

The i-7241D DNS/DCON Gateway

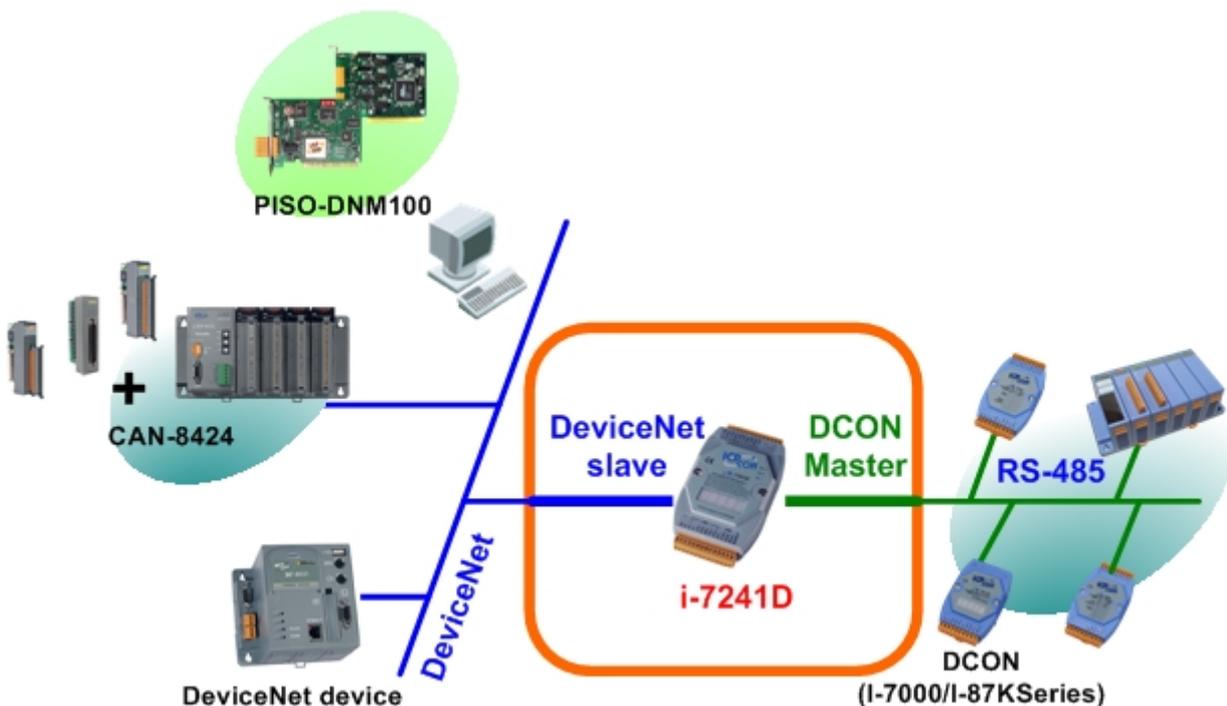
Quick Start User Guide

1. Introduction

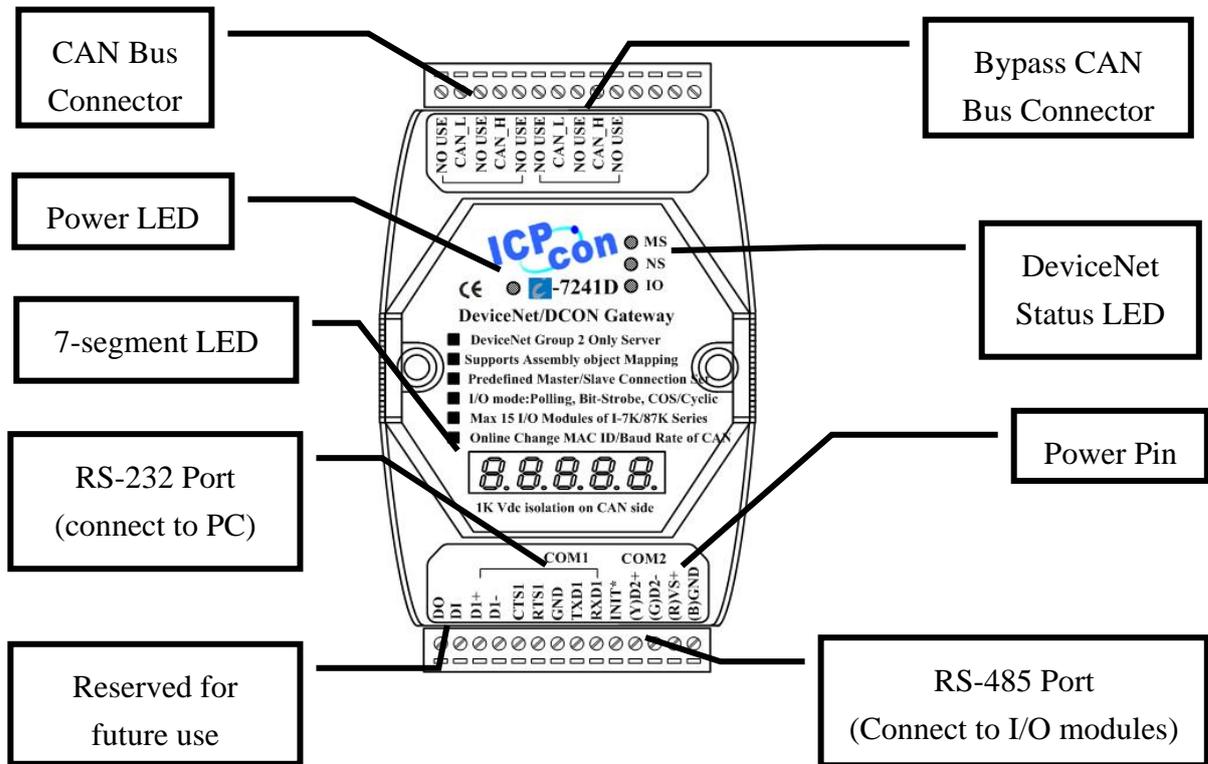
This manual introduces the user to implement the i-7241D module into their applications in a quick and easy way. This document only provides with the basic instructions. For more detailed information, please refer to the i-7241D user manual located on the ICPDAS CD-ROM or download it from the ICPDAS web site:

http://www.icpdas.com/download/can/Gateway_Converter.htm

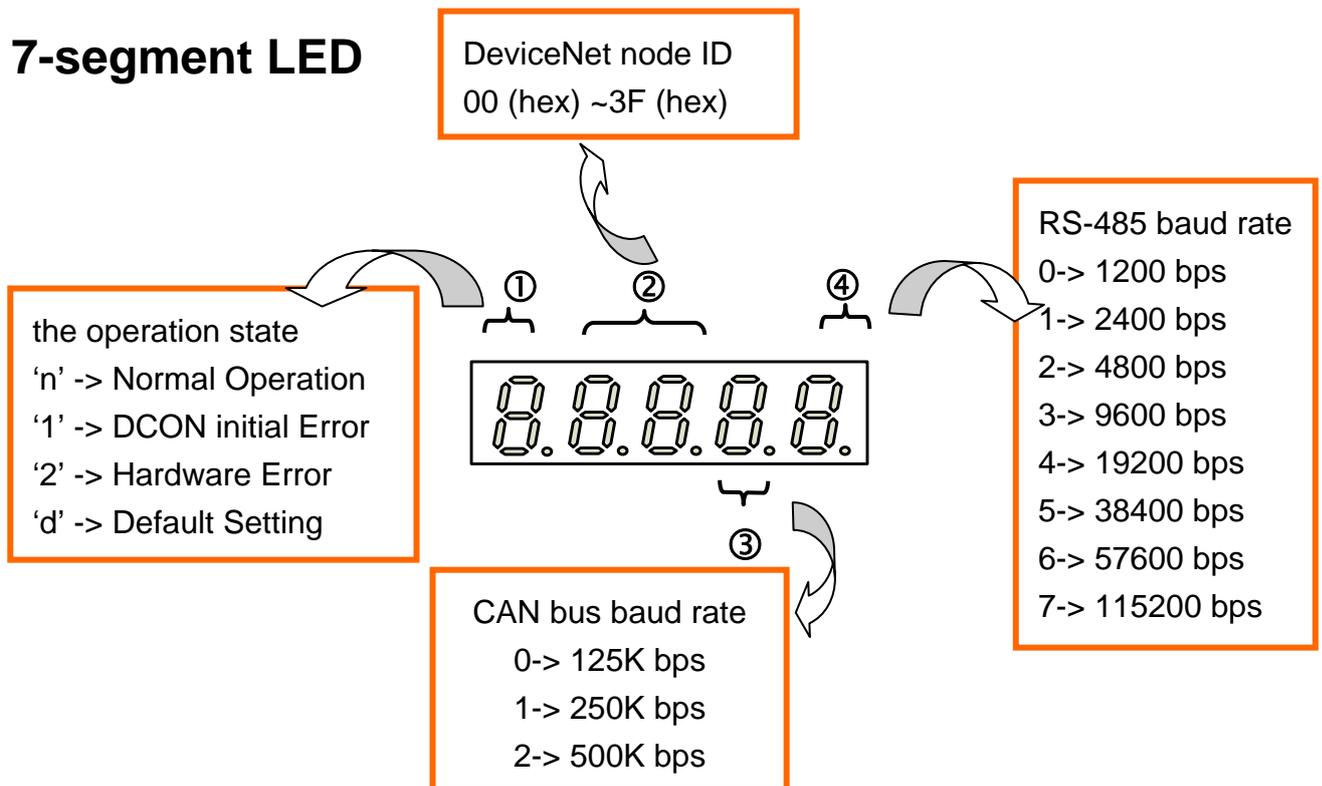
The goal of this manual is focused on helping users to quickly familiarize themselves with the i-7241D module. Users can apply the i-7241D module as follows.



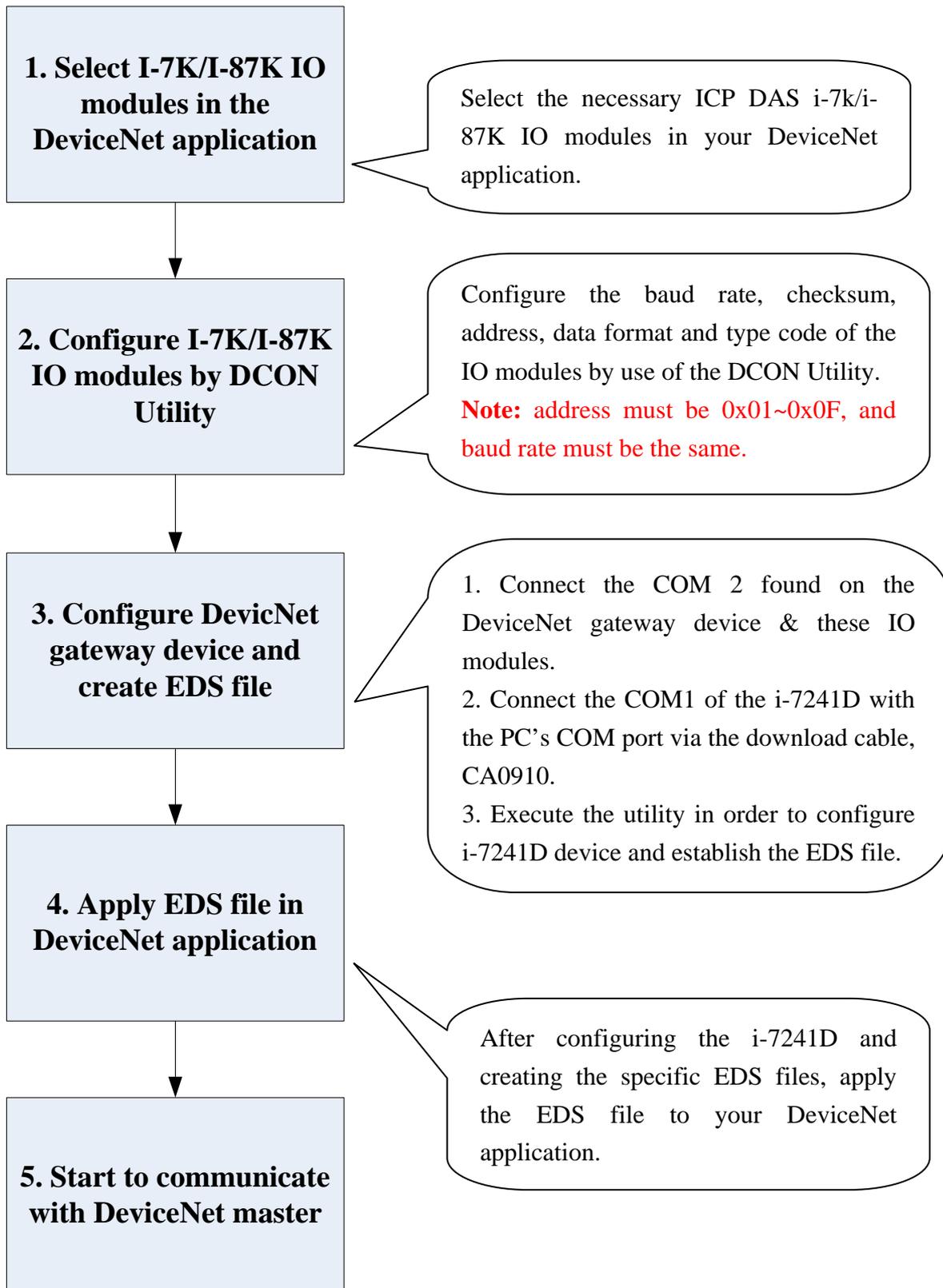
2. Hardware structure



3. 7-segment LED



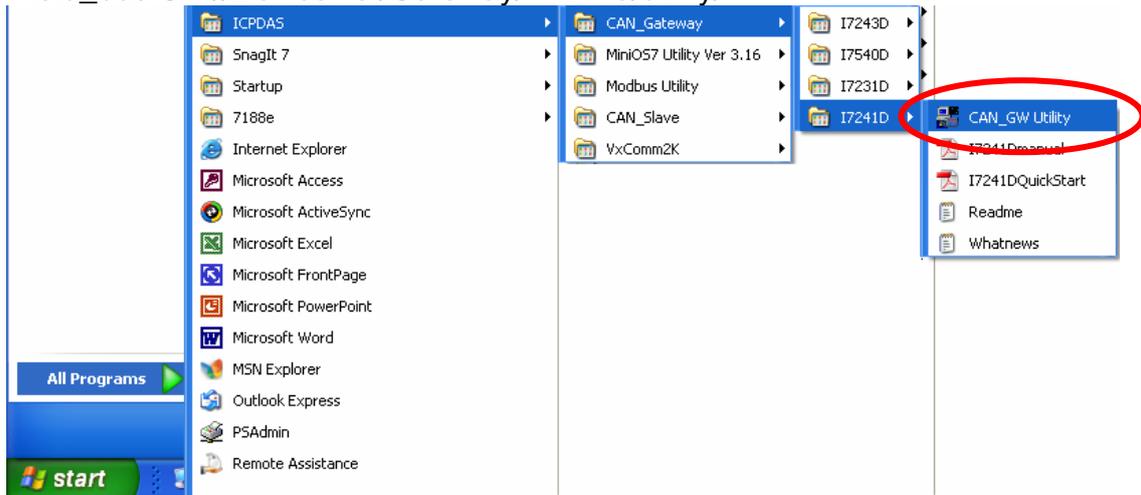
4. How to Start



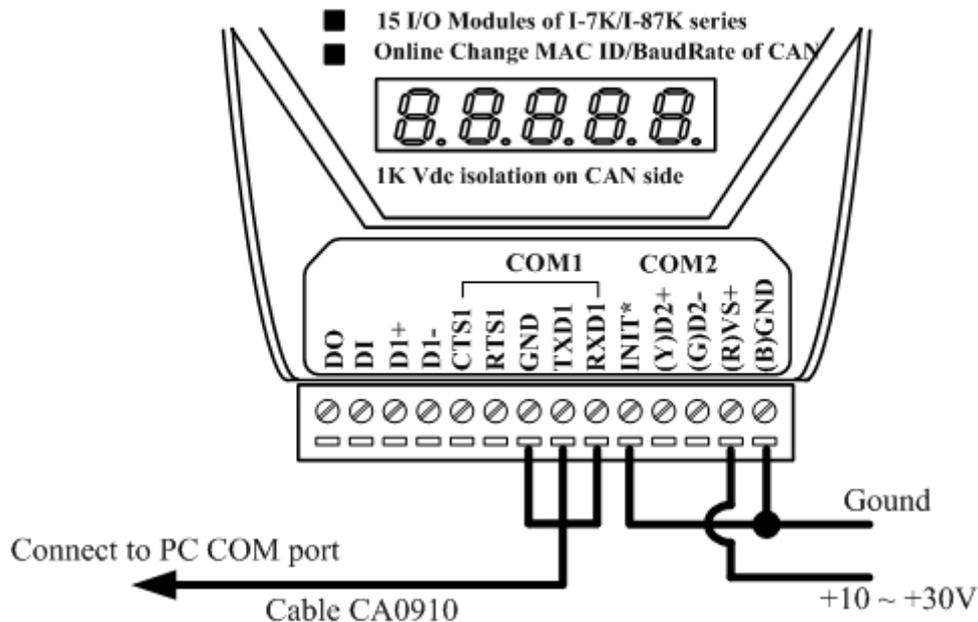
5. Hardware Installation

Before using the i-7241D, users must configure the DCON modules by using DCON Utility tool. Then configuring the i-7241D by using the CAN Gateway Utility, as shown in the following steps.

Step 1: Please install the CAN Gateway Utility. You can find the software from our web site: http://www.icpdas.com/download/can/Gateway_Converter.htm or the CD path of field_bus CD://DeviceNet/Gateway/i-7241d/utility/.

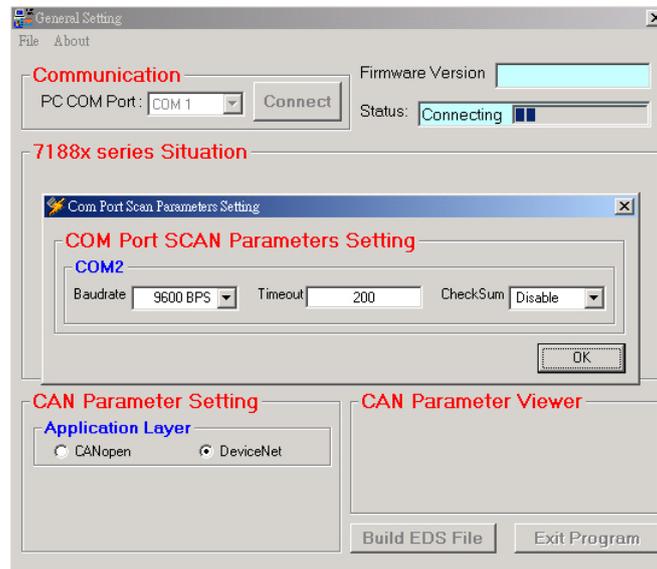


Step 2: Before using the utility tool, connecting the i-7000 modules and the i-7241D correctly. Then turn off the i-7241D and connect the INIT* pin with the GND pin.

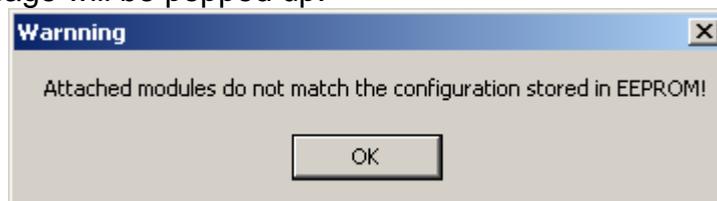


Step 3: Turn on the i-7241D. Execute the CAN_GW.exe file. The startup figure would be displayed.

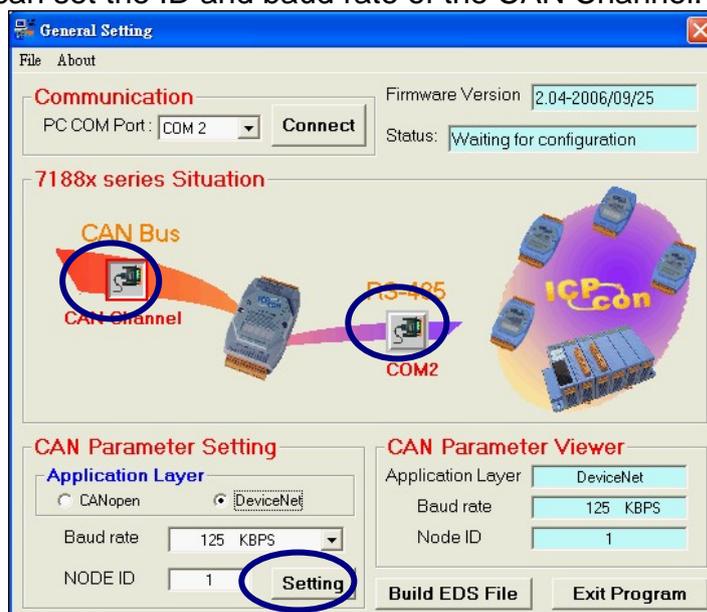
Step 4: Press the “Connect” button to connect the i-7241D. Then the “Com Port Scan Parameter Setting” dialog will be pop-up as follows. Please set the correct Com port communication parameters to scan the i-7000 modules. Then press the “OK” button to scan the modules.



Step 5: After scanning the i-7000 modules, the result will be compared with the parameters stored in the EEPROM of the i-7241D. If any difference has been detected, the warning message will be popped up.



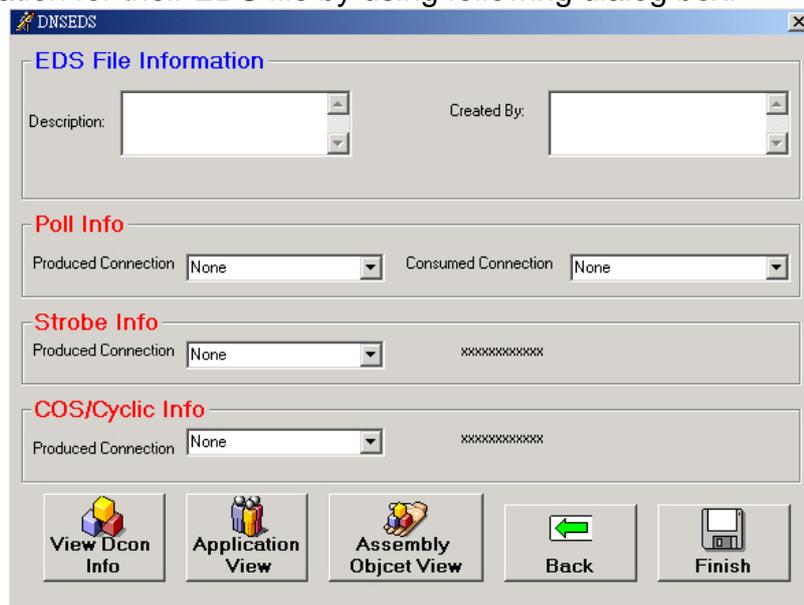
Step 6: Otherwise, a related information dialog box will be displayed as following figure. The users can set the ID and baud rate of the CAN Channel.



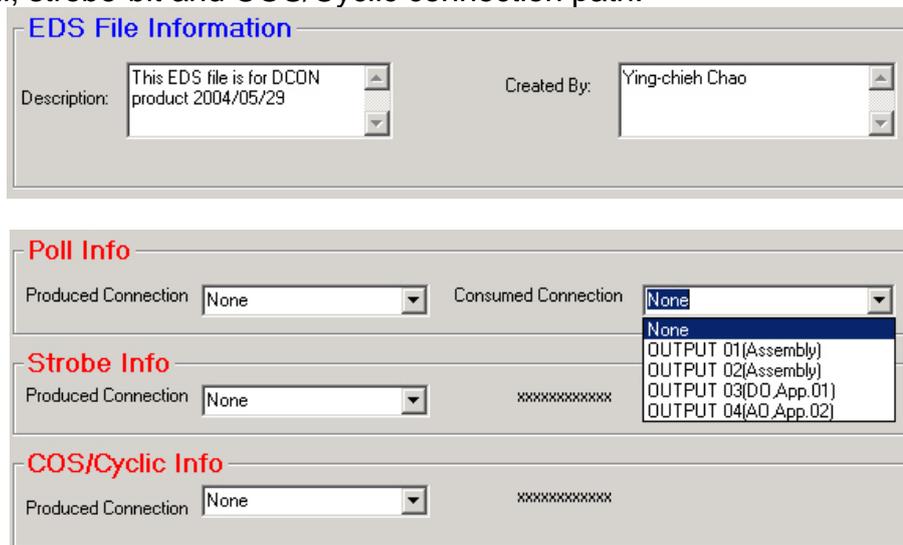
Step 7: Press “Build EDS file” to start to build the specific EDS file for the i-7241D. If the I/O connection path stored in EEPROM of i-7241D is not matched with before setting, the warning dialog box would pop-up.



Step 8: Start to build the specific EDS file for your DeviceNet gateway. The DeviceNet EDS file information is according to the following dialog box. Users can configure the relative information for their EDS file by using following dialog box.



Step 9: Setting the EDS file information and give it a description in the description box and the poll, strobe-bit and COS/Cyclic connection path.



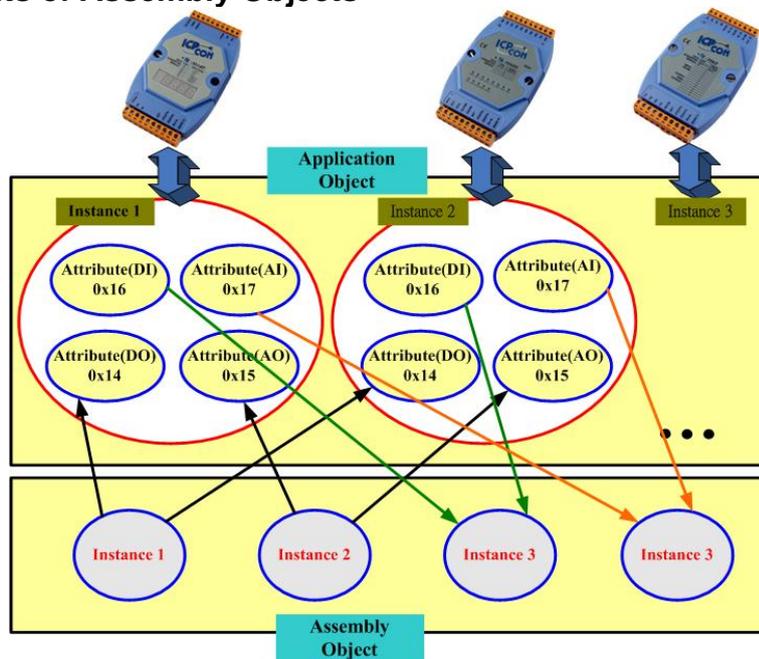
Step 10: When setting these connection paths, users can refer to the DCON modules, application and assembly objects by these icons.



Step 11: The last step is to press the “Finish” button to create the EDS file and store these information into the i-7241D’s EEPROM. You can find the EDS file “DNS_DCONx.eds” in the path of CAN_GW.exe.

6.The relation of application and assembly objects

The components of Assembly Objects



Example: In the demo, apply i-7066 (address 0x01), i-7033 (address 0x04), i-87024 (address 0x05) and i-87053 (address 0x06) in the system.

Part of attributes in Application instance

Application Instance ID	Module Address	Module name	DO Length(Byte)	AO Length(Byte)	DI Length(Byte)	AI Length(Byte)
0x01	0x01	7066	1(7 channels)	0	0	0
0x02	0x04	7033	0	0	0	6(3 channels)
0x03	0x05	87024	0	8(4 channels)	0	0
0x04	0x06	87017	0	0	0	16(8 channels)

The components of assembly objects

Assembly Object Instance ID	Data Length(Byte)	Component modules
1	DO: 1	7066(ch0~ch6)
2	AO: 8	7016(ch0~ch3)
3	AI: 22	87017(ch0~ch7),7033(ch0~ch2)

Part of Application object instance attributes

Attribute ID	Description	Attribute ID	Description
0x01	Module ID	0x0C	DO Length
0x02	Module address	0x0D	AO Length
0x03	Checksum	0x0E	DI Length
0x04	Baud rate	0x0F	AI Length
0x05	Type Code	0x10	DO channel num
0x06	Data Format	0x11	AO channel num
0x07	DCON module data error counter	0x12	DI channel num
0x08	Enable/Disable watch dog	0x13	AI channel num
0x09	Watch dog timeout period	0x14	DO data

7.Steps to implement the DeviceNet applications by using the command set

1. Requests the use of the Predefined Master/Slave Connection Set.
2. Send the Master's Explicit Request Messages to set expected_packet_rate attribute of IO connection and make I/O Connection Object State established.
3. There are two ways to access IO modules. The first method is by the way of the IO connection object. The other is by using an explicit message to set/get the IO attribute of application object.
4. Release the use of the Predefined Master/Slave Connection Set.