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Zeroplus Technology Co., Ltd.

Instrument Business Department

MCU-51 DECODE Specification

Version : V1.02



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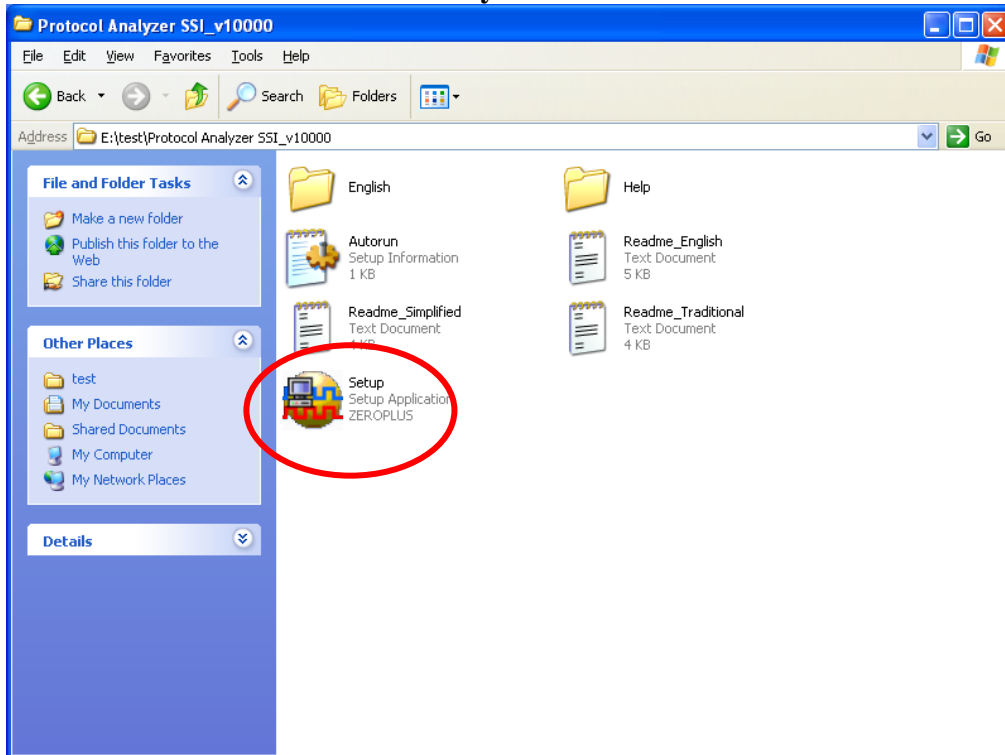
1 Software Installation

Please install the software as the following steps:

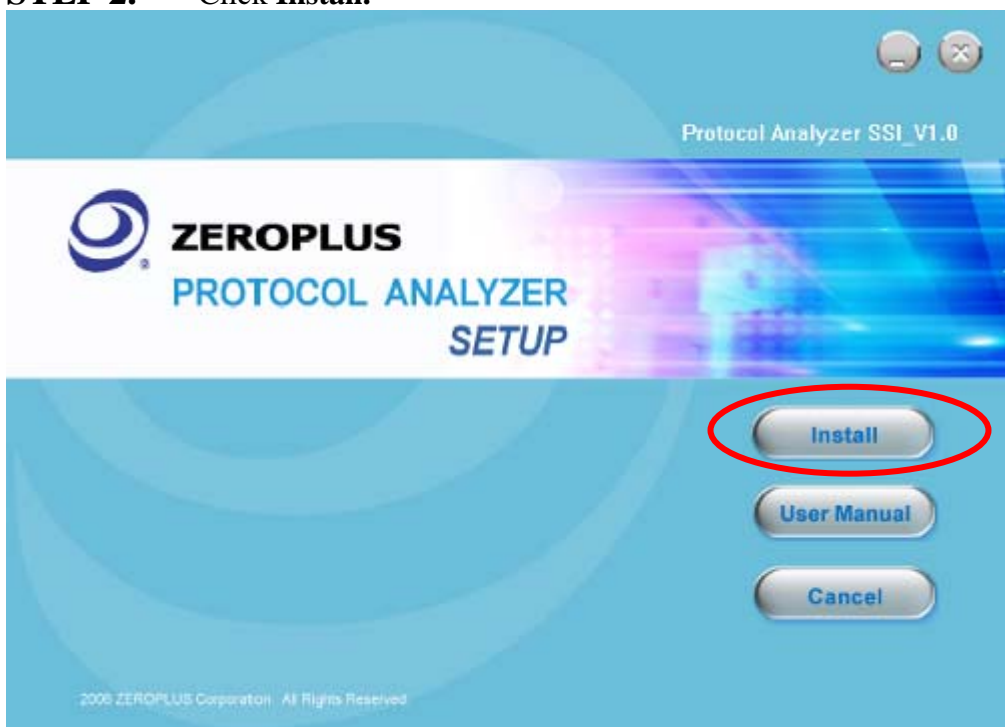
※ Remark: 1. The installation steps for all protocol analyzers are the same; you can complete the installation by following procedures. Following is an example on how to install protocol analyzer SSI.

※ Remark: 2. 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. Install Protocol Analyzer Module.

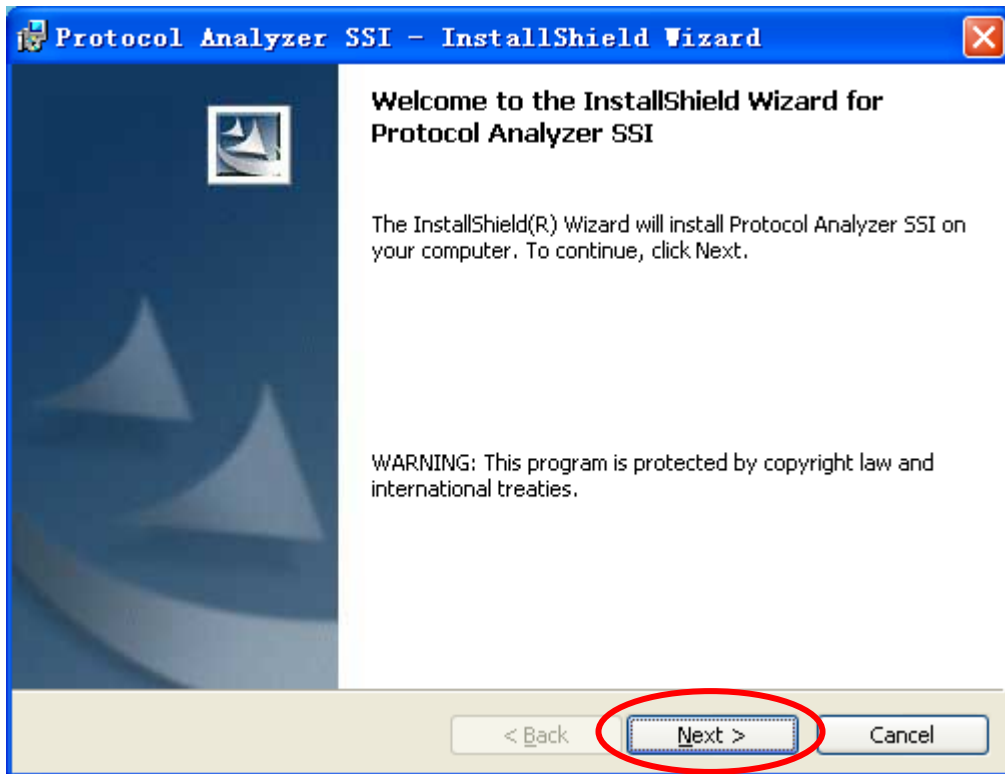


STEP 2. Click Install.

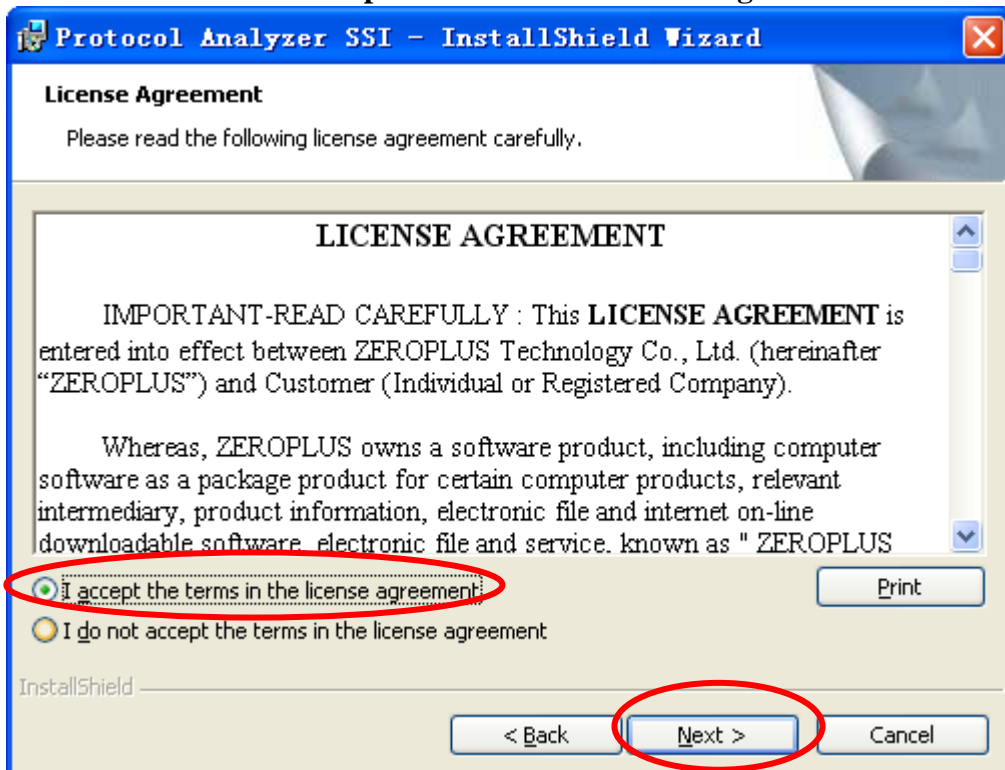




STEP 3. Click Next.

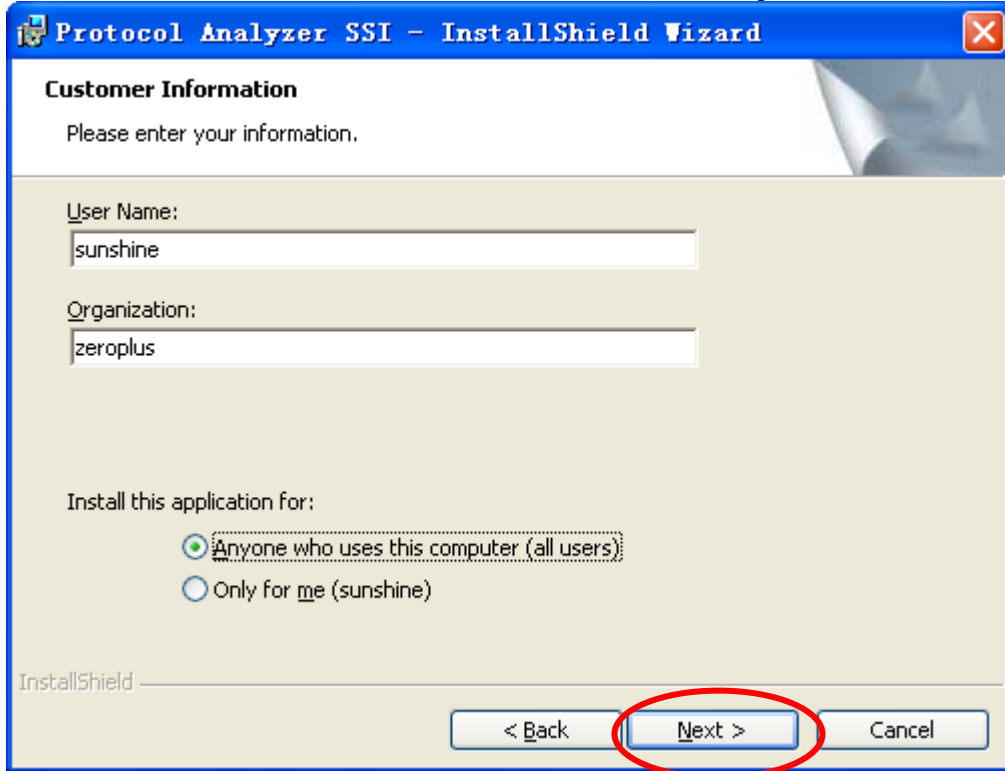


STEP 4. Select I accept the terms in the license agreement, and then press Next.

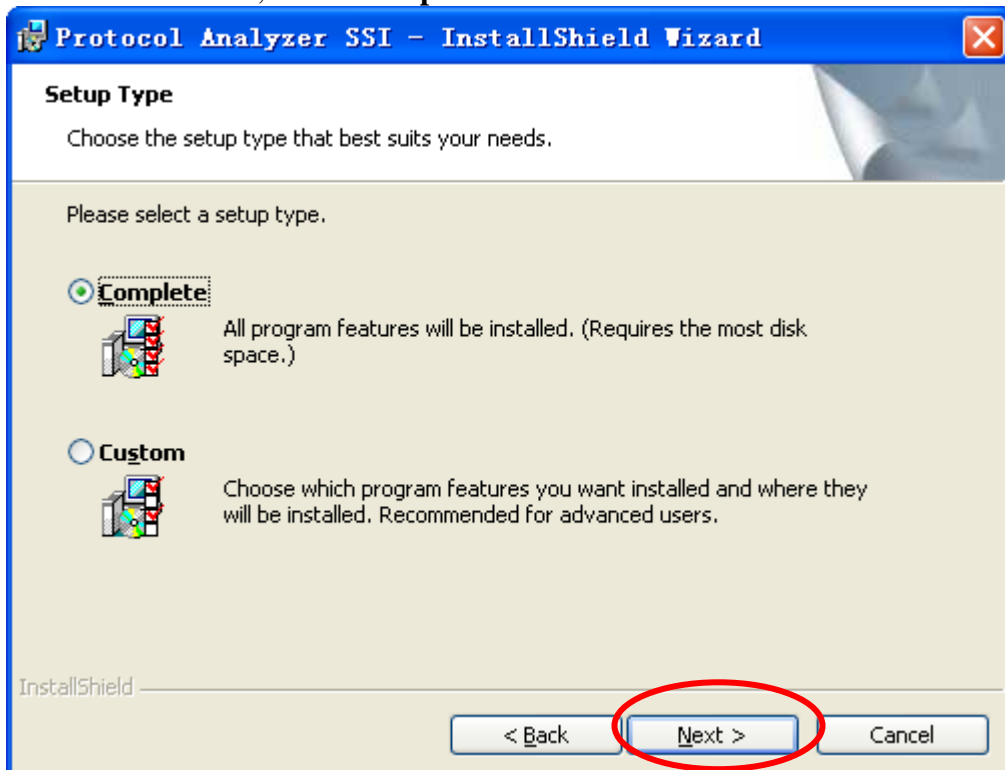




STEP 5. Fill in users' information in the below dialog box and click **Next**.

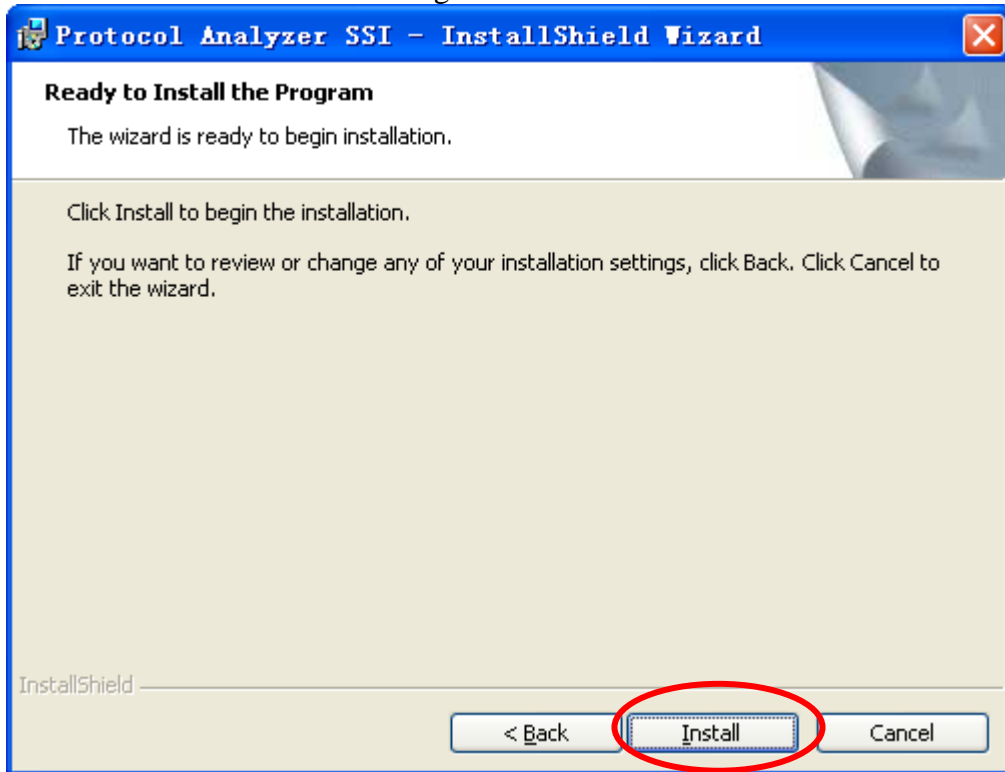


STEP 6. First, select **Complete** and then click **Next**.

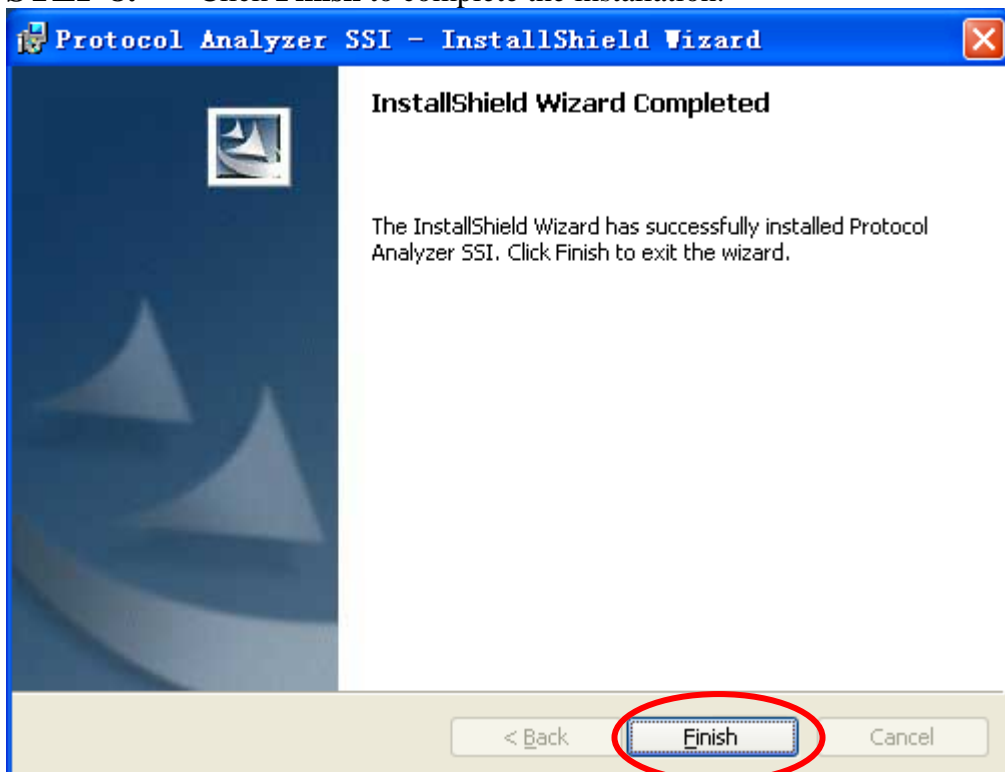




STEP 7. Click **Install** to begin the installation.



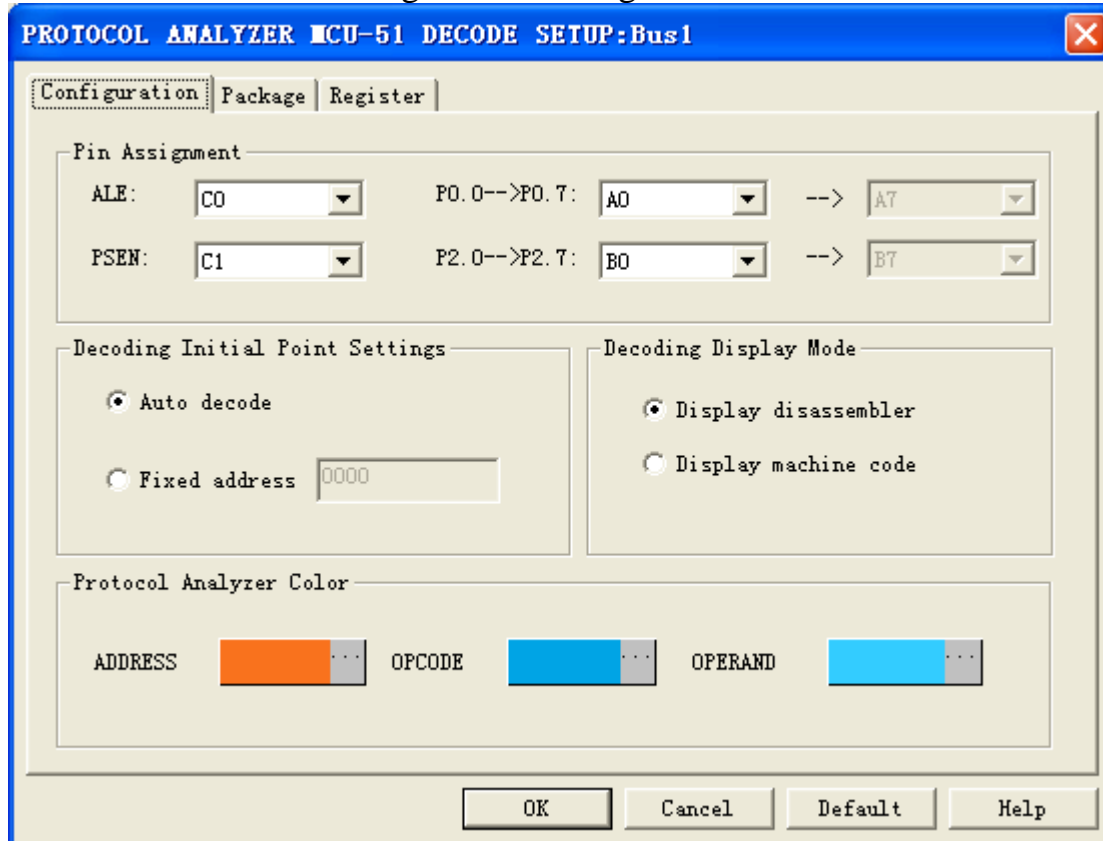
STEP 8. Click **Finish** to complete the installation.



2 User Interface

In the configuration dialog box, please refer to the below images to select options of setting **MCU-51 DECODE MODULE**.

MCU-51 DECODE Configuration Dialog Box



Pin Assignment:

Select the Protocol Analyzer Channel; the default of ALE is C0; the default of PSEN is C1.

When setting the P0.0~P0.7 in the Pin Assignment, it only needs to set the first part P0.0, the other channels will be automatically set in turn.

When setting the P2.0~P2.7 in the Pin Assignment, it only needs to set the first part P2.0, the other channels will be automatically set in turn.

Decoding Initial Point Settings:

Auto decode: It automatically detects the decoding address.

Fixed address: Users can set the fixed address.

Decoding Display Mode

Display disassembler: Disassemble signals and display the corresponding command.

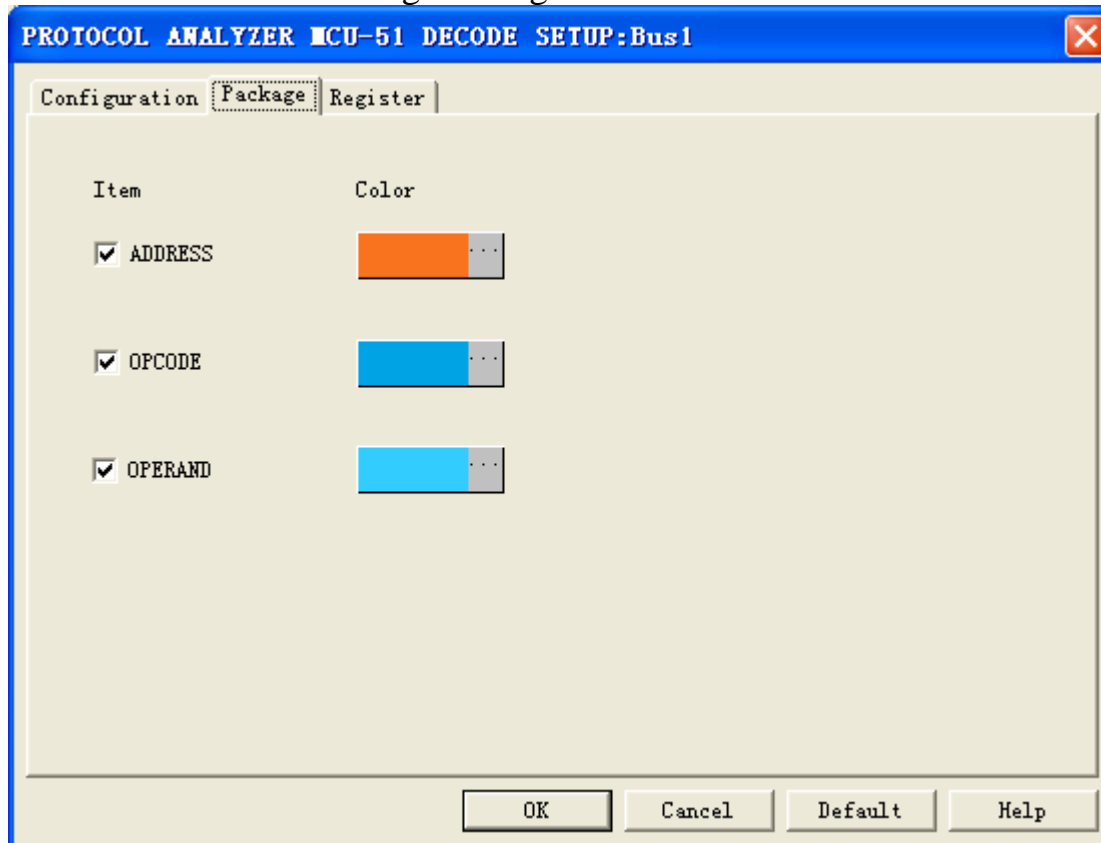
Display machine code: Disassemble signals and display the corresponding machine code.

Protocol Analyzer Color

Users can set and vary the color of the items according to their requirements.

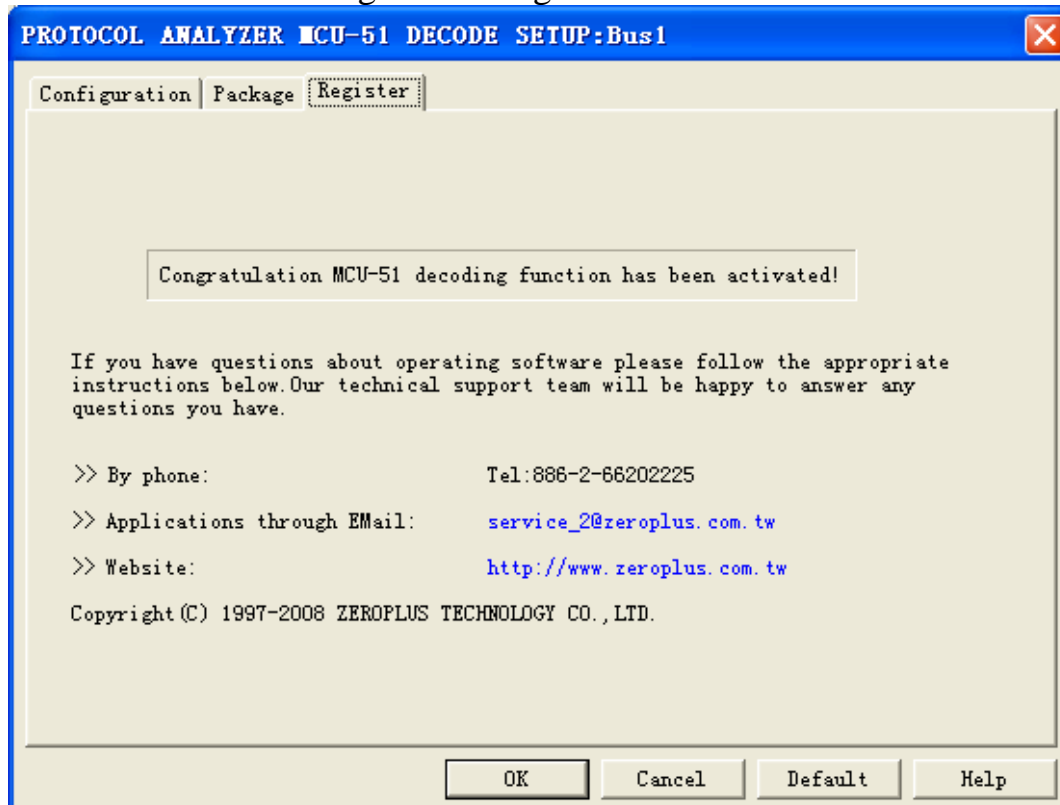


MCU-51 DECODE Package Dialog Box



In the package dialog box, users can choose displayed items and set protocol analyzer color according to their requirements.

MCU-51 DECODE Register Dialog Box

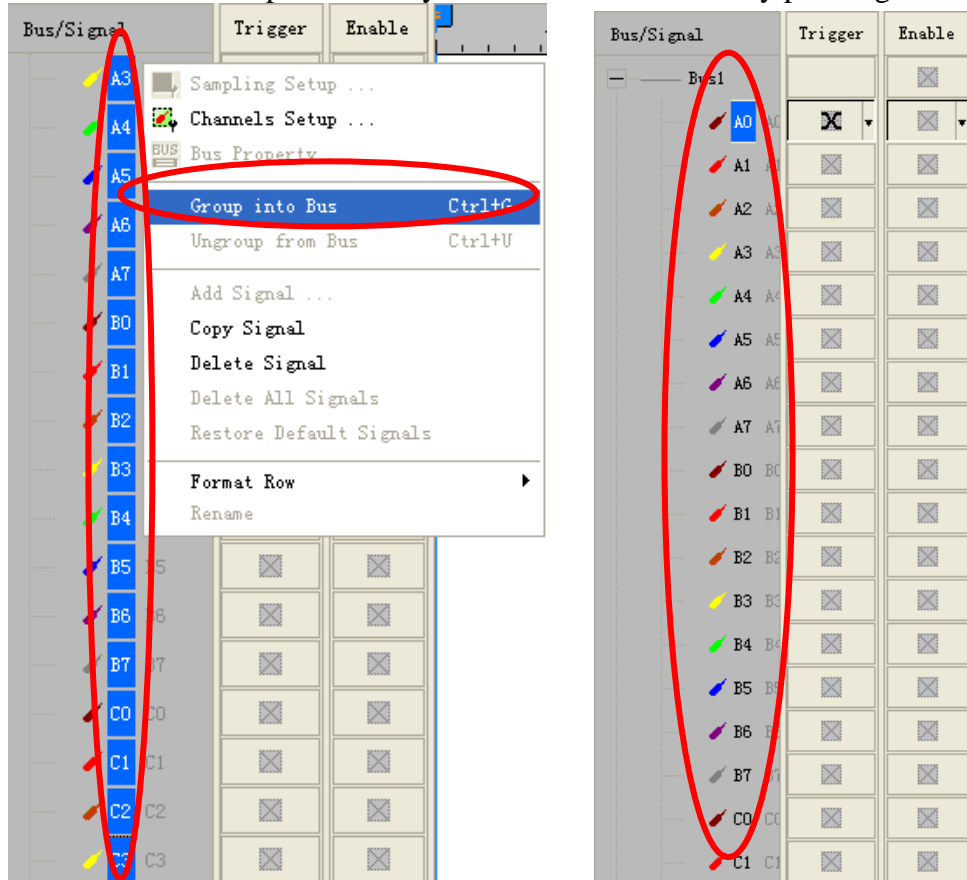


There is written ZeroPlus company information details. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

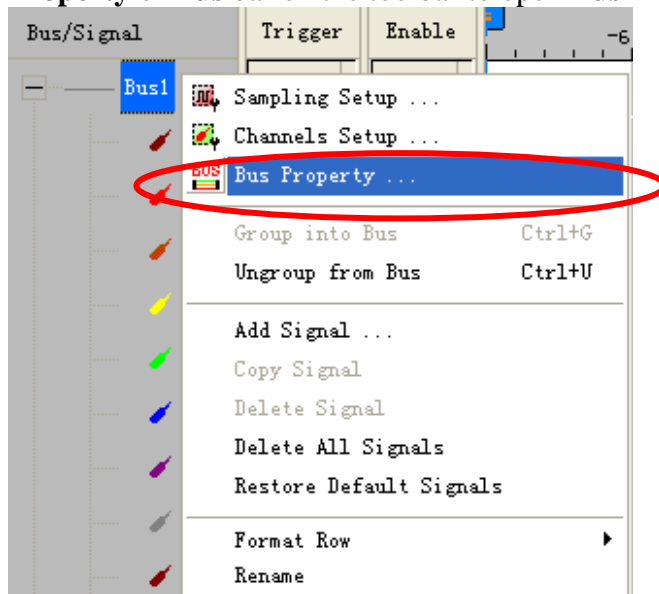


3 Operating Instructions

STEP 1. Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse.

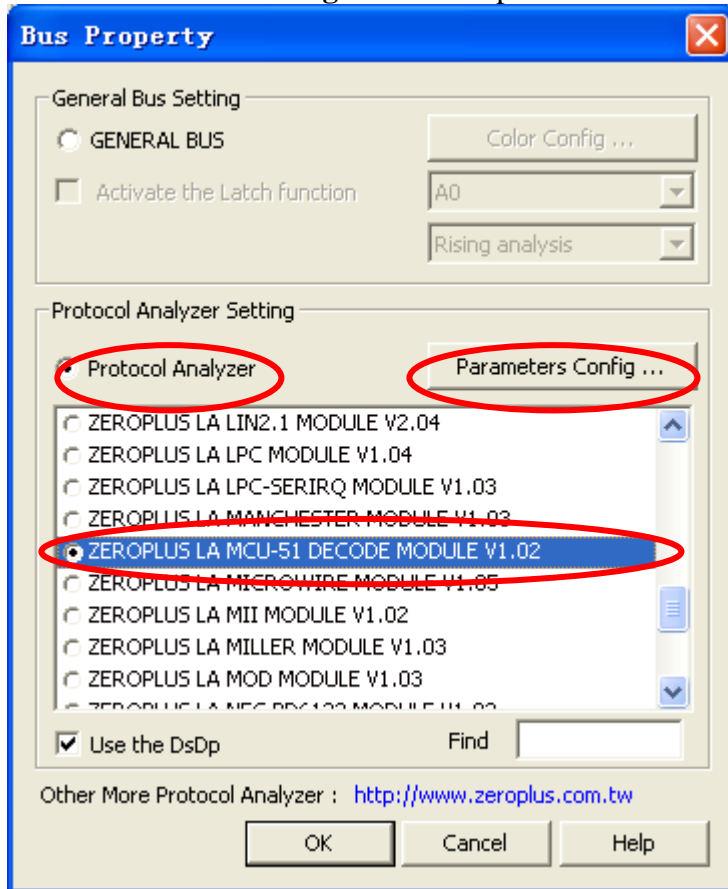


STEP 2. Select **Bus1**, then press **Right key** on the mouse to list menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.

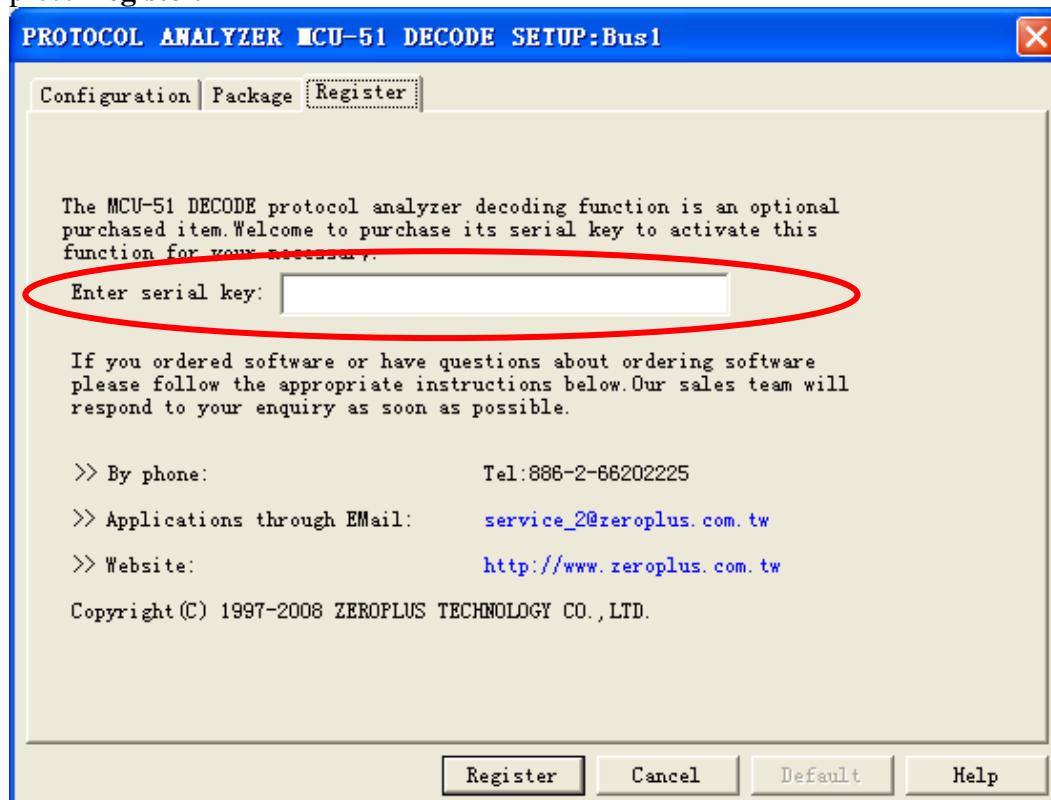




STEP 3. For Protocol Analyzer MCU-51 DECODE Parameters Configuration, select Protocol Analyzer, and then select **ZEROPLUS MCU-51 DECODE MODULE V1.02**. Next click **Parameters Configuration** to open **Parameters Configuration** dialog box.

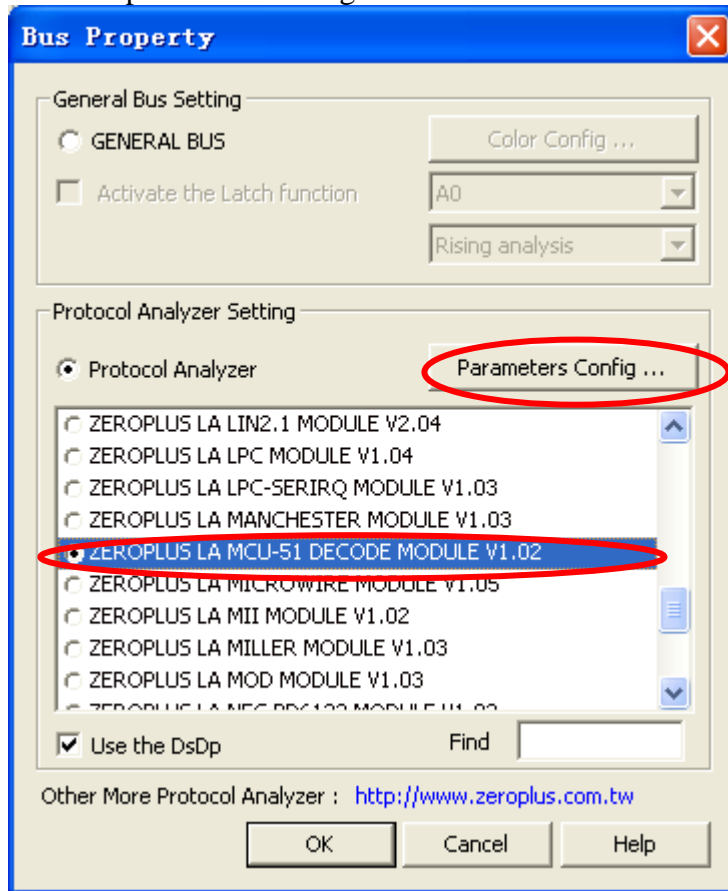


STEP 4. Click Register tab to type the serial key number of **MCU-51 DECODE**. Then, press **Register**.

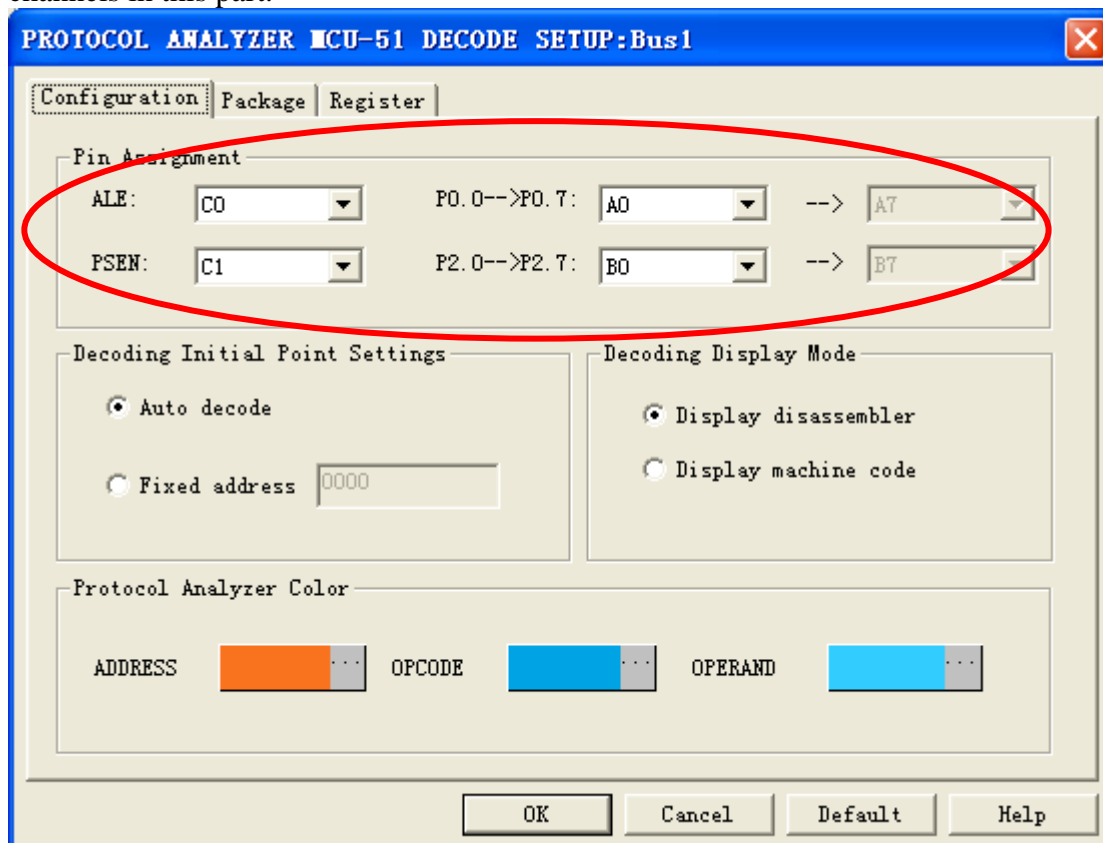




STEP 5. After completing **Register**, come back to the **Bus Property** dialog box, and then click the parameters configuration to start the Protocol Analyzer MCU-51 DECODE setup.

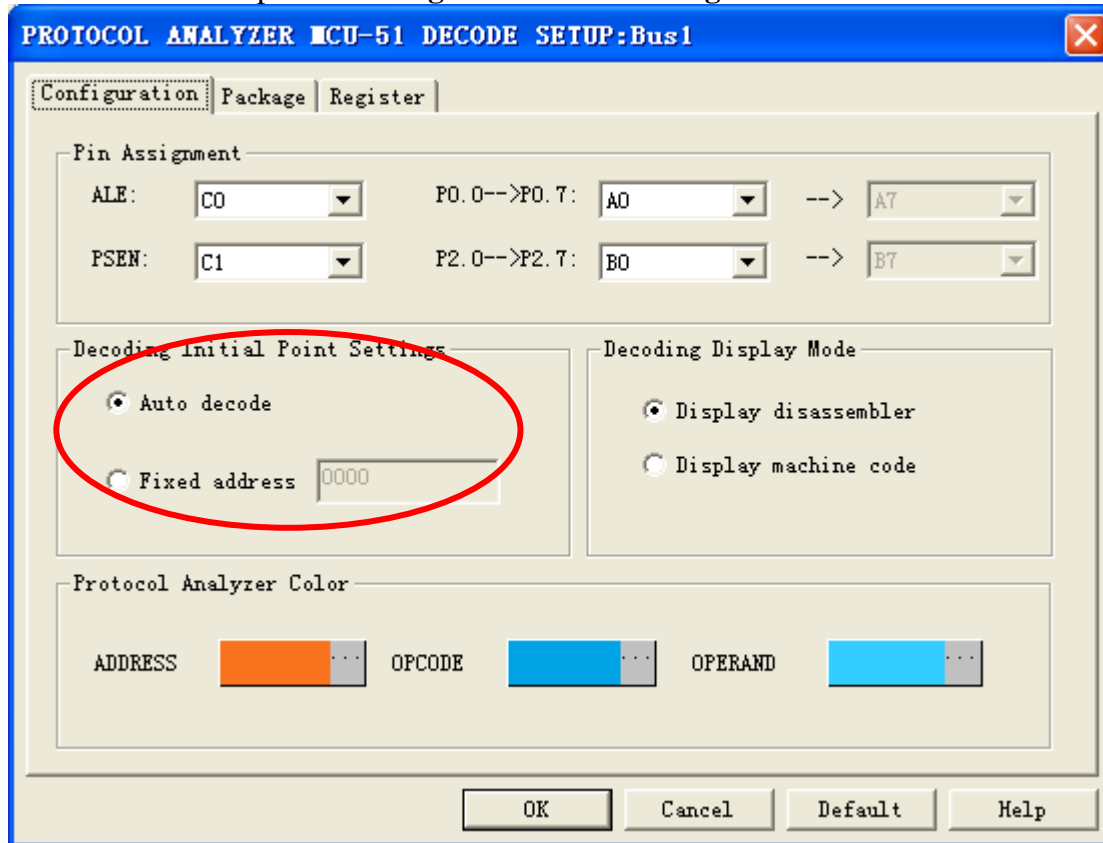


STEP 6. MCU-51 DECODE **Pin Assignment** setting. You can set the corresponding channels in this part.

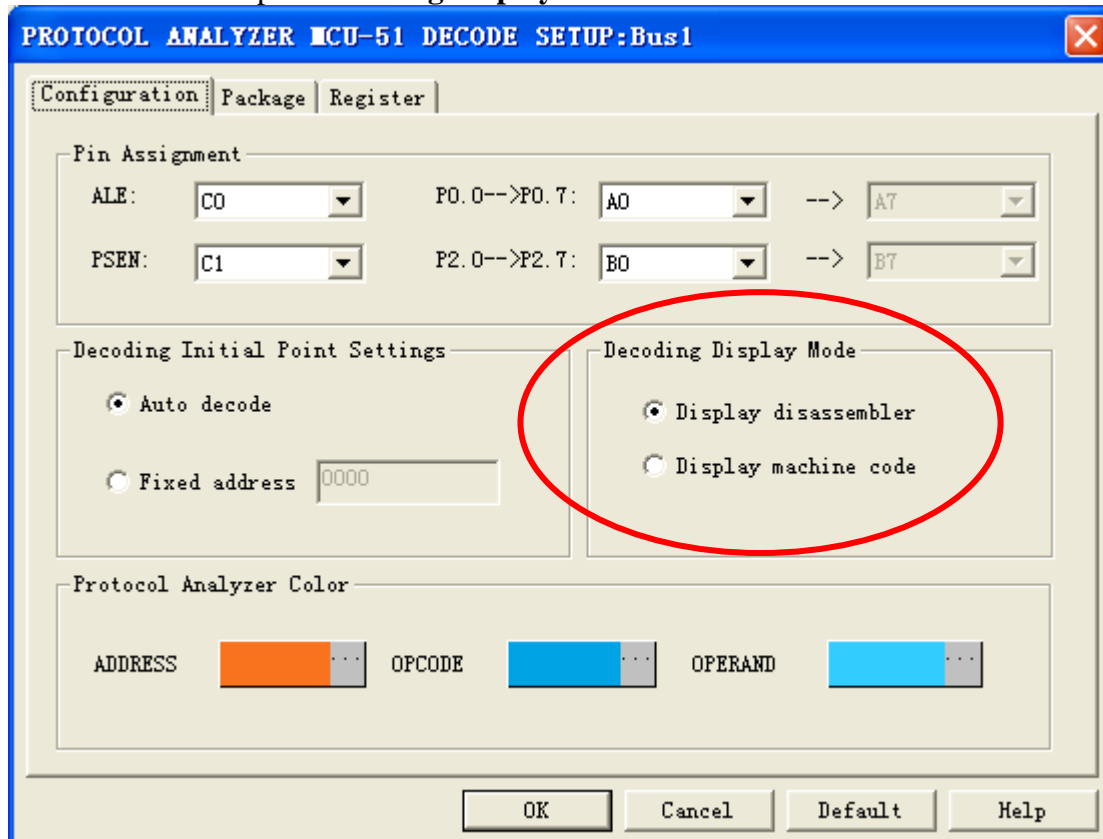




STEP 7. Setup of Decoding Initial Point Settings.

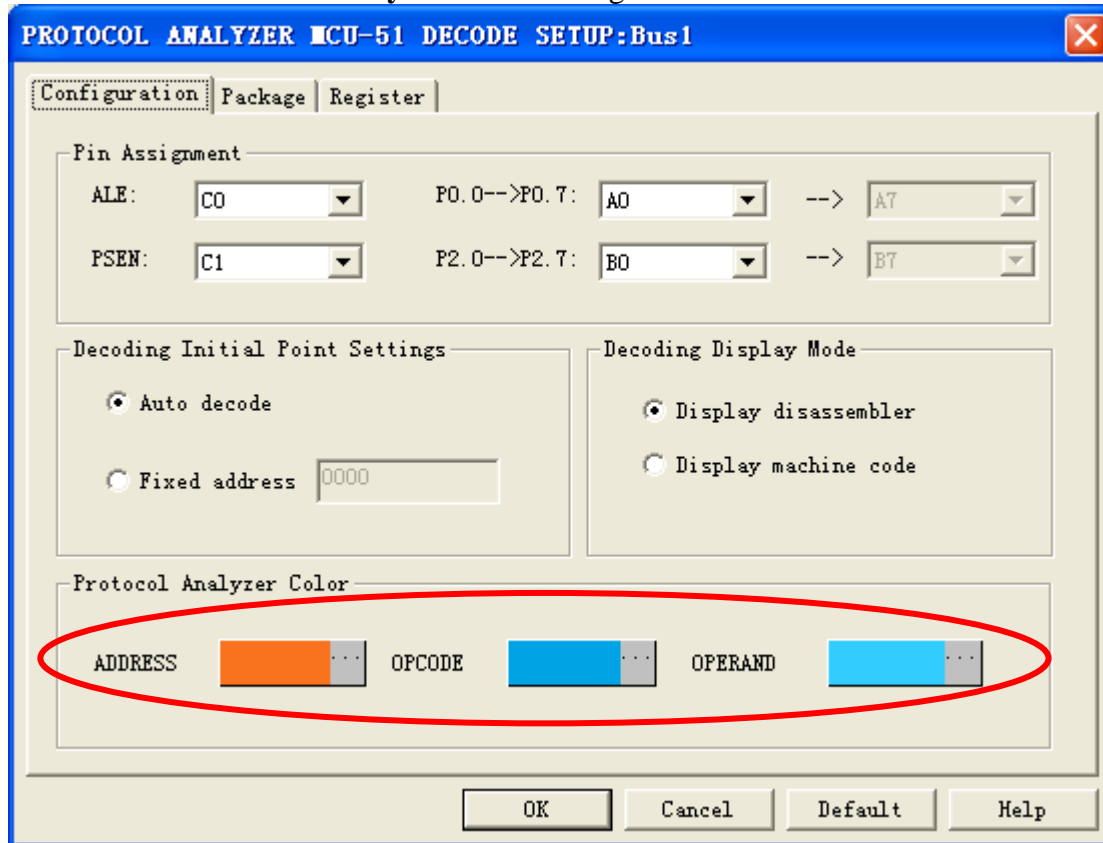


STEP 8. Setup of Decoding Display Mode.



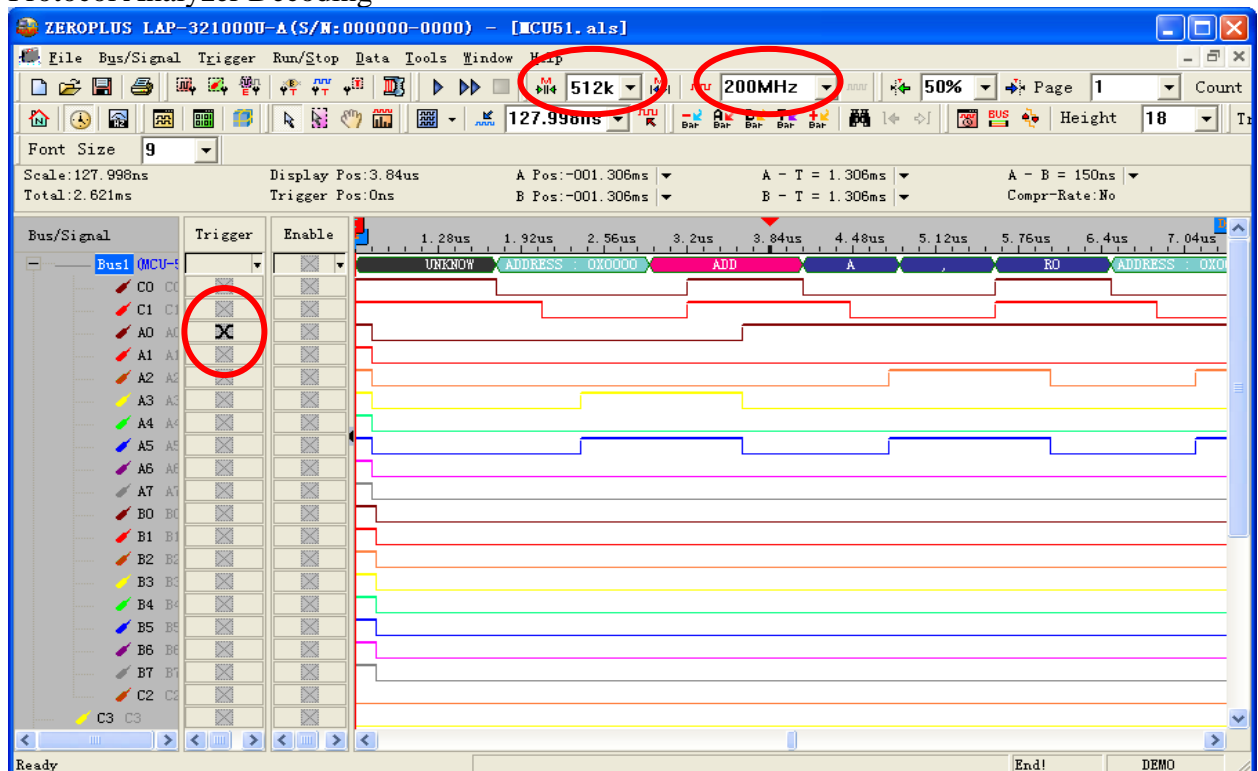


STEP 9. Protocol Analyzer Color settings.



STEP 10. Following pictures show the completion of the protocol analyzer decoding and the package list. The Trigger condition is set as Either Edge; the Memory depth is 512K; the Sampling frequency is 200MHZ.

Protocol Analyzer Decoding





Package List

The screenshot shows a logic analyzer window titled "ZEROPLUS LAP-321000U-A (S/N: 000000-0000) - [MCU51.als]". The main display area shows a bus decode for "Bus1 (MCU-51)". The waveform shows three packages of data being decoded. The package list table at the bottom provides the following details:

Package #	Name	TimeStamp	ADDRESS	ADD	A	,	RD
1	Bus1(MCU-51 DECODE)	1.73us	0X0000	ADD	A	,	RD
2	Bus1(MCU-51 DECODE)	6.48us	0X0001	ADD	A	,	P1
3	Bus1(MCU-51 DECODE)	11.215us	0X0003	ADD	A	,	@ R1