SPECIFICATION

MODEL: 006-LAP- CAN 2.0B-M

PART NO: _____

VERSION: V1.35

Approver		Check	Design
GM	PM		

Customer Confirm

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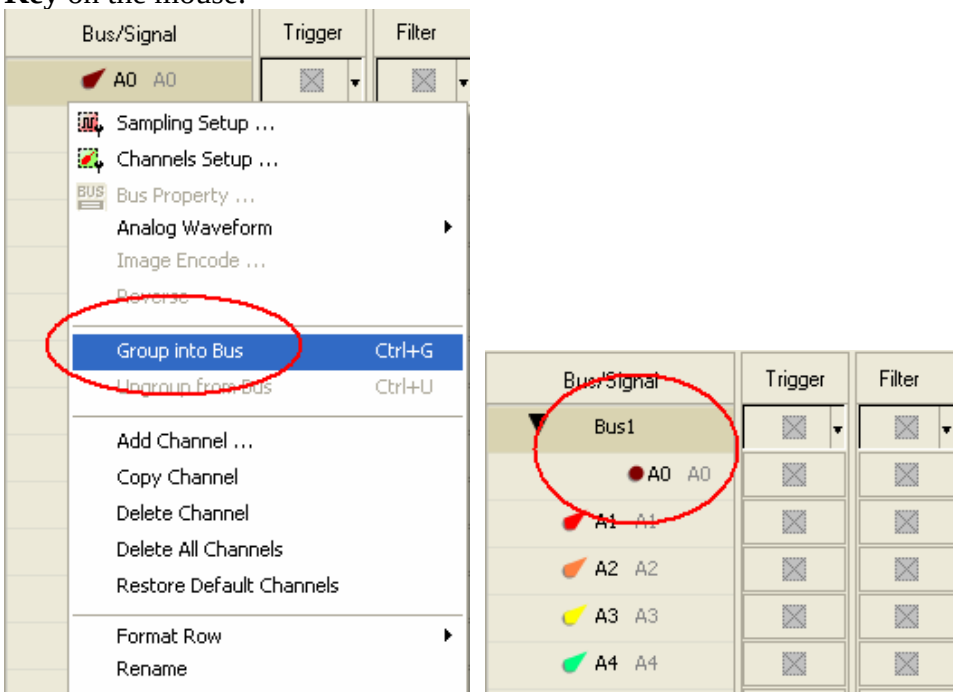
1. Software Register

Please register the software as the following steps:

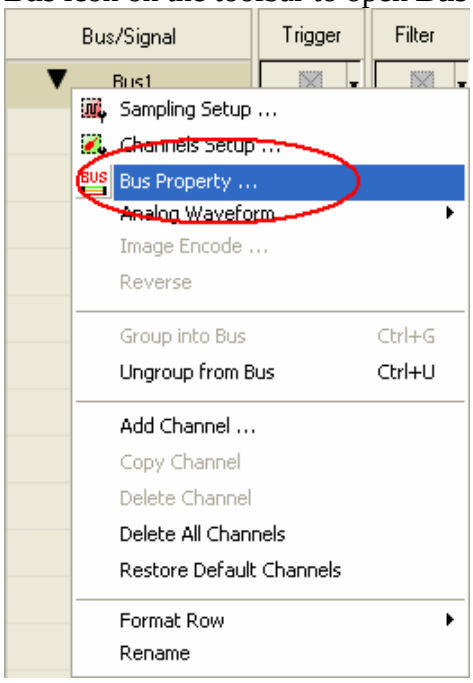
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ Remark2: We won't have additional notice for you, when there is any modification of the module specification. If there is some unconformity caused by the module version upgrade, users should take the module software as the standard.

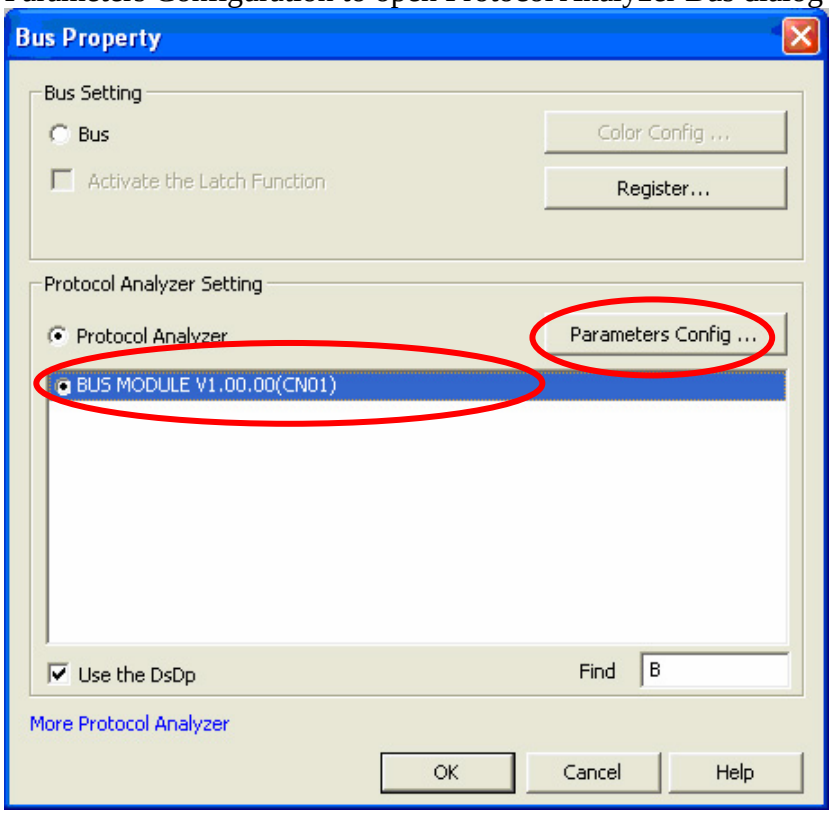
STEP 1. Open the Logic Analyzer and group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse.



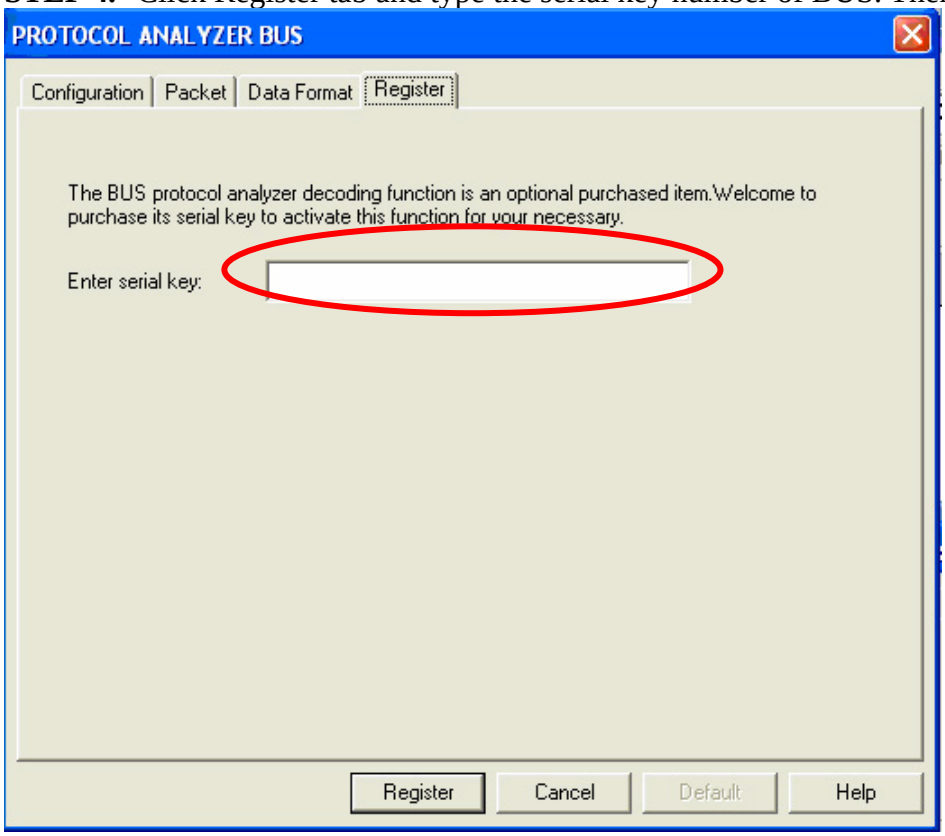
STEP 2. Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.



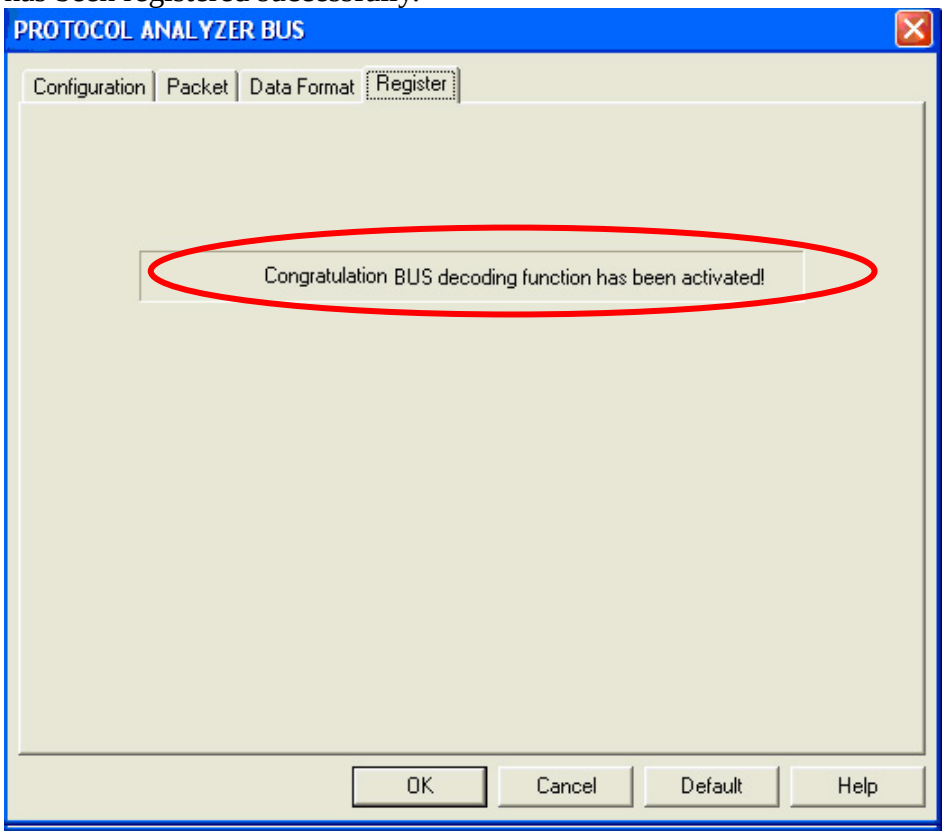
STEP 3. Select the Protocol Analyzer, and then choose **BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.



STEP 4. Click Register tab and type the serial key number of BUS. Then click Register.



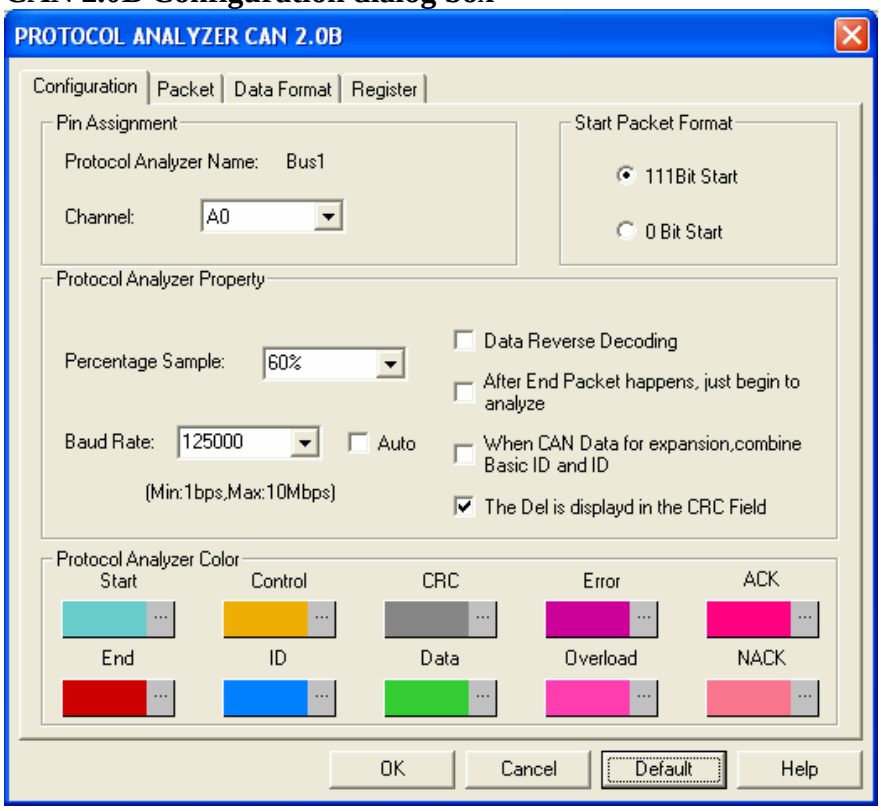
STEP 5. After clicking the Register button, following dialog box will appear, it denotes that the BUS has been registered successfully.



2. User Interface

Please refer to the below images to select options of setting **CAN 2.0B** Module.

CAN 2.0B Configuration dialog box



Pin Assignment:

CAN 2.0B only needs one channel to decode signal, and it is A0 by default.

Start Packet Format:

User can select 111 Bit Start or 0 Bit Start, and it is the 111 Bit Start by default.

Protocol Analyzer Property:

Percentage Sample: It should be entered in the position of the Baud Rate which is selected from the range between 25% and 75%, and it is 60% by default. The resolution can be adjusted to 1%.

Baud Rate: It can be set to Integer manually or selected from the options on the pull-down menu (10000, 20000, 40000, 50000, 80000, 100000, 125000, 200000, 250000, 400000, 500000, 660000, 800000 and 1000000), and it is 125000 by default. If the option “Auto” is selected, the Baud Rate can be calculated by the main program automatically and displayed on the CAN 2.0B dialog box. This option is not activated by default.

Data Reverse Decoding: If it is selected, the data can be decoded in reverse. The option is not activated by default.

After End Packet happens, just begin to analyze: If it is selected, the signal will be decoded when the End Packet appears. The option is not activated by default.

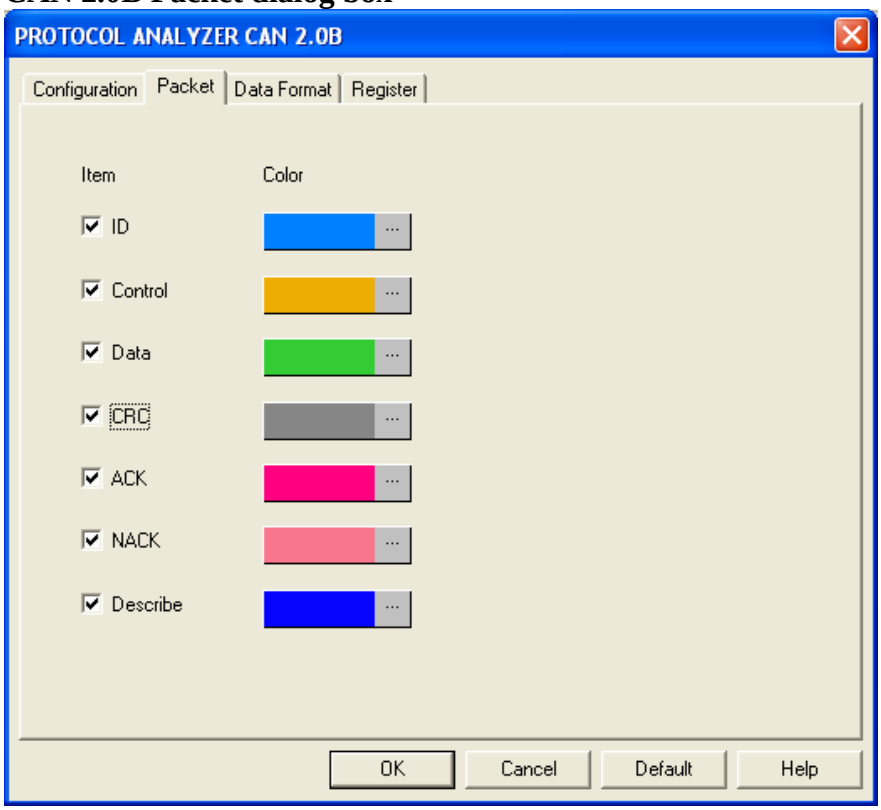
When CAN Data for expansion, combine Basic ID and ID: If the option is selected, the Basic ID and ID will be combined. The option is not activated by default.

The Del is displayed in the CRC Field: If it is selected, the Del will be displayed in the CRC Field.

Protocol Analyzer Color:

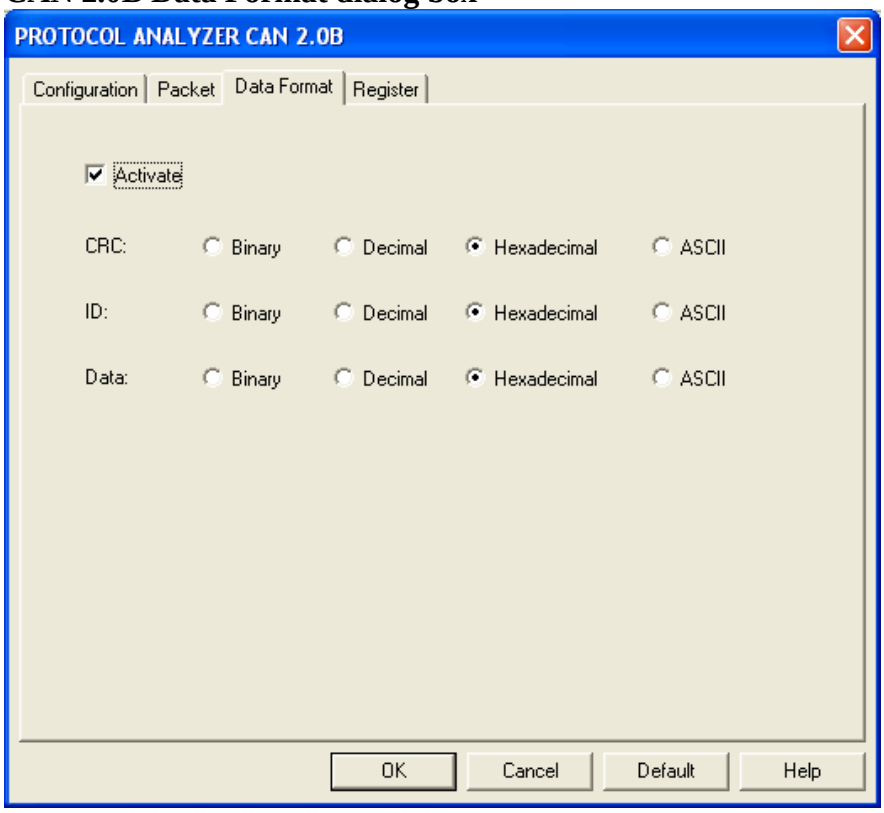
The protocol analyzer colors can be varied by users.

CAN 2.0B Packet dialog box



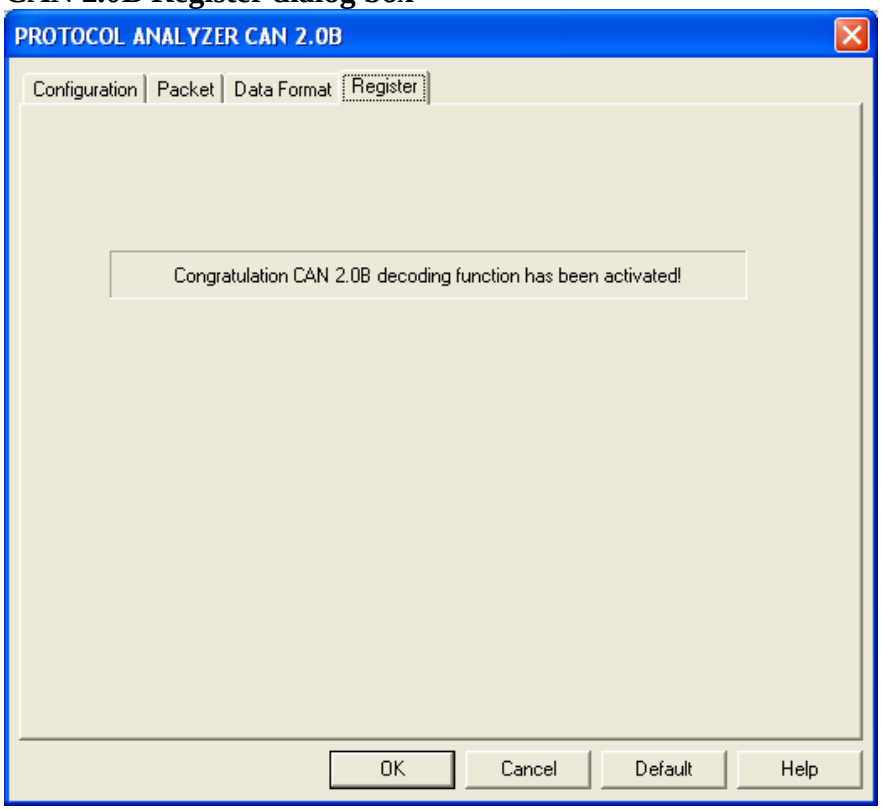
In the Packet dialog box, users can select the items and colors configuration according to their requirements.

CAN 2.0B Data Format dialog box



Users can set the Data Format of the CRC, ID and Data as their requirements. When selecting the option "Activate", the data format is decided by the settings in the Protocol Analyzer; when not selecting the option "Activate", the data format is decided by the settings in the main program.

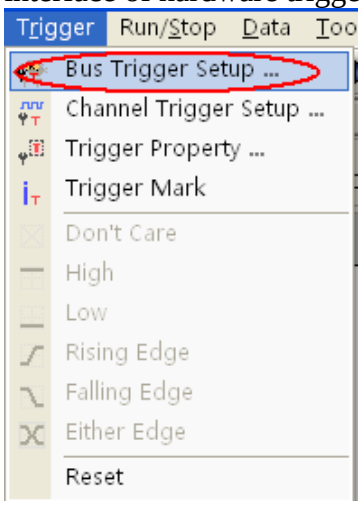
CAN 2.0B Register dialog box

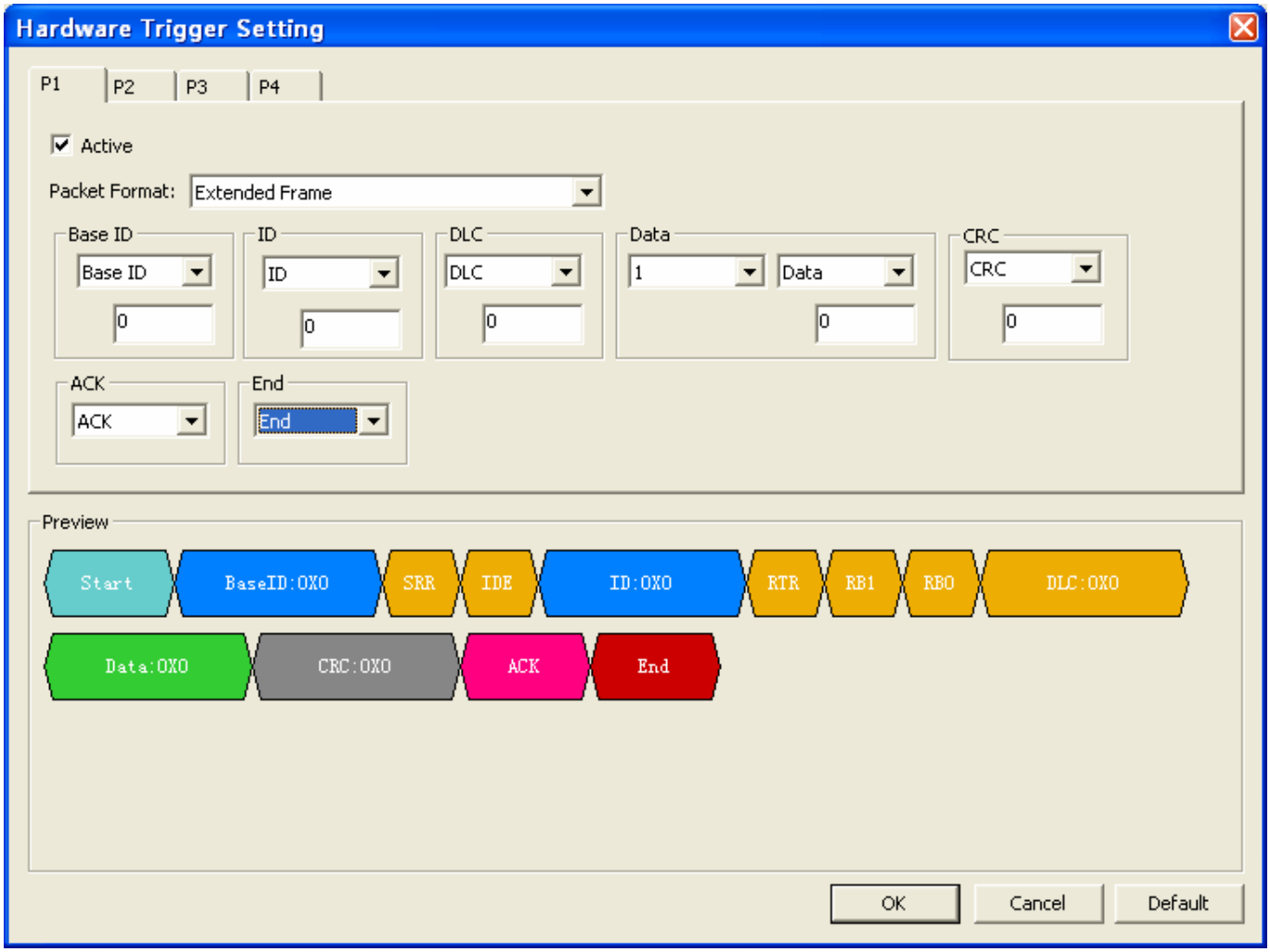


Hardware Trigger Setting

Hardware trigger could help capturing the needed data more accurate and faster. CAN 2.0B module in extended format has 128 bits at most; this module supports serial trigger of 4 packets at most. The hardware will do the hardware trigger of packet, while the module will provide UI for users to set and convert their settings to hardware parameters, then sent them to the main program which would transfer them to the hardware to execute.

Group a CAN 2.0B bus, then click ‘Bus Trigger Setup’ from the Trigger pulldown menu to open the interface of hardware trigger setting.



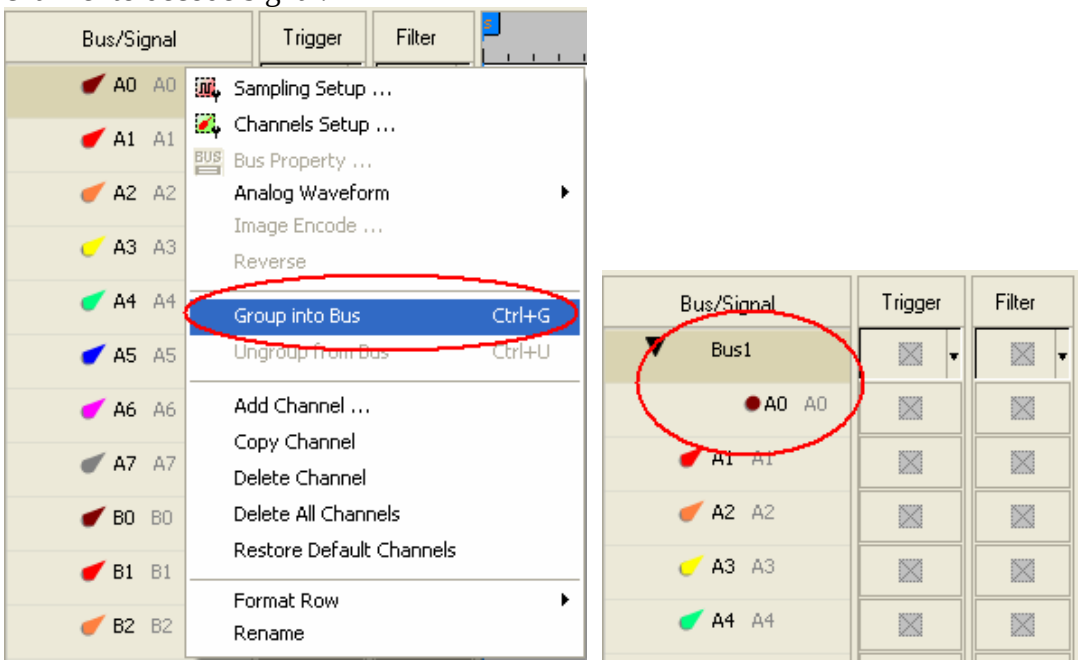


Interface Description:

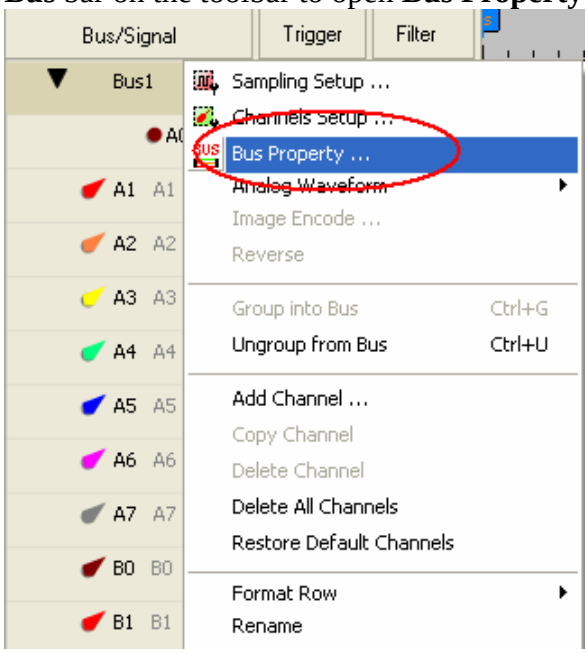
1. Packet: P1-P4. 4 packets could be set to trigger.
2. Active: Activate packet trigger with current settings.
3. Packet Format: Set packet format, which includes “Standard Frame”, “Extended Frame”, “Remote Transmit Request Frame(Standard)”, “ Remote Transmit Request Frame(Extended)” and “Error Frame/OverLoad Frame”; it is “Standard Frame” by default.
4. Base ID: Two options: “Don’t Care” and “Base ID”; it is “Don’t Care” by default.
5. ID: Two options: “Don’t Care” and “ID”; it is “Don’t Care” by default. It is enabled only in extended format.
6. DLC: Set DLC data. Two options: “Don’t Care” and “DLC”; it is “Don’t Care” by default.
7. Data 1: Set Data data. Eight options: 1-8; it is “1” by default.
8. Data 2: Set Data data. Two options: “Don’t Care” and “Data”; it is “Don’t Care” by default.
9. Data input box: Input Data data. It is “0” by default.
10. CRC: Set CRC data. Two options: “Don’t Care” and “CRC”; it is “Don’t Care” by default.
11. ACK: Set ACK data. Three options: “Don’t Care”, “ACK” and “NACK”; it is “Don’t Care” by default.
12. End: Set End data. Two options: “Don’t Care” and “End”; it is “Don’t Care” by default.
13. Preview: Preview packet data. No preview in Error Frame/OverLoad Frame format.
14. OK: Save the settings.
15. Cancel: Cancel the settings.
16. Default: Restore the settings.

3. Operating Instructions

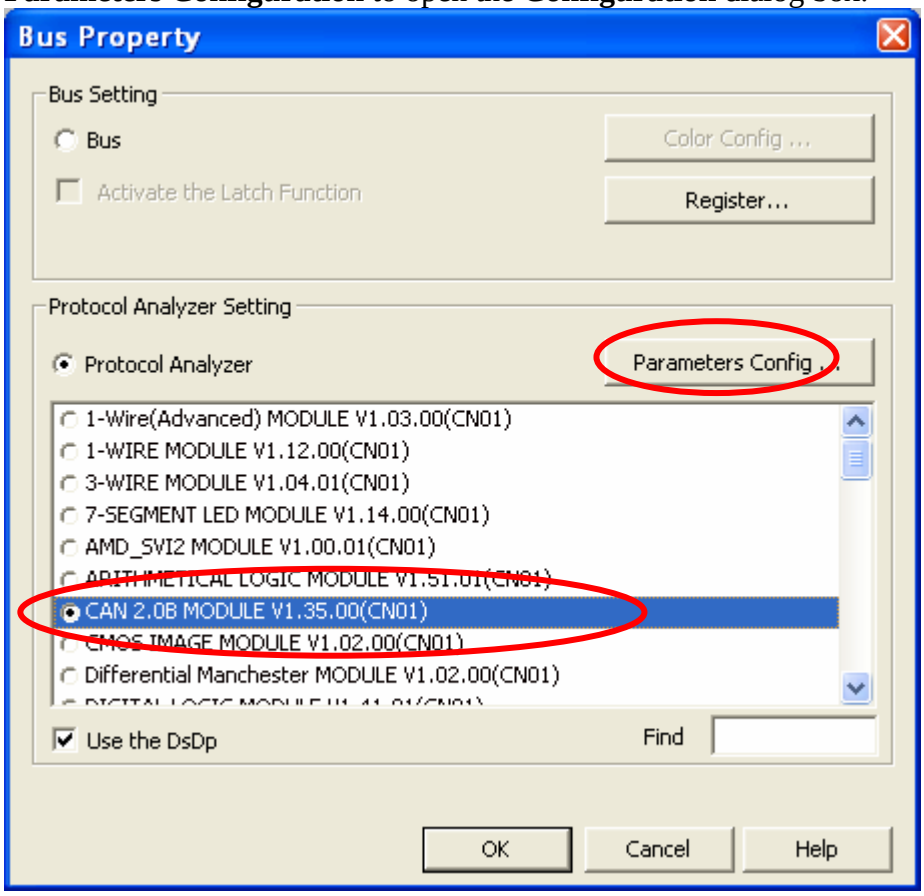
STEP 1. Group A0 into **Bus1** by pressing the **Right Key** on the mouse. **CAN 2.0B** only needs one channel to decode signal.



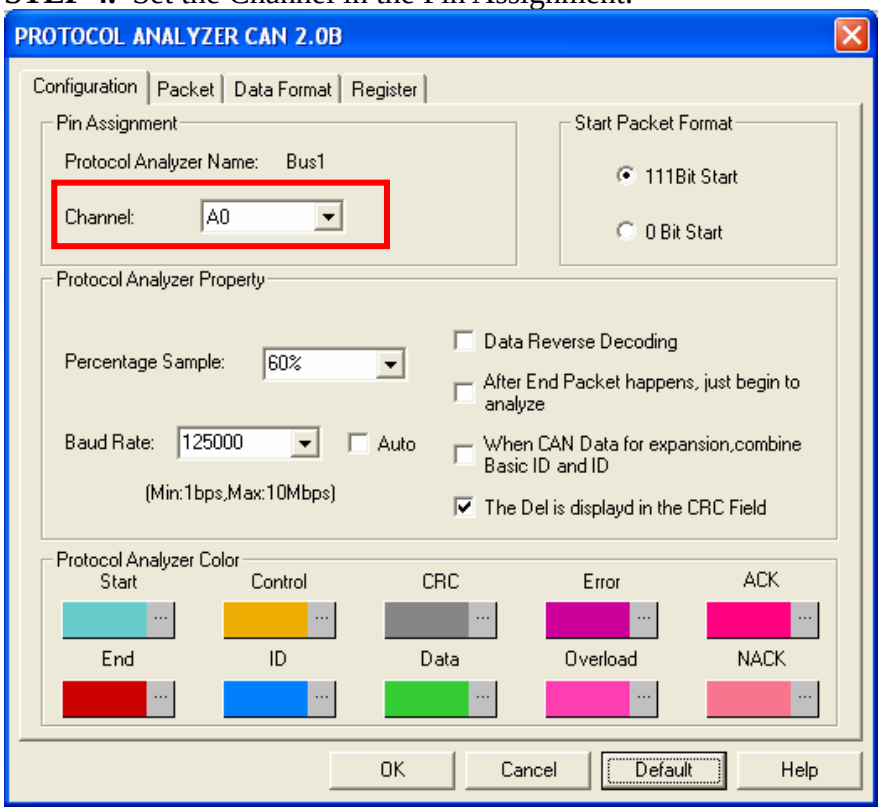
STEP 2. Select **Bus1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.



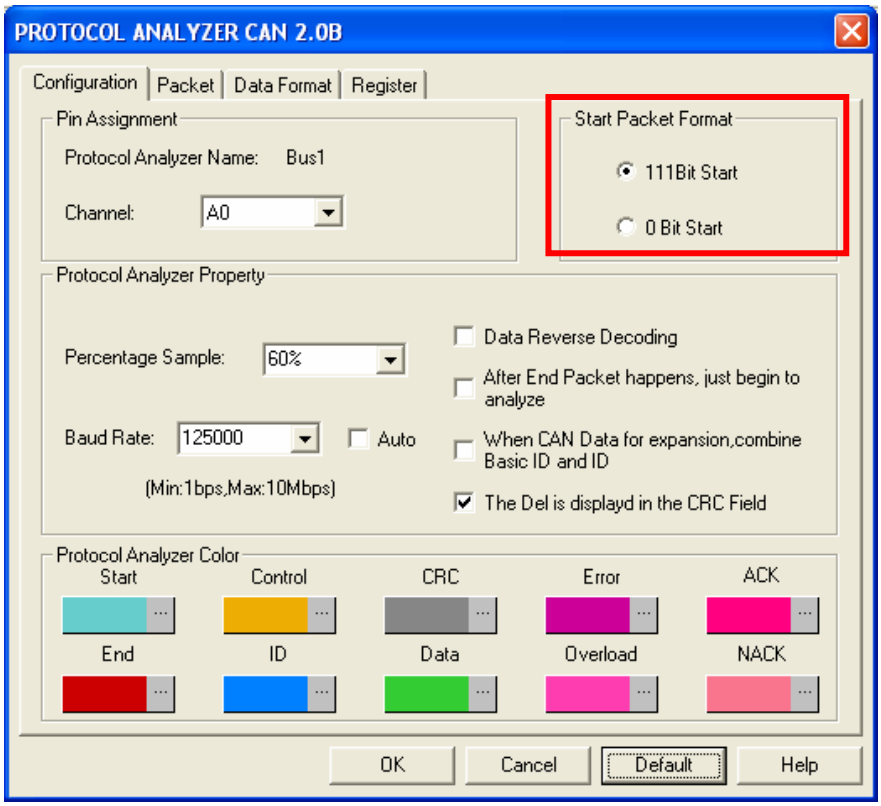
STEP 3. Select Protocol Analyzer, and select **CAN 2.0B MODULE V1.35.00 (CN01)** and click the **Parameters Configuration** to open the **Configuration** dialog box.



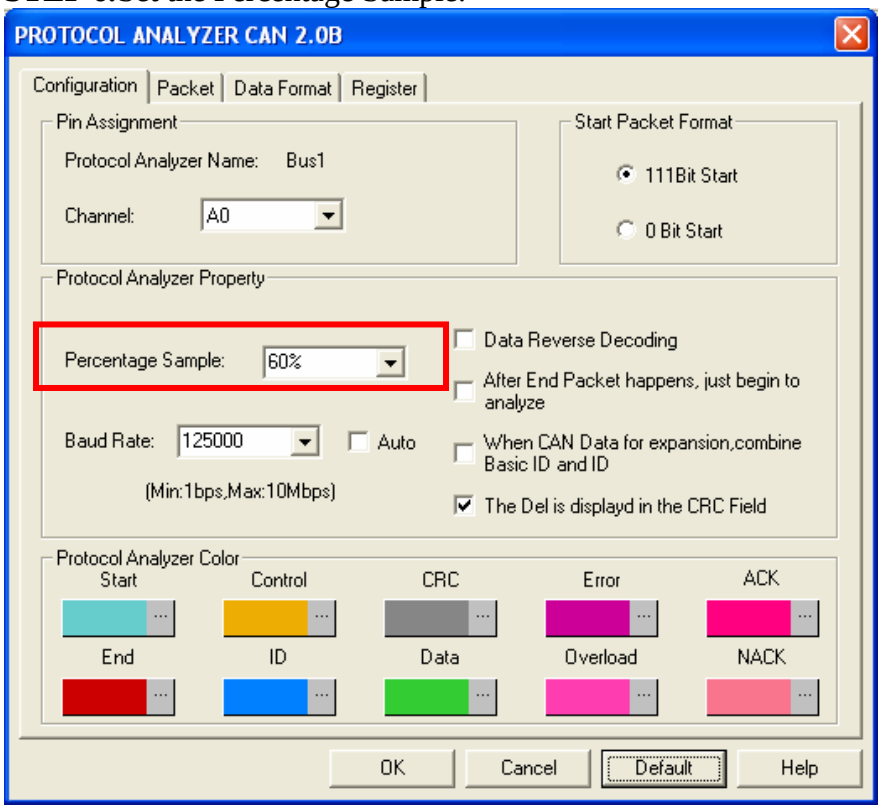
STEP 4. Set the Channel in the Pin Assignment.



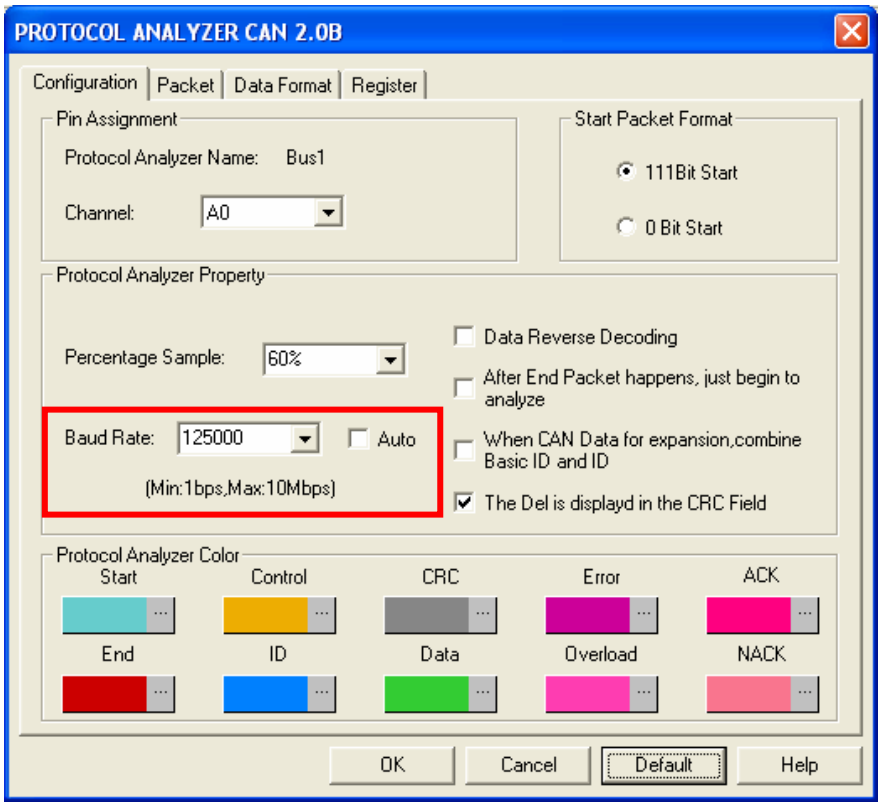
STEP 5. Set the Start Packet Format as “111 Bit Start” or “0 Bit Start”.



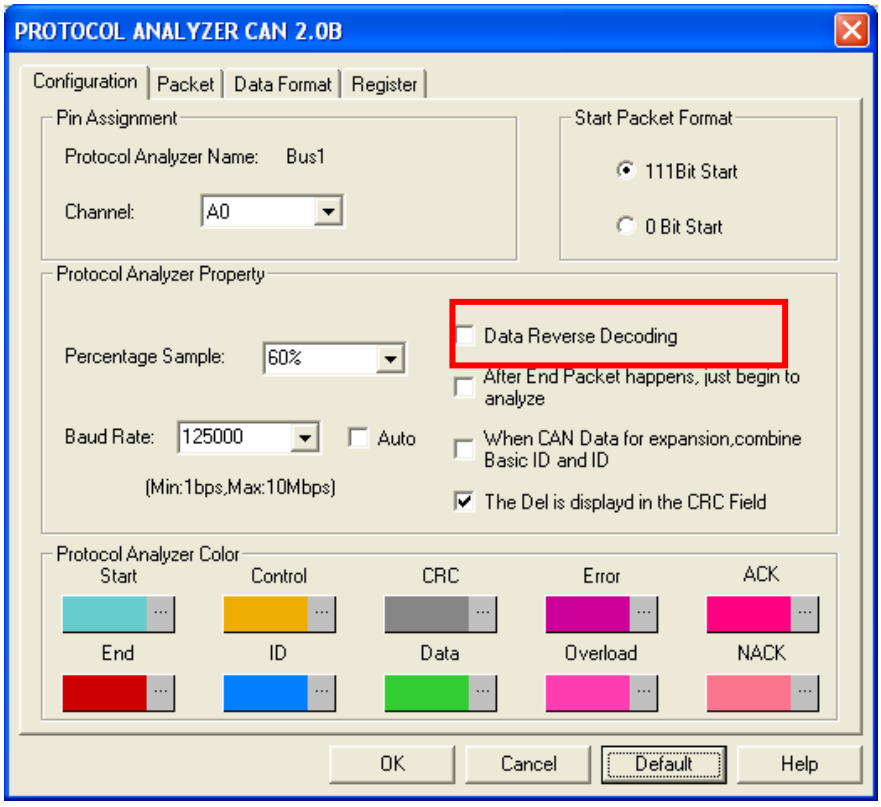
STEP 6. Set the Percentage Sample.



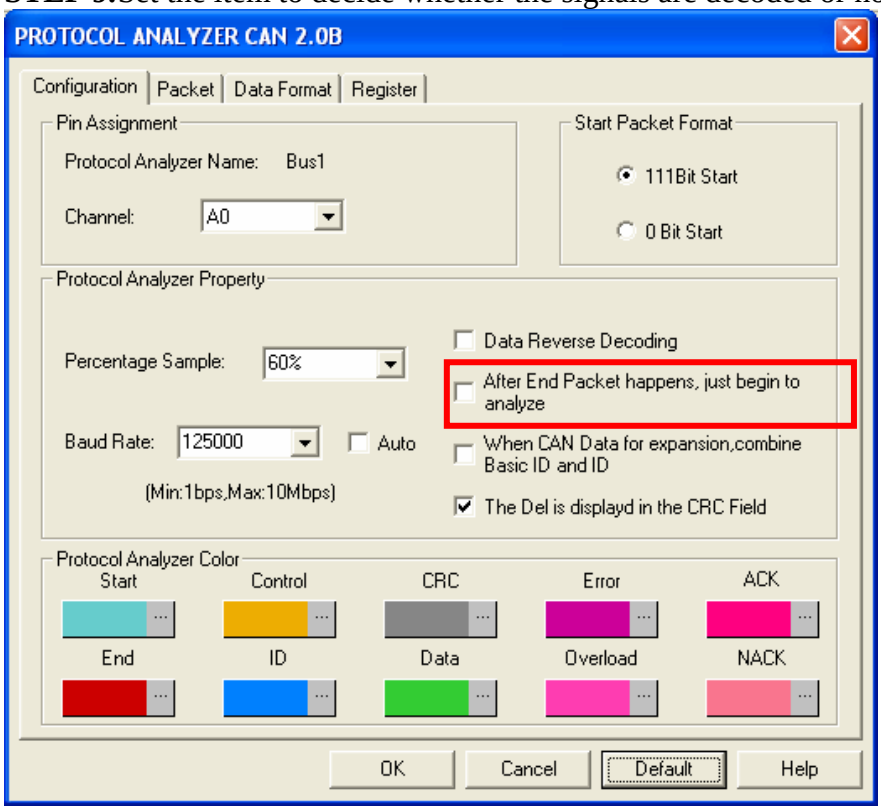
STEP 7. Set the Baud Rate or select **Auto** to calculate the Baud Rate automatically.



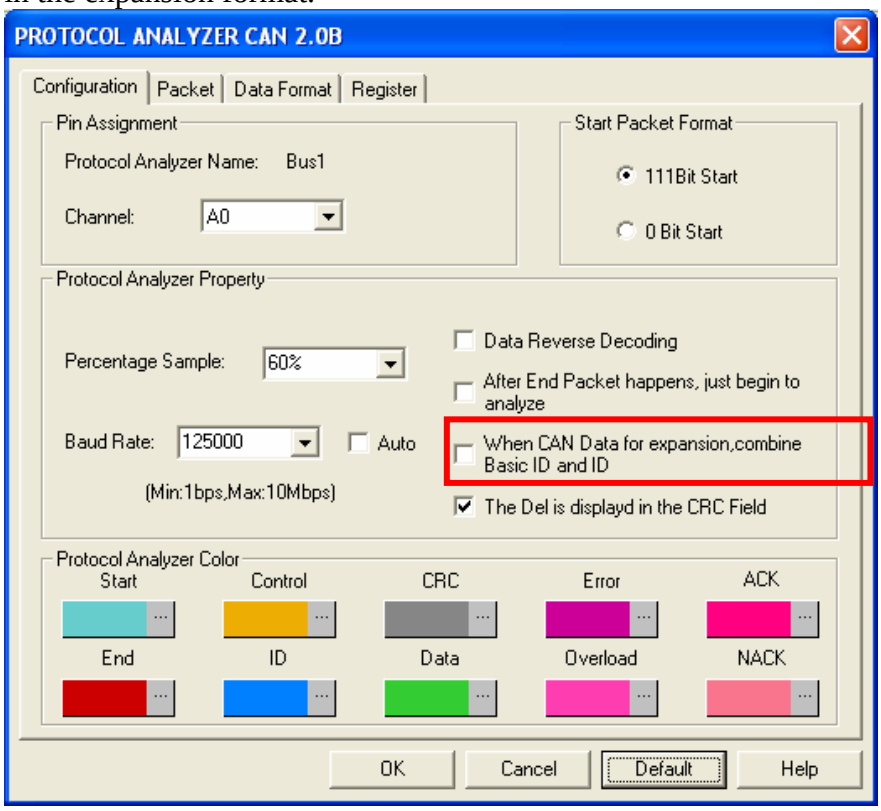
STEP 8. Set the item to decide whether the Data is decoded in reverse or not.



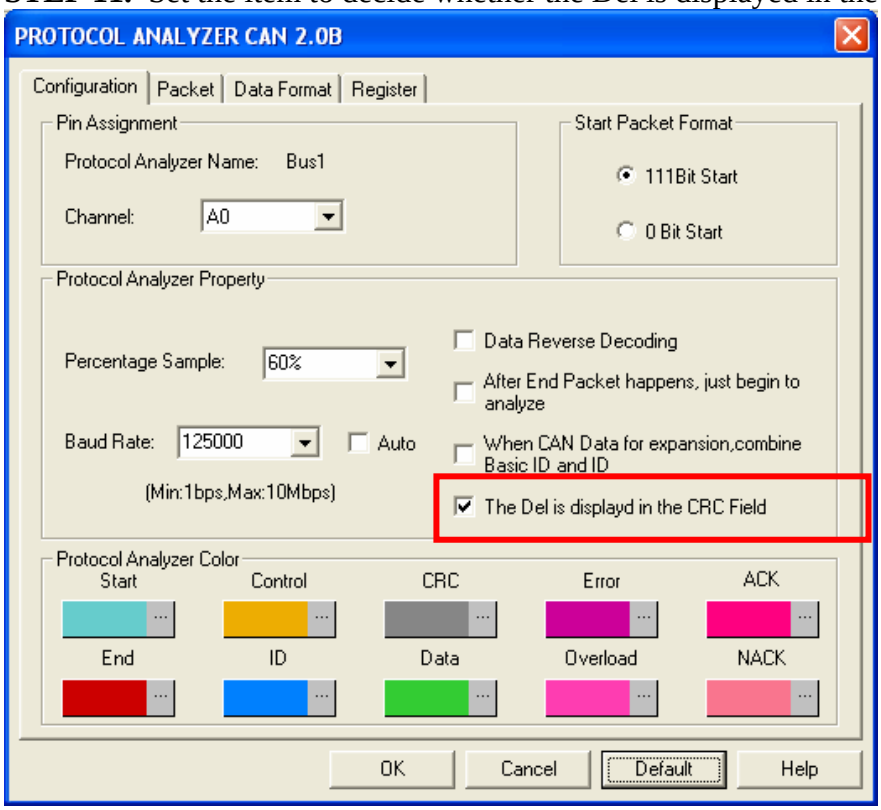
STEP 9. Set the item to decide whether the signals are decoded or not after the End Packet happens.



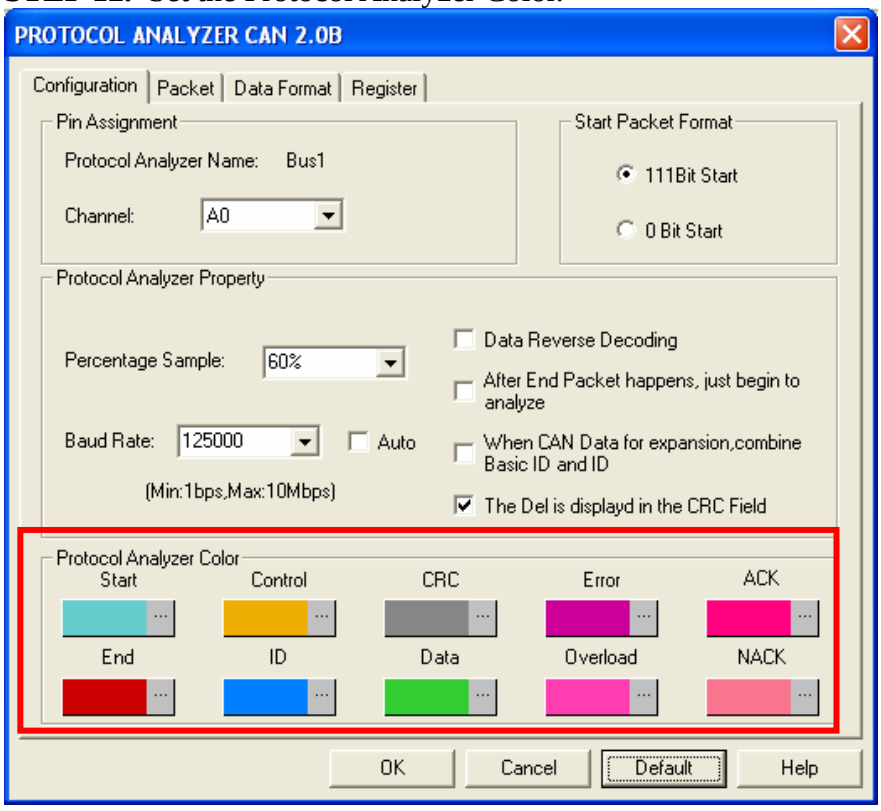
STEP 10. Set the item to decide whether the Basic ID and ID are combined or not when the CAN Data is in the expansion format.



STEP 11. Set the item to decide whether the Del is displayed in the CRC Field or not.

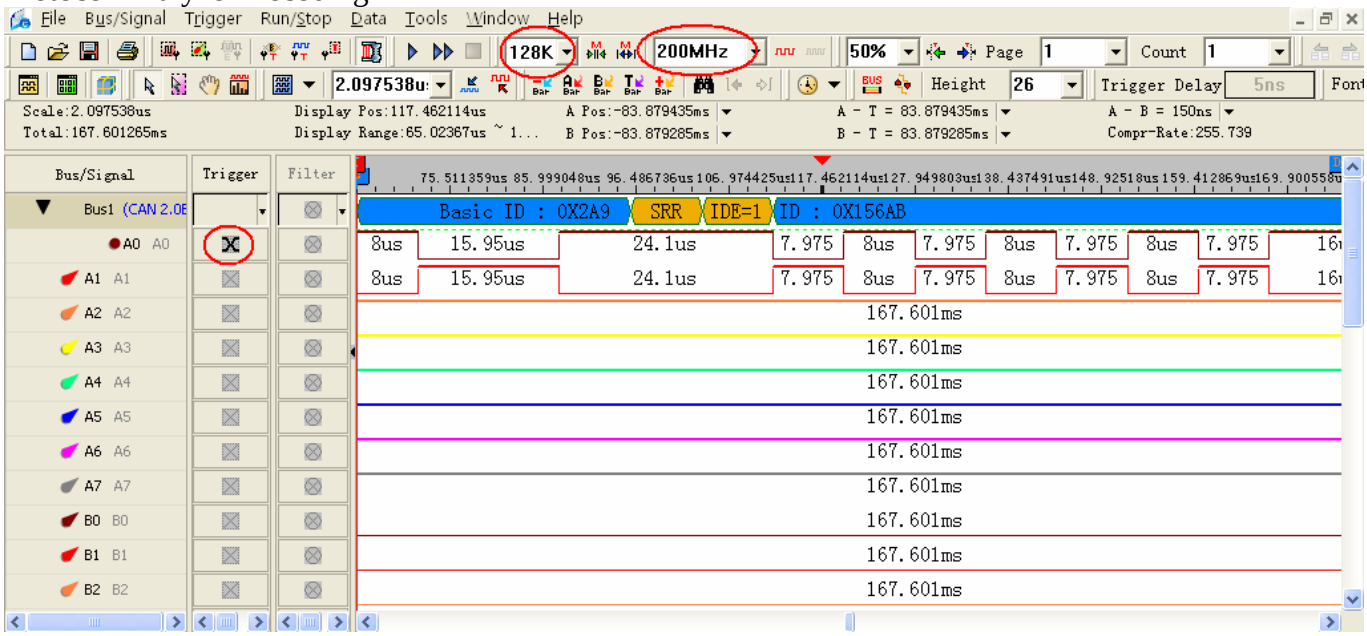


STEP 12. Set the Protocol Analyzer Color.



STEP 13. Following pictures show the completion of the protocol analyzer decoding and packet list. The Trigger condition of CANL is set as Either Edge; the Memory depth is 128K; the Sampling frequency is 200MHz (the sampling frequency should be more than four times higher than the signal to be tested).

Protocol Analyzer Decoding



Packet List