



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

SPECIFICATION

MODEL: B08005-LAP-SMBus 2.0-M

PART NO: _____

VERSION: V1.22

Approver		Check	Design
GM	PM		

Customer Confirm

*Please fax the file to ZeroPlus Technology after signing.

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1 Software Download

Please install the software as the following steps:

Remark: 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. Visit the website of ZeroPlus: <http://www.zeroplus.com.tw>.

STEP 2. Click the **English** in the Instrument Division part on the Homepage.

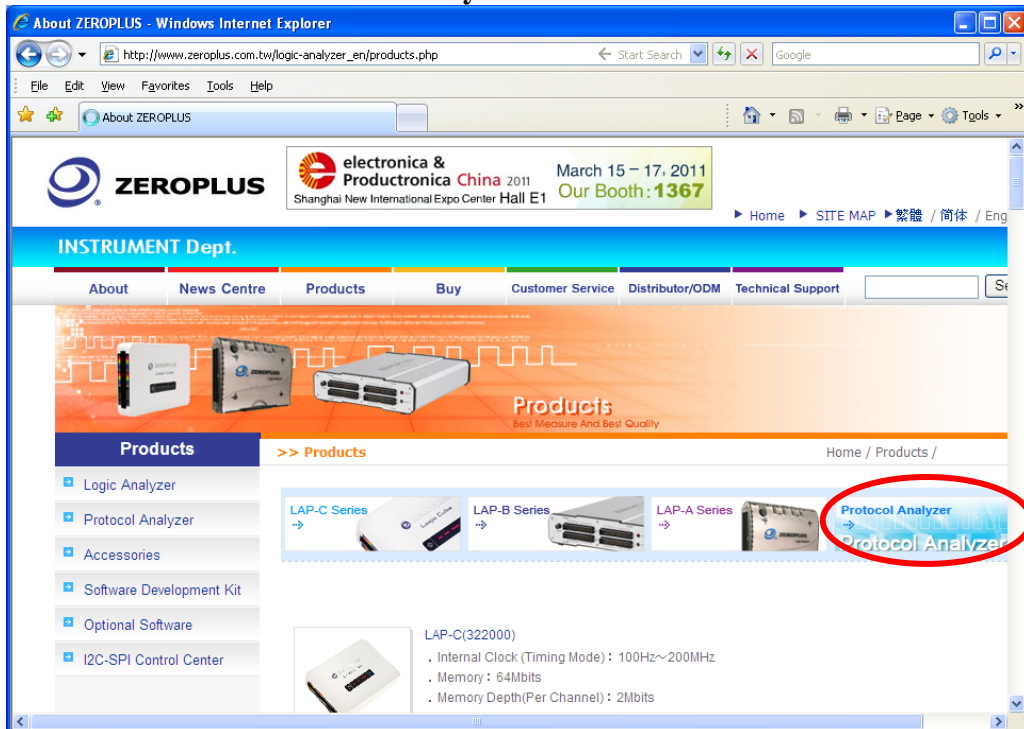




STEP 3. Click **Products** menu or select **Protocol Analyzer** item from its pull-down menu to go straight to STEP 5.

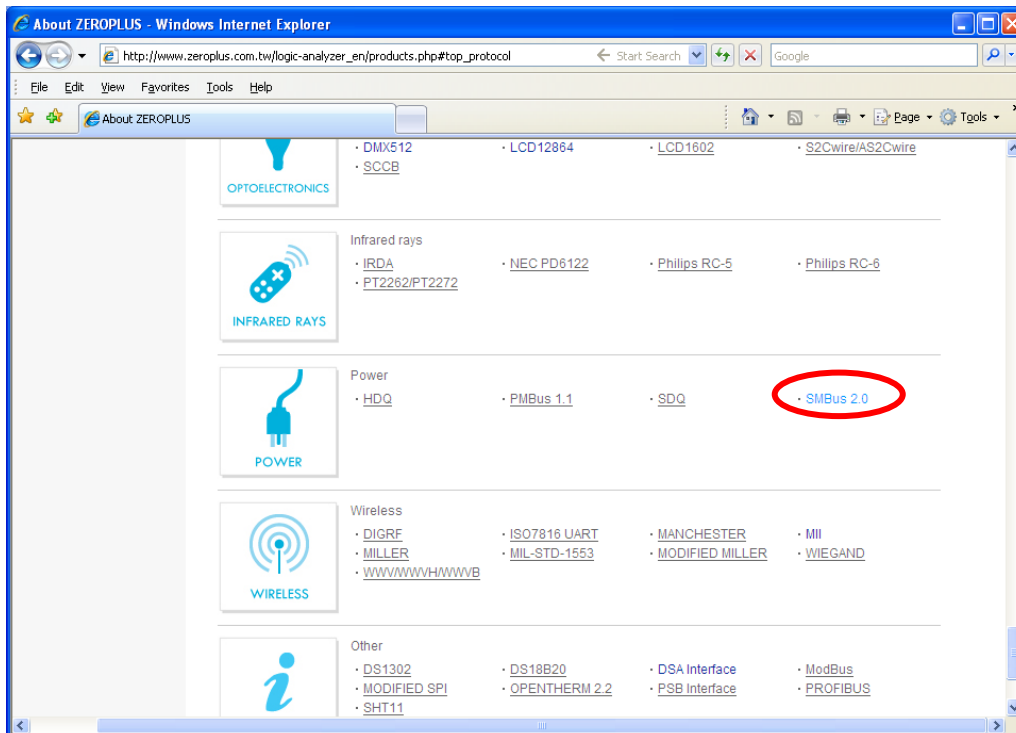


STEP 4. Click **Protocol Analyzer** icon.

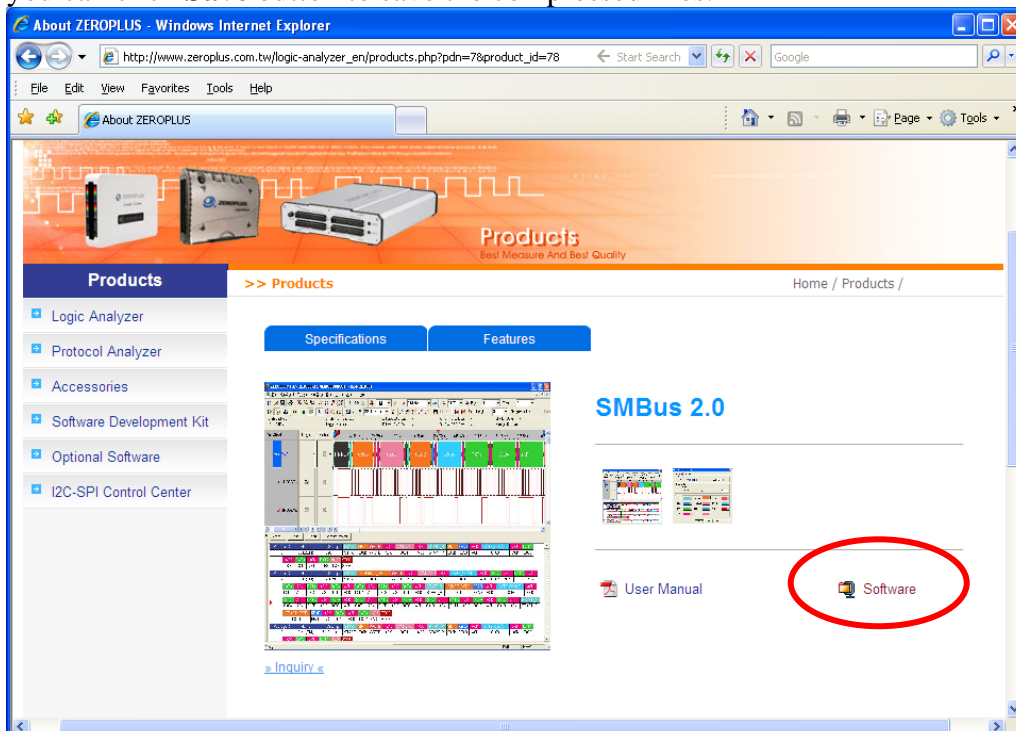




STEP 5. Click **SMBus 2.0** in the Power.

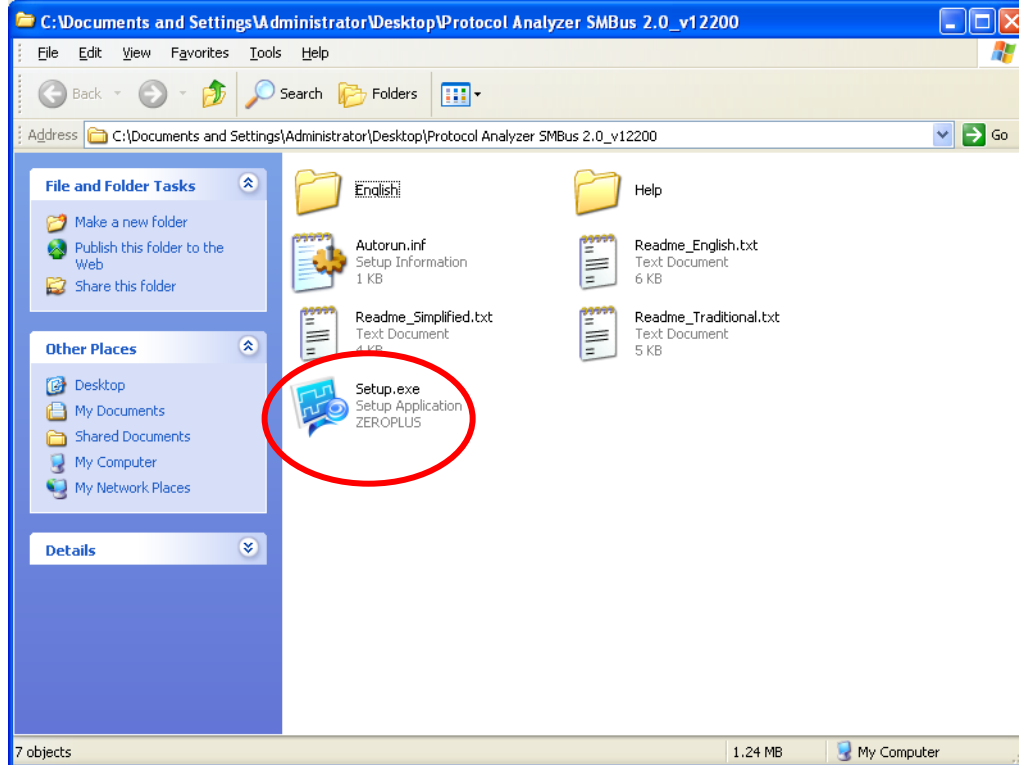


STEP 6. Click **Software** in the Products page. When the File Download dialog box appears, you can click **Save** button to save the compressed files.

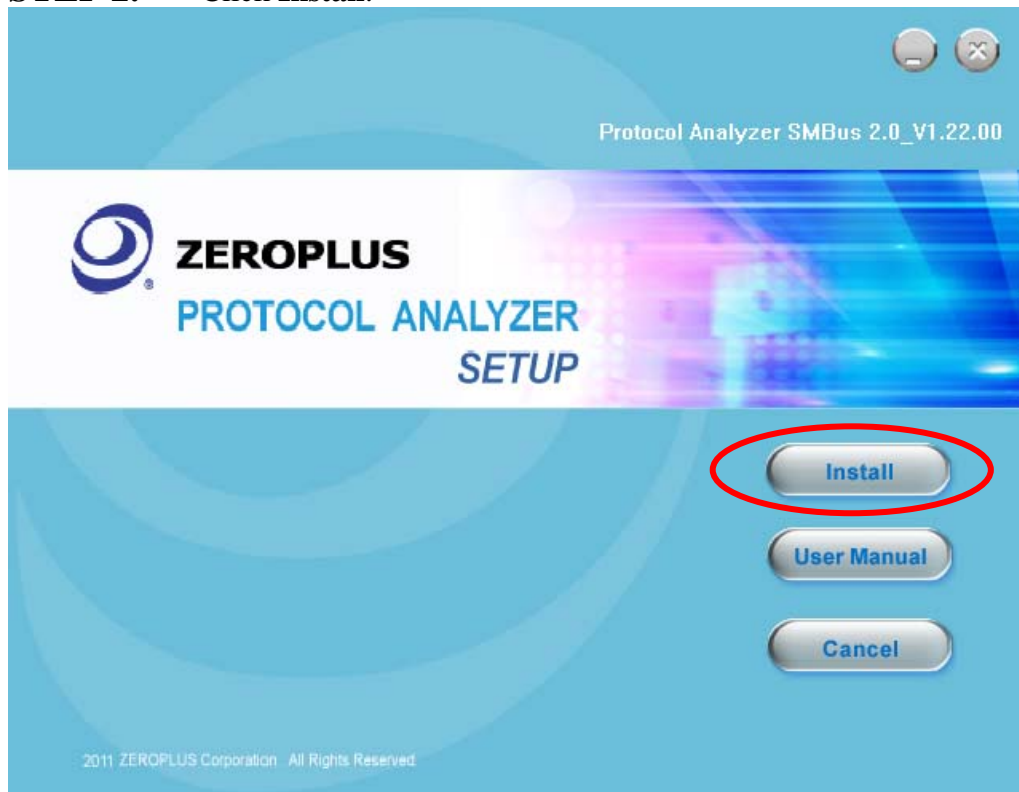


2 Software Installation

STEP 1. Open the downloaded folder to install **Protocol Analyzer SMBus 2.0**.

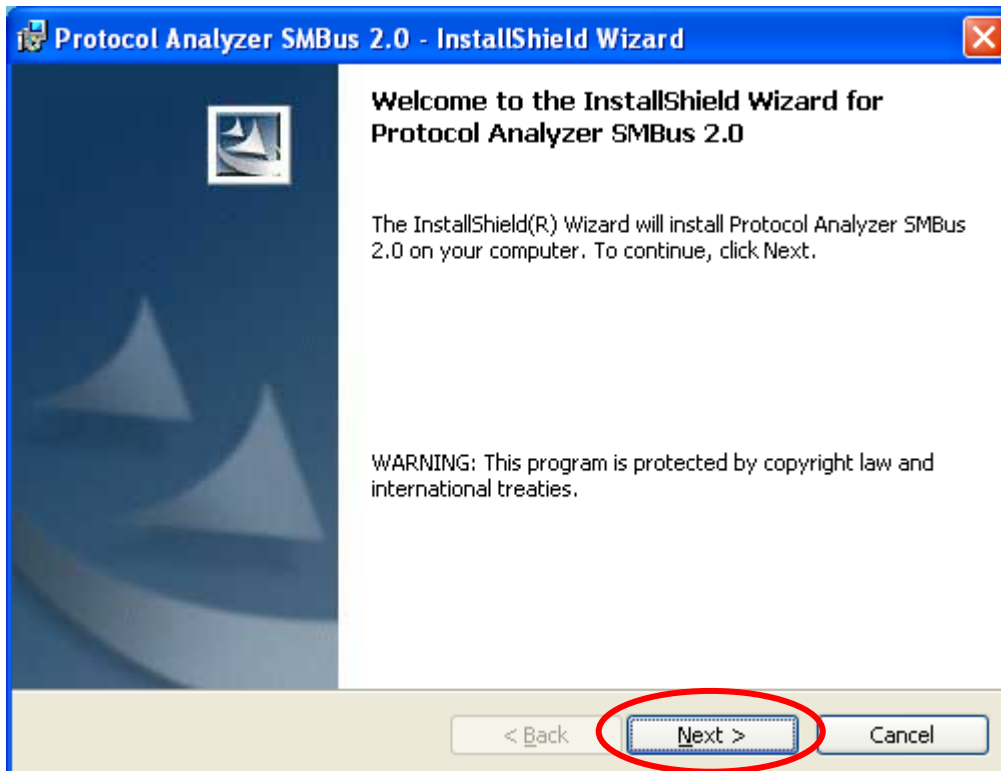


STEP 2. Click **Install**.

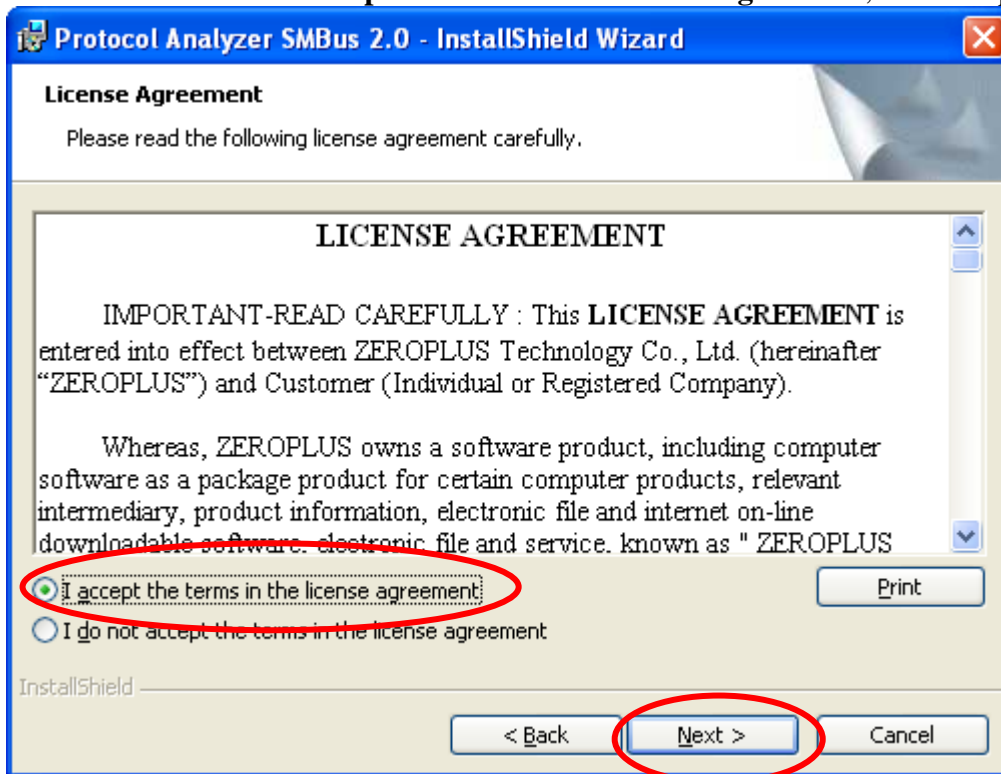




STEP 3. Click **Next**.



STEP 4. Select **I accept the terms in the license agreement**, and then press **Next**.





STEP 5. Fill in users' information in the below dialog box and then click **Next**.

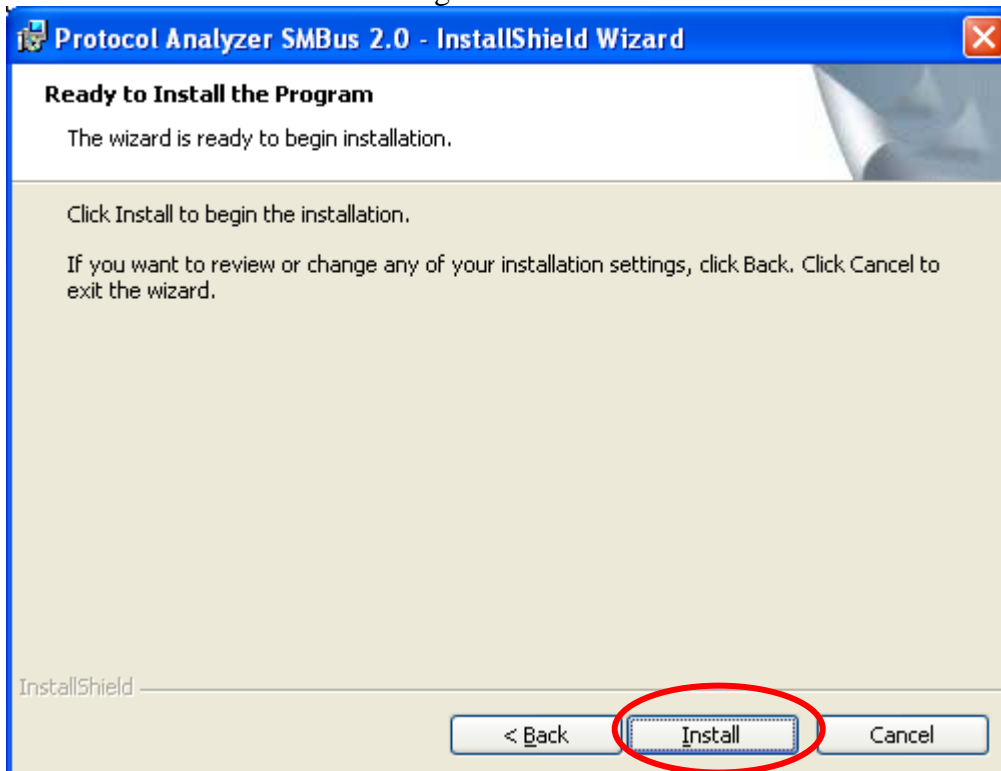
The dialog box is titled "Protocol Analyzer SMBus 2.0 - InstallShield Wizard". It has a "Customer Information" section with the instruction "Please enter your information." Below this, there are two text input fields: "User Name:" with "Microsoft" entered, and "Organization:" with "User" entered. Further down, there is a section "Install this application for:" with two radio button options: "Anyone who uses this computer (all users)" (which is selected) and "Only for me (Microsoft)". At the bottom, there are three buttons: "< Back", "Next >" (which is circled in red), and "Cancel". The "InstallShield" logo is visible in the bottom left corner.

STEP 6. Select **Complete** and then click **Next**.

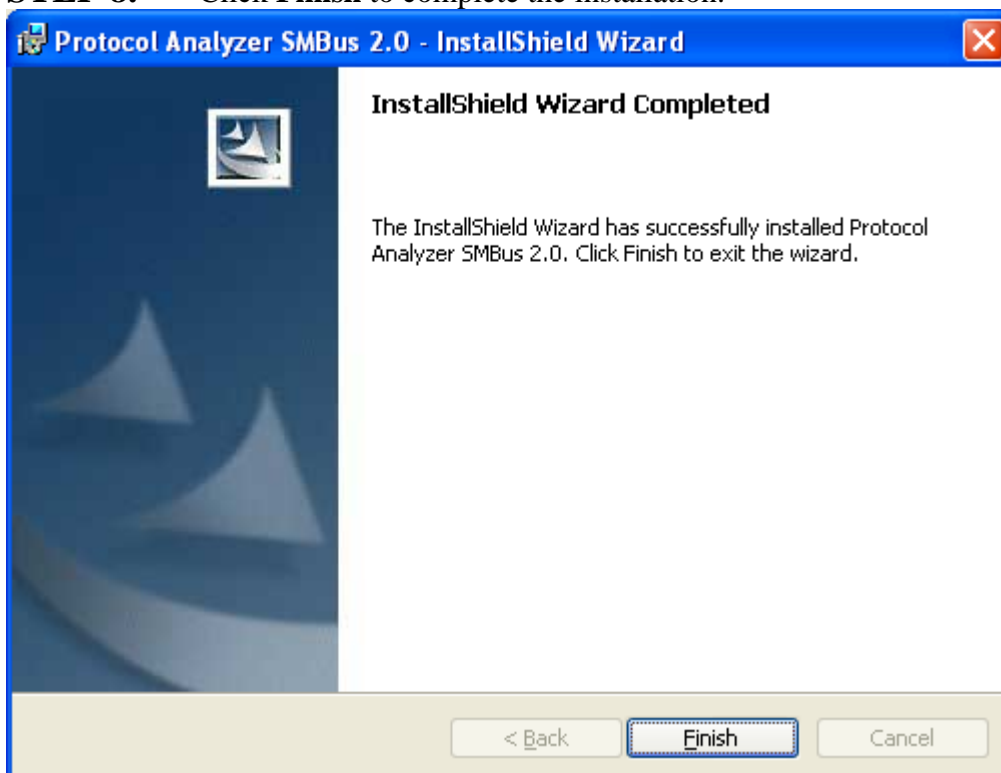
The dialog box is titled "Protocol Analyzer SMBus 2.0 - InstallShield Wizard". It has a "Setup Type" section with the instruction "Choose the setup type that best suits your needs." Below this, there is a text input field with "Please select a setup type." and two radio button options: "Complete" (which is selected) and "Custom". Each option has a small icon and a description. The "Complete" option description is "All program features will be installed. (Requires the most disk space.)". The "Custom" option description is "Choose which program features you want installed and where they will be installed. Recommended for advanced users." At the bottom, there are three buttons: "< Back", "Next >" (which is circled in red), and "Cancel". The "InstallShield" logo is visible in the bottom left corner.



STEP 7. Click **Install** to begin the installation.

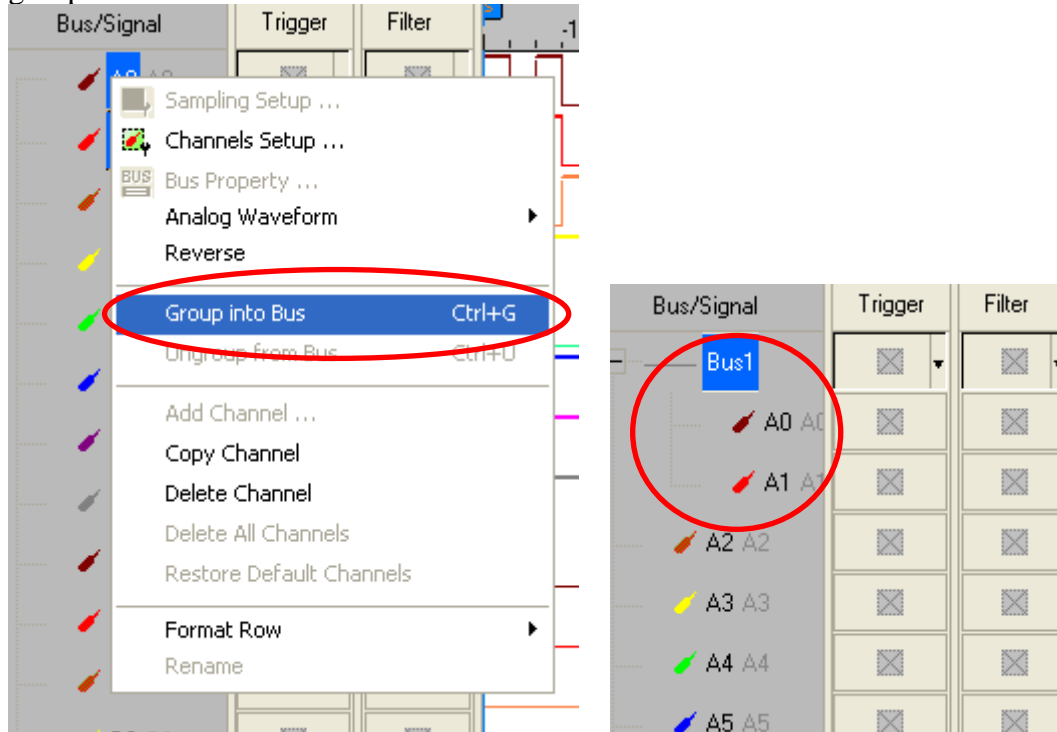


STEP 8. Click **Finish** to complete the installation.

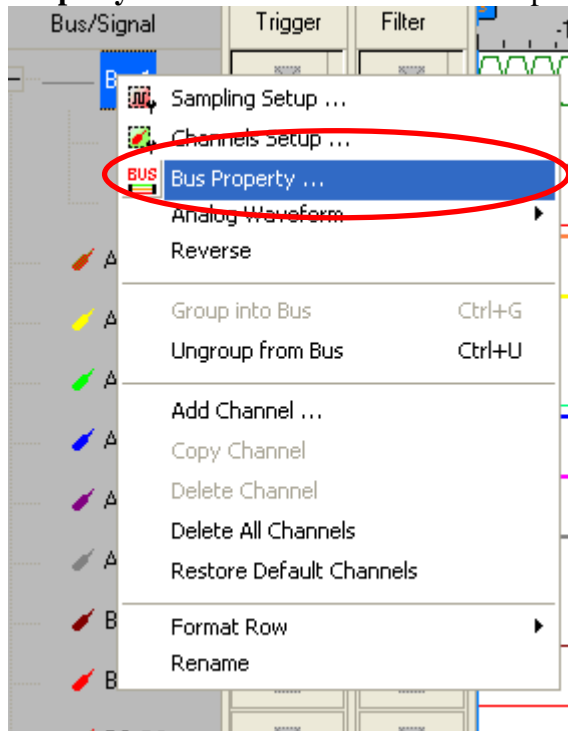


3 Software Register

STEP 1. Open the Logic Analyzer and group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. **SMBus 2.0** needs two channels to decode signals, so it is necessary to group two or more channels into a Bus.

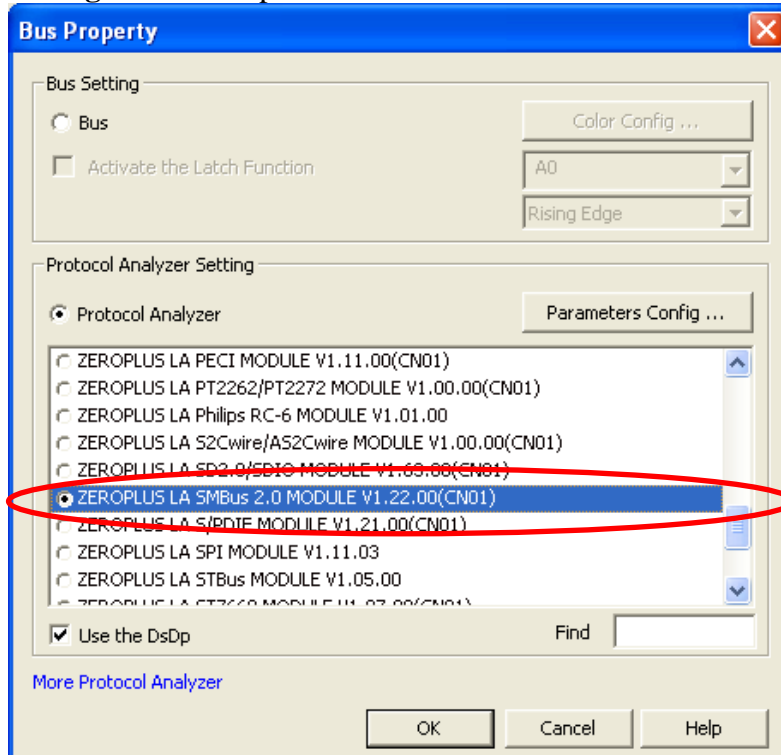


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

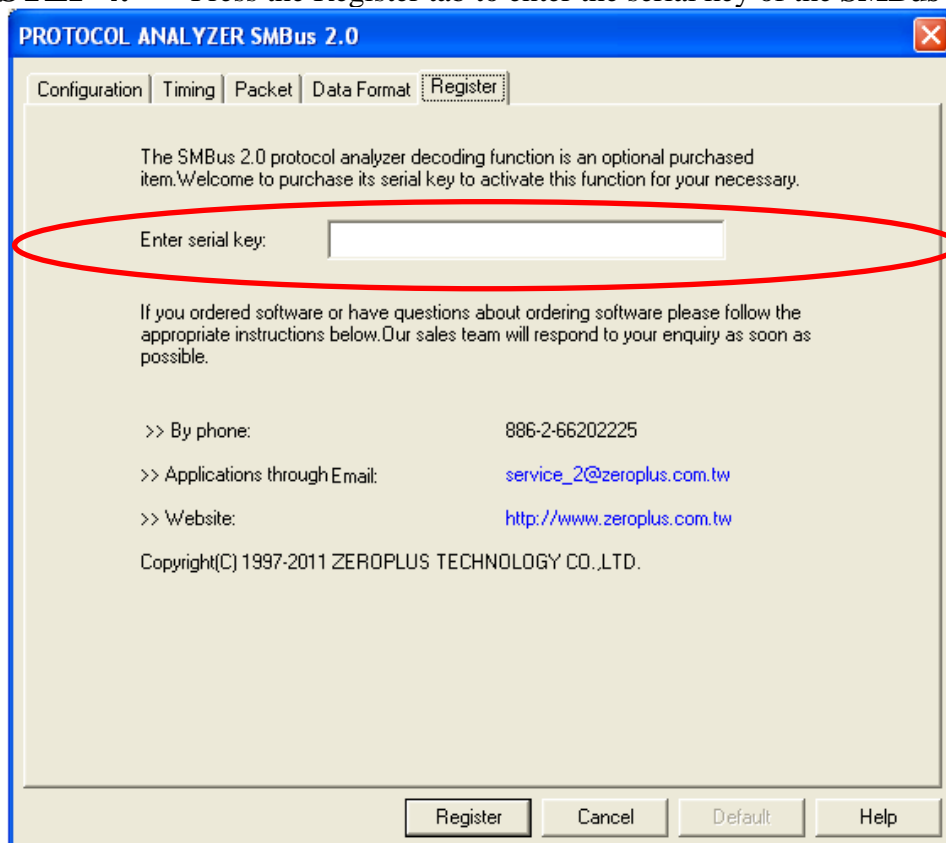




STEP 3. For Protocol Analyzer **SMBus 2.0** Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA SMBus 2.0 MODULE V1.22.00(CN01)**. Next click **Parameters Configuration** to open the **PROTOCOL ANALYZER SMBus 2.0** dialog box.

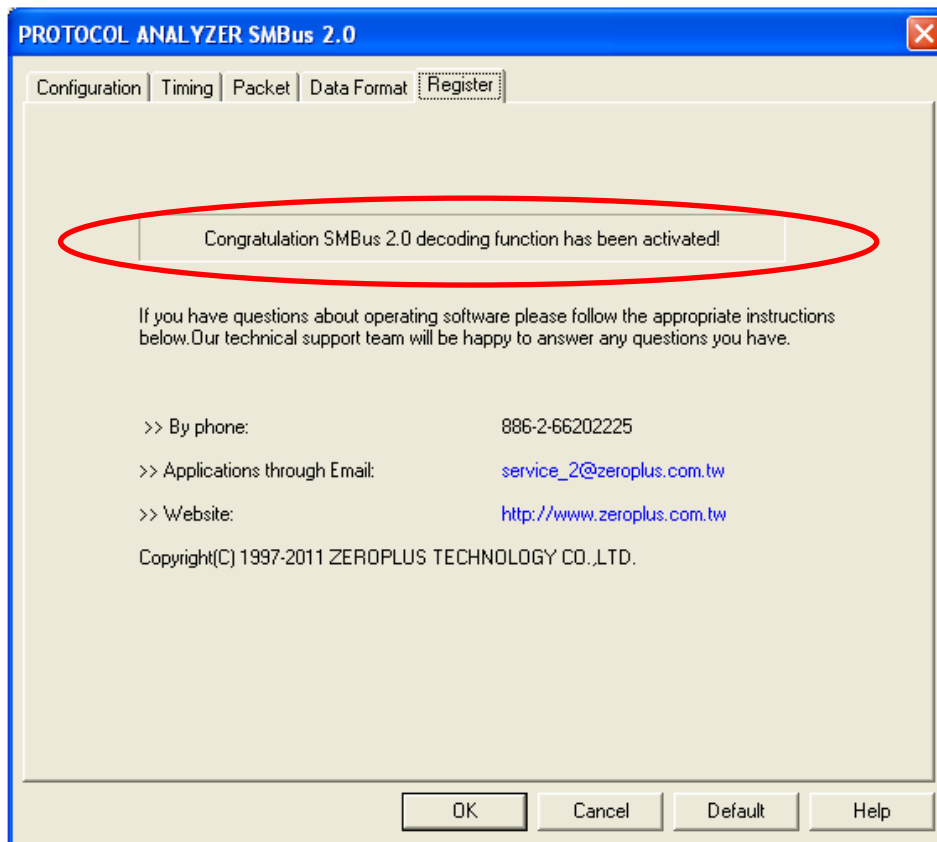


STEP 4. Press the Register tab to enter the serial key of the **SMBus 2.0**. Then, press **Register**.





STEP 5. After pressing the Register button, the following dialog box will appear; it denotes that the Protocol Analyzer SMBus 2.0 has been registered successfully.

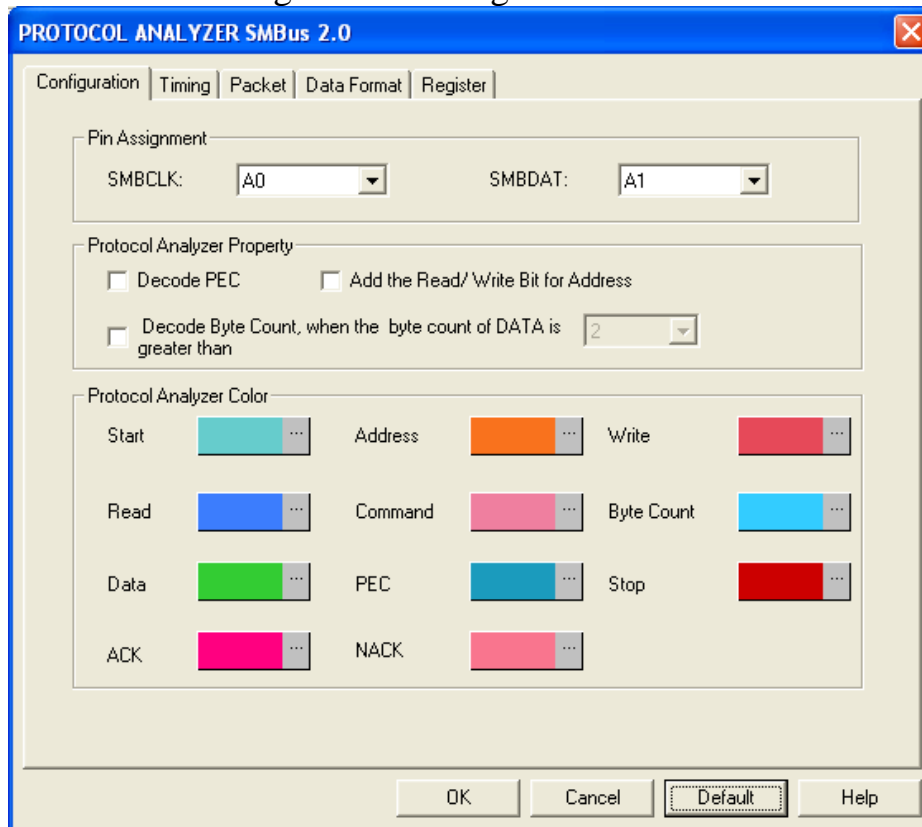




4 User Interface

In the configuration dialog box, please refer to the below images to select options of setting **SMBus 2.0 Module**.

SMBus 2.0 Configuration Dialog Box



Pin Assignment:

Set the corresponding signal lines.

SMBCLK: It is set to A0 by default.

SMBDAT: It is set to A1 by default.

Protocol Analyzer Property:

Decode PEC: The PEC is decoded according to the different requirements. Specifically, the PEC can be decoded as the Parity in the simple Data Transmission or the relaxed Occasion. And it is unnecessary to decode the PEC in many Transmissions, so the PEC is disabled by default.

Decode Byte Count, when the byte count of DATA is greater than: The Byte Count is used according to the byte count of DATA. When the option is enabled, if the byte count of DATA is greater than the selected value, the first data should be decoded as Byte Count, the value can be selected from the pull-down menu and the default is 2.

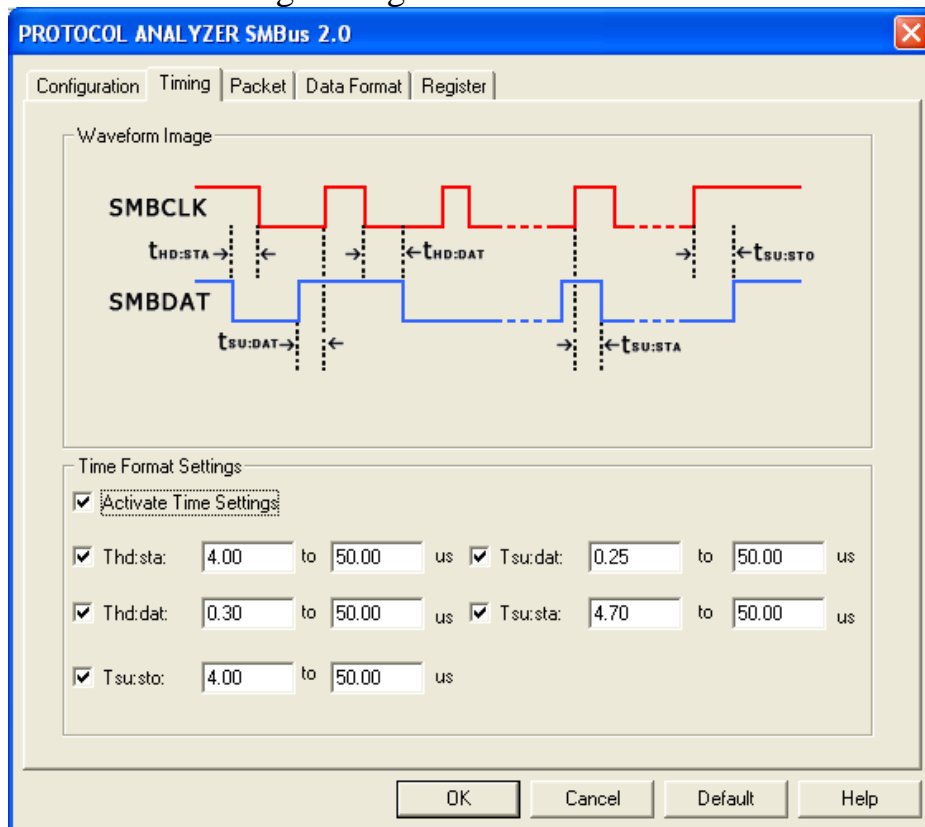
Add the Read/Write Bit for Address: When the option is enabled, the Address will be displayed. In addition, the new address can be obtained when one Bit should be moved on the basis of the original Address on the left direction and added to the R/W Bit.

Protocol Analyzer Color:

The protocol analyzer colors can be varied by users.



SMBus 2.0 Timing Dialog Box



Waveform Image:

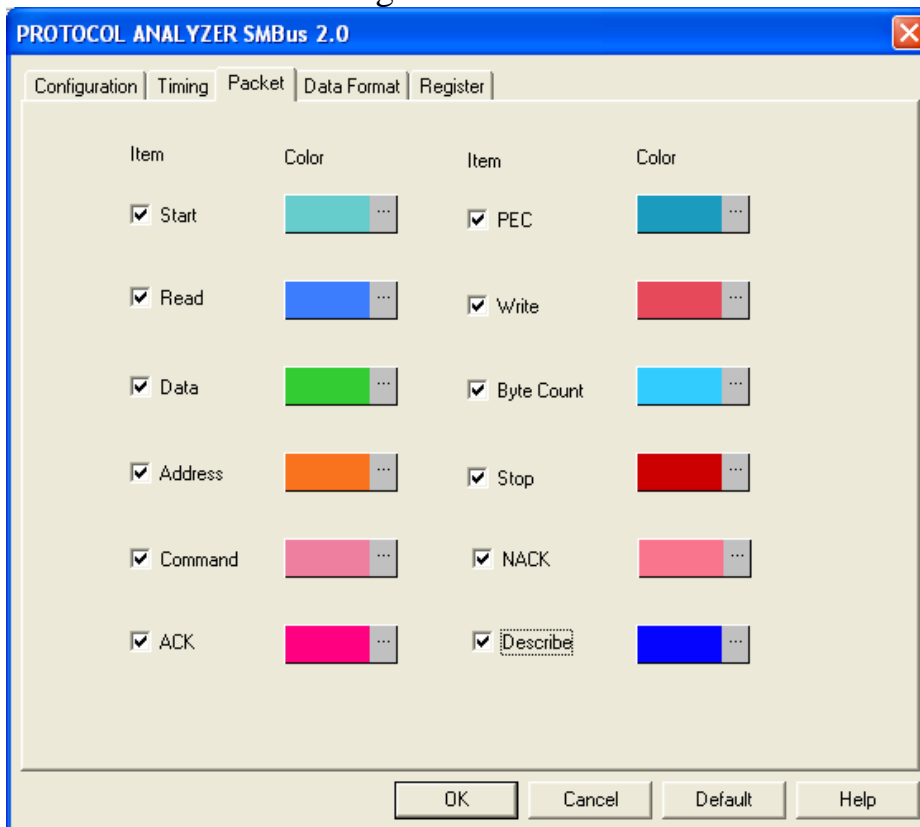
Describe the position of the set time.

Time Format Settings:

It can set the time after activating time settings. The set time can be taken as the condition of judging decoding. For example, decoding START, firstly judge whether the condition of START is coincident or not, then judge whether the set time of Thd: sta coincides with the factual waveform. It can start decoding START when both of the two conditions are coincident. The other packet segments are the same with the above theory.

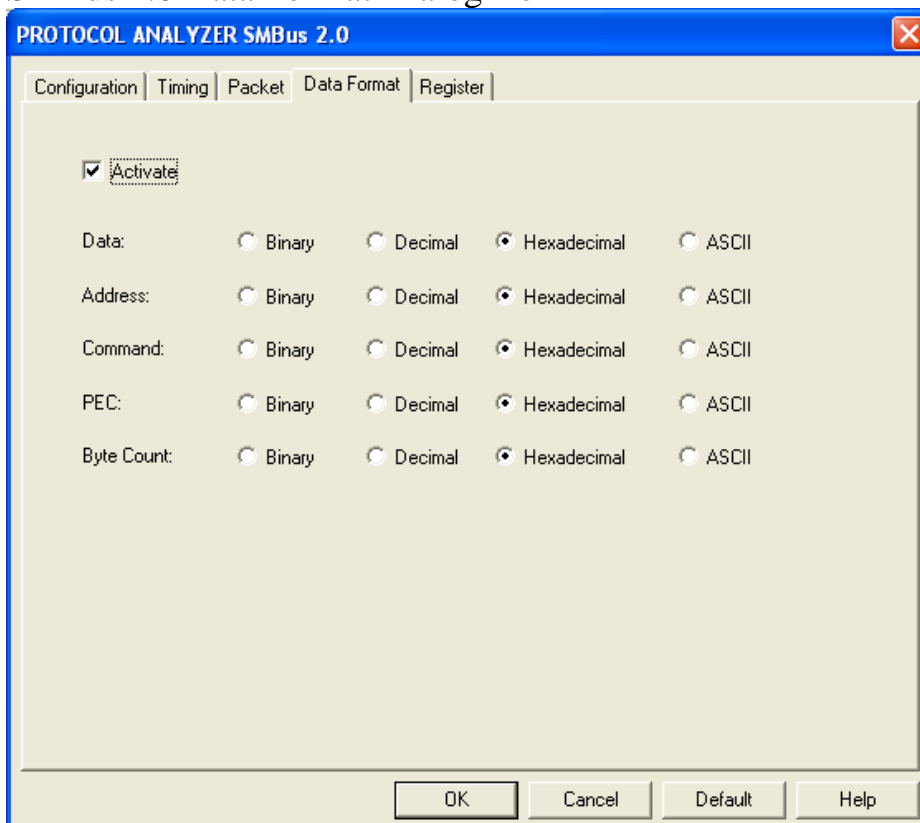


SMBus 2.0 Packet Dialog Box



In the Packet dialog box, users can vary the color of items and set the item to be displayed.

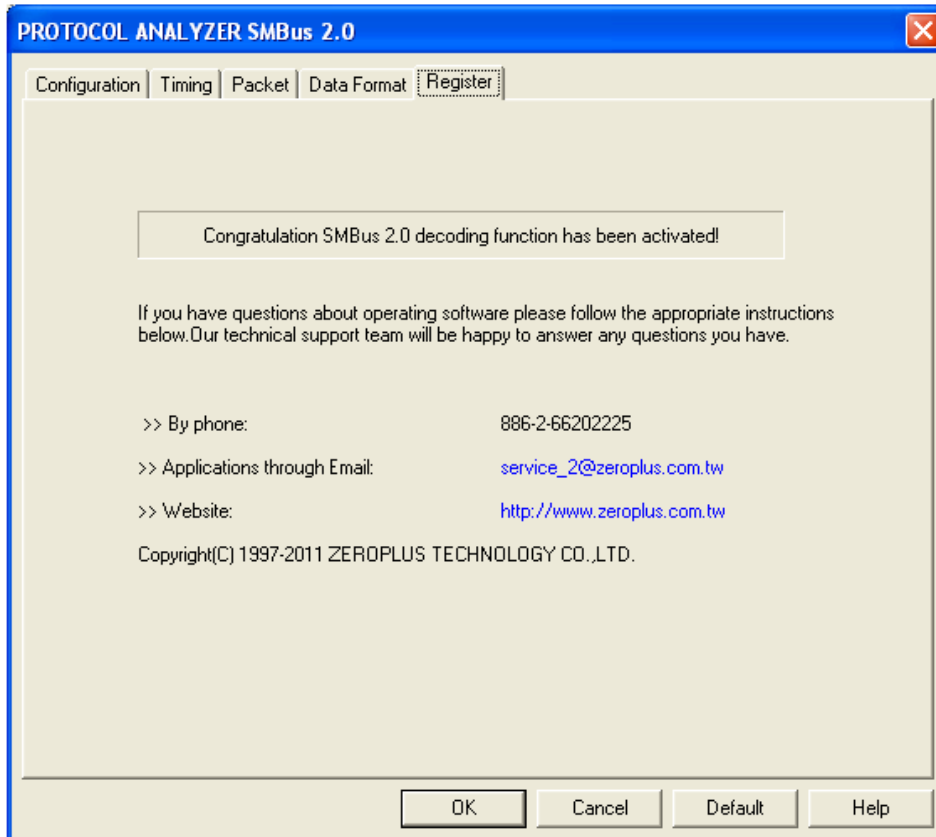
SMBus 2.0 Data Format Dialog Box





Users can set the Data Format of the Data, Address, Command, PEC and Byte Count 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.

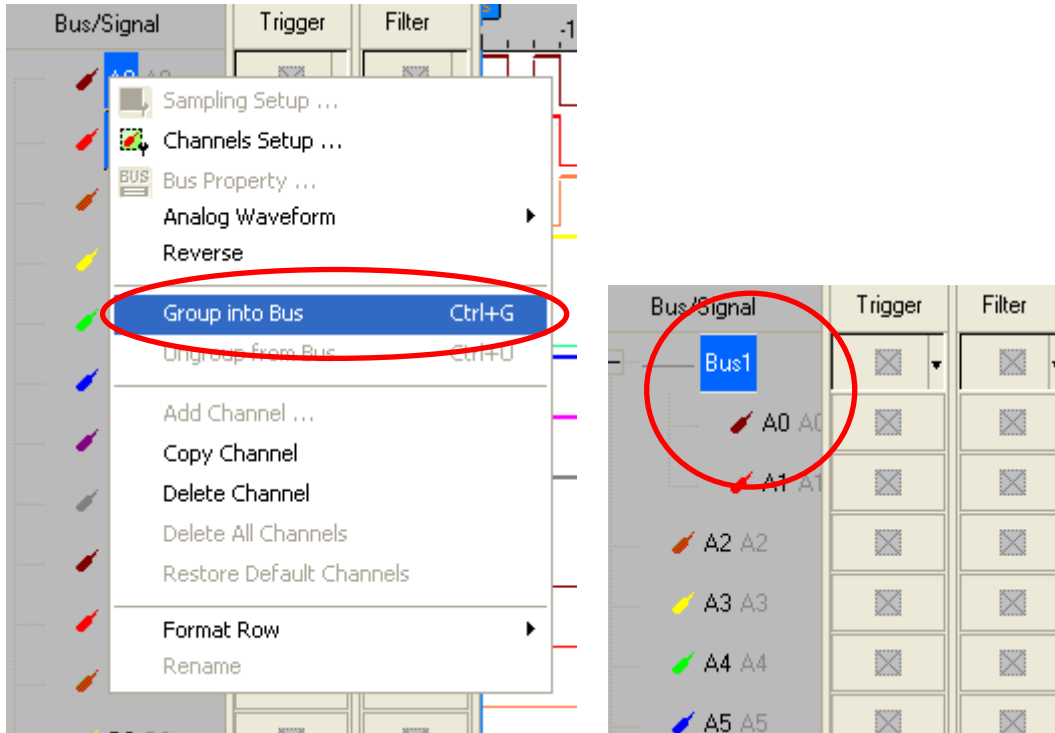
SMBus 2.0 Register Dialog Box



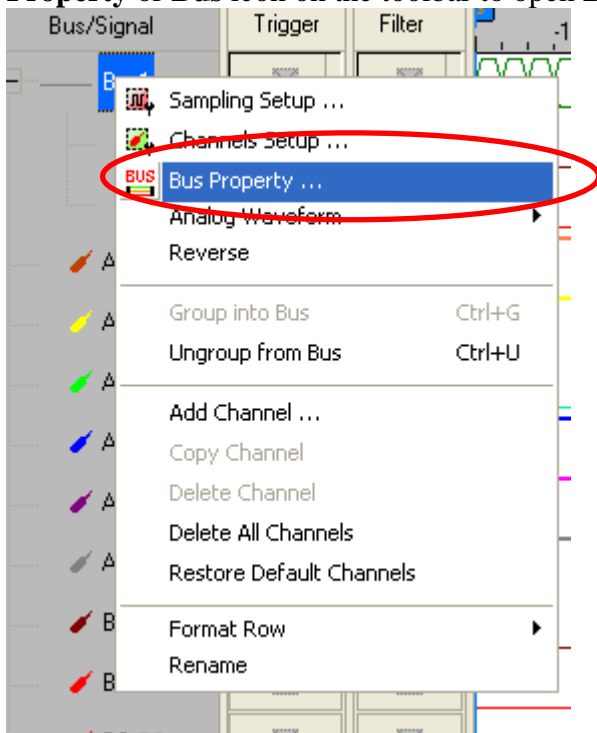
There is written ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

5 Operating Instructions

STEP 1. Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. **SMBus 2.0** needs two channels to decode signals, so it is necessary to group two or more channels into a Bus.

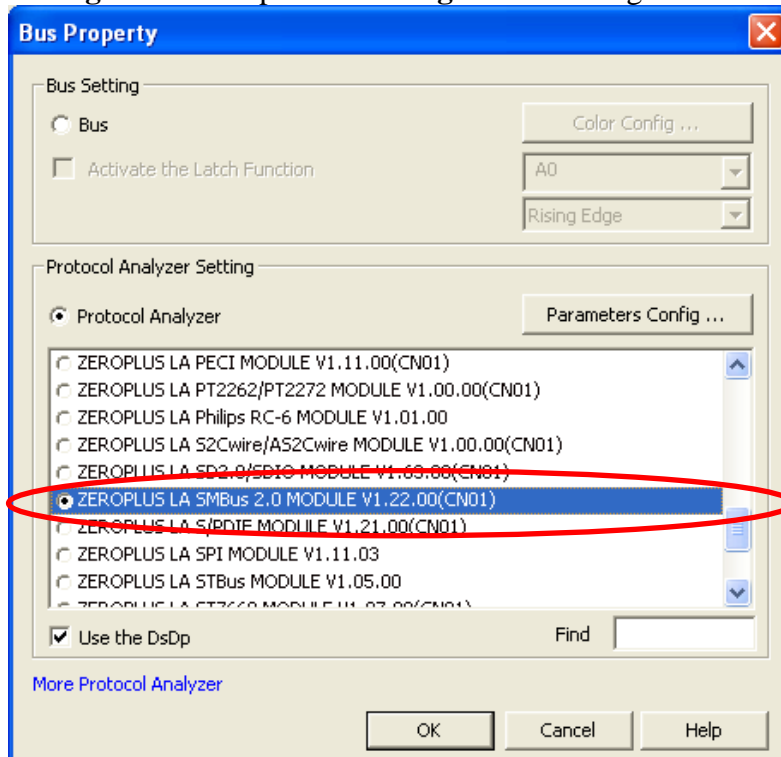


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

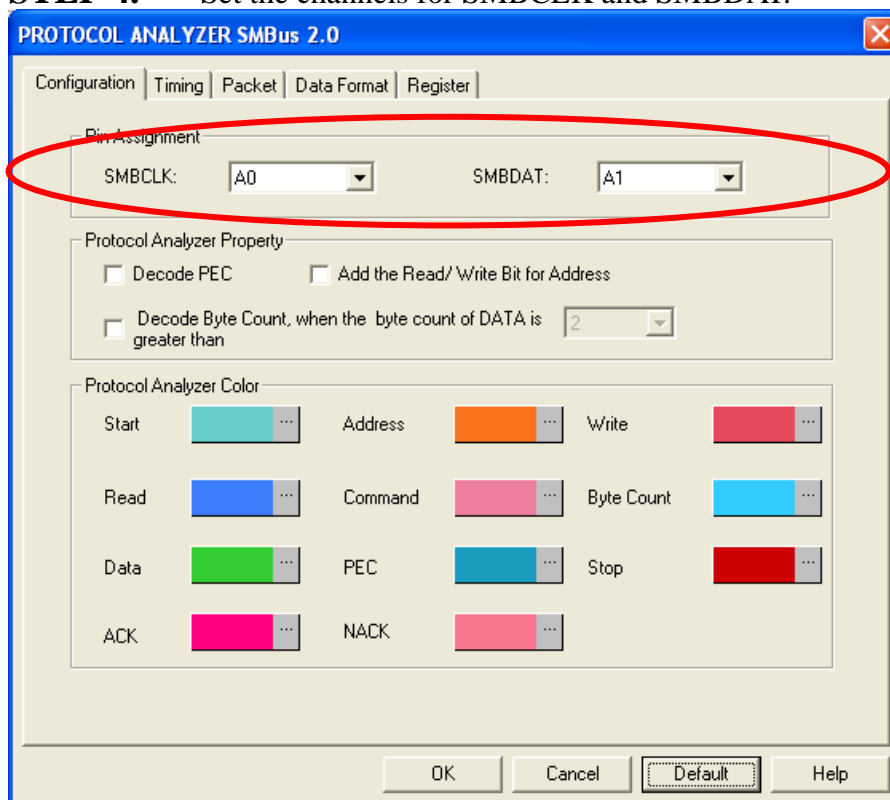




STEP 3. For Protocol Analyzer **SMBus 2.0** Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA SMBus 2.0 MODULE V1.22.00(CN01)**. Next click **Parameters Configuration** to open the **Configuration** dialog box.

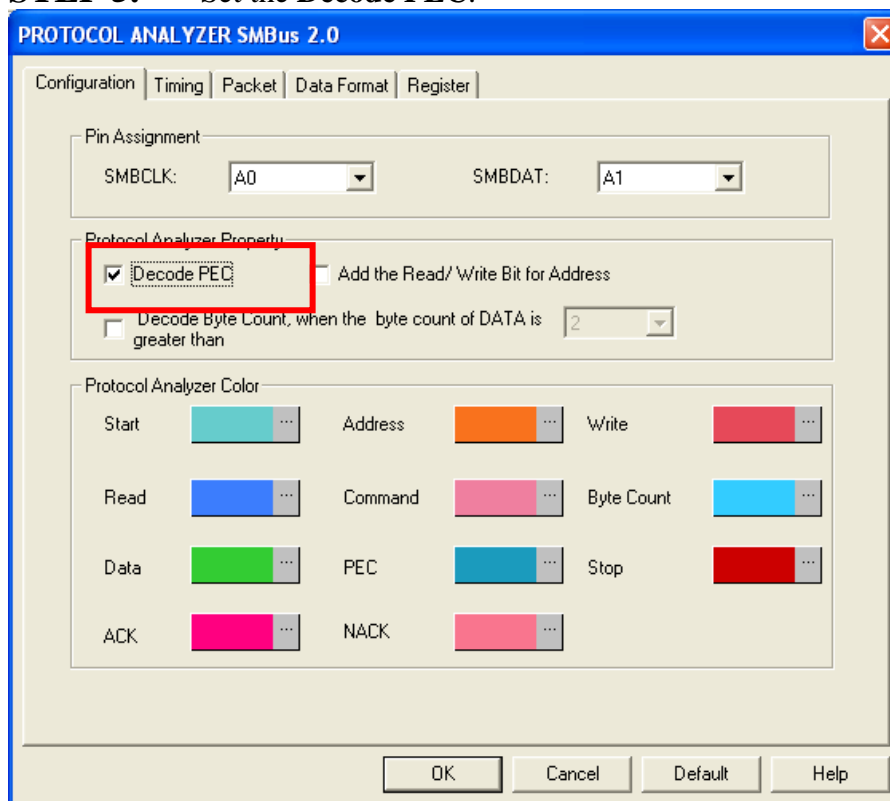


STEP 4. Set the channels for SMBCLK and SMBDAT.

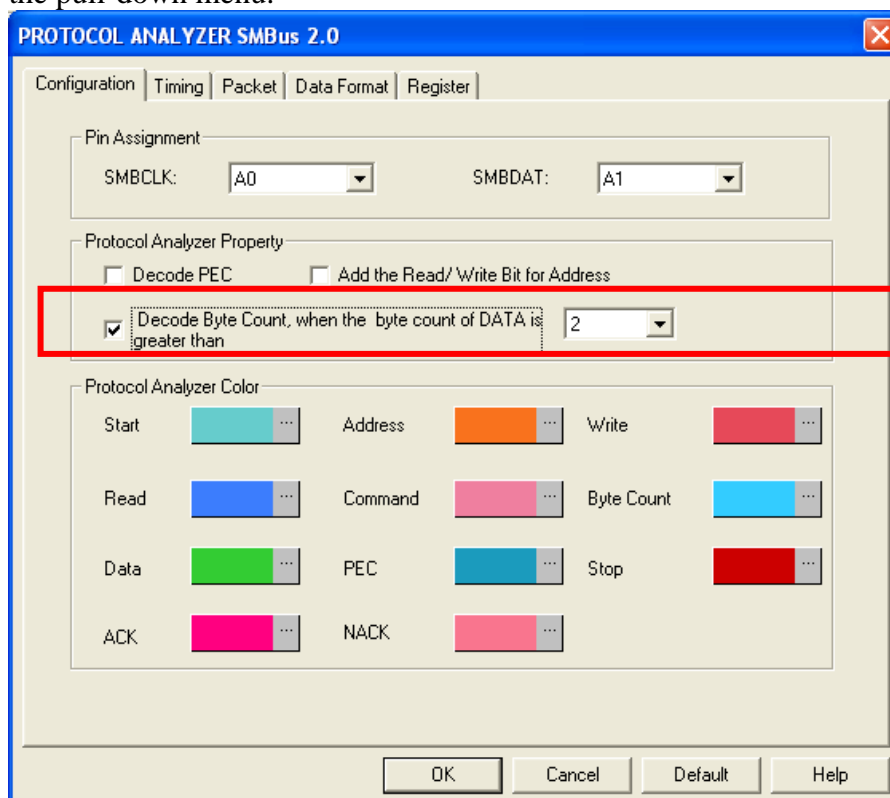




STEP 5. Set the Decode PEC.

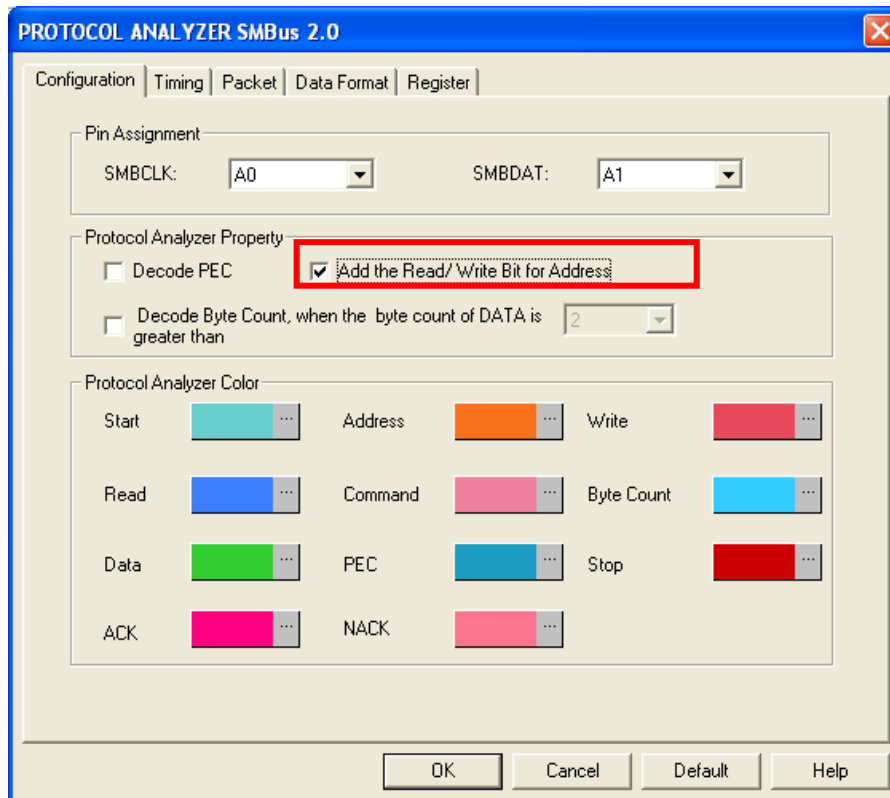


STEP 6. Set the Byte Count when the byte count of DATA is greater than a value selected from the pull-down menu.

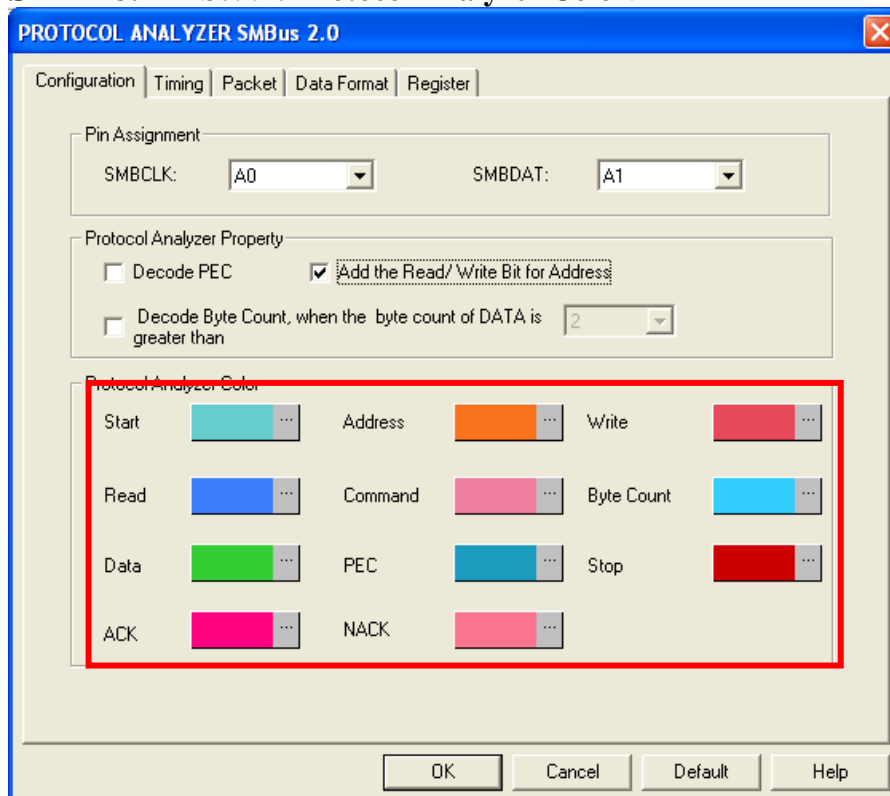




STEP 7. Set the Add the Read/Write Bit for Address.

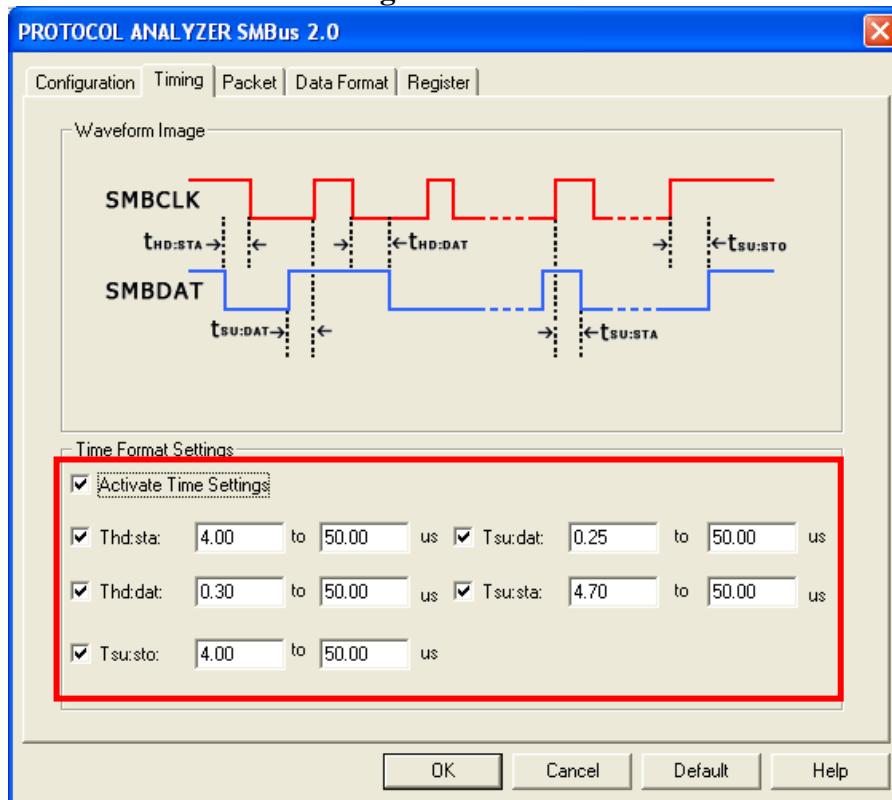


STEP 8. Set the Protocol Analyzer Color.



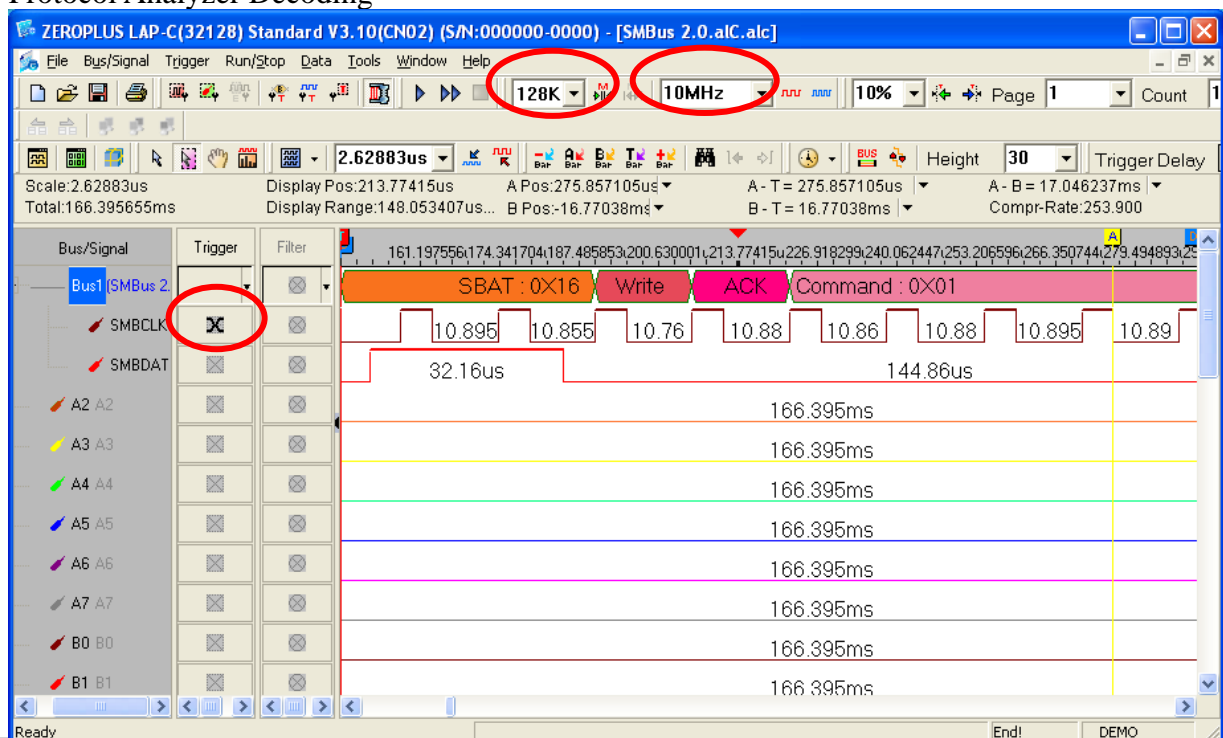


STEP 9. Set the Timing.



STEP 10. Following pictures show the completion of the protocol analyzer decoding and the packet list. The trigger condition is set as Either Edge; the memory depth is 128K; the sampling frequency is 10MHz (the sampling frequency should be more than ten times higher than the signal to be tested).

Protocol Analyzer Decoding





Packet List

