

The I-7232D *CANopen*/Modbus Gateway

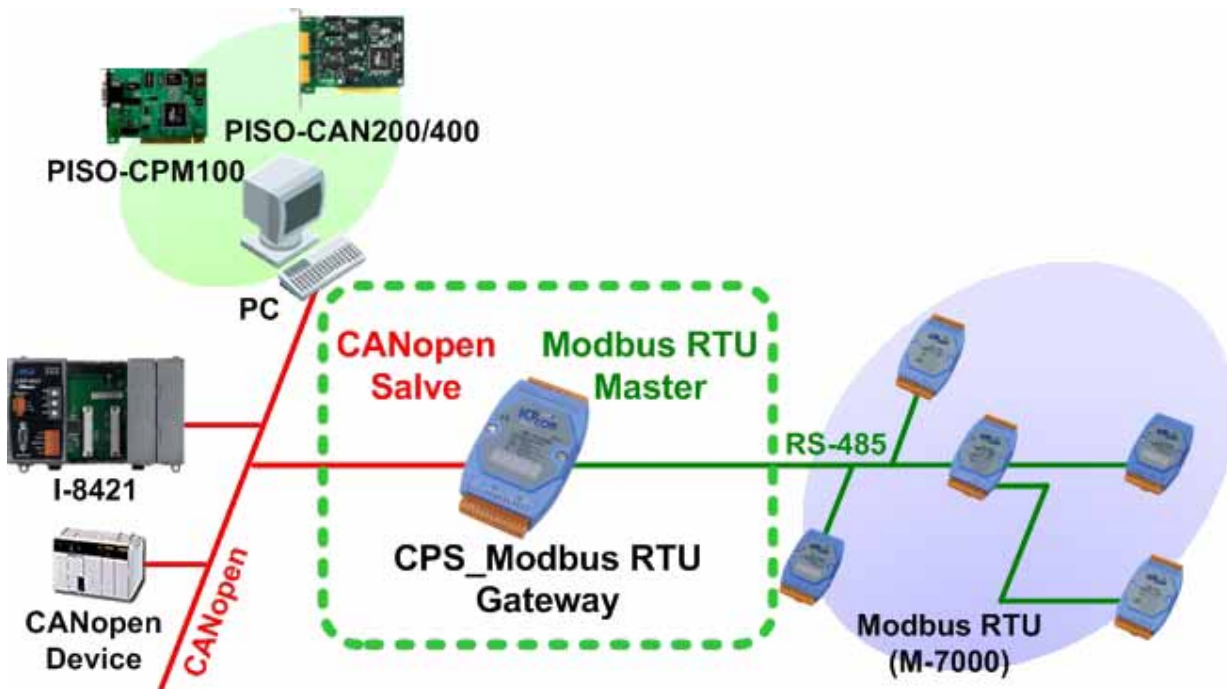
Quick Start User Guide

1. Introduction

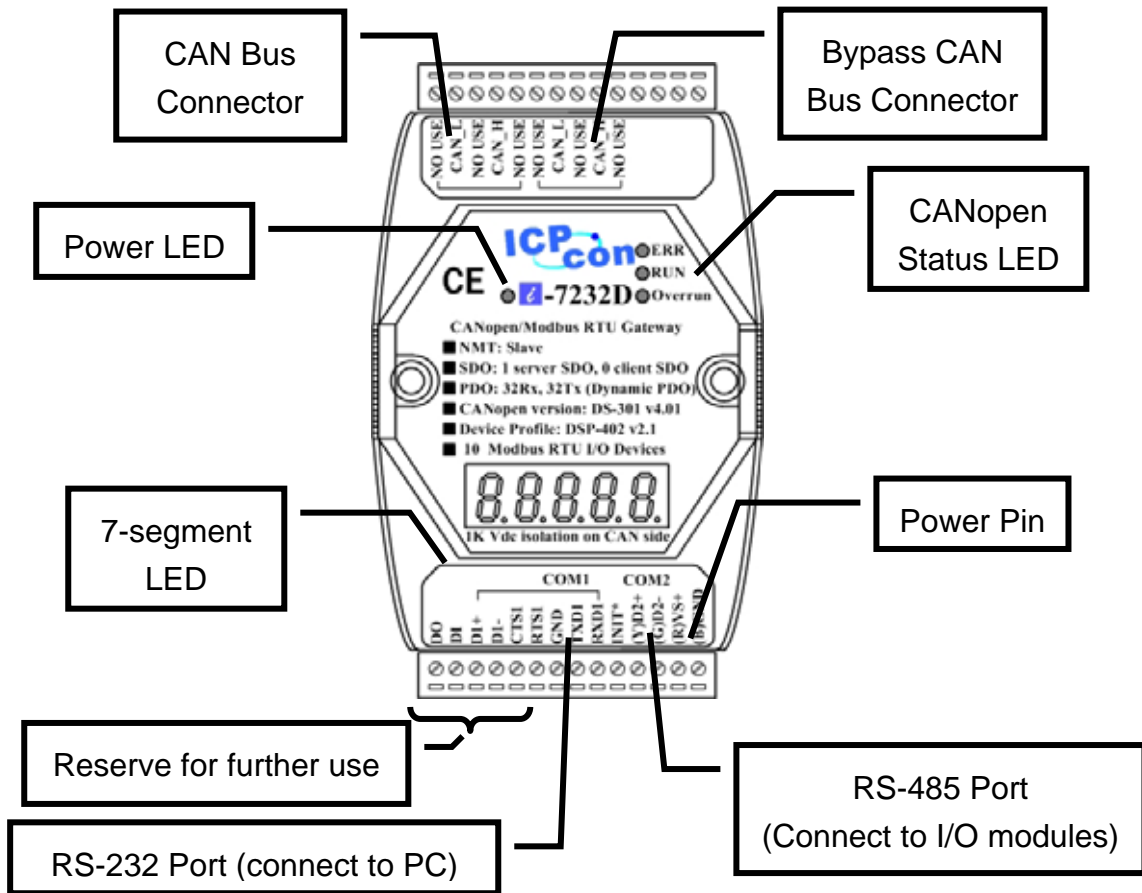
This user guide describes how to implement the I-7232D module into users' applications in a quick and easy way. Therefore, it only provides the basic instructions. If users want to know more detail information about the I-7232D, please refer to the I-7232D user manual in the product CD or download it from following web site:

<http://www.icpdas.com/download/can/index.htm>

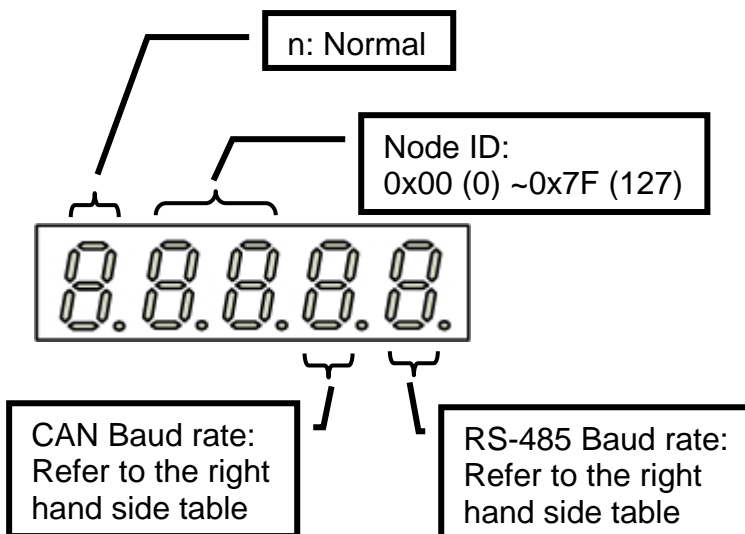
The purpose of this manual is focused on helping users to quickly familiarize themselves with the I-7232D module. Users can apply the I-7232D module as follows.



2. Hardware structure

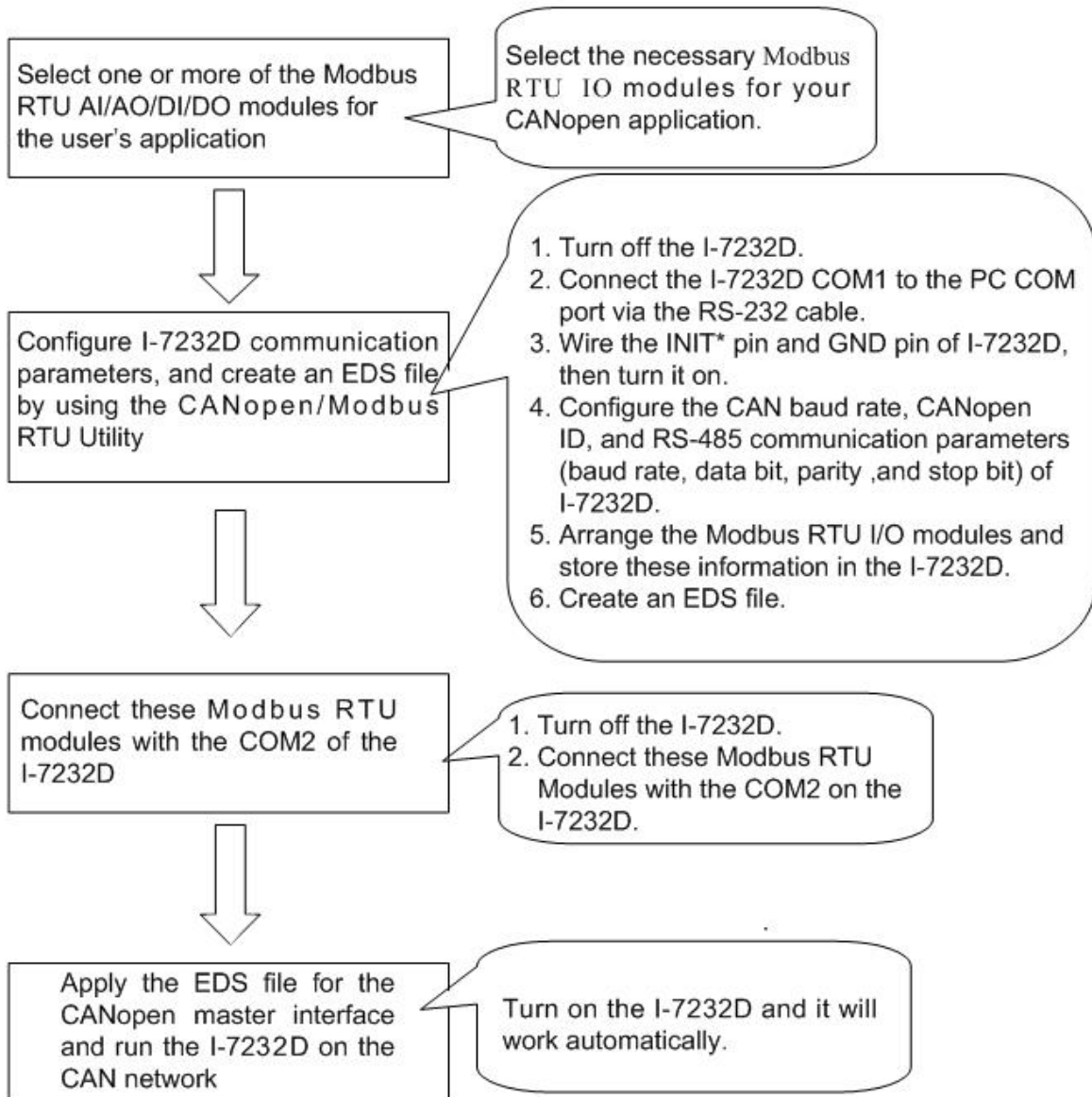


3. 7-segment LED



7-segment LED Number	CAN Baud rate	RS-485 Baud rate
0	10 K bps	1200 bps
1	20 K bps	2400 bps
2	50 K bps	4800 bps
3	125 K bps	9600 bps
4	250 K bps	19200 bps
5	500 K bps	38400 bps
6	800 K bps	57600 bps
7	1000 K bps	115200 bps

4.How to Start

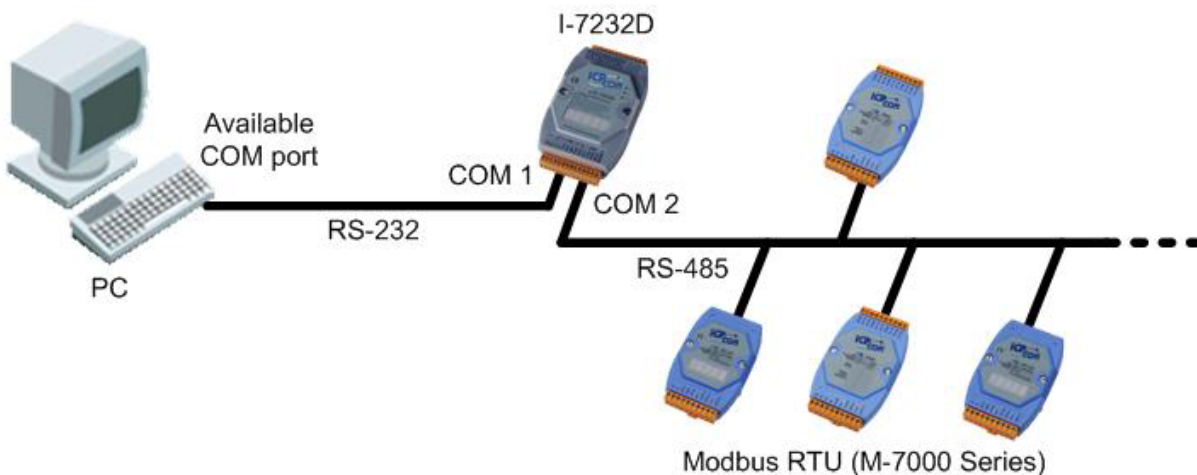


5.Configuration Installation

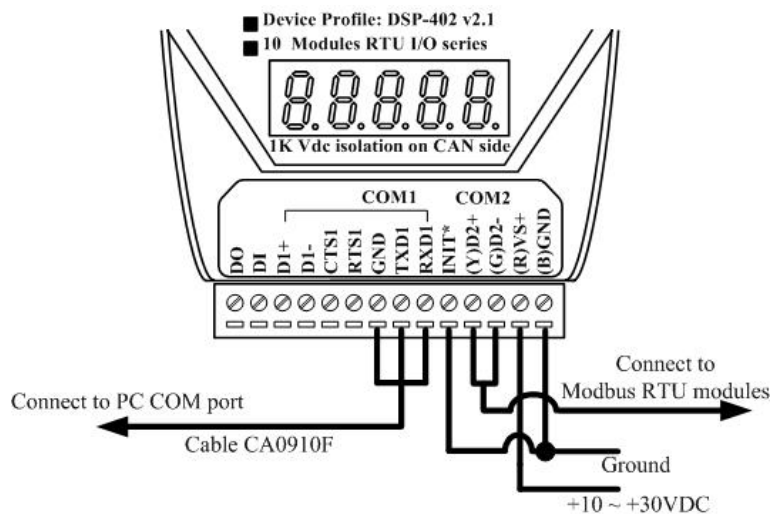
Step1: Install the CANopen/Modbus RTU Gateway Utility into your PC. Users can get the setup file from the web site <http://www.icpdas.com/download/can/index.htm> or the product CD in the path of “/Napdos/iCAN/CAN_Gateway/I-7232D”.

Step2: Before running the CANopen/Modbus RTU Gateway Utility, please connect the COM1 of the I-7232D with the available COM port of your PC. Also, connect the configured Modbus RTU modules with the COM2 of the I-7232D. The architecture is displayed in the following figure.

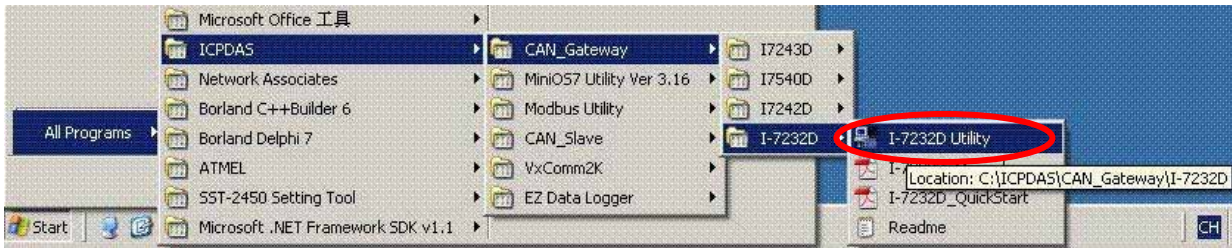
(Note: We use the ICPDAS M-7000 series Modbus RTU modules for this demo, if users want to use any other Modbus RTU device, please configure the communication parameters of this device firstly.)



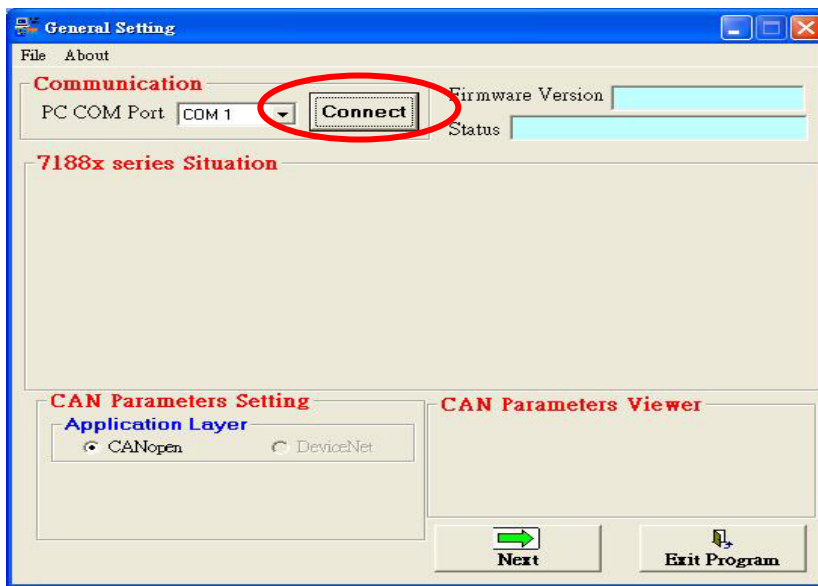
Step 3: Turn off the I-7232D firstly. Connect the INIT* pin and the GND pin on the I-7232D. Then, turn on the I-7232D.



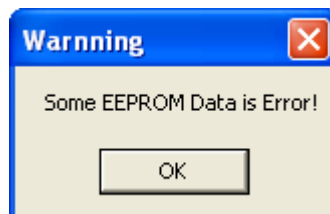
Step 4: Run the CANopen/Modbus RTU Gateway Utility.



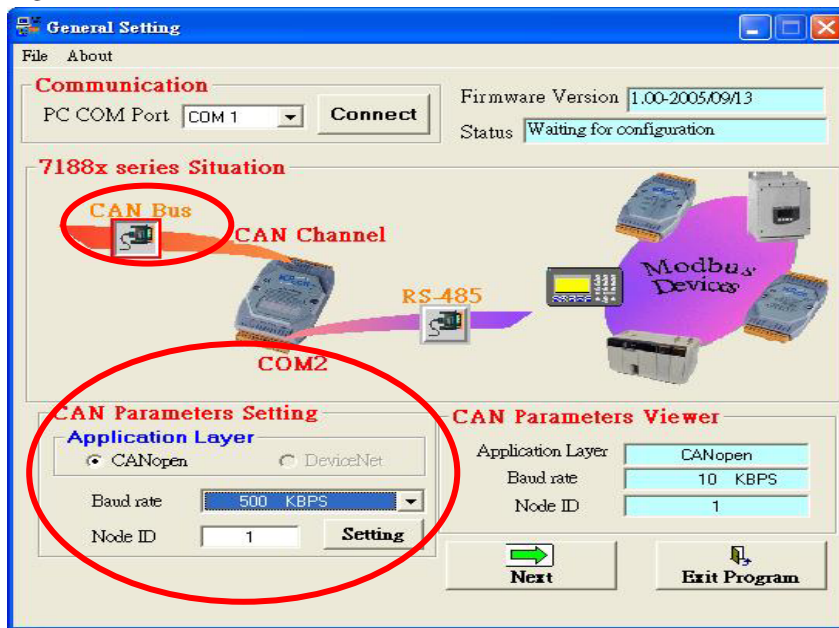
Step 5: Execute the CAN_MRU.exe file. The following figure will be displayed.
Then click the “connect” button.



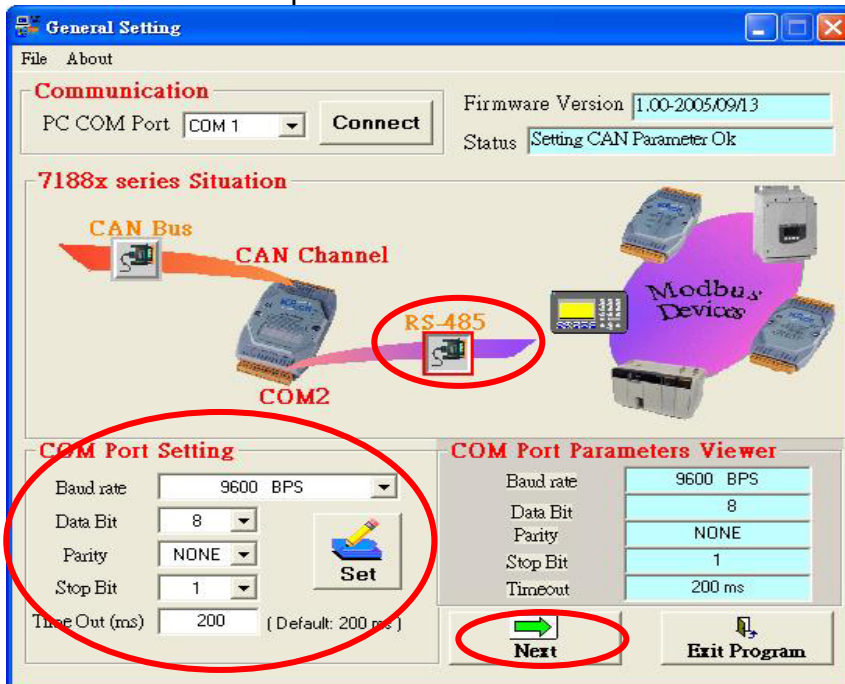
(Note: When the CAN_MRU.exe can't get the configuration information from the EEPROM, it may response a Warning dialog as follows. This situation may be happen because the connection between PC and I-7232D is broken during the CAN_MRU.exe is writing the data to the I-7232D EEPROM. Users can repeat the steps from 2~5 to solve this problem)



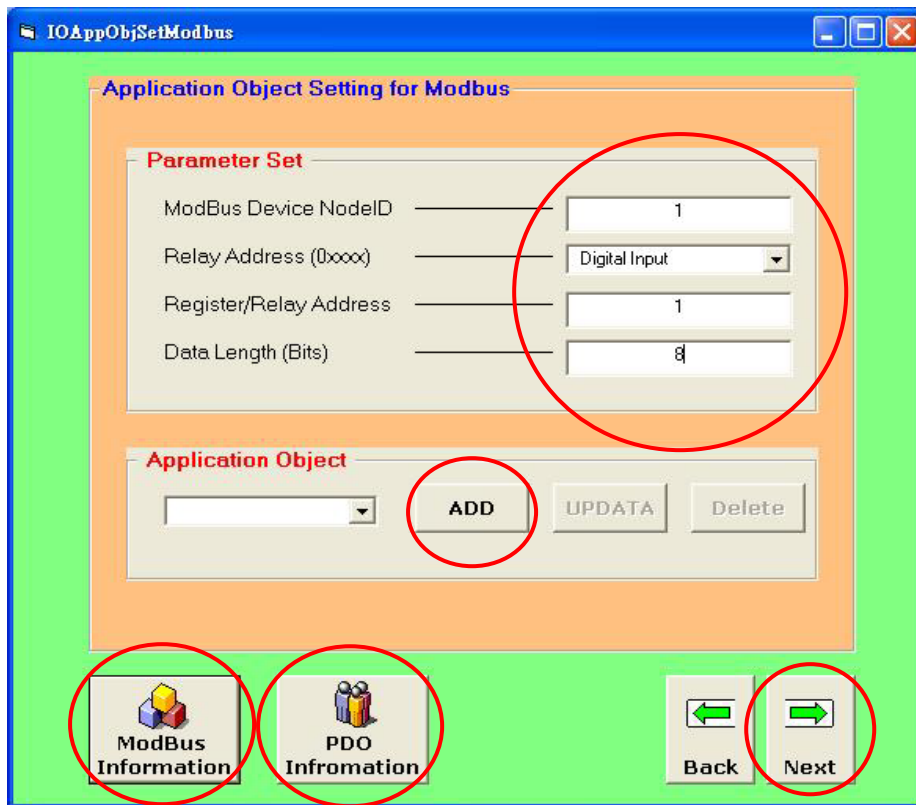
Step 6: Click the “CAN Bus” button to configure the CAN communication parameters for I-7232D.



Step 7: Click the “RS-485” button to configure the RS-485 parameters for the CANopen/Modbus RTU gateway. These parameters need to match with the communication parameters of Modbus RTU modules. Afterwards, click the “Next” button to next step.



Step 8: You have to input the Modbus device NodeID, Relay Address, Register/Relay Address and Data Length for one Modbus device connected with I-7232D. These parameters are decided from this Modbus RTU device. Then click “ADD” button to save the parameters settings. Repeat the action described above if you have another Modbus device. When you finish these steps, please click “Next” button to next step.

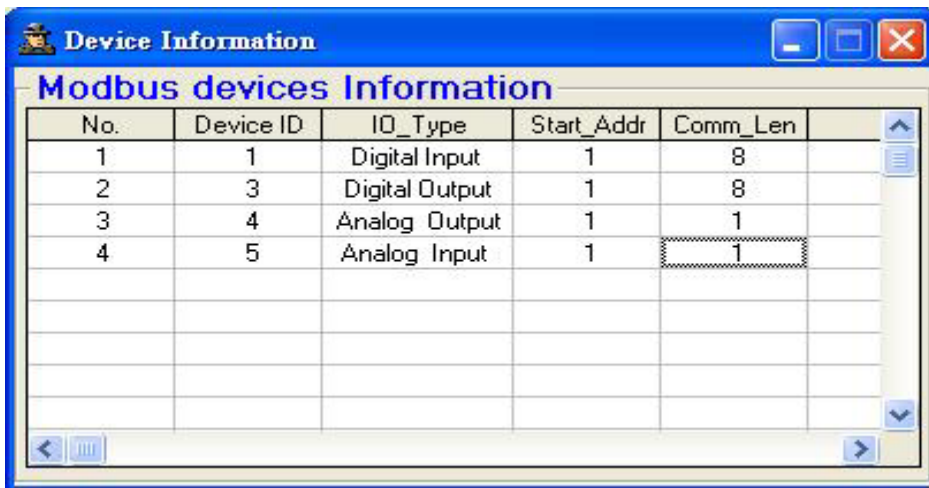


(Note: If you want to remove some device information, please select the instance number corresponding to this device, and click the “Delete” button, the device information will be removed.)

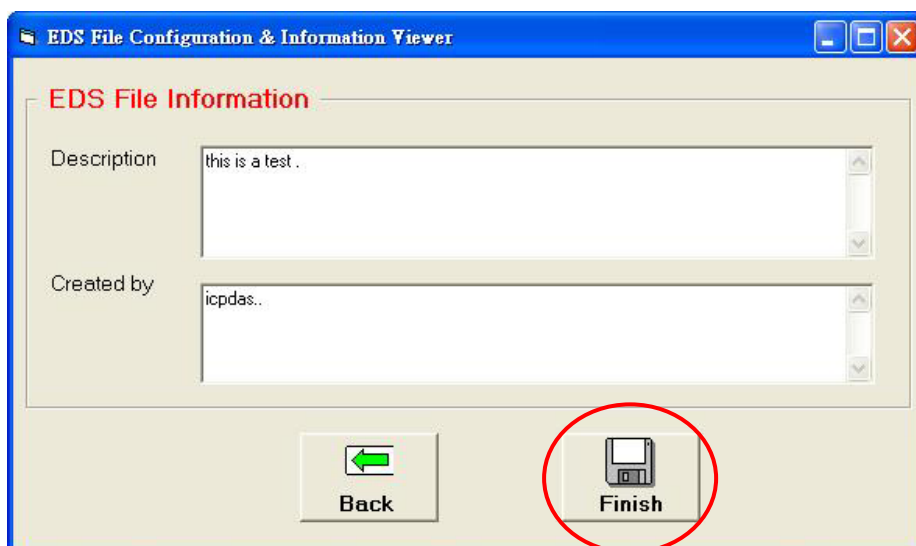


Users can click on the “PDO Information” or “Modbus Information” button to view the PDO objects or Modbus RTU devices configuration information. These information dialogs are shown below.

Receive PDO				Transmit PDO		
PDO NO.	COB-ID (Hex)	Transmission Type	Inhibit Time	Event Timer	Mapping 0	Mapping 1
1	201	255 Reversed	255 Reversed	Reversed	0x3:0000~0007:....
2	301	255 Reversed	255 Reversed	Reversed	0x4:0	0x4:0
3	401	255 Reversed	255 Reversed	Reversed:....:....
4	501	255 Reversed	255 Reversed	Reversed:....:....



Step 9: If everything is ok, click the “Finish” button to create the EDS file and save the related information into the EEPROM of the I-7232D.



Step 10: Turn off the I-7232D, and remove the wire between the Init* pin and GND pin of the I-7232D, Then power on the I-7232D. When the I-7232D has finished the initialization, the RUN LED on the I-7232D will be flashed about twice per second, and the I-7232D is into the NMT pre-operational state. For more information about the CANopen system and CANopen communication set, please refer to the I-7232D user manual.