



Hou-XP PLC programming manual

Hou-XP PLC 编程手册

资料编号:19010221



Foreword

Foreword

Thank you for purchasing the company Kymmene development, production H0U-XP Programmable Controllers!

H0U-XP Programmable controller (hereinafter referred to as H0U-XP) Including logic (PLC), text(TOD) Two programming section, wherein the logic (PLC) Programming software AutoShop Software, text (TOD) Programming software HTodEditor Software, both developed by the UPM and distribution. Users can use the appropriate programming software, to achieve H0U-XP Logic (PLC) Or text (TOD) On the program control.

Welcome to the official website Inovance http://www.inovance.cn And download AutoShop , HTodEditor The latest version of the software and this manual Profile (Inc.) and the software and the softw

[Note]: In addition to the manual *1 Programming software and its installation, "involving presentation logic (PLC) Programming software AutoShop Content, the other main sections of text (TOD) Programming software HTodEditor On the use.

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1 Programming software and its installation

1.1 Logic programming software AutoShop Installation and Use

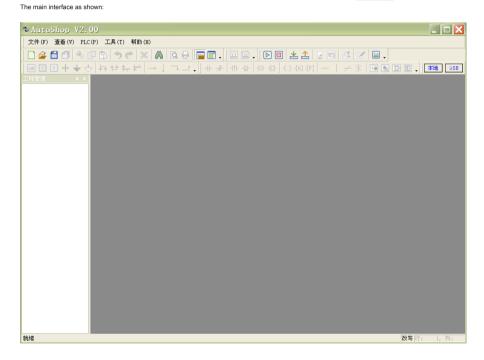
1) AutoShop Get Software

Access Kymmene company's official website http://www.inovance.cn,download AutoShop The latest version of the software, save to the local computer.

- 2) Installation: Follow the installation prompts to complete the software installation
- 3) start up

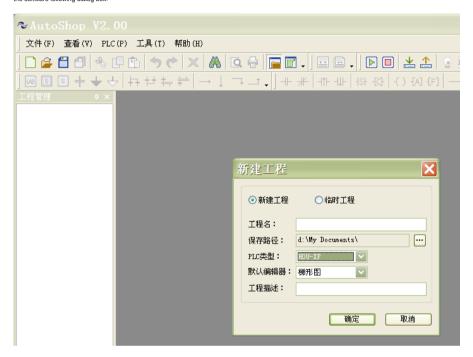
AutoShop When properly installed, from the Start menu on the desktop or click AutoShop icon



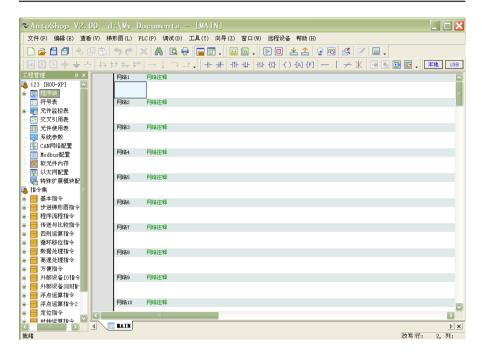


4) Build the project

After starting the programming environment, you first need to create a project for the preparation procedures. Click the "New Project" menu item "File" menu, the software following dialog box:



In this example, you can select new construction and temporary works in two modes, select PLC Type "HOU-XP "The default editor for the ladder, click the dialog box After selecting the" OK "button, a new project is created, and by default the main program into the programming state, as shown below:



More AutoShop Operating Instructions content software , Please refer to AutoShop software " help " Kymmene and the company issued additional " Kymmene Small PLC Instruction and programming manual ."

This manual describes the following Hau XP Text (TOD) Programming software HTodEditor The routine use, comprising a soft

Mounting instructions, quick start, parameter setting and display, controls, presentation, screen production, presentation, etc. Examples of content.

1.2 Text Programming Software HTodEditor installation

1) HTodEditor Software Description

HTod/Editor Software is mainly used for H_{ob} XP series PLC (H_{ob} Integrated programmable logic controller) for text editing, with a text display, key set, register set, menu, bar graph and trend line production, as well as a list of alarm display functions in the standard text function on the basis of increased authority and password PLC Control and other usability features.

2) Installation HTodEditor Programming Software

Software Source

HTodEditor Programming software developed by the Sichuan technology company, you may apply to the software vendor for the latest version, or on the website Kymmene technology: http://www.inovance.cn_Download, can be downloaded in China's industrial network Kymmene topic.

- Computer requirements (recommended)
 - CPU : Frequency 1G Above Intel or AMD product
 - RAM: 512MB or above
 - Hard disk: at least 500MB More free disk space
 - Display: Resolution Support 1024 x 768 More color display
 - Ethernet Port or USB Download the program on the screen using: port
 - operating system: Windows XP / Windows Vista / Windows 7 / Windows 2000 3) installation steps



Step one: Download the software to your computer, click on This time under the guidance prompts, click "Next":

[setup.exe] File, the screen will display the following window installation,



Step 2: Choose the software installation folder or select the default path and click "Next":



Step three: under the guidance prompt, click "Next" to confirm the installation, after the installation is complete click "Close" to complete the installation process.



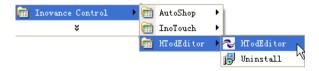




Step Four: To execute the program, you can click on the desktop



Inovance Control Find the corresponding executor under].



The meanings of the option under software directory as follows:

HTodEditor	Programming Software	
Uninstall	Uninstall software	

2 Getting Started

After installation is complete, click on the deskto 2 ; Or from a menu [Start] / [Programs] / [Inovance Control] To find the next

To the corresponding execution. As shown, click HTodEditor Can enter InoTouch Editor Software programming interface.

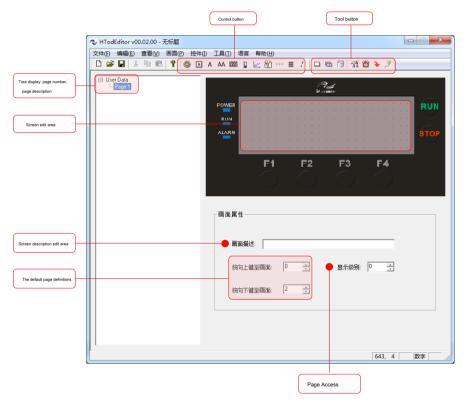


2.1 Structure and layout of the screen editing software

User screen for a product produced are stored in a single project, the basic element of a project is a screen. Each picture to complete certain functions, by designing the user can jump between different screens. Consisting of a collection of all the pictures, it is designed to develop application project files.

After opening the project, users can create or open a screen. Each picture can place text (in English), lamps, switches, data set window, jump keys. Can be achieved between the screen jump freely, the operator can complete the data monitoring, parameter setting, switch control, alarm list monitoring.

HTodEditor Structure and layout software after opening as shown below.

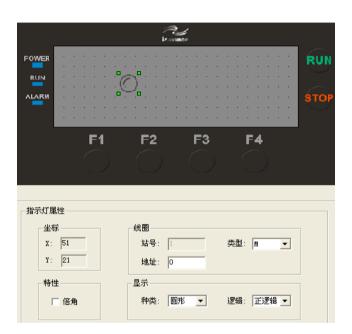


Screen edit area: evenly spaced black dots in the display area, the distance between the vertical and horizontal dots 16 Dot pitch, the whole picture is 192 × 64 lattice. When laying or mobile controls, referring to the dots nearby, easy to align controls. When designers use the mouse to drag a control movement, each movement distance 4 Point integer multiple.

Hou XP PLC Programming Manual 2 Getting Started

2.2 Make a simple project

Step one: first press the toolbar "New Project" button, To add a "light" control, click the control buttons (LEDs) in the window to complete the establishment of control buttons (LEDs) in the window to complete the



Step Two: Click the icon but the following dialog box, enter the project name, save the file.



Step three: the picture to download Houlntegrated programmable controller inside. Click the Tools button (file downloads), out of the following dialog box, click "Download."



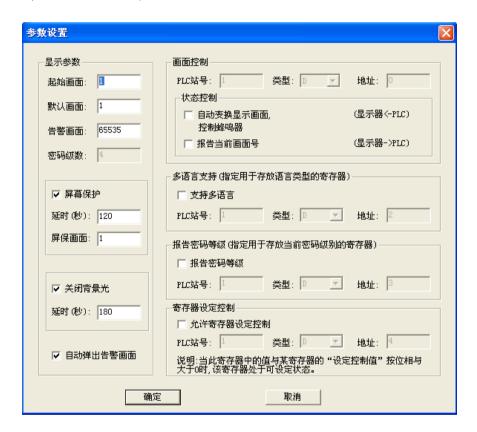
After the file is downloaded successfully, the interface will appear in the "File download completed"; If the download is unsuccessful, it will display "Connecting device ... failed."

Hou XP PLC Programming Manual 3 Parameter setting and display

3 Parameter setting and display

3.1 parameter settings

turn on HTodEditor Software menu "Tools / Parameter Settings", or click the Tools button (parameter set), enter the toll wing parameter setting interface, the object of the user defined characteristic parameters:



3.2 Display Parameters

Parameter Type	Parameter Description efine the start screen after power on display, generally used to display the welcome screen.			
Screen is used to defi				
The default screen is	used to set the default display screen, when ESC No special features, press ESC Button to jump to the default screen.			
Warning picture	After you define the screen, if there is an alarm message will automatically jump to the screen. And associated alarm list, alarm list define variables alarm occurs then jump to the page. If the alarm screen is afready editing screen, jump to the page when an alarm occurs. If the alarm screen is 65533 When an alarm occurs when the alarm Jump to the default page. * Note: You can also jump to the default page when an alarm if the alarm is not set the screen editing screen, an alarm occurs. Med password progression MSB 4 Level password. The password progression MSB 4 Level password. The password progression MSB 4 Level password in the screen saver automatically jump to the screen.			
The software-defined				
Screen Saver is no ke				
After closing the backlig				
Automatic pop-up repor	When the flag is used to define an alarm after alarm whether to jump to the screen. Warning signs defined "3.1 parameter settings-			

1) Screen Control

Screen control function is the interface number and text PLC Data register is associated. If you need this feature you first need to tick the relevant options for state control, and then sets text-related D Element address. With D0 Set context variables, for example, as shown below:



2) Multi-language support

Currently H_∞ Integrated programmable controllers only support Chinese and English languages. By storing the language register parameter settings to set the English switch. When storing the language is set to register 0 Text display Language1 Setting contents; When storing register is set to a language 0 Text display Language2 Setting content.

3) Report password level

If you check the report of the password level option, the current password level will be displayed to an associated PLC Register. (The software defines the most significant bit 4 Level password).

Hou. XP PLC Programming Manual 3 Parameter setting and display

4) Setting control register

If you check enable register setting control, when the value of this register is the lower eight bits of a register with "Set Control Value" by phase and more than 0 This register can be set in the state. See specific instructions later. "4.4 Register "one.

Screen Properties

First, enter the system initial screen (the default is 1 No.) editing state. Lower left corner of the interface is the current edit screen (1 No picture) properties, each picture has attributes, including the following figure:



Screen description	Describe the nature of the screen helps the designer, is only suggestive, can not fill. For example, enter "Main Menu."
Press the Up key until the screen	set specific screen number, display the current screen by pressing the up button [4], the display will jump to The screen number pointed to the screen.
Press the down arrow to the scre	en to set specific screen number, the current screen on the display press the up button [*], the display will jump to The screen number pointed to the screen.

Monitor is running, press [ESC] Key, [4] key or [7] Key to switch the screen is the most simple method. In addition, by setting the function keys can also realize screen jump.

Note:

- If the current screen [♣] key or [♥] Key as a function key, the window jumping attributes picture parameter does not work.
- If the [4] key or [7] keys to specify the screen does not exist, and jump to the screen number up or down sequentially extended up to 0 until.
- If the screen contains the control data set in the data set-up process, [4] key or [*] Button to complete the value subtraction function, when the value is set to exit the state, [4] key or [*] Key to restore the screen jump function.

4 Controls

HTodEditor Providing the lights, buttons, static text, dynamic text, register, bar graph and trend, pictures, menus, alarms, etc. 10 Species controls These controls are described as follows:

Controls	Control Name	Function Description	
Lights		display PLC Switch status of internal relays.	
D	Function keys	MD204L bottom 8 Keys and other 12 Numerical input keys can be defined as function keys. The role of function keys include screen jump and switch control.	
$ \mathbf{A} $	Static text input languag	es, including Chinese characters and English letters.	
AA	Create a dynamic t	ext Dynamic text, text can be made PLC Register control switch.	
register Placing the data monitoring or da		Placing the data monitoring or data set element (operation object PLC Data register).	
1	Bar graph	You can register the data reflected in the bar graph.	
1~	Trend	You can register data with trend graphs displayed in the text.	
*	image	Paste the pictures, you can make a good color BMP Pictures (Note that the control is less than the size 192 × 64 Pixels) pasted onto the screen.	
_		You can register data is shown by way of the menu.	
		You can register with the alarm list associated realization warning prompt.	

 H_{0L} XP PLC Programming Manual 4 Controls

4.1 Static text

Click the button to control key, the screen appears a rectangular dotted box and follow the mouse, moving distance 4 Point integer multiple. At this point,

click the left mouse button to confirm the position (right-click to cancel), confirmed, displays the contents of the form "character string" and displayed below the static properties of the text:

	X Value represents the horizontal position of the text.		
coordinate	Y Value represents the vertical position of the text.		
	Coordinate origin in the upper left position of the whole picture.		
	Double angle	Horizontal and vertical text are displayed in double.	
	Inverting	Display text and background colors reversed.	
characteristic	Framed	Plus the bounding rectangle around the text.	
	Blur	Text display translucent.	
	Flicker	At predetermined time intervals flashing intervals and procedures related to scan time.	
text	Actual display, can be directly input Chinese characters or English letters through a variety of Chinese character input method. The field content can be cut, copied or pasted.		

For example: double angle, reverse video text "Main Menu." Enter setting bar "Main Menu" in the name, and select the double angle, inverted box, as shown in FIG effect.



4.2 Dynamic text

Click the button to controlled the screen appears a rectangular dotted box and follow the mouse, moving distance 4 Point integer multiple. At this point, click

the left mouse button to confirm the position (right-click to cancel), confirmed, displays the contents of the form "dynamic text", while the bottom screen displays the dynamic properties of the text:

	X Value represents the horizontal position of the text.		
coordinate	Y Value represents the vertical position of the text.		
	Coordinate origin in the upper left position of the whole picture.		
	Double angle norizontal and vertical text are displayed in double.		
	Inverting display text and background colors reversed.		
characteristic	Framed add the bounding rectangle around the text.		
	Blur text display translucent.		
	Flashing a predetermined time interval flashing intervals and procedures related to scan time.		
	Dynamic text is used to control the status change PLC Data register.		
register	HEX / BCD: Data register displays the data in hexadecimal form. Decimal: The data in the register is displayed in decimal form.		
text	Edit dynamic content and text data. Dynamic text can be set to control the maximum 32 Group data. When editing a single serial port for data import, if the data is greater than 32 Only the first group 32 Group data is valid.		

 H_{0L} XP PLC Programming Manual 4 Controls

For example, when the register D0 equal 0 Display "Yesterday" (shown below), D0 equal 1 When the show "Today" D0 equal 2 When the show "Tomorrow", when D0 These three data not displayed on a blank screen.

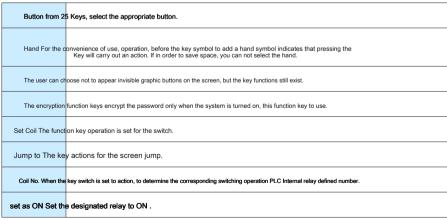


4.3 Function keys

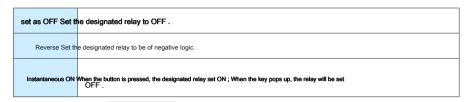
Click the button to control key, the screen appears a rectangular dotted box and follow the mouse, moving distance 4 Point integer multiple. At this point, click the left mouse button to confirm the position (right-click to cancel), after confirmation, the form is displayed in the function key * ESC *key

While the bottom screen displays the properties of the function keys, which "coordinate", "properties" are consistent with the text attribute phase, for indicating the position, the size and the color graphics.





Hou XP PLC Programming Manual 4 Controls



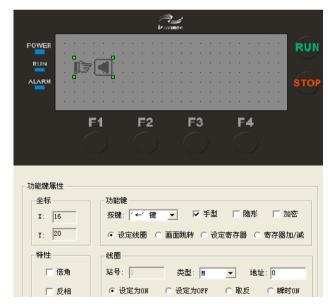
If you select "screen jump





At this point in the set below "Go to" screen resolution, the screen resolution is set to the target 0 , Namely 0 No picture parameter setting screen.

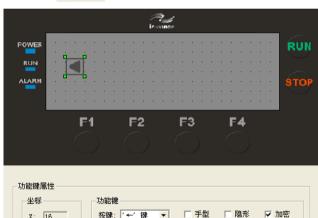
Modified setting register and the register set coil function similar functions, will not enumerate here.



Click on the butt家健: ' ←' 键 Drop-down box, pop-up 25 A key tag, select your desired key.



To hide the setting screen, set to "encrypt" attribute is valid Only when the system password is opened, jumps to 5 No picture.





After setting the function key, place the text to the right of the key symbol of the "Preferences" to prompt the operator to press the "" key will jour to the parameter setting screen. As shown below:

 H_{0L} XP PLC Programming Manual 4 Controls



In the same manner as the function key is placed to the right one screen "key and the text "Set status", said the press "to other the state setting screen. Can 15 No picture state set screen.



NOTE: To insert a new picture at any time, it is recommended to screen number of different types separately. For example: To increase a parameter setting screen, it can be placed in the first 6 No picture.

Add a "Alarm List" screen jump button. When you press this button, it will jump to the alarm list screen, refer to the corresponding alarm information. As shown below:



Login alarm list, please refer to " 4.11 Alarm List. "

Hou XP PLC Programming Manual 4 Controls

4.4 register

Put the data display window, click the control button keeps screen appears to follow the mouse to move a rectangular dotted box, press the left mouse

button to confirm the position after the move to the proper position. In the dotted box shows " 12345 "Wait 5 Arab characters, indicates that the control is a length 5 Digit register display window or register set window. Dialog box has the following properties:



	address	Display control corresponding PLC Register ID.	
The number of register The number displayed or set of registers, a minimum of 1, Up to 2.		The number displayed or set of registers, a minimum of 1 , Up to 2 .	
set to control the set value and the lower eight bits of the interface option register of the regi Can be set parameters in the parameter settings For example: setting the control parameter setting regi		The control zone setting function, which can monitor data but also data set. If you check the "enable register setting control" option can be set to control the set value and the lower eight bits of the interface option register of the register set permissions jointly controlled by parameters in the parameter settings For example: setting the control parameter setting register to select a setting register D4. Interface control value setting the zero-bit register is checked, then only when D4 When the first zero bit can be set to the register.	
	encryption	Only higher privilege level 0 Only can be set.	

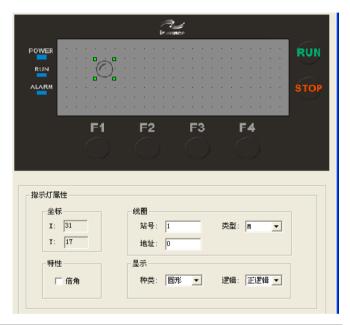
The register set box has an upper limit, allowing the maximum and minimum data set. When selecting the project data to be input to set lower and upper limit quantities. On the lower the percentage of quantities on the input data set lower limits. As shown below: ▼ 輸入上下限 数据类型: 工程数据 ▼ □ 上限关联到寄存器 输入上限: 1000 工程量上限: 100 Enter the upper and lower limits 工程量下限: □ 下限关联到寄存器 输入下限: -1000 Display value = (input value - Input offline) / (Input High - Input Low) * (upper limit quantities quantities offline). When the data is set to - 1000 Display works offline 0 . When setting data 0 Engineering data show the amount of time 50 . When the input 1000 Display engineering data 100 . Digit Decimal After the significant digits behind the decimal point. Decimal The data register will be displayed in decimal form. Display data in decimal form, you can select the property. If the highest bit register is 1, Data displayed as a negative Have signed number. example: FFFEH Show -2 . Hex / BCD Displays data in hexadecimal form. When the register property can be set, you can set the register data. Setting method and press the "SET "Key to register the corresponding box is checked, then press the numeric key digital inputs, press" CLR "Button will be cleared if you select the signed data press the" + - "keys to change the number sign to be key to the value of each position can be modified through the up and down about, Method of operation modify, please refer to the preceding." Key "setting. after the scheduled completion press " ENT "After the key writing, and register for the next default setting, if you press" ESC "or" SET "Button to cancel the data set.

How XP PLC Programming Manual 4 Controls

4.5 Lights

Click the Control button button beach to place the lamp, the screen appears a rectangular dotted box and follow the mouse, moving distance 4 Point integer multiple.

Now press the left mouse button to confirm the location (right click will cancel), after confirmation, the form displays the contents of "light" and are displayed below the indicator's properties:

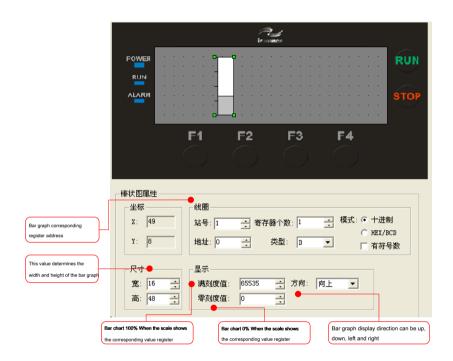


	Coil No.	The corresponding indicator PLC Relay definition number. You can select the type of M, D, X, Y Four types. Limited range of addresses 0 ~ 8499. But note M Element in the range M0 ~ M3071, M8000 – M8499. X with Y The address range 0-7, 10 to 17, If you choose 0 – 8499 Within an invalid address, although the programming software can be set but no specific meaning. Note: If you choose D Element, when D Element is 0 When the light is off, D Non-member 0 When the indicator light.
species Lamp shape, including square and round two kinds.		Lamp shape, including square and round two kinds.
Positive logic When the LED is unfilled.		When the corresponding intermediate relay is ON The indicator will be solid; when the corresponding intermediate relay is OFF When the LED is unfilled.
		When the corresponding intermediate relay is ON When the LED is unfilled; when the corresponding intermediate relay is OFF The indicator will be solid.

4 Controls Hou XP PLC Programming Manual

4.6 Bar graph

The bar graph visual display of analog parameters such as flow rate, pressure and level. Its height, width and direction can be specified. Click the button Control button, move the Juye to follow the rectangle dashed frame, left click to move back to the proper position. As shown below:



Hou XP PLC Programming Manual 4 Controls

4.7 Trend

Industrial control process, some parameters change slowly, in order to understand the process of change in these parameters within certain period of time, can establish trends.

Click the button Control of the mouse to follow the rectangle dashed frame, left click to move back to the proper position.



address	Trend corresponding register address.
Full value	Trend 100% When the scale display, register the corresponding value.
Zero value	Trend 0% When the scale display, register the corresponding value.
Image pitch	Overall trends from left to right all the number of sampling points. The larger the value, the more delicate line chart changes, of course, also a long time. The maximum dot pitch = width - 2. If the segment degrees 94, The highlights, according to the range that can be set in to 92.
sampling interval	Each time interval between two sampling points.
size	This value determines the length and width of the line graph.

Note: a trend control can only display a polyline.

4.8 Graph

Insert a bitmap file, you can display graphics of the machine, then the operator understand, can display factory standard, factory emblem, enhance product image.

Click the button Control button, the Find dialog box appears in the display, as follows:



Select the bitmap file to display, double-click the left mouse button or click the "Open" screen, click the left button of the mouse to move the rectangle to follow the dotted box, move to the proper position appears. As shown below:



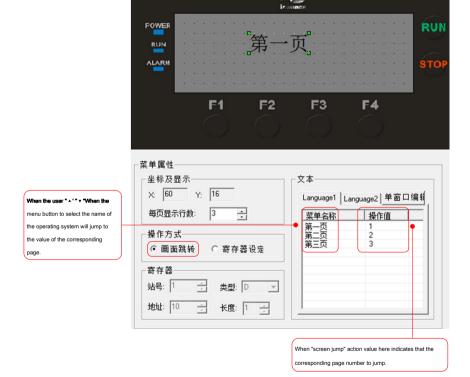
Note: The maximum display 192X64 As the number of bitmap files, such as when large numbers or bitmap format, the following dialog box will pop up:

Hou XP PLC Programming Manual 4 Controls



4.9 menu

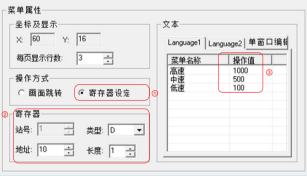
The control registers can be displayed in the menu. Users can "" "button on the display, to select menu cons, select the appropriate menu press ENT Key to register settings can also be directed to the corresponding interface.



When the user selects "Screen Jump" function, the name of the menu to the right of the corresponding value of the operation indicates that the corresponding page number to jump.

When the user via "" the button to velect the menu name, the operating system will jump to the value corresponding to the page.





③ Select "register setting"; ② "register" effective, you can set the register address; ③ operating value represents the value here will be written in the register.

For example: users •••••• When the button to select "High Speed" menu item, then

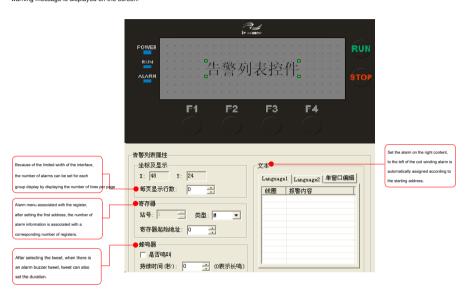
Writes 1000 D10 register.

The current menu option supports Chinese and English languages respectively in Language1 with Language2 Enter the name of the menu in Chinese or English menu name.

Hou XP PLC Programming Manual 4 Controls

4.10 Alarm list control

Setting "Alarm list control", when PLC When an alarm occurs runtime can set the appropriate register, this time associated with the controls "Alarm list control" warning message is displayed on the screen.



When multiple alarms when the current page only shows warning message "the number of lines per page" setting, and can be observed by all the alarms and down buttons.

4.11 Alarm List

Alarm List is industrial automation and control applications in the most simple and intuitive alarm mode.

HTodEditor Each project can have a cluster of alarm list information. Every piece of information corresponds to a relay. Relay definition number is continuous, the first address of the relay can be set by the user according to the actual user program.

When either a relay from OFF Jump into ON, That means that the corresponding alarm generation, HTodEditor It will automatically pop up the alarm display screen, and the first line shows the piece of alarm information.

Another relay ON When, from the second row display a new alarm. On the contrary, some alarm relay jumps OFF After corresponding alarm information will disappear automatically. To log the alarm:

Click the control button up the alarm list dialog window:



After setting the alarm contents and coil, the system will automatically alert the content associated with the coil. And "Alarm List Control" is different: "Alarm List Controls" This page is only valid while the alarm list are valid on all interfaces. "Alarm List Controls" page only when an alarm message is displayed, and the "alarm list" is a jump to the alarm after alarm occurs the alarm information display pages, display 5 Seconds and then return to the original page. Alarm page number by default 65535 If users need to view alarm information can also jump to 65535 Interface to view alarm information.

When the alarm control and alarm lists exist and associated elements are not at the same time, the priority of the alarm control is greater than the alarm list; if the relevant element alarm control and alarm lists related components with the same system only displays the alarm control alarm when the alarm control alarm Elimination then determine alarm list.

4.12 The password feature

Password class is divided into 4 Levels: 0 Level represents the lowest level, 4 it is the highest level password. Users can enter all lower level than the current system password page, but can not enter the system password level higher than the current page. Each password level is set at each page, such as the current password level 1 While the page is password level 2. The user can not access the page. At the same time there are also key operation encryption, if the control property selects "encryption", you must 0 Above grade level when it can operate the controls.

The password feature special register a way to manipulate the password. Divided into "password level display, password lock, unlock, and modify password" 4 Function.

- 1) The current password level displayed: read-only register, users can get the current system password level through the register.
- 2) Password Look: You can lock from the high level to the low level password password. Such as the need to modify the parameters of the technology staff, Into 3 Grade rating system, when the modification is completed, will M8311 Set, the current password level becomes 0 Level, to prevent any operator to modify the process parameters. Note: The lock can only be locked lower than the current level passwords, such as the current password 3 Stage set M8313 The system level becomes 2 .Position M8312 System level becomes 1 if set M8314 Invalid.
- 3) Unlock: D8315 Enter the password for the current register, D8316 To unlock a level, M8315 Unlocked determination function.
 For example, the current level of the system password 1 Level, you need to enter 3 Level password system, in this case D8315 enter 3 Level password, D8316 enter 3 Then set M8315 if the correct password is entered the system will automatically level appreciation 2 Level, if the password input error, by D8310 Observation of the current system level to determine whether unlock success.
- 4) Change Password: in the corresponding D To modify the elements of the set password, and then set the appropriate M Element, you can modify the password, If the modification is unsuccessful D Member becomes 0. Note: You can modify the low-level code in a high level state. For example, the current password level 3, Can be modified 3, 2 with 1 Level password, but can not be modified 4 Level password.
 - Example: When the changes 2 Level password, D8318 Register Enter a new password, M8318 Set, set a new password to take
 effect.

D8310	The current password level (display)	M8310	1
D8311	1	M8311	1 Level password lock
D8312	1	M8312	2 Level password lock
D8313	1	M8313	3 Level password lock
D8314	1	M8314	4 Level password lock
D8315	Enter the password to unlock	M8315	The current level is determined to unlock password
D8316	Enter the password level	M8316	1
D8317	modify 1 Level password	M8317	1 Level password Update
D8318	modify 2 Level password	M8318	2 Level password Update
D8319	modify 3 Level password	M8319	3 Level password Update
D8320	modify 4 Level password	M8320	4 Level password Update

Note: If the password level is higher than the jump page of the current password level, the jump page unsuccessful, still maintain the original interface. If the recommendation to perform a password lock function will jump to the page rating 0 Page, even if the current level is higher than the password level page, the page still will not jump the password lock.

5 Picture Heu XP PLC Programming Manual

5 Picture

5.1 New Screen

turn on HTodEditor Software menu "Screen / New Screen ", or click the button on the tool icon, the following dialog box jump



5.2 Copy picture

turn on HTodEditor "Screen / Copy screen" software menu or icon on the toolbar, click the Bounce dialogue follows:



5.3 Remove picture

Select the page you want to delete, open HTodEditor Software menu "Screen / Delete icon screen ", or on the toolbar Click out of the confirmation dialog box, select "OK" to complete the delete page.

Hou XP PLC Programming Manual 5 Picture



5.4 Save Project

After completing the editing screen, you can save the project file and download the screen project to Hou Ready-line debugging.

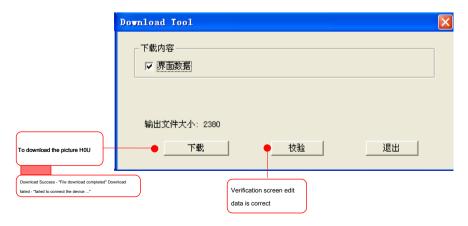
Butter the screen save dialog window.



Enter a project name, select the correct path, and press the "OK" button to save.

5.5 Download picture

Communication with the download cable to the computer 9 needle RS232 Serial to RS485 with H_w of RS485 Linking confirmation H_w It has connected + 24V power supply. Press (file download) key out of the following dialog box:



6 Examples Demo Heu. XP PLC Programming Manual

6 Examples Demo

[Example]

Set up 4 LEDs, lights on and off comprises manual control and automatic control of two ways, as follows.

Step one: Open HTodEditor Software provided Home: picture described as "Home"; add "picture" for the company to control the icon; add the "static text" controls, edits the "Shenzhen Kymmene Welcome" message. Complete results are as follows:



Hou XP PLC Programming Manual 6 Examples Demo

Step Two: Create a new page 2 Picture described as "hand from select," Add "function key" controls "page switching" setting; add "static text" function key on the control will be described. Complete results are as follows:



6 Examples Demo Heu. XP PLC Programming Manual

Step three: Create a new page 3 Picture described as "manual." place 4 A "light" control, place 9 A "function key" control (respectively ① ~ @, F1 ~ F4, ENT). As shown below, "①, ②, ③, ④" for the corresponding lights on. " F1,

F2 , F3 , F4 "Corresponding indicator Off: Click ①, the following indicator lights, click F1 The light is off, and so on. Click " ENT "To return to the page 2 "Hand self-selection."



Hou XP PLC Programming Manual 6 Examples Demo

Control property settings:

Lights 1 (2,3,4) Set the address 10 (11,12,13), Type is set to M; Function key lights, set as shown below, and type the address to correspond with the indicator set ON; Lights only need to set OFF Other same. As shown below:



" ENT "Button to set the following figure:

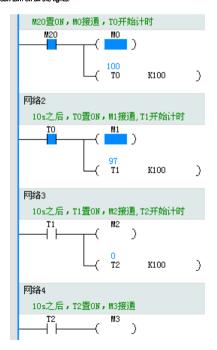


6 Examples Demo H₈₀₋ XP PLC Programming Manual

Step Four: Create a new page 4 "Auto" placement 4 A "light" (F1 ~ F4), place 3 A "Function Keys": one for the lights on, lights off as a "ENT "To return to the page 2 "Hand self-selection."



Create Auto picture, you need to write a simple PLC Program, as shown below, when you press "SET "Button to turn on the lights, the first light, bright 10s After pressing the next bright "ESC "Button to turn off the lights, you can turn off all the lights.



Hou XP PLC Programming Manual 6 Examples Demo

Setting control properties: Light 1 (2,3,4) Set the address 0 (1,2,3), Type is set to M; Function keys Lights On "SET", Set as shown below (type M, Address 20, set as ON);



Lights only need to set function keys lights "ESC", set as OFF Other properties are the function keys and turn on the lights. "SET "Match;" ENT "Button to set the previous" ENT "Button to set the same.

[carry out]

This completes the project creation, the download can be downloaded to H_{∞} Perform picture presentation on the integration of programmable controllers.

7 PLC Part Programming

7.1 PLC Features

Hauseries PLC Function Hauseries PLC Function besically the same, the instruction is fully competible Hauseries PLC Instructions. The difference is:

1) Hwseries PLC of COM0 Mouth is 485 Wire port instead 422 Mouse port, through RS232 / RS485 Electricity

Level converter, download and monitor programs.

- H_m of COM2 Port functions COM1 Port consistent reference to the specific use H_m series PLC of COM2 Port configuration.
- 3) H_m No DIP switches, automatic operation after power. By AutoShop Run-stop control, but also through M8035, M8036, M8037 Run-stop operation.

7.2 Device

H_{str} Device and H_{str} H_{str} series PLC The device is basically the same, D Save function element H_{str} series PLC Consistent.

Hauseries PLC of D Components Application area:

General use	Latched	Special use	Indexed by
D0 ~ D127 128 poi	nt※ D128 ~ D7999 7872	D8000 ~ D8511	V0 ~ V7
	point※ 3	512 point	Z0 ~ Z7

Device specific meaning and function of special software components, refer to "small Kymmene PLC Instruction and Programming Manual "V2.1 . H_{ov}The difference between the soft component parts are:

- H_m of M Original and D Original maximum 8399 Here in AutoShop of H_m Section is limited, at the same time HTodEditor The software is limited.
- 2) TOD Cryptographic operations using special registers text mode, password special register is defined with reference to a password feature.
- 3) 6AT with 6ATC Both H_™ Expansion card special register a way to set up and display of analog and temperature values.

Register Meaning specific expansion cards refer to "Expanded Functions."

7.3 extensions

 H_{∞} Built-in analog expansion card 6AT with 6ATC By way of special register set and displayed. Users only need to set the corresponding special register and can be read without any instruction. D8400 ~ D8409 The display area is D8410 ~ D8419 Set the basic parameters for the region, D8420 ~ D8429 for AD Special parameter setting area,

D8430 ~ D8439 for DA Special parameter setting area. Meaning specific parameters in the table below.

category	register	definition
	D8400	display 0x8A1x Show 6AT Station card. display 0x6A2x Show 6ATC Expansion Card. (x Represents the extension version number) Displays additional information indicates that no analog extension card or communication error.
	D8401	AD1 Sampling Data
	D8402	AD2 Sampling Data
Display	D8403	AD Function error message
Data	D8404	DA1 Conversion data (show)
	D8405	DA2 Conversion data (show)
	D8406	DA Function error message
	D8407	Temperature Channel 1 Temperature (unit: 0.1 °C)
	D8408	Temperature Channel 2 Temperature (unit: 0.1 °C)
	D8409	Temperature function error message

category	register	definition
	D8410	0x6A1 Show 6AT Station card. display 0x6A2 Show 6ATC Expansion Card.
	D8411	AD Function mode setting. Each HEX representative 1 Input channels. 0: 0V - 10V; Corresponding to the digital output 0 - 20001: 4mA - 20mA; Corresponding to the digital output 0 - 20002: 0mA - 20mA; Corresponding to the digital output 0 - 2000 Others: Invalid
	D8412	AD1 Filter constant, the default value is 8.
	D8413	AD2 Filter constant, the default value is 8.
Basic	D8414	DA Function mode setting. Each HEX representative 1 Input channels. 0: 0V - 10V; Corresponding to the digital output 0 - 20001: 4enA - 20mA; Corresponding to the digital output 0 - 10002: 0mA - 20mA; Corresponding to the digital output 0 - 1000 Others: Invalid
parameter setting	D8415	DA1 Output value. The default is 0 .
	D8416	DA2 Output value. The default is 0 .
	D8417	Temperature function mode is set. each 2 A HEX representative 1 Input channels. 0x00: Detection PT100 Thermal resistance. 0x05: Detection Cu50 Thermal resistance. 0x10: Detection K Thermocouple 0x20: Detection J Thermocouple
	D8418	temperature check 1 The average channel filter constant. The default value is 8.
	D8419	temperature check 2 The average channel filter constant. The default value is 8.
	M8420	Set up 1 will AD Gain offset value is written. After writing for the automatic recovery 0.
	D8420	0x6A1 Show 6AT Station card. display 0x6A2 Show 6ATC Expansion Card.
AD	D8421	AD1 Offset
Offset Gain Set up	D8422	AD1 The amount of gain
	D8423	AD2 Offset
	D8424	AD2 The amount of gain

category	register	definition
	M8430	Set up 1 will DA Gain offset value is written. After writing for the automatic recovery 0.
	D8430	0x6A1 Show 6AT Station card. display 0x6A2 Show 6ATC Expansion Card
DA	D8431	DA1 Offset
Offset Gain	D8432	DA 1 The amount of gain
	D8433	DA 2 Offset
	D8434	DA 2 The amount of gain
	M8440	Clear temperature detecting disconnection flag.

AD Error status table

D8403 (AD Sampling error)	ON status	OFF status
Bit0	There is an error, Bit0 - Bit3 A non-arbitrary 0 A / D Conversion is stopped. No error	
Bit1	Offset / Gain is set incorrectly	Offset / gain correct
Bit3	Hardware failure	Hardware normal
Bit4	Digital beyond - 2048 ~ 2047 Scope	Digital output normal
Bit5	Sampling filter constant beyond 1 – 4096 Scope	Sampling filter constant normal
Bit15	AD Unsuccessful initialization parameters need to be set M8420 Reinitialize AD Normal initia	lization parameters

DA Error status table

D8406 (DA error)	ON status	OFF status
Bit0	There is an error, Bit0 - Bit3 A non-arbitrary 0 D / A Conversion is stopped. No error	
Bit1	Offset / Gain is set incorrectly	Offset / gain correct
Bit3	Hardware failure	Hardware normal
Bit4	Digital beyond - 2350 ~ 2350 Scope	Digital output normal
Bit15	DA Unsuccessful initialization parameters need to be set M8420 Reinitializa DA Normal initiali	zation parameters

7 PLC Part Programming Hau XP PLC Programming Manual

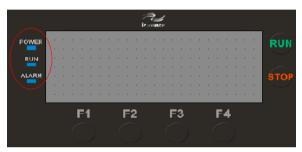
Temperature detection error status table

D8409 (Temperature detection error)	ON status	OFF status
Bit0	There is an error, Bit0 ~ Bit3 A non-arbitrary 0 A / D Conversion stop error	
Bit3	Hardware failure	Hardware normal
Bit4	Digital output is out of range	Digital output normal
Bit5	Sampling filter constant beyond 1 – 256 Scope	Sampling filter constant normal
Bit8	The first channel temperature is below the measurable temperature	Normal temperature
Bit9	The first channel temperature is too high, or break	Normal temperature
Bit10	The second channel temperature is below the measurable temperature	Normal temperature
Bit11	The second channel temperature is too high, or break	Normal temperature

7.4 Lights

Universal H_∞ series PLC There are three indicators (shown below), namely "POWER", "RUN "with" ALARM . "

- POWER : Indicates power status;
- RUN: Indicates PLC Running status, the green indicator light indicates execution PLC The user program, showing off PLC
 The user program is not executed;
- ALARM: Indicates the alarm, the red LED lights up to indicate the alarm off when normal. Specific alarm status and alarm code H₁₀ series PLC
 Consistent.



Lights	status	Instructions
POWER	Extinguish	Systems without electricity
POWER	Steady	Power system
DUN	Extinguish	H₀∪ series PLC Section stops
RUN	Steady	H _ω series PLC Partially executed
AL ADM	Extinguish	System normal, no fault, or the fault is cleared
ALARM	Steady	System failure, the alarm

1) Communication

H_{αν} Universal PLC With 2 road RS485 Communication Interface, 1 road RS485 Download interface (optional). 1 road USB Download interface.

1 road CAN Communication interface (optional).

2) Download

H_{αν}Universal support USB Download function. Users can PLC Programs and text procedures were applied AutoShop with HTodEidr
Standard software USB Cable to download H_{αν} PLC in. Application of a new computer for the first time USB Kymmene need to download
PLC of USB Drive, the drive can be downloaded from the company's official website Kymmene. application USB Simple download, does not require any setup connection USB You can download directly after the cable.

except USB Download function, H_w. Also supports RS485 Download function. Users can apply 232-485 Interface RS485 The data lines are connected to the two H_w of COM0 Port. However, this feature is an alternate port debug, regular products can not. If the customer needs to customize this feature may make demands with stakeholders Kymmene company.

3) RS485 Communication

H_Whave 2 road RS485 , Support 1: 1 , N: N Computer Connection Agreement and MODBUS protocol, MODBUS Protocol supports both master supports slaves. Specific application methods and related definitions and special software components H₂∪series PLC of RS485 Consistent functionality.

4) CAN Communication

HavUniversal PLC Pluggable Hav CAN-BD Communication cards to achieve CAN Communication functions, but can also purchase Hav 6ATCBD Expansion card to achieve CAN Communication function. HavUniversal PLC of CAN Communication functions and operations and Haven PLC of CAN Function consistent support CANLink V1.0 with CANLink V2.0 . Need D (8199)Set as 7 CAN Function is effective.

Note: Standard Hau Product does not support CAN Communication function, if users need to contact the relevant personnel Inovance by non-standard Hau Equipment customization.

Hou: XP PLC Programming Manual appendix

appendix A: Hou- XP series PLC Instructions for use

A.1 Hau- XP series PLC Brief introduction

Kymmene Hav XP series PLC (Hw Integrated programmeble logic controller, hereinafter referred to as Hav) Is set PLC, TOD Text in one of the controllers, control logic and user display interface can be programmed.

PLC Program memory space up to 8K Step; Support H_W All instructions and support CAN Communication instruction; support 6 Way high-speed input,

2 High speed pulse output (transistor output type only); and H_WThe difference is that the input and output section no lights, and no DIP switches, the program
automatically runs after power-on; two communication ports, COM1 with COM2 Both can be done from the station master station; currently used RS485 (COM0)

Communication port to download the program, specific PLC Features, please refer to the Company issued additional "H_W

Series Programmable Logic Controller User's Manual "," small Kymmene PLC Instruction and programming manual."

TOD The maximum capacity of the program is 56kB; TOD Man-machine interface and other common products the same, HOU Interface programming environment HTodEditor Software can be placed on a page of a variety of "control", and assigned to each control to set the desired properties, thereby completing the status information display, parameter display, parameter settings and other functions; TOD The main components of the interface dot matrix LCD display, 3 A led Function keys up 25 Months, are free to define the function; LCD display with a resolution of 192 × 64 Can display 12 Chimese characters × 4 Row; TOD Support simplified Chinese and English languages, and can switch online; users TOD The maximum capacity of the program is 56kB Page number 1 ~ 65535 Allowing not numbered consecutively.

Were applied AutoShop with HTodEditor Correct PLC with TOD Conduct program download.

A.1.1 Naming Rules

Naming rules are as follows:

H OU- 0808MRI -XP-6AI
12 3 4 56/8 5 50
① Company Products H : Kymmene Controller
② series 0U : Text + PLC Integrated controller
③ Input Points 08:8 Point input
⊕ Output Points 08 : 8 Point output
© Classification Module M : Universal Controller main module
Output Type R : Relay output type; T : Transistor output type
① Output Type T: Transistor output type (if the first phase represents ② mixed output)
Naming aside for later expansion
CPU Type Id XP: NXP type CPU
Special function identification 6AT : Built-in analog expansion cards; can be customized 2 Section plane: 6ATC : Built-in analog
expansion cards CAN card; CAN: Built CAN card

A.1.2 Basic parameters

				Input and	output characteristics			Built-in
model Total points		ordinary Normal in	put High speed inp	outOutput s	peed Output Outp	ut mode	Communica Interface	tion analog card
H ou- 0808MR-XP	16 point 8	oint 2 road	60K			Relays	2 road	
H o∪- 0808MRT-XP			4 road 10K 8 F	oint /	2 road 100K	4 Channel transistor 4 Relay	RS485 1 road	,
Ho∪- 1616MR-XP			2 road 60K 4 ro	1 401/ 40 5		Relays	USB	
H ω- 1616MRT-XP	32 point 16	32 point 16 point		1	2 road 100K	4 Channel transistor 12 Relay		
Hou 0808MR-XP-6AT 16 point 8 p	oint 2 road	60K				Relays		
H ∞- 0808MRT-XP-6AT			4 road 10K 8 I	Point /	2 road 100K	4 Channel transistor 4 Relay	2 road RS485 1 road	
Hou- 1616MR-XP-6AT			01 001/ 1	1 401/ 40 5		Relays	USB	6AT
H ou- 1616MRT-XP-6AT	32 point 16	point	2 road 60K 4 roa	BO 1UK 16 F	2 road 100K	4 Channel transistor 12 Relay		

Note: where the total frequency is limited to high-speed input $60\mbox{K}$.

When the built-in expansion cards, expansion cards function as follows:

model	Analog Input	Analog Output	temperature check	CAN communication
6AT	2 Analog input current: 0 ~ 20mA / 4 ~ 20mA Voltage:- 10 ~ 10V By switching devices	2 Analog output current: 0 ~ 20mA / 4 ~ 20mA Voltage:- 10 ~ 10V By switching devices	2 Road temperature detection, and support PT100 with TC Detecting, by switching device, 3 T blocks	- Terminal
6ATC	2 Analog input current: 0 ~ 20 mA / 4 ~ 20mA Voltage:- 10 ~ 10V By switching devices	2 Analog output current: 0 ~ 20 mA / 4 ~ 20mA Voltage:- 10 ~ 10V By switching devices	2 Road temperature detection, and support PT100 with TC Detecting, by switching device, 3 1 blocks	1 road CAN Communicati interface, support ferminal CANlink protocol
CAN -		-	-	1 road CAN Communicati interface, support CANlink protocol

A.2 button

Hauln addition to the liquid crystal display front window, as well as 25 A membrane switch keypad, touch feel good, long life, safe and reliable.

Hou: XP PLC Programming Manual appendix

all 25 Keys in addition to the basic functions, can be set to the special function keys, jumping the windows directly, switch settings and other functions.

all 25 Keys can be defined as user-specific functions. Such as Bit Position, Bit Reset, screen jump and so on. If not defined as special functions can only perform basic functions. Basic features include the initial screen reset after page Previous screen jump.

The following table shows the basic part of the keys, have their own default functionality. But the basic keys can be used as a custom function button can be customized by the control. When the same page basic features and default button appears customization conflict, it is necessary to adjust the priority. Key priority is: Register> Menu> Custom button> Alarm> Page. When the page is stored in the register control register associated with a key even if there is a custom function also performs the function register, rather than customization.

button	basic skills
[ESC]	Regardless of the display in display anything, once pressed, the system's initial screen; the system's initial screen by the user can designate the screen (default is 1 No picture); the general system's initial screen is set to the main menu or the highest frequency of use of the screen.
[←]	When modifying the register's data, the modified data bit to the left, the left one digital display flashes.
[→]	When modifying the register's data, the modified data bit to the right, a right that is flashing digital display.
[↑]	Flip the screen to the previous page, previous page screen number specified by the user in the screen attribute (defaults to the current screen number - 1). If the setting state data is modified digit plus 1, Increasing range: 0 -> 9 -> 0.
[+]	The screen flips to Page, Page screen number specified by the user in the screen attribute (defaults to the current screen number + 1). If the data set state, the modified digit subtraction 1, Decreasing range: 9 -> 0 -> 9.
[SET]	Press to start modifying the register value currently being modified register anti-color display in which the number of bits to be modified flashes. If the current screen is no register setting components, no operation is performed once. Press [ENT] Key before pressing the [SET] Key, modify the current operation is canceled, and continue to modify the next data register.
[ENT]	The modified data is written to the register and continue to modify the next data register. The last picture of the current register has been modified, quit from the register state.

appendix How XP PLC Programming Manual

appendix B: Version Change History

time	Changed version	change content
2014-06	V0.0	First edition



Hou-XP PLC

Sales service contact		
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