

WEINTEK LABS., INC.

iR-ETN Motion Control

iR-ETN+iR-PU01P Motion Control Demonstration

Demo Project

Contents

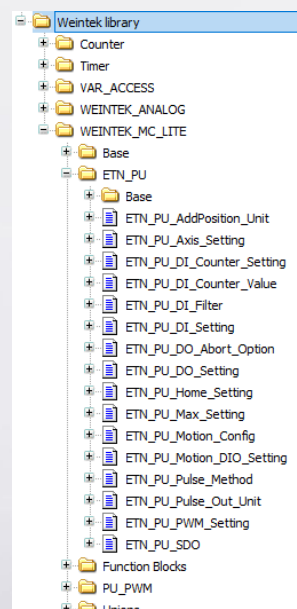
- 1. Overview..... 1
- 2. Installing Weintek Library 2
- 3. System Settings 3
- 4. Demo Program 5

1. Overview

Overview

To conduct motion control by using iR-ETN and iR-PU01-P, different from using iR-COP or iR-ECAT, the ETN_PU function block in Weintek Library must be used for iR-PU01-P parameter configuration.

After configuring iR-PU01-P parameters, please use MC function block to give motion control command to iR-PU01-P.



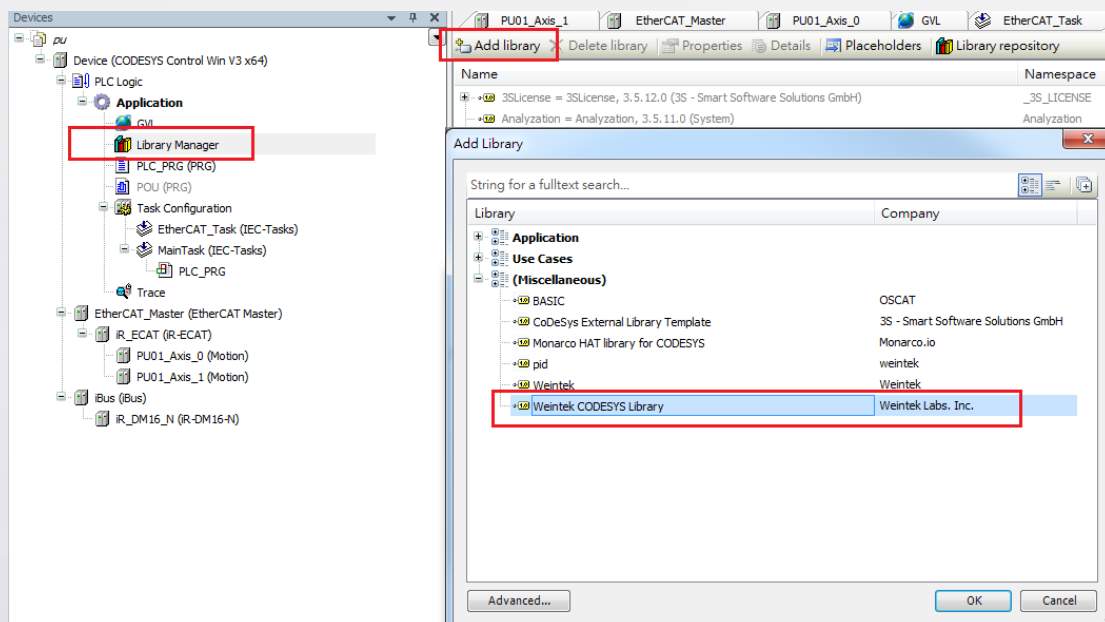
2. Installing Weintek Library

Step 1. Open the download page on Weintek official website and search for [cMT+CODESYS Package] to download and install the package.

<https://www.weintek.com/globalw/Download/Download.aspx>

(This package contains iR-PU01-P's device description file)

Step 2. Add Weintek CODESYS Library in CODESYS software.



3. System Settings

Add mapping channels

Modbus address:

	Mapping_I	Mapping_Q
Axis 0	40000	40500
Axis 1	40016	40516
Axis 2	40032	40532
Axis 3	40048	40548

Please use Function Code 23 to write/read all I/O parameters at a time.

ModbusChannel

Channel

Name

Axis

Access Type

Read/Write Multiple Registers (Function Code 23)

Trigger

Cyclic

Cycle Time (ms)

1

Comment

READ Register

Offset

0x9C40

Length

12

Error Handling

Keep last Value

WRITE Register

Offset

0x9E34

Length

12

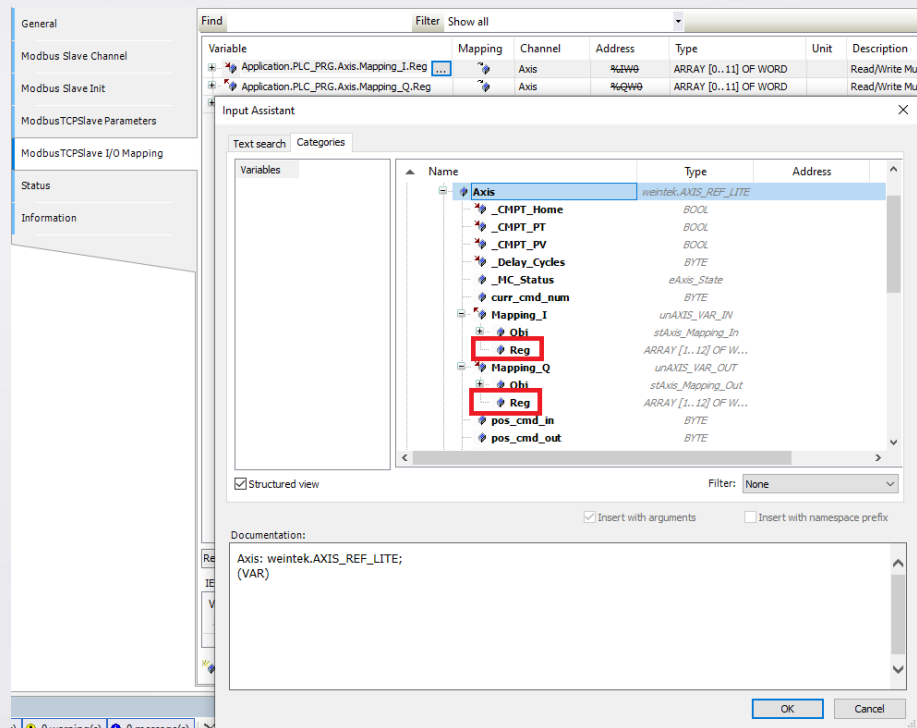
OK

Cancel

I/O Mapping

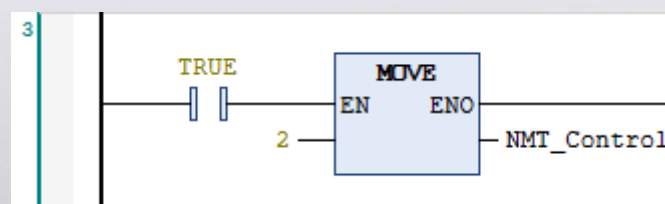
Variables in Mapping_I and Mapping_Q are turned into an array, length = 12 words, in axis variable instance mapping.

In I/O mapping, select Axis.Mapping_I.Reg & Axis.Mapping_Q.Reg.



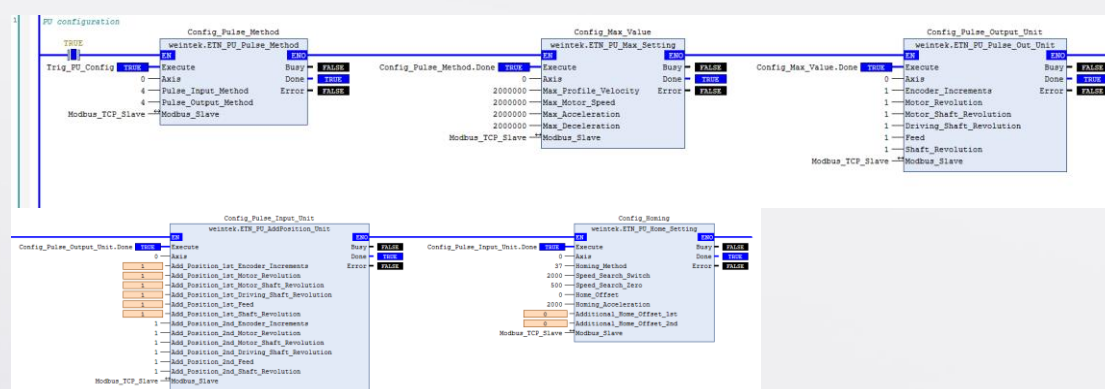
NMT Control

IR-PU01-P is in Pre-operational mode after it is powered up. Please set NMT control address (65528) to 2 (Operation mode) for mapping.

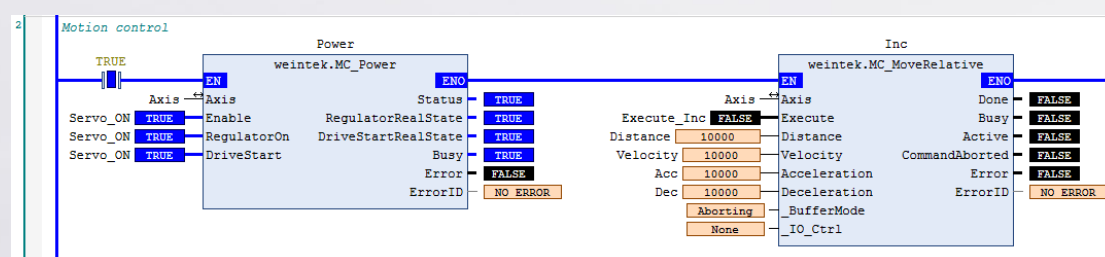


4. Demo Program

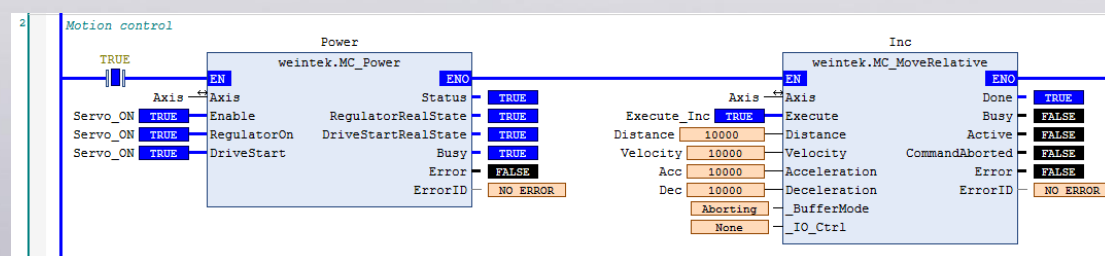
To configure iR-PU01-P's parameters by using ETN_PU function block, only one function block can be used to write the parameter at a time; that is, the next function block can be triggered only when the previous write operation is completed (Done=TRUE).



After iR-PU01-P's parameter is written, execute "Servo_ON" to start up iR-PU01-P.



Trigger "Execute_Inc" to send pulse.



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