孕龍科技股份有限公司
Zeroplus Technology Co., Ltd.

SPECIFICATION

MODEL: B08018-LAP-PMBus 1.1-M

PART NO: _____

VERSION： V1.13

Approver		Check	Design
GM	**PM**		

Customer Confirm

＊ Please fax the file to Zeroplus Technology after signing.

2F, NO.123, Jian Ba Rd,
Chung Ho City, Taipei Hsian, R.O.C.

Tel:+886-2-66202225
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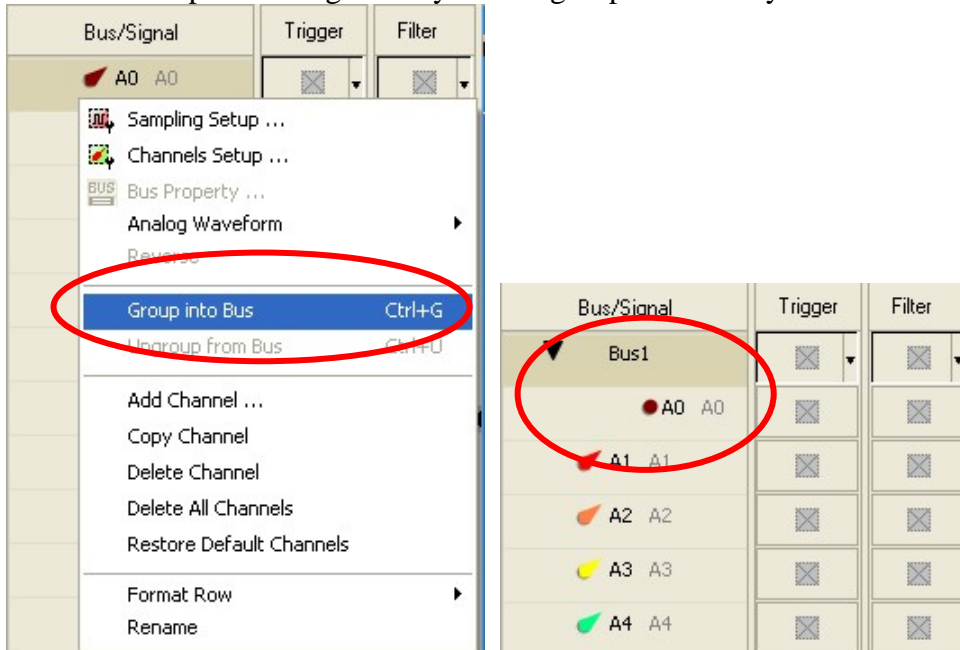# Content

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1   Software Register

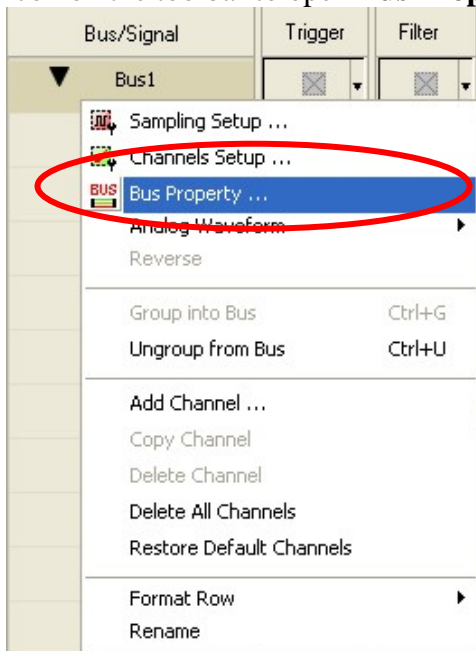Please register the software as the following steps:

※ 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**.
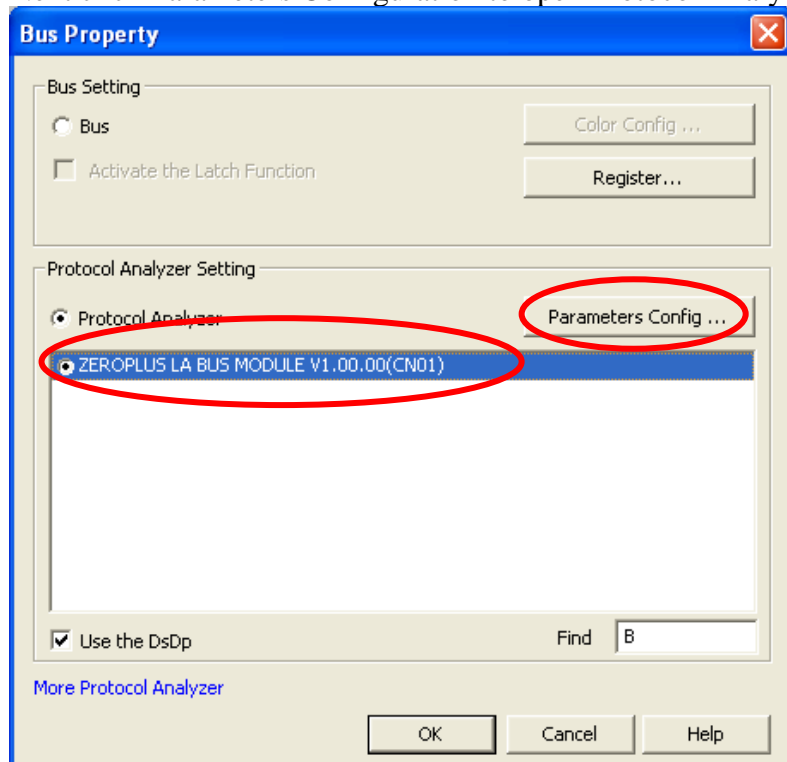
STEP 2. Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.
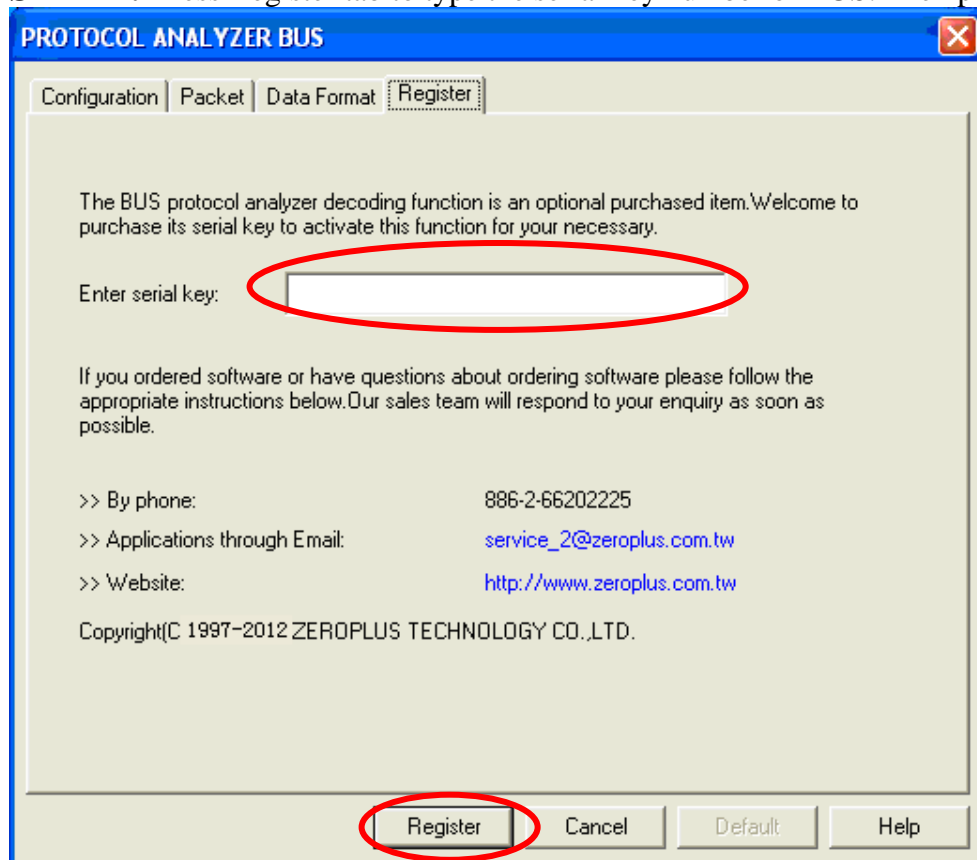
STEP 3. Select the Protocol Analyzer, and then choose **ZEROPLUS LA BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer BUS dialog box.
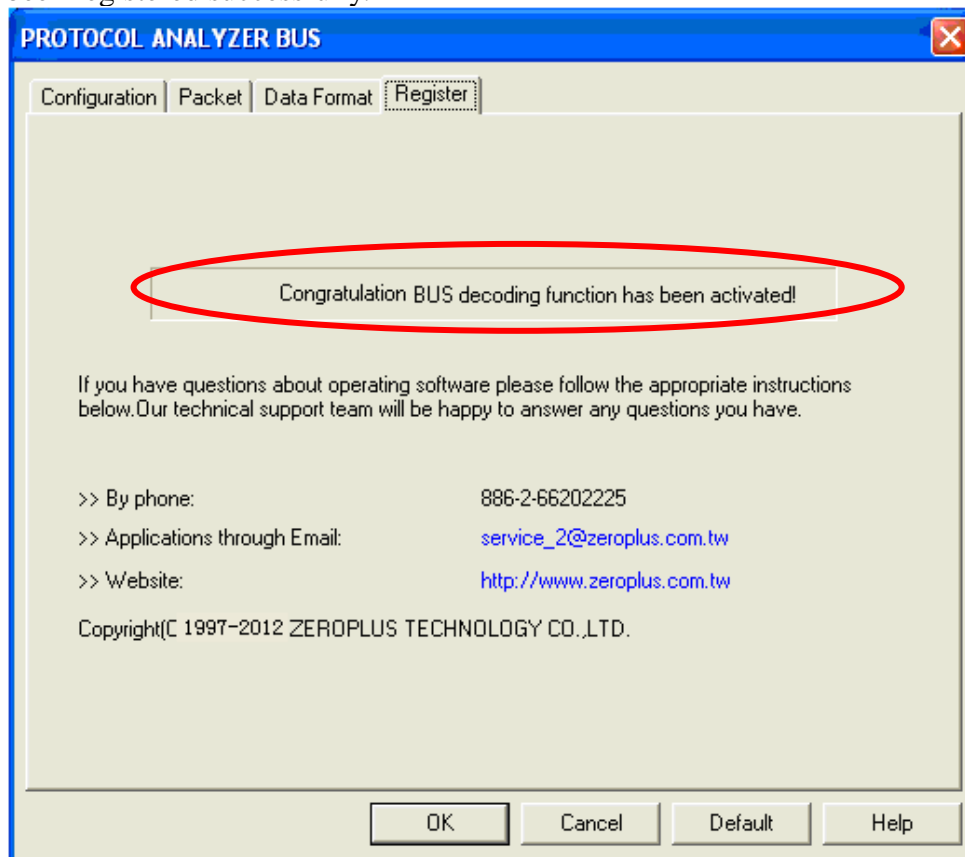
STEP 4. Press Register tab to type the serial key number of BUS. Then press Register.
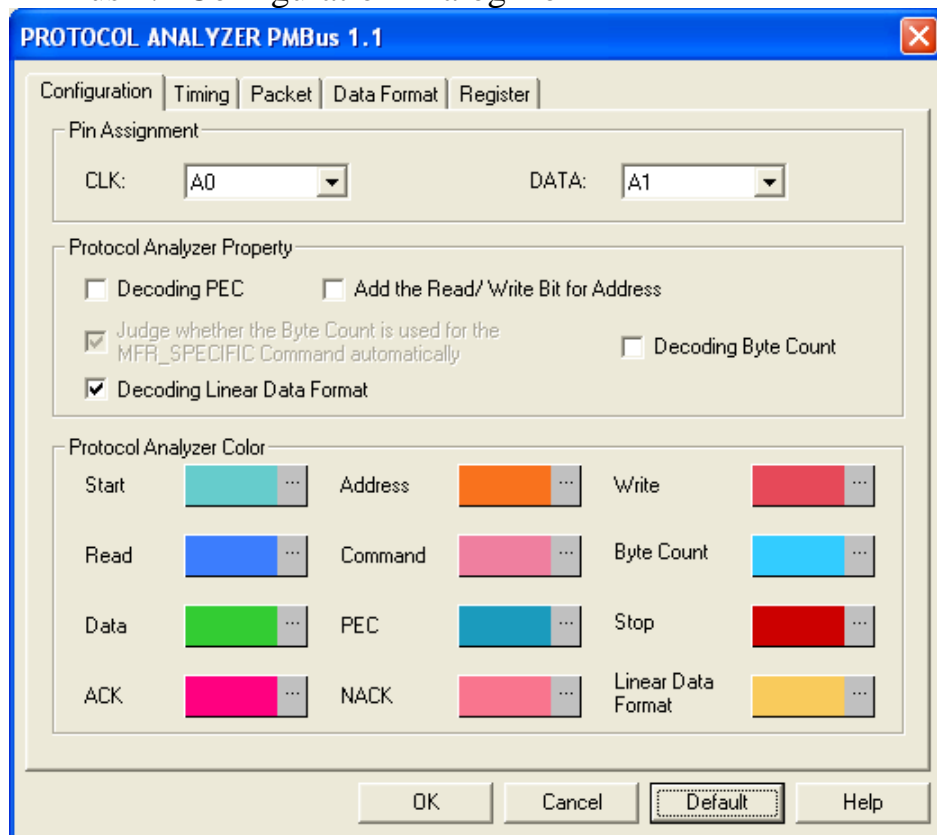
中和市建八路 123 號 2F   2F., No.123,Jian Ba Rd,
電話：886-2-66202225   Chung Ho City, Taipei Hsien, R.O.C.
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STEP 5. After pressing the Register button, following dialog box will appear, it denotes that the BUS has been registered successfully.

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2   User Interface

In the configuration, please refer to the below images to select options of setting PMBus 1.1 module.

PMBus 1.1 Configuration Dialog Box

Pin Assignment: Set the channels accordingly. The CLK is the Clock signal line, the default is A0; the DATA is the Data Transmission signal line, the default is A1.
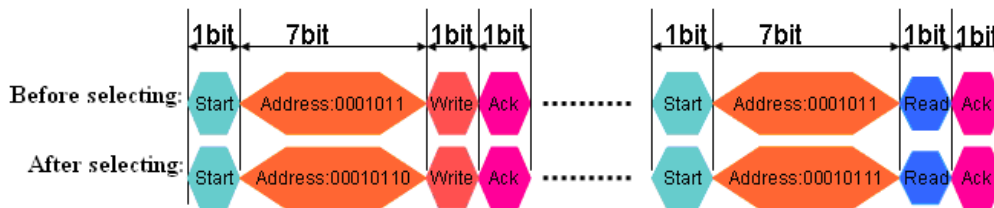
Protocol Analyzer Property:

Decoding PEC: Users can choose to select this item or not as their requirements. If the Decoding PEC is selected and there are some MFR-SPECIFIC commands to be decoded, since the Byte Count is used to indicate the byte length of BLOCK and not used to calculate PEC, so it is unnecessary to make some special treatment.

Judge whether the Byte Count is used for the MFR_SPECIFIC Command automatically: Generally, we don't decode the PEC in MFR_SPECIFIC command, because we have no way to judge whether the Byte Count exists or not. But if there is PEC Parity, we can identify whether MFR_SPECIFIC is in BLOCK type or not according to the comparison between the Byte Count and the byte length of Data and the correct or incorrect PEC, which means that only the Byte Count matches with byte length of Data and PEC is correct when decoding the MFR_SPECIFIC is considered as BLOCK, or MFR_SPECIFIC will not be considered as BLOCK; and the PEC Parity will be done again, no matter it is correct or not. The error rate of this decoding way is the same with the error rate of PEC Parity. This item is activated only when the Decoding PEC and the Decoding Byte Count are both selected, and it is selected by default.

Decoding Byte Count: Byte Count can be decoded only when this item is selected, or only Data can be decoded.
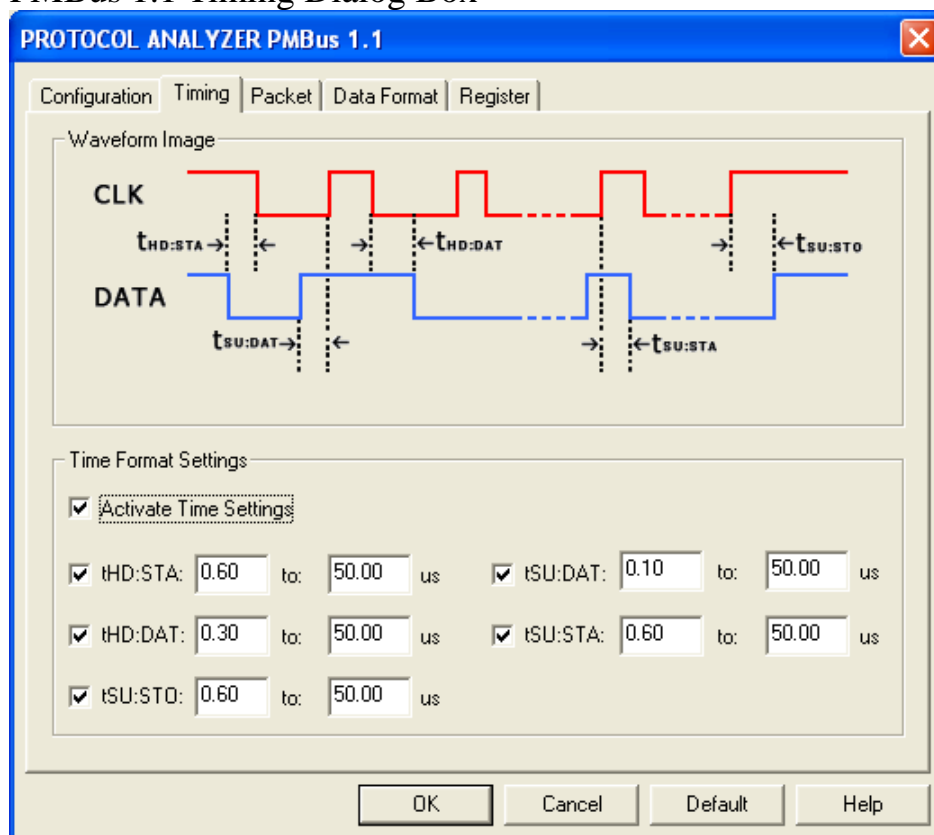
Add the Read/Write Bit for Address: When displaying the Address, the original Address will move to left for one bit and add the R/W bit. See below image: the original Address is 0001011, and it becomes 00010110 after moving to left for one bit and adding the Write bit, or becomes 00010111 after adding the Read bit.

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Decoding Linear Data Format: If this option is selected, the behind two bytes will de decoded to one Linear Data Format packet. The X value that calculated according to the two bytes will be displayed on the packet. The ACK is not dealt.

Protocol Analyzer Color: The Protocol Analyzer Color can be varied by users
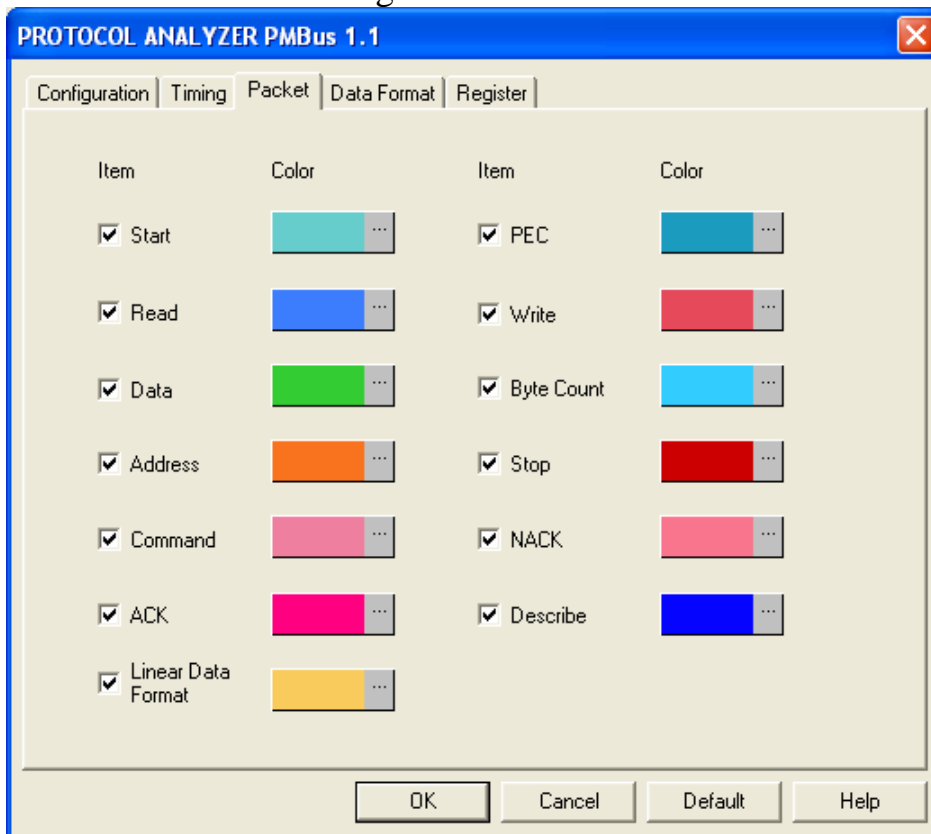
PMBus 1.1 Timing Dialog Box

Waveform Image: It is used to show the position for the set time.

Time Format Setting: When the Activate Time Settings is selected, the set time will become the condition for decoding judgment. For example in START decoding, it will judge first whether the condition of START is met or not, and then judge whether the set time of tHD: STA matches with the actual waveform, if both are met, START can be decoded. Other packets are the same.

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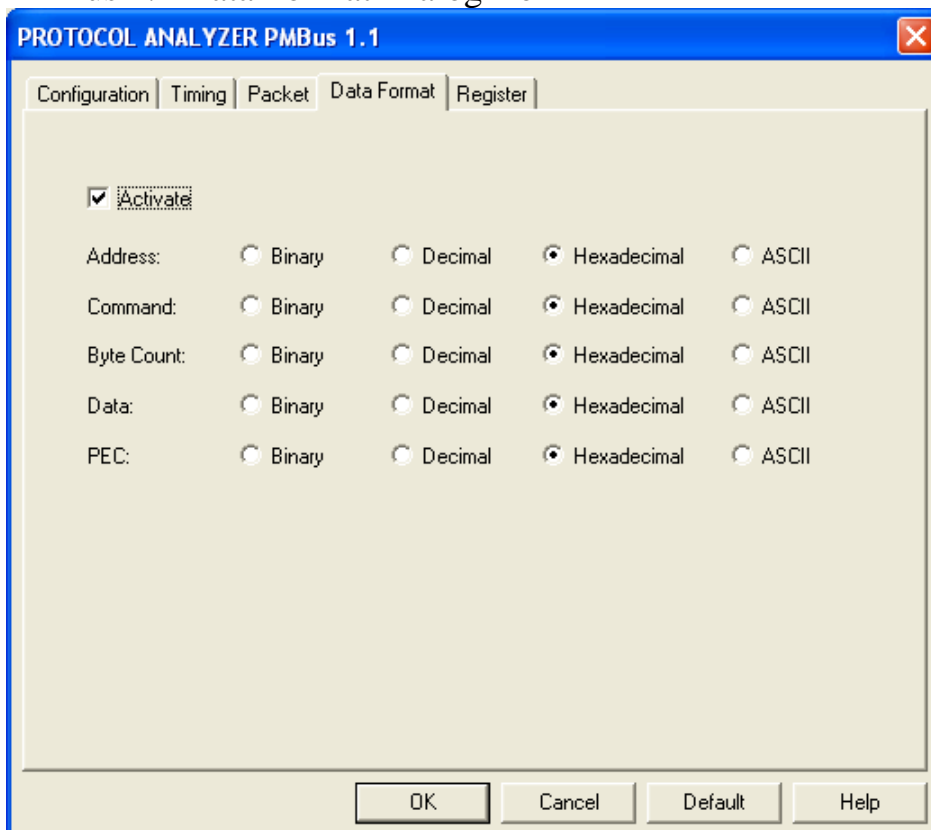www.zeroplus.com.tw   Fax: 886-2-22234362

PMBus 1.1 Packet Dialog Box

In the Packet part, users can set the items and colors as users' requirements.

PMBus 1.1 Data Format Dialog Box
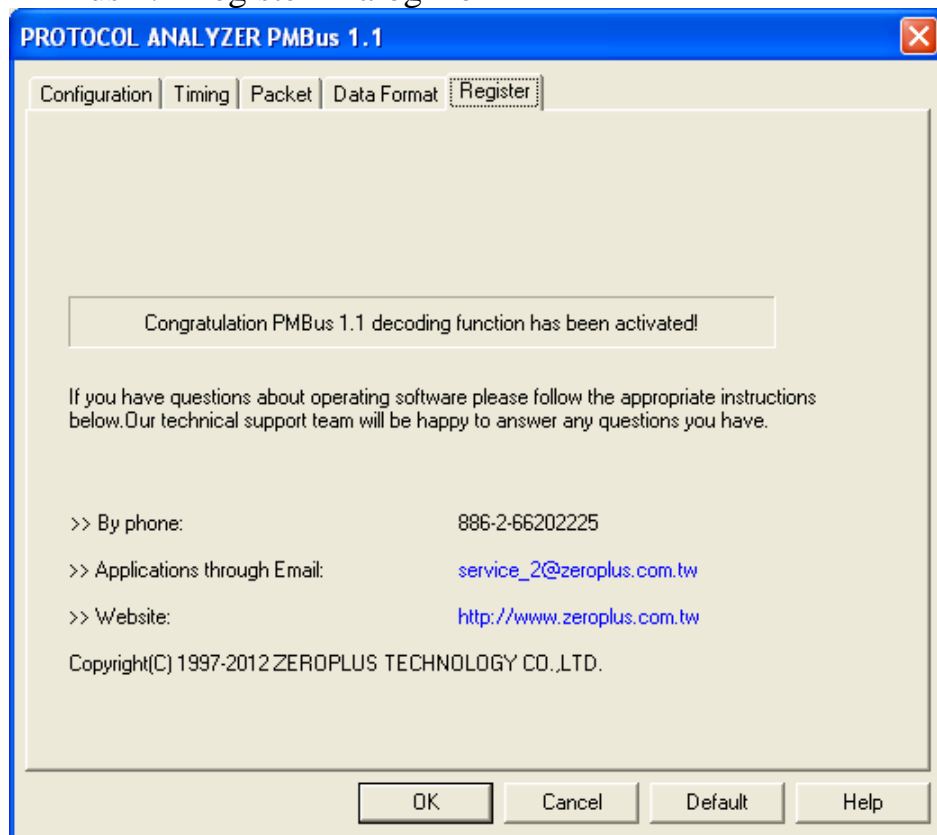

Users can set the Data Format of the Address, Command, Byte Count, Data, PEC as their requirements. When

selecting the option, Activate, the data formats are decided by the settings in the Protocol Analyzer; when not selecting the option, Activate, the data formats are decided by the settings in the main program.
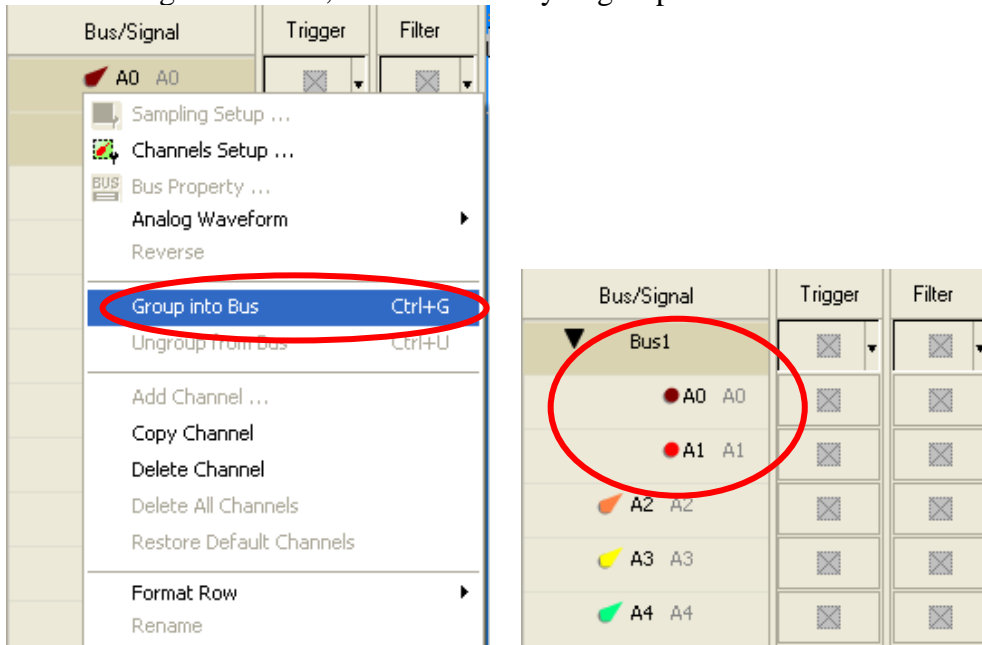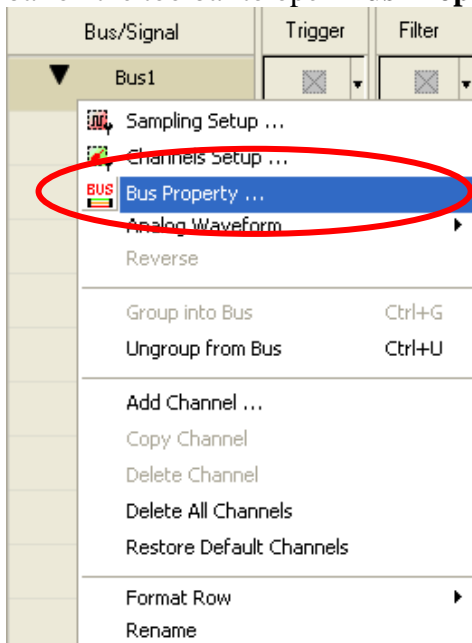
PMBus 1.1 Register Dialog Box

There is written Zeroplus company information. If you have any questions about software operations, you can contact Zeroplus by Telephone or Email.

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3 Operating Instructions

STEP 1. Group A0-A1 into **Bus1** by pressing the **Right Key** on the mouse. PMBus 1.1 needs two channels to decode signals at least, so it is necessary to group two or more channels into a Bus.
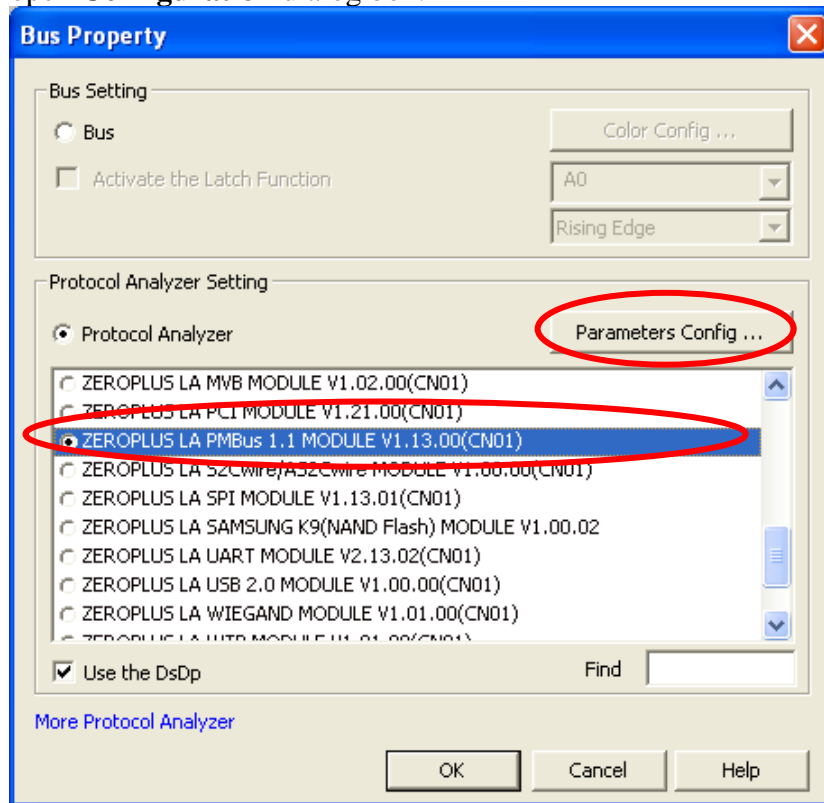

STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.

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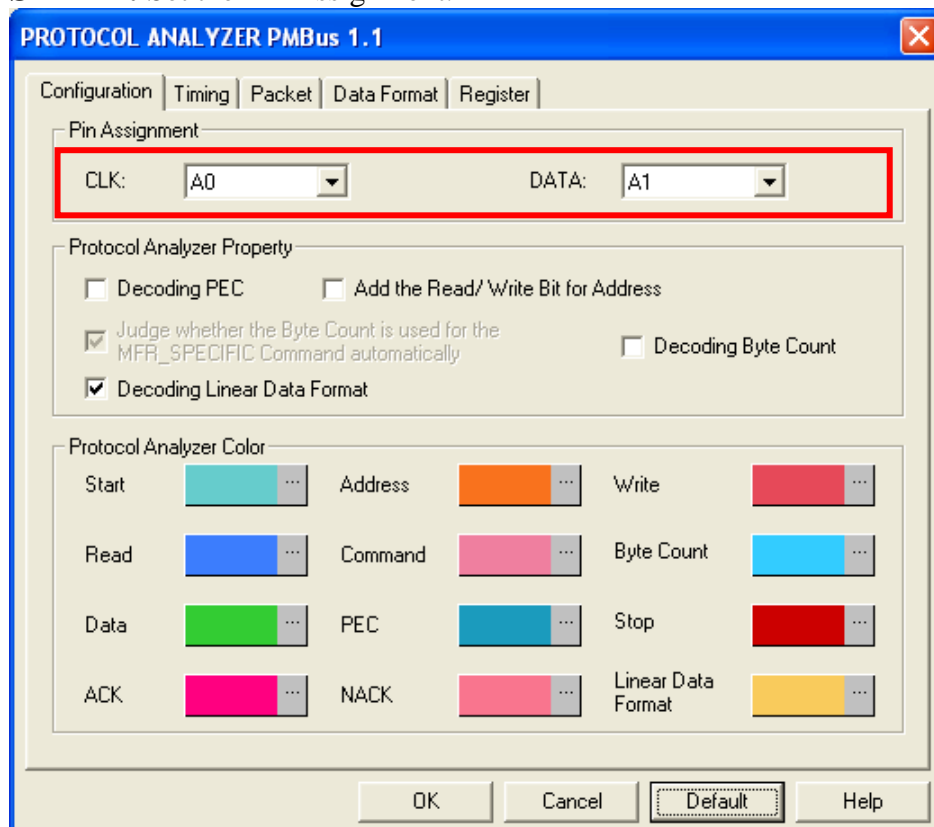**Zeroplus Technology Co., Ltd.**

STEP 3. For Protocol Analyzer PMBus 1.1 Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA PMBus 1.1 MODULE V1.13.00(CN01)**. Next click **Parameters Configuration** to open **Configuration** dialog box.
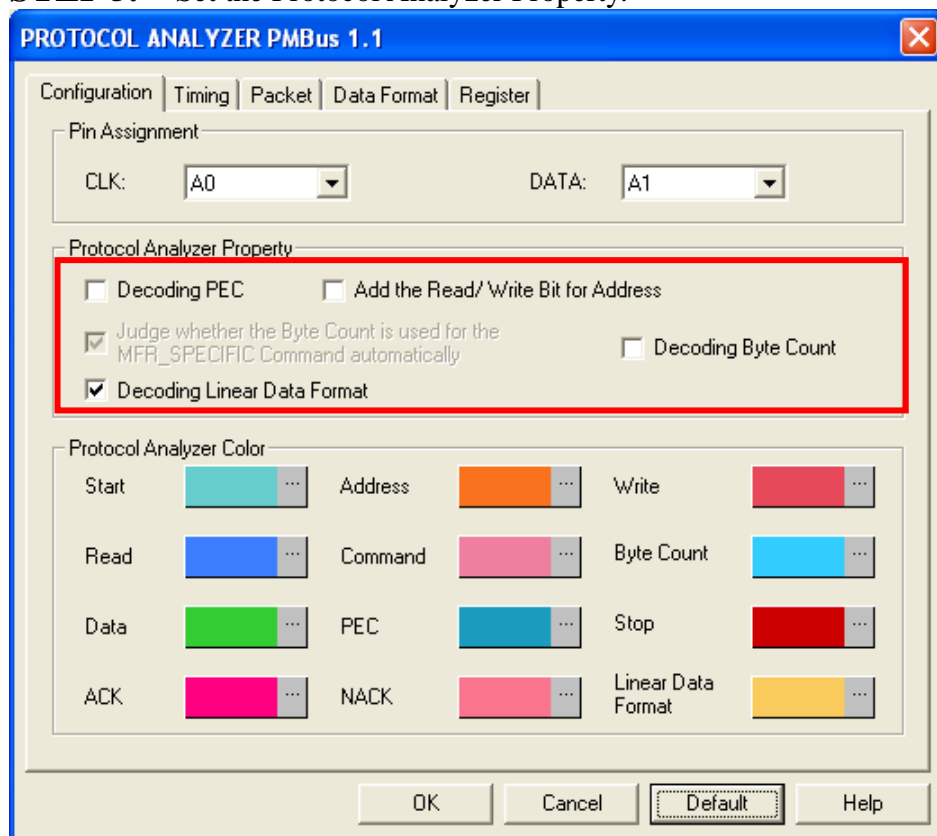

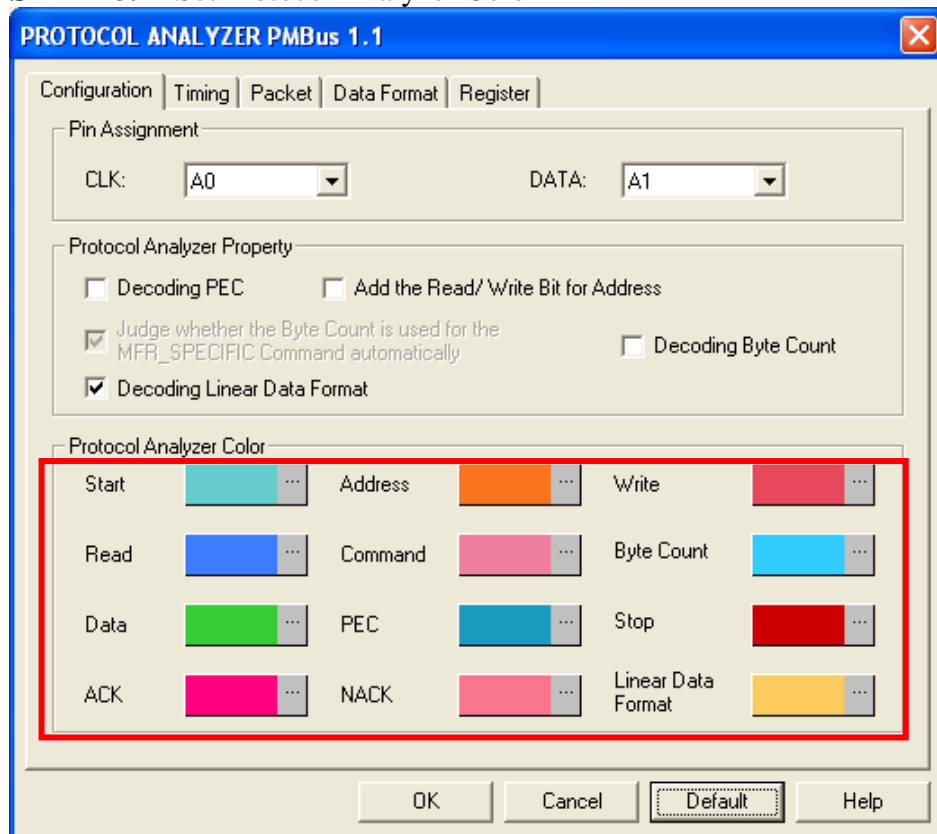
STEP 4. Set the Pin Assignment.

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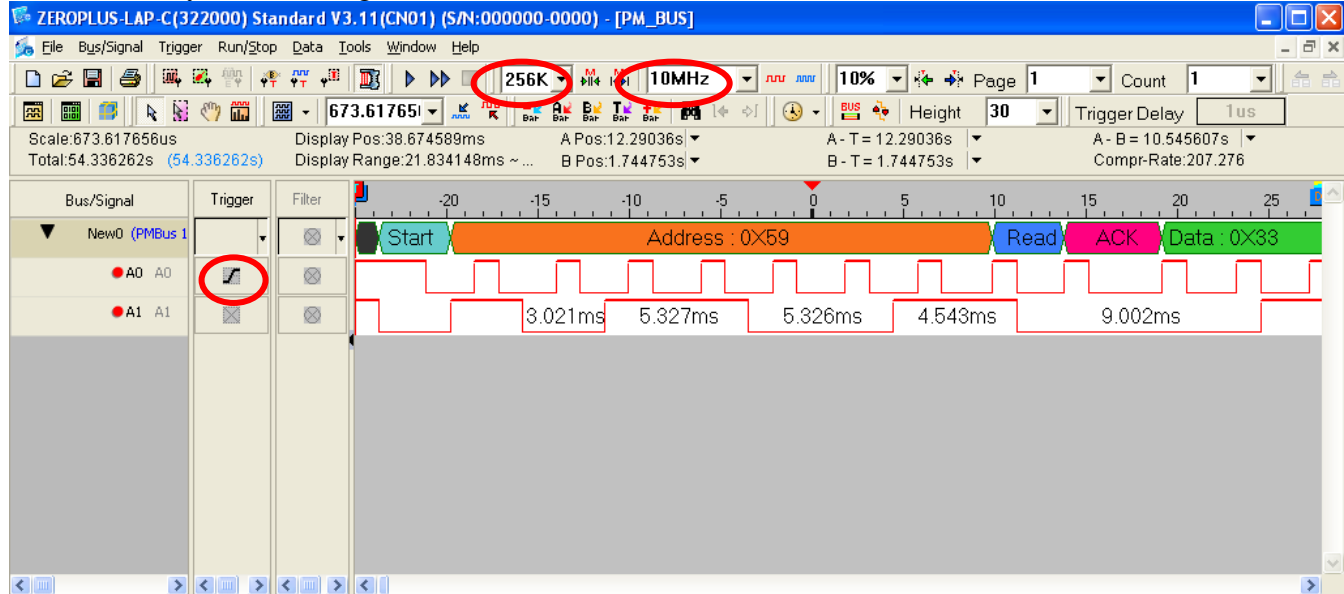**STEP 5.**　Set the Protocol Analyzer Property.

STEP 6.　Set Protocol Analyzer Color

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STEP 7. 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 256K; the sampling frequency is 10MHZ. (the sampling frequency should be more than eight times higher than the signal to be tested)

Protocol Analyzer Decoding

Packet List