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1 Introduction

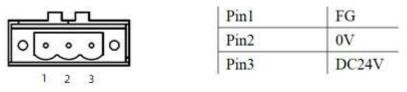
The software "VEDA HCT" you are using is a new configuration software product developed by our R&D team for VEDA HMI. It was produced with more than ten years of technical experience and accumulation based on sufficient practices on Human Machine Interface product development and field actualization. We believe you will feel our specialization and concentration when you use this software. Thank you!

2 Quick start

2.1 Electrical connection of the screen

2.1.1 Connect to the power supply

The rated voltage of the screen is DC18~28V, and DC24V power supply is recommended. The interface is at the back, as shown in Fig. 1, the "24V+" is connected to "DC24V", the "24V-" (or "0V") is connected to "GND". If the field is involved with a high interference, a highly reliable earth must be connected to the "FG" port. (Note: FG- Frame Ground, the reference grounding for the metal shell frame and the DC end.)



| Fig. | 1 |
|------|---|
|------|---|

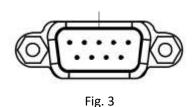
2.1.2 Connect to the computer

The screen can be connected to the computer only via a USB data cable for project uploading and downloading, as shown in Fig. 2.The communication with computer can be realized when it is connected to the "USB SLAVE" end. The USB communication drive can be installed by the system in default during software installation, or the drive can be manually installed if it is damaged. The drive file is saved in the installation directory: "C:\ProgramFiles(x86)\VEDA HCT\VEDA HMI Configuration Tool 2.x\Driver".



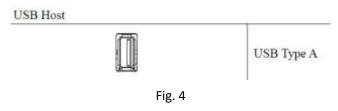
2.1.3 Serial port connection

The serial port of the screen is a standard DB 9-pin port supporting communication modes RS232/485/422, as shown in Fig. 3.Different screen types are integrated with different quantities of serial ports, and please refer to the <u>Description for Communication Connection</u> for the detailed connecting method.



2.1.4 USB Host connection

The screen is integrated with a USB Host device interface. This interface makes it easy to upload or download the project and the prescript by using the U disk. The sampling or warning data can also be saved in the U disk via this interface. A mouse or a keyboard with USB interface can be connected via the USB interface. A set of wireless mouse and keyboard is also usable. As shown in Fig. 4, a U disk can be directly inserted into the "USB HOST" port and be used.



2.1.5 Network port using

The standard RJ-45 network interface is used in the screen for communication with any down unit, as shown in Fig. 5. An RJ-45 plug can be directly inserted into the "Ethernet" port and used.



Fig. 5

2.2 Software downloading and installing

2.2.1 Software downloading

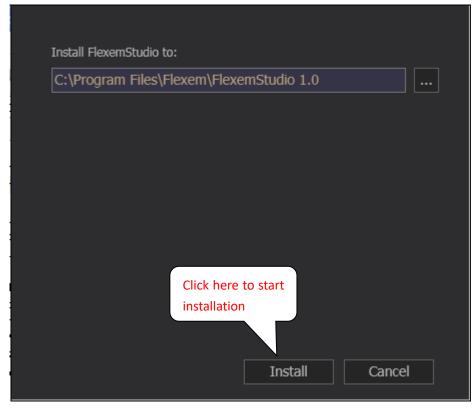
The software "VEDA HCT" can be downloaded from <u>https://drives.ru</u>. There are different versions according to the different operating systems (OS), as shown in Fig. 6.

| File Name | Version | Date | Downloads | |
|---------------------|-------------|------------|-----------------------|--|
| PStudio-2.8.11357.0 | 2 8 11557 0 | 2022-05-28 | For Win7 SP1 Or Above | EW.XP |
| F5tudio-2.8.11315.0 | 28.11315.0 | 2022-03-07 | For Wh7 SP1 Or Above | If you have Windows 7 SP1 or |
| Preview Version | 2.6.10905.0 | 2021-07-14 | For Win7 SP1 Or Above | above, please click the 'For Win7 SPI Or Above' link instead, the installation time will be significantly reduced. System Requirement: |
| File Name | Version | Date | Downloads | Windows XP SP3 Windows Vista SP1 Windows 7 |

Fig. 6

2.2.2 Software installing

Double click the "SETUP.exe" to install the software "VEDA HCT", as shown in Fig. 7. Click the left button to start installation.





2.2.3 Installation is completed.

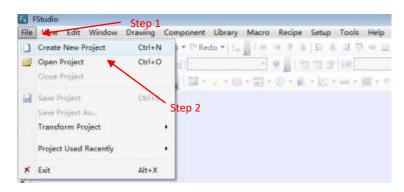
Click the button to complete the software installation, as shown in Fig. 8.



Fig.8

2.3 First use

(1) Click the menu "File"—"New", or click the shortcut "____", as shown in Fig. 9.



(a)

| File View Edit | Window Drawing Compon | ent Library Macro F | Recipe Setup Tools Help |
|----------------|---|---------------------|-------------------------|
| 0000 | A 내라 1월 🖄 🗡 🕴 Undo 🔹 🕅 | Redo • 🗠 📄 😐 | 医第1日本国可分出 |
| New | 11111111 | | 1433314 |
| IAND. GO | 000000000000000000000000000000000000000 | |) - III - III - III - I |
| 0 | 17 | | |



Fig. 9

(2) Enter the project name and select the project saving path. The project name can be Chinese, as shown in Fig. 10.

| Create New Project | | - |
|--|----------------|--------|
| Category(C): | | |
| HMI Project | | |
| | | |
| | | |
| | | |
| The project | name | |
| | The saving pat | :h |
| | | |
| Name(N): Location(L): E):2015-2016-1/project-fe | | - |
| Cocation(C): EQ2015-2016-1/project-te | | • [] |
| 35.5 m | OF 1 | Cancel |



(3) Select the touch screen type, as shown in Fig. 11.

| Local HMLFE4070 | Plenes select MMI model: Select appropriate MMI model by screen size and resolution. Select "AI" when are not use. |
|-----------------|--|
| | LCD SizeOrchit ALL . |
| | Screen Resolution(Flant) (4) |
| | HMI Device Type: #E4030 |
| | Produit Description Read # 194070 (Feature 1 |
| | LED Size: 7 10.4043 (0.X.480 |
| | FE4121 Color: 24817 Color: 164135 a minimum Touch Panel |
| | Batton: None 15570 USB Hoat1 15510 COM1: 812227/85485-2 COM1: 812227/85485-2 COM1: 812227/85485-2 F5220 |
| | COME: 85232 F010 2252 |
| | CANK None #2020-V5 216 |
| | Vedic: None PE2204-VS - pre |
| | Proceed Confirm |

Fig. 11

(4) Click the button "Next" and set the bus line communication mode for the touch screen, as shown in Fig. 12.

| Loral HMEFE4070 | HMI Property 00 | ME CONG COMS | COMM | |
|---|---|---|-------------------------------|--|
| Local Connection COMEDeviceEnfLEXEM PLINEMISTURESH COM2:Unused | Ethernet Letting O Auto IP Addrese | + (HR7) | B Static IP Address | |
| - COM2/United - COM4/United | IP Address: | 192.168.0.200 | SRW10010-11 | |
| Remote Connection | Subret Mask: | 255.255.255.0 | \$RW10014-17 | |
| | Gateway | 192.168.0.1 | \$8W10018-21 | |
| | ONSI | 0.0.0.0 | \$RW10022-25 | |
| | DNS2I | 0.0.0.0 | \$KW10028-29 | |
| | Use system list re (Asto-affocate or | | t IP address assigning method | |
| | Rotation Display | | | |
| | · Normal (Horio | ortal Display! | Presien | |
| | -O Vertical (Robate | 10 degrees Cox | | |
| | O'Vertical/Intel® Degree court A | | | |
| | | | | |
| | Contraction of the | 0.0000000000000000000000000000000000000 | | |
| | | | | |

(a) HMI Property

| ufecturer: PLEXEN | RIZNOMET LIEU HA | Provide Service(Slave) NON COMPATIBLE |
|--|--|---|
| une Type (RENEM) vice Alam (Device) | PL2NOMETURIDO | · I INON COMPATIBLE) · |
| vice Alan Devices | | IN2N COMPATIBLE) |
| | | |
| elion No.: Constant | 1 + + | |
| | | |
| et Stations Lation Setting | | Compatible Model FLEXEM FLIMEERFROMBE |
| rication Type: (8523 | 4 . | |
| ne 1152 | . 00 | |
| 2. | | |
| e (8. | | |
| t Even | Advance | 11. A |
| | cation Setting Refer Type (852) Se (115) 7 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | cation Setting *celor Type: 8532 • se: 15500 • 1 • t Even • |

(b) COM

| in. | | | | | |
|-----------|--------------------------------|--|--|---|---|
| 1 | Device Alias | 1F [192.168.0.2 | Port 902 | Device Type Modbus TOP | Detault Sta 1 |
| | Ehernet PLC | | ai (Ceratar | 4.0) | 102 A |
| | | stire | | | • |
| t Station | No. Constant | | est. | 1 Advance | 1 |
| | atterner (Abase Station | 2 C Dr Sanster by Rencole Edvess of Ethernet PLC ad | 2 [102.188.02 C Dr. Sensise by Renoble Mutti Edvess of Ethernet PLC ed. • S52.568, 0 . 2 Port N ethermin MODBUIS Conspatible Type ModBuis TCP: Alart: Aliac convert for nell. Default De- Station No: [Centaux]+ | 2 [192286.0.3 [902 C Dr. Sansise by Rancola HMD Edvess of Ethernet PLC ed. * 352.268, 0 . 2 Fort No.1 Canoba etarmin MODBULE Corespondance Type ModBusk TCF Alart: diffic cannot for rul, Unifact Desired Station No.: [Constant: +] | 3 [902 BKR.0.3 [902 Weedbash TCP CC Cht Sandse by Renche MMD Edvess of Ethernet PLC ed. • 152.348.0 Content. • etartmini MODBUIS Conspatible Type: Modbiash TCP Alart: Alart: Alart: Station Not: Constant: +) 1 |

(c) Ethernet PLC (Or Service by Remote HMI)

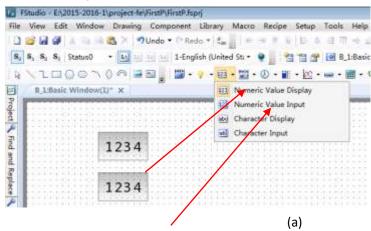
Fig. 12

(5) After the project is initialized, click the button "Confirm" and the project is created, as shown in Fig. 13.

| 3 |
|---------------------------------|
| £2 • • • • ■ • * • ◆ • 語 |
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| |

Fig. 13

(6) Add an "Input" variable and a "Display" variable into the picture and set the properties, as shown in Fig. 14.



| Numeric Input | 1.5 |
|--|-----------|
| several Marrison Format Repboard Setting Fort Graphics Dynamic Graphics Centrol Settings | Display |
| Operation Athributes 👘 Nemeric Display 🕸 Nemeric Lepon 🗢 Characters Display 🔿 Overacters In | nat |
| 🛛 Reading And Winking Addows Is Different 📰 Research | |
| Read Address | |
| 📴 Use Address Tag | |
| Deiver (LDCM.(Local Register) +) | |
| Set the variable address | |
| | |
| | |
| Help Description | OK Career |
| | (b) |

Fig. 14

(7) Click "Offline simulating" button and wait till engineering is completed, as shown in Fig.

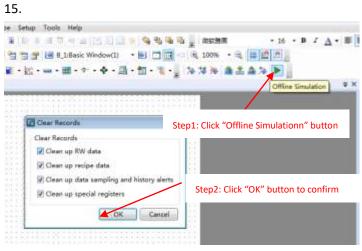
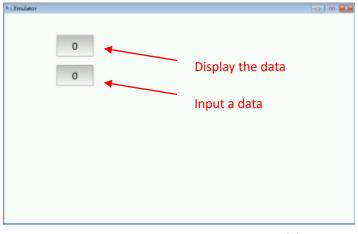


Fig. 15

(8) Debug with the simulator to view the design effect, as shown in Fig. 16.



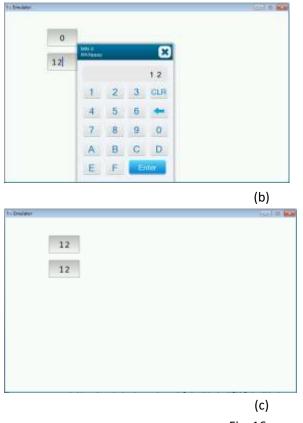


Fig. 16

2.4 Project download and upload

2.4.1 Project downloading

(1) Switch on the power supply to the touch screen, select "Download" in the software, and wait till downloading is completed, as shown in Fig. 25.

| Tools Help Image: I | |
|---|--|
| Click here to download | |
| Downloading Packaging Project | |

Fig. 25

(2) Select the project downloading mode, USB or network, and click OK to download, as shown in Fig. 26. If "Communication failure" appears, please check if the downloading line is correctly connected (USB line or network line). If the downloading operation is failed, please cut off the power supply to restart the HMI and try again.

| Fratoral 0 123 0 123 0 14arnet 192 188 0 200 Scan | Delete Option (Project Valid) 20 Selete SM Data 20 Selete Heripe Sata 20 Selete Sampling and Alars History |
|---|--|
| Deta Seurce Project D Fpg File D BF Data Racipe E \project\PS\ss\bin | Ists Ilette ME Memory Dlock Ilette Uner's Infe Download Option(Fraject Valid) Ilette Hode Iforce Hode |
| | Ren1++4 |
| | Click here |

Fig. 26

(3) Wait till downloading is completed, and then click "OK", as shown in Fig. 27.

| Protocal table table table table t | Balata Option Groject Valid) Delata Britan Delata Recipe Bata Delata Bacing and Alara Mixtory Data Delata MRI Mesory Block Delata Nos" x Info Desnlead Option Groject Valid) Desnlead Option Groject Valid) Desnlead Option Groject Valid) Desnlead Option Groject Valid) Desnlead Option Groject Valid) | |
|--|---|--|
| | | |

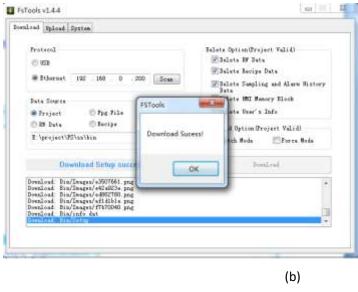


Fig. 27

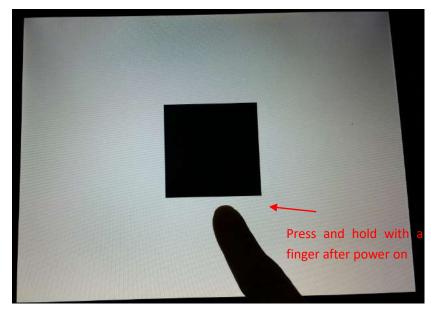
2.4.2 Project downloading from USB disk

1 Pack the project in the software and save it into the USB disk, as shown in Fig. 28.

| Tools Help |
|--|
| |
| T B I:Dasic Window(I) T F III 7 & 100% T K III III 7 |
| |
| · · · · · · · · · · · · · · · · · · · |
| T |
| |
| ······································ |
| 2 Package file name 1 Click here to pack |
| , |
| |
| |
| |
| Pack to Disk 3Saving path |
| Pack to Disk 3Saving path |
| Compile and download the project to disk, downloadable |
| with USB disk or FSTOOLLS. |
| Name: FirstT_20151111_b01.fpg |
| Name: Pistr_20131111_001.ipg |
| Location: G:\project\FS\FirstT |
| |
| Help OK Cancel |
| |
| (a) |
| |
| 🖪 Address Tag Library |
| |
| |
| Packing to the disk finished. |
| |
| Open file folder Off |
| open me loider |
| |
| (b) |

Fig. 28

(2) Insert the USB disk into the touch screen. When the touch screen is activated, press and hold at any point on the screen with a finger, as shown in Fig. 29.





③ Press the button "Setup" for uploading, as shown in Fig. 30. Select "Project" and enter the password, as shown in Fig. 31. The default password for project management is "888888" which can be modified in the "Global Setting" of the software.

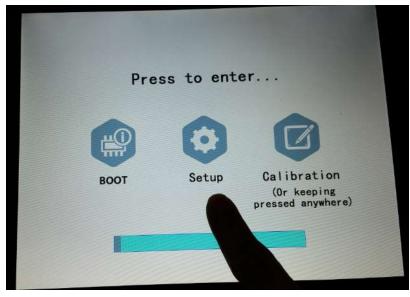
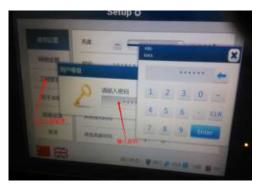


Fig. 30



| | Setup Ø | | | | | |
|-------------|--|--|--|--|--|--|
| General | Brightness: + 100% | | | | | |
| Network | Time: 2015/1 | | | | | |
| Project | User level ····· · · · · · · · · · · · · · · · · | | | | | |
| ①Click here | Backlight Timeout: 4 5 6 CLR | | | | | |
| Security | ②Click to enter the password 9 Enter | | | | | |
| | State: 🍟 Net 🎓 USB 層 Udisk 😭 SD | | | | | |



④ Select the package file in the USB disk on the tab page "Import" (if project uploading to a USB disk is needed, please select the tab page "Export". The path for uploading the project file needs to be given), and wait till data transmission is completed, as shown in Fig. 32.

| General | Import | Export. | Cicat D | uta - |
|-------------|------------|----------|---------|---------|
| Network | Path: | /disk/us | b1/Fs/ | |
| Project | 1 20151113 | 901.fpg | 1 | |
| Information | | | | |
| Advanced | | | | Project |
| Security | | | | Recip |

(a)

| General | Import | Export | Clear Data | |
|------------|--------------|---------------------|------------|----|
| Network | Clear RW | | 1.01 | |
| Project | Ciear Recipe | | 1 | |
| nformation | Clear SFR | | Proje | - |
| Advanced | Clear sample | data and event hist | tory | |
| Security | | 1° | K Reb | pe |





(c)

Fig. 32

2.4.3 Project uploading

(1) Click the "Upload" icon on the tool bar, set the communication mode, select to upload the project, and start to upload the project, as shown in Fig. 20.

| ponent Library Macro Recipe Setup Tools Help | |
|---|-----------------------|
| • (* Redo • 🎝 🚛 :) - 部 田 田 田 本 当 可 み 山 日 到 🕄 🧐 唱 唱 🕒 🖕 : | |
| 1-English (United Sta 🔹 🔮 📑 😭 😭 💽 Li:Basic Window(1) 🔹 😥 🗖 🖬 🖘 🍳 100% 🔹 🤤 | # ₽ |
| 🟙 + 💡 + 🖾 + 🖞 - 🕖 + 🗉 + 🖄 + 🔤 + 🗁 + 🌩 + 🛤 - 🛅 + 🦉 + 📳 🏂 🏄 🏄 🛓 | b 🏇 🕨 📘 |
| <i>D</i> | |
| | |
| 📱 FsTools v1.4.4 📃 📼 💌 | Step 1: click here |
| Download Upload System | |
| Protocol © USB Step 2: select the communication protocol © Ethernet Step 3: select the type of upload data source © Project Step 4: click here | re to start uploading |
| Decompile | |
| Choose a file to be decompiled (*. fpg) Choose a folder to save decompiled files Decompile | |
| | |

Fig. 20

(2) Enter the password for uploading, as shown in Fig. 21. The default password is "8888888" which can be modified in "Global Settings", as shown in Fig. 22.

| enload Upload System | | |
|-------------------------------------|---|------------|
| Protocol | | |
| | | |
| @ 1258 | | |
| CRtherast 0 0 | 0 0 Scan | |
| (F | The second | |
| Upload Data Source | Please enter a Upload Password! | |
| 21 August and a second second | | |
| Project | ***** | |
| | OK Cancel | |
| Contractory and | | |
| Dersepile Choose a file to be de | | |
| Lapose a flie to be de | condition (16) | |
| Choose a felder to ser | | |
| | | [August 1] |
| | 1 | Decempile |
| | | |

Fig. 21

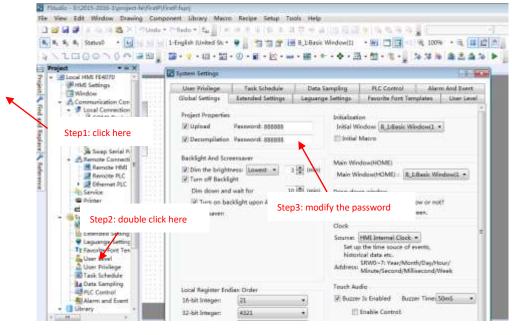


Fig. 22

(3) Select the project uploading path and save the file name, and click "Save".

(4) If the screen is correctly connected to the computer, the packaging operation will be started for uploading. Select the "Project" option, and click the "Upload" button, as shown in Fig. 23. When the uploading operation is finished, the "Uploading Success!" dialog box pops up, as shown in Fig. 24. Then click the "OK" button.

| Invites 1 | pload B | rsten | | | | |
|-----------|-----------|---------------------|-----------|--------|-----------|--|
| frotac | d | | | | | |
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| | | | | | Decempile | |

Fig. 23

| Frateeal | | |
|----------------------------------|--------------------|-----------|
| ÷ 103 | | |
| © Ithernet 0 , 0 , 0 | 19 FSTools | |
| Hyloud Data Source Project | Uploading Sucess I | |
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| Decompile | | |
| Chosts a file to be decempiled@ | 200701 | |
| Choose a folder to save decompil | ed files | |
| | 122400 | Decumpile |

Fig. 24

2.4.4 Project uploading to USB disk.

The uploading to USB disk is similar to the downloading from USB disk. Please see the details in the <u>Quick start/Project download and upload/Project Downloading from USB disk</u>.

Select "Export the Project" in the 4th step.

2.4.5 Project decompiling

The project upload package file is operated for the project decompiling. The file type is fpg. Decompiling can create a project package. The function of project package can be seen in <u>Quick start/Project download and upload/Project uploading</u> or <u>Quick start/Project download and upload/Project uploading</u> or <u>Quick start/Project download and upload/Project uploading</u> or <u>Quick start/Project download and upload/Project uploading</u>.

(f)irstly, click the tool button "Decompile", select the package fpg file, set the project saving path, and click the "Decompile" button, as shown in Fig. 17.

| onent Library Macro Recipe Setup Tools Help | |
|--|--------------------------|
| (*Redo*[4] # # # # # # # # # # # # # # # # # # # | - · B Z A - = |
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| 🎬 • 💡 • 國 • 🕎 • 🕖 • 🏢 • 🖄 • 🛶 • 🗮 • १* • 💠 • 🌆 • 🛍 • 🖏 • 🖉 • 🚪 🏂 | 78 % 📾 🗶 🏔 🎉 🕨 📗 |
| | Decompile |
| | |
| FsTools v1.4.4 | |
| Bownland Upload Syntam | Ctoral, slighters |
| Fretacol | Step1: click here |
| Tratacat | |
| @ USB | |
| C Ethernet | |
| Vpload Data Source | |
| 🖷 Project 🔘 EF Data 💮 Becipe 💿 Loga | |
| Step2: select a file | et the saving path |
| Decompile | Step4: start decompiling |
| Choose a file to be decompiled (* fpg) | |
| | |
| Choose a folder to save decompiled files | |
| Decompile | |
| | |
| | |
| 2 | |



(2) Enter the password for decompiling. The default password is "888888" which can be modified can viewed in the "General Setting" of the software, as shown in Fig. 18.

Fig. 18

③After the "Decompile Success!" dialog box appears, click "OK" to complete the decompiling, as shown in Fig. 19.



Fig. 19

3 Description for communication connection

DELTA

•

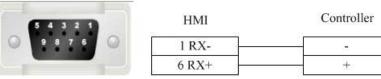
- HMI
 Controller

 2 RX
 5 TXD

 3 TX
 4 RXD

 5 GND
 8 GND
- DELTA DVP series RS232 cable

DELTA DVP series RS485-2 cable



Registers supported by DELTA DVP:

| Device | Bit Address | Word Address | Format | Notes |
|-------------------------|-------------|--------------|--------|-------|
| External output node | Y0-9999 | | 0000 | |
| External input node | X0-9999 | | 0000 | |
| Internal auxiliary node | M0-9999 | | DDDD | |
| Sequence control node | SO-9999 | | DDDD | |
| Timer node | то-9999 | | DDDD | |
| Counter node | C0-9999 | | DDDD | |
| Timer buffer | | TV0-9999 | DDDD | |
| Counter buffer | | CV0-127 | DDD | |
| Counter buffer (32 bit) | | CV2 232-255 | DDD | |
| Data register | | D0-65535 | DDDDD | |

FATEK

FATEK FB series RS232 cable



| Controller |
|------------|
| 4 TXD |
| 2 RXD |
| 1 GND |
| |



FATEK FB special series RS232 cable



| HMI | Controller |
|-------|------------|
| 2 RX | 2 TXD |
| 3 TX | 1 RXD |
| 5 GND | 6 GND |
| | 3 RTS |



FATEK FB series CB module RS232 cable



| HMI | |
|-----|--|
| | |

Controller

| 2 RX | 2 TXD |
|-------|-------|
| 3 TX | 3 RXD |
| 5 GND | 5 GND |

4 CTS

FATEK FB series R485-2 cable



| HMI | Controller |
|-------|------------|
| 1 RX- | D- |
| 6 RX+ | D+ |
| 5 GND | G |

registers supported by FATEK FB

| Device | Bit Address | Word Address | Format | Notes |
|-------------------------|-------------|--------------|--------|-------|
| External output node | Y0-9999 | | DDDD | |
| External inputnode | X0-9999 | | DDDD | |
| Internal auxiliary node | M0-9999 | | DDDD | |
| Sequence control node | S0-9999 | | DDDD | |
| Timer node | T0-9999 | | DDDD | |

| Counter node | C0-9999 | | DDDD | |
|------------------------|---------|------------|------|--|
| Data register | | R0-9999 | DDDD | |
| Data register | | D0-9999 | DDDD | |
| Timer buffer | | то-9999 | DDDD | |
| Counter buffer | | CO-199 | DDD | |
| Counter buffer (32bit) | | DRC200-255 | DDD | |

Flexem

1 flexem_fl2n_mistubishi_fx2n_compatable

Flexem(MISTUBISHI FX2N COMPATIBLE)

Flexem FL2N series RS232 cable

HMI



| Controller |
|------------|
| |

Controller

| 2 RX | 3 TXD |
|-------|-------|
| 3 TX | 2 RXD |
| 5 GND | 5 GND |

Flexem FL2N series RS485-2 cable

| HMI | Controller |
|-------|------------|
| 1 RX- | |
| 6 RX+ | + |
| 5 GND | GND |

Registers supported by Flexem FL2N(MISTUBISHI FX2N COMPATIBLE)

| Bit Address | Word Address | Format | Notes |
|--------------|---|---|---|
| X000-571 | —— | 000 | |
| Y000-571 | | 000 | |
| S0000-9999 | | DDDD | |
| SM8000-9999 | —— | DDDD | |
| T_bit000-255 | | DDD | |
| C_bit000-255 | | DDD | |
| —— | T_word000-255 | DDD | |
| —— | C_word000-255 | DDD | |
| | C_dword200-255 | DDD | |
| | D0000-7999 | DDDD | |
| | SD8000-9999 | DDDD | |
| | X000-571 Y000-571 S0000-9999 SM8000-9999 T_bit000-255 | X000-571 Y000-571 S0000-9999 SM8000-9999 T_bit000-255 C_bit000-255 T_word000-255 C_word000-255 C_word000-255 C_dword200-255 D0000-7999 | X000-571 OOO Y000-571 OOO S0000-9999 DDDD SM8000-9999 DDDD T_bit000-255 DDD C_bit000-255 DDD T_word000-255 DDD C_word000-255 DDD C_dword200-255 DDD D0000-7999 DDDD |

2 flexem_fl2n_modbus

•

FLEXEM FL2N (Modbus compatible protocol)

Flexem FL2N series RS232 cable



| HMI | Controller |
|-------|------------|
| 2 RX | 3 TXD |
| 3 TX | 2 RXD |
| 5 GND | 5 GND |

Flexem FL2N series RS485-2 cable



| 1 RX- | |
|-------|-----|
| 6 RX+ | + |
| 5 GND | GND |

Controller

Registers supported by Flexem Fl2N (Modbus)

HMI

| Device | Bit Address | Word Address | Format | Notes |
|-------------------------|-------------|----------------|--------|-------|
| External input node | X0-571 | | 000 | |
| External output node | Y00-571 | | 000 | |
| Internal auxiliary node | S0-999 | | DDD | |
| Internal auxiliary node | M0-2047 | | DDDD | |
| Special auxiliary node | SM0-511 | | DDD | |
| Timer node | T_bit0-255 | | DDD | |
| Counter node | C_bit0-255 | | DDD | |
| Analog output register | | AQ0-255 | DDD | |
| Analog input register | | AI0-255 | DDD | |
| Timer buffer | | T_word0-255 | DDD | |
| Counter buffer | | C_word0-255 | DDD | |
| Counter buffer (32 bit) | | C_dword200-255 | DDD | |
| Data register | | D0-4095 | DDDD | |
| Special data register | | SD0-511 | DDDD | |

3 Differences between Flexem FL2N(Mistubishi FX2N Compatable) and Flexem FL2N(Modbus)

Differences between FLEXEM FL2N(MISTUBISHI FX2N COMPATIBLE) and FLEXEM FL2N(modbus): FLEXEM FL2N(MISTUBISHI FX2N COMPATIBLE) is compatible with Mitsubishi, while FLEXEM FL2N(modbus) is compatible with MODBUS.

Additional description:

1 If modbus applies PLC Addresses (Base 1), please refer to the table below for the address correspondence

| Device | Туре | Address | Protocol address | Function code |
|--------|-------------|-----------|------------------|---------------|
| Y | Bit | Y0-377 | 0001-0256 | 1,5,15 |
| х | Bit | x0-377 | 1201-1456 | 1,5,15 |
| | | | | 2 |
| М | Bit | M0-M2047 | 2001-4048 | 1,5,15 |
| SM | Bit | SM0-SM511 | 4401-4912 | 1,5,15 |
| S | Bit | S0-S999 | 6001-7000 | 1,5,15 |
| Т | Bit | T0-T255 | 8001-8256 | 1,5,15 |
| С | Bit | C0-C255 | 9201-9456 | 1,5,15 |
| D | Word | D0-D4095 | 0001-4096 | 3,6,16 |
| SD | Word | SD0-SD511 | 8001-8512 | 3,6,16 |
| Т | Word | T0-T255 | 9001-9256 | 3,6,16 |
| С | Word | C0-C199 | 9501-9700 | 3,6,16 |
| С | Double word | C200-C255 | 9701-9756 | 3,16 |

2 If modbus applies Protocol Addresses (Base 0), please refer to the table below for the address correspondence

| Device | Туре | Address | Protocol address | Function code |
|--------|-------------|-----------|------------------|---------------|
| Y | Bit | Y0-377 | 0000-0255 | 1,5,15 |
| х | Bit | x0-377 | 1200-1455 | 1,5,15 |
| | | | | 2 |
| М | Bit | M0-M2047 | 2000-4047 | 1,5,15 |
| SM | Bit | SM0-SM511 | 4400-4911 | 1,5,15 |
| S | Bit | S0-S999 | 6000-6999 | 1,5,15 |
| Т | Bit | T0-T255 | 8000-8255 | 1,5,15 |
| С | Bit | C0-C255 | 9200-9455 | 1,5,15 |
| D | Word | D0-D4095 | 0000-4095 | 3,6,16 |
| SD | Word | SD0-SD511 | 8000-8511 | 3,6,16 |
| Т | Word | T0-T255 | 9000-9255 | 3,6,16 |
| С | Word | C0-C199 | 9500-9699 | 3,6,16 |
| С | Double word | C200-C255 | 9700-9755 | 3,16 |

HCFA

HC series PLC series CPU port RS232 cable

HC serial port programming cable is used to communicate with the HMI device.

HC series PLC circular 8-pin RS485-4 cable

•

| | HMI | Controller | |
|-----------|-------|------------|--|
| | 1 RX- | 4 TX- | |
| | 6 RX+ | 7 TX+ | |
| 5 4 3 2 1 | 5 GND | 3 GND | |
| 9876 | 4 TX- | 1 RX- | |
| | 9 TX+ | 2 RX+ | |

Registers supported by HCFA HCA2s_HCA2c_HCA2_LX1N_LX1S

| | - | | | |
|------------------------|-------------|--------------|--------|-------|
| Device | Bit Address | Word Address | Format | Notes |
| Output relay | Y0-571 | | 000 | |
| Input relay | X0-571 | | 000 | |
| Internal relay | M0-7999 | | DDDD | |
| Timer contact | T_bit0-255 | | DDD | |
| Counter contact | C_bit0-255 | | DDD | |
| Stepping relay | SO-9999 | | DDDD | |
| Special internal relay | SM8000-9999 | | DDDD | |
| Data register | | D_word0-7999 | DDDD | |
| Special data register | | SD8000-9999 | DDDD | |
| Timer current value | | T_word0-255 | DDD | |
| Counter current value | | C_word0-255 | DDD | |

Registers supported by HCFA HCA4

| Device | Bit Address | Word Address | Format | Notes |
|----------------------|-----------------------------|---------------------|---------|-------|
| Hold Relay | HR_bit 00.00-99.15 | | DD.DD | |
| Data Relay | DM_bit 0000.00-6655.15 | | DDDD.DD | |
| Link Relay | LR_bit 00.00-63.15 | | DD.DD | |
| Auxiliary Relay | AR_bit 00.00-959.15 | | DD.DD | |
| Channel I/O | CIO_IR_bit 000.00-511.15 | | DDD.DD | |
| Counter Relay | | CNT_word 000-511 | DDD | |
| Timer Relay | | TIM_word 000-511 | DDD | |
| Hold Register | | HR_word 00-99 | DD | |
| Data Register | | DM_word 0000-6655 | DDDD | |
| Link Register | | LR_word 00-63 | DD | |
| Auxiliary Register | | AR_word 000-959 | DDD | |
| Channel I/O Register | | CIO_IR_word 000-511 | DDD | |

Registers supported by HCFA HCA8s_HCA8c_HCA8

| Device | Bit Address | Word Address | Format | Notes |
|----------------|-------------|--------------|--------|-------|
| Output relay | Y0-764 | - | 000 | |
| Input relay | X0-764 | | 000 | |
| Internal relay | M0-7999 | | DDDD | |

| Timer contact | T_bit0-511 | | DDD |
|------------------------|-----------------|----------------|--------|
| Counter contact | C_bit0-511 | | DDD |
| Stepping relay | S0-4095 | | DDDD |
| Special internal relay | SM8000-9999 | | DDDD |
| Data register bit | D_bit0.0-7999.F | | DDDD.H |
| Data register | | D_word0-7999 | DDDD |
| Special data register | | SD8000-9999 | DDDD |
| Timer current value | | T_word0-255 | DDD |
| File register | | R0-32767 | DDDDD |
| Counter current value | | C_word0-199 | DDD |
| Counter current value | | C_dword200-255 | DDD |

Controller

RJ-45

Hitachi

EHV-CPU_APPLICATION series programming cable

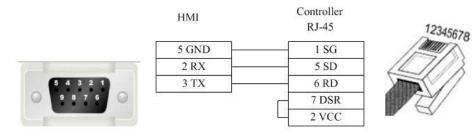
HMI



| 5 GND | 1 SG |
|-------|-------|
| 2 RD | 5 SD |
| 3 SD | 6 RD |
| 8 TXD | 8 RTS |
| 1 RX- | 7 DSR |
| 4 TX- | 2 VCC |
| 6 RX+ | 8 |
| | |



EHV-CPU_APPLICATION series RS232 cable



EHV-CPU_APPLICATION series RS485-4 cable

| | HMI | Controller 15pin |
|-----------|-------|---------------------|
| | 1 RX- | 12 SDN |
| | 6 RX+ | 13 SDP |
| | 5 GND | 11 SG |
| 5 4 3 2 1 | 9 TX+ | 7 RDP |
| 9876 | 4 TX- | 9 RT |
| | | 10 RDN |



| Device | Bit Address | Word Address | Format | Notes |
|-----------------|---------------|--------------|--------|-------|
| Input | X_bit0-FFFF | | ннн | |
| Output | Y_bit0-FFFF | | нннн | |
| Internal Output | R_bit0-FFFF | | нннн | |
| CPU Link | L_bit0-FFFF | | нннн | |
| Data Area | M_bit0-FFFF | | нннн | |
| Timer | T_C_bit0-FFFF | | нннн | |
| Counter | C_L_bit0-FFFF | | нннн | |
| Input | | WX0-FFFF | нннн | |
| Output | | WY0-FFFF | ннн | |
| Internal Output | | WR0-FFFF | нннн | |
| CPU Link | | WL0-FFFF | нннн | |
| Data Area | | WM0-FFFF | нннн | |
| Timer Counter | | TC0-FFFF | нннн | |
| Data | | DIF0-FFFF | ннн | |
| Data | | DFN0-FFFF | нннн | |

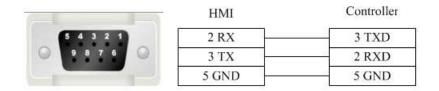
Registers supported by EHV-CPU_ APPLICATION

Notice (Similar for other address types)

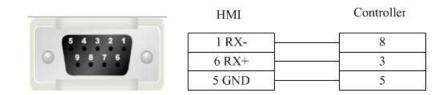
| PLC(Format) | HMI(Format) |
|-------------|---------------|
| WY100(HDD) | WY100(HHH) |
| WY101(HDD) | WY101(HHH) |
| WY102(HDD) | WY102(HHH) |
| | |
| WY114(HDD) | WY10E(HHH) |
| WY115(HDD) | WY10F10F(HHH) |

HollySys

HollySys LM series RS232 cable



HollySys LM series RS485-2 cable



Registers supported by HollySys LM:

| Device | Bit Address | Word Address | Format | Notes |
|-------------------------------------|----------------|---------------|---------|-----------------------|
| | | Word / duicos | | Notes |
| External output node | Q0.0-4095.7 | | DDDD.O | |
| External inputnode | 10.0-4095.7 | | DDDD.O | |
| Intermediate auxiliary register bit | M100.0-62535.7 | | DDDDD.O | M0-99(Used by |
| | | | | systematic diagnoses) |
| Analog output register | | QW0-510 | DDDD | |
| Analog input register | | IW0-4095 | DDDD | |
| Intermediate register | | MW0-8188 | DDDD | |
| Intermediate register(32 bit) | | MD0-8186 | DDDD | |

Inovance

Inovance_H2u series CPU port RS232 cable •

Inovance serial port programming cable is used to communicate with the HMI device.

Inovance_H2U series communication port RS232 cable .



| HMI | Controller | |
|-------|------------|--|
| 2 RX | 3 TXD | |
| 3 TX | 2 RXD | |
| 5 GND | 5 GND | |

Controller

Inovance_H2u series RS485-4 cable

| ÷ | | | | ÷ | |
|---|----|---|---|---|--|
| F | 11 | N | 4 | L | |
| * | • | | | • | |



| Controller |
|------------|
| 4 TX- |
| 7 TX+ |
| 3 GND |
| 1 RX- |
| 2 RX+ |
| |



Inovance_H2u series module RS485-4 cable

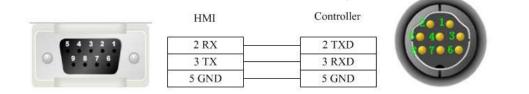
| | HMI | Controller | ***** |
|-----------|-------|------------|-----------------|
| | 1 RX- | SDB | |
| | 6 RX+ | SDA | |
| 5 4 3 2 1 | 5 GND | SG | RDA ROB SDA SDB |
| 9376 | 4 TX- | RDB | |
| | 9 TX+ | RDA | |

Registers supported by Inovance_H2U

| Device | Bit Address | Word Address | Format | Notes |
|------------------------|-------------|----------------|--------|-------|
| Output relay | Y0-571 | | 000 | |
| Input relay | X0-571 | | 000 | |
| Internal relay | M0-7999 | | DDDD | |
| Timer contact | T_bit0-255 | —— | DDD | |
| Counter contact | C_bit0-255 | | DDD | |
| Stepping relay | S0-9999 | | DDDD | |
| Special internal relay | SM8000-9999 | | DDDD | |
| Data register | | D_word0-7999 | DDDD | |
| Special data register | | SD8000-9999 | DDDD | |
| Timer current value | | T_word0-255 | DDD | |
| Counter current value | | C_word0-199 | DDD | |
| Counter current value | | C_dword200-255 | DDD | |

Kewei

Kewei cable



Registers supported by Kewei

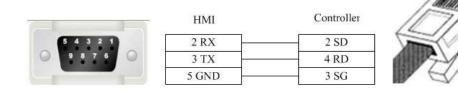
| Device | Bit Address | Word Address | Format | Notes |
|------------------------|-------------|--------------|--------|-------|
| Output relay | Y0-377 | | 000 | |
| Input relay | X0-377 | | 000 | |
| Internal relay | M0-7999 | | DDDD | |
| Timer contact | T_bit0-255 | | DDD | |
| Counter contact | C_bit0-255 | | DDD | |
| Stepping relay | S0-9999 | | DDDD | |
| Special internal relay | SM8000-9999 | | DDDD | |

| Data register | D_word0-7999 | DDDD | |
|-----------------------|--------------------|------|--|
| Special data register | SD8000-9999 | DDDD | |
| Timer current value | T_word0-255 | DDD | |
| Counter current value | C_word0-199 | DDD | |
| Counter current value | C_dword200-255 | DDD | |

123456

KEYENCE

KEYENCE KV-1000-3000 series CPU port RS232 cable



Registers supported by KEYENCE KV-1000-3000:

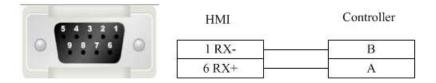
| Device | Bit Address | Word Address | Format | Notes |
|-------------------------------|----------------|--------------|----------|-------|
| Latch relay | LR0.0-15999.15 | | DDDDD.DD | |
| Internal auxiliary relay | MR0.0-15999.15 | | DDDDD.DD | |
| Control relay | CR0.0-639.15 | | DDD.DD | |
| relay | R0.0-15999.15 | | DDDDD.DD | |
| Extended data memory | | FM0-32767 | DDDDD | |
| Extended data memory | | EM0-65534 | DDDDD | |
| High speed counter comparator | | TC0-3999 | DDDD | |
| Timer | | TM0-511 | DDD | |
| Counter | | CM0-9999 | DDDD | |
| Variable address register | | Z0-12 | DD | |
| Data memory | | DM0-65534 | DDDDD | |

Kinco

Kinco series RS232 cable

| | HMI | Controller |
|-----------|-------|------------|
| 5 4 3 2 1 | 2 RX | 3 TXD |
| 9876 | 3 TX | 2 RXD |
| | 5 GND | 5 GND |

Kinco series RS485-2 cable



Registers supported by Kinco

| Device | Bit Address | Word Address | Format | Notes |
|--------------------------------------|--------------|--------------|--------|-------|
| System internal/external input node | 10.0-31.7 | | DD.O | |
| System internal/external output node | Q0.0-31.7 | | DD.O | |
| Intermediate auxiliary register | M0.0-31.7 | | DD.O | |
| Intermediate bit register | VW0.0-4094.7 | | DDDD.O | |
| Analog input register | | AIW0-62 | DD | |
| Analog output register | | AQW0-62 | DD | |
| Intermediate register | | VW0-4094 | DDDD | |
| Intermediate register | | VD0-4092 | DDDD | |

LS

1 ls_mster_cpu_serial

•

•

LS Master_K CPU Serial S232 cable

| | HMI | Controller |
|--------|-------|------------|
| 54321 | 2 RX | 3 TXD |
| 9876 🔘 | 3 TX | 2 RXD |
| | 5 GND | 5 GND |

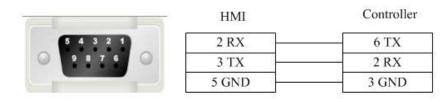
Registers supported by LS Master_K CPU Serial

| Device | Bit Address | Word Address | Format | Notes |
|-------------------|-----------------|--------------|--------|-------|
| Auxiliary Relay | M0.0-4096.F | | DDDD.F | |
| I/O Relay | P0.0-4096.F | | DDDD.F | |
| Link Relay | L0.0-4096.F | | DDDD.F | |
| Keep Relay | K0.0-4096.F | | DDDD.F | |
| Special Relay | F0.0-4096.F | | DDDD.F | |
| Data Register Bit | D_bit0.0-4096.F | | DDDD.F | |
| Timer Bit | T_bit0.0-4096.F | | DDDD.F | |
| Counter Bit | C_bit0.0-4096.F | | DDDD.F | |
| Data Register | | D0-9999 | DDDD | |
| Timer | | T0-4096 | DDDD | |
| Counter | | C0-4096 | DDDD | |
| Auxiliary Relay | | M_Word0-4096 | DDDD | |
| Special Relay | | F_Word0-4096 | DDDD | |
| Link Relay | | L_Word0-4096 | DDDD | |

2 ls_xgt_cpu_serial

•

LS XGT CPU Serial RS232 cable





Registers supported by LS XGT CPU Serial

| Device | Bit Address | Word Address | Format | Notes |
|---------------------|--------------------|--------------|-----------|-------|
| Auxiliary Relay | M_Bit0.0-16383.F | | 00000.F | |
| I/O Relay | P_Bit0.0-16383.F | | DODDD.F | |
| Keep Relay | K_Bit0.0-65535.F | | DDDDD.F | |
| Special Relay | F_Bit0.0-16383.F | 12005 | DDDDD.F | |
| Timer Bit | T_Bit0.0-9999.F | | DDDD.F | |
| Counter Bit | C_Bit0.0-9999.F | | DDDD.F | |
| Index Relay | Z_Bit0.0-9999.F | | D000.F | |
| Index Relay | ZR_Bit0.0-163839.F | 1997 | DDDDDD.F | |
| Link Relay | L_Bit0.0-32767.F | 2000 C | DDDDD.F | |
| Communication Relay | N_Bit0.0-81819.F | | DDDDD.F | |
| Data Relay | D_Bit0.0-163839.F | | DODDOD.F | |
| File Relay | R Bit0.0-163839.F | 121121 | DDDDDDD.F | |

| | | | |
|------------------------|----------------|-------|--|
| Data Register | D0-10239 | DDDDD | |
| I/O Relay | P0-9999 | DDDD | |
| Auxiliary Relay | M0-9999 | DDDD | |
| Keep Register | K0-9999 | DDDD | |
| Special Register | F0-9999 | DDDD | |
| Timer | T_SV0-9999 | DDDD | |
| Counter | C_SV0-9999 | DDDD | |
| Timer | T_CV0-9999 | DDDD | |
| Counter | C_CV0-9999 | DDDD | |
| Index Register | Z0-9999 | DDDD | |
| Step Control Register | S0-9999 | DDDD | |
| Link Register | L0-9999 | DDDD | |
| Communication Register | N0-9999 | DDDD | |
| File Register | R0-10239 | DDDDD | |
| Index Register | R0-10239 | DDDDD | |

MEGMEET

MEGMEET M280 series CPU port RS232 cable



| HMI | Controller |
|-------|------------|
| 2 RX | 5 TXD |
| 3 TX | 4 RXD |
| 5 GND | 3 GND |



MEGMEET M280 series communication port RS232 cable



| HMI | Controller |
|-------|------------|
| 2 RX | TXD |
| 3 TX | RXD |
| 5 GND | GND |



MEGMEET M280 series RS485-2 cable



| HMI | Controller | |
|-------|------------|--|
| 1 RX- | RS485- | |
| 6 RX+ | RS485+ | |
| 5 GND | GND | |

| - | | |
|-----|----------|------------|
| ROG |) TXD GN | D +R\$485- |
| | | |

| Device | Bit Address | Word Address | Format | Notes |
|---------------------------|-------------|----------------|--------|-------|
| Output relay | Y0-571 | | 000 | |
| Input relay | X0-571 | | 000 | |
| Internal relay | M0-10239 | | DDDDD | |
| Timer contact | T_bit0-511 | | DDD | |
| Counter contact | C_bit0-511 | | DDD | |
| Stepping relay | S0-4096 | | DDDD | |
| Special internal relay | SM0-511 | | DDD | |
| Auxiliary register | | R0-32767 | DDDDD | |
| Data register | | D_word0-7999 | DDDD | |
| Special data register | | SD0-511 | DDD | |
| Variable address register | | Z0-15 | DD | |
| Timer current value | | T_word0-511 | DDD | |
| Counter current value | | C_word0-199 | DDD | |
| Counter current value | | C_dword200-255 | DDD | |

Registers supported by MEGMEET M280

ΜΙΚΟΜ

MIKOM MX1H series CPU port RS232 cable



| HMI | Controller | |
|-------|------------|--|
| 2 RX | 5 TXD | |
| 3 TX | 4 RXD | |
| 5 GND | 3 GND | |



MIKOM MX1H series RS485-2 cable



| HMI | Controller |
|-------|------------|
| 1 RX- | RS485- |
| 6 RX+ | RS485+ |
| 5 GND | GND |

Registers supported by MIKOM MX1H

| Device | Bit Address | Word Address | Format | Notes |
|----------------|-------------|--------------|--------|-------|
| Output relay | Y0-777 | | 000 | |
| Input relay | X0-777 | | 000 | |
| Internal relay | M0-4095 | | DDDD | |
| Timer contact | T_bit0-511 | | DDD | |

| Counter contact | C_bit0-511 | | DDD | |
|---------------------------|------------|----------------|-------|--------|
| Stepping relay | SO-1535 | | DDDD | |
| Special internal relay | SM0-511 | | DDD | |
| Auxiliary register | | Un 0-199 | DDD | n: 0-7 |
| Data register | | D0-32767 | DDDDD | |
| Special data register | | SD0-511 | DDD | |
| Variable address register | | Z0-255 | DDD | |
| Timer current value | | T_word0-511 | DDD | |
| Counter current value | | C_word0-199 | DDD | |
| Counter current value | | C_dword200-255 | DDD | |

Mitsubishi

1 Mitsubishi_FX0S_FX0N_FX1S_FX1N_FX2

Mitsubishi FX series CPU port RS232 cable

Mitsubishi serial programming cable is used to communicate with the HMI device.

Mitsubishi FX series communication port RS232 cable



| HMI | Controller |
|-------|------------|
| 2 RX | 3 TXD |
| 3 TX | 2 RXD |
| 5 GND | 5 GND |

Mitsubishi FX series RS485-4 cable



| HMI | Controller | |
|-------|------------|--|
| 1 RX- | 4 TX- | |
| 6 RX+ | 7 TX+ | |
| 5 GND | 3 GND | |
| 4 TX- | 1 RX- | |
| 9 TX+ | 2 RX+ | |



Registers supported by Mitsubishi FXOS_FXON_FX1S_FX1N_FX2

| Device | Bit Address | Word Address | Format | Notes |
|----------------|-------------|--------------|--------|-------|
| Output relay | Y0-571 | | 000 | |
| Input relay | X0-571 | | 000 | |
| Internal relay | M0-7999 | | DDDD | |
| Timer contact | T_bit0-255 | | DDD | |

| Counter contact | C_bit0-255 | | DDD |
|------------------------|-------------|--------------|------|
| Stepping relay | SO-9999 | | DDDD |
| Special internal relay | SM8000-9999 | | DDDD |
| Data register | | D_word0-7999 | DDDD |
| Special data register | | SD8000-9999 | DDDD |
| Timer current value | | T_word0-255 | DDD |
| Counter current value | | C_word0-255 | DDD |

2 Mitsubishi FX2N

Mitsubishi FX series CPU port RS232 cable

Mitsubishi serial port programming cable is used to communicate wiht the HMI device.

Mitsubishi FX series communication port RS232 cable



| HMI | Controller |
|-------|------------|
| 2 RX | 3 TXD |
| 3 TX | 2 RXD |
| 5 GND | 5 GND |

Mitsubishi FX series RS485-4 cable

HMI

1 RX-

6 RX+

5 GND

4 TX-

9 TX+

Controller

4 TX-

7 TX+

3 GND

1 RX-

2 RX+



0 1176 0

| • | Registers sup | ported by | [,] Mitsubishi | FX2N: |
|---|----------------------|-----------|-------------------------|---------|
| | Tregister's sup | ported by | 141103015111 | 1/\214. |

| Device | Bit Address | Word Address | Format | Notes |
|------------------------|-------------|--------------|--------|-------|
| Output relay | Y0-571 | | 000 | |
| Input relay | X0-571 | | 000 | |
| Internal relay | M0-7999 | | DDDD | |
| Timer contact | T_bit0-255 | | DDD | |
| Counter contact | C_bit0-255 | | DDD | |
| Stepping relay | SO-9999 | | DDDD | |
| Special internal relay | SM8000-9999 | | DDDD | |
| Data register | | D_word0-7999 | DDDD | |
| Special data register | | SD8000-9999 | DDDD | |
| Timer current value | | T_word0-255 | DDD | |

| Counter current value | C_word0-199 | DDD | |
|-----------------------|--------------------|-----|--|
| Counter current value | C_dword200-255 | DDD | |

3 Mitsubishi FX3U_FX3G

Mitsubishi FX series CPU port RS232 cable

The Mitsubishi serial port cable is used to communicate between the HMI device and the programming device.

Mitsubishi FX series communication port RS232 cable



| Controller |
|------------|
| 3 TXD |
| 2 RXD |
| 5 GND |
| |

Mitsubishi FX series RS485-4 cable

HMI

Controller



| 4 TX- |
|-------|
| 7 TX+ |
| 3 GND |
| 1 RX- |
| 2 RX+ |
| |



Registers supported by Mitsubishi FX3U_FX3G

| Device | Bit Address | Word Address | Format | Notes |
|------------------------|-------------------|----------------|----------|-------|
| Output relay | Y0-764 | | 000 | |
| Input relay | X0-764 | | 000 | |
| Internal relay | M0-7999 | | DDDD | |
| Timer contact | T_bit0-511 | | DDD | |
| Counter contact | C_bit0-255 | | DDD | |
| Stepping relay | S0-4095 | | DDDD | |
| Special internal relay | SM8000-9999 | | DDDD | |
| Data register bit | D_bit0.0-127999.F | | DDDDDD.H | |
| Data register | | D_word0-17999 | DDDDD | |
| Special data register | | SD8000-9999 | DDDD | |
| Timer current value | | T_word0-511 | DDD | |
| File register | | R0-32767 | DDDDD | |
| Counter current value | | C_word0-199 | DDD | |
| Counter current value | | C_dword200-255 | DDD | |

4 Mitsubishi Melsec Q

Mitsubishi Melsec Series Q RS232 cable

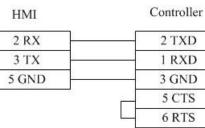


| HMI | Controller |
|-------|------------|
| 2 RX | 2 TXD |
| 3 TX | 1 RXD |
| 5 GND | 3 GND |



Mitsubishi Melsec Series Q (Special) RS232 cable



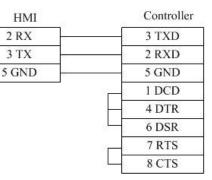




5 CTS 6 RTS

Mitsubishi MelsecSeries Q C24 communication module RS232 cable

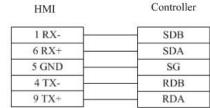


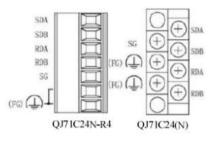




Mitsubishi Melsec Series Q C24 communication module RS485-4 cable

| | HIM |
|-----------|------|
| | 1 R. |
| | 6 R. |
| 5 4 3 2 1 | 5 G1 |
| 9876 🔘 | 4 T. |
| | 9 T. |
| | 0. |





| • | Registers supported by Mitsubishi Melsec Q: |
|---|---|
|---|---|

| Device Bit Address Word Address Format Notes | | 0 | 1 | , | |
|--|--------|---|-------------|--------------|-------|
| | Device | | Bit Address | Word Address | Notes |

| Data output relay | DDY0-7FF | | ннн | |
|----------------------------|----------|-----------|-------|--|
| Data input relay | DX0-7FF | | ннн | |
| Stepping relay | S0-2047 | | DDDD | |
| Special link relay | SB0-3FF | | ннн | |
| Counter coil | CC0-511 | | DDD | |
| Counter contact | CS0-511 | | DDD | |
| Accumulative timer coil | SC0-511 | | DDD | |
| Accumulative timer contact | SSO-511 | | DDD | |
| Timer coil | TC0-511 | | DDD | |
| Link relay | B0-7FF | | ннн | |
| Variable address relay | V0-1023 | | DDDD | |
| Alarm | F0-1023 | | DDDD | |
| Latch relay | L0-2047 | | DDDD | |
| Internal relay | M0-8191 | | DDDD | |
| Output relay | YO-7FF | | ннн | |
| Input relay | X0-7FF | | ннн | |
| Timer contact | TS0-511 | | DDD | |
| Data register | | D0-11135 | DDDDD | |
| File register | | ZR0-65535 | DDDDD | |
| Variable address register | | Z0-9 | D | |
| Stepping register | | SW0-3FF | ннн | |
| File register | | R0-32767 | DDDDD | |
| Counter current value | | CN0-511 | DDD | |
| Accumulative timer current | | SN0-511 | DDD | |
| value | | | | |
| Timer current value | | TN0-511 | DDD | |
| Link register | | W0-7FF | ннн | |

5 Mitsubishi_FX3U_ENET_L

Mitsubishi_FX3U_ENET_L cable

Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

- 2 Orange 3 Green White
- 4 Blue
- 5 Blue White
- 6 Green
- 7 Brown White
- 8 Brown

Direct connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



- 1 Orange White 2 Orange 3 Green White 4 Blue 5 Blue White 6 Green
- 7 Brown White
- 8 Brown

Registers supported by Mitsubishi_FX3U_ENET_L

| Device | Rit Addross | Word Address | Format | Notes |
|------------------------|-----------------|--------------|----------|-------|
| | Bit Address | word Address | ruifiat | notes |
| Output relay | Y0-377 | | 000 | |
| Input relay | X0-377 | | 000 | |
| Internal relay | M0-7999 | | DDDD | |
| Special internal relay | SM8000-8511 | | DDDD | |
| Stepping relay | S0-4095 | | DDDD | |
| Timer | T0-511 | | DDD | |
| Counter | C0-255 | | DDD | |
| Data relay | D_bit0-17999.15 | | DDDDD.DD | |
| Data register | | D0-7999 | DDDD | |
| Special register | | SD8000-8511 | DDDD | |
| File register | | R0-32767 | DDDDD | |
| Timer current value | | TV0-511 | DDD | |
| Counter current value | | CV0-199 | DDD | |
| Counter current value | | CV2 200-255 | DDD | |

6 Mitsubishi_melsec_ethernet

Mitsubishi Melsec Ethernet (Ascii/Bin)

Mitsubishi_Melsec_Ethernet (Ascii/Bin) cable

Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

- 2 Orange 3 Green White
- 4 Blue
- 5 Blue White
- 6 Green
- 7 Brown White
- 8 Brown

Direct connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White 2 Orange 3 Green White 4 Blue 5 Blue White

6 Green

- 7 Brown White
- 8 Brown

Registers supported by Mitsubishi_Melsec_Ethernet (Ascii/Bin)

| Device | Bit Address | Word Address | Format | Notes |
|----------------------------------|-------------|--------------|--------|-------|
| Output relay | YO-FFFF | | нннн | |
| Input relay | X0-FFFF | | нннн | |
| Internal relay | M0-65535 | | DDDDD | |
| Special internal relay | SM0-65535 | | DDDDD | |
| Latch relay | L0-65535 | | DDDDD | |
| Alarm | F0-65535 | | DDDDD | |
| Variable address relay | V0-65535 | | DDDDD | |
| Link relay | BO-FFFF | | нннн | |
| Timer contact | TS0-65535 | | DDDDD | |
| Timer coil | TC0-65535 | | DDDDD | |
| Accumulative timer contact | SSO-65535 | | DDDDD | |
| Accumulative timer coil | SC0-65535 | | DDDDD | |
| Counter contact | CS0-65535 | | DDDDD | |
| Counter coil | CC0-65535 | | DDDDD | |
| Special link relay | SBO-FFFF | | нннн | |
| Stepping relay | S0-65535 | | DDDDD | |
| Data output relay | DY0-FFFF | | нннн | |
| Data input relay | DX0-FFFF | | нннн | |
| Data register | | D0-65535 | DDDDD | |
| Special register | | SD0-65535 | | |
| Link register | | W0-FFFF | нннн | |
| Stepping register | | SW0-FFFF | нннн | |
| Timer current value | | TN0-65535 | DDDDD | |
| Accumulative timer current value | | SN0-65535 | DDDDD | |
| Counter current value | | CN0-65535 | DDDDD | |
| Variable address register | | Z0-65535 | DDDDD | |
| File register | | R0-65535 | DDDDD | |
| File register | | ZR0-393216 | DDDDDD | |

Modbus

1 Modbus_RTU

.

Modbus RTU series RS232 cable



Modbus RTU series RS485-2 cable



| HMI | Controller | |
|-------|------------|--|
| 1 RX- | | |
| 6 RX+ | + | |
| 5 GND | GND | |

Modbus RTU series RS485-4 cable

HMI

Controller

Controller



| 1 RX- | TX- |
|-------|-----|
| 6 RX+ | TX+ |
| 5 GND | GND |
| 4 TX- | RX- |
| 9 TX+ | RX+ |

Registers supported by RTU:

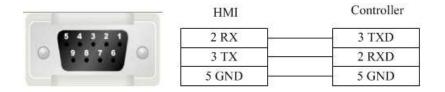
| Device | Bit Address | Word Address | Format | Notes |
|--------------------------------------|-------------|--------------|--------|-------|
| System internal/external output node | 0X1-65535 | | DDDDD | |
| System internal/external input node | 1X1-65535 | | DDDDD | |
| Analog input data register | | 3X1-65535 | DDDDD | |
| Data register | | 4X1-65535 | DDDDD | |

2 Modbus_ RTU _Extend

.

Modbus RTU Extend

Modbus RTU Extend series RS232 cable .



Modbus RTU Extend series RS485-2 cable

| | HMI | Controller |
|-----------|-------|------------|
| 54321 | 1 RX- | |
| 9 5 7 6 😡 | 6 RX+ | + |
| | 5 GND | GND |

HMI

Modbus RTU Extend series RS485-4 cable

Controller



| 1 RX- | TX- |
|-------|-----|
| 6 RX+ | TX+ |
| 5 GND | GND |
| 4 TX- | RX- |
| 9 TX+ | RX+ |
| | |

Registers supported by Modbus RTU Extend:

| Device | Bit Address | Word Address | Format | Notes |
|--------------------------------------|-------------|----------------|----------|-------|
| System internal/external output node | 0X1-65535 | | DDDDD | |
| System internal/external input node | 1X1-65535 | | DDDDD | |
| Analog input data bit | 3X1_BIT1.0- | | DDDDD.DD | |
| | 65535.15 | | | |
| Data register bit | 4X1_BIT1.0- | | DDDDD.DD | |
| | 65535.15 | | | |
| Analog input data register | | 3X1-65535 | DDDDD | |
| Data register | | 4X1-65535 | DDDDD | |
| Data register | | 5X1-65535 | DDDDD | |
| Data register | | 6X1-65535 | DDDDD | |
| Data register | | 3X-DINV1-65535 | DDDDD | |
| Data register | | 4X-DINV1-65535 | DDDDD | |

Notice:

.

4X_DINV and 3X_DINV are the big end format of double word 4X, and it is a word type address. For example, 4X3 is the hexadecimal 1234, 4X4 is the hexadecimal 5678, and 4X_DINV is the hexadecimal 12345678.

3 Differences between Modbus_RTU and Modbus_RTU_Extend

Many data memory such as analog input data bit, data register bit and function code data register are added into Modbus_RTU_Extend on the base of Modbus_RTU.

4 Modbus_ TCP

.

Modbus TCP cable

Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

2 Orange

3 Green White 4 Blue

5 Blue White

6 Green

7 Brown White 8 Brown

Direct connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White 2 Orange

3 Green White

4 Blue 5 Blue White

6 Green

7 Brown White

8 Brown

Registers supported by TCP

| Device | Bit Address | Word Address | Format | Notes |
|--------------------------------------|-------------|--------------|--------|-------|
| System internal/external output node | 0X1-65535 | | DDDDD | |
| System internal/external input node | 1X1-65535 | | DDDDD | |
| Analog input data register | | 3X1-65535 | DDDDD | |
| Data register | | 4X1-65535 | DDDDD | |

5 Modbus_ UDP

Modbus UDP cable

Mod
 Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

2 Orange

3 Green White

4 Blue 5 Blue White

6 Green

7 Brown White

8 Brown

Controller

Direct connection



| and the second sec |
|--|
| 1 RX+ |
| 2 RX- |
| 3 TX+ |
| 4 BD4+ |
| 5 BD4- |
| 6 TX- |
| 7 BD3+ |
| 8 BD3- |
| |

HMI



1 Orange White 2 Orange 3 Green White 4 Blue 5 Blue White 6 Green 7 Brown White

8 Brown

| Registers supported by Modbus UDP: | | | | |
|--|-------------|--------------|--------|-------|
| Device | Bit Address | Word Address | Format | Notes |
| System internal/external output node | 0X1-65535 | | DDDDD | |
| System internal/external input node | 1X1-65535 | | DDDDD | |
| Analog input data register | | 3X1-65535 | DDDDD | |
| Data register | | 4X1-65535 | DDDDD | |

Modbus RTU Server - Serial port service

Modbus RTU Server series RS232 cable



Modbus RTU Server series RS485-2 cable



| HMI | Controller |
|-------|------------|
| 1 RX- | |
| 6 RX+ | + |
| 5 GND | GND |

Modbus RTU Server series RS485-4 cable

HMI

Controller



| | 1 RX- | TX- |
|-----|-------|-----|
| - 1 | 6 RX+ | TX+ |
| | 5 GND | GND |
|) | 4 TX- | RX- |
| | 9 TX+ | RX+ |

Registers supported by Modbus RTU Server:

| Device | Bit Address | Word Address | Format | Notes |
|--------------------------------------|-------------|--------------|--------|-------------------------|
| System internal/external output node | LB0-65535 | | DDDDD | LBn: 0X(n+1) n: 0-65535 |
| | | | | Fox example: LB0 = 0X1 |
| System internal/external input node | LB0-65535 | | DDDDD | LBn: 1X(n+1) n: 0-65535 |
| | | | | Fox example: LB0 = 1X1 |
| Analog input data relay | | LW0-9998 | DDDDD | LWn: 3X(n+1) n: 0-9998 |
| | | | | Fox example: LW0 = 3X1 |
| Analog input data relay | | RW0-55535 | DDDDD | RWn: 3X(n+10000) |
| | | | | n: 0-55535 |
| | | | | Fox example: RW0 = |
| | | | | 3X10000 |
| Data register | | LW0-9998 | DDDDD | LWn: 4X(n+1) n: 0-9998 |
| | | | | Fox example: LW0 = 4X1 |
| Data register | | RW0-55535 | DDDDD | RWn: 4X(n+10000) |
| | | | | n: 0-55535 |
| | | | | Fox example: RW0 = |
| | | | | 4X10000 |

Modbus TCP Server– Ethernet service

Modbus TCP Server cable

Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

- 2 Orange 3 Green White
- 4 Blue
- 5 Blue White
- 6 Green
- 7 Brown White
- 8 Brown

Direct connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White 2 Orange 3 Green White 4 Blue 5 Blue White 6 Green 7 Brown White

8 Brown

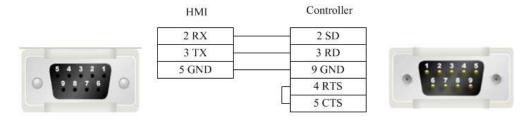
Registers supported by Modbus TCP Server

| Device | Bit Address | Word Address | Format | Notes |
|--------------------------------------|-------------|--------------|--------|-------------------------|
| System internal/external output node | LB0-65535 | | DDDDD | LBn: 0X(n+1) n: 0-65535 |
| | | | | Fox example: LB0 = 0X1 |
| System internal/external input node | LB0-65535 | | DDDDD | LBn: 1X(n+1) n: 0-65535 |
| | | | | Fox example: LB0 = 1X1 |
| Analog input data relay | | LW0-9998 | DDDDD | LWn: 3X(n+1) n: 0-9998 |
| | | | | Fox example: LW0 = 3X1 |
| Analog input data relay | | RW0-55535 | DDDDD | RWn: 3X(n+10000) |
| | | | | n: 0-55535 |
| | | | | Fox example: RW0 = |
| | | | | 3X10000 |
| Data register | | LW0-9998 | DDDDD | LWn: 4X(n+1) n: 0-9998 |
| | | | | Fox example: LW0 = 4X1 |
| Data register | | RW0-55535 | DDDDD | RWn: 4X(n+10000) |
| | | | | n: 0-55535 |
| | | | | Fox example: RW0 = |
| | | | | 4X10000 |

OMRON

Omron CP1H_CP1L

OMRON CP1H_CP1L series RS232 cable



OMRON CP1H_CP11 series (communication module) RS485-2 cable

HMI Controller

SDARDARDASDASDB+
RDA-RDB+
RDB+
RDB+

OMRON CP1H_CP1L series RS485-4 cable

HM1

Controller



.

| 1 RX- | 1 SDA- |
|-------|--------|
| 6 RX+ | 2 SDB+ |
| 5 GND | 5 FG |
| 4 TX- | 6 RDA- |
| 9 TX+ | 8 RDB+ |



OMRON CP1H_CP1L series (communication module) RS485-4 cable



| HMI | Controller |
|-------|------------|
| 1 RX- | SDA- |
| 6 RX+ | SDB+ |
| 5 GND | FG |
| 4 TX- | RDA- |
| 9 TX+ | RDB+ |

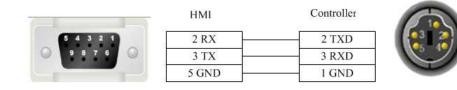


Registers supported by OMRON CP1H_CP1L

| Device | Bit Address | Word Address | Format | Notes |
|----------------------|----------------------|-----------------|-----------|-------|
| Work Relay | W_bit 0.0-8191.15 | | DDDD.DD | |
| Hold Relay | H_bit 0.0-24576.15 | | DDDDD.DD | |
| Data Relay | D_bit 0.0-524288.15 | | DDDDDD.DD | |
| Counter Relay | C_bit 0.0-65535.15 | | DDDDD.DD | |
| Timer Relay | T_bit 0.0-65535.15 | | DDDDD.DD | |
| Auxiliary Relay | A_bit 0.0-15360.15 | | DDDDD.DD | |
| Channel I/O | CIO_bit 0.0-98304.15 | | DDDDD.DD | |
| Work Register | | W_word 0-511 | DDD | |
| Hold Register | | H_word 0-1535 | DDDD | |
| Data Register | | D_word 0-32767 | DDDDD | |
| Counter Register | | C_word 0-4095 | DDDD | |
| Timer Register | | T_word 0-4095 | DDDD | |
| Auxiliary Register | | A_word 0-959 | DDD | |
| Channel I/O Register | | CIO_word 0-6143 | DDDD | |

Panasonic

Panasonic FP series RS232 cable

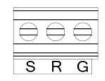


Panasonic FP series CPU terminal RS232 cable



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| HMI | Controller |
|-------|------------|
| 2 RX | S |
| 3 TX | R |
| 5 GND | G |



Panasonic FP series communication card RS232 cable.



| HMI | Controller | |
|-------|------------|-----|
| 2 RX | S | (j |
| 3 TX | R | 000 |
| 5 GND | G | |

Panasonic FP2/3 series RS232 cable



| HMI | Controller |
|-------|------------|
| 2 RX | 2 TXD |
| 3 TX | 3 RXD |
| 5 GND | 7 GND |
| | 4 RTS |
| | 5 CTS |
| | 8 CD |
| | 9 ER |

Panasonic FP series RS485-2 cable



| HMI | Controller |
|-------|------------|
| 1 RX- | |
| 6 RX+ | + |
| 5 GND | GND |

Panasonic FP3 series RS485-4 programming port cable

| | HMI | | Controller 15pin | |
|-----------|-------|---------|------------------|---|
| | 1 RX- | | 9 TXDA | |
| | 6 RX+ | ģ | 2 TXDB | |
| | 5 GND | <u></u> | 7 GND | |
| | 4 TX- | 1 | 10 RXDA | |
| | 9 TX+ | | 3 RXDB | |
| | | | 4 RTA+ | |
| 5 4 3 2 1 | | | 5 CTS+ | 1 |
| 9876 🔘 | | | 11 RTS- | |
| | | 1 | 12 CTS- | 9 |
| | | - | 12 010 | |

Panasonic FP series (other modules) RS485-4 cable

| | 514 | | 100 | | |
|---|-----|-----|-----|-----|-----|
| 0 | | | | 10 | 5 |
| 9 | | • • | | 1.6 | Ø., |

•

| HMI | Controller |
|-------|------------|
| 1 RX- | 4 SD- |
| 6 RX+ | 2 SD+ |
| 4 TX- | 5 RD- |
| 9 TX+ | 3 R D+ |

Registers supported by Panasonic FPO/FPX:

| Device | Bit Address | Word Address | Format | Notes |
|-----------------------------|-------------|--------------|--------|-------|
| External output node | Y0-9999.F | | DDDD.H | |
| External input node | X0-9999.F | | DDDD.H | |
| Timer bit | T0-9999 | | DDDD | |
| Counter bit | C0-9999 | | DDDD | |
| Link auxiliary node | L0-9999.F | | DDDD.H | |
| Internal auxiliary node | R0-9999.F | | DDDD.H | |
| T/C current value | | EV0-65535 | DDDDD | |
| T/C set value | | SV0-9999 | DDDD | |
| Data register | | DT0-99999 | DDDDD | |
| Output register | | WY0-32767 | DDDDD | |
| Input register | | WX0-32767 | DDDDD | |
| Internal auxiliary register | | WR0-32767 | DDDDD | |
| Link data register | | LD0-99999 | DDDDD | |
| Link register | | WL0-32767 | DDDDD | |
| File register | | FL0-99999 | DDDDD | |

Siemens

1 Siemens S7_200

Siemens S7-200 series RS232 cable

Siemens serial port programming cable is used to communicate with HMI device.

Siemens S7-200 series RS485-2 cable

HMI

| | - | 4 | 3 2 | | |
|---|---|---|-----|---|---|
| 0 | | | | | 0 |
| 0 | | | | • | 0 |

| 1 RX- | 8 D- |
|-------|------|
| 6 RX+ | 3 D+ |

Controller

Registers supported by Siemens S7-200

| Device | Bit Address | Word Address | Format | Notes |
|---|----------------|--------------|---------|-------|
| Digital output and Peripheral image register node | Q.B0.0-127.7 | | DDD.O | |
| Internal memory bit | M.B0.0-255.7 | | DDD.O | |
| Digital input and Peripheral image register node | I.B0.0-127.7 | | DDD.O | |
| Special memory bit | SM.B0.0-4399.7 | | DDDD.O | |
| Variable memory node | V.B0.0-81919.7 | | DDDDD.O | |
| Timer bit | Tim0-255 | | DDD | |
| Counter bit | Cnt0-255 | | DDD | |
| SCR node | S.B0.0-255.7 | | DDD.O | |
| Digital output and Peripheral image register | | QW0-14 | DD | |
| Digital output and Peripheral image register (32 bit) | | QD0-12 | DD | |
| Digital input and Peripheral image register | | IW0-14 | DD | |
| Digital input and Peripheral image register (32 bit) | | ID0-12 | DD | |
| Internal memory | | MW0-30 | DD | |
| Internal memory (32 bit) | | MD0-28 | DD | |
| Analog output | | AQW0-62 | DD | |
| Analog input | | AIW0-62 | DD | |
| SCR | | SW0-30 | DD | |
| SCR (32 bit) | | SD0-28 | DD | |
| Special memory register | | SMW0-548 | DDD | |
| Special memory register (32 bit) | | SMD0-546 | DDD | |
| Variable memory | | VW0-10238 | DDDDD | |
| Variable memory (32 bit) | | VD0-10236 | DDDDD | |
| Timer current value | | Tim0-255 | DDD | |
| Counter current value | | Cnt0-255 | DDD | |

2 Siemens S7_200 Network

Siemens S7-200 Network Cable

Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

2 Orange

3 Green White 4 Blue

5 Blue White

6 Green

7 Brown White 8 Brown

Direct connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White 2 Orange 3 Green White 4 Blue 5 Blue White 6 Green

7 Brown White

8 Brown

Registers supported by siemens S7-200 Network:

| Device | Bit Address | Word Address | Format | Notes |
|---|----------------|--------------|---------|-------|
| Digital output and Peripheral image register node | Q.B0.0-127.7 | | DDD.O | |
| Internal memory bit | M.B0.0-255.7 | | DDD.O | |
| Digital input and Peripheral image register node | I.B0.0-127.7 | | DDD.O | |
| Variable memory node | V.B0.0-65535.7 | | DDDDD.O | |
| Digital output and Peripheral image register | | QW0-14 | DD | |
| Digital output and Peripheral image register (32 bit) | | QD0-12 | DD | |
| Digital input and Peripheral image register | | IW0-14 | DD | |
| Digital input and Peripheral image register (32 bit) | | ID0-12 | DD | |
| Internal memory | | MW0-30 | DD | |
| Internal memory (32 bit) | | MD0-28 | DD | |
| Variable memory | | VW0-8190 | DDDDD | |
| Variable memory (32 bit) | | VD0-8188 | DDDDD | |

3 Siemens S7_200 Network Module

Siemens S7-200 Network Module cable

Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



- 1 Orange White
- 2 Orange
- 3 Green White
- 4 Blue 5 Blue White
- 6 Green
- 7 Brown White
- 8 Brown

Direct connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White 2 Orange 3 Green White 4 Blue 5 Blue White 6 Green 7 Brown White

8 Brown

Registers supported by Siemens S7-200 Network Module

| Device | Bit Address | Word Address | Format | Notes |
|---|----------------|--------------|---------|-------|
| Digital output and Peripheral image register node | Q.B0.0-127.7 | | DDD.O | |
| Internal memory bit | M.B0.0-255.7 | | DDD.O | |
| Digital input and Peripheral image register node | I.B0.0-127.7 | | DDD.O | |
| Variable memory node | V.B0.0-65535.7 | | DDDDD.O | |
| Digital output and Peripheral image register | | QW0-14 | DD | |
| Digital output and Peripheral image register (32 bit) | | QD0-12 | DD | |
| Digital input and Peripheral image register | | IW0-14 | DD | |
| Digital input and Peripheral image register (32 bit) | | ID0-12 | DD | |
| Internal memory | | MW0-30 | DD | |
| Internal memory (32 bit) | | MD0-28 | DD | |
| Variable memory | | VW0-8190 | DDDD | |
| Variable memory (32 bit) | | VD0-8188 | DDDD | |

4 Siemens S7_300 MPI

Siemens S7-300 MPI series RS232 cable

SIEMENS serial port programming cable is used to communicate with HMI device.

Siemens S7-300 MPI series RS485-2 cable

| | HMI | Controller |
|-----------|-------|------------|
| 5 4 3 2 1 | 1 RX- | 8 D- |
| 9876 | 6 RX+ | 3 D+ |
| | 5 GND | 5 GND |

Registers supported by Siemens S7-300 MPI

| Device | Bit Address | Word Address | Format | Notes |
|-----------------------------------|-------------------|----------------|--------|-------------------|
| External output node | Q.B0.0-511.7 | | DDD.O | |
| External input node | I.B0.0-511.7 | | DDD.O | |
| Internal auxiliary node | M.B0.0-4095.7 | | DDDD.O | |
| Data register node | DBn_DBX0.0-9999.7 | | DDDD.O | The main address |
| | | | | can be set during |
| | | | | the hardware |
| | | | | configuration. |
| External output register | | QW0-126 | DDD | |
| External output register (32 bit) | | QD0-124 | DDD | |
| External input register | | IW0-126 | DDD | |
| External input register (32 bit) | | ID0-124 | DDD | |
| Internal register | | MW0-2046 | DDDD | |
| Internal register (32 bit) | | MD0-2044 | DDDD | |
| Data register | | DBn_DBW0-65534 | DDDDD | The main address |
| | | | | can be set during |
| | | | | the hardware |
| | | | | configuration. |
| Data register (32 bit) | | DBn_DBD0-65532 | DDDDD | The main address |
| | | | | can be set during |
| | | | | the hardware |
| | | | | configuration. |

5 Siemens S7_300_network

Siemens S7-300 Network cable

Sien
 Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

- 2 Orange
- 3 Green White 4 Blue

5 Blue White

- 6 Green
- 7 Brown White
- 8 Brown

Direct connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White 2 Orange 3 Green White 4 Blue 5 Blue White 6 Green 7 Brown White

8 Brown

Registers supported by S7-300 Network

| Device | Bit Address | Word Address | Format | Notes |
|-----------------------------------|-------------------|----------------|--------|-------------------|
| External output node | Q.B0.0-2047.7 | | DDDD.O | |
| External input node | I.B0.0-2047.7 | | DDDD.O | |
| Data register node | DBn_DBX0.0-9999.7 | | DDDD.O | The main address |
| | | | | can be set during |
| | | | | the hardware |
| | | | | configuration. |
| External output register | | QW0-2046 | DDDD | |
| External output register (32 bit) | | QD0-2044 | DDDD | |
| External input register | | IW0-2046 | DDDD | |
| External input register (32 bit) | | ID0-2044 | DDDD | |
| Internal register | | MW0-2046 | DDDD | |
| Internal register (32 bit) | | MD0-2044 | DDDD | |
| Data register | | DBn_DBW0-65534 | DDDDD | The main address |
| | | | | can be set during |
| | | | | the hardware |
| | | | | configuration. |
| Data register (32 bit) | | DBn_DBD0-65532 | DDDDD | The main address |
| | | | | can be set during |
| | | | | the hardware |
| | | | | configuration. |

6 Siemens S7_1200_network

Siemens S7-1200 Network cable

Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

2 Orange

3 Green White 4 Blue

5 Blue White

6 Green

7 Brown White 8 Brown

Direct connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

2 Orange 3 Green White

4 Blue

5 Blue White 6 Green

7 Brown White

8 Brown

Registers supported by S7-1200

| Device | Bit Address | Word Address | Format | Notes |
|------------------------------|---------------|----------------|---------|-------------------------|
| External output node | Q.B0.0-127.7 | | DDD.O | |
| External input node | I.B0.0-127.7 | | DDD.O | |
| Internal auxiliary node | M.B0.0-2047.7 | | DDDD.O | |
| Data register node | DBn_DBX0.0- | | DDDDD.O | The main address can be |
| | 65535.7 | | | set during the hardware |
| | | | | configuration. |
| External output register | | QW0-126 | DDD | |
| External output register (32 | | QD0-124 | DDD | |
| bit) | | | | |
| External input register | | IW0-126 | DDD | |
| External input register (32 | | ID0-124 | DDD | |
| bit) | | | | |
| Internal register | | MW0-2046 | DDDD | |
| Internal register (32 bit) | | MD0-2044 | DDDD | |
| Data register | | DBn_DBW0-65534 | DDDDD | The main address can be |
| | | | | set during the hardware |
| | | | | configuration. |
| Data register (32 bit) | | DBn_DBD0-65532 | DDDDD | The main address can be |
| | | | | set during the hardware |
| | | | | configuration. |

THINGET

THINGET Controller series RS232 cable



| HMI | Controller |
|-------|------------|
| 2 RX | 5 TXD |
| 3 TX | 4 RXD |
| 5 GND | 8 GND |



THINGET Controller Series RS485-2 cable



| HMI | Controller |
|-------|------------|
| 1 RX- | |
| 6 RX+ | + |
| 5 GND | GND |

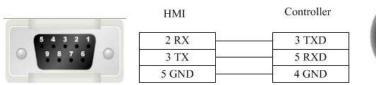
Registers supported by THINGET Controller:

| Device | Bit Address | Word Address | Format | Notes |
|--------------------|---------------|--------------|----------|-------|
| Status node | SO-99999 | | DDDDD | |
| Counter node | C0-99999 | —— | DDDDD | |
| Timer node | T0-99999 | | DDDDD | |
| Interal relay node | M0-99999 | | DDDDD | |
| Output relay node | Y0.0-303237.7 | | 000000.0 | |
| Input relay node | X0.0-303237.7 | | 000000.0 | |
| FlashROM register | | FD0-9999 | DDDD | |
| Data register | | D0-9999 | DDDD | |
| Timer | | TD0-9999 | DDDD | |
| Counter | | CD0-9999 | DDDD | |

TRIO

1 TRIO _modbus

TRIO_modbus series RS232 cables



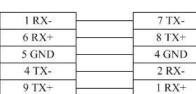


TRIO_modbus series RS485-4 cable

HMI

Controller





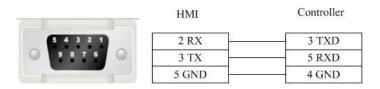


Registers supported by TRIO_modbus

| Device | Bit Address | Word Address | Format | Notes |
|--------------------------------------|-------------|--------------|--------|-------|
| System internal/external output node | 0X1-65535 | | DDDDD | |
| System internal/external input node | 1X1-65535 | | DDDDD | |
| Analog input data register | | 3X1-65535 | DDDDD | |
| Data register | | 4X1-65535 | DDDDD | |

2 TRIO _modbus_extend

TRIO_modbus_extend series RS232 cable



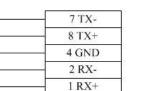


TRIO_modbus_extend series RS485-4 cable

HMI

Controller







Registers supported by TRIO_modbus_extend

| Device | Bit Address | Word Address | Format | Notes |
|--------------------------------------|--------------------|----------------|----------|-------|
| System internal/external output node | 0X1-65535 | | DDDDD | |
| System internal/external input node | 1X1-65535 | | DDDDD | |
| Analog input data bit | 3X_BIT1.0-65535.15 | | DDDDD.DD | |
| Data register bit | 4X_BIT1.0-65535.15 | | DDDDD.DD | |
| Analog input data register | | 3X1-65535 | DDDDD | |
| Data register | | 4X1-65535 | DDDDD | |
| Data register | | 5X1-65535 | DDDDD | |
| Data register | | 6X1-65535 | DDDDD | |
| Data register | | 3X-DINV1-65535 | DDDDD | |
| Data register | | 4X-DINV1-65535 | DDDDD | |

3 Differences between TRIO _modbus and TRIO _modbus_extend

Many data memory such as analog input data bit, data register bit and data register are added into TRIO_modbus_extend on the base of TRIO_modbus.

Yaskawa

1 Yaskawa

Yaskawa MP Series SIO (Extension) cable

| HMI | Controller |
|-------|------------|
| 2 RX | 2 TXD |
| 3 TX | 3 RXD |
| 5 GND | 7 GND |
| | 5 CTS |
| | 4 RTS |

| F | Registers supported | l by Yaskaw | a MP Series | SIO (Extension): |
|---|---------------------|--------------------|--------------|------------------|
| | Constant Supported | <i>i</i> by ruskuw | u wir Scrics | |

| Device | Bit Address | Word Address | Format | Notes |
|----------------|---------------|--------------|---------|-------|
| Coil | MB0.0-65534.F | | DDDDD.H | |
| Inputrelay | IBO.O-FFFF.F | | нннн.н | |
| Hold register | | MW0-65534 | DDDDD | |
| Input register | | IW0-FFFF | нннн | |

2 Yaskawa network device

Yaskawa UDP Slave cable

Across connection



| HMI | Controller |
|--------|------------|
| 1 TX+ | 3 RX+ |
| 2 TX- | 6 RX- |
| 3 RX+ | 1 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 2 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White

2 Orange 3 Green White

4 Blue

5 Blue White

6 Green

7 Brown White 8 Brown

Direct connection



.

| HMI | Controller |
|--------|------------|
| 1 TX+ | 1 RX+ |
| 2 TX- | 2 RX- |
| 3 RX+ | 3 TX+ |
| 4 BD4+ | 4 BD4+ |
| 5 BD4- | 5 BD4- |
| 6 RX- | 6 TX- |
| 7 BD3+ | 7 BD3+ |
| 8 BD3- | 8 BD3- |



1 Orange White 2 Orange 3 Green White 4 Blue 5 Blue White 6 Green 7 Brown White 8 Brown

Registers supported by Yaskawa UDP slave:

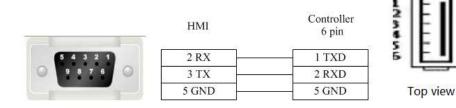
| Device | Bit Address | Word Address | Format | Notes | |
|-----------------|---------------|--------------|---------|-------|--|
| Coil | MB0.0-65534.F | | DDDDD.H | | |
| Inputrelay | IBO.O-FFFF.F | | нннн.н | | |
| Output relay | QB0.0-FFFF.F | | нннн.н | | |
| Hold register | | MW0-65534 | DDDDD | | |
| Inputregister | | IW0-FFFF | нннн | | |
| Output register | | QW0-FFFF | нннн | | |
| Hold register | | ML0-65534 | DDDDD | | |

Yokogawa

Yokogawa FA-M3 series RS232 cable

Yokogawa serial port programming cable is used to communicate with the HMI device.

Yokogawa FA-M3 series RS232 cable



Yokogawa FA-M3 series RS485-4 cable



| HMI | Controller |
|-------|------------|
| 1 RX- | SDA- |
| 6 RX+ | SDB+ |
| 5 GND | FG |
| 4 TX- | RDA- |
| 9 TX+ | RDB+ |

Yokogawa FA-M3 series RS4852 cable

HMI

```
Controller
```



| | SDA- |
|-------|------|
| 1 RX- | RDA- |
| 5 GND | FG |
| 6 RX+ | SDB+ |
| jie . | RDB+ |

Registers supported by Yokogawa FA-M3:

| Device | Bit Address | Word Address | Format | Notes |
|------------------|-------------------|---|--------|-------|
| Input Relay | X1-65535 | 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - | DODDD | |
| Output Relay | Y1-65535 | 1 | DODDD | |
| Internal Relay | 11-65535 | 100000 | DODDD | |
| Special Relay | M1-65535 | 5 | DDDDD | |
| Link Relay | L1-65535 | | 00000 | |
| Data Register | | D_word1-65535 | DOODD | |
| File Register | | B_word1-65535 | 00000 | |
| Index Register | 5 15/0 451 | V_word1-65535 | DDDDD | |
| Link Register | : ;;; | W_word1-65535 | DDDDD | |
| Special Register | | Z Word1-65535 | DDDDD | |

4 Detailed manual

4.1 File

1 Save Project

Shortcut key: <Ctrl>+<S>. Save the project being edited.

2 Close Project

Close the current project without exiting the software, usually used for switching among projects.

3 Save Project As

Use a new path or new name to save the current project (without deleting the previous project).

4 Project Used Recently

Display the paths of no more than 10 projects opened recently and each one can be directly opened by clicking.

5 Open Project

Shortcut key: <Ctrl>+<O>. It is used to open an existing project other than any project repeatedly.

After the software is opened, any project with the file suffix name "*.fsprj" can be opened by clicking it on the project name.

Remark: if the software is correctly installed, the user can directly open the project by clicking the corresponding file with the postfix *.fsprj in the Windows Explorer.

6 Create New Project

Shortcut key: <Ctrl>+<N>. It is used to create a new project.

After the project is correctly created, a file folder with the same name will be created to save the project files related.

| Category(C); | |
|--------------|----------------------------|
| HMI Project | |
| | |
| | |
| | |
| | |
| Ρ | oject name |
| P | oject name Project path |
| Name(N): | 1 |
| / | 1 |

Please refer to the "First Use" for the following settings.

7 Transform Project

Convert project from software FD2000 into the current software version. But only the picture name and the text can be converted, and other parameters must be reset.

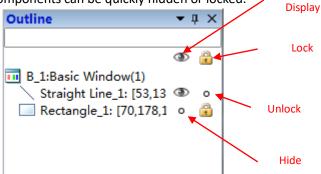
8 Exit

Shortcut key: <Alt>+<X>. It is used to close the project and exit the software.

4.2 View

1 Outline

Open/close the outline view, and list all available components on the current window. One or all components can be quickly hidden or locked.



2 Project

Open/close project view which the tree structure facilitates the operation such as "HMI setting", "window", "communication connection", "system setting", "library", "macro", and "prescription", and so on. Details can be seen in <u>Detailed manual /Setup</u>.

3 Current language

Select the current displaying language and the checked language is the current displaying language.

Note: the language refers to the content edited well by the current project other than translated by the system automatically!

4 Current Status

The checked Status is the current status. It is used to display the components displaying effect quickly in different status.

5 Find and Replace

Open/close the Find and Replace view, used to search or replace any word address, bit address used in the current project.

| | ddress • See | arch Range: All Project • |
|--|--|--|
| Find Device: LOI P Address 1 Bit-index Range 0 | Word Address AL(Local Register • ype(L8 • within a Byte Register E) e):DDDDD0(0~79999 | Replace Device: LOCAL/Local Register • Address Type(LB •) Bit-index within a Syte Register Address(0 •) FormatRange/DD0DD/0-799999) |
| | Find | Find Next Hestace Replace All |
| Location | and the second s | Target |
| | | |
| | | |
| | | |
| | | |
| | | |

6 Restore to the Default View

Restore to the Default View– readjust the view arrangement of the software and restore the default arrangement.

7 Window

Open/close the window view and use the tree structure facilitates modifying the Power-on Screen, Public Window, Basic Window, Keyboard Window and System Window.

1 Power-on Screen

It is the window displayed at startup. Any picture expected to be used by the user, such as the company Logo, can be displayed. But it will disappear after a while before entering the configuration screen. The picture formats supported are BMP, JPG, GIF and PNG.

(2) Common window

The common window always exists and all common window attributes are effective no matter the configuration screen is on a basic window or a pop-up window. The general effective components such as t macro and timer can be set in this window.

③ Drop-down Window

TheDrop-down Window can be operated to edit the content of the drop down list when the configuration screen is running. But this function is only effective for a capacitor screen.

4 Basic Window

The attribute of basic window can be viewed or modified here. The window of number 29001~29006 is provided to log on with the user's authority for the user. It can be directly used in the software.

(5) Create Basic Window

A new basic window can be created by clicking "Create Basic Window" in the software picture. The window name, size and other attributes need to be set. The new basic window can also be created in the default attributes.

6 Keyboard Window

The keyboard window attributes can be viewed or modified after clicking here. And a customized keyboard can be created which used in the software.

7 System window

The system window can be viewed (it can also be modified under direction) after clicking here, for example, the system window of "communication information".

8 Output

Open/close the output view. The compiling information can be output and displayed here.

9 Error

Open/close the error view. All errors collected during compiling are recorded here.

4.3 Edit

1 Cancel

Cancel the operation and go back to the previous one.

2 Recovery

Recover the last action cancelled.

3 Find/Replace

Set the designated searching range and search the bit address/ word address or replace with a new bit address/ word address/.

4 Cut

Cut away the selected component and temporarily save it on the clipboard.

5 Copy

Copy the selected component and temporarily save it on the clipboard

6 Multi-Copy

Set the copy range, quantity, interval and direction, and make the addresses change in any rule to obtain more components (many components can be copies and pasted integrally, and the addresses will change orderly).

7 Paste

Paste the content of the clipboard onto the project.

8 Delete

Delete the selected components from the project.

9 Inching

Move left/right/up/down for one unit.

10 Alignment

It is effective only when many components are selected. It is used to align these components on the left, on the vertical middle line, on the right, on the up, on the horizontal middle line, or on the bottom.

11 Size

It is effective only when many components are selected. It is used to set these components to the same width, height or same size.

12 Layer

It is effective only when the component is selected. It is used to set the component to the top, to the bottom, to the previous layer, to the next layer, or set many components in the same horizontal space or in the same vertical space.

13 Same Color

It is effective only when many components are selected. It is used to set all components in the same color.

14 Group

Integrate many components.

15 Ungroup

Make the components of group to restore into individuals.

16 Center horizontally

Center all selected components horizontally in the window.

17 Center vertically

Center all selected components vertically in the window.

18 Lock

Lock the position of the component and stop it from size adjusting or position adjusting.

19 Unlock

Unlock a locked component and restore it to the state that its size or position can be adjusted.

4.4 Window

1 Create New Window

Create a new window and allow the user to set the window number, width, height and any other basic attribute or function.

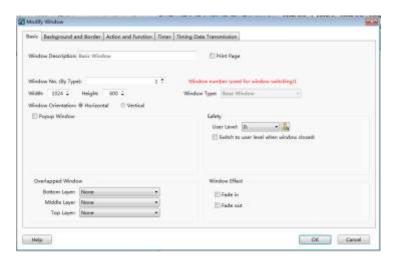
2 Delete Window

Delete the selected window

3 Current Window Properties

Set the current window attributes and allow the user to set he window number, width, height and any other basic attribute or function.

1 Basic



(2) Background and Border

| Multip Window | | | |
|----------------------------------|--|----------------------------------|-----------|
| Resid Background and D | order Artice and Function | Timer Timing Data Transmission | 2 |
| # Are Color () Fation Elling: | Select Color + | () brager | |
| © Gradient Filling | | | |
| Sender Widde Border Ealen | 0 * | | |
| Weslow Transparency | (Internation of the second sec | | |
| | | | |
| | | | |
| | | | |
| mip | | | DC Carrel |

3 Action and Function

The action to open or close a window can be used to activate a bit, a word, a macro command or switch among windows.

| Aden/Condition | Execute | Openstion Target | | |
|--|--------------------|--------------------------|---------------------------------------|------------|
| lőde ta die left | Add Action And Fa | Action (| late and | |
| lide to the right Wridow livitative | Antian Dr Carebian | Washing L + | | |
| Neidore Fritada | | Contraction of the local | | |
| | Treiste | | Laura Contractor | |
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| | 1 | @ Set Dx Set Off | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| | E Word Sattings | | 8 | |
| | < word samings | | | Adu |
| | | Set Constant | 0 🚔 | |
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| | 1.000000000 | | | Move Deset |
| | ID Switch Page | fverd Wydnine | | Move Dame |
| | | | Concernence of the second | Deve |
| | | 140 | Eartest | |
| | | | | 14 |
| | | | | |
| | | | | 100 |

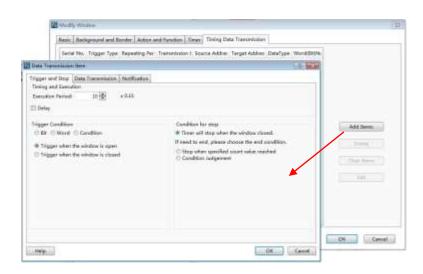
(4) Timer

It is used to set an executing cycle. You can execute a macro or directly set a word or a bit according to the trigger conditions.

| | and Function Theor (Enough State State and some | 2 |
|--|--|--|
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| | 1.00 | |
| toper and Stop @ Times and two @ | | |
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| Delap | | |
| Agger Consilien | Condition for steps | 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1- |
| • OX © Hard © Condition | I treat set out the states in the states | |
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(5) Timer Data Transmission

It is used to transmit words or bits in batches. And an action can be set before or after writein.



| Secial No. Trigger Type Repeating Per Type | ension Souse Addres Target Addres DateType Wordbitts | |
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| te Transmission | | |
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| El Northy Bit Addresses | Add Batter |
| E) Trigger Merce | <u> </u> |
| NWa Genet | US. Cave |

4 Edit Starting LOGO Window

The user can set the properties of the Power-on Screen window (double click the window after open the Power-on Screen)

5 Show the Public Window

Display/hide the Public Window and facilitate the user to view the effect of the Public Window displayed/hidden in the Basic Window.

6 Show the Lower Layer Window

Display/hide the lower layer window (the three lower layer windows are effective at the same time) and facilitate the user to view the effect of lower layer window displayed/hidden in the basic window.

7 Jump to the Target Window

When the selected component is integrated with a paging function, it is used to jump to the target screen window.

8 Show Grid

Display the grid and facilitate the user to view the position of components.

9 Grid alignment

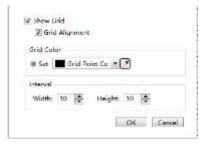
Facilitate components aligning by the grid alignment function.

10 Align to alignment line

Activate the function of aligning the components in a line.

11 Grid Setting

Pop up the Grid Setting window. The user can customize the grid color and space here.



12 Window Zoom

Resize the window in a proportion including 50%, 75%, 100%, 125%, 150%, 175%, or 200%.

4.5 Drawing

4.5.1 Straight Line

| ArbitrarilyLine 10 Horizontal | © Vertical |
|-------------------------------|--|
| Une Width • | Position Fixed Paint: X : 120 C V : 121 C Locked Width 154 C Height 1 C Rotation Fix Point |
| | 66 RotationAngle 010 NonRotation |

1 General

• Arbitrarily Line

The user can draw a straight line at will.

Horizontal

Rotate the straight line drawn by the user to the horizontal position around the center point.

Vertical

Rotate the straight line drawn by the user to the vertical position around the center point.

Line

See Detailed manual/General functions/Drawing/Bordersettings.

Arrow

The user can set the arrow pattern in the combo box, see the figure below.

| Arrow | | |
|-------------|---------------------------|--|
| Arrow Style | < | |
| | ←─── | |
| | \longrightarrow | |
| | $\langle \longrightarrow$ | |
| | ◀ | |
| | | |
| | ← → | |

Position

See <u>Detailed manual/General functions/Drawing/Position</u>.

Rotate

See <u>Detailed manual/General functions/Drawing/Rotation</u>.

(2) Dynamic Graphics

See <u>Detailed manual/General functions/Drawing/Dynamic Graphics</u> for the details.

③ Indicator Light

See <u>Detailed manual/Component/Indicator Light</u> for the details.

(4) Display

See <u>Detailed manual/General functions/Drawing/Display</u> for the details.

4.5.2 Fold Line

| 58 tine | Position |
|----------------|------------------------------------|
| Line Color 💌 🔮 | Fixed Point: X 1 196 \$ Y 403 \$ |
| Line Width . | Elocked Width: 234 C Height: 107 C |
| | Rotation |
| Line Type | Fix Point 0-0-0 |
| | I I |
| Arrow . | I I I |
| | 0-0-0 |
| | RotationAngle 0 👘 NonRotation |
| | |
| | |

Click the left key to fix the fold line point in drawing. And click the right key to finish drawing. See details in: <u>Detailed Manual/ Drawing/ Straight Line</u>.

4.5.3 Rectangle

| ieneral Dynamic Graphics Indicator Light Display | |
|--|----------------------------------|
| Rectangle ① Square | |
| 2 Border | Position |
| Eine Color · | Fixed Point: X : 132 C Y : 200 C |
| Line Width | Ecoked Width 125 C Height #5 C |
| Line Type + | Rotation |
| | Fix Point QQ |
| E Chanfer | \$ @ \$ |
| | 0-0-0 |
| | RotationAngle 0 2 technolog |
| | |
| En . | |
| | |
| The for Ellert | |
| Shadow Effect | |

1 General

- Rectangle
- A rectangle is set to be drawn by the user.
- Square

Make the rectangle width equal to its length, and thus it is set into a square.

- Border
- See <u>Detailed manual/General functions/Drawing/Border settings</u>.
- Chamfer

After it is checked, edges of the rectangle drawn by the user can be chamfered in Line type (as shown in Fig. a) or in Fillet type (as shown in Fig. b). The maximum chamfering length cannot be larger than 1/2 of the shortest side length.

| | Chamfer | | | |
|----|--------------|--------|---------------|---|
| | Chamfer Type | | Cutting Angle | 0 |
| | | Line | 1 | |
| | | Fillet | | |
| a. | | | | |
| a. | | | | |
| | | Line | | |
| / | | | | |
| | / | | | |

| Chamfer |
|---|
| Chamfer Type Line Cutting Angle 0 Line Fillet b. |
| Fillet |
| Position |
| See Detailed manual/General functions/Drawing/Position. |
| Rotate |
| See Detailed manual/General functions/Drawing/Rotation. |
| • Fill |
| See Detailed manual/General functions/Drawing/Filling settings. |
| ∠ 🔽 Fill |
| Background Color Fill Type SolidColor |
| Shadow Effect |
| See Detailed manual/General functions/Drawing/Shadow Effect. |
| |

2 Dynamic Graphics

See <u>Detailed manual/General functions/Drawing/Dynamic Graphics</u> for the details.

3 Indicator Light

See <u>Detailed manual/Component/Indicator Light</u> for the details.

(4) Display

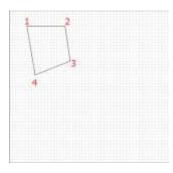
See <u>Detailed manual/General functions/Drawing/Display</u> for the details.

4.5.4 Polygon

Draw a polygon by click the polygon tool. You can find the polygon tool in the shortcut tool bar, the shortcut menu and the pull-down menu.

| ile | View Edit Windo | w D | rawing | 9 | Component | Library |
|-------|--|------|---|---|--|---------|
| So Ar | | | Str Fo Re Po Elli Se Se | ld L ctar lygo ipse c ctor ctor | ht Line ine ngle on | |
| | | | Sta | atic | Text | |
| 1 | Paste Select All | | +V | atic | Text | |
| | Paste | Ctrl | +V | •tic | Text Straight Line | |
| 1 | Paste Select All | Ctrl | +V +A | atic | | |
| 1 | Paste Select All Add Vector Graphics | Ctrl | +V +A | etic | Straight Line Fold Line Rectangle | |
| | Paste Select All Add Vector Graphics Add Components Grid | Ctrl | +V +A | | Straight Line Fold Line Rectangle Polygon | |
| | Paste Select All Add Vector Graphics Add Components | Ctrl | +V +A | | Straight Line Fold Line Rectangle Polygon Ellipse | |
| | Paste Select All Add Vector Graphics Add Components Grid | Ctrl | +V +A | | Straight Line Fold Line Rectangle Polygon Ellipse Arc | |
| | Paste Select All Add Vector Graphics Add Components Grid | Ctrl | +V +A | | Straight Line Fold Line Rectangle Polygon Ellipse | |
| | Paste Select All Add Vector Graphics Add Components Grid | Ctrl | +V +A | | Straight Line Fold Line Rectangle Polygon Ellipse Arc Sector | |

A side will be added every time when the left key is clicked. After all sides are obtained, a polygon can be obtained by clicking the left key and then clicking the right key.



1 General

| | Rechargement Color and | Kotalondogle | ole Marel | atative) | |
|---------------|------------------------------------|------------------------|-----------|------------|--|
| | | li Type <u>Solid</u> G | alar • (b |) | |
| ill Sh Cek | ofew Flert 11 📕 ShadowColor 🔹 💽 |] Shadow Entur | nian X | a∰ ∀ (C) a | |

(a)Frame line pattern and frame line width (b)Polygon filling color (c)Polygon shadow effect

Please see details for the using method of polygon drawing.

| a lossesting opening a state | ics Indicator Light Display | |
|------------------------------|--|--------------------------|
| 2) Use Dynamic Graphic | 18 | |
| Control Address | LIMO 🗃 | |
| 📝 Correct Position | 8: LWO YEANS Coordinate of the top-left point | (a) |
| Control Size | Width : LWZ Height : LWS For square and clock, only width is valid, height is | net applicable(b) |
| Z Cantral Rotating | | (c) |
| | Note: Location, size and rotating is set based o | n fixed reference point. |
| | | |
| | | |

(2) Dynamic Graphics

(a) Position control (b) Size control (c) Rotation control

Please see <u>Detailed manual/General functions/Drawing/Dynamic Graphics</u> for the details.

③ Indicator Light

| 00 382 | General Dynamic Graphics Indicator Light Elipping | _ |
|--------------|---|---|
| | 😥 Lise Ac Bit Light | |
| | Covered Address: 1,80 | |
| | When The Address Is On | |
| 11111111 | 🕼 Change Colon 🔳 Stroke Calor + 💌 (a) | |
| - | @ floic Frequency 1 ≥ K 0.1 Second (b) | |
| Anna and | 2.6 | |
| | Reckymand Color + 🕑 Fill Type SolidColor + (C) | |
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(a) Modify the frame color (b) Control the frequency of flickering (c) Modify the filling color

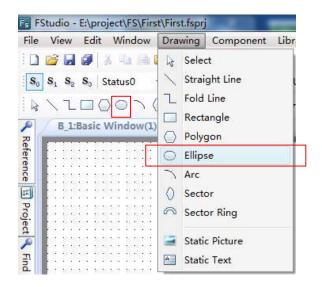
See <u>Detailed manual/Component/Indicator Light</u> for the details.

(4) Display

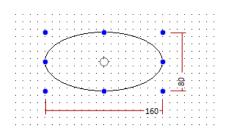
See <u>Detailed manual/General functions/Drawing/Display</u> for the details.

4.5.5 Ellipse

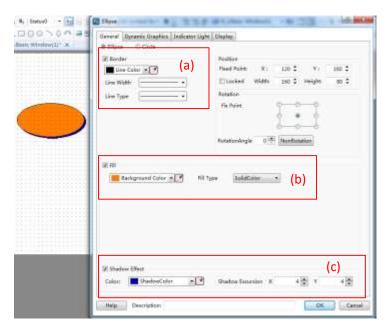
Click the ellipse icon on the tool bar by the left key, or select "Ellipse" command from the menu of Drawing.



Click and hold the editing area in the window, and drag the mouse to modify the ellipse size and shape.



(1) General



(a) Ellipse border color, width and pattern (b) Ellipse filling color (c) Ellipse shadow effect.

(2) Dynamic Graphics

| 270025 | General Dynamic Gray | Pice Indicator Light | Display | |
|---------------|------------------------|---|------------------------------------|---------------------------------|
| stoscil)* 8 ; | Willion Dynamic Graphi | ea. | | |
| | Cortrol Address | SWD | | |
| | 22 Corryol Pesition | R UND YUWI Coordinate of the S | sp-left point | (a) |
| | 🖉 Cantral Size | Width - 1202 Height - For square and circle, | CNR only width is called, beigh | t is not ass <mark>(b)</mark> . |
| | | Angle 1996 Promos anti-clockwise | . 0-060 degree | (c) |
| - | | Note: Location, size a | nd rotating is set based | i an fixed reference paint. |
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(a) Position control (b) Size control (c) Rotation control

See <u>Detailed manual/General functions/Drawing/Dynamic Graphics</u> for the details.

3 Indicator Light

| | General Dynamic Graphics Indicator Uptr Display | |
|-------------|---|-----|
| eneriti" X | 🖉 Use An Br Light | |
| | Control Address: (8) | (a) |
| | When The Address. Is On: | (a) |
| Carlo Carlo | 🕼 Change Color. 🔳 Stroke Color 🔹 📝 | (b) |
| | W Ficks Prequency 1 8 0.1 Second | |
| | (K R) | (c) |
| | Background Color * 💽 NI Type SoldColor • | |
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| | | |

(a) Modify the frame color (b) Control flickering frequency (c) Modify the filling color

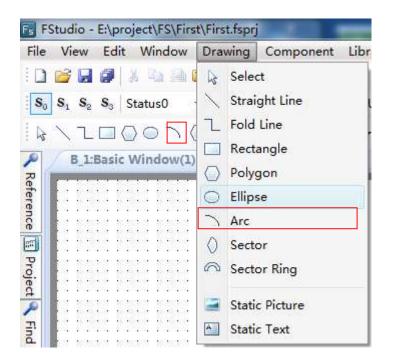
See<u>Detailed manual/Component/Indicator Light</u> for the details.

(4) Display

See <u>Detailed manual/General functions/Drawing/ Display</u> for the details.

4.5.6 Arc

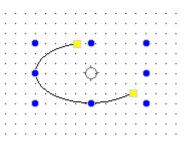
An arc can be drawn in a designated area. The arc component command can be found on the tool bar or from the menu of Drawing.



Select the arc component, designate any area to draw, and double click to set the arc properties.

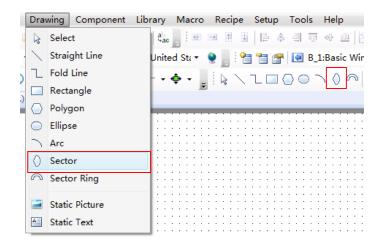
| | | - 149 Q | (Y) | 208 \$ |
|--|-----------|-----------|---|-----------|
| Elocked Rotation Fix Point RotationAngi | Widh: | iii : | Height 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 98.5 |
| | fix Point | Fie Point | Fis Point 00 0 * 00 | Fix Point |

An arc can be got by setting the properties such as line color, width, type, starting angle, end angle, position and rotation. It can be freely drawn by dragging the yellow and blue areas.

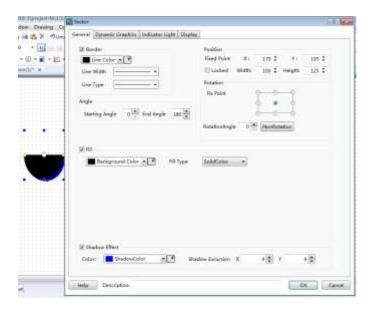


4.5.7 Sector

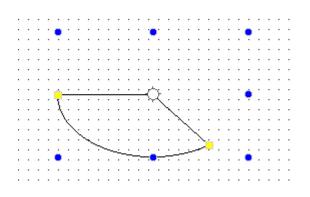
A sector can be drawn in a designated area. The sector component command can be found on the tool bar or from the menu of Drawing.



Select the sector component, designate any area to draw, and double click to set the sector properties.

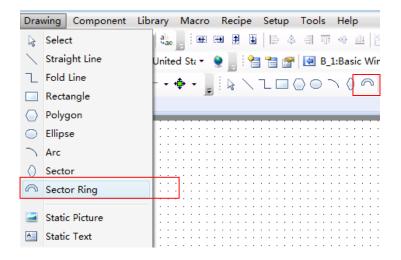


A sector can be got by setting the properties such as line color, width, type, starting angle, end angle, position, rotation, fill color, fill type and shadow effect. It can be freely drawn by dragging the yellow and blue areas.



4.5.8 Sector Ring

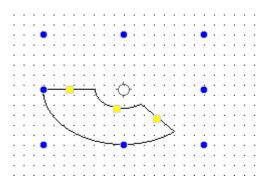
A sector ring can be drawn in a designated area. The sector ring component command can be found on the tool bar or from the menu of Drawing.



Select the sector ring component, designate any area to draw, and double click to set the sector ring properties.

| Drawing Component | 23 Series King | ALC: NO. |
|---------------------------|--|--|
| Contraction Contraction | General Dynamic Scapfrice Indicates Light Display | |
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| | Gre Type | Acterior Factorial (C |
| | Lector Ring Incide and Outside Ring Scale (%): 50 (*) | 2 : 2 |
| | Shun Angle 0 (a) Eral Angle 180 (a) | RotationAngle 0 ¹⁴⁰ NonRatation |
| . 🍑 | 12 F4 | allahar • |
| | 2 thatswither | |
| | Color: 📕 Wadow Color 🔎 🖉 Shadow Eas | sankar X 4분 V 4훞 |
| | Help | DE Canet |

A sector ring can be got by setting the properties such as line color, line width, line type, starting angle, end angle, position, rotation, fill color, fill type and shadow effect. It can be freely drawn by dragging the yellow and blue areas.



4.5.9 Static Picture

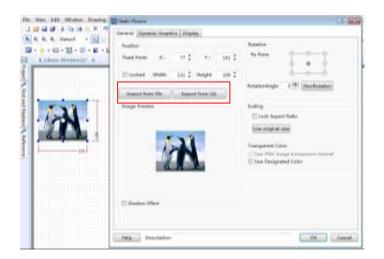
In this software, the "Static Picture" function will be used frequently. This function can make the whole project more clear and beautiful. The static picture command can be found from the shortcut tool bar or the pull-down menu of Drawing.

| Drawing Component Select Straight Line Cold Line Rectangle | Library Macro Recipe Setup Tools Help t _{in} Help Help Help Help Help Help Help Help |
|--|--|
| Polygon Ellipse | |
| Arc Sector | |
| Sector Ring | _ |
| Static Picture Static Text | |
| | — |

After the static picture component is selected, drag by the left key of the mouse, and then the corresponding properties window will pop up.

| Read Poles 81 17 2 81 182 2 | Refer |
|---------------------------------|--|
| Thanked Holes III Though III T | L Testerage Tri Instantial Data Data Description Descriptio |
| 2) Sudas Han | |

Local picture in the computer or in the software picture library can be imported by clicking the "Import from File" button or the "Import from Lib" button. And the picture will be put into the window by clicking the "OK" button.



The static picture position can be modified. You can change the position by manually dragging or by setting the coordinates in the static picture properties window. The static picture size can be modified, too.

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|--|------------------------------------|---|
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| | Inge Protec | Scolag Class Aspect Ratio International Alian Transparent Color Class Thill receipt throughout channel Disc Designated Color |
| | E Hadase (Heat | |

The static picture size and position can be fixed if the "Locked" is checked. And the static picture can be rotated around a fixed point. The fixed point and rotation angle can be set. The picture can be manually rotated (in any angle) after the fixing angle is set.



The static picture size can be set in the properties window by the Scaling function. It can be set either by checking "Lock Aspect Ratio" (the fixed horizontal/vertical ratio) or by checking "Use original size" (keeping the original size).

| Pusition | Rotation |
|------------------------------------|---|
| Fixed Point: X 12 C Y 196 | Fix Point 0 |
| Elocked Width: III. Height 100 | and the second se |
| Import from File Import from Life. | RotationArgie 13 1 Non-Estation |
| mage Preview | Scaling |
| | E Lock Aspect Ratio |
| 1 million | Use original size |
| 1238 | Transpacent Color |
| | Cue MG image transparent channel |
| | C Use Designated Color |
| | |
| | |
| | |
| Shadow Effect | |

The picture effect can be beautified by the Shadow Effect function so that it can be differentiated from the background.



The static picture can be set to display only when the corresponding conditions are satisfied. The user can choose that the static picture is displayed all the time or displayed in conditions by setting the Display properties. The conditional display type includes Level User, Privilege User and Logic Control.

Level User: The static picture will be displayed only in the corresponding user level. It can be activated by checking it.

| and the state of the | and gove here and | -W- |
|---|-------------------|-----|
| eneral Dynamic Graphics C | Display | |
| Visibility Control | | |
| C Always Display | | |
| Conditional Display | | |
| 📝 Level User 🛛 Min Level | e • 5 | |
| 🔲 Privilege User | Lievell | |
| E Logic Control | 2£evel2 | |
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Privilege User: The static picture visibility control needs an authority. The authority system

settings dialog can be opened by clicking the button "....".

| Balli Netara | Distant Section |
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| (*) Benage Display B Conditional Display | No. Une Name Problem Personal Logical Stretchist Provinces L Balance IXXXXX 20 Million |
| Elizabilities | |
| Dividential Philope (Galations +) | 2 |
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Logic Control: The static picture visibility can be controlled by the address conditions. The conditions include bit control (address ON and OFF) and word control (word address value conditions).

| General Dynamic Graphics Display 🧿 | -1 |
|--------------------------------------|---|
| Visibility Control | 100 |
| Always Display | |
| Conditional Display | |
| E Level User | And the second se |
| E Privlege User | Condition Setting |
| Witegie Control | Modale 🗇 Bit Register 🗰 Word Register |
| Condition | Address: |
| +1 | Condition |
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| | Read Value + + A(1) None + |
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| 1 | A Constant. = 1 |
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| 1 | A Constant. = 1 |

The static picture can be converted into a dynamic one by logic control. Static pictures can be quickly switched by picture stacking and the control address.

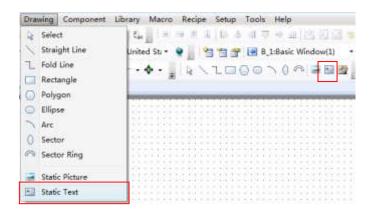
| Static Pic | bire | |
|------------|--------------------|--|
| General | Dynamic Graphics 🥹 | Display Q |
| V Use I | Dynamic Graphics | |
| Co | ntrol Address: | |
| Be | centrol Position | |
| 0 | ontrol Sizer | |
| 80 | ontrol Rotating: | |
| | Note | Location, size and rotating is set based on fixed reference point. |
| | | |
| | | |
| | | |
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| | | |
| | | |
| Help | Description | OK Cancel |

When the control address is fixed, the position, size and rotation can be controlled. E.g.: when there are many sector pictures, they can be set to display rotating effect by setting the Control Rotating.

| Static Picture | -0 |
|-----------------------|---|
| General Dynamic Graph | cs 🧿 Display Q |
| 🗑 Use Dynamic Graphic | |
| Control Address. | |
| Control Position | X: 1) Coordinate of the top-lieft point |
| 🖉 Control Size: | Width: Height: For square and circle, only width is valid, height is not applicable. |
| Control Rotating: | Angle: Increase anti-clockwise, G-360 degree |
| | Note: Location, size and rotating is set based on fixed reference point. |
| | |
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| Help Description | Carcel |

4.5.10 Static Text

When editing in the software, a lot of texts will be used for marking, displaying and describing, and thus the project edited can be easy to understand. The Static Text command can be found from the shortcut tool bar or the menu of Drawing.



When click the Static Text command, the properties dialog will pop up. The content of the static text to be displayed can be written into the Tag Contents. The font, size, color and alignment mode can be set here.

| meral Display | | | | | |
|---|--------------------------------------|--------------|------------------|----------------|-------------|
| Language Independent Languages: Linglish (United 5 x 4 4 | Pusition Fixed Point Locked | X : Width | 0.87 | Y : Heighti | 0 C 30 C |
| rag Contents Feat Copy Current Text to All Languages | III Set label po Lait: R Top I | light: | language EEEE | state separat | ety. |
| Import from Favorite Font Templates.() Vector Font & Graphic Font ont: Microsoft Sans Serif + ize: 10.0 Microsoft Sans Serif Microsoft Sans Serif | | | | | |
| | | | | | |

These properties such as the current text font, size, color and the alignment mode can be copied to make future texts uniform.

| Static Text | | | | | 0 |
|---|--------------------------------------|--------------|--------------|---------------|-------------|
| General Display | | | | | |
| Language Independent Languages: LEnglish (United S. •) Lenglish (United S. •) Test Ubrary | ILV. | X : Width | 0 ¢ 150 ¢ | V : Height | 0 C 50 C |
| Use Labels Tag Contents Test | E Marquee | | | | |
| Copy Current Text to All Languages Import from Favorite Font Templates.() Vector Font & Graphic Font Font Microsoft Sans Serif + Size 10. 10. 10. 11. 10. 11. Size 10. 10. 10. 10. 10. 10. 10. 10. 10. 10. | III Set label po Lait: R Top S | light: | language (| tate tegarah | etu. |
| Microsoft Sans Serif | | | | | |
| Help Description | | _ | - | 05 | Carcel |

The function "Language Independent" can be checked to make sure the text is not influenced by other languages.

| 🖾 Language Independent | Paisition |
|---|--|
| anguages: I-English itladed 5 * * * | Fieed Point: X: 0 C V: 0 C ■ Locked Widdh S0 C Height S0 C Marquee |
| Copy Carrent Text to All Languages Import from Favorite Font Templates.() Vector Font @ Graphic Font Cont Microsoft Sams Serif * Size 10 * 10 / 10 / 10 / 10 / 10 / 10 / 10 / | Set label position by language state separately. Lab flight: |
| Microsoft Sans Serif | |

Sometimes, the project is provided to the users in different countries. You can set the different contents by switching Languages. Thus different texts can be displayed in different languages.

| Static Test | | | | | |
|---|------------------------------------|--------------------------------|---------------------------|---------------|-------------|
| ierent Display Clarguage Independent Languages: Linglich (Lalved S. *) (*) Olive Text Library 2-Chinese (Simplified, PRC) | Position Need Point: Unocked | X : Width | 0 * 50 * | Y ; Height | 0 ‡ 50 C |
| # Use Labels | | | | | |
| Tag Contents | | | | | |
| Test *. | | | | | |
| Copy Current Text to All Languages | | nition by Kight: Bottom: | | tate separat | eły. |
| 1 | 2001 | Bottom | FFF | | |
| Import from Fevorite Fort Templates (I) | | | | | |
| Vector Fort Complex Fort Fort Microanth Sam, Serif. | | | | | |
| Microsoft Sans Serif | | | | | |
| Copy Current Properties to All Languages | | | | | |
| Help Description | | | | OK | Carce |

Multi languages can be set in System Settings dialog which is opened by clicking the button

"()" to satisfy the different languages requirement.

| a ton the | C III Turine Lawrys | 1.66 |
|--|---|---|
| Lingengen: Lingdon Soviel L. + M | Land Hindong Land Landon Landon Landon Landon Landon Landon Landon Hardware Landon Landon Landon Market Landon Landon Landon 1 January Landon Landon Landon 1 January Landon Landon Landon 1 Science Roughlad (192) | $\label{eq:hardbard} \begin{array}{ c c c c c } & All Control & Anno Ard Later, \\ a to brack the the thread mass, b Later (set) \\ \hline \mbox{b to brack the thread mass, b Later (set) \\ \hline \mbox{b to c thread thr$ |
| The fame of the All All All and a second the All an | ers | Microsoft Sans Serf |
| Microsoft Sans Serif | 3. boyest control taken: • Golds Grogoogs With The unity server register Mit 2005, What the project is devolveded. The default trappage of the research | |
| These Description. | - NHC | C. In C. Invel |

When you check the "Set label position by language state separately" function, different texts can be aligned in different effects.

| Static Test | |
|--|--|
| General Display C Language Independent Language: 1-English (United 5 + 9 C Use Text Ubrary Text Library) Use Labels Tag Contents | Position Fixed Point: X 0 0 V 0 0 Clocked Width: S0 0 Height 10 0 Marquee |
| Test Copy Current Text to All Languagesi Disport from Favorite Fort Templates.() Vector Fort © Graphic Fort Fort Mikrosoft Sens Senill + Size: 15. + 10. £ | Set label position by language state asparately. Left Right Top Bottom |
| Microsoft Sans Serif Copy Current Properties to All Languages Help Description: | OK Cancel |

The static text can be used which is saved in the text library. The text library dialog can pop up by clicking the "Text Library" button. You can enter the text in the text library dialog in advanced and select it to use.

| top: Top | 18.54 | |
|--|---|----------------|
| Harris Harris H. Large age Independent Large age Independent R. Harris Harris (Det Johns) Jahr - + (Det Johns) | Electrons (anal. (completely, (control to a) = | i inangin L |
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| attea Goobentonin a Russen | (main) | in litere |
| This Incrision | | |

The static text can be set to a designated position, and the text can be locked to prevent any displaying defect caused by moving.

| Static Text | | | | | | | 4 |
|--|--|------------|---------------|----------|------------|--------------|--------|
| ieneral Display | | | | | | | |
| E Language Indep | endent | | Position | | | | |
| Languages | 1-English (Unite | d5 - 😫 | Fixed Point | XI | 0 \$ | ¥. | 0 0 |
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| | Ack • T | est + | E) Marquee | | | | |
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| 1 Martin Carlo Car | | | | | | | |
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| Fort Microsoft Sa | ers Serif + | | | | | | |
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| Multi-line Alignment | | Advanced | | | | | |
| | | | | | | | |
| Microso | ft Sans Se | erif | | | | | |
| Copy Current Pr | operties to All Li | inguages | | | | | |
| | | | | | | | |
| Help Descript | ion | | | | | OK | Cancel |

When the text includes a lot of words and characters, the revolving displaying function can be used to save the space. The revolving displaying function can be used by checking the "Marquee" function. The moving direction and the revolving displaying speed can be set in the properties dialog of the static text.

| neral Display | |
|--|---|
| Language Independent anguages E-English (United S • • • • Use Test Library Test Library Ack • • Test • • Use Labels ind Library Contents est. • | Position Fixed Point: X: 0 \$ Y: 0 \$ El Locked Wilth: 50 \$ Height: 50 \$ Marquee Moving Direction SightTalah * Step Length LeftToRight Step Length LeftToRight Step Length LeftToRight |
| Import from Favorite Fort Templetes.D Vector Fort Graphic Fort ent: Microsoft Sans Serif + Ser: 16 + B ≠ ● * Microsoft Sans Serif Copy Current Properties to All Languages | Set label position Borrow To Top Japanately Left Right Top Bottom |

Similar to static picture functions, the static text can be also set to display only if necessary. The user can choose that the static text is displayed all the time or displayed in conditions by setting the Display properties. The conditional display type includes Level User, Privilege User and Logic Control.

Level User: The static text will be displayed only in the corresponding user level. It can be activated by checking it. The user level system settings dialog can be opened by clicking the button



| hote her | Biome letter |
|--|--|
| Renard Distay Making Corest II Annue Danim III Contextual Discher | User Minlage Task breads Diris Seroldig PLCControl Associated basis Uniter Series Educated Series Educated Series Second Root Read Read Read User Line User Linel Court: |
| (2 Lovel Vice Mic Lovel 8 17 Novlege User 17 Logie Control | Parsend Law Pedeled Fassed Code Deciptor Dece Taxant August Vere Dece Taxant August Vere Dece Taxant August Vere Dece Taxant August Vere Dece Taxant Vere Dece Taxant Vere |
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| | |
| | Please are symmetrogener, 1979 in realise the operators like pressured least and modification, also |

Privilege User: The static text visibility control needs an authority. The authority system

settings dialog can be opened by clicking the button "

| Contrast Taxa | Dityme beings |
|---|---|
| General Display (2) Validity Cannol | Andra beforge Salesched betringe Laguerges Lettinge Rescribe Fort Templates, Spen Letting User Printinger Task Untradule Data Garging PUL Control Earer Jury Temp |
| Validay Canad © Anay Codey ® Confident Digits © Land Can ® Privilege Unit Privilege <u>Optimition = </u> [] [] Single Californ | Non- Liter Network Provide on the second se |
| Mile Devision | |

Logic Control: The static text visibility can be controlled by the address conditions. The conditions include bit control (address ON and OFF) and word control (word address value conditions).

| General Display O | |
|--|--|
| Visibility Control Aways Display Conditional Display Level User | |
| Privilege User | Condition Setting |
| I Logic Control | Module: 🔘 Bit Register 🖷 Word Register |
| Condition + 1 | Address Condition Read Value * * A(1) None * |
| Add Midtly Debie | A Constant, e 1 |
| | Cancel |
| Help Description | Cancel |

4.6 Component

4.6.1 Switch

The Switch component includes Bit Set, Word Set, Window Operation, Function Key, Data Transferring and Recipe Transmission.

| C | om | ponent | Library | Macro | Recipe | Setup | ŗ | ools | Help |
|----|-----------|------------------------|-----------|-----------|------------|-------|-----|--------------|---------------------------------------|
| | | Switch | | | | | ł | ню | Bit Set |
| 3 | 9 | Indicator | r Light | | | | ۲ | 123 | Word Set |
| l | 23 | Numeric | Value ar | nd Charac | ter Displa | y | ۲ | Ę, | Window Operation |
| H | ю | Toggle Switch and menu | | | | ۲ | Enl | Function Key | |
| (| D | Timer an | nd Data T | ransmissi | on | | ۲ | 3 | Data Tranfering |
| | E | Bar And | Meter | | | | ۲ | 訤 | Recipe Transimission |
| ¥ | <u>20</u> | Curve Gr | raphs | | | | ۲ | 11 | |
| Ŀ | nal | Scale | | | | | ۲ | 111 | |
| Ē | | Table | | | | | ۲ | 11 | |
| -(| - | Slider | | | | | ۲ | | |
| 4 | \$ | Moving | Compon | ent | | | ۲ | 111 | |
| E | | Window | | | | | ۲ | 11 | |
| 4 | | List | | | | | ۲ | | · · · · · · · · · · · · · · · · · · · |
| 60 | ЯĘ. | Tools | | | | | ۲ | 11 | |
| - | é | Pipeline | | | | | ۲ | | |

4.6.1.1Bit Set

"Bit Set" is a component by which the internal bit address of HMI or the bit address of each controller connected to HMI is operated. The type of "Execute Setting" includes "On", "Off", "Inverse", "Reset", "On Pulse" and "Off Pulse".

| 🖪 Bit Setting Prope | rty | | × |
|--------------------------------------|-------------------------------|-------------|----------------|
| Action: | Press • | | |
| Execute Setting: | On Pulse 🔹 | Pulse Width | 0.2 - Seconds |
| Address Use Addre Deivce: LOCA | On Pulse Off Pulse | | • |
| Address Type | vithin a Byte Registe • IB | er 🗸 | |
| Address: 0 | e) DDDDDD(0~7999 | | vstem Register |
| 🔲 Address In | dex | | |
| Help(H) | | ОК | Cancel |

• On

Set the bit address to ON.

• Off

Set the bit address to OFF.

• Inverse

It is set a "Switch" by which the current state can be conversed. If the current bit address is

ON, after it is operated, the bit address will be conversed to OFF. If the current bit address is OFF, after it is operated, the bit address will be conversed to ON.

Reset

When it is operated and kept being held, the bit address is set at the ON state all the time. When it is released, the state of the bit address will be immediately switched to OFF.

• On Pulse

A rising edge pulse is produced which the bit address keeps the pulse "on" in a designated time width. The pulse width range is $0.1^{-1.5}$ seconds.

| Bit Setting Property | | |
|--|--|-------------|
| Action: Press | 0.2 | ▼ Seconds |
| Address Use Address Tag Deivce: LOCAL:[Local Register] | 0.2 0.1 0.2 0.3 0.4 0.5 | Seconds |
| ☐ Bit-index within a Byte Register Address Type: LB ▼ Address: 0 ♀ | 0.6 0.7 0.8 0.9 1.0 1.1 | ≡ gister |
| Format(Range) DDDDDD(0~799999) | 1.2 1.3 1.4 1.5 | |
| Help(H) OK | | Cancel |

• Off Pulse

A falling edge pulse is produced which the bit address keeps the pulse "off" in a designated time width. The pulse width range is $0.1^{-1.5}$ second.

For the "On Pulse", if the pulse width is set to 1 second and the current bit state is OFF, a 1 second ON pulse signal will be produced and then it goes back to the OFF state. If the current bit state is ON, a 1 second ON time will be still set because the bit state is already ON, and then the bit state will turn OFF.

Similar to the "Off Pulse", if the pulse width is set to 1 second and the current bit state is ON, a 1 second OFF pulse signal will be produced and then it goes back to the ON state. if the current state is OFF, a 1 second OFF time will be still set because the bit state is already OFF, and then the bit state will turn ON.

There is an "Action" attribute for the Bit Set component. It includes two options, "Press" and "Release". When the "Bit Set" component is pressed down, the bit set function will be executed immediately. When the "Release" attribute is selected and the "Bit set" component is pressed,

the bit set function will not be executed. And when it is released, the "Bit set" function will be executed immediately. But the action is not valid when the "Execute Setting" is "Reset".

The "Bit Set" component has other property pages. For example, in the "Indicator Light" property page, it is recommended to check the "Use Indicator" option and set an address to monitor the "Bit set" component state if the "Use Graphics" option is checked in the "Graphics" property page. The details can be seen in the "System Manual/ Component/ Indicator Light".

| E Use Shd | | | c | | | | |
|-----------|--------------|-------------------|-------------|--------------|-------------|---------|-----------------|
| Ouptay | Mode: Ra | gitter Control + | ł. | | | | |
| | Bit Register | 🔿 Word Registe | v 🛈 Gonibi | ned Bits | | | |
| 3 | ub/hers: | | 1 | 0 | | | |
| | E The A | Address Is Same a | 44 Th+ Smit | ck. | Conditions | | |
| | | e state condition | cale met 1 | ħŧ | # Paulo | vetogis | © NegetiveLogic |
| 1.4 | | Tag Content | Birk | Pressioncy(0 | | | |
| 0 | OFF | 100 | None | 1.000 | | | |
| | | | | | Radi Model | North | |
| | | | | | | 0.464.8 | |
| | | | | | Rach Freq.1 | | 1 0.15 |
| | | | | | | | |
| | | | | | | | |

The following brief example introduces the process for setting the HMI internal address LB100 into the "Inverse" attribute.

• In the software menu, click "Component/ Switch/ Bit Set" to open the following dialog.

| 2 Switch Function | Bt Setting Property | |
|----------------------|---------------------|----------------|
| Action Press | Action: | |
| Add Function: Bit | Hetable OK Careel | Hatipa Transla |

The default action is "Press". The default Execute Setting is "On". The default address is "LB0". They are modified into the required as follows.

| Action: | Press | • | | |
|------------------|---|---|----------|--------------|
| Execute Setting: | Inverse | • | | |
| Address | | | | |
| | 2003. <u></u> 04003 | | | |
| 🔄 Use Addre | ss Tag | | | |
| Deivce: LOCA | L:[Local Register] | | | • |
| Deivce: LOCA | L:[Local Register] ithin a Byte Register : LB | • | System R | ▼ egister |

• Click "OK" to add an operation action in the "Switch" list.

| Press | Benzion Bit Setting | Device Addre LDCAL(Local I | n leginer)18100 (me | тэм | |
|------------------------------|------------------------|-------------------------------|------------------------|-------------------------|---------------------------|
| | | | | | |
| Wire Up. | Muse Diser | | Delate | Clear: | 011107 |
| intere file Add Functions | Muse Diser- | Vindoe Operation | Overse | Circar Data Transfer | Bacily Angips Translos |

In the list, we can clearly see the execution attribute and the bit address to be operated.

Click "OK" in the Switch dialog to put the component into the window edited. In this way, a simple "Bit Set" component is finished.

4.6.1.2Word Set

"Word Set" is a component by which various attributes of the internal word register of HMI or the word register of any controller connected to HMI are controlled. The Word Set property dialog can be opened by clicking the "Component/ Switch/ Word Set" in the menu. The default settings are shown as follows.

| Indicator Light | Action Press + | |
|-----------------|--|-----------------|
| Action Prens | Lander Terlingt: Add | |
| Mare La 1 | Address U Use Address Tag Derive [LDCALBood Register] * Address Type: [LW • Address [] [] • Address [] [] • Format/Rangel DEDDDD0-799990] Cence: [] + Word Data Type: [] 5-bit Unsigned + | |
| Add Function | Height OC Canod | Heripe Transler |

The type of "Execute Settings" includes "Add", "Subtract", "Increase", "Decrease", "Set Up Constants", "Set Up Character Strings", "Set Up Figures By Bit" and "Logic Operation".

| 🖪 Words Setting P | roperty |
|---------------------|--|
| Action: Press 🔻 | |
| Execute Settings: | Add Looping Reverse on reaching the end |
| Add Upper Limit: | Add 1 A Subtract 100 A |
| Address | Decrease Set Up Constants Set Up Character Strings Set Up Figures By Bit Logic Operation |
| Use Addre | ess Tag |
| | AL:[Local Register] |
| Address Type | e: LW |
| Address: 0 | |
| Format(Rang | e) DDDDDD(0~799999) Occupy: 1 v Word |
| | Data Type: 16-bit Unsigned 🔻 |
| Address In | ndex |
| Help(H) | OK Cancel |

Add

A designated data will be added to the value of the designated word register. The "Add" attributes contain the following settings.

| | Actor: June | |
|-----------------|---|-----------------|
| Action Prest | Execute Settings: Add • Looping Reverse on reaching the end | |
| | Add Constant + 20 | |
| | Upper Limit Canatant • 100 | |
| | Addenus | |
| | Use Address Tag | |
| | Deiver (LOCAL(Local Register) + | |
| | Address Type: (UW. *) | |
| | Address 0 🏝 System Register | |
| | Format/Rangel DDDDDDDDD-7999991 Occupy: 8 + Word | |
| Manual Lige | Data Type: 26-bit Unsigned * | in Multy |
| 82 | | Recipe Transfer |
| | Help/6 DC Cascel | |

Add

At each time of operation, the set data will be added and written into the word register.

Upper Limit

It is the upper limit of the word register operated. When the result reached the upper limit of operation, no further "Add" operation can be done.

Looping

If "Looping" is checked, an option of "Lower limit" will appear. The operation will be continued at the upper limit and the adding operation will be done from the lower limit. For example, if the "Lower limit" is set to "0", the "Add" is set to "1", and the upper limit is set to "100", the Word Set component will be valid when it is added to "100". It will turn to 0, 1, 2, 3, and so on, at the next operations.

Reverse on reaching the end

If "Reverse on reaching the end" is checked, the operation will be continued at the upper limit and the result will change to reduce from the upper limit to the lower limit. When the result reached the lower limit, the operation will change to add.

The "Add", "Upper limit" and "Lower limit" are all "Constant" in default. They can also be set into "Variable". It is noted that the data type of variable register must comply with the "Word Set" component address type.

Subtract

A designated data will be subtracted from the value of the designated word register till the "Lower limit". The "Subtract" attributes contain the following settings.

| witch Indicator Light | Words Setting Property | |
|--------------------------------------|---|-----------------|
| 7 Switch Function Action Press | Aution Frees. | |
| | Lower Limits (Constant, *) | |
| | Address Use Address Tag Deives (LOCAL;Boral Register) • | |
| | Address Type: [JW + Address 0 = Formet/Range) DODDD0(0-799999) Occupy 1 - Ward Data Type: [35-bb Umigmed + | |
| Idel Function BR | Address lodes | Recipe Transfer |

Subtract

At each time of operation, the set data will be subtracted from the word register.

Lower Limit

It is the lower limit of the word register operated. When the result reached the lower limit of operation, no further "Subtract" operation can be done.

Looping

If "Looping" is checked, an option of "Upper limit" will appear. The operation will be continued at the lower limit and the subtraction will be done from the upper limit. For example, if the "Lower limit" is set to "0", the "Subtract" is set to "1", and the upper limit is set to "100", the Word Set component will be valid when it is subtracted to "0". It will turn to 100, 99, 98, 97, and so on, at the next operations.

Reverse on reaching the end

If "Reverse on reaching the end" is checked, the operation will be continued at the lower limit and the result will change to add from the lower limit to the upper limit. When the result reached the upper limit, the operation will change to subtract.

Increase

The result value will keep increasing if the component of "Increase" is pressed down. The increasing will stop if the component of "Increase" is released or the value reaches the upper limit. The component of "Increase" has attributes of "Immediately Execute Increase/Decrease Action", "Delaying Time" and "Execution Time".

| witch limiteator light | Words Setting Property | |
|------------------------|--|-----------------|
| Seitch Function | Action Trens - Cinemediately Execute "Increase/Decrease" Action | 2 |
| Action Press | Secula Settings: [Intraes: +] [Looping]] Reserve an maching the en Add Constant + 20 (*) Upper Livit: Constant - 100 (*) | d |
| | Delaying Time: 015 x Execution Time: 015 x Address Use Address Tag Delow: LOCAL(See Register) * | |
| Ministry () | Address Typer UW Address Typer UW Address O CCCCD0/0-799990 CCccpyc 1 Wood Data Typer Address Indee | al Mutty |
| 84 | HelpHi OK Decel | Revipe Transfer |

Immediately Execute Increase/Decrease Action

"Increase" and "Decrease" all have this attribute. If it is checked, the operation of "Increase" or "Decrease" will be executed immediately without waiting when the component is pressed down.

Delaying Time

When the attribute of "Immediately Execute Increase/Decrease Action" is not checked, the "Delaying time" attribute is valid. The default time is 0.1s and the maximum is 1.5s. If the time is 0.1s, it means the action of "Increase" will be delayed 0.1s to execute after the component is pressed down.

Execution Time

The "Execution Time" means the time to execute the action "Increase" once. The time range is $0.1s \sim 1.5s$.

Decrease

The function of "Decrease" is similar to the attribute of "Increase". The result value will keep decreasing if the component of is pressed down. The component of "Decrease" also has attributes of "Immediately Execute Increase/Decrease Action", "Delaying Time" and "Execution Time".

| ishch Indicates Light I | Words Setting Property | |
|-------------------------|---|------------------------------|
| Switch Function | Action man - Invendetely Execute "Increase/Decrease" Action | |
| Action Press | Execute Settings: Decrease * III Locating III Revenue on reaching the end Subtrace Constant * 1 1 1/2 | - |
| | Lover Link: Constant • 0 0 Delaying Time: 0.15 • Execution Time: 0.25 • Address Use Address Tag Delays: LICCAL/Local Register() • | |
| More to a | Address Type (W •) Address (0 (A) System Register Format(Range) DODDOOIS-759999(Occopy (1 -) Wood Data Type (B)-bit Unsigned •) () Address Index | Beckger Trancfer |
| | HelpiHi OK Cancel | and the second second second |

• Set Up Constants

A data is written to the designated register. The data (Setting Value) can be a "Constant" or a "Variable".

| which Sudicator Light | Words Setting Property | |
|-----------------------|--|---------------------|
| Switch function | Action: Press | |
| Action | Execute Settings Set Up 1 + | |
| Prest | Setting Value: Constant . D | - |
| | | |
| | Address | |
| | 📰 Use Address Tag | |
| | Deiver (OCAL(Local Register) + | |
| | Address Type: [LW. * | |
| | Address 0 🗧 System Register | |
| | Format(Rangel DDDDDDDDD-799999)Ocnapy 1 - Word | |
| Adamsk (Age | Data Type: 10-bit Unsigned * | Multy |
| idd Farction: | | |
| 82 | | der Recipe Transfer |
| | Help/6 DE Cancel | |
| | | |

In the figure above, a constant "0" is written to the register LWO of HMI.

• Set Up Character Strings

This function is similar to "Set Up Constants". A character string can be written to the word register. For example, character string "A123" is written to the register LW0 and LW1 of HMI.

| Switch Indicator Light I | 2 Worth Setting Property | |
|--------------------------|---|---------------------|
| I Switch Function | Actors Frans + | 1 |
| Action. | Execute Setlings, Setlight.* | |
| Press | | IND A121 |
| | Context: Constant + A123 | i i |
| | | |
| | | |
| | Address | |
| | El Line Address Tag | |
| | Deivce 10CAL(Local Register) * | |
| | | |
| | Address Type: LW | |
| | Address 0 A | |
| | FormultRangel DDDDDDI0~7999999Occupy 2 + Word | |
| Months 11 | Data Type: (Duratter Shing + | annial Mailly |
| Add Function: | C Address Index | |
| - FA | | de Recipe Traviller |
| 10 11 11 11 11 11 | BelpHi OK Carcel | |
| | Tueboa Cheba | |

"Set Up Character Strings" has two optional attributes "Use UNICODE" and "Swap high and low bytes". When "Use UNICODE" is checked, it means the character string written to registers is coded by UNICODE. The string is normally displayed only in "UNICODE". If "Swap high and low bytes" is checked, the high and low bytes in the character string will be exchanged before written to the word register.

• Set Up Figures By Bit

This function has two modes, "Add" and "Subtract". By this function, each bit of the value can be added or subtracted.

| | Wants Setting Property | 2 |
|-----------------|---|---------------------|
| Switch Function | Action: Press. + | |
| Action | Execute Settings Setting * Mode: # Add @ Subtract | |
| Press | Dig? Sh 👔 👷 | LWO 5 |
| | Address | |
| | Devce: LDCAL(Local Register) • | |
| | Address Type: ISW | |
| | Address D 2 System Register | |
| More to | ForevetRange) DDDDDD0-799999(Occopy: 1 - Word Data Type: 26-bit Unsigned + [] Address Index | |
| 8 | | ter Relipe Transfer |
| | HebsHi OK Censi | |

This function has an attribute "Date type". It can be "16-bit Unsigned" or "32-bit unsigned number". In other words, only unsigned single word and unsigned double word can use this function. If the data type is "16-bit unsigned number", the value range is 0~65535. So the parameter of this function "Digit bit" can be 1~5. That means the number length is 1~5. "1" means units digit, "2" means tens digit, "3" means hundreds digit, "4" means thousands digit, and "5" means ten thousands digit. For example, if the "Digit bit" is 3 and the "Mode" is "Add", it means the hundreds digit is operated for adding. If the hundreds digit of a register is 6 and when this component is pressed down, the hundreds bit will change into 7, and then into 8 if it is pressed

down again, and 9 again, 0 again, and 1 again, so the attribute of "Add" is similar to the "Looping" attribute. But, the "Add" or "Subtract" attribute of the "Set up Figures by Bit" function is only valid for one digit, and other digits are not changed.

For example, if "Digit bit" is 3, "Mode" is "Add", and the current register value is 18668, the value will change into 18768 when the component is pressed down, 18868 when it is pressed down again, 18968 again, 18068 again, 18168 again. The maximum value of a single word is 65535. If the "Digit bit" is 5, the ten thousands digit will change in 0~5.

Logic Operation

This function has four modes, "And", "Or", "Exclusive-or" and "Not". The default mode is "Add".

| witch Indicator Light | Words Setting Property | 1 |
|-----------------------|--|---------|
| 2 Switch Runztion | Action Press . | |
| Action | Execute Settings Logic Q + | des. |
| Press | Mode: # And © Or © Exclusive-or © Not | F117 |
| | Operation Value: Constant (* 1999 (* 1944) | |
| | Address | |
| | 🗇 Use Address Tag | |
| | Delver LDCAL(Local Register) + | |
| | Address Type: LW. • | |
| | Atdress 0 👘 System Register | |
| Mana Mp | Format(Range) D0DDDD()-795999/Gocupy 1 - Word Data Type: 25-bb Unsigned + | (water |
| 88 | | ster |
| | Twip(10 OK Cancel | |

In the figure above, when the component is operated, the value in register LWO will has a logic operation "And" with 0×FFFF. The logic result will be written to register LWO. The operations of other three modes are similar to "And" mode but the logic operation.

The attribute "Operation Value" can be "Constant" or "Variables". The default is "Constant" and the data format is hexadecimal. It can be a variable, but the data type must comply with the register data type.

The attribute "Data Type" for logic operation can be "16-bit Unsigned", "32-bit Unsigned", "16-bit BCD" and "32-bit BCD".

Special notice:

In all these functions for "Word Set", the "Action" is "Press" in default. That means the operation will be executed correspondingly when the component is pressed down. The "Action" can also be "Release" but not for the function "Increase" and "Decrease". That means the operation will be executed correspondingly when the component is released.

When use "Variables" for the "Word Set" function, the data type of "Variables" must comply with the data type of word register used. If not, the result may be incorrect.

4.6.1.3Window Operation

Action

The attribute "Action" of "Window Operation" can be "Press" or "Release".

| 🖪 Windov | w Operation Property | | | × |
|----------|----------------------|---------------|------------------|---|
| | | | | |
| Action: | Press 🔹 | | | |
| | Press | | | |
| Set Up: | Release | Window No.: | B_1:Basic Window | - |
| | Automatic pop-up pa | assword windo | w. | |
| | Help | | OK Cancel | |
| | | | | |

Press

The corresponding keyboard function will be given out when the component is pressed down, and the macro instructions or system operation instructions will be executed.

Release

The corresponding keyboard function will be given out when the component is released, and the macro instructions or system operation instructions will be executed.

Set Up

The attribute "Set Up" of "Window operation" can be "Switch Window", "Close Pop-up Window", "Pop-up", "Return To Previous Window", "Window Control Bar" or "Return to the main window (HOME)".

| 🕞 Window | w Operation Property |
|----------|--|
| Action: | Press • |
| Set Up: | Switch Window Vindow No.: B_1:Basic Window V Switch Window Close Pop-up Window Pop-up Return To Previous Window Window Control Bar Return to the main window(HOME) |

Switch Window

Close the current window and switch to a designated window.

Close Pop-up Window

Put the button on the pop-up window, click to close it.

Pop-up

Pop up a designated window.

Return To Previous Window

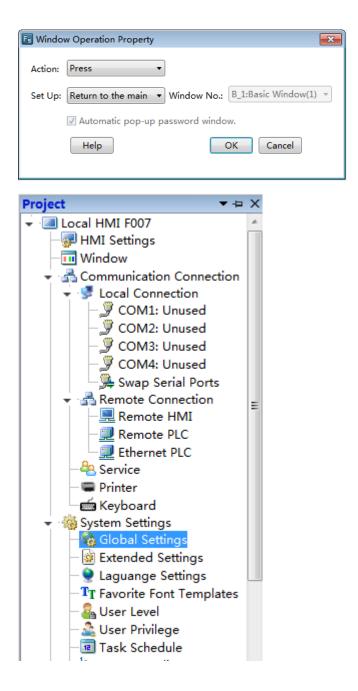
Close the current window and open the window opened last time.

Window Control Bar

Put the component on the pop-up window, press, hold and drag to modify the pop-up window position.

Return to the main window (HOME)

Close the current window and open the preset main window. The main window can be set by the menu command "Setup -> System Setting -> General Setting".



| User Privilege | Task Schedule | Data 5 | ampling | PLC Control | Alate | n And Event |
|------------------------------|----------------------------|-------------------------------|---|---|---|-------------|
| Global Settings | Extended Settings | Leguarge | e Settings | Favorite Font Te | implates. | User Level |
| Turn off Back Dim down an | eemawer Innes: Lowest • | 3 🛃 (min) 9 🛃 (min) eta | Initial Main Win Main Wi Drop-dos Will Use Note: C Clock Source Set up Nisteo Address | Indow (B_LBasic V Macro dow(HOME) : mdow(HOME) : mwindow the drop-down win July for capacitive s HME Internal Clock the time source of ical data etc. SRWD -7: Year/Mo Minute/Second/M | 1:Ilasic Win dow or not creen. ••• events, enth/Day/Ho | dow(1 + |
| Local Register En | dian Order | | Touch Au | | | |
| 16-bit lintegen | 21 | • | R Buzzer | Is Enabled But | zzer Time 5 | 0m5 * |
| 32-bit Integen | 4321 | | | Enable Control: | | |
| 32-bit Float: | 4321 | | 2 Touch | Audio Enabled. | | |
| Scrollbar Scrollbar Width | 20 🚖 | | | Enable Control: | | |

Automatic pop-up password window

If "Automatic pop-up password window" is checked and when the window operation is switched to a window in a higher password or authority level, the window to enter password will pop up automatically.

4.6.1.4Function Key

The "Function Key" component provides component executing action, keyboard function, executing macro instructions, and system operation functions.

Action

The attribute "Action" of "Function Key" can be "Press" or "Release".

| Action | Press | • | Function Setting: | Keyboard F • |
|---------------------|--------|---|-------------------|--------------|
| Function Opeartion: | Return | | | |

Press

The corresponding keyboard function will be given out when the element is pressed down, and the macro instructions or system operation instructions will be executed.

Release

The corresponding keyboard function will be given out when the component is released, and the macro instructions or system operation instructions will be executed.

• Function Setting

The attribute "Function Setting" of the "Function Key" includes "Keyboard Function", "Execute Macro", "System Operation" and "Print".

Keyboard Function

| F Function Ke | y Attributes | × |
|---------------|------------------------------------|--------------------------------|
| A | ction: Press 🔹 | Function Setting: Keyboard F 💌 |
| Function Opea | rtion: Return 🔹 | |
| Help(H) | Return Backspace Clear | OK Cancel |
| | Cancel UNICODE | |
| | Move the Cursor Select the Text | |
| | Text Operation | |
| Down | Mapping Keyboard | Delete Clev |

"Return"

It is the same to the "Enter" key on the keyboard.

"Backspace"

It is the same to the "Backspace" key on the keyboard.

"Clear"

Delete the current content which has been inputted for the component "Numeric Value Input" and "Character Input".

"Cancel

Cancel the component operation of "Numeric Value Input" and "Character Input".

"UNICODE"

Set the type of characters which inputted to the component "Character Input". The characters can be number keys (0, 1, 2...), letters of an alphabet (a, b, c...), ASCII code or Unicode characters.

"Move the Cursor"

Move the cursor according to the set modes including up, down, left, right, row beginning, row end, first bit and last bit. This function is effective only for the input component.

"Select the Text"

Set the operation for the selected text content, including "Selection Begin" and "Selection End". This function is effective only for the input component.

"Text Operation"

Set the operation for the text content, including "Copy", "Cut" and "Paste". This function is effective only for the input component.

"Mapping Keyboard"

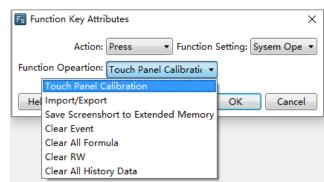
When this function is activated, corresponding functions can be mapped to F1~F8 of HMI, including forward, backward, Esc, Enter, and so on. This function is effective only for some specified HMI.

Execute Macro

| Fs Function Key Attributes | \times |
|--|----------|
| Action: Press | |
| Function Opeartion: macro_1 Edit Macro Code | |
| Help(<u>H</u>) OK Cance | |

If this function is selected, the selected macro will be executed when the component is pressed down or released. The "Macro Instruction" dialog will pop up if you click the button "Macro Code" or "Edit". You can select or create a macro here, or edit the current macro.

System Operation



"Touch Panel Calibration"

By using this function, the user can enter the touch control calibrating window. Screen touch control calibration for HMI can be realized in this window.

"Import/Export"

When this function is selected, the project or prescription data can be imported or exported. This function must be used together with the file view box, and it only supports the HMI with USB HOST or SD card slot.

"Save Screenshot to Extended Memory"

When this function is selected, the touch screen picture can be captured and saved into an external memory device in the bmp format for printing or viewing HMI picture. And this function only supports the HMI with USB HOST or SD card slot.

"Clear Event"

This function can be used to clear warning events in groups.

"Clear All Formula"

This function can be used to clear all prescription data.

"Clear RW"

This function can be used to clear all RW data saved in power failure.

"Clear All History"

This function can be used to clear all history data. It can be used together with other switch components.

4.6.1.5Data Transferring

The "Data Transferring" component can be used to transmit the data saved in one or more continuous addresses to another one or other more continuous addresses.

| Action Press + | Twoway Transfer (IF Conflicted, Source Address firs | 0 |
|---|---|------------------------|
| ata Transfer | | |
| Data Type: 🐞 Word 🔅 Bit | Transmission words Constant + | |
| Source Address: | Destination Address: | |
| 🔃 Use Address Tag | 🗐 Use Address Tag | |
| Deivce: LOCAL(Local Register) | Deivce: LOCAL(Local Register) | |
| Address Type: LW Address: 0 System | Address Type: LW | • Existent Register |
| Address: 0 3 | Register Address 0 | System Register |
| Format(Range) DDDDDD0(0 | Format(Range) DDDDDDD(0 | |
| | | |
| | | |
| Address Index | Address Index | |

Action

The attribute "Action" can be "Press" or "Release". When "Press" is selected, data transmission will be started when the component is pressed down. When "Release" is selected, data transmission will be executed when the component is released.

Data Type

The "Data Type" means the type of data to be transmitted. It can be "Bit" or "Word".

Transmission words

It means the number of data transmitted at one time. It can be set "Constant" or "Variable". If set "Variable", the register address must be designated. The maximum number of words transmitted in this software is 8192.

Source Address

The "Source Address" means the first address of the data to be transmitted. The detailed can be seen in the<u>Detailed manual/General functions/Address editor/Standard Bit Address Input</u> or<u>Detailed manual/General functions/Address editor/Standard Byte Address Input</u>.

Destination address

The "Destination address" means the first address of data transmission target. The detailed can be seen in the <u>Detailed manual/General functions/Address editor/Standard Bit Address</u> Inputor Detailed manual/General functions/Address editor/Standard Byte Address Input.

4.6.1.6Recipe Transmission

The "Recipe Transmission" component includes two transmission directions: "Download recipe to PLC" and "Upload recipe from PLC". "Download recipe to PLC" means transmitting the content of the recipe file to the address of PLC. "Upload recipe from PLC" means transmitting data from the address of PLC to the recipe file.

| Fs Recipe Transfer | × |
|-------------------------|---|
| Action: | Press • |
| Transmission Direction: | Download recipe to PLC O Upload Recipe from PLC |
| Recipe source address: | RP_abc |
| Number of words: | 4 |
| PLC Address: | LWO |
| Notice Bit Address | |
| Help(H) | OK Cancel |

• Download recipe to PLC

It's the default setting for the "Transmission Direction".

• Upload Recipe from PLC

If the "Upload Recipe from PLC" is selected, the recipe uploading function will be activated.

The detailed operation of the recipe uploading can refer to the recipe downloading.

Recipe source address

When no recipe file is created, the "Recipe source address" will be blank with a red exclamatory mark. You can click the button "Open the Recipe Settings" to create recipe. After the recipe is created, you can select it in "Recipe source address" to download.

| Recipe Transfer X |
|--|
| Action: Press 🔹 |
| Transmission Direction: \textcircled{O} Download recipe to PLC \textcircled{O} Upload Recipe from PLC |
| Recipe source address: RP_abc |
| Number of words: 4 |
| PLC Address: 4X1024 |
| ✓ Notice Bit Address LB0 |
| Note:During the recipe downloading or uploading, " Notice Bit" will always be ON.After the transfer is finished, "Notice Bit" will be OFF. |
| Help(H) OK Cancel |

Notice:

The "Number of words" is determined by the recipe itself, and it always displays automatically.

PLC Address

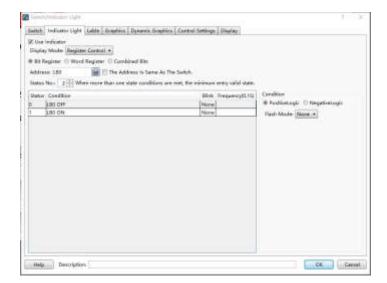
"PLC Address" means the target address for recipe file data transmission. It can be the address of PLC connected to HMI or an internal address of HMI. The detailed address editing method can be seen in: <u>Detailed manual/General functions/Address editor/ Standard Byte Address Input</u>.

Notice Bit Address

A bit address can be set here to monitor the recipe downloading state. The address editing method can be seen in: <u>Detailed manual/General functions/Address editor/Standard Bit Address</u> <u>Input</u>. This bit address will be kept on during the recipe downloading or uploading, and it will be set to OFF after transmission.

4.6.2 Indicator Light

4.6.2.1Bit Indicator Light



Display Mode

The "Display Mode" can be "Register Control" or "Automatic looping". The details are referred to: <u>Detailed manual/General functions/Drawing/Display Mode</u>.

Bit Register

The component is a bit indicator when "Bit Register" is selected. The method to input bit address can be seen in: <u>Detailed manual/General functions/Address editor/Standard Bit Address</u> Input.

• Status No.

The status of a bit address can be ON or OFF. So it is 2 here in default and can not be modified.

- Condition
- Positive Logic

State 0 is OFF and state 1 is ON.

Negative Logic

State 0 is ON and state 1 is OFF.

Flash Mode

It includes three modes: "None", "Blink Text" and "Blink Picture". You can select each status in left table and then set the flash mode for the status selected.

NoneIt means no flashing.

Blink TextText can flash in a frequency.

Blink PicturePicture can flash in a frequency.

• Flash Freq.

Picture or text will flash in a designated frequency. The frequency can be a multiple of 0.1 second.

Detailed attribute information of the current bit indicator light can be seen in the table at the left bottom.

4.6.2.2Word Indicator Light

| Technikolasen agin leikih indicene Light Ladis Otaphis Opennic O V Une Volcene Display Mode: Register Control + D St Register * Wood Register * Controlised Bin Address: With Register * De Address in Sen Mana No. 2 20 When mere then use state contain | e As The Setzle. | 7.14 |
|---|--|--|
| Batas Cardifice 0 LVMD == 0 1 LVMD == 1 StEmme Other | Biok. Frequency(E.10) Proce Root | Condition III Renzy (C. R.) Read Yose (C. R.) A (Renze, A) A (Converse (C. R.) A (Renze, A) Read Yolds (C. Renze, A) Harb Wolds: (Renze, A) |
| Hegel Inper 👋 Share Error Status () Keep Correct S Help — Description: | tata 🗐 Error Nothration | OK Certai |

Display Mode

The "Display Mode" can be "Register Control" or "Automatic looping".

Word Register

The component is a word indicator when "Word Register" is selected. The method to input bit address can be seen in: <u>Detailed manual/General functions/Address editor/Standard Byte</u> <u>Address Input</u>.

• Status No.

The range of the status number is 1~256. Each status corresponds to the value of the word address. When many statuses satisfy the condition at the same time, only the status with the minimum value will be effective.

- Condition
- Range

The status content (value) will be determined according to the comparison and logic operation result of the word address value. The comparison operation includes ">", "<", ">=", "<=", "==" and "!=". The logic operation can be "AND", "OR" or "None".

| Condition Range |
|--------------------------|
| Read Value == • A AND • |
| Read Value == 🕶 B |
| A Constant 🔹 0 🔦 |
| B Constant 🔹 0 🔦 |
| Read Value == 0 AND == 0 |
| Flash Mode: None 🔻 |

➢ Bit

Text or picture can be displayed according to the state of one bit of the word address, e.g.: bit LW0.1 of address LW0.

"Positive Logic" means that State 0 is OFF and state 1 is ON.

"Negative Logic" means that State 0 is ON and state 1 is OFF.

• Flash Mode

It includes three modes: "None", "Blink Text" and "Blink Picture". You can select each status in left table and then set the flash mode for the status selected.

NoneIt means no flashing.

Blink TextText can flash in a frequency.

Blink PicturePicture can flash in a frequency.

Flash Freq.

Picture or text will flash in a designated frequency. The frequency can be a multiple of 0.1 second.

Detailed attribute information of the current word indicator light can be seen in the table at the left bottom.

| Status | Condition | | Tag Content | Blink | Frequen | | | | |
|--|----------------|-----|-------------|---------|---------|--|--|--|--|
| 0 | LW0 Bit0 OFF | : | | Text | 5 | | | | |
| 1 | LW0 == 1 | | | Picture | 5 | | | | |
| 2(Error) | Other | | | None | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Illegal Input: 🖲 Show Error Status 🔘 Keep Current Status | | | | | | | | | |
| 🗸 Erro | r Notification | LB0 | | | | | | | |
| | | | | | | | | | |

Illegal Input

The value of word address doesn't satisfy the condition preset.

Show Error Status

The indicator displays the "Error" status when illegal input happened. That is the last status displayed in the table.

Keep Current status

The indicator keeps the current status when illegal input happened.

Error Notification

You can select a bit address here. It will be set to ON if the word address value doesn't satisfy with the condition. It will be set to OFF when the condition is satisfied.

4.6.2.3 Multi Bit Combination Indicator Light

| Jee Indicator oliay Mode: Rapides Control. • | n Centrol Settings Display | |
|---|---|---|
| R Register C Wood Register @ Combined Site | | |
| | The Switch BR Nav 2 187 Date Tay | - Internet - |
| this No. 19 When more than one state conditions a | Contraction of the second s | A TALEN AND THE |
| Data Condition D Well III Conditiation Value > 0 | Blek Frequency(0.15) [Nore] | Condition Read Value (a. +) & Henry +) |
| 1 (Error) Other | Incre | A Constant a 0161 |
| | 2.1 | Read Wide > 0 |
| | | Flash Model Name # |
| | | Contraction (Second Contraction) |
| | | |
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Display Mode

The "Display Mode" can be "Register Control" or "Automatic looping".

Combined Bits

The status displayed is determined by a multi bit combination condition.

• Bit No.

The condition can be a combination of 2~32 bits. The "Bit No." means the number of bits.

- Data Type
- Unsigned

If the number of bits is n, the combination value will be 0~2n-1.

Signed

If the number of bit is n, the combination value will be -2n-1~2n-1-1.

• Starting Address

The starting address is closely associated to the number of bits. For example, if the starting address is LBO and the number of bits is 2, a combination will be formed. LB1 will be the high bit and LBO will be the low bit. The range of 2 bits combination value will be 0^{3} if the data type is unsigned. The range of 2 bits combination value will be -2^{1} if the data type is signed.

• Status No.

The range of the status number is 1~256. Each status corresponds to the value of the word address. When many statuses satisfy the condition at the same time, only the status with the minimum value will be effective.

- Condition
- Range

The status content (value) will be determined according to the value of the combined bits. The comparison operation includes ">", "<", ">=", "<=", "==" and "!=". The logic operation can be "AND", "OR" or "None".

| Condition | |
|------------------------|---|
| Read Value > • A AND | • |
| Read Value < 🔻 B | |
| A Constant 🔻 | 0 |
| B Constant 💌 | 0 |
| Read Value > 0 AND < 0 | |
| Flash Mode: None 🔻 | |

• Flash Mode

It includes three modes: "None", "Blink Text" and "Blink Picture". You can select each status in left table and then set the flash mode for the status selected.

NoneIt means no flashing.

Blink TextText can flash in a frequency.

Blink PicturePicture can flash in a frequency.

• Flash Freq.

Picture or text will flash in a designated frequency. The frequency can be a multiple of 0.1 second.

Detailed attribute information of the current component can be seen in the table at the left bottom.

| | Status | Condition | Tag | Blink | Free |
|---|----------|----------------------------------|-----|-------|------|
| Ι | 0 | Multi Bit Combination Value == 1 | | None | |
| | 1 | Multi Bit Combination Value == 2 | | None | |
| | 2 | Multi Bit Combination Value == 3 | | None | |
| | 3(Error) | Other | | None | |
| _ | 5(2.101) | | 1 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Error Notification | LB0 | |
|--------------------|-----|--|
|--------------------|-----|--|

Illegal Input

The multi bit combination value doesn't satisfy the condition preset.

Show Error Status

The indicator displays the "Error" status when illegal input happened. That is the last status displayed in the table.

Keep Current status

The indicator keeps the current status when illegal input happened.

• Error Notification

You can select a bit address here. It will be set to ON if the multi bit combination value doesn't satisfy the condition. It will be set to OFF when the condition is satisfied.

4.6.2.4 Display Mode

You can find the "Display Mode" if you check the "Use Indicator" in the property TAB of "Indicator Light". The display modes include "Register Control" and "Automatic looping".

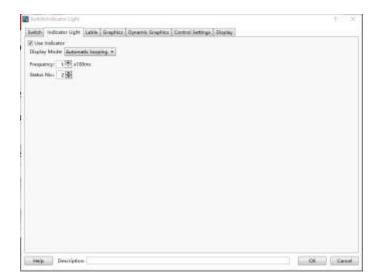
| se Indi iley Mi t Rigit hese 3 | Ner Register Control + | me Ao The Sedoh. | |
|---|---|--|--|
| nei Noo | 2 ∰ When more film one shale confil Coeffice UMD == 0 AMD == 0 UMD == 1 Other | Non an ort the minimum entry add at Bink Trepency(5 None None | 1. |
| pel inpo | a 💌 Show Simp Status 🕫 Gauge Carnerd | Status (2) Error Notification USI | |

1 Register mode

The "Register Control" mode can be Bit Registers, Word Registers or Combined Bits.

2 Automatic looping

All the status will be cycled to display according to the specified frequency if the display mode is "Automatic looping". The unit of frequency is 100 milliseconds. The setting is shown as below.



4.6.3 Numeric Value and Character Display

4.6.3.1Numeric Value Display

4.6.3.1.1General

• Operation Attribute

The "Operation Attribute" includes four operation types: "Numeric Display"," Numeric Input"," Character Display" and "Character Input". The operation type of this current component can be modified here. It is highly efficient for the project modifying and maintaining.

| The advectory of the second | 1.1 |
|---|----------|
| Conversi (Nummer Assessed Post Braghers Dynamic Graphers Communication Display | |
| Operation Petitionini M Reamond Depaig: () Theramic Input: () Characters Display ()) Characters Input | |
| Elsiphy Made 🗇 Permand | |
| Checking for White Advance Diment | |
| fixed Address: | |
| El Une Adultest Tag | |
| Twive [10CK:0.red/Regrest] | |
| Advent Type: 10 | |
| actives 0701 System Register | |
| Norvar (Tarrige) 20000013 - 198981 Register Langth 1 Occupied Mondo 1 | |
| Register sanges 1 Uccogene Wonds 1 | |
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| Sectors. | DK Cemet |

Password

When the "Password" is checked, "*" will be displayed in the component (See the figure below). It is always used for the numeric value input component. The numeric value display component is not used generally.

| • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | | • | • • | | | | | | | | | |
|-----|----|---|---|---|-----------------|---|---|---|-------|---|---|---|---|---|---|-----|----|-------------------------|-------|-----|---|---------------|-------------------|------|------|---------------------|------|
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| | 11 | • | • | • | • | • | • | • | • | • | • | • | • | • | • | | E. | 1 - 1 | n | n | r | F 1 1 1 1 1 1 | P. K. K. K. K. K. | | | | |
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| • • | | • | • | • | • | • | • | • | • | • | · | • | • | • | • | ÷. | | · | • • | | | | | | | | |
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| • • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | | | • | • • | | • • • • | | | | •••••••••• | |
| • • | • | • | • | • | · | · | · | · | • | · | · | · | · | • | • | · | · | | · | • • | | | | | | | |
| • • | • | • | · | • | · | · | • | · | • | · | · | · | · | · | · | · | • | | • | • • | | | | | | • • • • • • • • • • | |
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- Read Address
- Use Address Tag

| Name & Brights | | |
|------------------------------------|--|-----------|
| averal (Handar Format) Fast Ge | aphies Dynamic Graphics Communication Display | |
| Operation Advisorer & Nonariz Disp | Ny C Normit Ingas C Characters Diaglay C Characters Inga | ÷. |
| Display Mode: [1] Persword | | |
| Charling and Strikey Address in 1 | (Arrest) | |
| Read Address | | |
| Etine Address Tag | (debal) + [3] | |
| Address 40(1920 | | |
| func Harrist | | |
| legister Length: 1 | Occupied Worthr 1 | |
| 🗆 Address Index | | |
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| Description | | -OK Canal |

When this function is checked, variables in the address tag library can be directly linked by the component (See address tag library details in:<u>Detailed manual/Library/Address Tag Library</u>). The address tag library can be used to improve the project maintaining efficiency. If many components in the project are linked to a same variable in the address tag library and this address need to be modified, it is only necessary to modify the variable address linked in the tag library without modifying each component.

| Name in the second seco | |
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| erand Mumber Person from Graphics Operatio Draships Communication Reality | |
| Specifics Afrikate # Namela Display 10 Namela junt 10 Characteri Display 10 Characteri Figur | |
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| Dae Adheet Tag | |
| Delvia (Devisibilitara/COMDR:5-IES Mostlaw RTb TAG) + | |
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| legister Length 1 Occupied Words: 1 | |
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The address setting includes the attributes : "Device", "Address Type", "Address", "Format (Range)", "Address Index", and so on. Please see: <u>Detailed manual/ General functions/ Address</u> editor/ Standard Byte Address Input.

4.6.3.1.2Number Format

Address setting

• Data Type

The "Data Type" can be "16-bit Signed", "16-bit Unsigned", "32-bit Signed", "32-bit Unsigned", "16-bit BCD", "32-bit BCD", "16-bit Hexadecimal", "32-bit Hexadecimal", "16-bit Binary", "32-bit Binary" or "Single precision floating point number".

| 🕞 Numeric Displa | ay | ? × |
|------------------|---|------------|
| General Numb | ber Format Font Graphics Dynamic Graphics Display | |
| Data Type: | 16-bit Unsigned 🔻 | |
| Integer dig | 16-bit Signed 0 C Display Positive Sign Zero Padding Left | |
| Upper/Lowe | 32-bit Signed 32-bit Unsigned | |
| Minumum: | 16-bit BCD | |
| Maximum: | 32-bit Hexadecimal | |
| Enable N | 16-bit Binary 32-bit Binary Single precison floating point number | |
| Help De | escription: OK C | Cancel |

• Data setting

The "Data setting" includes "Integer digits", "Decimal Point", "Display Positive Sign" and "Zero Padding Left".

| 🖥 Numeric Display | ? × |
|---|--------|
| General Number Format Font Graphics Dynamic Graphics Display | |
| Data Type: Single precison floating point number 🔹 | |
| Integer digits 4 🗘 Decimal Point: 2 🔪 🖉 Display Positive Sign 🖉 Zero Padding Left | |
| Upper/Lower Limit of Number | |
| Minumum: Constar 🔹 _9999,99 🏝 🔲 Below Lower: | |
| Maximum: Constar 🔻 9999.99 🔦 🔲 Over Upper | |
| Enable Number Operation | |
| Help Description: OK | Cancel |

The "Integer digits" means the integer digit number of the data. The "Decimal Point" means the decimal digit number of the data.

Note: when the data type is an integer and the decimal bit is not zero, the value displayed will reduce to satisfy the decimal digit number. For example, if the data is an integer "55" and two decimal bits are set, the value displayed will be "0.55". In fact, only the value and the type of the data displayed can be modified by this function. The actual value and the actual type are not modified. It is still the integer "55".

• Upper/Lower Limit of Number

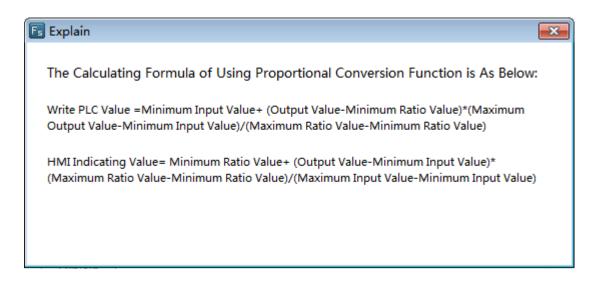
| 🖥 Numeric Display | × |
|---|------|
| General Number Format Font Graphics Dynamic Graphics Display | |
| Data Type: Single precison floating point number 👻 | |
| Integer digits 4 🗘 Decimal Point: 2 🗘 🖉 Display Positive Sign 📝 Zero Padding Left | |
| Upper/Lower Limit of Number | |
| Minumum: Constar 🔹 _9999,99 🚔 🛛 Below Lower: 🚺 Color for exceedin 💌 🍠 Flicker | |
| Maximum: Constar 🔹 9999.99 🚔 🕼 Over Upper 🚺 Color for exceeding 💌 🎢 Flicker | |
| Enable Number Operation | |
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| Help Description: OK Ca | ncel |

You can set the data upper limit in "Minimum" and the data lower limit in "Maximum". And you can set the font color of the data beyond the limit. When the "Flicker" is checked, the text will flash when the data is less than the lower limit or greater than the upper limit.

- Enable Number Operation
- Proportion convert

| 🖪 Numeric Display | ? <mark>×</mark> |
|---|------------------|
| General Number Format Font Graphics Dynamic Graphics Display | |
| Data Type: Single precison floating point number ▼ | |
| Integer digits 4 🗘 Decimal Point: 2 🔪 🖉 Display Positive Sign 🖉 Zero Padding Left | |
| Upper/Lower Limit of Number | |
| Minumum: Constar 🔻 500.00 🖍 🖉 Below Lower: Color for exceedin 💌 🍼 🕼 Flicker | |
| Maximum: Constar 🔹 1000.00 😴 🖉 Over Upper 🚺 Color for exceeding 💌 📝 🖉 Flicker | |
| Enable Number Operation | |
| Proportion Convert Explain | |
| Minimum Constant V 0 🗢 Maximum Constant V 100 🖍 | |
| © Zoom Explain | - |
| Gains: Constant = 1 - Offset: Constant = 0 - | |
| ○ Logic Operation Result = Source AND + Constant + 0 (Hex) | |
| ◯ Shift Result = Source Turn Left ▼ 0 ▲ Bit | |
| | |
| | |
| Help Description: | Cancel |

When the function of "Proportion Convert" is activated, the value displayed will be the result after proportional conversion. The proportional conversion formula is displayed when you click the button "Explain".



Zoom

| 🕞 Numeric Display | ? X |
|---|------------|
| General Number Format Font Graphics Dynamic Graphics Display | |
| Data Type: Single precison floating point number 💌 | |
| Integer digits 4 🗙 Decimal Point: 2 🗙 🖉 Display Positive Sign 🖉 Zero Padding Left | |
| Upper/Lower Limit of Number | |
| Minumum: Constar 🔻 500.00 🖨 🕼 Below Lower: Color for exceedin 💌 🎢 🕼 Flicker | |
| Maximum: Constar 🔹 1000.00 🖨 🖉 Over Upper 🚺 Color for exceeding 👻 🖉 Flicker | |
| ✓ Enable Number Operation | |
| Proportion Convert Explain | |
| Minimum Constant v 0 ~ Maximum Constant v 100 ~ | |
| | 1 |
| Zoom Explain | |
| Gains: Constant • 1 - Offset: Constant • 0 - | |
| O Logic Operation Result = Source AND v Constant v (Hex) | |
| ◯ Shift Result = Source Turn Left ▼ 0 ▲ Bit | |
| | |
| | |
| Help Description: OK | Cancel |

When the function of "Zoom" is selected, the value displayed will be the result after zooming conversion. The zooming conversion formula is displayed when you click the button "Explain".

| E Explain | × |
|--|---|
| The Calculating Formula of Using Zooming Function Is As Below: | |
| Value written to PLC = (Input Value - Offset) + Gain | |
| Value displayed on HMI = (Output Value * Gain) + Offset | |
| | |
| | |

Logic Operation

| 🖪 Numeric Display | ? × |
|---|------------|
| General Number Format Font Graphics Dynamic Graphics Display | |
| Data Type: 32-bit Signed 🔻 | |
| Integer digits 4 🗙 Decimal Point: 0 👻 🗹 Display Positive Sign 📝 Zero Padding Left | |
| Upper/Lower Limit of Number | |
| Minumum: Constar 🔻 Below Lower: Color for exceedin 💌 🎢 🕼 Flicker | |
| Maximum: Constar 🔹 9999 🚖 🛛 Over Upper 🚺 Color for exceeding 💌 📝 🖓 Flicker | |
| ✓ Enable Number Operation | |
| O Proportion Convert Explain | |
| Minimum Constant v 0 A Maximum Constant v 100 A | |
| © Zoom Explain | |
| Gains: Constant v 1 A Offset: Constant v 0 A | |
| © Logic Operation Result = Source AND ▼ Constant ▼ 0 ▼ (Hex) |] |
| ShiftResult= SourceTurn Left $0 \stackrel{\wedge}{\checkmark}$ Bit | |
| | |
| | |
| Help Description: OK | Cancel |

The data can be logically operated by the component which the logic operation can be "And", "Or" or "Exclusive or". And the result of logic operation will be displayed.

➤ Shift

| 🕫 Numeric Display | ? <mark>- x -</mark> |
|---|----------------------|
| General Number Format Font Graphics Dynamic Graphics Display | |
| Data Type: 32-bit Signed 🔻 | |
| Integer digits 4 🗙 Decimal Point: 0 🐳 🗹 Display Positive Sign 🖉 Zero Padding Left | |
| Upper/Lower Limit of Number | |
| Minumum: Constar 🔹 _9999 🚔 🕼 Below Lower: 🚺 Color for exceedin 💌 🍠 🕼 Flicker | |
| Maximum: Constar 🔹 9999 🚖 🕼 Over Upper 🚺 Color for exceeding 👻 🖉 Flicker | |
| I Enable Number Operation | |
| Proportion Convert Explain | |
| Minimum Constant v 0 x Maximum Constant v 100 x | |
| Zoom Explain | |
| Gains: Constant * 1 * Offset: Constant * 0 * | |
| © Logic Operation Result = Source AND → Constant → 0 → (Hex) | |
| Shift Result = Source Turn Left ▼ 3 ▼ Bit | |
| | |
| | |
| Help Description: OK | Cancel |

The data can be shifted left or right by the component. And the result of shifting operation will be displayed.

4.6.3.1.3Font

The detailed font setting can be seen: <u>Detailed manual/ General functions/ Drawing/</u> <u>Font Settings</u>.

4.6.3.1.4Graphics

The detailed graphics setting can be seen: <u>Detailed manual/ General functions/</u> <u>Drawing/ Graphic edit</u>.

4.6.3.1.5Dynamic Graphics

The detailed graphics setting can be seen: <u>Detailed manual/ General functions/</u> <u>Drawing/ Dynamic Graphics</u>.

4.6.3.1.6Display

The detailed display setting can be seen: <u>Detailed manual/ General functions/</u> <u>Drawing/ Display</u>.

4.6.3.2Numeric Value Input

The attributes setting of the "Numeric Value Input" component is generally same to the "Numeric Value Display" component. The differences are detailed as below.

4.6.3.2.1General

• Password

| 🕞 Numerie | c Input | | | | | | | ? 🔀 |
|------------------|---------------------|-------------------------|----------------|-----------|--------------------|------------------|---------|----------|
| General | Number Format | Keyboard Setting | Font | Graphics | Dynamic Graphics | Control Settings | Display | |
| Operati | on Attribute: 🔘 N | Numeric Display 🍥 | Numer | ric Input | Characters Display | ○ Characters Inp | ut | |
| 🔲 Read | ling And Writing Ad | ddress Is Different | | V Passwo | rd | | | |
| | Address: | | | | | | | |
| | Address Tag Rur | | _ - [§ | \geq | | | | |
| Deivce: | LOCAL:[Local Reg | jister] | | r | | | | |
| Addres Format | s Type: LW s: 0 | System R 0 Occupy: 1 | egister Vor | | | | | |
| Help | Description: | | | | | | OI | K Cancel |

When the "Password" is checked, "*" will be displayed in the component (See the figure below). It can be checked if the current component is used to input the password.

| • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
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| | · | | 'n | • | • | • | • | • | • | • | • | • | • | • | r. | · | · | · | · | · | · | · | · | | · | · | · | · | · | · | | |
| | | | - 1 | | | | | • | | | • | | · | | Ŀ. | | | | | | | | | | | | | | | | | |
| • | · | · | · | • | • | * | 4 | ŧ. | * | - 7 | k | * | • • | · | ŀ. | · | · | · | · | · | · | · | · | · | · | · | · | · | · | · | · | · |
| | | | -1 | • | • | • | • | • | • | • | • | • | • | • | Ŀ. | · | | · | | | | | | | | | | | | | | |
| | · | · | · | • | • | • | • | • | • | • | • | • | • | • | ŀ. | · | · | · | · | · | · | · | · | · | · | · | · | · | · | · | · | · |
| • | • | • | | • | • | • | • | • | • | • | • | • | · | • | ÷., | · | · | · | · | • | • | • | • | • | • | • | • | • | • | • | • | • |
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• Reading Address" and "Writing Address

| 🖪 Numeric Input | ? 💌 |
|--|--|
| General Number Format Keyboard Setting Font Gra | aphics Dynamic Graphics Control Settings Display |
| Operation Attribute: 🔘 Numeric Display 🔘 Numeric In | put 🔘 Characters Display 🔘 Characters Input |
| Reading And Writing Address Is Different | assword |
| Read Address: | Write Address: |
| Use Address Tag | Use Address Tag |
| Deivce: LOCAL:[Local Register] | Deivce: LOCAL:[Local Register] |
| Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word | Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word |
| Address Index | Address Index |
| | |
| Help Description: | OK Cancel |

The numeric value input component is integrated with functions of reading data from an address and writing data to an address. When the "Reading And Writing Address Is Different" is not checked, the using method is same to the "Numeric Value Display" component. When the "Reading And Writing Address Is Different" is checked, different address can be set in the "Read Address" and in the "Write Address".

4.6.3.2.2Keyboard Setting

See detailed functions in: Detailed manual/General functions/Drawing/Keyboard setting.

4.6.3.3Character Display

4.6.3.3.1General

• Operating Attribute

| 🖪 Characters Display | ? <mark>×</mark> |
|--|------------------|
| General Characters Setting Font Graphics Dynamic Graphics Display | |
| Operation Attribute: 🔘 Numeric Display 🔘 Numeric Input 🔘 Characters Display 🔘 Characters Input | |
| Browse Method: 📝 Scrollbar 🕼 Screen Scrollbar Width 20 🚔 | |
| ☑ ASCII 	Password 	Unicode 	Swap the High byte and the Low byte | |
| Read Address: ☐ Use Address Tag Deivce: LOCAL:[Local Register] | |
| Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word | |
| Address Index | |
| | |
| | |
| | |
| Help Description: | Cancel |

The "Operation Attribute" includes four operation types: "Numeric Display"," Numeric Input", "Character Display" and "Character Input". If you want the current Character Display component change to the Character Input component or Numeric component, you can modify it here. It is highly efficient for the project modifying and maintaining.

Browse Method

The "Browse Method" includes "Scrollbar" and "Screen". You can select the "Scrollbar" or the "Screen" or both ways to browse the content of the current character component. The scrollbar width can be freely set. The "Screen" browse method is only effective for a capacitive screen.

Display Mode

| F | Charact | ers Display | | | ? <mark>- ×</mark> |
|---|---------|--------------------|----------------|--|--------------------|
| [| General | Characters Setting | Font Grap | phics Dynamic Graphics Display | |
| | Operati | on Attribute: 🔘 Nu | imeric Display | y 💿 Numeric Input 💿 Characters Display 🔘 Characters Input | |
| | | | | e Method: 🖉 Scrollbar 🗑 Screen Scrollbar Width 🛛 20 💌 | |
| | | | browse | | |
| | | | | ASCII Password Unicode Swap the High byte and the Low byte | |
| | | ddress: | | | |
| | | Address Tag | | | |
| | Deivce: | LOCAL:[Local Regis | ter] | • | |
| | | | | | |
| | Addres | s Type: LW | • | | |
| | Addres | - | | tem Register | |
| | Format | (Range) DDDDDD(0 | Occupy: 1 | - Word | |
| | 🔲 Add | ress Index | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | Help | Description: | | ОК | Cancel |
| l | пер | Description: | | UN | Cancer |

ASCII

If it is checked, characters will be displayed in ASCII format. In this format, only ASCII characters will be displayed, including numbers, symbols and English letters. Chinese characters are not supported to display.

Password

If it is checked, characters will be displayed in "*" mode.

Unicode

If it is checked, characters will be displayed in UNICODE. In the UNICODE mode, each Chinese character or English letter will occupy one character (two bytes).

Swap the High byte and the Low byte

After the "ASCII" is checked, you can select the function "Swap the High byte and the Low byte".

- Read Address
- Use Address Tag

| 🖪 Characters Display | ? <mark>- x -</mark> |
|--|----------------------|
| General Characters Setting Font Graphics Dynamic Graphics Display | |
| Operation Attribute: 💿 Numeric Display 💿 Numeric Input 💿 Characters Display 💿 Characters Input | |
| Browse Method: 🗹 Scrollbar 🕼 Screen Scrollbar Width 20 💌 | |
| ☑ ASCII 	Password 	Unicode 	Swap the High byte and the Low byte | |
| Read Address: Use Address Tag Running Time Deivce: LOCAL:[Local Running Time Motor Speed | |
| Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word Address Index | |
| Help Description: | Cancel |

When this function is checked, variables in the address tag library can be directly linked by the component (See address tag library details in: <u>Detailed manual/Library/Address Tag Library</u>). The address tag library can be used to improve the project maintaining efficiency. If many components in the project are linked to a same variable in the address tag library and this address need to be modified, it is only necessary to modify the variable address linked in the tag library without modifying each component.

The address setting includes the attributes : "Device", "Address Type", "Address", "Format (Range)", "Address Index", and so on. Please see: <u>Detailed manual/ General functions/ Address</u> editor/ Standard Byte Address Input.

4.6.3.3.2Characters setting

Row Settings

| 🖪 Characters Display | ? 💌 |
|---|-----------|
| General Characters Setting Font Graphics Dynamic Graphics Display | |
| Row Settings Total Row number Image: Comparison of Comparison of Comparison of Comparison of Comparison of Characters per line Image: Comparison of Comparison of Comparison of Comparison of Comparison of Comparison of Characters per line Image: Comparison of Co | |
| Help Description: | OK Cancel |

The "Row Settings" includes "Total Row number", "Show Row number" and "Number of Characters per line". The "Total Row number" means the number of the rows which the current character component contains. The "Show Row number" sets the number of rows displayed in the current character component. If the number of rows displayed is smaller than the number of total rows, a scrollbar will appear automatically.

• Row Space settings

| 🕫 Characters Display | 8 23 |
|--|-----------|
| General Characters Setting Font Graphics Dynamic Graphics Display | |
| General Characters Setting Font Graphics Dynamic Graphics Display Row Settings Total Row number 1 Image: Character Settings Image: Character Settings Show Row number 1 Image: Character Settings Image: Character Settings Image: Character Settings Number of Characters per line 2 Image: Character Settings Image: Character Settings Notes: 1, If "Use UNICODE" is n each 2 ASCII character Chinese character use register. Space Image: Character Setting Settings 2, If "Use UNICODE" is s each ASCII character Chinese character use Image: Shadow Effects Image: Color: Shadow Color V Shadow Deviation: X: 0 Y: 0 Image: Color: Image: Shadow Color Image: Color: OK Cancel Image: Color: Image: Shadow Color Image: Color: Image: | |
| Help Description: | OK Cancel |

A dialog will pop up when you click the "Row Space Settings" button. You can set the attributes such as "Horizontal scaling", "Line space", "Words space", "shadow Effects", and so on.

4.6.3.3.3Font

See detailed font setting in: <u>Detailed manual/General functions/ Drawing/ Font settings</u>.

4.6.3.3.4Graphics

See detailed Graphics setting in: <u>Detailed manual/General functions/Drawing/Graphic</u> edit.

4.6.3.3.5Dynamic Graphics

See detailed Dynamic Graphics setting in: <u>Detailed manual/ General functions/</u> <u>Drawing/ Dynamic Graphics</u>.

4.6.3.3.6Display

See detailed display setting in: Detailed manual/General functions/Drawing/Display.

4.6.3.4Character Input

4.6.3.4.1General

• Operation Attribute

| General Characters Setting Keyboard Setting Font Graphics Dynamic Graphics Control Settings Display Operation Attribute: Numeric Display Numeric Input Characters Display Characters Input Browse Method: Image: Scroellbar Screen Scroellbar Width 20 Reading And Writing Address Is Different Address: Image: Scroellbar Unicode Swap the High byte and the Low byte Read Address: Image: Use Address Tag Deivce: LOCAL:[Local Register] Address: Image: System Register Format(Range) DDDDDDD(0 Occupy: Image: Sindex | Characters Input |) [2 |
|--|---|------|
| Browse Method: V Scrollbar V Screen Scrollbar Width 20 V Reading And Writing Address Is Different ASCII Password Unicode Swap the High byte and the Low byte Read Address: Use Address Tag Deivce: LOCAL:[Local Register] Address Type: W Address: O System Register Format(Range) DDDDDD(0 Occupy: 1 V Word Address Index | eneral Characters Setting Keyboard Setting Font Graphics Dynamic Graphics Control Settings Display | |
| Reading And Writing Address Is Different ASCII Password Unicode Swap the High byte and the Low byte Read Address: Use Address Tag Deivce: LOCAL:[Local Register] Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word Address Index | Operation Attribute: 💿 Numeric Display 💿 Numeric Input 💿 Characters Display 💿 Characters Input | |
| Read Address: Use Address Tag Deivce: LOCAL:[Local Register] Address Type: LW Address: 0 \$ystem Register Format(Range) DDDDDD(0 Occupy: 1 \$Word Address Index | Browse Method: 🕼 Scrollbar 🕼 Screen Scrollbar Width 20 💌 | |
| Use Address Tag Deivce: LOCAL:[Local Register] • Address Type: LW • Address: 0 • Format(Range) DDDDDD(0 Occupy: 1 • Word Address Index | 🗌 Reading And Writing Address Is Different 🖉 ASCII 🔲 Password 🗐 Unicode 🗐 Swap the High byte and the Low byte | |
| Deivce: LOCAL:[Local Register] | Read Address: | |
| Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word Address Index | Use Address Tag | |
| Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Vord | Deivce: LOCAL:[Local Register] | |
| | Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Vord | |
| | | |
| | | |
| | | |
| Help Description: OK Cance | Help Description: OK Ca | ncel |

The "Operation Attribute" includes four operation types: "Numeric Display"," Numeric Input"," Character Display" and "Character Input". If you want the current Character Input component change to the Character Display component or Numeric component, you can modify it here. It is highly efficient for the project modifying and maintaining.

Browse Method

The "Browse Method" includes "Scrollbar" and "Screen". You can select the "Scrollbar" or the "Screen" or both ways to browse the content of the current character component. The scrollbar width can be freely set. The "Screen" browse method is only effective for a capacitive screen.

Display Mode

| E Characters Input | 83 |
|---|------|
| General Characters Setting Keyboard Setting Font Graphics Dynamic Graphics Control Settings Display | |
| Operation Attribute: 💿 Numeric Display 💿 Numeric Input 💿 Characters Display 💿 Characters Input | |
| Browse Method: 🕼 Scrollbar 🕼 Screen Scrollbar Width 20 📩 | |
| Reading And Writing Address Is Different 🕼 ASCII Password 🗌 Unicode 🗌 Swap the High byte and the Low byte | |
| Read Address: | |
| Use Address Tag | |
| Deivce: LOCAL:[Local Register] | |
| Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word | |
| Address Index | |
| | |
| | |
| | |
| | |
| | |
| Help Description: OK Cance | el - |

ASCII

If it is checked, characters will be displayed in ASCII format. In this format, only ASCII characters will be displayed, including numbers, symbols and English letters. Chinese characters are not supported to display.

Password

If it is checked, characters will be displayed in "*" mode.

Unicode

If it is checked, characters will be displayed in UNICODE. In the UNICODE mode, each Chinese character or English letter will occupy one character (two bytes).

Swap the High byte and the Low byte

After the "ASCII" is checked, you can select the function "Swap the High byte and the Low byte".

- Read Address
- Reading And Writing Address Is Different

The character input component is integrated with functions of reading data from an address and writing data to an address. When the "Reading And Writing Address Is Different" is not checked, the using method is same to the "Character Display" component. When the "Reading And Writing Address Is Different" is checked, different address can be set in the "Read Address" and in the "Write Address".

| 🐻 Characters Input | ? 🔀 |
|--|--|
| General Characters Setting Keyboard Setting Font G | iraphics Dynamic Graphics Control Settings Display |
| Operation Attribute: 🔘 Numeric Display 🔘 Numeric Inp | out 🔘 Characters Display 🔘 Characters Input |
| Browse Method: 🔍 | Scrollbar 🗑 Screen Scrollbar Width 20 💌 |
| ✓ Reading And Writing Address Is Different ✓ ASCII → Page 1 | assword 🔲 Unicode 🔄 Swap the High byte and the Low byte |
| Read Address: | Write Address: |
| 🔲 Use Address Tag | Use Address Tag |
| Deivce: LOCAL:[Local Register] | Deivce: LOCAL:[Local Register] |
| Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word Address Index | Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0 Occupy: 1 Word Address Index |
| Help Description: | OK Cancel |

Use Address Tag

| Characters | Input | | | | | | ? 🗙 |
|------------|--------------------------------|-----------------------|--------------|-------------------|-------------------|------------------|--------|
| General | Characters Setting | Keyboard Setting | Font Grap | nics Dynamic Gra | aphics Control Se | ettings Display | |
| Operation | Attribute: 🔘 Nume | ric Display 🔘 Num | eric Input 🔘 | Characters Displa | y 💿 Characters In | put | |
| | | Browse Method: | Scrollb | ar 👿 Screen S | crollbar Width | 20 | |
| Readin | g And Writing Addres | is Is Different 🔽 ASC | II 🔲 Passwor | d 🗖 Unicode 🔲 Sv | vap the High byte | and the Low byte | |
| -Read Add | | | | | | , | |
| 🔽 Use Ac | ldress Tag | • | <u>)</u> | | | | |
| Deivce: L | OCAL:[Local Running Motor S | | - | | | | |
| L | | | | | | | |
| Address 1 | | * | _ | | | | |
| Address: | 0 | System Registe | | | | | |
| | | | | | | | |
| Addres | ss Index | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Help | Description: | | | | | OK | Cancel |
| Theip | Description. | | | | | OK | Cancer |

When this function is checked, variables in the address tag library can be directly linked by the component (See address tag library details in: <u>Detailed manual/Library/Address Tag Library</u>). The address tag library can be used to improve the project maintaining efficiency. If many components in the project are linked to a same variable in the address tag library and this address need to be modified, it is only necessary to modify the variable address linked in the tag library without modifying each component.

The character address setting includes the attributes : "Device", "Address Type", "Adress", "Format (Range)", "Address Index", and so on. Please see: <u>Detailed manual/ General functions/</u> <u>Address editor/Standard Byte Address Input</u>.

4.6.3.4.2Characters Setting

Row Settings

| Characters Input | ? 💌 |
|--|--------|
| General Characters Setting Keyboard Setting Font Graphics Dynamic Graphics Control Settings Display | |
| General Characters Setting Keyboard Setting Font Graphics Dynamic Graphics Control Settings Row Settings Total Row number 1 1 Row Space Settings Number of Characters per line 2 2 Notes: 1, If "Use UNICODE" is not selected, each 2 ASCII characters or each Chinese character use one word register. 2, If "Use UNICODE" is selected, each ASCII character or each Chinese character use one word | |
| | |
| Help Description: OK | Cancel |

The "Row Settings" includes "Total Row number", "Show Row number" and "Number of Characters per line". The "Total Row number" means the number of the rows which the current character component contains. The "Show Row number" sets the number of rows displayed in the current character component. If the number of rows displayed is smaller than the number of total rows, a scrollbar will appear automatically.

Note:

If "Unicode" is not checked, each two ASCII characters or each one Chinese character occupies one word register.

If "Unicode" is checked, each ASCII character or each Chinese Character occupies one word register.

• Row Space settings

| Fs Characters Input | | 8 23 |
|---|--|--------|
| General Characters | Setting Keyboard Setting Font Graphics Dynamic Graphics Control Settings Display | |
| | w number 1 w number 1 rs per line 2 | |
| Chinese register 2、If "Use U each AS | SCII character Space | |
| Help Descript | on: OK | Cancel |

A dialog will pop up when you click the "Row Space Settings" button. You can set the attributes such as "Horizontal scaling", "Line space", "Words space", shadow color and shadow deviation.

4.6.3.4.3Keyboard Setting

See detailed setting in: Detailed manual/ General functions/ Drawing/ Keyboard setting.

4.6.3.4.4Data font

See detailed font setting in: Detailed manual/General functions/Drawing/Font settings.

4.6.3.4.5Control Settings

See detailed control setting in: <u>Detailed manual/ General functions/ Drawing/ Control</u> <u>settings</u>.

4.6.3.4.6Display

See detailed display setting in: Detailed manual/General functions/Drawing/Display.

4.6.4 Toggle Switch and menu

4.6.4.1Bit Switch

The "Bit Switch" is used to set the action, switch type and text display of the bit switch which is used to change the bit state.

| 🕫 Toggle Switch | ? <mark>×</mark> |
|--|------------------|
| General Toggle Switch Graphics Dynamic Graphics Control Settings Display | |
| Type: Bit toggle switch O Word toggle switch | |
| Reading Address and Writing Address Are Different | |
| Read and Write Address | |
| □ Use Address Tag Deivce: LOCAL:[Local Register] | |
| | |
| Bit-index within a Byte Register | |
| Address Type: LB | |
| Address: 0 System Register | |
| Format(Range) DDDDDD(0 | |
| Address Index | |
| | |
| | |
| | |
| | |
| | |
| Help Description: OK | Cancel |

The "Bit Switch" component can be found on the tool bar or from the menu of Components.

| File View Edit Windo | 5 1 , | Macro Rec |
|---|---|-----------------------|
| | 🚇 🚵 🗙 🔊 Undo ▾ (≅ Redo ▾ ªbac) | |
| S ₀ S ₁ S ₂ S ₃ Status0 | II II II II II I-English (United | 10 |
| B_1:Basic V ₩ | Ø • ■ • ★ ★ • • • • • • • • • • • • • • • | ₽* • ₌ : k |
| | Word Switch | |
| Project | Check list and selection boxes | |
| Find | The Drop-down List | |
| <u> </u> | File Browser Box | |
| d Reg | User Privilege | |
| <u>o</u> | | |

| | Com | nponent Library Macro Recipe Setup | Т | ools | Help |
|----|----------|-------------------------------------|----|------|--------------------------------|
| 2 | | Switch | ۲ | 1 1 | For 😐 🖹 🗐 🔝 🤫 🖣 🛰 🖦 🖡 |
| Ī | 9 | Indicator Light | ۲ | в. | 1:Basic Window(1) 🔹 💽 🔂 🕫 🤅 |
| 10 | 123 | Numeric Value and Character Display | ٠. | 6 | <u> </u> |
| - | НЮ | Toggle Switch and menu | ۲ | HE | Bit Switch |
| | \odot | Timer and Data Transmission | ۲ | 123 | Word Switch |
| | E | Bar And Meter | • | Ē | Check list and selection boxes |
| | <u>₩</u> | Curve Graphs | • | | The Drop-down List |
| | http | Scale | • | Q | File Browser Box |
| | | Table | • | 2 | User Privilege |
| | -0 | Slider | • | 1 | |
| | ф | Moving Component | ۲ | 11 | |
| | нон | Window | ۲ | | |
| : | <u>e</u> | List | ۲ | 11 | |
| | R | Tools | ۲ | 11 | |
| | ÷ | Pipeline | ۲ | | |

4.6.4.1.1 General

See details for bit address setting in: <u>Detailed manual/ General functions/ Address editor/</u> <u>Standard Bit Address Input</u>.

4.6.4.1.2 Toggle Switch

On the page of "Toggle Switch", you can set "Press" or "Release" for the action. And the switch type can be "On", "Off", "Inverse" or "Reset".

| 🕫 Toggle Switch | |
|---|---|
| General Toggle Switch Graphics Dynamic Graphics Control S | ettings Display |
| Action: Press V SwitchType: On V Language Independent Language: 1-English (United S V Proverse Use Text Library Vse Label Adaptive label size Tag Contents Save Contents To Text Library | Import from Favorite Font Templates.(I) Vector Font Graphic Font Font: Microsoft Sans Serif Size: 16 B I T Advanced Microsoft Sans Serif |
| Copy Text to: All Status All Languanges All Set label position by language state separately. Pos.: Left Right: AAA Top Bottom: AAA Marquee | Copy Attr. to: All Status All Languanges All Index Correspond Tag Contents 0 0 1 1 |
| Help Description: | OK Cancel |

Details for "Language" selection can be seen in:<u>Detailed manual/Setup/System Settings/</u> Language Settings.

Details for "Import Favorite Font Template" can be seen in: <u>Detailed manual/Setup/System</u> <u>Settings/Favorite Font Template</u>.

Details for "Text Library" can be seen in: <u>Detailed manual/Library/Text Library</u>.

Details for "Marquee" setting can be seen in: <u>Detailed manual/ General functions/ Drawing/</u> <u>Marquee</u>.

4.6.4.1.3 Graphics

Details for Graphics can be seen in: <u>Detailed manual/General functions/Drawing/Graphic</u> edit.

4.6.4.1.4 Control Settings

Details for control settings can be seen in: <u>Detailed manual/ General functions/ Drawing</u> /<u>Control settings</u>.

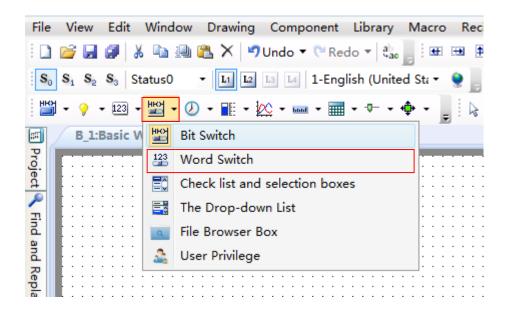
4.6.4.1.5 Display

Details for display setting can be seen in: <u>Detailed manual/ General functions/ Drawing</u> /<u>Display</u>.

4.6.4.2Word Switch

The word switch is used to set the action and text display for word address states.

The "Word Switch" component can be found on the tool bar or from the menu of Components.



| ļ | Com | ponent Library Macro Recipe Setup | Т | ools | Help |
|----|-------------|-------------------------------------|---|------|---------------------------------------|
| 2 | | Switch | ۲ | 1 1 | f 🐠 😃 😬 🏹 🔝 🤫 🐂 🐂 🖷 📘 |
| 1 | 9 | Indicator Light | ۲ | B B | 1:Basic Window(1) 🔹 💽 🔲 📲 🤅 |
| 1 | 123 | Numeric Value and Character Display | • | 6 | <u></u> |
| F- | ню | Toggle Switch and menu | ۲ | ню | Bit Switch |
| | \odot | Timer and Data Transmission | ۲ | 123 | Word Switch |
| : | | Bar And Meter | • | | Check list and selection boxes |
| | ₽ | Curve Graphs | • | | The Drop-down List |
| : | hand | Scale | • | Q | File Browser Box |
| : | | Table | • | 2 | User Privilege |
| : | -0 | Slider | • | 11 | |
| : | ф | Moving Component | ۲ | 11 | |
| : | нон Ногн | Window | ۲ | | |
| : | <u>e</u> | List | ۲ | 11 | |
| : | R | Tools | ۲ | 11 | |
| : | ÷ | Pipeline | ۲ | | · · · · · · · · · · · · · · · · · · · |

4.6.4.2.1 General

| Toggle Switch | -? - × |
|--|---------------|
| | |
| General Toggle Switch Graphics Dynamic Graphics Control Settings Display | |
| General Toggle Switch Graphics Dynamic Graphics Control Settings Display Type: Bit toggle switch Image: Word toggle switch Image: Reading Address and Writing Address Are Different Read and Write Address Image: Use Address Tag Deivce: LOCAL:[Local Register] Address Type: Image: Wind County of Cou | |
| | |
| | |
| Help Description: | OK Cancel |

See details for word address setting in: <u>Detailed manual/General functions/Address</u> editor/Standard Byte Address Input.

4.6.4.2.2 Toggle Switch

On the page of "Toggle Switch", the action can be set "Press" or "Release". The switch type can be set to "Add" or "Subtract". if "Non-cyclic" is checked and the switch type is "And", it will stop adding when the result exceeds the maximum value. If "Non-cyclic" is not checked for the "Add" switch type, it will start to shift again from the minimum value when the result reaches the maximum value. The "Status" can be set directly or by the Up or Down arrows.

| 🕫 Toggle Switch | -? |
|--|--|
| General Toggle Switch Graphics Dynamic Graphics Control S | Settings Display |
| Action: Press V SwitchType: Add Non-cyclic Status: 2 Add Subtract Language: 1-English United S V Language Independent Use Text Library Text Library Use Label Adaptive label size Tag Contents Save Contents To Text Library | Import from Favorite Font Templates.(I) Vector Font Graphic Font Font: Microsoft Sans Serif Size: 16 B I I I I Advanced Microsoft Sans Serif |
| Copy Text to: All Status All Languanges All Set label position by language state separately. | Copy Attr. to: All Status All Languanges All |
| Pos.: Left Right: A | Index Correspond Tag Contents 0 0 • 1 1 • |
| | 2(Error) Other |
| Marquee | Display error status Preserve current state |
| | Error Notification |
| Help Description: | OK Cancel |

Details for "Language" selection can be seen in:<u>Detailed manual/Setup/System Settings/</u> Language Settings.

Details for "Import Favorite Font Template" can be seen in: <u>Detailed manual/Setup/System</u> <u>Settings/Favorite Font Template</u>.

Details for "Text Library" can be seen in: <u>Detailed manual/Library/Text Library</u>.

Details for "Marquee" setting can be seen in: <u>Detailed manual/ General functions/ Drawing/</u> <u>Marquee</u>.

4.6.4.2.3 Graphics

Details for Graphics can be seen in: Detailed manual/General functions/Drawing/Graphic edit.

4.6.4.2.4 Control Settings

Details for control settings can be seen in: <u>Detailed manual/ General functions/ Drawing</u> <u>/Control settings</u>.

4.6.4.2.5 Display

Details for display setting can be seen in: <u>Detailed manual/ General functions/ Drawing</u> /<u>Display</u>.

4.6.4.3Check list and selection boxes

The component of "Check list and selection boxes" is used to operate "Word register". The preset value is written into the register and the preset text is displayed when the current component is operated. The preset text corresponding to the status value which is equal to the word register will display automatically. See the following description for details.

Click the menu command of the "Check list and selection boxes" component and open the property TAB of this component.

4.6.4.3.1 General

| R Menu | ? X |
|--|------------|
| General Selector Setting Graphics Control Settings Display | |
| | |
| Browse Method: | |
| Type: | |
| Screen Note: Only for capacitive screen. | |
| Data Source Component settings 👻 | |
| Reading And Writing Address Is Different | |
| | |
| Read Address: | |
| Use Address Tag | |
| Deivce: LOCAL:[Local Register] | |
| | |
| | |
| Address Type: LW | |
| | |
| | |
| Format(Range) DDDDDD(0~7999 Occupy: 1 Vord | |
| Data Type: 16-bit Unsigned 🔻 | |
| Address Index | |
| | |
| | |
| | |
| | |
| Help Description: OK | Cancel |
| Help Description: OK | Lancel |

Browse Method

The "Browse Method" includes "Scrollbar" and "Screen". You can select the "Scrollbar" or the "Screen" or both ways to browse the content of the current component. The scrollbar width can be freely set and the default width is 20. The "Screen" browse method is only effective for a capacitive screen.

Data Source

The default is "Component settings". That means the data source is the word register.

• Reading And Writing Address Is Different

The default is not checked. That means the read address and the write address are same. When it is checked, the "Read" register and the "Write" register can be set separately. The value of the "Read" register will be compared with the preset value to determine the corresponding text display. The preset value corresponding to the status selected will be written into the "Write" register when the component is operated.

4.6.4.3.2 Selector Setting

On the page of "Selector Setting", the attributes such as the number of items ("Item Count"), the preset value of each item and the content to be displayed can be set.

| Fs Menu | | · · · · · · · · · · · · · · · · · · · | ? 🔀 |
|-----------------------|-----------------|--|--|
| General Se | lector Setting | Graphics Control Settings Displa | play |
| Item Cou Line Spac | | Selected Color Background Color | Language: 1-English (United S 🔹 💽 |
| | | Border Color 🛛 💌 🍼 | O Use Text Library |
| | | | Ise Tag ☑ Adaptive label size. |
| Index | Correspond | Tag Content | Tag Content Save Tag Content To Text Library |
| 0 | 0 | 0 | ▲ 0 |
| 1 | 1 | 1 | Copy Text To: All Status All Languages All |
| 2 | 2 🔺 | 2 | Import from Favorite Font Templates.(I) |
| 3 | 3 👗 | 3 | Vector Font Graphic Font |
| 4 | 4 🔹 | 4 | Font: Microsoft Sans Serif |
| 5 | 5 | 5 | Size: 16 B I Size: Multi-line Alignment: |
| 6(Error) | Other | | |
| Illegal inp | out 🔍 Display e | rror status 🔘 Keep Current Status | |
| Error 1 | Notification | | Microsoft Sans Serif |
| 🔲 Enable | e Control Addro | ess: | |
| | | | |
| | | | Copy Attr. To: All Status All Languages All |
| | | | |
| Help | Description: | | OK Cancel |

Item Count

The default is 6. The range is 1~255. That means there are 255 items at most.

• Line Spacing

The default is 5. That means the space between rows.

Selected Color

You can modify the color of the item selected in operation. The default is blue.

Background Color

It is the background color of the component excluding the scrollbar. The default is grey.

Border Color

It is the frame color of the selecting list components excluding the rolling bar, and the default is white.

• "Index", "Correspond" and "Tag Content"

There is a table for the list components. It includes three columns: "Index", "Correspond" and "Tag Content".

| General Selector Setting Graphics Control Settings Display | 1 |
|---|--|
| Item Count: 5 ♀ Selected Color Line Spacing: 5 ♀ Background Color ♥♥ Border Color | Language: <mark>1-English (United S ▼) ♥</mark> □ Language Independent ○ Use Text Library ● Use Tag ▼ Adaptive label size. |
| Index Correspond Tag Content | Tag Content Save Tag Content To Text Library |
| 0 0 0 | \$ |
| 1 1 1 | Copy Text To: All Status All Languages All |
| 2 2 2 2 | Import from Favorite Font Templates.(I) |
| 3 3 4 3 | ○ Vector Font |
| 4 4 4 4 | Font: Microsoft Sans Serif - |
| 5(Error) Other | Size: 16 • B I • S Multi-line Alignment: |
| Illegal input Display error status Keep Current Status Frror Notification Enable Control Address: | Microsoft Sans Serif |
| Help Description: | Copy Attr. To: All Status All Languages All OK Cancel |

For example, the "Item Count" is set 5. The value of the "Index" is 0~5. Index 0~4 are corresponding to effective items and item 5 is corresponding to the "Error" one.

The default value of the column "correspond" is equal to the value of the "Index" for the effective items. When the number of items is set to 5, the content of the "correspond" for the index 5 is "Other". The "Other" means any value except "0~4". The "correspond" value can be modified. For example, the "correspond" value of index 0 is modified 100. That means the text of index 0 in the "Tag Content" will be displayed if the value of the word register is equal to 100. And meanwhile, if item 0 is selected, the value 100 will be written into the word register.

The default value of the column "Tag Content" is equal to the value of the "Index" for the effective items. When any item is selected, the text required can be input to the corresponding "Tag Content".

Illegal input

The "Illegal input" means that the value of word address doesn't equal to any value of the "correspond" for the effective items. The default is "Show Error Status".

- Show Error Status The component displays the "correspond" content of the "Error" item when illegal input happened.
- Keep Current status
- The component keeps the last correct status when illegal input happened.
- Error Notification

When it is checked, a "Bit register" can be set. The "Bit register" will be set to ON if any error status appears.

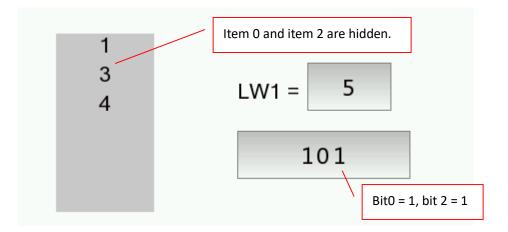
• Enable Control Address

If it is checked, a "Word register" can be set. Each bit of the word register is corresponding to an index. That is, bit 0 is corresponding to index 0, and bit 1 is corresponding to index 1, and so on. When there are more than 16 items, the next word register will be occupied automatically. When the corresponded bit of the word register is ON, the item of the corresponding index in the list will be hidden. For example, when the word register value of the "Enable Control Address" is set to 5, the bit 0 and bit 2 of this word register are both ON and the items of the index 0 and the index 2 will be hidden.

| VEDA HCT | User | Manual |
|----------|------|--------|
|----------|------|--------|

| 🕞 Menu | | | ? 💌 |
|------------------|------------------|--|--|
| General | Selector Setting | Graphics Control Settings Display | |
| Item C Line S | | Selected Color Background Color Border Color | Language: 1-English (United S 🔹 Language Independent Use Text Library Use Tag Value Adaptive label size. |
| Inde | x Correspond | Tag Content | Tag Content Save Tag Content To Text Library |
| 0 | 0 | 0 | ÷ |
| 1 | 1 | 1 | Copy Text To: All Status All Languages All |
| 2 | 2 | 2 | Import from Favorite Font Templates.(I) |
| 3 | 3 | 3 | ○ Vector Font |
| 4 | 4 | 4 | Font: Microsoft Sans Serif ▼ Size: 16 ▼ B I ■ ▼ |
| 5(Erro | or) Other | | Multi-line Alignment: |
| Erro | or Notification | | Microsoft Sans Serif Copy Attr. To: All Status All Languages All |
| Help | Description: | | OK Cancel |

In the figure above, when there is any wrong status, LBO will be set to ON. When LW1=5, index 0 and index 2 will be hidden.



4.6.4.4The Drop-down List

The attributes of "The Drop-down list" are almost same to the attributes of "Check list and selection box". The main difference is that "The Drop-down list" is withdrawn when it is not operated or after it is operated. The "Drop-down list" will be unfolded when it is clicked, and then it can be viewed and operated by the scrollbar or by screen method.

4.6.4.4.1 General

The property TAB of "The Drop-down list" can be opened by clicking the command "Component/ Toggle Switch and menu/ The Drop-down List" in the menu, see the figure below.

| E Menu | ? X |
|---|------------|
| General Selector Setting Graphics Control Settings Display | |
| Type: © List and Check-Box © Drop-down List Data Source Component settings ▼ Reading And Writing Address Is Different | |
| Read Address: Use Address Tag Deivce: LOCAL:[Local Register] | |
| Address Type: LW Address: 0 System Register Format(Range) DDDDDD(0~7999 Occupy: 1 Word Data Type: 16-bit Unsigned | |
| Address Index | |
| Help Description: OK | Cancel |

The figure above shows that the "General" property TAB is same to the "Check list and selection boxes", it is not introduced here, and details can be seen in <u>Detailed</u> <u>manual/Commponent/Toggle Switch and menu/Check list and selection boxes</u>.

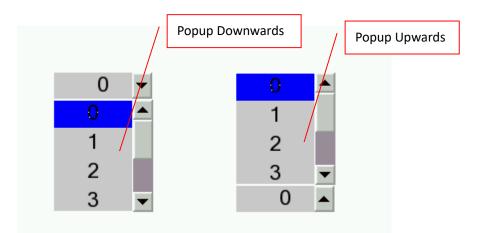
4.6.4.4.2 Selector Setting

Click the "Selector Setting" property TAB, it can be opened, see the figure below.

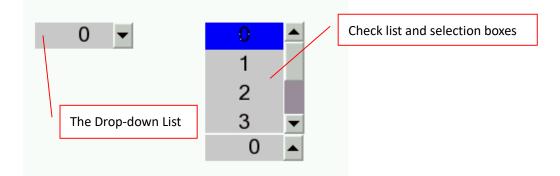
| 🕞 Menu | ? 💌 |
|--|--|
| General Selector Setting Graphics Control Settin | igs Display |
| Item Count: 6 ♦ Selected Color Line Spacing: 5 ♦ Background Color Pop-up style Popup Dc ♥ Border Color Popup Downwards Popup Upwards | Language: 1-English (United S •) Language Independent Use Text Library Use Tag Adaptive label size. |
| Index Correspond Tag Content | Tag Content Save Tag Content To Text Library |
| 0 0 | |
| 1 1 1 | Copy Text To: All Status All Languages All |
| 2 2 2 2 | Import from Favorite Font Templates.(I) |
| 3 3 🔦 3 | Vector Font Graphic Font |
| 4 4 4 | Font: Microsoft Sans Serif - |
| 5 5 🗲 5 | Size: 16 - B I - J Multi-line Alignment: = = T Advanced |
| 6/Error Other Illegal input © Display error status © Keep Curren Error Notification Enable Control Address: | |
| Help Description: | Copy Attr. To: All Status All Languages All OK Cancel |

For "The Drop-down List" component, the most settings of the "Selector Setting" property TAB are same to the "Check list and selection boxes". The difference is that there is an additional item of "Pop-up style" for the "The Drop-down List".

The default is "Popup Downwards". The "Pop-up upwards" is optional. And it can be set according to the actual requirement. See the figure below.



The figure below shows the situation when "The Drop-down List" and "Check list and selection boxes" appear on the picture at the same time.



The figure above shows that when the "The Drop-down List" completes operation or has no operation, it is "withdrawn". It will be unfolded only when it is operated, while the "Check list and selection boxes" is always unfolded no matter it is in operation or not, and it can be directly viewed and operated.

The other details can be seen in <u>Detailed manual/Commponent/Toggle Switch and</u> <u>menu/Check list and selection boxes</u>.

4.6.4.5File Browser Box

File Browser Box is used to display the file information of the internal and external storage devices.

| Fort Type | Only Show the File with Designated Suffix. |
|---|--|
| Fort Size: 34 • Coloru | Suffix Name Add Items Dates |
| Date Format | |
| Date Format: DD*MM*VV + | Separator: / |
| Notes SRW300-349: the absolute path chara SRW150-389 : File Name Character S SRW390: execute file browser. | |
| 0-Cancel or No Operation. | 3-Import the Formula to HMI |
| | 4-export recipe to SD Card or U-disk from HWI 5-Other Files Operation |
| 1-limport the Project to HMI 2-Export to SD Card or U-disk f | |

4.6.4.5.1 General

- Font Type
- Font Size

Select the appropriate font size here.

> Colors

Select the font color by the tool " or the color palette. When it is selected on

the touch screen, the background color of the font is in the inverse tone.

• Date Format

There are three optional date formats.

| - Date Format: - | |
|------------------|------------|
| Date Format: | DD*MM*YY 🔹 |
| | DD*MM*YY |
| | MM*DD*YY |
| | YY*MM*DD |

There are three optional separators provided among the day, the month and the year.

| Separator: | / • | |
|------------|-----|---|
| | / | Ē |
| | - | |
| | | |

• Only Show the File with Designated Suffix.

| Only Show the File | with Designated Suffix. |
|--------------------|-------------------------|
| Suffix Name | |
| fpg | Add Items |
| | Delete |
| | |
| | |

The suffix is blank by default. It represents to display all. You can set the file type you want.

As shown as above, if you add the "fpg" suffix by clicking the button "Add Items", only files with fpg suffix will be displayed in the browser box for easy filtering and viewing. If you want to display all, click the button "Delete" and keep the browser box blank.

4.6.4.5.2 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.4.6User Privilege

4.6.4.6.1 General

| 🖪 User Aut | thorization Overview | | | ? 💌 |
|------------|--|-----------------------------------|--------------------|----------|
| General | Table Search Display | | | |
| | | | | |
| | e Method: | | | |
| | Scrollbar Scrollbar Widtl Screen Note: Only for cap | | | |
| | | pactive screen. | | |
| | y The Table | | | |
| Lang | uage: 1-English (U 🔻 💓 | 📝 Display the Title Bar Title Bar | Font Setting | |
| Ve Us | se Label V Use same font | for table contents and title. | | |
| Use | Display The Project | Title Bar Description | | |
| | Serial No. | Serial No. | | |
| v | User Name | User Name | | |
| | User Privilege | User Privilege | | |
| | Automatic Log-out Time | Automatic Log-out Time | Move Up | |
| | | | Down | |
| | | | Restore to default | |
| | | | Restore to default | |
| | | | | |
| | | |] | |
| | | | | |
| Row | Spacing: 5 🔷 Co | lumn Spacing : 5 💂 | | |
| De | etailed Info: | | | |
| | | | | |
| | | | | |
| Help | Description: | | 0 | K Cancel |
| Tielb | Description | | 0 | Cancer |

Browse Method

You can view by scroll bar or screen sliding, and screen sliding is only effective for capacitive screen.

- Display The Table
- > Language

You can switch between Chinese and English here, and then you can edit the text in the below table in Chinese and in English separately.

| Display | y The Table | | |
|---------|--|-------------------------------|-------------|
| Lang | Language: 🚺 -English (U 🔻 💽 📝 Display the Title Bar Title Bar Font Setting | | ont Setting |
| 🗸 Us | e Label 📝 Use same font | for table contents and title. | |
| Use | Display The Project | Title Bar Description | |
| | Serial No. | Serial No. | |
| | User Name | User Name | |
| | User Privilege | User Privilege | |
| | Automatic Log-out Time | Automatic Log-out Time | M |

Display the Title Bar

Check this option "Display the Title Bar", you can set the font of the title bar and the list, see details in <u>Detailed manual/General functions/Drawing/Font settings</u>.

| Fs Font Sett | ng 💽 |
|--------------|--------------------------------------|
| Imp | ort from Favorite Font Templates.(I) |
| ○ Vecto | r Font 🔘 Graphic Font |
| Font: | Microsoft Sans Serif 💌 |
| | 6 • B I I • M e Alignment: |
| | Aicrosoft Sans Serif |
| | OK Cancel |

Use Lable

Check this option, you can edit the "Title Bar Description" in the below table.Uncheck it, you can edit the "Title Bar Description" by using text library.

| Use | Display The Project | Title Bar Description | | | |
|----------|-----------------------------|-----------------------|---------------|------------------|-------------|
| 1 | Serial No. | | <u></u> | | |
| v | User Name User Privilege | Fs Text Library | | | |
| 1 | Automatic Log-out Ti | | | Search | Language Di |
| | | ABCDE | FGHI | JKLMN | O P Q |
| | | Name | Status Number | Reference Number | |
| | | + Ack | 1 🔹 | 0 | |
| | Spacing: 5 🜲 | New Delete | | Confirm | Cancel |

> Use same font for table contents and title

This option will be displayed only when you check the option "Display the Title Bar". After checking this option, the font of the list will be consistent with the font of the title bar. If you do not check it, you can edit the font of the list separately.

> Move UP and Down

You can adjust the arrangement of the displayed items by clicking the button "Move Up" or "Down".

Restore to default

Restore the items to the initial arrangement.

| Use | Display The Project | Title Bar Description | |
|-----|------------------------|------------------------|--------------------|
| 1 | Serial No. | Serial No. | |
| | User Name | User Name | |
| | User Privilege | User Privilege | |
| | Automatic Log-out Time | Automatic Log-out Time | Move Up |
| | | | |
| | | | Down |
| | | | Restore to default |
| | | | |
| | | | |

Row Spacing and Column Spacing

Adjust the row spacing by modifying the value of the edit box of "Row Spacing". And adjust the column spacing by modifying the value of the edit box of "Column Spacing".

| Detailed Info | | | |
|--------------------|------------------|---------------|---------------------------|
| 🛛 Detailed Info: 🛛 | Single Click 🔹 🔻 | Popup Window: | B_29001:User privilege(• |

After check the option "Detailed Info", you can select a trigger mode to pop up the window such as "User privilege" for editing. The trigger mode can be set "Single Click" or "Double Click".

4.6.4.6.2 Table

You can set the appearance of the "User Privilege" component in the "Table" property TAB. The appearance of this component is show as below.

| | Title | e Bar Background | Color | |
|------------|--------------|-------------------------|-------------------|----------|
| Serial No. | User Name | User Privilege | Automatic Log-out | Time 📤 |
| 0 | Admin | 16 | 10 | |
| | | | | |
| | | | | |
| | / | $\langle \cdot \rangle$ | | _ |
| • | | | | |
| | | | | |
| Table Back | ground Color | Row Split Line | Column Split Line | Outline |

The "Table" property TAB of the "User Privilege" component is shown as below.

| 🕼 User Authorization Overview | ? 🔀 |
|---|--------|
| General Table Search Display | |
| | |
| | |
| Table Background Color: 🔄 Background 💌 🍠 | |
| Title Bar Background Color : 📃 Background 💌 🍠 | |
| Outline Style: Line Width: Outline Boar V | |
| Split Line Style: Line Width: Split Line Co 🗸 📝 | |
| Display Grid Line: 📝 Row Split Line 🛛 📝 Column Split Line | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Help Description: OK | Cancel |

• Table Background Color and Title Bar Background Color

You can change the background color of the "User Privilege" component. And you can change the title bar background color, too.

| Table Background Color: | Background 👻 📝 |
|------------------------------|----------------|
| Title Bar Background Color : | Background 💌 📝 |

• Outline Style, Split Line Style, Line Width and Line Color

You can change the type of the out line and the split line, the line width and the line color.

| Outline Style: | Line Width: 🗾 🔻 | Outline Boar 👻 📝 |
|-------------------|---------------------|-------------------|
| Split Line Style: | Line Width: 🗾 🔻 | Split Line Co 👻 📝 |

Display Grid Line

After you check the option "Row Split Line" and the option "Column Split Line", the appearance of the "User Privilege" component is shown as below.

| Serial No. | User Name | User Privilege | Automatic Log-out Time | |
|------------|-----------|----------------|------------------------|--|
| 0 | Admin | 16 | 10 | |
| | | | | |
| | | | | |
| | | | | |
| • | | | | |

If the option "Row Split Line" and the option "Column Split Line" are unchecked, the appearance is shown below.

| Serial No | . User Name l | Jser Privilege | Automatic Log-out Time | |
|-----------|---------------|----------------|------------------------|---|
| 0 | Admin | 16 | 10 | |
| | | | | |
| | | | | |
| | | | | |
| | | | | • |
| | | | | |

4.6.4.6.3 Search

Check the option "Enable search", and you can query the corresponding user privilege.

| 🕞 User Authorization Overview | | ? <mark>- x -</mark> |
|-------------------------------|---|----------------------|
| General Table Search Dis | play | |
| | | |
| ☑ Enable search | | |
| Search by User Name | e | |
| Search Trigger Bit | LBO | |
| | LB0 Value 1, it will display the result after filtering by range. Value 0, it means no filtration. | |
| Search Register | LWO | |
| | LW0~LW7 : Please input the username for search, maximum 16 ASCII letters or 8 characters. | |
| | | |
| | | |
| Help Description: | ОК | Cancel |

• Search Trigger Bit

A bit register needs to be set here. When the value of the bit register is "1", the result of filtering by a range is displayed. When the value of the bit register is "0", the displayed result is not filtered.

• Search Register

You need to specify a starting address of a set continuous 8 word registers here. You can input the corresponding user name to these registers to search. And the inputted user name should be no more than 16 ACSII letters or 8 ACSII characters.

4.6.4.6.4 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

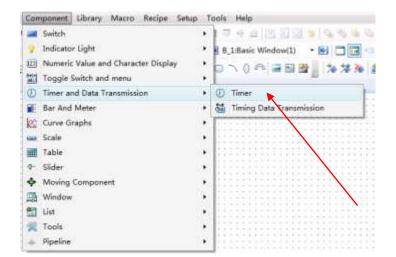
4.6.5 Timer and Data Transmission

4.6.5.1Timer

You can use the timer component to accomplish the tasks that need to be periodically executed or triggered under specific conditions.

The timer must be established on a window. When this window is working, the timer will work in accordance with the rules set. If you don't want the timer to be affected by the window switching, you can establish a timer on the common window.

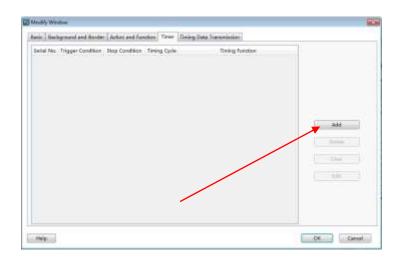
For adding a timer, there are three ways. The first way is clicking the timer command from the "Component" menu. The second way is opening the property TAB of the window, then click the "Timer" property TAB. And the third way is clicking the "Timer" command from the shortcut tool bar.



| Madly Weslew | | |
|---------------------|---|--|
| lack beigenente | nd Barriers Actions and Functions Two | er Toxing Data Transmission |
| Mindow Description | and works | 📄 Alta Paga |
| Mindow No. (By Type | | The state of the s |
| 1628s 3824 G | Height 600 L | Window Type: Have Window |
| Window Drientations | # Horizontal @ Vertical | |
| III Paper Wildow | | 1.deg |
| | | blass level a + |
| | | 🖾 Solidi ta uzer Trod oller visition (tasel) |
| Overlapped Minds | ÷ | Mindow that |
| Rottore Layers | faine | El Tade In |
| Mülde Leyer | Nore | E fair ad |
| Top Layers | Note | |
| Hole | | Canal . |



In the "Timer" property TAB, click the button "Add", you can open the detailed settings of the timer.



4.6.5.1.1 Trigger and Stop

| Tingger and Stop () Timer Function () Timing and Execution Essecution Period: 10 (* x 0.15 | |
|--|---|
| Delay | |
| Trigger Condition: Still Word D Condition Trigger when the window is open Trigger when the window is closed Trigger Address: Trigger Address: Trigger Mode: Off -> ON Auto Reset | Condition for stop Timer will stop when the window closed. If need to end, please choose the end condition. © Stop when specified court value reached © Condition Judgement |
| HHO | Garce |

• Timing and Execution

Set the operation mode of the timer in Timing and Execution.

| Timing and Execution | on |
|----------------------|----------------------|
| Execution Period: | 10 🗙 x 0.1S |
| Delay | 1 📥 Execution Period |

Execution Period

Set the execution cycle of the timer, in 0.1 S (seconds). If you want to set the execution cycle in 10 seconds, you can set to 100×0.1 S.

Delay \geq

In the case of unchecked "Delay" by default, when the trigger condition of the timer is met, the timer will execute immediately for the first time. After an interval of the setting execution cycle, the timer will execute for the second time until the end condition is met. If you want the timer to delay execution for a period of time when the trigger condition is met, you can check the "Delay" option, then delay time can be set to an integer times, such as three execution cycles.

• Trigger conditions

Trigger conditions is used to trigger the execution of the timer. There are many ways to trigger the timer in this software. You can choose according to your actual needs. It is important to note that the timer trigger mode should be edge trigger. After the trigger condition is met, the timer will continue working until the end condition is met.

| Condition | |
|-------------|-----------------------|
| | |
| : LBO | |
| OFF -> ON ▼ | 🔲 Auto Reset |
| OFF -> ON | |
| ON -> OFF | |
| ON <-> OFF | |
| | OFF -> ON OFF -> ON |

After select the "Bit" option, you can specify a bit register in the "Trigger Address" to control the timer trigger. The "Trigger Mode" can be set "OFF→ON", "ON→OFF", or " $ON \leftarrow \rightarrow OFF$ ". For example, if you set " $OFF \rightarrow ON$ ", that means the timer is triggered when the register value changes from 0 to 1.

The "Auto Reset" refers to that the register value is automatically changed to OFF after the timer is triggered (for the "OFF \rightarrow ON" trigger mode). The "ON $\leftarrow \rightarrow$ OFF" trigger mode does not have the "Auto Reset" option.

| > Word |
|--|
| Trigger Condition: Bit Word Condition |
| ◯ Trigger when the window is open |
| Trigger when the window is closed |
| Trigger Address: LW0 |

After selecting the "Word" option, you can specify a word register to control the timer trigger. When the value of the specified register is changed, the timer execution will be triggered.

| Condition | |
|--|---|
| Trigger Condition: | |
| 🔘 Bit 🔘 Word 🔘 Condition | |
| Trigger when the window is open Trigger when the window is closed | |
| Condition | |
| | |
| | • |
| | |
| Add Modify Delete | |

If you select "Condition" option, you can use a set of conditions to control the timer trigger. For the logical condition editing, see: <u>Detailed manual/General</u> <u>functions/Drawing/Logic Control</u>.

Trigger when the window is open

-Trigger Condition:

- Bit Word Condition
- Trigger when the window is open
- Trigger when the window is closed

When the window in which the timer is located is opened, the timer execution will be directly triggered. Note that if the timer is located in the Public Window, only trigger once when the user project is executed after powering on the HMI, and it will not be triggered when switching to another window.

Trigger when the window is closed

| Trigger Condition: | |
|-----------------------------------|--|
| | |
| 🔘 Bit 🔍 Word 🔘 Condition | |
| | |
| Trigger when the window is open | |
| | |
| Trigger when the window is closed | |

When the window in which the timer is located is closed and the other window is opened, the timer execution is triggered.

Condition for stop

The condition for stop refers to the condition under which the timer stops execution. It is same to the "Trigger Condition". The condition for stop is also edge-triggered.

Timer will stop when the window closed

| Condition for stop |
|--|
| Timer will stop when the window closed. |
| If need to end, please choose the end condition. |
| Stop when specified count value reached |
| Condition Judgement |

The "Condition for stop" of the timer is "Timer will stop when the window closed" by default. If you want to end the timer execution in advance, select the other condition for stop:

| Stop when s | pecified count | value reached |
|-------------------------------|----------------|----------------------|
| Condition for st | top | |
| O Timer will sto | p when the w | indow closed. |
| If need to end, | please choose | e the end condition. |
| Stop when sp Condition Jud | | value reached |
| Repeat Times: | Constant 🔹 | 1 |
| | Variable | |
| | Constant | |

You can use the condition for stop to make the timer end automatically after repeating the specified number of times. Wherein, for the specified number of times, you can directly enter it by Constant, or you can specify a word register to control the timer execution times by Variable.

Note: When the trigger condition is "Trigger when the window is closed," the condition for stop will be directly selected as the "Stop when specified count value reached" and the number of times is set to 1 and not editable. This kind of timer can only be executed once.

Condition Judgment

| Condition for stop | |
|--|---|
| O Timer will stop when the window closed. | |
| If need to end, please choose the end condition. | |
| Stop when specified count value reached Condition Judgement | |
| Condition | • |
| Add Modify Delete | |

You can control the timer to end by using a set of conditions. When the conditions are satisfied, the timer execution ends. For the logical condition editing, see: <u>Detailed</u> <u>manual/General functions/Drawing/Logic Control</u>.

4.6.5.1.2 Timer Function

| 1 United | 1.000 |
|-----------------------------------|--------|
| Trigger and Stop Timer Function 🥹 | |
| 📰 Rati Macro | |
| Status Setting | |
| | |
| | |
| | |
| | |
| | |
| 🗄 Audio Play | |
| Nep | Cancel |

Click the "Timer Function" tab and open the "Timer Function" property TAB.

| Run Macro | | | |
|--------------------|---|------------|--------|
| I Run Macro | - | Macro Code | Edit 🔒 |

You can use the timer to trigger the execution of macro instructions. If the macro instruction hasn't been established in the project, you can't check this box. You need to

click the "Macro Code" to open the Macro Code Editor Window and add the macro code. If the macro instruction is already exist, you can select the established macro from the drop-down list. Click the "Edit" button, you can directly open the Macro Code Editor Window to edit the currently selected macro instruction.

| V Run Macro | Drawingl 🔻 | Macro Code | Edit |
|--------------------|------------|------------|------|
| | DrawingPic | | |
| | InitialSys | | |
| | | | |

Status Setting

The "Status Setting" function is used to set a bit register or set the value of a word register.

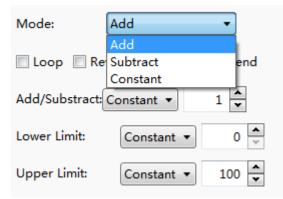
Whether setting the bit register status or setting the word register value, you first need to set the target address. For the address setting, refer to: <u>Detailed</u> <u>manual/General functions/Address editor</u>.

| | pp Timer function | |
|--|--|---|
| Run Macro | Drawing + Macro Code | Edit |
| 1997 | Bit Setting | Use Address Tag |
| 99 Status Setti | O Word Setting | Deliver [LOCAL(Local Register) . |
| | | 88 index within a Syte Register |
| Node: | Set ON | Address Type: LB * |
| | © Set OFF | Address 0 4 System Register FormenRanget D000D010-799. |
| | C Percelic Inverse | a an an There are the start of the |
| | | 🖾 Address Indes |
| 1010 | | Entering and a second se |
| Help | | OK |
| Timer | | OK Carce |
| Timer Trigger and St | op Timer function | 1-8- |
| Timer Trigger and St | And the second s | Eda |
| Tringer and Si IF Run Macro | Drawingi •) Macro Cade | 1-8- |
| Trigger and Si If Run Macro | Drawingi •) Macro Cade | Eda - |
| Trigger and Si IF Run Macro I Status Setti | Drawingi • Macro-Cade | Ede Use Address Tag Delow (LOCALS.coal Register) * |
| Trigger and Si IF Run Macro I Status Setti | Drawingi • Macro Code | Edit |
| Tringer and Si IF Run Macro IF Status Setti Mode: | Drawingi • Macro-Cade | Ede Use Address Tag Delow (LOCALSIccal Register) + |
| Tringer and Si IF Run Macro IF Status Setti Mode: | Drawingi • Macro Cade | Edit |
| Timer Trigger and Si IF Run Macro IF Status Setti Mode: Loop II R | Drawingi • Macro Cade | Edit |
| Trigger and Si IP Run Macro IP Status Setti Mode: Loop II R Add(Sabotract Lower Limit | Drawingi • Macro Code | Edit |
| Trive Trigger and Si IF Run Macro Status Setti Mode Loop II N Add/Saburan Lower Linits Upper Linit | Drawingi • Macco Code Drawingi • More Setting Add • Add • Constant • 1 • Constant • 0 • Constant • 100 • | Edit |

| Bit Setting | |
|-------------|-----------------|
| Mode: | Set ON |
| | Set OFF |
| | Perodic Inverse |

The mode of the Bit Setting includes "Set ON", "Set OFF" and "Periodic Inverse". The "Set ON" means that the bit is set ON when the timer is triggered and the bit remains ON in each execution period. The rules of "Set OFF" are same to the "Set ON". The "Periodic Inverse" refers that when the timer is triggered, the bit is inverted and continues to invert in each execution cycle. For example, the timer executed once per second switches the LB0 bit. LB0 will change the state once per second, 1 second is ON and 1 second is OFF.

| \triangleright | Word | Setting |
|------------------|------|---------|
| | | |



Word setting refers to periodic setting of a word register by timer. The setting modes include "Add", "Subtract" and "Constant".

| • | Audio Play | | |
|---|------------|---------------|--------------|
| 1 | Audio Play | Audio Library | Sleep Away 🕟 |

For the HMI device with an audio output function, you can use the timer to play sound. Click the "Audio Library", and select the audio file to be played from the "Audio Library". This software supports audio files in MP3 and WAV format. For adding audio files, please

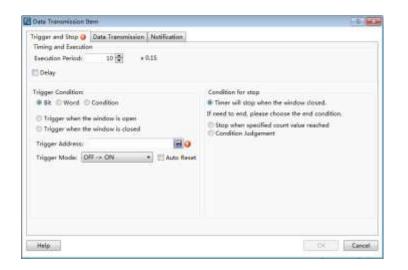
refer to: Detailed manual/Library/Audio Library. Click the triangle play button the back of audio file, you can hear the audio file.

Note:

The "Run Macro", "Status Setting" and "Audio Play" options can be checked at the same time. The timer can simultaneously control the execution of the three. However the execution order is uncertain.

4.6.5.2Timing Data Transmission

A single or batch data can be transmitted by timing. The action can be triggered or executes periodically. This component is similar to the timer. You need to add it to a specified window. If you want a global execution, you can add it to the public window.



4.6.5.2.1 Trigger and Stop

The "Trigger and Stop" is used to control the execution modes of components. The modes of "Trigger and Stop" include "Execution Period", "Trigger Condition" and "Condition for stop". The details can be refers to: <u>Detailed manual/Component/Timer and Data Transmissionn/Timer</u>.

4.6.5.2.2 Data Transmission

Data transmission can set the data to be transmitted, including the type and the length of the data to be transmitted, source address and target, and so on.

4.6.5.2.3 Notification

Notification function is similar to the notification function in the "Control Setting" property TAB of some components. It is used for before-writing notification and afterwriting notification. For the detailed settings, refer to: <u>Detailed manual/General</u> <u>functions/Drawing/Control settings</u>.

4.6.6 Barand Meter

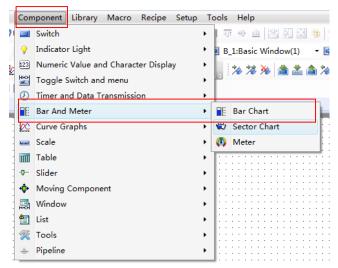
4.6.6.1Bar Chart

Apart from the slight difference of "Direction" as shown in the figure below, the other functions of the bar graph are the same as the Sector Chart. The detailed description is referred to: <u>Detailed manual/Component/Bar and Meter/Sector Chart</u>.

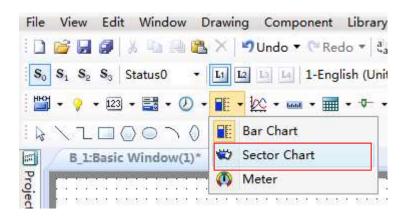
| and and and and know thresholds of Alarm |
|--|
| and t real |
| ner and lower thresholds of Alarm |
| or and lower thresholds of Agens |
| |
| |
| |
| |
| |

4.6.6.2SectorChart

Add a Sector Chart component by clicking the menu command "Component/Bar and Meter". It is shown as below.



You can add the Sector Chart by clicking the corresponding shortcut button. It is shown as below.



4.6.6.2.1 General

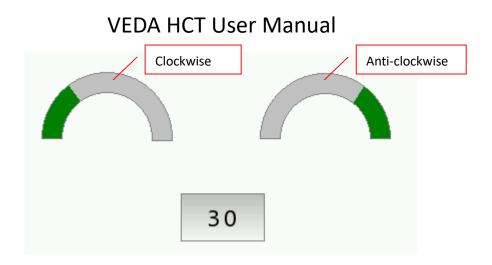
| General Estended Scale and Mark Dynamic Graphi | co Colfean | 170000 | | | |
|--|--------------|--------------------------|----------------|----------|-------|
| Shape: 😳 Bar Graph 🕷 Pan-shaped Graph Direction: | Clockwise + | Angle: Biside anit py | 1000 C | | 70 |
| Type: # Standard @ Deviation Type | | Start Angle | 100 | sea sope | 340 💽 |
| Minimum Value: Constant + 3 | F | | | | |
| daalman Valuer Coostaat + 100 🖆 | Upplet | and lower threads | ida o't Aiarm. | | |
| Read Address | | | | | |
| 🛙 Uue Address Tag | | | | | |
| Deivre: LOCAL@ucal Register[| | | | | |
| tanan arte anna Arriva | | | | | |
| Address Type: LW - | | | | | |
| Address Types (LW * Address () (* System Regis | 841) | | | | |
| Address Types (LW * Address () (* System Regis | terd | | | | |
| Address Types (JW * Address () () (*) Formatillange) DDDDDCCP-755550 Occepy () (*) (W Date Type: () (*) (*) | terd | | | | |
| Address Types (LW * Address) () LS System Regis formatfillarge) DDDDDDD-759599,Occapy () - (W | terd | | | | |
| Address Types (JW * Address) 0 (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) | terd | | | | |

Direction

The option "Direction" is used to set the starting point direction which refers to the fill direction of the sector chart.



As shown below, the left Sector Chart is filled by Clockwise, and the right Sector Chart is filled by Anti-clockwise.



Angle

The "Inside and outside ring ratio (%)" is set to a percentage of the inner ring radius to the outer ring radius. The "Start Angle" of the sector chart can be set at will. The effect is shown as below.

| • | · | | • | · | | | | | | • | • | | · | | • | | | • | • | · | · | | | | | | | | | | | | | | | | • |
|---------------------------------------|-----------------------------------|----|-----|---|---|---|----|---|---|----|---|---|-----|---|---|-----|----|-----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| · | | | · | • | · | · | • | • | | • | • | · | · | • | • | | | • | · | · | · | · | · | · | • | · | · | • | | | · | | · | · | · | · | • |
| · | · | · | · | · | · | ٠ | ŀ | • | | • | 1 | 4 | CT. | • | - | Ŀ, | | • | · | · | ٠ | ŀ. | · | · | · | · | · | · | · | · | · | · | · | · | · | · | • |
| · | • | • | · | · | · | · | • | • | 4 | 1 | • | ÷ | ł. | • | ÷ | | | 2 | 5 | · | · | · | · | · | · | · | · | · | · | · | · | • | · | · | · | · | • |
| · | • | • | · | • | · | · | • | 4 | | ٠. | 2 | 1 | - | • | - | - 1 | ς. | • | • | ć. | · | · | · | · | · | · | · | · | · | · | · | • | · | · | · | · | • |
| · | · | · | • | • | · | · | | | J | r | • | · | · | • | • | • | | ٦ | • | Ν | · | · | · | · | • | · | · | • | • | · | · | · | · | · | · | · | • |
| • | • | • | • | • | • | • | • | _ | | • | • | • | • | • | • | | | • • | Υ. | | K. | · | · | • | • | • | • | • | • | • | • | • | • | • | · | • | • |
| • | • | • | | • | | • | • | | | • | • | | • | | | | | • | 1 | | ι. | | | • | | • | • | • | • | | | • | | | | • | • |
| ÷ | ÷ | ÷ | ÷ | : | ÷ | ۲ | Û | | | | : | ÷ | : | | | | | : | 1 | | è | Ú. | ÷ | ÷ | | ÷ | ÷ | ÷ | | | | ÷ | ÷ | ÷ | ÷ | ÷ | |
| | | | | | | | | | | | | | | | | | | | | ÷ | | | | | | | | | | | | | | | | | |
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| · | · | · | · | · | · | · | • | • | | • | · | · | · | • | • | | | • | · | · | · | · | · | · | · | · | · | · | · | • | · | · | · | · | · | · | • |
| · | · | · | · | · | · | • | Ŀ, | • | | • | · | · | • | • | · | | | • | · | · | • | Ŀ. | · | · | · | · | · | · | · | · | · | · | · | · | · | · | • |
| • | · | · | · | · | · | · | • | • | | • | • | · | · | • | • | | | • | · | · | · | · | · | · | · | · | · | · | · | • | · | · | · | · | · | · | • |
| • | • | • | • | • | • | • | • | • | _ | • | • | • | • | • | • | _ | | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | ŝ |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | X | 3 | |
| | Aı | | راد | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | AI | ng | he | • | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inside and outside ring ratio(%) 75 🛓 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Start Angle 211 🔹 End Angle 360 🔍 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

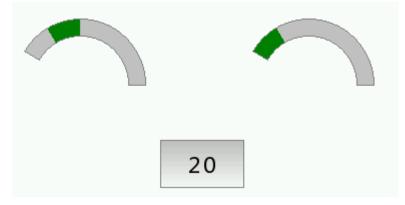
• Туре

The types of the sector chart include "Standard" and "Deviation Type". The filling origin position of the standard sector chart is not adjustable. The origin position of the deviation type is adjustable. Here introduces the usage of bias type pie chart.

As shown as below, after selecting the Deviation Type, the "Origin Pos." can be freely set.



The running effects of the "Deviation Type" and the "Standard" are contrasted as shown as below (the left is deviation type, the right is standard type).



Read Address

The detailed information is referred to: <u>Detailed manual/General functions/Address</u> editor/Standard Byte Address Input.

4.6.6.2.2 Extended

• Border Color and Background Color

As shown as below, the border color and the background color of the sector chart can be set freely. If the "Border Color" and "Background Color" are not checked, the border and the background color are not visible. The sector chart has three Fill Types: "Solid Color", "Pattern" and "Gradient". The Bar Color can be set freely.

| 🔚 Bar Graph and Sector Graph | ? 🗙 |
|---|-----------|
| General Extended Scale and Mark Dynamic Graphics Display | |
| 🕼 Border Color 🔲 Border Color 👻 🃝 🖉 Background Color 📄 Background Color 👻 | |
| Bar Color | |
| Background Color Fill Type SolidColor SolidColor Pattern Gradient | |
| Alarm Limit: | |
| Help Description: | OK Cancel |

Alarm Limit

As shown as below, you can set the upper and lower limit for alarm. Except for the "Blink" function, other functions are same to the "Meter". The detailed settings are referred to: <u>Detailed manual/Component/Bar and Meter/Meter</u>.

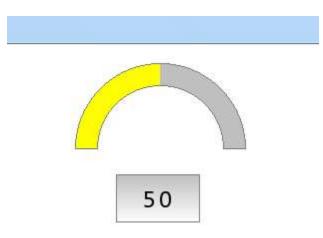
| 📝 Alarm Limit: | | | | | | | | |
|---|------------------|------|---------|--|--|--|--|--|
| Lower Limit: | Constant 💌 | 10 💂 | | | | | | |
| Upper Limit: | Constant 🔻 | 90 👻 | | | | | | |
| Over Top Limit: | 📕 Background 💌 📝 | | 🔲 Blink | | | | | |
| Over Lower Limit: 🔁 Background 🕶 🍠 👘 🔲 Blink | | | | | | | | |
| When the bar color is not pure color, foreground color and background color is needed to be set separately. | | | | | | | | |

• Mark Target Area

When the value enters into the specified Mark Target Area, the color of sector chart will be changed to the Target Area Color. The Target Value and Error Range can be set by Constant or by Variable.

| 📝 Mark Target Area | | | | | | | | |
|--------------------|--------------|-----|--|--|--|--|--|--|
| Target Value: | Constant 🔻 | 0 | | | | | | |
| Error Range: | Constant 🔹 | 0 🛫 | | | | | | |
| | Variable | | | | | | | |
| | Constant | | | | | | | |
| Target Ar | ea Color 🔻 📝 | | | | | | | |

The running results are as shown in the figure below. In this case, the Target Area Color is set yellow.



4.6.6.2.3 Scale and Mark

• Display the percentage

The function is used to display the total percentage of filling part to the entire sector chart. As shown as below, the display font size, font style and font color can be set freely.

| | 🕫 Bar Graph and Sector Graph |
|--|--|
| | General Extended Scale and Mark Dynamic Graphics Display |
| | ☑ Display the Percentage: |
| : •: : : : : : : : : : : : : •: | Display Fonts: Size: 8 🔹 Font: Arial 🔹 🖬 Font Color 👻 🏸 |
| | Display Scale |
| | |

• Display Scale

The "Display scale" usage of the Sector Chart is same tothe Meter but a slightly different, as shown as below. The detailed usage is referred to: <u>Detailed</u> <u>manual/Component/Bar and Meter/Meter</u>.

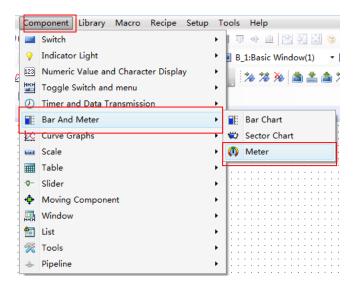
| 🔽 Display Scale | |
|------------------------------|------------------------------|
| ✓ Line | Scale Display Location |
| Line Width | Inside |
| Line Type | Outside |
| Scale | |
| Main Scale Division Number 4 | Main Scale Length: 12 |
| Sub Scale Division Number 3 | Sub Scale Length: 8 |
| Axis | |
| Mark Integer: 3 | Decimal: 0 |
| Font: Size: 8 🔻 F | ont: 微软雅黑 🔹 🖬 Font Color 👻 📝 |

4.6.6.2.4 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.6.3Meter

As shown as below, the Meter component can be added by clicking the menu command "Component/Bar and Meter".



You can add a Meter component by clicking the corresponding tool button in the shortcut tool bar. It is shown as below.



4.6.6.3.1 General

| | 6 |
|--|-------------------------------|
| Meter Plate: Round (Hands Up) + | Masimum Minimum Value |
| | Minimum Value: Comt. + 0 |
| | Meximum Value: Const. • 100 🕏 |
| fiead Address: Use Address Tag | Display Range Scale: |
| The present of the second s | 1 |
| Address Type: [LW •] Address: 0 6 Format/Range) DDC0DD(0-799999): Occupy: 1 - War Data Type: [36-bit Unsigned] • Address Index | ndi. |
| | |
| | |

• Meter Plate

As shown as below, the Meter Plate includes five types: "Round (Hands Up)", "Round (Hands down)", "Upper Semi-Circle", "Lower Semi-circle" and "Arc (Set Automatically)".

| F | s Instrume | ent Com | ponent | | | |
|---|------------|---------|---|----------------------------|-------------|---------|
| | General | Watch | Hand and Scale | Dynam | ic Graphics | Display |
| | Meter | Plate: | Round (Hands Round (Hands Round (Hands Upper Semi-Cir Lower Semi-circ Arc (Set Autom | Up) Down) cle cle | | |

The attributes of the "Round (Hands Up)", "Round (Hands down)", "Upper Semi-Circle" and "Lower Semi-circle" are same. For the Arc Meter Plate, you can freely set the starting angle and ending angle, as shown as below.

| | 20 0 100 | | | | | | | |
|--|----------------|--|--|--|--|--|--|--|
| | | | | | | | | |
| Instrument Component General Watch Hand and Scale Dynamic Graphics Display | | | | | | | | |
| Meter Plate: Arc (Set Automatically) | | | | | | | | |
| Start Angle 221 C End Angle 319 | | | | | | | | |

Read Address

| Read Address: Use Address Tag |
|---|
| Deivce: LOCAL:[Local Register] |
| |
| |
| Address Type: LW 🔹 |
| Address: 0 System Register |
| Format(Range) DDDDDD(0~799999) Occupy: 1 Word |
| Data Type: 16-bit Unsigned 🔻 |
| Address Index |

For details of Read Address, see: <u>Detailed manual/General functions/Address</u> <u>editor/Standard Byte Address Input</u>.

• Maximum Minimum Value

The Maximum Value and the Minimum Value of the Meter can be set by Constant or by Variable.

If you select by Constant, a fixed constant can be set in the position shown in the figure below.

| Maximum Minimum Value | |
|-------------------------|-------|
| Minimum Value: Const: 🔻 | 0 |
| Maximum Value: Const: 🔻 | 100 🔹 |

If you select by Variable, you can specify a word register and enter a value to the word register to change meter during running your project, as shown in the figure below.

| Maximum Minimum Value | |
|-----------------------------|---|
| Minimum Value: Variat 🔹 LW2 | |
| Maximum Value: Variat 🔻 LW3 | (|
| | |
| 20, 60 80 | |
| | |
| | |
| 0 100 | |

• Display Range Scale

Set the upper and lower limit for alarm on the position shown in the figure below. The limit value can be set by Constant or by Variable. After setting the upper and lower limit value, you can also set the colors for value within limit, below lower limit and above upper limit, as shown below.

| 🔽 Display Range Scale: |
|-------------------------------------|
| Lower Limit: Const: 20 |
| Upper Limit: Const: 🔹 80 🔹 |
| Sector Ring W Constant Variables |
| User-defined Outer Radius |
| Sector Ring Outer Radius: 48 🔺 |
| 📕 Color for value within limit 💌 🍠 |
| Color for value below low 💌 📝 |
| Color for value above upp 💌 🍠 |

4.6.6.3.2 Watch Hand and Scale

• Color and Size

As shown in the figure below, the color of the Watch Hand and Watch Hand Axis, the length and width of the Watch Hand, and the radius of the Watch Hand Axis can be set.

| ument Component | |
|---|---|
| Watch Hand and Scale Dynamic Graphs Watch Hand Color: Watch Hand Length: 48 * Watch Hand Length: 48 * Watch Hand Width: 4 * | Watch Hand Asis Color: Asis Color: Asis Color: |
| Chaptay Scale Chapt | Watch Hand Style |
| Scale Main Scale Division Number 5 @ Sub Scale Division Number 2 @ Anix Mark Integer 3 @ De | Main Scale Length 12 💽 Sub Scale Length: 8 🚭 Location Imide • |
| Fort: Size | |

• Display Scale

As shown as the figure below, you can modify the color, the width and type of the meter scale line after the "Display Scale" is checked.

➤ Line

| ✓ Display Scale |
|------------------|
| ☑ Line |
| 📕 Line Color 👻 📝 |
| Line Width 📃 🔻 |
| Line Type 📃 🔻 |

Scale

| Main Scale Division Number 5 | Main Scale Length 12 |
|------------------------------|------------------------|
| Sub Scale Division Number 2 | Sub Scale Length: 8 |
| 🖉 Auit | |
| Mark Integen 3 | Decimat 0 |
| Fort See 8 + For | ± Arial + Fort Color * |
| ront size a to rur | |

You can set the "Main Scale Division Number", the "Main Scale Length" and the "Sub Scale Length" here. The Location of the scale can be set "Inside", "Outside" and "Center", as shown as below. The "Sub Scale Division Number" and the "Axis" are checked by default. The default sub scale division number is 2. If the "Sub Scale Division Number" and the "Axis" are unchecked, that means the sub scale and axis are not displayed.

| Scale | | 2010 | | | | | | |
|-----------------------------|---|------|-----------------------|-----|-----|----------|---------|---|
| Main Scale Division Number | 5 | \$ | Main Scale Length: | 12 | - | | Inside | - |
| Webershield and | - | 141 | P. L. P. L. L. Martin | 100 | 141 | Location | Insde | • |
| V Sub Scale Division Number | | 181 | Sub Scale Length: | 8 | 100 | | Inside | |
| V Avis | | | | | | | Outside | |
| 14 A005 | | | | | | | Center | |

If the "Mark" is not checked, the meter will not display the scale value. After the "Mark" is checked, you can set the number of the integer digits and the decimal digits of the scale value and also can set the font styles of scale value. If you select the "Reverse scale order", then the maximum value and the minimum value will switch their positions.

| V Mark | Integer: | 3 | * * | Decimal: | 0 | ▲ ▼ |
|---------------|-------------|-------|--------|----------|---|----------------|
| Font: | Size: 8 | • | Font: | Arial | • | Font Color 👻 🍠 |
| 🗸 Re | verse scale | order | | | | |

• Watch Hand Style

Click the button "Watch Hand Style", you can select a style of watch hand for the meter.

| General V | Antch Hand and Scale | Dynamic Graphi | cs Display | |
|-----------|--|----------------|----------------------------------|---|
| Wate | th Hand Colon 🔳 h Hand Length ch Hand Width: | Section States | Watch Hand Avis Color: Avis Colo | |
| ₩ D9 | uplay Scale | | 10 | 1 |
| and Type | | | | |
| achitanti | Wetchhand2 | Watchhand3 | Watchhandé Location (Im | |
| addrend5 | Watchhandti | Watchhand? | WatchbardB | |
| | | | | |
| | | | Select Carcol | |

4.6.6.3.3 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.7Curve Graphs

4.6.7.1Trend Curve

The "Trend Graph" component is a curve formed by the sampling data.

4.6.7.1.1 General

| Points per screen: 10 | | Time span per screen: Came . 1440 | Mere |
|---|-----------------------|--|-----------------|
| Direction: Horibortal + | | Brouce Method | |
| Pauroe: | 80 | 🗑 Scrollbar Scrollbar Width 20 💆 🗑 Silde Note Drily for capacities screen. | |
| | | | |
| Suspension Of Recovery Times | | | |
| Vise Cursor | | | |
| Display/Hide the Curson: UBD | 12 | Curner Color: | |
| LBO+1: Show LBO+0: Hide When the ca | the Cursor | moving surror by slick or slide actions. | |
| Cersor Data Area: UW0 | | | |
| Hour, M | limite, Second and m | firm represented by the carsor position (Year, Mor & second) ones the Carnett Value of the Carne from Charnel 1. | (and the second |
| 200m | | | |
| Two-point Touch Zooming/only | for multi-souch hards | vare) | |
| Register Control Zooming | | | |
| Register Control Zooming | | | |
| I Register control zooming | | | |
| Course course strong | | | |

• Display Points of Each HMI

This option means the number of the displayed sampling data points on the screen. The default is 10. The max number of points can not more than the width of the used HMI resolution. For example, the 7-inch HMI device with the resolution 800*480 is used. Then the max number of points is 799.

• Direction

The option "Direction" is used to set the display direction of the trend curve. It is set "Horizontal" by default. It can be set "Vertical", too.

Pause

A bit register address can be set here. When the bit register is ON, the trend curve is not refreshed (but the sampling is not paused). When it is OFF, the trend curve is refreshed in real time.

• Time range per screen

You can set the time axis range, there are constants and variables optional, variables are controlled through the register, maximum time can be set as1440 minutes.

Browse Method

The methods of "Scrollbar" and "Slide" are all supported to view the trend curve. You can check anyone or two. But the "Slide" is only valid for the capacitive HMI device.

Use Cursor

You can check the option "Use Cursor". This option is used to view the trend data crossed by the cursor and the data sampling time. The settings are shown as below.

| Vse Cursor | |
|--------------------------|---|
| Display/Hide the Cursor: | LB1 🔲 Cursor Color: 📕 👻 🍠 |
| | LB1=1: Show the Cursor LB1=0: Hide the Cursor When the cursor is visible, enable moving cursor by click or slide actions. LW0 |
| | LW0 Use 7 registers to define the time represented by the cursor position (Year, Month, Day, Hour, Minute, Second and mili-second) LW7 The Pressing Data Format Stores the Current Value of the Curve from Channel 1. |

Display/Hide the Cursor

Here you can set a bit register. If the bit register is ON, the cursor is displayed. If it is OFF, the cursor is hidden. When the cursor is visible, you can click or slide to move the cursor.

Cursor Color

The default color of the cursor is red. You can modify it according to the actual needs.

Cursor Data Area

You need to set a starting address of a continuous word registers area here to save the information of the cursor data. The first 7 word registers save the sampling time of the trend data which is crossed by the cursor. They are year, month, day, hour, minute, second and millisecond. From the eighth register, the sampling data crossed by the cursor is saved. The data format should be consistent with which defined in "Data Sampling".

For example, the starting address of the cursor data area is set LW100. Then the registers from LW100 to LW106 save the sampling time information of year, month, day, hour, minute, second and millisecond. If the "Data Sampling" that you use only defines a data in "16-bit Unsigned" data type and the channel number is 1, then the LW107 register saves the sampled data at this time. If the "Data Sampling" that you use has the data sampled from two channels, the data type of the first channel is "Single precision floating point number" and the second channel is "16-bit Unsigned", then LW107 (Single precision floating point number) saves the data of the first channel and LW109 (16-bit Unsigned) saves the data of the second channel. Other data formats can be done in the same matter.

Use Zoom

This option is optional. After it is checked, the option "Two-point Touch Zooming (only for multi-touch hardware)" can be check. This option is only valid for the capacitive HMI device. After you enable this function, the curve will be zoomed out when two fingers slide outward in the curve zone and the curve will be zoomed in when two fingers slide inward in the curve zone.

The option "Register Control Zooming" is used to zoom by using a word register. After check it, a word register needs to be given here. The value of this word register is the percentage of zooming. For example, the value of the word register is 50. It means that only 50% is displayed and the curve is scaled a half. If the value of the word register is 200, it means 200% is displayed and the curve is zoomed to 2 times. The settings are shown as below.

| Zoom | |
|---|-----|
| Two-point Touch Zooming(only for multi-touch hardware) | |
| ☑ Register Control Zooming: | |
| LW200 | |
| LW200 The zooming value represents the percentage coefficient of the number of point being displayed on the screen. For example, when the zooming value is 50 and data poi are 20, 50% of the 20 data points will be displayed on the screen. Zoom value is 0 mea | nts |
| there is no zoom-in or zoom-out. | |

4.6.7.1.2 Channel

| Trend Chart | 1 🔤 |
|---|--------|
| General Channel () Search Scale Display | |
| Data Source: | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Help Description: OK | Cancel |

In the "Channel" property TAB, you need select a sampling data as the "Data Source". There will be a red exclamation mark here if the "Data Sampling" is not set. You can open the "Data Sampling" settings page to set the required sampling data by click the button

". After the setting is complete, the "Channel" page is shown as below.

| Data Second Information Trigger Type: Cyclic 25 | | | | |
|--|---|------------------------------|-------------|----------|
| sudder that Amera | Upper limits of a | empling point quantity is as | ch chenneh1 | |
| Pause Controlling/No Use | Clear Mode: | | No Use | |
| Historical Data Don't save | 있는 1월 20년 전, 1월 20년 | | | |
| E Hde Charnel Register | | | | |
| hannel Setting | | | | |
| Channel Use | Address | Type | Word Court | Notes |
| 1 7 | LXM0 | precision Roating-point N | 2 | |
| 2 9 | | District Unsigned | 1 | |
| | .13W2 | Er et unageo | | |
| 1Channel Setting | Line Color 📃 🛃 | 🕈 Gree Width 🚃 | | <u> </u> |
| 1Channel Setting II Den Marki W Drawing Connecting Lines | Line Color 📑 💌 | Gree Watth wate Direction | | |
| 10hannel Setting Dot Marks | Line Color 📃 🛃 | 🕈 Gree Width 🚃 | | 100 |

After you selecting a sampling data for the option "Data Source", all channels of this sampling data defined in the "Data Sampling" will be displayed in the "Channel Setting" property box.

For the above figure, the sampling data "Temperature Humidity" is selected as the data source. This sampling data has two channels. The data of channel 1 is from LW0 register and the data type is "Single precision floating point number". The data of channel 2 is from LW2 register and the data type is "16-bit Unsigned".

• Data Source Information

In this area, you can see the various attributes of the selected sampling data defined in the "Data Sampling".

There is an option "Hide Channel Register" here. After it is checked, you need to specify a word register. When the bit0 of this word register is ON, hide the curve of Channel 1. When the bit1 is ON, hide the curve of Channel 2. Other channels can be done in the same matter. The setting is shown as below.

| inte Sourcei | 1/Temperature | Humidity + | - Ba | | |
|---|---------------|---|--|--------------------|---------|
| Deta Source | Information | | | | |
| Trigger Type | e Cycle15 | Upper limits of | f sampling point quantity in ea | ch channeli.1 | |
| | olling/No Use | Ciner Modes | | No Ose | |
| (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) | de Don't se | A CONTRACTOR OF | | Auto Step | |
| 2 Hide Che | mel Register | LW500 | | | |
| harnel Settin | u u | | | | |
| Chantel | Use | Address | Туре | Word Count | Notes . |
| III | - R | LWO | A CONTRACTOR OF A CONTRACTOR O | 1 | |
| + | | £W0 | precision floating-point h | | |
| 2 | X | UW2 | 28-bit Unsigned | 1 | |
| 1Charrol Set | 2 | 1.W2 | 18-bit Unuigned | 2 | |
| 1Charrol Set | 2 | | 18-bit Unuigned | | |
| 1Charred Set | 2 | UW2 | Lis-bit Unsigned | 2 • • Line Type | 100 |

For example, the option "Hide Channel Register" is set LW500. Then the curve of Channel 1 is hidden when the bit 0 of the LW500 is ON. The curve of Channel 2 is hidden when the bit1 of the LW500 is ON.

Channel Setting

All channels of the data source are displayed here. They are all checked in the "Use" Column by default. It means they are all set to display on the trend curve.

Note:

If one channel is not checked in the "Use" column, that means the data of this channel will not be displayed on the trend curve. So the corresponding bit of the word register specified in the option "Hide Channel Register" cannot control the curve of this channel to display or hide.

Click one channel in the "Channel Setting" area, the relevant attribute settings of this channel will be displayed below. It is shown as below.

| neral Channel | Search Scale | Display | | | |
|------------------------------|-----------------|---------------------|--------------------------|---------------|--------------|
| lata Source: 1 | Temperature, Ha | esidêy - | | | |
| Date Source In | Ipresation | | | | |
| Trigger Type: | Cyclic15 | Upper limits of sar | mpling point quantity in | eech channel1 | |
| Pause Control | ing:No Use | Clear Mode: | | No-Line | |
| Historical Data | Don't save | Maximum Item Qu | writty | 1000 | E Artic Stop |
| 🔄 Hide Chann | el Register LW! | 00 🔤 | | | |
| hannel Setting | | | | | |
| Charstel | Unit | Address | Type | Word Court | Makes |
| 1. 11. 11 | | 1.910 | precision Roading-point | 12 I I | |
| | | | | | |
| 1.1 | * | | 18-bit Unsigned | | |
| 1Charrel Settin Dot Marke | 4 | |) Live Wath (| • Ure Type | |

Dot Mark

This option is not checked by default. After it is checked, you can set the dot color, the dot size and the dot style for each point of the sampling data.

| ☑ Dot Mark: | Dot Color | - • 🖉 | Dot Size | 10 • | Dot Style | • |
|-------------|-----------|-------|----------|------|-----------|---|
| | | | | | | |

Drawing Connecting Line

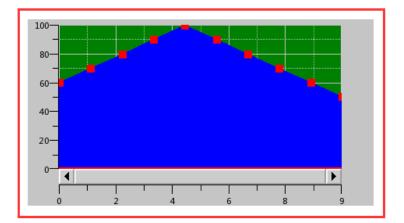
This option is checked by default. If it is checked, you can set the line color, the line width and the line type for the connecting line of the sampling data points.

| Drawing Connecting Line: | Line Color | 2 | Line Width | Line Type | |
|--------------------------|------------|---|------------|---------------|--|
| | | | | 21 | |

Projection along X-axis Direction

This option is not checked by default. After it is checked, the trend curve from the first point to the current sampling point will project to the X-axis to form a closed figure.

For example, the option "Dot Mark" and the option "Projection along X-axis Direction" are all checked, the display effect is shown as below.



Minimum Value

The minimum value of the trend curve can be set by Constant or by Variable. When set it by Variable, the data type of the specified word register should be consistent with the data type of the selected sampling data channel.

Maximum Value

The maximum value of the trend curve can be set by Constant or by Variable. When set it by Variable, the data type of the specified word register should be consistent with the data type of the selected sampling data channel.

4.6.7.1.3 Search

The option "Enable Search Function" is not checked by default in the "Search" property TAB. After it is checked, the settings are shown as below.

| moral Chancel Search | O Scale Display | |
|------------------------|---|----|
| 🕑 Erable Search Functi | er. | |
| E Search By Date | 🗧 Search By Time Range 🛛 😳 Search By Sequence | 63 |
| C Register Query Mo | de . | |
| Search Trigger Bit | Bo | |
| Search Register | Ho | |
| - | | |
| Eport CSV | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

There are three fixed search modes supported: "Search By Date", "Search By Time Range" and "Search By Sequence". The "Register Query Mode" is a dynamic search mode. The default search mode is "Search By Date".

Search By Date

The settings of "Search By Date" are shown as below.

| rd Chart | | 1.4 |
|--------------------------|--|-----|
| eral Charvel Search | Scale Display | |
| Z Enable Search Function | 2 | |
| | | |
| # Search By Date | Search By Time Range 🛛 © Search By Sequence | |
| C Register Query Mod | | |
| | | |
| in ordinary during upon | | |
| a contract start and | | |
| a orderer deret une | | |
| Search Trigger Sit: | 1820 | |
| | 1820 | |
| | | |
| Search Trigger Bit | 1820 III. Show the results filtered by range. 2. so filtering | |
| | LB20 I show the results litered by range. 2 no filming LW202 III | |
| Search Trigger Bit | LB20 1: chow the results filtered by range. 2: no filtering | |

"Search Trigger Bit"

The option "Search Trigger Bit" is used to specify a bit register to trigger the search function. When the trigger bit is ON, the filtered results are displayed. When the trigger bit is OFF, the result which is not filtered is displayed.

"Search Register"

The "Search Register" is used to specify word registers to save the information of the search function. The number of the word registers is depending on the search mode.

You can get the information of the used word registers according to the text displayed under the specified address.

For example, select the "Search By Date" mode and specify LW300 for the option "Search Register". Then LW300 saves the search year, LW301 saves the search month and LW302 saves the search day. You can use three numeric value input components connected with the three word registers to give the search conditions in your project.

Search By Time Range

For the "Search By Time Range" mode, the function and the setting of the "Search Trigger Bit" are same to the "Search By Date" mode. The difference is the "Search Register."

When selecting the "Search By Time Range" mode, you should specify a start address of a continuous 12 word registers area for the option "Search Register". The first six word registers save the start date of search, including year, month, day, hour, minute and second. The last six word registers save the stop date of search. The setting is shown as below.

| nd Chart | | 1.6 |
|-------------------------|--|-----|
| eral Charrol Search | icale Display | |
| 2 Enable Search Functio | - | |
| C Search By Date | Search Dy Time Range | |
| | | |
| C Register Query Mod | te . | |
| | | |
| Search Trigger Bit: | (#20 🔳 | |
| | | |
| | LB20 1: show the results filtered by range. | |
| | 2 no Ritering | |
| Search Registern | D no Rhenng LW300 III | |
| Search Register | 2) no filtering LW300 IIII LW300 - LW305: It Shows The search Starting time, in the order of | |
| Search Registern | D no Rhenng LW300 III | |

Search By Sequence

For the "Search By Sequence" mode, the function and the setting of the "Search Trigger Bit" are same to the "Search By Date" mode. The difference is the "Search Register."

For example, select the "Search By Sequence" mode and specify LW300 for the option "Search Register". The settings are shown as below. Then when LW300 is 0, the data of the current day is displayed on the curve. When LW300 is 1, the data of the yesterday is displayed on the curve. Other values can be done in the same matter.

| the states of states | Scale Clapiny | |
|------------------------|---|--|
| Enable Search Function | , | |
| C Search By Date C | Search By Time Range 🔹 Search By Sequence | |
| C Register Query Mod | | |
| | 8 | |
| | | |
| | | |
| Search Trigger Bit: | 1820 | |
| Search Trigger Bit: | LB20 II show the results filtered by range. 2 no filtering | |

Register Query Mode

The "Register Query Mode" is a dynamic search mode. When the "Register Query Mode" is selected, you can specify a word register to dynamically adjust the search mode. If the word register is 0, the "Search By Date" mode will be used. If it is 1, the "Search By Time Range" mode will be used. If it is 2, the "Search By Sequence" mode will be used. The settings are shown as below.

| nd Chart anai [Chartne] Search [] | cale Display | 1.08 |
|---|---|------|
| Enable Search Function | | |
| Search By Date: 01 | earch By Time Kange 👘 © Search By Sequence | |
| Begister Query Mode | 1W050 | |
| | LW350 Oliveanth by Date J.Search by Time Range, 2/Search by Sequence | |
| Search Trigger Bit: | 1820 | |
| | LE20 1: show the results filtered by range. 2: no filtering | |
| Search Register: | LW300 III | |
| | UW900 - UW911: Depending on different search methods, take op to 12 words. | |

4.6.7.1.4 Scale

• X-axis Scale

The source of X-axis value can be set "Use Point Scale Value" or "Use Time Scale Value". The default is "Use Point Scale Value". It is shown as below.

| Use Background Color Back | gro 🐮 📝 🛛 🖉 Use Scale Ae | re Color 🛛 Scale Aera (🔺 🍼 |
|----------------------------------|--------------------------|-----------------------------|
| (X-axis Scale | | |
| Main Scale Division Number | 5 🕏 Main Scale Length | 12 😨 Asis/Scale Color |
| 🗑 Sub Scale Division Numberi | z 🚔 Sub Scale Length | 8 |
| 😢 Display Grid Line 👘 Line Cok 🖈 | 3 | |
| I Mark | | |

The option "Use Point Scale Value" means that the values of the sampling data points are used as the X-axis scale. The option "Use Time Scale Value" means that the time of the data sampling is used as the X-axis scale.

X-axis Scale

The source of Y-axis value can be set "Use ... Channel Maximum Minimum Value" or "Self-setting". The default is "Use 1 Channel Maximum Minimum Value". It is shown as below.

| | | | | 2 Use Background (|
|------|-------------------------|------------------------------------|--|---|
| | | | own Scale | X x-axis Scale |
| -13 | Anin/Scale Color | n Scale Lengthr 12 🔯 | lain Scale Division Numberi 🛛 5 🛊 | Main Scale Division |
| 10. | ARE SERVICED TO SERVICE | o Scale Langth: 8 👘 | Sub Scale Division Number: 2 😭 | 12 Sub Scale Divisio |
| | | | Display Grid Line 🔛 Line Cok 💌 🌱 | 2 Display Grid Live |
| | | | Mark | W Merk |
| | | • Fort Color • | Fort Size II · Fort Aria | Fort |
| | | | | |
| | | ale Value | Dise Point Scale Value III Use To | @ Use |
| | | | 1201103611 | V-anix Scale |
| * | Anis/Scale Color | 1112 | ain Scale Division Numberi 5 🚖 | Main Scale Division |
| 1042 | | b Scala Langth: 🛛 🕸 | Sub Scale Division Number: 2 | 2 Sub Scale Divisio |
| | | | Display Grid Line Cole * 🕐 | 2 Display Grid Lin |
| | | (A) | Mark Energen: 3 🖶 Decimal | 2 Mark Interge |
| | | | | |
| 2 | Avis/Scale Color | ale Value In Scale Length: 12 🛱 | Dise Point Scale Value Dise Tri anin Scale Arr Scale Scale Division Number Scale Division Number zub Scale Division Number zub | Use V-axis Scale Main Scale Division Sub Scale Division |

After you select the option "Use ... Channel Maximum Minimum Value", you can specify a channel number. And the minimum and the maximum values of this channel will be used as the minimum and the maximum values of the Y axis.

If the option "Self-setting" is selected, you can set the maximum and minimum values by yourself as the source of Y-axis. The minimum and maximum values can be set by Constant or by Variable. The settings are shown as below.

| Trend Chart | | | | 1.4.4 |
|---|---|-------------|-------------------|-------|
| General Channel Search Scale Di | stelwy | | | |
| 2 Size Background Color | kgro 💌 🖉 Une Scale A | ara Color | Scale Aera C 💌 🍠 | |
| 2 X-exts Scale | | | | |
| Main Scale Division Number: | 5 🚖 Main Scale Length | 12 🔹 | | - |
| 😥 Salo Scale Division Number: | 2 Sub Scale Length | 8 🚭 | Asin/Scale Color | 1 |
| Display Grid Line Line Cole | | | | |
| The second s | | | | |
| 2 Mark | | | | |
| | | Color in CR | | |
| Form Size K + | | Color 💌 💌 | | |
| Form Size E + | Fort Arial • Port • | Color 💌 🍼 | | |
| Form Size E + | | | | |
| Form Size 8 • 1 # One Point Scale Value | | | | - |
| Form Size 8 • 1 ® Use Point Scale Value Ø V-ann Scale Mern Scale Chryster Hamber: | C Use Time Scale Value | Color * * | AsityScale Tolor | -1 |
| Form Size 8 • 1 ® Use Point Scale Value IV -ann Scale Man Scale Chryster Hamber: | 0 Une Time Scale Veka 5 👼 Main Scale Length 2 👼 Scale Length | | AsityScale Color | -1 |
| Form Size & | O Use Time Scale Vaka 5 (*) Main Scale Length 2 (*) Sah Scale Length * (*) | | Asin/Scale Color | -I |
| Form Size & | O Une Time Scale Value 5 (a) Main Scale Length 2 (a) Salt Scale Length (a) (b) Decimal) 0 (b) | 12 💌 8 🕷 | Asin/Scale: Color | e |
| Form Size R + 1 * Use Point Stale Value Value Point Stale Value Man Stale Denner Hember: * Sub Stale Division Number: * Display Grid Line * Display Grid Line * Display Grid Line * Display Grid Line * Sub Stale Denner + 1 | O Une Time Scale Value 5 (a) Main Scale Length 2 (a) Salt Scale Length (a) (b) Decimal) 0 (b) | | Asin/Scale Color | al |

For more details, please refer to: Detailed manual/Component/Scale.

4.6.7.1.5 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.7.2XY Chart

The "XY Chart" refers to the curve formed by the corresponding data points which are comprised by a set of data registers or two different sets of data registers. All settings are described below.

4.6.7.2.1 General

| General Channel Sc | ale Display | | |
|------------------------------|---|--|-----------|
| Refresh Mode Cyclic Crigs | and . | Data Point | |
| Sampling Cycle | 1 × X 5 + | Constant * | 10 🖨 |
| anithed doe | * [F] * [E] [S] | (Constant | 10 (*) |
| | | Control Setting | |
| | | E Pause Control | |
| | | E Clear Control | |
| Use Cursor | | | |
| Display/Hide the Cu | man: LBO | Cursor Color: 📰 Cursor | Colon . |
| | LBO=1:Display the Cursor. LBO=0: Hide the Cursor. When the cursor is visible, and | ble moving cursor by click or slide as | tions. |
| Cursor Data addres | | | |
| | LWD: Current Cursor Coordina LWD: Current Cursor Coordina | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | 2 | | - |
| Help Description | 201 | | OK Cancel |

Refresh Mode

The "Refresh Mode" includes two types: "Cyclic" and "Triggered".

> Cyclic

The default refresh mode is "Cyclic". The default sampling cycle period is 1 second. That means the curve is refreshed every 1 second. The minimum sampling cycle period is 0.1 second.

> Triggered

After you select "Triggered" refresh mode, you need to specify a bit register and select the "Trigger Mode". The Trigger Mode can be set "Bit" or "Word".

For the "Bit" trigger mode, there are three "Trigger Condition": "OFF \rightarrow ON", "ON \rightarrow OFF" and "OFF \leftrightarrow ON". You can choose one of them. The settings are shown as below.

| Trigger Mode: Bit Trigger Condition: ON OFF ON | Trigger Mode: Bit Trigger Condition: ON OFF OFF-=ON Use Cursor Display/Hide the Cursor: | eneral Channel Scale efreuh Mode O Cyclic III Triggere | d | Data Print | |
|---|---|---|-------------------------|---|----------|
| Trigger Candition: ONOFF - ONOFF OFFON Use Carsor Use Carsor Carsor Use Carsor Use Carsor U | Trigger Candidate: ON OFF OFF->ON Use Carsor Use Carsor Display/Hide the Carsor: LB0=1:Display the Carsor. LB0=1:Display the Carsor. Use Carsor Color: Control Carsor Color: Control Carsor Color: Control Carsor Color: Co | Address LB0 | | Constant + | 10 🗯 |
| Control Setting ONOFF OFF-SON Plause Control Clear Clear Clear Clear Clear Clear Clear Clear Clear C | Control setting ON -> OFF OFF-> ON Use Consor Use Consor Display/Hide the Cursor: LB0 LB0=LD/splay the Cursor. LB0=C Hide the Cursor. Use Cursor Color: Consor Color: Col | | | | |
| ON + OFF OFF-+ON Peuse Control Clear Control Clear Control Clear Control Cursor Colon Clear Colon Clear Colon Clear Colon Clear Colon LB0=1.0 isplay the Cursor. LB0=0: Iside the Cursor. LB0 | ON -> OF OF->ON OF OF->ON OF OF->ON OF | CONTRACTOR OF THE PARTY OF THE | | Control Setting | |
| E Use Cursor Displey/Hide the Curson LB0=1.Display the Curson LB0=1.Display the Curson LB0=1.Display the Curson LB0=0: Hide the Curson When the cursor is visible, enable moving cursor by click or slide actions. Cursor Data address LW0 LW0 LW0 LW0 LW0 LW0 LW0 LW0 | E Use Cursor Display/Hide the Cursor: LB0 I Cursor Color: Corror Color: | ON | +OFF | Pause Control | |
| Display/Hide the Curson: LB0 Curson Colon: Curson Colon: Curson Colon: Curson Colon: Curson Colon: Curson Colon: Curson: LB0=00: Hide the Curson: LB0=00: Hide the Curson: When the curson is skible, enable moving curson by click or slide actions. Curson Data address: LW0 IIII LW0 IIIII LW0. Curson: Coron Colonitate X Value | Display/Hide the Curson: LB0 III Curson Colon: Curson Colon: Curson Colon: Curson Colon: Colo | | | Clear Control | |
| LB0=1.0 isplay the Cursor. 1.00-0: thide the Cursor. When the cursor is visible enable moving cursor by click or slide actions. Cursor Data address: LW0 IIII LW0 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | LB0=1.Display the Cursor. 100-0: Hide the Cursor. When the cursor is visible, enable moving cursor by click or slide actions. Cursor Data address LW0 LW0 LW0: Current Cursor Coordinate X Value | Use Corsor | | | |
| LID=40 Hide the Curson. When the cursor is sible, enable moving cursor by click or slide actions. Cursor Data address: LW0 Intervent Cursor Coordinate X Value | LID=<0: Hide the Cursor. When the cursor is sisble, enable moving cursor by click or slide actions. LW0 LW0 LW0 LW0: Current Cursor Coordinate X Value | Display/Hide the Curso | n 180 | Cursor Color: E Cursor | Color: * |
| Cursor Data address LW0 III LW0: Cursor Coordinate X Value | Cursor Data address LW0 III LW0: Current Cursor Coordinate X Value | | 180+0: Hide the Cursor. | iowing cursor by click or slide ac | tions. |
| | | Cursor Data address | LW0 | 2015 - 121 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 122 - 12 | |
| LW1: Current Cursor Coordinate Y Value | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

For example, if the trigger condition is set "OFF \rightarrow ON", that means the XY curve will be refreshed when the specified bit register is changed from OFF to ON.

There is an option "Auto Reset" for the trigger condition "OFF \rightarrow ON" and "ON \rightarrow OFF". If you check it, the bit register state will be reset after it is changed.

For the "Word" trigger mode, the details are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Logical Control</u>.

• Data Point

The default value is 10. The range is from 2 to 4096. The option "Data Point" can be set byConstant or by Variable.

• Control Setting

Pause control

If you check this option, a bit register needs to be specified to control the Pause function. When the bit register is ON, the XY chart is paused and not be refreshed.

Clear control

If you check this option, a bit register needs to be specified to control the Clear function. When the bit register is ON, the data of the current XY chart is cleared.

Use Cursor

After this option is checked, some parameters need to be set. The settings are shown as below.

| Charles where a state of | Display | 10.000 | |
|--------------------------|--|------------------------------------|-----------|
| efrech Mode | | Data Point | |
| 🖯 Cyclic 🛛 🕸 Triggered | | 40 | |
| Address LBD | 18 I | Constant + | 10 🚔 |
| Frigger Mode: 🖷 Bit | () Word | | |
| Ingger Condition: ON- | ·*OFF * | Control Setting | |
| | | | |
| | | El Pause Control | |
| | | International Action in the second | |
| | | Clear Control | |
| Use Curnor | | | |
|) one control | | | |
| Display/Hide the Cursor | Data an entry of An head Standard and | Cursor Colon: Eurson | Colon • 💽 |
| | LB0=1:Display the Cursor. LB0=0: Hide the Cursor. | | |
| | When the sursor is visible, enable | moving cursor by slick or slide a | ctions. |
| | LWD | | 222641 |
| Cursor Data address | LWO | | |
| Curnor Data addressi | LWO: Current Cursor Coordinate) | | |
| Cursor Data address: | Then the teast a new composite the teast | | |
| Curice Data addressi | LWO: Current Cursor Coordinate) | | |
| Currior Data addressi | LWO: Current Cursor Coordinate) | | |
| Curso: Data address: | LWO: Current Cursor Coordinate) | | |
| Cursor Data address | LWO: Current Cursor Coordinate) | | |
| Cursor Data address | LWO: Current Cursor Coordinate) | | |
| Cursor Data address | LWO: Current Cursor Coordinate) | | |
| Cursor Data address | LWO: Current Cursor Coordinate) | | |

Display/Hide the cursor

Same to the Trend Curve, a bit register needs to be specified to control the cursor display or hide.

Cursor Color

The cursor color is set here.

Cursor Data address

Similarly, you need to set a starting address of a continuous word registers area here to save the coordinate data information of which the cursor is crossed with the XY chart. The data type is depended on the setting in the "Channel" property TAB. For example, the data type is set "16-bit Unsigned in the "Channel" property TAB and the first starting register address is set LW100, then the data of the cursor (X, Y) is (LW100, LW101). If the

data type is "Single-precision Floating-point Number", then the data of the cursor (X, Y) is (LW100, LW102). Other data types can be done in the same matter.

4.6.7.2.2 Channel

The "Channel" property TAB is shown as below.

| | | | | | 1480 |
|---|--------------------|--|---|----------------|------|
| ieneral Channel Scale Displa | Y. | | | | |
| hamel Numberi 1 | | | | | |
| harnel Settings | | | | | |
| Channel X Address | V Address | - | Туре | Remark | |
| LW0 In | TIMI | | 16-bit Unsigns | 1 | |
| | | | | - | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Channel Setting | | | | | |
| Use Dot Mark | | | | | |
| | | | | | |
| Draw connecting line Line Co | iar 🔳 Line Colo | r * F Line Width | | · Line Style - | |
| | | | | | |
| Introduction in the second state | Carlo Carlos I. | in the second second | server to the servers | 1.1.1 | |
| Projection along X-axi | e Direction | Projection alo | ng Y-axile Direc | 6om | |
| 1997 I. | e Direction | Projection alo | ng Y-axile Direc | 6on | |
| X-asite | | | | | |
| X-exis: Minimum Value: Constant + | e Direction 0 💌 | Maximum Value | | 6on 100 | 4 |
| X-asis: Minimum Value: Constant + | | | | | * |
| X-asiis Minimum Value: Comtant + Y-asiis: | 0 📩 | | Constant + | | |
| X-asis; Minimum Value: Constant + V-asis; Minimum Value: Constant + | 0 (*) 0 (*) | Masimum Value Masimum Value | Constant • | 100 | |
| X-asis; Minimum Value: Constant + V-asis; Minimum Value: Constant + | 0 (*) 0 (*) | Masimum Value Masimum Value | Constant + | 100 | |
| X-adia Minimum Value: Constant • V-adia Minimum Value: Constant • Channel address occupation des | 0 (*) 0 (*) | Maximum Value Maximum Value 3V address | Constant • | 100 | |
| X-delis Minimum Value: Constant • V-adic Minimum Value: Constant • Channel address occupation des XY Continuous Address | 0 (*) 0 (*) | Maximum Value Maximum Value 3V address X0 = LW0 | Constant • | 100 | |
| X-still Minimum Valuet Constant • V-solic Minimum Valuet Constant • Channel address occupation des | 0 (*) 0 (*) | Maximum Value Maximum Value XV address X0 = LW0 X1 = LW2 | Constant. • Constant. • converponding VD : LW1 Y1 : LW3 | 100 | |
| X-delis Minimum Value: Constant • V-adic Minimum Value: Constant • Channel address occupation des XY Continuous Address | 0 (*) 0 (*) | Maximum Value Maximum Value XV address X0 - LW0 X1 - LW2 X2 - LW0 | Constant. • Constant. • converponding VD : LW1 Y1 : LW3 | 100 | |
| X-delis Minimum Value: Constant • V-adic Minimum Value: Constant • Channel address occupation des XY Continuous Address | 0 (*) 0 (*) | Maximum Value Maximum Value XV address X0 = LW0 X1 = LW2 | Constant. • Constant. • converponding VD : LW1 Y1 : LW3 | 100 | |
| X steis Minimum Value: Constant + V-axis: Minimum Value: Constant + Channel address occupation des XV Continuous Address | 0 (*) 0 (*) | Maximum Value Maximum Value XV address X0 - LW0 X1 - LW2 X2 - LW0 | Constant. • Constant. • converponding VD : LW1 Y1 : LW3 | 100 | |
| X seis Minimum Value: Constant • V-sois: Minimum Value: Constant • Channel address occupation des XY Continuous Address | 0 (*) 0 (*) | Maximum Value Maximum Value XV address X0 - LW0 X1 - LW2 X2 - LW0 | Constant. • Constant. • converponding VD : LW1 Y1 : LW3 | 100 | |

Channel Number

The default value of the "Channel Number" is 1. The XY chart can display up to 16 channels simultaneously.

• Channel Settings

You can define the channel information in the "Channel Settings" table: the X address and the Y address are continuous by default. As shown as above, the default starting X address is LW0 and the default starting Y address is LW1. They are continuous. If you check the box in front of the Y address, the Y address can be not continuous with the X address. For example, you can set the starting Y address LW100.

> Type

Select the data type for the current channel according to the actual needs.

Remark

You can note the name of the curve for the current channel in the "Remark" column. For example, channel 1 is noted as "Disc A track".

Same as the Trend Curve, selecta channel in the "Channel Settings" table, there are many parameters can be set for the selected channel in the following "Channel Setting". The most parameters are same to the settings of the Trend Curve. The option "Projection along Y-axis Direction" is added here. The meaning of this option is same to the "Projection along X-axis Direction" but the direction is different. The Minimum Value and the Maximum Value of the Y-axis can be set different with X-axis. They can be set by Constant or by Variable. The default range of the Minimum Value and the Maximum Values from 0 to 100. The detailed settings can be referred to the "Channel" property TAB of the Trend Curve.

For the information of the occupied addresses by the current channel, it is depended on the data type of this channel. You can view the text which is noted below the "Channel Setting". It is shown as below.

| | el Number: 1 | ÷ | | | | | |
|--|--|-----------|----------------------------|---|---------------------|---|---|
| | ei Settings | | | | | - | |
| hann | el X Address | - | Y Address | | Type | Remark | |
| | LWO | H | LWI | | 16-bit Unsign: * | | |
| | | | | | | | |
| E Us | rnel Setting e Dot Mark: ew connecting line Un El Projection along 3 o | | Xrection | | h | 811 | |
| C Us | e Dot Mark: ew connecting line. Un Projection along 7 c num Value: Constant. | X-axile D | | | ong Y-axile Directi | e presenta de la seconda de | 0 |
| E Us Z Dy X-asi Minin Y-asi | e Dot Mark: ew connecting line. Un Projection along 7 c num Value: Constant. | X-asile C | Xrection | Projection al | org Y-avile Directi | 01 | |
| E Us Dy X-asi Minin Y-asi Minin | e Dot Mark: aw connecting fine. Un Projection along 7 to num Value: <u>Constant</u> 7 e | X-aoile D | Nrection 0 (*) 0 (*) | Projection al Maximum Value Maximum Value | org Y-avile Directi | oir 100 100 | • |

4.6.7.2.3 Scale

Refer to the "Scale" property TAB of Trend Curve.

4.6.7.2.4 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.7.3Data Group Chart Display

The "Data Group Chart Display" component is a curve comprising of a set data of specified continuous registers.

4.6.7.3.1 General

| Data Block Displaying | | | - P - |
|--|---------|--|--|
| iereral Channel Sca | le Disp | ay | |
| Each screen sampling | points: | 110 🌰 | Refresh Mode © Cyclic © Triggered |
| Di | ection; | Left To Right + | Sampling Cycle 1 👘 X S 🔸 |
| Browse Method: Scrolbar Scrol Side Note: Onl | | States (States) | |
| Control Setting | | | |
| V Use Cursor | | | |
| Display/Hide the Cu | e LBO | 2 | Curser Colon 📕 🔹 💌 |
| | 180 -0 | Show the cursor Hide the cursor te cursor is visible, enab | le moving cursor by click or slide actions. |
| Carsor Data Area: | LW0 | | |
| | LW2Ris | X-axis Points cuse the sampling thore lue of the curve through | sughfare data formatiStorage the current channel 1. |
| V Use Zoom | | | |
| 🛄 Two points tou | ch zoom | ing conly for multi-touch | hardware) |
| 🔝 Register Contr | ol Zoom | Function | |
| Halp Description | | | OK Canon |

• Each screen sampling points

The default value of this option is 10. The minimum value is 2 and the maximum value is less than the width of the used screen resolution. For example, the used screen resolution is 800*480, and then the maximum value of samples per screen is 799.

• Direction

The "Direction" option is set "Left To Right" by default. You can set it "Up To Down" too. They are corresponding to the "Horizontal" and "Vertical" display modes.

The settings of these parameters such as the "Browse Method", the "Control Setting", the "Refresh Mode" and the "Use Zoom" are same to the "XY Chart". The details can be referred to the settings in the "General" property TAB of XY Chart.

Use Cursor

It is not checked by default. After check it, the parameters are shown as below.

| ach screen sampling | points | ho 👘 | Refresh Mode | |
|--|----------|--|--|------|
| 06 | rection | Left to Alght . | Cyclic Triggered Sampling Cycle 1 X | s . |
| Rowse Method: Scrollbar Scrol Side Note: Onl | ibar Wid | et 20 | | |
| Control Setting | | | | |
| Use Cursor | | | | - |
| Display/Hide the Cu | ur 1.80 | ia i | Cursor Colon | 17 |
| | 1.80 =0. | Show the cursor Hide the cursor he cursor is visible, enab | le moving cursor by click or slide acti | ons. |
| Cursor Data Area: | LW0 | 100 | S (S) | |
| | LW2Ris | X-axis Points euse the sampling thors lue of the curve through | sughfare data formatStorage the curr channel 1. | ent |
| Use Zoom | | | | |
| 🗐 Two points too | ah 2008 | ing lonly for multi-touch | hardware) | |
| Register Contr | ol Zoom | function: | | |
| | _ | | | |
| | | | | |

The settings of these options are same to the Trend Curve or the XY Chart, such as the "Display/Hide the Cursor" and the "Cursor Color".

Cursor Data Area

Similarly, you can set a "Word Register" as the starting address of the continuous registers here. The first two word registers are used to save the point number where the cursor stays. The registers from the specified register address + 2 are used to save the data of which the cursor is crossed with the XY chart.

As shown as above, the starting register is set LW0, and then LW0 and LW1 save the point number where the cursor stays. If there are three channels for the XY chart, the data type of the Channel 1 is "16-bit Unsigned", the second channel is "Single-precision Floating-point Number", the third channel is "32-bit Unsigned", then LW2 (16-bit Unsigned number) save the Channel 1 data, LW3 (Single-precision Floating-point Number) save the Channel 2 data, LW5 (32-bit Unsigned) save the Channel 3 data. Other channels can be done in the same matter.

4.6.7.3.2 Channel

| neral Char | nel Scale Dir | iplay | | | |
|-------------|------------------------|--------------------------------------|------------------|-----------------------|-----------------------|
| Channel No | 1 | a | | | |
| Channel Set | ting | | 🗵 From the Start | Address, the Sampling | Address is Continuous |
| Channe | Sampling N | <u>io</u> | Start Address | Data Type | Remark |
| 1 1 | V100 | E LW1 | | 16-bit Unsigne .+ | |
| | | | | | |
| | le nnecting line Li | ne Color 🚺 on in X-axis D o it | | | e Type |

• Channel No.

There is 1 channel by default. A "Data Group Chart Display" component can display up to 16 channels.

• From the Start Address, the Sampling Address is Continuous.

This option is checked by default. If the register of the "Sampling No." for channel 1 in the "Channel Setting" table is set "LW100" and the "Data Type" is "16-bit Unsigned", then LW101 is used to save the first sample data, LW102 is used to save the second, and so on. If the "Data Type" is set "32-bit Unsigned", then LW101 (32-bit Unsigned) saves the first sample data, LW103 (32-bit Unsigned) saves the second sample data. Other data types can be done in the same matter.

If you don't check the option "From the Start Address, the Sampling Address is Continuous.", it means the "Start Address" of the registers to save the sample data can be set independently. The settings are shown as below.

| Charme | Sampling LW100 | and the second se | Star | t Address | Date | | |
|--------|-------------------|---|--------------|-----------|-----------|---------------|---------|
| E. | LW100 | Hel | | | 2004 | Type | Remark. |
| | | | £W200 | | 16-bit Un | sign • | - |
| | | | | | | | |
| Det 1 | connecting line | ction in X-exi | is Direction | | | • Line 100 | Type |

The below parameters setting for the selected channel is same to the Trend Curve or the XY Chart. Please refer to the settings in the "Channel" property TAB of the Trend Graph or XY Curve.

4.6.7.3.3 Scale

Refer to the settings in the "Scale" property TAB of the Trend Curve.

4.6.7.3.4 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.8 Scale

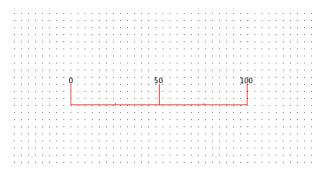
The "Scale" includes four types: "Horizontal Scale", "Vertical Scale", "Arc Scale" and "Round Scale". You can add a Scale component by clicking the menu command or by using the shortcut tools bar.

| Con | nponent Library Macro Recipe Setup | Tools Help |
|----------------|---|--|
| | Switch | 🔸 📅 🚸 🏨 🔛 🤃 🕄 🤫 |
| 9 | Indicator Light | ▶ B_1:Basic Window(1) - 💽 |
| 123 | Numeric Value and Character Display | · on 0 @ @ @ @ . * |
| ню | Toggle Switch and menu | |
| Ø | Timer and Data Transmission | • |
| | Bar And Meter | • |
| 100 | Curve Graphs | • |
| hund | Scale | Horizontal Scale |
| | Table | Vertical Scale |
| -0- | Slider | Arc Scale |
| | Moving Component | Round Scale |
| ы | Window | • |
| 1 | List | • |
| 1 | Tools | • |
| ÷ | Pipeline | • |
| | | · · · · |
| File | View Edit Window Drawing Cor | nponent Library Macro Recip |
| 1 | 🚰 🛃 🦪 🐰 🗈 🚇 🛝 🗡 🄊 Unde | • ▼ (≈ Redo ▼ ab _{ac}] = = = = |
| \mathbf{S}_0 | $\mathbf{S}_1 \ \mathbf{S}_2 \ \mathbf{S}_3$ Status0 • L1 L2 L3 1 | 🔺 1-English (United Sta 🝷 🧕 📄 |
| HIO | 1 - 🤷 - 123 - 🔜 - 🕕 - 🗉 - 100 - | |

The "Horizontal Scale" is mainly used to display a progress bar. The "Vertical Scale" can be used to display the current liquid level of a tank or the charge state of a battery. The "Arc Scale" can display the value of a fuel meter, a speed meter, and other display devices. The "Round Scale" can display the revolution speed, the angle and other parameters.

4.6.8.1General

4.6.8.1.1 Horizontal Scale



First, the option "Horizontal" is selected. Then you can do other settings for the Horizontal Scale component.

| neral Display | 1.04 | | | | |
|--|-----------------------|-------------|-------|------------|------|
| R Horizontal C Vertical C Arc C Circle | Position Position: | ж | 116 🗘 | Y to [| 73 🕻 |
| Line Color \star 💽 | III Locked | Width | 150 🕻 | Height | 57 🕻 |
| Une Type | | | | | |
| cale | | | | | |
| Main Scale Bisection: 2 | | | | Position W | |
| Sub Scale Division Number 2 | Sub Scal | e Length | 28 🛟 | Seconda 18 | |
| 🗹 Asia | | | | | |
| Mark Integer: 3 🗘 Dec | mal: 0 | \$ 3 | | | |
| Fonta: Font Size: 8 Font | n (astran | | Fo | nt 🔹 💽 | |
| Min Value: Constant • 0 | : | | | | |
| Max Valuer Constant • 100 | : | | | | |
| Cale 1s Reverse | | | | | |
| | | | | | |

Line

You can set the line color, the line width and the line type to meet the needs of your project.

- Scale
- Main Scale Bisection

Subdivide the scale in the scale range.

| 5 | • | | | Position Up - |
|------|--------|----------------------------|---|--|
| er 2 | \$ | Sub Scale Length | 6 \$ | Poston OP |
| | | | | |
| \$ | Decima | h 0 🙏 | | |
| • | Fontsi | Arial • | • 📕 Fa | et * 💙 |
| | 0 | \$ | | |
| | 100 | 0 | | |
| | er 2 | er 2 C Decima Fontsi | Sub Scale Length Decimal: 0 Fonts: Artial 0 | Sub Scale Length 6 C Decimal: 0 Fonts: Arial 0 C |

Sub Scale Division Number

The main scale is subdivided singly. The option "Sub Scale Length" can be set to make difference with the main scale.

| Main Scale Bise | ction: | 5 | \$ | | | | tion Up |
|-----------------|-------------|----|---------|-----------------|-----|----------|------------|
| Sub Scale Divi | sion Number | 2 | • | Sub Scale Lengt | h ó | \$ Posit | tion: Up • |
| 🗵 Axis | | | | | | | |
| Mark Int | egeri 3 | \$ | Decimal | 0 | | | |
| Fonta: Fo | nt Size: 8 | • | Fontsi | Arial | - | Fort + | |
| Min Value: | Constant • | | 0 | \$ | | | |
| Max Valuet | Constant + | 1 | 100 | 0 | | | |
| E Scale Is Rev | | | | | | | |

> Mark

The option "Mark is used to set the value of the main scale.

The option "Integer" refers to the number of the decimal integer digits. The option "Decimal" refers to the number of the decimal fraction digits.

You can set the font size, the font color and the font type for the main scale here.

The options "Min Value" and "Max Value" are used to set the range of the main scale.

| Main Scale Biser | ction: | 5 | \$ | | | | in the |
|------------------|-------------|----|--------|---------------|--------|------|---------------|
| Sub Scale Divi | sion Number | 2 | : | Sub Scale Ler | igth 6 | \$ | Position Up • |
| Z Axis | | | | | | | |
| Mark Inte | egen 3 | \$ | Decima | si o 🙏 | | | |
| Fonta: Fo | nt Size: 8 | | Fontsi | | • | Font | - 💽 |
| Min Value: | Constant • | 3 | 0 | : | | | |
| Max Valuet | Constant + | 1 | 100 | 0 | | | |

The options "Min Value" and "Max Value" can be set by Constant or by Variable. If you set them by Variable and specify word registers for them, you can change the range of the main scale by modifying the value of the specified word registers.

| Main Scale Bisection: | 5 | \$ | Position Up |
|--------------------------|--------|--------|---------------------|
| Z Sub Scale Division Nur | nber 2 | 0 | Sub Scale Length 56 |
| Z Axis | | | |
| Mark Integer: 3 | : | Decim | vali p 📫 |
| Fonts: Font Size: | 8 • | Fontai | Arial - Font - |
| Min Valuei Variab | les - | | iiii 🐠 |
| Max Value: Vanab | ies + | | |

Usually, the scale value is displayed increasing from left to right. Sometimes, it needs to be displayed increasing from right to left. To do that, you should check the option "Scale Is Reverse".

| Sub Scale Division Number 2 Sub Scale Length 56 Sub Scale Lengt 56 Sub Scale Lengt 56 Sub Scale Length 56 | Main Scale Bisecti | oni | 5 | : | | | | | |
|---|---------------------|------------|---|--------|-----------------|------|-----|-----------|------|
| Image: Integer: 3 Constrait 0 Fonts: Font Size: B Fonts: Arial Min Value: Constant • 0 Constant • | 🛛 Sub Scale Divisio | on Number | 2 | 2 | Sub Scale Lengt | h 56 | 2 | Position: | Up • |
| W Mark Integen 1 Constant • Fonts Font Size: B Min Value: Constant • O Constant • | | | | | | | | | |
| Min Value: Constant - 0 | Z Mark Integ | en 1 | ÷ | Decimi | | | | | |
| Max Value Constant a 200 * | Fonts Font | Size: B | • | Fontsi | Arial | • | For | t • 💌 | |
| | Min Value: | Constant • | 1 | | \$ | | | | |
| wax escale - 100 + | Max Value: | Constant • | | 100 | : | | | | |

> Axis

You can check the option "Axis" to display the axis of the scale. The position of the axis can be set "Up", "Down" or "Center". Of course, you can remove the check to hide the axis of the scale.

| Main Scale Bise | ection | 5 | • | | | Position | Up + |
|-----------------|--------------|----|---------|----------------|-------|-------------|----------------|
| 🖉 Sub Scale Di | ision Number | | : | Sub Scale Leng | nh 56 | ÷ Position: | Up |
| Axis | | | | | | | Down Centre |
| 2 Mark In | teger: 3 | \$ | Decimal | 6 Č | | | |
| Fonts: F | ont Size: 8 | | Fonts: | Arial | • | Fort * | |
| Min Value: | Constant - | • | 0 | : | | | |
| Max Value: | Constant | | 100 | : | | | |

4.6.8.1.2 Vertical Scale

For the "Vertical Scale", the only difference with the "Horizontal Scale" is the option "Position" in the "Scale" property box. It is shown as below.

| 🗇 Horizontal 🔍 Vertical 🕛 Arc 🗇 Circle | Position | | | |
|--|------------------|--------------------------|--------|--------|
| litine | Position X i | 116 🗘 | YE. | 73 🗘 |
| Line Color · | ELocked Width | 150 \$ | Height | 30 ‡ |
| Line Width | | | | |
| Line Type | | | | |
| Scale | | | | |
| Main Scale Bisection: 5 | | | 1 | 01 |
| Sub Scale Division Number 2 | Sub Scale Length | 56 3 | | side + |
| W Asis | | - 23 - 55 | 1 | glit |
| 379 | imat o 📫 | | 12 | |
| Wark Integer 1 2 Dec | 2120-1 × 1. × 1. | | | |
| | ie Ariol | For | | |
| Mark Integer 1 C Deci Fonts: Font Size: 8 • Font Min Value: Constant • 0 | Arial | • For | | |
| Fants: Fant Size: 🗴 Fant | | • For | | |
| | a: Arial | Efer | | |

4.6.8.1.3 Arc Scale

For the "Arc Scale", there are three differences with the "Horizontal Scale". The options "Starting Angle" and "End Angle" are added in the "Angle" property box. The option "Main Scale Length" is added in the "Scale" property box. The option "Position" in the "Scale" property box is different.

The option "Main Scale Length" is shown as below.

| 1 2 1 3 X 90 atr 17 1 | Z Scale | | 0.1.1 |
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The start angle and the end angle can be set for the arc scale in the "Angle" property box. The settings and the effect are shown as below.

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| ⊷ <u>-</u> | Main State Barrison 5 2 III Solo Scale Distato Navisar 3 2 IV Jack | PoilSon a + | |
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For the option "Position" in the "Scale" property box, the axis position of the scale can set "In", "Out" and "Center".

| Scale | | | | | | | |
|---------------------------|------|-------|--------------------|----|-----|-------------|--------|
| Main Scale Bisection: | 5 | \$ | Main Scale Length: | 30 | | Position: | In • |
| 🛛 Sub Scale Division Numb | er 2 | \$ | Sub Scale Length | 15 | - | Postdon | în |
| 🛛 Axis | | | | | | | Center |
| Mark Integer 3 | \$ | Decim | al: 0 🛟 | | | | |
| Fonts: Font Size: 8 | • | Fonts | Arial | | For | nt * | |
| Min Value: Constant | | 0 | \$ | | | | |
| Max Value: Constant | | 100 | \$ | | | | |
| 🔲 Scale Is Reverse | | | | | | | |

4.6.8.1.4 Round Scale

For the "Round Scale", the only difference with the "Arc Scale" is that there is not "Angle" settings. It is shown as below.

| 🛛 Horizontal 🔿 Vertical 🔿 Arc 👁 C | and the second | Position | | | | |
|-----------------------------------|----------------|------------|-----------|-------|----------|-------|
| U Horizontal IU vertical U Als | rae | Position: | x | 50 \$ | ¥1. | 160 ‡ |
| 2 tine | | | | | | |
| 🔳 Line Color 🔹 💽 | | III Locked | Width: | 250 🗘 | Height | 250 🗘 |
| Line Width | Г | | | | | |
| Line Type | | | | | | |
| icale | | | | | | |
| Main Scale Bisection: 5 | \$ | Main Scal | e Langth: | | in an a | |
| Sub Scale Division Number 2 | \$ | Sub Sci | de Length | 15 | Position | In • |
| 17 Aris | | | | | | |
| | | | | | | |
| Mark Integer: 3 | Decin | nat a | 3 | | | |
| Fonts: Font Size: 8 • | Forits | Arial | | | on • | |
| Min Value: Constant. • | 0 | | | | | |
| Max Value: Constant + | 100 | : | | | | |
| The second second | | 2 | | | | |
| Scale Is Reverse | | | | | | |

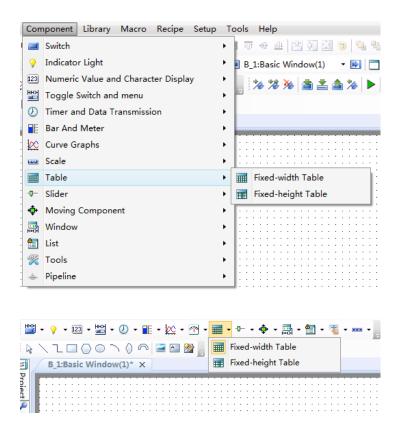
The settings of the "Position" for the Scale component are referred to: <u>Detailed</u> manual/General functions/Drawing/Position.

4.6.8.2Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.9 Table

The "Table" component is used largely in the project. There are two types: "Fixedwidth Table" and "Fixed-height Table". You can add a Table component by clicking the menu command "Component/Table/Fixed-width Table" or ""Component/ Table/ Fixedheight Table". Of course, you can add it by using the shortcut tools bar.



For the fixed-width table, the width of the cells is same and the height of the cells is equal. It is shown as below.

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For the fixed-height table, the width and the height of the cells can be modified by mouse-dragging the split line. It is shown as below.

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4.6.9.1General

The "General" property TAB of the "Fixed-width Table" is shown as below.

| able eneral Display | U Lobie 🖌 |
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| auktion: X) 57 C Y, 39 C | |
| Locked Width 274 CHeight 230 C | |
| heet Background Color: Backgroun | |
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| Split Line Types Split Line Width Split Line | *C *12 |
| - 방법은 것 같은 | |
| Column No.: 7 🔅 🗵 Equal Width 📰 Hide Vertical Split Line | |
| Select | |
| Select Moder Select by Row + 📕 Select Zoo: + 💽 | |
| Grid Poetion: | |
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| Help Description | OK Cancel |

The "General" property TAB of the "Fixed-height Table" is shown as below.

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| Locked Width 675 🕻 | Height III : | |
| wet Background Color: | lackgroun # 💽 | |
| Outline Type: | Line Widds | • Outlen Col - |
| Row Count: 2 | Equal Height III High Horizontal Spile Li | n Espin Line C m |
| Column No. 2 | | |
| Select | | |
| Select Mode: Talanti by Rol | v + E Satur Care - 🖓 | |
| Grid Position | - | |
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The difference with the "Fixed-width Table" is that the options "Equal Height" and "Equal Width" are not checked. Of course, you can check them and make the Fixed-height Table switch to the Fixed-width Table.

Position

The option "Position" in the "General" property TAB is referred to: <u>Detailed</u> <u>manual/General functions/Drawing/Position</u>.

• Appearance settings

The background color, the outline color, the split line color, the outline type, the split line type, the outline width and the split line width can be set for the table component appearance according to your needs and the project configuration.

| noition | | 13- | - 14 | | | |
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| Uncked Width | 317 5 | Height | 161 🗘 | | | |
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| Row Count: | 1. | 7 Squal H | nigte 🖂 Hide Ho | rizonsi Split Line | - | |
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The option "Row Count" and the option "Column No." are used to set the number of the rows and the columns of the table. The option "Equal Height" and the option "Equal Width" can be checked. If they are all checked, the table will be a fixed-width table.

| 5 Table | 14.4 |
|--|---------------|
| General Display Position X 202 V 250 C Elacked Width 160 Neight 100 C Sheet Background Colon Backgroun + V Outline Type | Curtine Cut + |
| Now Count 3 (a) 20 Equal Height Hide Horizontal Split Line Column No.: 3 (b) 30 Equal Height Hide Vertical Split Line Select Select Mode: Telent by Non * Telent Column Column | Spin Dire C |
| Orid Peakine: | |
| Hele Description | OK Carriel |

The option "Hide Horizontal Split Line" and the option "Hide Vertical Split Line" can be checked. You can check anyone or two to hide the split line of the table according to your needs

For example, only check the option "Hide Vertical Split Line". It is shown as below.

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| | Tillacked Width 160 C Height 100 C |
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| 101010000000000000000000000000000000000 | Outline Type . Une Width Outline Col + |
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| | Sow Count 3 🕀 🖉 Equal Height 🖉 Hide Horbontal Split Line |
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Select

In the "General" property TAB, if you check the option "Select", the "Control Settings" property TAB will display.

| neral 🧿 Cantrol Setting | a 🖞 Diaptay. | |
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| onition: X : 60 | C Y: 100 C | |
| Locked Width 160 | C Height 100 C | |
| eet Background Color: | Beckgroun \star 💽 | |
| Outline Type | Use With | Gurline Col Split Line C |
| Split Line Type: Row Count: | 2 2 Equal Height 2 Hide Horizontal Spik Lin | and a state property of the second se |
| Column No.: | 3 😨 🦉 Equal Width 📋 Hide Vertical Split Line | |
| Select | | |
| Select Mode: Select by | Row - Select Colc + | |
| Grid Position | H 0 | |
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Select Mode and Select Color

After checking the option "Select", you can set the color of the row/column/cell which is selected during running the project. The option "Select Mode" can be set "Select by Row", "Select by Column" or "Select by Cell". It determines that the selected is a row, a column or a cell.

| Select | |
|----------------|---|
| | Select by Row |
| Grid Position: | Select by Row Select by Column Select by Cell |

Grid Position

For the option "Grid Position", you need to give a word register to record the selected row number if the select mode is "Select by Row". The first row number is 0.

| V Select | |
|----------------|---|
| Select Mode: | Select by Row 🔹 Select Colc 👻 🍼 |
| Grid Position: | LW0 |
| Ľ | N0:Selected one column, and the up column is 0. |

You need to give a word register to record the selected column number if the select mode is "Select by Column". The first column number is 0.

| Select | | |
|----------------|-----------------------|------------------------------|
| Select Mode: | Select by Column 🔻 | Select Colc 👻 🍠 |
| Grid Position: | LW0 | |
| Ľ | W0:Selected one colum | n, and the left column is 0. |

The effect of the "Select by Row" mode is shown as below.

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The effect of the "Select by Column" mode is shown as below.

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When selecting the mode "Select by Cell", two continuous word registers are occupied. You need to give the first address of the two word registers here. The first word register records the selected row number and the second records the selected column number. The first row number and the first column number are 0.

| Select | |
|----------------|--|
| Select Mode: | Select by Cell 🔹 Select Colc 👻 🍠 |
| Grid Position: | LWO |
| l | W0:Selected one column, and the up column is 0. |
| l | LW1:Selected one column, and the left column is 0. |
| | |

The effect of the "Select by Cell" mode is shown as below.

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4.6.9.2 Control Settings

The settings of the "Control Settings" property TAB are referred to: <u>Detailed</u> <u>manual/General functions/Drawing/Control settings</u>.

4.6.9.3 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.10 Slider

The "Slider" component can change the value of the specified word register by pressing and moving the slider block.

4.6.10.1 General

| Several Scale Background Graph | cs Elider Graphics Dyr | umic Graphics C | Control Settings Display |
|---------------------------------|------------------------|-------------------|--|
| | | Direction: | Eksplay Rightward * |
| Animum Value: Constant .+ | 0 | | |
| davlenum Valuer Constant + | 100 | Min Scale: | 1 * |
| ounter a construction of the | 10.00 | () horses | 1 - minimure scale per each click |
| | | E Writing v | olve sharpe simulareously while skilling |
| Read and Write Address: | | | |
| 🔲 Use Address Tag | | | |
| Deivre: LOCAL/Local Register) | | | |
| | | | |
| Adulteos Type: LW | | | |
| Address 0 | System Register | | |
| Format(Range) DCD0DD0(0-799999) | Occupy 1 - Word | | |
| Deter Typ | e 38-lak Unsigned + | | |
| 🖸 Address Index | | | |
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Minimum Value

The option "Minimum Value" refers to the minimum value of the slider. It can be set by a constant or by a variable. When use a variable to set, the details are referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

Maximum Value

The option "Maximum Value" refers to the maximum value of the slider. It can be set by a constant or by a variable. When use a variable to set, the details are referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

| Serieral 🕖 Sca | le Backgron | and Graphics | Sider Graphics | Dynamic Graphics | Control Settings C | isplay. |
|-----------------|---------------|--|-----------------|------------------|---------------------|---------|
| | | | | Direction | Display Rightward • | 1 |
| Knimum Value: | Variable + | LW0 | 121 | | | |
| Aaximum Value: | Variable + | Standard | Bybe Address In | put | 18 | 12 |
| | | Tiller Ar | dress Teg | | | ł |
| | | 100000000 | OCALILocal Reg | ister) | | |
| Read and Write | Address: | 12 | | | 9 | |
| Use Address | Teg | | 51 10an | | | - 1 |
| Deivcei LOCALI | Local Registe | Address | Type: LW | | | - 1 |
| | | Address | 0 | | System Register | - 1 |
| Address Type: | 107 | Format(R | ange) DDDDDD((| | upy: I Word | - 1 |
| Address Type: 1 | Le. | EAddre | 801 | Data Type: 10- | oit Unsigned : • | - 1 |
| Format(Range) (| 0000000-1 | 1. | is index | | | - 1 |
| | D | 1 | | | | |
| Address Inde | | | | | | 5 H |

• Read and Write Address

You should specify a word register to change the value for the slider component. The word register input method is referred to: <u>Detailed manual/General</u> <u>functions/Address editor/Standard Byte Address Input.</u>

Direction

The option "Direction" is used to set the display direction of the slider. It can be set "Display Upward", "Display Downward", "Display Leftward" and "Display Rightward",.

| 🖪 Slider | | | | | ? <mark>*</mark> |
|--------------------|-------|---------------------|-----------------|-------------------------------------|---|
| General | Scale | Background Graphics | Slider Graphics | Dynamic Graphics | Control Settings Display |
| Minimum Maximum | | Constant Constant | 0 🖍 100 🔦 | Direction: Min Scale: Increas | Display Upward Display Downward Display Leftward Display Rightward |

• Min Scale

The "Min Scale" refers to the step of the slider block.

Increase

The option "Increase" is used to set the minimum increase or decrease per each click. It should set multiple of the "Min Scale". If this option is not checked, it is set the value of the "Min Scale" by default.

• Writing value change simultaneously while sliding

After this option is checked, the word register which is set in the option "Read and Write Address" will change in real time during sliding the slider component. If it is not checked, the value of the word register will change after the slider block is released.

4.6.10.2 Scale

The settings of the "Scale" property TAB are referred to: <u>Detailed manual/</u> <u>Component/ Scale</u>.

4.6.10.3 Background Graphics

The settings of the "Background Graphics" property TAB are referred to: <u>Detailed</u> manual/General functions/Drawing/Graphic edit.

4.6.10.4 Slider Graphics

The settings of the "Slider Graphics" property TAB are referred to: <u>Detailed</u> manual/General functions/Drawing/Graphic edit.

4.6.10.5 Dynamic Graphics

The settings of the "Dynamic Graphics" property TAB are referred to: <u>Detailed</u> <u>manual/General functions/Drawing/Dynamic Graphics</u>.

4.6.10.6 Control Settings

The settings of the "Control Settings" property TAB are referred to: <u>Detailed</u> <u>manual/General functions/Drawing/Control settings</u>.

4.6.10.7 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.11 Moving Component

You can click the menu command "Component/Moving Component/Moving Component" to add a moving component in your project.

4.6.11.1 General

| Move in X Axis Direction | | | | |
|---------------------------|--------------------|------------|-------|--|
| Read Address | 1000 | (10) | | |
| Screen Moving Range | Axis Upper Umit | Constant + | 799 🚔 | |
| | Aris Lower Limit | Constant + | 0 | |
| 2 Move Proportionally | Input Lower Limit | Constant + | 0 | |
| Triversely Proportional | Input Upper Limit | Constant + | 799 🚔 | |
| Marve in Y-Axis Direction | | | | |
| Read Address | LW10 | 100 | | |
| Screen Moving Range (| Aris Lower Limit | Constant + | 0 | |
| | Axis Upper Limit | Constant + | 479 🚔 | |
| 2 Move Proportionally | Input Lower Limit | Constant • | e 🚔 | |
| Trversely Proportional | Tripit Upper Limit | Constant + | 479 | |

The option "Move in X-Axis Direction" refers to moving along the horizontal direction. The option "Move in Y-Axis Direction" refers to moving along the vertical direction. These two options can be checked together. That means moving in an oblique line direction. The angle of the oblique line can be computed based on the moving distance along the x-axis and along the y-axis.

4.6.11.1.1 Move in X-Axis Direction

Read Address

For this option, you should set a word register to specify the moving distance of the moving component along the x-axis. The standard word address input method is referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

• Screen Moving Range

After check this option, you should set the upper limit and lower limit of the moving range on the screen.

Axis Lower Limit

The option "Axis Lower Limit" refers to the minimum value of x-axis for the moving range. It can be a constant or a variable. When it is a variable, the details are referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

> Axis Upper Limit

The option "Axis Upper Limit" refers to the maximum value of x-axis for the moving range. It can be a constant or a variable. When it is a variable, the details are referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

• Move Proportionally

After check this option, the moving component will move according to the proportion that the "Input Lower Limit" is corresponding to the "Axis Lower Limit" and the "Input Upper Limit" is corresponding to the "Axis Upper Limit".

For example, the "Axis Lower Limit" is 0, the "Axis Upper Limit" is 799, the "Input Lower Limit" is 0, and the "Input Upper Limit" is 7990. When the value of the specified word register is 0, the position is corresponding to the x coordinate: 0. When the value of the specified word register is 7990, it is corresponding to the x coordinate: 799.

Inversely Proportional

This option can be checked when the option "Move Proportionally" is checked. After it is checked, the "Input Lower Limit" is corresponding to the "Axis Upper Limit" and the "Input Upper Limit" is corresponding to the "Axis Lower Limit". The moving component will move in a inverse proportion.

4.6.11.1.2 Move in Y-Axis Direction

The settings of the "Move in Y-Axis Direction" are same to the "Move in X-Axis Direction". But the moving component is along the vertical direction.

4.6.11.2 Indicator Light

Display a picture or a text according to the status of the specified address.

The settings of the "Indicator Light" property TAB are referred to: <u>Detailed</u> manual/Component/Indicator Light.

4.6.11.3 Label

The settings of the "Label" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Label</u>.

4.6.11.4 Graphics

The settings of the "Graphics" property TAB are referred to: <u>Detailed</u> manual/General functions/Drawing/Graphic edit.

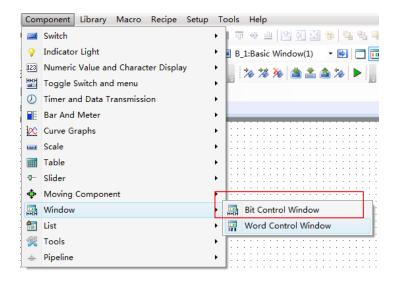
4.6.11.5 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.12 Window

4.6.12.1 Bit Control Window

You can click the menu command "Component/Window/Bit Control Window" to add a bit control window component in your project.



4.6.12.1.1 General

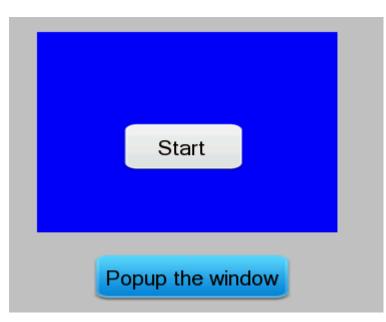
The "Bit Control Window" component is similar to the "Word Control Window" component. The differences with the "Word Control Window" component are pointed out as below. The other details are referred to: <u>Detailed manual/Component/Window/Word</u> <u>Control Window</u>.

• Bit register triggers the pop-up of window

The option "Trigger Bit" is used to specify a bit register to trigger a popup window. The popup window is determined by the option "Popup Window ID No.". If you select the option "Popup On", the window will popup when the bit register is ON. If you select the option "Popup Off", the window will popup when the bit register is OFF.

| 🖪 Popup Window |
|--|
| General Display |
| $\ensuremath{	extsf{@}}$ Bit trigger pop-up the specified window $\ensuremath{	extsf{O}}$ Word register control the popup window |
| Bit register triggers the pop-up of window |
| Trigger Bit: LBO 📓 💿 Popup On 🔘 Popup Off |
| Popup Window ID No.: B_2:Base Window(2) |
| Use Variable Window ID number: |
| With Window Control Bar: |
| |
| Variable pop-up window position |
| |
| Variable window size |
| |
| |
| |
| |
| Help Description: OK Cancel |

For example, a button named "Popup the window" is connected with LB0 and the trigger bit of the popup window component is set LB0. The simulation running result is shown as below. When press the button "Popup the window", the specified window will pop up.

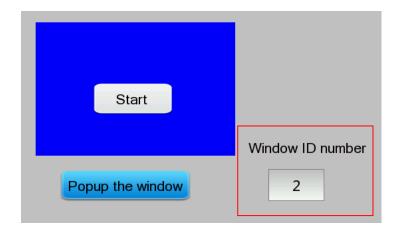


• Use Variable Window ID number

The function of "Use Variable Window ID number" is used to dynamically specify a pop-up window by using a word register.

| Trig | ter triggers the pop-up of windo ger Bit: LBO | | Popup On | Popup Off | |
|-------|--|-----|----------|-----------|--|
| VU | se Variable Window ID number: | LW0 | 2 | | |
| ≣w | fith Window Control Bart | | | | |
| ≣v | ariable pop-up window position | | | | |
| III V | sriable window size | | | | |

For the above example, the word register is specified LW0 and a numeric value input component is connected with LW0. The simulation running result is shown as below. Enter the corresponding window ID number in the numeric value input component and then click the button "Popup the window", the designated window will pop up.



4.6.12.1.2 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.12.2 Word Control Window

You can click the menu command "Component/Window/Word Control Window" to add a word control window component in your project.

| | Com | ponent Library Macro Recipe Setup | Тоо | ls | Help |
|---|------------|-------------------------------------|------|-----|---------------------------------------|
| l | | Switch | • | 001 | For 😐 🔛 🏹 🔛 🤫 🐂 🦷 |
| | 9 | Indicator Light | • | B_ | 1:Basic Window(1) 🔹 💽 🛅 |
| | 123 | Numeric Value and Character Display | • | E | % % ≫ 🚵 📤 % 🕨 📘 |
| 1 | ню | Toggle Switch and menu | • • | 1 | |
| | Ø | Timer and Data Transmission | • | | |
| | | Bar And Meter | • | _ | |
| | <u>100</u> | Curve Graphs | • | ÷ | |
| | haad | Scale | • [] | : | |
| | | Table | • | : | · · · · · · · · · · · · · · · · · · · |
| : | -0- | Slider | • : | : | |
| | . | Moving Component | • | : | · · · · · · · · · · · · · · · · · · · |
| • | | Window | | 3 | Bit Control Window |
| : | <u>^</u> | List | | • | Word Control Window |
| 1 | R | Tools | F | ÷ | · · · · · · · · · · · · · · · · · · · |
| : | ÷ | Pipeline | • | : | |
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4.6.12.2.1 General

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|------------|------------------|-------------------|---|-------------------------|------------|
| 1000000 | | 이번 이 가지 않는 것이 같아? | | ter control the pop | up window |
| Vord regis | ster control the | pop-up of winde | and the second se | | |
| Popup | Window ID: | LWO | 8 | | |
| | | | asic Window of t the value is not (| the corresponding 0. | Window ID |
| 🔲 With | Window Cont | rol Bart | | | |
| Varia | able pop-up w | ndow position | | | |
| Varia | ibie window si | ze | | | |
| | | | | | |
| | | | | | |
| | Description | | | OK | Cancel |

• Word register control the pop-up window

For the option "Popup Window ID", a word register needs to be given to specify the ID number of the popup window.

For example, add a word control window component and a numeric value input component in your project. The word register controlling the pop-up window is set LW0 and it is also connected with the numeric value input component. It is shown as below.

| | - 1 | •- | _ | _ | | _ | _ | | _ | _ | | _ | | _ | _ | | •- | _ | | _ | _ | _ | _ | | _ | _ | | _ | _ | _ | - | | | |
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The simulation running result is shown as below. When input a positive integer value to the numeric value input component, the window which the ID number of it is equal to the inputted value will pop up.



• With Window Control Bar

After checking the option "With Window Control Bar", you can add the window title by checking the option "Title" and add the window close button by checking the option "Close Button". The font of the window title can be set by clicking the button "Set Title". The details are referred to: <u>Detailed manual/General functions/Drawing/Font settings</u>.

| | Note: If window title is set in the attributes of the pop-up window, other title setting will be |
|--|---|
| 💽 Set Title | |
| Language: 1-English (U | |
| Local division of the second s | Test from |
| O Use Text Library | rest clorary |
| Use Labels | |
| | el Contents To Text Library |
| Start | |
| Copy Current Text To | All Languages |
| Import from Favorite | Font Templates.(I) |
| | |
| 🕘 Vector Font 🔹 Graphic | OK Eance |

After set the window control bar, the simulation running result is shown as below.

| Start | | X |
|-------|--------------|----|
| | | |
| | | |
| | Start | |
| | | |
| | | |
| Wir | ndow ID numb | er |
| | 2 | |

• Variable pop-up window position

After check the option "Variable pop-up window position", a first address of continuous two word registers needs to be given to specify the X and Y coordinates of the pop-up window.

| Variable pop-up window position | LW2 | |
|---------------------------------|--|--------------------|
| | LW2: Initial X coord LW3: Initial Y coord | dinates dinates |

For the above example, check the option "Variable pop-up window position" and the first word register address of the window position control is set LW2. Then add two numeric value input components in your project for inputting the X and Y coordinates of the pop-up window. They are connected with LW2 and LW3 separately.

The simulation running result is shown as below. When change the values of the numeric value input components, the position of the popup window will change.

| s Emulator Start | × | | |
|---------------------|------------------|----------------|--------------|
| Star | t Anne | | |
| | Window ID number | X coordinate Y | ' coordinate |
| | 2 | 0 | 0 |

| Start | |
|---|--|
| | |
| Contraction of the second s | |
| Start | |
| Start | |

• Variable window size

If you check the option "Variable window size", a first address of continuous two word registers needs to be given to specify the width and height of the popup window.

| Variable window size | LW4 |
|----------------------|---|
| | LW4: Window Width LW5: Window Height |

For the above example, check the option "Variable window size" and the first word register address of the window size control is set LW4.Then add two numeric value input components in your project for inputting the width and height of the pop-up window. They are connected with LW4 and LW5 separately.

The simulation running result is shown as below. When change the values of the numeric value input components, the size of the popup window will change.

| Emulator | Start 🔀 | |
|----------|------------------|----------------------------|
| | Start | |
| | Window ID number | Window Width Window Height |
| Emulator | Start | |
| | Start | |
| | Window ID number | Window Width Window Heigh |

4.6.12.2.2 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.13 List

4.6.13.1 Alarm and Event Display

4.6.13.1.1 Current Alarm and Event

The "Current Alarm and Event" function is to display the current triggered alarms and events in a tabular form. Only the trigger state is displayed.

General

The general properties of the "Current Alarm and Event" are basically the same to the "Alarming and Event History". Please refer to: <u>Detailed</u> <u>manual/Component/List/Alarm and Event History</u>.

| 0.Al | i Ierm Bari/Marqueei Ierreig and Event History Ierrent Alarming and Events | Shaw Group From Upp - To 2000 - View Method // Scrubbar Scrubbar Width 20 (\$) Alien and Events Login Biomere Method // Scrubbar Vieth 20 (\$) |
|------|---|--|
| - | The second second | |
| Die | alay Languages [LiEnglish | P If there Take Take Fort Setting Sorieg Mode By Date + A start for Take and Table. Upt Fort Setting © Assending @ Descending |
| lise | Disolay Item | Title Description |
| - | Serial No. | |
| 10 | Alarming Event Serial No | Confirm Mode: Lingle Oick + |
| 10 | Alarming Event Group | |
| 10 | Alarming Event Emergen | 1 |
| 10 | Oute of Alarming Event | Date of Alerning Torre |
| 10 | Time of Warming Svent | Time of Alarming Eart |
| 12 | Court of Alaming Eventi | Countra |
| 3 | Alarming Event Contents | Content Default |
| -01 | Trigger Statur. | + (Netros Caraca) |
| Cuty | ning Statas Displayi | e width. Scroll Disternant Been S Phiel Speed: 10 Active Ac |

Note:

The differences with the "Alarming and Event History" are shown as below.

| Use | Display Item | Title Description | |
|-----|--------------------------|-------------------|---|
| | Count of Alarming Events | Counting | * |
| | Alarming Event Contents | Content | |
| | Trigger Status | | |
| | Confirm Status | | |
| | Restore Date | | |
| | Restore Time | | = |
| | Confirm Date | | = |
| | Confirm Time | | |
| | • | | |

> The "Current Alarm and Event" includes "Count of Alarming Events". But the "Alarming and Event History" does not include it.

> The "Current Alarm and Event" only displays the trigger status. It does not confirm and restore the status. So the gray color options in the table can not be checked.

Table

The settings of "Table" property TAB is referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Table drawing</u>.

• Display

The settings of "Display" property TAB is referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.13.1.2 Alarming and Event History

The "Alarming and Event History" function is to display all alarms entries in tabular form, including the current and historical alarms and events.

| | Table Search And Costs | er ruhuit |
|-------------------------|--|--|
| Type | | Show Group: Browle Method: |
| # Al | lern Bar(Marques) lernig and Event History urrent Alarning and Events | Alarm and Trents Login |
| how | List | |
| D6 | ulay Language Linglish | · J Chow Tate Title Fort Setting Sorting Moder By Date · |
| | and the second s | me form for Thie and Table. List Fort Setting C Ascarding @ Descanding |
| | Display Iters | Title Description |
| 10 | Secial No. | + |
| 10 | Alarming Event Serial No. | Confirm Mode: Lingle Clink * |
| 12 | Alaming Event Group | |
| 85 | Alarring Event Emergen | |
| 12 | Date of Alarming Event | Date of Alarming Event |
| 10 | Tiese of Alarming Event | Time of Alarming Event |
| Ê. | Court of Alaiming Events | |
| $\overline{\mathbf{g}}$ | Alarming Event Contents | Content Restore Default |
| 問 | Trigger Status | + |
| 1.27 | ming Status Display | de uidste 🖷 Eool 🗧 Imperuget Step 5 💆 Raaf Speeck 20 🚭 + 0.1s Trigger Imger 🛑 Trigger I • 💌 Beruwery Itanzes 🗰 Resare • 💌 enformed: Unacciment Eorlineat Eorlineat |
| Cum | Format: WMM/COD | |
| Line | Specing: 07 | Column Specing: 10 🚭 |
| | | |

General

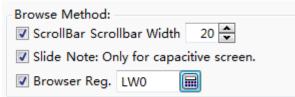
Show Group

You can select some groups of alarms and events to display in the alarm list.

Note:

The alarms and events can be grouped when they are created. The range of groups is from 1 to 32. The alarm and event content can be set by clicking the button "Alarm and Events Login" or by double-clicking the "System Settings/Alarm and Event" in the project tree. The details are referred to: <u>Detailed manual/Setup/System Settings/Alarm and</u> <u>Event</u>.

Browse Method



There are three browse methods: "Scroll Bar", "Slide" and "Browser".

The scroll bar will display in the alarm list if you check the option "Scroll Bar". You can view the alarms by using the scroll bar. The "Scrollbar Width" needs to be set. The unit of it is pixel.

You can check the option "Slide" in order to view the alarms by sliding the screen. This function is supported by the capacitive screen devices.

The option "Browser" can be checked when you need to view multiple pages. A word register needs to be specified to define the current page. The default is that 0 represents the records on the current day, 1 represents the records on yesterday, 2 represents the records on the day before yesterday, and so on. The word register input is referred to: <u>Detailed manual/General functions/Address editor/Standard Byer Address Input</u>.

| | List. | | in the second second |
|-------|---|---|-----------------------------|
| | play Language: [1-English | | ng Model By Date • |
| - | | Antoin Colorado | ending @ Descending |
| Use | Display Item Serial No. | Title Description | Select Color * |
| - | and the second | | Confirm Mode Single Click + |
| | Alarming Event Serial No. | | |
| - | Alarming Event Group | | 4 |
| E | Alarming Event Emergen | | _ Move Sp |
| 2 | Date of Alarming Event | Date of Alarming Event | Advant Street |
| 2 | Time of Alarming Event | Time of Alarming Event | |
| 0 | Court of Marming Former | | - |
| 98 | Alaming Event Contents | Content | Restore Detash |
| 13 | Trigger Status | | - |
| Či se | lay content beyond the tabl | e width: @ Scroll 🔿 Interrupt: Step: 5 🙀 Poel | Speed 10 🚔 # 0.10 |
| Niar | ning Status Displayi | Triggen Trigger 1 💌 🖬 Recove | eryn Rossiums Besame |
| | Unce | rimed Unurformed Confirm | ed Confirmant E Confirma + |
| | Format WYMMPDD | Date Separator (/ *) Time Format | HHMMASS |
| Date | | | |

"Display Language"

The "Display Language" is selected to switch the current display language for editing the Title Description. The details are referred to: <u>Detailed manual/Setup/System</u> <u>Settings/Language Settings</u>.

"Show Title"

The option "Show Title" is checked by default. If you do not want to display the title bar, you can cancel the check.

"Title Font Setting"

It is used to set the font of the title bar. The details are referred to: <u>Detailed</u> <u>manual/General functions/Drawing/Font settings</u>.

"Sorting Mode"

The "Sorting Mode" set the arrangement order of the alarms and events.

If you set "By Date" and select the option "Descending", the latest event will be displayed on the top.

If you set "By Level" and select the option "Descending", the higher level events are displayed on the top.

If you select the option "Ascending", the display order is inverse.

"Select Color"

The selected alarm entry will display in the color which is set by the option "Select Color".

"Confirm Mode"

When the alarm is triggered, it is in the trigger status. If you want to confirm this alarm, you need to select the "Confirm Mode". It can be "Single Click", "Double Click" or "Press And Hold".

"List settings"

The title bar contents of the alarm list are set in the below table. The contents of the title bar can be set to display by checking it. But the gray Display Items can not be checked.

| Use | Display Item | Title Description | Select Color * |
|-----|-------------------------|------------------------|----------------------------|
| 10 | Secial No. | | Confirm Mode: Single Click |
| 11 | Alaming Event Serial No | | Commissioner Lange Cloc. * |
| 101 | Alaming Event Group | | |
| 81 | Alaming Event Emergen | | Move Up |
| | Date of Alarming Event | Date of Alarming Event | Move Down |
| 8 | Time of Alarming Event | Time of Alaming Event | L HOLE OUND |
| 0 | Court of Alaming Evenic | | |
| 9 | Alarming Event Contents | Content | Restore Default |
| 10 | Trigger Status | 100000000 | + |

For the order of the contents arrangement, you can use the button "Move Up" or "Move Down" to modify it. The content on the top row will display on the left of the alarm list. You can restore the default arrangement by clicking the button "Restore Default ".

"Display content beyond the table width"

There are two modes, "Scroll" and "Interrupt", to display the title contents when they are more than the alarm list width. You can select one mode to display.

The content will be displayed by scrolling if you select the "Scroll" mode. You need to set the step size (Step: 1 to 255 pixels), and the scrolling speed (Speed: 1 to 255*0.1s).

| Display content beyond the table width: () | Scroll 🔘 Interrupt Step: | 5 🜩 Pixel Spe | eed: 10 🔦 x 0.1s |
|--|--------------------------|-------------------|------------------|
| | | | |
| The excess contents will be t | runcated directly if yo | ou select the "In | terrupt" mode. |
| | | | |
| "Alarming Status Display" | | | |
| You can set the text color of t | he alarms and event | s in the differen | t status here. |
| Alarming Status Display: Trigger: Trigg | er 📕 Trigger (💌 🍠 | Recovery: Restore | Resume 💌 🍼 |

📕 Confirme 💌 📝

Confirmed: Confirmed

"Date and Time Format"

The "Date Format" is used to set the sort order of year (YY), month (MM) and day (DD). The "Date Separator" is used to set the separator among year, month and day. The "Time Format" is used to set the time display format.

"Line Spacing and Column Spacing"

Unconfirmed: Unconfirmed

The "Line Spacing" and the "Column Spacing" are to set the ranks spacing of the alarm list. The unit is pixel and the range is 0-255.

Table

The settings of the "Table" property page TAB are referred to: <u>Detailed manual/</u> <u>General functions/ Drawing/ Table Drawing</u>.

Search And Control

The "Search And Control" property TAB is shown as below.

| Marro and Event Display | 61 | 1.1. |
|--|--|-----------|
| General Table Search | And Control Display | |
| 2 Enable Search Func | \$on | |
| Search By Date I Register Query M Search Trigger Bit Search Register: | UWD DiSearch by Date: Scienceh by Timer Range, Scienceh by Sequence, 3:Search by Senial Number, 4:Search by (end: Scienceh by Group 100 1: schuse the ansatz: Rhered by range. 2: no Steriog | |
| Use Control Function | | |
| Export CSV | | |
| | | |
| Heig. Description | 1 | OK Carcel |

Enable Search Function

Check the option "Enable Search Function" to use the search function.

"Search mode"

Z Enable Search Function 🗇 Search By Date 🔘 Search By Time Range 🔘 Search By Sequence 🗇 By Serial No. 🗇 By Level 💮 Search by Group Mode LW0 LW0 LSearch by Time Range, 25earch by Sequence 3:Search by Serial Number, 4:Search by B Register Query Mode LW0 Level, Schearch by Gr

There are seven search modes: "Search By Date", "Search By Time Range", "Search By Sequence", "By Serial No.", "By Level", "Search by Group" and "Register Query Mode".

The "Register Query Mode" is a dynamic search mode. You can specify a word register to dynamically adjust the search mode. If the word register is 0, the "Search By Date" mode is used. If it is 1, the "Search By Time Range" mode is used. If it is 2, the "Search By Sequence" mode is used. If it is 3, the "By Serial No." mode is used. If it is 4, the "By Level." mode is used. If it is 5, the "Search by Group." mode is used. The word register address input method is referred to: Detailed manual/General functions/Address editor/Standard ByteAddress Input.

"Search Trigger Bit"

The option "Search Trigger Bit" is used to specify a bit register to trigger the search function. Note that the search function is not edge-triggered mode. When setting the trigger bit 1, the alarm list displays the filtered results. After set the trigger bit 0, the list

will display the results which are not filtered. The bit address input method is referred to: Detailed manual/General functions/Address editor/Standard Bit Address Input.

"Search Register"

The "Search Register" is used to specify the first word register address for the search function. The number of the word registers is depending on the search mode. The function of the word registers used to search is different for the different search mode. You can get the information of the used word registers according to the text displayed under the first word register address. The word address input method is referred to: Detailed manual/General functions/Address editor/Standard ByteAddress Input.

| Search Register: | LW10 |
|------------------|---|
| | LW10 : Year (Input unsigned number YYYY, e.g. 2015) |
| | LW11 : Month (Input unsigned number MM between 1 to 12) |
| | LW12 : Day (Input unsigned number DD between 1 to 31) |

Use Control Function

After checking this option, you can use word address registers to control the display of the alarms and events in the alarm list.

| Use Control Function | | | |
|----------------------|------------------------------------|-----------------|-------------------------------|
| Control Register: | LW0 | | |
| | LW0:0: Display All Alarming Events | LW0:1: Hide the | Confirmed Alarming Events |
| | LW0:2: Hide the Recovered Event | LW0:3: Hide the | Confirmed and Recovered Event |

Export CSV

The option "Export CSV" is referred to: <u>Detailed manual/ General functions/ Drawing/</u> <u>Export CSV</u>.

• Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.13.1.3 Alarm Bar (Marquee)

The "Alarm Bar" function is to display the alarms and events in a single line and in a marquee form. The scrolling direction, step and speed need to be set. A title can be chosen to display.

| wind | Table Display | |
|-------|---|--|
| - | ann BarlMarqueel I and Constantion I Marning and Events | Show Group: Futer(2001 + Te (2200 + Alarm and Exemts Login |
| hew | List | |
| Dis | play Languager Linglish | + Sorting Moder By Data + |
| | ise Labeis | List from Setting Ascending @ Descending |
| | Display Bart | Title Description |
| 23 | Serial No. | 10. A |
| 25 | Alarming Event Serial No | |
| 10 | Alanning Event Group | |
| 10 | Alerning Event Emergen- | Marchine |
| 18 | Date of Marning Event | Date of Alarming Event |
| ₩. | Time of Alarming Svent | Time of Alaming Event |
| 10 | Court of Marring Events | |
| 3) | Alarming Event Contents | Content Rectore Default |
| 13 | Tirgger Stehn | |
| Mary | saw moving model High | 4 Fo Lef = Steps 1 🔹 Post Speet 10 🔹 + 0.1s |
| Alarr | ning Status Display: | Triggen Triggen (* 🕐 Recovery: Tecture 🛛 🖬 Recovery 🕯 |
| | | oferned: Ussanfirmad Confirmed Confirmed |
| Dete | Formati WYMM/CO | Diver Separation (/ +) Time Formati (HHINMUSS +) |
| Line | Spacing: 0 🖻 | Column Spacing: 10 🗐 |
| | | |

- General
- Show Group

The specified groups of the alarms and events will display in the Alarm Bar.

The alarms and events can be grouped when they are created. The range of groups is from 1 to 32. The alarm and event content can be set by clicking the button "Alarm and Events Login" or by double-clicking the "System Settings/Alarm and Event" in the project tree. The details are referred to: <u>Detailed manual/Setup/System Settings/Alarm and</u> <u>Event</u>.

Show List

| Use | Display Item | Title Description |
|-------|--------------------------|---|
| E | Serial No. | · · · · · · · · · · · · · · · · · · · |
| Ð | Alarming Event Serial No | |
| Ē1 | Alarming Event Group | a contraction of the second |
| 臣 | Alarming Event Emergen | Afree to: |
| N. | Date of Alaming Event | Date of Alaming Event |
| 1 | Time of Alarming Event | Time of Alarming Event |
| 0 | Count of Alamsing Events | |
| 2 | Alarming Event Contents | Content Restore Delault |
| | Trigger Status | 1 |
| Mar | quee moving mode Righ | tTolef.* Step: 5 🚔 Pixel Speed: 10 🚔 x 0.1s |
| hizer | ning Status Displayi | Triggen Trigger (🛪 🗹 Recovery: Bussian 🖉 Resume 💌 💽 |
| | und avoirs custody | ferned Unudimed |

"Display Language"

The "Display Language" is selected to switch the current display language for editing the Title Description. The details are referred to: <u>Detailed manual/Setup/System</u>. <u>Settings/Language Settings</u>.

"Show Title"

The option "Show Title" is checked by default. If you do not want to display the title bar, you can remove the check.

"List Font Setting"

The button "List Font Setting" is used to set the font of the title bar. The details are referred to: <u>Detailed manual/ General functions/ Drawing/ Font settings</u>.

"Sorting Mode"

The "Sorting Mode" sets the arrangement order of the alarms and events.

If you set "By Date" and select the option "Descending", the latest event will be displayed on the top.

If you set "By Level" and select the option "Descending", the higher level events are displayed on the top.

If you select the option "Ascending", the display order is inverse.

"Use Labels"

If you check the option "Use Labels", the contents of the "Title Description" can use the default or you can edit them.

If you don't check the option "Use Labels", the contents of the "Title Description" can be set by using the text in the text library. It is shown as below. You can click the button

"""""" to open the text library and select the required text. The details of the Text Library are referred to: Detailed manual/Library/Text Library.

| 🔲 L | Jse Labels | List Font Setting | Ascending |
|-----|--------------------------|-------------------|-----------|
| Use | Display Item | Title Description | |
| | Serial No. | | * |
| | Alarming Event Serial No | | |
| | Alarming Event Group | | E |
| | Alarming Event Emergen | | |
| | Date of Alarming Event | | • |
| 1 | Time of Alarming Event | | • |
| | Count of Alarming Events | | |
| 1 | Alarming Event Contents | | • |
| | Trigger Status | | - |

"List settings"

The title bar contents of the alarm bar are set in the below table. The contents of the title bar can be set to display by checking it. But the gray Display Items cannot be checked.

| Use | Display Item | Title Description | | |
|----------------|--------------------------|------------------------|--------------|---------------------------|
| 10 | Serial No. | | * | |
| 10 | Alarming Event Serial No | | | |
| 11 | Alarming Event Group | 4 | * | |
| 10 | Alarming Event Emergen | | | Move Up |
| 14 | Gala of Alarming Event. | Date of Alarming Event | and a second | Move Down |
| 92 | Time of Alarming Event | Time of Alarming Event | | more boim |
| Ē | Count of Alarming Events | | | |
| $ \mathbf{Q} $ | Alarming Event Contents | Content | | Restore Default |
| £1 | Trigger Status | | - | Considered and the second |

You can use the button "Move Up" or "Move Down" to modify the order of the display items arrangement. The content on the top row will display on the left of the alarm bar. You can restore the default arrangement by clicking the button "Restore Default ".

"Marquee moving mode"

You can set the scrolling direction of the alarm contents, the step size (Step: 1 to 255 pixels), and the scrolling speed (Speed: 1 to 255*0.1s).

| Marquee moving mode: | Right To Lef 💌 | Step: | 5 🜩 Pixel | Speed: | 10 🔹 x 0.1s |
|----------------------|----------------|-------|-----------|--------|-------------|
| | | | | | |

"Alarm Status Display"

The alarm bar only displays the triggered alarms and events. So only the Trigger Color can be changed.

"Date Format"

| Alarming Status Display: | Trigger: Trigger | 📕 Trigger (👻 🍠 | Recovery: | Restore | Resume 👻 🗡 |
|--------------------------|------------------------|-----------------|------------|-----------|--------------|
| Un | confirmed: Unconfirmed | | Confirmed: | Confirmed | Confirme 💌 📝 |
| Date Format: YY*MM*DD | Date Separator: / | · ▼ Tir | me Format: | HH:MM:SS | |
| Line Spacing: 0 | Column Spacing: | 10 🜩 | | | |

The "Date Format" is used to set the sort order of year (YY), month (MM) and day (DD). The "Date Separator" is used to set the separator among year, month and day. The "Time Format" is used to set the time display format.

"Line Spacing and Column Spacing"

The "Line Spacing" and the "Column Spacing" are to set the ranks spacing of the alarm bar. The unit is pixel and the range is 0-255.

Table

The settings of the "Table" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Table Drawing</u>.

• Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.13.2 Historical Data Display

The function of the "Historical Data Display" is to display the sampling data in tabular form. The display is continuously refreshed according to the specified sampling frequency.

| | LBOD: 8 LBOD: 9 | reperature_H • La lefresh the latest sam ause the refreshing. | ping data | | www.Mathod: 2 Scroll Bar Scrol 2 Side Note: Only Browser Reg. Hide Column Regi | for a | | | 20 50 | 1.00 |
|-----|--------------------|---|-----------|------|--|-------|------|-----------------------|----------|--------------|
| | e I-Ingi | ish (Uni •) • (2) e same font for Title | | | | 0 | Aso | ig M endli oend | 9 | |
| Use | Display TI | Title Discription | List Fort | s Co | Data Type | loteg | arc. | Dec | inal | Leading Z |
| 10 | Serial No. | Serial No. | | 11 | | | | 1 | | |
| 12 | Data | Date | | | | | | | | 10 |
| 10 | Time | Time | | D | | | | | | 10 |
| 2 | Channel1 | Channel1 | | 0 | Single-precision Flo | 4 | ÷ | 0 | 1 | 自 |
| 36 | Charmet2 | Channel3 | 1 3 | 1 | 15-bit Unsigned | 4 | * | 0 | - | 百 |
| | | | | | | | | | | |
| | | | _ | | w | | | | Re | eset Default |

4.6.13.2.1 General

Data Source

Select a data sampling from the pull-down list. If there is no data sampling, you can quickly build one by clicking the button "Image". The details are referred to: <u>Detailed</u> manual/Setup/System Settings/Data Sampling.

• Pause

A bit register address can be set to pause or start the display of the historical data sampling.

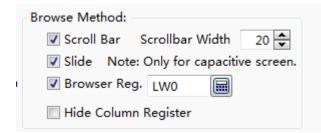
For example: set a bit address LB0 for the option "Pause". Then when LB0 is OFF, the latest data sampling is refreshed. When LB0 is ON, the refreshing is paused.

Note:

The refreshing is paused, but sampling is not stopped. All sampling data will be refreshed.

Browse Method

The "Browse Method" includes "Scroll Bar", "Slide", "Browser" and "Hide Column Register".



Scroll Bar

When checking the option "Scroll Bar", the list will appear scroll bar for viewing. The scrollbar width can be customized. The unit is pixel.

> Slide

You can check the option "Slide" in order to view by sliding the screen. This function is supported by the capacitive screen devices.

Browser

The option "Browser" can be checked when you need to view multiple pages. A word register needs to be specified to define the current page. The default is that 0 represents the records on the current day, 1 represents the records on yesterday, 2 represents the records on the day before yesterday, and so on. The word register input is referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

Hide Column Register

If you check the option "Hide Column Register", a word register can be set. The value of the word register is used to control the display or hiding of each column.

Show List

| C Lise | Lable 😥 Ur | e same font for Title | Bar an | d Tai | bie | Table Font Settings | | Des | cend | ling | |
|--------|------------|-----------------------|--------|-------|-----|---------------------|------|-----|------|------|-----------|
| Use | Display TI | Title Discription | List F | onts | Co | Data Type | Inte | ger | Dec | imal | Leading Z |
| 190 | Serial No. | Serial No. | | | 1 | | | | | | |
| 12 | Date | Date | | | 9 | | - | | - | | 10 |
| 191 | Time | Time | | | | | | | | | 125 |
| 1 | Channel1 | Channel1 | | | | Single-precision Ro | .4 | + | 0 | - | 10 |
| 12 | Channel2 | Channel2 | | | 1 | 15-bit Unsigned | .4 | \$ | 0 | ÷ | 100 |
| | | | | | | | | | | | |

Language

The "Display Language" is selected to switch the current display language for editing the Title Description. The details are referred to: <u>Detailed manual/ Setup/ System</u>. <u>Settings/ Language Settings</u>.

Display Title Bar

The option "Display Title Bar" is checked by default. If you do not want to display the title bar, you can remove the check.

Table Font Settings

It is used to set the font of the title bar. The details are referred to: <u>Detailed</u> manual/General functions/Drawing/Font settings.

Use Label

By default, the option "Use Label" is checked. The contents of the "Title Description" can use the default or you can edit them. It is shown as below.

| Use | Display TI | Title Discription | List F | onts | Co | Data Type | Inte | gør | Deci | mal | Leading Z |
|-----|------------|-------------------|--------|------|----|----------------------|------|-----|------|-----|-----------|
| 10 | Serial No. | Serial No. | | | Z | | | | | | |
| 2 | Date | Date | | - | | | | | | | 10 |
| | Time | Time | | | Z | 2 | | | | | 10 |
| 1 | Channel1 | Channel1 | | | 1 | Single-precision Flo | 4 | * | 0 | ÷ | 10 |
| 1 | Channel2 | Channel2 | | | | 16-bit Unsigned | 4 | - | 0 | 1 | 0 |

If you don't check the option "Use Label", the contents of the "Title Description" can be set by using the text in the text library. It is shown as below. You can click the button

"" to open the text library and select the required text. It is shown as below.

| Use | Lable 👿 Use | same font for Title | Bar and Tabl | Table Font Settings | De De | scending | |
|-----|-------------|---------------------|--------------|----------------------|---------|----------|-----------|
| Use | Display TI | Title Discription | List Fonts C | o Data Type | Integer | Decimal | Leading 2 |
| 1 | Serial No. | | - | 0 | 1.1 | | 1 |
| 1 | Date | | - | 2 | | | 10 |
| 2 | Time | | C | 3 | | | 10 |
| 1 | Channel1 | | - | Single-precision Flo | 4 📩 | 0 | 10 |
| 1 | Channel2 | -0 | - | 16-bit Unsigned | 4 | 0 | 初 |

The details of the Text Library are referred to: Detailed manual/Library/Text Library.

Use same font for Title Bar and Table

By default, the font of the contents in the list is same to the font of the title bar. If you want to define the font of the contents in the list, you can remove the check and set the font by clicking the button "Table Font Settings".

Use same font for Title Bar and Table Table Font Settings

The details are referred to: <u>Detailed manual/General functions/Drawing/Font</u><u>settings</u>.

Sorting Mode

There are two Sorting Modes: Ascending and Descending. When the option "Ascending" is selected, the oldest record is displayed in the first row. When the option "Descending" is selected, the newest record will display on the first row.

List Settings

| 10 |
|----|
| 回 |
| 10 |
| 10 |
| |

You can select the required contents to display in the title bar by checking in the "Use" column. For the order of the contents arrangement, you can use the button "Move Up" or "Move Down" to modify it. The content on the top row will display on the left of the Historical Data Display List. You can restore the default arrangement by clicking the button "Restore Default ".

Date and Time Format

The "Date Format" is used to set the sort order of year (YY), month (MM) and day (DD). The "Date Separator" is used to set the separator among year, month and day. The "Time Format" is used to set the time display format.

Line Spacing and Column Space

The "Line Spacing" and the "Column Space" are to set the ranks spacing of the alarm list. The unit is pixel and the range is 0-255. The line space is a unified value, and the column space can be set one by one and can be set to the same value.

4.6.13.2.2 Table

The settings of the "Table" property TAB are referred to: <u>Detailed manual/ General</u> <u>functions/ Drawing/ Table Drawing</u>.

4.6.13.2.3 Search

• Enable Search Function

Check the option "Enable Search Function" to use the search function.

| Historical Data Display | | | | 1.15 |
|-----------------------------|------------------|----------------------|------|-------|
| General Table Search 🥥 Disp | alay | | | |
| 2 Enable Search Function | | | | |
| Search By Date O Search | ch By Time Range | C Search By Sequence | | |
| 🗇 Register Query Mode | | | | |
| Search Trigger Bit | HO | | | |
| Search Register: | 20 | | | |
| E Export CSV | | | | |
| | | | | |
| | | | | |
| Help Description | | | - 04 | Cance |

> Search mode

There are four search modes supported: "Search By Date", "Search By Time Range", "Search By Sequence" and "Register Query Mode".

The "Register Query Mode" is a dynamic search mode. You can specify a word register to dynamically adjust the search mode. If the word register is 0, the "Search By Date" mode is used. If it is 1, the "Search By Time Range" mode is used. If it is 2, the "Search By Sequence" mode is used. The word register address input method is referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

| ☑ Enable Search Function | |
|--------------------------|--|
| 🔘 Search By Date 🛛 🔍 S | earch By Time Range 🛛 🔘 Search By Sequence |
| Register Query Mode | LWO |
| | LW0 0:Search by Date ,1:Search by Time Range, 2:Search by Sequence |

Search Trigger Bit

The option "Search Trigger Bit" is used to specify a bit register to trigger the search function. Note that the search function is not edge-triggered mode. When set the trigger bit 1, the alarm list displays the filtered results. After setting the trigger bit 0, the list will display the results which are not filtered. The bit address input method is referred to: Detailed manual/General functions/Address editor/Standard Bit Address Input.

Search Register

Search Register: LW10 III LW10 ~ LW21: Depending on different search methods, take up to 12 words.

The "Search Register" is used to specify the first word register address for the search function. The number of the word registers is depending on the search mode. The function of the word registers used to search is different for the different search mode. You can get the information of the used word registers according to the text displayed under the first word register address. The word address input method is referred to: <u>Detailed manual/General functions/Address editor/Standard ByteAddress Input</u>.

Export CSV

The option "Export CSV" is referred to: <u>Detailed manual/ General functions/</u> <u>Drawing/ Export CSV</u>.

4.6.13.2.4 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

4.6.13.3 Operator Log

The function of the "Operation Log" is to record the required detailed operation of the HMI device, such as a button is triggered at a certain time, a value is modified at another certain time, and so on. The "Operation Log component displays the detailed operating records in the list form. You can search the records or export them.

Note 1:

For the created components, the operations are not recorded by default. To record the operation of a component, check the "Records Operation" option in the "Control Settings" property TAB and click the button "Set" to set the operation information. The details are referred to: <u>Detailed manual/General functions/Drawing/Control settings</u> and <u>Detailed manual/General functions/Drawing/Label</u>.

| clienton Settings | Security Setting: | | | |
|-------------------|---|--|--|--|
| 8 Aweys | Minimum Press Time: 0 (#0.15) | | | |
| Conditional | E Require confirmation prior to execution | | | |
| | Waiting Time 100 🚭 (X0.25) | | | |
| | 2 Records Operation | | | |
| | Minimum Operation Interval: 0 👘 (08.15) | | | |
| | Notification Settings | | | |
| | Sefere Writing After Writing | | | |
| | El Notify Bit Addresse | | | |
| | E Novity Byte Address: | | | |
| | - 1000000000000000000000000000000000000 | | | |
| | Trigger Macros | | | |
| Keylatard | | | | |
| 🔲 Use Keylooanii | Ardo | | | |
| | III Play Audio | | | |
| | | | | |
| | E Flay Audio | | | |

Note 2:

Only when the user privilege is enabled and a user logs in, the operator user name will be recorded and displayed. When the user privilege is not enabled or there is no user to log in, the user name is displayed a blank in the operation records.

4.6.13.3.1 General

The general attributes of the "Operator Log" are set in the "General" property TAB.

| III Displa | Screen Browser by the List | Note: Only for capacitive Reg. | 2 Diplay Title Bar [] Etherford | C Astanding (Older data are displayed first) |
|---------------|----------------------------------|-----------------------------------|---------------------------------|--|
| | Use | Display the Project | Title Bar Description | Descending/Newer data are displayed first) |
| | 1000 | Sevial No. | Serial No. | |
| | 20 | Date | Date | - |
| | 10 | Time | Time | - |
| | 8 | User Nerre | User Name | 104 |
| | 12 | Operation Log | Operation Log | T David |
| | | DOMMANY + Date | Time Splits 2 Time F | Rentore to default sorting |

Browse Method



There are three browse methods: "Scrollbar", "Screen" and "Browser".

The scroll bar will display in the alarm list if you check the option "Scrollbar". You can view the alarms by using the scroll bar. The "Scrollbar Width" needs to be set. The unit of it is pixel.

You can check the option "Screen" in order to view the records by sliding the screen. This function is supported by the capacitive screen devices.

The option "Browser" can be checked when you need to view multiple pages. A word register needs to be specified to define the current page. The default is that 0 represents the records on the current day, 1 represents the records on yesterday, 2 represents the records on the day before yesterday, and so on. The word register input is referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

Display the list

| Uver: | Display the Project | Title Bar Description | |
|----------|---------------------|-----------------------|------------------------------|
| 30 | Serial No. | Secial No. | |
| H | Date | Date | |
| 90 | Tinie | Time | |
| A | User Name | Liser Name | |
| 8 | Operation Log | Operation Los | Dennet / |
| 1 | | | Restore to default sorting |
| | | | (international contractions) |
| | | | |

Language

The "Language" is selected to switch the current display language for editing the Title Description. The details are referred to: <u>Detailed manual/ Setup/ System Settings/</u> Language Settings.

Display Title Bar

The option "Display Title Bar" is checked by default. If you do not want to display the title bar, you can remove the check.

Title Font Setting

It is used to set the font of the title bar. The details are referred to: <u>Detailed</u> manual/General functions/Drawing/Font settings.

Use label

By default, the option "Use Label" is checked. The contents of the "Title Bar Description" can use the default or you can edit them. It is shown as below.

| V Use | Lable 🛛 | ✓ Use same font for Title Bar and List | | |
|--------------|----------|--|-----------------------|--|
| | Use | Display the Project | Title Bar Description | |
| | V | Serial No. | Serial No. | |
| | V | Date | Date | |
| | V | Time | Time | |
| | V | User Name | User Name | |
| | V | Operation Log | Operation Log | |

If you don't check the option "Use Label", the contents of the "Title Bar Description" can be set by using the text in the text library. It is shown as below. You can click the button "____" to open the text library and select the required text. It is shown as below.

| 🔲 Use | Lable 🛛 | Use same font for Title E | ar and List | |
|-------|----------|---------------------------|-----------------------|---|
| | Use | Display the Project | Title Bar Description | |
| | | Serial No. | | |
| | V | Date | | |
| | | Time | | 0 |
| | V | User Name | | |
| | 1 | Operation Log | | |
| | | | | |

The details of the Text Library are referred to: Detailed manual/Library/Text Library.

Use same font for Title Bar and List

By default, the font of the contents in the list is same to the font of the title bar. If you want to define the font of the contents in the list, you can remove the check and set the font by clicking the button "Table Font Settings".

Use same font for Title Bar and List

Table Font Setting

The details are referred to: <u>Detailed manual/General functions/Drawing/Font</u> <u>settings</u>.

Sorting Mode

There are two Sorting Modes: Ascending and Descending. When the option "Ascending" is selected, the oldest record is displayed in the first row. When the option "Descending" is selected, the newest record will display on the first row.

| Use | Display the Project | Title Bar Description | |
|----------|---------------------|-----------------------|------|
| 1 | Serial No. | Serial No. | |
| V | Date | Date |] |
| 1 | Time | Time | Up |
| 1 | User Name | User Name |] |
| 1 | Operation Log | Operation Log | Down |

List Settings

You can select the required contents to display in the title bar by checking in the "Use" column. For the order of the contents arrangement, you can use the button "Up" or "Down" to modify it. The content on the top row will display on the left of the Operator Log List. You can restore the default arrangement by clicking the button "Restore to default sorting".

Date and Time Format

The "Date Format" is used to set the sort order of year (YY), month (MM) and day (DD). The "Date Time Split" is used to set the separator among year, month and day. The "Time Format" is used to set the time display format.

Row Spacing and Column Spacing

The "Row Spacing" and the "Column Spacing" are to set the ranks spacing of the operator log list. The unit is pixel and the range is 0-255.

4.6.13.3.2 Table

The settings of the "Table" property TAB are referred to: <u>Detailed manual/ General</u> <u>functions/ Drawing/ Table Drawing</u>.

4.6.13.3.3 Checking

• Enable Search Function

Check the option "Enable Search Function" to use the search function.

| eneral Table Checking | O Display | | |
|--------------------------|----------------------|-------------------|---------------------|
| E Enable Search Function | | | |
| Check By Date | Check By Time Range | Chuck By Sequence | Check By Liver Name |
| Over register to contro | I the search mothod. | | |
| Search bigger bit | | 80 | |
| Soarth Register | | into 1 | |
| Seport CEV | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Search mode

There are four fixed search modes supported: "Check By Date", "Check By Time Range", "Check By Sequence" and "Check By User Name".

The "Use register to control the search method" is a dynamic search mode. You can specify a word register to dynamically adjust the search mode. If the word register is 0, the "Check By Date" mode is used. If it is 1, the "Check By Time Range" mode is used. If it is 2, the "Check By Sequence" mode is used. If it is 3, the "Check By User Name"

mode is used. The word register address input method is referred to: Detailed manual/General functions/Address editor/Standard Byte Address Input.

| ◎ Check By Date | Check By Tim | ie Range | Check By Se | quence | Check By User Name |
|--------------------------------|--------------|--|----------------------|--------|--------------------|
| Ose register to control the se | arch mothod. | LW0 | [| | |
| | 1 | W0 0:Search B 1:Search By Tir 2:Search By Se 3:Search By Us | ne Range, quence, | | |

Search trigger bit

The option "Search trigger bit" is used to specify a bit register to trigger the search function. Note that the search function is not edge-triggered mode. When set the trigger bit 1, the alarm list displays the filtered results. After set the trigger bit 0, the list will display the results which are not filtered. The bit address input method is referred to: <u>Detailed</u> manual/General functions/Address editor/Standard Bit Address Input.

Search Register

The "Search Register" is used to specify the first word register address for the search function. The number of the word registers is depending on the search mode. The function of the word registers used to search is different for the different search mode. You can get the information of the used word registers according to the text displayed under the first word register address. The word address input method is referred to: <u>Detailed manual/General functions/Address editor/Standard ByteAddress Input</u>.

| Search Register | LW10 | |
|-----------------|---|----------------------------|
| | LW10: Year (Input unsigned n LW11: Month (Input unsigned LW12: Day (Input unsigned nu | number MM between 1 to 12) |

Export CSV

The option "Export CSV" is referred to: <u>Detailed manual/ General functions/</u> <u>Drawing/ Export CSV</u>.

4.6.13.3.4 Display

The settings of the "Display" property TAB are referred to: <u>Detailed manual/General</u> <u>functions/Drawing/Display</u>.

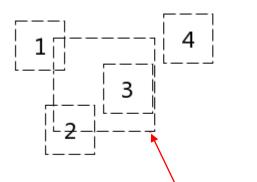
4.6.14 Tools

The "Tools" component includes "Touch Trigger", "Canvas", "Calendar Clock" and "QR-Code".

| Constant and a second and | 17 + a (5 2 2 4 + 4 17 + a (5 2 2 4 + 4) 17 + a (5 2 2 4 + 4) |
|--|---|
| Image: Second | |
| Tours # Ripeline | Touch Trigger Garvas Galendar Clock Gle-Code |

4.6.14.1 Touch Trigger

The "Touch Trigger" component can be used in the occasions that a component or more components can be triggered not by touching. That is, all components which occupy the active area of the touch trigger component can be triggered when the register specified by the touch trigger component meets the conditions.



The area of a touch trigger component

As shown as above, when the trigger condition of the touch trigger component is met, the components 1,2 and 3 will be triggered, while component 4 will not be triggered. The property page of the "Touch Trigger" component is shown as below.

| 🖥 Touch Trigger 🛛 👔 🔁 |
|---|
| Trigger Settings 🥹 Dynamic Graphics Display |
| Trigger Simulation Type |
| \odot Simulation Click \bigcirc Simulation Sliding \bigcirc Simulation Zoom |
| Trigger Condition: |
| It Status Changing \bigcirc World Value Changing \bigcirc Condition Judgment |
| Trigger Address: |
| Trigger Mode: OFF->ON |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| Help Description: OK Cancel |

4.6.14.1.1 Trigger Simulation Type

The "Trigger Simulation Type" refers to the trigger type of the "Touch Trigger" component. It includes "Simulation Click", "Simulation Sliding" and "Simulation Zoom". They are corresponding to the trigger actions when the trigger conditions of the touch trigger component are met.

| • | Simulation Click |
|------|---|
| Trig | ger Simulation Type |
| | 🖲 Simulation Click 🔘 Simulation Sliding 🔘 Simulation Zoom |

When the trigger conditions of the touch trigger component are met, the components which occupy the active area of the touch trigger component will execute the click action, such as clicking a switch button.

| Trigger Simulation Typ | e . |
|-------------------------|--|
| ingger eindidicen ijp | |
| O Simulation Click | Simulation Sliding |
| Touch Control Parame | ters |
| rouch control Parame | ters |
| | |
| LWO | |
| | |
| The sliding angle, 0 fo | or the right slide, 90 slide up, 180 slide to the left, 270 to |
| decline. | |
| | |
| LW1 | |
| | |
| The sliding velocity, u | nit: nixel per second |
| the sharing velocity, a | na pixe per second |

When the trigger conditions of the touch trigger component are met, the components which occupy the active area of the touch trigger component will execute the sliding action within this area. The sliding action is controlled by two word registers. The first word register controls the sliding angle, 0 for sliding to right, 90 for sliding up, 180 for sliding to left, 270 for sliding down. The second word register controls the sliding velocity. The sliding velocity unit is pixel per second. The address input of the word register is referred to: Detailed manual/General functions/Address editor/Standard ByteAddress Input.

Simulation Zoom

| Trigger Simulation Type |
|--|
| ingger ennander i jpe |
| \bigcirc Simulation Click \bigcirc Simulation Sliding $@$ Simulation Zoom |
| Touch Control Parameters |
| |
| LW1 |
| Zoom ratio, 0~200, in percent, less than 100 is reduced, with more than 100 amplification. |

When the trigger conditions of the touch trigger component are met, the components which occupy the active area of the touch trigger component will execute the zooming action within this area, such as viewing the trend curve by zooming.

The zoom ratio is controlled by a word register. The range of zoom ratio is 0-200, in percent. The value 1-200 is legal. It represents the zoom percentage which less than 100 is corresponding to reducing and more than 100 is corresponding to amplification. The address input of the word register is referred to: <u>Detailed manual/ General functions/</u> Address editor/ Standard ByteAddress Input.

4.6.14.1.2 Triggering Condition

| Trigger Condition: |
|---|
| 💿 Bit Status Changing 🔘 World Value Changing 🔘 Condition Judgment |
| Trigger Address: LB0 |
| Trigger Mode: OFF->ON 🔻 🗌 Auto Reset |

The "Trigger Condition" supports "Bit Status Changing", "Word Value Changing" and "Condition Judgment". The settings are referred to: <u>Detailed manual/Component/Timer</u> and Data Transmission/Timer.

4.6.14.2 Canvas

The property page of the "Canvas" can be opened by clicking the menu command "Component/Tools/Canvas".

4.6.14.2.1 Monochrome Brush

You can control the graphics canvas by bit registers. You can modify the canvas color and the pen color, as shown as below.

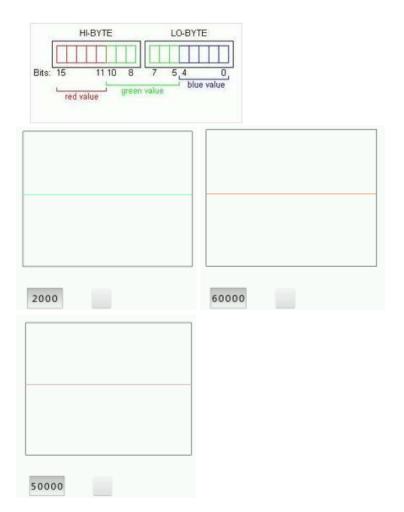
| 🖪 Canvas 🔹 🕄 💌 |
|--|
| General Dynamic Graphics Display |
| Brush Type Monochrome Brush Canvas V Pen Co V |
| Address |
| Use Address Tag |
| Deivce: LOCAL:[Local Register] |
| □ Bit-index within a Byte Register Address Type: LB ▼ Address: 0 ♀ System Register Format(Range) DDDDDD(0~7999 |
| Address Index |
| The length of occupancy address: 16384 |
| Refresh Timing Refresh Trigger Touch Execution Cycle: 10 \$ x 0.1S Delay |
| Help Description: OK Cancel |
| 🕞 Canvas 💦 🔀 |
| General Dynamic Graphics Display Position Y: 0 \$ Position: X: • Y: 0 \$ Locked Width: 128 \$ Height: 128 \$ Image: Always Display Conditional Display Image: Conditional Display Image: Conditional Display |

In the above settings, you can see that the Canvas Width is 128 and the Canvas Height is 128 in the "Display" property page. The size of the canvas is 128*128.So the occupied LB addresses number is 16384. It is displayed in the "General" property page. If any of the address LB0 ~ 160000 is 1, the corresponding pixel on the canvas is white. If it is 0, the corresponding pixel on the canvas is black. You can also check the "Bit-index within a Byte Register" to set the canvas. It is easy to program a complex graphic. You can set LW0=65535 (0xFFFF) directly if you want all LW0.0~ LW0.15 to be 1.

4.6.14.2.2 Multicolor Brush

The settings of the "Multicolor Brush" are similar to the monochrome brush. The default canvas color is white. Each pixel of the canvas is controlled by using word register addresses. The color of pen brush is based on the value of the corresponding word address according to the RGB565 form.

The RGB565 mode is a color mode which a pixel occupies two bytes. The first 5 bits in the low byte are used to indicate B (BLUE). The last 3 bits in the low byte + the first 3 bits in the high byte are used to indicate G (Green). The last 5 bits in the high byte are used to indicate R (RED).



4.6.15 Pipeline

The "Pipeline" component includes three types: Horizontal, Vertical and Elbow.

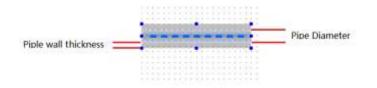
| | Com | ponent Library Macro Recipe Setup | Т | ools | Help |
|---|--------------|-------------------------------------|---|------|-------------------|
| η | | Switch | ۲ | 1 11 | i 🐠 💷 🔛 🗐 🛄 🍕 |
| 1 | . | Indicator Light | ۲ | в | 1:Basic Window(1) |
| ¢ | 123 | Numeric Value and Character Display | ۲ | | % % % 🚵 📥 🎰 |
| ٦ | ню | Toggle Switch and menu | ۲ | P : | |
| | \oslash | Timer and Data Transmission | ۲ | | |
| c | Ē | Bar And Meter | ۲ | ⊢ | |
| | ₽ | Curve Graphs | ۲ | L . | |
| | hand | Scale | ۲ | L . | |
| | | Table | ۲ | L . | |
| | -0 | Slider | ۲ | L . | |
| | \$ | Moving Component | ۲ | L . | |
| | ы | Window | ۲ | L . | |
| | <u>*</u> | List | ۲ | L . | |
| | R | Tools | ۲ | L | |
| | ÷ | Pipeline | ۲ | **** | Horizontal |
| | _ | | | I | Vertical |
| | | | | 쀼 | Elbow |

4.6.15.1 Horizontal

4.6.15.1.1 Pipeline

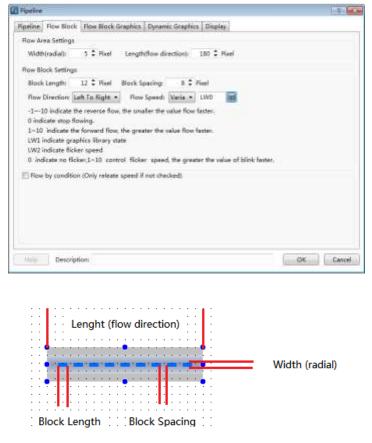
The Pipe Diameter and Pipe wall thickness should be given when you use a horizontal component. It is shown as below.

| Settings iametern 15 \$ Proet Piple wall thickness 1 \$ Pixel will color: Piple Wall Color • • • • Horizontal • Vertical Background Color • • • Fill Type Gradient • Foreground Color • • • Gradual Approach Herizontal • | |
|---|--|
| all color: Piple Wall Color • 📑 🖶 Horizontal 🕴 Vertical Background Color • 🏹 Fill Type Gradient • | |
| Background Color * 💽 Fill Type Gradient • | |
| Background Color * 💽 Fill Type Gradient • | |
| | |
| | |
| Foreground Color * 📝 Gradual Approach Horizontal * | |
| | |
| adient Filling Effect | |
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| 1010 - 101 | |
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| | |



4.6.15.1.2 Flow Block

The "Flow Block" property page is mainly used to set the width and length of the pipe and the flow block. The flow direction and flow velocity parameters are also set here. It is shown as below.



Note:

For example, the system will use LW0, LW1 and LW2 to control the flow block of the pipe when the Flow Speed is set LW0.

4.6.15.1.3 Flow Block Graphics

The graphic of the flow block is set here. You can edit the graphic and the display color in different status. It is shown as below.

| oiss |
|----------|
| |
| |
| Graphics |
| |
| Ġ |

4.6.15.1.4 Display settings

The overall height and width of the pipeline component are set here. The settings are shown as below. Note that the "Width" of the component should be greater than the length of the flow block and the "Height" of the component should be greater than the diameter of the pipeline.

| Pipeline | | | | | | | | - |
|--------------|-------------|------------|------------|---------------|------------|---|--|---|
| Speline Figs | Block Fl | ow Block G | aphies Dyn | namole. Graph | es Display | 1 | | |
| Positioe | | | | | | | | |
| Position | Xi | 276 🗘 | 9.1 | 120 🗘 | | | | |
| 🗐 Locked | Width: | 200 \$ | Height | 44 \$ | | | | |
| Alerys D | isplay | | | | | | | |
| Condition | nal Display | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

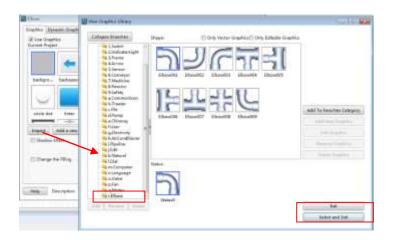
4.6.15.2 Vertical

The settings of a vertical pipeline are similar to a horizontal pipeline. The attribute of vertical or horizontal can be switched directly in the "Pipeline" property page. It is shown as below.

| Speline Flow Block Flow Block Graphics Dynamic Graphics C | Jiaplay |
|---|----------|
| Pipeline Settings | |
| Fipe Diameteri 44 \$ Pixel Fiple wall thickness 10 \$ | Fisel |
| Piple wall color: Piple Wall Color . O Horizontal @ Vi | ertical |
| 261 | |
| | |
| Background Color * 📝 fill Type Gradient | |
| Foreground Color * Gradual Approach Hor | loomal + |
| Gradient Filing Effect | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

4.6.15.3 Elbow

It is mainly used to connect the horizontal pipeline and the vertical pipeline. There are many kinds of elbows in the graphics library. You can use it by clicking the button "Import" to select one to use. They are shown as below.



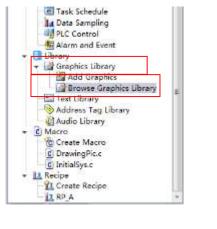
4.7Library

4.7.1GraphicsLibrary

Many graphics need to be used in the project configuration. The VEDA HCT software has a graphics library which provides rich graphics. The users can also add their own pictures to the library to use.

The commands of Graphics Library include "Add Graphics" and "Browse Graphics Library". You can use any of these commands by clicking the menu command "Library/Add

Graphics" or "Library/Browse Graphics Library". You can also double-click the "Library/ Add Graphics" or "Library/ Browse Graphics Library" in the project tree.



| le View Edit Window Drawing Compone | ent Library Macro Recipe Setup | Tools Help |
|---|--------------------------------|------------|
| 3 2 2 3 3 3 4 4 5 5 5 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Engl 🔝 Text Library | 8_1:8asi |
| 6,1:Basic Window(1) X | Add Graphics | |

4.7.1.1 Add Graphics

The "Add Graphics" window is shown as below.

| Name | |
|--|-----------------|
| Status Count: 2 🗘 Width: 300 🗘 Height: 300 🕻 Modify on current graphics library | Select Grapfics |
| Predew | |
| | |
| | |
| | |
| | |
| | |
| | |
| | DE |

4.7.1.1.1 Name, Status Count, Width and Height

You need to give a name for the new added graphic. A graphic may have many statuses. You should set the number of the statuses for the option "Status Count". And you should also set the Width and the Height for your graphic.

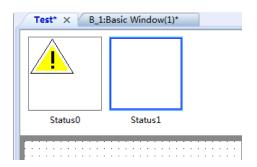
4.7.1.1.2 Modify on current graphics library

Please check the option "Modify on current graphics library" if you want to modify the selected graphic from the graphics library. Then you can click the button "Select Graphics" to select a graphic from the library.

| Name: Test atus Count: 1 * | |
|------------------------------------|-----------------|
| Modify on current graphics library | Select Graphics |
| Preview | |
| Status0 | |
| | |
| | |
| | |
| | |

4.7.1.1.3 Edit

Click the button "OK" to confirm. Then the graphic editor window is displayed. The content of the editor window is corresponding to the selected status. It is shown as below.



4.7.1.2 Browse Graphics Library

The menu command "Browse Graphics Library" is used to open the "View Graphics Library". It is shown as below.

| Callepon Bearches | Dape | 10 | Dnly Vector | Cosphia 🗌 Or | ly Editable Gra | phice | |
|--|------------------|-----------|-------------|--------------|-----------------|-------|--------------------------|
| Current Pagint * Provints Draphics Ubrary 1.1witch 2.2refectorUgH 4.4arpw 5.5ecory 5.5ecory | - backgroun d | taciupace | autori | Button002 | awnowl | 10 | |
| 5 7 Mediate EPeractor Solitety | 9 | 2 | | | | | 1+1==0 |
| a Commonicon | circle dot | Elbew/01 | Erter | (howfolce) | Forbidden | | Add To Paxonies Category |
| a cifia | 1 | _ | - | | | | Add New Graphics |
| a schienney | | | | | | | Edit Graphics |
| a gillectricity | Frame002 | hate003 | Indicatoria | ladicatoria | Indicatoria | | Farmance Graphics |
| | Prameouz | manyeous | mp 1002 | wgr006 | MpPNG20 | 1 | Delete Graphics |
| k Natural USid s vs. Econputer s c. Valve g J.Fen | Status | | | | | | |

4.7.1.2.1"Only Vector Graphics" and "Only Editable Graphics"

You can filter to display the graphics by check the "Only Vector Graphics" or the "Only Editable Graphics".

| Collapes Branches | Shape | Civity Vector Graphics Only Editable Graphics |
|-------------------|-------|---|
| Curvent Project | | * |

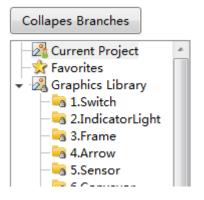
4.7.1.2.2 Add, Edit and Rename Graphics

You can add a new graphic to the library by clicking the button "Add New Graphics". After select a graphic in the library, you can modify it by clicking the button "Edit Graphics" and rename it by clicking the button "Rename Graphics".

| Callepes Branches | Daget | 10 | Dely Vector (| icaphics 🖾 On | ly Editable Gra | phice | |
|--|------------|-----------|---------------|----------------|---------------------|-------|---------------------------|
| Corrent Project | backgrown | taciupace | Jutton | button002 | lattool | | |
| 5.Sensor 6.Carnetyor 7.Medialor 8.Reactor 9.Safety a 6.Centrosicon | divite dat | 5-001 | Enter | fitzandarkos A | Forbidden | | Internet |
| to Treater 1 | | 100 | | | | | Add To Pavorites Category |
| a dPump a chinney | | | | | 0 | | Add New Graphics |
| a Elisev | | | $\mathbf{-}$ | \bigcirc | $\mathbf{\bigcirc}$ | | Edit Graphics |
| AirConditioner | Frame002 | frame003 | Indicatoria | indicatoria. | indicatoria | | Rename Graphics |
| - Silfpeline - Sj.5dk | Rinker | | mp 902 | wip006 | NIPPING28 | 1 | Delete Graphics |
| A k/Natural LDNa S m.Computer S | Status | | | | | | |
| and Assessed States | Discon. | | | | | | Tell |

4.7.1.2.3 "Collapse Branches" and "Expand Branches"

There are rich graphics in the Graphics Library, such as Switch, Frame, Arrow, and so on. You can view the directory on the left area of the "View Graphics Library" window by clicking the button "Expand Branches" and select a required graphic from the directory.



4.7.1.2.4 Favorites

The users can select favorite or popular graphics into the "Favorites" or a category under the "Favorites". The category under the "Favorites" can be added by clicking the button "Add". It can be renamed by clicking the button "Rename" or deleted by clicking the button "Delete".



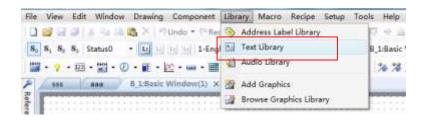
The selected graphic of the Graphics Library can be added to the Favorites or a rategory of the Favorites by clicking the button "Add To Favorites Category".

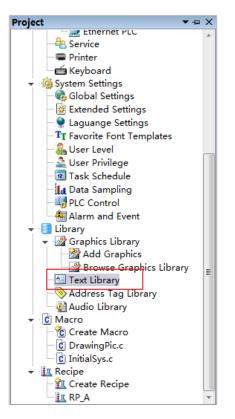
| Colleges Breeches | Shajee | 13 | Gely Vector 6 | iraphies [] On | ly Editable Graphics | | |
|--|-------------|-------------|---------------|----------------|----------------------|-------------------|----------|
| Carrent Project * Caracters Car | Leitch01 | Leith012 | | | Switch005 | | |
| T Medicine 8.88ector | | | | 1 | - | Import | |
| a States | Switch 2005 | Guile H 007 | Seinkötö | Switch011 | 5v8x/8012 | Adul To Favorites | Carryony |
| a tu Toreater | | - | - | B | - | A47.90+314 | - |
| e d.Pump. | 100 | | | | | Ser read | - |
| a filler | | | _ | lumal. | | Autoria Data | ini. |
| A LR pelve | Switch013 | Switch054 | Switch025 | Switch016 | Switch017 | Takan II.a. | ris in |
| a j.Eda a k.Platturpi a I.Divi a m.Computer a n.Langsage a s.Valee | Eldan | | | | | | |

4.7.2Text Library

The text can be saved in the form of multi-languages and multi-statuses by using the function of the Text Library. It can facilitate the users to use the text and modify it together in the project.

The Text Library can be opened by clicking the menu command "Library/ Text Library" or double-click the "Library/ Text Library" in the project tree.





The "Text Library" window will pop up. It is shown as below.

| | 1 | C 0 E F G H | Search | 101 III:11105:3 | ge Display | Sort by | CONCERNMENT. | Siplay Al Lengua |
|-----------|-------------|-----------------------------------|----------------------------------|-----------------|------------|------------|----------------------|------------------|
| 1) (1) | | | | | | SI LAU LAS | | |
| | Name | ie_1 | | | | 1 | Status Number 1 ‡ | Reference Numb |
| | Status D | 1-English (United States) Text | 2-Chinese (Simplified, P Rist | 80 | | ii. | | 2 |
| | Exerne | 192 2 | | | | | 10 | 10 |
| | 0 | 1-English (United States) CKC | RG Sergened, P | 910 | | | | |

4.7.2.1 Search

After enter the name required to find and click the button "Search", all items which match the content will be found out.

Note that only the name is supported to find. The content in different language is not supported to search.

4.7.2.2 Language Display

After click the button "Language Display", the "Language Display" window will pop up. It is shown as below.

| 🕞 Langu | 🖥 Language Display 🛛 💦 | | | | | | | | |
|----------|--|-----------------------------|-------------------|--|--|--|--|--|--|
| | Select languages needed from the list, use "UP" and "Down" to change the relative position. | | | | | | | | |
| | Please note that Up/Down operation only changes the relative display position in the list, while it will not change the list sequence of the language. | | | | | | | | |
| Visible | Serial No. | Language | | | | | | | |
| | 1 | 1-English (United States) | Language Settings | | | | | | |
| V | 2 | 2-Chinese (Simplified, PRC) | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | Select All | | | | | | |
| | | | Up | | | | | | |
| | | | Down | | | | | | |
| | | | Restore Order | | | | | | |
| | | | Confirm | | | | | | |
| | | | Cancel | | | | | | |
| | | | | | | | | | |

4.7.2.2.1 Language Settings

After clicking the button "Language Settings", the "Language Settings" property page will be opened. You can add or delete language and set the display color, size and other information here. The details of the "Language Settings" are referred to: <u>Detailed</u> manual/ Setup/ System Settings/Language Settings.

4.7.2.2.2 Other settings

The checked languages will be displayed in the "Text Library" window. And you can check all the languages by clicking the button "Select All". Meanwhile, you can modify the order of the languages by clicking the button "Up" or "Down" after select a language.

Note:

The settings are valid for the language display effect in the "Text Library" window. It does not change the order of languages.

4.7.2.3 Sort by Name

After clicking the button "Sort by Name", all items in the text library will be sorted in the increasing order by the first letter of the item name.

4.7.2.4 Display All Languages

After checking the button "Display All Language", all the languages will display in the table including which is not checked in the "language display" window.

4.7.2.5 A~Z letters

The A~Z letters are used to locate the desired item.

4.7.2.6 Preview box

The same content to the selected text in the table displays simultaneously in the preview box. If you modify the content in the preview box, the selected text in the table will be modified to the same content.

Note:

The name of the item is not displayed in the preview box.

| Te | Test | | | | | | | | | |
|----|---------------------------------|---------------------------|-----------------------------|--|-----|---|--|--|--|--|
| | Name Status Number Reference Nu | | | | | | | | | |
| - | Exam | ole_1 | | | 1 🗘 | 0 | | | | |
| | Status | 1-English (United States) | 2-Chinese (Simplified, PRC) | | | | | | | |
| | 0 | Test | 测试 | | | | | | | |

The item in the table is shown as below.

| | | Name | | | | Status Number | Reference Number |
|----|---|--------|------|-----------------------|-----------------------------|---------------|------------------|
| | - | Examp | le_1 | | | 2 🗘 | 0 |
| ſ | | Status | 1-En | glish (United States) | 2-Chinese (Simplified, PRC) | | 1 |
| -E | | 0 | Test | | 测试 | | |
| | | 1 | Act | | 执行 | | |

Note:

The name of the item cannot be blank and not be duplicated.

4.7.2.7 New

A new item will be created after you click the button "New".

4.7.2.8 Delete

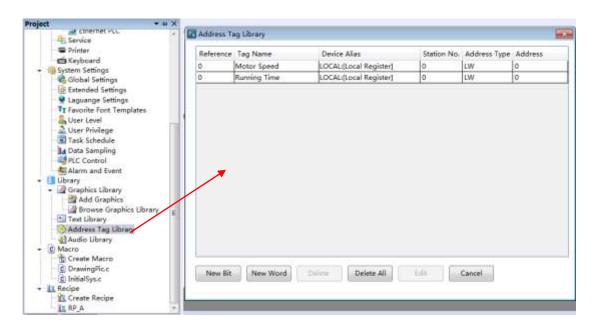
The selected item will be deleted after you click the button "Delete".

4.7.3Address Tag Library

The "Address Tag Library" saves the addresses in the tag form. This makes it easy to use and modify the address for the user.

The Address Tag Library can be opened by clicking the menu command "Library/ Address Label Library" or double-click the "Library/ Address Tag Library" in the project tree.





4.7.3.1 Table preview

The table in the "Address Tag Library" displays the information of all the address tags.

| Reference | Tag Name | Device Alias | Station No. | Address Type | Address |
|-----------|--------------|------------------------|-------------|--------------|---------|
| 0 | Motor Speed | LOCAL:[Local Register] | 0 | LW | 0 |
| 0 | Running Time | LOCAL:[Local Register] | 0 | LW | 0 |
| | | | | | - |
| | | | | | |

4.7.3.2 New Bit

After click the button "New Bit", the "Create Bit Address" dialog will pop up. You can create a new bit address here. The details to input the bit address are referred to: <u>Detailed</u> <u>manual/General functions/Address editor/Standard Bit Address Input</u>.

| Reference | Tag Nan | | Device Alias | | Station No | Address T | pe Address |
|-----------|---------------------|------------------------|---|-----------|------------|-----------|------------|
| 0 | Motor Se Running | Create Bit | Address | Constant. | -10 | - | 0 |
| | | Tag Name | Bit Adress 1 | | 1 | | 12 |
| | | Deivre: LOK | AL-JLocal Regist | er) | | •] | |
| | | | within a Byte Re | gister | | | |
| | | Address Typ Address | and the second se | - | System Re | aister | |
| | | | e) 000000(0- | 799999) | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | O | 6 | ancel | |
| New Bit | 00 f20 | Word | Delate De | lete All | City C | Cancel | |

4.7.3.3 New Word

After click the button "New Word", the "Create Byte Address" dialog will pop up. You can create a new word address here. The details to input the bit address are referred to: Detailed manual/General functions/Address editor/Standard ByteAddress Input.

| Referenc | e : Tag Nan | | Device Alias | | Station No | Address Typ | e Address |
|----------|-------------|--|----------------------------|----------|--------------|-------------|-----------|
| 1 | Bit Addr | - I | OC Mill and Reals | test. | la li | | 0 |
|) · | | Create Byte A | ddress | | | 100 | 0 |
|) | Running | Tag Name | Nord Address 1 | | 1 | | 0 |
| | | | [Local Register] | | | | |
| | | Address Type: Address: 0 Format(Range) | LW IO DODDODIO-79995 | * 19) | System Regis | teri) | |
| | | | | OK. | Cano | e | |
| New B | 1 1 1 1 1 1 | Word Dek | to Delete A | ×11 × | dit C | incel | |

4.7.3.4 Delete

Delete the selected tag.

4.7.3.5 Delete All

Delete all tags.

4.7.3.6 Edit

Modify the selected tag.

4.7.4 Audio Library

In the VEDA HCT software, you can use some specific audios. These audios can be selected from the Audio Library or be added from the other devices.

The Audio Library can be opened by clicking the menu command "Library/ Audio Library" or double-click the "Library/ Audio Library" in the project tree.



| roject | ** | : X |
|--------|----------------------------|-----|
| 1.1 | et Ellernet FUL | |
| | 40 Sendce | |
| | E Printer | |
| | 🖆 Keyboard | |
| | System Settings | |
| | Global Settings | |
| | Extended Settings | |
| | Laguange Settings | |
| | Tt Favorite Font Templates | |
| | Subser Level | |
| | 🚨 User Privilege | |
| | Task Schedule | |
| | Le Data Sampling | |
| | PLC Control | |
| | Alarm and Event | |
| - 8 | Library | |
| | Graphics Library | |
| | Add Graphics | |
| | Browse Graphics Library | ц |
| | Test Library | 11 |
| | Address Tag Library | |
| | Audio Librara | |
| - 1 | Marry | |
| | Create Macro | |
| | C DrawingPic.c | |
| | C InitialSys.c | |
| - 11 | Recipe | |
| | 1 Create Recipe | |
| | IL RP.A | 1 |

The "Audio Library" is opened as below.

| Audio Netwo Sleep Avey | The Name Skep Away.mp3 | Raterana Tirtes | File Size(KID) 4728 | Rote Lengt | Import Audia |
|---------------------------|---------------------------|-----------------|------------------------|------------|-------------------------------|
| · seed week | seeb www.mps | 10 | 4/20 | 200/0 | Support from System Catalogue |
| | | | | | Equal to a state |
| | | | | | Debte Kulter |
| | | | | | The Anths |
| | | | | | Important Horge Hadio Close |
| | | | | | Edited Auto Many |
| | | | | | Char |

4.7.4.1 Import Audio

After click the button "Import Audio" or "Import from System Catalogue", the audio file in the current computer can be imported to the Audio Library.

| Audio Marrie | Tile Name | Reference Times | Fire Size(101) | and include the second second | Import Audio |
|--------------|----------------|-----------------|----------------|-------------------------------|------------------------------|
| Terraney. | Desp Mexicop 2 | | 4773 | 20041 | Import from System Catalogue |
| | | | | | Export Audio |
| | | | | | Delete Audio |
| | | | | | #lay Audio |
| | | | | | Deport and Merge Auste Line |
| | | | | | Toport Auto Linky |
| | | | | | Char |
| Sloop Auty | Auffa Name: | Seen Adres | (14.5% | 64729400 | |
| | (C) He have be | | | arger2018s | |

4.7.4.2 Export Audio

You can click the button "Export Audio" to export the selected audio. So the other projects can use it.

| kadio Name Di Geep Away | File Name Geep Awayrep3 | Bafaranza Tirva | # Na Sin(83) | Autio Sengit 200.6 | Import Audio : |
|----------------------------|----------------------------|-----------------|--------------|----------------------------|------------------------------|
| (come | Grantering | | HED . | 3811 | Unport from System Catalogue |
| | | | | | Export Audio |
| | | | | | Delete Audio |
| | | | | | Play Audio |
| | | | | | ingent wid Marge Auto Three |
| | | | | | |
| | | | | | feperilalis they |
| | | | | | Toport Budie Chowy |
| talivia | Audio N | ing faints | | e-923748 Geogle(148.35/ | |

4.7.4.3 Play Audio

After you import the audio to the Audio Library and select it, you can click the button "Play Audio" to listen.

| Audio Name Sloop Away | File Name Geop Awaympil | Bafarance Tyree | 4729 | Autio Sengt | Import Audio : |
|--|----------------------------|----------------------------|------|---------------------------|------------------------------|
| kainta - | Grantsorgel | | 810. | 181 | import from System Catalogue |
| | | | | | Export Audio |
| | | | | | Deteta Audio |
| | | | | | Play Audio |
| | | | | | Ingent wit Marge Auto Three |
| | | | | | fapor Bullethray |
| | | | | | Cear |
| a la | | na Kalindu Nalindu ng I | | e#257408 .eegek.048.34 | |

4.7.4.4"Delete Audio" and "Clear"

You can delete the selected audio by clicking the button "Delete Audio". And you can delete all the audios of the Audio Library by clicking the button "Clear".

| Sleep Anny | File Name Geep Awayrepil | Bafarance Tyre | ev Na Sim(83) 4729 | Autio Sengt 200.6 | Import Audio . |
|------------|-----------------------------|----------------|-----------------------|-------------------------|------------------------------|
| norme - | Generation | | 610 | 1011 | Import from System Catelogue |
| | | | | | Export Audio |
| | | | | | Delete Audio |
| | | | | | Play Audia |
| | | | | | Input sid Marp Auto Dama |
| | | | | | feper indictiony |
| | | | | | Cear |
| | | | | | |
| taiwis | Autor I | Kalindus | | e#25798 .eeg8/348.54 | |

4.7.4.5 Name

You can change the name of the imported audio in the edit box "Audio Name" for your project.

| Auto Name Slotp Away | His Name Slass Away mp I | Autoretice Tires | Rie Ube(SB) 4729 | Audio Lengt | Import Audie |
|-------------------------|-----------------------------|------------------|---------------------|-------------|-------------------------------|
| C Kelvelat | Kalenbarry) | 8 | 8257 | 148.1 | Import from System Catalogo |
| | | | | | Esport Audio |
| | | | | | Deleto Audio |
| | | | | | Play Audio |
| | | | | | Imposit and Merge Budle Libra |
| | | | | | |
| | | | | | barrt kalk Ubiey |
| | | | | | Char |

4.7.5 Watch Address Table

"Insert Watch Address" button will be used in the alarm content display of the "Alarm and Event Detail Setting". You can set the "Watch Address Table" in the following ways.

| Trigger Condition | Aidio |
|---|--|
| Add Meridian | Action Action Triggering Confirming Recovery Action El Marco |
| Text and Record Description: EText Lib. | Text Life |
| Language (1-English (Jubited S. + 🔍 Ease to Tex | e Lb |
| | E Popup Wedow |
| | Prive Schormation in: Printee |
| | |

You can click the button as shown in the figure to enter the "Watch Address Table" (path : Alarm and Event Display/Alarm and Events Login/Create/Insert Watch Address), you can also enter it through the tool bar(path: Library /Watch Address Table).

The "Watch Address Table" page is shown as below:

| Watch Address Table | |
|-----------------------|---------------------|
| Name | Addres |
| Fire Alarm | LWD |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Add Modify Delete Cle | ear Select And Quit |

Add: You can add new watch address entry. Click "Add", set the watch address name, such as "Fire Alarm", and set the address of the watch entry, such as "local

register LW0", set the data format, there are various data types to choose; click "Confirm" after setting finished, you can see the figure as below.

Modify: You can modify the created watch address entry.

Delete: You can delete the selected watch address entry.

Clear: You can delete all watch address entries.

Select and Quit: When you enter the "Watch Address Table" from the "Alarm and Event Detailed Setting" page, select the watch address entry you are using, click the "Select and Quit" button to complete setting.

| Use Address Tag Deivce: LOCAL:[Local Register] Address Type: LW Address: 0 Address: 0 Address: DDDDDDD[0Occupy: 1 Word Address Index Data Format Data Type: Id;bit:Unsigned | Watch Address Nam | | 4 | 1 | | | | |
|--|---|--------------|--|------|--------------|--------------|------|-------------|
| Address Type: LW + Address: 0 II System Register Format(Range) DDDDDDD(0Occupy: 1 - Word Address Index Data Format | and the second second | | | | | | | |
| Address 0 System Register Format(Range) DDDDDD(0Occupy: 1 + Word Address Index Data Format | Deivce: LOCAL:[Loca | si Register] | | | | | | |
| Address 0 0 System Register Format(Range) DDDDDD(0Occupy: 1 + Word Address Index Data Format | | | | | | | | |
| Format(Range) DDDDDD(0-,_Occupy: 1 + Word Address Index Data Format | Address Type: LW | | | | | | | |
| Address Index Data Format | ddress: 0 | 10- | System Regis | ter | | | | |
| Data Format | The second | | 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1- | | | | | |
| Data Format | Cormat(Range) DDDI | DDDI0Occu | 1py: 1 - W | lord | | | | |
| Data Format | Format(Range) DDD | 000(0~0co | apy: 1 - W | lord | | | | |
| And a second secon | format(Range) DDD | 000(0~0co | ару: 1 — М | lord | | | | |
| Data Type: 16-bit Unsigned * | | 000(0~0co | abk I M | lord | | | | |
| | Address Index | DDD(0~Oco | ару: [1 — +] М | lord | | | | |
| Integer digits 4 🗘 Decimal Point: 0 🙏 🗌 Display Positive Sign 📃 Zero Padding U | Address Index Data Format | | иру: 1 — И | lord | | | | |
| | Address Index Data Format Data Type: 16-bit | Unsigned * | | | 🗍 Oispiley P | asitive Sign | Zero | Padding Lef |

4.7.6 Device Tag Library

The "Device Tag Library" saves the device addresses in the tag form. This makes it easy for the users to use and modify the addresses .

You need add the contents of the tag first when using the devices of tag type. The added tag should be the tags on the tag type devices.

| Task Schedule Data Sampling PLC Control Alarm and Event Library Graphics Library Add Graphics Browse Graphics Library Address Tag Library Address Watch Table Device Tag Library Create Macro Recipe Create Recipe Create Recipe | |
|--|-------|
| Add Equipment | Stre- |

Add Equipment: Click the "Add Equipment" button, select the "Serial Port Type", and select the "Manufacturer" and "Device Type". Then click "OK" to finish adding after selecting device, the added device should be the tag type device here, such as the figure shown as below.

| Serial Port Type: | Serial Ports C Ethernet Port | |
|-------------------|------------------------------|---|
| Manufacturer: | Allen-Bradley | • |
| Device Type: | AB Micro850_CINTAG | • |

| All MeedBog (2011AS + 2 Ethernet Port Ethernet Port BDOG SINT USNT INT | Add Data Type Description Dele Boomy Add Data Type Modily Add Data Type Modily Egeny Modily Cluse as Ubiery a Ports Merred Data Type Second No. Dele Second No. Dele Second No. Dele | Add Data Type Deta Type Deta Type Deta Type Deta Type Deta Type Add Data Type ModRy Add Category Mark Ma | Name Data Type Description Dele abc NEAL Add Oats Type Modify Add Oats Type Modify Cluse V Cluse V Cluse V Cluse | Add Data Type Description Descrip | Add Category Marrie Box Marrie Box Marrie Description Description Description Description Description Marrie Description Marrie Description Marrie Description Marrie Description Marrie Description Marrie Description Cent Description Marrie Description Cent Description Marrie Description Cent Description Marrie Description Cent Cent Description Cent Ce | Data Type | | | 1. |
|--|--|--|--|--|--|---|---------------|--|-----------------|
| Add Category Add Category Add Category Add Category Bener For Bene | Add Data Type Description Deta abc AEAL Add Data Type ModRy Add Data Type ModRy Espony Add Data Type ModRy Espony Add Data Type Sector No. Origination Add Boots Boots Boots Stort USNT U | Add Category Add Category Social Ports RE MicroBDC CATEGOR | Name Data Type Description Dele skc REAL Image: Constraint of the constraint of th | Add Category Add C | Add Category Add C | - flexem | | | |
| Add Castegory Ad | Add Data Type Modily Add Data Type Modily a Dotts Modily a Dotts Modily | Add Cettegory Ad | Add Oats Type Modify Add Oats Type Modify SECURATIONS Constrained and Constant Type Station No. Ori Reservable and Constant Co | Add Category Add Category Add Category Add Category Add Category Add Category Catego | Add Category Add Category Add Category Add Category Add Category Add Category Catego | abs | Description | | |
| Add Category Add C | Add Data Type Modily Add Data Type Modily a Dotts Modily a Dotts Modily | Add Data Type Modily Add Category Add Data Type Modily Converting Ubery Serial Ports Mised Science Const Serial Ports Mised Science Const Preventable able Serial Ports Mised Science Const Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable Preventable able Preventable Preventable able Preventable able Preventable able Preventable Pr | Add Oats Type Modify Add Oats Type Modify SECURATIONS Constrained and Constant Type Station No. Ori Reservable and Constant Co | Add Category Add Category Add Category Add Category Add Category Add Category Catego | Add Category Add Category Add Category Add Category Add Category Add Category Control | | | | |
| Add Category Add C | Add Data Type Modify Add Data Type Modify a Dota Type Station No. Or Microbiological Statio | Add Data Type Modily Add Category Add Data Type Modily Converting Ubery Serial Ports Mised Science Const Serial Ports Mised Science Const Preventable able Serial Ports Mised Science Const Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable able Preventable Preventable able Preventable Preventable able Preventable able Preventable able Preventable Pr | Add Date Type Modify Add Date Type Modify Scilling Scilling Name Date Type Station No. Or Reservable abc • Const Name Date Type Station No. Or Reservable abc • Const Name Date Type Station No. Or Scilling | Add Category Add Category Add Category Add Category Add Category Add Category Catego | Add Category Add Category Add Category Add Category Add Category Add Category Control | | Neme | Data Tuna - Data sinfe | . 04 |
| Add Category Add C | Add Data Type ModRy Rgony Add Data Type ModRy Rgony Add Data Code Regeny Add Data Type Station No. Or Rgony Add Data Type Station No. Or Regense Call Add Regense Call A | Add Data Type MidRy Add Category Add Data Type MidRy Conne Tag Ubray Serial Ports MS MicroSSS (2017A) P Blammel Plun Remmaticable + Remmaticable + Rem | Add Date Type Modify Add Date Type Modify Class Type Station No. Or Science Station No. Or No. Name Date Type Station No. Or No. Or No. Or No. Or No. Or No. Or No. Or No. | Add Category Add Data Type ModiBy Add Category Add Data Type ModBy Class Denie Tag Ubiwy Serial Ports Bitement Run Remembodio abo Data Type Station No. Ov No. | Add Category Add C | | | | |
| Add Category (Unit Daw Color) Device Tag Ubway | egory And Data Group Cluster as Ultrary III Ports Microsoft Cluster All Contemposities Station No. Or All Contemposities Station No. Or All Contemposities Cluster Biological Station No. Or Biological | Add Category Add Date Cover Device Tag Ubray Cover * Secial Ports Als Nece355 (2017AS) * 2 Ethemet Port Ethemet Port Ethemet Port | Class V ECRITAS Neme Data Type Station No. Or Neme Neme Data Type Station No. Or Neme Data Type Station No. Or Neme Data Type | Add Category Add Date Court Denie Tag Ulway | Add Category Add Date Color Denie Tag Ulway - Serial Ports AE Meinesse Cattag - Blemmet First Reservation of the Series | | | 0757 | 1.05 |
| Device Tag Ullvary + Statial Ports NE MicroBSS (2017AS Elfermen Port Elfermen Port Biolog Station Ni Allo Heremabicatio Biolog Station Ni Allo Biolog Station Ni Allo Biolog Station Ni Allo Biolog Station Ni Allo Biolog Station Ni Allo Biolog Station Ni Allo Biolog Station Ni Allo Biolog Station Ni Biolog Station Ni Biolog Station Ni Biolog Station Ni Biolog Station Ni Biolog Station Ni Biolog Station Ni Biolog Station Ni Biolog Station Ni Biolog Station Ni Station Ni Biolog Station Ni Station Ni Station Ni Station Station St | eg Uliviery | Device Tag Ultrary . | V Name Data Type Station No. Ou Name Data Type Station No. Ou No. Out No. Out Station No. Out Station N | Device Tag Ubway | Device Tag Ubiary | | Add Oats Type | Modiły | |
| Serial Ports ReferenceScientifics | al Ports Neuroscience Calification meet Port Port Port Port Port Port Port Port | Social Poots AE Memodolo CUITAS AE Memodolo CUITAS Ethemest Point Mane Data Type Station No. Anc fewemulocabic Social So | ECENTARS Name Data Type Station No. De Alto Reservatoratio - 0 1 Reservatoration SINT USINT UNIT UNIT UNIT UNIT | Serial Ports AE MemoSQLCHTAG Mame Deta Type Station No. Det Alic Memorabicatio Port Deta Type Station No. Det Alic Memorabicatio Port Deta Tevernabicatio | Serial Ports AE MemodSQ CATAS Alic Memo Deta Type Social Ports Alic Memory abc.abc Social S | Add Campoon Links Com | | | Cine. |
| AB MeedBag_CBITAG Bisemet Port Bisemet Port Biolog SINT USNT INT | MenedSb_CRFIAS meetPort AiC fevern.sbc.abc BDOL SINT USNT USNT UNT UNT UNT UNT UNT UNT | AB MeedBoccIII AB AIC fewernalocabc • C | ALC Revenuebcabo - Preservaboabo - Preservaboa | All Mendials (2017AS) Bernahoubo | AB MeedBag_CUPTAG AIC RevenueScalar Bitori | | Crow - | | Gus |
| filowernabc-abc BOOL SINT USNT USNT INT | Prevenuabcarbo BIDOL SINT USNT UNT UNT UNT UNT | Neversabcabc BICOL SIMT USENT INT UNT UNT | Recentable BOOL SINT USENT UNT UNT UNT UNT | Nevervabcarite BOOL SINT USINT INT LINT CONT | Filewernabc-abc BDOL SINT USNT INT UNIT UNIT | Orvice Tag Ullvary | | Data Type | |
| SINT USENT INT | SINF USBNT INT UINT CD/VT | SIANT USENT INT USENT | SINT USINT INT UINT UNIT | SMF USENT UNT UNT UNT | SINT USENT INT LINT CITU | Oevice Tag Ulivary | Name | | Station No. De |
| INT | UNT UNT GINT CONT | UNT UNT CONT | | INT LINT CONN UCSINT | TKT LUNT CONT UDINT | Oevice Tag Ulivary | Name | flexemabcabc flexemabcabc | Station No. De |
| | UDINT | | UDINT | UDINT | UDINT | Oevice Tag Ulivary | Name | flevenuabcabc flevenuabcabc BIODI SINT | Station No. De |
| LINT | UDINT | LUTI - | UDINT | UDINT | UDINT | Oevice Tag Ulivary | Name | flewernabcabc Reversabcabc BOOL SINT USENT | Station No. De |
| UDINT | | | REAL | REAL | REAL | Oevice Tag Ulivary | Name | ferrematicatic Recent abs abs BIDDL SINT USINT USINT UNIT UNIT | Station No. De |
| REAL | REAL | REAL | | | | Oevice Tag Ulivary | Name | fierematicatic Recentaticatic BDOL SINT USINT USINT UNIT UNIT | Station No. De |
| | | | | | | Oever Tag Ulway | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Orvice Tag Ulivary Serial Ports AB Micro850 (CIITAG | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Oevice Tag Ulivary | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Oewee Tag Ulivary | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Oevice Tag Ulivary | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Oevice Tag Ulivary | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Oever Tag Ulway | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Oever Tag Ulway | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Oever Tag Ulway | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| | | | | | | Oevice Tag Ulivary | Name | fineervalocabo Reservalocabo BIDIL SINT USENT INT UINT UINT UINT UINT | Station No. De |
| Add Inport Erport 0 | Add Import Erport Opte Typ | | Add Interest Toront Court | Add Depart Transf | (Ald) Invested I France I Parts T | Oewee Tag Ulivary | Name | finemulocabo Reservatocabo BOQ SINT USBNT HIT LINT LINT UDINT REAL | Station Nrs. Cu |

Add: You can add tags manually, enter the tag name, select the data type and station number, click "Save" after finishing adding.

Import: You can import the tags directly in the form of file, this will facilitate users to quickly establish a tag library. the tag file format can be imported is CSV file. The CSV format files can be exported by the tag type PLC software, you can also make it with Excel, About the table format, you can refer to "Export the CSV File".

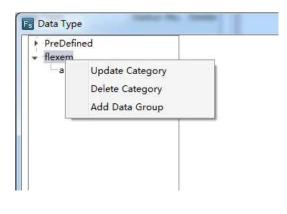
Export: You can export the added contents of the tag library as CSV format files, which you can quickly import to other devices to use.

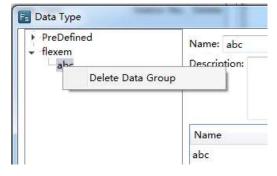
Data type: You can classify and group the data type of the device tags, this will facilitate users to quickly select the data type they need. Click the "Data Type" button, click the "Add Category", then you can define the category name, click the "Add Data Group", you can add the elements of the group - data type. Click "Close" after the definition.

After defining the data type, you can see the data type just defined in the "Data Type" page, as shown below: you can select the data type for the "flexem / abc.REAL", the nature of this type is "REAL".

Delete Data Type:

Right-click the data category then you can modify category, delete category, and add data group. Right-click data group then you can delete the data group.





4.8Macro

4.8.1Create Macro

Click the menu command "Macro/ Create Macro" or double-click the "Macro/ Create Macro" in the project tree, you can open the "Create Macro" window. It is shown as below.

| 2 Macin Permation | | =1970 |
|---|---|---|
| E a S | A GA Cap Fache Locks Robe Add New Address Dama | |
| Nees Marro Cofe | Verse staco, 1 Description Description Description | Read Wite Function System Function Comparison and Conversion Function Operator |
| Conte (Frim) All (Inport) Export (Matro Onfe Addres Statement | | legan and itset [Red and Replace] |

(1)Name

You need to designate a name for the new macro. It will be displayed in the "Macro" directory of the project tree. When you call and execute a macro, the name is used. It can be in Chinese or English.

(2) Description

The "Description" is used to introduce the macro, which is similar to the "Comments". It can be in Chinese or English.

Click the button "OK" to confirm and the new macro will be displayed in the macro editor as below. You can also click the button "Cancel" to cancel the new macro.

| Macro Instruction | | | trick K |
|----------------------------|----------------------------|------------------|--|
| Create Macro Town Bare All | A Ga B Con Control Add New | Address Compiley | e Helo |
| Afes Norma Address | TransData: X | - 13 | ead Write Fundore ynere Fundore ompadiere ood Convertier Fundo yerden |
| Greater (Dorne) (Addr.) | | | |
| Marrn Code | 9e | 1.0 | r assistant Frid and Replace |

You can edit the macro code in the code editor window. The details are referred to: <u>Use topic/Macro</u>.

4.8.2Edit Macro

Click the menu command "Macro/ Edit Macro", you can open the "Macro Instruction" window. It is shown as below.

| Deate Matter Line M | vi p. lindo Redo | 9 Mil hao Schinne | Conste | e Help | |
|--|---------------------|----------------------|--------|---|--|
| Neew Macro Code mailys Croelogic restData | | | 1000 | Road Write System Parce Comparation Operator | |
| Create Training Last | | | | | |

The existing macros are listed on the left side of the "Macro Instruction" window.

After clicking any one of the existing macros, you can delete, modify, import and export it. But the deleted macro will not be recovered.

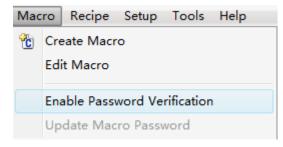
After double-click any one of the macro, the macro can be opened and display in the code editor window area.

The details are referred to: Use topic/Macro.

4.8.3 Enable Password Verification

You can use the password verification function to protect the macro codes.

Click the menu command "Macro/Enable Password Verification", you can open the "Set Macro Password" window.



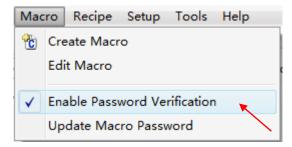
| 🕞 Set Macro Passw | ord 🗾 |
|-------------------|-----------|
| Password: | 123456 |
| Confirm Password: | 123456 |
| | OK Cancel |

Note the "Confirm Password" needs to be same to the "Password". Otherwise the "OK" button will be unavailable.

After you enable password verification, the "Verify Password" window will pop up when you click the menu command "Create Macro" or "Edit Macro". These two menu commands can be use only after you entering the correct password. The "Verify Password" window is shown as below.

| ҕ Verify Password 🛛 🛛 💽 |
|-------------------------|
| Password: |
| Verify Cancel |
| |

If you want to cancel the password verification function, you can click the menu command "Macro/Enable Password verification" again and enter the correct password to cancel the password verification function.



If you want to modify the macro password, the details are referred to: <u>Detailed</u> <u>manual/Macro/Update MacroPassword</u>.

Note: The macro password is a global password. All macros need to password verification once you enable the password verification function. You can't set a password for a single macro.

4.8.4 Update Macro Password

If you use the "Enable Password Verification" function, the menu command "Update Macro Password" is available. Otherwise this command is not available.

The menu command "Update Macro Password" is available. It is shown as below.

| Mad | ro | Recipe | Setup | Tools | Help |
|-----|-----|------------|----------|------------|------|
| 1 | Cre | eate Macr | o | | |
| | Edi | t Macro | | | |
| ✓ | Ena | able Passv | word Ve | rification | 1 |
| | Up | date Mac | ro Passv | vord | |

The menu command "Update Macro Password" is not available. It is shown as below.

| Mac | ro | Recipe | Setup | Tools | Help |
|-----|-----|------------|----------|-----------|------|
| °C | Cre | eate Macr | o | | |
| | Edi | t Macro | | | |
| | Ena | able Passv | vord Ver | ification | |
| | | | | meadon | |
| | Up | date Mac | ro Passw | /ord | |

After click the "Update Password Verification", the "Update macro password" window will pop up.

| 🖪 Update macro pa | assword 💽 |
|-------------------|-----------|
| Old Password: | 123456 |
| New Password: | 654321 |
| Confirm Password: | 654321 |
| | OK Cancel |

Enter the correct old password and valid new password, then clicking the button "OK" to confirm the password modification.

If the new password is not valid, the button "OK" is unavailable.

After click the button "OK", a "Warning" window will pop up to message that the old password is error if the old password is not correct.



4.9 Recipe

Recipe refers to a group of data saved in a continuous registers of the HMI device. The data in this area is resistant after powering off. It can be quickly downloaded to the controller.

Click the menu command "Recipe/ Create Recipe" or double-click the "Recipe/ Create Recipe" in the project tree, you can open the "Recipe" settings page. It is shown as below.

| 10 - 7235 No | | | | | |
|-------------------------|--------------------------------|----------------|------------|---------------|---------|
| Neme: RP_ | Recipe Length | 11 | Data Entry | Array Formula | 1000 \$ |
| Address of Recip | e Storage | | | | |
| | Word address range: | NPW_0-999 | | | |
| | Word address index range: | RPW() 8-8 | | | 0 |
| | Bit address range: | RPB_022-98912 | 5 | | |
| | Bit address index range: | RPH 0.0-0.19 | | | |
| | Current recipe ID registen | RPL: 0 | | | 1 |
| 171 Use Fe | ternal Address as Recipe index | | | | |
| | nt recipe bit address. | | | | |
| Cear curre | nt recipe bé address. | | | | |
| Clear curre | 0 | | | | |
| Clear curre | nt recipe bé address. | | | | |
| Clear curre | nt recipe bé address. | | | | |
| Clear curre | nt recipe bé address. | | | | |

4.9.1General

4.9.1.1 Name

You need to specify a name for the new recipe for the "Name" option. The name can be English, numbers, letters, and so on. The prefix name "RP_" is fixed and not editable. It represents a "recipe register". For example, if you give a name "coffee" for a recipe, then the whole name of the recipe is "RP_ coffee". The recipe word register name is "RPW_coffee".

4.9.1.2 Recipe Length

The default "Recipe Length" is 1. You can modify it by clicking the button "Data Entry" or clicking the title of the settings page "Data Information". The Recipe Length refers to the number of words occupied by each group of this recipe.

4.9.1.3 Array Formula

The default value of the "Array Formula" is 1000. It ranges from 1 to 65535.

The whole length of the word register addresses occupied by the recipe can be calculated after you set the "Recipe Length" and the "Array Formula". For example, if the "Recipe Length" is 10 and the "Array Formula" is 1000, then the whole length of the word register addresses occupied by the recipe is 10*1000=10000.

4.9.1.4 Address of Recipe Storage

You can view the details of the addresses occupied by the recipe in the "Address of Recipe Storage" area. It is shown as below.

| Recipe | | | | 8 |
|---------|---------------------|----------------------------|---------------------------------|---------|
| Seneral | Data Information | i | | |
| Name | RP coffee | flecipe Length | h 10 C Date Entry Array Formula | 1000 \$ |
| Add | ess of Recipe Store | ige | | |
| | | Word address range: | RPW_coffiee(0-9999 | |
| | W | ord address index range: | RPWI_coffee.0-9 | |
| | | Bit address range: | RPR_suffee: 0.0-9999.15 | |
| | | Bit address index range: | RPRL auffeet 0.0-9.15 | |
| | 0 | urrent recipe ID register: | RPL and terms to | |
| | III Use External | Address as Recipe index | | |
| | Note Clear all re | cipe bits addresses | | |
| - 7 | | ope wor manager | | |
| | | | | |
| | | | | |
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4.9.1.4.1 Word address range

For example, the "Recipe Length" is 10 and the "Array Formula" is 1000, so the whole length of the word register addresses occupied by the recipe is 10*1000=10000. The Recipe name is "RP_Coffee". So the address range of the word registers is "RPW_ Coffee: $0 \sim 9999$ ".

4.9.1.4.2 Word address index range

In the above example, the "Recipe Length" is 10 for each group of the recipe. So the Word address index range is "RPWI_ coffee: 0-9."

4.9.1.4.3 Bit address range

The bit address range is determined by the word address range. So the bit address in the above example is "RPB_ coffee: 0.0 to 9999.15."

4.9.1.4.4 Bit address index range

Similarly, the bit address index range is determined by the "Recipe Length". So the "Bit address index range" is "RPBI_ coffee: 0.0 to 9.15."

4.9.1.4.5 Current recipe ID register

The "Current recipe ID register" is used to specify the group number of the recipe. For the above example, the "Current recipe ID register" is "RPI_coffee: 0". It is a unique register for each recipe.

4.9.1.4.6 Use External Address as Recipe index

It is not checked by default. If it is checked, you can specify a word address as a recipe ID register and the "Current recipe ID register" (such as "RPI_ Coffee: 0") is not valid.

4.9.1.5 Clear current recipe bit address

It is not checked by default. If it is checked, you can specify a bit address. If it is set ON, the current data of the recipe group which specified by the recipe ID register will be cleared. After the data is cleared, this bit address will be reset OFF. It is shown as below.

| eneral | Data Information | | | | | |
|--------|---|-------------------------|------------------|-----------------|----------------------|----------|
| Name | RP_ coffee | Recipe Length | 10 2 | Data Entry | Array Formula | \$000 \$ |
| Add | ess of Recipe Storage | | | | | |
| | | Nord address range: | IIPW, coffie: 0- | 9999 | | |
| | Word | address index range: | RPAN_coffice 9 | -9 | | |
| | | Bit address rangei | RPE_coffee: 0.0 | -9990.15 | | |
| | Bk | address index range | RPBL colline 30 | 60.15 | | 3 |
| | Curre | nt recipe ID register: | RPL caffee: 0 | | | |
| | 🔲 Use External Add | kess as Recipe index | | | | |
| | lote: Clear current recip etting to OFF. | e bit address. 680 is C | NtCurrent recip | e uil be cleare | d, atter clearing fi | nished; |
| | | | | | | |
| | Note: Clear all recipe | bits addresses | | | | |

For example, if the value of the "RPI_ coffee: 0" register is 3, the data of the No. 3 group of the recipe "RP_coffee" will be cleared when the "Clear current recipe bit address" LB0 is set ON. After finish clearing,LB0 will be reset OFF.

4.9.1.6 Note: Clear all recipe bit addresses

It is not checked by default. If it is checked, you can specify a bit address. If it is set ON, the data of all the recipe groups will be cleared. After the data is cleared, this bit address will be reset OFF. It is shown as below.

| Name RP_ coffice I Recipe La Address of Recipe Storage Word address rat Word address rat Bit address index rat Bit address index rat Current recipe 3D regin Use External Address as Recipe in II Use External Address as Recipe in III Otac Clear current recipe bit address. LB Setting OFF. | nge: RPW_coffee:0-9998.15 nge: RPW_coffee:0-9998.15 nge: RPB_coffee:0-9998.15 nge: RPB_coffee:0-999 |
|--|--|
| Word address rad Word address index rad Bit address index rad Bit address index rad Current recipe ID regi Use External Address as Recipe in Core current recipe bit address. LBO Note: Clear current recipe bit address. LBO | rge: RPMD_suffree 0-8 amp_coffice.00-9395.13 rge: RPBL_coffice.00-5.25 dee: RPL_coffice.0 |
| Word address index ra Bit address rat Sit address index ra Current recipe ID regi Use External Address as Recipe in Coar current recipe bit address. LBD Note: Clear current recipe bit address. LBD | rge: RPMD_suffree 0-8 amp_coffice.00-9395.13 rge: RPBL_coffice.00-5.25 dee: RPL_coffice.0 |
| Bit address rat Bit address index rat Current recipe ID regis Use External Address as Recipe in IZ Dear current recipe bit address. LBD Note: Clear current recipe bit address. LBD | nge: IBPB_coffice.0.0-9995.13 IBPB_coffice.0.0-515 IBPB_coffice.0.0 IBPC_coffice. |
| Bit address index ra Current recipe ID regi Use External Address as Recipe in Coar current recipe bit address. LBD Note: Clear current recipe bit address. LBD | nger Rang coffee 0.0-6.25 |
| Current recipe ID regin | ster: Inst_culture 0 vdex |
| Use External Address as Recipe in Clear current recipe bit address. LBD Note: Clear current recipe bit address. LBD | vdex |
| Oear current recipe bit address. LBD Note: Clear current recipe bit address. LBD | |
| Note: Clear current recipe bit address. LB | 1940 |
| and an apply of the second | 50 is Unclument reope will be cleaned, after cleaning intelled, |
| V Note: Clear all recipe bits addresses | 181 |
| Note: Clear all recipe bits addresses. LB1 setting to OFF. | is ONUAll Current Recipes will be cleared, after clearing finished. |

For the above example, all the data of the recipe "RP_coffee" will be cleared if the bit register LB1 is ON. After the data is cleared, LB1 will be reset OFF.

4.9.2 Data Information

The default "Data Information" settings page is shown as below.

| Address Offset | Number of Words | Is Data Group | Data Group Length | Data Type | Data Nam |
|----------------|-----------------|---------------|-------------------|---------------|----------|
| n | 1 | No | 100.000 | 16-bit Umigre | 1 |
| | | | | | |
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| | | | | | |

The default recipe length is 1. A 16-bit unsigned data is preset.

4.9.2.1 Modify

After double-click the selected entry, the "Data Setting" dialog will pop up. You can modify the settings for this entry. It is shown as below.

| 🕞 Data Setting | |
|----------------|-------------------|
| Name: | |
| Address Offset | 0 |
| Data Type: | 16-bit Unsigned 👻 |
| 🔲 Data Grou | р |
| | OK Cancel |

4.9.2.1.1 Name

A description for the data of this entry can be given here.

4.9.2.1.2 Address Offset

It refers to the address offset of this entry in the recipe. The address offset of the first entry starts from 0. It is determined according to the data type and the entry order by system and not be edited.

4.9.2.1.3 Data Type

A data type needs to be set here. The default is "16-bit Unsigned".

4.9.2.1.4 Data Group

It is not checked by default. You can check it when you need to define a group of the same data type data for this entry.

| 🕞 Data Setting 📃 🖃 💌 |
|------------------------------|
| Name: |
| Address Offset 10 |
| Data Type: 16-bit Unsigned 🔻 |
| 🗹 Data Group Length 2 🖨 |
| OK Cancel |

The "Length" option needs to set for the data group when you check the option" Data Group".

Click the button "OK" to finish the settings for the selected entry.

4.9.2.2 Insert

After select an entry in the list and then click the button "Insert", a new entry will be added before the selected entry.

4.9.2.3 Add

After click the button "Add", a new data entry will be added after the last data entry.

4.9.2.4 Move Up

For many data entry, the selected data entry will be moved up a row after click the button "Move Up".

4.9.2.5 Move Down

For many data entry, the selected data entry will be moved down a row after click the button "Move Down".

4.9.2.6 Delete

The selected data entry will be deleted from the list after click the button "Delete".

For example, the recipe "RP_coffee" has only one entry and the data type of the entry is "16-bit Unsigned ". The Recipe Length is 10. The data setting of the entry is shown as below.

| Name: | Coffee Data | | | |
|----------------|--------------|-------|---|--|
| Address Offset | 0 | 3 | | |
| Data Type: | 16-bit Unsig | ned - | | |
| 🗷 Data Grou | up Length | 10 | 1 | |

After click the button "OK" to confirm the entry setting, the "Data Information" setting page of this recipe is shown as below.

| | contract of storest | Is Data Group | Data Group Length | Date Type | Data Nam |
|----|---------------------|---------------|-------------------|----------------|----------------|
| 10 | | Ves | in | 18-60 Longilis | Coffee Data |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Thus, a named "RP_coffee" recipe is created. It will be displayed in the project tree. It is shown as below.

| Project | | | ▼ +⊐ | × |
|----------------|------------|---------------|------|---|
| 👻 🔳 Local H | MI F007 | | | |
| —🐷 HMI | Settings | | | |
| - 🛄 Win | wob | | | |
| 🔸 🕨 📩 Con | municatio | on Connection | | |
| 🕨 🕨 🍓 Syst | em Setting | gs | | |
| 🕨 📔 Libr | ary | | | |
| 🕨 🖸 Mac | ro | | | |
| 👻 🗓 🗶 Reci | pe | | | |
| <u>— 🏦 (</u> | reate Rec | ipe | | |
| - <u>III</u> F | P_coffee | | | |
| L | | | | |

4.10 Setup

4.10.1 HMI settings

You can open the "HMI Settings" property TAB by clicking the menu command "Setup/ HMI Settings ". It is shown as below.

| Modet | 1982 | | | | | |
|-------------|------------------------|---------------------------------|------------------------------|------------------|------------------|--|
| Description | | Ethernet Settin | 9 | | | |
| Sizer | 7 | C Auto P Add | Inter (DHICP) | Basic IP Add | tress | |
| Resolution | 1024 8 600 | IP Address | 192.168.0.200 | 18W10010-1 | 1 | |
| Calor: | 24BIT Color | Subret Mu | 255.255.255.0 | SRW35014-1 | t i | |
| Touch Type | Cepacitive Touch Parel | Getenney | 192.168. 0 . 1 | SRW10018~2 | | |
| Key | 0 | DNS1: | 0.0.0.0 | 5RW10022+2 | 5 | |
| Ethernet | Yes | DN521 | 0.0.0.0 | GRW10026-2 | | |
| Main LISE | 1 | | register SRE10000 to a | elect IP address | traigning method | |
| SD/TF Card | Ves | (Auto-allocate | | | | |
| COML | R5232\R5485-2\R5485-4 | Use FTP Pro | neoil | | | |
| COM2 : | R5485-2 | Rotation Displa | | | | |
| COMR | R\$233 | 100222-00 | Second and the second second | | | |
| COM | R5485-2 | | rizortal Displayi | | Preview | |
| CAN : | None | O Vertical (Ro | tate 90 degrees Cloi | | • | |
| Expension F | PortiNove | C Vertical/Rot | ate 90 Degree count | | A | |
| Vedice | None | O Upside Dov | miRotate 180 Degre | | | |
| Audios | None | | | | | |
| | | Color Setting # 16 Bit Color | (65535 Colori | O 24 Sit Color (| 16777216 Color) | |
| | | | 1 | nge HME | | |

4.10.1.1 Model

The "Model" displays the type of the current selected HMI device.

4.10.1.2 Description

The detailed information of the current HMI device is displayed in the "Description" area.

4.10.1.3 Ethernet setting

You can set the Ethernet connection properties for the current HMI device. The setting mode of IP address can be "Auto IP Address (DHCP)" or "Static Address".

If you select a "Static Address" mode, the IP address can be assigned here. Or you can use the SRW registers to set the IP address.

| Ethernet Setting | |
|--|----------------------------|
| Auto IP Address (DHCP) | tatic IP Address |
| IP Addres: 192.168.0.200 SRV | W10010~13 |
| Subnet Ma 255.255.255.0 SRV | W10014~17 |
| Gateway: 192.168.0.1 SRV | W10018~21 |
| DNS1: 0.0.0.0 SRV | W10022~25 |
| DNS2: 0.0.0.0 SRV | W10026~29 |
| Use system bit register SRB10000 to select IF (Auto-allocate or static) | P address assigning method |
| Use FTP Protocol | |

When SRB10000=0, the setting mode is DHCP. When SRB10000=1, the "Static Address" mode is used to assign the IP address. You can switch the IP address setting mode by the SRB10000 register.

4.10.1.4 Rotation Display

| Rotation Display | |
|----------------------------------|---------|
| Normal (Horizontal Display) | Preview |
| Vertical (Rotate 90 degrees Cloc | |
| Vertical(Rotate 90 Degree count | A |
| O Upside Down(Rotate 180 Degre | |

There are 4 rotation display effect. They are "Normal (Horizontal Display)", Vertical (Rotate 90 degrees Clockwise), "Vertical (counterclockwise)" and "Upside down (Rotate 180 degrees)". You can preview the display effect of the character "A" on the right area.

The rotation display mode should be selected according to the installation direction of the HMI device.

4.10.1.5 Color Setting

You can select "16 Bit Color (65535 Color)" or "24 Bit Color (16777216 Color)" based on your project. This setting will take effect after restarting.

| Color Setting | |
|----------------------------|-------------------------------|
| 16 Bit Color (65535 Color) | 24 Bit Color (16777216 Color) |

4.10.1.6 Exchange HMI

If you want to change the HMI device type for your project, you can click the button "Exchange HMI".

| Description Ethermet Setting Size 7 Secolution 1024 X 4000 Color 2480° Color Toruch Type: Capacitive Touch Parel Key 0 Ethermet: Yes DNS21 0 0 0 SD/FF Carld Yes COM1 : R5232/R5485-3/R5485-4 COM2 : R5483-2 COM3 : R5232 COM4 : R5232 COM4 : R52323 COM4 : S2323 COM5 : Nome Rubertion Fibridge Workical (Rotate 90 degrees Colo) Wersial (Rotate 90 degrees Colo) Marcel (Rotate 90 degrees Colo) <th>Modet</th> <th>1987</th> <th></th> <th></th> <th></th> <th></th> | Modet | 1987 | | | | | |
|--|-------------|------------------------|--|----------------------|--------------------|-----------------|--|
| Reinolation: 1034 X 400 IP Address: 182, 108, 0, .320 INVIDUID-11 Color: 348/T Color Subret No: 255, 0 SRV120010-11 Touch Type: Capacitive Touch Parell Gateway: 182, 128, 0, 1, 3 SRV120019-21: Key: 0 DNS1: 0, 0, 0, 0 SRV120019-21: SRV120019-21: Key: 0 DNS1: 0, 0, 0, 0 SRV120019-28: Use spaties SRV120019-28: Male U1B: 1 Use spaties SRV120019-28: Use spaties SRV120010 to select IP address and pring method (dato-allocate or adult) Use spaties SRV120019-28: Use spaties SRV120019-28: COM1 : R52323 R5485-2985485-4 Use spaties SRV120010 to select IP address and pring method (dato-allocate or adult) Use spaties SRV120010-19: Tenders: SRV120010-19: COM2 : R5483-3 CoM4 : R5483-3 SRV120010-19: Preview: COM3 : R5233 SRV120010-19: SRV120010-19: More SRV12000-10: COM4 : R5483-3 SRV120010-10: SRV120010-10: SRV120010-10: CAM1 : Rotarial IRotate 90 degrees court More SRV12000-10: More | Description | | Ethernet Settin | 9 | | | |
| Color: 24B/T Color Touch Type: Capacitive Touch Perel Key 0 Ethermet: Yes Ethermet: Yes DNS2: 0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0. | Sizer | 7 | C Auto IP Add | Inters (DHICP) | Bhasic IP Add | neds | |
| Touch Type: Capacitive Touch Panel Editered SRW5005-25 Key 0 0 0 0 0 0 20 1 SRW5005-25 Ethermet Yes 0 <t< td=""><td>Resolution</td><td>1024 × 600</td><td>IP Address</td><td>192.168.0.200</td><td>18W10010-11</td><td></td></t<> | Resolution | 1024 × 600 | IP Address | 192.168.0.200 | 18W10010-11 | | |
| Ney 0 Effermet Yes Maie 1158 1 Maie 1158 1 BD/F5 Caniti Yes COM1 R5232/JS485-3/JS685-4 COM2 R5485-2 COM4 R5237 COM4 R5237 COM4 R5237 COM4 R5237 COM4 R5247 CAN 1 None Vedici None Vedici None Audio: None Audio: None Audio: None Color Setting | Calor; | 24BIT Color | Subret No | 255.255.255.0 | SRW15014-17 | | |
| Effermet Yes Maie UDB 1 SD/TE Cardi Yes COM1 R5237/SE485-3/R5485-4 COM2 R5237 COM3 R5237 COM4 R5485-2 CAN Rome Vertical Rotate 90 degrees Cox Espansion None Vesion Vesion Vesion Vestical Rotate 90 degrees Cox Espansion None Vestical Rotate 90 degrees Cox Vestical Rotate 90 degrees Cox Statistic Table Vestical Rotate 90 degrees Cox Cox is None Vusion Auto: None Cox is etting | Touch Type | Capacitive Touch Parel | Gatement | 192.168.0.1 | SRW10018-21 | | |
| Main 1158 1 ED/TF Candi Yes COM1 : R5232/R5485-3/R5485-4 COM2 : R5435-2 COM3 : R5237 COM4 : None Expension PortNone Vertical (Rotate 50 Degree Cost Vedici : None Vedici : None Audio: None Color Setting | Keyi | 0 | DNS1: | 0.0.0.0 | 5RW10002+25 | ñ. | |
| SD/TE Cardi Ves COM1 : R5232/85485-3/85485-4 COM2 : R5485-2 COM3 : R5237 COM4 : R5 | Ethernet | Yes | DN521 | 0.0.0.0 | GRW10026-29 | 6 I | |
| ADITY Cantor Yes COM1 : R52327/85485-3/R5485-4 COM2 : R5435-2 COM3 : R5435-2 COM3 : R5435-2 COM3 : R5435-2 CAN : Rose Expansion PointNoire Vedici : Noire Vedici : Noire Vedici : Noire Color Setting Color Setting | Main USB | 1 | | | elect IP address a | ssigning method | |
| COMI : RS223/B485-3/B685-4 COM2 : R5485-3 COM3 : R5233 COM4 : R5233 CAN : None Explosion PortNone Vedici None Audio: None Color Setting | SD/TF Card | Ves | | CL C O T | | | |
| COMR R5237 Boardon Display COMR R5237 ® Normal Orioritad Display COMR R5485-2 CAN : None Companying Previous Companying Previo | COM1 : | R5232\R5485-2\R5485-4 | El Use FTP Protocol | | | | |
| COM4 85237 If Normal (Horizontal Display) Preview COM4 852457-2 If Normal (Horizontal Display) Preview CAN : Norma If Vertical (Rotate 50 degrees Cloit If Vertical (Rotate 50 degrees Cloit) If Vertical (Rotate 50 degrees Cloit) Espansion NortNone If Vertical (Rotate 50 degrees count) If Vertical (Rotate 180 Degree) If Vertical (Rotate 180 Degree) Vedici None If Upside Down(Rotate 180 Degree) If Vertical (Rotate 180 Degree) If Vertical (Rotate 180 Degree) | COM2 : | R\$485-2 | Rotation Timela | | | | |
| COMAI 85483-2 CAN : None Oversical (Rotate 90 Degree Cool Espansion Pon/None Oversical/Rotate 90 Degree court Vedici None Outpide Down/Rotate 180 Degree Audio: None Color Setting | COMR | AS233 | 10.6222-2222-2222-222-222-222-222-222-222- | | | | |
| CAN : None Espansion PortNove O Verizal/Notale 10 Degree count A Vedici None O Upside DuveriRotate 180 Degree Audio: None Color Setting | COMI | R5485-2 | | STOLEN 1990 | | Prevletar | |
| Vedici None Oupside DowniRotate 180 Degre | CAN | Note | O Vertical (Ro | tate 90 degrees Cloi | | • | |
| Audio: None Calor Setting | Expansion F | lantiNone | C Vertical/Rot | ate 90 Degree count | | A | |
| Color Setting | Vedici | None | C Upside Dov | miRotate 180 Degre | | | |
| | Audio: | None | la contraction de la contracti | | | | |
| | | | | (65535 Colori | O 24 Sit Color (| 16777216 Color) | |

The "Change HMI Model" dialog will pop up after you click the button "Exchange HMI".

| Source HMI Mod | fet 1007 | Target HMI Mode | IL TOTO |
|----------------|------------------------|-----------------|---------------------------|
| Source HMI De | scription | Target HMI Desc | 71F FE4104 |
| Size: | 7 | Size | 7 FE4097 |
| Resolution: | 1024 X 600 | Resolution: | 80 FE4043 FE4121 |
| Colon | 24BIT Color | Color: | 24 FE4150 |
| Touch Type: | Capacitive Touch Panel | Touch Type: | R4 FE5097 |
| Key: | o | Keyc | 0 FE5170 |
| Ethernet | Yes | Etherneti | Ye FE5220 |
| Main USB: | 1 | Main USB: | 1 FE2043-V5 |
| SD/TF Card: | Yes | SD/TF Card: | Ye FE2070-V5 FE2104-V5 |
| COM1 : | RS232\RS485-2\RS485-4 | COM1 : | RI FE2097-V5 * |
| COM2 : | R\$485-2 | COM2 t | RS232\RS485-2\RS485-4 |
| COM3 : | R5232 | COM3 : | R5232 |
| COM4 : | R\$485-2 | COM4 : | R5232 |
| CAN : | None | CAN 1 | None |
| Expansion Po | rtNone | Expansion Port | :0 |
| Vedioc | None | Vedio: | None |
| Audio | Nane | Audio: | None |
| | | | |

After you select the "Target HMI Model" for your project and click the button "Exchange" to confirm the setting, the project will be converted to adapt the new HMI device.

The resolution and color need to be adjusted by manual after the exchanging operation. Because the resolution and color change may result in the change of the window size and the loss of color.

4.10.2 System Settings

| Setu | p Tools Help | |
|------|---|----------------------------|
| i 👳 | HMI settings | 1 1 1 1 1 1 |
| | Communication Settings | 🛃 🗖 🗝 🔍 100% 🔹 🔍 🏢 🏩 |
| | System Settings | 🛛 🍖 Global Settings |
| 6 | 0-1 | Extended Properties |
| 1 | Options | 🔮 Language Settings |
| | | TT Favorite Font Templates |
| | · · · · · · · · · · · · · · · · · · · | 🔏 User Level |
| | | 🔃 Task Schedule |
| | | La Data Sampling |
| | • | PLC Control |
| | · · · · · · · · · · · · · · · · · · · | Alarm And Event |
| | | |

4.10.2.1 Global Settings

You can set the project properties, backlight and screensaver, initialization, the main window, touch audio and other related attributes in the "Global Settings" property TAB.

Click the menu command "Setup/ System Settings/Global Settings" to open the "Global Settings" property TAB. It is shown as below.

| User Privilege | Task Schedule | Data Sampling | P | LC Control | Alar | m. And Event |
|----------------------|--------------------------------------|----------------------------|----------------------------|-------------------------|-------------|--------------|
| Ciobal Settings 0 | Extended Settings | Laguange Settin | gs ta | worke Fort Te | mplates. | User Level |
| Project Properties | | Initializ | ation | | | |
| W Upload | Persword: \$88888 | Initial | Window | 1.1:Banic Wine | few(1 + | |
| Tecompilation | Paisword: 888888 | SP(Del6 | al Macro | 0 | | |
| Townload passe | ord Peseword 888888 | | + | Matre Code | | |
| | | Main V | Vindem(HO | ME | | |
| Becklight And Scree | | | WindowiHi | OME) B.1.B | asic Windo | ech = |
| Dim the brightme | A STATISTICS OF CONTRACT OF CONTRACT | 1 (min) | fown windo | | | |
| Dim down and a | | CHARLES AND IN 1992 | | -dov n windo | e or not? | |
| 7 Turn on back | Eght upon Alarm/Events | | o Only for a | apacitive scre | en. | |
| 2 Screencaver: | 14 | a mire Clock | | | | |
| fermaneau Winds | B. Lifetic Windowil | D22302 | | enal Clock • | | |
| | d to exit Screensaver | Set | up the tim torical data | e souce of eve | rrts, | |
| Password Lm | | Addre | SRWD~7 | 7. Year/Month | | |
| Return to origina | i screen when Screensav | | Minute/ | Second/Millis | rconil/Week | 0) |
| 0.651 | | Touch | Audio | | | |
| Local Register Endia | er Order | 12 Dec | per la Enab | led Buzzer | Time 30m | 4 • |
| 16-bit Integer | 21 | | Enable (| Controls | | |
| 32-bit Integen | 4321 | 🔹 😥 Tos | ch Audio E | nabled. | | |
| 32-bit Float | 4371 | • | Enable (| Control: | | |
| Scrollhar | | | | | | |
| Scrollbar Width | 20 1 | | | | | |

4.10.2.1.1 Project Properties

Upload

If you check "Upload" and set the "Password", the project can be allowed to upload when the other user enter the password after it is downloaded to the HMI device. The

uploaded project file can be downloaded to the other HMI device by using the VEDA HCT software Tools.

Note:

The uploaded project file is a special archive. The project can be opened after decompilation by the VEDA HCT software.

Decompilation

If you check "Decompilation" and set the "Password", the project can be allowed to decompile by the VEDA HCT Tools after the password is entered.

Note:

- If only the "Decompilation" is checked, the Fpg file of this project can be decompiled after entering the correct password. But this project can't be uploaded.
- If only the "Upload" is checked, this project can be uploaded after enter the correct password. But the Fpg file of this project can't be decompiled.
- If the "Upload" and the "Decompilation" are not checked, the size of the file after compiling is the least. But it cannot be uploaded or decompiled. On the other hand, it is safest way to protect your project.
- Download Password

The HMI projects can be downloaded if the option is not checked. After checking the option, then you need to enter the password every time you want to download projects from the HMI, to avoid the original projects to be replaced.

4.10.2.1.2 Backlight and Screensaver

• Dim the brightness

You can check the option "Dim the brightness" to adjust the backlight lightness after the specified time. The lightness can be set "Lowest", "10%", "20%", "30%", "50%" or "80%". The specified time needs to input in integer.

| Backlight And Screense | aver | | |
|--|---------------|--------------|--|
| 📝 Dim the brightness | Lowest 🔻 | 3 🗢 (min) | |
| 🔽 Turn off Backlight | Lowest | | |
| Dim down and wai | 10% 20% | 10 韋 (min) | |
| 🔽 Turn on backlig | 1 30% | Events | |
| Screensaver: | 50% 80% | 10 🔹 (min) | |
| Screensaver Window: B_1:Basic Window(1 🔻 | | | |
| Require Password to exit Screensaver | | | |
| Return to original so over | creen when Sc | reensaver is | |

- Turn off Backlight
- Dim down and wait for

You can set a specified time to turn off the backlight after the lightness is adjusted. The default value is 10. That means it will keep 10 minutes after the backlight lightness is adjusted. Then the backlight will be turned off.

Note:

The configuration screen will be visible after the backlight is turned off.

Turn on backlight upon Alarm/Events

If you check the option "Turn on backlight upon Alarm/Events", the backlight will be turned on automatically when the alarms or events occur and the backlight is off during the running.

Screensaver

If you check the option "Screensaver", the Screen saver Window will be switched to display when the time is up. The Screen saver Window must be specified. It is used to display the company LOGO.

• Require Password to exit Screensaver

If you check the option "Require Password to exit Screensaver", a system message window will pop up to prompt you to enter the corresponding level password when you want to exit the screen saver window.

Note:

You need to use the character input component to enter the password to SRW100 ~ 103.

• Return to original screen when Screensavers is over

If you check the option "Return to original screen when Screensavers is over", it will return to the original screen when you click the HMI screen. Of course, if you set a password, the system message window will pop up to prompt you to enter the password before return to the original screen.

Note:

If you don't check the option "Return to original screen when Screensavers is over", it will still stay in the screensaver window when the screensaver is over.

4.10.2.1.3 Local Register Endian Order

The "Local Register Endian Order" refers to the order of the high byte and the low byte. For example, a 32-bit register LW0=0x12345678. If you select the "4321" mode, then the word register LW0=0x1234 and the word register LW1=0x5678. If you select the "2143" mode, then the word register LW0=0x5678 and the word register LW1=0x1234.

4.10.2.1.4 Scrollbar

For some components without setting the scrollbar width, you can set it in the "Scrollbar Width" option. For example, you set the scrollbar width for the pop up window component here.

4.10.2.1.5 Initialization

Initial Window

The "Initial Window" refers to the first displayed configuration window after the project is downloaded to the HMI or the HMI is powered on.

Initial Macro

After check the "Initial Macro", you can specify a Macro to run before the configuration window is displayed. This function can realize the initial work of your project.

4.10.2.1.6 Main Window(HOME)

The main window can be set here. So you can return to the main window in any configuration window by setting "Return to the main window (HOME)" for the "Window Operation" function of the Bit Set component.

4.10.2.1.7 Drop-down window

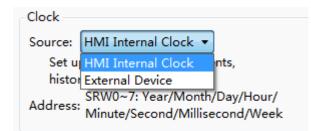
If this function is checked, you can specify a window as a pull-down window, where you can put the alarm events and other related components to display. This function is valid only for the capacitive HMI device.

Note:

When you slide the HMI window to more than half the width of the window from the upper edge down during running the project, the Drop-down window will display gradually. Similarly, when you slide to more than half the width of the window from the lower edge up, the Drop-down window will be withdrawn.

4.10.2.1.8 Clock

The "Source" of Clock can be set "HMI Internal Clock" or "External Device".



If you select the "HMI Internal Clock" as the HMI clock, SRW0~7 will be used to save the time source of events, historical data, etc.

| Clock |
|---|
| |
| Source: HMI Internal Clock 🔻 |
| Set up the time souce of events, |
| historical data etc. |
| Address: SRW0~7: Year/Month/Day/Hour/ Minute/Second/Millisecond/Week |
| |

If you select the "External Device", the registers address can be changed.

| Clock | | |
|---------|-----------------------------|--|
| Source: | External Device 🔻 | |
| Set u | p the time souce of events, | |
| histo | rical data etc. | |
| Address | SRW0 | |

4.10.2.1.9 Touch Audio

| Touch Audio | |
|----------------------|---------------------|
| Buzzer Is Enabled | Buzzer Time: 50mS 🔹 |
| Enable Contro | bl: |
| ▼ Touch Audio Enable | d. |
| Enable Contro | ol: |
| | |

Buzzer is enabled

If only the option "Buzzer Is Enabled" is checked, the buzzer will beep for a specified time when you touch the effective components, such as buttons.

If the option "Enable Control" is also checked, you need to select a bit register. When the bit register is ON, the function of "Buzzer Is Enabled" is allowed to use. For example, the LB0 is set for the "Enable Control". If LB0 is ON, the buzzer will beep when you touch the effective components. When it is OFF, the buzzer will not beep. The option "Buzzer Time" can set 50ms, 75ms,100ms,150ms,200ms,300ms,500ms,800ms, and1s.

| • |
|---|
| |
| |
| |
| |

• Touch Audio Enabled

If the option "Touch Audio Enabled" is checked, all audio play is available. It is selected by default.

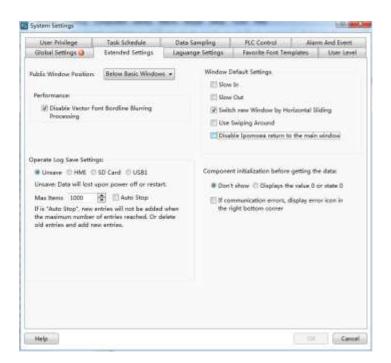
If the option "Enable Control" is also checked, you need to select a bit register. When the bit register is ON, the function of "Touch Audio Enabled" is allowed to use. For example, the LB1 is set for the "Enable Control". If LB1 is ON, the audio play is available. if it is OFF, the audio will not be available.

| Touch Audio | |
|---------------------------------------|---|
| ☑ Buzzer Is Enabled Buzzer Time: 50mS | • |
| ☑ Enable Control: LB0 | |
| ▼ Touch Audio Enabled. | |
| ☑ Enable Control: LB1 | |

Note:

If the option "Touch Audio Enabled" is not checked in the global settings, the audio will not be available even if the audio is active in the proper TAB of the effective component.

4.10.2.2 Extended Settings



4.10.2.2.1 Public Window Position

The attribute of "Public Window Position" can be set "Below Basic Window" or "Above Basic Window". The option "Below Basic Window" is selected by default.



The effect of the "Below Basic Window" is shown as below.

This is the Basic Window.

The effect of the "Above Basic Window" is shown as below.



4.10.2.2.2 Performance

If you check the option "Disable Vector Font Bordline Blurring Processing", the display effect of the fonts will have some burr. It does not look smooth and good, but the display speed is faster. You can use this option to get higher display speed when less display quality is demanded.

Note: the speed difference is not obvious for the hardware which the version is above A8. So you need not check this option generally.

If you don't check the option "Disable Vector Font Bordline Blurring Processing", the display effect is shown as below.

Static Text

If you check the option "Disable Vector Font Bordline Blurring Processing", the display effect is shown as below.

Static Text

4.10.2.2.3 Window Default Settings

There are three options for the "Window Default Settings". They are "Slow In", "Slow Out" and "Switch Window by Horizontal Sliding". The three options are valid only for the capacitive screen.

| Window Default Settings |
|-------------------------------------|
| Slow In |
| Slow Out |
| Switch Window by Horizontal Sliding |
| Note: Only for capacitive screen. |

• "Slow In" and "Slow Out"

After the "Slow In" or "Slow Out" is checked, the new window will have a fade effect. You can find the "Fade in" option is checked by default in the "Basic" property TAB of the new window. Another window effect is "Fade out". The fade effect is only valid for the capacitive HMI device.

| | Rese Working(2) | | E Print Page |
|--|-----------------------|-------------|---|
| inets #Back | Diat Other-defined | O Seet site | doe seriel man(The No. of all the windows after will be added by 5) |
| Window No. IBy Type | ÷ | 31 | mindow earther laved for we dow sufficiency2 |
| Wales 800 - | Height 480 2 | | Weekee Type: Base Weekee |
| Wedaw Orientation | # rivincetal () Verti | ial. | |
| Popup Window | | | Safety |
| | | | Uter Gevel: [0 |
| | | | Evelot to over level where window closed. |
| | | | FT ALLER OF ALL ALLER A |
| | | | |
| | | | |
| | | | |
| Overlapped Winds | 14 | | Window Effect |
| Overlapped Weds Rotace Layer | | • | |
| C. C | Nore - | • | Window Effect |

Note:

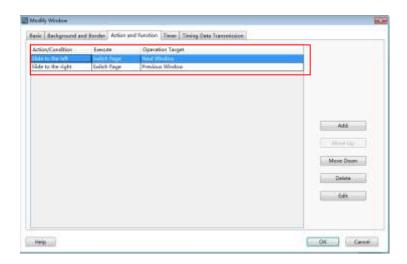
The fade effect will produce an effect on the speed of switching windows obviously. The economic HMI models are not suggested to be used.

Switch Window by Horizontal Sliding

| Window Default Settings |
|-------------------------------------|
| Slow In |
| Slow Out |
| Switch Window by Horizontal Sliding |
| |

After the "Switch Window by Horizontal Sliding" option is checked, the windows can be switched by horizontal sliding action. This function is only supported by the capacitive HMI devices.

You can set the operation for this function in the "Action and Function" property TAB of the basic window.



If you click the "Use Swiping Around" option, then the function of horizontal sliding will take effect, the function is only valid for the capacitive HMI.

If you click the "Disable Ipomoea return to the main window" option, then the function of "Ipomoea return to the main window" is disabled, the function is enabled by default, you can check the option if you do not need it. It can be controlled by the special register "SRB10012=1", too.

Operate Log Save Settings:

| Operate Log Save Settings: |
|---|
| ◯ Unsave |
| Power-off sustain. |
| Subdirectory Name: LOG |
| Save CSV File meanwhile |
| Maximum Saving Limit:(No Limit) 0 🌔 Day |
| On Cache Full: Delete Old Records 🔻 |
| ♥ When free space is less than: 512KB |
| Notify Register: LB0 |
| ✓ Clear Record Register: |
| |

This settings is the global settings, the operating steps can be recorded without setting the operate log control, the default is "unsave", you can choose to save to the local HMI, SD card, USB1. The address of storing operate log is retained after power down, you can define the subdirectory name by yourself. The files saved is Db files.

Save CSV File meanwhile: The operate log will be saved as Db file and CSV file at the same time. The CSV file can be opened directly and viewed with Excel.

Maximum Saving Limit: there is no limit when it is 0, you can click the option "Delete Old Records" when the cache is full, the new operate log will continue recording, "Discard New Records", it will not record the operate log any more if the cache is full.

You can set the "Notify Register" when the cache is full, as shown below, LB0 is set to 1 when the free space is less than 512KB.

| V When free spa | ce is less than: | 512KB • | • |
|------------------------|------------------|---------|---|
| Notify Register: | LBO | | |

You can set a flag bit to clear the historic records of the operate log.

4.10.2.3 Language Settings

| Extended Settings | Laguange Settings Defaul | | User Level |
|-------------------------|-----------------------------|--|---|
| 00 | 1.117 | | |
| 00 | + In | Added Management persons recorded to the stress prese | |
| uade | | aport from Favorite Font Temp | (ates.(I) |
| | 10 Vec | tor Fort 🛢 Graphic Fort | |
| sh (United States) | Fork | Microsoft Sans Serif . | |
| ese (Simplified: PRC) | Size | 16 - 11 7 . | |
| и. | | se Current Font for All Lengue | ges(F) |
| ed Status) | | | |
| the project is download | | | |
| | | n d States) • NO. by uning system register the project is downloaded, the | Microsoft Sans Se Use Current Font for Al Langua Use Current Font for Al Langua NO. by using system register the project of downloaded, the |

4.10.2.3.1 Language

• Language Count

You can select the number of the languages in the list of the "Language Count" option. Then you set the languages in the table. The languages should be different in the table. You can modify the languages by the lists in the table.

| User Priv | lege | Task Schedule | Data Sampling | PLC Control | Alarm And Event |
|------------|-----------|--|-------------------|------------------------|--------------------|
| Global Set | tings | Extended Settings | Laguange Settings | Favorite Fort Ter | nplates User Level |
| inguage | | | Defau | it Font | |
| Language | Count | U. | • | nport from Favorite fo | ant Templates.(I) |
| No. | Langs | uige | © Ve | ctor Font 🔹 Graphic I | Forit |
| 1 | English | h (United States) | Font | Ariel - | |
| 2 | Chines | e (Simplified, PRC) | Size | 16 . B Z | - 3 |
| 3 | Turkis | h (Turkey) | 94261 | | and the second |
| i i | Frend | h (France) | 199 | | |
| 5 | | t (France) | | 1 | |
| ő. | | (Italy) | | Arial | |
| 7 | | eh (Spain) guese (Portugal) | | Ana | |
| 8 | | an (Germany) | | | |
| 15: | Vietne | mese (Vietnam) | | | |
| | | Thailand) | | Part Fort for A | E Languages(F) |
| | | rian (Bulgaria) m (Catalari) | | | |
| | | (Czech Republic) | | | |
| | | h (Denmark) | | | |
| | | c (Greece) h (Finland) | | | |
| | 44.1 | h (hinland) na (Israel) | | | |
| Default La | Hung | arian (Hungary) | 21 | 18. I | |
| 1: inglis | 1 (Linded | States) | 1.7 | | |
| | | O. by using system regi | | | |
| | | he project is download ill be restored. | ed, the | | |
| Gerauk Ian | donda e | es de restored. | | | |
| | | | | | |

Default Language

You can select a language from the list as the "Default Language". After downloading the project, the specified default language will be as the display language. You can switch the display language by changing the value of SRW10050. The No.1 language will be displayed when SRW10050 is 0. The No.2 language will be displayed when SRW10050 is 1. The No.3 language will be displayed when SRW10050 is 2. And so on. The display language will be changed to the specified "Default Language" when the project is downloaded again.

4.10.2.3.2 Default Font

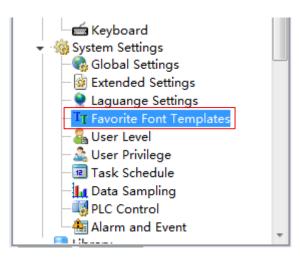
Refer to: Detailed manual/ General functions/ Drawing/ Font settings.

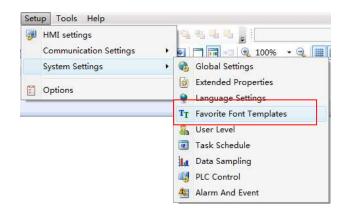
4.10.2.4 Favorite Font Templates

The function is used to save the common font styles as a template. You can use this template when you set the font style.

4.10.2.4.1 Open the "Favorite Font Templates"

You can open the "Favorite Font Templates" settings page in the project tree or by clicking the menu command "Setup/System Settings/Favorite Font Templates".





4.10.2.4.2 Add Font Templates

First, click the button "Add(A)". Then give a name for the current font template in the "Description". The font style need to be set, referred to: <u>Detailed manual/General</u><u>functions/Drawing/Font settings</u>. At last, click the button "OK" to confirm and save the settings

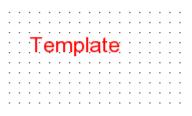
| Gest Prinlege | Task Schedule | Data Sampling | FLC Control | Alarm And Event |
|-------------------|---------------------------|--------------------|----------------------------|-----------------|
| Global Settings | Estanded Settings | Laguarge Settings | Pasorite Fort Templat | an Liner Leve |
| en Templates List | | fair Te | replates Settings | |
| No. Templete | Description | Descri | riov Fantl | |
| | phie Antel 343 | © Vec | No Part - B Croppin | First . |
| | | Fort | Arial | |
| | | Size | 16 + 0 4 | |
| | | | Contracting and the second | |
| | | | | |
| | | | | |
| | | 3 | Arial | |
| | | | | |
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| | in the state of the state | (that) | | |
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4.10.2.4.3 Usea font template

For example, a font template is used in the property settings of a Static Text component.

| inversi Cisping. | | A * |
|---|---|-----------------|
| Language Independent Language: 1-English Eloited 5 • • | Position Field Point X + 0.0 V + 0.0 | |
| C Use Text Ubrary (Text Library) | Descent from Revente Port Templates. | 3 |
| and the second second second | Please select Fort Terreplates | Edit. Templatel |
| ® Use Labah Tag Contents | Np. Template Description 1 Feet1/Graphic Arial 100 | |
| Terrglate - | | |
| Import from Tavorite Fost Templetes III | and the second | |
| Fore Microsoft Sam Seril + | Arial | |
| tine 14 + 8 Z = + 🗷 | Anal | R. Carcel |

First, click the button "Import from Favorite Font Templates" in the property window of a Static Text component to open the "Import from Favorite Font Templates" dialog. Then select the required font template and click the OK button. The result is shown as below.

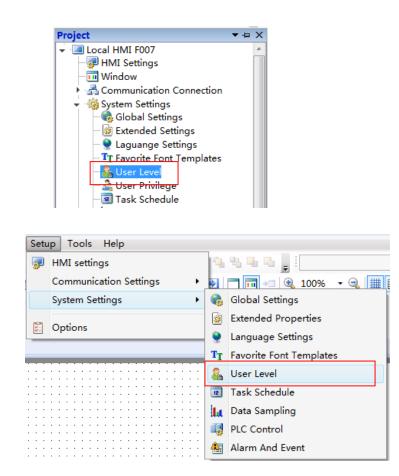


4.10.2.5 User Level

You can set the levels and the level passwords for the users in the "User Level" settings page. The settings of the "User Level" are valid in the whole HMI system. The higher the level is, the greater the range which can be operated is. The higher user level can access the screen windows which the lower user level can access. But it is not prohibited that the lower user level accesses the higher user level.

4.10.2.5.1 Open

The "User Level" settings page can be opened by double-clicking the "User Level" option in the System Settings of the project tree or click the menu command "Setup/ System Settings /User Level".



4.10.2.5.2 Edit

The "User Level" settings page is shown as below.

| User Privilege | Task Schedule | Data Sampling | PEC Control | Alarm | And Event |
|------------------------|---------------------|-------------------|-------------------|---------|------------|
| Global Settings | Extended Settings | Laguange Settings | Favorite Font Ter | mplates | User Level |
| iser Level Count: | 3 . |] | | | |
| Password Level | Predefined Password | Grade Description | | | |
| OLevel Password | None | | | | |
| ILevel Password | 888888 | Level1 | | | |
| 2Lovel Password | 888888 | Lavel2 | | | |
| | | | | | |
| | | | | | |

You can set the number of the user level in the "User Level Count" by using the list. And you can edit the information of every user level in the table, such as the Predefined Password and the Grade Description.

4.10.2.5.3 Use

For example, set the user level function for the "Bit Switch" component.

Open the property window of the "Bit Switch" component and select the option "Conditional" in the property TAB of "Control Settings". Check the option "Level User" and select the level from the list. It is shown as below.

| witch Indicator Light Lable Graphics Dynamic Graphics | Control Settings Display | |
|---|--|----------------|
| Activation Settings About III Indicating Invalid Mark Conditional III Mide when condition not meet. Non-operable when the part is hidden. If Automatic pop-up paceson'd window. | Security Settings Minimum Press Time: 0 (8) In Require confirmation prior to execution Waiting Time 100 (2) (00.15) In Socials Operation | (45.15) |
| Level Line Logic Compil | Minimum Operation Internet: Notification Settings Before Writing <u>Attan Writing</u> Notify Bis Address: | 0 ¹ |
| Audu E Play Acdo Geyboard | Trigger Macros | |
| Use Keyboard | | |

Run the project. A "User level login" window will pop up when you click the component. It is shown as below. You can operate the component only by entering the correct password in the "User level login" window.

| User level l | ogin | × |
|--------------|----------------------------|---|
| 2 | Please enter the password: | |

4.10.2.6 User Privilege

The "User Privilege" is used to provide security for the user operations. The different privilege is given when the user enter the different user name and the corresponding password.

4.10.2.6.1 Add

The "User Privilege" settings page can be opened by double-clicking the "User Privilege" option in the System Settings of the project tree or click the menu command "Setup/ System Settings /User Privilege".

| in Ver. M. Water During Tempose | | - | | | | | 1.8.1 |
|--|-----------------|---------|----------------------|------------------|--|------|--------------|
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| ・・··································· | | er Hete | Preduliced Parcece # | Sogoot Time(min) | Farmination [18:Aphron | | 1 |
| Import **** Stand MRI TRU **** **** Stand MRI TRU ***** Stand MRI TRU ************************************ | | | * | | | | |
| S Create Macro S DrustryRcs S Initialitycs S TransDatas • McNetjer | | | | | Citra, a | AN . | |
| Series Dispare | | | | | | 04 | Care |

After clicking the button "Add", the "User Privilege Settings" dialog will pop up.

| User Privilege | CALIFORNIA DE LA CALIFICAL DE LA CALIFICAL DE LA CALIFORNIA DE LA CALIFICAL DE LA CAL | | |
|----------------|--|-------------------------------|---|
| User Name: | user2 | Initial Password 888888 | |
| Logout Time: | 10 🔹 , | nin(0 indicates never logout) | |
| Check | Permission No. | Description | |
| (2) | 1 | Permission1 | - |
| 1 | 2 | Permission2 | |
| 111 | 3 | | |
| 10 | 4 | | |
| 1011 | 5 | | |

4.10.2.6.2 Set

You can set different User names, Initial Password and Logout Time for different privileges in the "User Privilege Settings" dialog. The login state of the current user will exit if the login time is more than the Logoff Time.

| User Priviles | ge Settings | | -2.5 |
|---------------|----------------|-------------------------------|------|
| User Name | n user2 | Initial Password 888888 | |
| Logout Tim | e 10 🕏 r | nin(0 indicates never logaut) | |
| Check | Permission No. | Description | |
| 1 | 1 | Permission1 | - |
| 191 | 2 | Permission2 | |
| | | | |
| - 15 | 4 | | |
| 10 | 5 | | |

4.10.2.6.3 Use

You can use the "User Privilege" in many situations, such as the control settings, the window switch, the value input, and so on.

| subch Indicator Light Latele Graphics Dynamic Graphics | Cantrol Settings Display |
|--|---|
| Activation Certifuge Adverse Conditions of Indicating Investid Mark Conditional Non-operable when the part is hidden. | Seturity Settings Minimum Press Times: a (2) (00:15) Decisive confirmation prior to execution Waiting Time 100 (2) (00:15) Decision Operation |
| Condition | Notify Byte Address |
| Aado E Play Audio Kepboard U las Kesboard | Trigger Marros |

4.10.2.6.4 Call

You can find some windows which the system provides in the project tree, such as the User privilege window, the User login window, and so on. These windows make it easy to use for the users.

| Window | – ņ | × |
|---|------------|---|
| - Power-on Screen | | |
| - Public Window | | |
| | | |
| 👻 🥅 Basic Window | | |
| - Create Basic Window | | |
| B_1:Basic Window(1) | | |
| - III B_2:Base Window(2) | | |
| B_29001:User privilege(29001) | | |
| | | |
| - B_29003:Add user privilege(29003) | | |
| -III B_29004:Delete user privilege(29004) | | |
| - B_29005:Change password(29005) | | |
| B_29006:Setup privilege(29006) | | |
| Keyboard Window | | |
| System Window | | |
| | | |
| | | |
| | | |
| | | |
| | | |

4.10.2.7 Task Schedule

The "Task Schedule" is used to execute some operations when time is up.

You can open the "Task Schedule" property TAB by clicking the menu command "Setup/ System Settings/Task Schedule". It is shown as below.

| System Settings Global Settings | 1 Detect | ed Settings | Laguarge | Cathone | Favorite Fort 7 | and start | User Level |
|------------------------------------|----------|-------------|-------------------------------|------------|-----------------|-----------|-------------|
| User Privilege | | c Scheduler | Contact and the second states | mpling | PLC Central | | m And Event |
| Description | Erable | Mode | Week | Start Time | End Time | Bit Set | Byte Set |
| | | | 6 | News(14) | Talake (1) | Dearth | Edu(C) |

After click the button "New(N)", the "Task Schedule Details" window pop up. It is shown as below.

| Task Schedule Details | |
|--|----------------------|
| Description Schedule-1 | |
| Enable Control | |
| Made Week Day Every Other Day HMI Address Start Time Hour O Minute D Second Week Day Sun Mon Tue Wed Thu Fri Sat | Execution upon Start |
| End Time Set End Time | Word Setting |
| | Trigger Macron |
| | Popup Window |
| | 🔝 Use Buzzen |
| | 📰 Play Audio |
| | OK Careel |

4.10.2.7.1 Description

You can give a name for the task schedule in the "Description" edit box. This description can facilitate the identification in programming.

4.10.2.7.2 Enable Control

After you check the option "Enable Control", you can select a bit register. When the bit is ON, this Task Scheduler is not allowed to use.

4.10.2.7.3 Mode

• Week Day

The start time and the end time are within a week.

• Every Other Day

The start time and the end time can execute in the adjacent two weeks. The Week Day of the start time is only selected one. You must set the end time.

| Mode 🛛 Week Day 💿 Every Other Day 🔘 HMI Address |
|---|
| Start Time |
| 6 → Hour 0 → Minute 0 → Second |
| Week Day 💿 Sun 🔘 Mon 🔘 Tue 🔘 Wed 🔘 Thu 🔘 Fri |
| Sat |
| End Time |
| Set End Time |
| 21 Hour 0 Minute 0 Second |
| Week Day ● Sun ● Mon ● Tue ● Wed ● Thu ● Fri ● Sat |

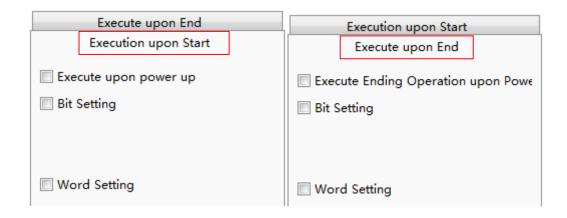
HMI Address

Use word registers to set the mode.

| Mode 🛛 🔍 Week Day 🔍 Eve | ery Other Day 💿 HMI Address |
|--|---|
| Related to address variable | |
| Start Address (9 Registers) | LWO |
| 7 weekdays starting Fron End Time:Hour:LW5 Minu | nute:LW2 Second:LW3 Bit6 are corresponding to n Sunday To Saturday. ute:LW6 Second:LW7 ~Bit6 are corresponding to |

4.10.2.7.4 Execution upon Start and Execute upon End

Only an "Execution upon Start" setting page is displayed by default. The "Execute upon End" setting page is visible if you check the option "Set End Time". They are shown as below.



The operations need to be executed are listed in the "Execution upon Start" setting page and the "Execute upon End" setting page.

• Execute upon power up

If you check the option "Execute upon power up", the operations checked in the "Execution upon Start" setting page will be executed in the time range (start time - end time). It will stop outside the time range.

• Execute Ending Operation upon Power Off

If you check the option "Execute Ending Operation upon Power Off", the operations checked in the "Execute upon End" setting page will be executed in the time range (start time - end time). It will stop outside the time range.

Bit Setting

This operation is to set a bit register ON or OFF.

Word Setting

This operation is to change the value of a word register.

• Trigger Macro

This operation is to trigger a Macro.

• Popup Window

This operation is to pop up a window.

Use Buzzer

This operation is to make the internal buzzer of HMI to ring.

Play Audio

This operation is to play an audio.

4.10.2.8 Data Sampling

The "Data Sampling" is the data source of these components such as the "Trend Curve", the "Historical Data Display", and so on. You must create the "Data Sampling" before using these components. You can open the "Data Sampling" property TAB by clicking the menu command "Setup/ System Settings/Data sampling". It is shown as below.

| - 6 | lobal Settings | Extende | ed Settings | Laguange Set | tings | Favorite | Fort Terra | plates | User Le | vel |
|-----|----------------|----------|----------------|--------------------|---------------|------------|------------|--------|------------|--------|
| | User Privilege | Task | Schedule | Data Samp | | PLC Co | ntrul | Alar | m And Ever | 1 |
| 40. | Description | Humidity | Address LWD | Sampling Cyclic | Cycle/ 15 | Trigger Ac | Pause A | ddress | Clear Add | fr |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | New | a (* Dei | etar | Clear | | |

4.10.2.8.1 Property Setting

After clicking the button "New" in the "Data Sampling" property TAB, the "Data Sampling Property" dialog will pop up. It is shown as below.

| Deuriptick | Sampling Node |
|---|---|
| Data Langling Darting Address Use Address Tag Ovier: [JOCA[Useal Register] Address Type: [JW Address Tag: [S] System Register FremeNikage (DDDDDO-709990 Coccept: 1 Wed | ⊕ Cyclic III Neggered Sampling Cyclic 1 (a) X (a.m.) |
| Channel Satting | Data Record @ Uname (0 HME (0 10 Card (0 UEE) lineares Data will lost upon power off or restart. |
| Control Letting | Machene 1000 後期 目前445 Step 形成 "Auto Step", new estima off not be added when the maximum transface of entries. and add new entries. |
| Encute on Designated Window Openved | |

• Description

The "Description" is used as the name of the "Data Sampling". It is a required the attribute. If it is null, there will be a red exclamation mark to indicate that a name is needed here. The "Description" can be a text which is easy to understand, such as "Level of Tank 1", "Temperature of Main Motor", and so on.

• Data Sampling Starting Address

A word register is needed to specify as the start address of the data sampling here. It is can be an internal address of the HMI and the register address of the controller which is connected to the HMI.

Control Setting

Three attributes of the Control Setting are optional. They are not be checked by default. You can check or not check them according to the actual needs.

> Pause Control

If the "Pause Control" is checked, you can set a bit address to control the data sampling. When this bit address is ON, the data sampling is paused. When it is OFF, the data sampling will continue.

Clear Control

If the "Clear Control" is checked, you can set a bit address to clear the sampling data. When this bit address is ON, all the sampling data in the memory is cleared.

> Execute on Designated Window Opened

After checking this attribute, you can specify a window when the window is set to open, the above "Pause control" and "clear control" to be effective.

If the "Execute on Designated Window Opened" is checked, you can specify a window. When this window is opened, the settings of "Pause Control" and "Clear Control" are valid.

• Sampling Mode

The Sampling mode can be "Cyclic" or "Triggered". The default is "Cyclic".

> Cyclic

The unit of the Sampling Cycle can be "s" or "0.1 s". The default is 1 s.

> Triggered

If you select the "Triggered" option, the data sampling will be done according to the "Trigger Condition". The Trigger Mode includes "Bit" and "Word". The "Address" is needed to specify according to the Trigger Mode. The "Trigger Condition" of Bit Trigger Mode can be "OFF \rightarrow ON", "ON \rightarrow OFF" or "OFF \leftrightarrow ON". For Word Trigger Condition, you can refer to:<u>Detailed manual/General functions/Drawing/Logic Control</u>.

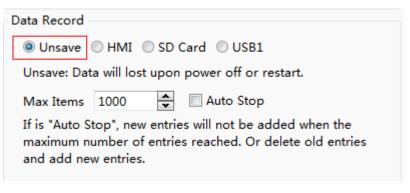
| Deuriusion | Sampling Mode |
|--|---|
| Data Sampling Starting Address | C Cycle Tripgered |
| III Use Address Tag | Address Will O |
| Deriver LOCAL/Local Register(| Trigger Mode @ Sit |
| Address Type UW * Address 0 5 States Region Format/Regal 0000001-799990 Groupy 1 - War | Trigger Condition: Diversion: Con- ON = CON ON = CON OT = CON |
| 🖉 Address Index | Deta Record Classes © HMC © 10 Card © USEL Unase Data will but apon power off or restart. |
| Charrel Setting | Max Berre 1000 📳 🗉 Auto Stop |
| E Pause Control | If is 'Auto Stop', new entries will not be added when the maximum number of entries reached. Or delete old entries and add new antries. |
| | |
| Dear Control | |
| E Dear Cantral | |

Data Record

You can save the sampling data to the HMI or other peripherals. The default is "Unsave". That is, the sampling data is not saved.

> Unsave

When you select "Unsave", there will be a "Max Items" setting for the memory occupation. The default is 1000. The maximum is 99,999. The "Auto Stop" is not checked by fault. If the "Auto Stop" is checked, the new items will not be added when the maximum number of items reached. Or delete the oldest items and add the new items. It is shown as below.



Note:

All the sampled data will be lost if you select "Unsave". After powering on, you need to sample the data again.

≻ HMI

When you select "HMI" for the Data Record, the "Subdirectory Name" is required.

| Data Record |
|---------------------------------------|
| 🔘 Unsave 💿 HMI 🔘 SD Card 🔘 USB1 |
| Power-off sustain. |
| Subdirectory Name: SAMPLE |
| Maximum Saving Limit:(No Limit) 0 Day |
| On Cache Full: Delete Old Records 🔻 |
| When free space is less than: 128KB |
| Clear Record Register: |
| |

The "Maximum Saving Limit" option is set "0" Day by default. That means that there is no limit to save. However, there is a limit because of the limited capacity of the HMI Flash. It is suggested that the "Maximum Saving Limit" option is set several days when you select HMI to save data, such as 15 days, 30 days, and so on.

The default action is "Delete Old Records" when the Flash memory of the HMI is full. This is a cycle record mode. You can also select "Discard New Records" option. It is a fixed-saving mode which the new records are no longer saved when the Flash memory is full.

| Data Record |
|--|
| 🔘 Unsave 💿 HMI 🔘 SD Card 🔘 USB1 |
| Power-off sustain. |
| Subdirectory Name: SAMPLE |
| Maximum Saving Limit:(No Limit) 0 🚔 Day |
| On Cache Full: Delete Old Records When free st Delete Old Records Discard New Records |
| |
| Clear Record Register: |

If you check the option "When frees pace is less than", the action of "Notify Register" will be done when the free space is less than the specified capacity. The capacity range is 16KB ~ 2MB. You can set a bit register to notify. The bit register will be ON when the free Flash capacity is less than the specified.

If you check the option "Clear Record Register", you can specify a "bit register". When the "bit Register" is ON, all the saved history records will be cleared.

For example, you want to save the data record to the "SAMPLE" folder in the HMI. The bit register LB0 will be ON to indicate insufficient space when the free space is less than 128KB. All saved history records will be deleted when the bit register LB1 is set ON. The settings are shown as below.

| Data Record |
|---|
| ◯ Unsave |
| Power-off sustain. |
| Subdirectory Name: SAMPLE |
| Maximum Saving Limit:(No Limit) 0 🎐 Day |
| On Cache Full: Delete Old Records 🔻 |
| ✓ When free space is less than: 128KB |
| Notify Register: LB0 |
| Clear Record Register: LB1 |

SD Card and USB1

You can choose to save the data records to SD card or USB disk. The settings are referred to the "HMI".

4.10.2.8.2 Channel Setting

The "Channel Settings" property TAB is shown as below.

| Outs Surepling Suppl | erta. | | |
|----------------------|------------------|------------------------------|----------------------------|
| Property Setting Ch. | annel Setting () | | |
| Char Addres | Type | World Count - Humber - Notes | Lampies Each Time 1 (*) |
| Fease add at least o | es charol (Marca | 604. | Add |

There will be a red exclamation mark here due to no channel.

• Add channel

After clicking the button "Add", an item will be added. It is shown as below.

| L The second secon | operty Setti | tig Chars | nel Getting | | | |
|--|--------------|-----------|-------------|------|-------|--------------------|
| 1 | | | | | Notes | |
| . Add | | | | | | Samples Each Time: |
| | | | | | | |

The "Address" refers to the start address of the data record. The "Type" of data record can be "16-bit Unsigned", "16-bit Signed", "32-bit Unsigned", "32-bit Signed", "16-bit BCD", "32-bit BCD", "Single-precision Floating-point Number" or "Character String". The maximum memory occupied is 64 word registers for the type of "Character String".

| hoperty Satting Ch | ervel Setting | | | | |
|--------------------|---|-----------------------------------|--------|-------|--------------------|
| Chan Addopsa | Туре | Word Court | Number | Notes | |
| 1 190 | 10-bit Linsig | ed e | 1 | 11 | 14 |
| | 10-bit Signer 32-bit Unsign 82-bit BCD 32-bit BCD 32-bit BCD 50-bit BCD 50-bit BCD 50-bit BCD 50-bit BCD 50-bit Signer 22-bit BCD 50-bit Signer 32-bit Signe | iod I ion Roating-point Nar | | | Samples Each Time: |

You can create many channels by clicking the button "Add". The addresses of the data record are continuous and specified automatically. It is shown as below.

| | ty Setting: Chan | nal Setting | | | | |
|---|------------------|--------------------|------------|--------|-------|--------------------|
| | Address | Type | Ward Court | Number | Notes | |
| | LWD | 16-bit Linsigned + | 1 | 1 | | |
| - | 1.911 | 32-bit Mosigned + | 2 | 12 | | |
| | 100 | Single president • | | | 1 | |
| - | | NEG | 10 | | 12 | Samples Each Time: |
| | | | | | | 17 |
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• Samples Each Time

The default value of "Samples Each Time" is 1. That means that one data is sampled each time. When this parameter is set a value larger than 1, the addresses which each channel occupies will multiply. For example, the option "Samples Each Time" is set 3. Then the number of address occupied by each channel is shown as below.

| UM0 14-bit Unsigned + 1 3 UM3 sz-bit Unsigned + 2 4 | | erte Setting Cha | and the second se | | | | |
|---|---|------------------|---|------------|--------|----------|-------------------|
| t 1/4/3 13-be Universal + 2 0 0 Samples Sam | | | | Word Coart | Number | Récibera | 10 |
| t UM9 Eagle-precision + 2 0 Samples fach Time a () | £ | | 16-bit Unsigned. • | p | - C - | | |
| Sandin tack Time 1 ∰ | t | 2,463 | 13-bit Unsigned * | p | | | |
| 1 | 1 | LWP | Single-precision + | 2 | ¢. | | and the statement |
| bba | | | | | | | 11 |
| | | | | | | | |

In this example, LW0 ~ LW2 is occupied by the first channel, LW3 ~ LW8 is occupied by the second channel, and LW9 ~ LW14 is occupied by the third channel. The number of addresses is three times as the number which the "Samples Each Time" is set 1.

• Delete channel

You can delete the selected channel by clicking the button "Delete ".

• Notes

In the "Notes" column of each channel, you can give a description. The "Notes" makes it easy to read and it will display in the "Historical Data" table. For example, the first channel is "Liquid level", the second channel is "Pressure", and the third channel is "Flow". It is shown as below.

| CMD CMD | Type 14-bit Linsigned + 13-bit Linsigned + Lingle-procesor + | 2 | 1 | Liquid level Pressure Rew | Sangles Each Tires |
|------------|---|---|---|---------------------------------|--------------------|
| - 001 | the second se | | 2 | | |
| | Single-precision + | | | Haw | |
| | | | | | |
| | | | | | Add |

• Sample Using Serial Address

You can set the non-serial address sampling channel if the option is not checked.

| hoperty Setting 🥥 Non-Serial Addre | te Charvel @ | |
|---|-----------------|---|
| winnplow 加加後期後期的近 | 0 | Tangling Mode # Cycle ① Taggered Tangling Cycle I ① X (a.e.) |
| Control Satting Presse Control ECher Control EService on Designated Window O | Channel Setting | Date Record Witnessen © 1990 © 50 Eard © USB1 Unsern: Date will last apport power off or nation. Must have a Visit of the State Hopp It is fauldo Dopp, new settless will not be added when the massive markets of earlies reached. Or delete ald entries and add new settlies. |
| Here - 1 | | Canal |

Non-Serial Address Channel

Click the "Non-Serial Address Channel" button, then the "Non-Serial Address Channel" page will display.

| Property Setting @ Non | -Serial Albheis Channel | 3 | | |
|---------------------------|---|------------|----------------------------------|------------------|
| imples Each Tive | 1 (*) | | | Add Word Channel |
| Ourvel Address | Type | Word Court | Number of words been used. Notes | |
| | | | | |
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| | | | | |
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| Teace add at least one of | and broughts | | | |
| | and an even of the second s | | | |

Add Word Channel:

Click the "Add Word Channel" button, there will be a entry of data sampling, then you can click the address button to edit the address, then you can choose device and address type. The length of the sampling points can be set by the option of "Samples Each Time". You can click the "Add Word Channel" again, continue to add a channel, the new channel address can be defined by yourself, and it does not need to continue with the last channel address. As shown in the following figure:

| work laser used. Notes |
|------------------------|
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| |

It can be seen that the sampling addresses of multiple channels could be non-continuous addresses.

Samples Each Time

The default is 1, which means 1 point per sample. When the value is set more than 1, the sampling points of each channel is changed to the set value.

4.10.2.9 PLC Control

The "PLC Control" attribute is used to execute an action according to the change of the address of the local HMI or the controller connected to the local HMI. This is a global Attribute. That is, the action of the "PLC Control" will be executed regardless of which one the current screen window is, as long as the conditions are met.

After clicking the menu command "Setup / System Settings / PLC Control", the "PLC Control" settings page will be opened. It is shown as below.

| Global Settings | Extended Settings | Laguange Settings | Favorite Font Ten | nplates User Leve |
|-----------------|-------------------|-------------------|-------------------|-------------------|
| User Privilege | Task Schedule | Data Sampling | PLC Control | Alarm And Event |
| VO. Address | | Type Content | | |
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| | | Add | Delate | Dear 686 |
| | | | | |

Click the button "Add" in the "PLC Control" settings page, the "PLC Control Details" settings dialog will pop up. It is shown as below.

| 2 PLC Corbell Details | 10 |
|---|-----------|
| Control Type: Switch Basic Window Valid on Window Opened Trigger Address Use Address Tag Deivce: LOCAL:[Local Register] Address Type: LW Address: 0 System Register Format/Range) DODDDD(0~Occupy: 1 + Word | Property |
| Data Type: 16-bit Unsign: • | |
| | OK Cancel |

The "Control Type" refers to the action of the "PLC Control". It includes "Switch Basic Window", "Report Current Window No.", "Back Light Control", "Execute Macro Instruction", "Audio Control", "Sheet Print", and "Force Buzzer off".

| Switch Basic Weedow | | | |
|---------------------|---|--|--|
| 0000000Occupy 1 | Word | Turn on Back Light | low |
| | Back Light Control Everate Macro Instruction Audio Control Sheet Print Force Buczer off W. • both System Re DDDDD0/DOccupy 1 Data Type: 16-bit Unit | Back Light Control Everate Macro Instruction Aside Control Sheet Print Force Buzzer off W. • System Register DDDDDDD0Occupy 1 • Wood Date Type: 16-bit Unsign: • | Back Light Control Evente Macro Instruction Asids Carbol Sheet Print Force Buzzer off W. System Register IODDDDDDOccopy 1 - Word Data Type: 16-bit Unsign: • |

4.10.2.9.1 Switch Basic Window

You can switch the basic window of the HMI by changing the value of a register.

| RECorbel | Details. | | 12 |
|---|---------------------------------|----------------------------|------------|
| Valid on Win Trigger Address Deivce: LOCAL Address Type: Address: 0 | LW DobbookoOeca Data Type | +) • Syttem Register | Property |
| | | | OK. Cancel |

• Valid on Window Opened

The "Valid on Window Opened" is a public attribute of the "PLC Control". By default, it is not checked. After checking this attribute, you can select a base window. The action defined in the "PLC control" will be executed when the specified base window is switched to open.

• Trigger Address

You can select a word register to trigger the "Switch Basic Window" action. For example, if the "Trigger Address" is set LW100, the HMI will display the Basic Window(1) when the value of LW100 is 1, and the HMI will automatically switch to the Basic Window(20) when the value of LW100 is 20. And so on.

• Property

There are two optional attributes in the "Property" box. They are not checked by default.

♦ Turn on Back Light

If you check the option "Turn on Back Light", the back light will be turned on automatically when the action of "Switch Basic Window" is executed and the back light is closed.

♦ Clear Address on Switched Window

If you check the option "Clear Address on Switched Window", the value of the word register will be cleared to zero automatically after the action of "Switch Basic Window" is finished.

After click the "OK" button, the "PLC Control" action will be added in the "PLC Control" settings page.

| 2010/02/02/02/02/07 | 1020102020000 | | | | | - U - M |
|---------------------|-------------------|------|----------------|-------------------------|----------------------------------|---------------|
| Global Settings | Extended Settings | | nge Settings | Favorite Fort | Concerning and the second second | User Level |
| User Privilege | Task Schedule | | a Sampling | PLC Contro | Ala | rom And Event |
| NO. Address | | Type | Content | Call Second | | |
| Location of | el Register(SWSD0 | Ward | Switch Basic V | distanting and a second | | |
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| | | | | Data | | |
| | | | Add | Dulote | Clear | Edit |

Note:

The "Switch Basic Window" action will be triggered only when the value of the trigger address changes. You can also use a Bit Set component to switch the base window in the VEDA HCT software. But the switch basic window action may not be executed if you use the two switch window methods. For example, after you input a value to the trigger address to switch the basic window, you switch another basic window by using the Bit Set component. Then you input the same value to the trigger address to

switch the first basic window. But it does not act because the value of the trigger address does not change. To avoid this situation, you should check the option "Clear Address on Switched Window".

4.10.2.9.2 Report Current Window No.

The current window number can be recorded to a register.

| PLC Control Details | | | 10.0 |
|------------------------------|--|----------|---------|
| Control Type: Report Curr | nt Window No. 🔹 | Property | |
| 🛙 Valid on Window Opened | 24 | | |
| Trigger Address | | | |
| Deivce: LOCAL:[Local Registe | 4 | | |
| | | | |
| Address Type: LW | | | |
| Address 0 👘 | System Register | | |
| Format(Range) DDDDDD(0~ | and and the support of the second sec | | |
| | Type: 16-bit Unsigns + | | |
| Address Index | | | |
| | | | |
| | | | |
| | | | 1 62220 |
| | | OK | Cancel |

Trigger Address

You can select a word register to trigger the "Report Current Window No." action. For example, if the "Trigger Address" is set LW200, the number of the current basic window will be moved to LW200 when the HMI displays a window. If the HMI device displays the Basic Window (18), then the value of LW200 is equal to 18.

4.10.2.9.3 Back Light Control

You can define a trigger condition to control the state of the back light if you select the "Back Light Control" as the control type.

| Control Type: Back Light Control • | Property |
|------------------------------------|---|
| Valid on Window Opened | Back Light on Sack Light off Adjust to Lovest Brightness Trigger Condition Bit Word Condition Trigger Mode: OFF+>ON Auto Reset |

Back Light on

The option "Back Light on" is selected by fault. If this option is selected and the trigger condition is satisfied, the back light will be turned on when the back light is closed or in the lowest lightness.

Back Light off

If the option "Back Light off" is selected and the trigger condition is satisfied, the back light will be turned off.

• Adjust to Lowest Brightness

If the option "Adjust to Lowest Brightness" is selected and the trigger condition is met, the back light of the HMI will be adjusted to the lowest lightness.

• Trigger Address

The "Trigger Address" can be a word or bit register. It depends on the setting of the "Trigger Condition".

• Trigger Condition

You can select "Bit", "Word" or "Condition" for the "Trigger Condition". If you select "Bit" or "Word", the condition is determined by the register which is given in the "Trigger Address". If you select "Condition", the condition needs to be given by the logic control editor box.

| Control Type: Back Light Control • | Property Back Light on Back Light off Adjust to Lowest Brightness |
|------------------------------------|---|
| | Trigger Condition |
| | Condition |
| | Add Multily Delate |

The detailed of "Condition" setting is referred to: <u>Detailed manual/ General functions/</u> <u>Drawing/ Logical Control</u>.

4.10.2.9.4 Execute Macro Instruction

| Control Type: Execute Macro Instruction * | Property |
|---|---|
| Valid on Window Opened | Execute Meoro Trigger Condition Sit © Word © Condition Trigger Mode: OFF->ON Auto Reset |
| Address Index | |

Execute Macro

You can select a Macro from the list. The selected Macro will be executed when the Trigger Condition is achieved. If you have not created a Macro, there will be a red exclamation mark to prompt that any one macro has not been established. Click the button "Macro Code", you can open the Edit Macro window.

• Trigger Address

The "Trigger Address" can be a word or bit register. It depends on the setting of the "Trigger Condition".

• Trigger Condition

You can select "Bit", "Word" or "Condition" for the "Trigger Condition". If you select "Bit" or "Word", the condition is determined by the register which is given in the "Trigger Address". If you select "Condition", the condition needs to be given by the logic control editor box.

The detailed of "Condition" setting is referred to: <u>Detailed manual/ General functions/</u> <u>Drawing/ Logical Control</u>.

4.10.2.9.5 Audio Control

You can control the internal buzzer of the HMI or the audio from the "Audio Library" by using the control type of "Audio Control". This function is invalid if the audio output is not supported by the HMI device.

| Control Type: Audo Control Valid on Window Opened Valid on Window Opened Vise Address Use Address Use Address Tag Delvce: LCCAu(Local Register) Bit-index within a Byte Register Address Type: LB Address Type: LB Address Index Address Index | PLC Control Details | |
|---|------------------------|--|
| | Valid on Window Opened | Buzzer Buzzer Time: 1 (*) Orepresents buzzer sounds permanently: Use Audio Burdle Library O Trigger Condition Bit (*) Word (*) Condition |

Buzzer

The option "Buzzer" is selected by default. If it is selected, the internal buzzer of the HMI will ring when the trigger condition is satisfied. The "Buzzer Time" is used to set the time of buzzer ringing. It is 1 second by default. The max value of the "Buzzer Time" is 100 seconds. When the "Buzzer Time" is set "0", the buzzer will continue ringing until the trigger condition is not satisfied.

Use Audio

If the option "Use Audio" is selected, you can select an audio from the "Audio Library". When the "Trigger condition" is satisfied, the audio will be played.

• Trigger Address

The "Trigger Address" can be a word or bit register. It depends on the setting of the "Trigger Condition".

• Trigger Condition

You can select "Bit", "Word" or "Condition" for the "Trigger Condition". If you select "Bit" or "Word", the condition is determined by the register which is given in the "Trigger Address". If you select "Condition", the condition needs to be given by the logic control editor box.

The detailed of "Condition" setting is referred to: <u>Detailed manual/ General functions/</u> <u>Drawing/ Logical Control</u>.

4.10.2.9.6 Force Buzzer off

You can specify a bit register to force the buzzer off by using the control type of "Force Buzzer off". When the state of the buzzer is ON, it will be forced to OFF if the specified bit register is ON.

| PLC Control Details | mission mission | 8 | owww.excodes. | | inter |
|--|-----------------|-----------------|---------------|----|--------|
| Control Type: Force | e Buzzer off | • | Property | | |
| Trigger Address | | | | | |
| Deivcer LOCALI[Local | Register) | | | | |
| Bit-index within a By | yte Register | | | | |
| Address Type: LB | | | | | |
| Address: 0 FormatiRange) DDDD0 Address Index | | System Register | | | |
| | | | | ок | Cancel |

4.10.2.10 Alarm And Event

You can preset the attributes of the alarms or events such as the conditions and contents in the "Alarm And Event" settings page. The "Alarm And Event" settings page can be opened by clicking the menu command "Setup/System Settings/Alarm And Event".

| Global Settings | Extended Settings | Laguange Settings | Favorite Fo | orit Templates | User Lev |
|--|--|-------------------|-------------|----------------|---------------|
| User Privilege | Task Schedule | Data Sampling | PLC Cont | nal Alu | arm And Event |
| Group: AlQ0] | • | | Language: | 1-English (Ur | nited States) |
| Group ID Urgenc | y Level Trigger Conditi | on. | | Content | |
| | | | | | |
| Create | nart [] [Gaar,Garnet | 0000) (00000 () | 14K. | Cores | |
| W. Lin | | 21 | | | |
| Historical Event Sa | aving Event Court Pri | int. | | | |
| © Unsave 🔅 HB | vti O SD Card O USB: | | | | |
| © Unsave 🔅 HB Power-off sustair | vti O SD Card O USB: | | | | |
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| C Unsave (H) Power-off sustain Subdirectory Nar | vti O SD Card O USB: | 1 | | | |
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| © Unsave # HI Power-off sustain Subdirectory Nar Maximum Saving On Cache Fulk | vti SO Card O USB: n. EVENT Limit(No Limit) 0 (*) Relete Old Records * | L | | | |
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4.10.2.10.1 Group

The alarms and events can be viewed by groups. The users can customize the groups. Here, the option "Group" can be set any one of "All, 1, 2, 3 ...32".

| Global Sett | tings | Extended Settings | Laguange Settings | Favorite For | t Templates | User Leve |
|--|---|----------------------|-------------------|--------------|-----------------|-------------|
| User Prisi | lege | Task Schedule | Data Sampling | PLC Contro | il Alar | m And Event |
| Group: | 190 | - | | Language: [| 1-English (Unit | ed States) |
| Group III 1 2 3 4 5 6 7 8 | (0) (0) (0) (0) (0) (0) (0) | gger Conditi | on | | Content | |
| Create 1 Historics 1 | 1/01 2001 3001 4001 | t Count Pri | ire | (14) | Coppe] | |
| Power-of | | | 1 | | | |
| Subdirect | tory Nam | EVENT | | | | |
| Maximum | Saving | Limit(No Limit) o 👘 | Day | | | |
| On Cache | Ful: D | elete Old Records + | | | | |
| 🖾 When f | ree spac | e is less than 12008 | ÷ | | | |
| 📋 Clear R | ecord Ri | ogisteri | | | | |

4.10.2.10.2 Language

| Global Settings | Extended Settings | Laguange Settings | Favorite Fo | ont Templates | User Leve |
|-----------------|-------------------|-------------------|-------------|----------------|-------------|
| User Privilege | Task Schedule | Data Sampling | FLC Cont | rol Jos | m And Event |
| | | | Language | 1-English (Uni | |
| Group: AHDI | | | | | |

The alarm content can be displayed in different languages. So you need select a language for the option "Language" to view the alarm content.

4.10.2.10.3 Create and set

After selecting a Group, then click the button "Create", the "Alarm and Event Detailed Setting" window will pop up. It is shown as below.

| Line Privilege | Task Schuckule Data Sarryling PLC Control | (Asym Arid) | 100 | |
|---|--|----------------|--|---------|
| Creater Liffs | -i Linguige Lingdid | School Stat | 661 (P) | |
| Orage II Generation Orage Material of Saling # Grave Table of Hanne Table of Mana Been 2000 Alare entry first n see data | Group ID: 1 Uppercy Level (Kg) * Nager Candidae Candid | 10 10 11 | Ander Gall Sta Magning (1 Marts) B Marts B Mord Ad B Popup W | freen . |

Group ID

If you select "All" for the "Group" in the settings page, the "Group ID" can set any one of 1~32 here. If you select any one of 1~32 for the "Group" in the settings page, the "Group ID" is same to the "Group". It refers to the group of the alarm or event waiting for be set here.

Urgency Level

The "Urgency Level" can be set "High", "Medium" or "Low". You can set it according to the priority level of the alarm or event.

Trigger Condition

The trigger condition of the alarm or event can be set here by using the button "Add", "Modify" or "Delete". The details can be referred to: <u>Detailed manual/General</u> <u>functions/Address editor/Standard Bit Address Input</u> and <u>Detailed manual/General</u> <u>functions/Address editor/Standard Byte Address Input</u>.

- Text and Record
- Description: Text Lib

You can input the description for the current alarm or event in the edit box here. Or you can check the "Text Lib" and use a text of the Text Lib as the description. The "Text Lib" is referred to: <u>Detailed manual/Libray/Text Library</u>.

> Language

You can select a language for the current display language here. If you check the "Text Lib" and use a text in the Text Lib as the description, the content in the edit box will only be viewed and not be edited. It can be viewed in different language by switching the Language.

| Text and Record |
|--|
| Description: 🕼 Text Lib. Open 🔹 Open 🔹 Text Lib. |
| Language: 1-English (United S 🔻 💽 |
| Open |
| |
| |
| |
| |
| |
| |
| Background Color: |

• Insert Watch Address

The display content of the alarm is the contents of the register address, the data type of the address support the "string" type.

| inten ID 1 | . • | |
|--|---------------|---|
| Trigger Candition | | Aur\$c |
| Condition | 9 | Trigger Buzer Dutter Timoor 0 Audio Particularity |
| Description Text Lik Language Lingdol (Livind L •) @ Taxe to | Text Lib. | E Word Address |
| | 0 | Di Popep Window Di Point Educeradian ha Polane |
| Copy Carrent Test To: All Languages System | Watch Address | |

| Alare and turn Det | afted betting | | |
|---|---|---------------------|----------------|
| Group ID: 1 | Weich Zelähnes Takke | | |
| Trigger Condition | Match Address firm | | - |
| | Match Address Name: www. D Use Address Tag Delever (LOCAL/Local Register) | | |
| Test and Record Description III Te Language (3-Grad | Address Type IW + Address (0.15) Bytte Fernal/Lange DEDEDDIO-Conage (1 | i Fingitier Werd | |
| Capy Carent Test | Address Indee Gest Torrest Data Type State Bioliteragenet (* Integrad State Bioliteragenet 20-26 Stared 20-26 Stared IS-26 BCD IS-26 BCD | 0 🔭 🗁 Olaping Post | Donkers () Gen |
| E randrese ca | 22-bit Hexadecimal 22-bit Hexadecimal 22-bit Hexadecimal | Select And Out | |

Audio

| Audio |
|---|
| ▼ Trigger Buzzer ▼ Buzzer Timeout 10 ♠(s) |
| 🕼 Audio Library Sleep Away 🕟 |

If the option "Trigger Buzzer" is checked, the internal buzzer of HMI will beep when an alarm occurs. If the option "Buzzer Timeout" is checked, you can set the beeping time of the buzzer. If the option "Audio" is checked, you can select an audio from the Audio Library as the sound of the alarm or event.



Action

There are three kinds of actions according to the status of the alarm or event. They are "Triggering", "Confirming" and "Recovery Action". You can set the actions in different status for the alarm or event by clicking the title of the setting page "Triggering", "Confirming" or "Recovery Action".

| Triggering | Confirming Reco | very Action |
|------------|---------------------|--------------|
| Macro: | InitialSys 🔻 Macı | ro Code Edit |
| 🔽 Bit Add | ress: 🔘 ON 💿 OFF | |
| | LBO | |
| 🔽 Word A | ddress: Value | 0 |
| | LW0 | |
| 🔽 Popup | Window: B_2:Base | Window(2) 🔻 |
| 🗌 Print In | ormation to Printer | |

The actions of "Triggering" refers to the actions that they will be executed when the alarm or event occurs. The actions of "Confirming" refers to the actions that they will be executed when the alarm or event is acknowledged by manual. The actions of "Recovery Action" refers to the actions that they will be executed when the alarm or event exists.

Macro

Select a Macro to execute as an action. You can also open the Macro Editor by clicking the button "Macro Code" or edit the Macro by clicking the button "Edit".

Bit Address

Set a bit register ON or OFF.

Word Address

Write a value to a specified word register.

Popup Window

Pop up a specified window.

Print Information to Printer

Make the printer to print the corresponding information.

4.10.3Communication Settings

4.10.3.1 Local Connection

The command "Local Connection" in the "Communication Settings" menu is used to set the communication parameters of the COM ports.

Select the corresponding COM port (COM1, COM2, COM3, or COM4) property TAB to set the communication parameters.

| E | themet PLC | | Service | P | inter | Keyboard |
|----------|---|--|--|--|---|--|
| COI | v12 | CON | 13 | COM4 | | Remote HMI |
| | @ Con | nect De | vice(Maste | e) (9 | Provide | Service(Slave) |
| er; FLE | Max | | | * | | |
| et FLE | KEM MODE | us | | • | | |
| es: Dev | rice1 | | | | | |
| o.: Con | stant - | 1 | 1 🚖 | Sync | hronize | Station No. |
| on: | | | Master Sta | tion No.: | 1 | 0 |
| Setting | | | | | | |
| n Type: | R\$232 | • | FLEXEN | MUDBUS | | |
| | 115200 | • | | | | |
| | 8 | • | | | | |
| | 1 | • | | | | |
| | None | • | | | | |
| | Advanc | e. | | | | |
| ructions | 6 | | | | | |
| | COI err FLE per FLE bev ss: Dev on: Con ion: Setting | COM2 © Conv err FLEXEM per: FLEXEM MODE st: Device1 no.: Constant • ion: Setting n Type: RS232 115200 8 1 None Advanc | © Connect De err FLEXEM be: FLEXEM MODBUS est: Device1 oo: Constant • ion: Setting n Type: RS232 • 115200 • 8 • 1 • None • Advance | COM2 COM3 Connect Device(Maste err FLEXEM Device1 ion: Master St. Setting Compa n Type: RS232 • 115200 • 8 • 1 • None • Advance | COM2 COM3 COM4 Connect Device(Master) PLEXEM + per: FLEXEM MODBUS + st: Device1 on: Constant + 1 - Sync ion: Master Station No.: Setting Compatible Mode FLEXEM MODBUS n Type: R\$232 + 115200 + 8 + 1 - None + Advance | COM2 COM3 COM4 © Connect Device(Master) © Provide err FLEXEM * pec FLEXEM MODBUS * st: Device1 oo: Constant * 1 * Synchronize ion: Master Station No.: 1 Setting Compatible Model FLEXEM MODBUS 1 * 15200 * 8 * 1 * None * Advance |

4.10.3.1.1 Unused

The option "Unused" is the default. It means the selected COM port is not used to communicate.

4.10.3.1.2 Connect Device (Master)

The option "Connect Device (Master)" needs to be selected when the touch screen is as master device. Then you need to set communication parameters for the corresponding PLC.

Manufacturer

The option "Manufacturer" is used to set the manufacturer of the connected PLC.

| Remote PLC | Ethernet P | LC Servi | ce Printer | Keyboard |
|--------------------|----------------------|------------------|--------------|-------------------|
| COM1 | COM2 | COM3 | COM4 | Remote HMI |
| Unused | Co | annect Device(Ma | steri Provid | le Service(Slave) |
| Manufacture | FLEXEM | | | |
| Deules Tur | FLEXEM | | | |
| Device Typ | MODBO2 CO | mpatible | | |
| Device Alia | SIEMENS PANASONIC | | | |
| - | ARTICORICUT | | Elebratio | e Station No. |
| Pre-set Station No | FATEK | | - chronia | e station No. |
| Broadcast Statio | | | | 1 🗘 |
| Communication S | et DELTA | 20 | 24 | |
| 400000404040 | ANTENATET | D | 5 | |
| Communication | MIKOM | | | |
| Baud Rate: | KeWei | | | |
| Data Bit: | KINCO HCFA | | | |
| Lista bit: | Yaskawa | | - | |
| Stop Bit: | 1 | 3 | | |
| Parity Bit: | None | | | |
| comy and | (rearie | 2.1 | | |
| Reset | Adva | nce | | |
| | 1000000 | | | |
| 201 | - Heren | | | |
| tuen | uctions | | | |
| | | | | |
| | | | | |
| Help | | | | OK Cance |

• Device Type

The Device Type refers to the corresponding type of the connected PLC.

| Remote PLC | Ethernet | PLC | Service | Printer | Keyboard |
|--------------------|-------------|------------|------------|-------------|--------------------|
| COM1 | COM2 | CON | KI3 | COM4 | Remote HMI |
| Unused | e (| Connect De | wice(Maste | r) 💮 Provi | ide Service(Slave) |
| Manufacture | rt FLEXEM | | | * | |
| Device Type | E FLEXEM MO | SUBOC | | * |] |
| Device Alia | FLEXEM FL | | SISHL FX2N | COMPATIBLE) | |
| Pre-set Station No | Constant | | 1 🚭 | Synchroni | ze Station No. |
| Broadcast Static | on: | | Master Sta | tion No. | 1 1 |
| Communication 5 | etting | | | tible Model | |
| Communication | Type: RS232 | | FLEXEM | MODBUS | |
| Baud Rate: | 115200 |) 🔹 | | | |
| Data Bit: | 8 | • | | | |
| Stop Bit: | 1 | • | | | |
| Parity Bit: | None | • | | | |
| Reset | Adv | ance | | | |
| Instr | uctions | | | | |
| | | | | | |

• Pre-set Station No.

The option "Pre-set Station No." is used to set the PLC station number. You can set it by Constant or Variable.

You can input a fixed station number of the connected PLC by Constant way. It is the default station number for the new address. The station number which is already set will not change if you modify the preset station number. You can use the button "Synchronize Station No." to unify the station number.

You can set the "Pre-set Station No." by variable. It means the preset station number will depend on the value of a variable which you can input by a numeric value input component. The method to input the variable address is referred to: <u>Detailed</u> <u>manual/General functions/Address editor/Standard ByteAddress Input</u>.

• Synchronize Station No.

After clicking the button "Synchronize Station No.", the station number will be modified and saved for all addresses of this PLC used in the current project.

- Communication Setting
 - Communication Type: RS232, RS485-2 and RS485-4 are optional.
 - Baud Rate:

110,300,600,1200,2400,4800,9600,14400,19200,38400,56000,57600,115200 and 187500 are optional.

- > Data Bit: the number 7 and 8 are optional.
- Stop Bit: the number 1 and 2 are optional.
- > Parity Bit: None, Odd and Even are optional.
- > Reset: the default settings will be restored if you click the button "Reset".

Advance: more communication protocol parameters can be modified if you click the button "Advance". The settings are shown as below.

| G Advanced Communication | n Settings | | X |
|---|-------------|------------------------|--------|
| Timeout And Group Pac | kaging Para | meters | |
| Timeout(ms): | 300 🌲 | Bit Register Interval: | 64 🜩 |
| Protocol Timeout1: | 30 🜲 | Protocol Timeout2: | 3 🜲 |
| Word Register Interval: | 16 🖨 | Max Bit Registers: | 128 🜩 |
| Max Word Registers: | 60 🜲 | Time Interval: | 5 🜩 |
| Communication Abnorm Tip Display Time(s): Retry Count Reached: @ Retry | 0 🖨 Ret | try Count: 10 🔺 | |
| Word and Byte Port Ord 16-bit Integer: 21 32-bit Float: 4321 | ler • | 32-bit Integer: 4321 | T |
| Reset | t | ОК | Cancel |

The parameters in the Advanced Communication Settings should not be modified, unless the professional guidance is given. The optional modification may result in a communication failure or unexpected events occur. You can consult the factory technical staff to modify the advanced parameters based on your needs. In most cases, the default parameters are the best and need not to be changed.

4.10.3.1.3 Provide Service (Slave)

The touch screen is used as the slave device.

| Remote PLC | Ethernet P | UC | Service | Printer | Keyboard |
|---|---------------|--------------|------------------------|--------------------------|----------------|
| COM1 | COM2 | COM3 | | COM4 | Remote HMI |
| Unused | © Ce | onnect Devic | e(Master) | Provide | Service(Slave) |
| Device Typ | e: Barcode | | | • | |
| Device Alia | s: Service | | | | |
| Server Station No | ou Constant • | | | 1 | |
| Communication S Communication Baud Rate: Data Bit: Stop Bit: Parity Bit: | | • | Compatib Serial Bar | ie Model Code Scanner | |
| Reset | Adva | | | | |

• Device Type

The Device Type includes Barcode, FLEXEM SLAVE and Modbus RTU Server. It is shown as below.

| Device Type: | Barcode 🔹 |
|---------------------|-------------------------|
| Device Alias: | Barcode FLEXEM SLAVE |
| Server Station No.: | Modbus RTU Server |

Device Alias

"Serve" is the default name of the Device Alias.

• Server Station No.

You can set the "Server Station No." by Constant or Variable. It is the station number of the touch screen as a slave device.

| Server Station No.: | Constant 💌 | 1 🔹 |
|---------------------|------------|------|
| | Constant | |
| | Variable | |
| | | |

Constant

The user can input a constant as the fixed station number.

> Variable

You can set the "Server Station No." by variable. It means the server station number will depend on the value of a variable which you can input by a numeric value input component. The method to input the variable address is referred to: Detailed manual/General functions/Address editor/Standard ByteAddress Input.

- Communication Setting
 - Communication Type: RS232, RS485-2 and RS485-4 are optional.
 - Baud Rate:

110,300,600,1200,2400,4800,9600,14400,19200,38400,56000,57600,115200 and 187500 are optional.

- > Data Bit: the number 7 and 8 are optional.
- > Stop Bit: the number 1 and 2 are optional.
- > Parity Bit: None, Odd and Even are optional.
- > Reset: the default settings will be restored if you click the button "Reset".

Advance: more communication protocol parameters can be modified if you click the button "Advance". The settings are shown as below.

| Advanced Communication Settings | × |
|---|--------|
| Timeout And Group Packaging Parameters | |
| Timeout(ms): 200 🚔 Bit Register Interval: | 2 🜩 |
| Protocol Timeout1: 0 🗣 Protocol Timeout2: | 0 🜩 |
| Word Register Interval: 2 🜩 Max Bit Registers: | 32 🗘 |
| Max Word Registers: 64 🗢 Time Interval: | 0 🜩 |
| Communication Abnormal Tip Display Time(s): 0 🖨 Retry Count: 10 🛋 Retry Count Reached: | |
| Retry Stop Word and Byte Port Order 16-bit Integer: 21 32-bit Float: 4321 | • |
| Reset OK (| Cancel |

The parameters in the Advanced Communication Settings should not be modified. The optional modification may result in a communication failure or unexpected events occur. You can consult the factory technical staff to modify the advanced parameters based on your needs.

4.10.3.2 Remote Connection

The Remote connection contains three connection modes: "Remote HMI", "Remote PLC" and "Ethernet PLC".

4.10.3.2.1 Remote HMI

After click the menu "Setup / Communication Settings / Remote Connection", the "Remote HMI" settings page is opened as the default. It is shown as below.

| Remote PLC | Ethernet | PLC | Service | Printer | Keyboard |
|--|----------|-----|---------------|-----------------------------|------------------------|
| COM1 | COM2 | cc | EMG | COM4 | Remote HMI |
| ID Device Alias | Ib | | Port | Device Type | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | et. Using dev | vice alias, local Hi | MI can easily visit ti |
| emote HMI can be scal register data c | | | et. Using des | rice alias, local Hi Add | |

For one of the HMI device, anyone of other HMI devices in the same Ethernet network of the LAN is the Remote HMI. For example, there are two HMI: one named HMI1, another one named HMI2. These two HMI devices are connected in an Ethernet network. For HMI1 device, HMI2 is the "remote HMI" of HMI. For HMI2 device, HMI is the "remote HMI" of HMI2.

After clicking the button "Add" in the "Remote HMI" settings page, the "Remote HMI" settings dialog will pop up. It is shown as below.

| Use IP | | | | |
|---|-------------|-----------|------------|------|
| Contraction of the second s | 192.168.0.1 | Port No.: | Constant • | 3000 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Device Type: | FE4070 | | | |

Use IP

You can set the IP address of the remote HMI by Fixed or Variable. The default setting mode is "Fixed". And the default fixed IP address is "192.168.0.1". For example, the IP address of HMI1 is "192.168.0.10" and the IP address of HMI2 is "192.168.0.20". For the project of HMI1, you need set the IP address of the remote HMI "192.168.0.20".

When you set the IP address of the remote HMI by Variable, a word register address needs to be given as the start address. There are 4 word registers which is from the start word register. They are used to save the 4 segments of the IP address. It is shown as below.

| Variable • | RWD | 8 | Port No. | Constant + | 3000 |
|-----------------|-----------|-----------|--------------|------------------|-------|
| 1 | W0-RW3: c | orrespond | to the 4 seg | gments of IP add | dress |
| | | 20222201 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | - 1 |
| Device Type: FI | E4070 | | | | |

You can input the IP address of the Remote HMI to the4 word registers by the numeric value input component. Then you can access the desired HMI device.

• Port No.

You can set the "Port No." of the remote HMI by Constant or Variable. The default setting mode is "Constant" and the default port number is 3000. You need to set the "Port No." by Variable if you want to change the port number of the remote HMI by a word register. The default port number is suggested usually. It is noted that all the port numbers of the connected HMI devices must be the same. Otherwise, the connection may fail.

• Device Type

The Device Type refers to the type of the remote HMI device which the HMI needs to access.

• Device Alias

The default of the Device Alias is "Device1". It cannot be null. You can set a device alias which is easy to understand, such as "HMI for Machine 3".

Click the button "OK" to confirm the settings. And the "Remote HMI" settings page is shown as below.

| | emote PLC | Ethernet PLC | Service | Printer | Keyboard |
|-----|----------------|---------------------|----------------|---------------------|------------------------|
| - 5 | IOM1 | COM2 | COM3 | COM4 | Remote HMI |
| ID | Device Alias | IP | Port | Device Type | |
| | HMI of Device. | 3 192.158.0.20 | 3000 | FE4070 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | connected via Ether | rnet. Using de | vice alias, local H | łMI can easily visit t |
| | | | met. Using de | | HMI can easily visit t |

Click the button "OK" in the "Remote HMI" settings page to save, and then you can find the remote HMI device in the Device list of the register address. For example, it is shown as below.

| ereral Number Tormat Keyboard S | etting font Graphics Dynamic G | eaphics Control Settings Display | |
|--|--------------------------------|--------------------------------------|--|
| Operation Attribute: © Nameric Displ | 14 | Display 🔘 Characters Input | |
| Read Address | ent Distanció | | |
| 🗉 lise Address Tag | | | |
| Deleter LOCAL(Local Register) | * | | |
| 1.0CAL(Local Register) HML of Cessie University HML | | | |
| RECIPE/recipe register! | | | |
| Address ryper izw | | | |
| | atem Register | | |
| Format(Range) D0000000 Occupyr | 1 - Word | | |
| | | | |
| 🗄 Address Indes | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

After finishing setting the "Remote HMI", the local HMI can access all the registers of the "Remote HMI", including the LW, RW, SRW, LB, SRB and other registers.

If you need to add other remote HMIs, you can add them by referring to the above.

4.10.3.2.2 Remote PLC

The Remote PLC refers to the device which is connected with the remote HMI, including the PLC, the inverter, the servo, the instrument, and so on.

After clicking the menu "Setup / Communication Settings / Remote Connection", the "Remote HMI" settings page is opened as the default. Click the "Remote PLC" tab to open the "remote PLC" settings page. It is shown as below.

| COM1 | COM2 0 | COM3 | COM4 | Remote HMI |
|---|-------------------|----------|------------------|----------------|
| Remote PLC | Ethernet PLC | Service | Printer | Keyboard |
| ID Device Alias | IP | Port COM | M Port Device Ty | ype Default St |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| emote PLC is a devi cress to remote PLC sing the device alias | registers through | | | |

After clicking the button "Add" in the "Remote PLC" settings page, the "Remote PLC" settings dialog will pop up. It is shown as below.

| I Use IP | | 27 12-1020 | | 1.00523 | |
|-----------------|---------------------|----------------|------------|-------------------|-------------|
| Fixed + | 192.168.0. | 1 Port No.: | Constant * | 3000 | ÷ |
| | | | | | |
| | | | | | |
| | | | | | |
| At COM port: | COM1 | | | | |
| Manufacturen | 6.SIGH | | | | |
| Manufacturen | FLEXEM | | | Instructions | |
| Device Type: | FLEXEM FL2N(MIST | TUBISHE FX2N C | OMPATIE . | | 1 |
| Device Alias: | Alias cannot be nul | DefaultDevice | 1: | | |
| Default Station | No.1 Constant + | | 1 5y | nchronize Station | No. Advance |
| | | | | | |

Remote HMI Address

> Use IP

You can set the IP address of the remote HMI by Fixed or Variable. The default setting mode is "Fixed". And the default fixed IP address is "192.168.0.1".

> Port No.

You can set the "Port No." of the remote HMI by Constant or Variable. The default setting mode is "Constant" and the default port number is 3000.

The detailed settings of "Use IP" and "Port No." can be referred to the settings in the "Remote HMI" settings page.

• COM

> At COM port

The "At COM port" refers to the number of COM port which the "Remote PLC" device is connected to. The default is COM1. For example, the "At COM port" is set COM2 if the accessed controller is connected to the COM2 port.

> Manufacturer

The "Manufacturer" refers to the manufacturer of the connected "Remote PLC" device.

> Device Type

The Device Type refers to the type of the remote PLC device which is connected to the remote HMI.

> Device Alias

The default of the Device Alias is "Device1". It cannot be null. You can set a device alias which is easy to understand, such as "HMI for Machine 3".

> Default Station No.

The "Default Station No." refers to the station number of the Remote PLC device. It must be consistent with the actual station number of the Remote PLC device.

> Advance

Please refer to the "Advance" settings of the "Local Connection".

For example, the "Remote PLC" device is connected to the "Remote HMI" which the IP address is "192.168.0.20". The type of the remote PLC is Siemens S7-200 and the COM1 of the remote HMI is used to connect with the PLC. The station number of the PLC is 2. The settings are shown as below.

| Fixed | 192.168.0.20 | Port No. Consta | nt = | 3000 | |
|----------------|------------------|-----------------|------|----------------------|-------|
| | | | | | |
| | | | | | |
| At COM port | COM1. • | | | | |
| Manufacture | SIEMENS | | • | Francisco II | |
| Device Type: | Siemens \$7-200 | | | Instructions | |
| Device Alias: | PLC of Device 3 | | | | |
| Default Static | n No: Constant + | 2 | Syn | chronize Station No. | Advao |

Click the button "OK" to confirm the settings and the "Remote PLC" device is added to the "Remote PLC" settings page.

| C | COM1 | C | OM2 | | COM3 | 0 | OM4 | Rei | mote HMI |
|---------|--|-------|----------|---------|--------------|-------|------------|-----|------------|
| Re | emote PLC | | Etherne | et PLC | Se | rvice | Printer | | Keyboard |
| ID 1 | Device Alia | | 1P | 0.20 | Port 3000 | COM P | ort Device | | Default St |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| acces | ote PLC is a d ss to remote the device a | PLC T | egisters | through | | | | | |

You can find the remote PLC device in the "Device Type" of the component. For example, it is shown as below.

| Numeric Input | 1.0 |
|---|----------------------------|
| General Naunher Formet Keyboard Setting Ford Graphics Dynamic Braphic | a Control Settings Display |
| Operation Attribute 🕆 Numeric Display 🕷 Numeric Input 🗇 Characters Displa | y ⊜Characters Input |
| Theoding And Writing Address is Different EPessword | |
| Road Address | |
| Use Address Tag | |
| Delecer LOCAL(Local Register) * | |
| LOCAL[Local Register] HMI of Device 3(Remote HMEF64370) | |
| FLC of Denire 3 (Environ FLC COMULAnnual ST300) | |
| Address agente (recipe register) | |
| Address 0 di System Register Format/Kengel DDDDDDDD. Occupy 1 + Word | |
| and the property of the sea | |
| Address Index | |
| C AND IN DAM | |
| | |
| | |
| | |
| | |
| | |
| Hela | OK Canal |
| Help Description | OK |

After finishing setting the "Remote PLC", the local HMI can access all the registers of the "Remote PLC" which is connected to the "Remote HMI".

If you need to add other remote PLCs, you can add them by referring to the above.

4.10.3.2.3 Ethernet PLC

The "Ethernet PLC" refers to the PLC which is connected with the HMI by the Ethernet communication mode. The network communication protocols which the HMI and the PLC support are used to complete the communication.

After clicking the menu "Setup / Communication Settings / Remote Connection", the "Remote HMI" settings page is opened as the default. Click the "Ethernet PLC" tab to open the "Ethernet PLC" settings page. It is shown as below.

| COM1 | COM2 | 00 | DM3 | 0 | OM4 | 1.1 | Remote HMI |
|---------------------------------------|----------|-----|------|--------|------|--------|---------------|
| Remote PLC | Ethernet | PLC | Serv | ice | Prin | ter | Keyboard |
| D Device Alia | s IP | 3 | Port | Device | Туре | Defaul | t Station No. |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| hernet PLC is a f scal HMI can acc | | | | | | | |

After click the button "Add" in the "Ethernet PLC" settings page, the "Ethernet PLC" settings dialog will pop up. It is shown as below.

| ter allowed | of Ethernet PLC | 100000 | | | |
|-------------------------------|--|---------------|----------|--------------|--------|
| Fixed * | 192.168.0.2 | Port No.1 Con | nstant • | 502 👻 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | • | | |
| Manufacturen | MODEUS Compatible | | | | |
| | MODBUS Compatible | | | Instructions | |
| Device Type: | Modbus TCP | | • | Instructions | |
| Device Type: | en ander | | • | Instructions | |
| Device Type: Device Alias: | Modbus TCP | | | Instructions | Advanc |

• The IP address of Ethernet PLC

The IP address of Ethernet PLC refers to the IP address of the PLC which is connected with the HMI through the Ethernet network.

• Port No.

The "Port No." is the number of the communication port between the Ethernet PLC and the HMI. The "Port No." is different for the different network. There is a default "Port No." for your selected network. Generally, it is ok to use the default port number. For example, the default port number is 502 for the "Modbus TCP".

The "Manufacturer", "Device Type", "Device Alias," "Default Station No." are same as the settings in the "Remote PLC".

Broadcast Station

After checking the "Broadcast Station", you can set a number for the broadcast station. The default is that the "Broadcast Station" is not checked. You can determine to use this function or not according to the actual situation.

Click the button "OK" to confirm the settings and the "Ethernet PLC" device is added to the "Ethernet PLC" settings page. For example, the "Modbus TCP" is selected as the device type. The result of settings is shown as below.

| Device1 [192.168.0.21 502 [ModBus TCP]1 | - 0 | COMI | COM2 | | OM3 | co | M4 | - R | emote HMI | |
|--|-----|-------------|---------------------------------|-------|------|----------|---------|---------|-------------|--|
| Device1 [192.168.0.21 502 [ModBus TCP]1 | R | emote PLC | Etherne | t PLC | Serv | ce | Printer | | Keyboard | |
| hemet PLC is a PLC device which can connect to the network with built-in protocol. | D | Device Alia | s Ip | | Port | Device T | уре | Default | Station No. | |
| | | Device1 | 192.168. | 0.21 | 502 | Modbus | TCP | 1 | | |
| | | | | | | | | | | |
| | | | LC device whi ess Ethernet P | | | | address | | | |

If you need to add other Ethernet PLCs, you can add them by referring to the above.

You can realize the connections by using the "Ethernet PLC" mode, such as multi HMIs, multi HMIs and one PLC, multi HMIs and multi PLCs, and other connections.

4.10.3.3 Service

Service refers to that the HMI device provides the data requested by other devices. The HMI is a slave device. The port is static. All communication operations should be initiated by other master devices.

The type of Service includes Serial Port Service and Network Service.

| C | OMI | COM2 | | | COM4 | Remote HMI | | |
|-------|--------------|--------------|-------------|-------------|---------|------------|---------|--------------|
| Re | emote PLC | Ethe | met PLC | Se | vice | Printe | er. | Keyboard |
| ID | Protocol Ty | ype | Service | Type | Port/CO | M Port | Slav | e Device NO. |
| | Modbus TO | P Server | Network | k Service | 502 | | 1 | |
| 2 | Modbus R | TU Server | Serial P | ort Service | COM1 | | 1 | |
| | | | | | | | | |
| leas | e add the se | rvice of ser | ial port fr | om corress | ondent | COM port | setting | *- |
| Pleas | e add the se | rvice of ser | ial port fr | om corresp | ondent | | setting | • |

4.10.3.3.1 Serial Port Service

| Remote PLC | Ethernet P | LC Se | ervice | Printer | Keyboard |
|-------------------------------------|------------|----------------|---------|------------------------|------------------|
| COM1 | COM2 | COMB | | COM4 | Remote HMI |
| Unused | © Co | innect Device(| Master) | Pravid | e Service(Slave) |
| Device Type | Modbus RTU | Server | | • | |
| Device Alias | Service | | | | |
| Server Station No. | Constant • | | | 1 | |
| Communication Se Communication 1 | | | | le Model ITU Server | |
| Baud Rate: | 115200 | • | | | |
| Data Biti | 8 | • | | | |
| Stop Bit: | 1 | | | | |
| Parity Bit: | None | * | | | |
| Reset | Advar | nce | | | |
| Instru | ctions | | | | |

The Device Type can be Barcode, FLEXEMSLAVE and Modbus RTU Server. The Barcode refers to the bar code gun. It can scan information and display it by using a continuous 100 characters saved in the area which LW8900 is the start address. LB8999,which is as a flag bit, is set ON after scanning is finished (it will not be reset automatically). The FLEXEM SLAVE device is supported and the HMI can work as a slave or a master device. The Modbus RTU Server is referred to: <u>Detailed</u> <u>manual/Setup/Communication Settings/Local Connection/Provide Service (Slave)</u>.

| Device Type: | Modbus RTU Server 🔹 |
|---------------------|-------------------------|
| Device Alias: | Barcode FLEXEM SLAVE |
| Server Station No.: | Modbus RTU Server |

4.10.3.3.2 Network service

| Type(Slave Device Protocol): |
|------------------------------|
| Instructions |
| |
| Port No.: 502 |
| istant 🔻 1 🔦 |
| OK Cancel |
| |
| |

The Service Protocol Type supports Modbus TCP Server. It is referred to: Ethernet Service

4.10.4 Options

The command "Options" in the "Setup" menu opens the Options dialog. You can view and modify some settings such as the VEDA HCT software interface display. There are two catalogs: General and HMI.

4.10.4.1 General

The General has only one option: Auto Update. If the "Check for Updates" is checked in the Auto Update sub catalog, the VEDA HCT software will be checked for updates automatically when it is opened. A message will be popped up to remind you to update if the software detects update packages.

| 🐻 Options | |
|-----------|----------------------------------|
| i≊General | Auto Update Check for Updates |
| | OK Cancel |

Auto Update: Click this option then the software will update automatically every time you open it, if there is a installation package, it will hint you to install it.

| General Auto Update | UI Language | | |
|------------------------------------|---|--------|---------------|
| ⇔ <mark>UI Language</mark> ⊒Hmi | | nglish | C• Turkish |
| | Korean | | |
| | Current UI language: En Click on an icon to choo | | |
| | | ОК | Cancel |

UI Language: You can set the UI language of VEDA HCT, and it will take effect after completing setting and restarting

4.10.3.2 Hmi

The catalog of "Hmi" includes "General", "Auto Recover" and "Window".

4.10.3.3.1 General

If you check the "Automatically load the previously closed project" option, the last closed project will be opened automatically when the VEDA HCT software is opened.

| Detions | 0.00 |
|--|---------|
| Constal Control Auto Recover Control Constant Control Constant Cons | General |
| | OK |

4.10.3.3.2 Auto Recover

You can set the "Recover Time Interval" here. For example, the "Recover Time Interval" is set as 2 minutes means that the project will be saved automatically every two minutes. This setting can reduce the project information losing when the software accidentally shutdown or the power failure is occurred.

| C Options | |
|---|------------------------|
| i⊒General I⊒Hmi | Auto Recover |
| General ➡ <mark>→ Auto Recover</mark> ➡Window | Recover Time Interval: |
| | View backup project |
| | |
| | |
| | |
| | OK Cancel |

You can open the file folder "Backup Projects" by clicking the button "View backup project".

| 由到库 中 | 共業・ 电子和内 お款 単 | ERNA. | | | 用:* | -12 | 6 |
|--------------|-----------------------------------|-----------------|------|----|-----|-----|---|
| 14 | 58 | 100.048 | 125 | 大学 | | | |
| - 1 | Grighel 2015 04 25 09 57 18 18 8 | 1mth/4/24.937 | 29.8 | | | | |
| | Criginal-2015-06-17-22-18-27-007 | 1915/6/17 2211 | 北州県 | | | | |
| | Criginal-2015-08-18-08-44-02-007 | 1013/0/18 8.44 | 共同共 | | | | |
| * | 🗼 Original-2015-07-18-10-41-17-49 | 1015/7/18 1041 | 2.08 | | | | |
| | 👃 Oviginal-2015-07-19-20-10-54-# | 3015/7/14 20:10 | 文件曲 | | | | |
| | 📕 Oviginal-2015-07-21-10-23-58-₽ | 2015/7/23 10:04 | 2月時 | | | | |

4.10.3.3.3 Window

The sub catalog "Window" includes two options: General and the Designer. The option of "General" is blank.

If you check the "Use pipeline animation effect" in the "Designer" option, you can see the dynamic liquid flow effect in the pipeline component during the project editing process.

| E Options | |
|---|---|
| General →Hmi General Auto Recover →Window | Designer Use pipeline animation effect |
| General ⇒ <mark>Designer</mark> | |
| | |
| | |
| | OK Cancel |

4.11 Tools

In the VEDA HCT software, the Tools menu includes many tools in the shortcut tool bar. It includes" Compile, Compile All, Clear Compile Result, Download, Pack to Disk, Upload, Decompile, and Offline Simulation".

| Тоо | ls Help | | |
|-----|----------------------|----|----------------------|
| * | Compile | F6 | - |
| 渗 | Compile All | | 🛅 📲 🍳 100% 🔹 🔍 🏢 🏥 🛄 |
| * | Clear Compile Result | | _ |
| ٢ | Download | | |
| 2 | Pack to Disk | | Ŧ |
| ٦ | Upload | | |
| * | Decompile | | |
| | Offline Simulation | F5 | |

1 Compile

The project will be saved automatically and the system will generate a bin directory and other files if no errors.

2Compile All

The project will be saved automatically and all the files are forced to compile.

3Download

The system will compile the project automatically and generate a directory of upload and some relevant files for decompiling. Then the relevant files are packaged and the download tool dialog is popped up. Before clicking the button "Download", you need to select the communication mode (USB or Ethernet) and the data source (Project or Fpg File). You can check the delete options and check the download options (Batch Mode or Force Mode) according to demands.

| Protocol © US3 © Ethernet 0 , 0 , 0 0 Econ Sata Scource © Project © Ppg Fils © EP Data © Tertipe E: USDIS-2016-1%project-fa%FirstF%bin | Dalate Option (Project Valid) Dalate BY Data Dalate Scope Data Dalate Scoping and Alars Entry Data Dalate Scoping and Alars Entry Data Dalate Scoping Scope Dalate Wing's Infe Download Option (Project Valid) Datate Mode Exarcs Mode |
|--|--|
| | Ionlast |

4 Pack to Disk

The tool of "Pack to Disk" can realize compiling the project and packaging it to the disk. The package file is named Fpg File. Then you can download it by the USB disk or the VEDA HCT software.

| 🕞 Pack to Disk | | × |
|-----------------------------------|---|------------|
| Compile and do with USB disk o | ownload the project to disk, dov r FSTOOLLS. | vnloadable |
| Name: FirstP_2 | 20151125_b02.fpg | |
| Location: E:\201 | L5-2016-1\project-fe\FirstP | |
| Help | ОК | Cancel |

5 Upload

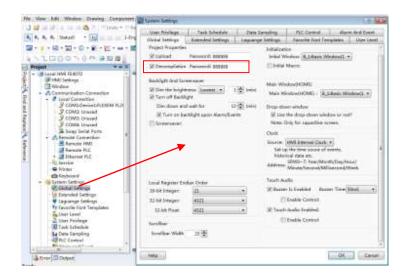
If you check "Upload" to enable upload in the Global Settings of the System Settings, the configuration information downloaded in the HMI device can be uploaded by the USB or Ethernet communication mode. The configuration information can be Project, RW Data, Recipe or Logs.

| He View Let Window Crawing Component | 25 System Lettings | 1.1.1 |
|--|---|--|
| Image: Second | Uver Privilege Task Schedule Date | Descripting PIC Control Alexes. Bed Even Intelligence Termine free Foregrades User Control Intelligence Scatter Windows (L) Resc User Control Intelligence Scatter Windows (L) R Intelligence Main Windows (L) Route Windows (L) * Intelligence Intelligence Main Windows (L) Route Windows (L) * Intelligence Intelligence Main Windows (L) Windows (L) * Intelligence Intelligence Drop others raindow If Use the drop -character const. Note: Only for capacities const. Codd Interver (MML Hermand Coach **) Interver (MML Hermand Coach **) Interver (L) Yet (g) Herman Coach of Interver, Statter Coach -* Statter Coach -* Interver Coach -* |
| | Lond Englant Ender Order 25-bit Henger 25-bit Henger 25-bit Henger 25-bit Henger 26-bit Henger 27 | Address Minaco Millionand Week Touch Audis In Control Control India Cont |
| Street Chipat | Analysis | OR. Earlar |

| Second and the second | Con Li |
|---|-----------|
| cloud Upload System | |
| Pratonal | |
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| | |
| O Ethernet | |
| | |
| Tpload Data Source | |
| @Projact OB Data OBecips Ologa | |
| | |
| Tple | ad |
| Iscospils | |
| Chosze a file to be decompiled(* fpg) | |
| | |
| Choses a folder to save decompiled files | |
| | lecospile |
| | |

6 Decompile

The Fpg File can be decompiled to project if you check "Decompilation" to enable decompile function in the Global Settings of the System Settings



| nload Vpload Syntam | |
|--|-----------|
| Frstoeul © Ethernet Scan | |
| Opload Data Sewca | 🗇 Logs |
| Decompile Choose a file to be decompiled(* fpg) | |
| Choose a folder to wave decompiled files | Decompile |

7 Offline Simulation

The tool of the "Offline Simulation" is used to simulate the project running in offline.

4.12 Help

In the VEDA HCT software, the Help menu includes: Online Help, Help, Check for Updates, and About(software version).

| ļ | Help | | |
|---|------|-------------------|------|
| : | ٢ | Online Help | |
| | ٢ | Help | += 🔍 |
| - | | Check for Updates | |
| | | About | |
| | _ | | |

1 Online Help

You can find the online help when you click the command "Online Help".

2 Check for Updates

The VEDA HCT software will be updated by using the internet when you click the menu command "Check for Updates".



3 About

The current VEDA HCT software version information and copyright declaration will be displayed when you click the menu command "About".



4.13 General functions

4.13.1 Address editor

4.13.1.1 Standard Bit Address Input

In the software VEDA HCT, the "Standard Bit Address Input" function will be used frequently. By this function, you can input the bit address which is connected with a

device, and the value of the bit address will be displayed. The function can easily realize the connection with each PLC. The "Standard Bit Address Input" window is as shown as below.

| F Standard Bit Address Input | x |
|--|---|
| Use Address Tag Deivce: Device1:[LocalCOM1:FLEXEM FL2N(MISTUBISHI FX2N + • Station No.: 1 | |
| OK Cancel |) |

In the VEDA HCT software, the corresponding bit address symbols are given according to the various connected devices. For the Flexem FL2N series PLC, X represents the input address, Y represents the output address, M represents the middle register address, SM represents the system special bit address, and S represents the state address. As shown as below.

| 🕞 Standard Bit A | ddress Input | |
|--|------------------------------|------------------|
| Station No.: 1 | 1:[LocalCOM1:FLEXEM FL2N(MIS | TUBISHI FX2N (▼ |
| Address Type: Address: 0 Format(Range) Rate: Normal | M Y X S | System Register |
| | C | OK Cancel |

If the address is not connected with the device after you input a specific address number, you should check whether the parameters (such as Device, Station No. and Address) are set correctly. For example, these parameters are set as follows.

| 📧 Standard Bit Address Input | × |
|--|---------|
| Use Address Tag Deivce: Device1:[LocalCOM1:FLEXEM FL2N(MISTUBISHI FX2N (Station No.: 1 | • Pr |
| OK | el |

If you find the data refresh rate is a little slow, you can change the communication rate as follows.

| 🕞 Standard Bit Address Input | × |
|---|---|
| □ Use Address Tag □ Deivce: Device1:[LocalCOM1:FLEXEM FL2N(MISTUBISHI FX2N (▼ Station No.: 1 |] |
| OK Cancel | |

Certainly, you can use the address tag library. You need to prepare the data addresses in the address tag library before using them. Check the "Use Address Tag" in

the "Standard Bit Address Tag" window and click the button "^N" to open the "Address Tag Library" window. Select the bit address you need in the address tag library, as shown as follows.

| Standard Hit Address Input | | Address Ta | g Ubrary | | | | | - |
|------------------------------------|--|------------|------------|---------|----------------|-------------|--------------|--------------|
| Dune Address Tag | - 00 | Reference | Tag Name | Device | Allas | Station No. | Address Type | Address |
| Delvce: | X | 2 | V10 | Device) | BecelCOMLITIDG | 4 | Y. | # |
| Station No.: 👘 🗇 Index | N | | | | | | | |
| E Bit-Index within a Byte Register | - - | | | | | | | |
| Address Type: | (Summ Regime) | | | | | | | |
| format(Range) | Cold Street Line Street | | | | | | | |
| Rater | | | | | | | | |
| 🗋 Address Index | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | Carcel | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | - | | ting in | 100 | - |
| | | New Bit | New Wood] | Delete | Delete All | Edit. | Cancel Sek | ect and Exit |
| | | 1 | | | | | | |

The "Bit-index within a Byte Register" function can be used. You need to check the "Bit-index within a Byte Register", as shown as below.

| 🕞 Standard Bit Address Input | x |
|--|---|
| Use Address Tag Deivce: Device1:[LocalCOM1:FLEXEM FL2N(MISTUBISHI FX2N (▼) Station No.: 1 | |
| OK Cancel | |

You can use the Address Index function. This function can change the bit address which is connected with the current component according to the value of a word address. For example, the bit address LB0 is connected with the current component. If you check the Address Index and set the address as LW0, as shown as below, the bit address which is connected with the current component will be LB (0 + LW0).

| 🛐 Standard Bit Address Input | |
|--|----------------------|
| Use Address Tag Deivce: LOCAL:[Local Register] | • |
| Bit-index within a Byte Register Address Type: LB Address: 0 | ▼ System Register |
| Address Index LW0 | I |
| | OK Cancel |

In addition, you can use the System Register in the Standard Bit Address Input window. When you click the System Register button, the System Special Function Register window will pop up. There are many system special function register addresses in this window, as shown as follows. You can quickly select one to use.

| tetue0 + 🕅 - L L | Delitity/Indicator Lig | 4C | List Information | Description |
|--|------------------------|---------------------------------------|---|---|
| · 2 · 0 · 1 · 12 · | | (M Lable Graphics D Escution | HMI O PLC Internet StatOverwork connection status StatOverwork connection status StatOverwork connection status StatOverwork P address automatically Haidbaue | SREI=1:Reset IP address invoedlately:Re-distan dynamic IP address invoedlately |
| Action: Press Execute Setting: On Address Use Address Tag Deiver: LOCALIficeal Regi Bit-indes within a Byte F Address Type: LB Address O To FormatiRangel DDDDDCOC If Address Index LWO | Register | • System Register | keybaard V96Cirentate manitologi Communication User authority | |

Certainly, the screen is connected with multiple slaves at sometime. The station number is varied. At this moment, you need to use the Index function. This function uses a word address to provide a variable station number. The setting process is shown as follows.

| 🕞 Standard Bit Address Input | × |
|---|-----------------------------|
| Use Address Tag Deivce: Device1:[LocalCOM1:FLEX] Station No.: 0 1 Index Bit-index within a Byte Register Address Type: C_bit Address: 0 1 Format(Range) DDD(0~255) Rate: Normal 1 Address Index | EM FL2N(MISTUBISHI FX2N (🔻 |
| | OK Cancel |

| Use Address Tag | | 🔝 Use Address Tag | |
|---|------------------------------------|---|----------------|
| Veivce: Device1:[LocalCON | 11-FLEXEM FL2N(MISTUBISHI FX2N + • | Deivce: LOCAL:[Local Register] | ٠ |
| Bit-index within a Byte Ro address Type: C_bit address: 0 0 comat(Range) DDD(0-255 ate: Normal Address Index | sgister • System Register | Address Type: LW Address: 0 System Reg Format(Range) DDDDDD(0~799999) Occupy: 1 = Data Type: 16-bit Unsigned | gister Word |

4.13.1.2 Standard Byte Address Input

In the software VEDA HCT, the "Standard Byte Address Input" function will be used frequently. By this function, you can input the byte or word address which is connected with a device and the value of this address will be displayed. The function can easily realize the connection with each PLC. The "Standard Byte Address Input" window is as shown as below.

| 🖪 Standard Byte Address Input 📃 |
|---|
| Use Address Tag |
| Deivce: LOCAL:[Local Register] |
| |
| Address Type: LW |
| Address: 0 System Register |
| Format(Range) DDDDDD(0~799999) Occupy: 1 Vord |
| Data Type: 16-bit Unsigned 🔹 |
| Address Index |
| |
| |
| OK Cancel |

In the VEDA HCT software, the corresponding byte or word address symbols are given according to the various connected devices. For the Flexem FL2N series PLC,D represents the data register, SD represents the special address, represents the timer, C_word represents the 16-bits counter which saves the current value, and C_dword represents the 32-bits counter which saves the current value. As shown as below.

| 🕞 Standard Byte | Address Input | | — |
|--|----------------------------------|-------------|--|
| Use Address Deivce: Device Station No.: 1 | | XEM FL2N(MI | STUBISHI FX2N (👻 |
| Address Type: Address: 0 Format(Range) Rate: Normal | D C_dword C_word T_word | • | System Register upy: 1 - Word t Unsigned - |
| | | | OK Cancel |

If the address is not connected with the device after you inputting a specific address number, you should check whether the parameters (such as Device, Station No. and Address) are set correctly. For example, these parameters are set as follows.

| Neivce: Device Itation No.: 1 | Contraction of the second | | with the | | | 1 and |
|----------------------------------|---------------------------|------------|----------|----------|------|-------|
| | | 88 | | | | |
| ddress Type: | C_word | | | | | |
| Address: 0 | 0 | | | System | Regi | ster |
| ormatiRange | DDD(0-255) | | Occup | pyi I | + N | Nord |
| Late: Normal | | Data Type: | 16-bi | t Unsign | ed | |
| Address Ind | lex | 26 - 12223 | | 2.2 | | |

If you find the data refresh rate is a little slow, you can change the communication rate as follows.

| 🖪 Standard Byte Address Input | |
|--|--|
| Use Address Tag Deivce: Device1:[LocalCOM1 Station No.: 1 🚔 🗌 Inde | FLEXEM FL2N(MISTUBISHI FX2N (🔹 |
| Address Type: C_word Address: 0 Format(Range) DDD(0~255) Rate: Normal Ad Normal High Speed Low Speed | ▼ System Register Occupy: 1 ▼ Word Data Type: 16-bit Unsigned ▼ |
| | OK Cancel |

Certainly, you can use the address tag library. You need to prepare the data addresses in the address tag library before using them. Check the "Use Address Tag" in

the "Standard Byte Address Tag" window and click the button "No open the "Address Tag Library" window. Select the byte or word address you need in the address tag library, as shown as follows.

| Threaderd Byte Address Input | | address T | of newsy. | | | | |
|------------------------------|-------------------------|------------------------|--|---|--|--------------|-----------|
| Thuse Address Tag | - 3.0 | Reference | Tag Name | Device Alias | Station No. | Address Type | Address |
| Delvcer | + | 9 | 200 | Device 1: Local COM LFLEXE | 1 | 1 | 10 |
| Station Neu 🔄 🗄 🗌 Trides | | | | | | | _ |
| | \mathbf{N} | | | | | | |
| Address Type: - | | | | | | | |
| Address: [35] | | | | | | | |
| formatillange) Occupy | - Word | | | | | | |
| Rate: Data Type: | 3 | | | | | | |
| Address Inles | | | | | | | |
| Life a commencement of the | | | | | | | |
| | | | | | | | |
| | Cencel | | | | | | |
| | 100 C 100 C 100 C 100 C | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | 10.0 | | | 197 | |
| | | (Amin BP | New Word | Delete Delete All | Edit. | Cancel Sek | ect and E |
| | | a second second second | - I DATABASE DE LA CALLER DE LA | Deriver and the second s | Contraction of the local distance of the loc | | |
| | | | | | | | - |

You can use the Address Index function. This function can change the byte or word address which is connected with the current component according to the value of a word address. For example, the word address D0 is connected with the current component. If you check the Address Index and set the address as LW0, as shown as below, the word address which is connected with the current component will be D (0 + LW0).

| 💽 Standard Byte Address Input 💽 |
|---|
| Use Address Tag Deivce: Device1:[LocalCOM1:FLEXEM FL2N(MISTUBISHI FX2N (Station No.: 1 |
| Address Type: D Address: 0 Format(Range) DDDD(0~7999) Occupy: 1 v Word Rate: Normal v Data Type: 16-bit Unsigned v |
| Address Index LW0 |
| |
| OK Cancel |

In addition, there are many system special function register addresses. You can quickly select one by clicking the button "System Register", as shown as follows.

| Ni Statuni - Li | Switch/Indianat Light | System Special Function Register | | - |
|---|--|--|--|----|
| Address Type: 0 Address 19: 0 | Switch Indicator Ught Lable Graph 2 Ove Indicator Display Model Register Control • | List Information I HAN O PLC Solven Time | Description System date, Format an 2006 | |
| | | liket. | Select. Cancel | 60 |

Certainly, the screen is connected with multiple slaves at sometime. The station number is varied. At this moment, you need to use the Index function. This function uses a byte or word address to provide a variable station number. The setting process is shown as follows.

| Fs Standard Byte Address Input | |
|--|--|
| 🔲 Use Address Tag | |
| Deivce: Device1:[LocalCOM1:FLEXEM FL2N(MISTUBISHI FX2N | |
| Station No.: 1 😴 🔲 Index | |
| Address Type: D | |
| Address: 0 System Regist | ter |
| Format(Range) DDDD(0~7999) Occupy: 1 V | /ord |
| Rate: Normal | • |
| Address Index | |
| | |
| | |
| OK | ncel |
| | |
| | |
| 🕼 Standard Byte Address Input | Standard Byte Address Input |
| 🔲 Use Address Tag | 🔄 Use Address Tag |
| Deivce: Device1:[LocalCOM1:FLEXEM FL2N(MISTUBISHI FX2N + + | Deivce: Device1:[LocalCOM1:FLEXEM FL2N(MISTUBISHI FX2N + + |
| Index D0 | Station No.: 0 😨 🗔 Index |
| Address Type: D. | Address Type: D * |
| Address: 0 | Address: 0 🗢 System Register |
| Format(Range) DDDD(0~7999) Occupy: 1 - Word | Format(Range) DDDD(0~7999) Occupy: 1 = Word |
| Rate: Normal | Rate: Normal 🔹 Data Type: 16-bit Unsigned 👻 |
| Address Index | |
| | |
| | |
| | |
| OK Cancel | OK |

4.13.2 Drawing

4.13.2.1 Border settings

After double-click the figure you have drawn, you can view and select border color and style.

| 🛛 🖉 Border — | |
|--------------|----------|
| Line Co | or 💌 📝 |
| Line Width | |
| Line Type | v |

You can select the line width and the line type from the lists.

You can change the border color by using the list or the button ".".



4.13.2.2 Filling settings

After double-click the figure you have drawn, you can view and select the fill type and the fill color.

There are three fill types: Solid Color, Pattern and Gradient.

| Fill | | |
|----------------------|-----------|--------------|
| Background Color 💌 🍠 | Fill Type | SolidColor 🔹 |
| | | SolidColor |
| | | Pattern |
| | | Gradient |
| | | |

1 Solid Color

| Fill | | |
|----------------------|-----------|--------------|
| Background Color 💌 🍠 | Fill Type | SolidColor • |
| | | |
| | | |
| | | |
| | | |
| User Defined Color | | |

In this fill type, you can select a kind of color for the background of the figure from



2 Pattern

| 7 Fill | | |
|------------------------|-----------|-----------|
| Background Color 👻 📝 | Fill Type | Pattern 🔹 |
| Foreground Color 💌 📝 | | |
| Pattern Filling Effect | | |
| ····· | | |

In this fill type, you can select a kind of color for the background and another kind of color for the foreground. You can set the pattern filling effect, too.

3 Gradient

| Background Color .* 📝 | Fill Type | Gradient | |
|-----------------------|---|-------------|---|
| Foreground Color 💌 📝 | Gradual Approa | ch Vertical | • |
| adient Filling Effect | | | |
| | | | |
| | the second se | | |
| | | | |

In the gradient fill type, you can select the background color, the foreground color, gradual approach and gradient filling effect.

4.13.3Font settings

| Seneral 🥥 Display | | | | | |
|--|--------------------------|------------------|---------------|---------------|--------------|
| Languages Independent Languages: 1.English (United 5, +) O Use Test Ubrary (Test Ubrary) | Position Fixed Point: | X) Widdin | 0 ¢ 30 1 | V i Height | 0 \$ 30 C |
| ♥ Use Labels Tag Contents ♀ | 🖾 Set løbel p | osilion b | y language is | tate separat | ely |
| Copy Current Text to All Languages Import from Favorite Font Templates.() Vector Font Graphic Font Font: Microsoft Sano Senil • | | Right: Bottom | | | |
| Store 16 + 10 / 1 = • • • Multi-fine Afgrment = 1 = To Advanced Microsoft Sans Serif | | | | | |
| Copy Current Properties to AP Languages | | | | | |
| Help Description | | | - | 30 | Cana |

1 Vector Font

According to the font attributes setting, change the characters of the text into a TrueType font file (ttf format) for HMI.

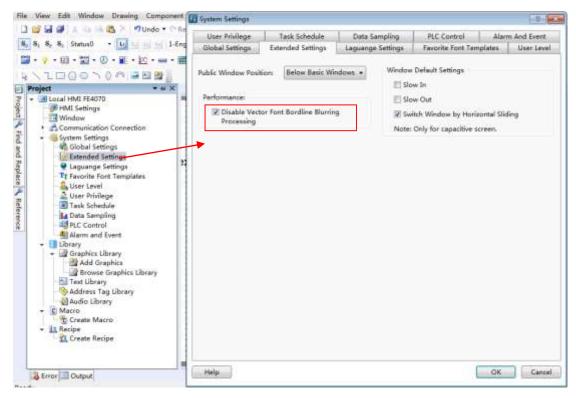
Disadvantages

• Only support the TrueType font type (ttf format) which the current operating system has installed.

• The below is the font effect comparison between the tows that the "Disable Vector Font Bordline Blurring Processing" is not checked and the "Disable Vector Font Bordline Blurring Processing" is checked.



Note: the "Disable Vector Font Bordline Blurring Processing" can be set in the path: Project/Local HMI/System Settings/Extended Settings.



Advantages

• Occupy Less memory. The same character in the same font type uses one font data regardless of size, color, bold, or italic.

- Full size and can be set freely without distortion.
- Supports multi-line text alignment.
- Text Library supports the use of vector fonts.

2 Graphical Font

Regard the string as a whole and save it as a bitmap to the project.

- Disadvantages
 - Occupy more memory because of the bitmap storage format.
- Advantages
 - Supports all the fonts installed in the current operating system.
 - Display effect is good.

3 Equivalent width

Each single font displays in the max width size. The max width of the font is greater if the font size is greater.

• For example, the max width of a single digit is 17 and the max width of a single character is 22 if the font size is 16,

4 Font

You can set the font type from the list. It supports all font types installed in the current operating system, such as Microsoft Sans Serif.

5 Size

You can set the current font size. The range is from 8 to 144.

The font supports bold and italic, and you can modify the font color from the

list or by using the tool button "

6 Multi-line Alignment

It is only valid for multiple lines text. You can set the multiple lines text align to the left, center or right.

7 Advanced

You can set the Horizontal Scaling, Space, and Shadow Effects after clicking the button "Advanced".

| 🖪 Advanced 🗾 🔁 |
|---|
| ✔ Horizontal Scaling: 100% Space Line Space: 2 ♦ Words Space: 2 ♦ |
| ✓ Shadow Effects Color: ShadowColor Shadow Deviation: X: 2 Y: 2 |
| OK Cancel |

8 Position

You can set the font position of the current components.

4.13.4 Graphic edit

| mint Proje | | 1 | | | | | tatus Provies | |
|------------------|-----------------|-----------|-------------|----------|-------------------|-------|---------------|---------------|
| backgro . | beckspace | buttore | butto=001 | battore1 | circle dot | | Status) | Statural |
| Enter | Rowbłack | forbidden | Freme002 | Frame003 | indicator. | | | |
| import | Add a new Gr | ophic. | | | | - li | Favorites | Enit Geophics |
| Clange Change | the bonder cold | ю (| Franse Colo | | Recei the Default | Color | | |

1 The Current Project Graphics Library

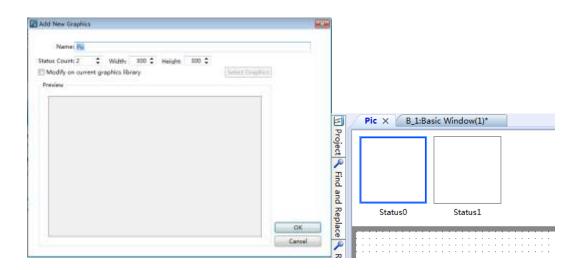
For some components, you can find the property TAB of "Graphics". In this TAB, you can view the component graphics in the Current Project Graphics Library. Select one, then you can preview the status of it in the Status Preview window.

2 Import

The system graphics library can be opened by clicking the button "Import". You can select a system graphic into the current project graphics library here.

3 Add a new Graphic

Click the button "Add a new Graphic" to pop up the window "Add New Graphics" (see Figure a). Then you can set the properties of the new graphic, such as "Name", "Status Count", "Width", "Height" and other information. After clicking the button "OK" to confirm it and closing all the pop-up windows, you can see that an editable window with the same name is already opened (see Figure b). You can edit the new graphic in this window. Refer to: **Detailed manual/Library/Graphics Library/Add graphics.**



4 Favorites

After clicking the button "Favorites", you can add the current selected graphic to a specified Favorites Category. The Favorites Category can be selected, added and renamed (see Figure a).Click the button "OK" to confirm the addition to the Favorites Category. You can view the graphics collected in the Favorites Category by the path: **Project/ Library/Graphics Library/Browse Graphics Library** (see Figure b).

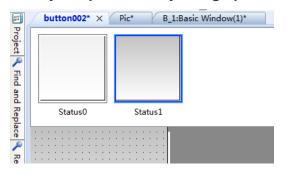
| ategory Assortment: Favoritas | Add Eategory |
|-------------------------------|--------------|
| Name: pic | |
| | OK Cancel |
| | |



b

5 Graphics Edit

After clicking the button "Edit Graphics" and closing all the pop-up windows, you can see that an editable window with the same name of the graphic is already opened (see Figure a). The graphic can be edited in this window. Refer to: **Project/Library/ Graphics Library/Add graphics.**



6 Shadow Effect

Double click the graphic you have drawn in the Graphics Edit window to modify the properties of it. After checking the Shadow Effect (see Figure a), you can add the shadow effect for the selected graphic (see Figure b).

| Shadow Effect | |
|---|---|
| Color: ShadowColor V Shadow Excursion X 4 😴 Y | 4 |
| a. | |
| | |
| | |
| | |
| | |
| b. | |

7 Border

You can change the outer border color of the current selected graphic. Note: Only when the elected graphic is vector graphic and this attribute can be modified, this option is valid to change the outer border color (see Figure a)!

| tor > Children Windowstr | |
|--------------------------|---|
| teneo interi | Pochage Capacity Pochage Poch |
| | |

8 Fill

You can change the filling effect of the current selected graphic (see Figure a). Note: Only when the elected graphic is vector graphic and this attribute can be modified, this option is valid (see Figure b)!

| 📕 Background Color 💌 💽 | Fill Type | iradient | . • | User changeable Fillin |
|--|----------------|------------|------|------------------------|
| Foreground Color 💌 📝 | Gradual Approa | h Horizont | ei • | |
| and the second s | | 1.1 | | |
| | | | | |
| Gradient Filing Effect | | - 11 | 100 | |
| Gradient Filing Effect | | | | |
| Gradient Filing Effect | _ | | | |

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| | E Bados Dhet | |) (1664)) |
| | | b | |

4.13.5 Control settings

For some components, there is a property TAB of "Control Settings".

1 Activation Settings

Always

The current component can always be operated if you use the option "Always".

| witch Indicator Light Labie Graphics Dynamic Graphics | Control Settings Display |
|---|--|
| a Always B Always © Conditional | Security Settings Minimum Press Time: 0 (1) (00.15) Require confirmation prior to execution Waiting Time: 100 (1) (00.15) (0.0000) Operation |
| | Ninimum Operation Interval: 0 1 (80.13) Notification Settings Defore Writing Ather Writing Notify Bit Address: |
| Audio 11 Pag Audio | Thigger Matrix |
| Reyboard III Use Reyboard | |

- Conditional
 - Indicating Invalid Mark

| which Indicator Light Lable Graphics Dynamic Graph Activation Settings Always W Indicating Invalid Mark © Conditional III Fride when condition not meet. Non-operable when the part is hidden. [2] Automatic pop-up personnl window. | Ins Crimbol fettings Disates Security Settings Misinaum Press Time 0 (10) (00.15) ■ Require profession prior to execution Weing Time 100 (10) (00.15) ■ Require College |
|---|--|
| 2 Level User Min Level Level - R | Minimum Operation Internat 0 (\$1 (2013)) Notification Settings Before Writing Atlan Writing Interfry Bit Address: |
| Audio El Play Audio Righteend El Uan Knyboard | E Trigger Macro |

After checking the option "Indicating Invalid Mark", the prohibited mark will display on the component if the operating conditions are not met. The prohibited mark is shown as below.

| Open | Close |
|------|-------|
| Oben | Close |

Hide when conditions are not met.

| Activation Settings © Always 👘 Indicating Invalid Mark | Security Settings Minimum Press Time: 0 ¹⁴⁶ (2015) |
|--|--|
| Conditions II: Hide when condition not meet. Non-operable when the part is hidden. II: Automatic pop-up persword window. | Require continuation prior to execution Walking Time 200 🚔 (VR.15) |
| if Level Duer Min Level Lifewell •) 🖧 Polylege Duer Legic Control | Movineen Operation Interval 0161 (00.15) NooSkation Settings Before Writing After Writing II NooFy Bit Address: |
| Audo | 🗇 Trigger Macro: |

When you check the option "Hide when conditions are not met", the component will hide if the operating conditions are not met.

Automatic pop-up password window

| Subch Indicator Light Lable Graphics Dynamic Graphics | Cantrol fettings Display |
|---|---|
| Activation Sertions © Always @ Candidional Hide when condition not meet. <u>Non-operable when the part is hidden.</u> @ Automatic pop-up personnel window. | Security Settings Misimum Press Time 0 (51) Tequire confirmation prior to execution Weiting Time 100 (1) (00.53) Effected Operation |
| 2 Level User Min Lovel LEvelL + 😱 | Minnum Operation Interval 0 (#) (20.35) Notification Settings Before Writing After Writing I Notify Bit Address: Notify Byte Address: |
| Audie El Phy Audio Kinykoard El Une Kinykoard | Trigger Macros |

If you check the option "Automatic pop-up password window", the user login window will pop up when you click the component. It is shown as below.

| Emulator | Chest | - |
|------------|----------------------------|---|
| Open | Close | |
| User level | | × |
| 2 | Please enter the password: | |
| | | |

Level User

| Activation Settings Activation Settings Activation Settings Conditional Efficienting Denaild Mark Conditional Efficiently Denaild Mark Non-operable when the part in hidden. Activative open su password window | Sexually Settings Measure Press Times 0 (* 100.15) E Require conflorvation prior to execution Walking Time 100 (* 000.15) |
|---|--|
| IC Level User Min Level D Printege Over D Copic Control D Logic Control | Records Operation Minimum Operation Interval: 0 (* 0633) NotKoatos: Sentings Refore Writing Arbert Writing Notify Bit Address Notify Byte Address |
| Audio III Play Audia Kryboard | Trigger Macos |

After checking this function, you need to enter the appropriate user level password to operate the device. It is shown as below.

| Open | Close | |
|------------|----------------------------|---|
| User level | login | × |
| -0 | Please enter the password: | |
| | | |

• Privilege User S. 2. E Switch/Indicator Cight Switch Indicator Ught Lable Graphics Dynamic Graphics Control Settings Display Activation Settings. © Always 🛞 Indicating Invalid Mark Security Settings 0.00.15) Minimum Press Times 0 III Require confirmation prior to execution Waiting Time 100 (1) (20.13) Conditional Hide when condition not meet Non-operable when the part is hidden. E Records Operation Minimum Operation Internal 0 00.15 Lavel Ger 2 Privlage User Privlage: 16Adein + . Notification Settings Logic Control Before Writing After Writing Nofily Bit Address: Notify Byte Address 4460 🗄 Flay Auto Trigger Matrix Keyboard 🗄 Use Keyboard Help. Description OK Cancel

After checking this function, you need to login by using the corresponding user privilege to operate the component. It is shown as below.

| | ose | | |
|-------|------------|-----------|---|
| Login | User login | | × |
| | 🕹 User: | Admin | |
| | Password: | 88888 | |
| | | Cancel OK | |

Logic control

| Switch/Indicator Light | 1.00 |
|---|--|
| which Indicator Light Lable Graphics Oynamic Graph | Ses Control Settings Disalay |
| Actuation Settings Advanys II Indicating Involut Mark Condépoiel III tide when Condition run meet. Non-operable when the part is hidden. | Security Lattings Minimum Press Times: 0 (6) 005151 Thequire confirmation prior to execution Weining Time 100 (6) (70.15) Encode Operation |
| E Level User | Minimum Operation Interval 0 🚔 (20.15) |
| E Privlege User | Notification Settings |
| 2 Logic Control | Sefure Writing Alter Writing |
| Logic Condition | E Notify Bit Address: |
| AND + UND + 1 AND + US1 ON + Add Modify Delete | 📰 Notify Byte Address: |
| Audio 🚺 Play Audio | Trigger Macro |
| Keyboard III Use Keyboard | |
| Help Description: | OK Cano |

After check this function, the component can be operated when the specified conditions are satisfied. The conditions can be multiple logical operations.

②Security Settings

Minimum Press Time

| Activation Settings | Security Settings |
|---------------------|--|
| @ Alweys | Minimum Press Time: 15 🔄 000.510 |
| 11 Conditional | Require confirmation prior to execution Weiking Tree 102 103 103 Records Operation |
| | Minimum Operation Internal 0120 (49.15) |
| | Notification Sattings |
| | Before Writing Alber Writing |
| | 🛛 Notly θε Address |
| | 📰 Notily Byte Address |
| Auto | |
| 🕅 Play Audie | Trigger Mains |
| Keyboard | |
| Use Xeyboard | |

You need to hold the button component for a specified time to perform actions. The function is used to avoid the action due to touching the screen by mistake.

• Require confirmation prior to execution

| Switch Indicator Light Lable Graphics Dynamic G | inaphies Control Settlogs Display |
|---|--|
| Activation Settings | Security Settings |
| @ Always | Minimum Press Times 10 🚔 (2015) |
| © Conditional | Require confirmation prior to execution Watting Time 200 (20.15) |
| | Records Operation |
| | Minimum Operation Internal: 014 (200.15) |
| | Notification Settings |
| | Before Writing After Writing |
| | 📰 Notiły Bit Address: |
| | 📰 Notify Byte Address |
| Audio | |
| 🔲 Play Audio | E Trigger Macros |
| Keyboard | - I have the second sec |
| 🖂 Use Keyboard | |
| | |
| Hels Description | OK Cano |

If this function is checked, a confirmation dialog box will pop up auto matically. It will keep the display status for the "Waiting Time" if you don't confirm or cancel it. It is shown as below.

| Divisitetor | | |
|-------------|---------------------------------------|------------|
| Open | Close | |
| Log | Confirm execution | |
| | Are you sure to perform the OK Car | operation? |
| | | |
| | | |
| | | |

Records Operation

| taltch Indicator Light Lable Graphint | Dynamic Graphics Cosmol Settings Display |
|--|--|
| Activation Settings III Always Conditional | Security Settings Minimum Press Time: III (*) (30.19) Sequrite confinuation prior to execution Watting Time: 10(*) (20.19) Watting Time: 10(*) (20.15) Watting Time: 0(*) (20.15) Watting Time: 10(*) (20.15) Watting Time: 0(*) (20.15) Watting Time: 10(*) (20.15) 0(*) (20.15) Notification: Settings 0(*) (20.15) Before: Writing Motify Bit Address: 10 Notify Byte Address |
| Audio Play Audio Keyboard Use Keyboard | El Trigger Macro: |

If you check this function, you can record the operations of the component and display the records in the operator Log. It is shown as below.

| | Serial No. | Date | Time | User Name | Operation Log | - |
|-----------------------|------------|-----------|--------------|-----------|----------------|---|
| Open Valve | 3 | 10/01/16 | 11:32:02 | | Open the valve | |
| Celebrar and a second | 2 | 10/01/16 | 11:31:33 | | Open the valve | |
| | 1 | 10/01/16 | 11:31:20 | | Open the valve | |
| | 0 | 10/01/16 | 11:31:17 | | Open the valve | |
| | 4 | 100000000 | en essentine | | 1 | 6 |

• Minimum Operation Interval

| Seitch Indicator Light Lable Graphics | Dynamic Graphics Control Settings Display |
|---|--|
| Activation Settings # Almays © Coordisional | Security Settings Meiman Press Time: 0 (1) (00.15) Sequer confirmation prior to execution Waiting Time 100 (2) (00.15) Security Constraint Menimum Operation Interval: 10 (2) (20.15) |
| | Notification Settings Before Writing After Writing III Notify Sir Address |
| Audio Pay Audio Kayboard Muse Kayboard | Trigger Macro: |

By using the "Minimum Operating Interval" function, continuous actions can be avoided in a short time due to touching the screen continuously by mistake.

4.13.6 Display

1 Position

| | actor solder | reple mile | ibistr riðar | mile ciraprises | Control Settings | Lingbowy | |
|---------------------------|-----------------------|--------------|----------------|-----------------|------------------|----------|--|
| Position Position | X t | a : | ¥1. | 170 😴 | | | |
| E) Looked | Widths | 70 Q | Height | 50.0 | | | |
| ll Always D D Conditio | Kaplay nal Ofsplay | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

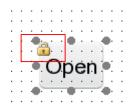
• Position and size

You can set X and Y coordinate values of the component to change the display position of it. You can modify the width and the height of the component to change the size of it.

Locked

| | Hox Light | Lable Ga | phice Dyru | unic Graphica | Control Settings | Display | |
|------------|-----------|------------|------------|---------------|------------------|---------|--|
| Position | | | | | | | |
| Position | Xi | 185 0 | Ŵi | £26 C | | | |
| Ritched | Width | 36.1 | Height: | 30.0 | | | |
| B Always D | isplay | | | | | | |
| Condition | | | | | | | |
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The position and size of the component cannot be changed if you check the "Locked" function. And there is a small lock icon on the component in the editing window. It is shown as below.



②Always Display

| leith/rdca | art sign | | | | | | |
|-------------|-------------|-------------|------------|----------------|------------------|---------|--------|
| which India | stor Light | Lable Dry | aphica Dyn | anii: Graphica | Control Settings | Display | |
| Position | | | | | | | |
| Position | Xi | 85 \$ | 4.1 | 170 🙄 | | | |
| Eliosked | Widths | 30 Q | Height | 50.0 | | | |
| | 28100 | 1 | | | | | |
| Always D | | | | | | | |
| Condition | nal Croplay | | | | | | |
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| Male 1 | Description | | | | | | Cancer |

If you select the "Always Display" function, the component will always be visible when the project is running. It is the default setting.

③Conditional Display

Level User

| Position | | | | | Control Settings | | |
|-------------|--------------|--------|---------|-------|------------------|--|--|
| | 81 | 45.2 | 10 | 170.0 | | | |
| Ellocked | Widths | 70.¢ | Height | 50 \$ | | | |
| Always O | isplay . | | | | | | |
| · Condition | wil Disarley | | | | | | |
| Level Un | e Me | Sevel: | lisuali | | | | |
| Privilege | User | | | | | | |
| 1 Logie Co | interest | | | | | | |
| | 10110 | | | | | | |
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If you check this function, the component will be visible after you entering the appropriate user level password.

Privilege User

| th bis | | | | | | | | |
|-----------|--------------|-------------|-------------|---------------|-----------------|------------|----|------|
| | anter Light | Lable Gri | ophics Dyne | wric Graphica | Control Setting | of Oisplay | | |
| noiden- | | | | | | | | |
| osition: | X+ | 85 \$ | ¥1 | 170 3 | | | | |
| Locked | Wath | 70 ‡ | Height | 50 \$ | | | | |
| Always | Display | | | | | | | |
| Condition | onel Display | | | | | | | |
| Privieg | stor Privi | ege: 16A | dmin. + | - | | | | |
| 6.85 | | 41000 | 2916977 | 5404 . | | | | |
| Logis Ci | 0.4410 | | | | | | | |
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| at: | Description | | | | | | OK | 1 56 |

If you check this function, the component will be visible after you login by using the corresponding user privilege.

Logic Control

| witch Indicator Light Lable | Oraphica Dyna | rea Graphics Control Sattings | Display | |
|------------------------------------|---------------|-------------------------------|---------|--------|
| Paulton | | | | |
| Position: X: 85 | 81 | 310 2 | | |
| Clocked Width 70 : | Height | 50 \$ | | |
| C Always Display | | | | |
| Conditional Display Lovel Usor | | | | |
| Privilege User | | | | |
| 🛿 Logic Cantrol | | | | |
| Logic Condition | | - | | |
| AND + LWO > 1 | | 1 | | |
| AND . B2 ON | | + | | |
| Add Modily | Delete | | | |
| | | | | |
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| | | | | |
| Help Description | | | 0 | Cancel |

If you check this function, the component can be controlled to display according to the logic condition. The condition can be multiple logical operations.

4.13.7 Keyboard setting

For some components, there is a property TAB of "Keyboard Setting".

| Apaniesis Depart | | | 1.13 |
|---------------------------|---|---|-------------|
| ieneral Number Format | Keyboard Setting [Fort] Graph | ics Dynamic Graphics Control Settie | nga Cispley |
| Moder 🖷 Touch Control | © Bit control | | |
| Keyboard settings | | | |
| E Use pop-up keyboard | | | |
| Keyboard Type: X_1+lee | nameric keyhoard + | | |
| Auto adjust position | © Pop-up position | Specified Position | |
| Don't use pop-up keyb | beard | | |
| 1. An external USB keybox | keyboard" under the conditions lis and ic used. Fined keyboard rather than the po | | |
| 🗐 Use input order functio | | | |
| | | | |
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$\textcircled{1}\mathsf{Mode}$

Touch Control

The keyboard will be popped up if you click the HMI input component.

Bit control

A bit register is used to control the keyboard to pop up or close.

②Keyboard Settings

• Use pop-up keyboard

You can select the Keyboard Type from the system-provided keyboard types.

| Nameria Tepuk | -0-1- |
|--|----------------------------|
| Serveral Numiner Format Keyboard Setting Food Graphics Opmanic Graphics | Control Settings Display |
| Moder 🐞 Touch Control ု 🗄 Bit control | |
| Keyboard settings | |
| If the pop up keyboard | |
| Reyboard Tope: R. Attes summin Reylscard | |
| KLiberinal sameti keykeardikoiseenel Komia sameti keykeardikoiseenel Komia sameti keykeardikoiseenel Kakai keykeard Derrivas popusi keykeard | Noiken: |
| Problem Western Street and the Research and the street of the second street and the street | |
| Select 'Dur't use pop-us heyboard' under the coodifions lated below: L An enternet USE keyboard's used. 2 Prefer to use a user-defined keyksend rather filen the pop-us heyboard. III: Due input order fuention | |
| 2. Prefer to use a user-defined keylioand rather than the pop-up keyboanil | |
| L An external USB keyboard is used. 2 Prefer to use a user-defined keyboard rather than the pop-up keyboard. | |
| L As external USB keyboard is used. 2 Prefer to use a user-defined keyboard rather than the pop-up keyboard. | |
| L An exemul USB keyboard is used. 2. Prefer to use a user-defined keyboard rather than the pop-up keyboard. | |

Auto adjust position

The position of the pop-up keyboard is adjusted automatically according to the position of the HMI input component.

| Manielle Bigast | | | X.1 |
|---------------------------|--|--|-----------|
| General Number Format | Keyboard Setting Fort Graph | ics Dynamic Graphics Control Setting | a Oispley |
| Mode: # Touch Control | C Bit control | | |
| Keyboard settings | | | |
| · Use pop-up keyboard | | | |
| Keyboard Type: K_1Hes | nameric keyhoard + | | |
| Auto adjust position | © Pop-up position | C Specified Position | |
| Don't use pop-up keyb | ward | | |
| 1. An external USB keyboa | oryboard" under the conditions is nd is used. Ined keyboard rather than the po | | |
| 🗐 Use input order functio | | | |
| | | | |
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| | | | |
| Help Description | | | OK Care |

Pop-up position

A relative region in HMI is specified to pop up the keyboard.

| | | 1 91 | she | ds 1-Dh | namic Graphics Control Settings Display | _ |
|---|---|------|-----|---------|---|---|
| Mode: Touch Control | Bit control | | | | | |
| Reyboard settings | | | | | | |
| Use pop-up keyboard | | | | | | |
| Keyboard Type: K_2Hee | numeric keyboard .* | | | | | |
| | | 0 | 0 | 0 | | |
| C Auto adjust position | Pop-up position | 0 | | 0 | C Specified Position | |
| a can adres beer a | and the set becaused | | 8 | 0 | la deserve constant | |
| 111210-514730-7410-52032 | | | | | | |
| Select "Don't use pop-up k 1. An esternal USB keyboar | wyboard" under the cor of is used. | | | | | |
| © Don't use pop-up keyb Select 'Don't use pop-up k 1. An external USB keyboar 2. Prefer to use a user-defi | wyboard" under the cor of is used. | | | | | |
| Select "Don't use pop-up k 1. An esternal USB keyboar 2. Prefer to use a user-dafi | wyboard" under the cor rd is used, and keyboard rather th | | | | | |
| Select 'Don't use pop-up k 1. An esternal USB keyboar 2. Prefer to use a user-dafi | wyboard" under the cor rd is used, and keyboard rather th | | | | | |
| Select 'Don't use pop-up k 1. An estemal USB keyboar | wyboard" under the cor rd is used, and keyboard rather th | | | | | |
| Select 'Don't use pop-up k 1. An esternal USB keyboar 2. Prefer to use a user-dafi | wyboard" under the cor rd is used, and keyboard rather th | | | | | |
| Select 'Don't use pop-up k 1. An esternal USB keyboar 2. Prefer to use a user-dafi | wyboard" under the cor rd is used, and keyboard rather th | | | | | |
| Select 'Don't use pop-up k 1. An esternal USB keyboar 2. Prefer to use a user-dafi | wyboard" under the cor rd is used, and keyboard rather th | | | | | |
| Select 'Don't use pop-up k 1. An esternal USB keyboar 2. Prefer to use a user-dafi | wyboard" under the cor rd is used, and keyboard rather th | | | | | |
| Select "Don't use pop-up k 1. An esternal USB keyboar 2. Prefer to use a user-dafi | wyboard" under the cor rd is used, and keyboard rather th | | | | | |

Specified Position

The position to pop up the keyboard is specified by the X and Y coordinates.

| Geranal Number Format Keyboard Setting Fort Grap | kics Dynamic Graphics Control Se | thirgs Dis | olay |
|---|--------------------------------------|------------|------|
| Mode: • Tauch Control 💿 Bit control | | | |
| Keyboard setlings | | | |
| # lise pop-up keyboard | | | |
| Keyboard Type: K, I Hex summiz keyboard + | | | |
| | | X = 0 | 围 |
| C Auto adjust position C Pop-up position | Specified Position: | V± 0 | 10 |
| C Don't use pop-up keyboard | | _ | |
| L An external USB keyboard is used. | | | |
| Prefer to use a user-defined keyboard rather than the po Use input order function | op-sp keyboard. | | |
| | op-up keyboard | | |
| | sp-sp kejboard | | |
| 1) De tradition de la construction de la | sp-sp kejboard | | |
| 2) De tradição de esta esta esta esta de construição da esta esta esta esta esta esta esta est | op-sp keyboard | | |
| 1) De tradition de la construction de la | op-sp keyboard | | |

• Don't use pop-up keyboard:

If you need to use an external keyboard or a keypad which is designed by using the FS software, you should select the option "Don't use pop-up keyboard

③Use input order function

This function can be used to input the values into multiple input components continuously according to a specified order. You can check it when there are many input components.

| anner an internet | Format | Keylooed Setting | Ford G | raphics | Dynamic G | aphics. | Control 1 | attinge | Disp | play | _ |
|---|--|--|-------------|-------------|-----------|----------|-----------|---------|------|------|---|
| Mode: 🕸 Touch | Control | 0 Bit control | | | | | | | | | |
| Keyboard setting | | | | | | | | | | | |
| · Use pap-up k | eybcard | | | | | | | | | | |
| Keyboard Type: | N_329600 | nameric keybsterif | | | | | | | | | |
| | | | | | | | | | a | 14 | |
| C Auto adjust p | netien | C Pop-up posi | 6at | | | pecified | Position | | | 100 | |
| | | | | | | | | 1.7.1 | 0 | 100 | |
| Diarit use pop | rup keyb | oarif. | | | | | | | | | |
| select, ponsiser. | pop-up k | eyboard" under th | e condition | na listerii | beime | | | | | | |
| 1. An external USI 2. Prefer to use a | 6 keyboar user-defi | rd is used. ned keyboard rath | | | | | | | | | |
| 1. An external US 2. Prefer to use a 2. Use input ord | 6 keyboar user-defi er functio | rd is used. ned keyboard rath | | | | | | | | | |
| 1. An external US 2. Prefer to use a 2. Use input ord | 6 keyboar user-defi er functio | rd is used. ired keyboard rath s ter input finished | | | | | | | | | |
| 1. An external US 2. Prefer to use a 2. Use input ord 2. Hight without | 6 keyboar user-defi er function t order aft | rd is used. ired keyboard rath s ter input finished | er that the | | | | | | | | |
| 1. An external US 2. Prefer to use a 2. Use input ord 2. Hight without | 6 keyboar user-defi er function t order aft | rd is used. ired keyboard rath s ter input finished | er that the | | | | | | | | |
| 1. An external US 2. Prefer to use a 2. Use input ord 2. Hight without | 6 keyboar user-defi er function t order aft | rd is used. ired keyboard rath s ter input finished | er that the | | | | | | | | |
| 1. An external US 2. Prefer to use a 2. Use input ord 2. Hight without | 6 keyboar user-defi er function t order aft | rd is used. ired keyboard rath s ter input finished | er that the | | | | | | | | |

• Input without order after input finished

The function of "Use input order function" will be canceled after you finish the input of multiple input components.

Input Order

You can set the input order for the current input component here. The multiple components in one group can be input according to the order number, from small to large.

• Group

You can divide the input components into several groups and finish the input according to the input order in the current group.

4.13.8 Label

Adding a label for a component can be increased readability. You can setthe properties of the label such as the language, the content, the font type and other settings. The display text will change when the status is switched if you set different text for different status.

| Language Independent Language: 1-English (Ur | ited States) . | Import from Pavorite Fort Templetos.ID |
|---|-------------------|--|
| Use Test Library E Use Lobel Adaptive label size Tag Content | Text Library | C Vector Fort Graphic Fort Fort Microsoft Sana Serif + Size 24 + 0 2 Wath-Size Alignment S2 3 Vector Alignment S2 3 Vector Alignment |
| Copy Text Tzc All Status | . Al Languages Al | Microsoft Sans Serif |
| Est label position by lang Fox: Left Right A | M | Status Control 0 1 |

1 Language

Select a language for label edit. The settings will only take effect in the selected language.

2 Language Independent

When you change the language, the label content is not affected.

3 Use Text Library

After the "Use Text Library" is checked, the label content will be filled by the selected text entry in the text library. Some common text can be ready in the text library.

4 Use Label

You need to check this option when you want to set a label for the component.

5 Tag Content

You can edit a label for the current status here. So you edit the label in the tag content edit box, you should select the status first on the lower right corner. Then, click the next status to edit the next status label.

| which Indicator Light Lable Graphics Language Independent | Dynamic Graphics | antral Settings Diraley |
|---|---|--|
| Languagei L-English (United States) Use Text Library + 1 2 Use Label 2 Adaptive label size | • () Text Library on Constant To Text Lib | Import from Favorite Fort Templates.ID Vector Fort ● Graphic Fort Fort Microsoft Ease Serif + Spec 16 + ● Z ● ▼ ▼ Multi-free Alignment ● ● ■ Tt Advanced Microsoft Sans Serif |
| Copy Test To: All Datus: All Lang Set label position by language state o Nos: Left Right: ANN AN Top Bottom: All A | | Copy Am. To: All Status (All Languages) All Status Content Open |

The text in the Tag Content edit box can be copied to all languages, all status or all languages and all status.

| witch Disdicator Light Lat | le Graphics Dynamic Graphics | Control Settings Display |
|--|---|--|
| Languages Todependent Languages Léngühl ILIT Ulus Tode Lihrary 21 Use Label 21 Adaptive label size Tag Context Close | ited litetent • • • • • • • • • • • • • • • • • • • | Import from Favorite Fort Templates.(D) Vector Fort & Graphic Fort Fort Mikemoth Sam Serif + Use (10 + (B) /) () + () Mubi fine Alignment () (11 Advanced Microsoft Sans Serif |
| Copy Text To: All Statu Set label position by lang Pox: Latt Right: A M Top Bottum A La | As | Copy Attr. To: All Status. All Langueges All Status Content D Open |

6 Label attributes

You can set the attributes for each Tag Content such as the font type, the size, the color, the alignment type, the Advanced Settings (Scaling, Space, and Shadow Effects) and other attributes. The function of "Copy text to" can avoid duplication of work. And you can also import from favorite font template to simplify label attributes editing. It is efficient and convenient.

7 Vector Font and Graphic Font

Vector Font

According to the font attributes setting, change the characters of the text into a TrueType font file (ttf format) for HMI.

Disadvantages

• Only support the TrueType font type (ttf format) which the current operating system has installed.

• The below is the font effect comparison between the tows that the "Disable Vector Font Bordline Blurring Processing" is not checked and the "Disable Vector Font Bordline Blurring Processing" is checked.

Static Text Static Text

Note: the "Disable Vector Font Bordline Blurring Processing" can be set in the path:

Project/Local HMI/System Settings/Extended Settings.

- > Advantages
- Occupy Less memory. The same character in the same font type uses one font data regardless of size, color, bold, or italic.
 - Full size and can be set freely without distortion.
 - Supports multi-line text alignment.
 - Text Library supports the use of vector fonts.
- Graphical Font

Regard the string as a whole and save it as a bitmap to the project.

- Disadvantages
 - Occupy more memory because of the bitmap storage format.
- > Advantages
 - Supports all the fonts installed in the current operating system.
 - Display effect is good.

8 Marquee

In the VEDA HCT software, every label of the component can be set to display by scrolling the fonts. The scrolling direction, step length, speed, etc. can be set separately.

| Switch/Indicator Light | ? × |
|--|---|
| Switch Indicator Light Lable Graphics Dynamic Graphics 0 | Control Settings Display |
| □ Language Independent Language: 1-English (United States) □ Use Text Library □ Use Label □ Adaptive label size Tag Content Save Content To Text Lib Close | Import from Favorite Font Templates.(I) Vector Font Graphic Font Font: Microsoft Sans Serif • Size: 16 • B I • I • I Multi-line Alignment: III • I Microsoft Sans Serif |
| Copy Text To: All Status All Languages All | Copy Attr. To: All Status All Languages All |
| Set label position by language state separately. | Status Content |
| Pos.: Left Right: A | 0 Open |
| Top Bottom: 👔 🔬 | 1 Close |
| Marquee | |
| Moving Direction RightToLeft Step Length 10 - PixSpeed 10 - x0.1S | |
| Help Description: | OK Cancel |

4.13.9 Marquee

The function of "Marquee" is to display text by scrolling the fonts. The components such as "Label" and "Static Text" have the "Marquee" function.

When you check the "Marquee" option for the label or the static text ,the fonts will display by scrolling. You can set the attributes such as the Moving Direction, Step Length and Pix Speed. The setting is shown as below.

| Seneral Display | |
|--|---|
| C Language Independent Languages: 1-English (United S. •) • User Text Library Text. Library | Position Fixed Point: X 0 € Y 0 € □Locked Width 50 € Height 50 € |
| Use Labots Tag Contents Valvel * | Marquee Maving Direction RightToteft Step Length 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 RightToteft 10 |
| - Copy Current Text to All Languages | Set label position by language state reparately. |
| Import from Favorite Font Templates.@) | |
| Fort Microsoft Sans Sanil + Sizes 26 + B Z = + + Multi-line Alignment E = = = Tg Advanced | |
| Multi-line Alignment () 11 Advanced | |
| Microsoft Sans Serif | |
| Microsoft Sans Serif | |

| Language Independent Language: 1-English (United | f States) + 📦 | Import from Pavorite Fort Templates.ID |
|--|--|--|
| Use Test Library E Use Lobel Adoptive label size Tag Content | - Test Library Save Content To Test Lib | C Vector Fort # Graphic Fort Fort Microsoft Sans Smill + Size 14 + B 2 = • • • Multi-Size Alignment (Se 2 = • • • • Multi-Size Alignment (Se 2 = • • • • • |
| Copy Text Trz All Status | Al Languages Al | Microsoft Sans Serif |
| Set label position by languag Foc. Left Right DAMA Top Bottom: X & A | n state separately. | Copy Att, To: Al Botos Al Languages Al Status Content 0 Open 1 Close |
| 2 Marquee Moving Director LettToRig Step Length 10 😨 Piot | | |

1 Moving Direction

There are four moving direction: Left To Right, Right To Left, Top To Bottom and Bottom To Top. Select one to be the moving direction of fonts scrolling.

2 Step Length

The fonts scroll step by step. The distance of two steps is Step Length. The unit of Step Length is pixel. For example, setting Step Length 10 means that the fonts move 10 pixels per second.

3 Pix Speed

The option "Pix Speed" is used to set the moving speed of fonts scrolling. The unit of Pix Speed is 0.1 seconds. The range of Pix Speed is from 1 to 255. For example, setting PixSpeed10 means that the moving speed of fonts scrolling is 1 second. The process will be circulated after all fonts move out in the component size range.

4.13.10 Logic Control

You can find the function of "Logic Control" if you select the option "Conditional" in the "Control Settings" property TAB of some component. Or you can find it if you select the option "Conditional Display" in the "Display" property TAB. You can also find it if you select the option "Condition" in the "Trigger and Stop" property TAB of the Timer component. This function can realize all kinds of logic operations or judgment easily and can reduce using macros.

| witch Indicator Light Lable Graphics Dynamic Graphics | Control Settings 🕢 Display |
|--|---|
| Activation Settings Advays Endocating Invalid Mark Conditional Hilde when condition not meet. Non-operable when the part is hidden. | Security Settings Minimum Preux Terre: 0 (1) (00.15) (00.15) Mainum Preux Terre: 0 (1) (1) Mainum Preux Terre: 0 (1) (1) Mainum Preux Terre: 0 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) |
| Eevel User | Minimum Operation Interval 0 👘 (00.15) |
| E Privilege Liser | Notification Settings |
| 🛙 Logic Castral | Sefore Writing After Writing |
| Condition | 🖺 NoSły Bit Addresu |
| Add. Min.04 Datum | 📰 Noffy Byte Address: |
| Audio III Play Audio | III Trigger Macrol |
| Keyboard | |

| Position | | | and phil | | Corticl Setting | O Display | - | |
|------------|-------------|-------------|-----------|------|-----------------|-----------|---|--|
| Position | ×i | 0 2 | ₩X. | 0.2 | | | | |
| Elioched | Width | 50 C | Highs | 50.0 | | | | |
| O Always 2 | lisplay | | | | | | | |
| Condition | nal Display | | | | | | | |
| Divilege | | | | | | | | |
| € Logic Co | ortrul | | | | | | | |
| Comilition | | | | | | | | |
| | | | | 0 | | | | |
| | | | | | | | | |
| Add | Ma | 16 | Daristeer | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| or stop stop when the window clowed. wi, please choose the end condition. # specified court value reached 1. Judgement Tigger Condition not satisfie |
|--|
| |
| |

There is a red exclamation mark due to no logic condition. Now click the button "Add", you can pop up the Condition Setting dialog.



There are two address types: Bit Register and Word Register. The default selection is Bit Register. The logic condition judgment for Bit Register is "ON" or "OFF". The

default selection is "ON". Click the tool button " i or double-click the "Address" blank box, you can edit and select a "bit register". For example, set the address of "Bit Register" LB0, and set the Condition "ON". It is shown as below.



The red exclamation mark will disappear after you select an address for the condition. Click the button "OK" and the condition will be added to the Logic Control list. It is shown as below. It means the current component will be valid when the bit register LB0 is ON.

| Switch Indicator Light Lable Graphics Dynamic Graphics | Control Settings Display | |
|---|---|----|
| Activation Settings © Always Indexting Insulid Mark # Conditional II tilde when condition out meet. Non-operable when the part is likides. | Security Tettings Minimum Press Time: 0 (1) (00.15) III Require confirmation prior to execution Weeking Time 100 (1) (1) III Record Operation | |
| E Level User | Minimum Operation Interval: 0 (4) (00.1 | 5) |
| Drivloge L/ser | Notification Settings | |
| V Logic Control | Before Writing After Writing | |
| Condition 180 ON | El Notify Bit Addresse | |
| Add Modify Delete | 🖹 Notify Byte Address | |
| Audio El Play Audio | 🗊 Trigger Macro: | |
| Keyboard | | |

If the condition is not enough, you can continue to add. For example, the condition "LW0 > 1" need to be added. You can click the button "Add" to go on the operation. The Word Register is selected and the address is set LW0. The condition is set "LW0 > 1". The setting is shown as below.

| Condition Setting | | | |
|------------------------|------------|-------|--------|
| Module: 🔘 Bit Register | 🖲 Word Reg | ister | |
| Address: LW0 | | | 重 |
| Conditions | | | |
| Read Value 🗻 | • A(1) | Non | Bio.Tr |
| A Constant • | | | 1 💂 |
| | | | |

There are two pop-down lists in the Condition setting area. The first list is used to select the compare relationship. The compare relationship symbols include "<", ">", "<=" ">=", "==" and "! =". The second list is used to add the next condition of the word register LW0. The default of the second list is "None". It means that there is not the next condition any more. You can select "AND" or "OR" in the second list. It means the relationship between the current condition and the next condition.

| Aodule: 💮 Bit Register | Word Register |
|--|-------------------------------------|
| ddress: LW0 | |
| andition | |
| Read Value | • A(1) None • |
| | |
| A Constant | 1 🔹 |
| == 1= | |
| | |
| | |
| | OK Cancel |
| | OK Cancel |
| | |
| alowing to solve the sol | |
| Aodule: 🔘 Bit Register | Word Register |
| Aodule: O Bit Register Iddress: LW0 | |
| | @ Word Register |
| Aodule: O Bit Register Iddress: LW0 | @ Word Register |
| Aodule: O Bit Register address: LWO condition: | Word Register |
| Aodule: O Bit Register Iddress: LWO Iondition: Read Value P | @ Word Register |
| Aodule: O Bit Register address: LWO condition: | Word Register A(1) None A(1) None |
| Aodule: O Bit Register Iddress: LWO Iondition: Read Value P | Word Register A(1) None A(1) None |

The setting is shown as below if you select "AND" in the second list.

| Module: 🔘 Bit Register | Word Register | |
|------------------------|---------------|-----|
| Address: LW0 | | (m) |
| Condition | | |
| Read Value 🕞 | • A(1) AN | • 0 |
| Read Value 🖌 | • B(1) | |
| A Constant • | | 1 |
| B Constant • | | 1 |

If the conditions you need is "LW0> 100" and "LW0 <LW1", then the condition of the second is not "constant" but "variable" and the address is LW1. The setting is shown as below.

| Module: | 🛛 Bit Regi | ster | 🕱 Wo | rd Regist | er | |
|------------|------------|------|------|-----------|-----|-----|
| Address | 1.11/0 | | | | | |
| Condition: | | | | | | |
| Re | ad Value | 2 | | A(100) | AND | |
| Re | ad Value | ۰. | | B(LW1) | | |
| A | Constant | ÷ | | | | 100 |
| в | Variable | • | LW1 | | | |

After click the button "OK", you can add this condition to the Logic Control list. It is shown as below.

| witzh Indicator Light Lable Graphice Dynamic Graphi | E Control Settings Display |
|---|---|
| Activation Settings Manage III Indicating Invalid Mark Conditional III Hide when condition not meet. Non-operable when the part is hidden. | Security Settings Miximum Press Time Require confirmation prior to execution Watling Time L00 🖉 (200.15) Records Operation |
| Exvel User | Minimum Operation Intervali 0 🚔 000.152 |
| 🛙 Pridage User | Notification Settings |
| El Logic Control | Before Writing After Writing |
| Legic Condition LEG CM ANG + LWO > 100 AND LWO < LWI | Notily Br Address |
| Add Modify Delete Audio | V Trigger Macros (masso, J. +) Macro Code (Edit |
| Keyboard | |

There is a relationship option in front of the second condition in the Logic Control list. The option can be set "AND" or "OR". It means the logic relationship between the previous condition and the following condition. The component can be operated or display only if the result of all the conditions logic operation is true.

| Switch Indicator Light Lable Draphics Dynamic Oraphi | ca Control Settings Display |
|--|--|
| Antivation Settings Wikneys Didating Invalid Mark Conditional Hide when condition not meet. Non-operable when the part is hidden. | Security Settings Minimum Press Time: 0 (1) (2015) Sequere confirmation prior to execution Waking Time: 100 (1) (2015) Records Operation |
| E Level User | Minimum Operation Interval (17) |
| El Arivlege User | NotStation Settings |
| 91 Logic Control | Before Writing After Writing |
| Logie Condition 100 (M) AND - 2000 AND SWD - SWD AND - 2000 AND SWD - SWD CR. AND - Modity Delete | Noffy Sk Address |
| Audo | () Trigger Marros (marros 3 +) Marros Code) Edit |
| Keyboard El Une Keyboard | |

There are the button "Modify" and the button "Delete" besides the button "Add" in the Logic Control list. After selecting a condition in the Logic Control list, you can click the button "Modify" to edit it again or click the button "Delete" to remove it from the Logic Control list. You can also double-click a condition in the Logic Control list to modify it.

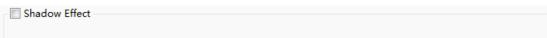
Note: the conditions are executed sequentially from the top to the bottom in the Logic Control list when the conditions are more.

4.13.11 Shadow Effect

You can set the property "Shadow Effect "for the vector graphics, the bitmaps, the graphics, the fonts, and so on. It is shown as below.

| 🛛 🕄 Shadow | / Effect | | | | | | | |
|------------|-------------|-----|------------------|---|-----|---|---|--|
| Color: | ShadowColor | • 📝 | Shadow Excursion | x | 4 🔹 | Υ | 4 | |

After checking the "Shadow Effect", the setting options such as Color and Shadow Excursion will be displayed. Otherwise the options are not visible.



1 Color

You can use the color palette to set the shadow color.



You can also use the tool " to set the shadow color.

2 Shadow Excursion

The Shadow Excursion includes the X-axis (horizontal) direction offset and the Y axis (vertical) direction offset. The unit is pixel.

| Shadow Effect | | | | | | | |
|---------------|------------------|------------------|---|-----|---|-----|--|
| Color: Sł | hadowColor 🛛 👻 🍠 | Shadow Excursion | x | 4 🔹 | Y | 4 🔹 | |

Note:

- The coordinates in this software refer to: <u>Detailed manual/General</u><u>functions/Drawing/ Position</u>.
- The range of Shadow Excursion is: -16 to 16. The positive number for X-axis represents the shadow direction is to the right. The positive number for Y-axis represents the shadow direction is downward. The negative number represents the contrary direction.

The display results are shown as below.



4.13.12 Position

Every component has the property of "Position". You can find it in the "General" property TAB or the "Display" property TAB of the component.

| eneral Display | |
|--|--|
| () Language Independent Languages: I-English (United S. •) 🚇 | Position Fixed Peint: X / 230 C V / 220 C Cocked Widtly 112 C Height 112 C |
| () One real constraints (| |
| 🖲 Use Labels | C Marquee |
| Tag Contents Shadow Effect | |
| in the second | |
| | Set label position by language state separately. |
| | Left Right 🔄 🚍 🖷 |
| Copy Current Test to All Languages | Top Bottom: |
| Import from Fevorite Font Templates.(I) | |
| Vector Fort Craphic Fort | |
| Font Microsoft Sam Sevif • | |
| Size 36 • 11 / 🔳 • 💌 | |
| Multi-Ers Alignment III 🕷 💷 💶 Advanced | |
| Copy Corrent Properties to All Languages | |
| Copy Current Properties to All Languages | QK Canst |
| Help Description | |
| Help Description | 14 |
| Help Description Behch/Indicetor Light witch Indicetor Light Lable Graphics Dynamic Gra Position | uphins Control Settings Display |
| Help Description Behch/Indicetor Light witch Indicetor Light Lable Graphics Dynamic Gra Position | ephins Control Settings Display |
| Help Description Defath/Indicator Light witch Indicator Light Lable Graphics Dynamic Gra Position Position X : E 2 Y 170 | ephins Control Settings Display |
| Heip: Description Heip: Description Heip: Labor Light Lable Graphics Dynamic Gra Position Position X C V 170 Elocked Width 70 Height 50 Always Display Conditional Display | ephins Control Settings Display |
| Heip Description Beltch/Indicator Light Lable Graphics Dynamic Gra Position Position Position X E Y 170 Exclosed Width 70 X Height 50 Position Always Display # Conditional Display E Conditional Display | ephins Control Settings Display |
| Help Description Belth/Indicator Light Lable Graphics Dynamic Gra Position | ephins Control Settings Display |
| Heip Description Heip Description Heip Description Heip Description Heip Description Heip Description Position | ephins Control Settings Display |
| Heip Description Beltch/trdceter Light Lable Graphics Dynamic Gra Position | ephins Control Settings Display |
| Heip Description Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Light Beinth/Indicetor Ligh | ephins Control Settings Display |
| Help Description Tellth/fodcetter Light Lable Graphics Dynamic Gra Position Position Position X I I V I I/0 Socied Width 70 C Height 50 Always Display Conditional Display Conditional Display Level Use Phylioge User I Logic Control Logic Control Logic Control | ephins Control Settings Display |
| Help: Description Help: Description Help: Description Help: Cardison Light Lable Graphics Dynamic Gra Position Position Position Position Position Position Position Position Position Position Position Position Position Position Position Position Pos | ephins Control Settings Display |
| Help Description Help Description Help Description Help Description Help Description Position Position Position Position Position Position Position Position Position Position Position Position Po | ephins Control Settings Display |
| Help Description Help Description Help Description Help Description Help Description Position Position Position Position Position Position Position Position Position Position Position Position Po | ephins Control Settings Display |
| Heipi Description Baltch/thdicatar Light Lable Graphics Dynamic Gra Position Positi | ephins Control Settings Display |
| Help Description Help Description Help Description Help Description Help Description Position Position Position Position Position Position Position Position Position Position Position Position Po | ephins Control Settings Display |

The "X" and "Y" in the Position property are used to set the x coordinate and the y coordinate of the start point of the current component in the window. The title of the "X" and "Y" is "Fixed Point" or "Position". The title of "Fixed Point" decides a fixed point as the start point of the component. The detail is referred to: <u>Detailed manual/General functions/Drawing/Rotation</u>. The title of "Position" decides the point in the upper left corner of the component as the start point.

Note:

In this software, the coordinate system is shown as below. The origin point is in the upper left corner. The X-axis is horizontal direction. The positive direction of the X-axis is to the right. The Y-axis is vertical direction. The positive direction of the Y axis is downward.



The properties of "Width" and "Height" are used to set the width and the height of the component. If the option is grey and not editable, it represents the attribute is not available. It is shown as below.

| X : | 230 🗘 | Υ: | 320 🗘 |
|--------|-------|---------|-------|
| Width: | 312 🗘 | Height: | 312 🌲 |
| | | | |

If you check the option "Locked", the position of the component will be locked. Its position and size cannot be edited. A lock mark will display in the upper left corner of the component when you select it in the configuration window.

| Ellese | | | | | | 1.8.0 |
|-------------------|--------------------|---------------|------|-------|--------|-------|
| · General Dynamic | Graphics Indicator | Light Display | | | | |
| Ø Elfipse O C | ircle | | | | | |
| 🗑 Barder | | Position | | | | |
| • Line Color | • | Fixed Point: | X) | 426.0 | W.I. | 151.0 |
| Grae Width | · · | 12 Locked | Wath | 80.5 | Height | 80.7 |

4.13.13 Rotation

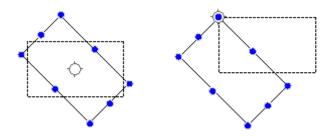
| QQ |
|-------------|
| • • • |
| |
| NonRotation |
| |

The function of "Rotation" can adjust the display angle of the components such as static graphics, vector graphics and other components. This function is a static function. That is, the display angle is not adjusted in the HMI if you set the display angle in the "Rotation" property. If you want to dynamically adjust the display angle of the graphics, please refer to: <u>Detailed manual/General functions/Dynamic Graphics</u>.

1 Fix Point

Each figure has nine fixed points. The middle fixed point is selected as the default by the system. You can change the fixed point. The result is different after the figure rotates

around the different fixed point. For example, a rectangle rotates the center fixed point and another rectangle rotates the upper left fixed point. It is shown as below.



2 Rotation Angle

The Rotation Angle is used to set the clockwise rotation angle of the component. This angle range is 0-360 degrees.

3 Non Rotation

You can quickly set the display angle to zero by clicking the button "Non Rotation".

4.13.14 Dynamic Graphics

There is a property TAB of "Dynamic Graphics" for some component such as the static picture component, the vector graphics, and so on.

| Elipse | | 1 H H H |
|----------------------|---|------------|
| General Dynamic Grap | hics Indicator Light Display | |
| 🛛 Use Dynamic Graphi | | |
| Control Address | LWO. | |
| Z Control Position | X LWD VLW1 Coordinate of the top-left point | |
| Control Size: | Width (LW2 - Height (LW3 - For square and circle, only width is valid, height is not applicable | |
| Control Rotating | Angle: LW4 Increase anti-clockwise, 0-360 degree | |
| | Note: Location, size and rotating is set based on fixed referen | nce point. |

You can use the function of "Dynamic Graphics" if you want to adjust the position, the size and the rotation angle of the figure dynamically during running the HMI.

The function of dynamic graphics is realized by using the registers to control the position, the size, and the rotation angle of the figure dynamically.

1 Use Dynamic Graphics

You need to check the option "Use Dynamic Graphics" in the property TAB of "Dynamic Graphics" if you want to use the dynamic graphics function.

②Control Address

The start address of the control registers is selected here. The start control register address editing is referred to: <u>Detailed manual/General function/Address editor/Standard</u> <u>ByteAddress Input</u>.

③Control Position

The option of "Control Position" needs to be checked if you want to adjust the position of the component dynamically. Two registers are used. The addresses will be set and displayed automatically after the "Control Address" is given. These two registers will control the absolute coordinates of the fixed point of the component on the screen window. The touch screen coordinate system is referred to: <u>Detailed manual/General function/Drawing/Position</u>.

④Control Size

The option of "Control Size" needs to be checked if you want to adjust the size of the component dynamically. Two registers are used. The addresses will be set and displayed automatically after the "Control Address" is given. These two registers will control the width and the height of the component. The register to control the width is valid for the components which the width and the height are equal, such as the square and the circle.

⑤Control Rotating

The option of "Control Rotating" needs to be checked if you want to adjust the rotation angle of the component dynamically. One registers is used. The address will be set and displayed automatically after the "Control Address" is given. The register will control the clockwise rotation angle of the component. This angle range is 0-360degrees.

Note:

The position, size, and rotating control are based on the "fixed point" of the component. The fixed point is referred to: <u>Detailed manual/General</u><u>function/Drawing/Rotation</u>.

4.13.15 Table Drawing

You can find the property TAB "Table".

| earai 1 | fucte Charding Display | |
|---------|---|--|
| | Table Background Color Background + | |
| | Title Bar Background Color: | |
| | Outline States 👘 👘 Une Weakly 👘 🖛 💌 🖬 Outline Boar 🛪 🍞 | |
| | Split Live Style: | |
| | Display Grid Line: 🗐 Row Spill Line 🛛 👔 Column Spill Gree | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| Senal No. | Date | Time | User Name | Operation Log | | |
|-----------|----------|----------|-----------|---------------|---|----------|
| 1 | 08/12/15 | 08:40:23 | admin | ####### | - | |
| | | | | | | - Outlin |
| | - | | | | | |

You can change the background color and the title bar background color.

| Table Background Color: | Background 💌 📝 |
|----------------------------|--------------------|
| Title Bar Background Color | : 🔄 Background 💌 🍠 |

You can change the outline style, the split line style, the line width and the line color.

| Split Line Style: | ▲ | Line Width: | Split Line Co 🔹 📝 |
|-------------------|----------|-------------|-------------------|
| Outline Style: | ▲ | Line Width: | Outline Boar 💌 |

You can display the grid line after check the "Row Split Line" and the "Column Split Line". It is shown as below.

| Serial No. | Date | Time | User Name |
|------------|----------|----------|-----------|
| 1 | 08/12/15 | 08:40:23 | admin |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

You can hide the grid line if you don't check the "Row Split Line" and the "Column Split Line". It is shown as below.

| Date | Time | User Name | |
|----------|----------|--------------------------------|---------|
| 08/12/15 | 08:40:23 | admin | |
| | | | |
| | | | |
| | | | |
| - | | | <u></u> |
| | | Date Time 08/12/15 08:40:23 | |

4.13.16 Export CSV

You can use the function of "Export CSV" if you want to export the list data to a CSV format file. You can find the option "Export CSV" in the "Search" or "Checking" property TAB of the list component, such as the Historical Data Display component and the Operator Log component.

| Sistorical Data Display | | -(B-) |
|--|----------------------|-----------|
| eneral Table Search Display | | |
| PERMIT AND A | | |
| Enable Search Function | | |
| | | |
| | | |
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| | | |
| | | |
| | | |
| 😥 Export CSV | | |
| Trigger Registrator: LBO Iso LBO Export records when it is ON. | | |
| Export to designated location: # HML @ SD @ USB1 | | |
| C Register Setting Locations | | |
| | | |
| | | |
| Sub directory name: CSV_EVENT | | |
| Sub directory name: CSV_EVENT | | |
| | | |
| 🗐 Export progress indicator register: | | |
| Export programs indicator register: Export CSV method : Export by day Single File | | |
| Export programs indicator registers Export CSV method : IF Export by day Single File This operation will all entries are in inv with the current condition. If you use a | query, the query ree | ults will |
| Export programs indicator register: Export CSV method : Export by day Single File | query, the query ree | ults will |

| Operate Log Display | 1.1.1 |
|--|-------|
| Sement Table Orecking Darley | |
| BY Export CSV | |
| Trigger Registratori (50) III LRO Export records when it is ON Esport to designated location(# HML 0 SD 0 USB1 | |
| Sub directory name: CSV EVENT | |
| Esport programs indicator register: | |
| Report CEV method : # Reporting day 🔅 Single File | |
| This operation will all entries are in live with the current condition. If you use | |
| a query, the query results will be derived, without the use of query, export all | |

 $\textcircled{1} \mathsf{Trigger} \, \mathsf{Registrator}$

A bit register is used to trigger the action of exporting data to a CSV file. Exporting is triggered when the bit register changed from OFF to ON. You can use a bit toggle switch to control the bit register. The method to input the trigger register address is referred to: Detailed manual/General function/Address editor/Standard Bit Address Input.

2 Export to designated location

The function of "Export to designated location" supports exporting the CSV file to HMI, SD card or USB disk. The corresponding options are: HMI, SD, USB1.

③Subdirectory name

You can give a sub directory name for the exporting location.

Sub directory name: CSV_EVENT

The contents saved in the designated registers will provide the sub directory name if you check the option "Sub directory name" and give the start register address.

☑ Sub directory name: LW0 Ise 16 charaters sp

LW0 Use 16 charaters specify a file name with maximum 32 ASCII charaters

Note:

Please use the character component to input the sub directory name if you use registers to provide it. The method to input the register is referred to: <u>Detailed</u> <u>manual/General function/Address editor/Standard ByteAddress Input</u>.

④Export progress indicator register

A register can be given to display the exporting progress if the data is large. It is shown as below.

| Export progress indicator register: | LW20 | | (0-100, Reflect the current export schedule) |
|-------------------------------------|------|--|--|
|-------------------------------------|------|--|--|

The exporting progress uses the percentage of completion (0-100) to represent. You can use a numeric value display component or a bar graph component to display.

⑤Export CSV method

The Export CSV method can be "Export by day" or "Single File". If you select the "Export by day", the exported data will be saved in different files by date. If you select the "Single File", the exported data will be saved in a single file.

If you select "Single File", you can use the function of "User-defined File Name". The system will name the exported file according to the default name rules when the option "User-defined File Name" is not checked. A register address needs to be specified to save the file name which is input when it is needed.

| Export CSV method : | Export by day | Single File |] |
|-------------------------------|---------------|-------------|---|
| V User-defined File Na | me: LW100 | LW cha | 100 Specify a file name with maximum 32 ASCII raters or 16 Chinese characters, suffix is not |

Please use the character input component to input the user-defined file name. The file name length is limited to 32 ASCII characters or 16 Chinese characters.

Note:

This operation will export all entries in the current condition. If you use the function of "Enable Search Function", the current result of searching will be exported.

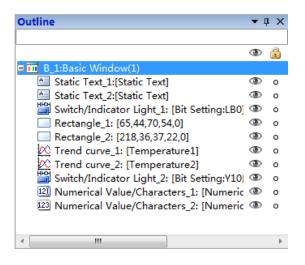
5 Use topic

5.1 Find and Replace

| Find Find Feplace Find Type: Address | Search Ranger All Project • |
|---|---|
| Bh Address Ward Address Find Device IDCAL(bacel Register Address Type III Bit index within a Syte Registe Range(0) Firmal(Range):DDDDDD(0-7999 | Perlace Device LOCAL(Local Register Address Type LB Strindes within a Byte Register Address 0 |
| Find | Total Note: Testace Replace All |
| Location | Target. |
| | |
| | |
| | |

5.2 Outline

It will display all components of the current work window in the "Outline" window.



The tool button " \checkmark " on the top right corner which is used to control the display mode of the outline window. The tool button " \ddagger " is used to make the outline window show or auto hide. The tool button " \checkmark " is used to close the outline window.

| Outline | | ▼ Ą | Х |
|---------------|---|-----|------|
| | Float Show Dock as Tabbed Document Auto Hide Hide | | |
| Rectangle | _2: [218,36,37,22,0] | ٢ | 0 |
| 🛛 🖄 Trend cun | /e_1: [Temperature1] | ۲ | 0 |
| Trend cun | /e_2: [Temperature2] | ۲ | 0 |
| Switch/Ind | licator Light_2: [Bit Setting:Y10] | ۲ | 0 |
| 12] Numerical | Value/Characters_1: [Numeric | ۲ | 0 |
| 123 Numerical | Value/Characters_2: [Numeric | ٢ | 0 |
| | | | |
| ۰ III | | | - Þ- |

Note:

You can check "Outline" from the "View" menu and make the outline window display again after the Outline window is closed.

You can find the component by inputting the component name in the blank text box on the top of the outline window and click the "Enter" key. All the components display can be restored by clear the text box and click the "Enter" key.

| Outline | – ą | × |
|---|------------|------|
| Switch | | 8 |
| | ۲ | |
| | ۲ | 0 |
| | ۲ | 0 |
| | ۲ | 0 |
| | ۲ | 0 |
| Switch/Indicator Light_1: [Bit Setting:SRB31][S | ۲ | 0 |
| 🔜 Switch/Indicator Light_2: [Pop-up:29005] | ۲ | 0 |
| 🗔 Switch/Indicator Light_3: [Pop-up:29004] | ۲ | 0 |
| 🔜 Switch/Indicator Light_4: [Pop-up:29003] | ۲ | 0 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| × III | | - Þ- |

When you click the little eye tool " ^(a)" except the top one, it will change to " ^(c)" and hide the corresponding component in the window. When you click it again, it will change to " ^(a)" and make the corresponding component show in the window. The top little eye tool " ^(a)" will control all components hide or shown by clicking it.

| B 1:Basic Window(1) | Hide or show all |] | ۲ | |
|--------------------------|--------------------|-----------------|---|---|
| Static Text_1:[Static Te | Thue of show all | | 0 | 0 |
| Static Text 2:[Static Te | components | | ۲ | 0 |
| Switch/Indicator Light | | | ۲ | 0 |
| Rectangle_1: [65,44,70 | 54,0] | - | 0 | 0 |
| Rectangle_2: [218,36,3 | 7,22,0] | | ۲ | o |
| Trend curve_1. ITemp | rature11 | / | ۲ | o |
| Trend curve | ar chave th | | ۲ | o |
| Switch/Indica Hide | or show th | ne :Execute Mac | ۲ | ٥ |
| 121 Numerical V. corre | sponding component | 10],d10[D10] | ۲ | 0 |
| 123 Numerical V. | sponding component | V_Water10] | ۲ | 0 |
| | | | | |
| | | | | |
| | | | | |

When you click the right tool " \circ ", it will change to " i " and lock the corresponding component in the window. When you click it again, it will change to " \circ " and unlock the corresponding component. The top tool " i " will control all components locked or unlocked by clicking it. The component will not move if it is locked.

| Outline | | | | | | + # × |
|-------------------------------------|--------------|-------|------------|----------|---------------------|--|
| B 1:Basic Window | | | | _ | | æ 🔒 |
| Static Text_1:[5 | tatic Loc | k or | unlock all | - | | (®) (∰) (®) (®) |
| Switch/Indicate | con | npone | ents | | - | 00 o |
| Rectangle_2: [2 | 18,30,37,22, | | | | | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) |
| Trend curve_2: | | | WINDOWS | ine Kent | | 8 |
| 20 Numerical Va 123 Numerical Va | Lock | or | unlock | the | d10[D10] ater10] | (∰) 0 (∰) 0 |
| 2221 | corresp | ondi | ng compor | nent | 8 | |
| L | | | | | | |
| * [| | | | | - | |

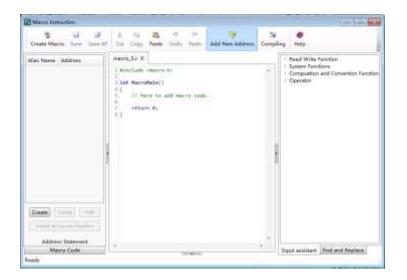
You can right-click to pop up the shortcut menu and cut, copy, paste or delete the selected components. You can look at the components properties by this way.

| Dutline | | | | | | 8.2 |
|-----------|------|---------------------------|--------------|---------------------------------|------|-----|
| B 1 Basic | We | dow(1) | | | (10) | 10 |
| | | 1. Ctatic Tauti | COTTO | | æ | |
| Static | 4 | Cut | Ctrl+X | | æ | .0 |
| Switch | - | Copy | Ctrl+C | | æ | ø |
| T INCCOR | 1000 | Paste | Ctrl+V | | 1 | 0 |
| Rectai | -2 | - Arise | | | æ | 0 |
| C Trend | × | Delete | Del | | | |
| Switch | | | | in Key:Execute Macroinstruction | æ | |
| 12 Nume | | Components Properties | | d10[D10],d10[D10]] | æ | 0 |
| 123 Nume | near | vaue/characters_zi promer | ic value cas | wav RPW Water10 | œ | |

5.4 Macro

5.4.1 Macro Editor Introduction

The Macro Editor can be opened by clicking "Create Macro" or "Edit Macro" from the "Macro" menu. It is shown as below.



5.4.1.1Shortcut Tools Bar

| | * C) | | 0 | × | 1 | 8 | *7 | C | 8 | ** | 0 |
|---|--------------|------|----------|-----|------|-------|------|------|-----------------|-----------|------|
| - | Create Macro | Save | Save All | Cut | Сору | Paste | Undo | Redo | Add New Address | Compiling | Help |

Shortcut Tools Bar contains Create Macro, Save, Save All, Cut, Copy, Paste, Undo, Redo, Add New Address, Compiling and Help buttons.

Create Macro: Create a new macro.

Save: Save the current macro.

Save All: Save all macros.

Cut, Copy, and Paste: Edit the selected macro codes.

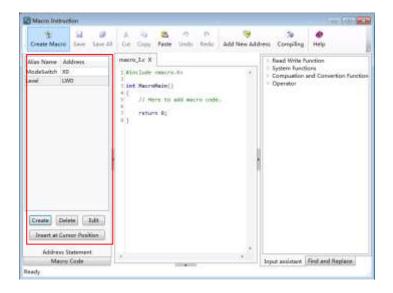
Undo, Redo: Undo /Redo the edit of the selected macro codes.

Add New Address: Add a new address alias for the current macro.

Compiling: Compile the current macro.

Help: Open the help file.

5.4.1.2Address Statement



Address Statement is used to create and manage the address aliases in the current macro. The address statement window shows on the left of the macro editor. You can

hide or display it by using " . You can switch to the macro code window by clicking the bottom tab "Macro Code".

5.4.1.3Macro Code

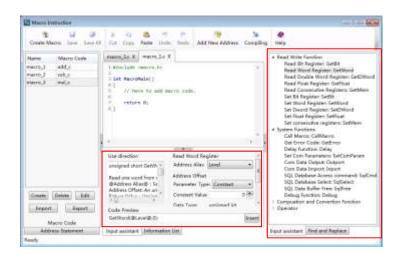
| Casete Defete Edit | Macro Instruction | | |
|--|--|---|--|
| Create Delate Edit | | | Address Compiling Help |
| Import Export | mano,1 add_c mano,1 skb_r mano,1 materia | 1 (Irclain emproved) 1 (Irclain emproved) 1 (Irt HaccoMain()) 1 (// Here to add macro code. 1 // Petro By | System Functions Compution and Convertion Function |
| Macro Code + Address Statement Find and Replace | | | Input equictant Find and Replace |

Macro Code window is used to create or manage the macros in the current project. All macros in this project will be listed here. These macros can be edited, deleted, imported and exported. You can simply double-click a macro's name to edit the codes of the macro.

| Create Macro Save Save Al | A 44 Ka 17 5 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10 | dress Compiling Help |
|--|---|--|
| Name Macro Code namo,1 add,c namo,2 sub,r Create Delete Edit Import Esport | Marro, J.r. X marro, J.r. X | Real Write Function System Functions Compution and Convertion Function Operator |
| | | |

5.4.1.4Code Editor Window

Code Editor Window is a code editor which is compatible with C syntax. The detailed macro codes are edited here. Code Editor Window is a multi-tab window. You can open multiple macros and display one macro by clicking the corresponding tab. If a macro code has been edited but not yet saved, it will display "*" in this macro tab. For example, it will display "macro_1.c*" if the codes of this macro are edited and not saved.



5.4.1.5 Input assistant Window

Input assistant Window on the right of the macro editor lists the built-in functions. It will display a detailed description of the function in the Input assistant Window at the lower middle position of the macro editor when you select a built-in function on the right window.

The Input assistant Window at the lower middle position of the macro editor gives the use direction. And you can set the parameters of this function here, too. The function with the parameters you have set will display in the Code Preview edit box. It will be inserted into the current cursor position when you click the "Insert" button.

Macro Instruction 1 14 10 14 3 16 54 . 4 10 10 Create Macro Save Lave All Cut Copy Peste linds Bath! Add New Ac Manajie X manajie X # Seatch C Replace Name Macro Code add_c mecro_1 Rints Barge Director такто 2 sub c # Current Macro int Recrobals/5 0.06 mule Al Marroe # Down // Here to add macro code 10 Search return 0; Next Redivert to Line No.: 1. References Use directi Read Word Regist umigned Address Alies Level ٠ ecition Address Offset Panameter Type: Cor . Create Debte Edit Constant Value 0.0 the second Bath Tone Import Export Code Pre di@Level@.Ch Macro Code input envisiont Find and Replace didress Statement Input accident Information Cist

5.4.1.6 Find and Replace

Find and Replace function can provide a more convenient method of editing the macro codes. It can perform jump between lines and you can view the macro reference here.

5.4.1.7Information List

| Desir Merro here A | La ter an | e tels |
|---|--|--------|
| Nate Varin (Lab rann,) add, s rann, 2 add, s rann, 3 add, s rann, 1 add, s | The Context Statistics of Average Aver | |
| Create Dates Ldt | | |
| Marris Code | | |

Information List window displays prompts and error messages when the macro compile. You can double-click the error message entry in the list if compiling errors occur. It will quickly navigate to the position where this error occurs.

5.4.2 A Macro example

In this example, we use a macro to execute a simple calculation function. The output value (saved in LW1) will be 3 times as much as the input value (saved in LW0) if the output value is less than or equal to 300, or it will be 2 times as much as the input value.

5.4.2.1 Create a new project

Refer to: Detailed manual/File/Create New Project.

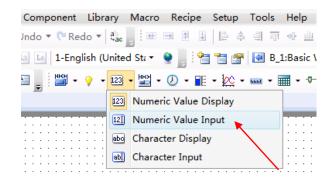
Build a new project.

5.4.2.2 Add the components

①Add a numeric value input component.

Refer to: <u>Detailed manual/Component/Numeric Value and Character</u> <u>Display/Numeric Value Input</u>.

Add a numeric value input component in the window and set the address as LW0.



| Germal Number Format Xeyboard Setting Fort Graphics Dynamic Graphics Control Sc | ettings Display |
|--|-------------------|
| Operation Attributer 🔘 Numaric Display 🕷 Numeric Leput 🔘 Characters Display 🏐 Charact | wes injust |
| 🗈 Reading And Willing Address & Different 👘 Resourced | |
| Read Address | |
| El Use Address Tag Beixer LDCAU(Josef Register) + | |
| Address Type (W 4) Address () (0) (0) (Rythen Regime Format/Nangel DDGCDCD/S. Occurp () () (Word | |
| 🕅 dalidress brakes | |
| | |
| | |
| | |
| | |
| Help Despiption | OK Carol |

2 Add a value display component.

Refer to: <u>Detailed manual/Component/Numeric Value and Character</u> <u>Display/Numeric Value Display</u>.

Add a numeric value display component in the window, and set the address as LW1.

| Component | Library | Macro | Recipe | Setup | Tools | Help |
|----------------------|------------------|---------|-------------|------------|--------------|----------------|
| J ndo 🔻 🤍 Rec | lo ▼ ab sac | , i 🖬 I | Ð 🕈 🞚 | ⊫ ≱ | ⊒ ∏† | -o[- <u>aí</u> |
| 1-Engl | ish (Unite | d Sta • | 1 | 1 😭 | 🔄 B_1 | L:Basic |
| s 📰 🚽 | 💡 🕶 🔝 | - 🔛 - | Ø • 🗈 | - 🙋 - | 6000 · | |
| 2 | 123 | Numer | ic Value Di | splay | | |
| | | Numer | ic Value In | put 🔨 | | |
| · · · · · · · · · | iii abo | Charact | ter Display | / | \mathbf{i} | |
| | i i i abi | Charact | ter Input | | | |
| | | | | | | · · · · |

| Operation Attributer 🔹 Numaric Displa | an incase | and the second second | |
|--|-----------------------------------|-----------------------|--|
| Allerando Allerante - in Muttack, Chapta | y to remark ages. to characters i | robay Constant tabu | |
| | | | |
| | Passeord | | |
| Read Address: | | | |
| 🖸 Use Address Tag | | | |
| Delvor LOCAL(Local Register) | | | |
| | | | |
| Address Type: 1W . | | | |
| | ten Register | | |
| Format(Range) D0D00D(0 Dccupyi | | | |
| | | | |
| C Address Index | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

③Add the text description.

Refer to: Detailed manual/Drawing/Static Text.

Add text description for the two numeric value components, as shown as below.



5.4.2.3 Create and edit a macro

①Create a new macro.

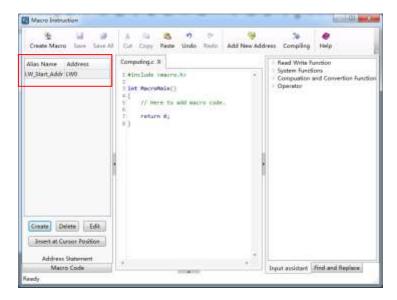
Refer to: <u>Detailed manual/Macro/CreateMacro</u>.

Create a new macro, named "Computing".

②Add an address statement.

Add an address statement. Define the LW starting addressLWO as LW_Start_Addr.

| | | | Add Address Statement | 1000 |
|---------------------|---|--|---|-----------------|
| Warro Leinuter | a chan Parte Ando Tanin Add New Add | and Compiling Tale | Address Alias: LW_Start_Adde | |
| Alex New Aldred | Companya X T Uncluster seasonable 1 der Sacrossina () 1 dir serve To midd matter conto. 2 dir serve To midd matter conto. 2 dir serve By 2 dir serve By | fead thits function types function types function types type type type | Use Address Tag Deivce: LOCAL:[Local Register] Address Type: LW Address: 0 System R Format(Range) DODDDD(0~799999)Occupy: 1 | egister Word |
| Marro Cude Ready | | logical protocols (Read and Replace) | | 11.00 |



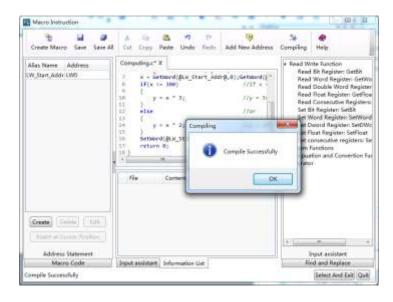
3 Edit the macro codes.

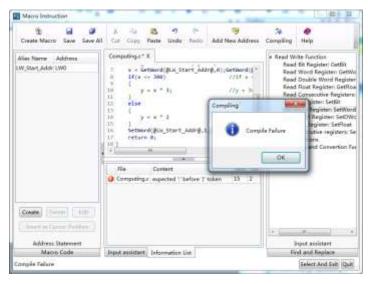
In the macro code editor window, edit the macro codes according to the logic previously defined. The syntax rules follow the C language specification. The final macro codes are as follows.

| computing c * X | |
|--|---|
| ainclude omacro.hy | |
| | |
| <pre>int MacroMain()</pre> | |
| <pre>4 { 5 // Here to add macro code. 5 unsigned abort x = 0, y = 0; 7 x = GetMord(@LW_Start_Addr@, 1 f(x <= 300) 7 { 9 { 1 y = x * 3; 1 } 1 </pre> | |
| 5 // Here to add macro code. | |
| E unsigned abort x = 0, y = 0; | |
| x = GetMord(@LW_Stert_Addr@, | 0);GetWord(@LW_Start_Addr@,0);//read LWO to x |
| I if(x <= 300) | //if x <= 300 |
| P { | |
| 0 y = x * 31 | //y = 3x |
| 1 1 | |
| else | //or |
| 5 (| |
| 4 y = x * 2; | 11y = 2x |
| 4 y - x * 2; | |
| | 1 //write the value of y to LWI |
| 7 return 0: | |
| N 3 | |

(4) Compile and save.

Click the Compile button " ⁷ " on the shortcut toolbar to compile after finish editing the macro codes. A message box will pop up to display "Compile Successfully" if no syntax errors; otherwise the message box will display "Compile Failure".





If compiling fails, you should modify the macro codes according to the error messages of the information list until compiling is successful.

Click the Save button "

5.4.2.4 Execute the macro

There are many ways to execute the macro. You can set macros for the buttons, the notification settings in the component control settings and timer function.

| Action: Press | ✓ Function Setting: Execute Ma ✓ |
|--|--|
| Help(<u>H</u>) | OK Cancel |
| ogle Gemin | |
| meral Toggle Switch Graphics Dynamic | Staphics Control Settings Display |
| Activation Settings # Mourys © Conditional | Security Settings Minimum Press Time: 0 (00.15) Regulare confirmation prior to execution Weining Time: 200 (00.15) Records Operation Internat: 0 (1) Records Operation Internat: 0 (1) Records Operation Internat: 0 (1) Records Setting: Records Writing Albert Minima Records Writing Albert Minima Records Writing Albert Minima Records Setting: Recor |
| Keyboard Die Keyboard | Computi + Marra Code Sale Audio Phy Auto |

| igger and st | op 🕖 Timer | Function | |
|--------------|------------|------------|------|
| Run Macro | Computi 🔹 | Macro Code | Edit |
| Kun Wacro | Computi • | Macro Code | Edit |

In this example, execute the "Computing" macro when the input value changes by using the timer function. See settings as shown as below. The detailed using method of the timer component, please refer to: <u>Detailed manual/Component/Timer and Data</u><u>Transmission/Timer</u>.

| ingger and Stop Timer Function Timing and Execution Execution Period: 10 🖗 + 0.15 Delay | |
|--|--|
| Trigger Condition Bit Word Condition Trigger Went the window is open Trigger Went the window is closed Trigger Address: LW0 | Condition for dop Timer will stop when the window closed. If need to end, please choose the end condition. Stop when specified court value reached Condition Judgement Repeat Times: Constant * 1 x |
| Nelo | DK Cere |

| a Timer | |
|---|----|
| Trigger and Stop Timer Function | |
| 🖉 Run Marro Computi 🔹 Marro Code Edit | |
| 🔝 Status Setting | |
| | |
| | |
| 15 Audio Piliy | |
| Help | OK |

5.4.2.5 Offline Simulation

Offline simulation can be executed to verify the correction of the function after the above steps are finished.

Click the "Offline Simulation" button" on the shortcut tools bar.

| Tools | Help |
|--------|----------------------------------|
| 희 ㅠ | or 😐 💾 쥐 🔝 🤫 🍬 🖦 🖦 📲 📗 🗄 |
| 💌 B_1: | Basic Window(1) 🔹 💽 📑 🖬 🖘 🍭 100% |
| • | * 78 🎉 🚵 🏝 🏠 🍫 🏓 💂 |
| | Offline Simulation |
| | |

A "Clear Records" message box will pop up. After clicking the button "OK", the project will compile.

| Clear Records - | | |
|-----------------|-----------------|--------------|
| 🔽 Clean up RV | V data | |
| 🔽 Clean up red | cipe data | |
| 🔽 Clean up da | ta sampling and | history aler |
| 🔽 Clean up sp | ecial registers | |
| | OK | Cancel |

| Build Data | |
|------------|--|
| | |

The project compiling needs a little time. There is a progress bar to indicate the compiling progress. The simulator window (Emulator)will open automatically after the compiling is finished.

| Drudator | | | 1921-C-104 |
|----------|-----|-----|------------|
| | LW0 | LW1 | |
| | 0 | 0 | |
| | | | |
| | | | |
| | | | |
| | | | |

Input the value 100 to LW0. The output value of LW1 will be 300 according to the rules that the output value will be 3 times as much as the input value if the input value is less than or equal to 300.

| ti Unidetar | Apple and the of the | The same way in the second | |
|-------------|----------------------|----------------------------|--|
| | LW0 | LW1 | |
| | 100 | 300 | |
| | | | |
| | | | |
| | | | |
| | | | |

Input the value 400 to LW0. The output value of LW1 will be 800 according to the rules that the output value will be 2 times as much as the input value if the input value is not less than or equal to 300.

| * Emulator | | | |
|------------|-----|-----|--|
| | LWO | LW1 | |
| | 400 | 800 | |
| | | | |
| | | | |
| | | | |
| | | | |

5.5 Online software upgrade

If the user can not receive the automatic update reminders, the following solutions are given.

(1) Execute "cmd" in the administrator mode. Please input the following commands.

rmdir /s /q "%userprofile%\wc"

rmdir /s /q "%appdata%\wyUpdate AU"

(2) Reopen the VEDA HCT software.

6 Appendix

6.1The Use of Register

The Type of HMI register includes "Word" register and "bit register".

6.1.1 Word Register

LW: An internal "Word Register" in HMI. The data is lost when the power is off. The register address range is 0 - 799,999.

RW: An internal "Word Register" in HMI. The data can be saved if power is off. The register address range is 0 - 524288.

SRW: A special internal "Word Register" in HMI. The register address range is 0 - 11023. You can click the "System Register" button and open the "System Special Function Register" to get the specific function of each SRW register when you use the component such as "Numeric Display". For example, SRW0 ~ 7 saves the system time. The "Description" introduces the function of the selected register.

| Nameric Diaglay | 1.3.54 |
|---|------------------|
| General Reamber Format Font Graphics Dynamic Graphics Display | |
| Operation Attribute: 🐞 Nameric Display 🔘 Nameric Inpat 🌐 Characters Display 💿 | Characters Input |
| E Password | |
| Read Address: III: Use Address Tag Delice: [OCAL]Sacal Register] + Address: [O 0 Formet/Rengel D000000 Concept Work | |
| Address Index | |
| | |
| | |
| | |
| | |
| Hela Description | OK Cancel |

| System Special Function Register | |
|---|--|
| List Information | Description |
| FHVI OPIC System Time SRVLMorth SRV2-Day SRVM-Minute SRV2-Second SRVM-Minute SRVM-Second SRVM-Minute SRVM-settings System Registere Communication user seel password user pervision VMIC authority password Varc authority password Supure Registere Opermusication YMIC authority password Supure Registere Supure Registere VMIC authority password Supure Registere | Description System date, Format als 20x |
| • File browning | Select. Carcel |

6.1.2 Bit Register

LB: An internal "Bit Register" in HMI. The data is lost when the power is off. The register address is 0 - 799,999.

SRB: A special internal "Bit Register" in HMI. The register address range is 0 - 11023. You can click the "System register" button and open the "System Special Function Register" to get the specific function of each SRB register when you use the component such as "Bit Set". The "Description" introduces the function of the selected register. For example, SRB16 is ON when the touch screen is pressed.

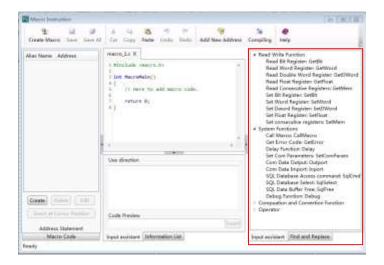
| E Bit Setting Property | — ×- |
|--|----------------------|
| Action: Press | |
| Address Use Address Tag Deivce: [LOCAL:[Local Register] | |
| Bit-index within a Byte Register Address Type: LB Address: 0 | ▼ System Register |
| Address Index | |
| Help(H) | OK Cancel |

| t Information | Description |
|---|--|
| BANG ORIC Second Sec | Description When preving the touch SR016 is on view-harecouly the KY coordinate value of the touch strene will be indicated between SR0450 and SR0452 |

Note: "Word Register" and "Bit register" in HMI are two different areas, so the address does not overlap. For example, LW0 and LB0 are two registers that they are not related. SRW0 and SRB0 are also two different special system registers. But each word register can be divided into 16bit registers. For example, LW0 can be divided into 16bit registers: LW0.0 ~ 0.15.

6.2 Built-in Functions

You can find the built-in functions when you create or edit Micros. They can be used by calling directly.



6.2.1 Read Write Function

6.2.1.1 Read Bit Register: GetBit

boolGetBit(@Address Alias@,Address Offset):

Read one bit from designated register address.

@Address Alias@: Select a bit address register

Address Offset: An unsigned integer, Read Address=The address specified by @Address Alias@+Address Offset

Return Value: BOOL, the value of the bit which was read

Error Information:

Get the error code using GetError() function.

int error=GetError();

Example:

bool power=GetBit(@power_on@,2):

In this example, power on is the alias of LBO, so the function GetBit will read the bit value from LB2 and return to a BOOL variable power.

6.2.1.2 Read Word Register: GetWord

unsigned short GetWord(@Address Alias@, Address Offset):

Read one word from specified register address.

@Address Alias@: Select a word address register

Address Offset: An unsigned integer, Read Address=The address specified by @Address Alias@+Address Offset

Return Value: Unsigned Short Type, the value of the word which was read

Error Infomation: Get the error code using GetError() function.

int error=GetError();

Example:

unsigned short speed=GetWord(@Speed@,3):

The Alias @Speed@ represents the register LW0 in this example, so the target word register is LW3 (LW0+3), the value of LW3 is returned to an Unsigned Short variable named "speed".

short speed = (short) GetWord(@Speed@,3): //If use signed number, you can use force conversion.

6.2.1.3 Read Double Word Register: GetDWord

Unsignedint GetDWord(@Address Alias@, Address Offset):

Read a double word from a specified register address.

@Address Alias@: Select an address register (word or double word).

Address Offset: An unsigned integer, Read Address=The address specified by @Address Alias@+Address Offset.

Return Value: unsignedint type, the value of the double word which was read. If the address is word type, the function will return two consecutive words.

Error Information: Get the error code using GetError() function.

int error=GetError();

Example:

unsignedint speed=GetDWord(@Speed@,3):

The Alias @Speed@ represents the register LW0 in this example, so the target word register is LW3 and LW4, the value of LW3 and LW4 are returned to a Unsigned int variable named "speed".

int speed = (int) GetDWord(@Speed@,3): //If use signed number, you can use force conversion.

6.2.1.4 Read Float Register: GetFloat

floatGetFloat(@Address Alias@,Address Offset):

Read a single precision float number from specified register address.

@Address Alias@: Select a address register (word or double word)

Address Offset: An unsigned integer, Read Address=The address specified by @Address Alias@+Address Offset

Return Value: float type, the value of the float number stored in the Word register or two consecutive word registers which are read.

Error Information: Get the error code using GetError() function.

int error=GetError();

Example:

float speed=GetFloat(@Speed@,3):

The Alias @Speed@ represents the register LWO in this example, so the target word register is LW3 and LW4, the double word stored in LW3 and LW4 are returned to a float variable named "speed".

6.2.1.5 Read Consecutive Registers: GetMem

intGetMem(Array Pointer,@AddressAlias@,AddressOffset,Byte Number):

Read consecutive words from specified registers.

Array Pointer: pointer type, point to a pre-defined array.

@Address Alias@: select a register as the beginning address, could be a bit type or word type register.

Address Offset: an unsigned int number. The read beginning address=The address specified by @Address Alias@ + Address Offset.

Number of Bytes: an unsigned int number, specifying how many bytes should be read. Please note: Number of Bytes = sizeof (Type of the Array) * (number of elements in the array). The upper limit of Number of Bytes is 20480.

Return Value: int type, O-Failure, 1-Success.

Example:

unsigned short data[10];

int error = GetMem(data,@Array Data@,2,10*sizeof(unsigned short)):

In this example, @Array Data@ = LW0, so the function will return 10 words from the address starting from LW2.

char data[5];

int error = GetMem(data,@Array Data@,2,5):

@Array Data@ = LW0, so the function will read 3 words (each word contains 2 variables of char type, the higher half of the last word is invalid) and copy to the array named "data"

6.2.1.6 Set Bit Register: SetBit

intSetBit(@Address Alias@,AddressOffset,Set Value):

Write a bool value into one bit of a designated register address.

@Address Alias@: Select a bit address register

Address Offset: An unsigned integer, Target Address=The address specified by @Address Alias@+Address Offset.

Set Value: BOOL, the value to be written into the designated bit register, 0 or 1.

Return Value: int type, 0-Failure, 1-Success.

Example:

int error=SetBit(@power@,2,1)

In this example, power is the alias of LBO, so the function SetBit will write "1" into the bit LB2.

6.2.1.7 Set Word Register: SetWord

intSetWord(@Address Alias@,AddressOffset,Set Value):

Write one 16-bit number into a designated word register.

@Address Alias@: Select a word type address.

Address Offset: unsigned int, Target Address=The address represented by @Address Alias@+Offset.

Set Value: short type, the value to be written into the designated register.

Return Value: int type, 0-Failure, 1-Success.

Example:

short speed;

int error=SetWord(@Speed@,3,speed);

In this example, the alias @Speed@ refers to LWO, so the function will write the value of speed into the word register LW3 .

6.2.1.8 Set Double Word Register: SetDWord

boolSetDWord(@Address Alias@,AddressOffset,Set Value):

Write one 32-bit number into a designated word register, the register could be a Dword register or two consecutive word registers.

@Address Alias@: Select a word or dword type address.

Address Offset: unsigned int, Target Address=The address represented by @Address Alias@+Offset.

Set Value: int type, the value to be written into the designated register.

Return Value: int type, 0-Failure, 1-Success.

Example:

unsignedint speed;

int error=SetDWord(@Speed@,3,speed):

In this example, the alias @Speed@ refers to LWO, so the function will write the value of speed into the word registers LW3 and LW4.

6.2.1.9 Set Float Register: SetFloat

intSetFloat(@Address Alias@,AddressOffset,Set Value):

Write one single precision float number into a designated word register.

@Address Alias@: Select a word or dword type address.

Address Offset: unsigned int, Target Address=The address represented by @Address Alias@+Offset.

Set Value: float type, the float value to be written into the designated register.

Return Value: int type, 0-Failure, 1-Success.

Example:

float speed=3.14;

int error=SetFloat(@Speed@,3,speed):

In this example, the alias @Speed@ refers to LWO, so the function will write the value of speed into the dword registers consist of LW3 and LW4.

6.2.1.10 Set Consecutive Registers: SetMem

intSetMem(Array Pointer,@AddressAlias@,AddressOffset,Byte Number):

Write the array data into consecutive registers.

Array Pointer: pointer type, point to a pre-defined array.

@Address Alias@: A register as the beginning address. It can be a bit type or word type register.

Address Offset: an unsigned int number. The read beginning address=The address specified by @Address Alias@ + Address Offset.

Number of Bytes: an unsigned int number, specifying how many bytes should be read. Please note: Number of Bytes = sizeof (Type of the Array) * (number of elements in the array). The upper limit of Number of Bytes is 20480.

Return Value: int type, O-Failure, 1-Success.

Example:

unsigned short data[10];

int error = SetMem(data,@Array Data@,2,10*sizeof(unsigned short)):

In this example, @Array Data@ = LW0, so the function will copy 10 words to the 10 word register address starting from LW2.

char data[5];

int error = SetMem(data,@Array Data@,2,5):

@Array Data@ = LW0, so the function will copy the value from the array named "data" to 3 words starting from LW2(each word contains 2 variables of char type, the higher half of the last word is invalid)

6.2.2 System Functions

6.2.2.1 Call Macro: CallMacro

intCallMacro("Macro Name"):

Call Designated Macro.

Macro Name: The content within the double quotes is the name of the macro being called, don't use any file name suffix.

Return Value: int type, the return value of the main function of the macro will be returned.

Example:

int error = CallMacro("Macro_1");

6.2.2.2 Get Error Code: GetError

intGetError():

Get error code.

No input parameters.

Return Value: int type, the corresponding error code.

0-Not executed

1-Success

2-Timeout

3-Error

4-Socket word error

5-Communication failure

Example:

int error =GetError();

6.2.2.3 Delay Function: Delay

Delay(ms):

Delay Function, the input parameter is the number of mili-seconds, unsigned int type.

Return Value: None.

Example:

Delay(1000)://Delay 1000ms.

6.2.2.4 Set Com Parameters: SetComParam

intSetComParam(Port Number,BaudRate,databit,stopbit,checkbit,communication mode);

Port Number: the ID of com port, unsigned int type. 0-COM1, 1-COM2, 2-COM3...

Baud Rate: the speed of communication, int type. e.g. 9600, 115200

Date bit: the number of bits used as data, int type, 7,8

Stop bit: the stop bit, int type, 1,2

Check bit: specify the way of checking, int type, 'n' or 110-no check, 'o' or 111-odd check, 'e' or 101-even check

Communication mode: set the mode of communication, int type, 0-232, 1-485-4w, 2-485-2w.

Return Value: 0-Failed, 1-Success.

Example:

int error=SetComParam(0,115200,8,1,'n',2);//COM1,485-2w, 115200,8,1,N.

6.2.2.5 Com Data Output: Outport

intOutport(Port ID,BufferPointer,Data Quantity);

Please call the SetComParam function to initialize the serial port before call this function.

Port ID: the ID of com port, unsigned int type. 0-COM1, 1-COM2, 2-COM3...

Buffer Pointer: the pointer to the buffer array.

Data Quantity: unsigned short, the number of data to be sent out.

Return Value: the number of bytes of the output data.

Example:

unsigned char send_buff[]="Hello world!";

int error=Outport(1,send_buff,12);

6.2.2.6 Com Data Import: Inport

intInport(Port ID, BufferPointer, BufferSize, Timeout Limit):

Please call the SetComParam function to initialize the serial port before call this function.

Port ID:the ID of com port, unsigned int type. 0-COM1, 1-COM2, 2-COM3...

Buffer Pointer: the pointer to the buffer array

Buffer Size: The length of buffer being read, the size will be returned when read complete, maximum buffer size is 4096.

Timeout Limit: unit mS, if no data is received within nmS, or buffer is full, the receive function will return.

Return Value: the number of data actually be read, return value of -1 indicates error.

Example:

unsigned char recv_buff[];

intdata_count=Inport(1,recv_buff,16,10);

6.2.2.7 SQL Database Access Command: SqlCmd

intSqlCmd(Database file ID, SQL command string pointer);

Database file ID: int type, 0 represents the database for historical and alarm events; 1,2,3...represent the database file corresponding to the data sampling IDs.

SQL command string pointer: char type, pointer to the SQL command strings.

Return Value: int type, 1-Success, 0-Failed.

6.2.2.8 SQL Database Select: SqlSelect

intSqlSelect(Database file ID, SQL command string pointer, Buffer of inquiry results, Number of Rows Returned, Number of Columns Returned);

Database file ID: int type, 0 represents the database for historical and alarm events; 1,2,3...represent the database file corresponding to the data sampling IDs.

SQL command string pointer: char type, pointer to the SQL command strings.

Buffer of inquiry results: char type, pointer.

Number of Rows Returned: int type, the number of rows of the returned results.

Number of Columns Returned: int type, the number of columns of the returned results.

Return Value: int type, 1-Success, 0-Failed.

Example:

char **pResult;

intRow,Col;

int err=SqlSelect(2,"xxx",pResult,Row,Col);

SqlFree(pResult);

6.2.2.9 SQL Data Buffer Free: SqlFree

intSqlFree(Pointer to Database inquiry buffer);

Pointer to database inquiry buffer: Char Array pointer.

Return Value: int type, 1-Success, 0-Failure.

Example:

char **pResult;

intRow,Col;

int err=SqlSelect(2,"xxx",pResult,Row,Col);

SqlFree(pResult);

6.2.2.10 Debug Function: Debug

void Debug(Port ID,Format String,Var1,Var2...);

Please call the SetComParam function to initialize the serial port before call this function. But serial port initialization is not needed if only debug in the simulation window.

Port ID: the ID of com port, unsigned int type. 0-COM1, 1-COM2, 2-COM3...

Format String: the format of output string, usage is same as printf in C language.

Variables: the name of variables corresponding to the output strings, same usage as printf function in C programming language.

The format is defined below, [] indicates optional elements.

%[Designated Parameter][Identifier][Width][.Precision]Designator

If you want to output '%', please use '%%'. 1- Define the direction of processing. Negative sign means the direction is from backend to the beginning.2- The word element for space filling. 0 means fill 0s to the spaces.3- The width of the character.4- Precision, the number of decimal places.

Character Conversion:

%% Print % sign, no conversion

- %c Convert the integer to corresponding ASCII character
- %d Convert the integer to decimal number

%f Convert to floating number

%o Convert the integer to Octal numbers

%s Convert the integer to string

%x Convert the integer to lower case hexadecimal number

%X Convert the integer to upper case hexadecimal number

Example:

intitest=12;

floatftest=65.4321;

Debug(0,"itest=%d\n ftest=%2.3f\n",itest,ftest);

Output Result:

itest=12

ftest=65.432

6.2.3 Computation and Conversion Function

6.2.3.1 CRC check function, 16Bit

unsigned short CRC16(Array Pointer, Computation Length);

Array Pointer: point to the array being processed.

Computation Length: the number of bytes being processed.

Return Value: 16-bit CRC check value.

Example:

unsigned char data[]={5,6,3,2,18};

unsigned short crc16=CRC16(data,5);

6.2.4 Operator

6.2.4.1 Assignment Operator

=

Assignment operator for assignment.

Example:

inti;

i=100;

6.3 System Register Bits and Words List

| SRBO | Network connection status |
|-------|--|
| | SRB0=0: no connection. |
| | SRB0=1: network connection is normal |
| SRB1 | SRB1=1: Reset IP address immediately/re-obtain dynamic IP |
| 5101 | address immediately |
| SRB3 | SRB3=1: Reboot the system |
| SRB4 | SRB4=1: reboot and enter BOOT state (refresh state) |
| SRB5 | SRB5=0: light up the backlight, SRB5=1: turn off the |
| SKDS | backlight |
| SRB6 | SRB6=0: No SD card inserted, |
| SKBO | SRB6=1: SD card inserted |
| | SRB7~9=0: no USB flash drive inserted, SRB7~9=1: USB flash |
| SRB7 | drive inserted, SRB7~9 correspond to USB 1~3 inserted USB |
| | flash drives respectively |
| CDD10 | SRB10=0: Function key input lowercase characters, SRB10=1 |
| SRB10 | function key input corresponding uppercase characters |
| SRB11 | SRB11=0: USB download cable is not connected, SRB11=1: |
| | USB download cable is connected |
| 60510 | SRB12=1: mouse use allowed |
| SRB12 | SRB12=0: mouse disabled |
| R | |

| | SRB13=0: alphabetic keyboard displays letters, SRB13=1 |
|--------|--|
| SRB13 | alphabetic keyboard displays numbers and symbols |
| SRB14 | SRB14=0: use English input, SRB14=1: use Pinyin input |
| SRB15 | SRB15=1: force disable alarm beeping |
| | When the touch is pressed, SRB16 turns ON and the X and Y |
| SRB16 | coordinates of the touch position are displayed in SRW450 |
| | and SRW451. |
| | When SRB17 is ON, RW, recipe and other power-down hold |
| SRB17 | data is written immediately. The default is OFF, when |
| SKUT | buffered writing is used, so if power is suddenly lost, the last |
| | few seconds to a minute of data will be lost. |
| | If SRB18 is set to 1, the system will safely eject the SD card, |
| SRB18 | to reuse the SD card, please re-plug the SD card or reboot |
| 51010 | the HMI, you can use SRB6 to check if the SD card has been |
| | ejected. |
| SRB19 | Use SRB7 to check if the USB stick has been ejected. |
| SRB20 | After changing the COM1 communication setting, setting |
| | this position 1 will immediately apply the change. If this |
| | position is not set, it will only take effect after a reboot. |
| SRB21 | After changing the COM2 communication mode setting, the |
| SKD2 I | change will be applied immediately to position 1. If this |

| | position is not set, the change will only take effect after a |
|-------|--|
| | restart. |
| | After changing the COM3 communication mode setting, the |
| SRB22 | change will be applied immediately to position 1. If this bit is |
| | not set, the change will only take effect after a restart. |
| | After changing the COM4 communication mode setting, the |
| SRB23 | change will be applied immediately to position 1. If this |
| SKD25 | position is not set, the change will only take effect after a |
| | restart. |
| SRB30 | SRB30=1: User rights login |
| SRB31 | SRB31=1: Logout of user rights |
| SRB32 | SRB32=1: Add user rights |
| SRB33 | SRB33=1: Delete user rights |
| SRB34 | SRB34=1: Change the password of the current user rights |
| SRB35 | SRB35=1: revert to user information of the configuration |
| | project |
| SRB50 | Changes to box input IO point X0 will be reflected to this |
| | value |
| | Changes to the box input IO point X1 will be reflected to this |
| SRB51 | value |
| | |

| SRB52 | Changing the value of register SRB52 will change the output |
|--------|--|
| | state of the box Y0 point |
| SRB53 | Changing the value of register SRB53 will change the output |
| 2022 | state of the box at point Y1 |
| SRB70 | SRB70=1:Acknowledge all current alarm events |
| SRB71 | SRB71=1:Acknowledge all historical alarm events |
| SRB72 | SRB72=1:Clear the acknowledged current events |
| SRB73 | SRB73=1: Clear restored historical events |
| CDD101 | SRB101=1: Execute the display sub-macro for all |
| SRB101 | components |
| CDD102 | SRB102=1: Customized uppercase characters for Korean |
| SRB102 | input method |
| SRB103 | SRB103=1: File browse path set by SRW300 takes effect |
| SRB104 | SRB104=1: Disable scrolling input function for text elements |
| SRB105 | SRB105=1: No history is saved for 33~64 group alarms |
| SRB106 | SRB106=1: Trend graph hides out-of-range sampling points |
| | Confirm rebind when rebooting the device (valid only after |
| SRB110 | reboot if current flink serial number and bound serial |
| | number do not match and first trigger) |
| SRB111 | SRB111=1, rebind flink successful |

| SRB112 | SRB112=1, power on detects that the current flink and the bound flink serial number do not match |
|--------|---|
| SRB113 | Already bound HMI, when no flink flag bit is connected 1: no flink inserted 0: flink inserted |
| SRB114 | Internal use |
| SRB115 | Synchronized with the "Connected flink" field of the configuration project, =1 means used, =0 means not used, read only. |
| SRB120 | Network connection status of Ethernet 2 SRB120=0: no connection; SRB120=1: network connection normal |
| SRB121 | SRB121=1: Immediately reset the IP address of Ethernet 2 / immediately reacquire the dynamic IP address |
| SRB122 | WiFi immediately re-writes configuration and reconnects |
| SRB123 | WiFi connection status triggers a refresh |
| SRB124 | Start WiFi network scan |
| SRB125 | Cellular network status triggers refresh |
| SRB126 | SRB126=1: immediately resets all network parameters back to the same as the in-project settings (obtained from fshmi.bin) |
| SRB127 | Triggers saving of internet access, and url |
| SRB128 | Triggers saving of apn etc. |

| SRB140 | currently running project allows upload flag, read-only, |
|--------|--|
| | SRB140=1: upload allowed; SRB140=0: upload not allowed |
| | Current running project allows decompile flag, read-only, |
| SRB141 | SRB141=1: decompile allowed; SRB141=0: decompile not |
| | allowed. |
| | Current running project has set download password flag, |
| SRB142 | read-only, SRB142=1: download password set; SRB142=0: no |
| | download password set. |
| | Current running project has set the developer password flag, |
| SRB143 | read-only, SRB143=1: developer password set; SRB143=0: |
| | developer password not set. |
| | System recovery, restores the HMI to the state of waiting for |
| CDD144 | the configuration project to be downloaded, write-only. |
| SRB144 | SRB144 = 1: performs system recovery; SRB144 = 0: no |
| | action. |
| | System bit register, SRB147 to 1, triggers start of fshmi.logo |
| | file update and logo replacement; by trigger success floader |
| SRB147 | to 0. |
| | Check if the replacement is successful, using SRW70, out of |
| | error prompt. |
| 000450 | SRB150: control the user rights username and password byte |
| SRB150 | allocation method. |
| R. | · · · · · · · · · · · · · · · · · · · |

| | SRB150=0, SRW400 starts with 16 words for username and |
|----------|--|
| | SRW416 starts with 4 words for password. |
| | SRB150=1, SRW400 starts with 12 words for the user name |
| | and SRW412 starts with 8 words for the password. |
| SRB10000 | Power-down holding register, SRB10000=0: automatically |
| | obtain IP address (DHCP); SRB10000=1: statically assign IP |
| | address |
| SRB10010 | SRB10010=0: buzzer enable, SRB10010=1: buzzer disabled |
| SRB10011 | SRB10011=0: play sound normally, SRB10011=1: mute |
| SRB10012 | SRB10012=0: enable five-finger screen grab to return to |
| | main window blinking, SRB10012=1: disable five-finger |
| | screen grab to return to main window |
| 00010 | SRB10013=0: Allow modification of system time |
| SRB10013 | SRB10013=1: Disable modification of system time |
| SRB10014 | SRB10014=1: keyboard focus left/right movement by pixel |
| | SRB10014=0: Keyboard focus left/right movement by |
| | component addition order |
| | SRB10015=1: disable turning off the backlight or turning |
| SRB10015 | down the brightness when the alarm is not restored |
| SRB10016 | SRB10016=1: Enable keyboard arrow keys to control mouse |
| | movement and enter key to control left click |
| | |

| SRB10020 | SRB10020=0: disable VNC, SRB10020=1: enable VNC; |
|----------|---|
| | SRB10020=0: disable VNC |
| | SRB10020=1: VNC enabled; power down save |
| SRB10021 | SRB10021=0: Remote VNC can control interface; |
| | SRB10021=1: Remote VNC is display only, no control; power |
| | down save |
| SRB10022 | Read/write, power-down hold register, SRB10022=0: |
| | automatically obtain IP address (DHCP); SRB10022=1: |
| | statically assigned IP address (Ethernet 2) |
| SRB10030 | Disable register power-up initialisation: when set to 1, |
| | power-up does not immediately initialise all register values. |
| | Valid for the case of variable station numbers. |
| SRB10031 | SRB10031=1 : loading string is not displayed at boot, |
| | SRB10031=0 : loading string is displayed at boot |
| SRB10032 | Used by the template as a control bit to pop up the program |
| | update window. SRB10032=1 : pop up, SRB10031=0 : no |
| | action |
| SRW0 | System date: year in the format 20xx |
| SRW1 | System date: month |
| SRW2 | System date: day |
| SRW3 | System time: hour |
| | |

| _ | |
|---------|--|
| SRW4 | System time: minutes |
| SRW5 | System time: seconds |
| SRW6 | System time: milliseconds |
| SRW7 | System date: day of week |
| SRW10 | HMI MAC address, SRW10~15, the lower address of each |
| | WORD indicates a MAC segment. Read only, not rewritable. |
| 50\//20 | Product model ID, SRW20~21, ID number of the product |
| SRW20 | model |
| | Factory date, SRW24~26, the date the product was shipped |
| SRW24 | from the factory, corresponding in order: year: month: day |
| SRW27 | HMI current color depth, 16-16 bit color, 24-24 bit color, |
| | read only |
| 50\//20 | Software version number, SRW30~36, in order: Boot, Kernel, |
| SRW30 | Rootfs, Floader, Fgui, Fcs, Fds |
| SRW40 | Product hardware serial numbers, SRW40~45, 96 digits in |
| | total, unique worldwide |
| | Used for operation confirmation in security settings: 1 - |
| SRW50 | Confirm operation execution, 2 - Cancel operation |
| | Communication message code, communication timeout, |
| SRW60 | error, etc., occupies one word register |
| SRW61 | Device number of the communication message |

| SRW62 | Port number where the communication message is located |
|-------|--|
| SRW63 | The PLC station number where the communication message |
| | is located |
| SRW64 | Set the communication timeout or error pop-up time in |
| | seconds (0 means default 3 seconds) |
| SRW65 | Set the time to hold the system prompt pop-up in seconds |
| | (0 means default 3 seconds) |
| | System information codes. |
| SRW70 | 1: Input overrun. |
| | 2: processing in progress. |
| | 3: operation successful. |
| | 4: data transfer out of bounds. |
| | 5: Out of memory. |
| | 6: macro execution error. |
| | 7: password input error. |
| | 8: failed to connect to the server. |
| | 9: operation failure. |
| | 10: current user rights do not match. |
| | 11: successful logout. |
| | 12: user repeatedly logged in. |
| | 13: SD card not detected. |

| 14: U-drive 1 not detected. |
|---|
| 15: U-disk 2 not detected. |
| 16: database upgrade in progress, please wait. |
| 17: query in progress, please wait. |
| 18: Printing failed. |
| 19: Printing busy. |
| 20: preparing report for printing. |
| 24: HMI remaining space is less than 3M. |
| 25: SD card with less than 3M remaining space. |
| 26: USB1 remaining space less than 3M. |
| 27: insufficient space left for USB2 of 3M. |
| 30: Media file format error. |
| 31: media file playback failure. |
| 32: password setting too short. |
| 33: media playback not supported by 16-bit color. |
| 34: unsupported video encoding format. |
| 35: capacitive touch does not need to be calibrated (only |
| Allwinner platforms will give this indication). |
| 128: operation successful. |
| 137: file does not exist. |
| 138: wrong file type. |

| 139: operation failed. 140: file already exists. 141: user password error. 142: Insufficient memory on screen. 143: insufficient memory on SD card, USB stick. 144: Incorrect developer password. 145: target model restricted, please change to the correct HMI. |
|---|
| 141: user password error. 142: Insufficient memory on screen. 143: insufficient memory on SD card, USB stick. 144: Incorrect developer password. 145: target model restricted, please change to the correct HMI. |
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| 144: Incorrect developer password. 145: target model restricted, please change to the correct HMI. |
| 145: target model restricted, please change to the correct HMI. |
| HMI. |
| |
| |
| 146: current HMI model does not support this function. |
| 147: upgrade file not detected. |
| 148: abnormal upgrade file. |
| 149: the upgrade file version is the same as the current |
| version. |
| 150: Upgrade in progress, please wait |
| 151: Kernel upgrade failed. |
| 152: kernel upgrade successful. |
| SRW76~77: Double-word type, showing the maximum space |
| (in bytes) of the HMI disk |
| SRW78~79: double word type, displaying the used space of SRW78 |
| HMI disk (in bytes) |

| SRW80 | SRW80~81: Double-word type, displaying the amount of |
|--------|--|
| | RAM memory currently occupied by the system |
| SRW84 | SRW84~85: Double-word type, displaying the upper limit of |
| | the amount of RAM memory available to the system |
| SRW88 | Display the time interval (in milliseconds) of the system cyclic |
| | scan |
| SRW96 | SRW96~99: 4 words, developer password |
| | Enter the user registration password for verification. |
| SRW100 | Occupies SRW100~103, 4 words, please use the text input |
| | element to read or display the password value |
| SRW104 | Read-only register, display the current password level of the |
| | basic window. SRW104, occupies 1 word |
| SRW105 | Forced change of the current password level, note that it can |
| | only be switched from a high level to a low level. SRW105, |
| | occupies 1 word |
| SRW120 | SRW120~135; COM1 connected device communication |
| | status by station number, occupies 16 words, each word has |
| | 16 bits, corresponding to station number 0~255. e.g. |
| | SRW120 with Bit3 of 1 means that the serial port is |
| | connected to station number 3 device communication error. |

| I | 1 1 |
|--------|--|
| SRW140 | SRW140~155;COM2 connected device communication status |
| | by station number, occupies 16 words, each word has 16 |
| | bits, corresponding to station number 0~255. e.g. SRW140 |
| | with Bit3 of 1 means the serial port connected device of |
| | station number 3 has communication error. |
| SRW160 | SRW160~175;COM3 connected device communication status |
| | by station number, occupies 16 words, each word has 16 |
| | bits, corresponding to station number 0~255. e.g. SRW160 |
| | with Bit3 of 1 means the serial port is connected to station |
| | number 3 device communication error. |
| SRW180 | SRW180~195; COM4 connected device communication |
| | status by station number, occupying 16 words, each word 16 |
| | bits, corresponding to station number 0~255. e.g. SRW180 |
| | with Bit3 of 1 means the serial port connected device |
| | communication error of station number 3. |
| SRW200 | SRW200~215, 16 words in total, are generally used as |
| | character display elements to display the input process of |
| | characters when the keyboard is popped up |
| SRW220 | SRW220~235, 16 characters in total, generally used as a |
| | character display element to show the maximum value of the |
| | input range of the current value input element |
| | |

| SRW240 | SRW240~255, 16 characters in total, generally used as a |
|---------|---|
| | character display element to show the minimum value of the |
| | input range of the current numeric input element |
| | SRW260 to 275, 16 characters in total, generally used as a |
| SRW260 | character display element to show the historical value of the |
| | current numeric input before it enters the input state |
| | Input keyboard control word, currently only SRW280.0 is |
| | valid, SRW280.0 is ON means that the alternative word |
| SRW280 | window coordinates (SRW281,SRW282) are in effect |
| | SRW280.0 is OFF to indicate that the alternative word |
| | window coordinates are fixed at the page coordinates (0,0). |
| CDW/201 | Single character, input method alternative window x- |
| SRW281 | coordinate, relative to keyboard window |
| CDW/202 | Single character, Y-coordinate of input method alternative |
| SRW282 | window, relative to keyboard window |
| SRW283 | Input method type, 0 - Pinyin input method, 1 - Korean input |
| | method |
| SRW300 | SRW300~349, total 50 characters, general use character |
| | component, displaying the absolute path string currently |
| | selected by the file browser component |
| | |

| SRW350 | SRW350~389, 40 characters, general character element, |
|----------|---|
| | displays or enters the file name of the file browser element, |
| | excluding the path |
| | SRW390, actions performed after confirmation of the |
| | document viewing element. |
| | 0-cancel or no operation. |
| CD/4/200 | 1-Import of the project to the HMI. |
| SRW390 | 2-Export from HMI to SD card or USB stick. |
| | 3-Importing recipes to the HMI. |
| | 4-Export of recipes to SD card or USB stick. |
| | 5-Other file operations |
| | Clean-up operations done before importing the project to |
| | the HMI. |
| SRW391 | BIT0: Clears the RW, |
| | BIT1: Clears the recipe |
| | BIT2: Clears data sampling records and alarm event history |
| | BIT3: Clears special register values |
| | Result of the import and export operation. |
| CD(1/202 | 128: Operation successful 0x80 |
| SRW392 | 137: File does not exist 0x89 |
| | 138: File type error 0x8a |

| | 139: Operation failed 0x8b |
|---------|--|
| | 140: File already exists 0x8c |
| | 141: User password error 0x8d |
| | 142: Insufficient HMI memory space 0x8e |
| | 143: External memory storage space is insufficient 0x8f, |
| | 132: U disk format is not correct, please replace the U disk |
| | with Fat format 0x84 |
| | 144: Developer password error 0x90 |
| | 145: Screen does not match the model selected by the |
| | project 0X91 |
| | The user uploads a password store that takes up 4 |
| | characters, the password can be any combination of 0 to 9 |
| SRW394 | and supports a maximum of 8 numbers. Note that for |
| 3870394 | example 0123 and 00123 are different passwords. Occupies |
| | SRW394~397, 4 words in total, please use ASCII components |
| | to read or display the password value |
| SRW398 | Minimum length of user password |
| SRW399 | User number for user rights login |
| | User permission user name string, occupies 16 characters, |
| SRW400 | you can enter 16 Chinese characters or 32 English and |
| | numeric characters |

| | Password for user rights setting, occupies 4 characters, |
|---------|---|
| SRW416 | password can be any combination from 0 to 9, maximum |
| | support 8 numbers. Note that for example, 0123 and 00123 |
| | are different passwords. Use ASCII input, please use the text |
| | input element to operate |
| | Double word, shows the current user rights, each bit |
| SRW420 | corresponds to a BIT, BIT0 corresponds to permission 1, BIT1 |
| | corresponds to permission 2 |
| | Double word to set the new user rights, each bit corresponds |
| SRW422 | to a BIT, BIT0 corresponds to right 1, BIT1 corresponds to |
| | right 2 |
| CD14424 | Set the automatic logout time for new users (in minutes), 2 |
| SRW424 | words |
| | Set the new password for the new user or the new password |
| SRW426 | for the modified password, accounting for 4 characters, the |
| | password can be any combination from 0 to 9, the maximum |
| | number of numbers supported is 8. Note that for example, |
| | 0123 and 00123 are different passwords. Use ASCII input, |
| | please use the text input element to operate |
| SRW430 | Set the confirmation password for adding a new user or |
| | changing a password, accounting for 4 characters |
| SRW434 | Display of the currently logged in user name, 16 characters |
| | |

| SRW449 | Delay time for issuing a super read after numeric entry or clicking a switch, time value = set value * 100 ms. Default value 0 for 100 ms. |
|--------|--|
| SRW450 | SRW450: When the touch is pressed, SRB16 is set to ON and SRW450 is the X coordinate value of the current touch point |
| SRW451 | SRW451: When the touch is pressed, SRB16 is set to ON and SRW451 is the Y-coordinate value of the current touch point |
| SRW456 | The key code value of the current key press, occupies 2 words |
| SRW458 | Set the determination time of USB keyboard key release, time value = set value * 200 ms. SRW458 default value 0, means 200 ms. |
| SRW460 | The serial number of the box/screen, accounting for 12 characters, 6 characters in total |
| SRW466 | Box/screen password, 4 characters, 2 words |
| SRW480 | System prompt masking bit, 16 characters in total. SRW480.x is the ON masking SRW70=x corresponding to the prompt. For example: SRW480.1 shield input over limit, SRW480.F shield not detected U disk 2, SRW481.0 shield database upgrade in progress. |

| SRW496 | Communication prompt masking bits (SRW496.1 is ON to mask communication timeout prompts, SRW496.2 to mask |
|---------|---|
| 3800490 | communication error prompts) |
| | SRW630~633; Network PLC communication status bits, 4 |
| | single words indicate the status of up to 63 remote PLCs, a |
| | bit value of 1 indicates that the corresponding remote PLC |
| | communication is abnormal, a value of 0 indicates that the |
| CDW/C20 | corresponding remote PLC communication is normal or |
| SRW630 | unused. |
| | For example, a value of 1 for SRW630.1 indicates that the |
| | first remote PLC is communicating abnormally, and a value |
| | of 1 for SRW630.2 indicates that the second remote PLC is |
| | communicating abnormally. |
| | SRW640~655, network PLC communication status bits, set to |
| SRW640 | 1 means the corresponding network PLC communication is |
| | abnormal, set to 0 means the corresponding network PLC |
| | communication is normal or not in use. For example, |
| | SRW640.0 is 1, which means the first network PLC |
| | communication is abnormal, SRW640.1 is 1, which means the |
| | second network PLC communication is abnormal. |

| Display the length of the scan gun input characters (in |
|---|
| bytes), the user needs to clear this length value after reading |
| the content of SRW700 |
| SRW700~799:Display the content of the scan gun input |
| characters |
| COM1 automatically blocked station number: SRW800~815; |
| occupies 16 words, each word has 16 bits, one bit |
| corresponds to one station number, indicating station |
| number 0~255. 1 - the corresponding station number has |
| been automatically blocked communication; 0 - the |
| corresponding station number is normal communication. |
| Example: Bit 3 of SRW800 is 1, which means that the station |
| number 3 device connected to COM1 has been blocked |
| automatically due to abnormal communication. This register |
| is valid when SRW10230 is set to allow automatic blocking. |
| COM2 is automatically blocked station number: |
| SRW820~835; occupies 16 words, each word has 16 bits, one |
| bit corresponds to one station number, indicating station |
| number 0~255. 1 - the corresponding station number has |
| been automatically blocked communication; 0 - the |
| corresponding station number is normal communication. |
| |

| Example: Bit 2 of CDW/220 is 1 which means that the stati | |
|--|------------|
| Example: Bit 3 of SRW820 is 1, which means that the station | on |
| number 3 device connected to COM2 is blocked | |
| automatically due to abnormal communication. This regis | ter |
| is valid when SRW10280 is set to allow automatic blocking | j . |
| COM3 is automatically blocked station number: | |
| SRW840~855; occupies 16 words, each word has 16 bits, | one |
| bit corresponds to one station number, indicating station | |
| number 0~255. 1 - the corresponding station number has | |
| been automatically blocked communication; 0 - the | |
| SRW840 corresponding station number is normal communication. | |
| Example: Bit 3 of SRW840 is 1, which means that the statio | on |
| number 3 device connected to COM3 has an abnormal | |
| communication and is automatically blocked. This register | ' is |
| valid when SRW10330 is set to allow automatic blocking. | |
| COM4 is automatically blocked station number: | |
| SRW860~875; occupies 16 words, each word has 16 bits, o | one |
| bit corresponds to one station number, indicating station | |
| SRW860 number 0~255. 1 - the corresponding station number has | |
| been automatically blocked communication; 0 - the | |
| corresponding station number is normal communication. | |

| | Example: Bit 3 of SRW860 is 1, which means that the station |
|---------|---|
| | number 3 device connected to COM4 has been blocked |
| | automatically due to abnormal communication. This register |
| | is valid when SRW10380 is set to allow auto-masking. |
| | Ethernet communication automatically blocked devices: |
| | SRW880~895; occupies 16 words, each word has 16 bits, one |
| | bit corresponds to one Ethernet device, indicating the 0th to |
| | 255th device in the network PLC setting, blocking |
| | communication by IP to close the channel. |
| | 1 - the IP set for the corresponding device has been |
| SRW880 | automatically blocked from communication; 0 - the |
| | corresponding device is communicating normally. |
| | Example: Bit3 of SRW880 is 1, which means that the 3rd |
| | Ethernet device is communicating abnormally and the IP set |
| | is automatically blocked. This register is valid when |
| | SRW10518 is set to allow auto-masking. |
| SRW900 | HMI MAC2 address, assigned to Ethernet 2, SRW900~905, |
| | the lower address of each WORD indicates a MAC segment. |
| | Read only, not rewritable. |
| SRW1020 | Box online status, 1: box online, 0: box offline |
| SRW1021 | Box network type, 1: Ethernet, 2: GPRS, 4: WIFI, 5: 4G |
| SRW1022 | Box unlimited signal strength: 0 min, 8 max |
| | 1 |

| SRW1000SRW1000~1001, double word (unit hundred milliseconds). 1SRW1000is accumulated every hundred milliseconds starting from normal operation of GUI, zero is cleared for GUI reboot.BarrowDisplay IoT MQTT function using driver version number, occupies 1 word, segmented value display, takes value 0~65535. version explanation: V a.b.c, SRW1070 = a*1000+b*100+c.SRW1080FS version number first field from left to right, read only, occupies 1 word, decimal unsigned number taking values from 0 to 15.SRW1081FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1082~1083FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.SRW1090Product model ID, SRW1090~1091, the ID number of the product model ID, SRW1090 | _ | |
|---|--------------|--|
| Normal operation of GUI, zero is cleared for GUI reboot.Display IoT MQTT function using driver version number, occupies 1 word, segmented value display, takes value 0~65535. version explanation: V a.b.c, SRW1070 = a*1000+b*100+c.SRW1080FS version number first field from left to right, read only, occupies 1 word, decimal unsigned number taking values from 0 to 15.SRW1081FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1082~1083FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | SRW1000 | SRW1000~1001, double word (unit hundred milliseconds). 1 |
| SRW1070Display IoT MQTT function using driver version number, occupies 1 word, segmented value display, takes value 0~65535. version explanation: V a.b.c, SRW1070 = a*1000+b*100+c.SRW1080FS version number first field from left to right, read only, occupies 1 word, decimal unsigned number taking values from 0 to 15.SRW1081FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1081FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | | is accumulated every hundred milliseconds starting from |
| SRW1070occupies 1 word, segmented value display, takes value 0~65535. version explanation: V a.b.c, SRW1070 = a*1000+b*100+c.SRW1080FS version number first field from left to right, read only, occupies 1 word, decimal unsigned number taking values from 0 to 15.SRW1081FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1081FS version number, second field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | | normal operation of GUI, zero is cleared for GUI reboot. |
| SRW10700~65535. version explanation: V a.b.c, SRW1070 = a*1000+b*100+c.SRW1080FS version number first field from left to right, read only, occupies 1 word, decimal unsigned number taking values from 0 to 15.SRW1081FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1081FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | | Display IoT MQTT function using driver version number, |
| 0~65535. version explanation: V a.b.c, SRW1070 = a*1000+b*100+c.FS version number first field from left to right, read only, occupies 1 word, decimal unsigned number taking values from 0 to 15.SRW1080FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1081FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | CDW1070 | occupies 1 word, segmented value display, takes value |
| SRW1080FS version number first field from left to right, read only, occupies 1 word, decimal unsigned number taking values from 0 to 15.SRW1081FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1081FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | SKW1070 | 0~65535. version explanation: V a.b.c, SRW1070 = |
| SRW1080occupies 1 word, decimal unsigned number taking values from 0 to 15.FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1081FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | | a*1000+b*100+c. |
| from 0 to 15.SRW1081FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1082~1083FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | | FS version number first field from left to right, read only, |
| SRW1081FS version number, second field from left to right, read-only, occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1082~1083FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | SRW1080 | occupies 1 word, decimal unsigned number taking values |
| SRW1081occupies 1 word, decimal unsigned number in the range 0 to 15.SRW1082~1083FS version number, third field from left to right, read-only, occupies 2 characters, decimal unsigned number in the range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | | from 0 to 15. |
| 15.SRW1082~1083SRW1082~1083range 0 to 16777215.Product model ID, SRW1090~1091, the ID number of the | SRW1081 | FS version number, second field from left to right, read-only, |
| SRW1082~1083 FS version number, third field from left to right, read-only, SRW1082~1083 occupies 2 characters, decimal unsigned number in the range 0 to 16777215. Product model ID, SRW1090~1091, the ID number of the | | occupies 1 word, decimal unsigned number in the range 0 to |
| SRW1082~1083 occupies 2 characters, decimal unsigned number in the range 0 to 16777215. Product model ID, SRW1090~1091, the ID number of the | | 15. |
| range 0 to 16777215. Product model ID, SRW1090~1091, the ID number of the | | FS version number, third field from left to right, read-only, |
| Product model ID, SRW1090~1091, the ID number of the | SRW1082~1083 | occupies 2 characters, decimal unsigned number in the |
| | | range 0 to 16777215. |
| SRW1090 product model in ASCII string form See SRW20 for numeric | SRW1090 | Product model ID, SRW1090~1091, the ID number of the |
| product model. In Asen string form. See Stw20 for humene | | product model. in ASCII string form. See SRW20 for numeric |
| form. | | form. |
| SRW1092~1093 Internal use | SRW1092~1093 | Internal use |
| Displays the product hardware version number, | CD1// 00 / | Displays the product hardware version number, |
| SRW1094 corresponding to the hardware version number area of the | SRW1094 | corresponding to the hardware version number area of the |

| | EEPROM or eMMC memory, occupying 1 word. Numeric |
|----------|---|
| | form, takes values from 0 to 65535. |
| | Error code for the address mapping function. 0 = normal, -1 |
| | = error registering entry to FDS, 2 = mapping device driver |
| SRW1161 | communication timeout, 3 = mapping device driver |
| | communication error, 6 = FDS error, occupies 1 word, read |
| | only [modbus rtu sever and modbus tcp sever]. |
| | HMI IP address setting, power down hold, SRW10010~13, |
| SRW10010 | each WORD represents an IP segment. Read/write when |
| | static, read-only when dynamic. |
| | HMI subnet mask setting, power down hold, SRW10014~17, |
| SRW10014 | each WORD represents one IP segment, read/write in static, |
| | read-only in dynamic. |
| | HMI Gateway setting, power-down hold, SRW10018~21, |
| SRW10018 | each WORD represents an IP segment, read/write at static, |
| | read-only at dynamic. |
| | DNS1 setting, power-down hold, SRW10022~25, each |
| SRW10022 | WORD represents an IP segment, read/write at static time, |
| | read-only at dynamic time. |
| | DNS2 setting, power-down hold, alternate DNS, |
| SRW10026 | SRW10026~29, each WORD represents an IP segment, |
| | read/write at static, read-only at dynamic. |

| | LAN IP address setting for local ETH, power-down hold, |
|------------|---|
| SRW10030 | SRW10030~33, each WORD represents an IP segment. Read |
| | and write available when static. |
| | Reset switch short pulse width setting, occupies 1 word, |
| SRW10039 | takes the value 0~200, unit milliseconds, default value 0, |
| 31.0010035 | means 100 milliseconds. Effective around 5 seconds after |
| | modification |
| | Screen saver time, SRW10040, the product after a period of |
| SRW10040 | time without operation, jump screen saver screen, power |
| | down to save |
| SRW10041 | Backlight off time, SRW10041, after a period of no operation, |
| | the product automatically turns off the backlight, power off |
| | is saved |
| | Turn down the brightness time, SRW10042, after a period of |
| SRW10042 | no operation, turn down the brightness, power down and |
| | save |
| SRW10050 | Modify the current language number, SRW10050, and save it |
| | at power down. |
| | 0 means use language 1, |
| | 1 means that language 2 is used, |
| | and so on |
| SRW10051 | SRW10051, rotate display, power down save |
| | |

| | 0: normal |
|------------|--|
| | 1: 90 degrees vertical |
| | 2: 270 degrees vertical |
| | 3: Inverted |
| | Note: Adaptive adjustment is not possible, you need to |
| | adjust the width and height of the window before rotating. |
| SRW10052 | Set the current brightness percentage value 1~100, |
| SKW10052 | SRW10052, power down save. |
| SRW10053 | Set current volume percentage value 1~100, SRW10053, |
| 360010033 | power down save. |
| | Time zone setting. Take the value 1~82, corresponding to |
| SRW10055 | different time zones, other values (including 0) indicate East |
| | 8 (China), the default value is 0. |
| SRW10056 | Enable/disable synchronization of time from NTP server. |
| | SRW10056 = 1: synchronization allowed. = 2: |
| 51.0010050 | Synchronization is disabled. = other values (including 0): not |
| | defined. |
| | Configuration change flag. Occupies 1 word, 1 before |
| SRW10057 | configuration download, after download, value is 2. Needs to |
| | be cleared by user. [floader]. |

| Set the maximum execution time of macro instruction, unit |
|---|
| hundred milliseconds, 0 - no limit, 1 - macro instruction |
| execution time (not including the communication time of |
| reading and writing registers) exceeds 100mS, forcibly |
| terminate the macro instruction. The default value is 10 i.e. |
| 1S, power down and save. |
| Single character, font size setting for Pinyin input method, |
| 12~32 numbers. Power down save |
| Keyboard arrow keys to move the mouse in steps, unit: pixels |
| User level 1 password, password can be any combination of |
| 0~9, maximum support 8 numbers. Note that for example |
| 0123 and 00123 are different passwords. Occupies |
| SRW10110~113, 4 characters in total, please use ASCII |
| components to read or display the password value |
| User level 2 password, password can be any combination of |
| 0 to 9, maximum 8 digits supported. Note that for example |
| 0123 and 00123 are different passwords. Occupies |
| SRW10114~117, 4 words in total, please use ASCII |
| components to read or display the password value |
| User level 3 password, password can be any combination of |
| 0 to 9, maximum 8 digits supported. Note that for example |
| 0123 and 00123 are different passwords. Occupy |
| |

| | SRW10118~121, 4 words in total, please use ASCII |
|----------|---|
| | components to read or display the password value |
| SRW10122 | User level 4 password, password can be any combination of |
| | 0 to 9, maximum 8 digits supported. Note that for example |
| | 0123 and 00123 are different passwords. Occupy |
| | SRW10122~125, 4 characters in total, please use ASCII |
| | components to read or display the password value |
| | User level 5 passwords, passwords can be any combination |
| SRW10126 | of 0 to 9, maximum 8 digits supported. Note that for |
| | example 0123 and 00123 are different passwords. Occupy |
| | SRW10126~129, 4 characters in total, please use ASCII |
| | components to read or display the password value |
| | User level 6 password, password can be any combination of |
| | 0 to 9, maximum 8 digits supported. Note that for example |
| SRW10130 | 0123 and 00123 are different passwords. Occupy |
| | SRW10130~133, 4 characters in total, please use ASCII |
| | components to read or display the password value |
| | User level 7 password, password can be any combination of |
| SRW10134 | 0 to 9, maximum 8 digits supported. Note that for example |
| | 0123 and 00123 are different passwords. Occupy |

| | SRW10134~137, 4 characters in total, please use ASCII |
|----------|---|
| | components to read or display the password value |
| | User level 8 passwords, passwords can be any combination |
| | of 0 to 9, maximum 8 digits supported. Note that for |
| SRW10138 | example 0123 and 00123 are different passwords. Occupy |
| | SRW10138~141, 4 words in total, please use ASCII |
| | components to read or display the password value |
| | User level 9 passwords, passwords can be any combination |
| | of 0 to 9, maximum 8 digits supported. Note that for |
| SRW10142 | example 0123 and 00123 are different passwords. Occupy |
| | SRW10142~145, 4 characters in total, please use ASCII |
| | components to read or display the password value |
| | User level 10 passwords, passwords can be any combination |
| | of 0 to 9, maximum 8 digits supported. Note that for |
| SRW10146 | example 0123 and 00123 are different passwords. Occupy |
| | SRW10146~149, 4 words in total, please use ASCII |
| | component to read or display the password value |
| | User level 11 password, password can be any combination |
| SRW10150 | from 0 to 9, maximum 8 digits supported. Note that for |
| | example 0123 and 00123 are different passwords. Occupy |

| | SRW10150~153, 4 words in total, please use ASCII |
|----------|--|
| | components to read or display the password value |
| SRW10154 | User level 12 password, password can be any combination of |
| | 0 to 9, maximum 8 digits supported. Note that for example |
| | 0123 and 00123 are different passwords. Occupy |
| | SRW10154~157, 4 words in total, please use ASCII |
| | components to read or display the password value |
| | User level 13 password, password can be any combination of |
| SRW10158 | 0 to 9, maximum 8 digits supported. Note that for example |
| | 0123 and 00123 are different passwords. Occupy |
| | SRW10158~161, 4 words in total, please use ASCII |
| | components to read or display the password value |
| | User level 14 password, password can be any combination of |
| SRW10162 | 0 to 9, maximum 8 digits supported. Note that for example |
| | 0123 and 00123 are different passwords. Occupy |
| | SRW10162~165, 4 characters in total, please use ASCII |
| | components to read or display the password value |
| | User level 15 passwords, passwords can be any combination |
| SRW10166 | of 0 to 9, maximum 8 digits supported. Note that for |
| | example 0123 and 00123 are different passwords. Occupancy |

| | SRW10166~169, 4 characters in total, please use ASCII components to read or display the password value |
|-----------|---|
| | |
| SRW10180 | VNC control password, password verification has control rights, can be controlled remotely. No password, set to |
| | empty |
| | VNC monitoring password, password verification with |
| SRW10184 | monitoring rights, only monitoring, not control. No |
| | password, set to empty |
| | Occupies one word (16-bit unsigned number), used to set |
| SRW10199 | the delay time between HMI start and start of external |
| | communication, unit is second, take value 0~300. |
| | SRW10200~201;COM1 communication baud rate setting, |
| SRW/10200 | occupies a double word (32-bit unsigned number) to |
| SRW10200 | indicate: value range: 110~187500. power down to save, |
| | restart to take effect. |
| | SRW10202;COM1 communication data bit, occupies one |
| SRW10202 | word (16-bit unsigned number) to indicate: 8 - 8 data bits, 7 |
| | - 7 data bits, power down to save, restart to take effect. |
| | SRW10203;COM1 communication stop bit, occupies a word |
| SRW10203 | (16-bit unsigned number) indicating: 1 - 1 stop bit, 2 - 2 stop |
| | bits, power down save, restart effective. |

| SRW10204 | SRW10204;COM1 communication parity bit, occupies one |
|------------|--|
| | word (16-bit unsigned number) indicating: 0 - no parity, 1 - |
| | odd parity, 2 - even parity, power down save, restart |
| | effective. |
| | SRW10205;COM1 communication mode, occupies a word |
| SRW10205 | (16-bit unsigned number) indicating: 0-232,1-485-4w,2-485- |
| | 2w, power down save, restart effective. |
| | SRW10210~225;COM1 connected devices by station number |
| | shield communication, occupy 16 words, each word 16 bits, |
| | corresponding to the station number 0 ~ 255. For example, |
| CD\M/10210 | SRW10211 Bit3 set to 1 represents the serial port connected |
| SRW10210 | to the station number 19 of the device shield, no longer |
| | communicate. The relevant component data is no longer |
| | refreshed. The configuration is saved at power-down and |
| | takes effect immediately. |
| | Allow/prohibit COM1 auto-mask communication: SRW10230; |
| SRW10230 | occupies a word (16-bit unsigned number) indicating: 10 and |
| | above - allows automatic mask communication by station |
| | number in case of communication failure; 0 to 9 - prohibits |
| | auto-masking. |

| | The station number to be automatically blocked is viewed via |
|------------|---|
| | SRW800~SRW815. The retry period after auto-masking is set |
| | via SRW10231. |
| | COM1 auto-mask retry cycle: SRW10231; Sets the cycle time, |
| | in seconds, for the probe test after entering the auto-mask |
| | state. Occupies a word (16-bit unsigned number) to indicate |
| SRW10231 | that the default value is 0 for 10 seconds and takes a |
| | maximum value of 65535 seconds. |
| | This register is valid when SRW10230 is set to allow |
| | automatic masking. |
| | SRW10250~251;COM2 communication baud rate setting, |
| 50\\/10250 | occupies a double word (32-bit unsigned number) to |
| SRW10250 | indicate: value range: 110~187500. power down to save, |
| | restart to take effect. |
| SRW10252 | SRW10252;COM2 communication data bit, occupies one |
| | word (16-bit unsigned number) to indicate: 8 - 8 data bits, 7 |
| | - 7 data bits, power down to save, restart to take effect. |
| | SRW10253;COM2 communication stop bit, occupies a word |
| SRW10253 | (16-bit unsigned number) indicating: 1 - 1 stop bit, 2 - 2 stop |
| | bits, power down save, restart effective. |
| SRW10254 | SRW10254;COM2 communication parity bit, occupies one |
| 5KW10254 | word (16 unsigned digits) and indicates: 0 - no parity, 1 - |

| | odd parity, 2 - even parity, power down save, restart |
|------------|--|
| | effective. |
| | SRW10255;COM2 communication mode, occupies a word |
| SRW10255 | (16-bit unsigned number) indicating: 0-232,1-485-4w,2-485- |
| | 2w, power down save, restart effective. |
| | SRW10260~275; COM2 connected devices by station |
| | number shield communication, occupy 16 words, each word |
| | 16 bits, corresponding to the station number 0 ~ 255. For |
| CD14/102C0 | example, SRW10251 Bit3 set to 1 means that the serial port |
| SRW10260 | connected to the station number 19 of the device shield, no |
| | longer communicate. The relevant component data is no |
| | longer refreshed. The configuration is saved at power-down |
| | and takes effect immediately. |
| | Allow/Prohibit COM2 auto-mask communication: SRW10280; |
| SRW10280 | occupies a word (16-bit unsigned number) indicating: 10 and |
| | above - allows automatic mask communication by station |
| | number in case of communication failure; 0 to 9 - prohibits |
| | auto-mask. |
| | The station number to be automatically blocked is viewed via |
| | SRW820~SRW835. The retry period after auto-masking is set |
| | via SRW10281. |

| | COM2 auto-mask retry cycle: SRW10281; Sets the cycle time, |
|-----------|---|
| | in seconds, for communication probing after entering the |
| | auto-mask state. Occupies a word (16-bit unsigned number) |
| SRW10281 | to indicate that the default value is 0 for 10 seconds and |
| | takes a maximum value of 65535 seconds. |
| | This register is valid when SRW10280 is set to allow auto- |
| | masking. |
| | SRW10300~301;COM1 communication baud rate setting, |
| SRW10300 | occupies a double word (32-bit unsigned number) to |
| 380010300 | indicate: take the value range: 110~187500. power down to |
| | save, restart to take effect. |
| | SRW10302;COM3 communication data bit, occupies a word |
| SRW10302 | (16-bit unsigned number) to indicate: 8 - 8 data bits, 7 - 7 |
| | data bits, power down to save, restart to take effect. |
| | SRW10303;COM3 communication stop bit, occupies a word |
| SRW10303 | (16-bit unsigned number) indicating: 1 - 1 stop bit, 2 - 2 stop |
| | bits, power down save, restart effective. |
| SRW10304 | SRW10304;COM3 communication parity bit, occupies one |
| | word (16 unsigned digits) and indicates: 0 - no parity, 1 - |
| | odd parity, 2 - even parity, power down save, restart |
| | effective. |
| | |

| SRW10305 | SRW10305;COM3 communication mode, occupies a word |
|--------------|--|
| | (16-bit unsigned number) indicating: 0-232,1-485-4w,2-485- |
| | 2w, power down save, restart effective. |
| | SRW10310~325; COM3 connected devices by station |
| | number shield communication, occupy 16 words, each word |
| | 16 bits, corresponding to the station number 0 ~ 255. For |
| 001440040 | example, SRW10311 Bit3 set to 1 represents the serial port |
| SRW10310 | connected to the station number 19 of the device shield, no |
| | longer communicate. The relevant component data is no |
| | longer refreshed. The configuration is saved at power-down |
| | and takes effect immediately. |
| | Allow/prohibit COM3 auto-mask communication: SRW10330; |
| | occupies a word (16-bit unsigned number) indicating: 10 and |
| | above - allow auto-mask communication by station number |
| 6514/4 00000 | in case of communication failure; 0 to 9 - prohibit auto- |
| SRW10330 | mask. |
| | The station number to be automatically blocked is viewed via |
| | SRW840~SRW855. The retry period after auto-masking is set |
| | via SRW10331. |
| | COM3 auto-mask retry cycle: SRW10331; Sets the cycle time |
| SRW10331 | in seconds for communication probing after entering the |
| | auto-mask state. Occupies a word (16-bit unsigned number) |
| | |

| 1 | 1 |
|-----------|--|
| | to indicate that the default value is 0 for 10 seconds and |
| | takes a maximum value of 65535 seconds. |
| | |
| | This register is valid when SRW10330 is set to allow auto- |
| | masking. |
| | SRW10350~351;COM4 communication baud rate setting, |
| SRW10350 | occupies a double word (32-bit unsigned number) to |
| 360010330 | indicate: value range: 110~187500. power down to save, |
| | restart to take effect. |
| | SRW10352;COM4 communication data bit, occupies a word |
| SRW10352 | (16-bit unsigned number) to indicate: 8 - 8 data bits, 7 - 7 |
| | data bits, power down save, restart effective. |
| | SRW10353;COM4 communication stop bit, occupies one |
| SRW10353 | word (16-bit unsigned number) and indicates: 1 - 1 stop bit, |
| | 2 - 2 stop bits, power down save, restart effective. |
| | SRW10354;COM4 communication parity bit, occupies one |
| SRW10354 | word (16 unsigned digits) and indicates: 0 - no parity, 1 - |
| | odd parity, 2 - even parity, power down save, restart |
| | effective. |
| | SRW10355;COM4 communication mode, occupies a word |
| SRW10355 | (16-bit unsigned number) indicating: 0-232,1-485-4w,2-485- |
| | 2w, power down save, restart effective. |

| SRW10360 | SRW10360~375;COM4 connected devices by station number |
|----------|---|
| | shield communication, occupy 16 words, each word 16 bits, |
| | corresponding to the station number 0 ~ 255. For example, |
| | SRW10361 Bit3 set to 1 represents the serial port connected |
| | to the station number 19 of the device shield, no longer |
| | communicate. The relevant component data is no longer |
| | refreshed. The configuration is saved at power down and |
| | takes effect immediately. |
| SRW10380 | Allow/prohibit COM4 auto-mask communication: SRW10380; |
| | occupies a word (16-bit unsigned number) indicating: 10 and |
| | above - allows automatic mask communication by station |
| | number in case of communication failure; 0 to 9 - prohibits |
| | auto-masking. |
| | The station number to be automatically blocked is viewed |
| | via SRW860~SRW875. The retry period after auto- |
| | masking is set via SRW10381. |
| SRW10381 | COM4 auto-mask retry cycle: SRW10381; Sets the cycle time |
| | in seconds for communication probing after entering the |
| | auto-mask state. Occupies a word (16-bit unsigned number) |
| | to indicate that the default value is 0 for 10 seconds and |
| | takes a maximum value of 65535 seconds. |
| | |
| | , I |

| This register is valid when SRW10380 is set to allow automasking. SRW10500~10515; Network PLC communication mask bit, this mask bit is for IP, if more than one PLC is connected to the same IP at the same time, the communication of all the PLCs is blocked. For example: SRW10500.0 set to 1 to block communication of the first network PLC corresponding to the IP, |
|---|
| SRW10500~10515; Network PLC communication mask bit, this mask bit is for IP, if more than one PLC is connected to the same IP at the same time, the communication of all the PLCs is blocked. SRW10500 For example: SRW10500.0 set to 1 to block communication |
| this mask bit is for IP, if more than one PLC is connected to the same IP at the same time, the communication of all the PLCs is blocked.SRW10500PLCs is blocked.For example: SRW10500.0 set to 1 to block communication |
| the same IP at the same time, the communication of all the PLCs is blocked. SRW10500 For example: SRW10500.0 set to 1 to block communication |
| PLCs is blocked. SRW10500 For example: SRW10500.0 set to 1 to block communication |
| SRW10500 For example: SRW10500.0 set to 1 to block communication |
| For example: SRW10500.0 set to 1 to block communication |
| of the first network PLC corresponding to the IP, |
| |
| SRW10500.1 set to 1 to block communication of the secon |
| network PLC corresponding to the IP. |
| Allow/prohibit Ethernet auto-mask communication: |
| SRW10518; occupies a word (16-bit unsigned number) |
| indicating: 10 and above - allow auto-mask communicatio |
| by IP in case of communication failure; 0 to 9 - prohibit au |
| SRW10518 mask. |
| The auto-masked Ethernet devices are viewed via |
| SRW880~SRW895. The retry period after communication i |
| automatically blocked is set via SRW10519. |
| Ethernet device communication auto-mask retry period: |
| SRW10519; Sets the cycle time in seconds for |
| SRW10519 communication probing after entering the auto-mask state |
| It is expressed as a word (16-bit unsigned number) and the |

| | default value is 0 for 10 seconds, taking a maximum value of 65535 seconds. |
|----------|---|
| | This register is valid when SRW10518 is set to allow automatic masking. |
| SRW10520 | The 15 level passwords for SETUP mode, corresponding to |
| | SRW10110~169, occupy 60 words |
| SRW10590 | SRW10590~10593; remote PLC communication blocking bit, |
| | used to set whether remote PLC communication is blocked |
| | or not, 4 single words up to 63 remote PLCs are blocked, |
| | corresponding to position 1 means blocking this remote PLC. |
| | For example: SRW10590.1 is set to 1 to block the first remote |
| | PLC added, SRW10590.2 is set to 1 to block the second |
| | remote PLC added. |
| | Note: SRW10590.0 is not valid |
| SRW10600 | SRW10600~10601, user account disable bit, used to set |
| | whether the user account is disabled or not, 2 single words |
| | can disable up to 32 previous user accounts, corresponding |
| | bit setting 1 means disable. |
| | For example: SRW10600.0 set to 1 to disable account 1, |
| | SRW10600.1 set to 0 to not disable account 2. |

| SRW10610 | SRW10610~10641, user login failure count, 32 words in total, |
|----------|--|
| | each word indicates the number of failed login attempts for |
| | one account. |
| | For example, SRW10610 means the number of failed login |
| | attempts for account 1, SRW10641 means the number of |
| | failed login attempts for account 32. |
| SRW10700 | If 1, it means that the 4G box cannot use GSM and will be |
| | disconnected if it is found to be using GSM when connected |
| | to the 4G network. |
| SRW10710 | IP address setting for Ethernet 2, power down hold, |
| | SRW10710~13, each WORD indicates an IP segment. Static |
| | read/write, dynamic read only. |
| SRW10714 | Ethernet 2's Subnet Mask setting, Power Down Hold, |
| | SRW10714~17, each WORD represents an IP segment, |
| | read/write when static, read-only when dynamic. |
| SRW10718 | Ethernet 2's Gateway setting, Power down hold, |
| | SRW10718~21, each WORD represents an IP segment, |
| | read/write at static, read-only at dynamic. |
| SRW10722 | DNS1 setting for Ethernet 2, Power down hold, |
| | SRW10722~25, each WORD represents an IP segment, |
| | read/write at static, read-only at dynamic. |

| SRW10726 | DNS2 setting for Ethernet 2, Power Down Hold, Alternate |
|----------|---|
| | DNS, SRW10726~29, each WORD represents an IP segment, |
| | read/write at static, read-only at dynamic. |
| SRW10730 | LAN IP address setting for Ethernet 2, Power down hold, |
| | SRW10730~33, each WORD represents an IP segment. Read |
| | and write available when static. |