

## **XB6-P04A**

## Pulse output module

## User Manual



Nanjing Solidot Electronic Technology Co., Ltd.

#### Copyright © 2023 Nanjing Solidot Electronic Technology Co., Ltd. All rights reserved.

Without written permission of our company, no organization or individual may extract, copy or transmit part or all of this document.

#### **Trademark notice**

s and other Solidot trademarks are all trademarks of Nanjing Solidot Electronic Technology Co., Ltd. All other trademarks or registered trademarks referred to in this document belong to their respective owners.

#### Note

The products, services or features you purchase shall be subject to the commercial contracts and terms of Solidot. All or part of the products, services or features given in this document may not be within the scope of your purchase or use. Unless otherwise agreed in the contracts, Solidot does not make any express or implied statement or warranty for the content of this document. Due to product version upgrading or other reasons, the content of this document is subject to changes from time to time. Unless otherwise agreed, this document shall be only used as reference. None of the statements, information and suggestions in this document shall constitute any express or implied warranty.

Nanjing Solidot Electronic Technology Co., Ltd.

Address: 11F, Ang Ying Building, No.91 Shengli Road, Jiangning District, Nanjing, Jiangsu Province, China Zip code: 211106 Tel: 4007788929 Web site: http://www.solidotech.com/en

## CONTENTS

1	Produ	ct Overview	1
	1.1	Product Profile	1
	1.2	Product Characterization	1
2	Produ	ct Parameters	3
	2.1	Generalized parameters	3
3	Panels	5	5
	3.1	Module structure	5
	3.2	Indicator light functions	6
4	Moun	ting and dismounting	7
	4.1	External dimensions	7
	4.2	Installation Guide	7
	4.3	Mounting and dismounting procedure	9
	4.4	Installation Schematic	9
5	Wires		13
	5.1	Wiring	13
	5.2	Definition of terminal blocks	14
6	Use		15
	6.1	Configuration Parameter Definitions	15
	6.1.1	Pulse Mode Configuration	17
	6.1.2	Brake time configuration	17
	6.1.3	Start-up speed	17
	6.1.4	Return to zero parameters	17
	6.1.5	Input signal logic	
	6.1.6	Scale	
	6.2	Process data	23
	6.2.1	Uplink data	23
	6.2.2	Downstream data	
	6.3	Use cases	
	6.4	Module Configuration Description	
	6.4.1	Application in the TwinCAT3 software environment	

6.4.2	Application in the TIA Portal V17 software environment	. 59
6.4.3	Application in the GX Works3 software environment	101

# 1 Product Overview

### 1.1 Products

XB6-P04A is a plug-in pulse output module, using X-bus bottom bus, adapted to our XB6 series coupler module, which can be connected to external stepper/servo motor driver, and drive stepper/servo motors by means of pulse output. The module has four pulse output channels, each channel contains two pulse output ports. Each pulse output channel is equipped with 4 input channels, so there are a total of 16 input channels, the combination of input and output can meet most of the stepper/servo motor drive scenarios.

### 1.2 Product Characteristics

- Four-channel pulse output
   Single pulse (pulse + direction) and double pulse (CW/CCW) modes can be set.
- One output with four inputs
   Each channel output is equipped with local positive limit, negative limit, home, and brake signal inputs.
- Enriched pulse function It supports a series of functions such as trapezoidal acceleration and deceleration, return to zero, and braking.
- Supports three motion modes
   Absolute position mode, relative position mode, velocity mode.
- Supports multiple return-to-zero methods
   Four return-to-zero modes can be selected, and return-to-zero speed and return-to-zero approach speed support configuration.
- Support for the merger of campaigns
   Dynamically adjustable speed, position, operating mode, acceleration and deceleration times.
- Channel Configuration
   The four channels support individual configuration of parameters.
- Small size and easy to install

Compact structure, small space occupation, DIN 35 mm standard rail mounting, the use of pop-up terminals, wiring is convenient and quick.

- easy diagnosis
   Innovative channel indicator design, close to the channel, at a glance, easy to detect and maintain.
- easy configuration

Simple configuration, supports mainstream PROFINET masters, EtherCAT masters and CC-Link IE Field Basic masters.

# 2 Product Parameters

## 2.1 Common parameter

Interface parameter						
Product Model	XB6-P04A					
Bus protocol	X-bus					
Process data volume:	52 Bytes					
downstream						
Process data volume: 48 Bytes						
uplink						
Channel Type	Input: 16 Ch, PNP/NPN	Output: 4 Ch, NPN				
Refresh rate	1 ms					

Technical Parameters	
System Input Power	5 VDC
Input Channel Voltage	24VDC (15V~30V)
Pulse output voltage	Determined by input voltage
Output channel	4 channels
Pulse output frequency	200kHz
Pulse Mode	Single pulse (pulse + direction), double pulse (CW/CCW)
Pulse output type	NPN
Input channel	16 channels
Input Channel Function	Positive limit, negative limit, home switch, brake
Input Type	PNP/NPN
Input signal logic selection	Separate normally open/closed configurations for limits, home and brake
Sports	Absolute position mode, incremental position mode, velocity mode
Trapezoidal acceleration	Support
and deceleration	
Campaign merger	Support
Channel Level Parameter	Support
Configuration	
Zero Return Mode	Supports 4 types
Brake (when driving)	Support
Overall dimensions	106×73×25.7mm
Weights	100g
Wiring Method	Screwless Quick Plugs
Installation	DIN 35 mm standard rail mounting
Operating temperature	-10°C~+60°C
Storage temperature	-20°C~+75°C
Relative humidity	95%, non-condensing
Protection class	IP20

## 3 Panel

## 3.1 Module structure

#### Name of each part of the product



## 3.2 Indicator light function

Name (of a	Markings	Color	State of	State Description
thing)			affairs	
			ON	Power supply normal
Power indicator	Р	Green	OFF	The product is not powered up or the power
				supply is abnormal
	munication R	۲. Green	ON	The system is functioning normally
Communication			Flashing 1Hz	Module connected, X-bus system ready for
				interaction
				Device is not powered up, X-bus is not
			UFF	interacting with data or is abnormal

Name (of a thing)	Markings	Color	Input Signal Logic	State of affairs	State Description	
Innut			Normally open	ON	Channels have signal inputs	
Channel	о г	0 -	Croop		OFF	No signal input for channel
Indicator	0~F	0~F Green Normally Of	ON	No signal input for channel		
muicator			closed	OFF	Channels have signal inputs	

Name (of a thing)	Color	Pulse output mode	Running direction	Forward/reverse pulse waveform	Lamp A (C1A~C4A)	B Lamp (C1B~C4B)
			forward motion (mechanics)	а в	ON	ON
Output	Croop	Pulse + Direction	invert (upside-down, inside-out, back-to-front, white to black etc)		ON	OFF
Indicator	Green	Green	forward motion (mechanics)		ON	OFF
		cw/ccw	invert (upside-down, inside-out, back-to-front, white to black etc)	а вГГ	OFF	ON

# **4** Installation and disassembly

## 4.1 Overall dimensions

**Outline specifications (in mm)** 



## 4.2 Installation Guide

#### Precautions for installation\dismantling

- Ensure that the cabinet is well ventilated (e.g., the cabinet is fitted with an exhaust fan).
- Do not install this equipment next to or above equipment that may cause overheating.
- Be sure to install the module vertically and maintain air circulation around it (at least 50 mm air circulation space above and below the module).
- Once the module is installed, be sure to secure the module by installing rail mounts on both ends.

• Be sure to disconnect the power supply when installing/disassembling.

### Minimum clearance for module mounting (≥50mm)



#### Ensure that the module is mounted vertically



#### Be sure to install the rail mounts



Module Installation a	Module Installation and Removal					
Module Installation	stallation 1. Install the power supply module first on the rail that has been fixed.					
Steps	2. Install the coupler and the required I/O modules in turn to the right of the					
	power supply module.					
	3. After installing all required I/O modules, install the end caps to complete the					
	module assembly.					
	4. Install the rail fixings on both ends of the power module and end cap to fix					
	the module.					
Module disassembly	1. Loosen the rail fixings at both ends of the module.					
procedure	2. Use a one screwdriver to pry off the module snap.					
3. Pull out the disassembled module.						

## 4.3 Installation and disassembly steps

## 4.4 Installation Diagram

#### **Power Module Installation**



move

Align the power module rail slots, as shown in Figure ① on the left, vertically to the rails.



As shown in Figure ② on the left, press the power module firmly, and the module will be installed in place when you hear the "click" sound.

#### **Coupler Module Installation**



move

Align the left slot of the coupler module with the right side of the power supply module and push it in as shown in figure ③ on the left. Press the coupler module firmly and the module will click into place.

#### I/O Module Installation

4

move

Install the required I/O modules one by one as shown in Figures ④ and ⑤ on the left, following the procedure of installing the coupler module in the previous step.





#### Dismantle



move

Loosen the rail retainer at one end of the module with a screwdriver and move it to one side, making sure there is clearance between the module and the rail retainer, as shown in Figure 9 on the left.

9



Insert a flat head start into the snap of the module to be removed, and apply force (hear the rattle) in the direction of the module sideways, as shown in Figures (1) and (1) on the left. **Note: Each module has a snap at the top and** 

bottom, all operate

in this way.

11 🛈



Remove the module as shown in Figure <sup>(2)</sup> on the left, following the opposite operation of installing the module.

# 5 Wiring

## 5.1 Wiring Diagram



\*PO侧的24V内部导通:0V内部导通 \*COM为DI侧公共端,内部导通,NPN/PNP兼容 \*PUL+与DIR+必须为同一电源+

## 5.2 Terminal Block Definition

DO								
Terminal Serial Number	Terminal identification	Clarification	Terminal Serial Number	Terminal identification	Clarification			
1	C1A	CH1 output A	9	C2A	CH2 output A			
2	C1B	CH1 output B	10	C2B	CH2 output B			
3	C1C	CH1 digital output C (reserved)	11	C2C	CH2 digital output C (reserved)			
4	C3A	CH3 output A	12	C4A	CH4 output A			
5	C3B	CH3 output B	13	C4B	CH4 output B			
6	C3C	CH3 digital output C (reserved)	14	C4C	CH4 digital output C (reserved)			
7	+	Power+	15	+	Power+			
8	-	Power supply -	16	-	Power supply -			
	1		DI	1				
Terminal	Terminal	Clarification	Terminal	Terminal	Clarification			
Serial Number	identification		Serial Number	identification				
Serial Number 1	<b>identification</b> 0	CH1 input positive limit	Serial Number 11	identification 8	CH2 input positive limit			
Serial Number 1 2	identification 0 1	CH1 input positive limit CH1 input negative limit	Serial Number 11 12	identification 8 9	CH2 input positive limit CH2 input negative limit			
Serial Number 1 2 3	identification 0 1 2	CH1 input positive limit CH1 input negative limit CH1 input home signal	Serial Number 11 12 13	identification 8 9 A	CH2 input positive limit CH2 input negative limit CH2 input home signal			
Serial Number 1 2 3 4	identification 0 1 2 3	CH1 input positive limit CH1 input negative limit CH1 input home signal CH1 input brake	Serial Number 11 12 13 14	identification 8 9 A B	CH2 input positive limit CH2 input negative limit CH2 input home signal CH2 input brake			
Serial Number 1 2 3 4 5	identification 0 1 2 3 4	CH1 input positive limit CH1 input negative limit CH1 input home signal CH1 input brake CH3 input positive limit	Serial           Number           11           12           13           14           15	identification 8 9 A B C	CH2 input positive limit CH2 input negative limit CH2 input home signal CH2 input brake CH4 input positive limit			
Serial Number 1 2 3 4 5 6	identification 0 1 2 3 4 5	CH1 input positive limit CH1 input negative limit CH1 input home signal CH1 input brake CH3 input positive limit CH3 input negative limit	Serial           Number           11           12           13           14           15           16	identification 8 9 A B C D	CH2 input positive limit CH2 input negative limit CH2 input home signal CH2 input brake CH4 input positive limit CH4 input negative limit			
Serial           Number           1           2           3           4           5           6           7	identification 0 1 2 3 4 5 6	CH1 input positive limit CH1 input negative limit CH1 input home signal CH1 input brake CH3 input positive limit CH3 input negative limit CH3 input negative signal	Serial           Number           11           12           13           14           15           16           17	identification 8 9 A B C D E	CH2 input positive limit CH2 input negative limit CH2 input nome signal CH2 input brake CH4 input positive limit CH4 input negative limit CH4 input nome signal			
Serial           Number           1           2           3           4           5           6           7           8	identification 0 1 2 3 4 5 6 7	CH1 input positive limit CH1 input negative limit CH1 input home signal CH1 input brake CH3 input positive limit CH3 input negative limit CH3 input negative signal CH3 Input Brake	Serial           Number           11           12           13           14           15           16           17           18	identification 8 9 A B C D E F	CH2 input positive limit CH2 input negative limit CH2 input negative signal CH2 input brake CH4 input positive limit CH4 input negative limit CH4 input negative signal CH4 Input Brake			
Serial           Number           1           2           3           4           5           6           7           8           9	identification 0 1 2 3 4 5 6 7 COM	CH1 input positive limit CH1 input negative limit CH1 input negative signal CH1 input brake CH3 input positive limit CH3 input negative limit CH3 input negative signal CH3 Input Brake Input Common	Serial           Number           11           12           13           14           15           16           17           18           19	identification 8 9 A B C D E F COM	CH2 input positive limit CH2 input negative limit CH2 input negative signal CH2 input brake CH4 input positive limit CH4 input negative limit CH4 input negative gignal CH4 Input Brake Input Common			

# 6 Use

## 6.1 Configuration Parameter Definitions

Module configuration has a total of 26 parameters, there are two configuration parameters common to four channels (common parameters have been marked green in the table below), there are six configuration parameters are the same and can be set independently, channel 1 as an example to introduce the configuration parameters, as shown in the table below. **Note: After the configuration information is modified, it will take effect only when the channel is stationary.** 

Functionality Parameter name		Range of values	Default value	
Pulso output modo	Pulso Modo	0: Pulse+Direction Pul+Dir	0	
	ruise Mode	1: Double pulse CW/CCW	U	
Braking time	Brake time	20~5000ms	200	
Start-up speed	CH1 Startup Speed	0~200kHz	1	
		0: mode 19	2	
Zara Datura Mada	CH1 Homing Mode	1: mode 21		
		2: mode 24		
		3: mode 28		
Return to zero speed	CH1 Homing Speed	1~200kHz	1000	
Approach speed to	CH1 Homing Approach	1 200641-	E00	
zero	Speed	T~200KHZ	300	
		0: Limit normally open, home		
		brake normally open		
Input signal logic		1: Limit normally open, home		
soloction	CH1 Input Logic	brake normally closed	0	
Selection		2: Limit normally closed,		
		home brake normally open		
		3: Limit normally closed,		

		home brake normally closed	
scale	CH1 Scaling	1~60000	1

#### 6.1.1 Pulse Mode Configuration

The XB6-P04A supports two pulse output modes Pulse Mode: 0: pulse + direction, 1: double pulse (CW/CCW). The four output channels share this configuration parameter and do not support individual configuration.

#### 6.1.2 Brake Time Configuration

Once the brake command is triggered, the device will enter the braking phase and will brake within the set time regardless of the speed. Currently the brake time is 200ms by default, the four output channels share this configuration parameter and do not support individual configuration.

#### 6.1.3 Start-up speed

A total of four parameters are needed to determine a trapezoidal acceleration/deceleration curve: acceleration time, deceleration time, start speed, and run speed. Among them, the running speed, acceleration time and deceleration time are modified more frequently, so they are placed in the downstream command. The startup speed is placed in the configuration parameters, and the four channels can be set individually.

In practice, the trajectories in absolute/relative position mode, velocity mode, and return-to-zero mode all follow this set of trapezoidal acceleration and deceleration parameters.

#### 6.1.4 Return to zero parameter

Zeroing, i.e., finding the home signal through a combination of positive limit, negative limit, and home signal. There are three configuration parameters related to zero return: zero return mode, zero return speed, and zero approach speed. There are four zero return modes to choose from: Zero return mode 19, 21, 24, 28, and these three parameters can be set individually for each of the four channels. After successfully returning to zero, a coordinate clearing command will be executed automatically.

#### Back to zero mode 19:

① When there is no home signal input:

- a. Moves in the positive direction at the return-to-zero speed and decelerates to 0 when a home signal is input;
- b. Again move in the negative direction at a speed approaching back to zero until the home signal disappears and the movement stops.
- ② When the origin signal is present:
  - a. Moves in the negative direction at a speed approaching back to zero and stops moving when the home signal disappears.



#### • Back to zero mode 21:

- ① When there is no home signal input:
  - a. Moves in the negative direction at a speed that returns to zero, and decelerates to zero when a home signal is input;
  - b. Again move in the positive direction with a return to zero approach speed until the home signal disappears and the movement stops.
- ② When the origin signal is present:
  - a. Moves in the positive direction at a speed approaching back to zero, and stops moving when the home signal disappears.



#### • Back to zero mode 24:

① When there is no home/positive limit signal input:

- a. Move in the positive direction at a speed back to zero until the home signal input is detected, and then do deceleration until the speed is zero;
- b. Then move in the negative direction with a speed approaching back to zero until the origin signal disappears, and then do deceleration until the speed is zero;
- c. Then move in the positive direction with a return-to-zero approach speed until the home signal appears and stops the movement.
- ② When there is no home/positive limit signal input:
  - a. Move in the positive direction at a speed back to zero, and when a positive limit signal is input, make a braking movement until the speed is zero;
  - b. Then move in the negative direction at a speed back to zero, and when exiting the home signal, do a deceleration until the speed is zero;
  - c. Then move in the positive direction with a return-to-zero approach speed until the home signal appears and stops the movement.
- (3) When the origin signal is present:
  - a. Move in the negative direction at a speed approaching back to zero, and when exiting the home signal, do a deceleration until the speed is zero;
  - b. Then move in the positive direction with a return-to-zero approach speed until the home signal appears and stops the movement.



#### • Back to zero mode 28:

- ① When there is no home/negative limit signal input:
  - a. Move in the negative direction at a speed back to zero until the home signal input is detected, and then do deceleration until the speed is zero;
  - b. Then move in the positive direction at a speed close to zero until the origin signal disappears, and then do deceleration until the speed is zero;
  - c. It then moves in the negative direction at a speed approaching back to zero until the home signal appears and stops the movement.
- ② When there is no home/negative limit signal input:
  - a. Move in the negative direction at a speed back to zero, and when a negative limit signal is input, make a braking movement until the speed is zero;
  - b. Then move in the positive direction at a speed back to zero, and when exiting the home signal, do a deceleration until the speed is zero;
  - c. It then moves in the negative direction at a speed approaching back to zero until the home signal appears and stops the movement.
- (3) When the origin signal is present:
  - a. Move in the positive direction at a speed approaching back to zero, and when exiting the home signal, do a deceleration until the speed is zero;
  - b. It then moves in the negative direction at a speed approaching back to zero until the home signal appears and stops the movement.



#### 6.1.5 Input Signal Logic

The input signal Input Logic is configurable:

- 0: Limit normally open, home brake normally open;
- 1: Limit normally open, home brake normally closed;
- 2: Limit normally closed, home brake normally open;
- 3: Limit normally closed, home brake normally closed;

The input signal logic can be set individually for the four channels, where positive and negative limits can only be set uniformly, and home and brake can only be set uniformly.

#### 6.1.6 Scale

Set the unit of speed and position according to the demand. For example, if 1000 pulses are 1 lap, you can set Scaling to 1000, then the running speed, running steps, startup speed, return to zero speed, and return to zero approach speed will all be multiplied by 1000, which can be understood as the number of steps and speed parameters issued at this time, and the unit will be changed to lap.

## 6.2 Process data

## 6.2.1 Uplink data

48 bytes of uplink data (12 bytes per channel, channel [n] takes values 1 to 4)						
Name (of a thing)	Meaning	Range of values	Data type	Lengths		
Ch[n] Pulse Output Direction	Actual pulse output direction	0: positive rotation 1: Inversion	bool	1 bit0		
Ch[n] Pulse Status Flag 1	Pulse Status	00: No pulse output 01: Accelerating	bool	2 bits		
Ch[n] Pulse Status Flag 2	Flag	10: Decelerating 11: in even speed	bool	bit1~bit2		
Ch[n] Homing Mode Running	Back to zero in operation	1: In the return-to-zero state 0: Not in zero return state	bool	1 bit3		
Ch[n] Position Mode Running	Position mode in operation	1: In position mode state 0: Not in position mode state	bool	1 bit4		
Ch[n] Velocity Mode Running	Speed mode in operation	1: In speed mode 0: Not in speed mode state	bool	1 bit5		
Ch[n] Homed	Return to zero complete.	1: Zero return complete 0: Return to zero incomplete	bool	1 bit6		
Ch[n] Location Arrival	Location Arrival	1: Location arrival 0: Position not reached	bool	1 bit7		
Ch[n] Velocity Arrival	Speed	1: Speed of arrival 0: Speed not reached	bool	1 bit8		
Ch[n] Positive Limit Signal	Positive limit signal input	1: With signal input 0: No signal input	bool	1 bit9		
Ch[n] Negative Limit Signal	Negative limit signal input	1: With signal input 0: No signal input	bool	1 bit10		
Ch[n] Home Signal	Home signal input	1: With signal input 0: No signal input	bool	1 bit11		
Ch[n] Brake Signal	Brake signal input	1: With signal input 0: No signal input	bool	1 bit12		
Ch[n] Reserved	Reserve	reserve	bool	1 bit bit13~bit15		
Ch[n] Error Code	Alarm code	0x0001: Startup speed > Running	unsigned16	2 bytes		

	-		-	
		speed 0x0002: Startup speed > Back to zero speed 0x0004: Startup speed > Back to zero approach speed 0x0008: Zero Approach Speed > Zero Return Speed 0x0010: Running speed out of bounds (Speed x Scaling >		
		bounds (Position x Scaling > 2^32) 0x0040: Startup speed out of bounds (Speed x Scaling > 200000) 0x0080: Back to zero speed		
		crossing (Speed x Scaling > 200000) 0x0100: Back to zero approaching velocity crossing (Velocity x Scaling > 200000) 0x0200: Acceleration time out of		
		bounds (20~5000ms) 0x0400: Deceleration time out of bounds (20~5000ms) 0x1000: Positive Limit Trigger, do not allow to continue to move in the positive direction 0x2000: Negative limit triggered, no further movement in negative		
Ch[n] Current	current	direction allowed		
Location	position	-2,147,483,648 ~ 2,147,483,647	signed32	4 bytes
Ch[n] Current Velocity	current velocity	0~200kHz	signed32	4 bytes

#### **Data Description:**

#### Pulse Output Direction

The pulse output direction flag bit reflects the actual direction of motion in different modes.

#### Pulse Status Flag

The status flag bit indicates the current state of the pulse output. Note that normal deceleration and braking will cause the state to switch to deceleration in progress. You can determine whether the current state is deceleration or braking by using the positive and negative limits and whether there is a signal input for braking.

- Back to Zero Homing Mode Running
  - Indicates whether the channel device is currently in return-to-zero mode.
- Position Mode Running

Indicates whether the current channel device is in position mode operation.

• Velocity Mode Running

Indicates if the current channel device is running in speed mode

#### • Back to zero. Homed.

When the module initiates the return-to-zero command and finds the home position successfully, this bit is set to 1. When the channel initiates motion again, this bit is reset to 0. It should be noted that if the return-to-zero command fails for any reason, this bit will not be set to 1.

#### Location Arrival

When the module is running in position mode and has run to the target position, this bit is set to 1. When the channel initiates motion again, it will re-set the bit to 0.

#### Velocity Arrival

When the module is running in speed mode and the running speed has reached the set value, this bit is set to 1. When the channel starts the motion again, it will re-set this bit to 0.

#### Positive Limit, Negative Limit, Origin, and Brake Signal Inputs Positive Limit Signal, Negative Limit Signal, Origin Signal, and Brake Signal

The four signals correspond to the four input channels, indicating the presence or absence of the four input signals of the corresponding channels.

#### Error Code

Once a channel generates an alarm message, the motion associated with the alarm message cannot be initiated, while the motion not associated with the alarm message can still be initiated normally. Example 1: When the start speed > operation speed of channel 1, the channel generates an alarm message, the 1st bit of the alarm message is 1 (2#0001 is converted to decimal as 10#1), and the Online value of the Error Code is 1, then channel 1 can not start the operation of the speed/position mode, but it can be started back to zero normally.

Example 2: Channel 1 bit 1 alarm message is not triggered, bit 4 return to zero approach speed > return to zero speed generates an alarm message, the alarm code is 8 (2#1000 converted to decimal is 10#8), the Online value of Error Code is 8, then channel 1 can not start the return to zero, but it can start the operation of speed/position mode normally.

#### Current Location

The current position indicates the number of offset pulses relative to zero, i.e. the commanded position (coordinate). If the downward coordinate is cleared to zero when there are no pulses output from the channel, then this value is set directly to zero.

#### Current Velocity

The actual running speed of the current channel.

### 6.2.2 Downlink data

52 bytes of downstream instructions (13 bytes per channel, channel [n] takes values 1 to								
4)								
Name (of a thing)	Meaning	Range of values	Data type	Lengths				
Ch[n] Running	Movement	0: positive rotation	haal	1 bit0				
Direction	direction	1: Inversion	DUUI					
Ch[n]	Absolute/relative	0: Absolute position		1 bit1				
Absolute/Relative Position Mode	position mode	1: Relative position	bool					
Ch[n]	Position/Speed	0: Position mode	bool	1 bit2				
Mode	Mode	1: Speed Mode	5001					
Ch[n] Reset Coordinates	Zeroing of current coordinates	Edge control: 0->1 clear the current coordinate	bool	1 bit3				
Ch[n] Start	priming campaign	Edge control: 0->1 start	bool	1 bit4				
Ch[n] Brake	Brake Command	1: Trigger brake command	bool	1 bit5				
	Brake Command	0: No brake command						
Ch[n] Home	Start to return to zero	Edge control: 0->1 start	bool	1 bit6				
Ch[n] Reserved	reserve	reserve	bool	1 bit7				
Ch[n] Acceleration Time	Acceleration Time Configuration	20~5000ms	unsigned16	2 bytes				
Ch[n] Deceleration Time	Deceleration time configuration	20~5000ms	unsigned16	2 bytes				
Ch[n] Running Velocity	Running Speed Configuration	0~200kHz	unsigned32	4 bytes				
Ch[n] Running Position	Configuration of the number of	-2^31~2^31-1	signed32	4 bytes				
	running steps							

### Data Description:

#### Running Direction

Motion direction is actually only valid in velocity mode. Because the relative position mode can directly judge the positive and negative of the steps to set the direction, and the absolute position mode can directly judge the size relationship between the current coordinate and the target

coordinate to judge the running direction, so only the speed mode needs to rely on this parameter to decide the running direction.

#### Absolute/Relative Position Mode, Position/Velocity Mode

Together, these three parameters determine how the movement will take place. Relative position mode and absolute position mode need to be established with the position mode selected. If the current setting is velocity mode, then this parameter is meaningless.

**Absolute Position Mode: The** number of running steps indicates running from the current coordinates to the set coordinate position.

For example, if the current position is 600 steps and the number of running steps is 800, it means running to the position of 800 steps, i.e. running 200 steps in the positive direction.

In this mode, it is allowed to modify the speed and position in real time, and it is allowed to switch to the speed mode directly. It should be noted that it is not allowed to set the speed to 0 in this mode. For example, if the current position is 10000 steps, the first startup is in absolute position mode, and the target position is 20000 steps, and the 20000 steps are modified to 50000 steps during the running process, then it will run directly to the position of 50000 steps.

**Relative Position Mode:** The number of running steps indicates how many steps are run directly. For example, a run step of -500 indicates a run of 500 steps directly in the opposite direction. In this mode, it is allowed to modify the speed and position in real time, and it is allowed to switch to speed mode directly. It should be noted that it is not allowed to set the speed to 0 in this mode. For example, if the current position is 10000 steps, the first startup is in relative position mode, and the target position is 20000 steps, and the 20000 steps are modified to 50000 steps during the running process, then it will directly run to the position of 60000 steps.

**Speed Mode:** The channel will accelerate to the running speed according to the set acceleration curve and run continuously, changing the running speed parameter in this mode is effective immediately. If the speed is set to 0 in the speed mode, the channel will follow the set deceleration time to do deceleration until the speed is reduced to 0 and then turn off this speed mode, in this mode, it allows real-time modification of the speed and the running direction, and it allows to switch to the position mode directly.

Note: In speed mode and position mode, after triggering the limit, it is not allowed to continue the movement in the same direction. The limit is lifted after initiating one movement in the reverse direction.

#### Current Coordinates Zero Reset Coordinates

Zeroing the current coordinates, edge control 0->1 takes effect. This command only takes effect if the channel is configured when it is stationary.

#### • Start CampaignStart

Edge control, when the channel is at rest, detect this parameter from 0 to 1 that is to open a movement.

#### • Brake command Brake

The brake command has the highest priority in the entire system, is immediately effective at any moment, and is level controlled. Therefore, as long as the brake instruction is 1, not only must the current motion be turned off immediately, but also the next motion is not allowed to be turned on. In other words, if you want the device to move, the brake instruction must be 0.

#### • Starting to return to zero.

Edge control, when the channel is in the stop state, this parameter is detected to change from 0 to 1 that is to turn on the channel back to zero. The channel zeroing mode and the corresponding speed follow <u>6.1.4 Zeroing Parameters</u> The channel zeroing mode and corresponding speed follow the configuration in 6.1.4 Zeroing Parameters.

#### Acceleration Time, Deceleration Time, Running Velocity, Running Position

The acceleration time, deceleration time, running speed, and number of running steps in this parameter together determine the trapezoidal acceleration/deceleration curve.

### 6.3 Use Cases

#### • Channel 1 runs 50,000 pulses in the forward direction at 100 kHz

- a. On-demand configuration of configuration parameters;
- b. Set channel 1 to relative position mode
  - a) Ch1 Position/Velocity Mode is set to 0;
  - b) Ch1 Absolute/Relative Position Mode is set to 1;
- c. Configure channel 1 to run at 50,000 steps and 100 kHz;
  - a) Ch1 Running Velocity is set to 100000;
  - b) Ch1 Running Position is set to 50000;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
  - a) Make sure that Ch1 Brake, Ch1 Pulse Status Flag 1, and Ch1 Pulse Status Flag 2 are equal to 0;
- e. Set the start command of channel 1 from 0 to 1 to start the movement.
  - a) Ch1 Start is set from 0 to 1.
- Channel 1 with a current position of 1000 moves to a position of -20,000 with a running speed of 100 kHz.
  - a. On-demand configuration of configuration parameters;
  - b. Sets channel 1 to absolute position mode;
    - a) Ch1 Position/Velocity Mode is set to 0;
    - b) Ch1 Absolute/Relative Position Mode is set to 0;
  - c. Configure channel 1 to run at -20000 steps and 100 kHz;
    - a) Ch1 Running Velocity is set to 100000;
    - b) Ch1 Running Position is set to -20000;
  - d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
    - a) Make sure that Ch1 Brake, Ch1 Pulse Status Flag 1, and Ch1 Pulse Status Flag 2 are equal to 0;
  - e. Set the start command of channel 1 from 0 to 1 to start the movement.
    - a) Ch1 Start is set from 0 to 1.

#### Channel 1 turns on speed mode and runs at 100 kHz

- a. Configure the configuration parameters;
- b. Sets channel 1 to speed mode;
  - a) Ch1 Position/Velocity Mode is set to 1;
- c. Configure channel 1 to run at 100 kHz and the direction of motion to be 0 forward;
  - a) Ch1 Running Velocity is set to 100000;
  - b) Ch1 Running Direction is set to 0;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
  - a) Make sure that Ch1 Brake, Ch1 Pulse Status Flag 1, and Ch1 Pulse Status Flag 2 are equal to 0;
- e. Set the start command of channel 1 from 0 to 1 to start the movement;
  - a) Ch1 Start is set from 0 to 1.

#### Channel 1 on zero return

- a. Configure the configuration parameters, select the return-to-zero mode and set the return-to-zero speed and the return-to-zero approach speed;
- b. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
  - a) Make sure that Ch1 Brake, Ch1 Pulse Status Flag 1, and Ch1 Pulse Status Flag 2 are equal to 0;
- c. Set the zero return command for channel 1 from 0 to 1 to start zero return.
  - a) Ch1 Home is set from 0 to 1.

## Channel 1 turns on speed mode, running at 100 kHz, with the speed modified to 10 kHz during operation

- a. Configure the configuration parameters;
- b. Sets channel 1 to speed mode;
  - a) Ch1 Position/Velocity Mode is set to 1;
- c. Configure channel 1 to run at 100 kHz and the direction of motion to be 0 forward;
  - a) Ch1 Running Velocity is set to 100000;
  - b) Ch1 Running Direction is set to 0;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
  - a) Make sure that Ch1 Brake, Ch1 Pulse Status Flag 1, and Ch1 Pulse Status Flag 2 are equal to 0;
- e. Set the start command of channel 1 from 0 to 1 to start the movement;
  - a) Ch1 Start is set from 0 to 1.
- f. Modify the running speed of channel 1 to 10kHz during motion;
  - a) Ch1 Running Velocity is set to 10000;
- g. Reset the start command of channel 1 from 0 to 1 to start the motion merge.
  - a) Ch1 Start is set from 0 to 1.
- The current position of channel 1 is 10000, move to the position of 20000, and modify the position to 50000 during the movement.
  - a. On-demand configuration of configuration parameters;
  - b. Sets channel 1 to absolute position mode;
    - a) Ch1 Position/Velocity Mode is set to 0;
    - b) Ch1 Absolute/Relative Position Mode is set to 0;
  - c. Configure channel 1 to run at 20000 steps and 1 kHz;
    - a) Ch1 Running Velocity is set to 1000;
    - b) Ch1 Running Position is set to 20000;
  - d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
    - a) Make sure that Ch1 Brake, Ch1 Pulse Status Flag 1, and Ch1 Pulse Status Flag 2 are equal to 0;
  - e. Set the start command of channel 1 from 0 to 1 to start the movement.
    - a) Ch1 Start is set from 0 to 1.
  - f. Modify the number of running steps for channel 1 to 50,000 during exercise;
    - a) Ch1 Running Position is set to 50000;
  - g. Reset the start command of channel 1 from 0 to 1 to start the motion merge.
    - a) Ch1 Start is set from 0 to 1.
# 6.4 Module Configuration Description

# 6.4.1 Application in TwinCAT3 software environment

# 1. Preliminary

- Hardware environment
  - > Module Model XB6-P04A
  - > Power Module, EtherCAT Coupler, End Cap

This description takes the XB6-P2000H power supply, XB6-EC0002 coupler as an example

- > A computer with pre-installed TwinCAT3 software
- > Shielded cables for EtherCAT
- > Motor drives, stepper/servo motors and other equipment
- > One switching power supply
- > Module mounting rails and rail mounts
- Device Configuration Files Configuration file to get the address: <u>https://www.solidotech.com/documents/configfile</u>
- Hardware configuration and wiring
   Please follow "<u>4 Mounting and dismounting</u> ""<u>5 Wiring</u> "" 5 Wiring "

# 2、Preset Profiles

Place the ESI configuration file (EcatTerminal-XB6\_V3.16\_ENUM.xml) in the TwinCAT installation directory under "C:\TwinCAT\3.1\Config\lo\EtherCAT" as shown

名称	修改日期	类型	大小
Beckhoff EKx9xx.xml	2017/11/3 9:53	XML 文档	1,223 KB
Beckhoff EP7xxx.xml	2017/11/8 9:46	XML文档	9,290 KB
Beckhoff ATH2xxx.xml	2017/11/23 13:22	XML 文档	439 KB
Beckhoff EPP3xxx.xml	2017/12/8 8:48	XML 文档	2,099 KE
Beckhoff EPP1xxx.xml	2017/12/14 11:34	XML 文档	480 KE
Beckhoff EL34xx.xml	2017/12/15 15:35	XML 文档	5,634 KE
Beckhoff EK13xx.xml	2017/12/19 14:30	XML 文档	16 KB
Beckhoff EPP2xxx.xml	2017/12/28 12:22	XML 文档	1,811 KB
Beckhoff EJ1xxx.xml	2018/1/4 10:00	XML 文档	67 KE
Beckhoff EJ3xxx.xml	2018/1/4 10:07	XML 文档	1,169 KE
Beckhoff EJ7xxx.xml	2018/1/4 10:11	XML 文档	2,339 KE
Beckhoff EJ9xxx.xml	2018/1/4 10:23	XML 文档	160 KE
Beckhoff EJ6xxx.xml	2018/1/4 10:31	<b>XML</b> 文档	313 KE
Beckhoff EL30xx.xml	2018/1/11 13:03	XML文档	11,508 KE
Beckhoff EL37xx.xml	2018/1/23 13:59	XML文档	11,837 KB
Beckhoff EJ2xxx.xml	2018/1/23 14:21	XML 文档	239 KE
Beckhoff EL5xxx.xml	2018/1/23 15:11	<b>XML</b> 文档	6,307 KE
Beckhoff EJ5xxx.xml	2018/1/23 15:12	XML文档	218 KE
Beckhoff EL2xxx.xml	2018/1/24 9:40	XML文档	2,868 KE
Beckhoff EL33xx.xml	2018/1/26 9:34	XML文档	6,727 KE
Beckhoff ELM3xxx.xml	2018/2/1 10:19	XML文档	14,238 KE
Beckhoff AX5xxx.xml	2018/2/8 16:15	<b>XML</b> 文档	930 KE
Beckhoff EL1xxx.xml	2018/2/19 17:15	XML文档	3,387 KB
Beckhoff EL25xx.xml	2018/2/21 10:23	XML文档	6,543 KB
EcatTerminal-XB6_V3.16_ENUM.xml	2023/7/11 10:21	XML 文档	574 KE

below.

### 3、Create Project

a. Click the TwinCAT icon in the lower right corner of the desktop and select "TwinCAT XAE (VS xxxx)" to open the TwinCAT software, as shown below.



b. Click "New TwinCAT Project", in the pop-up window, "Name" and "Solution name" correspond to the project name and solution name respectively. Solution name" in the pop-up window, "Name" and "Solution name" correspond to the project name and solution name respectively, "Location" corresponds to the project path, these three items can be selected by default, click "OK", the project was created successfully, as shown in the following figure.

New TwinCAT Project	Get Started Beckhoff Ne	ws
	1 and the processing processing of the proces	What's New in TwinCAT 3
New Project		? ×
▶ Recent	.NET Framework 4.5 + Sort by: Default	🔹 🏥 📃 Search Installed 🔎
<ul> <li>Installed</li> <li>Templates         <ul> <li>Other Project Types</li> <li>TwinCAT Measurement</li> <li>TwinCAT PLC</li> <li>TwinCAT Projects</li> <li>Samples</li> </ul> </li> </ul>	TwinCAT XAE Projec TwinCAT Projects	Type: TwinCAT Projects TwinCAT XAE System Manager Configuration
▷ Online Name: TwinCAT Project	Click here to go online and find templates.	
Location: D:\workspace\	TwinCAT Project	Browse
Solution name: TwinCAT Project	tt1	Create directory for solution
		OK Cancel

### 4、Scanning device

a. After creating the project, right-click on the "Scan" option under "I/O -> Devices" to perform a slave device scan, as shown in the following figure.



b. Check the "Local Connection" box, as shown in the following figure.



c. Click on the pop-up window "Scan for boxes" and select "Yes"; click on the pop-up window "Activate Free Run" and select "Yes". "Yes", as shown in the figure below.



d. After scanning to the device, you can see Box1 (XB6-EC0002) and Module 1 (XB6-P04A) in the left navigation tree, and you can see TwinCAT is in the "OP" state at "Online". You can see that the RUN lamp of the slave device is always on, as shown in the figure below.

Solution Explorer 🔹 👎 🗙	TwinCAT Project1 🔹 🗙
◎ ◎ ☆ '◎ - ≠ ฮ   ₽	General EtherCAT Process Data Slots Startup CoE - Online Online
Search Solution Explorer (Ctrl+;)	State Machine       Init       Bootstrap       Current State:       OP         Pre-Op       Safe-Op       Requested State:       OP         Op       Clear Error       OP         DLL Status       Port A:       Carrier / Open
image image-Info ≥ SyncUnits	Port B:     No Carrier / Closed       Port C:     No Carrier / Closed
Gutputs	Port D: No Carrier / Closed
<ul> <li>Intolata</li> <li>Box 1 (X86-EC0002)</li> <li>Inputs</li> <li>Module 1 (X86-P04A)</li> <li>Inputs</li> <li>Outputs</li> <li>Infotata</li> <li>Mappings</li> </ul>	File Access over EtherCAT Download Upload

# 5、Validating Basic Functions

a. Click "Box1 -> Startup -> New" in the left navigation tree to enter the configuration parameter editing page, as shown in the following figure.

Solution Explorer 🔹 👎 🗙	TwinCAT Project	1 + X				-
00 G 0 0 4 -	General Ethe	CAT Process	Data Slots Sta	rtup CoE - Online Online		
Search Solution Explorer (Ctrl+;)						
Solution 'TwinCAT Project1' (1 project)	Transition	Protocol	Index	Data	Comment	
<ul> <li>TwinCAT Project1</li> <li>SYSTEM</li> <li>MOTION</li> <li>PLC</li> <li>SAFETY</li> <li>C++</li> <li>Devices</li> <li>Devices</li> <li>Device 2 (EtherCAT)</li> <li>Image Info</li> <li>SyncUnits</li> <li>Inputs</li> <li>Outputs</li> <li>InfoData</li> <li>Inputs</li> <li>InfoData</li> <li>Inputs</li> <li>Inputs</li> <li>InfoData</li> <li>Outputs</li> <li>Module 1 (X86-P04A)</li> <li>Inputs</li> </ul>	© «PS>	COE	0xf030 C 0	01 00 4A 60 00 00	download slot cfg	
Outputs						
WcState	Movetin	Mous	Down		New Delete	Felit
Mappings	Move up	Imove	Learnin .		Licitede	Luffin

b. In the Edit CANopen Startup Entry pop-up window, click the "+" in front of Index 2000:0 to expand the configuration parameter menu, you can see 8 configuration parameters, click on any one of the parameters, you can set the relevant configuration, as shown in the following figure.

Edit CANoper	n Startup Entry			$\times$
Transition □ I -> P ☑ P -> S □ S -> 0	Inda	ex (hex): ⊢Index (dec): [ √alidate [	0	OK Cancel
Data (hexbin): Validate Mask: Comment:				Hex Edit Edit Entry
Index ■ 2000:01 = 2000:02 = 2000:03 = 2000:04 = 2000:05 = 2000:06 = 2000:07 = 2000:08 = 2000:00 = 2000 = 2000:00 = 2000:00 = 2000:00 = 2000:00 = 2000:00 = 2000	Name         ×B6_P04A Config         Pulse Mode         Brake Time         Ch1 Startup Speed         Ch1 Homing Mode         Ch1 Homing Speed         Ch1 Homing Approach         Ch1 Input Logic         Ch1 Startup Speed         Ch2 Startup Speed         Ch2 Homing Mode         Ch2 Homing Speed         Ch2 Homing Approach         Ch2 Homing Approach         Ch2 Homing Approach         Ch2 Specifica	Flags           RW           RW           RW           RW           RW           RW           RW           RW           RW           Speed           RW           RW           RW           RW           RW           Speed           RW           Speed           RW           Speed	Value > 25 < Pul+Dir (0) 0x000000C8 (200) 0x0000001 (1) mode 24 (2) 0x000001 F4 (500) Limit Normally Open, 0x00000001 (1) mode 24 (2) 0x0000001 (1) mode 24 (2) 0x00000158 (1000) 0x000001 F4 (500) Limit Normally Open, 0x0000001 (1)	Unit <ul> <li>①脉冲输出模式</li> <li>②刹车时间</li> <li>③启动速度</li> <li>④回零模式</li> <li>⑤回零接近速度</li> <li>⑥回零接近速度</li> <li>⑦输入逻辑</li> <li>⑧标度</li> </ul>

c. For example, to modify the Startup Speed parameter, you can double-click "Startup Speed" to modify the parameter value, as shown in the following figure.

Edit CANoper	Startup Entry				×
Transition ☐ 1-> P ☑ P-> S ☐ S-> 0	Inc S-> P Su D -> S	lex (hex): b-Index (dec) Validate	2000 3 Complete Acces	55	OK Cancel
Data (hexbin): ∨alidate Mask:	01 00 00 00				Hex Edit
Comment:	Ch1 Startup Speed				Edit Entry
Index = 2000:0	Name ×B6_P04A Config	Flags RW	Value > 25 <	Unit	^
2000:01	Pulse Mode	RW	Pul+Dir (0)		
- 2000:02	Ch1 Startup Speed	Set value	Dialog		×
2000:04	Ch1 Homing Mode Ch1 Homing Speed	Dec:	100		ОК
2000:06	Ch1 Homing Approact Ch1 Input Logic	Hex:	0x0000064		Cancel
- 2000:08 - 2000:09	Ch1 Scaling Ch2 Startup Speed	Float:	1.4012985e-43		
- 2000:0A - 2000:0B	Ch2 Homing Mode Ch2 Homing Speed Ch2 Homing Approach	Bool:	0 1		Hex Edit
2000:0D	Ch2 Input Logic Ch2 Scaling	Binary:	64 00 00 00		4
- 2000.0E	Ch3 Startup Speed	Bit Size:	01 08 01	6 • 32 (	)64 ()?

d. After the parameter modification is completed, you can see the modified parameter items and parameter values below Startup, as shown in the following figure.

	Protocol	Index	Data	Comment		
<ps></ps>	CoE	0xF030 C 0	01 00 4A 60 00 00	download slot cfg		
∎ PS	CoE	0x2000:03	0x00000064 (100)	Ch1 Startup Speed		

e. The left navigation tree "Module 1 -> Inputs" displays the upstream data of the pulse output module, which is used to monitor the status of the module, as shown in the figure below.

Solution Explorer + # ×	TwinCAT Project 1 🖷 🗙								_
000 0.00	Name		Online	Type	Size	>A_	In/Out	User ID	Linked to
	Ch1 Pulse Output Direction	实际输出方向	0	BIT	0.1	41.0	Input	0	
Search Solution Explorer (Ctrl+;)	Ch1 Pulse Status Flag 1	脉油带本标志位	0	BIT	0.1	41.1	Input	0	
Solution 'TwinCAT Project1' (1 project)	Ch1 Pulse Status Flag 2	WV TAXAS MINEALY	0	BIT	0.1	41.2	Input	0	
<ul> <li>TwinCAT Project1</li> </ul>	Ch1 Homing Mode Running	回零运行中	0	BIT	0.1	41.3	Input	0	
SYSTEM	<ul> <li>Ch1 Position Mode Running</li> </ul>	位置模式运行中	0	BIT	0.1	41.4	Input	0	
MOTION	Ch1 Velocity Mode Running	速度模式运行中	0	BIT	0.1	41.5	Input	0	
PLC	<ul> <li>Ch1 Homed</li> </ul>	回零完成	0	BIT	0.1	41.6	Input	0	
Garan Cara	<ul> <li>Ch1 Location Arrival</li> </ul>	位置到达	0	BIT	0.1	41.7	Input	0	
4 📴 VO	<ul> <li>Ch1 Velocity Arrival</li> </ul>	速度到达	0	BIT	0.1	42.0	Input.	0	
Operation     Operation	<ul> <li>Ch1 Positive Limit Signal</li> </ul>	正限位	0	BIT	0.1	42.1	Input	0	
<ul> <li>Device 2 (EtherCAT)</li> </ul>	<ul> <li>Ch1 Negative Limit Signal</li> </ul>	负限位	0	BIT	0.1	42.2	Input	0	
🚦 Image	<ul> <li>Ch1 Home Signal</li> </ul>	原点	0	BIT	0.1	42.3	Input	0	
🚦 Image-Info	<ul> <li>Ch1 Brake Signal</li> </ul>	刹车	0	BIT	0.1	42.4	Input	0	
SyncUnits	Ch2 Pulse Output Direction		0	BIT	0.1	43.0	Input	0	
P inputs	Ch2 Pulse Status Flag 1		0	BIT	0.1	43.1	Input	0	
p Gutputs	<ul> <li>Ch2 Pulse Status Flag 2</li> </ul>		0	BIT	0.1	43.2	Input	0	
A (D Box 1 (XB6-EC0002)	<ul> <li>Ch2 Homing Mode Running</li> </ul>		0	BIT	0.1	43.3	Input	0	
b Inputs	Ch2 Position Mode Running		0	BIT	0.1	43.4	Input	0	
Outputs	Ch2 Velocity Mode Running		0	BIT	0.1	43.5	Input	0	
Module 1 (XB6-P04A)	<ul> <li>Ch2 Homed</li> </ul>		0	BIT	0.1	43.6	Input	0	
D Inputs	Ch2 Location Arrival		0	BH	0.1	43.7	Input	0	
Dutputs	Ch2 Velocity Arrival		0	BU	0.1	44.0	Input	0	
WcState	Ch2 Positive Limit Signal		0	BII	0.1	44.1	Input	0	
P 🔚 InfoData	Ch2 Negative Limit Signal		0	DIT	0.1	44.2	input	0	
Mappings	Ch2 Prote Signal		0	DIT	0.1	44.5	input	0	
	Ch2 Brake Signal		0	DIT	0.1	46.0	input	0	
	Ch3 Pulse Output Direction		0	DIT	0.1	45.0	Input	0	
	Ch3 Pulse Status Flag 1		0	DIT	0.1	45.1	Input	0	
	Ch3 Homing Mode Punning		0	DIT	0.1	3.64	locut	0	
	Ch2 Pacition Mode Running		0	BIT	0.1	45.5	Input	0	
	Ch3 Valority Mode Running		0	BIT	0.1	45.5	loput	0	
	Ch3 Wood		0	RIT	0.1	45.6	locut	0	
	Ch3 Location Arrival		0	BIT	0.1	45.7	Input	0	
	Ch3 Velocity Arrival		0	BIT	0.1	46.0	Innet	0	
	Ch3 Positive Limit Signal		0	BIT	0.1	46.1	Input	0	
	<ul> <li>Ch3 Negative Limit Signal</li> </ul>		0	BIT	0.1	46.2	Input	0	
	Ch3 Home Signal		0	BIT	0.1	46.3	Input	0	
	Ch3 Brake Signal		0	BIT	0.1	46.4	Input	0	
	<ul> <li>Ch4 Pulse Output Direction</li> </ul>		0	BIT	0.1	47.0	Input	0	
	Ch4 Pulse Status Flag 1		0	BIT	0.1	47.1	Input	0	
	Ch4 Pulse Status Flag 2		0	BIT	0.1	47.2	Input	0	
	Ch4 Homing Mode Running		0	BIT	0.1	47.3	Input	0	
	<ul> <li>Ch4 Position Mode Running</li> </ul>		0	BIT	0.1	47.4	Input	0	
	<ul> <li>Ch4 Velocity Mode Running</li> </ul>		0	BIT	0.1	47.5	Input	0	
	Ch4 Homed		0	BIT	0.1	47.6	Input	0	
	<ul> <li>Ch4 Location Arrival</li> </ul>		0	BIT	0.1	47.7	Input	0	
	<ul> <li>Ch4 Velocity Arrival</li> </ul>		0	BIT	0.1	48.0	Input	0	
	<ul> <li>Ch4 Positive Limit Signal</li> </ul>		0	BIT	0.1	48.1	Input	0	
	<ul> <li>Ch4 Negative Limit Signal</li> </ul>		0	BIT	0.1	48.2	Input	0	
	<ul> <li>Ch4 Home Signal</li> </ul>		0	BIT	0.1	48.3	Input	0	
	<ul> <li>Ch4 Brake Signal</li> </ul>		0	BIT	0.1	48.4	Input	0	
	<ul> <li>Ch1 Error Code</li> </ul>		1537	UINT	2.0	49.0	Input	0	
	<ul> <li>Ch2 Error Code</li> </ul>	告警码	1537	UINT	2.0	51.0	Input	0	
	<ul> <li>Ch3 Error Code</li> </ul>		1537	UINT	2.0	53.0	Input	0	
	<ul> <li>Ch4 Error Code</li> </ul>	STA	1537	UINT	2.0	55.0	Input	0	
	<ul> <li>Ch1 Current Location</li> </ul>	当前位重	0	DINT	4.0	57.0	Input	0	
	<ul> <li>Ch1 Current Velocity</li> </ul>	当則速度	0	DINT	4.0	61.0	Input	0	
	<ul> <li>Ch2 Current Location</li> </ul>		0	DINT	4.0	65.0	Input	0	
	<ul> <li>Ch2 Current Velocity</li> </ul>		0	DINT	4.0	69.0	Input	0	
	<ul> <li>Ch3 Current Location</li> </ul>		0	DINT	4.0	73.0	Input	0	
	<ul> <li>Ch3 Current Velocity</li> </ul>		0	DINT	4.0	77.0	Input	0	
	<ul> <li>Ch4 Current Location</li> </ul>		0	DINT	4.0	81.0	Input	0	
	<ul> <li>Ch4 Current Velocity</li> </ul>		0	DINT	4.0	85.0	Input	0	

f. The left navigation tree "Module 1 -> Outputs" displays the downstream data of the pulse output module, which is used to monitor the output status of the module, as shown in the figure below.

Solution Explorer 👻 👎	× TwinCAT Project1 ↔ ×								
000 0-20 4-	Name		Online	Туре	Size	>A	In/Out	User ID	Linked to
Search Solution Explorer (Ctrix)	Ch1 Running Direction	运动方向	0	BIT	0.1	41.0	Output	0	
Search solution explorer (Ctrl+,)	Ch1 Absolute/Relative Position Mode	绝对/相对位置模式	0	BIT	0.1	41.1	Output	0	
Solution 'TwinCAT Project1' (1 project)	Ch1 Position/Velocity Mode	位置/速度模式	0	BIT	0.1	41.2	Output	0	
<ul> <li>TwinCAT Project1</li> </ul>	Ch1 Reset Coordinates	坐标清零	0	BIT	0.1	41.3	Output	0	
P SYSTEM	Ch1 Start	启动	0	BIT	0.1	41.4	Output	0	
MOTION	Ch1 Brake	刹车	0	BIT	0.1	41.5	Output	0	
SAFETY	Ch1 Home	回零	0	BIT	0.1	41.6	Output	0	
	Ch2 Running Direction		0	BIT	0.1	42.0	Output	0	
4 🛃 I/O	Ch2 Absolute/Relative Position Mode		0	BIT	0.1	42.1	Output	0	
Devices	Ch2 Position/Velocity Mode		0	BIT	0.1	42.2	Output	0	
<ul> <li>Device 2 (EtherCAT)</li> </ul>	Ch2 Reset Coordinates		0	BIT	0.1	42.3	Output	0	
tmage	Ch2 Start		0	BIT	0.1	42.4	Output	0	
📑 Image-Info	Ch2 Brake		0	BIT	0.1	42.5	Output	0	
SyncUnits	Ch2 Home		0	BIT	0.1	42.6	Output	0	
👂 🛁 Inputs	Ch3 Running Direction		0	BIT	0.1	43.0	Output	0	
Outputs	Ch3 Absolute/Relative Position Mode		0	BIT	0.1	43.1	Output	0	
InfoData	Ch3 Position/Velocity Mode		0	BIT	0.1	43.2	Output	0	
Box 1 (XB6-EC0002)	Ch3 Reset Coordinates		0	BIT	0.1	43.3	Output	0	
P inputs	Ch3 Start		0	BIT	0.1	43.4	Output	0	
P U Outputs	Ch3 Brake		0	BIT	0.1	43.5	Output	0	
Module I (XBO-P04A)	Ch3 Home		0	BIT	0.1	43.6	Output	0	
P Gutputs	Ch4 Running Direction		0	BIT	0.1	44.0	Output	0	
V State	Ch4 Absolute/Relative Position Mode		0	BIT	0.1	44.1	Output	0	
InfoData	Ch4 Position/Velocity Mode		0	BIT	0.1	44.2	Output	0	
and Mappings	Ch4 Reset Coordinates		0	BIT	0.1	44.3	Output	0	
	Ch4 Start		0	BIT	0.1	44.4	Output	0	
	Ch4 Brake		0	BIT	0.1	44.5	Output	0	
	Ch4 Home		0	BIT	0.1	44.6	Output	0	
	Ch1 Acceleration Time	加速时间	0	UINT	2.0	45.0	Output	0	
	Ch1 Deceleration Time	减速时间	0	UINT	2.0	47.0	Output	0	
	Ch1 Running Velocity	运行速度	0	UDINT	4.0	49.0	Output	0	
	Ch1 Running Position	运行步数	0	DINT	4.0	53.0	Output	0	
	Ch2 Acceleration Time		0	UINT	2.0	57.0	Output	0	
	Ch2 Deceleration Time		0	UINT	2.0	59.0	Output	0	
	Ch2 Running Velocity		0	UDINT	4.0	61.0	Output	0	
	Ch2 Running Position		0	DINT	4.0	65.0	Output	0	
	Ch3 Acceleration Time		0	UINT	2.0	69.0	Output	0	
	Ch3 Deceleration Time		0	UINT	2.0	71.0	Output	0	
	Ch3 Running Velocity		0	UDINT	4.0	73.0	Output	0	
	Ch3 Running Position		0	DINT	4.0	77.0	Output	0	
	Ch4 Acceleration Time		0	UINT	2.0	81.0	Output	0	
	Ch4 Deceleration Time		0	UINT	2.0	83.0	Output	0	
	Ch4 Running Velocity		0	UDINT	4.0	85.0	Output	0	
	Ch4 Running Position		0	DINT	4.0	89.0	Output	0	

# **Examples of Module Functions**

- Channel 1 runs 50,000 pulses in the forward direction at 100 kHz
  - a. Configure the configuration parameters as shown below.

Edit CANoper	n Startup Entry					×
Transition		Index (hex):	200	0		OK Cancel
VP-> 5	5->P	Sub-Index (d	ec):			
□S->0	0->S	Validate		Complete Access		
Data (hexbin):	00 00 00 00					Hex Edit
Validate Mask:						
Comment:	Ch1 Input Logic	>				Edit Entry
Index	Name		Flags	Value	Unit	^
≘-2000:0	XB6_P04A Confid	1	RW	> 25 <		
2000:01	- Pulse Mode		RW	Pul+Dir (0)		
2000:02	Brake Time		RW	0x000000C8 (200)		
2000:03	Ch1 Startup Spee	d	RW	0x00000001 (1)		
2000:04	Ch1 Homing Mode	e	RW	mode 24 (2)		
2000:05	Ch1 Homing Spee	d	RW	0x000003E8 (1000)		
2000:06	Ch1 Homing Appr	oach Speed	RW	0x000001F4 (500)		
2000:07	Ch1 Input Logic		RW	Limit Normally Open,		
2000:08	Ch1 Scaling		RW	0x00000001 (1)		
2000:09	Ch2 Startup Spee	d	RW	0x00000001 (1)		
-2000:0A	Ch2 Homing Mode	9	RW	mode 24 (2)		
-2000:0B	Ch2 Homing Spee	ed	RW	0x000003E8 (1000)		
-2000:0C	Ch2 Homing Appr	oach Speed	RW	0x000001F4 (500)		
-2000:0D	Ch2 Input Logic		RW	Limit Normally Open,		
-2000:0E	Ch2 Scaling		RW	0x00000001 (1)		
2000:0F	Ch3 Startup Spee	d	RW	0x00000001 (1)		~

- b. Sets channel 1 to relative position mode;
- c. Configure channel 1 to run at 50000 steps and 100kHz;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- e. Set the start command for channel 1 from 0 to 1 as shown below.

Solution Explorer 🔹 🗣	× TwinCAT Project1 ↔ ×						
000 0-20 4-	Name	Online	Type	Size	>Address	In/Out	User ID Linked to
Search Solution Explorer (Ctrl +)	Ch1 Running Direction	0	BIT	0.1	41.0	Output	0
Search Solution Explorer (Cur+,)	Ch1 Absolute/Relative Position Mode	1	BIT	0.1	41.1	Output	0相对位置模式
Solution 'TwinCAT Project1' (1 project)	Ch1 Position/Velocity Mode	0	BIT	0.1	41.2	Output	0
TwinCAT Project1	Ch1 Reset Coordinates	0	BIT	0.1	41.3	Output	0
P SYSTEM	Ch1 Start	1	BIT	0.1	41.4	Output	o 启动命令从0到1
MOTION III DI C	Ch1 Brake	0	BIT	0.1	41.5	Output	<ul> <li>刹车指令为0</li> </ul>
SAFETY	Ch1 Home	0	BIT	0.1	41.6	Output	0
GALLA	Ch2 Running Direction	0	BIT	0.1	42.0	Output	0
	Ch2 Absolute/Relative Position Mode	0	BIT	0.1	42.1	Output	0
A The Devices	Ch2 Position/Velocity Mode	0	BIT	0.1	42.2	Output	0
<ul> <li>Device 2 (EtherCAT)</li> </ul>	Ch2 Reset Coordinates	0	BIT	0.1	42.3	Output	0
tmage Image	Ch2 Start	0	BIT	0.1	42.4	Output	0
📲 Image-Info	Ch2 Brake	0	BIT	0.1	42.5	Output	0
SyncUnits	-Ch2 Home	0	BIT	0.1	42.6	Output	0
Inputs	Ch3 Running Direction	0	BIT	0.1	43.0	Output	0
Outputs	Ch3 Absolute/Relative Position Mode	0	BIT	0.1	43.1	Output	0
InfoData	Ch3 Position/Velocity Mode	0	BIT	0.1	43.2	Output	0
Box 1 (XB6-EC0002)	Ch3 Reset Coordinates	0	BIT	0.1	43.3	Output	0
Inputs	Ch3 Start	0	BIT	0.1	43.4	Output	0
Outputs	Ch3 Brake	0	BIT	0.1	43.5	Output	0
<ul> <li>Module 1 (XB6-P04A)</li> </ul>	Ch3 Home	0	BIT	0.1	43.6	Output	0
P 🤤 Inputs	Ch4 Running Direction	0	BIT	0.1	44.0	Output	0
P U Outputs	Ch4 Absolute/Relative Position Mode	0	BIT	0.1	44.1	Output	0
wcstate	Ch4 Position/Velocity Mode	0	BIT	01	442	Output	0
Mappings	Ch4 Reset Coordinates	0	BIT	0.1	44 3	Output	0
a mappings	Ch4 Start	0	BIT	0.1	44.4	Output	0
	E Ch4 Brake	0	BIT	0.1	44.5	Output	0
	Ch4 Home	0	BIT	0.1	44.6	Output	0
	Chi Acceleration Time	500	LUNT	2.0	45.0	Output	0
	Ch1 Deceleration Time	500	LIINT	2.0	47.0	Output	0
	Ch1 Running Velocity	100000	UDINT	40	49.0	Output	o 远行速度100kHz
	Ch1 Running Position	50000	DINT	4.0	53.0	Output	0 运行上数50000
	Ch2 Acceleration Time	0	LUNT	2.0	57.0	Output	0 41 3 2 8 30000
	Ch2 Deceleration Time	0	LINT	2.0	59.0	Output	0
	Ch2 Pupping Velocity	0	LIDINT	4.0	61.0	Output	0
	Ch2 Running Velocity	0	DINT	4.0	61.0	Output	0
	Ch2 Acceleration Time	0	LUNT	2.0	60.0	Output	0
	Ch3 Acceleration Time	0	LUNT	2.0	71.0	Output	0
	Ch3 Deceleration Time	0	UDINT	4.0	72.0	Output	0
	Ch3 Running Velocity	0	DINT	4.0	73.0	Output	0
	Cha Acceleration Time	0	LUNT	4.0	91.0	Output	0
	Ch4 Deseleration Time	0	LUNT	2.0	92.0	Output	0
	Chi Deceleration Time	0	UDINT	2.0	85.0	Output	0
	Ch4 Running Velocity	0	DINIT	4.0	65.0	Output	0
	-Ch4 Running Position	U	DINT	4.0	99.0	Output	U
	-						

f. After the movement is complete, you can see that the channel 1 position arrival is set to 1, as shown below.

0000.0000	Name	Online	Type	Size	>Address	In/Out	User ID	Linked I
O DI O CO DI A	Ch1 Pulse Output Direction	0	BIT	0.1	41.0	Input	0	
rch Solution Explorer (Ctrl+;)	P - Ch1 Pulse Status Flag 1	0	BIT	0.1	41.1	Input	0	
Solution 'TwinCAT Project1' (1 project)	Ch1 Pulse Status Flag 2	Ő	BIT	0.1	41.2	Input	0	
TwinCAT Project1	Ch1 Homing Mode Running	0	BIT	0.1	41.3	Input	0	
SYSTEM	Ch1 Position Mode Running	0	BIT	0.1	41.4	Input	0	
MOTION	Ch1 Velocity Mode Running	0	BIT	0.1	41.5	Input	0	
PLC PLC	<ul> <li>Ch1 Homed</li> </ul>	0	BIT	0.1	41.6	Input	0	
SAFETY	Ch1 Location Arrival		BIT	01	417	Input	0	
C++	Ch1 Velocity Arrival	السنوسا	BIT	01	42.0	Input	0	
	Ch1 Positive Limit Signal	0	BIT	0.1	42.1	Input	0	
The Devices     Devices	Ch1 Negative Limit Signal	0	BIT	0.1	42.2	Input	0	
<ul> <li>Device 2 (EtherCAT)</li> </ul>	Ch1 Home Signal	0	RIT	0.1	423	loout	0	
* Image	Ch1 Brake Signal	0	BIT	0.1	42.4	Input	ő	
P SyncUnits	Ch2 Pulse Output Direction	0	BIT	0.1	43.0	Input	0	
Inputs	Ch2 Pulse Status Flag 1	0	BIT	0.1	43.1	Input	0	
Outputs	Ch2 Pulse Status Flag 2	0	BIT	0.1	43.2	Input	0	
InfoData	Ch2 Homing Mode Rupping	0	BIT	0.1	43.3	loput	0	
<ul> <li>Box 1 (XB6-EC0002)</li> </ul>	Ch2 Position Mode Running	0	RIT	0.1	43.4	Input	0	
Inputs	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0	
Outputs	Ch2 Homed	0	BIT	0.1	43.6	loout	0	
<ul> <li>Module 1 (XB6-P04A)</li> </ul>	Ch2 Location Arrival	0	RIT	0.1	43.7	Input	0	
P Inputs	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0	
Outputs	Ch2 Positive Limit Signal	0	RIT	0.1	44.1	Input	0	
P WcState	Ch2 Negative Limit Signal	0	RIT	0.1	44.2	Input	0	
Manningr	Ch2 Home Signal	0	BIT	0.1	44.3	Input	0	
a mappings	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0	
	Ch3 Pulse Output Direction	0	RIT	0.1	45.0	Input	0	
	Ch3 Pulse Status Flag 1	0	RIT	0.1	45.1	Input	0	
	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0	
	Ch3 Homing Mode Running	0	BIT	0.1	453	Input	0	
	Ch3 Position Mode Running	0	RIT	0.1	45.4	Input	0	
	Ch3 Velocity Mode Running	0	RIT	0.1	45.5	Input	0	
	Ch3 Homed	0	RIT	0.1	45.6	linput	0	
	Ch3 Location Arrival	0	BIT	0.1	45.7	Innut	0	
	Ch3 Velocity Arrival	0	BIT	0.1	46.0	Input	0	
	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0	
	Ch3 Negative Limit Signal	0	BIT	0.1	46.2	Input	0	
	Ch3 Home Signal	0	BIT	0.1	46.3	Input	0	
	Ch3 Brake Signal	0	BIT	0.1	46.4	Input	0	
	Ch4 Pulse Output Direction	0	BIT	0.1	47.0	Input	0	
	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0	
	Ch4 Pulse Status Flag 2	0	BIT	0.1	47.2	Input	0	
	Ch4 Homing Mode Running	0	BIT	0.1	47.3	Input	0	
	Ch4 Position Mode Rupping	0	BIT	0.1	47.4	Input	0	
	Ch4 Velocity Mode Rupping	0	BIT	0.1	47.5	Input	0	
	a contraction of the transming					miliar		

Solution Explorer 👻 👎	× TwinCAT Project1 → ×								
000 10-20 × -	Name	Online	Туре	Size	>Address	In/Out	User ID	Linked to	
Search Solution Explorer (Ctrl+:)	<ul> <li>Ch2 Position Mode Running</li> </ul>	0	BIT	0.1	43.4	Input	0		
	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0		
Solution 'IwinCAT Project1' (1 project)	Ch2 Homed	0	BIT	0.1	43.6	Input	0		
IwinCAT Project1     System	<ul> <li>Ch2 Location Arrival</li> </ul>	0	BIT	0.1	43.7	Input	0		
P STSTEM	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0		
PLC	Ch2 Positive Limit Signal	0	BIT	0.1	44.1	Input	0		
SAFFTY	Ch2 Negative Limit Signal	0	BIT	0.1	44.2	Input	0		
C++	<ul> <li>Ch2 Home Signal</li> </ul>	0	BIT	0.1	44.3	Input	0		
A 🔄 1/O	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0		
Devices	<ul> <li>Ch3 Pulse Output Direction</li> </ul>	0	BIT	0.1	45.0	Input	0		
<ul> <li>Device 2 (EtherCAT)</li> </ul>	Ch3 Pulse Status Flag 1	0	BIT	0.1	45.1	Input	0		
🛟 Image	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0		
불 Image-Info	Ch3 Homing Mode Running	0	BIT	0.1	45.3	Input	0		
SyncUnits	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0		
Inputs	Ch3 Velocity Mode Running	0	BIT	0.1	45.5	Input	0		
Outputs	Ch3 Homed	0	BIT	0.1	45.6	Input	0		
InfoData	Ch3 Location Arrival	0	BIT	0.1	45.7	Input	0		
Box 1 (XB6-EC0002)	Ch3 Velocity Arrival	0	BIT	0.1	46.0	Input	0		
P Inputs	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0		
Dutputs	Ch3 Negative Limit Signal	0	BIT	0.1	46.2	Input	0		
Middule T (Abb-P04A)	Ch3 Home Signal	0	BIT	0.1	46.3	Input	0		
b Dutputs	Ch3 Brake Signal	0	BIT	0.1	46.4	Input	0		
b WcState	Ch4 Pulse Output Direction	0	BIT	0.1	47.0	Input	0		
InfoData	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0		
at Mappings	Ch4 Pulse Status Flag 2	0	BIT	0.1	47.2	Input	0		
	Ch4 Homing Mode Running	0	BIT	0.1	47.3	Input	0		
	Ch4 Position Mode Running	0	BIT	0.1	47.4	Input	0		
	Ch4 Velocity Mode Running	0	BIT	0.1	47.5	Input	0		
	Ch4 Homed	0	BIT	0.1	47.6	Input	0		
	Ch4 Location Arrival	0	BIT	0.1	47.7	Input	0		
	Ch4 Velocity Arrival	0	BIT	0.1	48.0	Input	0		
	Ch4 Positive Limit Signal	0	BIT	0.1	48.1	Input	0		
	Ch4 Negative Limit Signal	0	BIT	0.1	48.2	Input	0		
	Ch4 Home Signal	0	BIT	0.1	48.3	Input	0		
	Ch4 Brake Signal	0	BIT	0.1	48.4	Input	0		
	Ch1 Error Code	0	UINT	2.0	49.0	Input	0		
	Ch2 Error Code	1537	UINT	2.0	51.0	Input	0		
	Ch3 Error Code	1537	UINT	2.0	53.0	Input	0		
	Ch4 Error Code	1537	UINT	2.0	55.0	Input	0		
	Ch1 Current Location	50000	DINT	4.0	57.0	Input	0		
	Ch1 Current Velocity	0	DINT	4.0	61.0	Input	0		
	Ch2 Current Location	0	DINT	4.0	65.0	Input	0		
	Ch2 Current Velocity	0	DINT	4.0	69.0	Input	0		
	<ul> <li>Ch3 Current Location</li> </ul>	0	DINT	4.0	73.0	Input	0		
	Ch3 Current Velocity	0	DINT	4.0	77.0	Input	0		
	* Ch4 Current Location	0	DINT	4.0	81.0	Input	0		
Solution Explorer Toom Explorer Class View	Ch4 Current Velocity	0	DINT	40	85.0	Innut	0		

- Channel 1 with a current position of 1000 moves to a position of -20,000 with a running speed of 100 kHz.
  - a. Configure the configuration parameters as shown below.

g.

Edit CANoper	n Startup Entry				×
Transition ☐ I -> P ✓ P -> S ☐ S -> 0	Index (he □ S -> P Sub-Inde □ O -> S □ Valid	ex): 200 ex (dec): 7 ate	0 Complete Access		OK Cancel
Data (hexbin):	00 00 00 00				Hex Edit
Validate Mask:					
Comment:	Ch1 Input Logic				Edit Entry
Index	Name	Flags	Value	Unit	^
⊜-2000:0	×B6_P04A Config	RW	> 25 <		
2000:01	Pulse Mode	RW	Pul+Dir (0)		
-2000:02	Brake Time	RW	0x000000C8 (200)		
-2000:03	Ch1 Startup Speed	RW	0x00000001 (1)		
2000:04	Ch1 Homing Mode	RW	mode 24 (2)		
-2000:05	Ch1 Homing Speed	RW	0x000003E8 (1000)		
-2000:06	Ch1 Homing Approach Speed	d RW	0x000001F4 (500)		
2000:07	Ch1 Input Logic	RW	Limit Normally Open,		
2000:08	Ch1 Scaling	RW	0x00000001 (1)		
2000:09	Ch2 Startup Speed	RW	0x00000001 (1)		
-2000:0A	Ch2 Homing Mode	RW	mode 24 (2)		
⊢2000:0B	Ch2 Homing Speed	RW	0x000003E8 (1000)		
⊢2000:0C	Ch2 Homing Approach Speed	d RW	0x000001F4 (500)		
-2000:0D	Ch2 Input Logic	RW	Limit Normally Open,		
-2000:0E	Ch2 Scaling	RW	0x00000001 (1)		
- 2000:0F	Ch3 Startup Speed	RW	0x00000001 (1)		~

Solution Explorer 👻 👎	× TwinCAT Project1 ↔ ×							
000 0-20 4-	Name	Online	Type	Size	>Address	In/Out	User ID	Linked to
Search Solution Evolorer (Ctrl+1)	Ch2 Position Mode Running	0	BIT	0.1	43.4	Input	0	
	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0	
Solution 'TwinCAT Project1' (1 project)	<ul> <li>Ch2 Homed</li> </ul>	0	BIT	0.1	43.6	Input	0	
<ul> <li>TwinCAT Project1</li> </ul>	<ul> <li>Ch2 Location Arrival</li> </ul>	0	BIT	0.1	43.7	Input	0	
P SYSTEM	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0	
MOTION	Ch2 Positive Limit Signal	0	BIT	0.1	44.1	Input	0	
SAFETY	Ch2 Negative Limit Signal	0	BIT	0.1	44.2	Input	0	
	<ul> <li>Ch2 Home Signal</li> </ul>	0	BIT	0.1	44.3	Input	0	
	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0	
A The Devices	Ch3 Pulse Output Direction	0	BIT	0.1	45.0	Input	0	
Device 2 (EtherCAT)	Ch3 Pulse Status Flag 1	0	BIT	0.1	45.1	Input	0	
tmage	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0	
🚼 Image-Info	Ch3 Homing Mode Running	0	BIT	0.1	45.3	Input	0	
SyncUnits	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0	
Inputs	Ch3 Velocity Mode Running	0	BIT	0.1	45.5	Input	0	
Outputs	<ul> <li>Ch3 Homed</li> </ul>	0	BIT	0.1	45.6	Input	0	
InfoData	Ch3 Location Arrival	0	BIT	0.1	45.7	Input	0	
<ul> <li>Box 1 (XB6-EC0002)</li> </ul>	<ul> <li>Ch3 Velocity Arrival</li> </ul>	0	BIT	0.1	46.0	Input	0	
Inputs	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0	
P Gutputs	Ch3 Negative Limit Signal	0	BIT	0.1	46.2	Input	0	
Module 1 (XB6-P04A)	<ul> <li>Ch3 Home Signal</li> </ul>	0	BIT	0.1	46.3	Input	0	
P inputs	Ch3 Brake Signal	0	BIT	0.1	46.4	Input	0	
D Utputs	Ch4 Pulse Output Direction	0	BIT	0.1	47.0	Input	0	
b InfoData	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0	
Annings	Ch4 Pulse Status Flag 2	0	BIT	0.1	47.2	Input	0	
ind prings	Ch4 Homing Mode Running	0	BIT	0.1	47.3	Input	0	
	Ch4 Position Mode Running	0	BIT	0.1	47.4	Input	0	
	Ch4 Velocity Mode Running	0	BIT	0.1	47.5	Input	0	
	Ch4 Homed	0	BIT	0.1	47.6	Input	0	
	Ch4 Location Arrival	0	BIT	0.1	47.7	Input	0	
	Ch4 Velocity Arrival	0	BIT	0.1	48.0	Input	0	
	Ch4 Positive Limit Signal	0	BIT	0.1	48.1	Input	0	
	Ch4 Negative Limit Signal	0	BIT	0.1	48.2	Input	0	
	Ch4 Home Signal	0	BIT	0.1	48.3	Input	0	
	Ch4 Brake Signal	0	BIT	0.1	48.4	Input	0	
	• Ch1 Error Code	0	UINT	2.0	49.0	Input	0	
	* Ch2 Error Code	1537	UINT	2.0	51.0	Input	0	
	• Ch3 Error Code	1537	UINT	2.0	53.0	Input	0	
	• Ch4 Error Code	1537	UINT	20	55.0	Input	0	
	<ul> <li>Ch1 Current Location</li> </ul>	1000	DINT	4.0	57.0	Input	0	
	Ch1 Current Velocity	0	DINT	4.0	61.0	Input	0	
	* Ch2 Current Location	0	DINT	4.0	65.0	Input	0	
	Ch2 Current Velocity	0	DINT	40	69.0	Input	0	
	* Ch3 Current Location	0	DINT	40	73.0	Input	0	
	Ch3 Current Velocity	0	DINT	4.0	77.0	Input	0	
	+ Ch4 Current Location	0	DINT	4.0	81.0	Input	0	
Solution Evolution Town Fundament Charalter	Ch4 Current Velocity	0	DINT	4.0	85.0	Input	0	
Solution Explorer Team Explorer Class View	- City Current velocity	U	Dual	4.0	03.0	input	5	

b. The current position of channel 1 is 1000, as shown below.

- c. Sets channel 1 to absolute position mode;
- d. Configure channel 1 to run at -20000 steps and 100kHz;
- e. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- f. Set the start command for channel 1 from 0 to 1 as shown below.

Joiddon Explorer	rinnes i riojecti e st							
000 0-20 4-	Name	Online	Type	Size	>Address	In/Out	User ID	Linked to
Search Solution Explorer (Ctrl+:)	Ch1 Running Direction	0	BIT	0.1	41.0	Output	0	
	Ch1 Absolute/Relative Position Mode	0	BIT	0.1	41.1	Output	0 绝对位	Z置模式
Solution TwinCAT Project1" (1 project)	Ch1 Position/Velocity Mode	0	BIT	0.1	41.2	Output	0	
A CONTRACT Project I	Ch1 Reset Coordinates	0	BIT	0.1	41.3	Output	0	AlloTh
MOTION	Ch1 Start	1	BIT	0.1	41.4	Output	0 启动命	令从0到1
PIC	Ch1 Brake	0	BIT	0.1	41.5	Output	0刹车指	铃为0
SAFFTY	Ch1 Home	0	BIT	0.1	41.6	Output	0	
G C++	Ch2 Running Direction	0	BIT	0.1	42.0	Output	0	
A 🔄 1/O	Ch2 Absolute/Relative Position Mode	0	BIT	0.1	42.1	Output	0	
Devices	Ch2 Position/Velocity Mode	0	BIT	0.1	42.2	Output	0	
<ul> <li>Device 2 (EtherCAT)</li> </ul>	Ch2 Reset Coordinates	0	BIT	0.1	42.3	Output	0	
📲 Image	Ch2 Start	0	BIT	0.1	42.4	Output	0	
🛟 Image-Info	Ch2 Brake	0	BIT	0.1	42.5	Output	0	
SyncUnits	Ch2 Home	0	BIT	0.1	42.6	Output	0	
Inputs	Ch3 Running Direction	0	BIT	0.1	43.0	Output	0	
Outputs	Ch3 Absolute/Relative Position Mode	0	BIT	0.1	43.1	Output	0	
InfoData	Ch3 Position/Velocity Mode	0	BIT	0.1	43.2	Output	0	
<ul> <li>Box 1 (XB6-EC0002)</li> </ul>	Ch3 Reset Coordinates	0	BIT	0.1	43.3	Output	0	
Inputs	Ch3 Start	0	BIT	0.1	43.4	Output	0	
P Utputs	Ch3 Brake	0	BIT	0.1	43.5	Output	0	
Module I (XB6-P04A)	Ch3 Home	0	BIT	0.1	43.6	Output	0	
P inputs	Ch4 Running Direction	0	BIT	0.1	44.0	Output	0	
b WeState	Ch4 Absolute/Relative Position Mode	0	BIT	0.1	44.1	Output	0	
b InfoData	Ch4 Position/Velocity Mode	0	BIT	0.1	44.2	Output	0	
2 Mappings	Ch4 Reset Coordinates	0	BIT	0.1	44.3	Output	0	
a mappings	Ch4 Start	0	BIT	0.1	44.4	Output	0	
	Ch4 Brake	0	BIT	0.1	44.5	Output	0	
	Ch4 Home	0	BIT	0.1	44.6	Output	0	
	Ch1 Acceleration Time	500	UINT	2.0	45.0	Output	0	
	Ch1 Deceleration Time	500	UINT	2.0	47.0	Output	0	
	Ch1 Running Velocity	100000	UDINT	40	49.0	Output	0 12/11	度度100kHz
	Ch1 Running Position	-20000	DINT	40	53.0	Output	0 17/7	数-20000
	Ch2 Acceleration Time	0	UINT	20	57.0	Output	0	X LOODO
	Ch2 Deceleration Time	0	LIINT	2.0	59.0	Output	0	
	Ch2 Pupping Velocity	0	LIDINT	4.0	61.0	Output	0	
	Ch2 Running Position	0	DINT	4.0	65.0	Output	0	
	Ch3 Acceleration Time	0	LINT	2.0	69.0	Output	0	
	Ch3 Deceleration Time	0	LIINT	2.0	71.0	Output	0	
	Ch3 Pupping Velocity	0	LIDINT	4.0	73.0	Output	0	
	Ch3 Running Periotics	0	DINT	4.0	73.0	Output	0	
	Chi Acceleration Time	0	LIINT	2.0	91.0	Output	0	
	Ch4 Deceleration Time	0	LUNT	2.0	92.0	Output	0	
	- Ch4 Pumping Velocity	0	UDINT	2.0	03.0	Output	0	
	Ch4 Running velocity	0	DINI	4.0	85.0	Output	0	
	Cn4 Running Position	U	DINT	4.0	69.0	Output	U	

Solution Explorer • 7	X TwinCAT Project1 = X							1
000 0-20 4-	Name	Online	Type	Size	>Add	In/Out	Us	Linked to
Search Solution Evolution (Citrl +1)	<ul> <li>Ch1 Pulse Output Direction</li> </ul>	1	BIT	0.1	41.0	Input	0	
	<ul> <li>Ch1 Pulse Status Flag 1</li> </ul>	0	BIT	0.1	41.1	Input	0	
Solution 'TwinCAT Project1' (1 project)	<ul> <li>Ch1 Pulse Status Flag 2</li> </ul>	0	BIT	0.1	41.2	Input	0	
<ul> <li>TwinCAT Project1</li> </ul>	Ch1 Homing Mode Running	0	BIT	0.1	41.3	Input	0	
P SYSTEM	Ch1 Position Mode Running	0	BIT	0.1	41.4	Input	0	
MOTION	Ch1 Velocity Mode Running	0	BIT	0.1	41.5	Input	0	
SAFETY	<ul> <li>Ch1 Homed</li> </ul>	0	BIT	0.1	41.6	Input	0	
SAUCT SAUCT	Ch1 Location Arrival	1	BIT	0.1	41.7	Input	0	
4 JUO	<ul> <li>Ch1 Velocity Arrival</li> </ul>	0	BIT	0.1	42.0	Input	0	
A <sup>op</sup> Devices	<ul> <li>Ch1 Positive Limit Signal</li> </ul>	0	BIT	0.1	42.1	Input	0	
Device 2 (EtherCAT)	Ch1 Negative Limit Signal	0	BIT	0.1	42.2	Input	0	
tmage	Ch1 Home Signal	0	BIT	0.1	42.3	Input	0	
🚼 Image-Info	<ul> <li>Ch1 Brake Signal</li> </ul>	0	BIT	0.1	42.4	Input	0	
SyncUnits	Ch2 Pulse Output Direction	0	BIT	0.1	43.0	Input	0	
P 🤤 Inputs	Ch2 Pulse Status Flag 1	0	BIT	0.1	43.1	Input	0	
Outputs	Ch2 Pulse Status Flag 2	0	BIT	0.1	43.2	Input	0	
InfoData	Ch2 Homing Mode Running	0	BIT	0.1	43.3	Input	0	
<ul> <li>Box 1 (XB6-EC0002)</li> </ul>	Ch2 Position Mode Running	0	BIT	0.1	43.4	Input	0	
Inputs	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0	
P 🛄 Outputs	Ch2 Homed	0	BIT	0.1	43.6	Input	0	
Module 1 (XB6-P04A)	Ch2 Location Arrival	0	BIT	0.1	43.7	Input	0	
P inputs	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0	
b WeState	Ch2 Positive Limit Signal	0	BIT	0.1	44.1	Input	0	
b InfoData	Ch2 Negative Limit Signal	0	BIT	0.1	44.2	Input	0	
2. Mannings	Ch2 Home Signal	0	BIT	0.1	44.3	Input	0	
a mappings	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0	
	<ul> <li>Ch3 Pulse Output Direction</li> </ul>	0	BIT	0.1	45.0	Input	0	
	Ch3 Pulse Status Flag 1	0	BIT	0.1	45.1	Input	0	
	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0	
	Ch3 Homing Mode Running	0	BIT	0.1	45.3	Input	0	
	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0	
	Ch3 Velocity Mode Running	0	BIT	0.1	45.5	Input	0	
	Ch3 Homed	0	BIT	0.1	45.6	Input	0	
	Ch3 Location Arrival	0	BIT	0.1	45.7	Input	0	
	Ch3 Velocity Arrival	0	BIT	0.1	46.0	Input	0	
	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0	
	<ul> <li>Ch3 Negative Limit Signal</li> </ul>	0	BIT	0.1	46.2	Input	0	
	Ch3 Home Signal	0	BIT	0.1	46.3	Input	0	
	Ch3 Brake Signal	ő	BIT	0.1	46.4	Input	0	
	Ch4 Pulse Output Direction	ő	BIT	0.1	47.0	Input	0	
	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0	
	Ch4 Pulse Status Flag 2	0	BIT	01	47.2	Input	0	
	Ch4 Homing Mode Running	0	BIT	0.1	473	Input	0	
	Ch4 Position Mode Running	0	BIT	0.1	47.4	Input	0	
	<ul> <li>Ch4 Position Mode Running</li> </ul>	0	DIT	0.1	41.4	mput	0	

h. You can also see that channel 1 has a current coordinate of -20000, as shown below.

Solution Explorer 👻 👎 🗙	TwinCAT Project1 → ×							
000 0-20 4-	Name	Online	Туре	Size	>Address	In/Out	User ID	Linked to
Search Solution Explorer (Ctrl + )	<ul> <li>Ch2 Position Mode Running</li> </ul>	0	BIT	0.1	43.4	Input	0	
search solution explorer (cur+,)	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0	
Solution 'TwinCAT Project1' (1 project)	Ch2 Homed	0	BIT	0.1	43.6	Input	0	
<ul> <li>TwinCAT Project1</li> </ul>	Ch2 Location Arrival	0	BIT	0.1	43.7	Input	0	
D SYSTEM	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0	
	Ch2 Positive Limit Signal	0	BIT	0.1	44.1	Input	0	
	Ch2 Negative Limit Signal	0	BIT	0.1	44.2	Input	0	
SAFETT	Ch2 Home Signal	0	BIT	0.1	44.3	Input	0	
	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0	
A Pevices	Ch3 Pulse Output Direction	0	BIT	0.1	45.0	Input	0	
Device 2 (EtherCAT)	Ch3 Pulse Status Flag 1	0	BIT	0.1	45.1	Input	0	
🚼 Image	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0	
📲 Image-Info	Ch3 Homing Mode Running	0	BIT	0.1	45.3	Input	0	
SyncUnits	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0	
Inputs	Ch3 Velocity Mode Running	0	BIT	0.1	45.5	Input	0	
Outputs	<ul> <li>Ch3 Homed</li> </ul>	0	BIT	0.1	45.6	Input	0	
InfoData	<ul> <li>Ch3 Location Arrival</li> </ul>	0	BIT	0.1	45.7	Input	0	
<ul> <li>Box 1 (XB6-EC0002)</li> </ul>	Ch3 Velocity Arrival	0	BIT	0.1	46.0	Input	0	
P inputs	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0	
	Ch3 Negative Limit Signal	0	BIT	0.1	46.2	Input	0	
Module T (Xbb-P04A)	Ch3 Home Signal	0	BIT	0.1	46.3	Input	0	
Dutouts	<ul> <li>Ch3 Brake Signal</li> </ul>	0	BIT	0.1	46.4	Input	0	
b WcState	Ch4 Pulse Output Direction	0	BIT	0.1	47.0	Input	0	
InfoData	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0	
Mappings	Ch4 Pulse Status Flag 2	0	BIT	0.1	47.2	Input	0	
-	Ch4 Homing Mode Running	0	BIT	0.1	47.3	Input	0	
	Ch4 Position Mode Running	0	BIT	0.1	47.4	Input	0	
	Ch4 Velocity Mode Running	0	BIT	0.1	47.5	Input	0	
	Ch4 Homed	0	BIT	0.1	47.6	Input	0	
	Ch4 Location Arrival	0	BIT	0.1	47.7	Input	0	
	Ch4 Velocity Arrival	0	BIT	0.1	48.0	Input	0	
	Ch4 Positive Limit Signal	0	BIT	0.1	48.1	Input	0	
	Ch4 Negative Limit Signal	0	BIT	0.1	48.2	Input	0	
	Ch4 Home Signal	0	BIT	0.1	48.3	Input	0	
	Ch4 Brake Signal	0	BIT	0.1	48.4	Input	0	
	Ch1 Error Code	0	UINT	2.0	49.0	Input	0	
	Ch2 Error Code	1537	UINT	2.0	51.0	Input	0	
	Ch3 Error Code	1537	UINT	2.0	53.0	Input	0	
	Ch4 Error Code	1537	UINT	2.0	55.0	Input	0	
	<ul> <li>Ch1 Current Location</li> </ul>	-20000	DINT	4.0	57.0	Input	0	
	<ul> <li>Ch1 Current Velocity</li> </ul>	0	DINT	4.0	61.0	Input	0	
	<ul> <li>Ch2 Current Location</li> </ul>	0	DINT	4.0	65.0	Input	0	
	<ul> <li>Ch2 Current Velocity</li> </ul>	0	DINT	4.0	69.0	Input	0	
	<ul> <li>Ch3 Current Location</li> </ul>	0	DINT	4.0	73.0	Input	0	
	<ul> <li>Ch3 Current Velocity</li> </ul>	0	DINT	4.0	77.0	Input	0	
	<ul> <li>Ch4 Current Location</li> </ul>	0	DINT	4.0	81.0	Input	0	
Solution Explorer Team Explorer Class View	Ch4 Current Velocity	0	DINT	4.0	85.0	Input	0	

#### • Channel 1 turns on speed mode and runs at 100 kHz

a. Configure the configuration parameters as shown below.

Edit CANoper	n Startup Entry					×
Transition I -> P P -> S	S-> P	Index (hex): Sub-Index (de	200 ec): 7	10		OK Cancel
□S->0	0->S	Validate		Complete Access		
Data (hexbin):	00 00 00 00					Hex Edit
Validate Mask:						
Comment:	Ch1 Input Logi	c				Edit Entry
Index	Name		Flags	Value	Unit	^
≘ 2000:0	XB6_P04A Confi	g	RW	> 25 <		
- 2000:01	Pulse Mode		RW	Pul+Dir (0)		
2000:02	Brake Time		RW	0x000000C8 (200)		
-2000:03	Ch1 Startup Spe	əd	RW	0x00000001 (1)		
-2000:04	Ch1 Homing Mod	е	RW	mode 24 (2)		
2000:05	Ch1 Homing Spe	ed	RW	0x000003E8 (1000)		
2000:06	Ch1 Homing App	roach Speed	RW	0x000001F4 (500)		
<u>⊢</u> 2000:07	Ch1 Input Logic		RW	Limit Normally Open,		
2000:08	Ch1 Scaling		RW	0x00000001 (1)		_
2000:09	Ch2 Startup Spe	ed	RW	0x00000001 (1)		
⊢2000:0A	Ch2 Homing Moc	е	RW	mode 24 (2)		
- 2000:0B	Ch2 Homing Spe	ed	RW	0x000003E8 (1000)		
-2000:0C	Ch2 Homing App	roach Speed	RW	0x000001F4 (500)		
⊢2000:0D	Ch2 Input Logic		RW	Limit Normally Open,		
-2000:0E	Ch2 Scaling		RW	0x00000001 (1)		
2000:0F	Ch3 Startup Spe	ed	RW	0x00000001 (1)		~

- b. Sets channel 1 to speed mode;
- c. Configure channel 1 to run at 100 kHz and the direction of motion to be 0 forward;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;

nution Explorer	A Millerit Hojeett A A						
0 G 0 - 2 B 4 -	Name	Online	Type	Size	>Address	In/Out	User ID Linked to
earch Solution Explorer (Ctrl+1)	O - Ch1 Running Direction	0	BIT	0.1	41.0	Output	0 运动方向为正转
	Ch1 Absolute/Relative Position Mode	0	BIT	0.1	41.1	Output	0
Solution 'TwinCAT Project1' (1 project)	Ch1 Position/Velocity Mode	1	BIT	0.1	41.2	Output	<ol> <li>速度模式</li> </ol>
TwinCAT Project1	Ch1 Reset Coordinates	0	BIT	0.1	41.3	Output	0
P SYSTEM	Ch1 Start	1	BIT	0.1	41.4	Output	0 启动命令从0到1
MOTION	Ch1 Brake	0	BIT	0.1	41.5	Output	0 刹车指令为0
PLC	Ch1 Home	0	BIT	0.1	41.6	Output	0
SAFEIT	Ch2 Running Direction	0	BIT	0.1	42.0	Output	0
	Ch2 Absolute/Relative Position Mode	0	BIT	0.1	42.1	Output	0
A Services	Ch2 Position/Velocity Mode	0	BIT	0.1	42.2	Output	0
Devices	Ch2 Reset Coordinates	0	BIT	0.1	42.3	Output	0
	Ch2 Start	0	BIT	0.1	42.4	Output	0
Image-Info	Ch2 Brake	0	BIT	0.1	42.5	Output	0
SyncUnits	Ch2 Home	0	BIT	0.1	42.6	Output	0
Inputs	Ch3 Running Direction	0	BIT	0.1	43.0	Output	0
Outputs	Ch3 Absolute/Relative Position Mode	0	BIT	0.1	43.1	Output	0
InfoData	Ch3 Position/Velocity Mode	0	BIT	0.1	43.2	Output	0
Box 1 (XB6-EC0002)	Ch3 Reset Coordinates	0	BIT	0.1	43.3	Output	0
Inputs	Ch3 Start	0	BIT	0.1	43.4	Output	0
Outputs	E Ch3 Brake	0	BIT	0.1	43.5	Output	0
<ul> <li>Module 1 (XB6-P04A)</li> </ul>	E Ch3 Home	0	BIT	0.1	43.5	Output	0
Inputs	Ch4 Running Direction	0	DIT	0.1	44.0	Output	0
Outputs	Ch4 Absolute/Polative Position Mode	0	DIT	0.1	44.0	Output	0
V WcState	Ch4 Position Alalosity Mode	0	DIT	0.1	44.1	Output	0
P 🛄 InfoData	Ch4 Position/velocity Mode	0	DIT	0.1	44.2	Output	0
Mappings	Ch4 Reset Coordinates	0	DIT	0.1	44.5	Output	0
	Ch4 Start	0	DIT	0.1	44.4	Output	0
	Ch4 brake	0	DIT	0.1	44.5	Output	0
	Ch4 Home	0	BIT	0.1	44.0	Output	0
	Ch1 Acceleration Time	500	UINT	2.0	45.0	Output	0
	Chil Deceleration Time	500	UINT	2.0	47.0	Output	0
	Chil Running Velocity	100000	UDINI	4.0	49.0	Output	0 运行速度 TUUKI
	Ch1 Running Position	0	DINT	4.0	53.0	Output	0
	Ch2 Acceleration Time	0	UINT	2.0	57.0	Output	0
	Ch2 Deceleration Time	0	UINT	2.0	59.0	Output	0
	Ch2 Running Velocity	0	UDINT	4.0	61.0	Output	0
	Ch2 Running Position	0	DINT	4.0	65.0	Output	0
	Ch3 Acceleration Time	0	UINT	2.0	69.0	Output	0
	Ch3 Deceleration Time	0	UINT	2.0	71.0	Output	0
	Ch3 Running Velocity	0	UDINT	4.0	73.0	Output	0
	Ch3 Running Position	0	DINT	4.0	77.0	Output	0
	Ch4 Acceleration Time	0	UINT	2.0	81.0	Output	0
	Ch4 Deceleration Time	0	UINT	2.0	83.0	Output	0
	Ch4 Running Velocity	0	UDINT	4.0	85.0	Output	0
	Ch4 Running Position	0	DINT	40	89.0	Output	0

e. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.

f. During the movement, you can see that the channel 1 velocity arrival is set to 1, as shown below.

I

Solution Explorer 🔹 👎	X IwinCAT Project1 + X						
000 10-20 ×	Name	Online	Type	Size	>Add	In/Out	Us Linked to
earch Solution Explorer (Ctrl+:)	<ul> <li>Ch1 Pulse Output Direction</li> </ul>	0	BIT	0.1	41.0	Input	0
	Ch1 Pulse Status Flag 1	1	BIT	0.1	41.1	Input	0
Solution 'TwinCAT Project1' (1 project)	Ch1 Pulse Status Flag 2	1	BIT	0.1	41.2	Input	0
<ul> <li>TwinCAT Project1</li> </ul>	Ch1 Homing Mode Running	0	BIT	0.1	41.3	Input	0
P SYSTEM	Ch1 Position Mode Running	0	BIT	0.1	41.4	Input	0
MOTION	Ch1 Velocity Mode Running	1	BIT	0.1	41.5	Input	0
PLC	Ch1 Homed	0	BIT	0.1	41.6	Input	0
SAFELY	Ch1 Location Arrival	0	BIT	0.1	41.7	Input	0
	Ch1 Velocity Arrival	1	BIT	0.1	42.0	Input	0
A Services	Ch1 Positive Limit Signal	0	BIT	0.1	42.1	Input	0
Device 2 (EtherCAT)	Ch1 Negative Limit Signal	0	BIT	0.1	42.2	Input	0
Image	Ch1 Home Signal	0	BIT	0.1	42.3	Input	0
Image-Info	<ul> <li>Ch1 Brake Signal</li> </ul>	0	BIT	0.1	42.4	Input	0
SyncUnits	Ch2 Pulse Output Direction	0	BIT	0.1	43.0	Input	0
Inputs	Ch2 Pulse Status Flag 1	0	BIT	0.1	43.1	Input	0
Outputs	Ch2 Pulse Status Flag 2	0	BIT	0.1	43.2	Input	0
InfoData	Ch2 Homing Mode Running	0	BIT	0.1	43.3	Input	0
Box 1 (XB6-EC0002)	Ch2 Position Mode Running	0	BIT	0.1	43.4	Input	0
Inputs	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0
<ul> <li>Outputs</li> </ul>	Ch2 Homed	0	BIT	0.1	43.6	Input	0
CouplerCtrl	Ch2 Location Arrival	0	BIT	0.1	43.7	Input	0
Module 1 (XB6-P04A)	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0
P inputs	Ch2 Positive Limit Signal	0	BIT	0.1	44.1	Input	0
P Westate	Ch2 Negative Limit Signal	0	BIT	0.1	44.2	Input	0
b InfoData	Ch2 Home Signal	0	BIT	0.1	44.3	Input	0
21 Mappings	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0
a mappings	Ch3 Pulse Output Direction	0	BIT	0.1	45.0	Input	0
	Ch3 Pulse Status Flag 1	0	BIT	01	45.1	Input	0
	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0
	Ch3 Homing Mode Running	0	BIT	0.1	45 3	Input	0
	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0
	Ch3 Velocity Mode Running	0	BIT	0.1	45.5	Input	0
	* Ch3 Homed	0	BIT	0.1	45.6	Input	0
	* Ch3 Location Arrival	0	BIT	0.1	45.7	Input	0
	Ch3 Velocity Arrival	0	BIT	0.1	46.0	Input	ů.
	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0
	* Ch3 Negative Limit Signal	0	BIT	0.1	46.2	Input	0
	Ch3 Home Signal	0	BIT	0.1	46.3	Input	0
	Ch3 Brake Signal	0	RIT	0.1	46.4	Input	0
	Child Pulse Output Direction	0	DIT	0.1	47.0	Input	0
	Ch4 Pulse Status Flag 1	0	DIT	0.1	47.0	Input	0
	Chef Pulse Status Flag 2	0	DIT	0.1	47.1	Input	0
	Ch4 Haming Made Pupping	0	DIT	0.1	47.2	Input	0
	Ch4 Proming Wode Kunning	0	DIT	0.1	47.5	input	
	Ch4 Position Mode Running	0	BIL	0.1	41.4	Input	0

g. During the movement, it is also possible to currently run at the actual speed of 100 kHz, as shown in the following figure.

Solution Explorer 👻	🕴 🗙 TwinCAT Project 1 🛥 🗙								
000 0-20 4-	Name	Online	Туре	Size	>Address	In/Out	User ID	Linked to	
Search Solution Explorer (Ctrl+1)	O + Ch2 Position Mode Running	0	BIT	0.1	43.4	Input	0		
	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0		
Solution 'TwinCAT Project1' (1 project)	Ch2 Homed	0	BIT	0.1	43.6	Input	0		
IwinCAT Project1	Ch2 Location Arrival	0	BIT	0.1	43.7	Input	0		
MOTION	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0		
	Ch2 Positive Limit Signal	0	BIT	0.1	44.1	Input	0		
SAFETY	Ch2 Negative Limit Signal	0	BIT	0.1	44.2	Input	0		
C++	Ch2 Home Signal	0	BIT	0.1	44.3	Input	0		
🖌 🧮 I/O	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0		
Devices	Ch3 Pulse Output Direction	0	BIT	0.1	45.0	Input	0		
🖌 🗯 Device 2 (EtherCAT)	Ch3 Pulse Status Flag 1	0	BIT	0.1	45.1	Input	0		
📲 Image	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0		
불 Image-Info	Ch3 Homing Mode Running	0	BIT	0.1	45.3	Input	0		
SyncUnits	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0		
Inputs	Ch3 Velocity Mode Running	0	BIT	0.1	45.5	Input	0		
Outputs	Ch3 Homed	0	BIT	0.1	45.6	Input	0		
P la InfoData	Ch3 Location Arrival	0	BIT	0.1	45.7	Input	0		
Box 1 (XB6-EC0002)	Ch3 Velocity Arrival	0	BIT	0.1	46.0	Input	0		
b Dutputs	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0		
Module 1 (XB6-P04A)	Ch3 Negative Limit Signal	0	BIT	0.1	46.2	Input	0		
D Inputs	Ch3 Home Signal	0	BIT	0.1	46.3	Input	0		
Outputs	Ch3 Brake Signal	0	BIT	0.1	46.4	Input	0		
WcState	Ch4 Pulse Output Direction	0	BIT	0.1	47.0	Input	0		
👂 🦲 InfoData	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0		
Mappings	Ch4 Pulse Status Flag 2	0	BIT	0.1	47.2	Input	0		
	Ch4 Homing Mode Running	0	BIT	0.1	47.3	Input	0		
	Ch4 Position Mode Running	0	BIT	0.1	47.4	Input	0		
	Ch4 Velocity Mode Running	0	BIT	0.1	47.5	Input	0		
	Ch4 Homed	0	BIT	0.1	47.6	Input	0		
	Ch4 Location Arrival	0	BIT	0.1	47.7	Input	0		
	Ch4 Velocity Arrival	0	BIT	0.1	48.0	Input	0		
	Ch4 Positive Limit Signal	0	BIT	0.1	48.1	Input	0		
	Ch4 Negative Limit Signal	0	BIT	0.1	48.2	Input	0		
	Ch4 Home Signal	0	BIT	0.1	48.3	Input	0		
	Ch4 Brake Signal	0	BIT	0.1	48.4	Input	0		
	Ch1 Error Code	0	UINT	2.0	49.0	Input	0		
	<ul> <li>Ch2 Error Code</li> </ul>	1537	UINT	2.0	51.0	Input	0		
	Ch3 Error Code	1537	UINT	2.0	53.0	Input	0		
	Ch4 Error Code	1537	UINT	2.0	55.0	Input	0		
	Ch1 Current Location	442978	DINT	4.0	57.0	Input	0		
	Ch1 Current Velocity	100000	DINT	4.0	61.0	Input	0		
	Ch2 Current Location	0	DINT	4.0	65.0	Input	0		
	<ul> <li>Ch2 Current Velocity</li> </ul>	0	DINT	4.0	69.0	Input	0		
	<ul> <li>Ch3 Current Location</li> </ul>	0	DINT	4.0	73.0	Input	0		
	Ch3 Current Velocity	0	DINT	4.0	77.0	Input	0		
	Ch4 Current Location	0	DINT	4.0	81.0	Input	0		
Solution Explorer Team Explorer Class View	Ch4 Current Velocity	0	DINT	4.0	85.0	Input	0		

- olution Explore 000 10-20 1->Addr User ID Linked to Onli Тур 43.4 43.5 Ch2 Position Mode Running 0 0.1 0.1 Input BIT BIT Q earch Solution Explorer (Ctrl+ Ch2 Velocity Mode Running 0 Input 0 Ch2 Homed 0 BIT 0.1 43.6 Input Input 0 TwinCAT Project1
   SysTEM
   SysTEM
   MOTION
   PLC
   SAFETY
   C++
   Devices
   mage-info
   mage-info
   p SyncUnits
   image-info
   Outputs
   Outputs
   MotoPata
   MotoP Ch2 Location Arrival Ch2 Velocity Arrival 43.7 44.0 BIT 0.1 0.1 0 0 BIT Input Input Input Input Ch2 Positive Limit Signal 0 BIT 0.1 44.1 0000 44.2 44.3 44.4 Ch2 Negative Limit Signal Ch2 Home Signal 0.1 0.1 0.1 0 BIT BIT Ch2 Brake Signal 0 Input Ch2 brace Signal
   Ch3 Pulse Output Direction
   Ch3 Pulse Status Flag 1
   Ch3 Pulse Status Flag 2 Input Input 0 BIT 0.1 45.0 0 0.1 0.1 0.1 45.1 45.2 BIT 0 0 Input Ch3 Homing Mode Running
   Ch3 Position Mode Running
   Ch3 Velocity Mode Running 0 BIT 45.3 Input 0000 45.4 45.5 45.6 BIT BIT BIT 0.1 0.1 0.1 Input Input 0 Ch3 Homed Input 0 Input Input Ch3 Location Arrival 0 BIT 0.1 45.7 0 Ch3 Velocity Arrival Ch3 Positive Limit Signal 0.1 0.1 0.1 46.0 46.1 BIT 000 000000 - Inputs inputs
   inputs
   inputs
   inputs
   Module 1 (XB6-P04A)
   inputs
   inputs
   WcState
   infoData
   infoData Input Ch3 Negative Limit Signal BIT 46.2 Input 46.3 46.4 47.0 Ch3 Home Signal
   Ch3 Brake Signal 0.1 0.1 0.1 Input Input 0 BIT BIT 0 Ch4 Pulse Output Direction BIT Input Ch4 Pulse Status Flag 1
  Ch4 Pulse Status Flag 2
  Ch4 Homing Mode Running 47.1 47.2 47.3 Input Input 0 BIT 0.1 0 Mappings 0 BIT 0.1 0.1 0 Input Ch4 Position Mode Running 000 BIT 0.1 47.4 Input 000 47.5 47.6 47.7 Ch4 Velocity Mode Running Ch4 Homed Input Input BIT BIT 0.1 0.1 Ch4 Location Arrival 0 0.1 BIT Input 0 Input Input Ch4 Velocity Arrival 0 BIT 0.1 48.0 0 Ch4 Positive Limit Signal Ch4 Negative Limit Signal 0.1 0.1 0.1 48.1 48.2 BIT BIT 0 00000 Input Ch4 Home Signal BIT 48.3 Input 0000 Ch4 Brake Signal 48.4 49.0 Input Input RIT 0.1 2.0 UINT 0 1537 Ch2 Error Code UINT 2.0 51.0 Input 0 Input Input Ch3 Error Code 1537 UINT 2.0 53.0 0 Ch4 Error Code Ch1 Current Location UINT 2.0 4.0 55.0 57.0 000 217166 ٦ Input 4.0 4.0 4.0 4.0 4.0 Ch1 Current Velocity DINT 61.0 Input 0 Ch2 Current Location Ch2 Current Velocity DINT 65.0 69.0 Input Input 0 0 0 Ch3 Current Location 0 DINT 73.0 Input Input Input Ch3 Current Velocity 0 DINT 40 77.0 0 DINT 81.0 85.0 Ch4 Current Location 4.0 0 Ch4 Current Velocity Solution Explorer Team Explorer Class View Input
- h. The movement can be stopped by inputting a brake command or triggering a positive limit signal, as shown in the figure below.

#### Channel 1 on zero return

a. Configure the configuration parameters, select the zero return mode and set the zero return speed and zero approach speed as shown below. 2000:0A

2000:0B

2000:0C

2000:0D

2000:0E

2000:0F

Ch2 Homing Mode

Ch2 Input Logic

Ch3 Startup Speed

Ch2 Scaling

Ch2 Homing Speed

Ch2 Homing Approach Speed

Edit CANoper	n Startup <mark>Entr</mark> y				×
Transition ☐ I -> P ☑ P -> S ☐ S -> O	□S->P □O->S	Index (hex): Sub-Index (dec):	2000 4	plete Access	OK Cancel
Data (hexbin):	00 00 00 00				Hex Edit
√alidate Mask:					
Comment:	Ch1 Homing	Mode			Edit Entry
Index	Name		Flags	Value	~
≘-2000:0	×B6_P044	Config	RW	> 25 <	
2000:01	Pulse Mod	e	RW	Pul+Dir (0)	
2000:02	Brake Time	)	RW	0x000000C8 (200)	
2000:03	Ch1 Startu	p Speed	RW	0x00000001 (1)	
2000:04	Ch1 Homir	ng Mode	RW	mode 19 (0)	
2000:05	Ch1 Homir	ng Speed	RW	0x000003E8 (1000)	
2000:06	Ch1 Homir	ig Approach Speed	RW	0x000001F4 (500)	
2000:07	Ch1 Input	Logic	RW	Limit Normally Open,	
2000:08	Ch1 Scalin	g	RW	0x00000001 (1)	
2000:09	Ch2 Startu	p Speed	RW	0x00000001 (1)	

RW

RW

RW

RW

RW

RW

mode 24 (2) 0x000003E8 (1000)

0x000001F4 (500)

0x00000001 (1)

0x00000001 (1)

Limit Normally Open, ...

- b. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- c. Set the zero return command for channel 1 from 0 to 1 as shown below.

rection 0 elative Position Mode 0 dinates 0 dinates 0 rection Mode 0 dinates	Infine Type BiT BiT BiT BiT BiT BiT BiT BiT BiT BiT	Size 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	>Address 41.0 41.1 41.2 41.3 41.4 41.5 41.6 42.0 42.1 42.2 42.3 42.4	In/Out Output Output Output Output Output Output Output Output Output Output	User ID 0 0 0 0 0 0 0 1 年指 0 0 0 0 0 0	Linked to 令为0 令从0到1	
rection 0 elative Position Mode 0 elocity Mode 0 dinates 0 dinates 0 rection 0 elative Position Mode 0 dinates 0 for the second 0 elative Position Mode 0 elative Position Mode 0 elative Position Mode 0	817 817 817 817 817 817 817 817 817 817	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	41.0 41.1 41.2 41.3 41.4 41.5 41.6 42.0 42.1 42.2 42.3 42.4	Output Output Output Output Output Output Output Output Output Output	0 0 0 0 0 ① 1 1 0 0 0 0 0 0 0 0 0 0	令为0 令从0到1	
elative Position Mode 0 elocity Mode 0 dinates 0 dinates 1 rection 1 rection 0 elative Position Mode 0 dinates 0 dinates 0 rection 0 elative Position Mode 0 locity Mode 0 dinates 0 locity Mode 0 loc	118 BIT BIT BIT BIT BIT BIT BIT BIT BIT BIT	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	41.1 41.2 41.3 41.4 41.5 41.6 42.0 42.1 42.2 42.3 42.3 42.4	Output Output Output Output Output Output Output Output Output Output	0 0 0 0刹车指 0回零指 0 0	令为0 令从0到1	
Ilocity Mode 0 dinates 0 elative Position Mode 0 Ilocity Mode 0 dinates 0 fraction 0 dinates 0 elative Position Mode 0 elative Position Mode 0	817 817 817 817 817 817 817 817 817 817	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	41.2 41.3 41.4 41.5 41.6 42.0 42.1 42.2 42.3 42.4	Output Output Output Output Output Output Output Output	0 0 0 <u>利车指</u> 0 0 0 0	令为0 令从0到1	
dinates 0 0 0 1 rection Mode 0 locity Mode 0 dinates 0 0 0 rection 0 elative Position Mode 0	BIT BIT BIT BIT BIT BIT BIT BIT BIT BIT	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	41.3 41.4 41.5 41.6 42.0 42.1 42.2 42.3 42.4	Output Output Output Output Output Output Output	0 0 0刹车指 0回零指 0 0	令为0 令从0到1	
0 0 1 rection 0 elative Position Mode 0 dinates 0 0 0 0 rection 0 elative Position Mode 0	BIT BIT BIT BIT BIT BIT BIT BIT BIT	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	41.4 41.5 41.6 42.0 42.1 42.2 42.3 42.4	Output Output Output Output Output Output	0 0 刹车指 0 回零指 0 0	令为0 令从0到1	
0 1 rection 0 elative Position Mode 0 elacity Mode 0 dinates 0 0 0 rection 0 elative Position Mode 0	BIT BIT BIT BIT BIT BIT BIT BIT	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	41.5 41.6 42.0 42.1 42.2 42.3 42.4	Output Output Output Output Output	0刹车指 0回零指 0 0	令为0 令从0到1	
rection 1 elative Position Mode 0 elocity Mode 0 dinates 0 0 rection 0 elative Position Mode 0	BIT BIT BIT BIT BIT BIT BIT	0.1 0.1 0.1 0.1 0.1 0.1 0.1	41.6 42.0 42.1 42.2 42.3 42.4	Output Output Output Output Output	0回零指 0 0 0	令从0到1	
rection 0 elative Position Mode 0 elocity Mode 0 dinates 0 0 rection 0 elative Position Mode 0	BIT BIT BIT BIT BIT BIT	0.1 0.1 0.1 0.1 0.1 0.1	42.0 42.1 42.2 42.3 42.4	Output Output Output Output	0		
elative Position Mode 0 locity Mode 0 dinates 0 0 rection 0 elative Position Mode 0	BIT BIT BIT BIT BIT BIT	0.1 0.1 0.1 0.1 0.1	42.1 42.2 42.3 42.4	Output Output Output	0		
Hocity Mode 0 dinates 0 0 0 rection 0 elative Position Mode 0	BIT BIT BIT BIT BIT	0.1 0.1 0.1	42.2 42.3 42.4	Output Output	0		
dinates 0 0 0 rection 0 elative Position Mode 0	BIT BIT BIT BIT	0.1 0.1 0.1	42.3 42.4	Output	0		
0 0 rection 0 elative Position Mode 0	BIT BIT BIT	0.1	42.4	Outeret	0		
0 rection 0 elative Position Mode 0	BIT	0.1		Output	0		
rection 0 elative Position Mode 0	BIT		42.5	Output	0		
rection 0 elative Position Mode 0		0.1	42.6	Output	0		
elative Position Mode 0	BIT	0.1	43.0	Output	0		
	BIT	0.1	43.1	Output	0		
locity Mode 0	BIT	0.1	43.2	Output	0		
dinates 0	BIT	0.1	43.3	Output	0		
0	BIT	0.1	43.4	Output	0		
0	BIT	0.1	43.5	Output	0		
0	BIT	0.1	43.6	Output	0		
rection 0	BIT	0.1	44.0	Output	0		
elative Position Mode 0	BIT	01	44.1	Output	0		
locity Mode 0	BIT	0.1	44.2	Output	0		
dinates 0	BIT	0.1	44.3	Output	0		
annates 0	BIT	0.1	44.4	Output	0		
0	BIT	0.1	44.5	Output	0		
0	BIT	0.1	44.5	Output	0		
n Time 5	00 1111	2.0	45.0	Output	0		
in Time El	00 1101	2.0	43.0	Output	0		
locity 0		IT 40	47.0	Output	0		
sition	DINI	4.0	49.0	Output	0		
a Time	LUNT	2.0	55.0	Output	0		
n Time 0	UINT	2.0	57.0	Output	0		
in Time 0	UNI	2.0	59.0	Output	0		
elocity U	UDIP	4.0	61.0	Output	0		
Sition 0	DINI	4.0	65.0	Output	0		
n Time 0	UNI	2.0	69.0	Output	0		
n Time 0	UNI	2.0	71.0	Output	0		
elocity 0	UDIN	4.0	73.0	Output	0		
osition 0	DINT	4.0	77.0	Output	0		
n lime 0	UINT	2.0	81.0	Output	0		
n lime 0	UINT	2.0	83.0	Output	0		
elocity 0	UDIN	4.0	85.0	Output	0		
osition 0	DINT	4.0	89.0	Output	0		
	dinates 0 0 0 1rection 0 1elative Position Mode 0 0 dinates 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	dinates 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 10city Mode 0 BIT 10city Mode 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 0 BIT 0 UINT 10city 0 UINT 10cit	dinates         0         BIT         0.1           irection         0         BIT         0.1           irection         0         BIT         0.1           idelative Position Mode         0         BIT         0.1           olocity Mode         0         BIT         0.1           dinates         0         BIT         0.1           olocity Mode         0         BIT         0.1           olinates         0         BIT         0.1           olinates         0         BIT         0.1           olinates         0         BIT         0.1           olinates         500         UINT         2.0           on Time         0         UINT         2.0           on Time </td <td>dinates         0         BIT         0.1         43.3           0         BIT         0.1         43.4           0         BIT         0.1         43.5           0         BIT         0.1         43.5           0         BIT         0.1         43.5           0         BIT         0.1         43.6           1rection         0         BIT         0.1         44.1           clative Position Mode         0         BIT         0.1         44.2           clative Position Mode         0         BIT         0.1         44.2           clative Position Mode         0         BIT         0.1         44.4           clative Position Mode         0         BIT         0.1         44.5           clative Position Mode         0         BIT         0.1         44.5           on Time         0         UINT         2.0         47.0           on Time         500         UINT         2.0         47.0           elocity         0         UINT         2.0         57.0           on Time         0         UINT         4.0         61.0           ostition         0</td> <td>dinates         0         BIT         0.1         43.3         Output           0         BIT         0.1         43.4         Output           0         BIT         0.1         43.5         Output           0         BIT         0.1         43.5         Output           0         BIT         0.1         43.5         Output           irection         0         BIT         0.1         43.6         Output           ideative Position Mode         0         BIT         0.1         44.1         Output           diocity Mode         0         BIT         0.1         44.2         Output           diocity Mode         0         BIT         0.1         44.5         Output           dinates         0         BIT         0.1         44.5         Output           n         0         BIT         0.1         44.5         Output           n         mine         500         UINT         2.0         45.0         Output           n         1mme         0         UINT         2.0         45.0         Output           sition         0         UINT         2.0         57.0</td> <td>dinates         0         BIT         0.1         43.3         Output         0           0         BIT         0.1         43.4         Output         0           0         BIT         0.1         43.4         Output         0           0         BIT         0.1         43.5         Output         0           irection         0         BIT         0.1         43.6         Output         0           ielative Position Mode         0         BIT         0.1         44.1         Output         0           olocity Mode         0         BIT         0.1         44.2         Output         0           olocity Mode         0         BIT         0.1         44.4         Output         0           dinates         0         BIT         0.1         44.5         Output         0           mime         500         UINT         2.0         47.0         Output         0           an Time         500         UINT         4.0         53.0         Output         0           sition         0         UINT         2.0         57.0         Output         0           an Time         0<!--</td--><td>dinates         0         BIT         0.1         43.3         Output         0           0         BIT         0.1         43.4         Output         0           0         BIT         0.1         43.5         Output         0           0         BIT         0.1         43.6         Output         0           irection         0         BIT         0.1         44.6         Output         0           ielative Position Mode         0         BIT         0.1         44.2         Output         0           diordy Mode         0         BIT         0.1         44.3         Output         0           diordy Mode         0         BIT         0.1         44.4         Output         0           dinates         0         BIT         0.1         44.4         Output         0           n Time         500         UINT         2.0         45.0         Output         0           sition         0         UINT         4.0         53.0         Output         0           sition         0         UINT         2.0         57.0         Output         0           sition         0</td></td>	dinates         0         BIT         0.1         43.3           0         BIT         0.1         43.4           0         BIT         0.1         43.5           0         BIT         0.1         43.5           0         BIT         0.1         43.5           0         BIT         0.1         43.6           1rection         0         BIT         0.1         44.1           clative Position Mode         0         BIT         0.1         44.2           clative Position Mode         0         BIT         0.1         44.2           clative Position Mode         0         BIT         0.1         44.4           clative Position Mode         0         BIT         0.1         44.5           clative Position Mode         0         BIT         0.1         44.5           on Time         0         UINT         2.0         47.0           on Time         500         UINT         2.0         47.0           elocity         0         UINT         2.0         57.0           on Time         0         UINT         4.0         61.0           ostition         0	dinates         0         BIT         0.1         43.3         Output           0         BIT         0.1         43.4         Output           0         BIT         0.1         43.5         Output           0         BIT         0.1         43.5         Output           0         BIT         0.1         43.5         Output           irection         0         BIT         0.1         43.6         Output           ideative Position Mode         0         BIT         0.1         44.1         Output           diocity Mode         0         BIT         0.1         44.2         Output           diocity Mode         0         BIT         0.1         44.5         Output           dinates         0         BIT         0.1         44.5         Output           n         0         BIT         0.1         44.5         Output           n         mine         500         UINT         2.0         45.0         Output           n         1mme         0         UINT         2.0         45.0         Output           sition         0         UINT         2.0         57.0	dinates         0         BIT         0.1         43.3         Output         0           0         BIT         0.1         43.4         Output         0           0         BIT         0.1         43.4         Output         0           0         BIT         0.1         43.5         Output         0           irection         0         BIT         0.1         43.6         Output         0           ielative Position Mode         0         BIT         0.1         44.1         Output         0           olocity Mode         0         BIT         0.1         44.2         Output         0           olocity Mode         0         BIT         0.1         44.4         Output         0           dinates         0         BIT         0.1         44.5         Output         0           mime         500         UINT         2.0         47.0         Output         0           an Time         500         UINT         4.0         53.0         Output         0           sition         0         UINT         2.0         57.0         Output         0           an Time         0 </td <td>dinates         0         BIT         0.1         43.3         Output         0           0         BIT         0.1         43.4         Output         0           0         BIT         0.1         43.5         Output         0           0         BIT         0.1         43.6         Output         0           irection         0         BIT         0.1         44.6         Output         0           ielative Position Mode         0         BIT         0.1         44.2         Output         0           diordy Mode         0         BIT         0.1         44.3         Output         0           diordy Mode         0         BIT         0.1         44.4         Output         0           dinates         0         BIT         0.1         44.4         Output         0           n Time         500         UINT         2.0         45.0         Output         0           sition         0         UINT         4.0         53.0         Output         0           sition         0         UINT         2.0         57.0         Output         0           sition         0</td>	dinates         0         BIT         0.1         43.3         Output         0           0         BIT         0.1         43.4         Output         0           0         BIT         0.1         43.5         Output         0           0         BIT         0.1         43.6         Output         0           irection         0         BIT         0.1         44.6         Output         0           ielative Position Mode         0         BIT         0.1         44.2         Output         0           diordy Mode         0         BIT         0.1         44.3         Output         0           diordy Mode         0         BIT         0.1         44.4         Output         0           dinates         0         BIT         0.1         44.4         Output         0           n Time         500         UINT         2.0         45.0         Output         0           sition         0         UINT         4.0         53.0         Output         0           sition         0         UINT         2.0         57.0         Output         0           sition         0

d. Back to zero mode 19 need to input the origin signal, after inputting the origin signal, decelerate to 0, and then again to return to zero close to the speed of the negative direction of movement, until the origin signal disappears, stop the movement back to zero is complete, you can see the channel 1 coordinates are cleared to zero, the completion of the return to zero is set to 1, as shown in the figure below.



 Channel 1 turns on speed mode, running at 100 kHz, with the speed modified to 10 kHz during operation

Edit CANoper	n Startup Entry				>
Transition ☐ I -> P ✓ P -> S ☐ S -> O	Index (hex): □ S -> P Sub-Index ( □ O -> S □ Validate	200 dec): 7	00 Complete Access		OK Cancel
Data (hexbin):	00 00 00 00				Hex Edit
Validate Mask:					-
Comment:	Ch1 Input Logic				Edit Entry
Index	Name	Flags	Value	Unit	^
⊟-2000:0	XB6_P04A Config	RW	> 25 <		
2000:01	Pulse Mode	RW	Pul+Dir (0)		
2000:02	Brake Time	RW	0x000000C8 (200)		
2000:03	Ch1 Startup Speed	RW	0x00000001 (1)		
2000:04	Ch1 Homing Mode	RW	mode 24 (2)		
2000:05	Ch1 Homing Speed	RW	0x000003E8 (1000)		
2000:06	Ch1 Homing Approach Speed	RW	0x000001F4 (500)		
- 2000:07	Ch1 Input Logic	RW	Limit Normally Open,		
2000:08	Ch1 Scaling	RW	0x00000001 (1)		
2000:09	Ch2 Startup Speed	RW	0x00000001 (1)		
- 2000:0A	Ch2 Homing Mode	RW	mode 24 (2)		
2000:0B	Ch2 Homing Speed	RW	0x000003E8 (1000)		
-2000:0C	Ch2 Homing Approach Speed	RW	0x000001F4 (500)		
2000:0D	Ch2 Input Logic	RW	Limit Normally Open,		
- 2000:0E	Ch2 Scaling	RW	0x00000001 (1)		
2000:0F	Ch3 Startup Speed	RW	0x00000001 (1)		~

a. Configure the configuration parameters as shown below.

b. Sets channel 1 to speed mode;

- c. Configure channel 1 to run at 100 kHz and the direction of motion to be 0 positive;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- e. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.

Solution Explorer 👻 👎 🔿	TwinCAT Project1 🛥 🗙						
000 0-20 4-	Name	Online	Туре	Size	>Address	In/Out	User ID Linked to
Search Solution Explorer (Ctrl +)	Ch1 Running Direction	0	BIT	0.1	41.0	Output	0 运动方向为正转
	Ch1 Absolute/Relative Position Mode	0	BIT	0.1	41.1	Output	0
Solution 'TwinCAT Project1' (1 project)	Ch1 Position/Velocity Mode	1	BIT	0.1	41.2	Output	0 速度模式
IwinCAI Project1	Ch1 Reset Coordinates	0	BIT	0.1	41.3	Output	0
P SYSTEM	Ch1 Start	1	BIT	0.1	41.4	Output	0 启动命令从0到1
	Ch1 Brake	0	BIT	0.1	41.5	Output	<ul> <li>刹车指令为0</li> </ul>
SAFETY	Ch1 Home	0	BIT	0.1	41.6	Output	0
54 C++	Ch2 Running Direction	0	BIT	0.1	42.0	Output	0
A 🔄 1/0	Ch2 Absolute/Relative Position Mode	0	BIT	0.1	42.1	Output	0
<ul> <li>Devices</li> </ul>	Ch2 Position/Velocity Mode	0	BIT	0.1	42.2	Output	0
🔺 🗯 Device 2 (EtherCAT)	Ch2 Reset Coordinates	0	BIT	0.1	42.3	Output	0
📲 Image	■ Ch2 Start	0	BIT	0.1	42.4	Output	0
📲 Image-Info	Ch2 Brake	0	BIT	0.1	42.5	Output	0
SyncUnits	Ch2 Home	0	BIT	0.1	42.6	Output	0
Inputs	Ch3 Running Direction	0	BIT	0.1	43.0	Output	0
Outputs	Ch3 Absolute/Relative Position Mode	0	BIT	0.1	43.1	Output	0
P la InfoData	Ch3 Position/Velocity Mode	0	BIT	0.1	43.2	Output	0
BOX I (XB0-ECUUU2)	Ch3 Reset Coordinates	0	BIT	0.1	43.3	Output	0
b Dutoute	Ch3 Start	0	BIT	0.1	43.4	Output	0
Module 1 (XB6-P04A)	Ch3 Brake	0	BIT	0.1	43.5	Output	0
	■ Ch3 Home	0	BIT	0.1	43.6	Output	0
Outputs	Ch4 Running Direction	0	BIT	0.1	44.0	Output	0
WcState	Ch4 Absolute/Relative Position Mode	0	BIT	0.1	44.1	Output	0
👂 🛄 InfoData	Ch4 Position/Velocity Mode	0	BIT	0.1	44.2	Output	0
Mappings	Ch4 Reset Coordinates	0	BIT	0.1	44.3	Output	0
	Ch4 Start	0	BIT	0.1	44.4	Output	0
	Ch4 Brake	0	BIT	0.1	44.5	Output	0
	Ch4 Home	0	BIT	0.1	44.6	Output	0
	Ch1 Acceleration Time	500	UINT	2.0	45.0	Output	0
	Ch1 Deceleration Time	500	UINT	2.0	47.0	Output	0
	Ch1 Running Velocity	100000	UDINT	4.0	49.0	Output	0运行速度100kHz
	Ch1 Running Position	0	DINT	4.0	53.0	Output	0
	Ch2 Acceleration Time	0	UINT	2.0	57.0	Output	0
	Ch2 Deceleration Time	0	UINT	2.0	59.0	Output	0
	Ch2 Running Velocity	0	UDINT	4.0	61.0	Output	0
	Ch2 Running Position	0	DINT	4.0	65.0	Output	0
	Ch3 Acceleration Time	0	UINT	2.0	69.0	Output	0
	Ch3 Deceleration Time	0	UINT	2.0	71.0	Output	0
	Ch3 Running Velocity	0	UDINT	4.0	73.0	Output	0
	Ch3 Running Position	0	DINT	4.0	77.0	Output	0
	Ch4 Acceleration Time	0	UINT	2.0	81.0	Output	0
	Ch4 Deceleration Time	0	UINT	2.0	83.0	Output	0
	Ch4 Running Velocity	0	UDINT	4.0	85.0	Output	0
	Ch4 Running Position	0	DINT	4.0	89.0	Output	0

- f. Modify the running speed of channel 1 to 10kHz during motion;
- g. Reset the start command of channel 1 from 0 to 1 to start the motion merge as shown below.

Solution Explorer 🔹 👎 🗙	TwinCAT Project1 😐 🗙						
000 0-20 4-	Name	Online	Type	Size	>A	In/Out	Us Linked to
County Cale they Fundament (Cale A	Ch1 Running Direction	0	BIT	0.1	41.0	Output	0
Search Solution Explorer (Ctri+;)	Ch1 Absolute/Relative Position Mode	0	BIT	0.1	41.1	Output	0
Solution 'TwinCAT Project1' (1 project)	Ch1 Position/Velocity Mode	1	BIT	0.1	41.2	Output	0
TwinCAT Project1	Ch1 Reset Coordinates	0	BIT	0.1	41.3	Output	0
SYSTEM	Ch1 Start	1	BIT	0.1	41.4	Output	0 启动命令重新置0再置1
MOTION	Ch1 Brake	0	BIT	0.1	41.5	Output	0
PLC	Ch1 Home	0	BIT	0.1	41.6	Output	0
SAFELY	Ch2 Running Direction	0	BIT	0.1	42.0	Output	0
	Ch2 Absolute/Relative Position Mode	0	BIT	0.1	42.1	Output	0
Devices	Ch2 Position/Velocity Mode	0	BIT	0.1	42.2	Output	0
<ul> <li>Device 2 (EtherCAT)</li> </ul>	Ch2 Reset Coordinates	0	BIT	0.1	42.3	Output	0
📲 Image	Ch2 Start	0	BIT	0.1	42.4	Output	0
📲 Image-Info	Ch2 Brake	0	BIT	0.1	42.5	Output	0
SyncUnits	Ch2 Home	0	BIT	0.1	42.6	Output	0
Inputs	Ch3 Running Direction	0	BIT	0.1	43.0	Output	0
Outputs	Ch3 Absolute/Relative Position Mode	0	BIT	0.1	43.1	Output	0
InfoData	Ch3 Position/Velocity Mode	0	BIT	0.1	43.2	Output	0
Box 1 (XB6-EC0002)	Ch3 Reset Coordinates	0	BIT	0.1	43.3	Output	0
P inputs	Ch3 Start	0	BIT	0.1	43.4	Output	0
Module 1 (XB6-P04A)	Ch3 Brake	0	BIT	0.1	43.5	Output	0
	Ch3 Home	0	BIT	0.1	43.6	Output	0
Dutputs	Ch4 Running Direction	0	BIT	0.1	44.0	Output	0
V Gotte	Ch4 Absolute/Relative Position Mode	0	BIT	0.1	44.1	Output	0
InfoData	Ch4 Position/Velocity Mode	0	BIT	0.1	44.2	Output	0
Mappings	Ch4 Reset Coordinates	0	BIT	0.1	44.3	Output	0
	Ch4 Start	0	BIT	0.1	44.4	Output	0
	Ch4 Brake	0	BIT	0.1	44.5	Output	0
	Ch4 Home	0	BIT	0.1	44.6	Output	0
	Ch1 Acceleration Time	500	UINT	2.0	45.0	Output	0
	Ch1 Deceleration Time	500	UINT	2.0	47.0	Output	0
	Ch1 Running Velocity	10000	UDINT	4.0	49.0	Output	<ul> <li>运行速度10kHz</li> </ul>
	Ch1 Running Position	0	DINT	4.0	53.0	Output	0
	Ch2 Acceleration Time	0	UINT	2.0	57.0	Output	0
	Ch2 Deceleration Time	0	UINT	2.0	59.0	Output	0
	Ch2 Running Velocity	0	UDINT	4.0	61.0	Output	0
	Ch2 Running Position	0	DINT	4.0	65.0	Output	0
	Ch3 Acceleration Time	0	UINT	2.0	69.0	Output	0
	Ch3 Deceleration Time	0	UINT	2.0	71.0	Output	0
	Ch3 Running Velocity	0	UDINT	4.0	73.0	Output	0
	Ch3 Running Position	0	DINT	4.0	77.0	Output	0
	Ch4 Acceleration Time	0	UINT	2.0	81.0	Output	0
	Ch4 Deceleration Time	0	UINT	2.0	83.0	Output	0
	Ch4 Running Velocity	0	UDINT	4.0	85.0	Output	0
	Ch4 Running Position	0	DINT	4.0	89.0	Output	0
Solution Explorer Team Explorer Class View							

h. Channel 1 can be seen decelerating to 10kHz motion as shown below.

Solution Explorer 👻 👎 🗙	TwinCAT Project1 ♀ ×						
000 0-20 8-	Name	Online	Type	Size	>A	In/Out	Us Linked to
Search Solution Explorer (Ctrl+:)	Ch2 Homed	0	BIT	0.1	43.6	Input	0
Colution 'TurinCAT Desired1' (1 project)	Ch2 Location Arrival	0	BIT	0.1	43.7	Input	0
TwinCAT Project1 (1 project)	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0
b SYSTEM	Ch2 Positive Limit Signal	0	BIT	0.1	44.1	Input	0
MOTION	Ch2 Negative Limit Signal	0	BIT	0.1	44.2	Input	0
III PLC	Ch2 Home Signal	0	BIT	0.1	44.3	Input	0
SAFETY	Ch2 Brake Signal	0	DIT	0.1	44.4	Input	0
500 C++	Ch3 Pulse Output Direction	0	BIT	0.1	45.0	Input	0
▲ 🔤 I/O	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0
<ul> <li>Devices</li> <li>Devices</li> </ul>	Ch3 Homing Mode Running	0	BIT	0.1	45.3	Input	0
Image	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0
Image-Info	Ch3 Velocity Mode Running	0	BIT	0.1	45.5	Input	0
SyncUnits	✤ Ch3 Homed	0	BIT	0.1	45.6	Input	0
Inputs	Ch3 Location Arrival	0	BIT	0.1	45.7	Input	0
Outputs	Ch3 Velocity Arrival	0	BIT	0.1	46.0	Input	0
InfoData	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0
Box 1 (XB6-EC0002)	Ch3 Negative Limit Signal	0	BIT	0.1	46.2	Input	0
P Inputs	Ch3 Home Signal	0	BIT	0.1	46.3	Input	0
Module 1 (XB6-P04A)	Ch3 Brake Signal	0	BIT	0.1	46.4	Input	0
D Inputs	Ch4 Pulse Output Direction	0	BIT	0.1	47.0	Input	0
Outputs	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0
WcState	Ch4 Pulse Status Flag 2	0	BIT	0.1	47.2	Input	0
👂 🔚 InfoData	Ch4 Homing Mode Running	0	BIT	0.1	47.3	Input	0
Mappings	Ch4 Position Mode Running	0	BIT	0.1	47.4	Input	0
	Ch4 Velocity Mode Running	0	BIT	0.1	47.5	Input	0
	Ch4 Homed	0	BIT	0.1	47.0	Input	0
	Ch4 Velocity Arrival	0	BIT	0.1	48.0	Input	0
	Ch4 Positive Limit Signal	0	BIT	0.1	48.1	Input	0
	Ch4 Negative Limit Signal	0	BIT	01	48.2	Input	0
	* Ch4 Home Signal	0	BIT	0.1	48.3	Input	0
	✤ Ch4 Brake Signal	0	BIT	0.1	48.4	Input	0
	Ch1 Error Code	0	UINT	2.0	49.0	Input	0
	Ch2 Error Code	1537	UINT	2.0	51.0	Input	0
	✤ Ch3 Error Code	1537	UINT	2.0	53.0	Input	0
	Ch4 Error Code	1537	UINT	2.0	55.0	Input	0
	Ch1 Current Location	1462525	DINT	4.0	57.0	Input	0
	Ch1 Current Velocity	10000	DINT	4.0	61.0	Input	0
	Ch2 Current Location	0	DINT	4.0	65.0	Input	0
	Ch2 Current Velocity	0	DINT	4.0	69.0	Input	0
	Ch3 Current Location	0	DINT	4.0	73.0	Input	0
	Ch3 Current Velocity	0	DINT	4.0	77.0	Input	0
	Cn4 Current Location	0	DINT	4.0	81.0	input	0
Solution Explorer Team Explorer Class View	Ch4 Current Velocity	0	DINT	4.0	85.0	Input	U

- The current position of channel 1 is 10000, move to the position of 20000, and modify the position to 50000 during the movement.
  - a. Configure the configuration parameters as shown below.

Edit CANoper	n Startup <mark>Entry</mark>					×
Transition □I->P ▼P->S	□S->P	Index (hex): Sub-Index (dec	200	0		OK Cancel
	0-> s	Validate		Complete Access		
Data (hexbin):	00 00 00 00					Hex Edit
Validate Mask:						
Comment:	Ch1 Input Logic					Edit Entry
Index	Name		Flags	Value	Unit	^
≘-2000:0	XB6_P04A Config		RW	> 25 <		
2000:01	Pulse Mode		RW	Pul+Dir (0)		
2000:02	Brake Time		RW	0x000000C8 (200)		
2000:03	Ch1 Startup Speed		RW	0x00000001 (1)		
2000:04	Ch1 Homing Mode		RW	mode 24 (2)		
2000:05	Ch1 Homing Speed		RW	0x000003E8 (1000)		
2000:06	Ch1 Homing Approa	ch Speed	RW	0x000001F4 (500)		
2000:07	Ch1 Input Logic		RW	Limit Normally Open,		
2000:08	Ch1 Scaling		RW	0x00000001 (1)		
2000:09	Ch2 Startup Speed		RW	0x00000001 (1)		
- 2000:0A	Ch2 Homing Mode		RW	mode 24 (2)		
2000:0B	Ch2 Homing Speed		RW	0x000003E8 (1000)		
-2000:0C	Ch2 Homing Approa	ch Speed	RW	0x000001F4 (500)		
2000:0D	Ch2 Input Logic		RW	Limit Normally Open,		
2000:0E	Ch2 Scaling		RW	0x00000001 (1)		
2000:0F	Ch3 Startup Speed		RW	0x00000001 (1)		~

olution Explorer 🗸 🗸	I × TwinCAT Project1 → ×							
000 10-00 10	Name	Online	Type	Size	>Address	In/Out	User ID	Linked to
earch Solution Explorer (Ctrl+')		0	BIT	0.1	43.4	Input	0	
caren soution explorer (corr.)	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0	
Solution 'IwinCAT Project1' (1 project)	<ul> <li>Ch2 Homed</li> </ul>	0	BIT	0.1	43.6	Input	0	
IWINCAL Project I	<ul> <li>Ch2 Location Arrival</li> </ul>	0	BIT	0.1	43.7	Input	0	
	<ul> <li>Ch2 Velocity Arrival</li> </ul>	0	BIT	0.1	44.0	Input	0	
	<ul> <li>Ch2 Positive Limit Signal</li> </ul>	0	BIT	0.1	44.1	Input	0	
SAFETY	Ch2 Negative Limit Signal	0	BIT	0.1	44.2	Input	0	
S- C++	<ul> <li>Ch2 Home Signal</li> </ul>	0	BIT	0.1	44.3	Input	0	
A 🔄 1/O	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0	
<ul> <li>Devices</li> </ul>	<ul> <li>Ch3 Pulse Output Direction</li> </ul>	0	BIT	0.1	45.0	Input	0	
<ul> <li>Device 2 (EtherCAT)</li> </ul>	Ch3 Pulse Status Flag 1	0	BIT	0.1	45.1	Input	0	
🚦 Image	<ul> <li>Ch3 Pulse Status Flag 2</li> </ul>	0	BIT	0.1	45.2	Input	0	
📑 Image-Info	Ch3 Homing Mode Running	0	BIT	0.1	45.3	Input	0	
SyncUnits	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0	
Inputs	<ul> <li>Ch3 Velocity Mode Running</li> </ul>	0	BIT	0.1	45.5	Input	0	
Outputs	<ul> <li>Ch3 Homed</li> </ul>	0	BIT	0.1	45.6	Input	0	
P la InfoData	<ul> <li>Ch3 Location Arrival</li> </ul>	0	BIT	0.1	45.7	Input	0	
A ND Box 1 (XB6-EC0002)	<ul> <li>Ch3 Velocity Arrival</li> </ul>	0	BIT	0.1	46.0	Input	0	
P inputs	Ch3 Positive Limit Signal	0	BIT	0.1	46.1	Input	0	
Modulo 1 (XR6 P04A)	<ul> <li>Ch3 Negative Limit Signal</li> </ul>	0	BIT	0.1	46.2	Input	0	
h Inpute	<ul> <li>Ch3 Home Signal</li> </ul>	0	BIT	0.1	46.3	Input	0	
P Outputs	<ul> <li>Ch3 Brake Signal</li> </ul>	0	BIT	0.1	46.4	Input	0	
WcState	Ch4 Pulse Output Direction	0	BIT	0.1	47.0	Input	0	
InfoData	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0	
2 Mappings	Ch4 Pulse Status Flag 2	0	BIT	0.1	47.2	Input	0	
	Ch4 Homing Mode Running	0	BIT	0.1	47.3	Input	0	
	Ch4 Position Mode Running	0	BIT	0.1	47.4	Input	0	
	Ch4 Velocity Mode Running	0	BIT	0.1	47.5	Input	0	
	Ch4 Homed	0	BIT	0.1	47.6	Input	0	
	Ch4 Location Arrival	0	BIT	0.1	47.7	Input	0	
	<ul> <li>Ch4 Velocity Arrival</li> </ul>	0	BIT	0.1	48.0	Input	0	
	Ch4 Positive Limit Signal	0	BIT	0.1	48.1	Input	0	
	Ch4 Negative Limit Signal	0	BIT	0.1	48.2	Input	0	
	Ch4 Home Signal	0	BIT	0.1	48.3	Input	0	
	Ch4 Brake Signal	0	BIT	0.1	48.4	Input	0	
	Ch1 Error Code	0	UINT	2.0	49.0	Input	0	
	<ul> <li>Ch2 Error Code</li> </ul>	1537	UINT	2.0	51.0	Input	0	
	Ch3 Error Code	1537	UINT	2.0	53.0	Input	0	
	Ch4 Error Code	1537	UINT	2.0	55.0	Input	0	
	<ul> <li>Ch1 Current Location</li> </ul>	10000	DINT	4.0	57.0	Input	0	
	Ch1 Current Velocity	0	DINT	4.0	61.0	Input	0	
	<ul> <li>Ch2 Current Location</li> </ul>	0	DINT	4.0	65.0	Input	0	
	Ch2 Current Velocity	0	DINT	4.0	69.0	Input	0	
	Ch3 Current Location	0	DINT	4.0	73.0	Input	0	
	* Ch3 Current Velocity	0	DINT	4.0	77.0	Input	0	
	* Ch4 Current Location	0	DINT	4.0	81.0	Input	0	
elution Fundamentaria Tanan Calantari	Ch4 Current Velocity	0	DINT	40	85.0	Input	0	

b. The current position of channel 1 is 10000, as shown below.

- c. Sets channel 1 to absolute position mode;
- d. Configure channel 1 to run at 20000 steps and 1kHz;
- e. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- f. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.

Joidtion Explorer	Thintertritojeett P to								<u> </u>
00 G 10 - 2 B 1 - 0	Name	Online	Type	Size	>Address	In/Out	User ID	Linked to	
Search Solution Explorer (Ctrl+:)	Ch1 Running Direction	0	BIT	0.1	41.0	Output	0		
search source point (curry)	Ch1 Absolute/Relative Position Mode	0	BIT	0.1	41.1	Output	0 绝对(	立置模式	
Solution TwinCAT Project1' (1 project)	Ch1 Position/Velocity Mode	0	BIT	0.1	41.2	Output	0		
IwinCAT Project1	Ch1 Reset Coordinates	0	BIT	0.1	41.3	Output	0	1992 11992 119	
P SYSTEM	Ch1 Start	1	BIT	0.1	41.4	Output	0 启动台	命令从0到1	
	Ch1 Brake	0	BIT	0.1	41.5	Output	0 刹车打	旨令为0	
SAFETY	Ch1 Home	0	BIT	0.1	41.6	Output	0		
G C++	Ch2 Running Direction	0	BIT	0.1	42.0	Output	0		
	Ch2 Absolute/Relative Position Mode	0	BIT	0.1	42.1	Output	0		
Pevices	Ch2 Position/Velocity Mode	0	BIT	0.1	42.2	Output	0		
Device 2 (EtherCAT)	Ch2 Reset Coordinates	0	BIT	0.1	42.3	Output	0		
Image	Ch2 Start	0	BIT	0.1	42.4	Output	0		
Image-Info	Ch2 Brake	0	BIT	0.1	42.5	Output	0		
SyncUnits	Ch2 Home	0	BIT	0.1	42.6	Output	0		
Inputs	Ch3 Running Direction	0	BIT	0.1	43.0	Output	0		
Outputs	Ch3 Absolute/Relative Position Mode	0	BIT	0.1	43.1	Output	0		
InfoData	Ch3 Position/Velocity Mode	0	BIT	0.1	43.2	Output	0		
<ul> <li>Box 1 (XB6-EC0002)</li> </ul>	Ch3 Reset Coordinates	0	BIT	0.1	43.3	Output	0		
Inputs	Ch3 Start	0	BIT	0.1	43.4	Output	0		
Outputs	Ch3 Brake	0	BIT	0.1	43.5	Output	0		
<ul> <li>Module 1 (XB6-P04A)</li> </ul>	Ch3 Home	0	BIT	0.1	43.6	Output	0		
P inputs	Ch4 Running Direction	0	BIT	0.1	44.0	Output	0		
P Utputs	Ch4 Absolute/Relative Position Mode	0	BIT	0.1	44 1	Output	0		
P WcState	Ch4 Position Velocity Mode	0	BIT	0.1	44.2	Output	0		
Mannings	Ch4 Reset Coordinates	0	BIT	0.1	44.3	Output	0		
Mappings	Ch4 Start	0	BIT	0.1	44.4	Output	0		
	E Ch4 Brake	0	BIT	0.1	44.5	Output	0		
	Ch4 Home	0	BIT	0.1	44.5	Output	0		
	Ch1 Acceleration Time	500	LUNT	2.0	45.0	Output	0		
	Chi Deceleration Time	500	LUNT	2.0	43.0	Output	0		
	Chil Deceleration Time	1000	UDINT	2.0	47.0	Output	0 = 4= 1	ま産1レレマ	
	Chil Running Velocity	1000	DINI	4.0	49.0	Output	0 连门		
	- Chi Kunning Position	20000	UINT	4.0	53.0	Output	0 (41)	V9X20000	
	Ch2 Acceleration Time	0	UINT	2.0	57.0	Output	0		
	Ch2 Deceleration Time	0	UINT	2.0	59.0	Output	0		
	Ch2 Running Velocity	0	UDINI	4.0	61.0	Output	0		
	Cn2 Running Position	0	DINT	4.0	65.0	Output	0		
	Ch3 Acceleration Time	0	UNT	2.0	69.0	Output	0		
	Ch3 Deceleration Time	0	UINT	2.0	/1.0	Output	0		
	Ch3 Running Velocity	0	UDINT	4.0	73.0	Output	0		
	Ch3 Running Position	0	DINT	4.0	77.0	Output	0		
	Ch4 Acceleration Time	0	UINT	2.0	81.0	Output	0		
	Ch4 Deceleration Time	0	UINT	2.0	83.0	Output	0		
	Ch4 Running Velocity	0	UDINT	4.0	85.0	Output	0		
	Ch4 Running Position	0	DINT	4.0	89.0	Output	0		
	1								

- g. Modify the channel 1 running step count to 50,000 during the campaign;
- h. Re-set the start command of channel 1 from 0 to 1 to start the motion merge as shown below.

solution explorer	Twitchilliojeet a A						(,	l
000 10-20 P	Name	Online	Type	Size	>Address	In/Out	User	ID Linked to
search Solution Explorer (Ctrl+1)	Ch1 Running Direction	0	BIT	0.1	41.0	Output	0	
	Ch1 Absolute/Relative Position Mode	0	BIT	0.1	41.1	Output	0	
Solution 'TwinCAT Project1' (1 project)	Ch1 Position/Velocity Mode	0	BIT	0.1	41.2	Output	0	
IwinCAT Project1	Ch1 Reset Coordinates	0	BIT	0.1	41.3	Output	0	
	Ch1 Start	1	BIT	0.1	41.4	Output	0 启	动命令重新置0再置1
	Ch1 Brake	0	BIT	0.1	41.5	Output	0	
SAFETY	Ch1 Home	0	BIT	0.1	41.6	Output	0	
50 C++	Ch2 Running Direction	0	BIT	0.1	42.0	Output	0	
A 🔁 1/0	Ch2 Absolute/Relative Position Mode	0	BIT	0.1	42.1	Output	0	
Pevices	Ch2 Position/Velocity Mode	0	BIT	0.1	42.2	Output	0	
<ul> <li>Device 2 (EtherCAT)</li> </ul>	Ch2 Reset Coordinates	0	BIT	0.1	42.3	Output	0	
1 Image	Ch2 Start	0	BIT	0.1	42.4	Output	0	
📲 Image-Info	Ch2 Brake	0	BIT	0.1	42.5	Output	0	
SyncUnits	Ch2 Home	0	BIT	0.1	42.6	Output	0	
Inputs	Ch3 Running Direction	0	BIT	0.1	43.0	Output	0	
Outputs	Ch3 Absolute/Relative Position Mode	0	BIT	0.1	43.1	Output	0	
InfoData	Ch3 Position/Velocity Mode	0	BIT	0.1	43.2	Output	0	
Box 1 (XB6-EC0002)	Ch3 Reset Coordinates	0	BIT	0.1	43.3	Output	0	
Inputs	Ch3 Start	0	BIT	0.1	43.4	Output	0	
Outputs	Ch3 Brake	0	BIT	0.1	43.5	Output	0	
<ul> <li>Module 1 (XB6-P04A)</li> </ul>	Ch3 Home	0	BIT	0.1	43.6	Output	0	
P	Ch4 Running Direction	0	BIT	0.1	44.0	Output	0	
D G Westerte	Ch4 Absolute/Relative Position Mode	0	BIT	0.1	44.1	Output	0	
V Westate	Ch4 Position/Velocity Mode	0	BIT	0.1	44.2	Output	0	
Mappings	Ch4 Reset Coordinates	0	BIT	0.1	443	Output	0	
a mappings	Ch4 Start	0	BIT	0.1	44.4	Output	0	
	Ch4 Brake	0	BIT	0.1	44.5	Output	0	
	Ch4 Home	0	BIT	0.1	44.6	Output	0	
	Ch1 Acceleration Time	500	LUNT	20	45.0	Output	0	
	Ch1 Deceleration Time	500	LUNT	20	47.0	Output	0	
	Ch1 Running Velocity	1000	LIDINT	4.0	49.0	Output	0	
	Ch1 Running Position	50000	DINT	4.0	53.0	Output	0 17	ティート ※ かちのののの
	Ch2 Acceleration Time	0	LUNT	20	57.0	Output	0	11200000
	Ch2 Deceleration Time	0	LIINT	2.0	59.0	Output	0	
	Ch2 Bunning Velocity	0	LIDINT	40	61.0	Output	0	
	Ch2 Running Position	0	DINT	4.0	65.0	Output	0	
	Ch2 Acceleration Time	0	LUNT	2.0	69.0	Output	0	
	Ch3 Deceleration Time	0	LUNT	2.0	71.0	Output	0	
	Ch3 Deceleration Time	0	LIDINIT	4.0	72.0	Output	0	
	Ch3 Running Position	0	DINT	4.0	77.0	Output	0	
	Ch3 Acceleration Time	0	LUNIT	2.0	91.0	Output	0	
	Ch4 Deceleration Time	0	LINT	2.0	82.0	Output	0	
	Ch4 Rupping Valacity	0	UDINT	4.0	85.0	Output	0	
	Che Running Velocity	0	DINIT	4.0	80.0	Output	0	
	Ch4 Running Position	U	DINI	4.0	99.0	Output	0	
	-							

i. After the movement, you can see that the current coordinates of channel 1 are 50000, as shown in the following figure.

lution Explorer 👻 👎	× TwinCAT Project1 → ×								
- 4 6 0 60	Name	Online	Туре	Size	>Address	In/Out	User ID	Linked to	
arch Solution Explorer (Ctrl+1)	Ch2 Position Mode Running	0	BIT	0.1	43.4	Input	0		
	Ch2 Velocity Mode Running	0	BIT	0.1	43.5	Input	0		
Solution 'TwinCAT Project1' (1 project)	Ch2 Homed	0	BIT	0.1	43.6	Input	0		
TwinCAT Project1	<ul> <li>Ch2 Location Arrival</li> </ul>	0	BIT	0.1	43.7	Input	0		
P SYSTEM	Ch2 Velocity Arrival	0	BIT	0.1	44.0	Input	0		
	Ch2 Positive Limit Signal	0	BIT	0.1	44.1	Input	0		
	<ul> <li>Ch2 Negative Limit Signal</li> </ul>	0	BIT	0.1	44.2	Input	0		
SALL I	Ch2 Home Signal	0	BIT	0.1	44.3	Input	0		
	Ch2 Brake Signal	0	BIT	0.1	44.4	Input	0		
A Pevices	<ul> <li>Ch3 Pulse Output Direction</li> </ul>	0	BIT	0.1	45.0	Input	0		
Device 2 (EtherCAT)	Ch3 Pulse Status Flag 1	0	BIT	0.1	45.1	Input	0		
tmage	Ch3 Pulse Status Flag 2	0	BIT	0.1	45.2	Input	0		
🚼 Image-Info	Ch3 Homing Mode Running	0	BIT	0.1	45.3	Input	0		
SyncUnits	Ch3 Position Mode Running	0	BIT	0.1	45.4	Input	0		
Inputs	Ch3 Velocity Mode Running	0	BIT	0.1	45.5	Input	0		
Outputs	<ul> <li>Ch3 Homed</li> </ul>	0	BIT	0.1	45.6	Input	0		
InfoData	<ul> <li>Ch3 Location Arrival</li> </ul>	0	BIT	0.1	45.7	Input	0		
<ul> <li>Box 1 (XB6-EC0002)</li> </ul>	Ch3 Velocity Arrival	0	BIT	0.1	46.0	Input	0		
Inputs	<ul> <li>Ch3 Positive Limit Signal</li> </ul>	0	BIT	0.1	46.1	Input	0		
P U Outputs	Ch3 Negative Limit Signal	0	BIT	0.1	46.2	Input	0		
Module T (XB6-P04A)	Ch3 Home Signal	0	BIT	0.1	46.3	Input	0		
P inputs	<ul> <li>Ch3 Brake Signal</li> </ul>	0	BIT	0.1	46.4	Input	0		
b WeState	Ch4 Pulse Output Direction	0	BIT	0.1	47.0	Input	0		
b InfoData	Ch4 Pulse Status Flag 1	0	BIT	0.1	47.1	Input	0		
2 Mappings	Ch4 Pulse Status Flag 2	0	BIT	0.1	47.2	Input	0		
mappings	Ch4 Homing Mode Running	0	BIT	0.1	47.3	Input	0		
	* Ch4 Position Mode Running	0	BIT	0.1	47.4	Input	0		
	Ch4 Velocity Mode Running	0	BIT	0.1	47.5	Input	0		
		0	BIT	0.1	47.6	Input	0		
	Ch4 Location Arrival	0	BIT	0.1	47.7	Input	0		
	Ch4 Velocity Arrival	0	BIT	0.1	48.0	Input	0		
	Ch4 Positive Limit Signal	0	BIT	0.1	48.1	Input	0		
	Ch4 Negative Limit Signal	0	BIT	0.1	48.2	Input	0		
	Ch4 Home Signal	0	BIT	0.1	48.3	Input	0		
	Ch4 Brake Signal	0	BIT	0.1	48.4	Input	0		
	* Ch1 Error Code	0	UINT	20	49.0	Input	0		
	Ch2 Error Code	1537	LIINT	2.0	51.0	Input	0		
	Ch3 Error Code	1537	LIINT	20	53.0	Input	0		
	Ch4 Error Code	1537	LUNT	2.0	55.0	Input	0		
	Ch1 Current Location	50000	DINT	4.0	57.0	Input	0		
	Ch1 Current Velocity	0	DINT	4.0	61.0	Input	0		
	+ Ch2 Current Location	0	DINT	4.0	65.0	Input	0		
	Ch2 Current Volocity	0	DINT	4.0	60.0	Input	0		
	Ch2 Current Location	0	DINT	4.0	72.0	Input	0		
	Ch3 Current Location	0	DINT	4.0	73.0	input	0		
	Cha Current Velocity	0	DINT	4.0	77.0	input	0		
	<ul> <li>Cn4 Current Location</li> </ul>	0	DINI	4.0	01.0	Input	U		

Application in TIA Portal V17 software environment

#### 1. Preliminary

- hardware environment
  - > Module Model XB6-P04A
  - > Power Module, PROFINET Coupler, End Cap

This description takes the XB6-P2000H power supply, XB6-PN0002 coupler as an example

- > One computer with pre-installed TIA Portal V17 software
- > Shielded cables for PROFINET
- > Motor drives, stepper/servo motors and other equipment
- > One Siemens PLC, this description takes Siemens S7-1200 CPU1214C DC/DC/DC as an example
- > One switching power supply
- > Module mounting rails and rail mounts
- Device Configuration Files Configuration file to get the address: <u>https://www.solidotech.com/documents/configfile</u>
- Hardware configuration and wiring
   Please follow "<u>4 Mounting and dismounting</u> "" <u>5 Wiring</u> "" 5 Wiring "

### 2、New construction

a. Open the TIA Portal V17 software and click Create New Project.

	创建新项目		
訂开现有项目	项目名称:	XB6-P04A	1
🥚 创建新项目	路径: 版本:	D:\Backup\Documents\Automation	
● 移植项目	作者:	29719	
● 关闭项目	-I.H.		~
● 欢迎光临		êtst	

- Item name: customizable, can be left as default.
- Path: the project keeps the path, which can be left as default.
- Version: can be left as default.
- AUTHOR: The default can be maintained.
- Note: Customizable, may not be filled in.

### 3、Adding a PLC controller

- 启动 新手上路 项目:"XB6-P04A"已成功打开。请选择下一步: 2.2 🕘 打开现有项目 设备与网络 创建新项目 🔵 移植项目 运动控制 & 技术 🕥 关闭项目 -组态设备 9.9 ۲ 创建 PLC 程序 ▲ 欢迎光临 新手上路 组态 工艺对象 组态 HMI 画面 已安装的软件 帮助
- a. Click Configure Devices, as shown in the following figure.

b. Click "Add New Device", select the PLC model you are currently using, and click "Add", as shown in the following figure. After adding, you can see that the PLC has been added to the device navigation tree.



# 4、Scanning connected devices

a. Click "Online Access -> Update Accessible Devices" in the left navigation tree as shown below.

项目树	
设备	
1 1 1	
▼ 🔄 XB6-P04A	
📑 添加新设备	
🚠 设备和网络	
PLC_1 [CPU 1214C DC/DC/DC]	
🕨 🛄 未分组的设备	
▶ 📴 安全设置	
▶ 🛃 跨设备功能	
▶ 📑 公共数据	
▶ 💼 文档设置	
▶ 🚺 语言和资源	
▶ 🔀 版本控制接口	
▼ 🖬 在线访问	
1 显示隐藏接口	
🔻 🛄 Realtek PCIe GbE Family Controller	
品?更新可访问的设备	
➡ 显示更多信息	
Intel(R) Wi-Fi 6 AX201 160MHz	
▶ 🛅 PC internal [本地]	
USB [S7USB]	
▶ 🛄 TeleService [自动协议识别]	
▶ 🤄 读卡器/USB 存储器	

b. When the update is complete, the connected slave devices are displayed, as shown in the following figure.

没备       ● <th>项目树</th> <th>II 📢</th> <th>XB6-P</th> <th>04A ▶</th> <th>PLC_1 [CPU</th> <th>1214C D(</th> <th>[JDC/DC]</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th>∎ ≡ ×</th>	项目树	II 📢	XB6-P	04A ▶	PLC_1 [CPU	1214C D(	[JDC/DC]						-	∎ ≡ ×
	设备									ś	予拓扑视图 👗 网络	各视图	👔 设备	视图
※ 286-P024         103         四件         103         四件         注目           ● 第次加新设备         103         103         102         101 <t< th=""><th>18 III III III III III III III III III I</th><th></th><th>••</th><th>设备</th><th>既览</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	18 III III III III III III III III III I		••	设备	既览									
103     101     101     101     101     101     101     101     101     101     101     101     110			^	<b>*</b>	. 模块		插槽	1 地址	Q 地址	类型	订货号	固件	注释	
● 没有的网络       102         ● 没有的网络       101         ● 目 Particle Del 214C DE/DE/DE/       ● PLC_1         ● 電 安全没责       ● I 14/DQ 10_1         ● 電 安全没责       ● I 14/DQ 10_1         ● 図 安全没责       ● I 14/DQ 10_1         ● I 14/DQ 10_1       13         ● I 14/DQ 10_1       15         ● I 15C_3       118       1000         ● I 15C_3       101       15C         ● I 15C_3       101       15C         ● I 15C_4	* 🔄 XB6-P04A		=				103							^
	■ 添加新设备						102							
<ul> <li>● PLC_1 (CPU 1214C DC/DC/DC)</li> <li>● PLC_1</li> <li>● DI 14/DQ 10_1</li> <li>● DI 14/DQ 10_1</li></ul>	📩 设备和网络						101							_
● 読 余分組的设备       DI 14/DQ 10_1       1       01       DI 14/DQ 10         ● 認 交貨改置       Al 2.1       12       64677       Al 2         ● 認 交貨改置       Al 2.1       12       64677       Al 2         ● 認 交貨改置       HSC,1       116       10001003       HSC         ● ② 消除過費       HSC,2       117       10041007       HSC         ● ③ 消除過期回       HSC,3       118       1008011       HSC         ● ○ 重な影前向       HSC,4       119       10121015       HSC         ● ○ 重な影前向       HSC,5       120       10161019       HSC         ● ○ 重示影像意示可当的感觉者       ● ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	PLC_1 [CPU 1214C DC/DC/DC]				T PLC 1		1			CPU 1214C DC/DC/DC	6ES7 214-1AG40-0XB0	V4 5		
<ul> <li>● 確 安全设置</li> <li>● 相 2_1</li> <li>● 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</li></ul>	🕨 🔙 未分组的设备				DI 14/	DO 10 1	11	01	01	DI 14/DO 10				
	🕨 📷 安全设置				AL 2 1		12	64 67		AL 2				
	▶ 🛃 跨设备功能						13							
<ul> <li>● (1) 文档设置</li> <li>● (1) ○</li></ul>	▶ 📑 公共数据				HSC	1	116	1000 1003		нос				
	▶ 🛅 文档设置				HSC 2	2	1 17	1004 1007		HSC				
	▶ 100 语言和资源				HSC 3		1 19	1009 1011		HSC				
● 在线访问     → D5-*     120     10121019     H3C       ● 電話機構口     ● 第二     ● 第二     ● 第二     ● 第二       ● 電話機 PCIe GE Family Controller     ● 第二     ● 第二     ● 第二       ● 電話機 PCIe GE Family Controller     ● 第二     ● 第二     ● 第二       ● 電話機 PCIe GE Family Controller     ● 第二     ● 第二     ● 第二       ● 電話機 PCIE GE Family Controller     ● 第二     ● 第二     ● 第二       ● 電話機 PCIE GE Family Controller     ● 第二     ● 第二     ● 第二       ● 電話機 PCIE GE Family Controller     ● 第二     ● 第二     ● 第二       ● 電話機 PCIE GE Family Controller     ● 第二     ● 第二     ● 第二       ● 電話機 PCIE GE Family Controller     ● 第二     ● 第二     ● 第二       ● 電話機 PCIE GE Family Controller     ● 第二     ● 第二     ● 第二       ● 目目     ● 第三     ● 第三     ● 第三     ● 第二       ● 目目     ● 第三     ● 第三     ● 第三     ● ●       ● 目目     ● 第三     ● ●     ● ●     ●       ● 回 PC PC Internal [2:4]     ● ●     ●     ●       ● 回 PC PC Internal [2:4]     ●     ●     ●       ● 回 PC PC Internal [2:4]     ●     ●     ●       ● 回 PC PC Internal [2:4]     ●     ●     ●       ● 回 PC PC Internal [2:4]     ●     ●	▶ 🛃 版本控制接口				HSC.	4	1 10	1013 1015		HSC				
・         第二時間(Controller ・          ・	▼ 🖬 在线访问				HSC_4	•	1 19	10121015		HSC				
• ■ Realtak PCIe GbE Family Controller ▲ 更新可访问访说者 • ■ plc_1 [192.168.0.1] • ■ plc_1 [192.168.0.1] • ■ plc_1 [192.168.0.1] • ■ plc_1 [192.168.0.1] • ■ plc_1 [192.168.0.2] • ■ plc_2 [192.168.0.2	▼ 显示隐藏接口		× –		HSC_S	-	1 20	10161019		HSC				~
	Realtek PCIe GbE Family Controller	10	•	<										>
	♣? 更新可访问的设备	Ť									0 届性 1 信白	(1) (2) (3)	公断	
* □ plc_1 [192.168.0.1]       常規 交叉引用 编译         * □ plc_1 [192.168.0.2]       ● ① 显示所有消息         * □ plc_1 [192.168.0.2]       ● ② 承 回日之前。         ● ② 水 回日本(本均)       ● ② 项目之关词。         ● ② 项目之关词。       ② ② ③ 项目之关词。         ● ③ theSory # @ ③       ○ □ □ talescrite [abith With [9]         ◎ ③ 水 電影 # @ ④       ○ □ □ talescrite [abith With [9]         ◎ ③ 水 電影 # @ ④       ○ □ □ talescrite [clcbE Family Controller_上的设备已启动。         ◎ ③ 計描接口 Realtek PCle GbE Family Controller 上的设备已完成。在网络上找到了 2 个设备。       ○ ② 203/7/24 13:43:38	▲ 見示更多信息						1					• 101		And Street Street
→ 通 do6pn0002 [192.168.0.2]       ● 夏示所有消息       ●         ▶ □ Intel(R) W+Fi 6 AX2011 60MHz       ●       ●         ▶ □ P Cinterna [本始]       ●       1       消息       ●         ▶ □ USE [57U5B]       ●       ●       ○       项目已关闭。       202317/24       13:36:10         > □ USE [57U5B]       ●       ●       ○       项目 X86-F04A 台打乐。       202317/24       13:36:11         ● 資 法長着USE 存储器       ●	▶ m plc 1 [192,168,0,1]		常規	٤ 🗌	交叉引用	编译								
1 Intel(R)WH-F6 AV2011 f00Htz     第     1 / / / / / / / / / / / / / / / / / / /	h m vh6-on0002 [192 168 0 2]	·····	<b>O</b> /	A	見示所有消息		-							
● PC internal (本地)     ● 1     消息     技術     时间       ● 10 USB [57USB]     ● 0     项目已关闭。     2023/7/24     13:36:10       ● 17 TeleService [自訪协议只別]     ● 0     项目已关闭。     2023/7/24     13:36:11       ● 17 TeleService [自訪协议只別]     ● 7     项目 X66+04A 已打开。     2023/7/24     13:36:11       ● 17 TeleService [自訪协议只別]     ● 7     丁指摘口 Realtek PCIe GbE Family Controller上的设备已启动。     2023/7/24     13:43:31       ● 17 TeleService [14:35:05 件構置     ● 17 High Controller上的设备已启动。     2023/7/24     13:43:31	Intel(R) Wi-Fi 6 AX201 160MHz	100	-											
・ ① USB [57USB]     ・ ① 項目と关闭。     ・ ① 項目と关闭。     ・ ② 項目と关闭。     ・ ② 項目と关闭。     ・ ③ TeleService (自动协议只列]     ・ ③ TeleService (自动协议只列]     ・ ③ 订局 X86-F04A 召打 -     ・ ③ 订局 X86-F04A 召打 -     ・ ③ 订局 X86-F04A 召打 -     ・ ③ 公式 1724 13:36:10     ・ ③ 公式 1724 13:36:11     ・ ③ 公式 1724 13:36:10	▶ PC internal [本地]		1 34	自							结石 2 日期	R	北回	
2023/1/24     13:36:11       10     10       11     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10				1조요.	1720.						· 神主 : □ 州	17/24 1	3,36,10	
	▶ TeleService (自动协议记录)	100	~	「「「日日」							202:	17/24 1	3.36.10	
20/23/1/24 13:43:31     13:43:31     13:43:31     13:43:33     13:43:33     13:43:33     13:43:33	▶ ■ 读卡哭/USB 友徒哭		2	「「日」		ChE Famili	Cantallas L65	1.5 T Date .			202	17/24 1	3:30:11	
	64 PH 11 22 184 1 70 1		X	が通信		GDE Family	Controller _Bh	又有已后初。		っ人にな	202:	17/24 1	3:43:31	
	、 送畑洵肉		<b>y</b>	扫册预	ещ кeartek PCIe	GDE Family	Controller EBJ	X首已元队。任P	9治上找到了	2"飞波雷。	202:	1/124 1	3:43:38	

The IP address of the computer must be in the same network segment as the PLC, if not, modify the IP address of the computer and repeat the above steps.

# 5、 Adding a GSD profile

- a. In the menu bar, select "Options -> Manage General Station Description File (GSDML) (D)".
- b. Click Source Path to select the file.
- c. Check if the status of the GSD file you want to add is "Not yet installed", click the "Install" button if it is not installed, or click "Cancel" if it is already installed to skip the installation step.

管理通用站描述文件 已安装的 GSD 项目中的 GSD	_	_		×
导入路径的内容				
■ 文件	版本	语言	状态	_
gsdml-v2.3-sdot-gw6l_b0(l256)-20230531.xml	V2.3	英语	已经安装	
GSDML-V2.3-Sdot-XB6-PN0002_v3.1.15-20180809.xml	V2.3	英语	已经安装	
GSDML-V2.3-5dot-XB6-PN0002_v3.1.19-20180809.xml	V2.3	英语	尚未安装	
				-
				>
		删除	安装 取	消

# 6、 Adding Slave Devices

- a. Double-click on "Devices & Networks" in the left navigation bar.
- b. Click the "Hardware Catalog" vertical button on the right, the catalog is displayed as shown below.

项目树	U 4	XB6-P04A ▶ 设	备和网络						- 7		硬件目录	# U >	
设备							🛃 拓扑视图	📥 网络视图	₩ 设备视图	8	选项		22
1	•	💦 网络 🔡 连接	HMI 连接	- 品 关系	r 🖭 📆 🕇	🖽 🛄 🔍 ±							憲
									1		✓ 目录		÷
▼ 🛅 XB6-P04A											(橋安)	AND INT	×
📑 添加新设备		210.4	_										
前 设备和网络     日本     日本		CPU 1214C							_		▶ 12歳 <主部>		8
PLC_1 [CPU 1214C DC/DC/DC]		0.012140							-		・「「空制器		÷.
> 🔙 未分组的设备													語
<ul> <li>111 安全设置</li> </ul>											「二」「二 所15元		E
▶ 過 跨设备功能													1-
<ul> <li>         · </li> <li>         ·</li> <l< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></l<></ul>													-
▶ □ 又指设置									_		「日本市」の		4
· 10 语言和资源									_		が加えいの		Ē
▶ しぬ 版本控制接口											111-12:0.8		*
▼ 1 個 在线切问													-
1 显示隐藏接口	-										▲ 県ビ現場設置		
Realtek PCIe GbE Family Controller	r kal												W.
● 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一											PROPINE TIO		
■ 显示更多信息											Drives		
▶ []] pic_1 [192.168.0.1]											Categories		市会
▼ [m xb6-pn0002 [192.168.0.2]									_	1 4	- Gateway		-11-
<u>《</u> 在玩和诊断	-										- Call Color		
Intel(R) Wi+i 6 AX201 160MHz	HOLE												
▶ [] PC internal [本地]	R										<ul> <li>A-bus</li> </ul>	PLICODO	
USB [S7USB]												110002	
▶ III TeleService [目动协议识别]	REF											G	
▶ U 读卡器/USB 任储器													
											I NOTIDOS FA		

c. Select "Other Ethernet Devices -> ROFINET IO -> I/O -> Sdot -> X-Bus -> XB6-PN0002".

d. Drag or double-click "XB6-PN0002" to "Network View" as shown below.

项目树		XB6-P04A → 设备和网络				_ # # ×	硬件目录 🚽	
设备				🛃 拓扑视图	📥 网络视图	₩ 设备视图	选项	10
19	1	💦 网络 🚼 连接 HMI 连接	- 品 关系 🖑 🦉 🖬 💷 🔍 ±					
						^	▼ 目录	
▼ 🔄 XB6-P04A							<被索> ■	k init 🔆
■ 添加新设备		PLC 1	PNIO				🖬 संग्रह रिक्स	
	·	CPU 1214C	X86-PN0002 DP-NORM			=		1 Con 1
<ul> <li>         ・</li> <li>         ・</li></ul>			未分配				→ 🚰 HM	1:2
<ul> <li>→ 300 ホント attribute</li> <li>→ 500 安全设置</li> </ul>							▶ 🛅 PC 系统	200
▶ 🔀 跨设备功能							🕨 🛅 驱动器和起动器	泙
▶ 📴 未分配的设备							▶ 🛄 网络组件	
▶ 🙀 公共数据							▶ 📠 检测和监视	
▶ 圓 文档设置							▶ <b>1</b> 分布式 1/0	Ĥ
<ul> <li>· · · · · · · · · · · · · · · · · · ·</li></ul>							(1) (1) (1) (1) (1) (1) (1) (1) (1)	7
▶ ▲ 版本控制接口	1.1							
● ■ 任我切问							● 其它以大國设备	-
IE-IVERMENT	100						PROFINET IO	2
	~						> Drives	-
● 显示更多信息							Encoders	主
plc_1 [192.168.0.1]							🕨 🧊 Gateway	*
<ul> <li>tb6-pn0002 [192.168.0.2]</li> </ul>						<u>}</u> £	<b>▼ </b> 10	
2 在线和诊断							- In Sdot	
Intel(R) Wi-Fi 6 AX201 160MHz							▼ 🛄 X-Bus	
▶ [] PC internal [本地]							XB6-PNO	002
USB [S7USB]	100						SIEMENS AG	
▶ I TeleService [目动协议识别]	100							- 8
▶ 🔄 然本器(058 任國器							PROFIBUS PA	- 1
								- 1
								- 1
								_
								- 1
								- 1
								- 1
		< III		3 100%		<b>``</b>		_
				O EH	为 估白 回 3			

e. Click "Unassigned (blue font)" on the slave device and select "PLC\_1.PROFINET Interface\_1" as shown below.

XB6-P04A → 设备和网络			_ # #×
		🛃 拓扑视图 🚠 网络视图	₩ 设备视图
💦 网络 🚼 连接 🛛 HMI 连接	🔽 品 关系 🖑 🖫 🗐 🖽 🛄 🔍 ±		
			^
PLC_1 CPU 1214C	PNIO XB6-PN0002 基代的 PLC_1.PROFINET接口_1		=
			- 11
			_
			28

f. When the connection is complete, it is shown in the following figure.

XB6-P04A → 设备和网络			_ # = ×
		🛃 拓扑视图 👗 网络视图	₩ 设备视图
▶ 网络 11 连接 HMI 连接	💽 品 关系 🕎 🖫 🔛 🛄 🔍 🛨		<b>3</b>
		♀ IO 系统: PLC_1.PROFINET IO-Sy	/stem (100) 🛕
PLC_1 CPU 1214C	IO 5-PN0002 1 INET IO-Syste		=

g. Click on the device name to rename the device, as shown in the following figure.

XB6-P04A → 设备和网络			_ # = ×
		🦨 拓扑视图 🚠 网络视图	11 设备视图
N 网络 🔡 连接 HMI 连接	📃 🗔 关系 🕎 🖫 🔛 🛄 🔍 ±		
		및 IO 系统: PLC_1.PROFINET IO-Sys	stem (100) 🛕
PLC_1 CPU 1214C	KB6-PN0002       XB6-PN0002       PLC_1		8
			● ● ● ● ●

h. Click on "Device View" to enter the device overview of the coupler, and under "Hardware Catalog" on the right hand side, add the modules according to the actual topology (the order must be consistent with the actual topology, otherwise the communication will not be successful), as shown in the following figure.

					■ 拓打	ト初図 🔒 図络初	图 财设备视图	洗项	
						1 24123 1200 1-124 120		~ ~	
₩ 模块	机架	插槽	山地址	0 地址	类型	订货号	固件	▼ 目录	_
<ul> <li>XB6-PN0002</li> </ul>	0	0			XB6-PN0002	1234567	V10.00.00	⊲機索>	int i
PN-IO	0	0 X1			PNIO				
XB6-P04A 1	0	1	249	253	XB6-P04A		2.0	☑ 辺窓 (全部>	
	0	2						▼■模块	
	0	3						Analog Input	
	0	4						Analog Output	
	0	5						Digital I/O	
	0	6						Digital Input	
	0	7						Digital Output	
	0	8						Function I/O	
	0	9						▼ Un Pulse I/O	
	0	10						XB6-DS506C	
	0	11						XB6-P04A	
	0	12						X86-PWM4	
	0	13						Relay Output	
	0	14						▶	
	0	15							
	0	16							
	0	17							
	0	18							
	0	19							
	0	20							
	0	21							
	0	22							
	0	23							
	0	24							
	0	25							
	0	26							
	0	27							
	0	28							
	0	29							
	0	30							
	0	31							
	0	32							

#### 7、 Assign device name

a. Switch to "Network View", right-click the connection line between PLC and coupler, and select "Assign Device Name" as shown in the following figure.

		型 拉北湖區 1 网络湖底 10	いな細図	メ 石
			Q III (VIII)	12-14
336 山连接 HMI连接	[1] [46 *초 ] 환 ] 종 📕 표 🛄 🔍 🎽			
		및 IO 系统: PLC_1.PROFINET IO-System	n (100) 🛆	▼ 目录
				<搜索> ₩
1 XB6-PNC	0002			☑ 过渡 《全部> 🔹
1214C XB6-PN0	002 DP-NORM		=	▶ 🛅 控制器
PLC_1				🕨 🛅 HMI
				▶ 🛅 PC 系统
	10 Curto			🕨 🛅 驱动器和起动器
PLC_1.PROFINET	X 剪切(T) Ctrl+X			▶ 🛅 网络组件
	■ 复制(Y) Ctrl+C			▶ 🛅 检测和监视
	ご言 粘贴(P) Ctrl+V			▶ <u></u> 分布式 I/O
	★ 冊修余(D) Del			▶ 📠 供电与配电
	重命名(N) F2			▶ <u>■</u> 现场设备
	公司公司的 DP 主法IIO 控制器			▼   其它现场设备
	73 E651 3/10 3 CF 12:01 C 12:01 E8			▶ 🛄 其它以太网设备
	编译 <b>····································</b>			PROFINET IO
	ト転到设备(L) ►			Drives
	数型性33(N) Ctrl+K 数本で1004年(r) Carl H		1 <u>2</u>	Encoders
	■************************************		- *	Gateway
	10 任55419日(07) C(14) 10 分配语言之论		1 8	- III 1/0
	Assign PROFIsafe address			▼ Sdot
	────────────────────────────────────			▼ La X-Bus
	更新并显示强制的操作数			XB6-PN000
	見示日录 Ctrl+Shift+C			Sensor
	图 唐性 Alt+Enter			
				F LE TROFIBOSTA
		A 1000	-	

分配 PROFINET 设备名	际。					×
	γ <b>ι</b> ο	<b>组态的 PROFI</b> PROFINET 在线访问 PG/PC 提 P 设备过滤器 ◎ 仅显示即 ○ 仅显示部 ○ 仅显示部	NET 设备 设备名称: 设备类型: 口的类型: (口的类型: (口的类型: (口) 类型的设行 (引) 关键的设计 (引) 名称的设计	xb6-pn0002 XB6-PN0002 로 PN/IE 國 Realtek PCIe GbE Famil 하았音	y Controller	
[]] []] []] []] []] []] []] []] []] []]	网络中的可访 IP 地址	问节点: MAC 地址	<b>设备</b>	PROFINET 设备名称	状态	
在线状态信息:	▲ 小设备 (共 0 个)	) ø	Ш		更新列表	→ 分配名称 >
						关闭

b. The "Assign PROFINET Device Name" window pops up as shown below.

Check to see if the MAC address on the coupler silkscreen is the same as the MAC address of the assigned device name.

- PROFINET Device Name: The name set in "Assign IP address and device name to slave".
- Type of PG/PC interface: PN/IE.
- PG/PC interface: the actual network adapter used.
c. Select the slave device in turn, click Update List, and click Assign Name. Check whether the status of the node is "OK" in "Accessible nodes in the network", as shown in the following figure.

ET 设备 指名称: xbG 指本型: XBG 的类型: 更 PC接口: 更 的类型: 更 不工型的设备 均设置错误的设备 均设置错误的设备 均分量 均分量 PC接口: xb	5-pn0002 5-PN0002 PN/IE Realtek PCIe GbE RooFINET 设备名和 6-pn0002	Family Contro	ller	
▲名称: ★b6 小学型: ★B6 小学型: ★B6 小学型: ● 小学型的设备 小学型的设备 小学型的设备 なる。 本型的设备 なる。 PR PR PR PR PR A PR A PR A PR A PR A PR A PR A PR A A A A A A A A A A A A A	5-pn0002 5-PN0002 PN/IE Realtek PCIe GbE Realtek PCIe GbE	Family Contro	ller	• • • •
法 本型: XB6 () () () () () () () () () () () () ()	5-PN0002 PN/IE Realtek PCIe GbE RoFINET 设备名和 6-pn0002	Family Contro 和 计本	ller	•
비的类型: 탄, PC 接口: )	PN/IE Realtek PCIe GbE NOFINET 设备名和 6-pn0002	Family Contro 称  状态	ller	*
I的类型: <b>민</b> ; PC 接口: <b>阿</b> ; - 类型的设备 放设置错误的设备 有名称的设备 设备 PR PNIO xb	PN/IE Realtek PCIe GbE NOFINET 设备名和 6-pn0002	Family Contro	ller	
PC接口: ) 。 - 类型的设备 放设置错误的设备 有名称的设备 设备 PR PNIO xb	Realtek PCIe GbE IOFINET 设备名利 6-pn0002	Family Contro 称  状态	ller	•
-类型的设备 协设置错误的设备 可名称的设备 设备 PR PNIO xb	tOFINET 设备名和 6-pn0002	称  状态		
-类型的设备 设置错误的设备 与名称的设备 变备 PR PNIO xb	tOFINET 设备名和 6-pn0002	称状态		
<sub>故设置错误的设备</sub> 写名称的设备 设备 PR PNIO xb	tOFINET 设备名和 6-pn0002	称状态		
資名称的设备 设备 PR PNIO xb	tOFINET 设备名和 6-pn0002	称状态		
号石物印列反面 设备 PR PNIO xb	tOFINET 设备名和 6-pn0002	称 状态		
设备 PR PNIO xb	tOFINET 设备名和 6-pn0002	称 状态		
设备 PR PNIO xb	tOFINET 设备名和 6-pn0002	称 状态		
PNIO xb	6-pn0002	1. 0.00		
		💙 确定		
	1	百新列末		分配之称
		324977448		75 66 617
			III 更新列表	… 更新列表 [
			m 更新列表	更新列表

d. Click Close.

# 8、 Download Configuration Structure

- a. In Network View, check PLC.
- b. Click the button in the menu bar to download the current configuration to the PLC.
- c. In the "Extended Download to Device" pop-up screen, configure the following figure.

○○       <		구ळ	++++++	接口米刑	忎繡	设备			
PG/PC 撩口的类型:       ● PN/IE       ●         PG/PC 撩口:       Realtek PCIe GbE Family Controller       ●         接口/牙网的连接:       ●       ●         第一个网关:       ●       ●         送餐       设备类型       接口类型       地址       目标设备         设备       设备类型       接口类型       地址       目标设备         PN/IE       ●       ●       ●       ●         PN/IE       访问地址       ●       ●       ●         FM/IE       ●       ●       ●       ●         FM/IE       ● <th></th> <th>PN/IE_1</th> <th>192.168.0.1</th> <th>PN/IE</th> <th>1 X1</th> <th>及首英亚 CPU 1214C DC/D</th> <th>PLC_1</th>		PN/IE_1	192.168.0.1	PN/IE	1 X1	及首英亚 CPU 1214C DC/D	PLC_1		
PG/PC 擁工: ■ Realtek PCIe GbE Family Controller ▼ 接口/子网的连接: PN/IE_1 ▼ 第一个网关: ▼ 送择目标设备: 显示所有兼容的设备 设备 设备类型 接口类型 地址 目标设备 □ □ □ PN/IE 访问地址 □ FM/IE □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	]	<b>•</b>		PN/IE	类型:	PG/PC 接口的线			
		-	altek PCIe GbE Family Controller			PG/PC 打 按口 / 乙 网络约			
				接口/于网扣注接 · 「N//E_1					
Image: state		目标设备	亚尔州有兼省的反省。 址 司纳地	类型 计	接口	设备类型	设备		
P)浙东 LED 开始打		目标设备 一	啦 可地址	类型 t i	设备类型 接口类 — PN/IE		设备 -		
內斯 LED 开始打									
开始打									
	搜索( <u>S</u>	开始搜							
			汉亚小相庆有息						

d. Click the "Start Search" button as shown below.

	设备		插横	接口类刑	++1+	子网
	PLC_1	CPU 1214C DC/D	1 X1	PN/IE	192.168.0.1	PN/IE_1
		PG/PC接口的这 PG/PC指 接口/子网的近	型: 80: () () () () () () () () () () () () ()	PN/IE	• • • • • •	
	<b>洗择</b> 曰标设备:	第一个团	列关:		显示所有兼容的设备	•
	·记备	设备类型	接口	2 번 1	비바	目标设备
	PLC_1	CPU 1214C DC/D	. PN/IE	1	92.168.0.1	PLC_1
	-	-	PN/IE	រើ	与问地址	-
р ат						
p 可 闪烁 LED						
p g 闪烁 LED						开始搜索区
₩ <u>₩</u> ▼ べ 八烁 LED 状态信息:					□ 仅显示错误消息	开始搜索(5
	92.168.0.1 的设备连 17 1 个与 3 可访问设	寶。 香相兼容的设备。			🗌 仅显示错误消息	开始搜索(

- e. Click on "Download".
- f. Select "Continue without synchronization" as shown below.

	需要手动同步
0	上传到项目
•	需要手动同步
	•

g. Select "Stop All".

犬态	1	目标	消息	动作	
40	<b></b>	▼ PLC_1	下载准备就绪。	加载"PLC_1"	
		▼ 保护	保护系统。防止未授权的访问		
			连接到企业网络或直接连接到 internet 的设备必须采取合适的保护 措施以防止未经授权的访问。例如通过使用防火墙或网络分段。有 关工业安全性的更多信息。请访问 http://www.siemens.com/industrialsecurity		
	0	▶ 停止模块	模块因下载到设备而停止。	全部停止	-
	0	▶ 设备组态	删除并替换目标中的系统数据	下载到设备	
	0	▶ 软件	将软件下载到设备	一致性下载	
	0	证书组态	保护机密 PLC 组态数据的密码已更改。系统将删除所有动…		
			III		>

- h. Click Load.
- i. Click Finish.
- j. Power the unit back up.

## 9. Communication link

a. After 🔝 clicking the button, click the "Go Online" button, the icons are all green, that is, the connection is successful, as shown in the figure below.

项目树		XB6-P04A → 设备和网络	_ # # ×
设备			🦉 拓扑视图 👗 网络视图 📑 设备视图
	•	💦 网络 🔡 连接 HMI连接 🔽 🖬 🖽 🛄 🔍 🛨	a 🗍
			♀ IO 系统: PLC_1.PROFINET IO-System (100) ^
▼ 🔄 XB6-P04A			
▲* 添加新设备		PLC 1 X86-PN0002	
		CPU 1214C XB6-PN0002 DP-NORM	=
→ → 未分组的设备		PLC_1	
▶ 1 安全设置			
▶ 🔀 跨设备功能		PLC 1 PROFINET IO Syste	
▶ 🙀 公共数据		rec_r.normerro-system	
▶ 🛅 文档设置			
<ul> <li>值 语言和资源</li> </ul>			
▶ 1.2 版本控制接口			
● ■ 住我切问			
■ SE/小桃桃教授中 ■ Pealtek PCIe GhE Family Controller	-		
La 更新可访问的设备	ruur		
Intel(R) Wi-Fi 6 AX201 160MHz			•
▶ 🎦 PC internal [本地]			
USB [S7USB]			2
▶ 🋄 TeleService [自动协议识别]			
▶ 📴 读卡器/USB 存储器			

### 10. Check the device indicator

XB6-P2000H: P lamp is always on in green.

XB6-PN0002: P lamp green is always on, L lamp is always on, B lamp is not on, R lamp is always on.

XB6-P04A module: P lamp is always on, R lamp is always on.

## 11, Parameterization

a. Open "Device View", in the offline state, right-click the XB6-P04A module, click "Properties", as shown in the following figure.

							🛃 拓扑视图 🔒	网络视图 👖	设备视图	选项	
设备概览											
₩ 模块		机架	插槽	1地址	0 地址	类型	订货号	固件	注释	▼ 目录	
▼ XB6-PN0002		0	0			XB6-PN0002	1234567	V10.00.00		< 桃索 >	init
► PN-IO		0	0 X1			PNIO					
XB6-P04A_1	mercal NB day	0		249	253	XB6-P04A		2.0		● 辺塚 (三部2	100
	更 成 设 合	B								【 」 保伏	
	后初度軍上	.共…								Analog Input	
	X 剪切(T)	C	trl+X							Digital I/O	
111 夏制(Y)		C	trl+C							Digital Input	
		C	tri+v							Digital Output	
	★ 删除(D)		Del							Function I/O	
	重命名(N)		F2							▼ Pulse I/O	
	压缩地址									X86-DS506C	
	解压缩地址									XB6-P04A	
	编译		•							XB6-PWM4	
	下载到设备	(L)	•							🕨 🧊 Relay Output	
	ቓ 转至在线(ト	I) C	trl+K							▶ 📠 前端模块	
	● 转至离线(F	) O	trl+M								
	Left 在线和诊断(D) Ctrl+D										
	一 万部(反前名)	☑ 分配设备名称 再新社由于提制的操作数									
	35.37773227	1995/010101996119	2.82								
	₩ 交叉引用		F11								
	▲ 父父51用1篇	l思 Snitt	+=11								
	显示目录	Ctrl+Sh	ift+C								
		·签条(L)									
	Q. CH	Alt+8	inter								
	44至66条初	189									
	440,610,010	0	26								
		0	20								
		0	27								
		0	29								
		0	30								
		0	31								
		0	32								

b. In the property page, click "Module Parameters", as shown in the following figure. Parameters can be configured according to the actual use of the need to configure, after the completion of the configuration, re-download the program to the PLC, the PLC and the module need to be re-powered.

B6-P04A	_1 [XB6-P04	A]			◎ 属性 □ 信息 □ 诊断	
常規	10 变量	系统常数	文本			
常规		模块参数	t			
输入 模块参数		XB6-P0	4A Parame	ter		
1/0 地址				Pulse Mode:	Pul+Dir	-
				Brake Time:	200	
			Ch1 Sta	rtup Speed:	1	
			Но	ming Mode:	mode24	•
			Ch1 Hon	ning Speed:	1000	
		Ch1 F	loming Appro	ach Speed:	500	
			5 11	, Input Logic :	Limit Normally Open, Origin Brake Normally Open	-
			c	h1 Scaling:	1	
			Ch2 Sta	rtup Speed:	1	
			Ch2 Ho	ming Mode:	mode24	•
			Ch2 Hon	ning Speed:	1000	
		Ch2 H	loming Appro	ach Speed:	500	
			Ch2	Input Logic:	Limit Normally Open, Origin Brake Normally Open	-
			c	h2 Scaling:	1	
			Ch3 Sta	rtup Speed:	1	
			Ch3 Ho	ming Mode:	mode24	-
			Ch3 Hon	ning Speed:	1000	
		Ch3 H	loming Appro	ach Speed:	500	
			Ch3	Input Logic:	Limit Normally Open, Origin Brake Normally Open	-
			C	h3 Scaling:	1	
			Ch4 Sta	rtup Speed:	1	
			Ch4 Ho	ming Mode:	mode24	-
			Ch4 Hon	ning Speed:	1000	
		Ch4 H	loming Appro	ach Speed:	500	
			Ch4	Input Logic:	Limit Normally Open, Origin Brake Normally Open	-
			(	h4 Scaling:	1	

# 12. Functional verification

a. Expand the left side of the project navigation, select "Monitor and Force Meter", as shown in the following figure.

项目砌	
设备	
Ĩ	
▼ 🔄 XB6-P04A	
📑 添加新设备	
🔒 设备和网络	
PLC_1 [CPU 1214C DC/DC/DC]	
■】 设备组态	
2 在线和诊断	
▶ 🚘 程序块	
▶ 🙀 工艺对象	
▶ 🔤 外部源文件	
▶ 📮 PLC 变里	
▶ <u>■</u> PLC 数据类型	
▼ 폟 监控与强制表	
▲ 添加新监控表	
日、通制表	
▶ 🖳 在线备份	
Traces	
▶  设备代埋数据	
目 PLC 报警义本列表	
▶ L 分佈式 //O ▶	
· 展 不力组制反面	
▶ 至王汉血	
▶ □○ 広東別胞	
▶ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
▶ 🔚 读卡哭///SB 左佛哭	

b. Double-click "Add New Monitor Table", the system adds a new monitor table, as shown in the following figure.

项目树	Π <	XB6-F	04A ▶ PLC_1	[CPU 1214	CDC/DC/DC] ▶ 监持	空与强制表 🕨 监控者	€_1			_ # #×
设备										
			(* 1 <u>1</u> 2 10 10	9, 90 2	00h 00h 5 1					
		i	名称	地址	显示格	式 监视值	修改值	9	注释	
▼ 🔄 XB6-P04A		1		🔳 <新地	<u>*</u> >					
📑 添加新设备										
晶 设备和网络										
PLC_1 [CPU 1214C DC/DC/DC]										
11 设备组态										
2 在线和诊断										
▶ 🛃 程序块										
▶ 🖼 工艺对象										
▶ 📾 外部源文件										
▶ 🞑 PLC 变量										
▶ 📑 PLC 数据类型										
▼ 🗔 监控与强制表										
📑 添加新监控表										
「認」 强制表										
▶ 📴 在线备份										
🕨 📴 Traces										
▶ 🔯 OPC UA 通信										
▶ 🔚 设备代理数据										
建 程序信息										
■ PLC 报警文本列表										
▶ 1 本地模块										
▶ 🧊 分布式 I/O										
🕨 🔚 未分组的设备										
▶ 100 安全设置										
▶ 🔀 跨设备功能										
▶ 3 公共数据										
▶ 1 文档设置										
Image: Imag Image: Image: Ima Image: Image: Ima										
▶ 🛃 版本控制接口										
▶ 🔚 在线访问										
▶ 🤄 读卡器/USB 存储器										11. S.
		1								>

c. Open the Device View and check the channel Q address (channel address of the output signal) and I address (channel address of the input signal) of the module XB6-P04A in the device overview.

For example, the "Q address" of XB6-P04A module is 1 to 36, and the "I address" is 1 to 24, as shown in the following figure.

XB6-P0	4A I	<ul> <li>未分组的设备。</li> </ul>	XB6-PN00	02 [XI	36-PN00	02]					
								21	拓扑视图 👗 网络视	图 📑 设备视	18
Fi	<b>设备</b> 相	K览									
-	₩ 樽	莫块		机架	插槽	1地址	Q地址	类型	订货号	固件	
	-	XB6-PN0002		0	0			XB6-PN0002	1234567	V10.00.00	^
	~	PN-IO		0	0 X1			PNIO			
1	$\checkmark$	XB6-P04A_1		0	1	249	253	XB6-P04A		2.0	
				0	2						
				0	3						
1				0	4						
				0	5						
1				0	6						
1				0	7						=
				0	8						
1				0	9						
				0	10						

d. Input the address, data type and comments in the Address cell of the monitoring table to facilitate monitoring. You can refer to the definition of the upstream and downstream process data, enter

the data items in order, press the Enter key, and then click the button to monitor the data after all the fields are filled in.

6-P04A + PLC_1	[CPU 1214C DO/DO/DC]	<ul> <li>监控与强制表</li> </ul>	b 监控表 1				
2 12 19 16	1, 2, 27 19 9	an 15 45 44	all-set diff	10.21.78	1.4	112.07	**
1 -6.49	18 M	型示植式	温代加	NS FR III	7	注释	支援注
	%13.0	布尔型	FALSE			Ch1 Pulse Output Direction	
	%13.1	布尔型	FALSE			Ch1 Pulse Status Flag 1	
	%13.2	布尔型	FALSE			Ch1 Pulse Status Flag 2	
	%13.3	布尔型	FALSE			Ch1 Homing Mode Running	
	%13.4	布尔型	FALSE			Ch1 Position Mode Running	
	%/3.5	布尔型	FALSE			Ch1 Velocity Mode Running	
	%13.6	布尔型	FALSE			Ch1 Homed	
	%/3.7	布尔型	FALSE			Ch1 Location Arrival	
	%12.0	高尔型	FALSE			Ch1 Velocity Arrival	
	5/2.1	高尔型	FALSE			Ch1 Positive Limit Signal	
	\$12.2	高尔田	FALSE			Ch1 Negative Limit Signal	
	8,12.3	<b>东</b> 尔利	EALSE			Ch1 Home Signal	
	344.5	有小量	ELEC			Chil Brake Signal	
	342.4	专小型	PALSE			Chil Brake Signal	
	%15.0	梅尔型	PALSE			Ch2 Pulse Output Direction	
	%/5.1	布尔型	FALSE			Ch2 Pulse Status Flag 1	
	%15.2	布尔型	FALSE			Ch2 Pulse Status Flag 2	
	%15.3	布尔型	FALSE			Ch2 Homing Mode Running	
	%/5.4	布尔型	FALSE			Ch2 Position Mode Running	
	%(5.5	布尔型	FALSE			Ch2 Velocity Mode Running	
	%15.6	高尔型	FALSE			Ch2 Homed	
	9457	高尔思	FALSE			Ch2 Location Arrival	
	814.0	<b>本</b> 尔里 <b>东</b> 尔明	EALSE			Ch2 Valority Arrival	
	814.5	All And All All All All All All All All All Al	ENER			Ch2 Perities Limit Signal	
	304.1	物小型	THESE			Ch2 Positive Limit signal	
	%14.2	杨尔型	FALSE			Ch2 Negative Limit Signal	
	%14,3	布尔型	FALSE			Ch2 Home Signal	
	%14.4	布尔型	FALSE			Ch2 Brake Signal	
	%17.0	布尔型	FALSE			Ch3 Pulse Output Direction	
	%17.1	布尔型	FALSE			Ch3 Pulse Status Flag 1	
	%17.2	布尔型	FALSE		0	Ch3 Pulse Status Flag 2	
	%/7.3	布尔型	FALSE			Ch3 Homing Mode Running	
	517.4	高尔则	FALSE			Ch3 Position Mode Running	
	517.5	変合の目	FALSE			Chill Velocity Mode Pupping	
	817.6	the Average	C FALCE			Ch3 Hamad	
	747.0	有小型	PALSE			chi Homeo	
	567.7	伸行型	PALSE			Ch3 Location Arrival	
	%16.0	布尔型	FALSE			Ch3 Velocity Arrival	
	%/6.1	布尔型	FALSE			Ch3 Positive Limit Signal	
	%/6.2	布尔型	FALSE			Ch3 Negative Limit Signal	
	%/6.3	布尔型	FALSE			Ch3 Home Signal	
	%16.4	布尔型	FALSE			Ch3 Brake Signal	
	%19.0	布尔思	FALSE			Ch4 Pulse Output Direction	
	9649-1	亦尔西	FALSE			Ch4 Pulse Status Flag 1	
	549.7	麻尔用	FALSE			Che Pulse Status Flag 2	
	9,10 3	市位用	FALSE			Ch4 Homing Mode Pupping	
	800.4	1000mm 东位期	FALSE			Ch4 Position Mode Punning	
	80.4	中小量	FALSE			Che Valasite Made Depains	
	269.5	和小型	III PALSE			Ch4 velocity Mode Running	
	519.0	地尔里	FALSE			Ch4 Homed	
	%19.7	布尔型	FALSE			Ch4 Location Arrival	
	%18.0	布尔型	FALSE			Ch4 Velocity Arrival	
	%18.1	布尔型	FALSE			Ch4 Positive Limit Signal	
	%18.2	布尔型	FALSE			Ch4 Negative Limit Signal	
	%18.3	布尔型	FALSE			Ch4 Home Signal	
	%18.4	布尔型	FALSE			Ch4 Brake Signal	
	%/W10	十六进制	16#0601			Ch1 Error Code	
	%/W12	十六进制	16#0601			Ch2 Error Code	
	%/W14	十六进制	1680601			Ch3 Error Code	
	\$10/16	十六进制	16#0601			Ch4 Error Code	
	81010	1712年1	0			Chi Current Location	
		市村与十进制	0			chi current Location	
	%ID22	市付号十进制	0			Chi Current velocity	
	%ID26	常行号十进制	0			Ch2 Current Location	
	%D30	带符号十进制	0			Ch2 Current Velocity	
	%ID34	带符号十进制	0			Ch3 Current Location	
	%D38	带符号十进制	0			Ch3 Current Velocity	
	%ID42	带符号十进制	0			Ch4 Current Location	
	%ID46	带符号十进制	0			Ch4 Current Velocity	

e. The module's uplink data is shown below in the monitoring table.

f.	The downstream	data of the	module i	s shown	below in	the monitorin	g table.
----	----------------	-------------	----------	---------	----------	---------------	----------

	PLC_1 [CPU 1214C DC/DC/DC]	<ul> <li>监控与强制表</li> </ul>	<ul> <li>监控表_1</li> </ul>				
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1. 9. A. B						
1	名称	显示格式	监视值	修改值	9	注释	变量注释
65	%Q5.0	布尔型	FALSE			CH1 Running Direction	
66	%Q5.1	布尔型	FALSE			CH1 Absolute/Relative Position Mode	
67	%05.2	布尔型	FALSE			CH1 Position/Velocity Mode	
68	%Q5.3	布尔型	FALSE			CH1 Reset Coordinates	
69	%Q5.4	布尔型	FALSE			CH1 Start	
70	%Q5.5	布尔型	FALSE			CH1 Brake	
71	%Q5.6	布尔型	FALSE			CH1 Home	
72	%Q4.0	布尔型	FALSE			CH2 Running Direction	
73	%Q4.1	布尔型	FALSE			CH2 Absolute/Relative Position Mode	
74	%Q4.2	布尔型	FALSE			CH2 Position/Velocity Mode	
75	%Q4.3	布尔型	FALSE			CH2 Reset Coordinates	
76	%Q4.4	布尔型	FALSE			CH2 Start	
77	%Q4.5	布尔型	FALSE			CH2 Brake	
78	%Q4.6	布尔型	FALSE			CH2 Home	
79	%Q3.0	布尔型	FALSE			CH3 Running Direction	
80	%Q3.1	布尔型	FALSE			CH3 Absolute/Relative Position Mode	
81	%Q3.2	布尔型	FALSE			CH3 Position/Velocity Mode	
82	%Q3.3	布尔型	FALSE			CH3 Reset Coordinates	
83	%Q3.4	布尔型	FALSE			CH3 Start	
84	%Q3.5	布尔型	FALSE			CH3 Brake	
85	%Q3.6	布尔型	FALSE			CH3 Home	
86	%Q2.0	布尔型	FALSE			CH4 Running Direction	
87	%Q2.1	布尔型	FALSE			CH4 Absolute/Relative Position Mode	
88	%Q2.2	布尔型	FALSE			CH4 Position/Velocity Mode	
89	%Q2.3	布尔型	FALSE			CH4 Reset Coordinates	
90	%Q2.4	布尔型	FALSE			CH4 Start	
91	%Q2.5	布尔型	FALSE			CH4 Brake	
92	%Q2.6	布尔型	FALSE			CH4 Home	
93	%QW6	无符号十进制	0			CH1 Acceleration Time	
94	%QW8	无符号十进制	0			CH1 Deceleration Time	
95	%QD10	无符号十进制	0			Ch1 Running Velocity	
96	%QD14	无符号十进制	0			Ch1 Running Position	
97	%QW18	无符号十进制	0			CH2 Acceleration Time	
98	%QW20	无符号十进制	0			CH2 Deceleration Time	
99	%QD22	无符号十进制	0			Ch2 Running Velocity	
100	%QD26	无符号十进制	0			Ch2 Running Position	
101	%QW30	无符号十进制	0			CH3 Acceleration Time	
102	%QW32	无符号十进制	0			CH3 Deceleration Time	
103	%QD34	无符号十进制	0			Ch3 Running Velocity	
104	%QD38	无符号十进制	0			Ch3 Running Position	
105	%QW42	无符号十进制	0			CH4 Acceleration Time	
106	3%QW44	无符号十进制	• 0			CH4 Deceleration Time	
107	%QD46	无符号十进制	0			Ch4 Running Velocity	
108	%QD50	无符号十进制	0			Ch4 Running Position	

#### **Examples of Module Functions**

- Channel 1 runs 50,000 pulses in the forward direction at 100KHZ.
  - a. Configure the configuration parameters as shown below.

XB6-P04A_1 [XB6-P04A]	<b>马属性</b> 马信息 马诊断	
<b>常規</b> 10 变量 系统常数 文本		
* 常規 模块参数		
和八 模块参数 XB6-P04A Param I/O 地址	ster	
	Pulse Mode: Pul+Dir	-
	Brake Time: 200	
Ch1 St	artup Speed: 1	
н	ming Mode: mode24	
Ch1 Hc	ming Speed: 1000	
Ch1 Homing App	oach Speed: 500	
	Input Logic: Limit Normally Open, Origin Brake Normally Open	
	Ch1 Scaling: 1	
Ch2 St	artup Speed: 1	
Ch2 H	ming Mode: mode24	
Ch2 Ho	ning Speed: 1000	
Ch2 Homing App	oach Speed: 500	
<ul> <li>Ch.</li> </ul>	Input Logic: Limit Normally Open, Origin Brake Normally Open	
	Ch2 Scaling: 1	
- Ch3 St	artup Speed: 1	
Ch3 H	ming Mode: mode24	
Ch3 Ho	ming Speed: 1000	
Ch3 Homing App	oach Speed: 500	
Ch.	Input Logic: Limit Normally Open, Origin Brake Normally Open	
	Ch3 Scaling: 1	
Ch4 St	artup Speed: 1	
Ch4 H	ming Mode: mode24	
Ch4 Ho	ming Speed: 1000	
Ch4 Homing App	oach Speed: 500	
Ch	Input Logic: Limit Normally Open, Origin Brake Normally Open	
	Ch4 Scaling: 1	

- b. Sets channel 1 to relative position mode;
- c. Configure channel 1 to run at 50000 steps and 100kHz;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;

			> 监控与强制表	・ 监控表_1					_ # # ×
	ä Dø Do 1	3							
1	[		尼元格式	些知值	修改值	3		注释	<b>空田</b> 注程
65		%05.0	血小(n)」	FALSE	10PA DE	0		CH1 Running Direction	A = 44
66		%05.1	布尔刑	TRUE	TRUE		A	CH1 Absolute/Relative Position Mode	+00+2==+++++++
67		%05.2	布尔刑	EALSE			-	CH1 Position/Velocity Mode	旧刈运纠探式
68		%05.3	布尔刑	EALSE				CH1 Reset Coordinates	
69		%05.4	布尔型	TRUE	TRUE		A	CH1 Start	启动命令从0到1
70		%05.5	布尔刑	FALSE		ñ		CH1 Brake	刹车指全为0
71		MO5.6	布尔型	FALSE				CH1 Home	小十日 4 10
72		%04.0	布尔型 布尔型	FALSE				CH2 Running Direction	-
73		%04.1	<b>布尔刑</b>	FALSE				CH2 Absolute/Relative Position Mode	
74		%04.2	布尔刑	EALSE				CH2 Position/Velocity Mode	
75		%04.3	布尔刑	FALSE				CH2 Reset Coordinates	
76		%04.4	布尔刑	FALSE				CH2 Start	
77		%04.5	布尔刑	EALSE				CH2 Brake	
78		%04.6	布尔型	FALSE				CH2 Home	
79		%03.0	布尔刑	FALSE				CH3 Bunning Direction	
80		%031	布尔刑	FALSE				CH3 Absolute/Belative Position Mode	
81		%03.2	布尔型	FALSE				CH3 Position/Velocity Mode	
82		%03.3	布尔型	FALSE				CH3 Reset Coordinates	
83		%03.4	布尔型	FALSE				CH3 Start	
84		%O3.5	布尔型	FALSE				CH3 Brake	
85		%O3.6	布尔型	FALSE				CH3 Home	
86		%02.0	布尔型	FALSE				CH4 Running Direction	
87		%02.1	布尔型	FALSE				CH4 Absolute/Relative Position Mode	=
88		%02.2	布尔型	FALSE				CH4 Position/Velocity Mode	
89		%02.3	布尔型	FALSE				CH4 Reset Coordinates	
90		%O2.4	布尔型	FALSE				CH4 Start	
91		%02.5	布尔型	FALSE				CH4 Brake	
92		%02.6	布尔型	FALSE				CH4 Home	
93		%OW6	无符号十进制	500	500		A	CH1 Acceleration Time	
94		%OW8	无符号十进制	500	500		A	CH1 Deceleration Time	
95		%OD10	无符号十进制	100000	100000		A	Ch1 Running Velocity	运行速度100kHz
96		%QD14	带符号十进制	50000	50000		A	Ch1 Running Position	运行步数50000
97		%QW18	无符号十进制	0			-	CH2 Acceleration Time	2130 200000
98		%QW20	无符号十进制	0				CH2 Deceleration Time	
99		%QD22	无符号十进制	0				Ch2 Running Velocity	
100		%QD26	无符号十进制	0				Ch2 Running Position	
101		%QW30	无符号十进制	0				CH3 Acceleration Time	
102		%QW32	无符号十进制	0				CH3 Deceleration Time	
103		%QD34	无符号十进制	0				Ch3 Running Velocity	
104		%QD38	无符号十进制	0				Ch3 Running Position	N

e. Set the start command for channel 1 from 0 to 1 as shown below.

f. After the movement is complete, you can see that the channel 1 position arrival is set to 1, as shown below.

XB6-P04A >	PLC_1 [CPU 1214C DC/DC/DC]	监控与强制表	€ ▶ 监控表_1				-	∎≡×
🦉 👻 📖								
i	名称 地址	显示格式	监视值	修改值	9	注释	变量注释	8
1	%13.0	布尔型	FALSE			Ch1 Pulse Output Direction		^
2	9613.1	布尔型	FALSE			Ch1 Pulse Status Flag 1		
3	%13.2	布尔型	FALSE			Ch1 Pulse Status Flag 2		
4	%13.3	布尔型	FALSE			Ch1 Homing Mode Running		
5	%I3.4	布尔型	FALSE			Ch1 Position Mode Running		
6	%13.5	布尔型	FALSE			Ch1 Velocity Mode Running		_
7	%13.6	布尔型	FALSE	1.00		Ch1 Homed		=
8	%I3.7	布尔型	TRUE			Ch1 Location Arrival		
9	%12.0	布尔型	FALSE			Ch1 Velocity Arrival		
10	%12.1	布尔型	FALSE			Ch1 Positive Limit Signal		
11	%12.2	布尔型	FALSE			Ch1 Negative Limit Signal		
12	9612.3	布尔型	FALSE			Ch1 Home Signal		
13	%12.4	布尔型	FALSE			Ch1 Brake Signal		
14	%15.0	布尔型	FALSE			Ch2 Pulse Output Direction		
15	%15.1	布尔型	FALSE			Ch2 Pulse Status Flag 1		
16	%15.2	布尔型	FALSE			Ch2 Pulse Status Flag 2		
17	%15.3	布尔型	FALSE			Ch2 Homing Mode Running		
18	%15.4	布尔型	FALSE			Ch2 Position Mode Running		
19	%15.5	布尔型	FALSE			Ch2 Velocity Mode Running		
20	%15.6	布尔型	FALSE			Ch2 Homed		
21	%15.7	布尔型	FALSE			Ch2 Location Arrival		
22	%14.0	布尔型	FALSE			Ch2 Velocity Arrival		
23	%14.1	布尔型	FALSE			Ch2 Positive Limit Signal		
24	%14.2	布尔型	FALSE			Ch2 Negative Limit Signal		
25	%14.3	布尔型	FALSE			Ch2 Home Signal		
26	%14.4	布尔型	FALSE			Ch2 Brake Signal		
27	%17.0	布尔型	FALSE			Ch3 Pulse Output Direction		
28	%17.1	布尔型	FALSE			Ch3 Pulse Status Flag 1		
29	9617.2	布尔型	FALSE			Ch3 Pulse Status Flag 2		
30	%17.3	布尔型	FALSE			Ch3 Homing Mode Running		
31	%17.4	布尔型	FALSE			Ch3 Position Mode Running		
32	9617.5	布尔型	FALSE			Ch3 Velocity Mode Running		
33	%17.6	布尔型	FALSE			Ch3 Homed		
34	%17.7	布尔型	FALSE			Ch3 Location Arrival		
35	%16.0	布尔型	FALSE			Ch3 Velocity Arrival		
36	%16.1	布尔型	FALSE			Ch3 Positive Limit Signal		
37	%16.2	布尔型	FALSE			Ch3 Negative Limit Signal		
38	%16.3	布尔型	FALSE			Ch3 Home Signal		
39	%16.4	布尔型	FALSE			Ch3 Brake Signal		
40	%19.0	布尔型	FALSE			Ch4 Pulse Output Direction		~

g. You can also see that the current coordinates of channel 1 are 50000, as shown below.

			ILL JACIO						
<b>*</b>	<i>u</i>	🕼 lo 🦻 🕫 🕫 🕫	0 <sup>1</sup>						
	i	名称 地址	显示格式	监视值	修改值	9	注释	变量注释	
25		%14.3	布尔型	FALSE			Ch2 Home Signal		^
26		%14.4	布尔型	FALSE			Ch2 Brake Signal		
27		%17.0	布尔型	FALSE			Ch3 Pulse Output Direction		
28		%17.1	布尔型	FALSE			Ch3 Pulse Status Flag 1		
29		9617.2	布尔型	FALSE			Ch3 Pulse Status Flag 2		
30		%17.3	布尔型	FALSE			Ch3 Homing Mode Running		
31		%17.4	布尔型	FALSE			Ch3 Position Mode Running		
32		%17.5	布尔型	FALSE			Ch3 Velocity Mode Running		
33		%17.6	布尔型	FALSE			Ch3 Homed		
34		%17.7	布尔型	FALSE			Ch3 Location Arrival		
35		%16.0	布尔型	FALSE			Ch3 Velocity Arrival		
36		%16.1	布尔型	FALSE			Ch3 Positive Limit Signal		
37		%16.2	布尔型	FALSE			Ch3 Negative Limit Signal		=
38		%16.3	布尔型	FALSE			Ch3 Home Signal		
39		%16.4	布尔型	FALSE			Ch3 Brake Signal		
40		%19.0	布尔型	FALSE			Ch4 Pulse Output Direction		
41		%19.1	布尔型	FALSE			Ch4 Pulse Status Flag 1		
42		%19.2	布尔型	FALSE			Ch4 Pulse Status Flag 2		
43		%19.3	布尔型	FALSE			Ch4 Homing Mode Running		
4.4		%19.4	布尔型	FALSE			Ch4 Position Mode Running		
45		%19.5	布尔型	FALSE			Ch4 Velocity Mode Running		
46		%19.6	布尔型	FALSE			Ch4 Homed		
47		%19.7	布尔型	FALSE			Ch4 Location Arrival		
48		%18.0	布尔型	FALSE			Ch4 Velocity Arrival		
49		%18.1	布尔型	FALSE			Ch4 Positive Limit Signal		
50		%18.2	布尔型	FALSE			Ch4 Negative Limit Signal		
51		%18.3	布尔型	FALSE			Ch4 Home Signal		
52		%18.4	布尔型	FALSE			Ch4 Brake Signal		
53		%IW10	十六进制	16#0000			Ch1 Error Code		
54		%IW12	十六进制	16#0601			Ch2 Error Code		
55		%IW14	十六进制	16#0601			Ch3 Error Code		
56		%IW16	十六进制	16#0601			Ch4 Error Code		
57		%ID18	带符号十进制	50000			Ch1 Current Location		
58		%D22	带符号十进制	0			Ch1 Current Velocity		
59		%ID26	带符号十进制	0			Ch2 Current Location		
50		%ID30	带符号十进制	0			Ch2 Current Velocity		
51		%D34	带符号十进制	0			Ch3 Current Location		
52		III 94D38	带符号十进制	- 0			Ch3 Current Velocity		
3		%ID42	带符号十进制	0			Ch4 Current Location		
~ .		94046	帯な早上進制	0			Ch4 Current Velocity		V

 Channel 1 with a current position of 1000 moves to a position of -20,000 with a running speed of 100 kHz.

<u></u>	C Alexandre alexandre		
<b>ネ</b> 規 10 受重 3	系统吊鼓 又本		
「吊規 論λ	模块参数		
模块参数	XB6-P04A Parameter		
1/0 地址		()	
	Pulse Mode:	Pul+Dir	100
	Brake Time:	200	
	Ch1 Startup Speed:		
	Homing Mode:	mode24	100
	Ch1 Homing Speed:	1000	
	Ch1 Homing Approach Speed:	500	
	Input Logic:	Limit Normally Open, Origin Brake Normally Open	100
	Ch1 Scaling:	1	
	Ch2 Startup Speed:	1	
	Ch2 Homing Mode:	mode24	1
	Ch2 Homing Speed:	1000	
	Ch2 Homing Approach Speed:	500	
	Ch2 Input Logic:	Limit Normally Open, Origin Brake Normally Open	10
	Ch2 Scaling:	1	
	- Ch3 Startup Speed:		
	Ch3 Homing Mode:	mode24	1
	Ch3 Homing Speed:	1000	
	Ch3 Homing Approach Speed:	500	
	Ch3 Input Logic:	Limit Normally Open, Origin Brake Normally Open	10
	Ch3 Scaling:		
	Ch4 Startup Speed:		
	Ch4 Homing Mode:	mode24	100
	Ch4 Homing Speed:	1000	
	Ch4 Homing Approach Speed:	500	
	Ch4 Input Logic:	Limit Normally Open, Origin Brake Normally Open	1
	Ch4 Scaling:	1	

a. Configure the configuration parameters as shown below.

XB6-I	P04A I	PLC_1 [CPU	J 1214C DC/DC/DC]	▶ 监控与强制表	▶ 监控表_1				-	. ∎ ≡ ×
9		19 10 91	1. 17 00 00 1							
	i	名称	地址	显示格式	监视值	修改值	9	注释	变量注释	
22			%14.0	布尔型	FALSE			Ch2 Velocity Arrival		^
23			%14.1	布尔型	FALSE			Ch2 Positive Limit Signal		
24			%14.2	布尔型	FALSE			Ch2 Negative Limit Signal		
25			%14.3	布尔型	FALSE			Ch2 Home Signal		
26			%14.4	布尔型	FALSE			Ch2 Brake Signal		
27			%17.0	布尔型	FALSE			Ch3 Pulse Output Direction		
28			9617.1	布尔型	FALSE			Ch3 Pulse Status Flag 1		-
29			%17.2	布尔型	FALSE			Ch3 Pulse Status Flag 2		
30			%17.3	布尔型	FALSE			Ch3 Homing Mode Running		
31			%17.4	布尔型	FALSE			Ch3 Position Mode Running		
32			%17.5	布尔型	FALSE			Ch3 Velocity Mode Running		
33			%17.6	布尔型	FALSE			Ch3 Homed		=
34			%17.7	布尔型	FALSE			Ch3 Location Arrival		
35			%16.0	布尔型	FALSE			Ch3 Velocity Arrival		
36			%16.1	布尔型	FALSE			Ch3 Positive Limit Signal		
37			%16.2	布尔型	FALSE			Ch3 Negative Limit Signal		
38			%16.3	布尔型	FALSE			Ch3 Home Signal		
39			%16.4	布尔型	FALSE			Ch3 Brake Signal		
40			%19.0	布尔型	FALSE			Ch4 Pulse Output Direction		
41			%19.1	布尔型	FALSE			Ch4 Pulse Status Flag 1		
42			%19.2	布尔型	FALSE			Ch4 Pulse Status Flag 2		
43			%19.3	布尔型	FALSE			Ch4 Homing Mode Running		
44			%19.4	布尔型	FALSE			Ch4 Position Mode Running		
45			%19.5	布尔型	FALSE			Ch4 Velocity Mode Running		
46			%19.6	布尔型	FALSE			Ch4 Homed		
47			%19.7	布尔型	FALSE			Ch4 Location Arrival		
48			%18.0	布尔型	FALSE			Ch4 Velocity Arrival		
49			%18.1	布尔型	FALSE			Ch4 Positive Limit Signal		
50			%18.2	布尔型	FALSE			Ch4 Negative Limit Signal		
51			%18.3	布尔型	FALSE			Ch4 Home Signal		
52			%18.4	布尔型	FALSE			Ch4 Brake Signal		
53			%IW10	十六进制	16#0000			Ch1 Error Code		
54			%IW12	十六进制	16#0601			Ch2 Error Code		
55			%IW14	十六进制	16#0601			Ch3 Error Code		
56			%IW16	十六进制	16#0601			Ch4 Error Code		
57			%ID18	带符号十进制	1000			Ch1 Current Location		
58			%ID22	带符号十进制	0			Ch1 Current Velocity		
59			%ID26	带符号十进制	0			Ch2 Current Location		
60			%ID30	带符号十进制	0			Ch2 Current Velocity		
61	1		%ID34	带符号十进制	0			Ch3 Current Location		~

b. The current position of channel 1 is 1000, as shown below.

- c. Sets channel 1 to absolute position mode;
- d. Configure channel 1 to run at -20000 steps and 100kHz;
- e. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;

XB6-P04A		b 监控与强制表	▶ 监控表_1						■×
-42 -42 -48-									
U	2称	見示格式	监制值	修改值	43		注释	空曲注题	
65	%05.0	五尔伯武 东尔刑	EALSE	15 PA IE			CH1 Running Direction	X ± 4 H	~
66	%05.1	布尔刑	FALSE	FALSE		A	CH1 Absolute/Relative Position Mode	和北京署構式	100
67	%05.2	布尔型	FALSE			-	CH1 Position/Velocity Mode	27月11日1天11	
68	%05.3	布尔型	EALSE				CH1 Reset Coordinates		
69	%05.4	布尔型	TRUE	TRUE		4	CH1 Start	会动命会从0到1	
70	%05.5	布尔型	FALSE		ñ	-	CH1 Brake	创在指公为0	
71	%05.6	布尔型	FALSE				CH1 Home	0千月 <b>~</b> 790	
72	%Q4.0	布尔型	FALSE				CH2 Running Direction		
73	%Q4.1	布尔型	FALSE				CH2 Absolute/Relative Position Mode		
74	%Q4.2	布尔型	FALSE				CH2 Position/Velocity Mode		
75	%Q4.3	布尔型	FALSE				CH2 Reset Coordinates		
76	%Q4.4	布尔型	FALSE				CH2 Start		
77	%Q4.5	布尔型	FALSE				CH2 Brake		
78	%Q4.6	布尔型	FALSE				CH2 Home		
79	%Q3.0	布尔型	FALSE				CH3 Running Direction		
80	%Q3.1	布尔型	FALSE				CH3 Absolute/Relative Position Mode		
81	%Q3.2	布尔型	FALSE				CH3 Position/Velocity Mode		
82	%Q3.3	布尔型	FALSE				CH3 Reset Coordinates		
83	%Q3.4	布尔型	FALSE				CH3 Start		
84	%Q3.5	布尔型	FALSE				CH3 Brake		
85	%Q3.6	布尔型	FALSE				CH3 Home		
86	%Q2.0	布尔型	FALSE				CH4 Running Direction		
87	%Q2.1	布尔型	FALSE				CH4 Absolute/Relative Position Mode		=
88	%Q2.2	布尔型	FALSE				CH4 Position/Velocity Mode		
89	%Q2.3	布尔型	FALSE				CH4 Reset Coordinates		
90	%Q2.4	布尔型	FALSE				CH4 Start		
91	%Q2.5	布尔型	FALSE				CH4 Brake		
92	%Q2.6	布尔型	FALSE				CH4 Home		1
93	%QW6	无符号十进制	500	500		4	CH1 Acceleration Time		
94	%QW8	无符号十进制	500	500		4	CH1 Deceleration Time		
95	%QD10	无符号十进制	100000	100000		4	Ch1 Running Velocity	运行速度100kH;	z
96	1 %QD14	带符号十进制	-20000	-20000		4	Ch1 Running Position	运行步数-20000	
97	%QW18	无符号十进制	0				CH2 Acceleration Time	~	
98	%QW20	无符号十进制	0				CH2 Deceleration Time		
99	%QD22	无符号十进制	0				Ch2 Running Velocity		
100	%QD26	无符号十进制	0				Ch2 Running Position		
101	%QW30	无符号十进制	0				CH3 Acceleration Time		
102	%QW32	无符号十进制	0				CH3 Deceleration Time		
103	%QD34	无符号十进制	0				Ch3 Running Velocity		
104	%QD38	无符号十进制	0				Ch3 Running Position		~

f. Set the start command for channel 1 from 0 to 1 as shown below.

g. After the movement is complete, you can see that the channel 1 position arrival is set to 1, as shown below.

		U 1 重任 书 强 相 不	< ' mirac.'				
P 12 📝	o 91 % # 🖤 🖤						
<b>i</b> 名利	ド 地址	显示格式	监视值	修改值	9	注释	变量注释
	%13.0	布尔型	TRUE			Ch1 Pulse Output Direction	
	%13.1	布尔型	FALSE			Ch1 Pulse Status Flag 1	
	%13.2	布尔型	FALSE			Ch1 Pulse Status Flag 2	
	%[3.3	布尔型	FALSE			Ch1 Homing Mode Running	
	%13.4	布尔型	FALSE			Ch1 Position Mode Running	
	%I3.5	布尔型	FALSE			Ch1 Velocity Mode Running	
	%13.6	布尔型	FALSE			Ch1 Homed	
	%13.7	布尔型	TRUE			Ch1 Location Arrival	
	%12.0	布尔型	FALSE			Ch1 Velocity Arrival	
	%12.1	布尔型	FALSE			Ch1 Positive Limit Signal	
	%12.2	布尔型	FALSE			Ch1 Negative Limit Signal	
	%12.3	布尔型	FALSE			Ch1 Home Signal	
	%12.4	布尔型	FALSE			Ch1 Brake Signal	
	%15.0	布尔型	FALSE			Ch2 Pulse Output Direction	
	%I5.1	布尔型	FALSE			Ch2 Pulse Status Flag 1	
	%15.2	布尔型	FALSE			Ch2 Pulse Status Flag 2	
	%15.3	布尔型	FALSE			Ch2 Homing Mode Running	
	%15.4	布尔型	FALSE			Ch2 Position Mode Running	
	%15.5	布尔型	FALSE			Ch2 Velocity Mode Running	
	%15.6	布尔型	FALSE			Ch2 Homed	
	%15.7	布尔型	FALSE			Ch2 Location Arrival	
	%14.0	布尔型	FALSE			Ch2 Velocity Arrival	
	%14.1	布尔型	FALSE			Ch2 Positive Limit Signal	
	%14.2	布尔型	FALSE			Ch2 Negative Limit Signal	
	%14.3	布尔型	FALSE			Ch2 Home Signal	
	%14.4	布尔型	FALSE			Ch2 Brake Signal	
	%17.0	布尔型	FALSE			Ch3 Pulse Output Direction	
	%17.1	布尔型	FALSE			Ch3 Pulse Status Flag 1	
	%17.2	布尔型	FALSE			Ch3 Pulse Status Flag 2	
	%17.3	布尔型	FALSE			Ch3 Homing Mode Running	
	%17.4	布尔型	FALSE			Ch3 Position Mode Running	
	%17.5	布尔型	FALSE			Ch3 Velocity Mode Running	
	%17.6	布尔型	FALSE			Ch3 Homed	
	%17.7	布尔型	FALSE			Ch3 Location Arrival	
	%6.0	布尔型	FALSE			Ch3 Velocity Arrival	
	%6.1	布尔型	FALSE			Ch3 Positive Limit Signal	
	%6.2	布尔型	FALSE			Ch3 Negative Limit Signal	
	%16.3	布尔型	FALSE			Ch3 Home Signal	
	%16.4	布尔型	FALSE			Ch3 Brake Signal	
	%19.0	布尔刑	FALSE			Ch4 Pulse Output Direction	

h. You can also see that channel 1 has a current coordinate of -20000, as shown below.

i	名称	地址 显示	格式	监视值	修改值	9	注释	变量注释	
		%14.3 布尔	:型	FALSE			Ch2 Home Signal		^
		%14.4 布尔	型	FALSE			Ch2 Brake Signal		
		%17.0 布尔	껲	FALSE			Ch3 Pulse Output Direction		
		%17.1 布尔	2型	FALSE			Ch3 Pulse Status Flag 1		
		%17.2 布尔	2型	FALSE			Ch3 Pulse Status Flag 2		
		%17.3 布尔	:型	FALSE			Ch3 Homing Mode Running		
		%17.4 布尔	2型	FALSE			Ch3 Position Mode Running		
		%17.5 布尔	型	FALSE			Ch3 Velocity Mode Running		
		%17.6 布尔	型	FALSE			Ch3 Homed		
		%17.7 布尔	2型	FALSE			Ch3 Location Arrival		
		%16.0 布尔	껲	FALSE			Ch3 Velocity Arrival		
		%16.1 布尔	:펜	FALSE			Ch3 Positive Limit Signal		
		%16.2 布尔	型	FALSE			Ch3 Negative Limit Signal		=
		%16.3 布尔	:፹	FALSE			Ch3 Home Signal		
		%16.4 布尔	2型	FALSE			Ch3 Brake Signal		
		%19.0 布尔	型	FALSE			Ch4 Pulse Output Direction		
		%19.1 布尔	2型	FALSE			Ch4 Pulse Status Flag 1		
		%19.2 布尔	型	FALSE			Ch4 Pulse Status Flag 2		
		%19.3 布尔	껲	FALSE			Ch4 Homing Mode Running		
		%19.4 布尔	型	FALSE			Ch4 Position Mode Running		
		%19.5 布尔	型	FALSE			Ch4 Velocity Mode Running		
		%19.6 布尔	:፹	FALSE			Ch4 Homed		
		%19.7 布尔	型	FALSE			Ch4 Location Arrival		
		%18.0 布尔	2型	FALSE			Ch4 Velocity Arrival		
		%18.1 布尔	型	FALSE			Ch4 Positive Limit Signal		
		%18.2 布尔	型	FALSE			Ch4 Negative Limit Signal		
		%18.3 布尔	(型)	FALSE			Ch4 Home Signal		
		%18.4 布尔	型	FALSE			Ch4 Brake Signal		
		%IW10 十六	进制	16#0000			Ch1 Error Code		
		%W12 十六	;进制	16#0601			Ch2 Error Code		
		%W14 十六	进制	16#0601			Ch3 Error Code		
		%W16 十六	进制	16#0601			Ch4 Error Code		
		%ID18 带符	号十进制	-20000			Ch1 Current Location		
		%ID22 带符	号十进制	0			Ch1 Current Velocity		
		%ID26 带符	号十进制	▼ 0			Ch2 Current Location		
	Calib	%ID30 带符	号十进制	0			Ch2 Current Velocity		
		%ID34 带符	号十进制	0			Ch3 Current Location		
		%ID38 带符	号十进制	0			Ch3 Current Velocity		
		%ID42 带符	号十进制	0			Ch4 Current Location		
		%ID46 带符	号十讲制	0			Ch4 Current Velocity		~

#### • Channel 1 turns on speed mode and runs at 100 kHz

All rights reserved © Nanjing Solidot Electronic Technology Co., Ltd.

14.40 Jo 25 10 75	Al-alta Mele	- Ander		91
<b>吊規 □</b> □ 受重 ◎ 奈	: 3 吊 3 3	——————————————————————————————————————		
吊 <u>规</u> 給入	ł	莫块参数		
模块参数		XB6-P04A Parameter		
//0 地址				
		Pulse Mode	Pul+Dir	30
		Brake Time	200	
		Ch1 Startup Speed	f: 1	
		Homing Mode	mode24	1
		Ch1 Homing Speed	i: 1000	
		Ch1 Homing Approach Speed	4: 500	
		Input Logi	Limit Normally Open, Origin Brake Normally Open	1
		Ch1 Scaling	j: 1	
		Ch2 Startup Speed	i: 1	
		Ch2 Homing Mode	e: mode24	
		Ch2 Homing Speed	i: 1000	
		Ch2 Homing Approach Speed	d: 500	
	4	Ch2 Input Logi	:: Limit Normally Open, Origin Brake Normally Open	
	,	Ch2 Scaling	j: 1	
	-	Ch3 Startup Speed	d: 1	
		Ch3 Homing Mode	e: mode24	100
		Ch3 Homing Speed	i: 1000	
		Ch3 Homing Approach Speed	d: 500	
		Ch3 Input Logi	:: Limit Normally Open, Origin Brake Normally Open	1
		Ch3 Scaling	g: 1	
		Ch4 Startup Speed	i: 1	
		Ch4 Homing Mode	e: mode24	
		Ch4 Homing Speed	i: 1000	
		Ch4 Homing Approach Speed	i: 500	
		Ch4 Input Logi	: Limit Normally Open, Origin Brake Normally Open	1
		Ch4 Scaling	p: 1	

a. Configure the configuration parameters as shown below.

- b. Sets channel 1 to speed mode;
- c. Configure channel 1 to run at 100 kHz and the direction of motion to be 0 positive;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- e. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.

XB6-P	04A 🕨	PLC_1 [CPU 1214C DC/DC/DC	]▶ 监控与强制表	b 监控表_1						■×
<b>9</b> 2	¢ 11 <sup>33</sup>	<b>⊮</b> l₀ 9₁ % ∅ <sup>∞</sup> 1								
	i	名称	显示格式	监视值	修改值	9		注释	变量注释	
65		%Q5.0	布尔型	FALSE				CH1 Running Direction	运动方向为正转	^
66		%Q5.1	布尔型	FALSE	FALSE		4	CH1 Absolute/Relative Position Mode	2-13/31-3/31L18	
67		%Q5.2	布尔型	TRUE	TRUE		Â	CH1 Position/Velocity Mode	速度模式	
68		%Q5.3	布尔型	FALSE				CH1 Reset Coordinates		
69		₩Q5.4	布尔型	TRUE	TRUE		Â	CH1 Start	启动命令从0到1	
70		%Q5.5	布尔型	FALSE				CH1 Brake	刹车指令为0	
71		%Q5.6	布尔型	FALSE				CH1 Home		
72		%Q4.0	布尔型	FALSE				CH2 Running Direction		
73		%Q4.1	布尔型	FALSE				CH2 Absolute/Relative Position Mode		
74		%Q4.2	布尔型	FALSE				CH2 Position/Velocity Mode		
75		%Q4.3	布尔型	FALSE				CH2 Reset Coordinates		
76		%Q4.4	布尔型	FALSE				CH2 Start		
77		%Q4.5	布尔型	FALSE				CH2 Brake		
78		%Q4.6	布尔型	FALSE				CH2 Home		
79		%Q3.0	布尔型	FALSE				CH3 Running Direction		
80		%Q3.1	布尔型	FALSE				CH3 Absolute/Relative Position Mode		
81		%Q3.2	布尔型	FALSE				CH3 Position/Velocity Mode		
82		%Q3.3	布尔型	FALSE				CH3 Reset Coordinates		
83		%Q3.4	布尔型	FALSE				CH3 Start		
84		%Q3.5	布尔型	FALSE				CH3 Brake		
85		%Q3.6	布尔型	FALSE				CH3 Home		
86		%Q2.0	布尔型	FALSE				CH4 Running Direction		
87		%Q2.1	布尔型	FALSE				CH4 Absolute/Relative Position Mode		=
88		%Q2.2	布尔型	FALSE				CH4 Position/Velocity Mode		
89		%Q2.3	布尔型	FALSE				CH4 Reset Coordinates		
90		%Q2.4	布尔型	FALSE				CH4 Start		
91		%Q2.5	布尔型	FALSE				CH4 Brake		
92		%Q2.6	布尔型	FALSE				CH4 Home		1000
93		%QW6	无符号十进制	500	500		Â	CH1 Acceleration Time		
94		%QW8	无符号十进制	500	500		4	CH1 Deceleration Time		
95		%QD10	无符号十进制	100000	100000		À	Ch1 Running Velocity	运行速度100kH	7
96		%QD14	带符号十进制	0				Ch1 Running Position		-
97		%QW18	无符号十进制	0				CH2 Acceleration Time		
98		%QW20	无符号十进制	0				CH2 Deceleration Time		
99		%QD22	无符号十进制	0				Ch2 Running Velocity		
100		%QD26	无符号十进制	0				Ch2 Running Position		
101		%QW30	无符号十进制	0				CH3 Acceleration Time		
102		%QW32	无符号十进制	0				CH3 Deceleration Time		
103		%QD34	无符号十进制	0				Ch3 Running Velocity		
104		%QD38	无符号十进制	0				Ch3 Running Position		~

🥂 🕼 🕼 1	1 12 1 mm m						
i 名称	地址	显示格式	监视值	修改值	9	注释	变量注释
	%13.0	布尔型	FALSE			Ch1 Pulse Output Direction	
	%13.1	布尔型	TRUE			Ch1 Pulse Status Flag 1	
	%13.2	布尔型	TRUE			Ch1 Pulse Status Flag 2	
	%13.3	布尔型	FALSE			Ch1 Homing Mode Running	
	%13.4	布尔型	FALSE			Ch1 Position Mode Running	
	%13.5	布尔型	TRUE			Ch1 Velocity Mode Running	
	%13.6	布尔型	FALSE			Ch1 Homed	
	%13.7	布尔型	FALSE			Ch1 Location Arrival	
	%12.0	布尔型	TRUE			Ch1 Velocity Arrival	
	%12.1	布尔型	FALSE			Ch1 Positive Limit Signal	
	%12.2	布尔型	FALSE			Ch1 Negative Limit Signal	
	%12.3	布尔型	FALSE			Ch1 Home Signal	
	%12.4	布尔型	FALSE			Ch1 Brake Signal	
	%15.0	布尔型	FALSE			Ch2 Pulse Output Direction	
	%15.1	布尔型	FALSE			Ch2 Pulse Status Flag 1	
	%15.2	布尔型	FALSE			Ch2 Pulse Status Flag 2	
	%15.3	布尔型	FALSE			Ch2 Homing Mode Running	
	%15.4	布尔型	FALSE			Ch2 Position Mode Running	
	%15.5	布尔型	FALSE			Ch2 Velocity Mode Running	
	%15.6	布尔型	FALSE			Ch2 Homed	
	%15.7	布尔型	FALSE			Ch2 Location Arrival	
	%14.0	布尔型	FALSE			Ch2 Velocity Arrival	
	%14.1	布尔型	FALSE			Ch2 Positive Limit Signal	
	%14.2	布尔型	FALSE			Ch2 Negative Limit Signal	
	%14.3	布尔型	FALSE			Ch2 Home Signal	
	%14.4	布尔型	FALSE			Ch2 Brake Signal	
	%17.0	布尔型	FALSE			Ch3 Pulse Output Direction	
	%17.1	布尔型	FALSE			Ch3 Pulse Status Flag 1	
	%17.2	布尔型	FALSE			Ch3 Pulse Status Flag 2	
	%17.3	布尔型	FALSE			Ch3 Homing Mode Running	
	%17.4	布尔型	FALSE			Ch3 Position Mode Running	
	%17.5	布尔型	FALSE			Ch3 Velocity Mode Running	
	%17.6	布尔型	FALSE			Ch3 Homed	
	%17.7	布尔型	FALSE			Ch3 Location Arrival	
	%16.0	布尔型	FALSE			Ch3 Velocity Arrival	
	%16.1	布尔型	FALSE			Ch3 Positive Limit Signal	
	%16.2	布尔型	FALSE			Ch3 Negative Limit Signal	
	%16.3	布尔型	FALSE			Ch3 Home Signal	
	%16.4	布尔型	FALSE			Ch3 Brake Signal	
	9619-0	<b>东</b> 尔州	FALSE			Ch4 Pulse Output Direction	

f. During the movement, you can see that the channel 1 velocity arrival is set to 1, as shown below.

g. During the movement, it is also possible to currently run at the actual speed of 100 kHz, as shown in the following figure.

XB6-P04A →	PLC_1 [CPU 1214C DC/DC/DC]	监控与强制表	<ul> <li>监控表_1</li> </ul>				-	∎ = ×
	E 43 43 432 000 000							
≝ <sup>7</sup> ≝ <sup>7</sup> ∥	1 10 1 10 A	日子终于	收加估	修动值	43	计探	亦母注释	
25	10 MD	42小163% 布尔刑		IS VX IE	0	Ch2 Home Signal	又重注种	~
25	814.3	加小室	EALSE			Ch2 Proke Signal		~
20	947.0	布尔理	EALSE			Ch2 Brake Signal		_
28	947.1	布尔亚	FALSE			Ch3 Pulse Status Flag 1		
20	947.7	布尔刑	EALSE			Ch3 Pulse Status Flag 2		
30	947.2	布尔刑	FALSE			Ch3 Homing Mode Pupping		_
31	967.4	布尔刑	EALSE			Ch3 Position Mode Running		
37	947.5	布尔刑	EALSE			Ch3 Velocity Mode Running		
33	947.6	布尔刑	EALSE			Ch3 Homed		
34	967.7	布尔刑	FALSE			Ch3 Location Arrival		
35	946.0	布尔刑	FALSE			Ch3 Velocity Arrival		
36	946 1	布尔刑	EALSE			Ch3 Positive Limit Signal		
37	846.2	布尔刑	EALSE			Ch3 Negative Limit Signal		=
38	946 3	布尔刑	FALSE			Ch3 Home Signal		
39	946.4	布尔刑	FALSE			Ch3 Brake Signal		
40	949.0	布尔刑	EALSE			Ch4 Pulse Output Direction		
41	949.1	布尔刑	EALSE			Ch4 Pulse Status Flag 1		
47	949.7	布尔刑	EALSE			Ch4 Pulse Status Flag 2		
43	969 3	布尔刑	FALSE			Ch4 Homing Mode Running		
44	%19.4	布尔型	FALSE			Ch4 Position Mode Running		
45	969.5	布尔刑	EALSE			Ch4 Velocity Mode Running		
46	%9.6	布尔刑	EALSE			Ch4 Homed		
47	9619 7	布尔刑	FALSE			Ch4 Location Arrival		
48	%8.0	布尔型	FALSE			Ch4 Velocity Arrival		
49	%18.1	布尔型	FALSE			Ch4 Positive Limit Signal		
50	%18.2	布尔型	FALSE			Ch4 Negative Limit Signal		
51	%18.3	布尔型	FALSE			Ch4 Home Signal		
52	%18.4	布尔型	FALSE			Ch4 Brake Signal		
53	%IW10	十六进制	16#0000			Ch1 Error Code		
54	%IW12	十六进制	16#0601			Ch2 Error Code		
55	%IW14	十六进制	16#0601			Ch3 Error Code		
56	%IW16	十六进制	16#0601			Ch4 Error Code		
57	%D18	带符号十进制	5843255			Ch1 Current Location		
58	%ID22	带符号十进制	100000			Ch1 Current Velocity		
59	%D26	带符号十进制	0			Ch2 Current Location		
60	%ID30	带符号十进制	0			Ch2 Current Velocity		
61	%ID34	带符号十进制	0			Ch3 Current Location		
62	%ID38	带符号十进制	0			Ch3 Current Velocity		
63	%ID42	带符号十进制	0			Ch4 Current Location		10.
64	%ID46	带符号十进制	0			Ch4 Current Velocity		~
1				1111				>

h. The movement can be stopped by inputting a brake command or triggering a positive limit signal, as shown in the figure below.

	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
//	地址	显示格式	监视值	修改值	9	注释	变量注释	
23	%14.1	布尔型	FALSE			Ch2 Positive Limit Signal		~
24	%14.2	布尔型	FALSE			Ch2 Negative Limit Signal		
25	%14.3	布尔型	FALSE			Ch2 Home Signal		
26	%14.4	布尔型	FALSE			Ch2 Brake Signal		
27	%17.0	布尔型	FALSE			Ch3 Pulse Output Direction		
28	%17.1	布尔型	FALSE			Ch3 Pulse Status Flag 1		
29	%17.2	布尔型	FALSE			Ch3 Pulse Status Flag 2		
30	%17.3	布尔型	FALSE			Ch3 Homing Mode Running		
31	%17.4	布尔型	FALSE			Ch3 Position Mode Running		
32	%17.5	布尔型	FALSE			Ch3 Velocity Mode Running		
33	%17.6	布尔型	FALSE			Ch3 Homed		
34	%17.7	布尔型	FALSE			Ch3 Location Arrival		
35	%16.0	布尔型	FALSE			Ch3 Velocity Arrival		
36	%16.1	布尔型	FALSE			Ch3 Positive Limit Signal		
37	%16.2	布尔型	FALSE			Ch3 Negative Limit Signal		
38	%16.3	布尔型	FALSE			Ch3 Home Signal		
39	%16.4	布尔型	FALSE			Ch3 Brake Signal		
40	%19.0	布尔型	FALSE			Ch4 Pulse Output Direction		
41	%19.1	布尔型	FALSE			Ch4 Pulse Status Flag 1		
42	%19.2	布尔型	FALSE			Ch4 Pulse Status Flag 2		
43	%19.3	布尔型	FALSE			Ch4 Homing Mode Running		
44	%19.4	布尔型	FALSE			Ch4 Position Mode Running		
45	%19.5	布尔型	FALSE			Ch4 Velocity Mode Running		
46	%19.6	布尔型	FALSE			Ch4 Homed		
47	%19.7	布尔型	FALSE			Ch4 Location Arrival		
48	%18.0	布尔型	FALSE			Ch4 Velocity Arrival		
49	%18.1	布尔型	FALSE			Ch4 Positive Limit Signal		
50	%18.2	布尔型	FALSE			Ch4 Negative Limit Signal		
51	%18.3	布尔型	FALSE			Ch4 Home Signal		
52	%18.4	布尔型	FALSE			Ch4 Brake Signal		
53	%IW10	十六进制	16#0000			Ch1 Error Code		
54	%IW12	十六进制	16#0601			Ch2 Error Code		
55	%IW14	十六进制	16#0601			Ch3 Error Code		
56	%IW16	十六进制	16#0601			Ch4 Error Code		
57	%ID18	带符号十进制	7889330			Ch1 Current Location		
58	%ID22	带符号十进制	0			Ch1 Current Velocity		
59	%ID26	带符号十进制	0			Ch2 Current Location		
60	%ID30	带符号十进制	0			Ch2 Current Velocity		
61	%ID34	带符号十进制	0			Ch3 Current Location		
62	%D38	带符号十进制	0			Ch3 Current Velocity		~

### • Channel 1 on zero return

a. Configure the configuration parameters, select the zero return mode and set the zero return speed and zero approach speed as shown below.

常規 10 变量 系	续常数	文本		
	1	莫块参数		
输入 模块参数 WG Helth		XB6-P04A Parameter		
NO YEAR		Pulse Mode:	Pul+Dir	•
		Ch1 Startun Speed:	200	
		Homing Mode:	mode19	
		Ch1 Homing Speed:	1000	. Local
		Ch1 Homing Approach Speed:	500	
		Input Logic:	Limit Normally Open, Origin Brake Normally Open	-
		Ch1 Scaling:	1	
		Ch2 Startup Speed:	1	
		Ch2 Homing Mode:	mode24	•
		Ch2 Homing Speed:	1000	
		Ch2 Homing Approach Speed:	500	
	-	Ch2 Input Logic:	Limit Normally Open, Origin Brake Normally Open	-
		Ch2 Scaling:	1	
	-	Ch3 Startup Speed:	1	
	_	Ch3 Homing Mode:	mode24	<b>•</b>
		Ch3 Homing Speed:	1000	
		Ch3 Homing Approach Speed:	500	
		Ch3 Input Logic:	Limit Normally Open, Origin Brake Normally Open	<b>•</b>
		Ch3 Scaling:	1	
		Ch4 Startup Speed:		
		Ch4 Homing Mode:	mode24	<b></b>
		Ch4 Homing Speed:	1000	
	-	Ch4 Homing Approach Speed:	500	
		Ch4 Input Logic:	1	
		Ch4 Scaling.		

- b. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- c. Set the zero return command for channel 1 from 0 to 1 as shown below.

e 🔮 🖉	19 10 91 90 27 mm	יג 1						
i	名称 地址	显示格式	监视值	修改值	4	注释	<b>里</b> 注释	
5	%Q5.0	布尔型	FALSE			CH1 Running Direction		^
5	%Q5.1	布尔型	FALSE			CH1 Absolute/Relative Position Mode		
7	%Q5.2	布尔型	FALSE			CH1 Position/Velocity Mode		
3	%Q5.3	布尔型	FALSE	FALSE	A 1	CH1 Reset Coordinates		
9	%Q5.4	布尔型	FALSE			CH1 Start		
)	%Q5.5	布尔型	FALSE			CH1 Brake 刹车指:	<b>会为0</b>	
1	%Q5.6	布尔型		TRUE	A	CH1 Home 回零指	令从0到1	
2	%Q4.0	布尔型	FALSE			CH2 Running Direction		
3	%Q4.1	布尔型	FALSE			CH2 Absolute/Relative Position Mode		
1	%Q4.2	布尔型	FALSE			CH2 Position/Velocity Mode		
5	%Q4.3	布尔型	FALSE			CH2 Reset Coordinates		
5	%Q4.4	布尔型	FALSE			CH2 Start		
7	%Q4.5	布尔型	FALSE			CH2 Brake		
3	%Q4.6	布尔型	FALSE			CH2 Home		
9	%Q3.0	布尔型	FALSE			CH3 Running Direction		
0	%Q3.1	布尔型	FALSE			CH3 Absolute/Relative Position Mode		
1	%Q3.2	布尔型	FALSE			CH3 Position/Velocity Mode		
2	%Q3.3	布尔型	FALSE			CH3 Reset Coordinates		100
3	%Q3.4	布尔型	FALSE			CH3 Start		
15	%Q3.5	布尔型	FALSE			CH3 Brake		
5	%Q3.6	布尔型	FALSE			CH3 Home		
5	%Q2.0	布尔型	FALSE			CH4 Running Direction		
7.0	%Q2.1	布尔型	FALSE			CH4 Absolute/Relative Position Mode		=
3	%Q2.2	布尔型	FALSE			CH4 Position/Velocity Mode		
9	%Q2.3	布尔型	FALSE			CH4 Reset Coordinates		
)	%Q2.4	布尔型	FALSE			CH4 Start		
1	%Q2.5	布尔型	FALSE			CH4 Brake		
2	%Q2.6	布尔型	FALSE			CH4 Home		100
3	%QW6	无符号十进制	500	500		CH1 Acceleration Time		
£	%QW8	无符号十进制	500	500		CH1 Deceleration Time		
5	%QD10	无符号十进制	10000	10000		Ch1 Running Velocity		
5	%QD14	带符号十进制	0			Ch1 Running Position		
7	%QW18	无符号十进制	0			CH2 Acceleration Time		
3	%QW20	无符号十进制	0			CH2 Deceleration Time		
9	%QD22	无符号十进制	0			Ch2 Running Velocity		
00	%QD26	无符号十进制	0			Ch2 Running Position		
01	%QW30	无符号十进制	0			CH3 Acceleration Time		
02	%QW32	无符号十进制	0			CH3 Deceleration Time		
03	%OD34	无符号十进制	0			Ch3 Running Velocity		
14	%0038	天符是十进制	0			Ch3 Bunning Position		~

d. Back to zero mode 19 need to input the origin signal, after inputting the origin signal, decelerate to 0, and then again to return to zero close to the speed of the negative direction of movement, until the origin signal disappears, stop the movement back to zero is complete, you can see the channel 1 coordinates are cleared to zero, the completion of the return to zero is set to 1, as shown in the figure below.

10 10	10 11 9. 2 2 00 10						
1	名称 地址	显示格式	监视值	综改值	9	注释	安量注释
	%3.3	布尔型	FALSE			Ch1 Homing Mode Running	
	%/3.4	布尔型	FALSE			Ch1 Position Mode Running	
	%/3.5	布尔型	FALSE			Ch1 Velocity Mode Running	
	%/3.6	布尔型	TRUE			Ch1 Homed	
	%(3.7	布尔型	FALSE			Ch1 Location Arrival	
	%/2.0	布尔型	FALSE			Ch1 Velocity Arrival	
0	%/2.1	布尔型	FALSE			Ch1 Positive Limit Signel	
1	%/2.2	布尔型	FALSE			Ch1 Negative Limit Signal	
2	%12.3	布尔型	FALSE			Ch1 Home Signal	
3	%/2,4	布尔型	FALSE			Ch1 Brake Signal	
4	%15.0	布尔型	FALSE			Ch2 Pulse Output Direction	
5	965.1	布尔型	FALSE			Ch2 Pulse Status Flag 1	
6	%/5.2	布尔型	FALSE			Ch2 Pulse Status Flag 2	
2	%5.3	布尔里	FALSE			Ch2 Homing Mode Running	
8	%15.4	布尔型	FALSE			Ch2 Position Mode Running	
9	545.5	布尔曼	FALSE			Ch2 Velocity Mode Running	
0	%15.6	布尔型	FALSE			Ch2 Homed	
1	%15.7	相示型	FALSE			Ch2 Location Arrival	
2	504.0	布尔型	FALSE			Ch2 Velocity Amvel	
3	104.1	相示型	PALSE			Ch2 Positive Limit Signal	
4	104.2	布尔里	FALSE			Ch2 Negative Limit Signal	
2	7614.3	市小型	FALSE			Ch2 Brake Signal	
7.	547.0	來你用	FALSE			Ch3 Pulse Output Direction	
B'/	567.1	布尔型	FALSE			Ch3 Pulse Status Flag 1	
0	\$47.2	布尔图	FALSE			Ch3 Pulse Status Flag 2	
0	%17.3	布尔型	FALSE			Ch3 Homing Mode Running	
1	%17.4	布尔型	FALSE			Ch3 Position Mode Running	
3	%17.5	布尔型	FALSE			Ch3 Velocity Mode Running	
3	%17.6	布尔型	FALSE			Ch3 Homed	
4	547.7	布尔型	FALSE			Ch3 Location Arrival	
5	%16.0	布尔型	FALSE			Ch3 Velocity Arrival	
6.	%16.1	布尔型	FALSE			Ch3 Positive Limit Signal	
7	%16.2	布尔型	FALSE			Ch3 Negative Limit Signal	
8	%16.3	布尔型	FALSE			Ch3 Home Signal	
9	%16.4	布尔型	FALSE			Ch3 Brake Signal	
0	%19.0	布尔型	FALSE			Ch4 Pulse Output Direction	
1	%/9.1	布尔型	FALSE			Ch4 Pulse Status Flag 1	
2	%19.2	布尔型	FALSE			Ch4 Pulse Status Flag 2	
30	%19.3	布尔型	FALSE			Ch4 Homing Mode Running	
4	%19.4	布尔型	FALSE			Ch4 Position Mode Running	
5	%19.5	布尔型	FALSE			Ch4 Velocity Mode Running	
<u>6)</u>	%19.6	布尔型	FALSE			Ch4 Homed	
7	%19.7	布尔型	FALSE			Ch4 Location Arrival	
8	%18.0	布尔里	FALSE			Ch4 Velocity Arrival	
9/	%18.1	布尔型	FALSE			Ch4 Positive Limit Signal	
0	%18.2	布尔型	FALSE			Ch4 Negative Limit Signal	
1.0	%18.3	布尔型	FALSE			Ch4 Home Signal	
2.0	%18.4	布尔型	FALSE			Ch4 Brake Signal	
1	%/W10	十六进制	16#0000			Ch1 Error Code	
4	%IW12	十六进制	16#0601			Ch2 Error Code	
9// 2	%IW14	十六进制	1600601			Child Error Code	
9/	%IW16	十六进制	16#0601			Ch4 Error Code	
	%ID18	常行号十进制	0			Chil Current Location	
0 0	%ID22	带付雪十进制	0			Chil Current Velocity	
0	5026	带住马士班制	0			Ch2 Current Location	
	5030	带结与十进制	0			Ch2 Current velocity	
1	%ID34	市付等十进制	0			Ch3 Current Location	
9. 3	1038	市行与十批制	0			Chil Current Velocity	
4	1042	市村与于进制				Chie Corrent Location	

 Channel 1 turns on speed mode, running at 100 kHz, with the speed modified to 10 kHz during operation

2640 Jo 25 20 27	Calcel.		
常現 10 受重 糸	第二日 (元二日) (元三日) (元) (元) (元) (元) (元) (元) (元) (元) (元) (元		
常规	模块参数		
模块参数	XB6-P04A Parameter		
1/0 地址			
	Pulse Mode:	Pul+Dir	
	Brake Time:	200	
	Ch1 Startup Speed:	1	
	Homing Mode:	mode24	100
	Ch1 Homing Speed:	1000	
	Ch1 Homing Approach Speed:	500	
	Input Logic:	Limit Normally Open, Origin Brake Normally Open	1
	Ch1 Scaling:	1	
	Ch2 Startup Speed:	1	
	Ch2 Homing Mode:	mode24	100
	Ch2 Homing Speed:	1000	
	Ch2 Homing Approach Speed:	500	
	Ch2 Input Logic:	Limit Normally Open, Origin Brake Normally Open	100
	Ch2 Scaling:	1	
	- Ch3 Startup Speed:	1	
	Ch3 Homing Mode:	mode24	1
	Ch3 Homing Speed:	1000	
	Ch3 Homing Approach Speed:	500	
	Ch3 Input Logic:	Limit Normally Open, Origin Brake Normally Open	1
	Ch3 Scaling:	1	
	Ch4 Startup Speed:	1	
	Ch4 Homing Mode:	mode24	
	Ch4 Homing Speed:	1000	
	Ch4 Homing Approach Speed:	500	
	Ch4 Input Logic:	Limit Normally Open, Origin Brake Normally Open	100
	Ch4 Scaling:	1	

a. Configure the configuration parameters as shown below.

- b. Sets channel 1 to speed mode;
- c. Configure channel 1 to run at 100 kHz and the direction of motion to be 0 forward;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;

		10 9. 20 9	00 00							
	<i>u</i>	名称	地址	显示格式	监视值	修改值	4	注释	变量注释	
65			%Q5.0	布尔型	FALSE			CH1 Running Direction	运动方向为正转	~
66			%Q5.1	布尔型	FALSE	FALSE		CH1 Absolute/Relative Position Mode		
67			%Q5.2	布尔型	TRUE	TRUE		CH1 Position/Velocity Mode	速度模式	
68			%Q5.3	布尔型	FALSE			CH1 Reset Coordinates		
69			%Q5.4	布尔型		TRUE		CH1 Start	启动命令从0到1	
70			%Q5.5	布尔型	FALSE	-		CH1 Brake	刹车指今为0	
71			%Q5.6	布尔型	FALSE			CH1 Home	331344735	
72			%Q4.0	布尔型	FALSE			CH2 Running Direction		
73			%Q4.1	布尔型	FALSE			CH2 Absolute/Relative Position Mode		
74			%Q4.2	布尔型	FALSE			CH2 Position/Velocity Mode		
75			%Q4.3	布尔型	FALSE			CH2 Reset Coordinates		
76			%Q4.4	布尔型	FALSE			CH2 Start		
77			%Q4.5	布尔型	FALSE			CH2 Brake		
78			%Q4.6	布尔型	FALSE			CH2 Home		
79			%Q3.0	布尔型	FALSE			CH3 Running Direction		
80			%Q3.1	布尔型	FALSE			CH3 Absolute/Relative Position Mode		
81			%Q3.2	布尔型	FALSE			CH3 Position/Velocity Mode		
82			%Q3.3	布尔型	FALSE			CH3 Reset Coordinates		
83			%Q3.4	布尔型	FALSE			CH3 Start		
84			%Q3.5	布尔型	FALSE			CH3 Brake		
85			%Q3.6	布尔型	FALSE			CH3 Home		
86			%Q2.0	布尔型	FALSE			CH4 Running Direction		
87			%Q2.1	布尔型	FALSE			CH4 Absolute/Relative Position Mode		=
88			%Q2.2	布尔型	FALSE			CH4 Position/Velocity Mode		
89			%Q2.3	布尔型	FALSE			CH4 Reset Coordinates		
90			%Q2.4	布尔型	FALSE			CH4 Start		
91			%Q2.5	布尔型	FALSE			CH4 Brake		
92			%Q2.6	布尔型	FALSE			CH4 Home		15
93			%QW6	无符号十进制	500	500	🗹 🥼	CH1 Acceleration Time		
94			%QW8	无符号十进制	500	500	M 4	CH1 Deceleration Time		
95			%QD10	无符号十进制	100000	100000	M 4	Ch1 Running Velocity	运行速度100kH	7
96			%QD14	带符号十进制	0			Ch1 Running Position		
97			%QW18	无符号十进制	0			CH2 Acceleration Time		
98			%QW20	无符号十进制	0			CH2 Deceleration Time		
99			%QD22	无符号十进制	0			Ch2 Running Velocity		
100			%QD26	无符号十进制	0			Ch2 Running Position		
101			%QW30	无符号十进制	0			CH3 Acceleration Time		
102			%QW32	无符号十进制	0			CH3 Deceleration Time		
103			%QD34	无符号十进制	0			Ch3 Running Velocity		
104			%OD38	无符号十进制	0			Ch3 Running Position		~

e. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.

- f. Modify channel 1 to run at 10 kHz during motion;
- g. Reset the start command of channel 1 from 0 to 1 to start the motion merge as shown below.

1	名称 地址	显示格式	监视值	修改值	4		注释 变量注释	
5	%Q5.0	布尔型	FALSE				CH1 Running Direction	
5	%Q5.1	布尔型	FALSE	FALSE		A	CH1 Absolute/Relative Position Mode	
	%Q5.2	布尔型	TRUE	TRUE		4	CH1 Position/Velocity Mode	
	%Q5.3	布尔型	FALSE				CH1 Reset Coordinates	
	%Q5.4	布尔型	TRUE	TRUE			CH1 Start 启动命令重新置()再	1置1
	%Q5.5	布尔型	FALSE				CH1 Brake	-
	%Q5.6	布尔型	FALSE				CH1 Home	
	%Q4.0	布尔型	FALSE				CH2 Running Direction	
	%Q4.1	布尔型	FALSE				CH2 Absolute/Relative Position Mode	
	%Q4.2	布尔型	FALSE				CH2 Position/Velocity Mode	
	%Q4.3	布尔型	FALSE				CH2 Reset Coordinates	
	%Q4.4	布尔型	FALSE				CH2 Start	
	%Q4.5	布尔型	FALSE				CH2 Brake	
	%Q4.6	布尔型	FALSE				CH2 Home	
	%Q3.0	布尔型	FALSE				CH3 Running Direction	
	%Q3.1	布尔型	FALSE				CH3 Absolute/Relative Position Mode	
	%Q3.2	布尔型	FALSE				CH3 Position/Velocity Mode	
	%Q3.3	布尔型	FALSE				CH3 Reset Coordinates	
	%Q3.4	布尔型	FALSE				CH3 Start	
	%Q3.5	布尔型	FALSE				CH3 Brake	
	%Q3.6	布尔型	FALSE				CH3 Home	
	%Q2.0	布尔型	FALSE				CH4 Running Direction	
	%Q2.1	布尔型	FALSE				CH4 Absolute/Relative Position Mode	
	%Q2.2	布尔型	FALSE				CH4 Position/Velocity Mode	
	%Q2.3	布尔型	FALSE				CH4 Reset Coordinates	
	%Q2.4	布尔型	FALSE				CH4 Start	
	%Q2.5	布尔型	FALSE				CH4 Brake	
	%Q2.6	布尔型	FALSE				CH4 Home	
	%QW6	无符号十进制	500	500		A	CH1 Acceleration Time	
	%QW8	无符号十进制	500	500		A	CH1 Deceleration Time	
	■ %QD10	无符号十进制	▼ 10000	10000		4	Ch1 Running Velocity 运行读度10kH7	
	%QD14	带符号十进制	0				Ch1 Running Position	
	%QW18	无符号十进制	0				CH2 Acceleration Time	
	%QW20	无符号十进制	0				CH2 Deceleration Time	
	%QD22	无符号十进制	0				Ch2 Running Velocity	
0	%QD26	无符号十进制	0				Ch2 Running Position	
1	%QW30	无符号十进制	0				CH3 Acceleration Time	
2	%QW32	无符号十进制	0				CH3 Deceleration Time	
3	%QD34	无符号十进制	0				Ch3 Running Velocity	
4	%QD38	无符号十进制	0				Ch3 Running Position	
<				1111				>

h. Channel 1 can be seen decelerating to 10kHz motion as shown below.

	12 11 10 91 %	2 00 00						
i	名称	地址	显示格式	监视值	修改值	9	注释	变量注释
23		%14.1	布尔型	FALSE			Ch2 Positive Limit Signal	
24		%14.2	布尔型	FALSE			Ch2 Negative Limit Signal	
25		%14.3	布尔型	FALSE			Ch2 Home Signal	
26		%14.4	布尔型	FALSE			Ch2 Brake Signal	
27		%17.0	布尔型	FALSE			Ch3 Pulse Output Direction	
18		%17.1	布尔型	FALSE			Ch3 Pulse Status Flag 1	
9		%17.2	布尔型	FALSE			Ch3 Pulse Status Flag 2	
0		%17.3	布尔型	FALSE			Ch3 Homing Mode Running	
1		%17.4	布尔型	FALSE			Ch3 Position Mode Running	
12		%17.5	布尔型	FALSE			Ch3 Velocity Mode Running	
3		%17.6	布尔型	FALSE			Ch3 Homed	
4		%17.7	布尔型	FALSE			Ch3 Location Arrival	
5		%16.0	布尔型	FALSE			Ch3 Velocity Arrival	
6		%16.1	布尔型	FALSE			Ch3 Positive Limit Signal	
7		%16.2	布尔型	FALSE			Ch3 Negative Limit Signal	
8		%16.3	布尔型	FALSE			Ch3 Home Signal	
9		%16.4	布尔型	FALSE			Ch3 Brake Signal	
0		%19.0	布尔型	FALSE			Ch4 Pulse Output Direction	
1		%19.1	布尔型	FALSE			Ch4 Pulse Status Flag 1	
2		%19.2	布尔型	FALSE			Ch4 Pulse Status Flag 2	
3		%19.3	布尔型	FALSE			Ch4 Homing Mode Running	
4		%19.4	布尔型	FALSE			Ch4 Position Mode Running	
5		%19.5	布尔型	FALSE			Ch4 Velocity Mode Running	
6		%19.6	布尔型	FALSE			Ch4 Homed	
-7		%19.7	布尔型	FALSE			Ch4 Location Arrival	
8		%18.0	布尔型	FALSE			Ch4 Velocity Arrival	
9		%18.1	布尔型	FALSE			Ch4 Positive Limit Signal	
0		%18.2	布尔型	FALSE			Ch4 Negative Limit Signal	
1		%18.3	布尔型	FALSE			Ch4 Home Signal	
2		%18.4	布尔型	FALSE			Ch4 Brake Signal	
3		%IW10	十六进制	16#0000			Ch1 Error Code	
4		%IW12	十六进制	16#0601			Ch2 Error Code	
5		%IW14	十六进制	16#0601			Ch3 Error Code	
6		%IW16	十六进制	16#0601			Ch4 Error Code	
7		%ID18	带符号十进制	12811956			Ch1 Current Location	
8		%ID22	带符号十进制	10000			Ch1 Current Velocity	
9		%ID26	带符号十进制	0			Ch2 Current Location	
0		%ID30	带符号十进制	0			Ch2 Current Velocity	
1		%ID34	带符号十讲制	0			Ch3 Current Location	

The current position of channel 1 is 10000, move to the position of 20000, and modify the position to 50000 during the movement.

ボル アクリージェ アクリージェ マイ      ボル        ボル        ボル        ボル        ボル        ボル        ボル        ボル        ボル         ボル         ボル         ボル           ボル	
ALA ALA ALA ALA ALA ALA ALA ALA	
Pulse Mode: Pul-Dir Brake Time: 200 Ch1 Startup Speed: 1 Homing Mode: mode24 Ch1 Homing Approach Speed: 500 Ch1 Homing Approach Speed: 500 Input Logic: Limit Normally Open, Origin Brake Nor Ch1 Startup Speed: 1 Ch2 Startup Speed: 1 Ch2 Homing Mode: mode24 Ch2 Homing Speed: 1000 Ch2 Homing Speed: 500	
Brake Time:       200         Ch1 Startup Speed:       1         Homing Mode:       mode24         Ch1 Homing Speed:       1000         Ch1 Homing Approach Speed:       500         Input Logic:       Limit Normally Open, Origin Brake Nor         Ch1 Scaling:       1         Ch2 Startup Speed:       1         Ch2 Homing Mode:       mode24         Ch2 Homing Speed:       1000         Ch2 Homing Approach Speed:       500         Ch2 Homing Approach Speed:       1000         Ch2 Homing Approach Speed:       1000	
Chi Startup Speed: 1 Homing Mode: mode24 Chi Homing Speed: 1000 Chi Homing Approach Speed: 500 Input Logic: Limit Normally Open, Origin Brake Nor Chi Scaling: 1 Ch2 Startup Speed: 1 Ch2 Homing Mode: mode24 Ch2 Homing Speed: 1000 Ch2 Homing Speed: 1000 Ch2 Homing Approach Speed: 500	
Homing Mode: mode24 Ch1 Homing Speed: 1000 Ch1 Homing Approach Speed: 500 Input Logic: Limit Normally Open, Origin Brake Nor Ch1 Scaling: 1 Ch2 Startup Speed: 1 Ch2 Homing Mode: mode24 Ch2 Homing Speed: 1000 Ch2 Homing Speed: 500	
Ch1 Homing Speed: 1000 Ch1 Homing Approach Speed: 500 Input Logic: Limit Normally Open, Origin Brake Nor Ch1 Scaling: 1 Ch2 Startup Speed: 1 Ch2 Homing Mode: mode24 Ch2 Homing Speed: 1000 Ch2 Homing Approach Speed: 500	
Ch1 Homing Approach Speed: 500 Input Logic: Limit Normally Open, Origin Brake Nor Ch1 Scaling: 1 Ch2 Startup Speed: 1 Ch2 Homing Mode: mode24 Ch2 Homing Speed: 1000 Ch2 Homing Approach Speed: 500	
Input Logic: Limit Normally Open, Ongin Brake Nor Ch1 Scaling: 1 Ch2 Startup Speed: 1 Ch2 Homing Mode: mode24 Ch2 Homing Speed: 1000 Ch2 Homing Speed: 500 Ch2 Input Logic: Limit Normally Open, Orgin Balla Hom	
Ch1 Scaing: 1 Ch2 Startup Speed: 1 Ch2 Homing Mode: mode24 Ch2 Homing Speed: 1000 Ch2 Homing Speed: 500 Ch2 Homing Approach Speed: 500 Ch2 Homing Approach Speed: 500	rmally Open
Ch2 Startup Speed: 1 Ch2 Homing Mode: mode24 Ch2 Homing Speed: 1000 Ch2 Homing Speed: 500 Ch2 Homing Speed: 500 Ch2 Homing Approach Speed: 500	
Ch2 Homing Mode: Imode24 Ch2 Homing Speed: 1000 Ch2 Homing Speed: 500 Ch2 Homing Approach Speed: 500	
Ch2 Homing Speed: 1000 Ch2 Homing Approach Speed: 500	
Ch2 Homing Approach speed: 300	
	rmally Open
Ch2 Scaling: 1	many open
Ch3 Startup Speed: 1	
Ch3 Homing Mode: mode24	
Ch3 Homing Speed: 1000	
Ch3 Homing Approach Speed: 500	
Ch3 Input Logic: Limit Normally Open, Origin Brake Nor	rmally Open
Ch3 Scaling: 1	
Ch4 Startup Speed: 1	
Ch4 Homing Mode: mode24	
Ch4 Homing Speed: 1000	
Ch4 Homing Approach Speed: 500	
Ch4 Input Logic: Limit Normally Open, Origin Brake Nor	rmally Open 💌
Ch4 Scaling: 1	

a. Configure the configuration parameters as shown below.

b. The current position of channel 1 is 10000, as shown below.

	PLC_1 [CPU 1214	IC DC/DC/DC	〕▶ 监控与强制表	・ 监控表_1					
₩ ₹ <i>1</i>	2称	+th tub	見示格式	监视值	修改值	4	注 \$3	空間注経	
25		%14.3	<b>五</b> 尔南武	FALSE	10240-100	0	Ch2 Home Signal	×=44	~
26		%14.4	布尔刑	FALSE			Ch2 Brake Signal		
27		%17.0	布尔刑	FALSE			Ch3 Pulse Output Direction		_
28		9617 1		EALSE			Ch3 Pulse Status Flag 1		
29		%17.2	布尔利	EALSE			Ch3 Pulse Status Flag 2		
30		%17.3	布尔型	FALSE			Ch3 Homing Mode Running		
31		%17.4	布尔型	FALSE			Ch3 Position Mode Running		
32		%17.5	布尔型	FALSE			Ch3 Velocity Mode Running		
33		%17.6	布尔型	FALSE			Ch3 Homed		
34		%17.7	布尔型	FALSE			Ch3 Location Arrival		
35		%16.0	布尔型	FALSE			Ch3 Velocity Arrival		
36		%16.1	布尔型	FALSE			Ch3 Positive Limit Signal		
37		%16.2	布尔型	FALSE			Ch3 Negative Limit Signal		=
38		%16.3	布尔型	FALSE			Ch3 Home Signal		
39		%16.4	布尔型	FALSE			Ch3 Brake Signal		
40		%19.0	布尔型	FALSE			Ch4 Pulse Output Direction		
41		%19.1	布尔型	FALSE			Ch4 Pulse Status Flag 1		
42		%19.2	布尔型	FALSE			Ch4 Pulse Status Flag 2		
43		%19.3	布尔型	FALSE			Ch4 Homing Mode Running		
44		%19.4	布尔型	FALSE			Ch4 Position Mode Running		
45		%19.5	布尔型	FALSE			Ch4 Velocity Mode Running		
46		%19.6	布尔型	FALSE			Ch4 Homed		
47		%19.7	布尔型	FALSE			Ch4 Location Arrival		
48		%18.0	布尔型	FALSE			Ch4 Velocity Arrival		
49		%18.1	布尔型	FALSE			Ch4 Positive Limit Signal		
50		%18.2	布尔型	FALSE			Ch4 Negative Limit Signal		
51		%18.3	布尔型	FALSE			Ch4 Home Signal		
52		%18.4	布尔型	FALSE			Ch4 Brake Signal		
53		%IW10	十六进制	16#0000			Ch1 Error Code		
54		%IW12	十六进制	16#0601			Ch2 Error Code		
55		%IW14	十六进制	16#0601			Ch3 Error Code		
56		%IW16	十六进制	16#0601			Ch4 Error Code		
57		%ID18	带符号十进制	10000			Ch1 Current Location		
58		%ID22	带符号十进制	0			Ch1 Current Velocity		
59		%ID26	带符号十进制	0			Ch2 Current Location		
60		%ID30	带符号十进制	0			Ch2 Current Velocity		
61		%ID34	带符号十进制	0			Ch3 Current Location		
62		%ID38	带符号十进制	0			Ch3 Current Velocity		
63		%ID42	带符号十进制	0			Ch4 Current Location		
64		%ID46	带符号十进制	0			Ch4 Current Velocity		~

c. Sets channel 1 to absolute position mode;

d. Configure channel 1 to run at 20000 steps and 1kHz;

e. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;

f. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.

XB6-P04A →	PLC_1 [CPU 1214	C DODODCJ	> 监控与强制表	• 监控表_1					
2 2 B	19 10 91 90 2								_
1	名称	地址	显示格式	监视值	修改值	9	注释	变量注释	
65		%Q5.0	布尔型	FALSE			CH1 Running Direction		^
66		%Q5.1	布尔型	FALSE	FALSE	M 1	CH1 Absolute/Relative Position Mode	绝对位置模式	
67		%Q5.2	布尔型	FALSE			CH1 Position/Velocity Mode		
68		%Q5.3	布尔型	FALSE			CH1 Reset Coordinates		
69		%Q5.4	布尔型	TRUE	TRUE	M 🚹	CH1 Start	启动命令从0到1	
70		%Q5.5	布尔型	FALSE			CH1 Brake	刹车指令为0	
71		%Q5.6	布尔型	FALSE			CH1 Home		
72		%Q4.0	布尔型	FALSE			CH2 Running Direction		
73		%Q4.1	布尔型	FALSE			CH2 Absolute/Relative Position Mode		
74		%Q4.2	布尔型	FALSE			CH2 Position/Velocity Mode		
75		%Q4.3	布尔型	FALSE			CH2 Reset Coordinates		
76		%Q4.4	布尔型	FALSE			CH2 Start		
77		%Q4.5	布尔型	FALSE			CH2 Brake		
78		%Q4.6	布尔型	FALSE			CH2 Home		
79		%Q3.0	布尔型	FALSE			CH3 Running Direction		
80		%Q3.1	布尔型	FALSE			CH3 Absolute/Relative Position Mode		
81		%Q3.2	布尔型	FALSE			CH3 Position/Velocity Mode		
82		%Q3.3	布尔型	FALSE			CH3 Reset Coordinates		
83		%Q3.4	布尔型	FALSE			CH3 Start		
84		%Q3.5	布尔型	FALSE			CH3 Brake		
85		%Q3.6	布尔型	FALSE			CH3 Home		
86		%Q2.0	布尔型	FALSE			CH4 Running Direction		
87		%02.1	布尔型	FALSE			CH4 Absolute/Relative Position Mode		=
88		%02.2	布尔型	FALSE			CH4 Position/Velocity Mode		
89		%02.3	布尔型	FALSE			CH4 Reset Coordinates		
90		%02.4	布尔型	FALSE			CH4 Start		
91		%02.5	布尔型	FALSE			CH4 Brake		
92		%02.6	布尔型	FALSE			CH4 Home		
93		%OW6	无符号十进制	500	500		CH1 Acceleration Time		
94		%OW8	无符号十进制	500	500		CH1 Deceleration Time		
95		%OD10	无符号十进制	1000	1000		Ch1 Running Velocity	运行速度1kHz	
96		%OD14	带符号十进制	▼ 20000	20000		Ch1 Running Position	运行步数20000	
97		%OW18	无符号十进制	0			CH2 Acceleration Time	A11200000	
98		%OW20	天谷岩十进制	0			CH2 Deceleration Time		
99		%0022	天符是十进制	0			Ch2 Bunning Velocity		
100		%0026	天符是十进制	0			Ch2 Bunning Position		
101		%OW30	天符是十进制	0			CH3 Acceleration Time		
107		%OW32	天符号十进制	0			CH3 Deceleration Time		
103		%0034	天符号十进制	0			Ch3 Running Velocity		
104		%0038	天符号十进制	0			Ch3 Running Position		V
1					111		and the first of t		>

- g. During exercise, modify the channel 1 running step count to 50,000;
- h. Re-set the start command of channel 1 from 0 to 1 to start the motion merge as shown below.

		~ []								
i	名称	地址	显示格式	监视值	修改值	9		注释 变量注释		
5		%Q5.0	布尔型	FALSE				CH1 Running Direction		^
6		%Q5.1	布尔型	FALSE	FALSE		A	CH1 Absolute/Relative Position Mode		
7		%Q5.2	布尔型	FALSE				CH1 Position/Velocity Mode		
8		%Q5.3	布尔型	FALSE				CH1 Reset Coordinates		
9		%Q5.4	布尔型	TRUE	TRUE		Â	CH1 Start 启动命令重新置	0再置1	
0		%Q5.5	布尔型	FALSE				CH1 Brake		
1		%Q5.6	布尔型	FALSE				CH1 Home		
2		%Q4.0	布尔型	FALSE				CH2 Running Direction		
з		%Q4.1	布尔型	FALSE				CH2 Absolute/Relative Position Mode		
4		%Q4.2	布尔型	FALSE				CH2 Position/Velocity Mode		
5		%Q4.3	布尔型	FALSE				CH2 Reset Coordinates		
6		%Q4.4	布尔型	FALSE				CH2 Start		
7		%Q4.5	布尔型	FALSE				CH2 Brake		
8		%Q4.6	布尔型	FALSE				CH2 Home		
9		%Q3.0	布尔型	FALSE				CH3 Running Direction		
0		%Q3.1	布尔型	FALSE				CH3 Absolute/Relative Position Mode		
1		%Q3.2	布尔型	FALSE				CH3 Position/Velocity Mode		
2		%Q3.3	布尔型	FALSE				CH3 Reset Coordinates		-
3		%Q3.4	布尔型	FALSE				CH3 Start		
4		%Q3.5	布尔型	FALSE				CH3 Brake		
5		%Q3.6	布尔型	FALSE				CH3 Home		
6		%Q2.0	布尔型	FALSE				CH4 Running Direction		
7		%Q2.1	布尔型	FALSE				CH4 Absolute/Relative Position Mode		=
8	1	%Q2.2	布尔型	FALSE				CH4 Position/Velocity Mode		1
9		%Q2.3	布尔型	FALSE				CH4 Reset Coordinates		
0		%Q2.4	布尔型	FALSE				CH4 Start		
1		%Q2.5	布尔型	FALSE				CH4 Brake		
2		%Q2.6	布尔型	FALSE				CH4 Home		
3		%QW6	无符号十进制	500	500		A	CH1 Acceleration Time		
4		%QW8	无符号十进制	500	500		Ā	CH1 Deceleration Time		
5		%QD10	无符号十进制	1000	1000		Ā	Ch1 Running Velocity		
6		%QD14	带符号十进制	50000	50000		Ā.	Ch1 Running Position 运行步数50000	)	
7		%OW18	无符号十进制	0			-	CH2 Acceleration Time		
8		%OW20	无符号十进制	0				CH2 Deceleration Time		
9		%OD22	无符号十进制	0				Ch2 Running Velocity		
00		%OD26	无符号十进制	0				Ch2 Running Position		
01		%QW30	无符号十进制	0				CH3 Acceleration Time		
02		%OW32	无符号十进制	0				CH3 Deceleration Time		
03		%OD34	天符号十进制	0				Ch3 Bunning Velocity		
										1

i. After the movement, you can see that the current coordinates of channel 1 are 50000, as shown in the following figure.

XB6-P04A	PLC_1 [CPU 1	214C DC/DC/DC	〕→ 监控与强制表	・ 监控表_1				- 6	∎ = ×
alle alle alle		(71) no. no.							
₽ ₽° ##	1 Lo 71 %	1	0	the best day	10 3 L /#	1	12.87	100 EE 1.1. 107	
1	治称	1911	显示指式	□ 二 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	修改值	1	注释	受重汪科	
23		%14.1	布尔型	FALSE			Ch2 Positive Limit Signal		^
24		%14.2	布/小型 本 与 副	FALSE			Ch2 Negative Limit Signal		
25		%14.3	布尔型	FALSE			Ch2 Home Signal		
26		9614.4	布/小型 本句型	FALSE			Ch2 Brake Signal		
27		9617.0	布尔型	FALSE			Ch3 Pulse Output Direction		
28		9617.1	布尔型	FALSE			Ch3 Pulse Status Flag 1		
29		7617.2	布尔型	FALSE			Ch3 Pulse Status Flag 2		
30		%17.3	布尔型	FALSE			Ch3 Homing Mode Running		
31		%17.4	布尔型	FALSE			Ch3 Position Mode Running		
32		%17.5	佈尔型	FALSE			Ch3 Velocity Mode Running		
33		%17.6	布尔型	FALSE			Ch3 Homed		
34		%17.7	布尔型	FALSE			Ch3 Location Arrival		=
35		%16.0	布尔型	FALSE			Ch3 Velocity Arrival		
36		%16.1	布尔型	FALSE			Ch3 Positive Limit Signal		
3/		%16.2	布尔型	FALSE			Ch3 Negative Limit Signal		
38		%16.3	布尔型	FALSE			Ch3 Home Signal		
39		%16.4	布尔型	FALSE			Ch3 Brake Signal		
40		%19.0	伸小型	FALSE			Ch4 Pulse Output Direction		
41		%19.1	<b></b> 布尔型	FALSE			Ch4 Pulse Status Flag 1		
42		%19.2	<b></b> 布尔型	FALSE			Ch4 Pulse Status Flag 2		
43		%19.3	布尔型	FALSE			Ch4 Homing Mode Running		
44		%19.4	伸小型	FALSE			Ch4 Position Mode Running		
45		%19.5	布尔型	FALSE			Ch4 velocity Mode Running		
46		%19.6	- 布尔型 	FALSE			Ch4 Homed		
4/		%19.7	布尔型	FALSE			Ch4 Location Arrival		
48		%18.0	布/小型 本句型	FALSE			Ch4 velocity Arrival		
49		1618.1	布尔型	FALSE			Ch4 Positive Limit Signal		
50		%18.2	布尔型	FALSE			Ch4 Negative Limit Signal		
51		%18.3	布尔型	FALSE			Ch4 Home Signal		
52		1618.4	伸小型	FALSE			Ch4 Brake Signal		
53		9610010	十六进制	16#0000			Chil Error Code		
54		%IW12	十六进制	16#0601			Ch2 Error Code		
55		%IW/14	十六进制	16#0601			Chil Error Code		
56		%IW16	十六进制	16#0601			Ch4 Error Code		
57		%ID18	市付ち十进制	50000			Chil Current Location		
58		%ID22	市付亏十进制	0			child current Velocity		
23		%ID26	市付亏十进制	0			Ch2 Current Location		
60		%030	市付与十进制	0			Ch2 Current Velocity		
01		%ID34	市付ち十进制	0			Cha current Location		
62		%038	市付号十进制	0			Ch3 Current Velocity		~

## 6.4.2 Application in GX Works3 software environment

#### 1. Preliminary

- hardware environment
  - > Module Model XB6-P04A
  - Power Module, CC-Link IE Field Basic Coupler, End Cap
     This description takes the XB6-P2000H power supply, XB6-CB0002 coupler as an

#### example

- > One computer, pre-installed with GX Works3 software
- > Shielded cable for CC-Link IE Field Basic
- > Motor drives, stepper/servo motors and other equipment
- > One Mitsubishi PLC, this description takes R04ENCPU as an example
- > One switching power supply
- > Module mounting rails and rail mounts
- Device Configuration Files

Configuration file to get the address: https://www.solidotech.com/documents/configfile

Hardware configuration and wiring
 Please follow "<u>4 Mounting and dismounting</u> ""<u>5 Wiring</u> "" 5 Wiring "

### 2、Installation of CSP files

a. Open GX Work3 software, click "Tools" in the menu bar, and then click "Profile Management -> Login", as shown in the following figure.

工程(P) 编辑(E) 搜索/替	换(F) 转换(C) 视图	(V) 在线(O)	调试(B) 词	已录(R) 诊断(D)	工具(	T) 窗口(W) 帮助(H)									
C2957 0	- Xeim		IN PROBO	<b></b>	7	字储卡(Y)	. 10	▲最大:	•						
	A BRAN GALS OF	1 - <b>1</b> - <b>1</b>	1 1a -a -		芾	星序检查(G)									
导航 <sup>♀</sup> ×					4	参数检查(C)							部件选择		¢ ×
····································					10V	全局标签的分配软元件检查(D)							(部件搜索	E)	
					7	字储器容量计算(离线)(M)							3992343	自녀보	論
					ĩ	己录设置工具(U)							NC N	11	
					50	实时监视功能(A)							显示对!	k:	
					(	GX VideoViewer(V)									
					有	奠块工具一览(T)									_
					9	区动工具一览(L)									
					Ĩ	通信协议支持功能(R)									
					40	戋路跟踪(I)									
					Į.	固件更新(E)							部 收	履 模	库
					l	配置文件管理(P)	•	登录(R)					配置详细	信息输入	
					î	简单设备通信库登录(B)		删除(D)							
					E	配置管理(N)	•								
					4	革本库登录(S)									
					F	B属性管理(图线)(F)									
					1	央捷键(K)									
					Ø 3	先项(O)									
	进度														
															^
■连接目标 🎥导航															
+ 快速搜索 + ×															
搜索对象:全部(A)-															~
10000 0000 among (V V	■输出 ==进度														

6 Use

b. In the pop-up box, select the CSP file you want to add and click "Login" to complete the installation, as shown below.



Note: The configuration file does not need to be unpacked and the project needs to be closed during installation.

## 3、Create Project

- a. Click "Project" in the menu bar and click "New Project".
- b. The New Project dialog box pops up, select "RCPU" for PLC series, "R04EN" for PLC type, and default ladder diagram for program language.
- c. Click OK, as shown below.



## 4、Setting up to use the CC-Link IE Field Network Basic

a. In the left navigation interface, select "Parameter -> CPU Module Model", double-click "Module Parameter", set the IP address of CPU under IP Address Setting, and select "Use" in the drop-down box of "Use or not use" of CC-Link IEF Basic, as shown in the following figure. Select "Use" in the drop-down box of "CC-Link IEF Basic" or "Use", as shown in the following figure.

导航	ů ×	🍓 ProgPou [PRG] [局 🧧 ProgPou	[PRG] [LD & RO4ENCPU 模块	参数 ×	Þ 🕶
····································			设置项目		
新工程	^	在此输入要搜索的设置项目 備	项目	设置	^
直横は配置图			□ 自节点设置		
		PE 87	- 参数设置方法	在参数中设置	
10 2005		■◎ 基本设置	⊖ IP地址设置		
- 曲扫描		- CC-Link IEF Basic设置	IP地址	192.168.3.222	
		一 对象设备连接配置设置	一子网推码	255 . 255 . 0	
- DrogDou		<ul> <li>通信用端口改置</li> <li>申慮应用扱置</li> </ul>	二 默认网关		
		the same start of the same	──通过网络号/站号通信	祭用	
- 把皮太休			— 网络号与站号的设置方法	使用IP地址	
			— 网络号		
111日月月月			山 站号		
			- RUN中的与人允许/亲正设置	批重禁止(SLMP)	
			通信数据代码	二进制	
			一 议直引开方法	个在程序中OPEN	
■ 木豆求程序			CC-Link IEF Basic WI	77 (4, 77	
E FB/FUN			CC-Link IEF Basic 使用有尤	个使用 💙	
■ 4 标签			- 阿洛配直纹直	不使用	
■醫软元件			一別新议宣	使用	
= 🗤 参数			一対象议会进行能量议員	- 14 (m17) (m)	
₽ 系統参数			一 对家议备进按配直议直	(注明设置)	
= 🗱 R04ENCPU			一週信用項口改重	4.0	
P CPU参数			— MELSOFT)通信端口 UDP/IP	使用	~
◎模块参数			说明		
目存储卡参数			设置[使用]、[不使用]CC-Link IEB	见场网络Basic。	
樹 模块信息		项目一览 搜索结果	检查(K) 恢复为默认	(U)	
🔓 远程口令	~				
會连接目标 ":导航				应用 ( <u>A</u> )	

b. Under the Settings item interface, select "Network Configuration Settings" and double-click "Detailed Settings", as shown in the following figure.
ア目       第目       第目         ● 基本设置       ● 参议复方法       在参数中设置         ● ● 首节点设置       ● 参议复方法       在参数中设置         ● ● 目节点设置       ● 参议复方法       在参数中设置         ● ● 目节点设置       ● 学校理方法       192.168.3.222         ● の「日本山口田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	🖢 ProgPou [PRG] [局 🕒 ProgPou	u [PRG] [LD <mark>&amp; R04ENCPU 模块</mark>	A参数× <mark></mark>	4 Þ
■ 日本放置         ■ 日本放置         ■ 日本放置         ● 日本設置         ● 日本	在此输入要搜索的设置项目	项目		^
<ul> <li>● 日本设置</li> <li>● 日本以用</li> <li>● 日本</li> <li>● 日本</li></ul>	PE 82	□目节点改置 参数设置方法	在参数中设置	
RIN中的写入允许/禁止设置     批量禁止(SIMP)       通信数据代码     二进制       设置打开方法     不在程序中OPEN       CC-Link IEF Basic使用有无     使用       CC-Link IEF Basic使用有无     使用       内然在度设置     《详细设置》       JN素设备连线配置设置     《详细设置》       JN素设备连线配置设置     《详细设置》       通信用端口设置     《详细设置》       BLSOFT通信端口 UDP/IP     使用	3→基本设置 ● 自节点设置 ● CC-Link IEF Basic设置 → 対象设备连接配置设置 通信用端口设置	<ul> <li>□ IP地址设置</li> <li>□ IP地址</li> <li>子 网推码</li> <li>默认网关</li> <li>□通过网络号/站号通信</li> <li>网络号与站号的设置方法</li> <li>网络号</li> <li>站号</li> </ul>	192.168.3.222 255.255.255.0 · · · 蔡用 使用IP地址	
「外務会選定置」     〈非田设置〉     」       - 利新設置     〈洋田设置〉       - 利新設置     〈洋田设置〉       - 利新設置     〈洋田設置〉       - 利新設置     〈洋田設置〉       - 利新設置     〈洋田設置〉       - 通信用端口設置        - MELSOFT通信端口 UDP/IP     使用		RUN中的写入允许/禁止设置           通信数据代码           设置打开方法           CC-Link IEF Basic 设置           CC-Link IEF Basic使用有无	批量转止(SLMP) 二进制 不在程序中OPEN 使用	
→ 题有用分编 L 改正 MELSOFT通信端口 UDP/IP 使用 50月11		网络航置设置 刷新设置 ■ 对象设备连接配置设置 对象设备连接配置设置 对象设备连接配置设置	(洋畑伐重) (洋畑伐重) (洋畑役置)	
执行用于执行循环传送的设置。         人           面口一面 搜索结果         检查(K)         恢复为默认(U)	<b>项目一览 搜索结果</b>	通信用端口发置           MELSOFT通信端口 UDP/IP           说明           执行用于执行循环传送的设置。           检查(X)         恢复为默认	使用 	v

c. In the pop-up window of CC-Link IEF Basic configuration, click "Auto Detection of Connected Devices" to automatically add the connected modules to the network, as shown in the following figure.



#### 5、Read parameters

- a. In the window of CC-Link IEF Basic configuration, right-click on the slave device and select "Online
  - -> Process Slave Parameters", as shown in the following figure.

2	CC-L	ink <mark>IE</mark> I	F Basic配置													$\times$
C	C-Link	IEF B	asic配置(I) 编辑(E) 视图	图(V) 取消	肖设置并关闭(A) 质	反映设置并关闭(R)										
_	_ 连接	设备的	的自动检测 链接扫描	苗 <mark>设置</mark>									模块一览	Racici#IR	烟赤横地	×
		山湖	刑忌	51- JL	米利	RX/RY设置			RW	w/RWr设	置.	组			反於快吠	收
Ŧ		1 90	至与	20.42	如天至	点数	起始	结束	点数	起始	结束	No.	⊕ CC-Link	IEF Basid	设备(通	用) 🛕
	-	0	本站	0	主站					_			□ CC-Link	IEF Basid	设备(三	菱电
		1	XB6-CB0002	1	从站	64(占用1站)	0000	003F	32	0000	001F	1	■ 输入模块	ŧ		
本: 站底发意	< 活号0 选择 任 1 注 1 出 出	in in in its second sec	h 梦1 删除(D) 36- 000 居性(R)	连接设计 反映从如 处理从如	备的自动检测(T) 占的通信设置(C) 占的参数(S)							>	■ 前小校 ■ I/0组合 ■ 何服放大 ■ 何服放大 ■ GOT2000 ■ Inverte ■ Inverte ■ Inverte ■ Inverte ■ CCIEF Bas ■ CCIEF Bas	W块 :器(MR-JF 器(MR-JF 器(MELSF Series r (FR-A8) r (FR-F8) Sensor sic设备(h	条列) RVO-J4 00 Serii 00-NE) 00 Serii	系列) es) Soli <sub>ン</sub> ×

 b. In the parameter pop-up window of the processing slave, set the execution processing to "Parameter Reading" and click "Execute" to finish reading the relevant parameters, as shown in the



# 6、Number of write modules

a. In the parameter pop-up window of the processing slave, set the execution processing to "Parameter Write", click "Release All", check the "Connect Total" function option, and write the total number of IOs of the actual topology connection in the "Write Value" of "Connect Total", and then click "Execute" to complete the configuration distribution. In the "Write Value" of "Connect Total", write the total number of IOs connected to the actual topology, and then click "Execute" to complete the configuration, as shown in the figure below. Click "Execute" to complete the configuration distribution, as shown in the following figure.

24%       初始值       单位       诗文道       单位       设置范围       说明         △ Assign Input       NULL       NULL       NULL       Assign Output         □ Assign Veptut       NULL       NULL       Assign Output         □ Information       □ SubModule Information       SubModule Information         □ Hardware Version       0.0.000       0.0.000       Hardware version of 1         ○ Software Version       0.0.000       0.0.000       Software version of 1         ○ Cocupied Station       □       1       1~4       Occupied Station         ○ Connect Total       0       1       1~4       Occupied Station         ○ Connect Total       0       1       1~32       Connect Total of IO         ぐ Connect Total       0       1       1 ~4       Occupied Station         ○ Connect Total       0       1       1 ~32       Connect Total of IO         ぐ Connect Total       0       1       1 ~32       Connect Total of IO         ✓       ご 方除全部[[決取伯](股)       清除全部[[马へ道員]       2          正选择的处理中没有选项。	行处理( <b>1</b> ): 参数写入 参数信息 选中的参数为选择的处理对象。	·部解除 (L)	执	行对象设备	的参数写	λ.			
Occupied Station         1         1 ~ 4         Occupied Station           Connect Total         0         1         1 ~ 4         Occupied Station           Connect Total         0         1         1 ~ 32         Connect Total of IO           <            3                 3           3                3	名称 Assign Input Assign Output Information Hardware Version Software Version	初始值 NULL NULL 0.0.0.00 0.0.0.00	单位	读取值 NULL NULL 0.0.0.00 0.0.0.00	单位	写入值	单位	设置范围	说明 Assign Input Assign Output SubModule Information Hardware version of th Software version of the
< 注意 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Occupied Station     Occupied Station     Connect Total     Connect Total	0		1			1	1~4 0~32	Occupied Station Connect Total of IO
已选择的处理中没有选项。 •对[对象设备信息]的设备执行处理。				除全部[写入	.值]( <u>C</u> )				>
•对[对象设备信息]的设备执行处理。	< 清除全部[读取值]( 处理选项	3)	消	141-1419 E 47 -					
•使用[当前的连拔目标]访问设备。请确认连按目标是否有问题。 •关于画面上未显示内容的项目的信息请参考设备的手册。	《 清除全部[读取值]( 处理选项	8)	清) 己选:	择的处理中注	没有选项	0			

Note: Writing the number of modules is a necessary step for communication and must be performed.

# 7、Number of occupied stations selection

a. In the Parameter popup window of the processed slave, set the Execute Process to "Parameter Read", and record the read value of "Occupted Station" as "1", as shown in the figure below. The following figure shows.

~~~~	JA2142	-MK -45 E HH-										
对象	9设备	信息:	XI SŁ	36-CB0002 1号:1								\$\$\$
执行	<b></b>	(M) :	参数读取			~ 从对	象设备执	、行参数的读	朝。			^
	参数( 选中)	信息 的参数为	选择的处理对象	20		Occi	upie	ed St	atio	n为帮	周合器占用站数,	L/H-12
		全选	(A)	全部解除(L)		需要	当月	リリン首	i实电	火出米	后返回配直贝面手	
1		名称 Produ Assig Assig ⊂ Infor Har Sof pied St Occup nect Tot Conne	ot Name n Input n Output nation dware Version tware Version tion ied Station d ot Total 清除全部[读明	37)Abffi NULL NULL NULL NULL NULL 1 0.0.0.00 1 1 0 R(fill ) (R)	单位 	读取值 NULL NULL NULL NULL 0.0.0.00 0.0.000 1 1	全部写	与入値	单位 	设置范围 1~4 0~32	读用 Froduct name of the slave device Assign Input Assign Output Subflodule Information Mardware version of the slave devi Software version of the slave devi Occupied Station Connect Total of IO	ce ce
	· · · · · · · · · · · · · ·	远坝 对象设备 月1当前的 月画面上:	信息101设备执 注援目标1访问 未显示内容的项	行处理。 设备。请确认连接目 目的信息请参考设备	际是否有 約手册。	已选择的问题。	处理中级	有选项。				へ ~ 执行(X)
		导入	(I)		Ц(E)							关闭

b. Select the number of occupancy according to the value read, here select occupancy 1 station, click "Reflect Settings and Close" to complete the configuration, as shown in the following figure.

trttx Crimit Lage     trttx Crimit L	CC-Li	nk IEF E	Basic配置(I) 编辑(E) 视	图(V) 取消	肖设置并关闭(A) 反	映设置并关闭(图)							
自我       型号       站号       就类型       RX/RY设置       RW#/RY-设置       拍No.         ● 0 本站       0 主站       点数       点齿       点板       品価       台板       BCC-Link IEF Basic 设备()       BCC-Link IEF Basic db()       BCC-Link IEF Basic db()       BCCC		接以命	1 1 1 1	<u> </u>									模块一览
▲ ● 0 本站 0 主站 2 0 0 0 2 日 0 1 日 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>A</b>	台数	쩿뮥	站号	站类型	RX/RY设置			RW	w/RWr 设	買	HNo.	- CC-Link IEF Basic选择   搜索模块   收藏列 
■ 1 XB6-CB0002 1 从站 64(清用133) 0000 003F 32 0000 001F 1 ■ 输出极块 ■ 協力极块 ■ 輸出极火 ■ 何服放大器 (ME_JE系列) ■ 何服放大器 (ME_JE系列) ■ 何服放大器 (ME_JE系列) ■ 何服放大器 (ME_JE系列) ■ 可服放大器 (ME_JE系列) ■ 可能放大器 (ME_JE系列) ■ 可能放大器 (ME_JE系列) ■ 可能放大器 (ME_JE系列) ■ TOTAL (ME_JE系列) ■ TOTAL (ME_JE系列) ■ TOTAL (ME_JERN) ■ TOTA		0	本站	0	主站	点数	起始	结束	点数	起始	结束		■ CC-Link IEF Basic设备(通用)
	39	1	XB6-CB0002	1	从站	64(占用1站)	0000	003F	32	0000	001F 1	§	■输入模块
14410	< 本站 站号0 急连接 数:1 急站数	》 全 (:1 XI <	4 5 1 									3	■ 阿服及入部(MK-JEA797) ■ 何服及大部(MK-JEA797) ■ GOT2000Series ■ Inverter (FR-A800 Series) ■ Inverter (FR-F800 Series) ■ Vision Sensor ■ CCIEF Basic没希(Nanjing Soli ■ Value terminal
	輸出	_		_			_	_	_	_	_		

# 8、Refresh Side Setting

- a. In the left navigation interface, select "Parameter -> CPU Module Model", double click "Module Parameter".
- b. Under the Setting item interface, select "CC-Link IEF Basic Settings -> Refresh Settings", double click "Detailed Settings", as shown in the following figure.

	设置项目		
本止给入更抑索的沿置项目	项目	设置	^
	□ 自节点设置		
	参数设置方法	在参数中设置	
□ ② 基本设置	— IP地址设置		
-◎ 自节点设置	IP地址	192 . 168 . 3 . 222	
→ CC-Link IEF Basic 设置 対象沿条连接配置沿置	子网ੰ码	255 . 255 . 255 . 0	
通信用端口设置	默认网关		
田龜 应用设置	口通过网络号/站号通信	茶用	
	网络号与站号的设置方法	使用IP地址	
	网络号		
	站号	*****	
	RUN中的写入允许/禁止设置	批量禁止(SLMP)	
	通信数据代码	二进制	
	设置打开方法	不在程序中OPEN	
	- CC-Link IEF Basic 设置		
	- CC-Link IEF Basic使用有无	使用	
	网络配置设置	<详细设置>	
	刷新设置	〈详细设置〉	
	- 对象设备连接配置设置		-
	对象设备连接配置设置	<详细设置>	
	□通信用端口设置		
	MELSOFT通信端口 UDP/IP	使用	~
	10.11		
	设置刷新。	^	
适日一些 地索社里	检查(K) 恢复为默认	(U)	
· 火日 见 这款印本			
		应用 ( <u>A</u> )	

c. Configure the relevant parameters, after the configuration is complete, click "Apply", as shown in the following figure.

	设置项目
在此输入要搜索的设置项目	
Che Dry	
■ ● 基本设置	链接例 CPU例
一●自节点设置	教元件名 点数 起始 结束 <u>刷新目标 软元件名 点数 起始 结束</u>
— ◎ CC-Link IEF Basic议置 — 对象设备连接配置设置	RX 64 00000 0003F 🖶 指定软元件 🗸 X 🗸 64 00100 0013F
一通信用端口设置	RY 64 00000 0003F ↔ 指定软元件 ∨ Y ∨ 64 00100 0013F
由‱ 应用设置	RWr 32 0000 0001F 🖶 指定软元件 🗸 D 🖌 32 1000 1031
	RWw 32 00000 0001F 🖶 指定软元件 🗸 D 🖌 32 2000 2031
	说明
	显示则新范围的结束的CPU软元件的软元件号。
	↓
· · · · · · · · · · · · · · · · · · ·	检查(K) 恢复为默认(II)
坝目一觉 搜系结米	
	应用(A)

#### 9, Parameterization

- a. In the CC-Link IEF Basic Configuration window, right-click on the slave device and select "Online -> Process Slave Parameters".
- b. In the parameter pop-up window of the processing slave, set the execution processing to "Parameter Write", and click "Release All" to configure the parameters individually, as shown in the following figure.

<b></b> 设备	信息: XB6-CB0002 站号:1									
亍处理	(1): 参数写入		~	执行对象设备	的参数间	[λ.				
参数( 选中)	信息 的参数为选择的处理对象。	余(L)	L							
	名称	初始值	单位	读取值	单位	写入值	单位	设置范围	说明	
Pulse	e I/O Parameter	n (n)	_	1				1		
븜	Pulse_Mode Brake_time	PulDir	-		_			20- 5000	Pulse Mode Select	F
H	Ch1 Startup Speed	1						0~200000	Ch1 Startup Speed Set	
	Ch1 Homing Mode	mode 24	-	-		-		200000	Ch1 Homing Mode Sele	į.
	Ch1 Homing Speed	1000			_			1~200000	Ch1 Homing Speed Set	ł.
	Ch1 Homing Approach Speed	500	1					1~200000	Ch1 Homing Approach	l
	Ch1 Input Logic	Limit Norm							Ch1 Input Logic Select	
	Ch1 Scaling	1						1~60000	Ch1 Scaling Setting	l
<			1	×					>	
_	14-14 A 14-17-14-17-14-5									
	清除全部[读取值](图)		1	前除全部1与)	<(值]( <u>C</u> )					
处理试	选项									
			已追	选择的处理中	没有选项					
• 对D	对象设备信息]的设备执行处理。									
• 使月 • 辛干	1[当前的连接目标]访问设备。请	确认连接目标	是否有	问题。						
	and any constraint a fit way with the fit way	1135 5 64 IN 113	4 /44 0							
									执行(X)	

c. For example, to modify the startup parameters, you can check the "Startup Speed" function option, and then write the modified values in the "Write Value" of "Startup Speed" as required. Write the modified value in the "Write Value" of "Startup Speed" as required. After the setting is completed, click "Execute" to save the parameter to the coupler, and at the same time, download the parameter to the controller to make the parameter take effect, as shown in the following figure.

全选	收为选择的处理对象。								
名称	生( <u>A</u> ) 全部解除	;(L) 初始值	单位	读取值	单位	写入值	单位	设置范围	说明
Pulse I/O	Parameter	De Mir Jac		10. pape		27 4112		(C. M. 10114	0077
D Puls	e Mode	PulDir					_		Pulse Mode Select
Brak	ke time	200						20~5000	Brake Time Setting
Ch1	Startup Speed	1				1	.00	0~200000	Ch1 Startup Speed Set
Ch1	Homing Mode	mode 24							Ch1 Homing Mode Sele
Ch1	Homing Speed	1000						1~200000	Ch1 Homing Speed Set
Ch1	Homing Approach Speed	500						1~200000	Ch1 Homing Approach
Ch1	Input Logic	Limit Norm							Ch1 Input Logic Select
Ch1	Scaling	1						1~60000	Ch1 Scaling Setting
<									>
	清除全部[读取值]( <u>B</u> )		1	青除全部[写入	、值]( <u>C</u> )				
处理选项									
			已送	达择的处理中	没有选项	•			
·对[对象设	2备信息]的设备执行处理。	动口波接自接。	具不方	6-1 106					
•关于画面	上未显示内容的项目的信息	请参考设备的	手册。	17827					

6 Use

- d. Click Close.
- e. A popup box appears, "The set values are canceled when you close the (CC-Link IEF Basic Configuration) screen, so please perform parameter writing or exporting before closing it", click "Yes".

# 10. Download setup parameters

a. Click "Convert" in the menu bar, click "Convert All", as shown below.

工程(P) 编辑(E)	搜索/替	换(F)	转换	(C) 视图(V)	在线(O)	调试(B)	记录(R)	诊断(D	)工具	(T) 窗	⊐(W)	帮助(H)							
DBBS () ()			<b>P</b>	转换(B)		F4			, ( <b>1</b>		ĐE	)+I+		-001	and the second s	最大:	•	-	<b>.</b>
		Deve		转换+RUN中	写入(0)	Shift+F4	1												
导航	ą×	& Pro	<i>(</i> 77	全部转换(R)	Shift	+Alt+F4	[LD	& RO-	4ENCP	J模块纲	数×								
····································	-			语法检查(H)			• 2日												
<b>新工程</b>	^			程序文件设置	E(P)														
■ 模块配置图		De D		工作表执行顺	则序设置(W	/)													
= 🥶 程序				设置(S)				链接侧	i	1		1		CPII例			-		
🛍 初始			OI	节点设置			<b>次元件</b> 名	点数	起始	结束		刷新目标		软元件名	点数	起始	结束		
= 🛍 扫描			C CC	-Link IEF B	asic设置	R		64	00000	0003F	#	指定软元件	~	X V	64	00100	0013F		
= 🕾 MAIN			通	家以奋圧按問	CEQE f	R		64	00000	0003F		指定软元件	~	Y v	64	00100	0013F		
= 🖻 ProgPou			应用	设置		R	r	32	00000	0001F	+	指定软元件	~	D ~	32	1000	1031		
🔓 局部标签						RV	w	32	00000	0001F	+	指定软元件	~	D ~	32	2000	2031		
🖬 程序本体																			
🛍 恒定周期																			
●事件																			
41 待机																			
41 无执行类型指制	Ê																		
👜 未登录程序																			
🖆 FB/FUN																			
🛚 🚨 标签																			
■ 🖆 软元件																			
= 🗛 参数																			
🔮 系统参数						191	H												
= 🗛 R04ENCPU						显	「刷新范	目的结束	的CPU软	元件的	次元作	号。							
🦸 CPU参数						根书	图网络配置	建设置中	设置的主	占数及占	用站	数决定结束的转	次元	件号。					
爲模块参数																			
■存储卡参数																			
🙆 模块信息		项目	一览	搜索结果			检查(K)		恢复	为默认(	<u>U</u> )								
🌆 远程口令	×																		
■ 连接日标 ● 号航																			

b. Click "Online" in the menu bar, and then click "Write to Programmable Controller" to write the set parameters to the CPU module of the master station, as shown in the figure below.

工程(P) 编辑(E) 搜索/替	换(F) 转换(C) 视图(V) 7	在线(O) 调试(B) 记录(R) 诊断(D	) 工具(T) 窗口(W) 帮助(H)
D <b>C</b> BS () ()	🔏 📑 😁 📪	当前连接目标(N)	╡╗╗╴╗ ĐQ+ŀ  ▼、 ™ ■CCIT#PCà 最大: ▼
		P 从可编程控制器读取(R)	
导航 🕴 ×	🍓 ProgPou [PRG] [局	₽ 写入至可编程控制器(W)	NCPU 模块参数 ×
🐨 🗘 全部 🗸		与可编程控制器校验(V)	
▶工程 ^		远程操作(S)	
■ 模块配置图		安全可编程控制器操作(F)	•
= 🔙 程序	□◎ 基本设置	冗余可编程控制器操作(G)	• CPU例
▲ 初始 - # +7+#	-●自节点设置 -●CC-Link IEF Ba	CPU存储器操作(O)	始 结束 刷新目标 软元件名 点数 起始 结束
■ 创 扫描	一 对象设备连接面	删除可编程控制器的数据(D)	000 0003F 🖶 指定软元件 🗸 X 🗸 64 00100 0013F
M <sup>*</sup> MAIN	一通信用端口设置 の系 応用設置	用户数据(E)	,000 0003F ∯ 指定軟元件 ∨ Y ∨ 64 00100 0013F
= M ProgPou		时钟设置(C)	000 0001F 🖨 指定取元件 🗸 D 🗸 32 1000 1031
····· 同部标金 •····································		istraction ( c).iii	000 0001F    指定款元件 ∨ D ∨ 32 2000 2031
■ 柱序中译 ● 标志用期			
□ 但上问别 4) 車/H		FB周性官理(住线)(P)	
4 生切		监看(T)	
■ 1寸10 曲 无执行米刑指定		用户认证(U)	,
▲ 主祭司印度			
■ 木豆 永柱 / J <sup>i</sup> ● FR/FLIN			
· 值 标签			
■ ≝ 軟元性			
= 0. 参数			
> xx > 系统参数			
= & RO4ENCPU		13.9	的的时期二件的排二件品
🔮 CPU参数		根据网络配置设置中	设置的站数及占用站数决定结束的软元件号。
息模块参数			
■ 存储卡参数			
@ 模块信息	面目一览 搜索结果	检查(K)	恢复为默认 (U)
▲远程口令 ✓	-XH 35 XXXHX		
· 连接日标 · 日标			

c. The "Online Data Operation" dialog box will pop up, select "Select All", as shown in the following figure.

在线数据操作									2 <del>713</del>		$\times$
显示(D) 设置(S)	关联功能(U)										
🔜 ) 🏢 写入	🖳 👭 🌆 i	実取 📙	ļ,	THE	校验	300	🏿 删除				
参数+程序(F) 井闭全部树状	全选( <u>A</u> ) 全部解除(	示例 ◆ CPUP	内置存	F储器	SD	存储卡	뤕 智	能功能模块			
模块型号/数据名		*	5		详细	标题		更新时间	大小(字	(古)	^
■ ¶ 工程未设置											
□● 参数											
● 系统参	数/CPU参数	~						2023/8/15	未计算		
◎ 模块参	数	~						2023/8/15	未计算		
─■ 存储卡	参数					2		2023/8/15	未计算		
🔓 远程口	令							2023/8/15	未计算		
□ 础 全局标签											
▲ 全局标:	<b>这边</b> 器							2023/8/15	未计符		~
<										>	•
存储器容量显示	(L) 😵										
存储器容量 大小计算( <u>I</u> )	程序存储器									可用空间 154/160KI	3
示例	数据存储器									可用空间	
■ 己用容量 ■ 増加容量	软元件/标签存储	器(文作	+存储	区域)						1757/2049 可用空间	9KB
■減少容量 ■剩余容量为5%	SD存储卡									可用空间 0/0KB	,
								Γ	执行( <u>E</u> )	¢	6闭

- d. Click on "Execute".
- e. A pop-up box appears, "After executing Remote STOP, do you want to execute PLC Write?" Select "Yes".
- f. A lower level prompt box pops up "Parameters already exist, do you want to overwrite them?" Select "Yes to all".
- g. A lower level prompt box pops up "No data exists in the soft component comment (COMMENT). No write was performed." Click OK.
- h. A prompt box "CPU is in STOP state. Select "Yes".
- i. A pop-up box "Completed" click "OK".
- j. At this point, the download of setup parameters is complete, click "Close".
- k. Disconnect the module from the PLC and re-power it up.

# 11. Monitor Settings

a. Select "Online -> Monitor -> Bulk Monitor for Soft Components/Cache Storage".



- b. Repeat the above operation to create two monitoring interfaces. Input the parameters of "Remote Register (RWr)" and "Remote Register (RWw)" in the "Soft Component Name" of the two monitoring interfaces, i.e. "D1000" and "D2000" respectively, and the monitoring setting is completed. D1000" and "D2000" as set in the Network Parameter Setting screen, and the monitoring setting is completed.
- c. The Remote Register (RWr) D1000 monitor interface is the module's uplink data, which is used to monitor the status of the module as shown below.

寻航	ů ×	🍓 ProgPou [PRG] [局	. 🖻 ProgPou [PRG] [LD	器 R04ENCPU 模块参数	21[软元件/缓冲存储	× 😳 2 [软元件/缓冲存储 ×
🏋 🐨 🏠 全部 🛛 👻		0 H = H = H	21000	100 YE 10 - 16 - 10	(a) bit (m ff his (a))	
10 丁程		(●) 软元件名(N)	D1000	──── 打开显示格式	(山) 详细条件(山)	◎ 监视中
可掛けの電内						
		○ 缓冲存储器(M)	模块起始(U)	── (16进制) 地址(	<u>A</u> ) ~	10进制 监视停止(S)
福福序						
🕼 初始		較元件名 F E D C E	A 9 8 7 6 5 4 3 2 1 0	当前值	字符串	
= 🕼 扫描		D1000 0 0 0 0 0	0000000000000	0		
		D1001 0 0 0 0 0		0		
		D1003 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
= 🖻 ProgPou		D1004 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 <mark>1</mark>	1537		
🌲 局部标签		D1005 0 0 0 0 0		1537	-	
■ 程序木体		D1005 0 0 0 0 0		1537		
		D1008 0 0 0 0 0	000000000000	0		
41 但正向期		D1009 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	-	
🏨 事件		D1010 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	-	
<b>御</b> 待机		D1012 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
		D1013 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
■ 元かり 突空 指定		D1014 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
📫 未登录程序		D1015 0 0 0 0 0		0	-	
👩 FB/FUN		D1017 0 0 0 0 0		0		
6 标签		D1018 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
		D1019 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
1 🖾 软元件		D1020 0 0 0 0 0		0		
■ 🗗 参数		D1022 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
₽ 系统参数		D1023 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	-	
		D1024 0 0 0 0 0		0		
E V KUHLINCFU		D1026 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
₽ CPU参数		D1027 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
Q 模块参数		D1028 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
軍存儲卡参数		D1029 0 0 0 0 0 0		0	10 	
		D1031 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0		
◎		D1032 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
▲ 远程口今	~	D1033 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0		

d. The Remote Register (RWw) D2000 monitor interface is the downstream data of the module, which is used to monitor the output status of the module, as shown in the following figure.

导航	🛛 × 🖀 Prog	Pou [PRG] [局.	🖻 ProgPou [PRG] [LD	A RO4EN	NCPU 模块参	数 🔽 1 [软元	6件/缓冲存储	× 📮 2 [软元件/约	缓冲存储	
" 도 🗘 全部 🔹			D2000		打开息云道	久 <del>ず</del> (T)	洋细条件(1		116.1-	
<b>浙</b> 工程	▲	()L1T40 (10)	22000		11 /1 me /14/	Π.Α.(1)	H-347 (1-12	/	监视中	
<b>町 模块配置图</b>	- 49	いった 存線 (い)	推行 起始(11)	× (1	cottaul) Ak	4.L.(A)		10時期 ~	lite the late ( a )	
■ 🕿 程序	0*	(3.1.12.19Hatts (34)	(96-97)(G)XH (U)	. (1	0.000.000/ 268	AL (A)		TOXETING	m. (%) (5)	
4 初始	校元件名	FFDC	3 4 9 8 7 6 5 4 3 2 1 0	4	前值	2	符串			
■負扫描	D2000	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0			0	12100			
	D2001	0 0 0 0				0				
	D2003	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0			0				
= ProgPou	D2004	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0				
■ 局部标签	D2006	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
■ 程序本体	D2007	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
🛍 恒定周期	D2008 D2009	0 0 0 0				0				
4 事件	D2010	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
自结机	D2011 D2012	0 0 0 0				0				
	D2013	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
■ 元的//丁突空宙ル	D2014	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
🚔 未登录程序	D2015	0 0 0 0 0				0				
🖆 FB/FUN	D2017	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
<b>= 🕼</b> 标签	D2018	0 0 0 0				0				
m 🕌 软元件	D2020	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0			0				
	D2021	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
	D2022 D2023	0 0 0 0 0				0				
₽ 糸筑参数	D2024	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
= 🗛 R04ENCPU	D2025	0 0 0 0				0				
🔮 CPU参数	D2027	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0				
◎ 模块参数	D2028	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0			0				
直存储卡参数	D2029 D2030	0 0 0 0				0				
▲ 描地信自	D2031	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0			0				
	D2032	0 0 0 0				0				
》 远程口令	V 10000	010101010								

### **Examples of Module Functions**

- Channel 1 runs 50,000 pulses in forward direction at 100kHz
  - a. Configure the configuration parameters as shown below.

上理从站的	的参数									×
对象设备	信息: XB6-CB0002									~
	9百万:1									~
执行处理	!(M): 参数写入	~ 执行	亍对象设	备的参数	写入。					~
										~
参数(	信息									
选中	的参数为选择的处理对象。									
	全选(A) 全部解释	余 (L)								
	tarte	Award da	26.13	Add and the	26.13	4-1	36.73	an muster fait	W. off	
Dule	名称 - I/O Personator	初始值	単位	读取值	単位	与	単位	<b>议置</b> 泡围	说明	^
Puis	Pulse Mode	PulDir				-			Pulse Mode Select	-
	Brake time	200				-		20~5000	Brake Time Setting	
	Ch1 Startup Speed	1		1				0~200000	Ch1 Startup Speed Setting	
	Ch1 Homing Mode	mode 24							Ch1 Homing Mode Select	
	Ch1 Homing Speed	1000						1~200000	Ch1 Homing Speed Setting	
	Ch1 Homing Approach Speed	500						1~200000	Ch1 Homing Approach Speed	
	Ch1 Input Logic	Limit Normally Open,							Ch1 Input Logic Select	
	Ch1 Scaling	1						1~60000	Ch1 Scaling Setting	~
<									>	
	清除全部[读取值](R)	清陵	全部[2	写入值](C						
加加	本 165									
XLAEA	12-10									
		已选打	的处理	中没有选	项。					
· 对[	对象设备信息]的设备执行处理。									~
<ul> <li>・使用</li> <li>・美工</li> </ul>	11.当前的连接目标] 访问设备。请 「画面上未显示内容的项目的信息	销确认连接目标是否有问 【请参考设备的手册,	跑。							
	and but residents of a little by select the little of	111 20 3 CC 11 11 3 701 0								
										~
									执行(X)	

- b. Sets channel 1 to relative position mode;
- c. Configure channel 1 to run at 50000 steps and 100kHz;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- e. Set the start command for channel 1 from 0 to 1 as shown below.



f. After the movement is complete, you can see that the channel 1 position arrival is set to 1, as shown below.

导航	å ×	ն ProgPou	[PRG] [局	. 💀 ProgPou [PRG] [LD	21 [約	欠元件/缓冲	存储 🔽	2[软元件	非/缓冲存储	× 🕄 R04ENCPU	J 模块参数		
📲 😳 🏠 全部	-	0 th = 1t	27 (N)	D1000		+17 37 5		-	24 6m /2 64 (1)				
<b>备</b> 工程	^	● 3.7L1+		01000		11/170	2小市山(江)	•	14-3438-14 (日	(9)	监视中		
■ 横块配置图		○緩冲存	储器(M)	様块記始(II)	~	(16进制)	Http://a)			10进制 ~	监视停止(S)		
= 🕊 程序		0.411.1		00000000		(11/0/11/	-0-11 ( <u>0</u> )				ant ()(1) 11 ( <u>0</u> )		
他初始		软元件名	FEDCB	A 9 8 7 6 5 4 3 2 1 0		当前值		字符串					
= 🏨 扫描		D1000	0 0 0 0 0				128 €.						
= 📌 MAIN		D1002	0 0 0 0 0	000000000000			0						
= 🙋 ProgPou		D1003 D1004	00000				0						
♣ 局部标签		D1006	0 0 0 0 0	1 1 0 0 0 0 0 0 0 1			1537						
■ 程序木体		D1006 D1007	00000				1537						
4 右宗国期		D1008	1 1 0 0 0	0 1 1 0 1 0 1 0 0 0 0			50000 P?						
		D1009 D1010	00000				0						
		D1011	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0			0						
41.待机		D1012 D1013	00000				0						
4 尤执行类型指定		D1014	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0			0						
▲ 未登录程序		D1015 D1016	0 0 0 0 0				0						
😂 FB/FUN		D1017	0 0 0 0 0	000000000000			0						
🛚 🏨 标签		D1018	0 0 0 0 0				0						
■ 🍏 软元件		D1020	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0			0						
= 6、参数		D1021	0 0 0 0 0				0						
● 系统参数		D1023	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0			0						
= 0 ROAENCPU		D1024	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0			0						
		监看1【监看	中】										
の掛け金数				OFF反转									
総使状参数		11.51.	Mr. Mr. Hr.		. Lasta	ALL NO. YOL						101 101 41. / T / M. Ab M.	_
目仔嵋卡参数		名称	当即但	並示情遇	、 划:	指尖望	0 -0 0		Chinese :	simplified/间体中。	人 强利辅入输出状态	》 附审执行条件的软	
● 模块信息		@D2004	100,000	10进制蜀	<u>د</u> 🗶	子[尤符号]/	位串[32位]						
▲ 远程口令	~	D2006	50,000	10进制要	(双)	字[无符号]/	位甲[32位]						
连接目标		D1008	50,000	10进制数	(字[	[无符号]/位	串[16位]						

g. You can also see that the current coordinates of channel 1 are 50000, as shown below.

导航 📍	×	ն ProgPou (	[PRG] [局	ProgPou (PRO	G] (LD 🍹	1 [软元件/缓冲	存储 🙄	2 [软元件/约	爱冲存储	× 🗛 R04ENCPU	リ模块参数		
📲 😳 🏠 全部 🗸 🗸		0 H = H	<b>-</b>	D		day 200 p			len to blue a				
▲工程 /	~	④ 软元件:	23 ( <u>N</u> )	01000		✓ 11 # 4	2示恰式(1)	冲	·细索(+(L)	8	监视中		
■ 横块配置图		○優油友	(本 5足 ( 14)	## ++ += +44 / 11)		(102世年1)	tik fal (A)			10:##			
= 🧲 程序		O serior	INH KODY ( ML)	( <u>66-977</u> )( <u>65</u> )		(10.02.00)	HEAL (H)			10,07,04	m (6) (5)		
他初始		软元件名	FEDCB	A 9 8 7 6 5 4 3 2	1 0	当前值		字符串					
= 他扫描		D1000	0 0 0 0 0	0 0 0 1 0 0 0 0 0	0 0		128 €.						
= 🔗 MAIN		D1002	00000	0 0 0 0 0 0 0 0 0	0 0		0						
= 🙋 ProgPou		D1003 D1004	00000	0000000000	0 0		0						
■ 局部标签		D1005	0 0 0 0 0	1 1 0 0 0 0 0 0 0	0 1		1537						
■ 程序本体		D1006 D1007	0 0 0 0 0		0 1		1537						
4 恒定周期		D1008	1 1 0 0 0	0 1 1 0 1 0 1 0 0	0 0		50000 P?						
他事件		D1010	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0						
自结机		D1011 D1012	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0		0						
<ol> <li>无执行举型指定</li> </ol>		D1013	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0						
▲ 未啓寻程序		D1014	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0.						
FR/FLIN		D1016	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0						
■ <b>血 标</b> 答		D1018	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0						
		D1019 D1020	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0		0						
		D1021	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0						
= 12 (15 (A) #h		D1022 D1023	0 0 0 0 0		0 0		0						
· 余切参数		D1024	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0						
E RU4ENCPU		监看1【监看	中】										
P CPU参数	1			OFF反转 2 更新									
延模状変数		to de	1.11.11.11.	arrivera   aparan		Last and bay weat					and a second sec		_
目仔佑卡参数		名称	当前值		显示格式	数据类型	0.000000		Chinese Si	mplified/简体中3	人 强雨辅人输出状态	府审执行条件的软	
◎ 模块信息		@D2004	100,000		10进制数	双字[无符号]/	位串[32位]						
▲ 远程口令 🔹	~	D2006	50,000		10进制数	双字[无符号]/	位甲[32位]						
连接目标 *	×	D1008	50,000		10进制数	子[无符号]/位	串[16位]						

 Channel 1 with a current position of 1000 moves to a position of -20,000 with a running speed of 100 kHz.

理从站的	的参数									×
对象设备	计信息: XB6-CB0002 站号:1									Ĵ
执行处理	#(U): 参数写入	~ 执行	对象设	备的参数	写入。					< >
参数	信息 的参数为选择的处理对象。	\$ (t)								
Dulo	土地(山) 土印神内 名称	初始值	单位	读取值	单位	写	单位	设置范围	说明	^
Puis	Pulse Mode	PulDir							Pulse Mode Select	
	Brake_time	200						20~5000	Brake Time Setting	
	Ch1 Startup Speed	1						0~200000	Ch1 Startup Speed Setting	
	Ch1 Homing Mode	mode 24							Ch1 Homing Mode Select	
	Ch1 Homing Speed	1000						1~200000	Ch1 Homing Speed Setting	
	Ch1 Homing Approach Speed	500						1~200000	Ch1 Homing Approach Speed	
	Ch1 Input Logic	Limit Normally Open,	•			_			Ch1 Input Logic Select	
	Ch1 Scaling	1						1~60000	Ch1 Scaling Setting	~
<									>	
	清除全部[读取值](R)	清除	全部[写	入值](C)	)					
处理;	选项									
		已选择	的处理。	中没有选	项。					
<ul> <li>・ 对[.</li> <li>・ 使用</li> <li>・ 关う</li> </ul>	对象设备信息]的设备执行处理。 目[当前的连接目标]访问设备。请 F画面上未显示内容的项目的信息	高确认连接目标是否有问是 请参考设备的手册。	<u>Ø</u> .							^
										$\sim$
									执行(X)	

a. Configure the configuration parameters as shown below.

导航	ųх	http://www.progPou [PRG] [局	😐 ProgPou [PRG] [LD	21[软元件/缓冲存储	◎2[软元件/缓冲存储	× 🗟 R04ENCPU	リ模块参数
• [1] * 다 🗘 全部 🗸 🗸	•	● 林 元 件 欠 (N)	D1000		T) 洋细久任(T)	0	Ille and a
▶ 工程	^		51000	11/1 22/10/12 24 (	1/	۲	监视中
■ 模块配置图		○ 缓冲存储器(M)	措也起於(II)	✓ (16)詳集Ⅱ) 抽計(Δ)		10进制 ~	陈细/高止(s)
= 🔄 程序		0 -82 11 13 148 MH (20)	DE OCUERA (D)	(10 M2 (91) MEMIL (11		1	m.0617.11.(2)
🏨 初始			A 9 8 7 6 5 4 3 2 1 0	当前值	字符串		
■値扫描		D1000 0 0 0 0 0	0 0 0 1 0 0 0 0 0 0 0	128 €	2		
= 🕫 MAIN		D1002 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
= 🙆 ProaPou		D1003 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
■ 局部标签		D1005 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 1	1537			
■ 程序木体		D1006 0 0 0 0 0 0 0 0 0		1537			
他佰定周期		D1008 0 0 0 0 0	0 1 1 1 1 1 0 1 0 0 0	1000 ?	,		
4. 重//		D1009 0 0 0 0 0 D1010 0 0 0 0 0		0			
		D1011 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0			
		D1012 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	00			
		D1014 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
◎ 未登录程序		D1016 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
👼 FB/FUN		D1017 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
🛚 🚨 标签		D1019 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
🛚 🎬 软元件		D1020 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
= 🗛 参数		D1022 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
₽ 系统参数		D1023 0 0 0 0 0 0		0			
R04ENCPU		D1025 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
♪ CPU参数		D1026 0 0 0 0 0 0 0		0	-		
良模快参数		D1028 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
周友佬主会物		D1029 0 0 0 0 0 D1030 0 0 0 0 0		0			
「日間ト参数		D1031 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0.			
		1010101010		01			
「空極日文」	*	监看1【监看中】					
连接目标	ą×	HION HOFF HON/	OFF反转 2更新				

b. The current position of channel 1 is 1000, as shown below.

- c. Sets channel 1 to absolute position mode;
- d. Configure channel 1 to run at -20000 steps and 100kHz;
- e. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- f. Set the start command for channel 1 from 0 to 1 as shown below.



g. After the movement is complete, you can see that the channel 1 position arrival is set to 1, as shown below.



h. You can also see that channel 1 has a current coordinate of -20000, as shown below.



#### • Channel 1 turns on speed mode and runs at 100 kHz

a. Configure the configuration parameters as shown below.

#### 小理从站的参数

·处理 参数(	2 (W): 参数写入 信息	~ 执行	<b>万</b> 对象设	:备的参数	写入。					
	全选(A) 全部解除	余 ( <u>L</u> )								
	名称	初始值	单位	读取值	单位	写	单位	设置范围	说明	^
Pulse	e I/O Parameter									
	Pulse_Mode	PulDir							Pulse Mode Select	
$\square$	Brake_time	200						20~5000	Brake Time Setting	
	Ch1 Startup Speed	1						0~200000	Ch1 Startup Speed Setting	
$\square$	Ch1 Homing Mode	mode 24							Ch1 Homing Mode Select	
$\square$	Ch1 Homing Speed	1000						1~200000	Ch1 Homing Speed Setting	
	Ch1 Homing Approach Speed	500						1~200000	Ch1 Homing Approach Speed	
	Ch1 Input Logic	Limit Normally Open, .							Ch1 Input Logic Select	
	Ch1 Scaling	1						1~60000	Ch1 Scaling Setting	~
<									>	
	清除全部[读取值](R)	清除	全部[5	写入值](C)						
-L YHE	4.15									
C理L	也坝									
		已选择	的处理	中没有选」	顷。					
34.53										_
対し	对家ር备信息」的议备执行处理。 1「当前的连接目标1访问设备,请	·确认连接目标是否有问题	16 .							
室子	画面上未显示内容的项目的信息	请参考设备的手册。	~ 50							
1										
×1										

- b. Sets channel 1 to speed mode;
- c. Configure channel 1 to run at 100 kHz and the direction of motion to be 0 positive;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- e. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.



导航	φ×	🏙 ProgPou	[PRG] [局	🖷 ProgPou [PR	G] [LD 📮1	[软元件/缓冲	存储 🕻	22[软元件/约	爱冲存储 >		
🕂 🗠 🏠 全部 🔹		0 H = M	AT (10)	21000		400.777		1	In the Int In )		
<b>新工程</b>	^	④ 软元件	名(N)	D1000	~	] 打开:	亚尔格式(1)		: 瑞余什(上)	(2)	监视中
■ 模块配置图		○經油友	(11) 見見 (11)	## +h += h4 / t*)		(102冊生山)	Lik +L (A)			103世年1	
= 🗷 程序		0 \$21715		機状超如(U)		(10,22,01)	REAL (A)			10.01.001	盥视停止( <u>5</u> )
曲 初始		软元件名	FEDCB	A 9 8 7 6 5 4 3 2	1 0	当前值		字符串			
■●扫描		D1000	0 0 0 0 0	0 0 1 0 0 1 0 0 1	10		294 &				
		D1001	0 0 0 0 0		0 0		0		_		
		D1003	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0		0				
E 🖻 ProgPou		D1004	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0		0				
📲 局部标签		D1005	0 0 0 0 0		0 1		153/				
■ 程序本体		D1005	0 0 0 0 0		0 1		1537				
		D1008	1 1 0 1 1	1 1 0 0 1 0 1 0 0	1 1		-8621 S?				
围垣正周期		D1009	0 0 0 0 0	0 0 0 1 1 1 0 1 1	0 1		237 ?				
● 事件		D1010	1 0 0 0 0		0 0		-31072 雌				
曲 待机.		D1012	0 0 0 0 0		0.0		0				
		D1013	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
■ 无执行类型指定		D1014	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0		0				
🚔 未登录程序		D1015	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
EB/ELIN		D1016	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
		D1018	0 0 0 0 0		0 0		0				
= 🕼 标签		D1019	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
🛚 🚝 软元件		D1020	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0		0				
= 0. 绘物		D1021	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
		D1022			0.0		0				
** 糸鈗参数		D1024	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
= 🚱 R04ENCPU		D1025	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0		0				
✤ CPU参数		D1026	0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
各模块参数		监看1【监看	中】								
目存储卡参数			F MON/	OFF反转 2更新							
◎ 模块信息		名称	当前值		显示格式	数据类型			Chinese Sin	nplified/简体中文	强制输入输出状态
🌆 远程口令	~	D1008	15,588,94	7	10进制数 >	双字[有符号]					
连接日标	п×	\$D1010	100 000		10进制数 5	[王符号]	位出[32位]				

f. During the movement, you can see that the channel 1 velocity arrival is set to 1, as shown below.

g. During the movement, it is also possible to currently run at the actual speed of 100 kHz, as shown in the following figure.

导航 中	< ն ProgPou [	PRG] [局	🖷 ProgPou [PRG] [I	LD 🌄 1 [套	欠元件/缓冲	存储 🔽 2	[软元件/缓	冲存储 ×		
□ □ ☆ 全部 🗸			[							
▲工程 ∧	<ul> <li>         •</li></ul>	名 ( <u>N</u> )	D1000	~	打开的	2示格式(I)	. 详细	∃条件(L)	*	监视中
百模块配置图		AL 00 ()	life the day of the second			N. LL CA			4.0.346.454	11
	○猿神存	储器( <u>M</u> )	模块起始(U)		(16进制)	地址( <u>A</u> )		~	10进制 ~	监视停止( <u>S</u> )
	th=h+h				14 44/8		-h-17 th			
	秋元(十-名 D1000	0 0 0 0 0	A 9 8 7 6 5 4 3 2 1 0 0 0 1 0 0 1 0 0 1 1 0		=81B	294 8.	子村中			
= 🛄 江油	D1001	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	1		0				
= ᢪ MAIN	D1002	0 0 0 0 0				0				
= 🙆 ProgPou	D1003	0 0 0 0 0				0				
🍰 局部标签	D1005	0 0 0 0 0	1 1 0 0 0 0 0 0 0 1			1537				
の印度大体	D1006	0 0 0 0 0				1537				
图 柱序 41 4	D1007					-8621 S?		_		
41 恒定周期	D1009	0 0 0 0 0	0 0 0 1 1 1 0 1 1 0 1			237 ?				
(4) 事件	D1010	10000	1 1 0 1 0 1 0 0 0 0			-31072 原				
曲 法机	D1011 D1012	0 0 0 0 0				1				
	D1013	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0			0				
41 无执行类型指定	D1014	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0			0				
🚔 未登录程序	D1015	0 0 0 0 0				0				
📬 FB/FUN	D1016	0 0 0 0 0				0		_		
- 伝 标弦	D1018	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	(		0				
	D1019	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0			0				
= 🖾 软元件	01020	0 0 0 0 0				0				
= 🕼 参数	D1022	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0			0				
系统参数	D1023	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	1		0				
	D1024					0				
	D1026	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0			0				
₽' CPU参数	HART & MILLING									
#模块参数	监看「监看」	ΨJ								
■存储卡参数		F MON/C	FF反转 <b>E</b> 更新							
🙆 模块信息	名称	当前值	显	示格式 数	据类型		(	Chinese Sim	plified/简体中文	强制输入输出状态
▲ 远程口令 🛛 🖌 🗸	1008 N	15,588,947	/ 10	进制数 双	字[有符号]					
连接日标 1)	© D1010	100 000	10	計制数 双	字[无符号]/	位串[32位]				

导航 <sup>,</sup>	×	🍓 ProgPou [PRG] [局	ProgPou [PRO	6] [LD 🍹	1 [软元件/缓冲	存储 🔽2 [	[软元件/缓]	中存储 ×		
□ 🐮 🏠 全部 🔹		0.11 = 11 = 1.1			100 200 1		111.14			
<b>新工程</b>	~	<ul><li>(●) 軟元件名(N)</li></ul>	D1000		✓ 打井	显示格式(1)	详当	H条件(L)	۲	监视中
■ 模块配置图		○ 經油友健嬰(M)	描 -h - 和 - ha (11)		(16)##()	44+4-L (A)			103#朱川 ~	(1) (南) (南) (古)
■ 🕊 程序		(A) 100 107 107 108 100 (A)	DEPCREAT (U)		(10,近仰)	제품세대 (표)			TOYCT (b)	Ⅲ代/呼Ⅲ( <u>5</u> )
🛍 初始		软元件名 FEDCB	A 9 8 7 6 5 4 3 2	1 0	当前值		字符串			
= 44. 扫描		D1000 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
= 🖗 MAIN		D1002 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
= 🚔 ProaPou		D1003 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
♣ 局部标签		D1005 0 0 0 0 0		0 1		1537				
■ 程序木体		D1006 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 1		1537				
() 恒定周期		D1008 0 1 1 0 1	101011001	0 1		28005 em				
4 事件		D1010 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
40、注切		D1011 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
4) 王协行光刑长守		D1013 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
		D1014 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
■ 木豆求柱庁 <		D1016 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
		D1017 0 0 0 0 0 D1018 0 0 0 0 0		0 0		0				
		D1019 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
=		D1021 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
= 12 参数		D1022 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
₽' 糸鈗参数		D1024 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0		0				
E RO4ENCPU		D1025 0 0 0 0 0 D1026 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0		0				
₽ CPU参数										
A 模块参数		<u> 監有「【</u> 监有中】								
■存储卡参数			DFF反转   2更新							
🙆 模块信息		名称  当前值		显示格式	数据类型		C	hinese Sim	plified/简体中文	强制输入输出状态
🍙 远程口令	~	D1008 18,050,40	5	10进制数	双字[有符号]					
连接目标 +	١x	D1010 0		10进制数	双字[无符号]/	位串[32位]				

#### Channel 1 on zero return

a. Configure the configuration parameters, select the zero return mode and set the zero return speed and zero approach speed as shown below.

<b>达理从站的</b>	的参数									×
对象设备	各信息: XB6-CB0002 站号:1									< ~
执行处理	#(W): 参数写入		~	执行对象设备的	参数写	λ.				Û
参数选中	信息 的参数为选择的处理对象。 全选(A) 全部解释	涂 (L)								
	名称	初始值	单位	读取值	单位	写入值	单位	设置范围	说明	^
Puls	e I/O Parameter									
	Pulse_Mode	PulDir		PulDir	_				Pulse Mode Select	-
	Brake_time	200		200				20~5000	Brake Time Setting	
	Ch1 Startup Speed	1 mode 24	-	1	-	made 10		0~200000	Ch1 Startup Speed Set	
	Chi Homing Mode	1000 Z4		1000	-	mode 19	<u> </u>	1~200000	Chi Homing Mode Sele	
	Ch1 Homing Approach Speed	500	0	500				1~200000	Ch1 Homing Approach	
	Ch1 Input Logic	Limit Norm		Limit Norm				1 200000	Ch1 Input Logic Select	
	Ch1 Scaling	1		1				1~60000	Ch1 Scaling Setting	
<								1	>	
	清除全部[读取值](R)		ĩ	皆除全部[写入值	i]( <u>C</u> )					
AL TH	24: 175									
处理.	延坝									
			已送	选择的处理中没	有选项	•				
·对[	对象设备信息]的设备执行处理。									~
• 使月 • 美	H[当前的连接目标]访问设备。请 F画面上去显示内容的项目的信息	育确认连接目标 1 请参考设备的	是否有	问题。						
×.	instal active sector and an active sector	AND SOUTH NO	3 783 0							
										~
									曲 (云 (y)	
									19(1) (A)	

- b. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- c. Set the zero return command for channel 1 from 0 to 1 as shown below.

	🍓 ProgPou [PRG] [局	ProgPou [PRG] [LD	♣R04ENCPU 模块参数 <sup>2</sup> 1 [软	元件/缓冲存储 >	< ♀2 [软元件/绹	影中存储
[말 한 🏠 全部 🔻	● 林示件々(N)	D2000		送细久件(I)		ille and the
▲工程 ^		02000	11月並小悟式(1)	1千知水(下(上)	۷	监视中
面 模块配置图	○ 經`市方は照(10)	+# 1+ ±1+6 /m	(102世年1) (14主人(1)		10itted av	ILE ADD (To . L. ( D)
= 🧲 程序	○ 疲(件仔障器(風)	快快起始(U)	(16)进制) 地址(A)	×	10.02.001	溫·倪停止( <u>5</u> )
41 初始	救元件名 FEDCB	A 9 8 7 6 5 4 3 2 1 0	当前值 3	2符串		
= 40 扫描	D2000 0 0 0 0 0	0 0 0 0 11 0 0 0 0 0 0	64 @			
	D2001 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 回参归	シがの到り		
= MAIN	D2002 0 0 0 0 0		500 7			
= 🙆 ProgPou	D2004 0 0 0 0 0		0			
12 局部标签	D2005 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
	D2006 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
● 程序本体	D2007 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
41 恒定周期	D2009 0 0 0 0 0		0			
曲 車件	D2010 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
44 / + +1	D2011 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
41. 侍仇	D2012 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
4 无执行类型指定	D2013 0 0 0 0 0		0			
▲ 未登录程序	D2015 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
	D2016 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0			
E FB/FUN	D2017 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
II 🏥 标签	02018 0 0 0 0 0		0			
•• 📫 标开 // +	D2020 0 0 0 0 0		0			
	D2021 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
= 💱 参数	D2022 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
系统参数	D2023 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
	D2025 0 0 0 0 0		0			
	D2026 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
🔮 CPU参数	D2027 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
息模块参数	D2028 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0			
同 左右 长上 会 米h	02029 0 0 0 0 0		0			
□1于11省下参数	D2031 0 0 0 0 0		0			
◎ 模块信息	0 0 0 0 0		n			
● 远程口令 🗸 🗸 🗸	监看1【监看中】					

d. Back to zero mode 19 need to input the origin signal, after inputting the origin signal, decelerate to 0, and then again to return to zero close to the speed of the negative direction of movement, until the origin signal disappears, stop the movement back to zero is complete, you can see the channel 1 coordinates are cleared to zero, the completion of the return to zero is set to 1, as shown in the figure below.

导航	ά×	🍓 ProgPou [PRG] [局	🖻 ProgPou [PRG] [LD	盘R04ENCPU 模块参数	21[软元件/缓冲存储	◎2 [软元件/缓冲存储 ×
□ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			lesson and			
<b>本</b> 工程	~	● 軟元件名(N)	D1000	打开显示格式	( <u>I</u> ) 详细条件( <u>L</u> )	◎ 监视中
可模块配置图			Mart dan D. Jack	and the second s		a o Middel at an inclusion
		○ 缓冲存储器( <u>M</u> )	模块起始(U)	(16) 地址()	A)	10进制 些 监视停止(S)
机初始		校元社会 ちちりにま	19876513210	当前值	令篇串	
■●扫描		D1000 0 0 0 0 0	0 0 0 0 1 0 0 0 0 0 0		@.	
		D1001 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0		
		D1003 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0	*	
		D1004 0 0 0 0 0 D1005 0 0 0 0 0		0	<u>n</u>	
● 印度大体		D1006 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 1	1537		
		D1007 0 0 0 0 0 D1008 0 0 0 0 0		1537		
🖺 恒定周期		D1009 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
4 事件		D1010 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0	(m)	
41. 待机		D1012 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	<i>ii</i> .	
41 无执行类型指定		D1013 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0		
🗎 未登录程序		D1015 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	**	
😂 FB/FUN		D1017 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0		
■ @ 标签		D1018 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	w.;	
<b>= </b> 软元件		D1020 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	20. 20.	
= 6、参数		D1021 0 0 0 0 0 D1022 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0		
2 系统参数		D1023 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0		
= © R04ENCPU		D1024 0 0 0 0 0 D1025 0 0 0 0 0		0	*	
↓ CPU参数		D1026 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	-	
商構地会物		D1027 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0	20. 20.	
同方供上会附		D1029 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
目行順下麥釵		D1031 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0		
		D1032 0 0 0 0 0 D1033 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0	n	

 Channel 1 turns on speed mode, running at 100 kHz, with the speed modified to 10 kHz during operation

av ex m	F信息: XB6-CB0002 站号:1									
行处理	#(W): 参数写入	~	执行对象设	t备的参数	写入。					
参数( 选中	信息 的参数为选择的处理对象。		L							
	全选(A) 全部舶 名称	(除(L) 初始值	单位	读取值	单位	写	单位	设置范围	说明	
Puls	e I/O Parameter									l
	Pulse_Mode	PulDir							Pulse Mode Select	l
	Brake_time	200						20~5000	Brake Time Setting	l
	Ch1 Startup Speed	1				_		0~200000	Ch1 Startup Speed Setting	l
	Ch1 Homing Mode	mode 24						1~200000 1~200000	Ch1 Homing Mode Select	ł
	Ch1 Homing Speed	1000			3				Ch1 Homing Speed Setting	ł
	Chil Homing Approach Speed	1 500				-			Ch1 Homing Approach Speed	ed
	Chi Input Logic		ben,		-				Chi Input Logic Select	
	Chi Staning	1		+				1 -00000	Chi Scaling Secury	1
									,	
	清除全部[读取值](R)		清除全部[2	写入值](C)	)					
his and a	24: 05									
MC JE J	此功									
			and bridde on an	I are strate	ur.					
		L	上选择的处理	甲没有选.	坝。					
	对象设备信息]的设备执行处理					_	_			
• 3df	11当前的连接目标]访问设备。	请确认连接目标是否	有问题。							
<ul> <li>・ 対[</li> <li>・ 使月</li> </ul>		息唷参考议备的于册	•							
<ul> <li>・ 対[</li> <li>・ 使月</li> <li>・ 关う</li> </ul>	1回国工,不见小月47月2月11月									
<ul> <li>・ 対[</li> <li>・ 使月</li> <li>・ 关う</li> </ul>	1 100 00 1. 75 30 76 17 17 17 17 17 10 17 10									
<ul> <li>・ 对[</li> <li>・ 使月</li> <li>・ 关う</li> </ul>	1 回回工不业水小行在117次日117日								执行(X)	

a. Configure the configuration parameters as shown below.

- b. Sets channel 1 to speed mode;
- c. Configure channel 1 to run at 100 kHz and the direction of motion to be 0 forward;
- d. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- e. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.

	an rogi ou [i no] [i			1420 01 17 300 1 19 Million		
<sup>11</sup> 12 <sup>11</sup> 2 <sup>1</sup> 2 <sup>1</sup> 2 <sup>1</sup> 2 <sup>1</sup> 2 <sup>1</sup> 2 <sup>1</sup>	● 软元件名(N)	D2000	✓ 打开显示格式(I)	. 详细条件(L)	8	监视中
面 模块配置图 	○缓冲存储器(M)	模块起始( <u>U</u> )	─ (16进制) 地址( <u>A</u> )	×	10进制 > 具	查视停止( <u>S</u> )
● ● ● ● ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ● </th <th></th> <th>BA9876543210</th> <th>当前值 20</th> <th>字符串</th> <th></th> <th></th>		BA9876543210	当前值 20	字符串		
= Main = S <sup>®</sup> MAIN	D2001 0 0 0 0 D2002 0 0 0 0 D2003 0 0 0 0	0     0     0     0     0     0     0     0     0       0     0     0     1     1     1     1     0     1     0       0     0     0     1     1     1     1     0     1     0	0 500 ? 500 ?			
■ 🙋 ProgPou 輩 局部标签	D2004 1 0 0 0 D2005 0 0 0 0 D2006 0 0 0 0	0     1     1     0     1     0     0     0     0     0       0     0     0     0     0     0     0     0     0     0       0     0     0     0     0     0     0     0     0     1	-31072 靡 1	<del>速度100kHz</del>		
<ul> <li>● 程序本体</li> <li>● 1</li> <li>● 1<!--</th--><th>D2007 0 0 0 0 D2008 0 0 0 0 D2009 0 0 0 0</th><th></th><th>0</th><th></th><th></th><th></th></li></ul>	D2007 0 0 0 0 D2008 0 0 0 0 D2009 0 0 0 0		0			
他 事件 前 结机	D2010 0 0 0 0 D2011 0 0 0 0 D2012 0 0 0 0		0			
▲ 5,500 ● 无执行类型指定	D2013 0 0 0 0 D2014 0 0 0 0 D2015 0 0 0 0		0			
■ 木豆求桂分 雪 FB/FUN	D2016 0 0 0 0 D2017 0 0 0 0 D2018 0 0 0 0		0			
■ 🚇 标签 ■ ≝ 软元件	D2019 0 0 0 0 D2020 0 0 0 0 D2021 0 0 0 0		0			
■ Q 参数 # 系统参数	D2022 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0			
= Q RO4ENCPU ₽ CPU参数	D2025 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0			
島模块参数	监看1【监看中】	N/OFE反转				
	名称当前值	显示格力	数据类型	Chinese Sim	plified/简体中文	强制输入输出状态
▲ 近程口令 ✓ ✓ × × ÷ × ×	D2004 100,00 D2006 0	00 10进制考 10进制考	数 双字[无符号]/位串[ <b>32</b> 位] 数 双字[有符号]			

- f. Modify the running speed of channel 1 to 10kHz during motion;
- g. Reset the start command of channel 1 from 0 to 1 to start the motion merge as shown below.



h. Channel 1 can be seen decelerating to 10kHz motion as shown below.



- The current position of channel 1 is 10000, move to the position of 20000, and modify the position to 50000 during the movement.
  - 处理从站的参数 X 对象设备信息: XB6-CB0002 站号:1 执行处理(M): 参数写入 ~ 执行对象设备的参数写入。 参数信息 选中的参数为选择的处理对象。 全选(A) 全部解除(L) 初始值 单位 读取值 单位 写... 单位 设置范围 说明 Pulse I/O Parameter Pulse\_Mode Brake\_time Pulse Mode Select Brake Time Setting PulDir 20~5000 200 Ch1 Startup Speed Ch1 Homing Mode Ch1 Homing Speed Ch1 Homing Approa Ch1 Input Logic Ch1 Startup Speed Setting Ch1 Homing Mode Select Ch1 Homing Speed Setting Ch1 Homing Approach Spee Ch1 Input Logic Select Ch1 Get Get Home 0~200000 V 1 mode 24 1000 1~200000  $\checkmark$ 500 1~200000 Limit Normally Open, ... Ch1 Scaling 1 1~60000 Ch1 Scaling Setting < > 清除全部[写入值](C) 清除全部[读取值](R) 处理选项 已选择的处理中没有选项。 对[对象设备信息]的设备执行处理。
     使用[当前的连接目标]访问设备。请确认连接目标是否有问题。
     关于画面上未显示内容的项目的信息请参考设备的手册。 执行(X) 导入(I)... 导出(<u>E</u>)... 关闭
  - a. Configure the configuration parameters as shown below.

b. The current position of channel 1 is 10000, as shown below.



- c. Sets channel 1 to absolute position mode;
- d. Configure channel 1 to run at 20000 steps and 1kHz;
- e. Ensure that the channel 1 brake command is 0 and that channel 1 is at rest;
- f. Set the start command of channel 1 from 0 to 1 to start the movement as shown below.



g. Modify the channel 1 running step count to 50,000 during the campaign;

h. Re-set the start command for channel 1 from 0 to 1 to start the motion merge as shown below.

导航 +	× 뿹 ProgPou	ı [PRG] [局	. 🖷 ProgPou [Pf	RG] [LD 💆	1 [软元件/缓冲	存储 × 💶 2	[软元件/缓冲存	储	
🤨 🗠 🌣 全部 🔹	0 th = 1	+ <del>/</del> (10)	00000				144 Jan /7 1		
1112 /	▲ ④ 软元1	∓名(№)	D2000		⊻打井:	亚示格式(1)	<b>详细条</b> 作	∓( <u>L</u> ) 💿	监视中
■ 模块配置图	0 495 htts	与众本 品足 (111)	## +h +2 +/+· \		(102#年前)	Like L (A)		104844	時間はよい。
■ 🥶 程序	0 50171	于1頃4年(風)	模状超如(U)		(10,25,01)	ਸ <u>਼</u> ਮਾ (ਸ)		10377.054	监视停止( <u>5</u> )
曲初始	校元件名	FFDCB	49876543	2 1 0	当前值		宝符串	-	
■●扫描	D2000	0 0 0 0 0	0 0 0 0 0 0 1 0	0 0 0	anna	16 math		<b>=</b> 1	
	D2001	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0 /=:4/J	叩支重新直0円]		
	D2002	0 0 0 0 0	0 0 1 1 1 1 1 0	1 0 0		500 ?			
= 🟩 ProgPou	D2004	0 0 0 0 0	0 1 1 1 1 1 0 1	0 0 0		1000 ?			
💼 局部标签	D2005	0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0		0			
₩ 程序本体	D2007	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0. 运行	步数50000		
化标志周期	D2008	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
	D2009	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
41 事件	D2010	0 0 0 0 0		0 0 0		0			
<u>癿</u> 待机	D2012	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
# 无执行卷型指定	D2013	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
	D2014	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0		-	
■ 木豆求桯序	D2016	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0		-	
🚰 FB/FUN	D2017	0 0 0 0 0	0 0 0 0 0 0 0	0 0 0		0			
:: @ 标签	D2018	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
	D2019	0 0 0 0 0		0 0 0		0			
	D2021	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
= 💱 参数	D2022	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
系統参数	D2023			0 0 0		0		-	
= 😣 R04FNCPU	D2025	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
D CDII 会称	D2026	0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0		0			
「特性会社	监看1【监测	<b>≣</b> Φ]							
11 快快参数									
■存储卡参数		DEF   1/10N/	OFF反转   2 更新						
● 模块信息	名称	当前值		显示格式	数据类型		Chine	ese Simplified/简体中文	c 强制输入输出状态
▲ 远程口令 ▲	D2004	1,000		10进制数	双字[无符号],	位串[32位]			
连接目标 *	× 🚯 D2006	50,000		10进制数	双字[有符号]				

i. After the movement, you can see that the current coordinates of channel 1 are 50000, as shown in the following figure.

