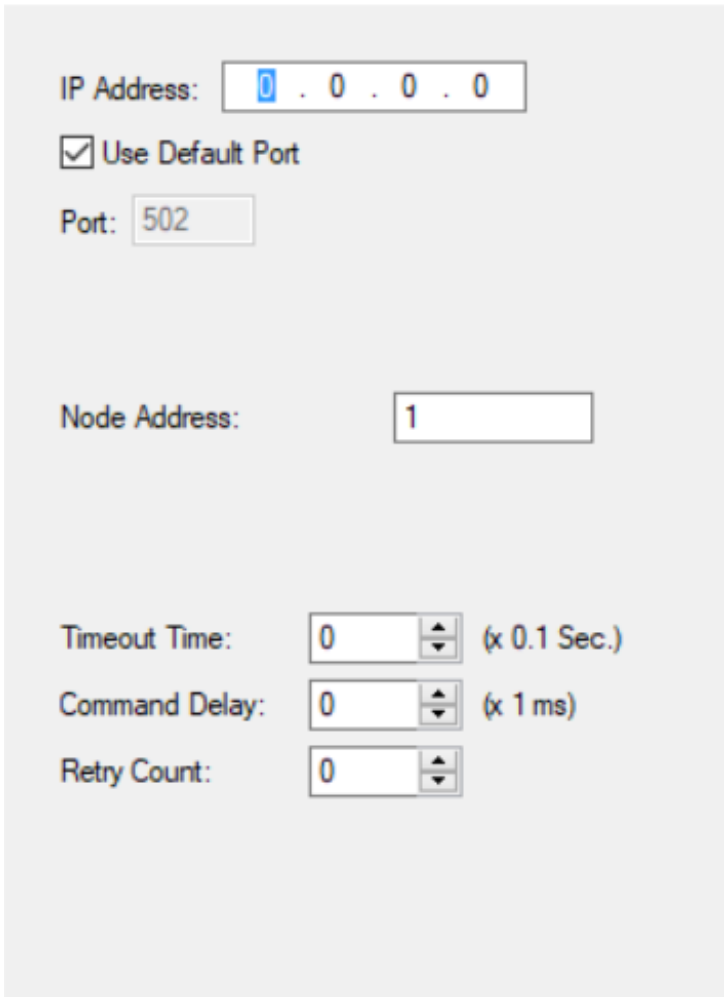
Link Port: Ethernet1

Sub-links: One link connects up to 8 devices

PM Designer Build Project and Compile

Network parameter setting

Parameter



IP Address: 0 . 0 . 0 . 0

Use Default Port

Port: 502

Node Address: 1

Timeout Time: 0 (x 0.1 Sec.)

Command Delay: 0 (x 1 ms)

Retry Count: 0

IP Address: IP address for connected device

Port: Port for PLC

Node Address: Node for connected device

Timeout Time: Time for communication trigger & device connected

Command Delay: Duration for communication

Retry Count: Count for communication retry

PM Designer Build Project and Compile

Serial parameter setting

New Link ×

Link Number:

Link Name:

Link Type:

Device/Server:

Link Port: Sub-links

Record communication status in operation log

The duration of showing a communication error message: second(s)

The duration can be shown, if duration set to 0, there is no error message

Link type: Direct Link(COM)

Device/Server: Company/Device model

Link Port: COM1/COM2/COM3/COM4/COM5

Record communication status in operation log:

Link or Sub-links communication status record in operation log

Sub-links: One RS485 connects to multiple devices

PM Designer Build Project and Compile

Serial parameter setting

Parameter ×

Transmission	Others	
Baud Rate: 9600 <input type="button" value="v"/>	Panel Address: 1 <input type="button" value="↑"/> <input type="button" value="↓"/>	Retry Count: 0 <input type="button" value="↑"/> <input type="button" value="↓"/>
Data Bits: 8 <input type="button" value="v"/>	PLC Address: 1 <input type="button" value="↑"/> <input type="button" value="↓"/>	
Parity: None <input type="button" value="v"/>	Timeout Time: 0 <input type="button" value="↑"/> <input type="button" value="↓"/> (x 0.1 Sec.)	
Stop Bits: 1 <input type="button" value="v"/>	Command Delay: 0 <input type="button" value="↑"/> <input type="button" value="↓"/> (x 1 ms)	

Fetching Data In Blocks To Optimize The Screen Data Reading

Merge Adjacent Bits To Form Bit Blocks
Maximal Gap Of Two Mergeable Bits: (default)

Merge Adjacent Words To Form Word Blocks
Maximal Gap Of Two Mergeable Words: (default)

< Back Finish Cancel Help

Baud Rate:

9600/19200/38400/57600/115200

Data Bits: 7/8

Parity: Odd/Even/None

Stop Bits: 1/2

Panel Address: HMI Address

PLC Address: Device Address

Timeout Time: Time for communication
trigger & device connected

Command Delay: Duration for communication

Retry Count: Count for communication retry

PM Designer Build Project and Compile

Ethernet sub-link up to 8

Sub-link

Number of sub-links: 8

ID	Name	IP Address	Node	State	Show
0		0.0.0.0	1	On	Yes
1		0.0.0.0	2	On	Yes
2		0.0.0.0	3	On	Yes
3		0.0.0.0	4	On	Yes
4		0.0.0.0	5	On	Yes
5		0.0.0.0	6	On	Yes
6		0.0.0.0	7	On	Yes
7		0.0.0.0	8	On	Yes

Language: Language 1

Sub-link

Name:

IP Address:

Node Address:

Initial State:

Show error message

Timeout Time: (x 0.1 Sec.)

Command Delay: (x 1 ms)

Alt+Up: Move item up Alt+Down: Move item

< Back Finish Cancel Help

Serial sub-link up to 255

Sub-link

Number of sub-links: 255

ID	Name	Node	State	Show
246		247	On	Yes
247		248	On	Yes
248		249	On	Yes
249		250	On	Yes
250		251	On	Yes
251		252	On	Yes
252		253	On	Yes
253		254	On	Yes
254		255	On	Yes

Language: Language 1

Sub-link

Name:

Node Address:

Initial State:

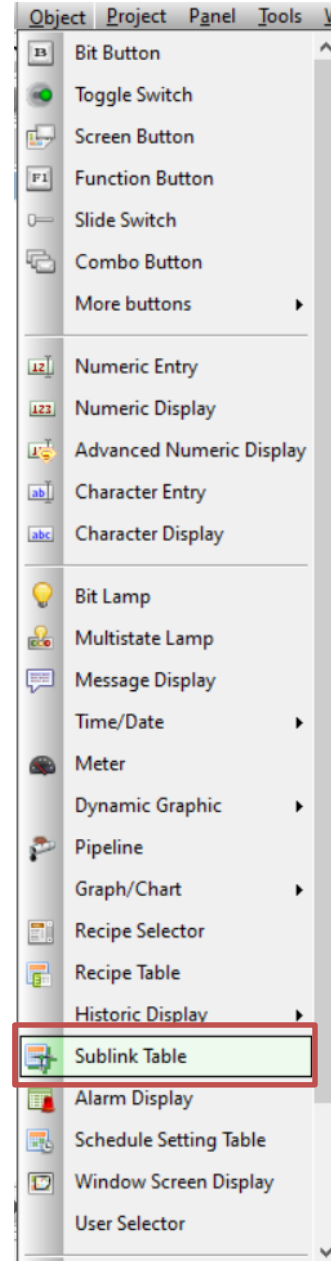
Show error message

Alt+Up: Move item up Alt+Down: Move item down

< Back Finish Cancel Help

PM Designer Build Project and Compile



Sublink Table:
Parameter setting




Sub-link Table

General Visibility

ID: SLT0000 Note: |

Shape...
Border Color: 
BG Color: 



NO_BDR

Link: 

Title

Language: Language 1

Font: Font 1

Color:  BG Color: 

Name: 名稱


Node: 站號

State: 狀態

Show: 顯示

Grid


Vertical Horizontal

Color: 

Text

Language: Language 1

Font: Font 1

Color: 

ON State: 開啟

OFF State: 關閉

Line Spacing: 3

Item Spacing: 3

OK Cancel Help

PM Designer Build Project and Compile

Sublink Table: User can use sublink table to enable/disable sublink, display or hide error message

Name	Station	Status	Display
	1	OPEN	OPEN
	2	OPEN	OPEN
	3	OPEN	OPEN
	4	OPEN	OPEN
	5	OPEN	OPEN
	6	OPEN	OPEN
	7	OPEN	OPEN
	8	OPEN	OPEN

Name: Sublink name

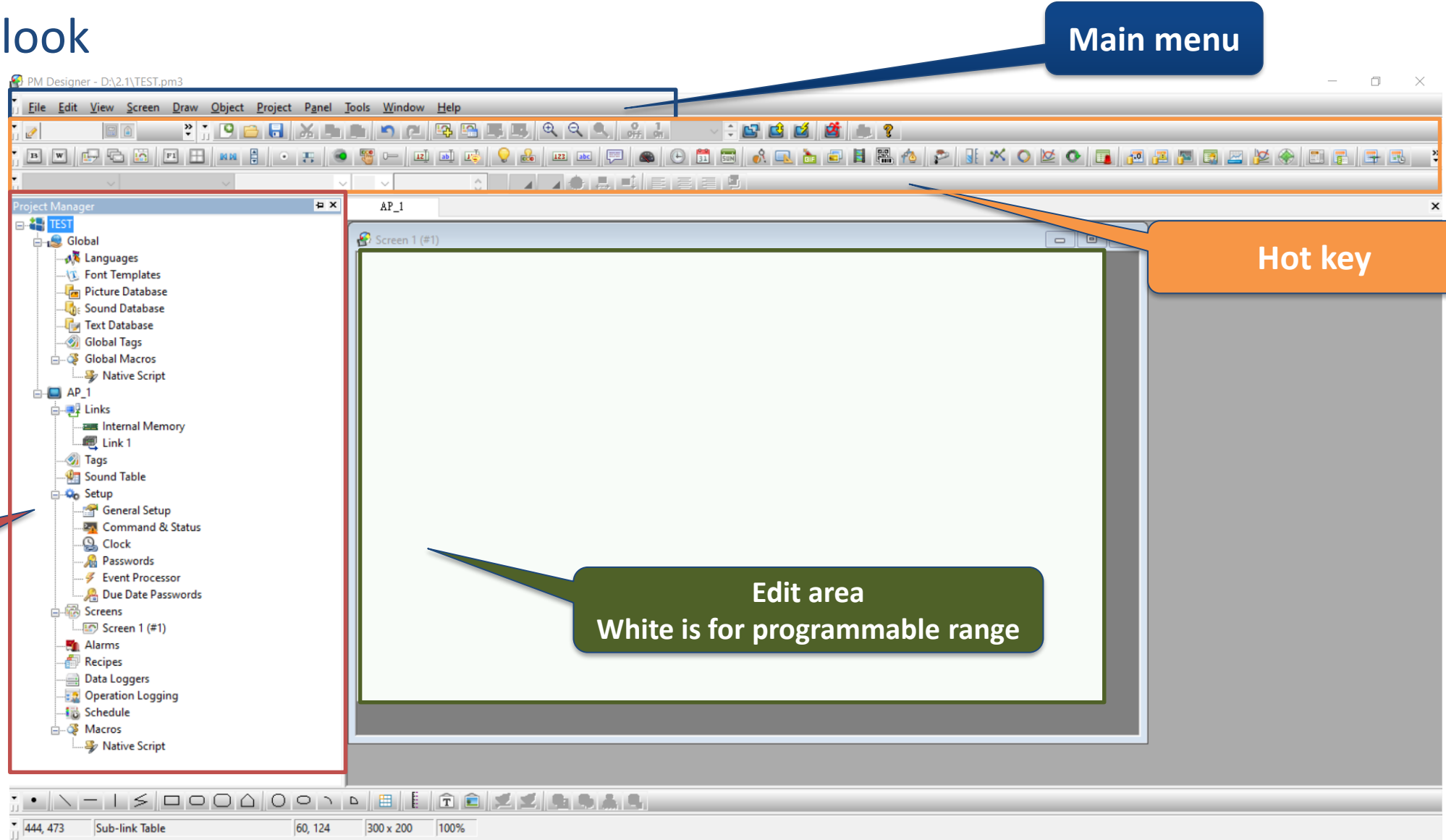
Station: Station number

Status: Sublink starting communication status

Display: Communication error message will display

PM Designer Build Project and Compile

Software Outlook



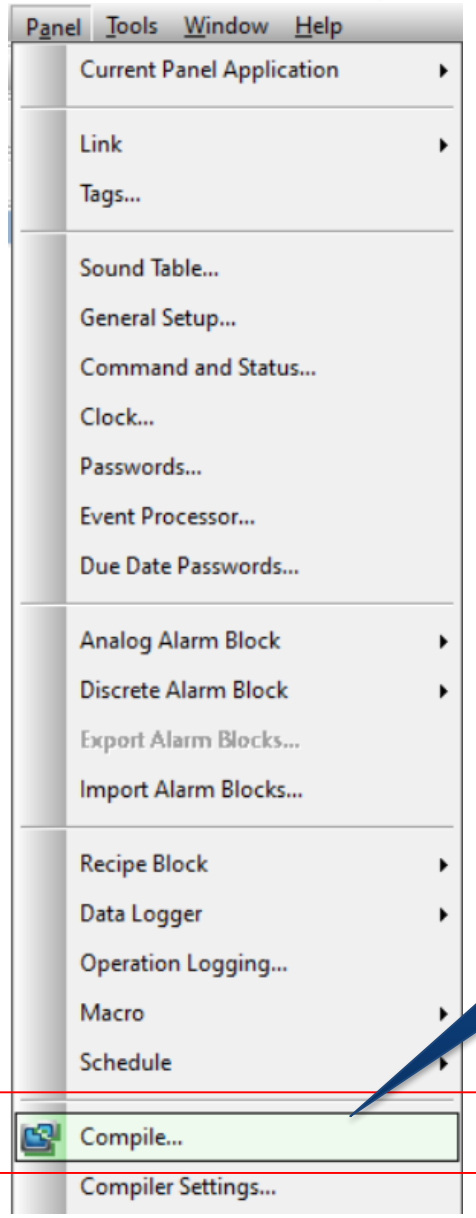
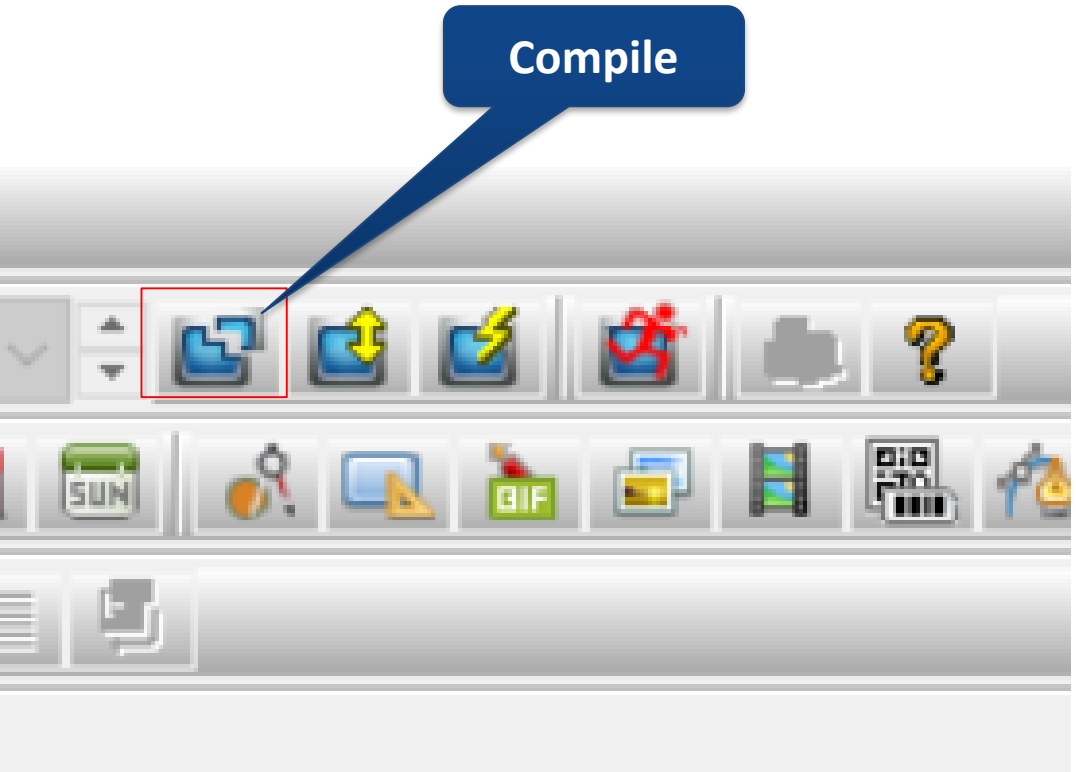
Main menu

Item manager

Hot key

Edit area
White is for programmable range

PM Designer Build Project and Compile



PM Designer Build Project and Compile

Program compile

The screenshot shows the PM Designer interface with a project named 'TEST' and a screen named 'Screen 1 (#1)'. A 'Compile Panel Application' dialog box is open, displaying a red 'X' icon and the message: 'Compilation completed. (Error: 3; Warning: 0; Size: 0 bytes; Macro lines: 0) For more information, please see messages in the Build List.' A blue callout bubble labeled 'Program error' points to this dialog. In the bottom-left corner, a blue callout bubble labeled 'Click Build List' points to the 'Build List' button in the Project Manager. On the right side, a 'Build List' window is open, showing the compilation process. A red box highlights three error messages in the Build List:

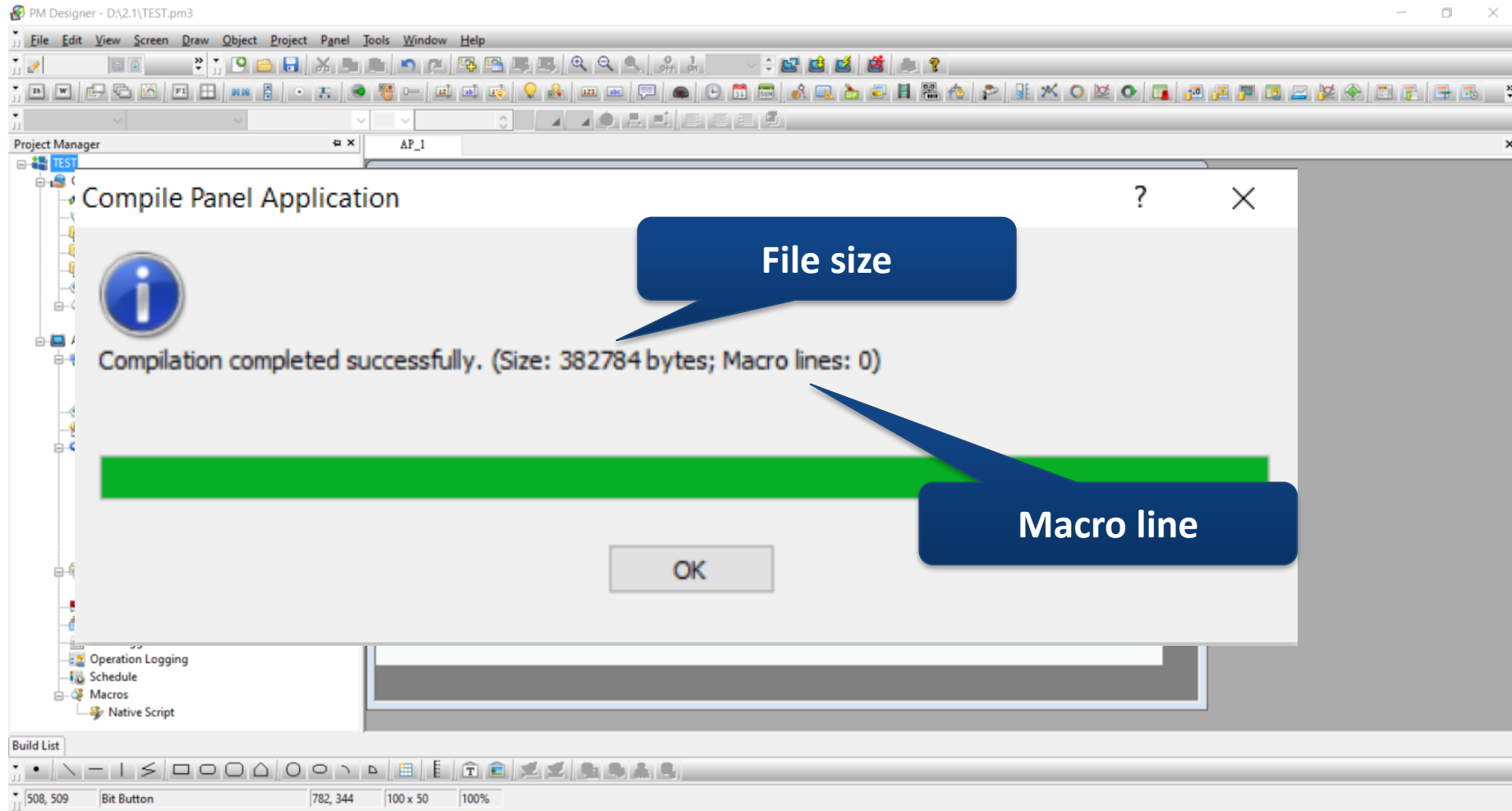
- Screen : Screen 1(#1) : Bit Button(x=782 y=344 w=100 h=50) : Error : Write address () : No address specified
- Screen : Screen 1(#1) : Bit Button(x=782 y=344 w=100 h=50) : Error : Monitor address () : No address specified
- Screen : Screen 1(#1) : Bit Button(x=782 y=344 w=100 h=50) : Error : object out of screen range

A blue callout bubble labeled 'Error list' points to this red box. The Build List window also shows the following text:

```
Started to compile AP_1
Creating file D:\2.1\TEST_AP_1.pl3.
Processing screen #1 (Screen 1).
Processing screen #8001 (NUM_KPD_1).
Number(s) of normal scan commands: 3, 0
Processing screen #8004 (PSW_KPD).
Number(s) of normal scan commands: 1, 0
Processing screen #8005 (COM_ERROR).
Number(s) of normal scan commands: 5, 0
Processing screen #8021 (Alarm_Msg).
Number(s) of normal scan commands: 2, 0
```

PM Designer Build Project and Compile

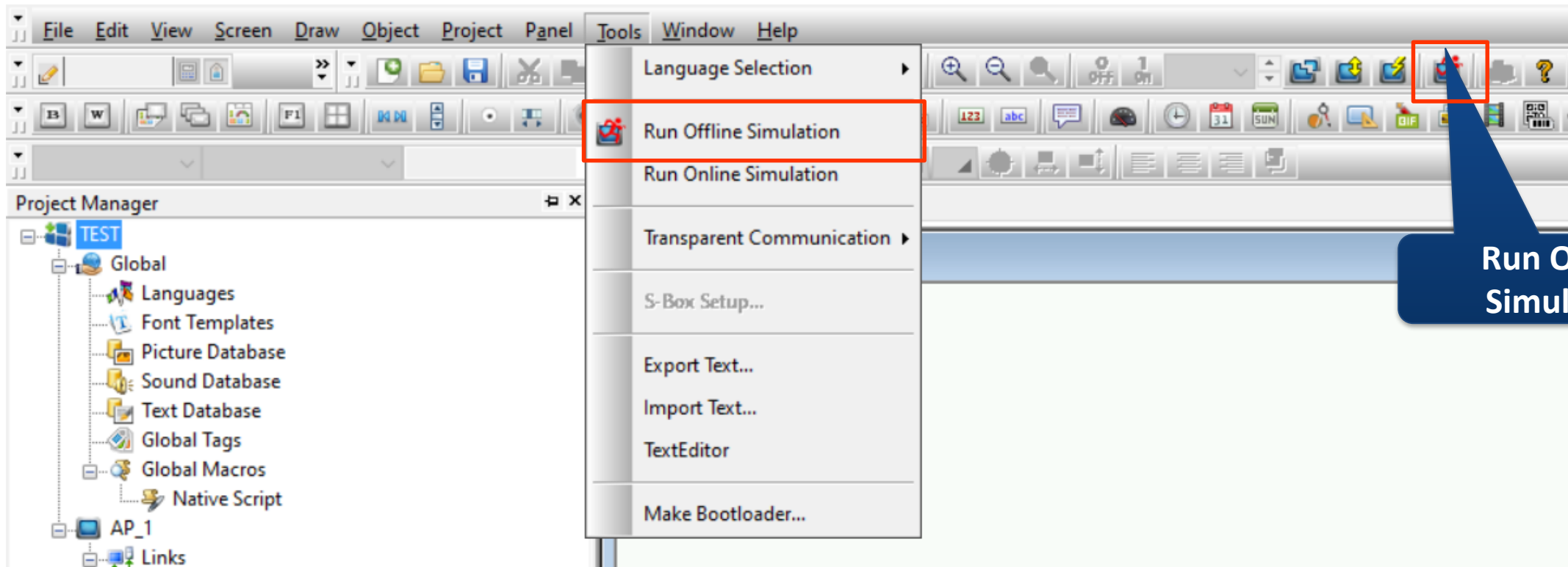
Program compile



PM Designer Build Project and Compile

Run Offline Simulation: Can check simulation result and object operation offline and no communication error message

Run Online Simulation: PC communicates to HMI and device/server, PC connects to device



Agenda

Part 1 Software Installation & Project Build

Part 2 Project Download & Hardware Setting

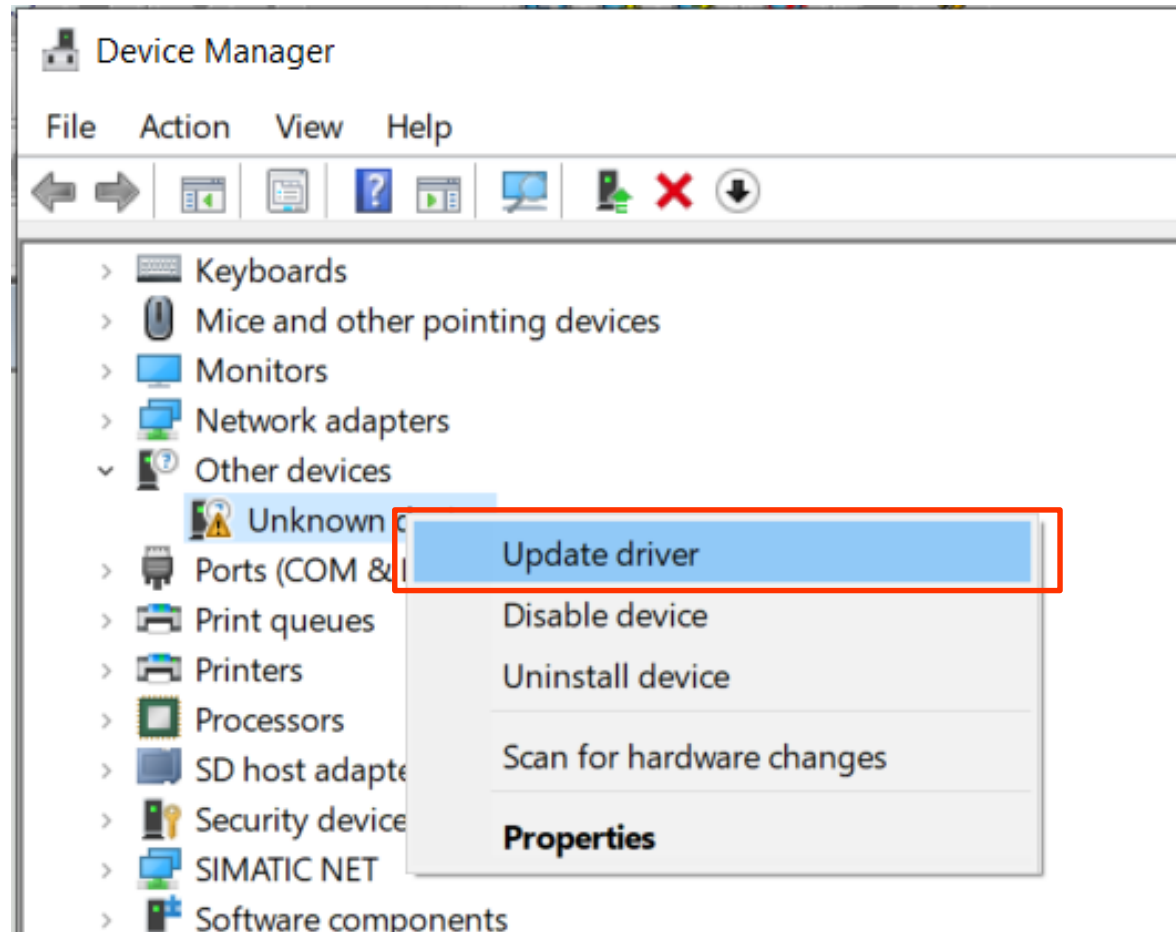
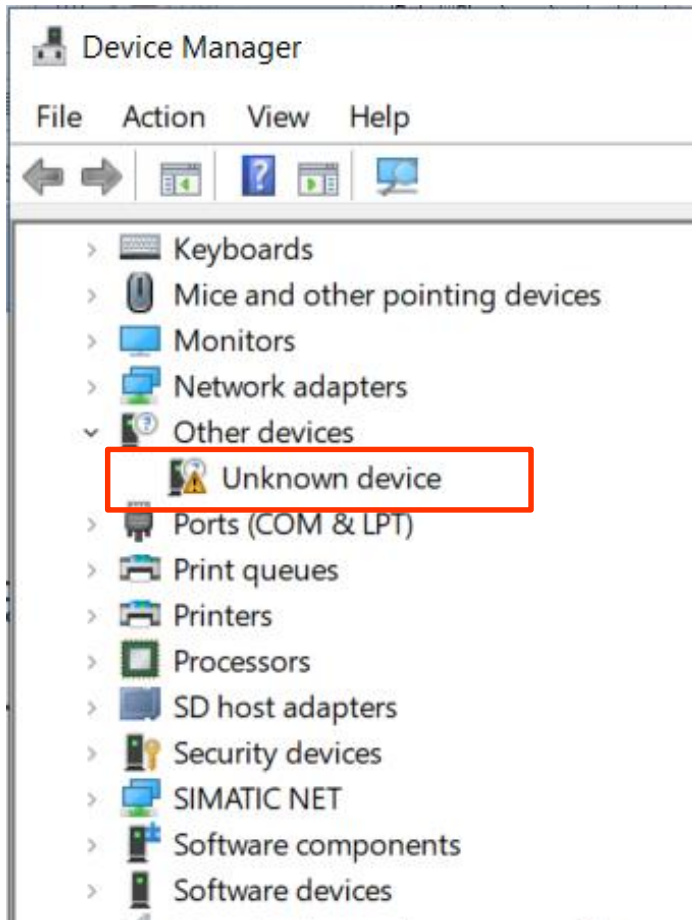
Part 3 Software Global Items

Part 4 Software Basic Setting

Part 5 Objective Setting

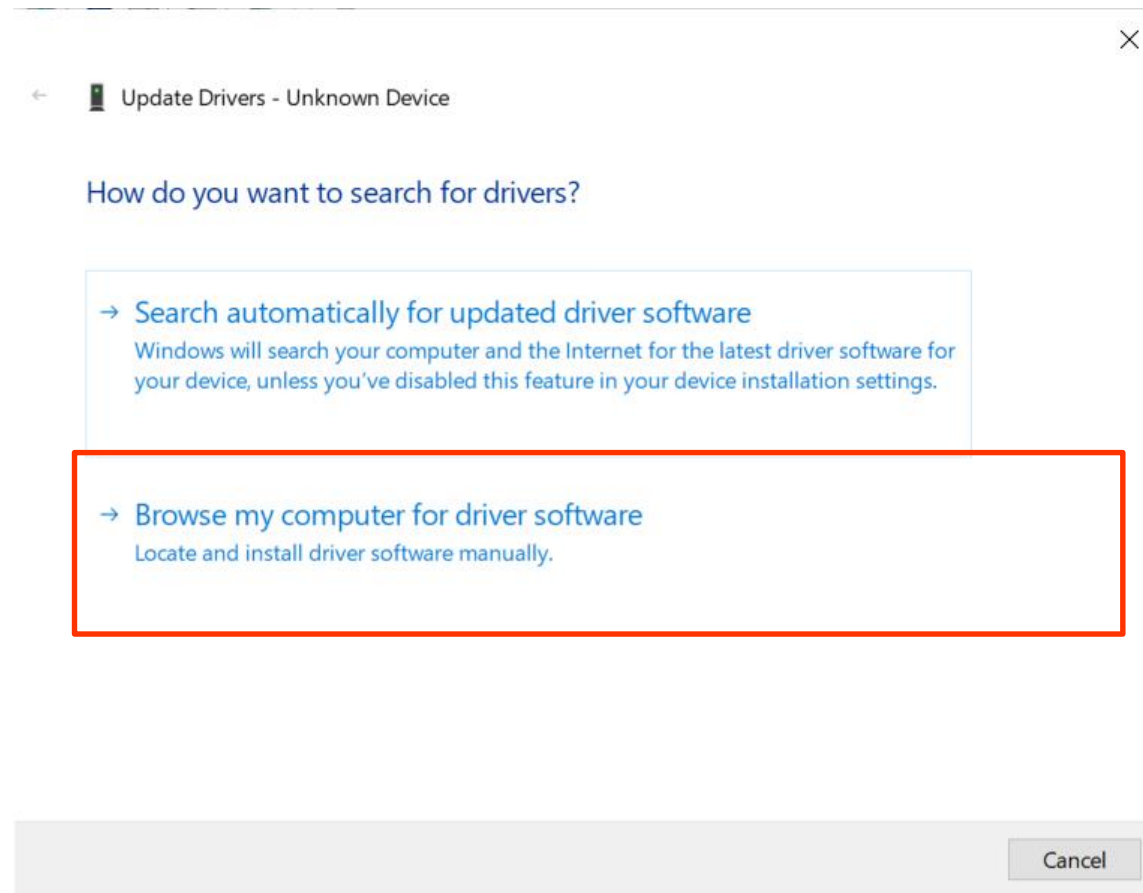
PM Designer Download (USB)

- USB driver installation:
PC connects to HMI by USB cable, then installs driver



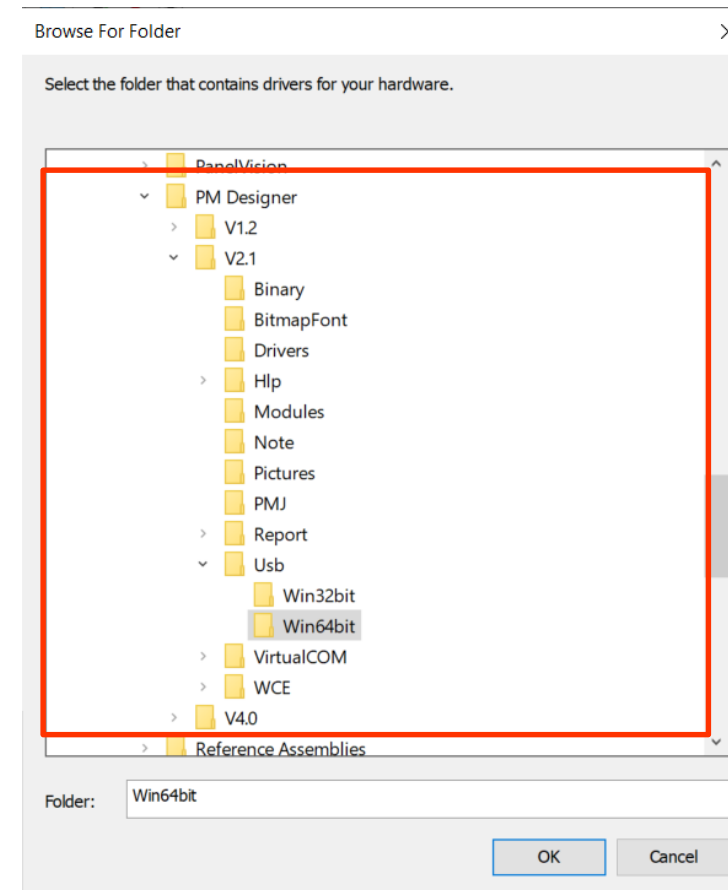
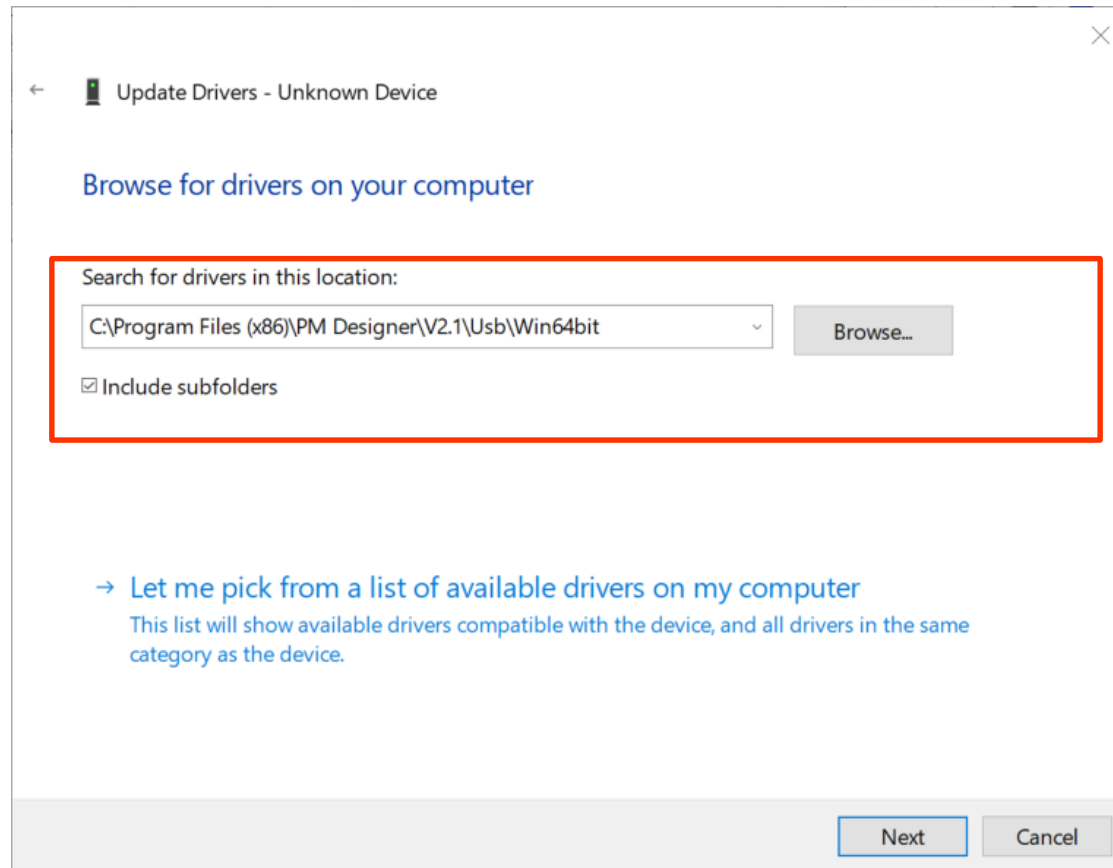
PM Designer Download (USB)

- USB driver installation:
Search by browsing computer



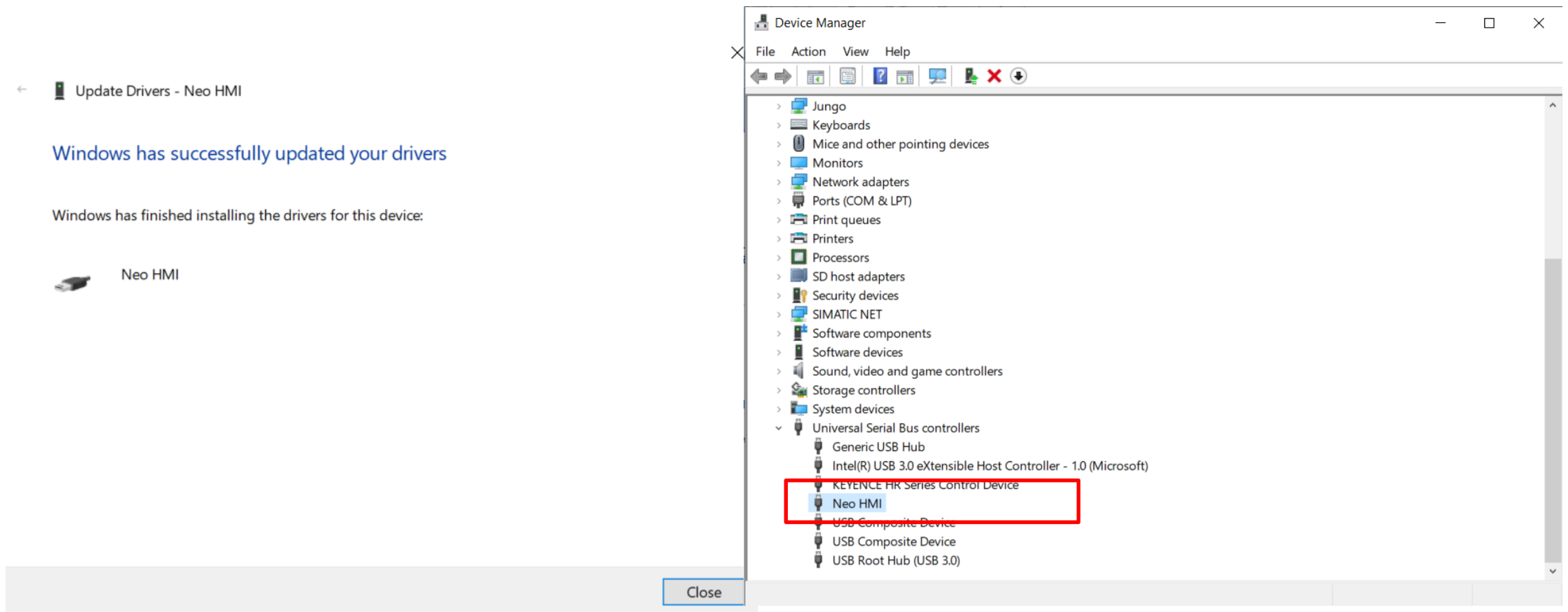
PM Designer Download (USB)

- USB driver installation, the location is under C:\Program Files
Select **Win32bit** or **Win64bit** according to computer



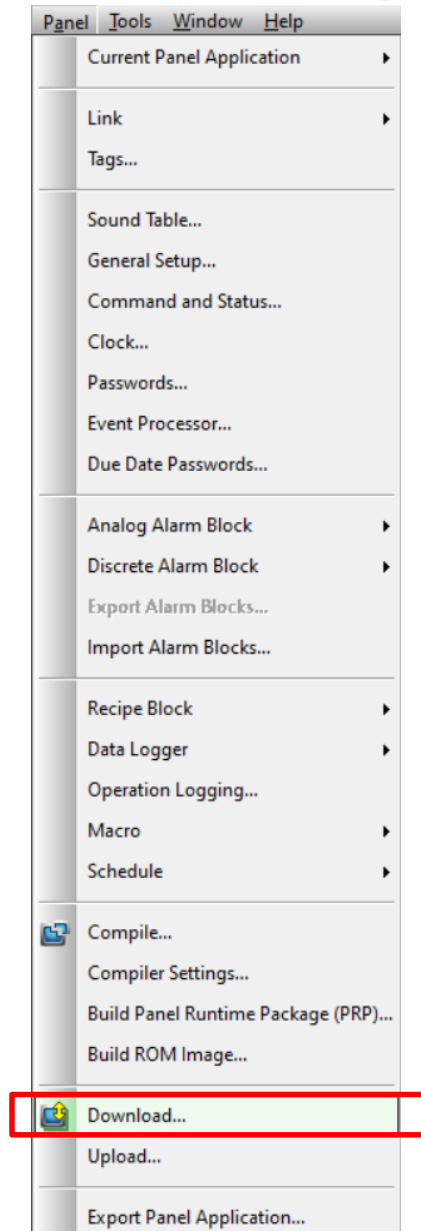
PM Designer Download (USB)

- USB driver installation:
Neo HMI shows in Universal Serial Bus controllers when installation completes



PM Designer Download (USB)

- Download by USB:
Panel=>Download



PM Designer Download (USB)

- Download by USB

Select current
compiled data

Select download
PRP file

Download Data to Panel

Data Source

Current Panel Application
 Panel-Runtime Package (PRP) File

Download

Runtime Data and System Programs
 Configuration Data
 Time and Date

Keep Previous Data

User Data (\$N) Sampled Data
 Alarm History
 Recipe Data
 Communication Settings
 Passwords

Link Settings

COM Ethernet USB

Retry after failure and continue from the last interrupted point

Status

Ready to transfer

PM Designer Download (Ethernet)

- Go to HMI setting
- Set IP

General	
Check Battery:	True
Screen Saver Time (minutes):	0
Allow To Run Panel Setup:	True
Start-up Language:	Default
Run AP After Power On:	False
Display Upside Down:	False
Transparent Communication:	True
HMI Name: <input type="text"/>	
LCD Brightness: <input type="text"/>	
<input type="button" value="Increase"/> <input type="button" value="Decrease"/> <input type="button" value="Save"/>	
Ethernet Port 1 (LAN/WAN)	
Get An IP Address Automatically:	True
IP Address:	172.21.250.2
Subnet Mask:	255.255.255.0
Gateway:	172.21.250.254
DNS Address:	172.20.1.100
	168.95.192.1
Ethernet Port 2 (LAN Only)	

PM Designer Download (Ethernet)

- Set computer IP first
- Set same first three sector of IP address for computer and HMI (like 172.21.250 below)

The image displays three overlapping Windows network configuration windows. The leftmost window, titled '乙太網路 2 Status', shows connection details for Ethernet 2, including IPv4 connectivity (Internet), IPv6 connectivity (No network access), and a speed of 100.0 Mbps. A red box highlights the 'Properties' button at the bottom. The middle window, '乙太網路 2 Properties', shows the 'Networking' tab with a list of protocols. 'Internet Protocol Version 4 (TCP/IPv4)' is selected and highlighted with a red box. A red arrow points from this box to the 'Properties' button in the rightmost window. The rightmost window, '網際網路通訊協定第 4 版 (TCP/IPv4) Properties', shows the 'General' tab with 'Use the following IP address' selected. The IP address is set to 172.21.250.100, the subnet mask to 255.255.255.0, and the default gateway is empty. A red box highlights these fields, and a red arrow points from the 'Properties' button in the middle window to this box. The bottom window also shows 'Preferred DNS server' and 'Alternate DNS server' fields, both empty, and a 'Validate settings upon exit' checkbox.

PM Designer Download (Ethernet)

- Start to download
- Select “Ethernet”
- Key in HMI IP address

Download Data to Panel ? ×

Data Source

Current Panel Application
 Panel Runtime Package (PRP) File

Download

Runtime Data and System Programs
 Configuration Data
 Time and Date

Keep Previous Data

User Data (\$N) Sampled Data
 Alarm History
 Recipe Data Note
 Communication Settings
 Passwords

Link Settings

COM Ethernet USB

IP Address:

Retry after failure and continue from the last interrupted point

Status

Ready to transfer

PM Designer Download (Serial)

- If download cannot be executed, the main reason might be the port is occupied
- Baud rate can set 9600/19200/38400/57600/115200

Link Settings

COM Ethernet USB

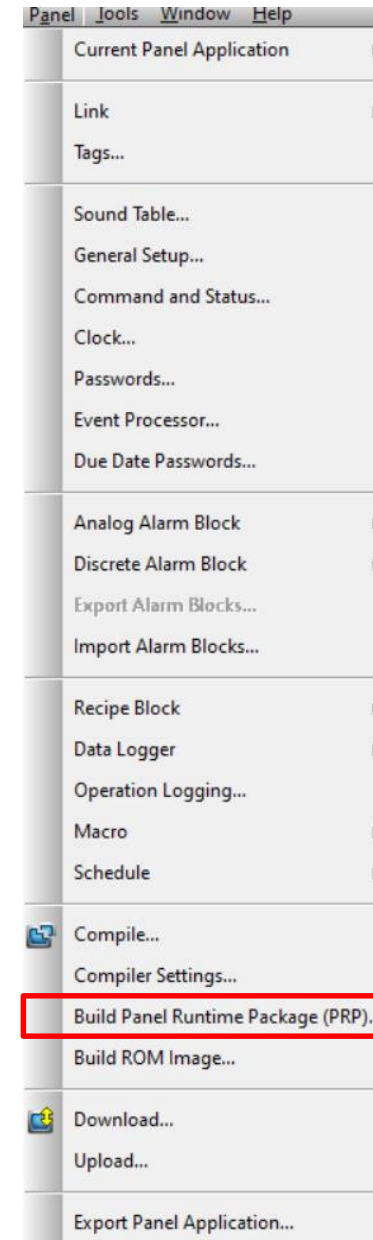
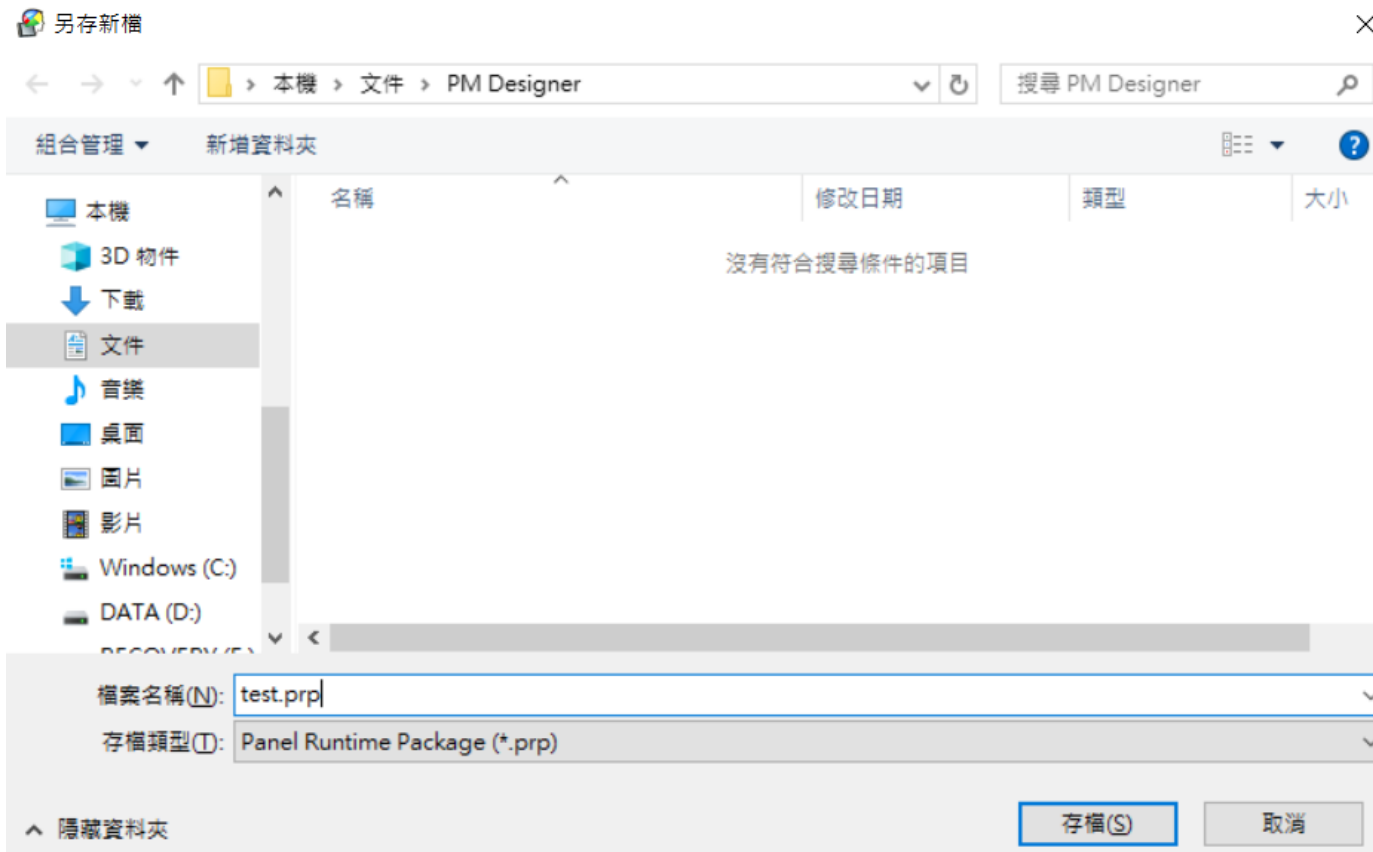
Port:

Baudrate:

Retry after failure and continue from the last interrupted point

PM Designer Download (USB Disk)

- Make PRP file



PM Designer Download (USB Disk)

The screenshot displays the 'Panel Setup' application window. At the top, there is a gear icon on the left, the title 'Panel Setup' in the center, and three language selection buttons: 'English', '中文 (繁體)', and '中文 (简体)'. The main interface is a grid of buttons. On the left side, there are buttons for 'General', 'Touch Panel', 'Set Time/Date', 'H/W Information', 'Link 1', and 'LAN Printer Address'. The right side contains a larger grid of functional buttons: 'Copy AP to HMI', 'Copy AP to File', 'Copy File', 'Delete File', 'Format Disk C', 'FTP, VNC, Email, NTP', 'Boot from File', 'Update from File', 'Clear Recorded Data', and 'Run'. Two blue callout boxes with white text and arrows point to specific buttons: 'Copy AP to USB Disk' points to 'Copy AP to File', and 'Update from USB Disk' points to 'Update from File'. The 'Clear Recorded Data' and 'Format Disk C' buttons are marked with a red 'X' over them. The version number 'V2.1.9.39' is located in the bottom-left corner.

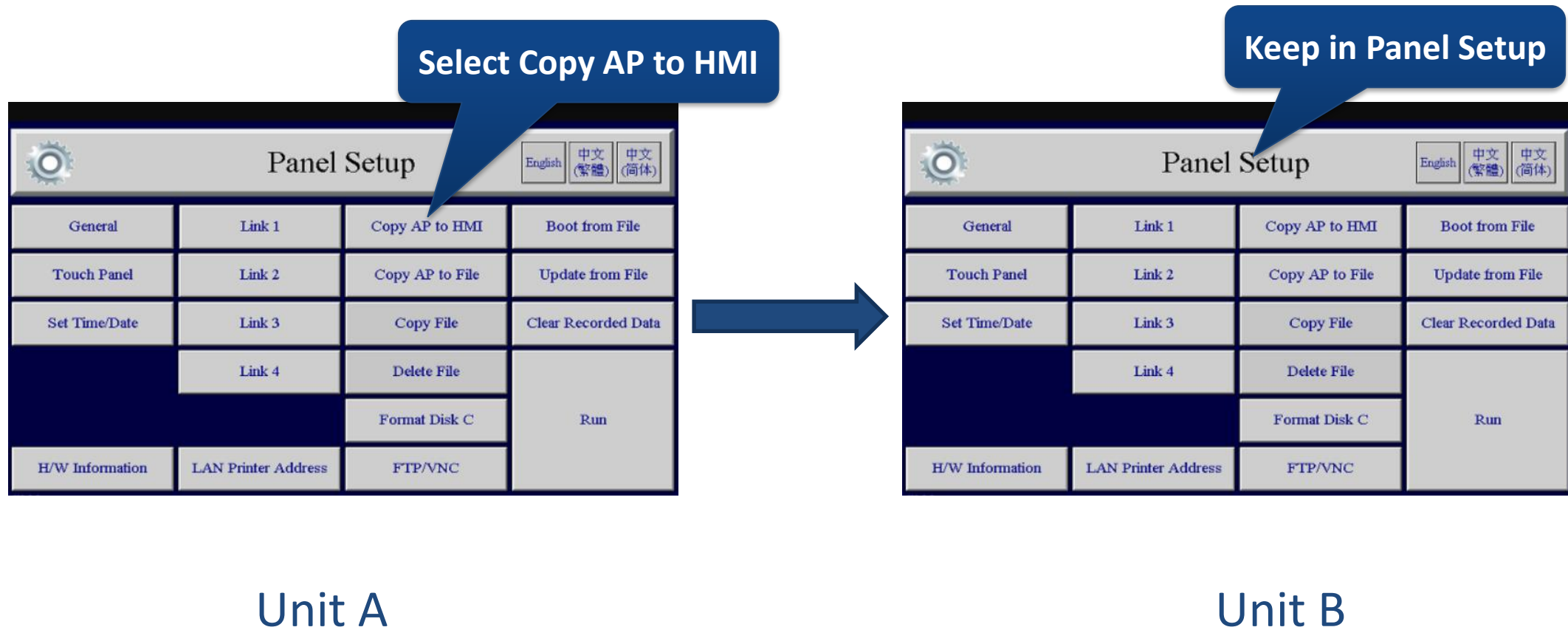
Panel Setup		English	中文 (繁體)	中文 (简体)
General	Link 1	Copy AP to HMI	Boot from File	
Touch Panel		Copy AP to File	Update from File	
Set Time/Date		Copy File	Clear Recorded Data	
		Delete File	Run	
		Format Disk C		
H/W Information	LAN Printer Address	FTP, VNC, Email, NTP		

Copy AP to USB Disk

Update from USB Disk

HMI AP Copy Function

- Copy AP from unit A to unit B by serial



Agenda

Part 1 Software Installation & Project Build

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PM Designer: Global-> Language

Set number of languages for HMI

The image shows the PM Designer software interface. On the left, the 'Project Manager' tree view shows a project named 'TEST' with a 'Global' folder containing a 'Languages' sub-folder. A red box highlights the 'Languages' folder, with a red arrow pointing to the 'Languages' dialog box. The dialog box is titled 'Languages' and has a 'Number of languages' field set to '2'. A blue callout bubble points to this field with the text 'Up to 30'. Below this field is a table with two columns: 'Language' and 'Character Set'. The table contains two rows: 1. 'English' with 'English (United States) (0x409)' and 2. 'Chinese' with 'Chinese (Taiwan) (0x404)'. At the bottom of the dialog are 'Import...', 'Export...', 'OK', and 'Cancel' buttons. A blue callout bubble points to the 'OK' button with the text 'Screen object shows language'. On the right side of the image, a vertical toolbar is visible with various icons. A red box highlights the 'English' and 'Chinese' options in the toolbar, with a blue callout bubble pointing to them from the 'Screen object shows language' text.

Project Manager

TEST

Global

Languages

Font Templates

Picture Database

Sound Database

Text Database

Global Tags

Global Macros

Native Script

AP_1

Links

Internal Memory

Link 1

Tags

Sound Table

Setup

General Setup

Command & Status

Clock

Languages

Number of languages: 2

Up to 30

Language	Name	Character Set
1	English	English (United States) (0x409)
2	Chinese	Chinese (Taiwan) (0x404)

Import... Export... OK Cancel

Screen object shows language

View Screen Draw Object Project

Address

Show Tips

Zoom

Normal Size

Project Manager

Screen Manager

Object Library

Macro Command Properties

Object List

I/O List

Standard Toolbar

Object Toolbar

Draw Toolbar

Text Toolbar

Edit Toolbar

Address Toolbar

Picture Toolbar

Status Bar

Semi-transparent Object Dialog View

English

Chinese

More...

PM Designer: Global-> Font Templates

Define font type and size

The image shows the PM Designer interface. On the left is the Project Manager tree with the following items: TEST, Global, Languages, Font Templates (highlighted with a red box and an arrow), Picture Database, Sound Database, Text Database, Global Tags, Global Macros, Native Script, AP_1, Links, Internal Memory, Link 1, Tags, Sound Table, and Setup.

The main window is the 'Font Templates' dialog box. It has a 'Language' dropdown set to 'English' and two unchecked checkboxes: 'Use the templates of the first language for all other languages' and 'Use the templates of:'. Below is a 'Template List' table:

Name	Font & Attributes
Font_1	Microsoft YaHei; 9; Regular
Font_2	Microsoft YaHei; 12; Regular
Font_3	Microsoft YaHei; 14; Regular
Font_4	Microsoft YaHei; 16; Regular
Font_5	Microsoft YaHei; 18; Regular
Font_6	Microsoft YaHei; 20; Regular
Font_7	Microsoft YaHei; 22; Regular
Font_8	Microsoft YaHei; 24; Regular
Font_9	Microsoft YaHei; 26; Regular
Font_10	Microsoft YaHei; 28; Regular
Font_11	Microsoft YaHei; 32; Regular
Font_12	Microsoft YaHei; 36; Regular
Font_13	Microsoft YaHei; 48; Regular
Font_14	Microsoft YaHei; 64; Regular
Font_15	Microsoft YaHei; 72; Regular
Font_16	Microsoft YaHei; 72; Regular
Font_17	Microsoft YaHei; 72; Regular
Font_18	Microsoft YaHei; 72; Regular
Font_19	Microsoft YaHei; 72; Regular

At the bottom of the dialog are buttons for 'Select All', 'Import...', 'Export...', 'OK', and 'Cancel'.

On the right side of the dialog is the 'Current Template' configuration area. It includes an 'Update' button, a 'Name' field with 'Font_1', and three dropdown menus: 'Windows Font' (Microsoft YaHei), 'Font Style' (Regular), and 'Size' (9). Below these are 'Effects' checkboxes for 'Underline' and 'Strikeout'. A 'Script' dropdown is set to 'Western'. A sample text area shows 'AaBbYyZz'. A blue callout box with the text 'Up to 20' points to the 'Font Style' dropdown.

PM Designer: Global-> Text Database

Text Database: Manage multiple languages in project

Import/Export text file

Table: Edit from A to L

String ID	English	Chinese
A00001	Open	開啟
A00002	Close	關閉
A00003	Start	啟動
A00004	Stop	停止
A00005	Emergency Switch	緊急開關

	A	B	C	D	E
1	Table A				
2	2				
3	5				
4	String ID	English	Chinese		
5	1	Open	開啟		
6	2	Close	關閉		
7	3	Start	啟動		
8	4	Stop	停止		
9	5	Emergency	緊急開關		
10					
11					

PM Designer: Global-> Text Database

Text can be adjusted in object

Select text content

Switch "Text Database" menu

Bit Button

General Label Advanced Visibility

Language: English

Border Spacing: 0

Use the text of the first language for all other languages

OFF Text ON Text OFF Picture ON Picture

OFF

Copy from Note

Copy to ON State

Font: Font 1

Color: [Color Picker] Blink: No

Transparent

Alignment: [Left] [Center] [Right]

Char. Spacing: 0

Line Spacing: 0

Position: [Top Left] [Top Center] [Top Right] [Bottom Left] [Bottom Center] [Bottom Right]

Shape Background Color: [Color Picker]

Copy Attributes to ON State



Bit Button

General Label Advanced Visibility

Language: English

Border Spacing: 0

Use the text of the first language for all other languages

OFF Text ON Text OFF Picture ON Picture

OFF Text	ON Text
A00001	Open
A00002	Close
A00003	Start
A00004	Stop
A00005	Emergency Switch

Copy to ON State

Copy Attributes to ON State

Table A Add/Edit...

PM Designer: Global-> Global Tags

Global Tags: Set Global Tags in object that can update internal memory and register directly

Global tags can be used for assigned address which is in internal memory

Under line “_” for
Global tags naming

	Name	Alias For	Data Type	Address	Scan Rate	Description
1	_1		Bit	SU0.0	Normal	
2	_2		Bit	SU1.0	Normal	
3	_3		16-Bit Unsigned Integer	SU100	Normal	
4	_4		16-Bit Unsigned Integer	SU200	Normal	
5	_5		16-Bit Unsigned Integer	SU300	Normal	

PM Designer: Global-> Information and Protection

Developer Password
Default:00000000

**Protected project, only
developer can edit/view
program**

Project Panel Tools Window

Information and Protection...

Languages...

Font Templates...

Picture Database...

Sound Database...

Text Database...

Global Tags...

Global Macros ▶

Add New Panel Application...

Import Panel Application...

Delete Panel Application ▶

Project Information and Protection

Project Name: TEST

Created Time/Date: 10:48 21/ 2/2020

Last Saved Time/Date: 13:47 21/ 2/2020

Developer Password: Edit...

Version: 2.1.9.39

Automatic File Recovery: Set...

Protection Settings:

Item	Protection	Use Developer Password	Use Assigned Password	Tool
Project File	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/> Edit...	
Password Tables	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/> Edit...	
Macros	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/> Edit...	
Screens	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/> Edit...	
PanelExpress	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/> Edit...	Write...

OK

Cancel

Agenda

Part 1 Software Installation & Project Build

Part 2 Project Download & Hardware Setting

Part 3 Software Global Items

Part 4 Software Basic Setting

Part 5 Objective Setting

PM Designer Setting: Internal Memory

HMI Internal Memory \$U、\$N、\$S、\$I

➤ Regular User Memory:\$U (Range: 0~ 1048576)

Can set memory size (default: 5000).

Value recover to 0 when HMI power off.

➤ Non-volatile User Memory:\$N (Range: 0~131071)

This is used when HMI has battery protected memory.

Can set memory size (default: 0).

Value is reserved when HMI power off.

➤ System Memory: \$S (Range: 0~2048)

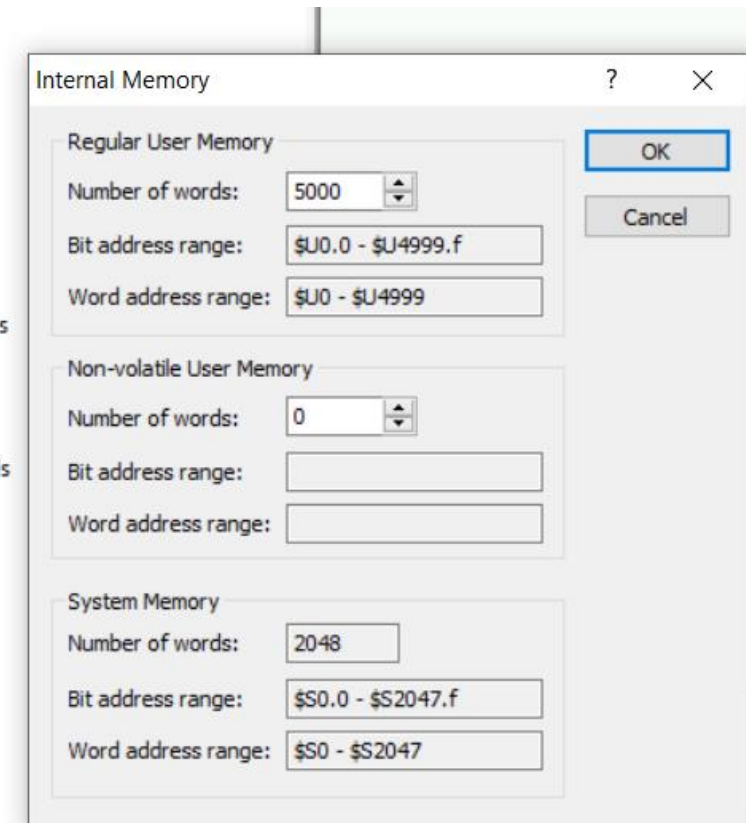
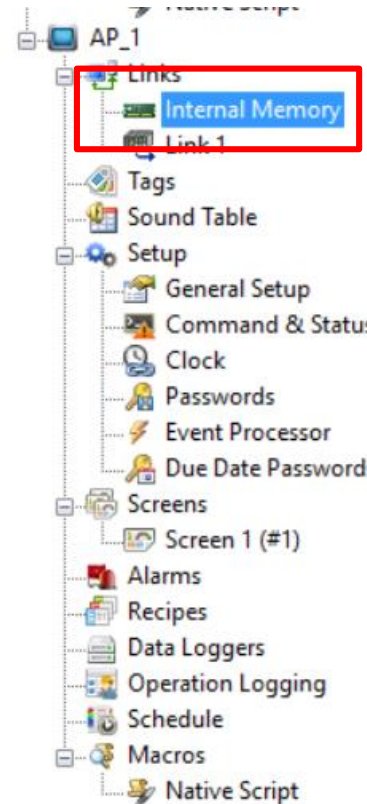
Memory location for system data and information.

User only can access.

Refer to System Memory in User Manual for details

➤ Index register: \$I (Range: 0~255)

Can set indirect address for register, for example \$U[\$I0], when \$I0=100, \$U[\$I0]=\$U100, if HMI power off, value is reserved.



PM Designer Setting: Password

Password: Total 9 level, from 1 to 9

Highest: 9(developer password), Lowest: 1

Developer Password: Default is 00000000 (refer to “Information and Protection” to change password)

The image shows the 'Passwords' configuration window in PM Designer. It includes a table of user levels, login and logout settings, and a 'Log In' dialog box. A callout points to the 'User Name' field in the dialog.

User Level	Password	User Name (*ASCII characters only)
1	1	USER1
2	22	USER2
3	333	USER3
4	4444	USER4
5	55555	USER5
6	666666	USER6
7	7777777	USER7
8	88888888	USER8
<input checked="" type="checkbox"/> 9	Developer Password	ADMIN

Support up to 32 users/passwords at runtime
 Require user name to log in

Login
 Pop up the login keypad for operations requiring a user level higher than the current one
Trigger Bit: None
Timeout: 60 seconds
 Notification

Logout
Trigger Bit: None
 Notification

Minimal Number Of Digits Of The Passwords: 1
 Do not show passwords on the password table at run

Log In
User Name: ADMIN
Password: *****
OK Cancel

Require User Name to log in HMI

PM Designer HMI Application: General Setup

The screenshot shows the 'General Setup' window in PM Designer. The left sidebar contains a tree view with categories like Global, Languages, Font Templates, Global Macros, Native Script, AP_1, Links, Internal Memory, Link 1, Tags, Sound Table, Setup (with 'General Setup' selected), Command & Status, Clock, Passwords, Event Processor, Due Date Passwords, Screens, Alarms, Recipes, Data Loggers, Operation Logging, Schedule, and Macros. The main window has tabs for 'General', 'Custom', 'Custom (2)', and 'Keys'. The 'General' tab is active, showing fields for 'Application Name' (AP_1), 'Model' (PK2070), and 'Display Resolution/Orientation' (800 x 480). Below these are sections for 'Start Up' (Screen: 1, Delay Time: 0 seconds, Language: English, Login Required, Default User Level: 8), 'Idle Processing' (Display Idle Screen, Change User Level, Screen Saver Time: 20 minutes), 'Macro' (Startup, Main, Event, Time macros), 'Hardware' (Battery Backed RAM: 128 KB, Auto Backup: Disabled), and 'Miscellaneous' (Buzzer Sounding Time: 0.5 seconds, Watch Dog Timer, Overlapped buttons, Support Text Anti-aliasing, Check if the panel was stopped safely for the last shutdown). A 'Note' field is at the bottom. Three blue callout boxes with white text point to specific settings: 'Select Model' points to the Model dropdown, 'Select Resolution/Orientation' points to the Display Resolution/Orientation dropdown, and 'Start Up Screen/Language/Level' points to the Start Up section. A fourth blue callout box with white text, 'Idle processing setting', points to the Idle Processing section.

Select Model

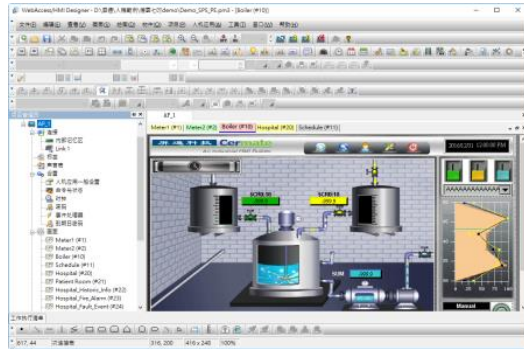
Select Resolution/Orientation

Start Up Screen/Language/Level

Idle processing setting

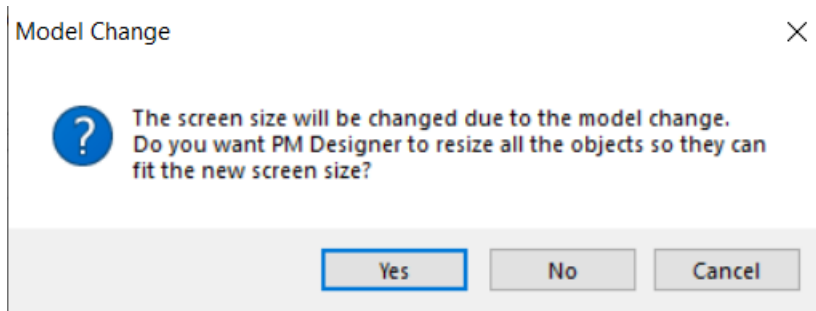
PM Designer HMI Application: General Setup

Screen content scale automatically to fit different size HMI

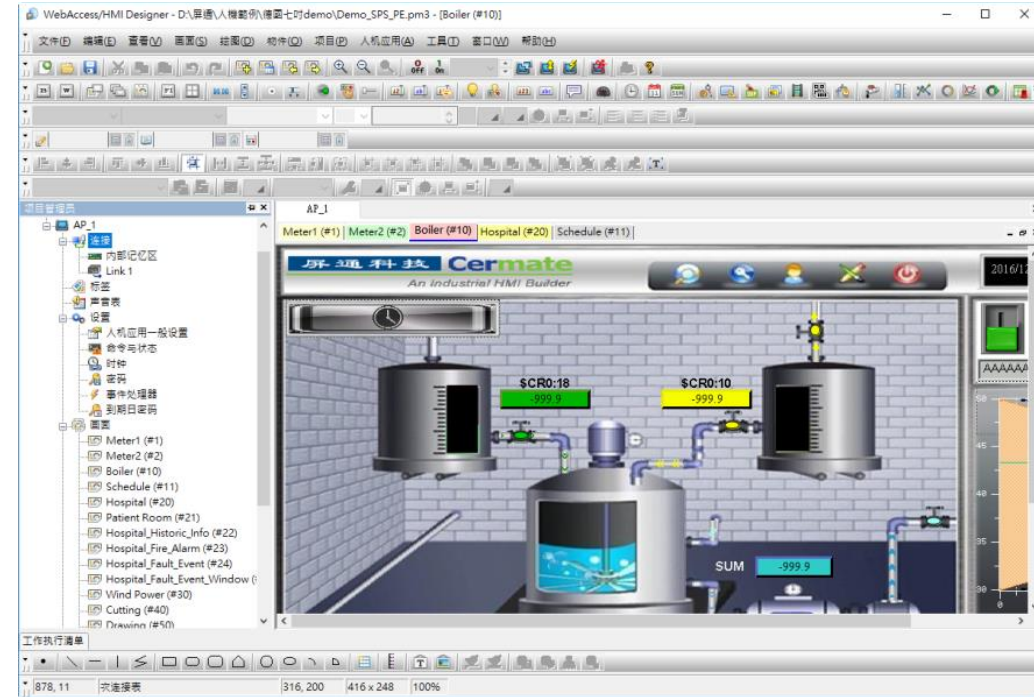


10.1" HMI

Model Change



7.0" HMI

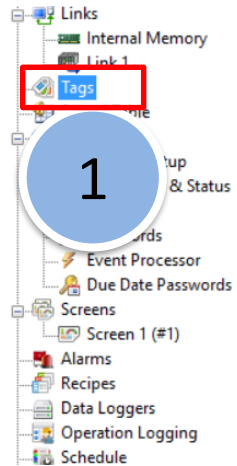


Easy to change different resolution HMI, screen and content(object, word, picture..) can scale automatically

PM Designer Setting: Tags

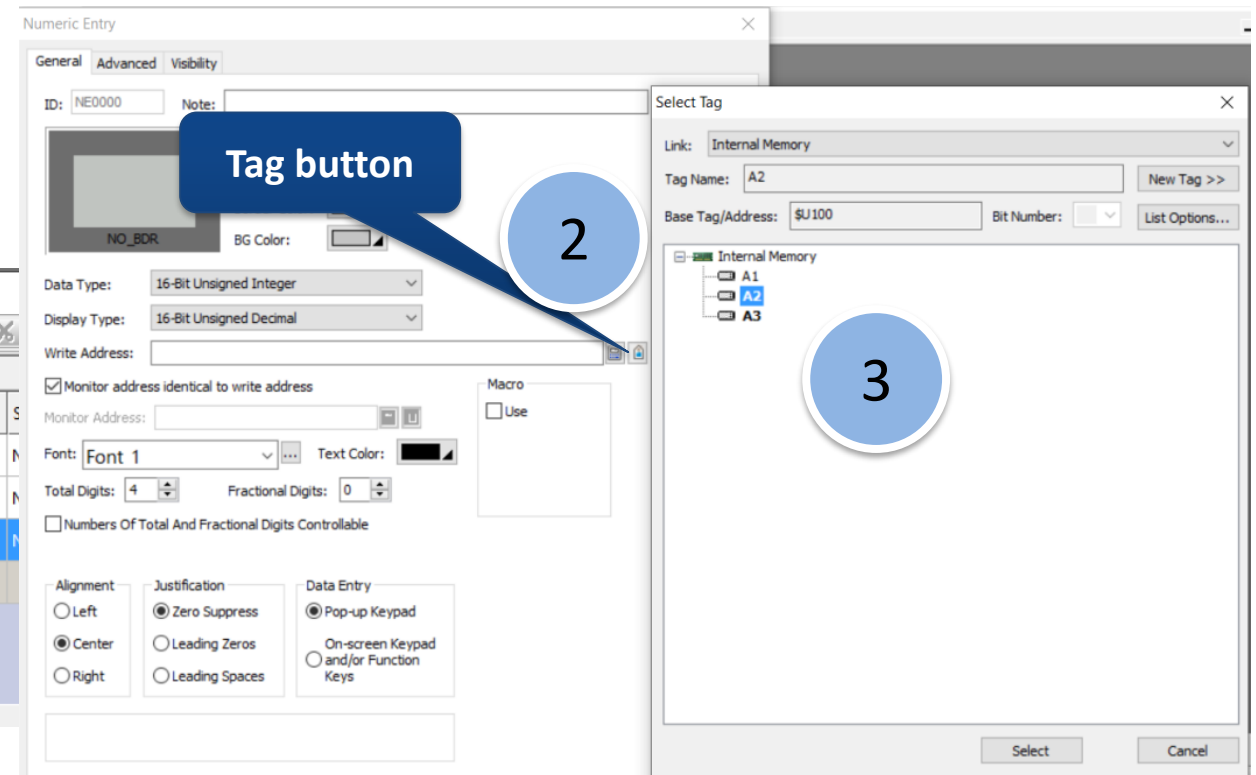
Tags: Convenient for program to unify register address in internal buffer/external memory that can set tag to object and run directly

1. Set Tag Name/Data Type/Address
2. Object address selects Tag button
3. Select the desired Tag



A screenshot of the 'Tag Table (AP_1)' window. It shows a table with the following data:

Link	Name	Alias For	Data Type	Address
1	A100		Bit	W100.0
2	A200		16-Bit Unsigned Integer	W200
3	A300		16-Bit Unsigned Integer	W300



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Part 4 Software Basic Setting

Part 5 Object Setting

PM Designer: Object Control Address

Object Control

Object Setting(General)

Select Palette

General Label Advanced Visibility

ID: TS0000 Note:

Shape

Transparent Picture Shape External Label

Select... Touch Response: Sunken Test

State: On Off Show sunken edge for On state

Border Color: Pattern Color:

Pattern: BG Color:

Macro

ON Macro OFF Macro

Write Address: Monitor Address: Monitor Address identical to Write Address

OK Cancel Help

Bit Device	Address Range	Block Address	Comment
Bn	n: 0~65535	Any address	
Bhn	n: hex. 0~ffff	Any address	
B0_n	n: 1~9999	Any address	
B0hn	n: hex. 0~ffff	Any address	
B1_n	n: 10001~19999	Any address	
B1hn	n: hex. 0~ffff	Any address	

Address Input Keypad

Link: Link 1

Type: Bit Word Bit Of Word

1 : B

Variable

Variable Address

?

PM Designer: Object Control Address

Object Control

Object Setting(General)

Toggle Switch

General Label Advanced Visibility Gradient

ID: TS0000 Note:

Shape

Transparent Picture Shape External Label

Select... Touch Response: Sunken Test

State: On Off Show sunken edge for On state

Border Color: Pattern Color:

Pattern: BG Color:

Write Address: 2\3:W0

Monitor Address identical to Write Address

Monitor Address: 2\3:W0

Macro

ON Macro OFF Macro

Link Port

Device No. :2\3:W0

PLC station

Object name and address

Device No. :W200

If only address, default link set to port 1

PM Designer: Object Text and Picture

Object Control

Object Setting(Label)

Text

The 'Text' settings panel for a Toggle Switch object includes the following elements:

- Language:** A dropdown menu set to 'English'.
- Border Spacing:** A numeric input field set to 0.
- Use the text of the first language for all other languages
- Text Labels:** Buttons for 'OFF Text', 'ON Text', 'OFF Picture', and 'ON Picture'.
- Text Input:** A text area containing the word 'Off'.
- Buttons:** 'Copy from Note' and 'Copy to ON State'.
- Color and Spacing:** 'Color' (black), 'Char. Spacing' (0), and 'Line Spacing' (0).
- Transparent
- Alignment:** Three icons for left, center, and right alignment.
- Position:** A 3x3 grid of radio buttons with the center one selected.
- Shape Background Color:** A color selection icon.
- Copy Attributes to ON State:** A button.

Select language for text

Text for control object

Select picture

Picture

The 'Picture' settings panel for a Toggle Switch object includes the following elements:

- Language:** A dropdown menu set to 'English'.
- Border Spacing:** A numeric input field set to 0.
- Use the text of the first language for all other languages
- Picture Labels:** Buttons for 'OFF Text', 'ON Text', 'OFF Picture', and 'ON Picture'.
- Name:** A dropdown menu set to '(None)'.
- Image Preview:** A large rectangular area for the picture.
- Transparent
- Flip/Rotate:** A dropdown menu set to 0°.
- Tone:** A dropdown menu set to 'None'.
- Fit To Object
- Position:** A 3x3 grid of radio buttons with the top-left one selected.
- Shape BG Color:** A color selection icon.
- Copy to ON State:** A button.

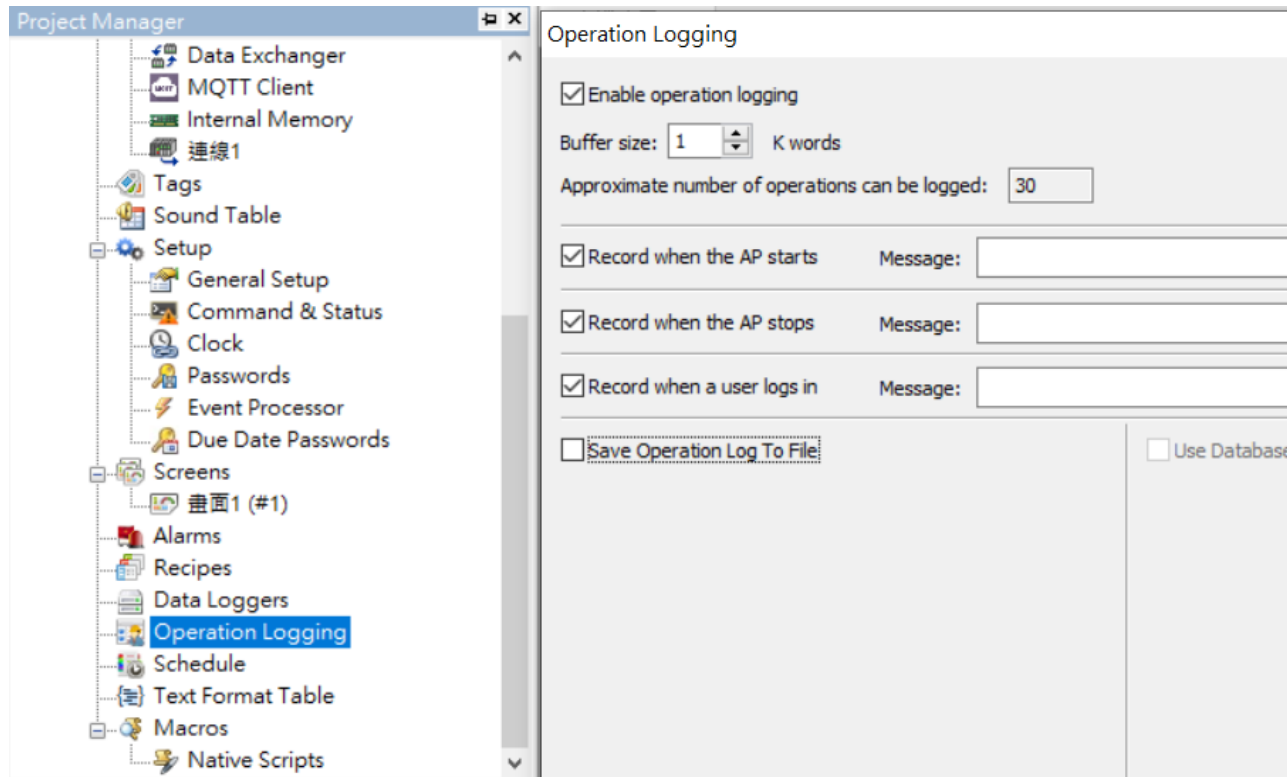
Adjust picture to fit object

PM Designer: Operation Loggings

Object Control

Object Setting(Operation Loggings)

Operation Loggings: Log for HMI operating status/time



Enable operation logging: Select to enable operation loggings

Buffer Size: Set record memory size, unit is K words, range from 1 to 512K words

Record when the AP starts: Record when HMI power on

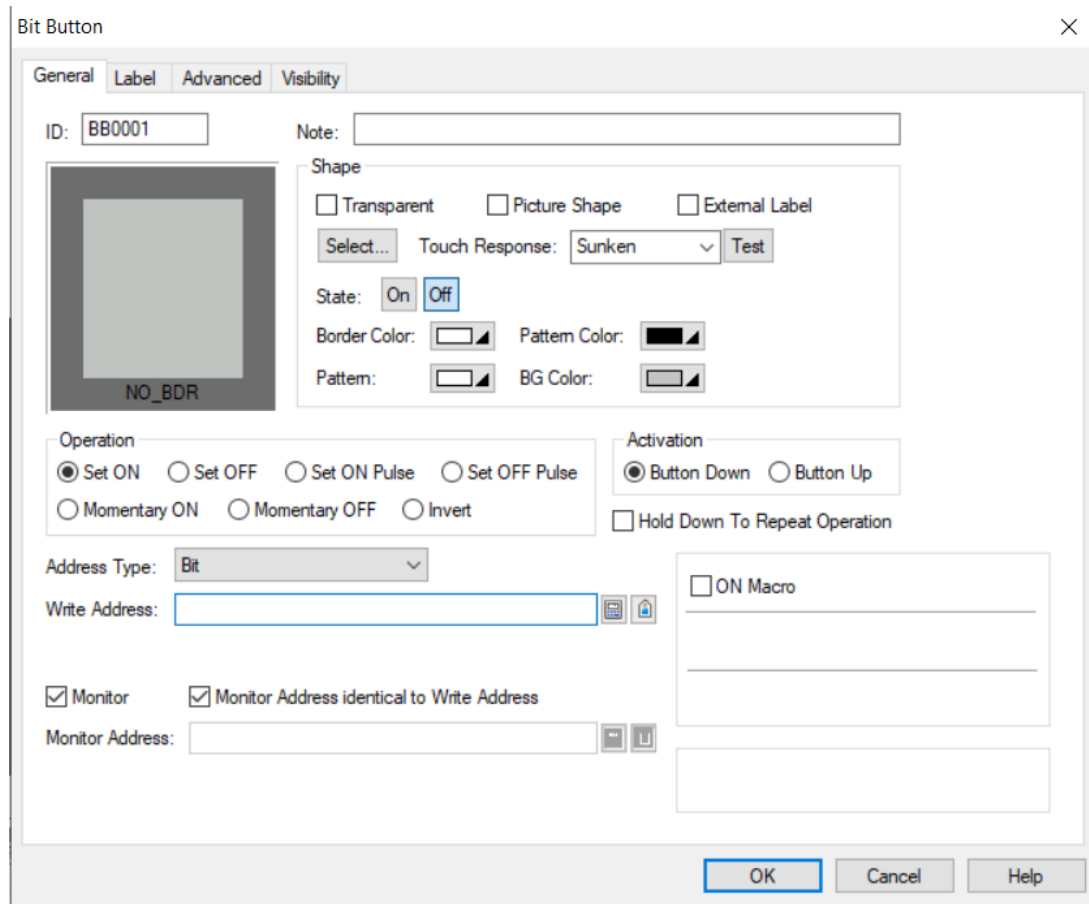
Record when the AP stops: Record when HMI power off

Record when a user logs in: User log in message

PM Designer: Bit Button

Object Control

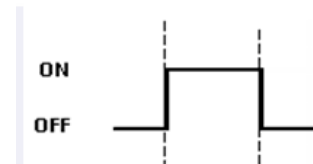
Object Setting(Bit Button)



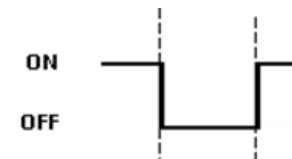
Set ON: Bit for the writing address is set to ON

Set OFF: Bit for the writing address is set to OFF

Set ON Pulse: Write one ON pulse



Set OFF Pulse: Write one OFF pulse



Momentary ON: Bit sets to 1 when pressing button, bit sets to 0 when releasing button

Momentary OFF: Bit sets to 0 when pressing button, bit sets to 1 when releasing button

Invert: Bit inverts when pressing button



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