

# **Touchwin Special function component**

User's manual

WUXI XINJE ELECTRIC CO., LTD.

## Catalog

1	Even	t Button	6
	1.1	Introduction	6
	1.2	Procedure	7
		1.2.1 Display history event, Trend	7
		1.2.2 Time trend control	. 10
		1.2.3 XY poly trend	. 10
	1.3	Notes	. 11
2	Prote	ction function via password	. 12
	2.1	Introduction	. 12
		2.1.1 Direct mode	. 12
		2.1.2 Indirect mode	. 13
	2.2	Procedure	. 13
		2.2.1 Direct mode	. 13
		2.2.2 Indirect mode	. 15
	2.3	Note	. 19
3	print	function	
	3.1	Introduction	. 20
	3.2	Procedure	. 21
		3.2.1 Requirements	
		3.2.2 Preparation	. 22
		3.2.3 Connection	
		3.2.4 Project editing	
		Notes	
4	Dual	port communication	
	4.1	Introduction	
	4.2	Procedure	
		4.2.1 Requirements	
		4.2.2 Preparation	
		4.2.3 Project editing	
	4.3	Note	
5	Alarn	n list	
	5.1	Introduction	
	5.2	Preocedure	
	5.3	Samples	
		5.3.1 'Alarm list'editing	
		5.3.2 'Event button'editing	
		5.3.3 'Digital input'editing	
		5.3.4 'Lamp button'editing	
	5.4	Notes	
6	Net fu	nction	
	6.1	Introduction	. 47

	6.2 Procedure	
	6.2.1 Project editing on panel(host net)	
	6.2.2 Project editing on panel(salve net 1#)	
	6.2.3 Project editing on panel(salve net 2#)	
	6.3 Note	
7	Data grid & Grid control	
	7.1 Introduction	
	7.2 Description	
	7.3 Description on setting	
8	XY curve	
9	Sample save	
10	XY Curve Ex	
	10.1 Introduction	
	10.2 Description	
	10.3 Description of parameter setting.	
11	Import CSVdata	
	11.1 Introduction	
	11.2 Description	
	11.3 Description of parameter setting.	
12	Export CSV data	
	12.1 Introduction	
	12.2 Description	
	12.3 Description of parameter setting	
13	Time trend control	
	13.1 Introduction	
	13.2 Procedure	
	13.2.1 'time trend curve' with 'Rotate overwrite' mode	
	13.2.2 'Time trend' with 'stop' mode	
	13.3 Description of parameters	
14	Move animal	
	14.1 Introduction	
	14.2 Procedure	
	14.2.1 Track editing	
	14.2.2 Example- Scroll text	
	14.3 Description of parameter setting	
15	Rotate animal	
	15.1 Introduction	
	15.2 Procedure	
	15.2.1 Introduction of simple animation	
	15.2.2 Example- butterfly	
	15.3 Description of parameter setting	
16	i Recipe	
	16.1 Introduction	
	16.2 Example	

	1	6.2.1	Write recipe datas to PFW registers.	. 139
	1	6.2.2	Download Recipe	. 141
	1	6.2.3	Modify and display the recipe data	. 142
	1	6.2.4	Display name of the recipe	. 144
	1	6.2.5	Switch button for Index	. 145
	1	6.2.6	UPload recipe	. 147
17	Expo	ort samp	le data	. 149
	17.1	Proced	ure	. 149
	17.2	Examp	le	. 152

#### Preface

This charpter describes how to use the Special function component ,including component introduction ,procedure and samples .Welcome to give good suggestions .

Note :Regarding common component please refer to <HMI manual Basic> Please use 2.c.3 version of software or above to open the samples .

## **1 Event Button**

### **1.1 Introduction**

"Event Button"t is used to mached with data dealing component to acheive operations(page changing,confirm ,movement ) .Its advantage is obviously in the performace of "History data map", "Real Trend Map", "Display history Event", "Time trend control" and "XY curve" and so on.

#### Features:

(1) "Page changing" macthed with "history data map"



(2) "Movement "matched with "Time trend control"



Display the data after up move

(3) "Clear", "Clear and draw", "Reserve and draw", "Repete and Draw" matched with "XY curve"



### **1.2 Procedure**

Step 1:click the component from toolbar and leave it to the target position, as below



Step2 :property setting ,including "Event ,Button,Color,Position" Property ------"Event"

Event Button	Color   Position	
Trend • Trend/Event	Function	
• Irend/Event	Prev Page	<u> </u>
© Time A	Vp (Thin)	e 20 /10
C XY Poly Tre	ID All Trends 💌	<u>v</u>

According to event object, there are 3kinds:

• "Display history event, Trend": support "page changing, confirm, clear" operations

- Time trend: coordinate movement
- XY curve: Clear ,Clear and draw,Reserve and draw,Repete and draw

The following charpter will describe the procedure:

### 1.2.1 Display history event, Trend

• Display history event—confirm ,choose Item and page changing to the event

		_ PSB400 PSB401 PSB402 PSB403 PSB404
Event	Confirm time	
Over temperature	10-03-15 08:53	
Under temperature	10-03-15 08:53	Prev Item Prev page Confirmn
Over Hydraulic pressure	10-03-15 08:53	
Under Hydraulic pressure	10-03-15 08:53	Next Item Next page Record clear
	Over temperature Under temperature Over Hydraulic pressure	Over temperature         10-03-15         08:53           Under temperature         10-03-15         08:53

Shown as above

Prev Item,Next Item: press the key to move the Data frame up and down

Prev page,Next page :page changing

Confirm: check the confirm time

Clear record : clear all the data in the table

How to: Select "history event ,trend" in the "Event "property,then click the corresponding operation "Prev item", "Next item", "Prev page", "Next page", "confirm", "clear record"in the sequence of above. For example : the setting of "Prev Item" is shown as below:



The setting of the "record clear"

	Clear the record in the table	
Record clear		

• History Data map—— Page changing (Prev page,Next page)

Function

Prev Page Next Page Prev Item Next Item OK

ResetContent

ResetContent

Display the data on defference page



Display the data of the next page

•

### 1.2.2 Time trend control



Display data after up move

The function corresponding to time trend control is shown as below:

Move up(wide/thin):move the coordinate up( movement amount is based on the selection of wide or thin) Move down(wide/thin):move the coordinate down( movement amount can be slected in wide or thin mode)

Zoom out(wide/thin): zoom the current coordinate out (the ratio is based on the selection of wide or thin) Zoom in(wide/thin): zoom the current coordinate in (the ratio is based on the selection of wide or thin)

Show: show the current curve, corresponding with "hiding".

Hide: hide the current curve, corresponding with "display'.

Reset: return to initialized value.

Zoom out/in in ratio:zoom the coordinate out or in accoding to the setting ratio.

#### 1.2.3 XY poly trend



More details is showed as below:

Clear: all the curve is cleared.

Clear and draw: clear all the curve, then draw the new curve.

Rserve and draw: keep the old curve and draw the new curve.

Repeat and draw:draw the curve in circulation way,once the data changes ,the new curve replace the old curves.



More details regarding the property setting "button, color position", please refer to the component

"button"parts.



The details about "clear ,reserve and draw ,clear and draw, repeat and draw "please refer to the component "XY curve" parts.

### 1.3 Notes

Only one objective component matched with "event button" can be authorized in one screen, for example, if the event button is used for page changing of "display histroy data", then this kind component like "history event" or "XY curve" is not allowed to use in this screen.

## 2 Protection function via password

### 2.1 Introduction

This function is used to limit the access authority. There are 2 modes:

(1) Direct mode:enter into the password screen after clicking the objective component. This mode is active only to "screen jump "component.

(2) Indirect mode: jump into the "60001" screen via "screen jump" component, the objective component is available when the password is correct.

Mode	Component	
Direct mode	Screen jump	
Indirect mode		
Button	Button with lamp	
Digital input	Text input	
Set data	Window button	
Down recipe	Up recipe	
Event button		

Component mached with this function is shown as below:

#### 2.1.1 Direct mode

Click the component "screen jump", enter the password in the dialog box, then jump into the objective screen when the password is correct.



### 2.1.2 Indirect mode

When you use other component with password function ,please jump into "60001" screen to enter correct password first.



### 2.2 Procedure

### 2.2.1 Direct mode

This mode is avialable only to "screen jump "component.



Purpose: jump into the second screen with correct password .

#### Procedure

The procedure is comprised of screen editing, system setting, and emulator offline.

Step1: screen editing

Screen1:Click component from toolbar and leave it to the objective position, modify the property "operate" and "button".

Scrl	Operate Button Color Position Screen ID 1 Mode C Log On © Validate	<ul><li>Jump into the screen 2</li><li>Select "validate" mode</li></ul>
	KeyBoard	

Operate Button Color Pos	ition	
Key Type © Touch C Enter <u>C</u> ode	✓ Password level Level1 ▼	• Change the text content
<u>H</u> ide Button Normal <u>Change Aspect</u> <u>User D</u> efined <u>Press</u> <u>Save Aspect</u>	✓ Use Text Content Font	• Click the password level with "Level1"
Jump to 2nd Screen	C Align Left C Align Top Align Center Align Middle C Align Right C Align Bottom	<b>其它设定方式</b> 自行完义。

Add screen 2:right click the screen in the project bar, press the insert then edit to show the screen ID.



Step 2: password setting

Set the password follow the path"file/system setting\parameters"

Device		Font	1	Project
Para	Alterna	ation	Clock	Panel
Screen <u>S</u> tart Scr	een 1			
✓ P <u>a</u> ssow Level L	rd evel1	<u>▼ <u>P</u>a</u>	ssword 12	234
-Screen Sav	e			
Latency <u>1</u>	ime Aft	er 3 Minut	e 🔻	
⊙ <u>C</u> lose	ren O Z	how Screen	n  0	

• Click "password", choose the first leve, enter "1234" as the first level password.

Thus, screen editing and password setting are finished. Investigate the run situation via emulator offine.

When the password is correct, then jump into the next page



when the password is not correct, suggestive dialog box appears.



#### 2.2.2 Indirect mode

Realease the password limiting by jumping into the password screen first, then do the objective operation. The procedure is shown as below:



Purpose: the objective component is not available unitl the limit is released.

Procedure

The procedure is comprised of screen editing and system setting.

Step1:Click component 23 and 24, leave them to the objective position, sl	hown as belov
---	---------------

00000	Open password

Set property of these two component.

Set the property "input" of "digital input" as below, others can be defined by users.

Object Display Input	Font Color Position	
✓ Fassword Level Level1	▼ No <u>t</u> ify	
Max Check	Min Chec <u>k</u>	<ul> <li>Click the password at the</li> </ul>
✓ Popup KeyBoard KeyBoard_1 ▼	7 8 9 +/-	first level.



More details regarding "digital input" please refer to introduction of component-digital input.

Set the property "operate" of "jump screen", the other property can be defined by users.

Operate Button Color Position Screen ID 80001	• Set the screen ID on value "60001", and this ID is the only active value
Mode © Log On	Mode:log on
C Validate KeyBoard	• Change the name to "enter password "
KeyBoard_1	

More details regarding "jump screen" please refer to introduction of component "jump screen".

Thus, the screen editing is finished.

#### Step2,set the system password

Set the password follow the path"file/system setting\parameters"

Device		Font		Project
Para	Alterna	ation	Clock	Panel
-Screen <u>S</u> tart Scr	een 1			
✓ Passowrd Level Level1 ▼ Password 1234				
Screen Save Latency <u>T</u> ime After 3 Minute <b>V</b> © <u>C</u> lose LCD © <u>S</u> how Screen 0				

• Click the password with the first level,and set the password at the value"1234"

Investigate the run situations via emulating offine

We can see that the component "digtial input "is not available because of the limit.



Procedure



If the limit of the component is needed again, please jump into the "password screen" then colse password, the protection is available again.

### 2.3 Note

Jump into "password screen"with ID60001 first to open password when you use indirect way with "validate mode"



The procedure regarding how to enter into advanced function mode please refer to the <HMI

manual basic>

## **3** Print function

## **3.1 Introduction**

Both TH series and TP series touch panels can connect with panel printers ,bringing good performance in the data operations ,such as "data collection", "trend curve" and so on.

At present ,Touch panels can only connect with the following two brand printers.

(1) Sprt micro printers(2) Weihuang printers

It is noted that there is defferece in connection between TH series panels and TP series panels

• connection between TH series panel and pinters

Connect COM1 port of TH series panels to printers directly.



• Connection between TP series panels and printers



This charpter takes SPRT printer for example to describe how to arrange the printer function, the procedure is shown as below:



### 3.2 Procedure

#### **3.2.1 Requirements**

Purpose of this project is to record useful data bringing analyse advantage, including time, duty NO, operater's ID, product batch NO, and so on.

Thus ,the whole project is comprised of four sreens ,(1) operators information (2) print window,(3) 2 process control information

(1) Component comprising operators information: duty NO,opertaor ID,batch NO, jump screen

(2) Component comprising Print window:Date,time,dutyNO,operator ID,batch NO,batch NO.

(3) Component compring process control information:composed of heat up and leak hunting, record date ,time,temperaature,pressure and value of F0.

Structure of project is shown as below:



### **3.2.2 Preparation**

Hardware prearation

- (1) TP series panels with type TP562-T
- (2) Sprt DNseries printer with type SP-RMIII32SH
- (3) Version of editing software is V2.87 or above
- (4) Download cable used for TP, communication cable bewteen panels and PLC.
- (5) Printout paper:57.5mm thermal printer paper

Document prearation:Sprt printer user manual

#### **3.2.3** Connection

The following take SP-RMIII32SH (DN series) for example to describes connection.

#### (1) For TH series panels, connect to printer with COM1 port directly.



(2) For TP series panels, please short up 5 pin and 6pin of download port first, then connect with printer.



#### > Setting on printer

Setting cummincation paramtersBaudrate: 9600Parity check: evenHandshake:randomDIP swithes status: turns 1 and 6 ON,others are OFF, showed right

#### 3.2.4 Project editing

As above the whole project is comprised of 4 screens :(1) operators information (2) print window,(3) heating process control information(4)leak hunting process control information. There are 3 registers and 3 coils used for this print project, assignment is showed as below

Name Register	Description	Name	Coil	Description	
Truine Register		Description	Start to print	PSB300	Print out
Duty NO.	PFW300	Digital input and display	Convert to "heat up" mode	PSB301	Print out in this mode
Operator ID	PFW301	Digital input and display	Convert to "leak hunting" mode	PSB302	Print out in this mode
Batch NO	PFW302	Digital input and display	Print during heating up process	PSB303	Trigger action to print
			Print during"leak hunting process	PSB304	Trigger action to print

#### • Operators information (main screen)

Step1, insert a new screen, set the parameters of PLC port and Download port.

Insert a new screen as path"file/new"or click component if from toolbar, choose panel type with TP562-T, then set the parameters of PLC port and Download port, showed as below:



Step2 ,add these component into main screen, Text **A** ,digital input **23**, button, "button+function field"

, date , time , is showed as below:



#### Property of "digital input"

Set the operate object based on the sequence of "duty NO-PFW300, operator ID-PFW301,batch NO-PFW302." as follows





details about "Display"input","Font","color""position"please refer to

"components-----digital inout "parts"

More

Property of "button"

Set the objet to PSB300, and operate as ON instant

Obje	Object Operate Button Color Position				
	Station — Device VirStaNO	PLC Port			
	Object Object	PSB S00			

Object Operate Button Color Position
Button
C Set OM C Set OFF C Reverse 💿 On Instant

More details about "button", "color" "position" please refer to "components—button, parts

Property of "button+function field"

Press "button"key to enter "heating up" or "leakhunting" status, at same time, "function feild "is active leading to set on/off appionted coil reguarly.

For example, when coil PSB301 is ON, screen enter into status of "heating up", meanwhile, the function field is active leading coil PSB303 to be off, and convert coil PSB303 status between On and Off at regular intervals.



PSB302 (leak hunting) work's procedure



PSB301 (leak hunting) work's procedure

Assignment of the above component

Print out during heating up process			Print out during leak hunting process			
Component	Qty	Function		Component	Qty	Function
Button	1	PSB301 is ON		Button	1	PSB302 is ON
Function feild 3 PSB302 is OFF With the 60th second coming, PSB303 is ON With the 61st second coming, PSB303 is Off	PSB302 is OFF		Function feild	3	PSB301 is OFF	
	With the 60th second				With the 60th second	
	coming, PSB303 is ON				coming, PSB304 is ON	
	With the 61st second		iellu		With the 61st second	
			coming, PSB304 is Off			

The following charpter describes how to set property of "button" and "function field",

Setting property of "button"

Object Operate Button Color Position	Object Operate Button Color Position
Station Device PLC Port VirStaNO 0 Station 0	Button © Set ON C Set OFF C Reverse C On Instant
Object Object View State	

(2) setting property of "function field"

• Trigger PSB301 to set PSB302 off by using "function feild"

Click component from toolbar ,then set the property

"mode"setting

Mode Function Position	
Act Mode	Object
C S <u>t</u> art Screen	Station
• Coil Spring	Device PLC Port
🔿 Time(Sec. )	VirStaNO 0 Station 0
C Co <u>n</u> tinue	Object
C First Scan After Down	Object PSB  301
C First Scan After <u>P</u> ower	☐ Indirect

function setting, reset coil PSB302

Mode Function Position	n	
<u>Function</u> Reset CoilPSB302	ſ	Al Set Coil
	Add	Reset Coil Reverse Coil Copy Coil
	Modify	Screen Jump Set Data Copy Register
	Delete	Vser Input Open Window Class Window

• Trigger PSB301 to set coil PSB303 by using "function feild"

"mode"setting, set intervals value

Mode Function Position	
Act Mode	
C S <u>t</u> art Screen	Object
C Coil Spring	Station
🕫 Time(Sec.) 🛛 60 🔽 Run immediatel	Device PLC Port
C Continue	VirStaNO 0 Station 0
C First Scan After Down	
C First Scan After <u>P</u> ower	Object View 301
▼ Time/Continue Coil <u>L</u> imit <u>FSB301</u>	

function setting, set coil and start to printout

Mode	Function Po	ition	
<u>F</u> uncti Set Co	on ilPSB303		Al Set Coil
		Add	Reset Coil Reverse Coil Copy Coil
		Modify	Screen Jump Set Data Copy Register

#### • Trigger PSB301 to reset coil PSB303 by using "function feild"

mode setting, set intervals value

Mode Function Position	
Act Mode	
C S <u>t</u> art Screen	Object
C Coil Spring	0.00
⑦ Time(Sec.) 61 ▼ Run immediatel	Device Dic Date 1
C Co <u>n</u> tinue	
C First Scan After Down	VirStaNO 0 Station 0
C First Scan After <u>P</u> ower	Object
✓ Time/Continue Coil Limit PSB301	Object PSB - 301
	☐ Indirect

function setting, set coil and start to printout

Mode	Function Position	n	
<u>F</u> uncti Reset	on CoilPSB303		Al Set Coil
		Add	Reset Coil Reverse Coil Copy Coil
		Modify	Screen Jump Set Data Copy Register
		Delete	Vser Input Open Window Class Window

thus ,all seeting of "heat up" is finished



regarding the setting of "leak hunting" please refer to procedure of "heating up"

The main screen is showed as below



#### • Print window for basic informations

Right click "print" Insert in engineering bar and choose "insert", set property as below:

Object Print Window	Object Print Window
Station Device PLC Port VirStaNO 0 Station 0 Object Object PSB 300 Indirect	Window         Name       tart to print         Width       160         Tip       Height
	Director C Left to Right @ Right to Left

Object property: start printout by coil PSB300 triggering.

Print window: print direction is from right to left with name "start to print"

~ <del>7</del>

#### Make sure the print direction is from right to left while use this function.

#### (2) Project editing



• Process control screens ,including "heating up" and "leak hunting",

#### > Printout during "heating up" process at 1-mintue intervals

Procedure details please refer to the above charpters ,the setting is showed as below:

Object Print Window	Object	Print Window		
Station Device PLC Port	Windo			
VirStaNO 0 Station 0	Name	Heat up	Width	160
Object	Tip		Height	120
Object PSB 303				
Indirect				
	Dire	ator		
			_	
	0	Left to Right	🖲 Right to	Left

The print window is showed as below:

Print Heat up FF : FF : FF 0000000000 00000	<ul> <li>Temperature is in PFW303;</li> <li>Pressure is in PFW304;</li> <li>F0 is in PFW305</li> </ul>
	• Take a situable size to save up papers

#### > Printout during "leak hunting" process at 1-mintue intervals

Procedure details please refer to the above charpters ,the setting is showed as below:

Object	Print Window
	tion vice PLC Port V StaNO 0 Station 0
Obje Obje	

Object Print Window		
-Window		
Name akage hunting	Width	160
Tip	Height	120
Director		
C Left to Right 💿 Right to Left		



- Temperature is in PFW303;
- Pressure is in PFW304;
- F0 is in PFW305
- Take a situable size to save up papers

### 3.3 Notes

- (1) Print direction: from right to left
- (2) Coil used to trigger printing : For manual operation, it is adviced to use coil after PSB257;for controled by PLC, it is adviced to use auxiliary coil M, and keeping on about 3 seconds.
- (3) Make sure all components is in range of print window ,otherwise , it will print unsuccessfully.
- (4) Don't copy the print window to others to avoid print twice.

## **4 Dual port communication**

### 4.1 Introduction

Both TP series panels and TH series panels support Dual port communication function, which means not only Download port can connect with devices but aslo PLC port does. With independent data transmittion, this system have a perfect performance based on one-panel & two-devices structure.

Communication structure is showed as below:



### 4.2 Procedure

This charpter take example to decribe how to use function with download port connect to PLC while PLC port connect to inverter.



#### 4.2.1 Requirements

- (1) Connect to PLC with Download port, controling and indicating PLC output Y2.
- (2) Connect to Inverter with PLC port ,do the operations including start ,stop and frequency setting .

#### 4.2.2 Preparation

- (1) TH series panels with type TH765-MT;
- (2) XC3 series PLCS with type XC3-32R-E;
- (3) V5series Inverters with type V5-21P5
- (4) Software version is above Twin V2.C.3
- (5) Download cable used for panel, Download cable used for panel used for PLC, communication cable between panels and PLC, RS485communication cable.

#### 4.2.3 Project editing

The procedure of project editing is comprised of new project open and component editing, is showed as below:

Step1:open a new project, set parameters as below:

Insert a new project as path"ffile/new"or click component from toolbar, is showed as below:

Select XC port device with XC Select PLC port device with series PLC V5 series inverters Please select port PLC device: Please select port Download Device: Unuse Downlad Port Thinget XC Series Thinget XC Series Thinget FC Series Thinget FC Series Thinget V5 Series Inverter Thinget V5 Series Inverter Mitsubishi FX Series Mitsubishi FX Series Mitsubishi Q Series Omron CPM/CQM Series Mitsubishi Q Series Omron CPM/CQM Series Omron CP/CJ/CS Series Omron CP/CJ/CS Series Siemens S7-200 Series Siemens S7-300/400 Siemens S7-200 Series Siemens S7-300/400 AB Micrologix, SLC Series (DF1 Full-AB Micrologix, SLC Series (DF1 Full-Koyo S Series Schneider (Micro/Neza/Twido) Koyo S Series Matsushita (FPO/FP1) Schneider (Micro/Neza/Twido) Com Para: 19200, 8, Even, 1 Com Para: 19200, 8, Even, 1 Setting... Setting...

Step 2:edit the control screens including PLC and inverters

(1) Connect Download port to PLC(XC3-32R-E) to control output Y2 with "button "component and indicate status with indicator light.



#### Property of indicator

Button Vith Lamp

- Station NO: select connection device via dowload port.
- Object : select to Y2

#### Properrty of button

Button Object Operate Button Color Position	● Station NO : select connection device via dowload port。
Station Device Download VirStaNO 0 Station 1 Object Object Y 2 Indirect	• Object : select to Y2
Button Object Operate Button Color Position Button C Set OM C Set OFF © Reverse C On Instant	• Operate :inverse

(2) Connect V5 inverter with PLC port ,achieve operation including start ,stop, frequency setting,frequency indication.

Click "digital input <sup>23</sup>""digital indicator <sup>23</sup>""lamp button <sup>3</sup>" and leave it in objective position editing project is showed as below

Connect Download PORT with PLC Y2 Reverse of Y2	Digital input:frequency value
Connect PLC PORT with Inv <del>erter</del>	
Write Frequency 00000 Forth/Stop	Lamp button: control to start and stop
	Digital display: diaplay output frequency value

Property of digital input

Digital Input	×
Object       Display       Input       Font       Color       Position         Operate Object       Station       Device       PLC Port •       VirStaNO       0       Station       1         Object       Object       Object       Station       1       0       Object       Object       Object       Object       Indirect       Data       Data       Type       Word       •       •       •       Object       Object       Object       Object       Station       1       •       <	<ul> <li>Station : Sation No: select PLC port and set PLC No as 1</li> <li>Object :select"set frequency" Set Freq Out Freq Out (i) Out (i) Para</li> <li>, then enter right address</li> </ul>
Property of Digital display:	
Display Digital 🗙	• Station
Object Display Font   Color   Position	Device: select PLC port with station NO1
Station Device PLC Port  VirStaNO 0 Station 1	Out Freq  Out Freq Out (I)

 Station
 1

 Out Freq
 Out Freq

 Out (i)
 Out (i)

 Out (i)
 Out (i)

 Out (i)
 Out (i)

 Indirect
 Object:

 Bus (M)
 , select "output

 frequency "and enter right address

 Data type is with default value:Word

Property of "lamp button"

Data Type Word

Out Freq 💌

•

Object Object

Data
Button With Lamp	
Object General Aspect Color Position Operate Object Station Device FIC Page	• Station Device: select PLC port with station
Device PLC Port  VirStaNO O Station 1 Object Object Forth/Stor Indirect	NO1
Watch Object       Station       Device       PLC Port       VirStaNO       Object       Object       Object       Indirect	• object : Run Sts , select "foth/stop "and enter right address.

Thus, the editing project is finised ,please use original cable to download data, the project is showed as below

Connect Download PORT with Y2	h PLC Reverse of Y2	
Connect PLC PORT with Inv	rerter	
Write Frequency Display current Frequency	60000 Forth/Stop	

Regarding how to download data please refer to "open a new project "for more details

#### • Connection

Do the following connections and parameter settings ,PLC with download port and inverter with PLC port.

(1)	Parameter settings t	for connection	between 1	Download	port and PLC
-----	----------------------	----------------	-----------	----------	--------------

In this example, take PLC type with XC3-32R-E then choose port2, as below:

Name	Setting value	Note
Modbus station	1	
NO	1	Defeette estime
Baundrate	19200	Default setting
Data bit	8	

Stop bit	1	
Parity check	Even	

B Set the downlaod parameters of TH765-MT as same as PLC



More details regfarding parameters setting of PLC please refer to the XC series PLCS manual, can

get from Xinje website"<u>www.xinje.com</u>"

(2) Parameter settings for connection between PLC port and inverter

A Parameter setting for Inverters

Set the parameters of V5-411P5

Name	Settting	Description
P0.01	Frequency given selection 4	Controled by communcation
P0.03	Runcommandselection 2	Controled by communication
P3.09	Communication prameters setting 054	19200bps, 1-8-1, even
P3.10	Station No.	Same as panel's setting ,1

B Parameters setting of panel's PLC port:

Set the downlaod parameters of TH765-MT as same as PLC

Communication Parameter 🛛 🗙				
Baudrate C 4800 C 38400	Data Bit 7Bits   8Bits			
C 9600 C 115200 C 19200 C 187500	Stop Bit © 1Bit © 2Bits			
Parity check	` <u>O</u> dd			
Wait				
Send Data Vir Station Retry times 3				
Exchange WORD				
OK Cancel				

Parameter setting:
 Baudrate: 19200;
 Data bit: 8;
 Stop bit: 1;
 Parity check: Even;

- (3) Cable connection
- A Connect download port to PLC with original cable or user defined cable, as below:

TH series panels

port 2of XC series PLC

2 RXD		4	RXD
3 TXD	X	5	TXD
5 GND		8	GND

B Connect PLC port to Inverter with communication cable RS485, as below

PLC port of TH series panels

Terminals of inverter



Turn on the power of system after confirming all the connections and settings ,debugging step by step with the operations of panels until it have a good perfermance.

### 4.3 Note

It is important to note the difference between TH seriers panels and TP series panels ,with default value, COM1 port of TH panels is in communication mode ,but COM1 port of TP series panels is used for download, please short up 5&6 PIN before it enter into communication mode.

# 5 Alarm list

### 5.1 Introduction

Display alarm inforamtion when a problem occurs, usually matched with 'text,dynamic text,digital display,event button' components.



When coil M0 is triggered, display alarm information; When M0 is reset , alarm information disppears.

### 5.2 Procedure

Step1; click the component **F** from toolbar and leave it to the objective position, is showed as below:



Step2: set property ,including'common,alarm,font and position'items

#### property of 'common'

Alarm		
Common Alarm	Font Posi	tion
✓ Title —		Align
Title	Alarm List	C Left (L)
		• Center (C)
Alarm	100	
Row Count	5	🔿 Right (R)
Cell	20	🔽 Border Bold

#### property of 'alarm'

Alarn				
Commo	n Alarm	Font Po	sition	1
-	1 <b>M</b> O	Control	Content Alarm Content	

- Title:alarm list is showed with title,the width can be set.
  - Align : select the align mode

- Control coil: coil used to trigger the alarm
- Content : display alarm information

Alarm message adding or deleting

Alarm		×
Common	Alarm Font Position	
	Control Content	
1	New Message	
	Delete	
,		

• Move to the NO. Position and right-click to select 'new message'or 'delete'.

How to do the operations with'new text, new data and delete'

Alarn			×
Common Alarm	Font Po	sition	-
	Control	Content	
1 MO		Alerm Content	
		Copy Content	
		New Text	
		New Variational Text	
		New Data	
		Delete	

Details of above is showed as below:

• Move to the 'content 'position.

• Copy content: copy the content to another place.

- Paste content: paste the objective content
- New context: add new content
- New variational text: add variational text .
- New data:add new data
- Delete: delete the content

Common Alarm Font Position Control Content 1 MO Alarm Content	• Content is showed as left when "new content "is selected
Common Alarm Font Position Control Content 1 MO TextEx	• Content is showed as left when 'variational text'is selected.
Common Alarm Font Position Control Content 1 MO 00.00	• Content is showed as left when 'new data'is selected.

More details regarding 'font ,position'please refter to 'button'part.

## 5.3 Samples



• In this example, alarm information is triggered by bit PSB300-PSB307,meanwhile the 'variational text 'is based on value of register PSW300 and 'data' is according to register PSW301.

• Matched with 'event button',Alarm list can show more information.

The whole procedure can be comprised of 4 steps , is showed as below:

Name	Property	Description
	Display text	Show fluid level
Alarm list	Display variational text	Show content based on register value
	Display data	Data indicator
Event button	Prev item,next item	
Digital input	PSW300、PSW301;	Data input
Lamp button	8 lamp button from PSB300 to PSB307;	Trigger and reset alarm inforamation

### 5.3.1 'Alarm list'editing

Click component from toolbar and set 'alarm' property as below:

Alarm			X			
Common A	Common Alarm Font Position					
	Control	Content				
1	PSB300	over hydraulic pressure 1				
2	PSB301	over hydraulic pressure 2				
3	PSB302	under hydraulic pressure				
4	PSB303	over hydraulic pressure 4				
5	PSB304	over barometer 1				
6	PSB305	over barometer 2				
7	PSB306	hydraulic pressure 5				
8	PSB307	000000				

• Add new messages to 8items ,from 1to 6 are text,double-click to set property as below:

Text	
Text Font Color	
Content over hydraulic pressure 1	

• Alarm message triggered by PSB306 is referenced with PSW300,double-click this item TextEx, its property is showed as below:

Data 🔀
Object Text Font Color
Station       Device     PLC Port       VirStaNO     0
Object Object 300 Indirect
Data Data Type Word

• Select the object with register PSW300

'Display'property:

Vari	ationa	l Te	ext					X
ОЪј	ect Disp	lay	Font	Color	Posi	tion		
_⊂C,	<u>o</u> ntent —							۱ ۱
	Data	Stri	ing Des	script			Add	
	0	hydi	caulic	pressure	1	-		
	1	hydi	hydraulic pressure 2					
	2			pressure			<u>D</u> elete	
	3			pressure				
	4	hydi	raulic	pressure	5			
	,							

Add	new	message	via
button		Add	

Value	Alarm message
PSW300=0	Hydraulic pressure 1
PSW300=1	Hydraulic pressure 2
PSW300=2	Hydraulic pressure 3
PSW300=3	Hydraulic pressure 4
PSW300=4	Hydraulic pressure 5

The contact between PSW300 and alarm information is showed as below:

• The alarm message triggered by PSB307 displays data,double-click property as below:

Object Text Font Color	
Station Device PLC Port - VirStaNO 0 Station 0	
Object Object S01	
Data Data Type Word	

 Select the object with register PSW301,which means when the value of PSW301 dsiplay when PSB307 is triggered.

### 5.3.2 'Event button'editing

Click component from toolbar and set property as below:

Alarm List		Alarm List		
over hydraulic pressure 2 🔺		over hydraulic pressure 1	Event Button	
under hydraulic pressure 1		over hydraulic pressure 2	Event Button Color	Paritian
over hydraulic pressure 4	Prev Item	under hydraulic pressure 1	Trend	
over barometer 1	1100 10011	over hydraulic pressure 4	Trend/Event	Function Prev Item
over barometer 2	$\longrightarrow$	over barometer 1 🛛 🔻	C Time Trend	,

Other components are similar to this ,more details please refer to above .

### 5.3.3 'Digital input'editing

Click component **23** from toolbar and set property as below:

	Digital Input 🛛 🚺
PS#300 Property setting Alarm message is triggered by PSB306	Object Display Input Font Color Position Operate Object Station Device PLC Port VirStaNO 0 Station 0 Object Object PSW 300 Indirect
	Digital Input
PSW301 Property setting	Object Display Input Font Color Position Operate Object Station Device PLC Port VirStaNO 0 Station 0
Alarm message is triggered by PSB307	Object Object 301

### 5.3.4 'Lamp button'editing

Click compoent from toolbar and set property as below:



Thus ,the whole project is finished.

### 5.4 Notes

The selection on alarm message can be achieved by 'event button'when amount of alarm meaasges is more than the number set.

# 6 Net function

### 6.1 Introduction

Both TH series panels and TP series panels support Net functions which means one objective device can be controled by several panles, specially in the situations where monitoring is need.



The panels is comprised of host net panel and slave net panels. Only one panel controls as a host ,other panels are in slave mode which connects to each other via RS485 with independent station NO. The structure is showed as below



For example, the structure of system comprised of four panels and one PLC is showed as below:



### 6.2 Procedure

The following charpters will take the sample to show how to set this net system including three panels and one PLC.

Connection is showed as below.



All devices comprised this system is showed as below:

Name	Туре	Description	Action
TH series panel	TH765-M	Host net	Control the output Y0
TH series panel	TH765-M	Slave net	Set Y1 at 2-seconds intervals
(station NO.1)			

TH series panel	TH765-M	Slave net	Set Y2 by button then turn off automatical	
(station NO.2)			after 3 seconds	
XC series PLC	ХC3-24R-Е	As control object		

Procedure



### 6.2.1 Project editing on panel(host net)

• Mode setting :

Set as path 'file/system setting/device', as below:

Project Set		×	
Para Device C Single	Alternation   Clock   Font     Clock     Font     Clock     Font     Clock   Clock   Clock     Clock   Clock	Panel Project ave Net	• Set as 'host net'.
_PLC Port			
Model	Thinget XC Series	•	
Param	19200, 8, Even, 1		
-Download Por	t		
Mo <u>d</u> el	Unuse Downlad Port	<b>V</b>	
Param	9600, 8, Even, 1		• Connect salve panel via
Station 10	1, 2		download port ,enter station NO 1 & 2 ,as left.

• Project editing

Do the inverse operations to PLC output via lamp button.

Click component of from toolbar and set property as below:

Control output Y0	Object General Aspect Color Position	Object General Aspect   Color   Position
	Operate Object  Station  Device PLC Port VirStaNO  Object	Button Operate C Sgt ON C Set OFF (* Reverse) C ON Instant Twinkle Status (* Stop C ON C OFF
	Object Y I O	-Twinkle Speed © Slow C Fgst
		Password Level Level1
<ul><li>Property of 'object'</li><li>Property of 'general</li></ul>		



### 6.2.2 Project editing on panel(salve net 1#)

This charpter describe how to set the output Y1 at 2-second intervals.

#### Mode setting:

Set as path 'file/system setting/device' as below



#### **Project editing**

In this screeen, output Y1 is controled by PSB300 at 2-seconds intervals.

(1) Component PSB300

Click component *from toolbar, and set property as below:* 

	Object Operate Button Color Position	Object Operate Button Color Position
Control Y1	Station Device PLC Port VirStaNO 0 Station 0	Button C Set OM C Set OFF @ Reverse C On Instant
	Object 300	

- Property of 'object ', with PSB300;
- Property of 'general';set as 'inverse'

(2) Componnet 'function field'

Click conponent from toolbar and set property as below

Mode Function Position
Act Mode C S <u>t</u> art Screen
C Coil Spring
C Co <u>n</u> tinue C First Scan After <u>D</u> own
C First Scan After <u>P</u> ower
Time/Continue Coil Limit PSB300

#### Control Y1 by PSB300

- Select 'time': set Y1and keep 1 second and another second keep as off status
- 'Time' is avaiable when triggered coil PSB300 is on

#### Property of 'function'



• Select 'reverse coil'function with object Y1

Thus, the project of salve-net 1# is showed as below:



### 6.2.3 Project editing on panel(salve net 2#)

This charpter describe how to set the output Y2 to achive objective operation

#### Mode setting:

Set as path 'file/system setting/device' as below

Project Set		×	
	Alternation Clock Panel Font Project C Host Net Slave Net Thinget XC Series 9600, 8, Even, 1		• Set as 'slave net'
Station WO Download Port Mo <u>d</u> el	2 Vnuse Downlad Port		• Set the station NO as 2

#### **Project editing**

In this screeen, output Y2 is set via button and turns off automatically after 3-seconds.

(1) Component 'button'

Click component from toolbar, and set property as below:

	Object Operate Button Color Position	Object Operate Button Color Position
Control Y2	Station Device PLC Port v VirStaNO 0 Station	Button © <u>Set ON</u> C Set O <u>F</u> F C <u>R</u> everse C On <u>I</u> nstant
	Object Y 2 Diject Y I 2	

#### (2) Componnet 'function field'

Click conponent from toolbar and set property as below



The time start to count when Y2 is turn on via button,set the constant time with 3 seconds.

Property of 'function'

• Select 'reset coil'function with object Y2

Thus, the project of salve-net 2# is showed as below:



Above all, the whole project is showed as below:



### 6.3 Note

During the above example ,we used all TH series panels as the control devcie with COM1 port in comunication mode directly,while use TP series panels ,please convert COM1port from download mode to communication mode first ,otherwise ,the commucation will be lost.

# 7 Data grid & Grid control

### 7.1 Introduction

Both 'Data grid 'and 'Grid control' can display continuous register valus in list form, the register address is showed as diagram 1

This list is start from PSW300 to PSW309:

PSW300	PSW301	PSW302	PSW303	PSW304
PSW305	PSW306	PSW307	PSW308	PSW309
		5. 1		

Diagram 1

Address assignment rule: from left to right, from up to down.

The difference between these two compoents is:

- 1. 'Grid control'is usually used to modify datas where needs large numbers to monitor.
- 2. 'Data grid'display datas with circle buffer and time.

This difference is showed in the 'Column' form, the details will describes in following charpters.

### 7.2 Description

#### Examples:

Matched with component'sample save', this example collect data from registers PSW300 and PSW301 to be saved in registers with first address PFW300.All sample datas are divided into 10 groups and displays values via 'data grid'and 'grid control'.



Description regarding the other component used in this example please refer to<HMI manual basic> ,or get from website http://www.xinje.com".

Click component 'sample save room', from toolbar and set property as below:

Sample Save	
Object Pick Save	Position
Display Object <u>T</u> able:	
0 PSW[300] 1 PSW[301]	Add
	<b></b>
	Modify



• Object : set object with PSW300 and PSW301,as left.



Diagram 6

Digital Input 🛛 🗙	• Object : set PSW300 and PSW
Object Display Input Font Color Position Operate Object Station Device PLC Port v VirStaNO 0 Station 0 Object Object PSW V 300	301 respectively.

Diagram 7

Click component 'grid control' and set property as below:

Grid Control	X
Object Common Column Position	
Station Device PLC Port v VirStaNO 0 Station 0	
Object PFW 304	

• Object : set first address with PFW304 (With 'circle buffer'takes up 4 registers from PFW300 to PFW303,so take PFW304 as start)

Diagram 8

More details regarding 'circle buffer' please refer to introduction of 'sample save' parts

Grid Control	
Object Common Column Positio	n
All Records 1 Page Records 1 Title Height 20	Static Field Title Name
Cell Height 20	Worker1
Title Font Cell Font	HOT KEY I
✓ Auto Add Field Title NO	
Width 30	



• Font: select font that you want.

- Auto add field: as record NO.
- Static field: set title name of each line

• All records: amount of all record of this list.

• Page record: records showed on each page.

- Title height: height of title
- Cell height: height of each
- Use title: use title or not
- Bold font: bold or not

rid Control				
Object Common Co	lumn Pos	sition		
🔽 modifiable	Add	Modify	/ D	elete
Title	Width	Data Type	Format	
PSW300	52	WORD	UINT	
PSW301	52	WORD	UINT	
year	52	WORD	HEX	
month	52	WORD	HEX	
date	52	WORD	HEX	
hour	52	WORD	HEX	
minute	52	WORD	HEX	
second	52	WORD	HEX	



Column information	$\mathbf{X}$
Title PSW300	Format
Width 52	🔿 Dec (D)
BitLength 3	🔿 Нех (U)
DotLength 0	🔿 Float (F)
Type Word 💌	🖲 Unsigned (X)
OK	CANCEL

Diagram 11

Description of type: Byte, Word, Dword, String.

• Fornat: format of data

DEC ,HEX,FLOAT,UNSIGNED Time is in HEX format

Click component 'data grid' **f**rom toolbar and set property as below:

There only show the difference between these two components :

Data Grid		X
Object Common C	olumn   Position	
Station Device PLC VirStaNO	Port 0 Station 0	
Object Object PFW	300	

Diagram 12

• Modifiable: data can be modfied when selected

<ul> <li>Ado</li> </ul>	l/mo	dify/del	ete:	add	new
column	by	press	- 1	Add	and
				_	

modify by press Modify

- Title: title of column
- Width : width of column

• Bitlength/dolength: set length of data,(set dolength as 4 when display year inforamtion)

• Type : data type

• Object : PFW300. (first address from PFW300, it is important to noted this is difference from 'grid control')

Data Grid			X
Object Common	Column Po:	sition	
🔽 Circle Buff	er Add	Modify	y Delete
Title	Width	Data Type	Format
PFW300	81	WORD	VINT
PFW301	81	WORD	UINT
TIME	160	TIME	Y-M-D H:M:S

• Circle buffer: when selected the saved register from the register that 'object 'set. Is showed as left.

Diagram 13

ð

More details regarding 'circle buffer' please refer to introduction of 'sample save' parts



Investigate the data in the two list via emulator offline.

### 7.3 Description on setting

Property of 'object' for lamp button

Button With Lamp	×
Object General Aspect Color Position	
Operate Object       Station       Device     PLC Port       VirStaNO     0	
Object Object 300	

Diagram 15

Setting	Description
Object	As operation object

Property of 'common' for grid control

Grid Control	
Object Common Column Positio	on
All Records 1 Page Records 1 Title Height 20 Cell Height 20	Static Field       Title       Name       Width
Cell Height     20       Vise Title     Bold Border       Title Font     Cell Font	Worker1
✓ Auto Add Field Title NO Width 30	

Diagram 16

Setting	Description
All record	amount of all record of this list
Page record	records showed on each page.
Title height	height of title
Cell height	height of each
Use title	use title or not
Bold border	bold or not
Title/cell font	set font that user want
Auto add field	as record NO.increased from up to down
Static field	set title name of each line

Prop

#### erty of 'Column'

Grid Control				×				
Object Common	Column Pos	ition						
🔽 modifiable	Add	Modif	y Dele	te	Data Grid			
Title	Width	Data Type	Format	=	Object Common C	lumn Pos	sition	
PSW300	52	WORD	UINT		🔽 Circle Buffer	Add	Modify	y Delete
PSW301	52	WORD	UINT			Add		y Derece
year	52	WORD	HEX		Title	Width	Data Type	Format
month	52	WORD	HEX		PFW300	81	WORD	UINT
date	52	WORD	HEX		PFW301	81	WORD	UINT
hour	52	WORD	HEX		TIME	160	TIME	Y-M-D H:M:S
minute	52	WORD	HEX					
second	52	WORD	HEX					

Grid control

Data grid

### Diagram 17

Setting	Description
Add/modify/delete	Add new column and modify
Modifiable(grid	Data can be modfied when selected
control)	
Circle buffer	When this item is selected, the first 4 registers is taken as 'circle buffer'

Column information	X
Title PSW300	Format
Width 52	🔿 Dec (D)
BitLength 3	C Hex (U)
DotLength 0	🔿 Float (F)
Type Word 💌	💿 Unsigned (X)
OK	CANCEL

Diagram 18

### Property of 'column'

Setting	Description
Title	title of column

Width	width of column	
Bitlength/dolength	set length of data,(set dolength as 4 when display year inforamtion)	
Туре	data type	
Fornat	format of data. DEC ,HEX,FLOAT,UNSIGNED	

# 8 XY curve

### Introduction

This component is used to display object position on plane coordinate with fold or dot mode. Datas collecting from 2 registers can be compared with the referenced curve ,bringing convenience for investigation and debugging.



NO.3: Destination curve with dot mode NO.4: Sample curve with dot mode

### Description

#### Example:

NO.2:

Take registers PSW300 and PSW301 as data source ,and compare sample cure with destination curve.

• Other components included in this example please refer to the 'Basic manual for touch panels'.get

from website"http://www.xinje.com

Sample curve with fold mode

### Procedure

Cilick component 'XY curve ' in from toolbar and se property as below:

XYTrend	X
Coordinates Set Curve   Pick C	Curve Position
-Hor	Ver
Data Type Unsigned 💌	Data Type Unsigned 💌
Segment 2	Segment 2
Value	Value
<u>Up</u> 100	Up 100
Low O	Lo <u>w</u> 0
Iotal 5	Tot <u>a</u> l 5
Float 0	Float 0
Color Coord	- Background
Scale 🗾 🗸 🗸	Color -
Value 🖉	

Diagram 3

- Horizon:
- $\triangleright$  Data type: select data type of horizon, the same as the data source.
- Segment:set the numbers of scales segments.
- > Value: display the value of the scales when selected.
  - > Up/Low value: set upper-limit value and lower-limit value.
  - ➢ Total: the bitlength of scales.
  - ➢ Float: the dolength of scales.
- Vertical: parameters setting refer to 'horizon'setting.
- Color: set color for curve.



• Add/Del: add or delete a set curve as referenced curve for pick curve.

Curve :

- Color : selevt destination color.
- > Curve mode: with fold mode or dot mode.

Coordinates:set
 coordinates

value,double-click Coordinates to set details.

Diagram 4



• Add/Del :add/delete coordinates and set value via right box.



XYTrend		X
XYTrend Coordinates Set Curve Curve Curve1	Pick Curve Position Set Curve1 X Object PSW300 Y Object PSW301 Set Param V Auto Save V Betain	×
Add Del	Control Pick	

Diagram 6

- Add/del : add/delete a pick curve.
- Set
  - X Object/Y Object: set data source for sample.(In this example,X axis collect from PSW300,Y axis is from PSW301).
  - Set parameters: parameters setting for curve(double-click to enter into this mode, refer to diagram
     7)

• Auto Save: coordinates value is saved into internal space automatically when this item is selected. Otherwise ,the values saved from the address defined by user.

• Retain :collecct data saved in retentive registers ,keeps value for ever,otherwise,data lose when power off.

• Control pick: object coil used to control pick. If selected that means the data collection start with coil is ON.

Parameter	X
Parameter	
Update Mode	Time 💌
Interval	1 S
Color	<b></b>
Total Data	11
Curve Mode	
C Dot	
1	
<u>O</u> K	<u>C</u> ancel

- Update Mode:select mode that you want .
- I. Time : updat curve at intervals (interval unit is second)
- II. X value changed: new curve is generated once value of X axis is changed.
- III. Y value changed: new curve is generated once value of Y axis is changed.
- IV. X or Y value changed: new curve is generated once either X or Y axis value is changed.

Diagram 7

- Color: set color of pick curve.
- Total data: number of data can be display. The earliest data will be replaced when there is more datas.
- Curve mode: set mode with fold or dot.

### click two components 'digital input<sup>23</sup>' from toolbar and set property as below:

Digital Input	×
Object Display Input Font Color Position Operate Object Station Device PLC Port y VrStaNO 0 Station 0	
Object PSW 300 Indirect	

• Object : set with PSW300,and the other with PSW301.

Diagram 8

#### Thus, all setting is finished and investigate the curve by emulator offline.

Input data via component 'digital input'.



Black curve: stand for set curve(destination curve). Red curve:stand for pick curve(actual curve)

### **Description for parameter setting:**

Property of 'coordinates'

XYTrend	X
Coordinates   Set Curve   Pick C	Curve   Position
Hor	Ver
Data Type Unsigned 💌	Data Type Unsigned 💌
Segment 2	Segment 2
Value	Value
<u>Up</u> 100	ν <u>p</u> 100
Low O	Low 0
Total 5	Tot <u>a</u> l 5
<u>Float</u> 0	Float 0
Color Coord	Background
	Color
Scale 🗸	
Value 🖉	

Description
select data type of horizon, the
same as the data source.
set the numbers of scales segments
set upper-limit value and
lower-limit value.
the bitlength of scales the dolength
of scales
set color for curve.

#### Property of set curve



Parameter	Description
Add/Del	add or delete a set curve as referenced curve for pick curve
Color	selevt destination color.
Curve mode:	with fold mode or dot mode.
Coordinates	set coordinates value

Property of 'pick curve'

XYTrend		X
Coordinates Set Curve Curve	Pick Curve Position Set Curve1 X Object PSW300 Y Object PSW301 Set Param V Auto Save Retain	
	Control <u>Fick</u>	
<u>A</u> dd <u>D</u> el		

Parameter	Description
Add/de1	add/delete a pick curve.
Set	X Object/Y Object: set data source for sample.(In this example,X axis
	collect from PSW300,Y axis is from PSW301).
	Set parameters: parameters setting for curve(double-click to enter into this
	mode, refer to diagram 7)
Auto Save	coordinates value is saved into internal space automatically when this
	item is selected. Otherwise ,the values saved from the address defined by
	user.
Retain	collecct data saved in retentive registers ,keeps value for
	ever,otherwise,data lose when power off.
Control pick	object coil used to control pick. If selected that means the data collection
	start with coil is ON.

Property of 'set parameters'

Parameter 🔀		
	Parameter	
	Update Mode	Time
	Interval	1 S
	Color	<b>_</b>
	Total Data	11
	Curve Mode -	
	Eold	
	C <u>D</u> ot	
	<u>O</u> K	<u>C</u> ancel

Parameter	Description	
Update Mode:	I. Time : updat curve at intervals (interval unit is second)	
	II. X value changed: new curve is generated once value of X axis is changed.	
	III. Y value changed: new curve is generated once value of Y axis is changed.	
	IV. X or Y value changed: new curve is generated once either X or Y axis value is changed.	
	V.	
Color	set color of pick curve.	
Total data	number of data can be display. The earliest data will be replaced when	
	there is more datas.	
Curve mode:	set mode with fold or dot.	

# 9 Sample save

### Introduction

This component supports both data collection and data save for ation datas .



### Description

Diagram 1

### Example:

Collecting 20 groups datas from data sources PSW300 and PSW301 then save to the registers with beginning PFW300.



Other components included in this example please refer to the 'Basic manual for touch panels'.get

from website"http://www.xinje.com

# Click component 'sample save' and set property as below:



Diagram 2

- Add:add a new data source;
- Modify: modify the data source;
- Delete : delete the chosen data source;
- Move up/move down:move the chosen data source up or down.

Sample Save	
Object Pick Save Position	
Count 20	
Period 1 Sec	
Manner ymrhms	
Control	
This Regist was used to control Pick!	

#### Diagram 3

Sample Save		×
Object   Pick	Save Position	
Object		
Object F	PFW - 300	

Diagram 4

### Count: pick times

- Period: interval between two picks
- Manner: time manner

Control: this regist was used to control pick.(sample all the time if not selected)

Object :define the beginning register • for data saving(in this example ,data is saved from register PFW300.)

### Cliclk component 'grid control' **from toolbar and set property as below:**

This component used in this sample is for data investigation, but please note this componnet is not necessary to be macthed with component 'sample save'.

Grid Control	×
Object Common Column Position Station Device PLC Port VirStaNO 0 Station 0	
Object Volume Vo	

Diagram 5

Object: display datas from register PFW304.

Note :'sample save'takes up 4 registers as 'circle buffer' where address pointer lies. These pointers indicate address for data saving, structure is shoewd as below(diagram 6)

#### Data source (PSW300, PSW301)



Address assignment

Circle	buffer:	occupy	four
registers	from	PFW300	to
PFW303.			

Save datas (with time information) to registers PFW300

Data area : ( Take up	Time area : (Take up
PFW304,PFW305 , two	PFW306~PFW311, six
registers)	registers)
Data area : ( Take up	Time area : (Take up
PFW312,PFW313 , two	PFW314~PFW319 , six
registers)	registers)
Data area : ( Take up	Time area : ( Take
PFW320,PFW321 , two	uPFW322~PFW327 , six
registers)	registers)

#### Diagram 6

As said above, 'grid control'dispaly datas from PFW304 because there is no need to know the values of circle buffer.

Data area displaying time information is assigned in sequence: year ,month,date,hour,minute,second(in HEX format).

Grid Control	
Object Common Column Positi	on
All Records 20 Page Records 20 Title Height 20 Cell Height 20	Static Field       Title       Width       0
<ul> <li>✓ Use Title ✓ Bold Border</li> <li>Title Font</li> <li>Cell Font</li> <li>✓ Auto Add Field</li> <li>Title №</li> </ul>	Worker1 worker2 worker3 Text3 Text4 Text5 Text6 Text7 Text8
Width 30	Text9 Text10

Diagram 7

• All records:20(20groups to be sampled)

• Page records:set same as 'all record'(page record can not more than all records)

• Static field:not selected in this example.
ject Common C	olumn Po:	sition		
modifiable	Add	Modif	y I	elete
Title	Width	Data Type	Format	
PSW300	50	WORD	UINT	
PSW301	50	WORD	UINT	
year	50	WORD	HEX	
month	50	WORD	HEX	
date	50	WORD	HEX	
hour	50	WORD	HEX	
minute	50	WORD	HEX	
second	50	WORD	HEX	

• Add/modify/delete:add to 8 columns(as showed diagram 8)

• Note: year information display in 4 bits .

Diagram 8

Click 2 components 'digital input<sup>23</sup>' from toolbar and set property as below:



After all conponents seting over, investigate run status via emulator offline.

<sup>IMI</sup> 500

N/L			
11.4.11	2	ЮЮ	12
	-	00	

NO	PS <b>₩</b> 300	PS <b>₩</b> 301	year	month	date	hour	minute	second
0	500	200	2009	10	23	13	11	17
1	500	200	2009	10	23	13	11	18
2	500	200	2009	10	23	13	11	19
3	500	200	2009	10	23	13	11	22
4	500	200	2009	10	23	13	11	23
5	500	200	2009	10	23	13	11	24
6	500	200	2009	10	23	13	11	25
7	500	200	2009	10	23	13	11	26
8	500	200	2009	10	23	13	11	27
9	500	200	2009	10	23	13	11	28
10	500	200	2009	10	23	13	11	29
11	500	200	2009	10	23	13	11	30
12	500	200	2009	10	23	13	11	31
13	500	200	2009	10	23	13	11	32
14	500	200	2009	10	23	13	11	33
15	500	200	2009	10	23	13	11	34
16	500	200	2009	10	23	13	11	35
17	500	200	2009	10	23	13	11	36
18	500	200	2009	10	23	13	11	37
19	500	200	2009	10	23	13	11	15

Diagram 10

# **Description of parameters setting**

"Property of 'object'



Parameter	Description
Add/Modify	add /modify the data
/Delete	source/delete data source;
Move up/move	move the chosen data
down	source up or down.(this
	operation effect the
	sequence of data saving)

"Property of 'Pick'

Sample Save	×
Object Pick Save Position	
<u>C</u> ount 20	
Period Sec	
Manner ymrhms	
Control	
This Regist was used to control Pick!	

Parameter	Description	
Count	pick times	
Period	interval between two	
	picks	
Manner	time manner	
Control	this regist was used to	
	control pick.(sample all	
	the time if not selected)	

"Property of 'save'

Sample Save		
Object   Pick	Save	Position
Object Object	PFW	300

Parameter	Description
Object	define the beginning
	register for data saving(in
	this example ,data is
	saved from register
	PFW300.)

# 10 XY Curve Ex

# **10.1 Introduction**

XY curve EX is used to display a series values from X axis and Y axis with fold mode. The difference compaired with XY curve is:

First ,XY curve Ex display datas from continuous registers rather than two fixed registers(X is from one register, and Y is from one register).

Second: There is no referenced curve for comparing.



NO.	X value	Y value
0	20	60
1	50	50
2	80	30

Diagram 1

## **10.2 Description**

### Example:

Draw XY curve based on values from 20 registers from PSW300 to PSW319 with 10 dots.

Other components included in this example please refer to the 'Basic manual for touch panels'.get from website"http://www.xinje.com

Click pomonent 'XY curve Ex' i from toolbar and set property as below:

XY Poly Map	X
Graph Pick Position	
Aspect <u>F</u> rame:	
<u> </u>	
Trend Style	
C L <u>i</u> ne C <u>P</u> oint	Point-Line
Line	Point
Color:	Color:
₩idth: 1 💌	₩i <u>d</u> th: 4 💌
Style	-Style
© Solid © D <u>a</u> sh	

• Aspect: set color of frame and background.

• Style :set curve mode.(in this sample ,select point-line mode)

• Line :set color,width and style of line.

• Point : set color, width and style of point.

Diagram	2
---------	---

XY Poly Map		
Graph Pick Po	sition	
Share buffer		
XY Data	PS#300	{ Parameter Set
		<i>l</i> Parameter Set
🖵 Dynamic Set		
Data Count	10	
Draw Mode		
-First Status		
C None	Once	🔘 At All time
Register C	1:Clear Draw 2:Reserve Dr	aw
-		
	Diagra	m 2

Diagram 3

• XY data:data source is from one area or not.(in this example,'share buffer'is selected and from register PSW300 which means the first dot Xvalue is from PSW300,and Y value is from PSW301,and so on.)

• Data count: the count of points on curve, (when 'dynamic buffer' is selected, it means that data count is based on the referenced register value)

• First value: set the initial mode of curve:

- None: do no draw automatcially.
- Once :only draw once at intinal values .
- At all time :draw curve all the time.

• Register control:do the operation based on the value of referenced reister, there are four operation can be selected.

- > 1:clear draw:clear all previous records and draw new one.
- > 2:reserve draw: reserve all previous and draw new one.
- ➤ 3:Clear: clear all records.
- ➤ 4:Repet draw: repeat draw continuously instead old ones.

### Click 'grid control' from toolbar and set property as below:

This component used in this sample is for data investigation, but please note it is not necessary for

#### application of component 'sample save'. Grid Control Object :PSW300(beginning address • Object Common Column Position as data source) Station Device Ŧ VirStaNO Station Object Object 300 PSW -Diagram 4 Grid Control All records:10 Object Common Column Position Page records:10 🔲 Static Field All Records 10 Static field:not use Title Name Page Records 10 Title Height [ Width [ 35 0 Cell Height [ 35 🔽 Use Title 🔽 Bold Border Worker1 worker2 Title Font Cell Font orker3 ext3 🔽 Auto Add Field xt5 Title NO ext7 ext8 ext9 Width [ 30 Diagram 5 Grid Control Add/modify/Delete:add 2 to Object Common Column Position columns. 🔽 modifiable Modify Add Delete Title Width | Data Type Format X value Y value 73 73 WORD UINT WORD UINT Diagram 6

After above components are finished ,please use 'emulator offline'to investigate the run status.



Diagram 7

# **10.3 Description of parameter setting.**

Property of 'Graph'

XY Poly Map	×
Graph Pick Position	
Aspect	
<u>F</u> rame:	
☐ Iransparece Background: ▼	
Trend	
Style	
C L <u>i</u> ne C <u>P</u> oint © P <u>o</u> int-Line	
Line Point	
Color: Color:	
<u>₩</u> idth: 1 ▼ Wi <u>d</u> th: 4 ▼	
StyleStyle	
© Solid © Rect	
C Dash C Round	

Parameters	Description
spect	set color of frame and background.
Style	set curve mode.(in this sample ,select point-line mode)
Line	set color, width and style of line.
Point	set color, width and style of point.

#### Property of 'pick'

XY Poly Map	×
Graph Pick Position	
🔽 Share buffer	
XY Data PSW300 ( Parameter Set	
<i>l</i> Parameter Set	
Dynamic Set	
Data Count 10	
Draw Mode	
First Status	
C None 🕞 Once C At All time	
Register Contr         PSW256         3:Clear         4:Repet Draw	

Parameters	Description			
XY data:	data source is from one area or not.			
Data count	the count of points on curve, (when 'dynamic buffer'is selected, it means			
	that data count is based on the referenced register value)			
First value	set the initial mode of curve			
	None: do no draw automatcially.			
	Once :only draw once at intinal values .			
	At all time :draw curve all the time.			
Register control	do the operation based on the value of referenced reister, there are four			
	operation can be selected.			
	1:clear draw:clear all previous records and draw new one.			
	2:reserve draw: reserve all previous and draw new one.			
	3:Clear: clear all records.			
	4:Repet draw: repeat draw continuously instead old ones.			

# 11 Import CSVdata

## **11.1 Introduction**

This function supports data import from U-disk to TH series touch panels in CSV format, bringing convenient data analyse and update with software or other devices.

• Please pay attention to the following inforamtion:

1. Title in CSV files can not be impoerted with other information.

 $2.CSV\ files\ can be produced by touch panels\ ,EXCEL\ and other\ ways$  .

## **11.2 Description**

### Example 1

Import datas from CSV files which has the following features:

- 1. This CSV files is produced by touch panels as filename:TH.CSV.
- 2. This CSV file is in 'liner'mode with '5\*5 'array.



Other components included in this example please refer to the 'Basic manual for touch panels'.get

from website"http://www.xinje.com



- Click 'function button'from toolbar and add 'Import CSV data' as below:
  - Function: select 'Pressing'.
     Add/Modify:click 'import CSV data'from 'all' list and click'
     Add ', then click 'modify'key to set its property

Diagram 1

Property of 'Import CSV datas'

Import CS	/ data			X
Source Path	Data Save	Control Date	2 Time	
Device ID	1			
	🔲 Dynamic set	DO		
	🔲 Import Ctrl	MO		
Path/File	TH. csv			
🖲 Fix Nam	-			
○ Add ID	After Name			
	0			
	🔲 Dynamic set	DO		
start ID	0			
	🔲 Dynamic set	DO		

Diagram 2

Source Path D	ata Save	Control Date T	ime
Register capa Register mode		5 op 🖲 Line	
Parameter 1 parameter 2 parameter 3 parameter 4 parameter 5	Add Delete	Title Paramet Format © Dec (D) C C Float (F) C	Hex (U)
	Move up	Data type Bit length(G)	Word •
	Move down	Float length(C)	

Diagram 3

Bit length/Float length: set the same format as 'CSV files'.

Import CSV data		×
Source Path Data	Save Control Date Time	i)
Object Object PSW	256	

Diagram 4

• Device ID: the ID of U.disk when there are more than one disk. ID can be set by manual or dynamic register .

• Import control: import operation is allowed when referenced coil is set, otherwise , import is forbided.

• Path/File:name of import CSV file.

• Add ID after name:select file according to file name and ID. ID is set by manual or dynamic register.

• Start ID:set the beginning of CSV list for data import, '0'means start from the first line. Aslo start ID can be set by manual and dynamic register.

• Register capacity: amount of groups for data import every time.

• Register mode: set the same mode as 'CSV files'.(In this example, using 'line'. It is adviced to use'Loop'when mached with 'Real trend map'. 'History data map', 'Time trend map'and 'sample save' components.)

• Add/Delete:add or delete import inforamtion.

• Move up/Move down: change the sequence of column information.

• Title:set the column title.

• Format: set same format as 'CSV files'.

• Data type: set same format as 'CSV files'.

• Object: the beginning address for data import.

Import CSV data			X
Source Path Data S	Save	Control Date Time	
🔽 Execute status	PSE	B300	
🔽 Execute result	PSW	<b>¥</b> 280	
🔽 Execute process	PSW	W281	

Diagram 5

Meaning based on different value is showed as below:

- 0— Import successfully.
- 1— Device for import doesn't exsit.
- 2— Memory is not enough
- 3— Name of path file is incorrect.
- 4— Read/write file is failed.

• Execute process: show the procedure according to value of referenced register.(range of value is from  $0\sim100$ , and 100 means finishe import)

Import CSV	dat a			×
Source Path	Data Save	Control	Date Time	ļ ,
🗖 Date Tim	e			
Date format	YYYY-M-D	V		
Example	2010-3-29			
Time format	H:MM:SS	~		
Example	11:27:00			

• Date Time:import data with Date/time information when selected.(in this example,there is no time information ,so not select).

• Date format/Time format:select the format in touch panel.

Diagram 6

Click component 'grid control , and set property as below:



Diagram 8

• Excute result: show the result according to value of referenced register.

Grid Contro Object Commo	n Column Pos	ition   Modify	7 Dei	Nete	• Modifiable:not example only to inves data)	
Title Parameter 1 Parameter 2 Parameter 3 Parameter 4 Parameter 5	50 50	Data Type WORD WORD WORD WORD WORD WORD	Format UINT UINT UINT UINT UINT UINT		• Add/Modify/Dele information,is showed	ete: add to 5 lines as left.
click 'lamp'			lisplay'(t	wo)	and set property as bel Object:PSB300	ow:
Station Device VirStaNO Object	PLC Port 0 Stat	· · ·	0			
Display Digit		gram 10				

Object Display Font   Color   Position	• 0
Station Device PLC Port  VirStaNO 0 Station 0	PSW28
Object PSW V 280	

bject :PSW280,the other is set 81.

Diagram 11

Indirect

After all above components are finished ,please download data to panels and investigate whether the data in 'grid control' is consistent with that ones in CSV files .

### Example 2:

Import datas from CSV files which has the following features:

- i. This CSV files is produced by touch panels as filename:TH2.CSV.
- ii. This CSV file is in 'loop'mode with '5\*5 'array.

Note: the following charpters only describes the different parts compared with example 1.

Other components included in this example please refer to the 'Basic manual for touch panels'.get

from website"http://www.xinje.com

Click component 'function button' and add function with 'import CSV data' set property of 'import CSV data'

Import CSV data	
Source Path   Data   Save   Control   Date Time	• Path/file:TH2.CSV
Device ID 1 Dynamic set D0 Import Ctrl M0	
Path/File TH2  csv	
☞ Fix Name ○ Add ID After Name	
Diagram 12	
Import CSV data	• Register mode:please sele
Source Path Data Save Control Date Time Register capacity 5 Register mode	same format as 'CSV files')
parameter 1     Add     Title     parameter 5       parameter 2     parameter 3     Format       parameter 4     • Dec (D) C Hex (U)       C Float (E) C Unsigned (X)	
Diagram 13	
Import CSV data 🔀	• Date/time:select(the f
Source Path   Data   Save   Control Date Time	showed as left)
✓ Date Time	,
Date format YYYY-M-D	
Example 2010-3-29	
Time format H: MM:SS	
Example 13:15:08	
Diagram 14	
Click 'data grid' and set property as below:	
Data Grid	• Object: PSW300
Object   Common   Column   Position	
Device PLC Port	
VirStaNO 0 Station 0	
Object PSW 300	
Diagram 15	
-	

ect 'loop'(set

format is

Data Grid	• All records:5
Object Common Column Position	• Page records:5
All Records 5 Page Records 5 Title Height 20 Cell Height 20 Vuse Title Vold Border Title Font Cell Font Vorker3 Text3	• Stactic field :not select.
Diagram 16	
Data Grid 🛛 🗙	• Circle buffer: select (set same format
Object Common Column Position	as 'CSV files')
Circle Buffer Add Modify Delete	• Add/Modify: add to 6 column ,is
Title Width Data Type Format	showed as left.
Parameter 1 50 WORD UINT	
Parameter 2 50 WORD UINT Parameter 3 50 WORD UINT	
Parameter 4 50 WORD VINT	
Parameter 5 50 WORD VINT Date/Time 50 WORD VINT	
Datey Time 30 NORD OTH	
Diagram 17	
Click 'lamp' component (one) and 'digital dis	play, 📰 (two),and set property as same as example

1, then download data to panels to investigate whether the data in 'grid control' is consistent with that ones in CSV files .

# **11.3 Description of parameter setting.**

Property of 'Source path'

nport CSV	data	X
Source Path	Data   Save   Control   Date Time	
Device ID	1	
	Dynamic set DO	
	Import Ctrl MC	
Path/File	TH csv	
💿 Fix Name	•	
C Add ID A	After Name	
	0	
	Dynamic setDO	
start ID	0	
	Dynamic setDO	
	Diagram 18	
ameter	Description	

Device ID:	the ID of U.disk when there are more than one disk. ID can be set by manual or dynamic register .
Import control:	import operation is allowed when referenced coil is set, otherwise , import
	is forbided.
Path/File	name of import CSV file.
Fix name	Only file name in 'path/file'is active.
Add ID after name	select file according to file name and ID. ID is set by manual or dynamic
	register.
Start ID:	set the beginning of CSV list for data import, '0'means start from the first
	line. Aslo start ID can be set by manual and dynamic register.

#### Property of 'data'

Import CSV dat	a		
Source Path Data	a Save	Control Date Time	
Register capacity	у	5	
Register mode	C Loo	p 📀 Line	
parameter 1 parameter 2 parameter 3 parameter 4 parameter 5	Add Delete	Title parameter Format © Dec (D) O He O Float (F) O Un	x (U)
	Move up	Data type Wo	rd 💌
		Bit length(G)	4
<u> </u>	Nove down	Float length(C)	0

Diagram 1/	Diagram	19
------------	---------	----

Parameter	Description
Register capacity	mount of groups for data import every time.
Register mode	set the same mode as 'CSV files'.(In this example, using 'line'. It is
	adviced to use'Loop'when mached with 'Real trend map'. 'History data
	map', 'Time trend map'and 'sample save' components.)
Add/Delete	add or delete import inforamtion
Move up/Move down:	change the sequence of column information
Title	set the column title
Format:	set same format as 'CSV files'
Data type	set same format as 'CSV files

#### Property of save

data			
Data	Save	Control Date Time	1
PSW	•	300	
	Data		Data Save   Control   Date Time

Diagram 20

Parameter	Description
Object	Beginning address for data import.

Property of 'control':

Import CSV data		×
Source Path   Data   S	ave Control Date Time	
✓ Execute status	PSB300	
🔽 Execute result	PSW280	
🔽 Execute process	PSW281	

### Diagram 21

Parameter	Description				
Execute status	indicate import status by coil. When coil is on it means it is in import				
	process.				
Excute result	show the result according to value of referenced register				
	Meaning based on different value is showed as below:				
	1 Import successfully.				
	2 Device for import doesn't exsit.				
	3 Memory is not enough				
	4Name of path file is incorrect.				
	5Read/write file is failed				
Execute process	show the procedure according to value of referenced register.(range of				
	value is from 0~100, and 100 means finishe import)				

Property of 'Date/time'

Import CSV	dat a			
Source Path	Data Save	Control	Date Time	
🗖 Date Tim	e			
Date format	YYYY-M-D	~		
Example	2010-3-29			
Time format	H:MM:SS	-		
Example	11:27:00			

Diagram 22

Parameter					De	escription			
Date Time		Import	data	with	Date/time	information	when	selected.(in	this
		example	,there	is no t	ime informa	ation ,so not se	elect).		
Date format	t/Time	select th	e forn	nat in t	ouch panel.				
format									

# 12 Export CSV data

## **12.1 Introduction**

This function is used to export data from U-disk to TH series touch panels with CSV format which can be opened and edited by EXCEL software.

Based on this function ,the save space can be extended to keep avaiable datas with flexibility.



## **12.2 Description**

### Example1

This charper describes setting and operation of data export with 'grid control as data source'. Component 'grid control 'has following features:

- 1. Beginning address PSW300,
- 2. 5\*5 array, take up 25 registers.

ð

Other components included in this example please refer to the 'Basic manual for touch panels'.get

from website"http://www.xinje.com

### Click component 'grid control' and set property as below:

Grid Control 🛛 🔀	• Object: PSW300
Object Common Column Position Station Device PLC Port VirStaNO 0 Station 0	
Object Object 300	

Diagram 2

Grid Control				Þ	3	All records:5
Object Common Co	lumn   Positi	on			•	Page Records:5
All Records Page Records Title Height Cell Height Vse Title V B Title Font	5 20 20 old Border Cell Font		ame Work	0 er1	•	Static Field:not select
	Diagrai	n 3				
Grid Control						Modifiable: select
Object Common Co.	lumn Positi Add	on Modify	De	lete	to	Add/Modify/Delete:add
Title	Width D:	ata Type	Format			
Length	50	WORD	UINT			
Width	50	WORD	UINT			
Thickness	50	WORD	UINT			
Quantity	50	WORD	UINT			

Diagram 4

### click component 'function button'

Note: both 'function button' function field' support 'export CSV data', aslo setting is same , in this example.only describes procedure of 'function button'.

Function Button	X	
Function Button Limit Color Position Function Pressing Emport CSV Data Modify Delete Move Down	11 Set Coil Reset Coil Copy Coil Sereen Jump Set Data Copy Register User Input Dose Window Close Window Oswn Scheme Dota Block Transmit Arithmetic	<ul> <li>Function: select 'Pressing'.</li> <li>Add/Modify:click 'export CSV data'from 'all' list and click'</li> <li>Add ', then click 'modify'key to set its property</li> </ul>
Move <u>Up</u>		

Diagram 5

Property of 'export CSV data'

90

Export CSV Data	X
Destination Data Save Control Date Time	
Device ID 1	
Dynamic set DO	
Path/File TH. csv	
• Fix Name	
<ul> <li>Fix Name</li></ul>	
C add number after name	
Dynamic set DO	
C named by date	

#### Diagram 6

ę	🔒 Go to Office Live   Open 🕶   Save 🗸 🖕								
		F9	-	1	ŝ.				
		A	В		С	D			
	1	Length	Width		Thickkness	Quantity			
	2	40		40	40	40			
	3	Length	Width		Thickkness	Quantity			
	4	20		20	20	20			

: <mark>8</mark> 3 e	🚼 Go to Office Live   Open 🕶   Save 🕶 🥃								
	E9	•	fx						
	A	В		С	D				
1	Length	Width	Τ	hickkness	Quantity				
2	40	4	0	40	40				
3	20	2	0	20	20				
4									

CSV file with 'Re-export title'

Diagram 7

CSV file without 'Re-export title'

• Name add automatic: file name is comprised of name and ID, ID value add 1 automatically by every export operation.(range of ID:000~999), is showed as below:



#### Diagram 8

• Add number after name: add ID after file name by manual ,or according to the value of dynamiic register.

• Named by date:take the current date and time information as file name,once it is selected ,the filename in 'path/file'will not be active, as below:



• Device ID: the ID of U.disk when there are more than one disk. ID can be set by manual or dynamic register .

• Path/File: name of export CSV file.

• Fix name: Only file name in 'path/file'is active.

• Re-export title: export data with title information every time. The difference is showed as below:

Export CSV D	ata 🛛
Destination Da	ata   Save   Control   Date Time
Register capac	ity 3
Register mode	C Loop @ Line
<mark>Length</mark> Width Thickness Quantity	Add Title Length Format © Dec (L) C Hex (L) C Float (F) C Unsigned (L)
	Move up Data type Word 💌
	Bit length(G) 4
	Move down Float length(C) 0

Diagram 9

More details about 'register buffer'please refter to description on component'sample

save'parts.

In this example, select register mode with 'line', details regarding 'register buffer' will be described in next chapters.

- Add/Delete:add or delete export inforamtion.
- Move up/Move down: change the sequence of column information.
- Title:set the column title.
- Format: set same format as data source.
- Data type: set same format as data source.







Diagram 11

Meaning based on different value is showed as below:

• Register capacity: amount of groups for data export every time.

Register mode:check out whether the export data is with 'register buffer' first, if has, select 'loop',otherwise please select 'line'. It adviced is to use'Loop'when mached with 'Real trend map'. 'History data map', 'Time trend map'and 'sample save' components.)

• Object :PSW300

• Execute status: indicate export status by coil.When coil is on it means it is in export process.

• Excute result: show the result according to value of referenced register.

- 0- Export successfully.
- 1- Device for export doesn't exsit.
- 2- Memory is not enough
- 3- Name of path file is incorrect.
- 4- Read/write file is failed.

• Execute process: show the procedure according to value of referenced register. (range of value is from

0~100,and 100 means finish export)

Export CSV Data          Destination       Data       Save       Control       Date Time         Date format       YIYY-M-D       Image: Control	<ul> <li>Date Time:export data with Date/time information when selected.(in this example,there is no time information ,so not select).</li> <li>Date format/Time format:select the format in touch panel.</li> </ul>
Diagram 12	
Click component 'lamp' 😰 (one)and 'digital display'	(two)
Lamp 🔀	• Object:PSB300
Object Lamp   Twinkle   Color   Position	
Station       Device       VirStaNO       0   Station	
Object Object State Stat	
Diagram 13	
Display Digital 🛛 🗙	• Object:one is set with
Object Display Font Color Position Station Device PLC Port V VirStaNO 0 Station 0 Object Object PSW 256 Indirect	• Object:one is set with PSW256,the other is set with PSW257.

Diagram 14

After all above component is finished ,please install U-disk and test.

: 🔡	📴 Go to Office Live   Open 🕶   Save 🕶 🥃									
	G10 🔻 🏂									
	A	В	С	D	E	F				
1	Parameter1	Parameter2	Parameter3	Parameter4	Parameter5					
2	1	2	3	4	5					
3	11	22	33	44	55					
4	111	222	333	444	555					
5	111	222	333	444	555					
6	111	222	333	444	555					
7	Parameter1	Parameter2	Parameter3	Parameter4	Parameter5					
8	1	2	3	4	5					
9	11	22	33	44	55					
10	111	222	333	444	555					
11	111	222	333	444	555					
12	111	222	333	444	555					
13	Parameter1	Parameter2	Parameter3	Parameter4	Parameter5					
14	1	2	3	4	5					
15	11	22	33	44	55					
16	111	222	333	444	555					
17	111	222	333	444	555					
18	111	222	333	444	555					
19										

Diagram 15

### Example 2:

This chapter take sample to describe how to set and operate on 'export CSV data',matched with 'sample save 'component from register PSW280 to PSW284.

Note: the following charpters only describes the different parts compared with example 1



Other components included in this example please refer to the 'Basic manual for touch panels'.get

from website"http://www.xinje.com



Sample Save       Object Pick       Count       5       Period       1       Sec       Manner       ymrhms       Control       This Regist was used to control Pick!	<ul><li>Count:5</li><li>Period:1</li><li>Manner:ymrhms</li><li>PSB280</li></ul>
Diagram 17       Sample Save     Image: Comparison of the same of the	Object: PSW300
Diagram 18 Click 'grid control' and set property as below: Note: 'grid control' is as data source here.           Grid Control         Object         Common         Column         Position         Object         Object         PSW         280	Object: PSW280
Diagram 19          Grid Control         Object Common Column Position         All Records       1         Page Records       1         Title Height       20         Cell Height       20         Vse Title V Bold Border       Worker1         Title Font       Cell Font	<ul> <li>All records:1</li> <li>Page records:1</li> <li>Static field: not select</li> </ul>

Diagram 20

rid Control									
Object Common Column Position									
▼ modifiable Add Modify Delete									
Title	Width	Data Type	Format						
Parameter 1	50	WORD	UINT						
Parameter 2	50	WORD	VINT						
Parameter 3	50	WORD	UINT						
Parameter 4	50	50 WORD							
Parameter 5	50	50 WORD U							

• Column:add to 5 columns, showed as left.

Diagram 21

Click 'function button' and add function 'export CSV darta'

#### Property of 'export CSV data'

the following charpters only describes the different parts compared with example 1



After all above component is finished ,please install U-disk to test.

			_				
- <mark>88</mark> e	o to Office Li	ve   Open •   Sa	ve 🛪 🗸				
	H24 🗸	r fx					
	A	В	С	D	E	F	G
1	Parameter1	Parameter2	Parameter3	Parameter4	Parameter5	Date	Time
2	100	200	300	400	500	2009-10-31	9:40:20
3	100	200	300	400	500	2009-10-31	9:40:21
4	100	200	300	400	500	2009-10-31	9:40:22
5	100	200	300	400	500	2009-10-31	9:40:23
6	100	200	300	400	500	2009-10-31	9:40:24
7	Parameter1	Parameter2	Parameter3	Parameter4	Parameter5		
8	100	200	300	400	500	2009-10-31	9:40:25
9	100	200	300	400	500	2009-10-31	9:40:26
10	100	200	300	400	500	2009-10-31	9:40:27
11	100	200	300	400	500	2009-10-31	9:40:28
12	100	200	300	400	500	2009-10-31	9:40:29
12							

set 'lampbutton'ON ,and input datas in 'grid control'then export CSV datas ,the generated CSV file is showed as below:

Diagram 25

# 12.3 Description of parameter setting

Property of 'destination'



Diagram 26

Parameter	Description
Device ID:	the ID of U.disk when there are more than one disk. ID can be set by

	manual or dynamic register.	
Re-export title	export data with title information every time	
Path/File:	Name of export CSV file.	
Fix nameOnly	file name i n 'path/file'is active.	
Name add automatic:	file name is comprised of name and ID, ID value add 1 automatically by	
	every export operation.(range of ID:000~999),	
Add number after	add ID after file name by manual ,or according to the value of dynamiic	
name:	regiseter	
Named by date	take the current date and time information as file name,once it is	
	selected ,the filename in 'path/file' will not be active,	

#### Property of 'data':

Export CSV Data	X
Destination Data	Save   Control   Date Time
Register capacity	5
Register mode	C Loop @ Line
Parameter 2 Parameter 3 Parameter 4 Parameter 5	Add Title Parameter 1 Format
Mo	ove up Data type Word 💌
	Bit length (G) 4
Mov	re down Float length(C) 0

Diagram 2	27
-----------	----

Parameter	Description	
Register capacity	amount of groups for data export every time	
Register mode	Register mode:check out whether the export data is with 'register buffer'	
	first, if has, select 'loop', otherwise please select 'line'. It is adviced to	
	use'Loop'when mached with 'Real trend map'. 'History data map', 'Time	
	trend map'and 'sample save' components.)	
Add/Delete:	add or delete export inforamtion.	
Move up/Move down	change the sequence of column information.	
Title	set the column title	
Format	set same format as data source.	
Data type	set same format as data source.	

Property of 'save'

Export CSV	Data			×
Destination	Data	Save	Control   Date Time	
Object Object	PSW	<b>.</b>	256	

Diagram 28

Parameter	Description
Object	set the beginnning address of data source

#### Property of 'control'

Export CSV Data		X
Destination Data 3	Save Control Date Time	
🔽 Execute status	MO	
🔽 Execute result	DO	
🔽 Execute process	<u></u>	

Diagram 29

Parameter	Description		
Execute status:	indicate export status by coil.When coil is on it means it is in export		
	process.		
Excute result	how the result according to value of referenced register.		
	Meaning based on different value is showed as below:		
	Export successfully.		
	Device for export doesn't exsit.		
	Memory is not enough		
	Name of path file is incorrect.		
	Read/write file is failed.		
Execute process:	show the procedure according to value of referenced register.(range of value		
	is from 0~100, and 100 means finishe export)		

Property of 'Date/time':

Export CSV	Data			×
Destination	Data Save	Control	Date Time	ļ.,
🔽 Date Tim	e			
Date format	YYYY-M-D	•		
Example	2010-3-30			
Time format	H:MM:SS	•		
Example	13:03:38			

Diagram 30

Parameter Description	
Date Time	export data with Date/time information when selected.
Date format/Time select the format in touch panel.	
format	

# 13 Time trend control

This chapter describes how to use 'time trend control'.

## **13.1 Introduction**

This component is used to sample data from destination register at intervals and display value with curve mode.



Note: scale can be defined by user, more details please refer to chapter1.4.

### 13.2 Procedure

Chapter 13.2.1 describes 'time trend curve' with 'Rotate overwrite' mode; Chapter 13.2.2 describes 'time trend curve' with 'full stop' mode.

### 13.2.1 'time trend curve' with 'Rotate overwrite' mode

Step1. click 'component'

Click componnet 'time trend curve' im, 'lamp button', 'function field' and 'data grid' and 'data grid'

leave them to a suitable position as below.



Time trend curve	display datas, it is comprised of 4 parts, is showed as below:
	A. coordinate
	B. time scale
	C. Y scale
	D. curve
Button	coil used to control ample
Function feild	data source
Data grid:	display the sampled datas

### Step2 view setting on 'time trend curve'

Double-click 'time trend curve'or right-click to set propertu as below:

### 1) Property of 'common'

Storge Size :10	Storge Size			
Storge Mode:	Storge Mode	• rotate overwrite C full stop		
Pick Mode: Pick period and with variable mode				

Other parameter is set as defaulty value

Property contains :common,view,object,trend,color and position Property of 'common'

Storge Size		10	
Storge size: amount of input datas			
Storge Mode		C full stop	

Pick mode: contains 'rotate overwrite' mode and 'full stop'mode

- Rotate overwrite: sampled datas are saved to destinationed registers in sequence. When it has its full complement ,the new sampled data instead of the old data from the beginning address until new full complement coming, cycles in this rule.
- Full stop: sampled datas are saved to destinationed registers in sequence. When it has its full complement ,saving process is stopped

Time Irend	×
Common View Object Trend Color Position	
Storge Size 10	
Storge Mode 💽 rotate overwrite 🔿 full stop	
Pick Mode	
Period 1 Seco	
└── Variable Mode ────────────────────────────────────	
C Stop Circle	
C Fick Feel MO	

Note :pick mode is avaiable only when storge mode---- 'rotate overwrite'is selected. Pick mode: contain 'pick period' and 'pick feel'. Pick period: sample data at fixed intervals. Period: set period value and unit. ick control:start to sample when referenced coil is triggered. Variable Mode: The 'fix mode' is in 'stop'mode when 'variable mode 'is selected with referenced coil OFF. The 'fix mode'is in 'circle'mode when 'variable mode 'is selected with reference coil ON.

While 'variable mode 'is not selected,, 'stop'and 'circle'can be selected by user.

Fix mode-stop: sampled datas are saved to destinationed registers in sequence. When it has its full complement ,the new sampled data instead of the old data from the beginning address until new full complement coming, cycles in this rule.

Fix mode-circle: sampled datas are saved to destinationed registers in sequence. When it has its full complement, saving process is stopped.

Pick feel: sample action is triggered by rising edge of signal.collect data once at each rising edge .Parameter setting is showed as below:



#### 2) Property of 'view'

Grid Sty. Grid Sty:show grid or not,in this

example, grid is selected.

Time Info	🗌 Year	🗌 Month	🗌 Day
	🗌 Hour	🥅 Minute	🔽 Second

Time inforamtion: set manner of time.In this example, chose 'second'.

Init Time	5	Secon 🔻

Initial time: the scale of the initial time. In this example, chose 5 second.

Time Section		2
Scale	1	Font

Time section: sections of time axis. In this example, set 2 sections.

Scale: scale of time axis.

Y Section 2 Scale 1

Y sections:sections of Y axis.

Scale: scale of Y axis.

Time Trend		X
Common View	Object Trend Color Position	
🔽 Grid Sty	Time 5 Y 5	
Time Info	🔽 Year 🔽 Month 🔽 Day	
	🗌 Hour 🔲 Minute 🔽 Second	
Init Time	5 Secon 💌	
Time Section	2	
Scale	1 Font	
Y Section	2	
Scale	1	

Property of 'color' is set as below:



All above setting ,digram is showed as below:



### Step 3 setting sample parameters

1) Set property of 'data grid'

Details of parameter setting is showed as below:

Property of 'common':'user title, bold border, auto add field, static field'are not selected.

All records:10, page records: 10

Property of 'column': add to 7 column, data format of first column is in DEC format. Data format of second column is in Hex format, bitlength is 4, the third, fourth, fifth, sixth and seventh are in HEX format ,and other parameters are default value.

When all above setting is finished, data grid is showed as below:

óoò	FFFF	FFF.	FFF	FFF	FFF	FFF.
000 [ ] ]	FFFF	: : FFF:	I I FFF	i i ffffi	ŤŦŦŢ	FFF
000	FFFF	: FFF:	FFF	FFF F	FFF	FFF
· · · 000	• FFFF	···FFF	···FFF	· · · · FFF·	···FFF	· · · FFF·
$\cdot$ $\cdot$ $\cdot$ 000	··FFFF	$\cdot \cdot \cdot FFF$	···FFF	· · · · FFF·	$\cdot \cdot \cdot FFF$	· · · FFF·
000	FFFF	· · · FFF	FFF	· · · FFF	FFF	· · · FFF
000 1 1	. FFFF	: : : FFF:		: : : FFF:	: : :FFF	: : FFF
000 [ ] ]	FFFF	i i fffi	I I FFF	i i ffffi	मेन्न: :	i i FFF
000	FFFF	: FFF:	FFF	FFF [	FFF	FFF
· · · 000	FFFF	···FFF	···FFF	···FFF	···FFF	· · · FFF·

2) Time trend ---parameter setting regarding data sample

Set 'object 'property of 'time trend'and set with PSW300

Time Trend	×
Common View Object Trend Color Position	
Station Device PLC Port VirStaNO 0 Station 0	
Object  Object  300	
T Auto Locate	

Set property 'trend' of 'time trend' as below:

Select ,and set color ,set	<b>Pick</b> with <b>PSW256</b> , aslo select 'show scale'
Press Add to add 'line'	and set color ,set Fick with PSW257,aslo
select 'show scale' <b>Show Scale</b>	

Time Irend	Map Mode			
Common View       Object       Trend       Color       Position         Temperature       Map Mode	Map mode Fold Dot Column Fold: generate graph in fold foramt. Dot: generate graph in dot format. Column:generate graph in column foramt. Color E select color you want Pick PSW256 set data source. press "PSW256" to modify object.			
Another group Show Scale Format: display Y axis or not. When select 'show scale', scale displays and foramt aslo can be set by cliclk key				
Set property of 'data format 'and 'data type 'as				
Init Min: the Min value of Y axis.	t Min 0 t Max 100			
Add or delete graph by press ( Add 'or ( Delete 'key.				

3) Property setting of 'function field'

Select Time (Sec)mode in 'act mode', and add function 'Arithmetic': 'Mode' property of function field:
Function Field	×
Mode Function Position	
Act Mode © Start Screen	
C Coil Spring	
<ul> <li>Time(Sec.)</li> <li>1 Run immediatel</li> <li>Continue</li> </ul>	
C First Scan After Down	
C First Scan After <u>P</u> ower	
Time/Continue Coil Limit MO	

'Function' property of 'function field'

Note:more details regarding 'function field'please refer to <HMI manual Basic> After all above component is finished ,the view of project is showed as below:

-000 -000	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
<u> </u>	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
-000 -000	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
<mark>,</mark>	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
	000	000	FFFF	FFF	FFF	FFF	FFF	FFF
	000	000	FFFF	FFF	FFF	FFF	FFF	FFF

The result by emulator offline:



Note: when lamp button is ON, 'time trend is in 'fix mode 'with 'circle',investigate data changing via 'data grid'.

When lamp button is OFF, 'time trend'is in 'fix mode' with 'stop', investigate data changing via 'data grid'

## 13.2.2 'Time trend'with 'stop'mode



### Step1:open a new screen.

Open a new project and add component 'time trend control' and 'grid control' as below:



Step2 parameter setting on 'time trend control'

Double-click to set property,

'common'property
------------------

د ا

Storge Size "Storge Size"is set with value10,
C rotate overwrite full stop "Storge Mode"is set with 'full stop';
'View' property
Grid Sty display with 'grid'
Init Time 5 Secon is set with '5 second'.
Time Section 3
Scale 1 Font time section is set with 2, and scale is set with 1.
Y Section 2
Scale 1 Y section is set with 2, and scale is set with 1. other is set as
default value.
'Object' property:
Object <b>PSW</b> 260 Object is set with PSW260 and other parameters are set with
default value.
'Trend' property:
Set color with Color ; aslo show scale Show Scale Format, other parameters are set in
default value.
color'property
Kind
Frame Color Back Color
Grid Color
Time Label C.

others are set with default value:



## Step3:parameter setting with 'grid control'

Double-clilk to set property

<b>'Object'property</b> :set o	bject with PSW260,	Object Object	PSW 💌	260	others keep in
default value.					
	All Records	2			
'Common property':	Page Records	2 s	et all records wi	th value '2	,and page value
with value '2', other s	setting containing 'use	er title	<mark>Vse Title</mark> ,bold b	oorder 🗖	Bold Border, static
field Static Fiel	d,auto add field	Auto Add H	ield, are all no	ot selected,	

'Column property': add to 5 column, others are kept in default value



he reslut after emultor offline is showed as below:



Note: after entering the above datas in 'data control', the curve is showed as above.

The first data you enter is the Y value ,the second data is the time ,the following data is arranged in this rule.

## **13.3 Description of parameters**

Property of 'time trend control' contains 'common, view, object, trend, color and position' five items.

### 1) Property of 'Common'

Time Irend	Time Trend
Common View Object Trend Color Position	Common View Object Trend Color Position
Storge Size	Storge Size
Storge Mode 🕡 rotate overwrite 🕤 full stop	Storge Mode 🕜 rotate overwrite 💽 full stop
Pick Mode	Pick Mode © Pick Period Period 1 Seco
Fick Ctrl M0 ✓ Variable Mode PSB300 Fix Mode C Stop ♥ Circle	Pick Ctrl     MO       Variable Mode     MO       Fix Mode     C       C Stop     Circle
C Pick Feel MO	C Pick Feel MO

Parameter	Description
Storge Size	input amount of datas

Storge Mode	Rotate overwrite :	sampled datas are	saved to destinationed registers in sequence.
		-	plement, the new sampled data instead of the
			ng address until new full complement coming,
		in this rule.	
	-		estinationed registers in sequence. When it has
			ng process is stopped
Pick mode		-	' mode and 'full stop'mode
Note: be	Pick period	sample data at fix	ed intervals.
available		Period	set period value and unit
under 'rotate		Pick control	start to sample when referenced coil is
overwrite'mo			triggered
de		Variable Mode	The 'fix mode' is in 'stop'mode when
			'variable mode 'is selected with referenced
			coil OFF.
			The 'fix mode'is in 'circle'mode when
			'variable mode 'is selected with reference
			coil ON.
		Fix mode	While 'variable mode 'is not selected,,
			'stop'and 'circle'can be selected by user.
			Fix mode-stop: sampled datas are saved to
			destinationed registers in sequence. When it
			has its full complement ,the new sampled
			data instead of the old data from the
			beginning address until new full complement
			coming, cycles in this rule.
			Fix mode-circle: sampled datas are saved to
			destinationed registers in sequence. When it
			has its full complement ,saving process is
			stopped.
	Pick feel	sample action is	triggered by rising edge of signal.collect data
		once at each rising	g edge

2) Property of 'view'

Time Trend	
Common View	Object Trend Color Position
Grid Sty	Time 5 Y 5
Time Info	🔽 Year 🔽 Month 🔽 Day
	🗌 Hour 🔲 Minute 🔽 Second
Init Time	5 Secon 💌
Time Section	2
Scale	1 Font
Y Section	2
Scale	1

Parameter	Description
Grid Sty	show grid or not
Time inforamtion	set manner of time.
Initial time	the scale of the initial time
Time section	sections of time axis
Scale	scale of time axis
Y sections	sections of Y axis
Scale	scale of Y axis

# 3) Property of 'object'

	Time Trend
	Common View Object Trend Color Position Station Device PLC Pot VirstaNO 0 Station 0 Object Object 9 Color Position
Parameter	Description
Object	Enter the beginning address ,in this mode, 'auto locate'can not be se
Auto Locate	Registers to save datas are arranged automatically.

4) 'Trend'property

Time Trend	×
Common View Obj	ect Trend Color Position
Temperature Temperature Linel	Map Mode Fold C Dot C Column Color Fick PSW256 Another Group Show Scale Format Display Dec C Hex Float C Unsigned Data Type C Byte © Word C DWord
	Init Min 0
Add Delete	Init Max 100

Parameter	Description
Map mode	Fold: generate graph in fold foramt.
	Dot: gensrate graph in dot format.
	Column:generate graph in column foramt
Color	select color you want
Pick	set data source
Another group	display Y axis or not
show scale	scale displays and foramt aslo can be set.
Display	Dec,Hex,Float and unsigned' four types can be selected.
Data type	'Byte,Word,Dword' three types can be selected.
Init Min	the Min value of Y axis
Init Max	the Max value of Y axis
Add /delete	Add or delete graph by press ( Add , or ( Delete , key.

# 14 Move animal

This chapater describes how to use this fuunction.

## **14.1 Introduction**

Componet 'move animal'is used to move destination object with other referenced componets, othwise, this component is not available.

## 14.2 Procedure

### 14.2.1 Track editing

Step1:creat a new project and add component.

Open a new project and click component <i>f</i> from toolbar, then click to confirm the start point of
the track ,double-click to confirm the end point ,is showed as below:
$\oplus$
Show as + format
left-click of mousecontinue to edit track

dounle-click of mouse-----track editing ends

### Step2:set property of text

Click component'text' A with content 'Move animal' ,and set set in 'red'color, is showed as below:



# Step3:set property of 'move animal'

Double-click 'move animal' and set property as below:

	Love A	ninal		×
Key Point: X means abscissa; Y means ordinate; Escape time: time spend to move from current point to next point	Coord X Y	Control	<u>Key Point: X=180;Y=160</u> Escape Time:-8589934590.1 Key Point: X=350;Y=280	

Select 'Escape time', as below:

Love Animal		×
Coord Control		
Time 23.8	Key Point: X=180;Y=160 Escape Time: -8589934590.1: Key Point: X=350;Y=280	

Set the time you want with second as unit, in this example, we change it to 10 second, is showed ad below:

love Animal		2
Coord Control		
Time 10	Key Point: X=180;Y=160 Escape Time:00.1Second Key Point: X=350;Y=280	

Property of 'Control', is showed as below:

Love Animal	
Coord Control	
Enable 🥅 Ctrl	MO
Reset 🥅 Ctrl	MO
🔽 Repeat	

When you want to start the 'move animal 'by a triggered coil, please select 'Enable-control', as below:

Tove Animal	×
Coord Control	
Enable 🔽 Ctrl MO	
Reset Ctrl MO	
🔽 Repeat	
Click key to set the control address, as below:	

Enable	×
Object	
Station Device PLC Port - VirStaNO 0 Station	
Object Object M Indirect	
Data Data Type Bit	

to modify the address.

If you want the 'move animal 'to return to the beginning point ,please select 'Reset-control',click

Reset		
Object		
Static Devi VirSt	Ce PLC Port 💌	ī
Objec Objec		
Data Data	Type Bit	

Repeat: move as the track path in circle if this item is selected, if not , will not repaet movement.

### Step4: 'move animal'editing

MO

key

Select component 'text 'and 'move animal', as below:



then right-click and select 'group', as below:



Above is all the procedure of 'move animal'

#### 14.2.2 **Example- Scroll text**

Step1:creat a new project

Click component 'text' A and with text 'Scroll text edited by move animal', is showed as below:

•	·	• •			·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	•
•	·	• •			·	·	·	·	·	·	·	·	·	·	·	·		·	·	•
•	·	• •		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
·	·	S	·	-1	1	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
·	·					·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
•	·	· •	ė	÷ŧ.	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
•	·					·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
•	·	ec	lit	é	Ŧ	:	·	·	·	·	·	·	·	·	·	·	·	·	·	•
•	·					·	·	·	·	·	·	·	·	·	·	·	·	·	·	•
•	·	• •	bj	v.	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	•
•	•					·	·	·	·	·	·	·	·	·	·	·	•	·	•	•
•	•	m	lØ	VC	1	·	·	·	·	·	•	•	•	•	•	•	•	•	•	•
•	•	• •		•	÷	·	·	·	·	•	•	•	•	•	•	•	•	•	•	•
		ar	111	na	Ц	Ċ	Ċ	Ċ	Ċ	÷		:					:		Ċ	
Ċ	÷				÷	÷	÷	÷	÷	÷	÷	÷	÷	÷	÷	÷	÷	÷	÷	
•	·		·	·	·	·	·	·	·		·	·	·	·	·	·	·	·	·	
•	·		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
•	·	• •	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	•
•	·	• •	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
L																				

Step2: Creat 'move track'

Click component 'move animal' *from* component from toolbar and left-click to confirm the

start point, as below:



Creat track and double-click to end edit, as below:



Step3:property setting

Double-click 'text 'to set color with 'red', is showed as below:



### Move Animal

Double-click 'move-animal'and set 'escape time' with 10 second:

Love Animal		×
Coord Control		
Time 10.0	Key Point: X=225;Y=10 <u>Escape Time:00.1Second</u> Key Point: X=230;Y=470 Escape Time:00.1Second Key Point: X=230;Y=10	

Set property 'control'and select 'Enable control ',and 'Reset control'with object PSB300 and PSB 301, is showed as below:

Love Ani	nal		×
Coord Co	ontrol		
Enable	🔽 Ctrl	PSB300	
Reset	🔽 Ctrl	[PSB301]	
🔽 Repes	ıt		

### Step4: finish 'move animal'

Select component'move animal'and'text', and right click to get a group, as below:

	edited
	on non non the second
	move
	animal a second second second second
· · · · · · · · · · · · · · · · · · ·	
· · · · · · · · · · · · · · · · · · ·	
Scroll	Scroll
text	. text
and address of the second second	edede i i concerna a
i i edited	edited
···· <b>i</b> • <b>1₀v</b> • ∎ • ¦  • • • • • <del>  • •</del> ∖ ]	• b Property
move	mo
· · · · · animal · · · · · · · · · · · · ·	anin Group
	Lock
· · · · · · · · · · · · · · · · · · ·	
	Public Unit
	System System
	· · · · · · · · · · · · · · · · · · ·
	Cut
'全部选中	Copy
	Delete : ····
	Save Save
· · · · · · · · · · · · · · · · · · ·	Template
· <b>!</b>	Advance · · · · · · · · · · · · · · · · · · ·
· · · · · · · · · · · · · · · · · · ·	Optimistic
	-
	Unlock All
	· · · · · · · · · · · · · · · · · · ·

After all above componnet is finished, investigate the running status via emulater offline

# 14.3 Description of parameter setting

# Property of 'Coordinate'



Parameter	Description
Key point	X means abscissa
	Y means ordinate
Escape time	time spend to move from current point to next point

## Property of 'control'

Love Animal	
Coord Control	
Enable 🥅 Ctrl	MO
Reset 🧮 Ctrl	MO
Repeat	

Parameter	Description
Enable signal	Move action is triggered by rising edge of object signal.
Reset signal	'move animal 'is set to return to the beginning point
Repeat	move as the track path in circle if this item is selected, if not , will not repaet
	movement.

# 15 Rotate animal

## **15.1 Introduction**

Similar to component 'move animmal'described in previous chapter, this component 'rotate

animal'supports animation grpuped with component SWITCH.

## **15.2 Procedure**

### **15.2.1** Introduction of simple animation

### Step1:Creat a new project

Click component 'switch (one), 'rotate animal (one) and 'rectangle (one) and leave them to suitable position, as below:



Step2:set property of 'rotate animal'

Double-click 'rotate animal'tp set property as below:

Rotate Animal	×
Aminal Position	
Period 🛛 🚺 ms	🔽 Enable
C Random	🔽 Reset
Continue	G Single
Start 0	C Trip
End 0	🔽 Repeat

Period: time spent to finish one cycle animation.

**Enable** Make sure this item is selected during edit process, othwise, it runs unusual.

**Reset** This item is not selected in most situation, when use ,please match with advanced function component.

Continue: the No. of graphs starting from '0'. For eaxample:when NO shows '0',the first graph displays;when NO shows 2,the second graph display, shows graph in sequenenc as this rule.

Continue-start: the first graph when animation begins;

Continue-End: the last graph when animation ends.

Random: differenced with 'continue', graphs don't display in sequence but follow the user defined order; for example: when select 'reset' and enter value '0,2,1', the fact graph order is the first graph, the third graph and the second graph, is showed as below:

Random	
0, 2, 1	

Single: display graphs from first to last ,then from first to last again,running in this rule.

Trip: display graphs from first to last ,then from last to first ,running in this rule.

Repeat: display graphs in circle or not

Set property as below:

Period :1500ms ,e.g 1.5second; select 'comtinue', set end with '2', others keep in default value, is showed as below:

Rotate Animal	
Aminal Position	
Period 1500 ms	🔽 Enable
C Random	🔽 Reset
Continue	Single
Start 0	C Trip
End 2	🔽 Repeat

All setting is finished.

Step3: Animation editting

Select 'SWITCH' componnet, 'rotate animal', 'rectangle' and right-click to set property as below:

SWITCH Rotate Ar	iimali
	Property
	Group
	Lock
	Public Unit
	System
· · •	Cut
	Copy
::•	Delete 🎦
••]	Save .
· · • • · · · · ·	Template
· · · · · · · ·	Advance
	Optimistic
	Unlock All
	· · · · · · · · · · · · · · · · · · ·

Select 'advance', and is showed as below:

	Advance	
SWITCH		
Rotate	■ Rotate Animal0_(0) ■ SWITCH0_(1) ■ Rectangle0_(2)	Insert Unit
	■ Rectangle0_(3) ■ Rectangle0_(4)	Unit Name
:: <b>.</b>		Unit Property
· · . · · . · · · .		
· · · · · · <b>·</b>		ОК
· · <b>·</b> · · · · · · · ·		Cancel

Click 'self property' of Switch and select 'current index'.



which means this button is not avaiable at present, is showed as below:

<b>Advance</b>	
Rotate Animal0_(0) SWITCH0_(1) Self Property Top-Left Horizon Top-Left Vertical Bottom-Right Horizon Bottom-Right Vertical Current Index Rectangle0_(2) Rectangle0_(3) Rectangle0_(4)	Affirm Contain Cancel Contain

Then click 'Rotate animal' **Rotate Animal0\_(0)**, changing happened in the right button, is

showed as below:

Advance	
Rotate AnimalO_(0) SWITCH0_(1) Self Property Top-Left Horizon Top-Left Vertical Bottom-Right Horizon Bottom-Right Vertical Current Index Rectangle0_(2) Rectangle0_(3) Rectangle0 (4)	Affirm Contain Cancel Contain

Click 'rectangle' Rectangle0_(2), then	button 'Insert Unit' appears , is showed as below:
<b>Advance</b>	
SWITCH0_[1]     Self Property     Top-Left Horizon     Top-Left Vertical     Bottom-Right Horizon     Bottom-Right Vertical     Current Index     Contain Unit     Rectangle0_(2)     Rectangle0_(3)     Rectangle0_(4)	Insert Unit Unit Name Unit Property
Click 'Insert unit'	outton changes to 'Affirm insert' with gray color.

	Advance		
	SWITCH0_(1)	Affirm Insert Cancel Insert	
Click "	SWITCH" SWITCHO_(1),	then button Affim Insert is	avaiable.
	Advance		
	SWITCH0_(1)     Self Property         Top-Left Horizon         Top-Left Vertical         Bottom-Right Horizon         Bottom-Right Vertical         Current Index         Contain Unit         Rectangle0_(2)         Rectangle0_(3)         Rectangle0_(4)		
Click '	Affirm insert'	to finish one insert operation, i	s showed as below:
🗖 🖬	vance		
	WITCH0_[1] Self Property Top-Left Horizon Bottom-Right Horizon Bottom-Right Vertical Current Index Current Index Rectangle0_(2) ectangle0_(3) ectangle0_[4]	Delete Unit Unit Name Unit Property	
The op	eration with ERectangle0_	(3) and ERectangle0_(4)	is same as the first one, please

follow the above steps.

After all above component is finsihed, is showed as below:

Advance	
SWITCH0_(1)     Self Property     Top-Left Horizon     Top-Left Vertical     Bottom-Right Horizon     Bottom-Right Vertical     Current Index     Contain Unit     Self Unit     Rectangle0_(2)     Rectangle0_(3)     Rectangle0_(4)	Move Up Delete Unit Unit Name Unit Property

More details regarding advance function please refer to

## 15.2.2 Example- butterfly

Animation of butterfly contains 'rotate animal', 'move animal', 'advance reference', 'picture', the procedure is showed as below:

#### Step1: creat a new project :

Click component SWITCH rotate animal, two pictures of butterfly, is showed as below:



Note; there are two ways to add the butterfly picture into panel:

Way 1:click component 'map' M from toolbar.

Way 2: add picutre to 'material library' in then select the destination picture.

Step2: set property of 'rotate animal'.

Set period with time 1000ms, set the continue-end with value 1,as below:

Rotate Animal	
Aminal Position	
Period 1000 ms	🔽 Enable
C Random	🔽 Reset
Continue	Single
Start 0	C Trip
End 1	🔽 Repeat

### Step3: Flutter of butterfly





Note : tool'Align'is avaiable in the case of at leaat two pictures are selected, otherwise, it shows with gray color.

Select component 'switch', 'rotate animal'.pictures and right-click to choose 'advance', as below:



Set property as below: open 'self property' of SWITCH0_[1], select 'Current Index', then press
button Froperty Contain in the right ,click From the right (click the second se
button Affim Contain , is showed as below:
🖬 Advance
Switch0_(1)       Delete Unit         Self Property       Delete Unit         Top-Left Horizon       Unit Name         Bottom-Right Horizon       Unit Name         Bottom-Right Vertical       Unit Property         Contain Unit       Init Property         Rotate Animal0_(0)       Map0_[2]         Map0_[3]       Insert Unit         Select       Map0_[2] and press button
button Affim Insert, the result is showed as below:
Advance
□··SWITCH0_(1)       □·· Top-Left Property         □·· Top-Left Horizon       □·· Top-Left Vertical         □·· Top-Left Vertical       □·· Init Name         □·· Bottom-Right Vertical       □·· Current Index         □·· Contain Unit       □·· Rotate Animal0_(0)         □·· Self Unit       □·· Map0_(2)

Do the same operation on Map 3 as Map2, then is showed as below:



offline.

Step4:Edit on butterfly motion

Click component 'move animal' , then make a track as below:



Double-click to set property with 'escape time '10second, others is kept in defaulty value:

Love Animal		×
Coord Control		
Time 10	Key Point: X=345;Y=5 Escape Time:00.1Second Key Point: X=345;Y=575	

Select 'move animal'and 'butterfly', and right-click to group, as below:



All steps are finished, investigate the running via emulator offline.

## 15.3 Description of parameter setting

'Rotate animal'-Property of 'animal'

Rotate Animal	×
Aminal Position	
Period 🛛 🚺 ms	🔽 Enable
C Random	🔽 Reset
Continue	Single
Start 0	C Trip
End 0	🔽 Repeat

Parameter	Description
Period	time spent to finish one cycle for all object animation
Continue	the No. of graphs starting from '0'. For eaxample:when NO shows '0',the first
	graph displays; when NO shows 2, the second graph display, shows graph in
	sequenenc as this rule.
	Continue-start: the first graph when animation begins;
	Continue-End: the last graph when animation ends.
Random	differenced with 'continue', graphs don't display in sequence but follow the user
	defined order; for example:when select 'reset' and enter value '0,2,1', the fact
	graph order is the first graph, the third graph and the second graph,
Enable	Make sure this item is selected during edit process, othwise, it runs unusual.
Reset	This item is not selected in most situation, when use ,please macth with
	advanced function component.
Single	display graphs from first to last ,then from first to last again,running in this rule.
Trip	display graphs from first to last ,then from last to first ,running in this rule.
Repeat:	display graphs in circle or not

# 16 Recipe

# **16.1 Introduction**

• What is recipe?

Recipe: a string of parameters generated for production.

•Why do we need recipe ?

With development of industry, it is obviously that ways to enter parameters by manual for workpiece leads to low efficiency. But touchpanel as interface between operators and machine, save a string of parameters and get ready to be invoked whenever there needs.

• Recipe edited in panel

There are two kinds of registers built in panels, PSW and PFW:

PSW: Word object need power

PFW: Word object which can maintenance without power

we use PFW registers during the application of recipe.

Concept : recipes are saved in a string of continues registers, with index saved in PSW40 to select the needful ones, as shown below:



Note: PSW40 is avaiable only edit tool in advance mode ,more details regarding how to enter into advcance mode please refer to <HMI manual Basic>

# 16.2 Example

This chapter take the following example to describes how to gerenrate Recipe.

Background: groups of workpiece with different size, material and quantity.

Method : all parameter informations are saved into continues registers, which means one group parameters stand for one recipe. It is only to transmit destination recipe data from panel to PLC when there needs.

### 16.2.1 Write recipe datas to PFW registers.

Note : this Step is not needed if there is not too many datas ,input datas with panel operation instead. 1. the aim of this step is to record all datas in PFW registers, please as following steps: Open the edit tool- Touchwin, click 'file', and select 'PFW SET'. Is showed as below:



2.Define the first address PFW[\*\*\*] and the last address PFW[\*\*\*], then press button

,then

Add

the datas PFW[\*\*\*]-PFW[\*\*\*] will appear.

PFV Data				×
Start 300			End	1000
PFW[300] - PFW[10	00]			
Add	Delete	Wodify Range	Modi fy	Data

3. Double-click FW[300]-PFW[1000], then edit PFW datas

	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9 🗸
PFW [000000300]	0	0	0	0	0	0	0	0	0	
PFW [000000310]	0	0	0	0	0	0	0	0	0	
PFW [000000320]	0	0	0	0	0	0	0	0	0	
PFW [000000330]	0	0	0	0	0	0	0	0	0	
PFW[00000340]	0	0	0	0	0	0	0	0	0	
PFW [000000350]	0	0	0	0	0	0	0	0	0	
PFW [000000360]	0	0	0	0	0	0	0	0	0	
PFW [000000370]	0	0	0	0	0	0	0	0	0	_
PRW[00000380]	0	Π	n	n	Π	Π	Π	n	0	>
Display										_

4. Input right datas in right registers, press QK to exit.

Make sure the input datas in the sequence as the parameters of the workpiece, for example, the data is arranged as below:

Туре	Length	Width	Thickness
A type	136	253	120
B type	269	200	216
C type	156	172	236
D type	252	137	254

Thus, the data need to enter into the first line of the list is: 136, 253, 120, 269, 200, 216, 156, 172, 236, 252, 137, 254. After this ,only to download datas from PC to panels , the value of registers are assigned in this sequence.

	+1	+2	+3	+4	+5	+6	+7	+8	+9	
PFT [000000300]	253	120	269	200	216	156	172	236	252	
PFW[000000310]	137	254	0	0	0	0	0	0	0	
PFW [000000320]	0	0	0	0	0	0	0	0	0	
PFW [000000330]	0	0	0	0	0	0	0	0	0	
PFW[000000340]	0	0	0	0	0	0	0	0	0	
PFW[000000350]	0	0	0	0	0	0	0	0	0	
PFW[000000360]	0	0	0	0	0	0	0	0	0	
PFW[000000370]	0	0	0	0	0	0	0	0	0	
FEREUDUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	n	Π	n	0	Π	n	n	Π	n	>

### 16.2.2 Download Recipe

1.How to invoke and manage these datas? Recipe index PSW40 can solve this problem well, with reference between PSW40 and button 'down recipe' , ensure the whole process runs perfectly.



2. As destination data, these datas are built in PLC. Like the following picture, D0 as the first address of the device data, with three registers for each group, so the PLC runs based on the value of D0,D1 and D2.As device data, with first address PFW300 and occupy 3 registers, so the arrangement is PFW300,PFW301 and PFW302.

3. Set the property of 'object'and 'reciepe', is shoed as below:

Down Recipe 🔀	Down Recipe 🔀
Object   Recipe   Button   Color   Position	Object Recipe Button Color Position
Device Data Station Device PLC Port  VirStaNO Object Object D Indirect	<u>Count</u> 100
Recipe Data       Object       Object       PFW       300	

4. After all above setting ,the edit on 'down recipe'button is finished, we defined the address of the first group both in PLC and panels , it seems like there is no way to connect PSW40 and these datas together,but in fact, PSW40 as a brige to connect the button'down recipe'and these datas set in panels. It runs in the following rule:

When PSW40=0, press button 'down recipe', the datas from PFW300 to PFW302 is transmited to the register (D0~D2), which is for workpiece A.

When PSW40=1, press button 'down recipe', the datas from PFW303 to PFW305 is transmited to the register (D0~D2), which is for workpiece B.

So we only need to modfiy value of PSW40 to get reference with corresponding recipe datas.

Note: It is necessary to use index PSW40 when it is macthed with button 'down recipe' and button 'up recipe'. Regarding the procedure to support recipe function with other register as index, please refer to the

following chapters ..

## 16.2.3 Modify and display the recipe data

1. We change the group by modifying indexPSW40. there are three components 'digital input' in the screen to investigate the data.



2.Set the first register standing for 'Length' with object PFW300, is showed as below

)igital Inp	ut
Object Displ	ay   Input   Font   Color   Position
Operate Ob Station Device VirStaNO Object Object	PLC Port
Data Data Type	e Word
Station – Device VirStaNO	PLC Port
Object Object	PFW 300

3. As we know, the PFW300 is the first address of all recipe data, how to display all parameters by these three registers? So we set the registers with indirect mode to get reference with index PSW40, as shown below:

Obje	ct Display Input Font Color Position
	Operate Object Station Device PLC Port  VirStaNO O Station Object Object PFW S00 F PSW40
	Data Data Type Word
	Watch Object       Station       Device     PLC Port _       VirStaNO     0
	Object Object PFW  300  Indirect

4. Select 'indirect' Indirect, and double-click to modify the object with PSW40, is showed as

below:

Indirect Object	X
Object Data	
Station Device PLC Port v VirStaNO 0 Station 0	
Object PSW 40 Indirect	
Data Data Type Word	

5.Set property 'data' of 'indirect object'. As said above, each group contains three data, so the times is set with 3, click OK to affirm.

Thus ,the seeting on parameter 'length'is finsihed.

Please set the parameter 'width, thickness' as the same way as setting on parameter 'length'.

Indirect Object	
Object Data	
<u>T</u> imes 3	
Object Format	
(● Dec	
C Hex	
C Float	
🔿 Unsigned	

### 16.2.4 Display name of the recipe

1. In order to distinguish each group easily ,we take a name for them. Click component **AB** to enter group name, as below:



2.Double-click this component to set property.

The parameters of recipe occupy registers is :3\*100=300 ,from PFW300 to PFW599. So we take the register PPFW800 as the first address of the group name, every two characters takes up one register, so like 'A TYPE' occupies 3 registers, so is showed as below:

ASCII Input	×
Object Display Font Color Position	
Station Device PLC Port VirStaNO 0 Station 0	
Object Object PFW V 800 Indirect	
Data Register 3	

3. Select 'indirect 'mode and double click to set object with PSW40
| Indirect Object                                      | × |
|--|---|
| Object Data  |   |
| Station<br>Device PLC Port v<br>VirStaNO 0 Station 0 |   |
| Object Object V V V 40                               |   |
| Data<br>Data Type Word                               |   |

4.Set property 'data' of 'indirect object'. As said above,each group name takes up 3 register, so the times is set with 3,click OK to affirm.

Thus ,the seeting on parameter name is finsihed

Indirect Object	
Object Data	
Iimes 3	
Object Format	
⊙ <u>D</u> ec	
C Hex	
C Float	
C <u>U</u> nsigned	

### 16.2.5 Switch button for Index

How can we change the value of the index (PSW40)? There are two ways:first : with component 'Digital input' to enter data directly. Second: increase or reduce the index by 'up'and 'down'key. This chapter will take the second way as example to describe how to change value of index. The procedure is showed as below:

1. We edit the increas button first ,e.g. the 'up' button.click component 'set data' [23], as below:



2. Doubel-click to set property, object with PSW40;

Set	Data 🛛 🗙
ОЪј	ect Operate Button Color Position
	Station Device PLC Port v VirStaNO 0 Station 0
	Object Object PSW 40 Indirect
	Data Data Type Word

3. set the property 'operate' with operand with 1 is showed as below:

Set Data	×
Object Operate Button Color Position	
Function © ± C = C * C / C Constant Operand 1	
Format © Dec C Hex C Float C Unsigned	

4. Change the view of the button, is showed as below, at the same time , set the down button with the right view,



5. Download the project to the panel, is showed as below



### 16.2.6 UPload recipe

Recipe function can not only support downloading data from panel to PLC, but aslo support uploading data from PLC to panel when there is needs

This chapter take the example to describe how to use this function. Based on the above example, operators modify the parameters of workpiece in the PLC when there is a new type to work on. So what we need is to upload the data from PLC to panels and save these data for next invocation.

1.Based on the above example, click componnent 'up recipe<sup>2</sup>' as below:



2. Set property like this: device data with object D0, recipe data with object PFW300, 'RECIPE' with 3,as below:

Up Recipe		
Object Recipe But	tton Color Position	
Device Data Station Device PLC VirStaNO Object Object D	Port v 0 Station 1 v 0 indirect	
Recipe Data Object Object PFW Data Recipe	V <b>3</b> 00	

3. Set the property of 'recipe 'with 100, as below:

Up Reci	pe			X
Count		100		
After all above	steps is finished	, the project is	showed as below:	H HILL HMP HN
Name	Length	Width	Thickness	Down
ААААА	00000	00000	00000	Up

5. According to value in INDEX PSW40, the destination data in PLC is uploaded to corresponding registers by pressing button 'UP'.For example, when PSW40=10 with the beginning address in panel is PFW300,after pressing button'UP', the data from D0 to D2 is transmitted to register PFW330, PFW331, PFW332.

# 17 Export sample data

In the most cases, the display and inuput of sample datas based on component'data grid'and 'grid control'can not satisfy requirements in data analysis, but componnet 'export sample data' comprising of 'data sample' and 'export data' has perfect performance in this aspect and brings advantage to holding control process for users.

### 17.1 Procedure



2. Double-click this component to set property, including 'Common,sample,destination,save,export control,data time,position'seven items,is showed as below:

### (1) Property of 'Common'

Export sa	ple data	X
Export Common	Control   Date Time   Position   Sample   Destination   Save	
Storge	1	
Pick	<ul> <li>Period Picl</li> <li>Period Picl</li> <li>Pick Ctrl MO</li> <li>Dynamic Pic MO</li> <li>Fix Mode</li> <li>C Stop ( Recycle</li> <li>Feel Picl MO</li> </ul>	

• Storge size: amount of input datas

• Pick mode: contain 'pick period' and 'pick feel'.

Pick period: sample data at fixed intervals.

➢ Pick feel:

sample action is triggered by rising edge of signal.collect data once at each rising edge

The parameter setting in period mode is showed as below:

Period: set period value and unit. The min.period is 1 s,e.g collect a data every second. Pick control:start to sample when referenced coil is triggered. Data collection stops when coil status convert from ON to OFF.

Dynamic mode and fix mode

#### Dynamic Mode:

The 'fix mode' is in 'stop'mode when 'variable mode 'is selected with referenced coil OFF.

The 'fix mode'is in 'circle'mode when 'variable mode 'is selected with reference coil ON.

While 'variable mode 'is not selected,, 'stop' and 'circle' can be selected by user.

#### Fix Mode:

- Fix mode-stop: sampled datas are saved to destinationed registers in sequence. When it has its full complement ,the new sampled data instead of the old data from the beginning address until new full complement coming, cycles in this rule.
- Fix mode-circle: sampled datas are saved to destinationed registers in sequence. When it has its full complement, saving process is stopped.

Pick feel: sample action is triggered by rising edge of signal.collect data once at each rising edge .

(2) 'Property' of sample

Export sample d	ata	<ul> <li>Title:add new line by button</li> </ul>
Export Control Common Sa	Date Time   Position ample   Destination   Save	,modify name with
data 1 data 2	Add Titl, data 1 Sample DO	<ul> <li>data 1</li> <li>Sample: set sample object with selcting</li> </ul>
	ove up Bit	<ul> <li>right title line</li> <li>Format:select the right format.</li> </ul>
Mor	ve down Float 0	

(3) Property of 'destination'

Export sample data			×
Export Control	Date Time	Position	
Common Sample	Destination	Save	l.
Device ID 1			
🔲 Dynamic set	DO		
Path/File DATA SAMPLE.csv	•		
💿 Fix Name 🔽 Re-exp	ort title		
C Name add automatic			
🔘 add number after name			
0			
🔲 Dynamic set	DO		
C named by date			

• Device ID: the ID of U.disk when there are more than one disk. ID can be set by manual or

DO dynamic register

• Path/File:name of import CSV file.

• Fix nameOnly file name i n 'path/file'is active.

• Re-export title: export data with title information every time.

• Name add automatic: file name is comprised of name and ID, ID value add 1 automatically by every export operation.(range of ID:000~999), is showed as below:

Microsoft Office Excel	<mark>≊</mark> a,	<b>TH001.csv</b> Microsoft Office Excel 1 KB
------------------------	-------------------	--

• Add number after name: add ID after file name by manual ,or according to the value of dynamiic regiseter.

• Named by date:take the current date and time information as file name,once it is selected ,the filename in 'path/file' will not be active, as below:



(4) Property of 'save'

Export sample data			×
Export Control Common Sample	Date Time Destination	Position Save	
Object	256		

• Object: the first address of register to save data.

(5) Property of 'Export control'

Export sample data		
Common Sample Export Control	e   Destination   Date Time	Save   Position
🗌 After export finis	h reset reg	
🔽 Control export:	MO	
🔲 Real time expo	MO	
Export statu	MO	
🔲 Export resu	DO	
🔲 Export proces	DO	

> After export finish reset reg: reset registers which is used for data save once data export is finished

- > Control export: export action is avaiable when the referenced coil is ON.
  - Real time Export: data is export when the referenced coil is at rising edge.
    - Execute status: indicate import status by coil.When coil is on it means it is in export process.
    - Excute result: show the result according to value of referenced register.

Meaning based on different value is showed as below:

- 1. Name of path file is incorrect.
- 2. Read/write file is failed.
- 3. Export successfully.

 $\geq$ 

- 4. Device for export doesn't exsit.
- 5. Memory is not enough
- Execute process: show the procedure according to value of referenced register.(range of value is from 0~100,and 100 means finishe import)

(6) Property of 'Date Time'

Export samp	le data	
Common		Save
Export Co	ntrol Date Time Posi	ition
🔽 Date Time	2	
Date format	YYYY-MM-DD	
Example	2010-04-06	
Time format	HH: MM: SS	
Example	12:43:14	

- 1. Date Time:export data with Date/time information when selected.
- 2. Date format/Time format:select the format

## 17.2 Example

This chapter takes sample to describe how to use this component.

The purpose of this example is to save data sampling from register PSW300 and PSW400.

The procedure is showed as below:



The following chapter describes the procedure step by step.

### **1** Data source

Click component 'function feild' <sup>[23]</sup> from toolbar and set property as below:

Function Field
Mode Function Position
Act Mode
C S <u>t</u> art Screen
C Coil Spring
( Time(Sec.) 1
C Co <u>n</u> tinue
C First Scan After Down
C First Scan After <u>P</u> ower
Time/Continue Coil Limit

• Act mode :select 'time 'mode at 1 second mode with 'run'immediatel.

Function Field		×
Mode Function Position	1	
<u>Function</u> Arithmetic		Al Set Coil
PSW400 = PSW400 + 20 Arithmetic PSW300 = PSW300 + 10	Add	Reset Coil Reverse Coil Copy Coil
15#300 - 15#300 + 10	Modify	Screen Jump Set Data Copy Register
	Delete	User Input Open Window Close Window
	Move D <u>o</u> wn	Down Scheme Up Scheme Data Block Transmit
	Move <u>Up</u>	Arithmetic Import CSV Data Export CSV Data

• Add function with 'arithmetic' with below:

PSW300=PSW300+10; PSW400=PSW400+20;

Click component 'digital display' to display the value of these two registers

2. Export sample data

Click component from toolbar and set property as below:

Property of 'common'

Export sa	ple data	X
Export	Control Date Time Position	
Common	Sample Destination Save	į,
Storge	0	
Pick	· Period Picl	
	Perio: 1 Seco 💌	
	V Pick Ctrl PSB350	
	🔽 Dynamic Pic PSB351	
	Fix Mode	
	C Stop 🤄 Recycle	
	C Feel Pick PSB350	

Property of 'sample'

• stroge: 10 groups of data, each group contains 1data from PSW300 and 1 data from PSW400.

• Pick mode: select 'period mode'at 1 second interval.

• Pick control: select coil PSB350, when PSB350 is ON, pick action stars, it stops while coil PSB350 is OFF.

• Dynamic pick: select coil PSB351. When PSB351 is ON, running in cycle, otherwise, in stop mode

Export samp	le data				X
Export Cor Common	ntrol   Sample	Date Time Destinat	ion	Position Save	
data 1 data 2	Add	Titl	data 1		
		Sample	PS	W300	
	Delete	-			
		Format Dec (D)	⊙н	ex (U)	
	Move up	C Float (	<u>F)</u> ()	Jnsigned (X)	
		Bit		4	
	Move down	Float		0	
			,		

- Add to 2 items by button
- Data1:with object PSW300;
- Data2:with object PSW400;

Property of 'destination'

Export sample data			×
Export Control   Common   Sample	Date Time Destination	Position Save	
Device ID 🚺 🚺	DO		
Path/File DATA SAMPLE.csv			
C Name add automatic	ort title		
C add number after name			
Dynamic set	DO		

- Device ID: with default value1
- Path/file: with name DATA SAMPLE.csv

• Select 'fix name'and 're-export title'

#### Property of 'save'



Property of 'export control'

ixport sample data		X
Common Sample Export Control	e Destination Save Date Time Position	
✓ After export finis ✓ Control export:		
I♥ Control export:	PSB300 PSB301	
✓ Export statu ✓ Export resu	PSB302	
✓ Export resu	PS#800 PS#850	

Property of 'date/time'

Export sample	dat a			×
Common	Sample	Destination	Save	
Export Contr	ol	Date Time	Position	
☑ Date Time Date format	YY-MM-DD	T		
Example	2010-04-	06		
Time format HH Example				
плащрте	14:27:1	4		

> Select 'after export finish reset register'

Control export: with PSB300 which means export action is avaiable when PSB300 is ON,otherwise, it is not allowed.
 Real time export: data is exported when this coil PSB301 is ON.

➤ Export status:when PSB302 is on ,it means it is during the export process.

Export result: the result is in PSW800

➤ Export process: the staus of export,100 means export successufly.

 $\succ$  Date time:

Select this item, the time information will be showed in the CSV file.

Thus, all above component is finished.

3. Edit other components.

All components in this project are showed as below:

Name	Object	Operation	Function
Lamp button	PSB300	Reverse	Export control
Lamp button	PSB301	Instant ON	Real time control
Lamp button	PSB350	Reverse	Pick control
Lamp button	PSB351	Reverse	Dynamic control
Lamp	PSB302	Display only	Export status
Digial display	PSW300	Display only	Data source(add 10 every second)
Digial display	PSW400	Display only	Data source(add 20 every second)
Digial display	PSW800	Display only	Display export result
Digial display	PSW850	Display only	Display export process



After data export, the data in CSV file is showed as below:

		- <mark>88</mark> e	o to Office	Live   Open •	Save 🔹 🥃		
a, licrosoft Office			F14	<b>▼</b> 1	ŝ.		
			A	В	С	D	E
		1	Data 1	Data 2	Date	Time	
		2	750	1500	2009-9-12	11:02:48	
		3	760	1520	2009-9-12	11:02:49	
		4	770	1540	2009-9-12	11:02:50	
		5	780	1560	2009-9-12	11:02:51	
		6	790	1580	2009-9-12	11:02:52	
		7	800	1600	2009-9-12	11:02:53	
		8	810	1620	2009-9-12	11:02:54	
		9	820	1640	2009-9-12	11:02:55	
		10	830	1660	2009-9-12	11:02:56	
		11	840	1680	2009-9-12	11:02:57	
		12					



4th Floor, Building 7th, No.100 Dicui Rd, Wuxi, China Tel: 86-0510-85134139 Fax: 86-0510-85111290 www.xinje.com Email: cheerfiona@gmail.com