SPECIFICATION

MODEL: 026-LAP-ModBus-M

PART NO: _____

VERSION: V1.24

Approver		Check	Design
GM	PM		

Customer Confirm

Content

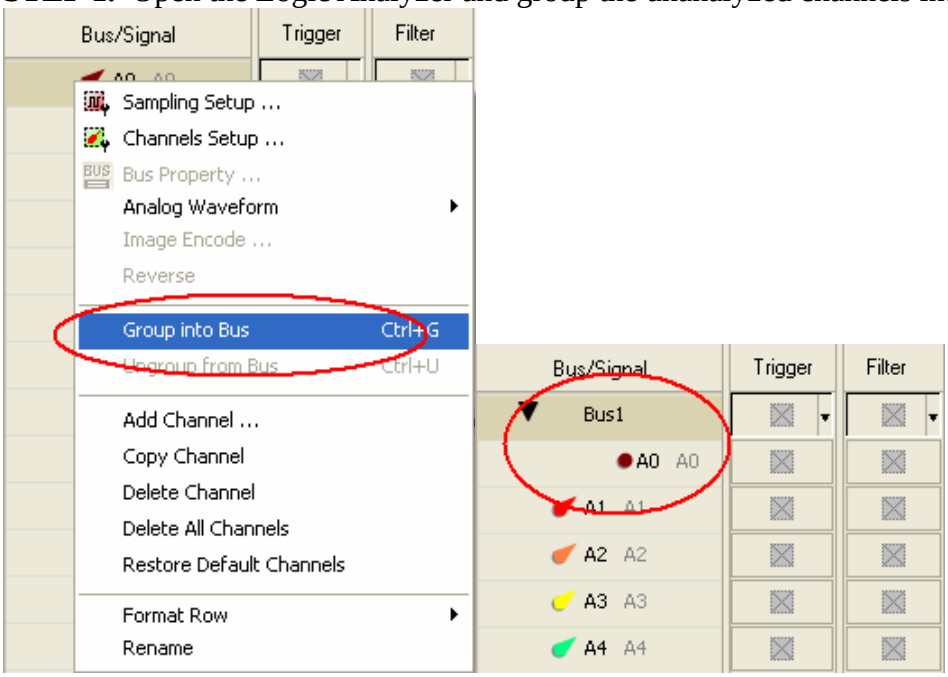
1 Software Register

Please register the software as the following steps:

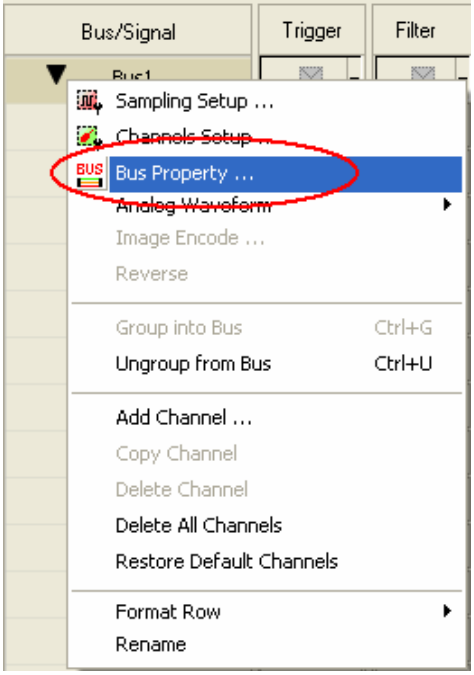
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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.

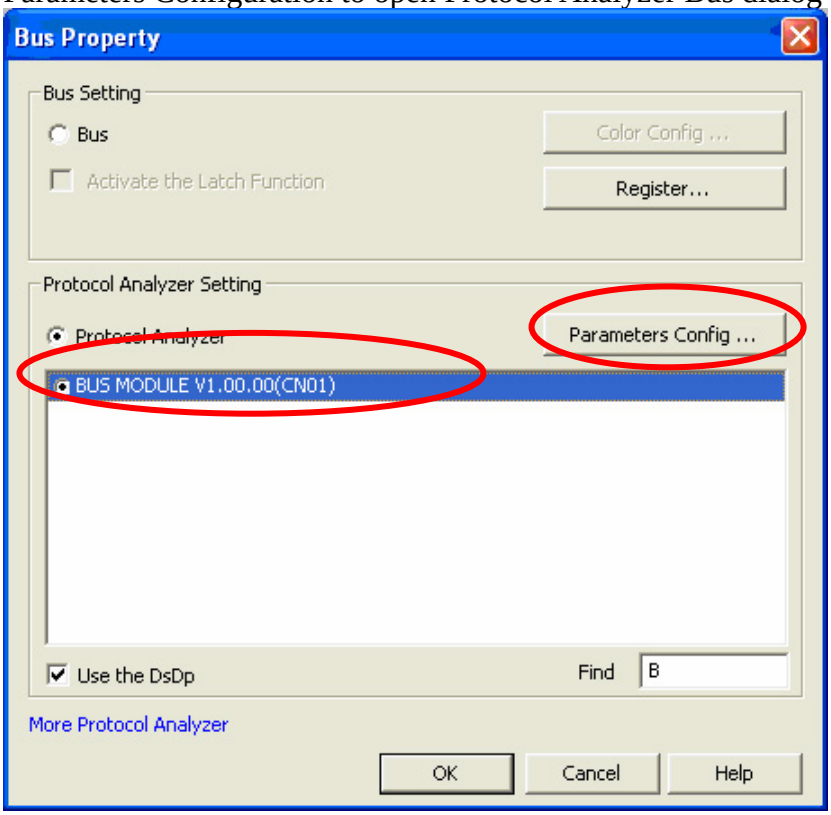
STEP 1. Open the Logic Analyzer and group the unanalyzed channels into **Bus1** by pressing the **Right Key**.



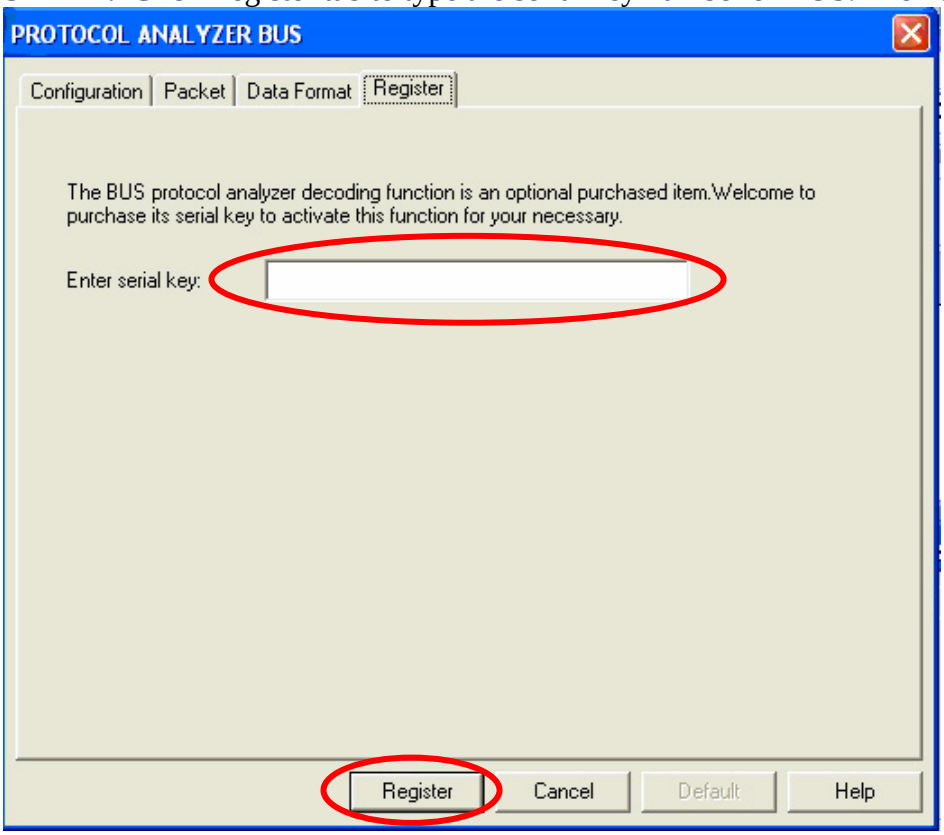
STEP 2. Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then click **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.



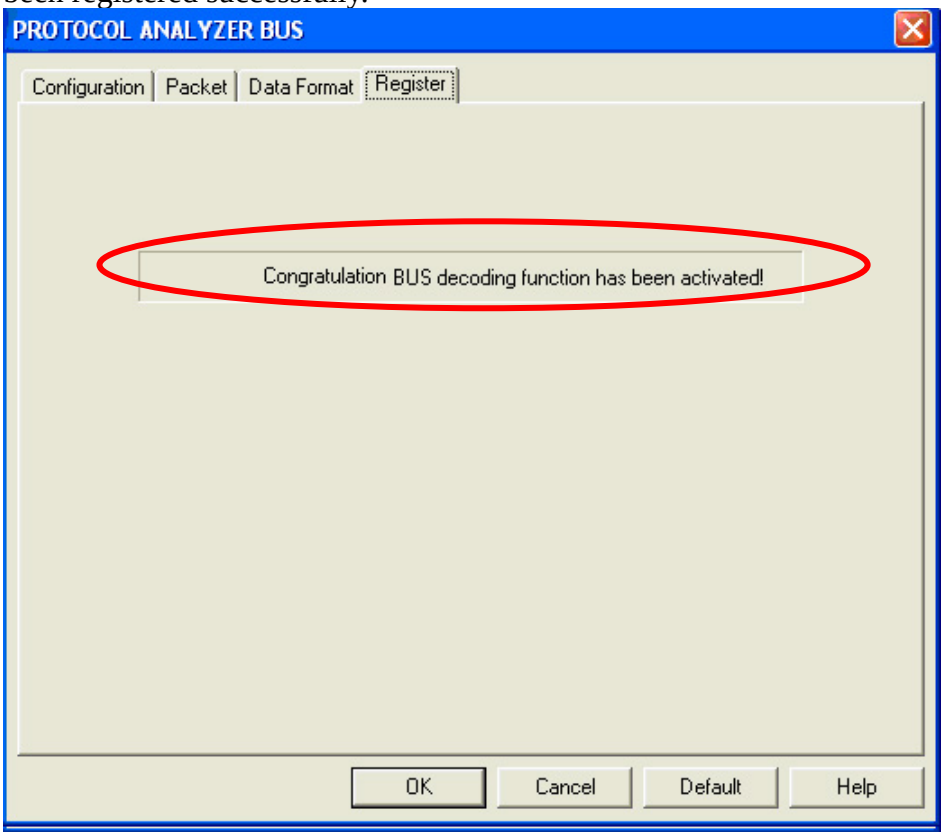
STEP 3. Select the Protocol Analyzer, and then choose **BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.



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



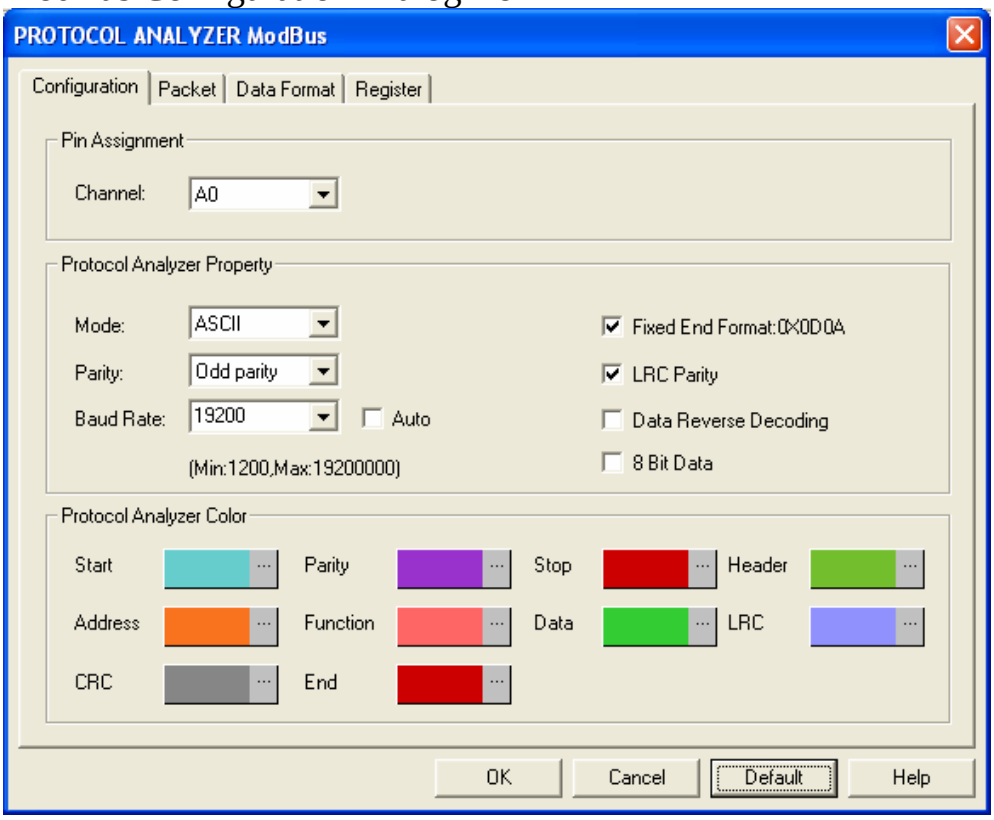
STEP 5. After clicking the Register button, following dialog box will appear; it denotes that the BUS has been registered successfully.



2 User Interface

In the configuration, please refer to below images to do settings of ModBus module.

ModBus Configuration Dialog Box

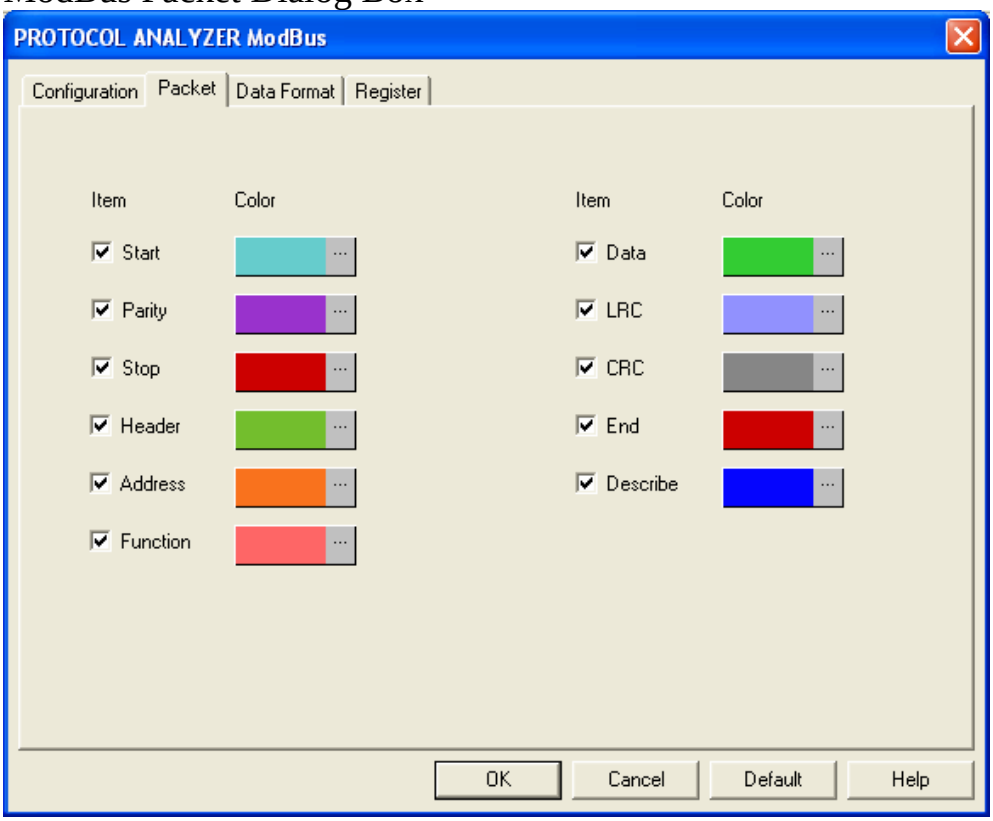


Pin Assignment:
ModBus only needs one channel to decode signal.

Protocol Analyzer Property:
Mode: Set the Mode to ASCII or RTU.
Parity: Set the Parity to Odd parity, Even parity or None parity. In None parity, users can set the length of Stop to 1Bit or 2Bit.
Baud Rate: Set the Baud Rate between 1200 and 19200000. When Auto is selected, the main program will judge and display the Baud Rate automatically.
Fixed End Format:0X0D0A: It can only be used in the ASCII Mode, and its Hexadecimal form is 0X0D0A.
LRC Parity: In the ASCII Mode, the LRC Parity can be used; In the RTU Mode, the CRC Parity can be used.
Data Reverse Decoding: When the option is selected, all data will be decoded in reverse.
8 Bit Data: It is only available under ASCII mode.

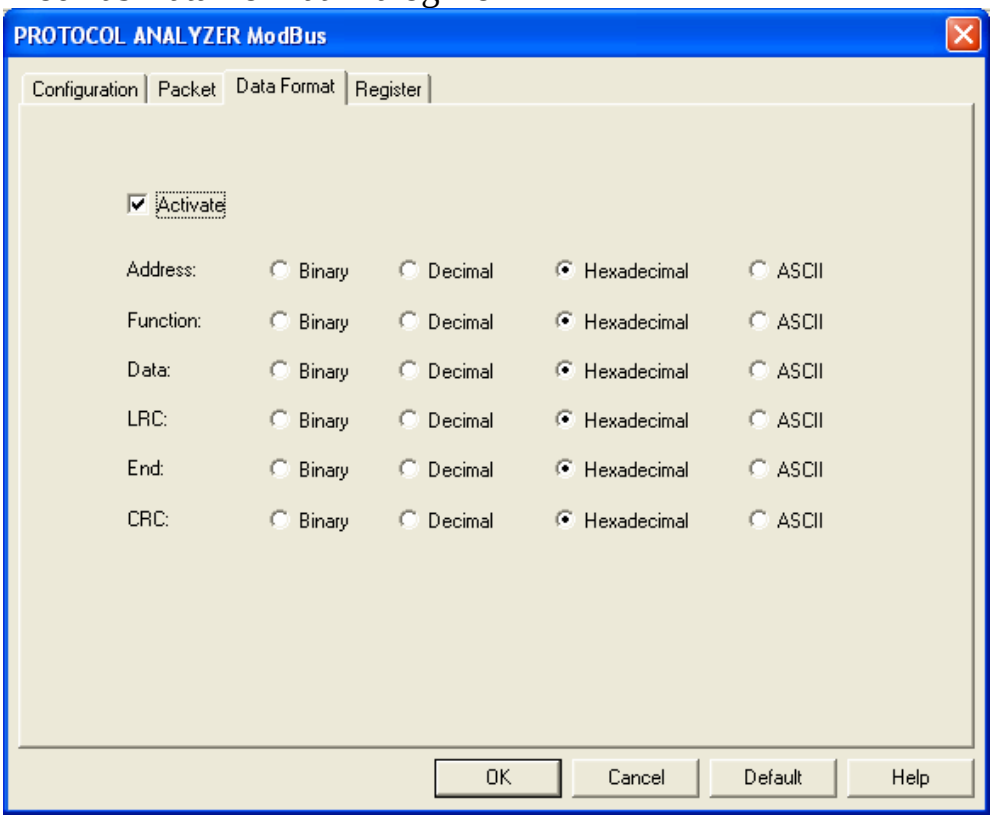
Protocol Analyzer Color:
The color can be varied by users.

ModBus Packet Dialog Box



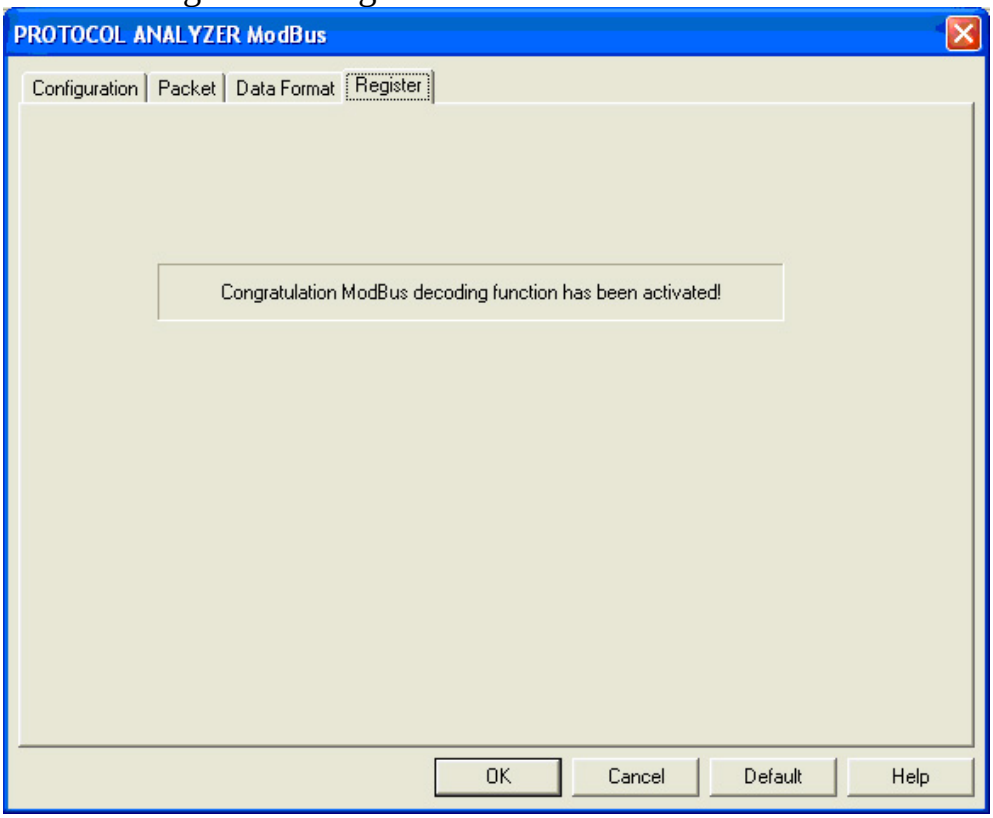
In the Packet part, users can select the items to be displayed and their colors as their requirements.

ModBus Data Format Dialog Box



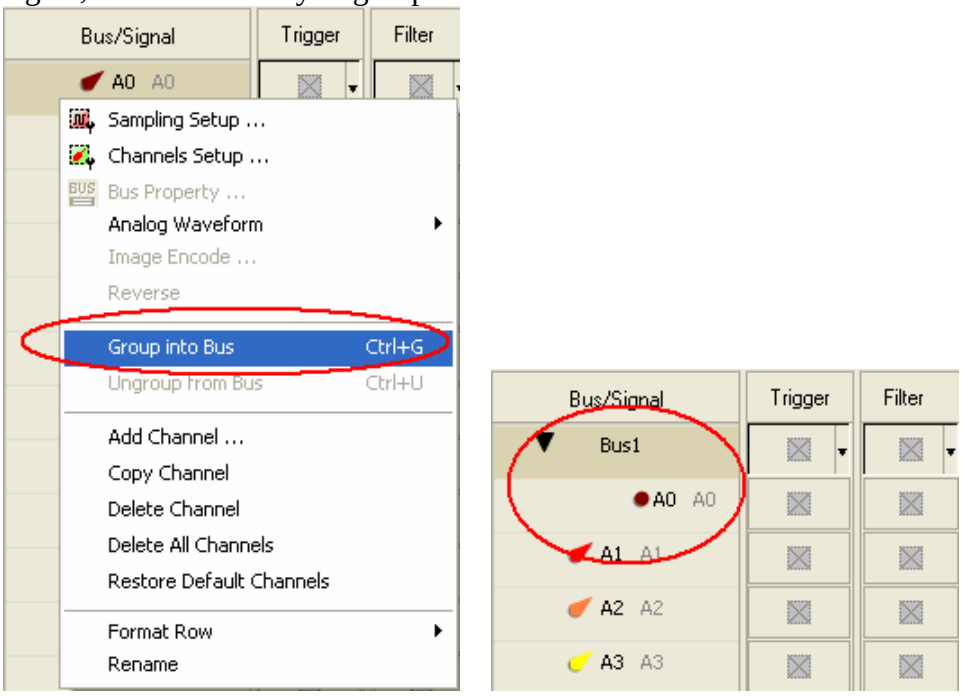
Users can set the Data Format of the Address, Function, Data, LRC, End and CRC as their requirements. When selecting the option, Activate, the data format is decided by the settings in the Protocol Analyzer; when not selecting the option, Activate, the data format is decided by the settings in the main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

ModBus Register Dialog Box

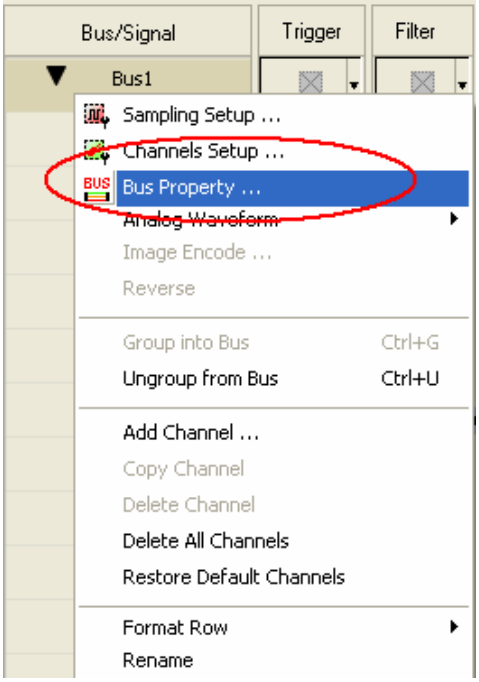


3 Operating Instructions

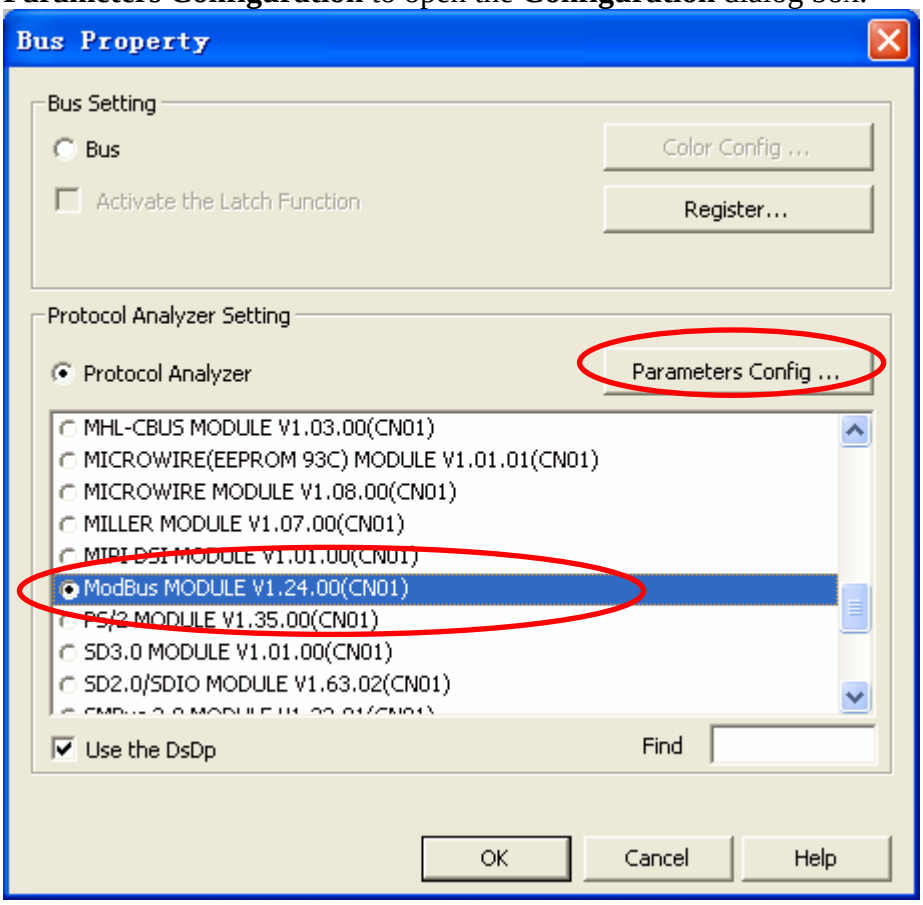
STEP 1. Group A0 into **Bus1** by pressing the **Right Key** on the mouse. **ModBus** needs one channel to decode signal, so it is necessary to group one or more channels into a Bus.



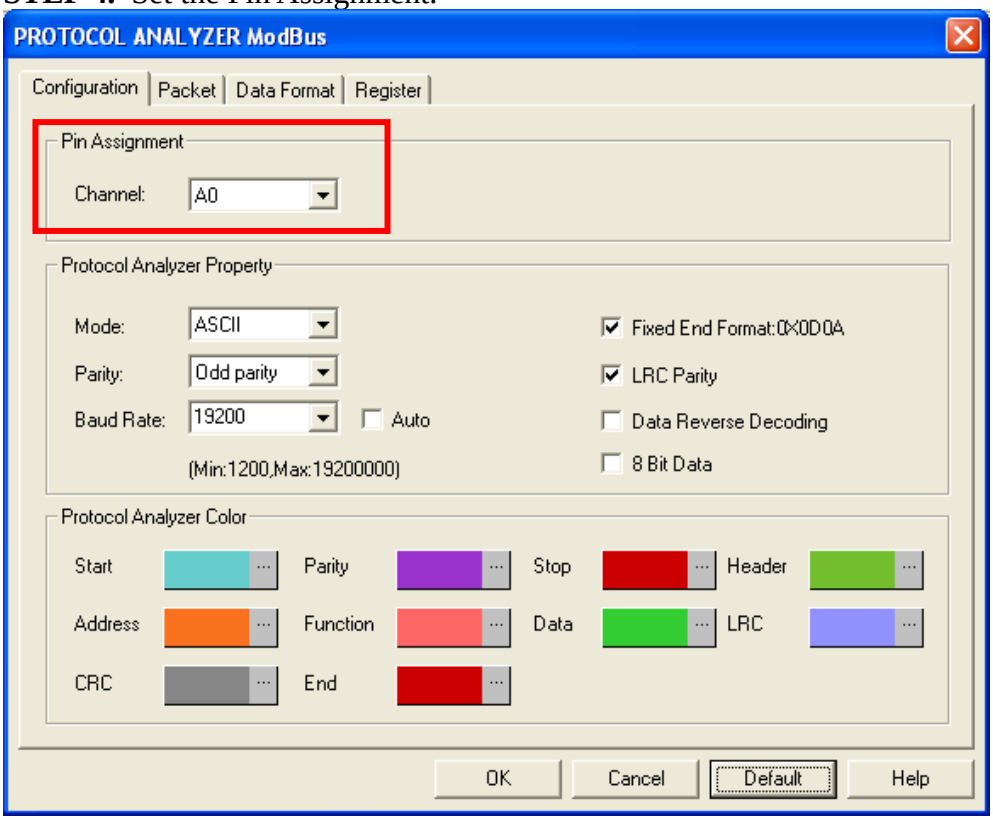
STEP 2. Select **Bus1**, press right key and select **Bus Property** from the popup menu**,** or click the **Bus** icon on the toolbar, to open the **Bus Property** dialog box.



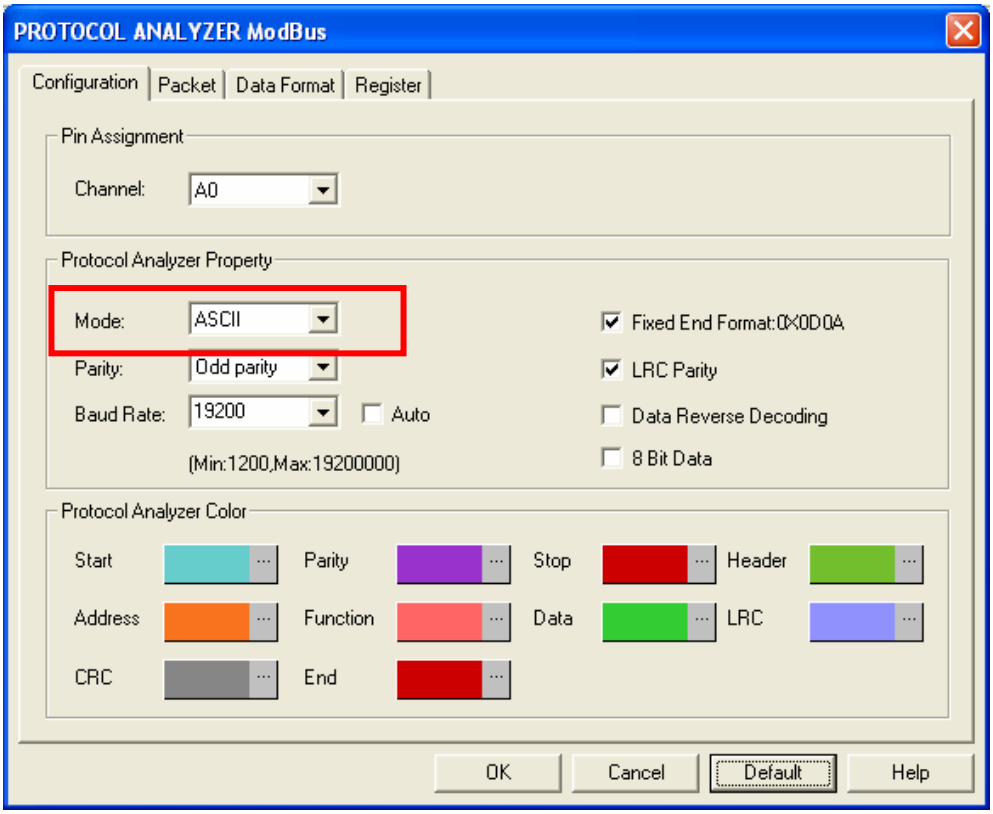
STEP 3. Select Protocol Analyzer, and then choose **ModBus MODULE V1.24.00(CN01)**. Next click **Parameters Configuration** to open the **Configuration** dialog box.



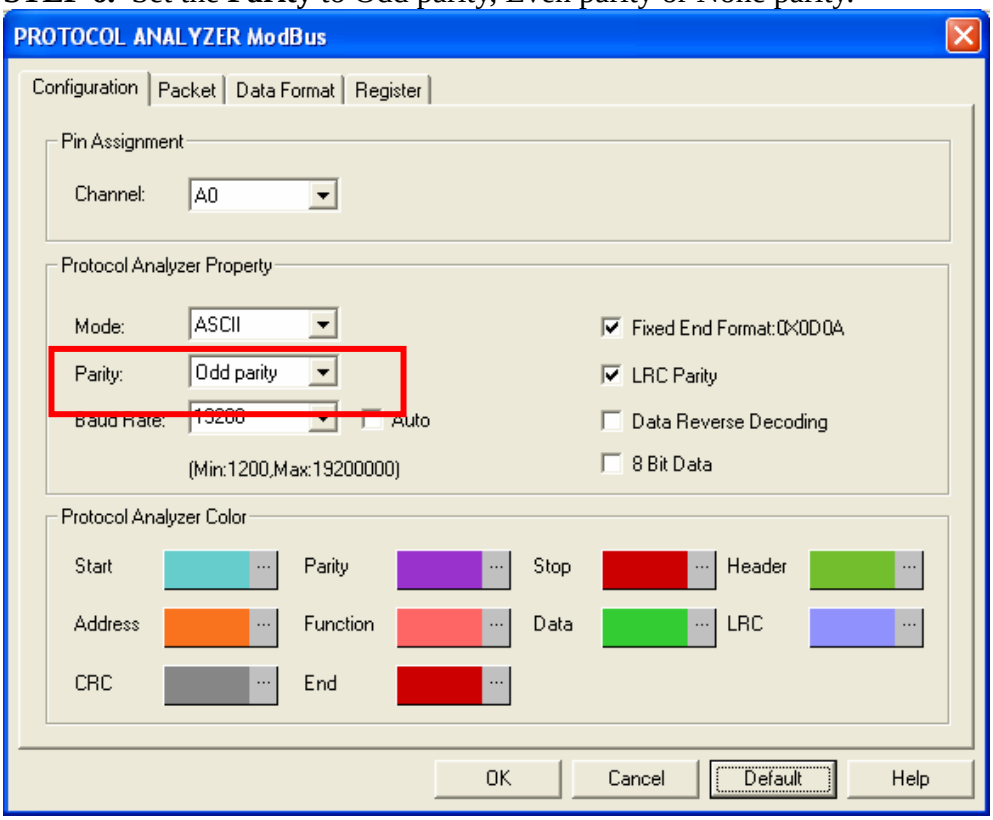
STEP 4. Set the Pin Assignment.



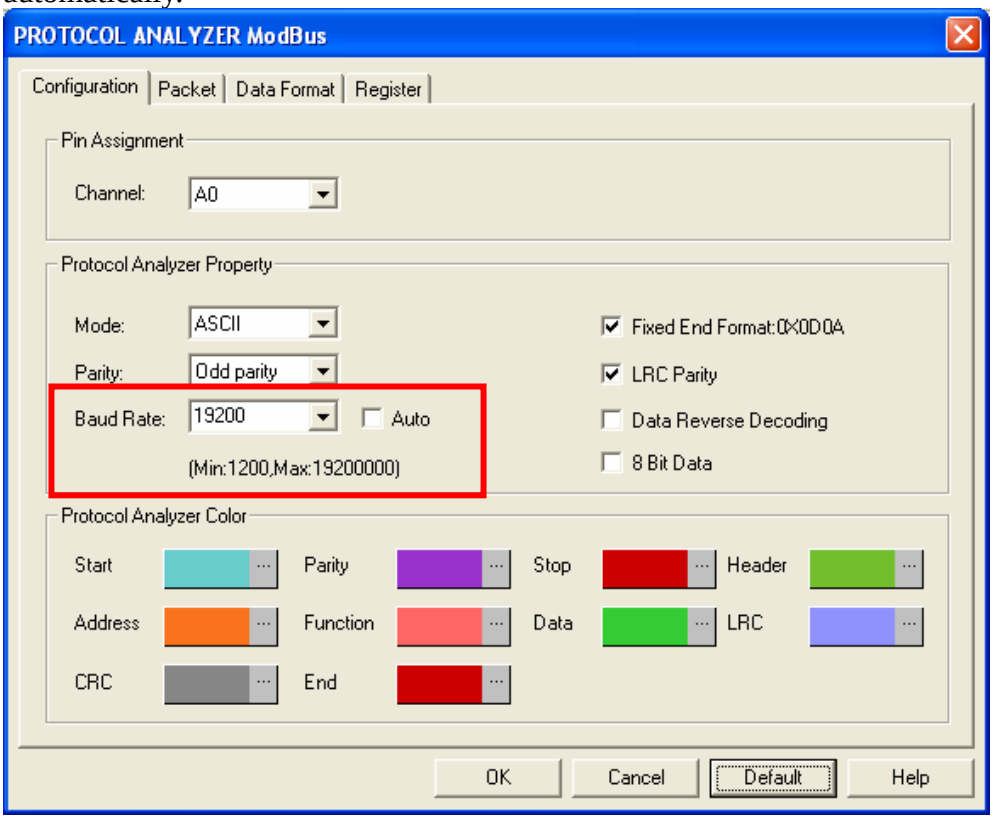
STEP 5. Set the **Mode** to ASCII or RTU.



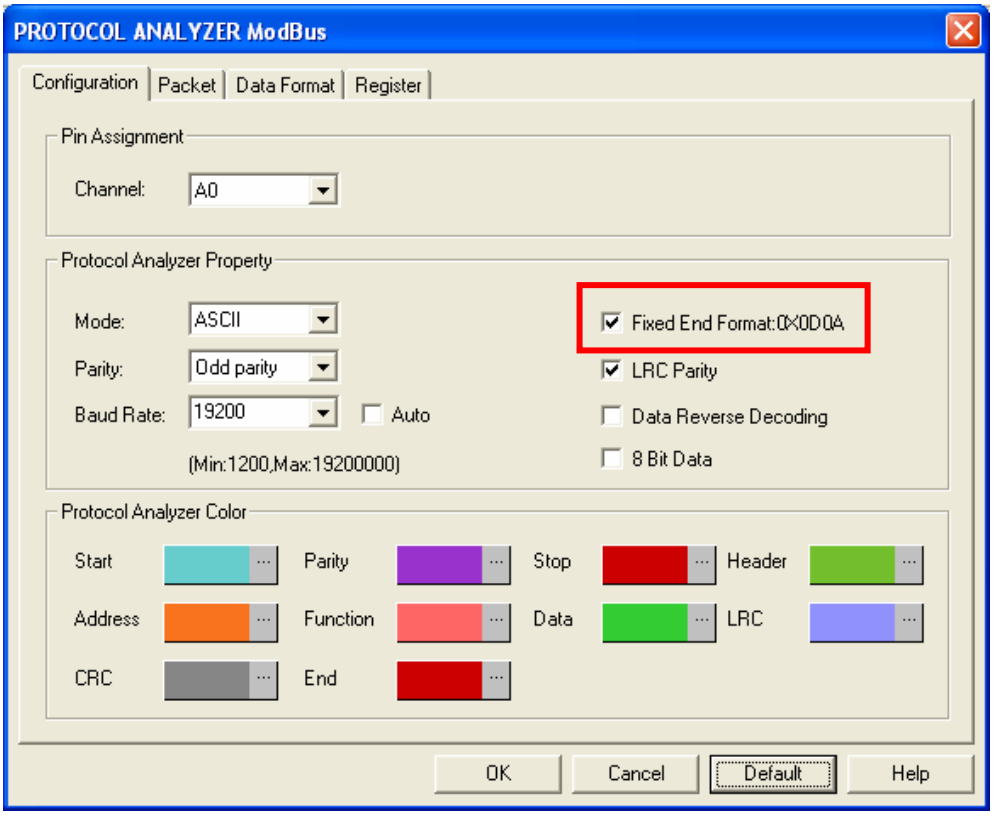
STEP 6. Set the **Parity** to Odd parity, Even parity or None parity.



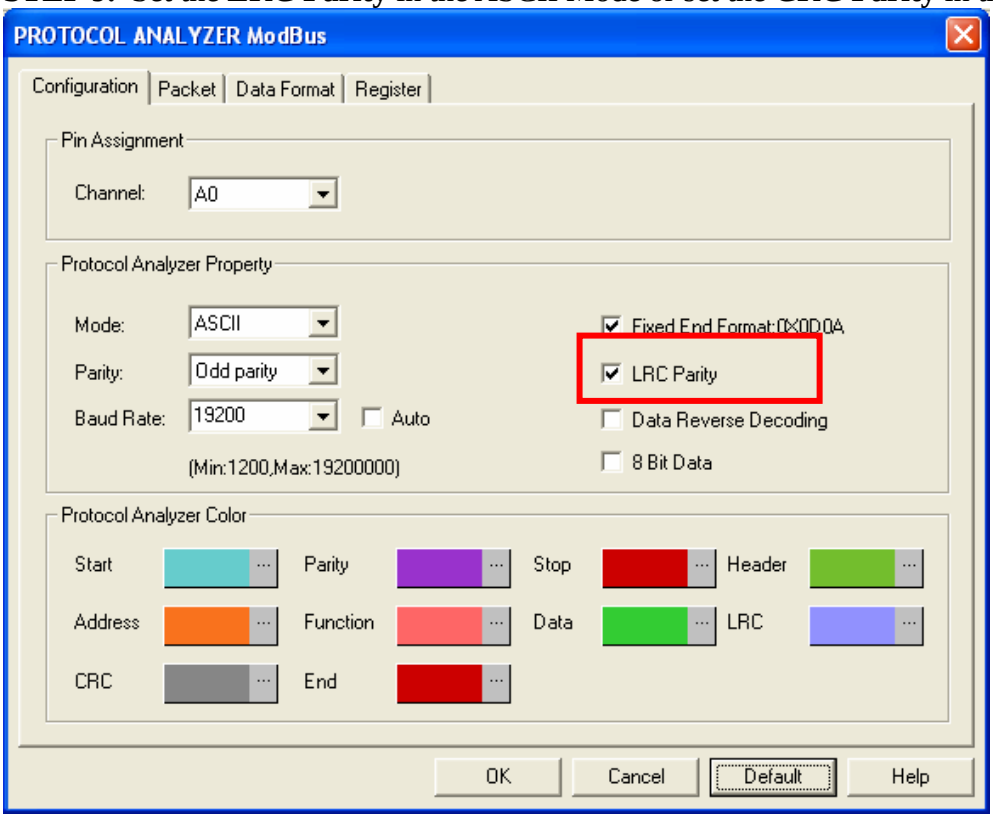
STEP 7. Set the **Baud Rate** between 1200 and 19200000 or set it to Auto to select the Baud Rate automatically.



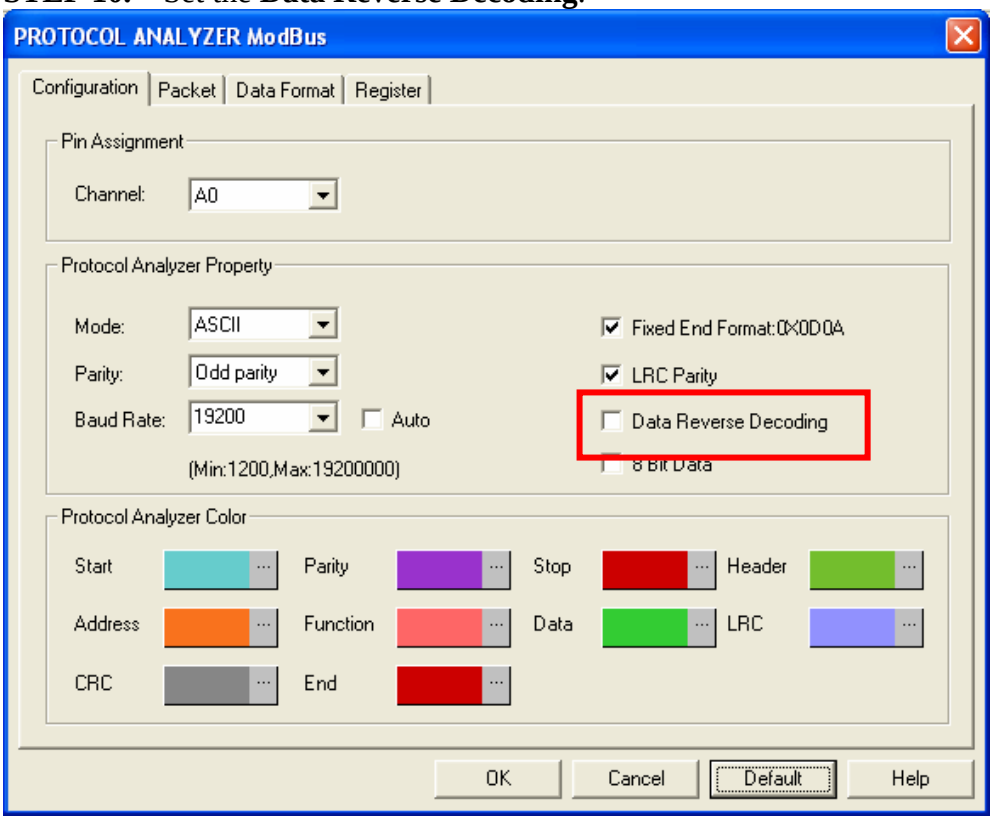
STEP 8. Set the **Fixed End Format: 0X0D0A** in the ASCII Mode.



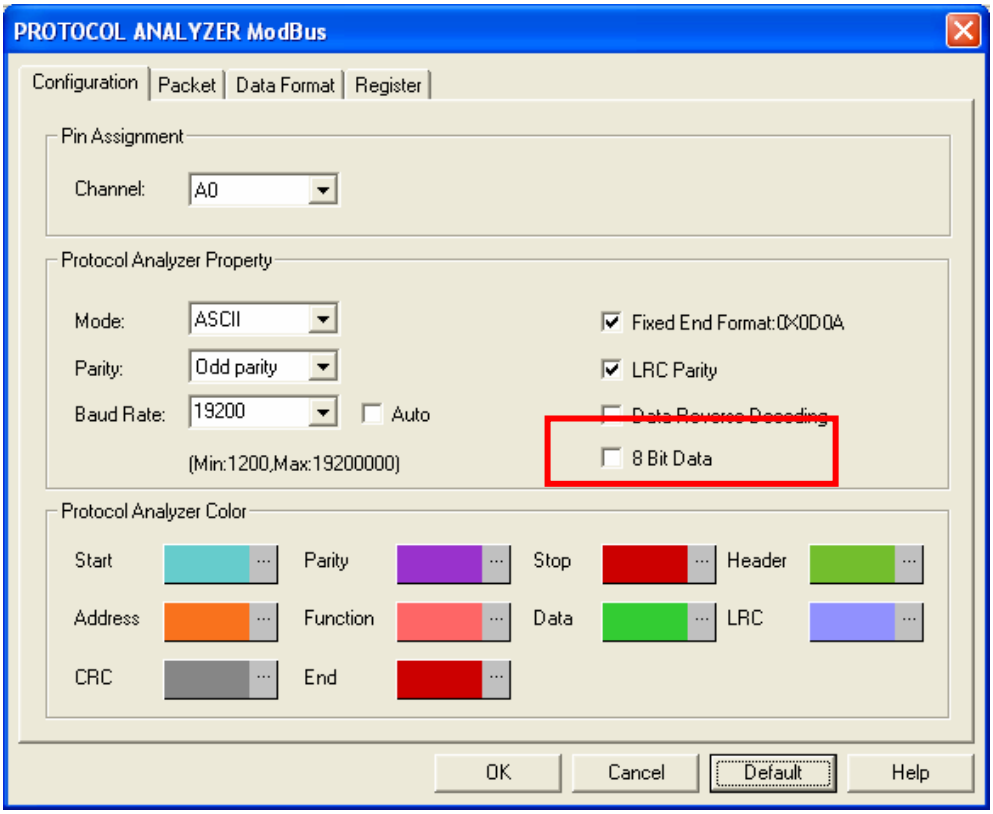
STEP 9. Set the **LRC Parity** in the ASCII Mode or set the **CRC Parity** in the RTU Mode.



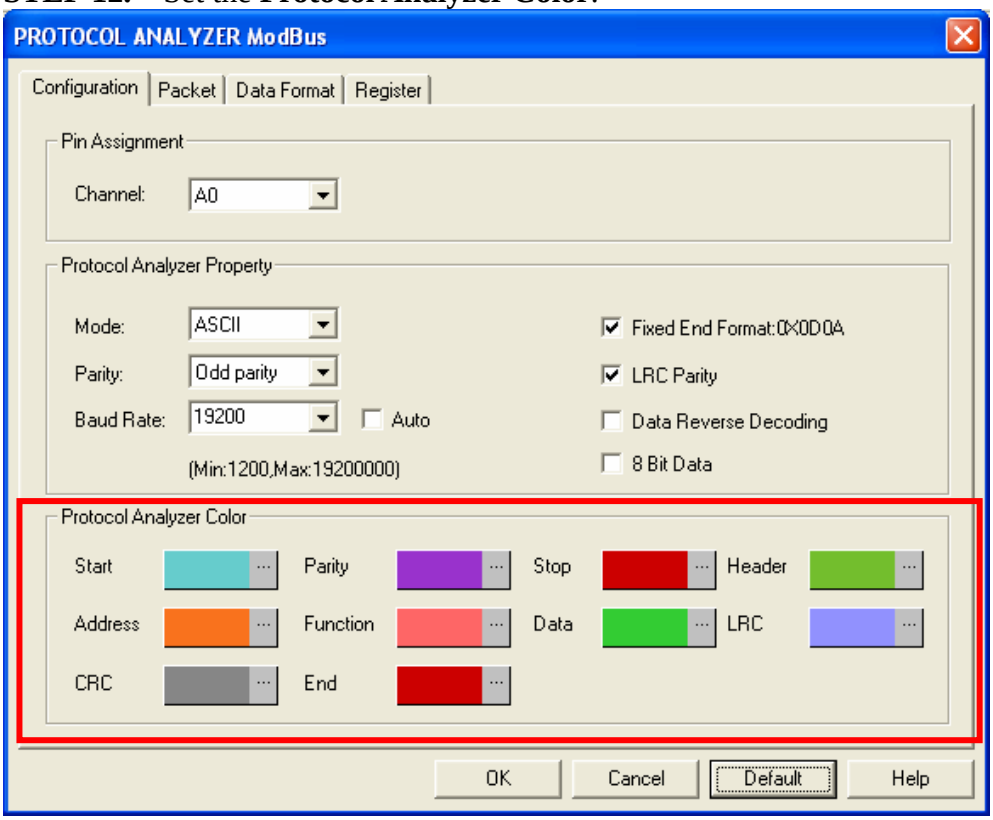
STEP 10. Set the **Data Reverse Decoding**.



STEP 11. Set the **8 Bit Data**.

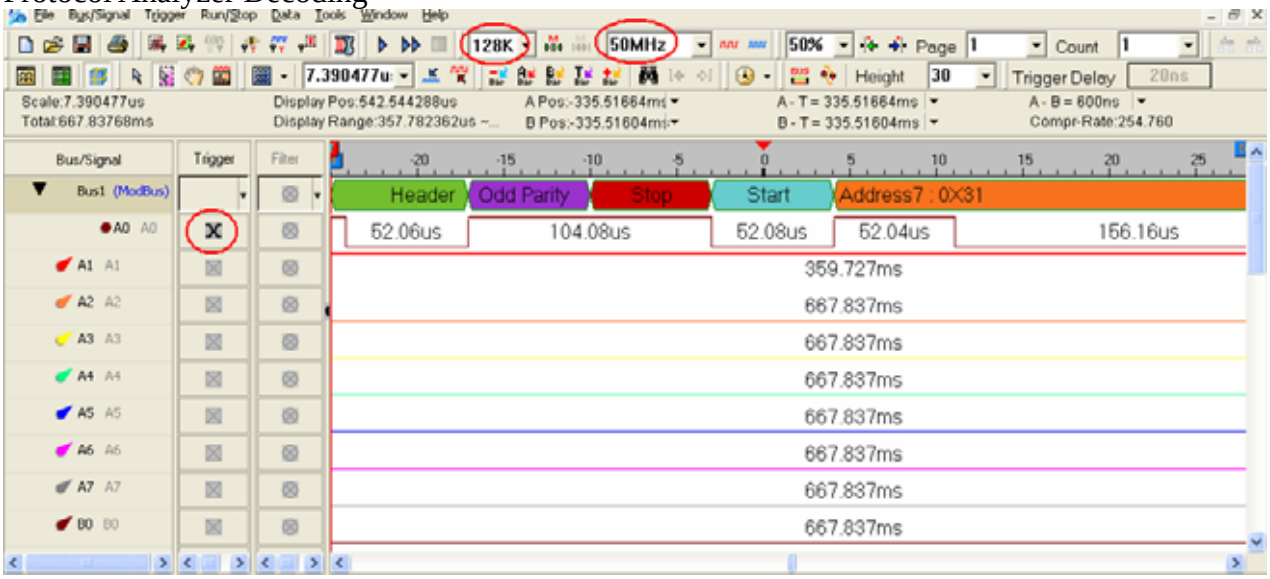


STEP 12. Set the **Protocol Analyzer Color**.



STEP 13. Following pictures show the completion of the protocol analyzer decoding and the packet list. The trigger condition is set as Rising Edge; the memory depth is 128K; the sampling frequency is 50MHz (the sampling frequency should be more than four times higher than the signal to be tested).

Protocol Analyzer Decoding



Packet List