PISO-CPM100

Quick Start User Guide

1. Introduction

This user guide introduces how to apply the PISO-CPM100 into your applications quickly and easily. Therefore, it only provides the basic instructions. For more details about the driver, please refer to the PISO-CPM100 user manual in the product CD:

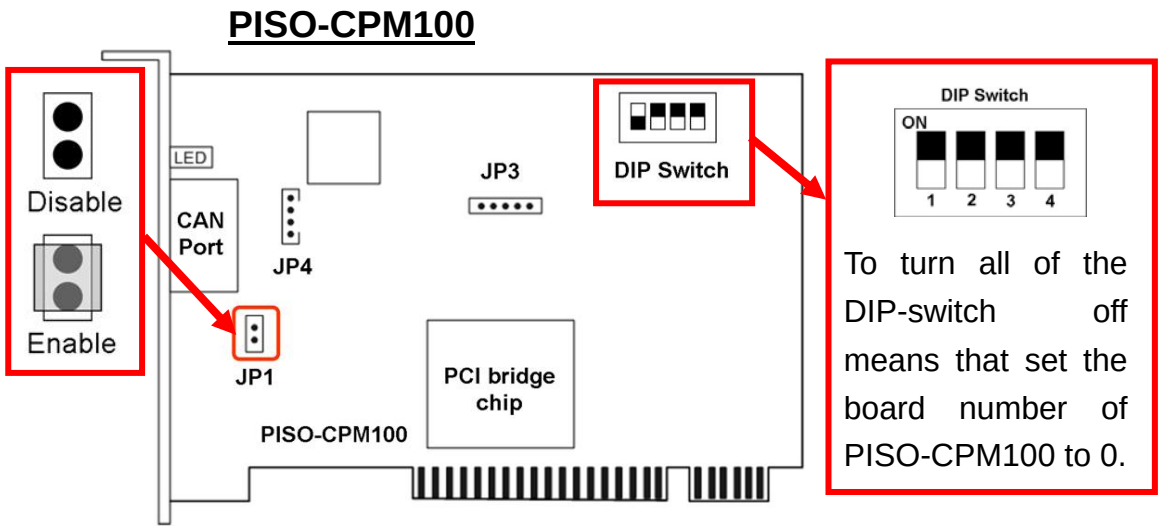
fieldbus_cd://canopen/master/piso-cpm100/

Or download it from the following website:

http://www.icpdas.com/products/Remote_IO/can_bus/piso-cpm100.htm

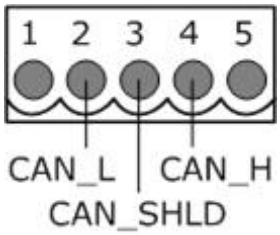
2. Hardware Configuration

2.1 Terminal Resister and Board number Setting



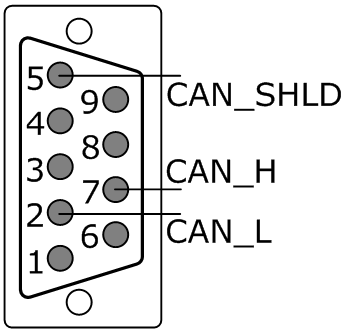
2.2 Pin Assignment

- **5-pin screw terminal connector**



Pin No.	Signal	Description
1	N/A	No use
2	CAN_L	CAN bus Low line
3	CAN_SHLD	Optional CAN shield
4	CAN_H	CAN bus High line
5	N/A	No use

- **9-pin D-sub male connector**



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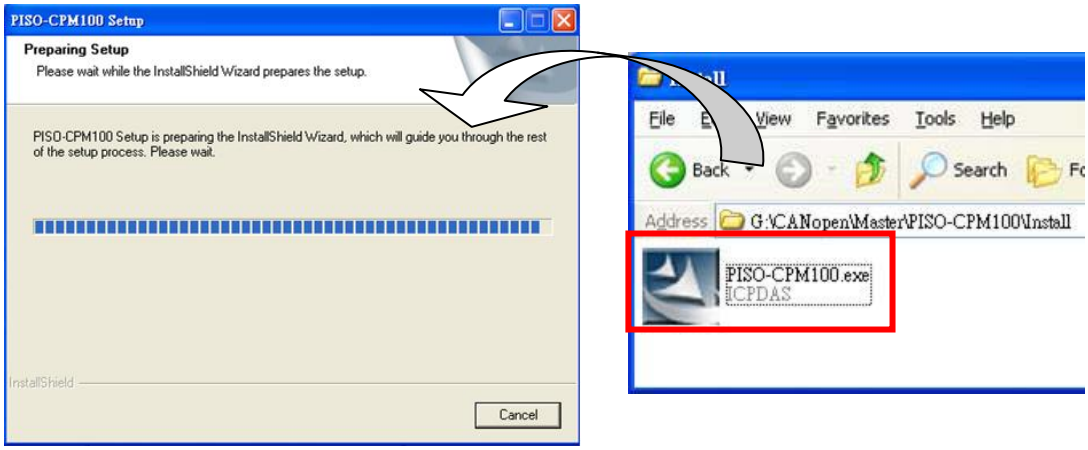
7	CAN_H	CAN bus High line
8	N/A	No use
9	N/A	No use

2.3 Indicator LED

LED	Status	Description
Green	Off	No data
	Flash	Some data is transmitted or received
Red	Off	No error
	On	Some error has occurred. Use the CPM100_GetCANStatus function to get the error status

3. Software Installation

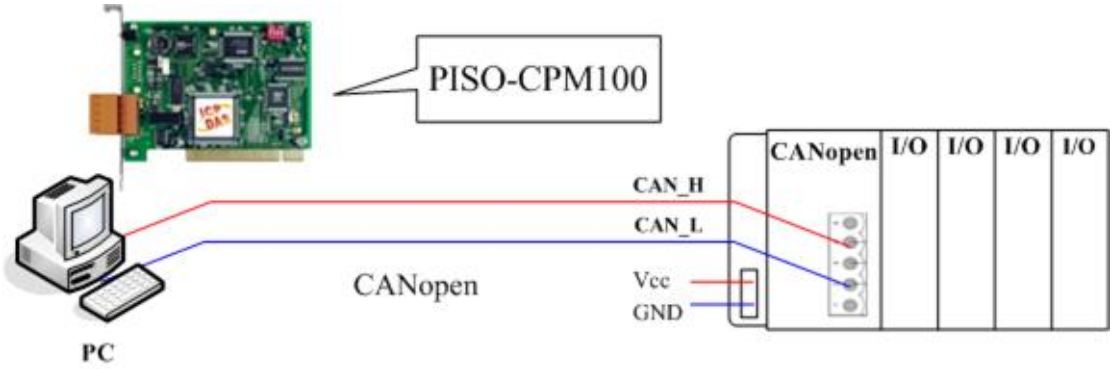
The driver of PISO-CPM100 can be used in 2K/XP Windows environments. Users can find the driver in the path of /canopen/master/piso-cpm100/ in the Fieldbus_CD. Execute the PISO-CPM100.exe file to start the installation of the driver.



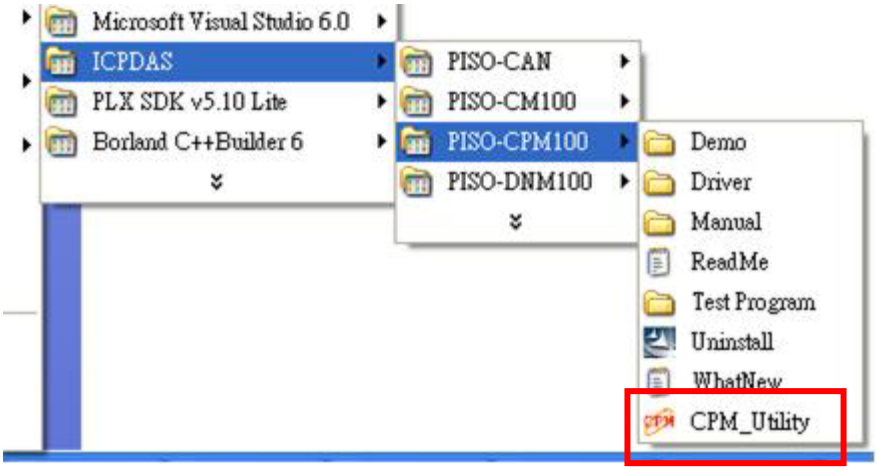
4. Getting Start

The section will teach you how to control the I/O of CANopen slave with CPMUtility step by step. But before following the steps below, you need to prepare some hardware including a PISO-CPM100, and a CANopen slave device.

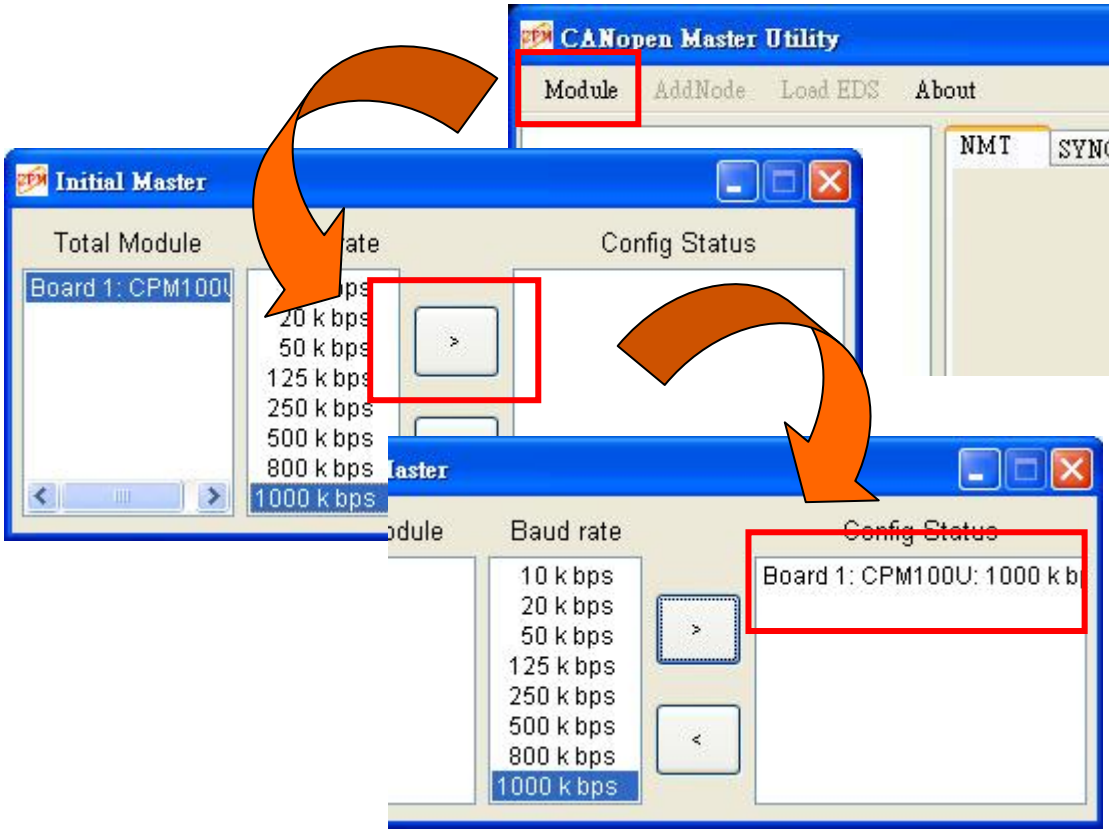
Step 1: Plug the PISO-CPM100 in the PCI slot of your PC and connect the CAN port of the PISO-CPM100 with the CAN port of the CANopen slave device. The board ID of the PISO-CPM100 is set to 1. The node ID of the slave device is set to 1, and the baud rate is set to 1000 kbps. About the setting method of the node ID and the baud rate of the CANopen slave, please refer to the slave's user_manual.



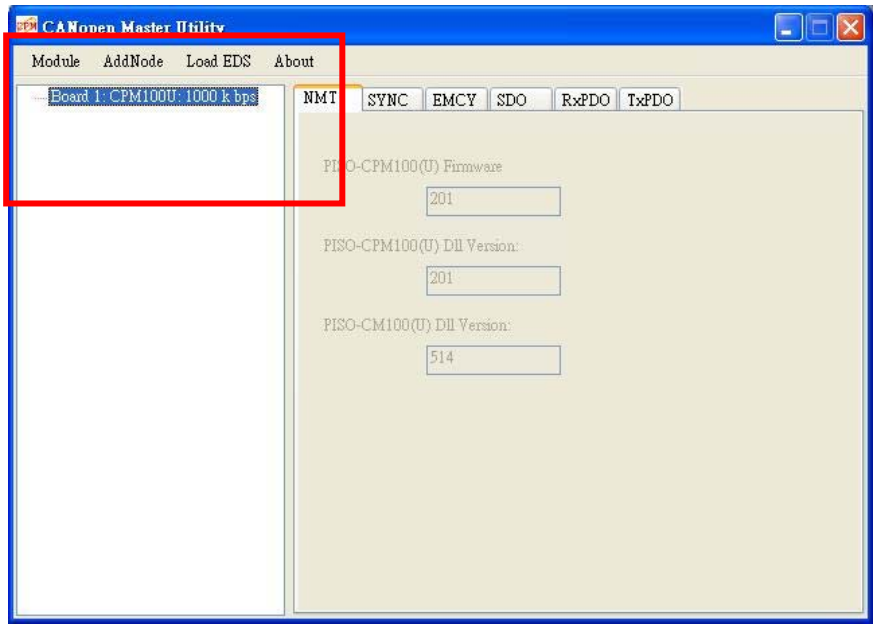
Step 2: After installing the PISO-CPM100 driver, the folder of the PISO-CPM100 will be installed as below. Please execute the CPMUtility.exe on your PC under the path of “start manual→all programs→ICPDAS→PISO-CPM100” to run the quick start demo.



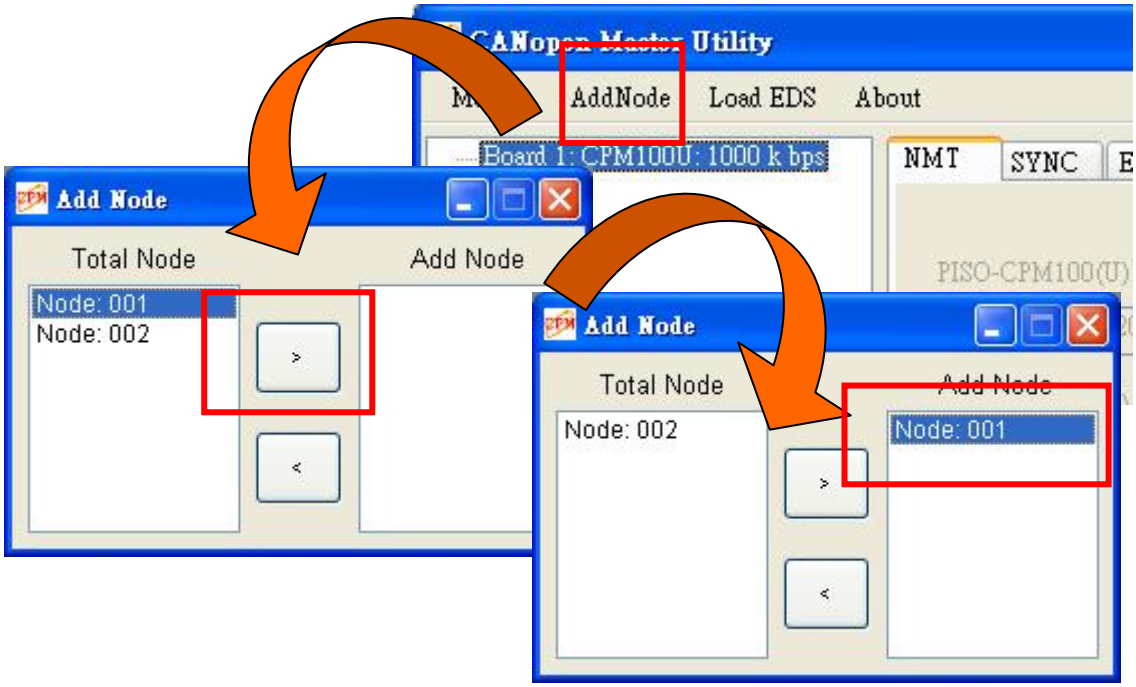
Step 3: Click the “Module” button to select the “Board 1:CPM100” and the baud “1000 kbps”. And then click the “>” button to initialize the PISO-CPM100 with the specific baud.



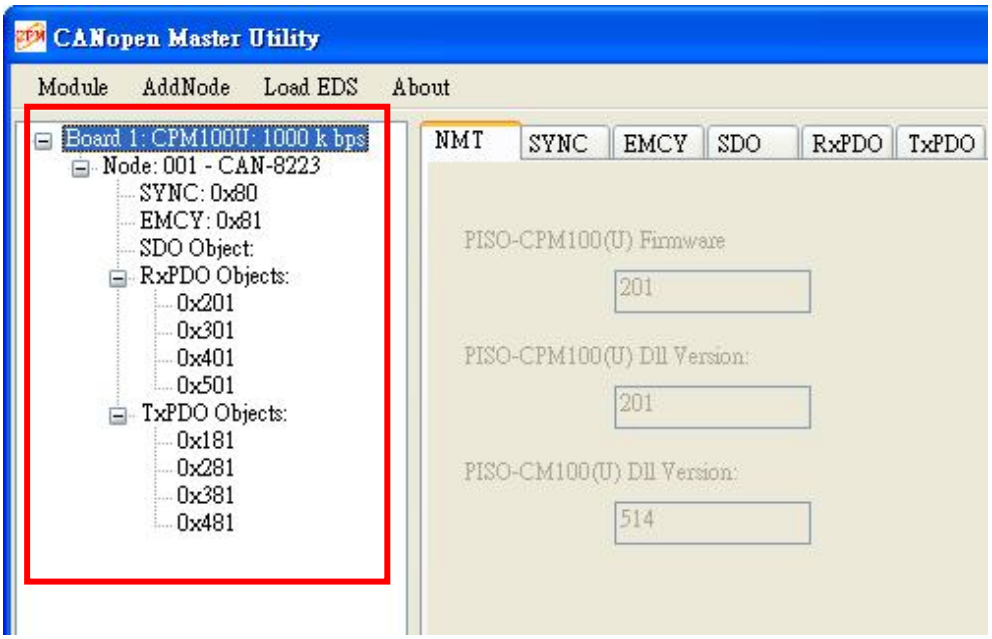
Step 4: After the board is activated successfully, the string “Board 1:CPM100:1000 kbps” will be shown on the left-hand-side of the tree view.



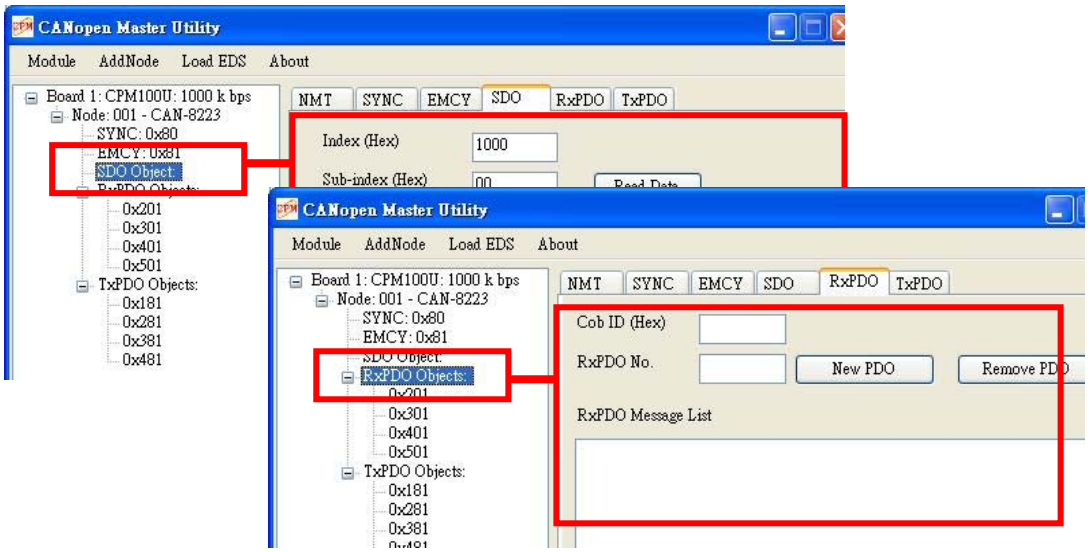
Step 5: Click the “AddNode” button and select the “Node:001” (because the node ID of the CANopen slave is set to 1). Then click the “>” button to add the CANopen slave device into the node list. If there are other slaves on the CANopen network, you can also add them into the node list.



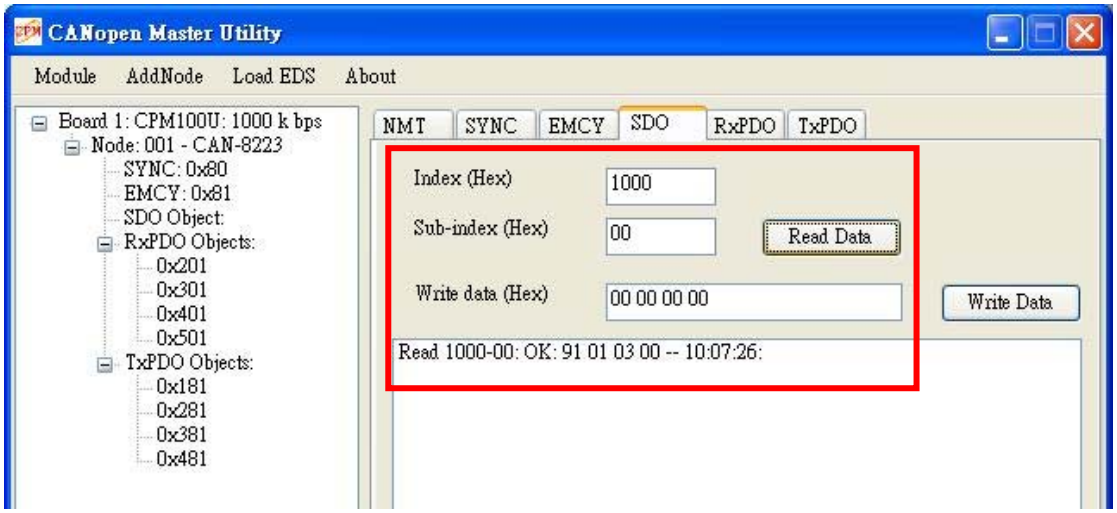
Step 6: After the specific slave nodes is added successfully. The control list of the CANopen slave device will be shown on the left-hand-side tree view.



Step 7: There are many functions listed on the tree view. You can use them according to your demands. For example, if you want to use the SDO protocol of the CANopen communication, select the SDO item and all the functions about the SDO are shown on the right-hand side. You can also select the “RxPDO” item and its sub-item to apply the RxPDO functions.

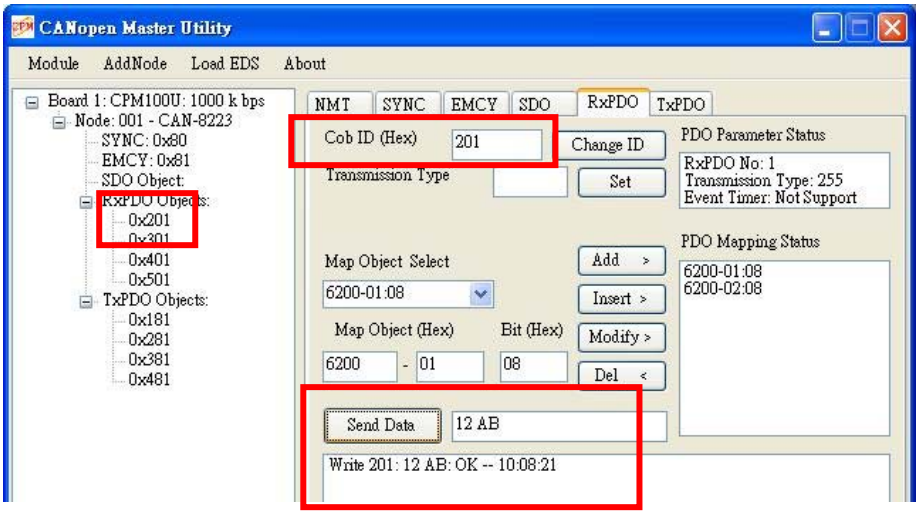


Step 8: Click the “SDO” item, input the index and sub-index of the object of the slave, such as 0x1000 and 0x00. Then click the “Read Data” button to read back the object data.

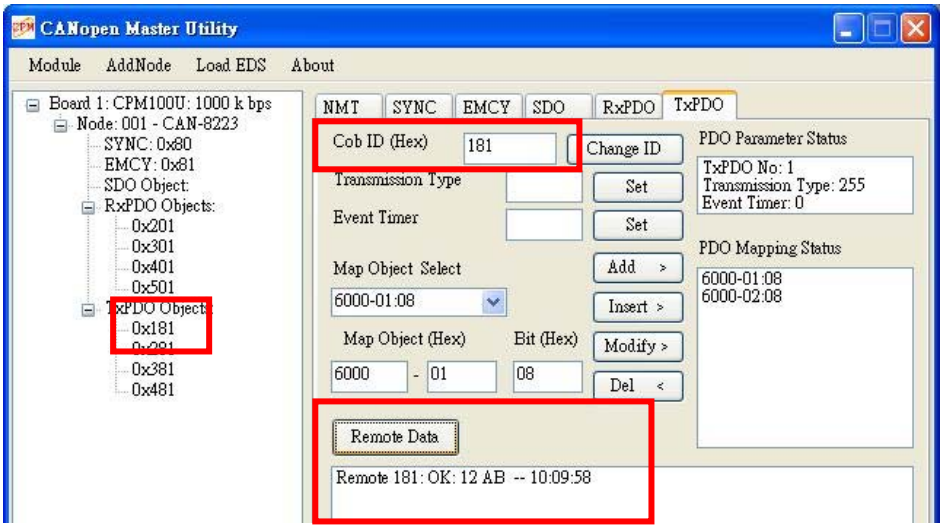


Step 9: Click the “RxPDO” sub-item “0x201”, and input the data such as “12 AB” in the “Send Data” text box (if the

CANopen slave supports the 2-byte 0x201-ID RxPDO), then click “Send Data” button, the sent record will be stored in the list box.



Step 10: Click the “TxPDO” sub-item “0x181”, and click the “Remote Data” button. If the CANopen slave supports the 0x181-ID TxPDO, the object data will be replied and recorded in the data list box.



Note:

This quick start manual only teaches you how to connect with the CANopen slaves and control the I/O easily and quickly. For more details please refer to the PISO-CPM100 user manual and CPM Utility manual.