



孕龍科技股份有限公司
ZEROPLUS TECHNOLOGY CO.,LTD

Instrument Business Department

MANCHESTER Specification

Version : V1.01

Content

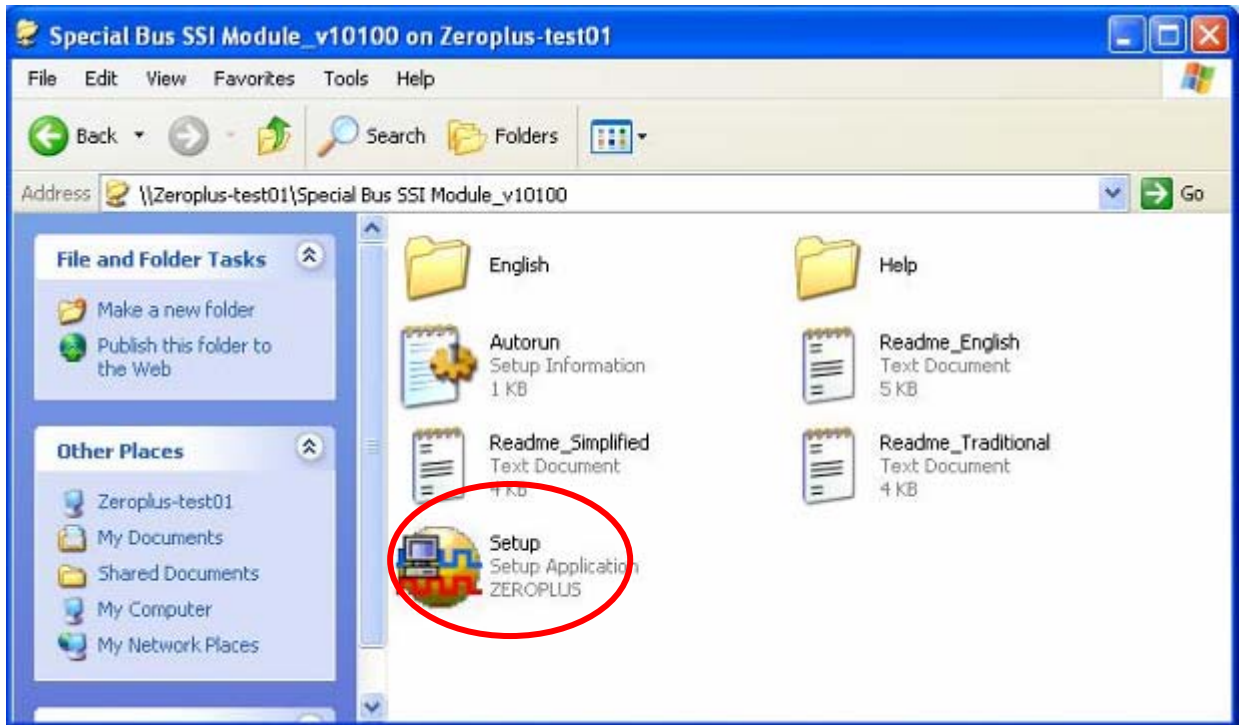
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1 Software Installation

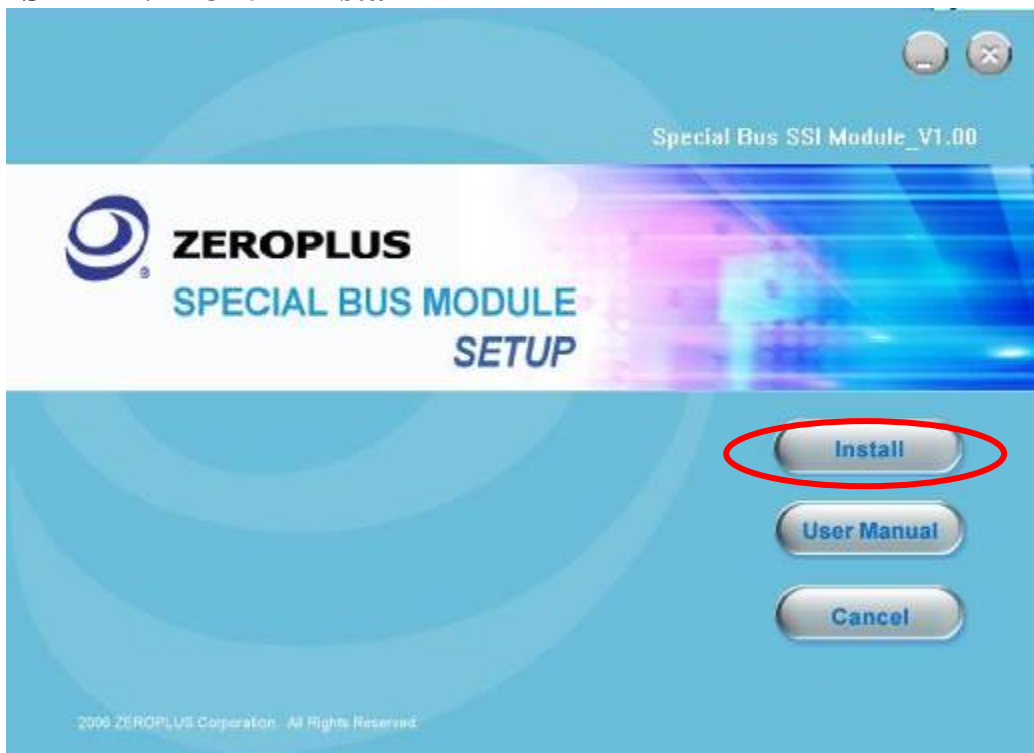
Please install software by the following steps.

※ Remark: Because all bus installation programs are the same, you can install according to the program, take SSI bus installation for example, and other bus can refer to the following installation.

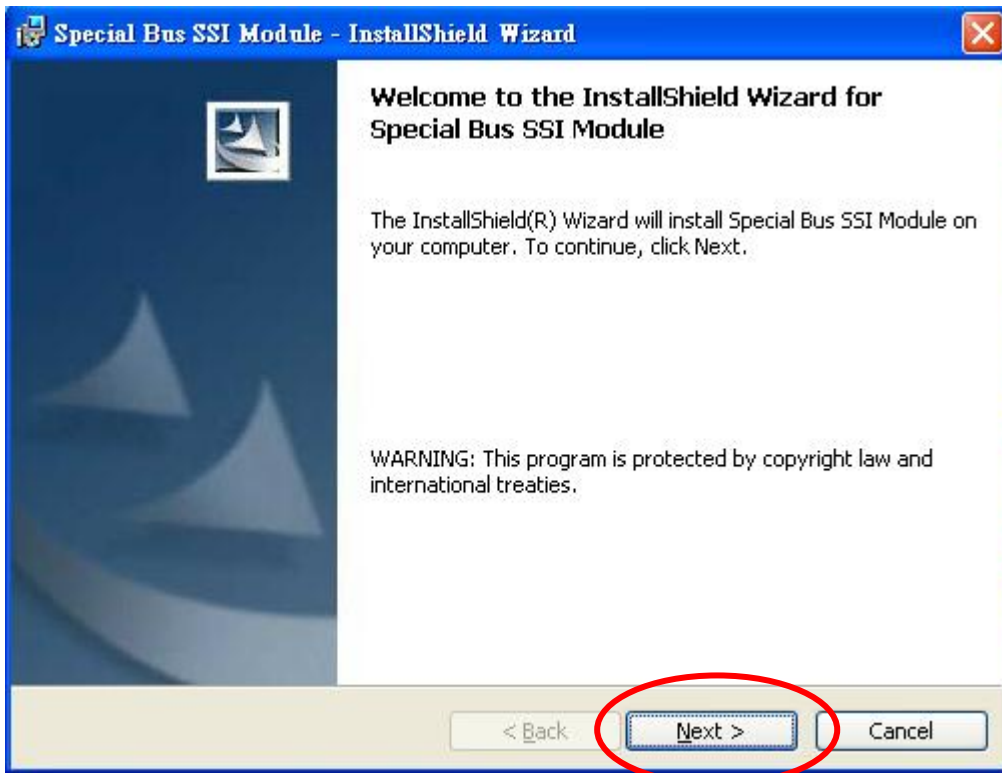
STEP 1. Install SSI Bus Module



STEP 2. Click "Install"



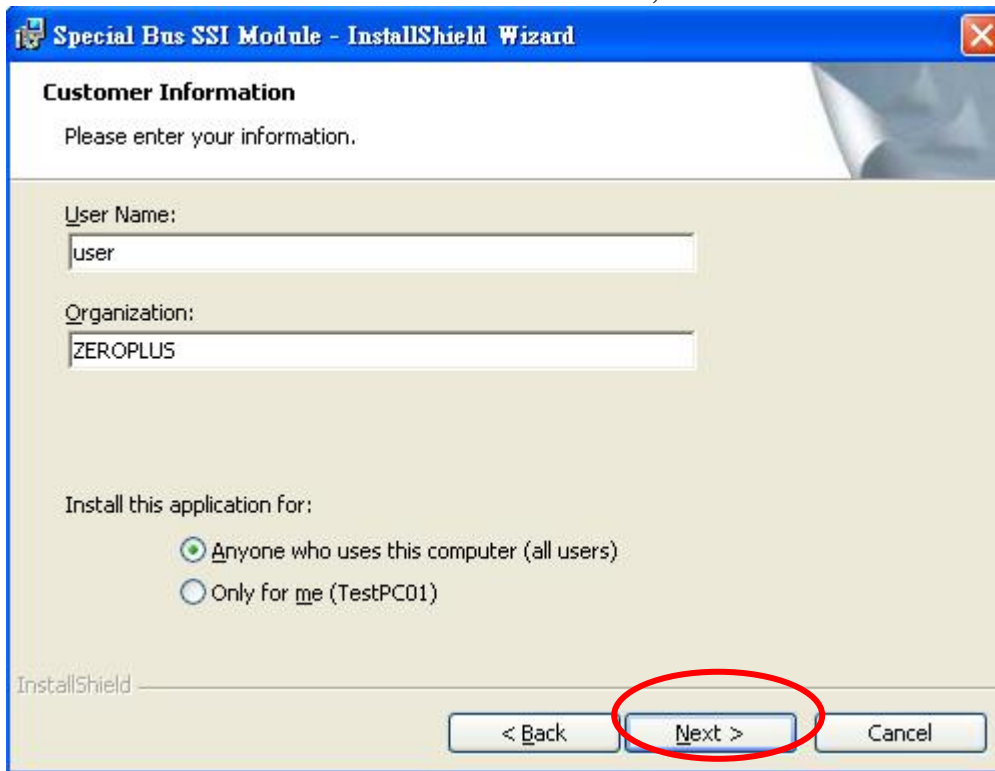
STEP 3. Click “Next”



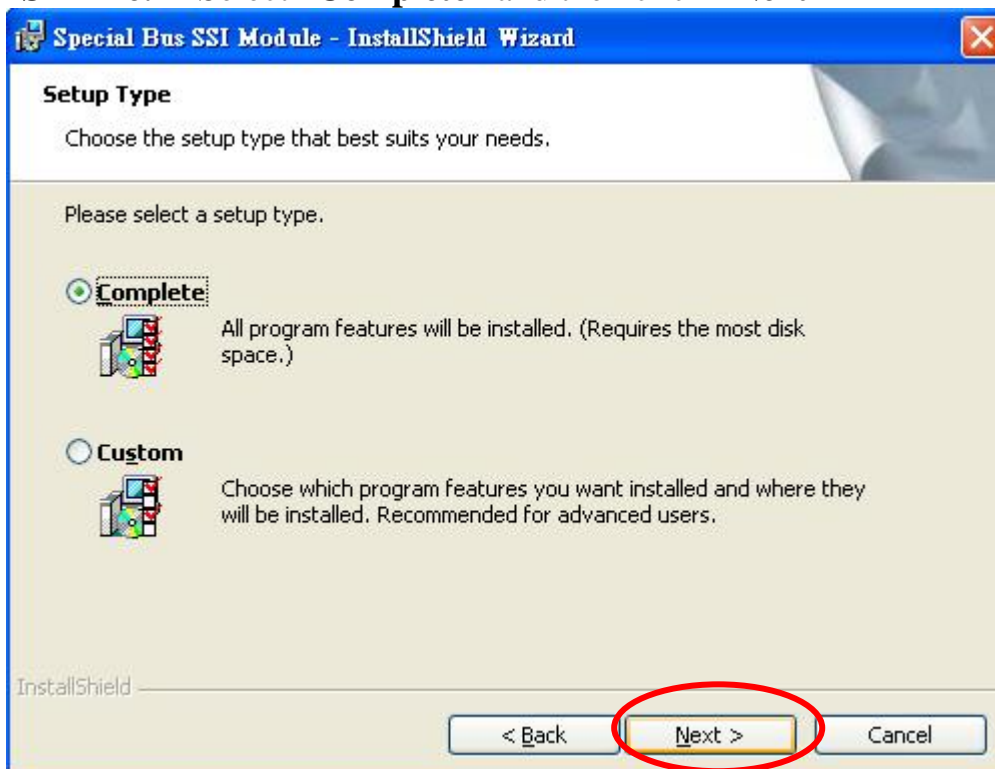
STEP 4. Select “I accept the terms in the license agreement” and then click “Next”.



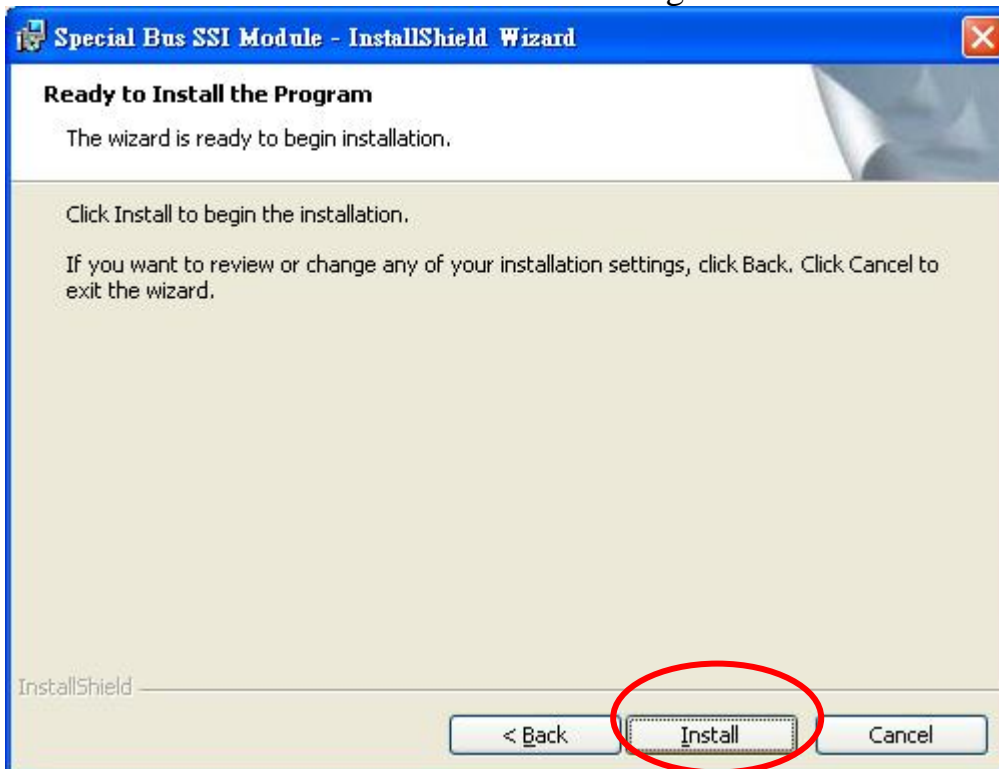
STEP 5. Fill in User Information. Then, click “Next”



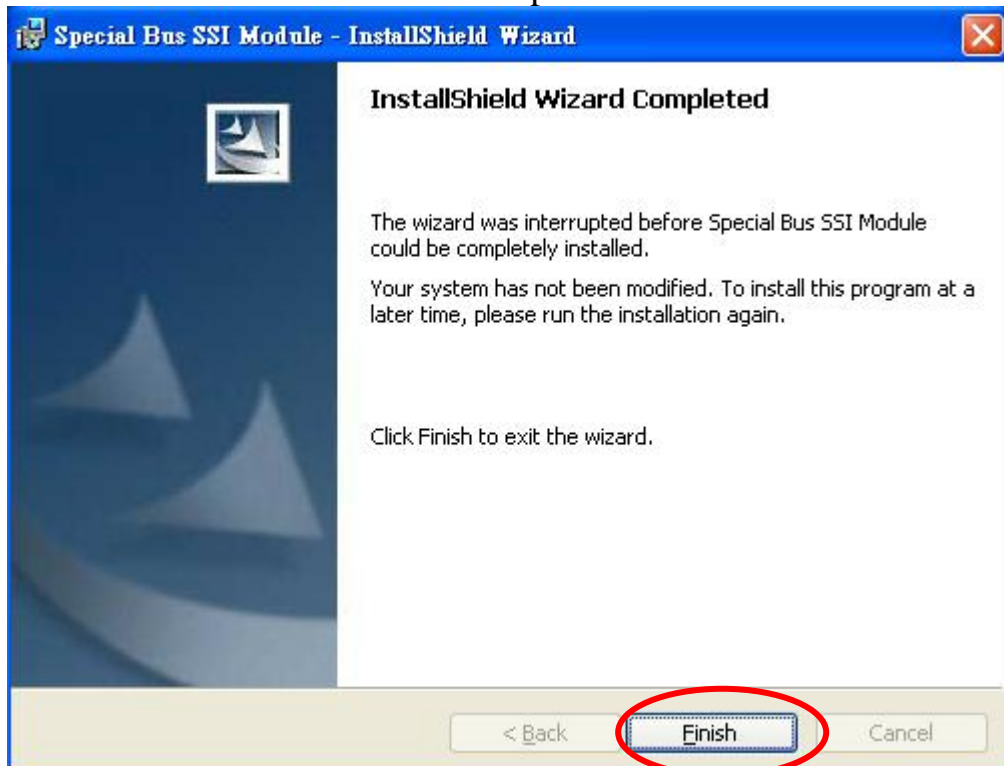
STEP 6. Select “Complete” and then click “Next”



STEP 7. Click “Install” to start installing.



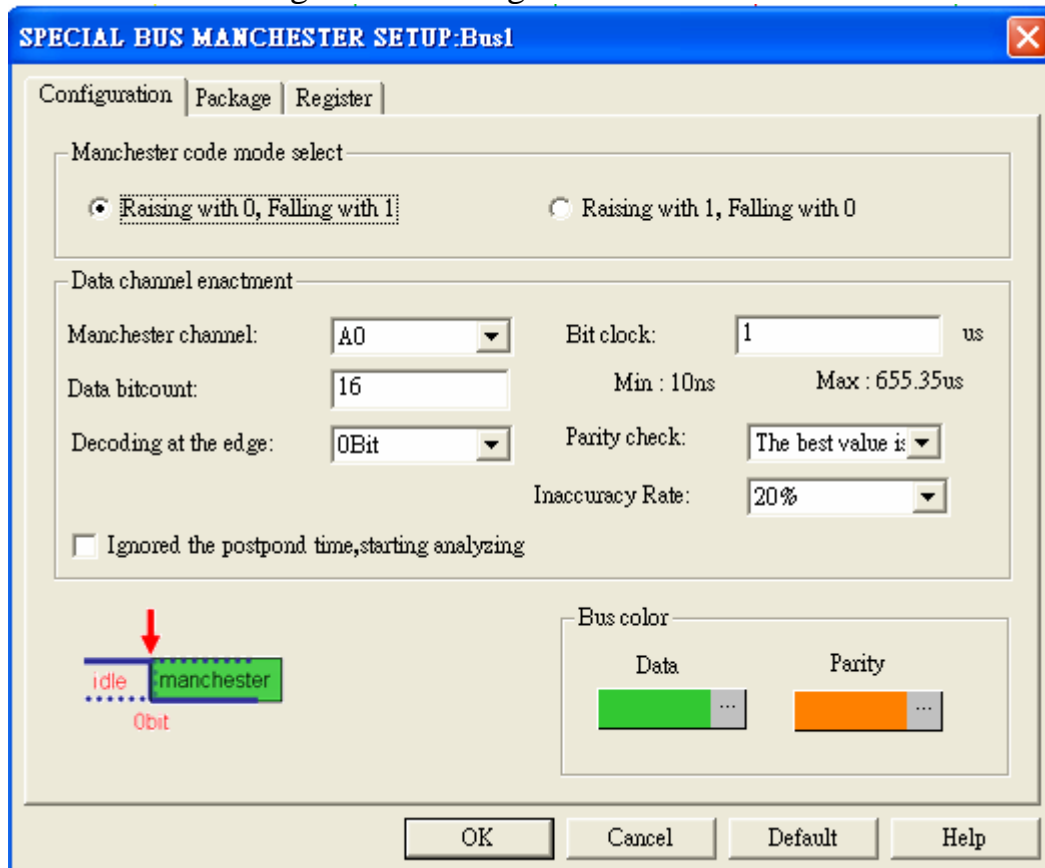
STEP 8. Click “Finish” to complete installation



2 User Interface

In the configuration, please refer to below image for option selections of setting Manchester.

Manchester Configuration Dialog Box



MANCHESTER Code Mode Selection: There are two modes as dialogue displayed, the default mode is Raising with 0, Falling with 1.

MANCHESTER Channel: Its default is A0.

Bit Clock: It is a time period of Bit on data (It doesn't include the time period on the beginning bit). Bit Clock is used to ensure the starting bit, and the **postponed** time must be longer than two Bit clock (This option is available when the postponed is ignored). It is unnecessary to proceed on Parity Check, because the time period of the start bit is variable.

Data Length: The data length can be set by user, the default is 16BIT.

Decoding at the edge: It can be set as start bit and non_start bit, but the default is 0. Non_start bit is related to the final result as the image at the left below of the configuration dialog box.

Parity Check: It can be set as Odd Parity or Ever Parity. When the Parity Check is error, ERROR is displayed. Parity Check is correct, PARITY is displayed.

Ignored the postponed time, starting analyzing: When it is selected, the start bit will come after the end bit

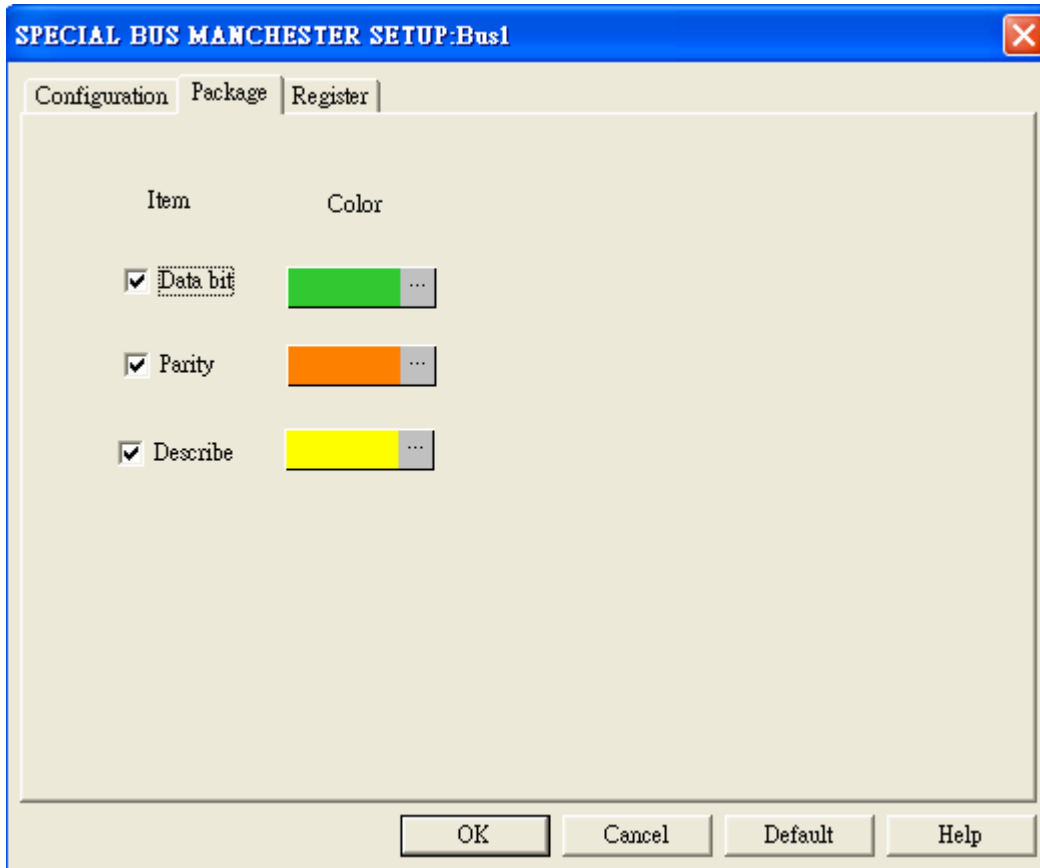
Inaccuracy Rate: The time of starting bit may be different from the requirement of

data bit, so the Inaccuracy Rate does not include the calculation of starting bit time.

Bus Color Setup: The data bit default is in Green.

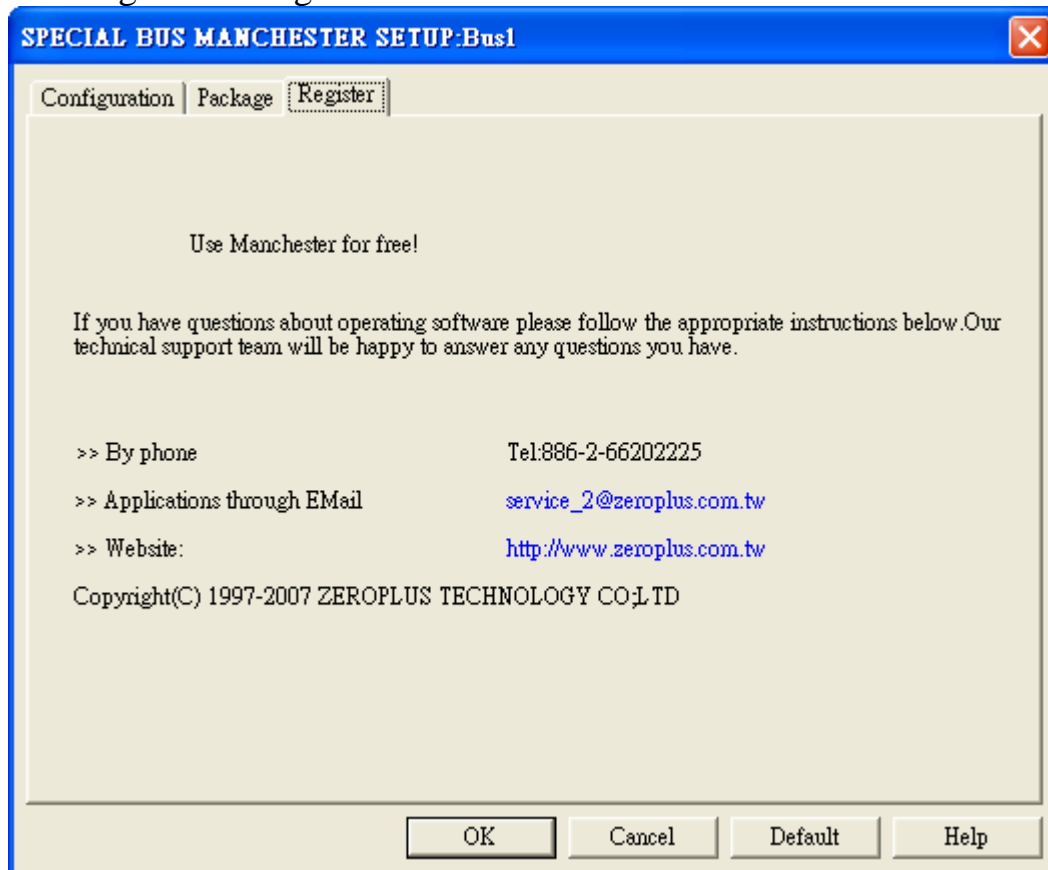
The Parity Check default is in orange.

Manchester Package Dialog Box



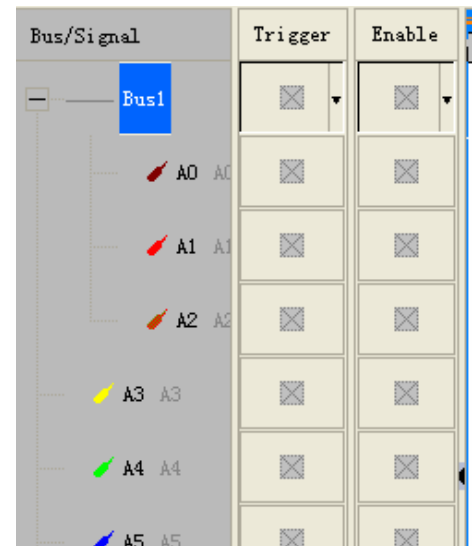
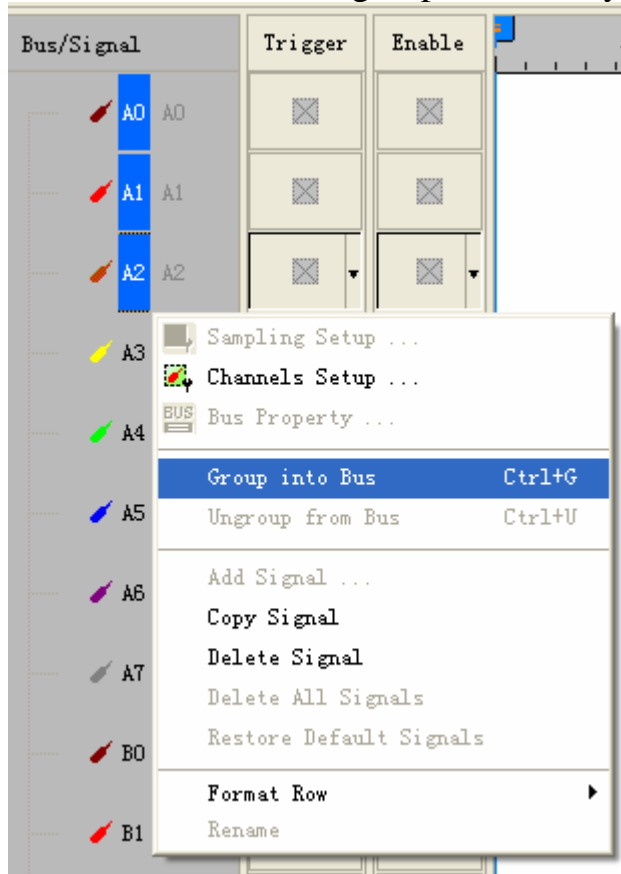
Package color can be varied by user.

Manchester Register Dialog Box

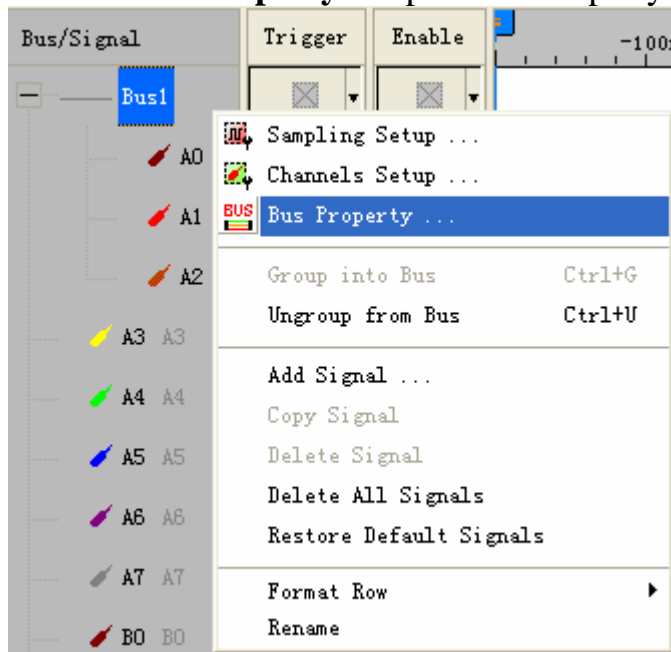


3 Operating Instructions

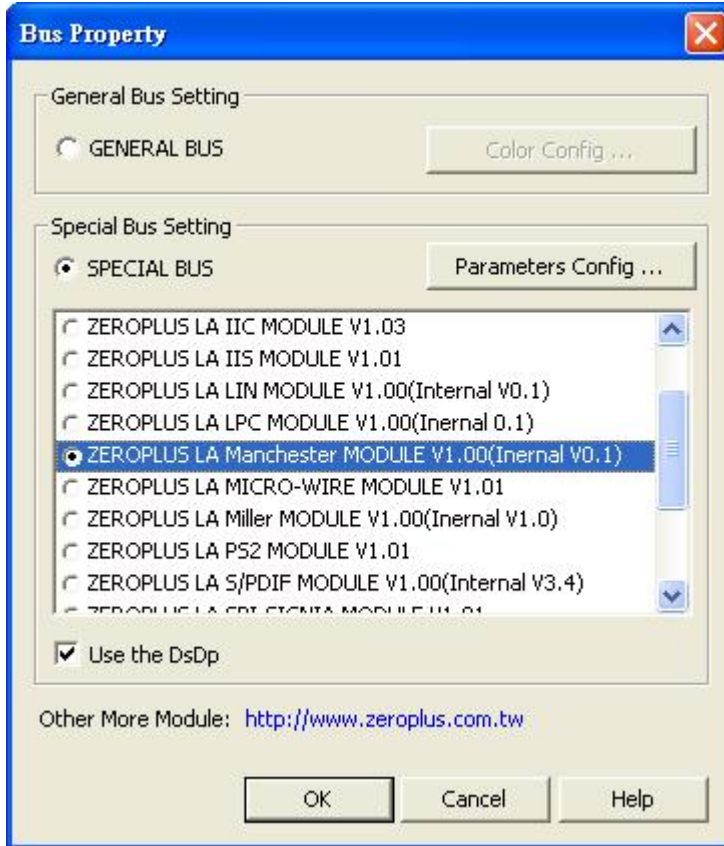
STEP 1. At First, group the unanalyzed channels into bus1.



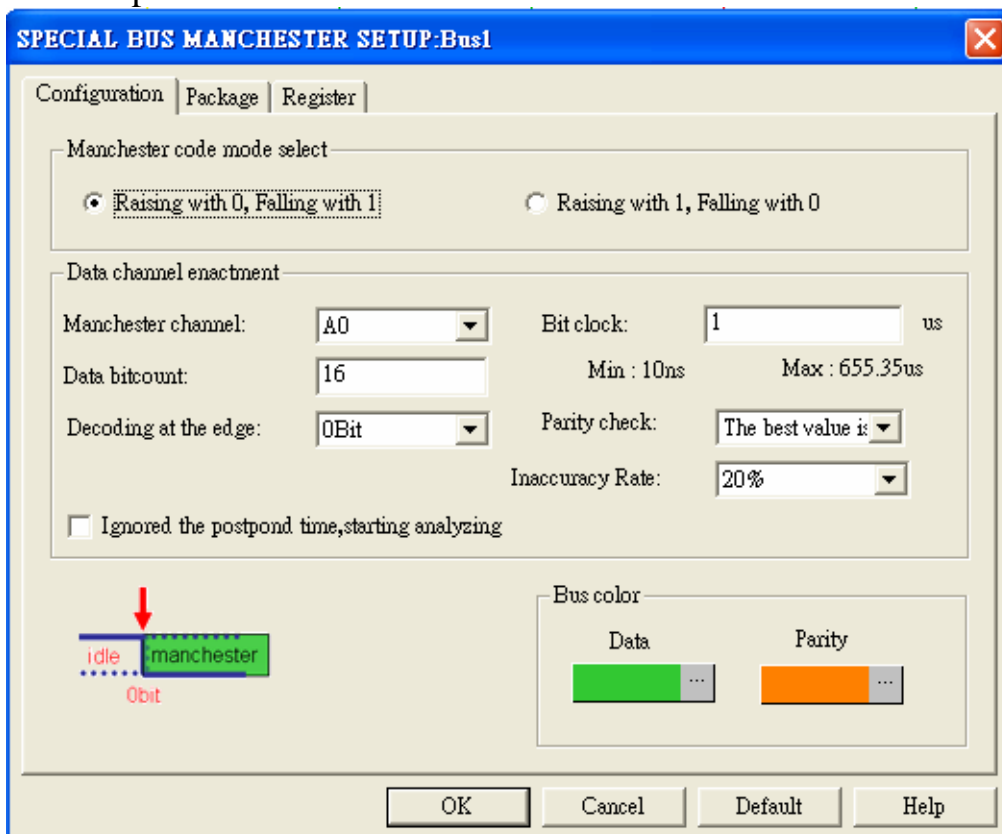
STEP 2. Selected Bus 1, then press **Right Key** on mouse to list menu. Next, click **Bus Property** to open Bus Property Dialog Box



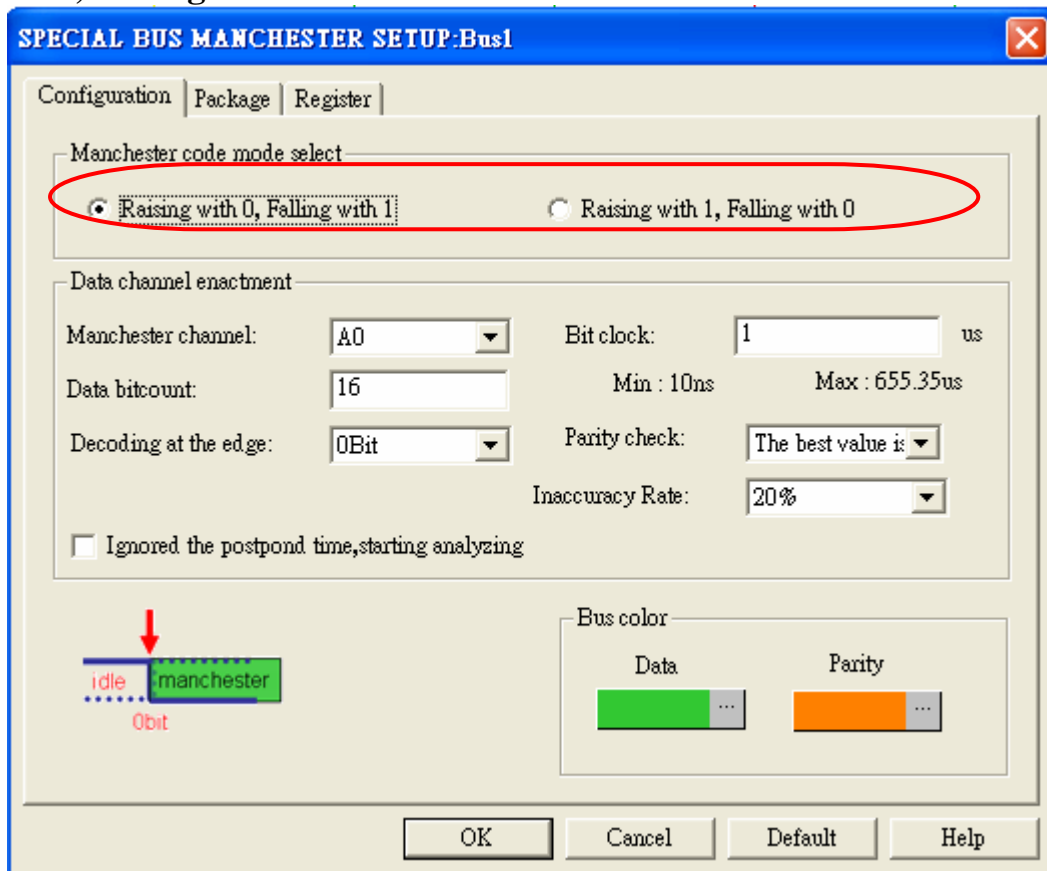
STEP 3. Select **Special Bus**. Then , choose **ZERPLUS LA Manchester MODULE V1.00(Internal V0.1)**,and next Click the “**Parameter Configuration**”



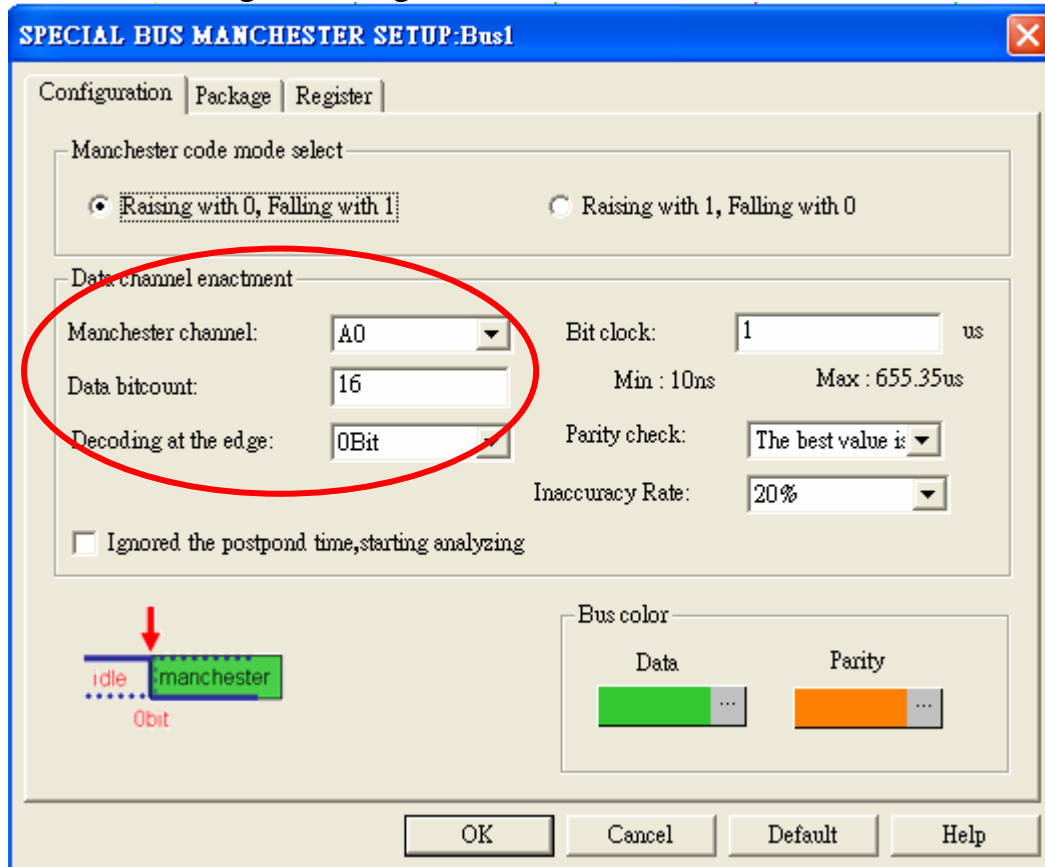
STEP 4. After Special Bus setting is completed, it turns configuration dialog box setup.



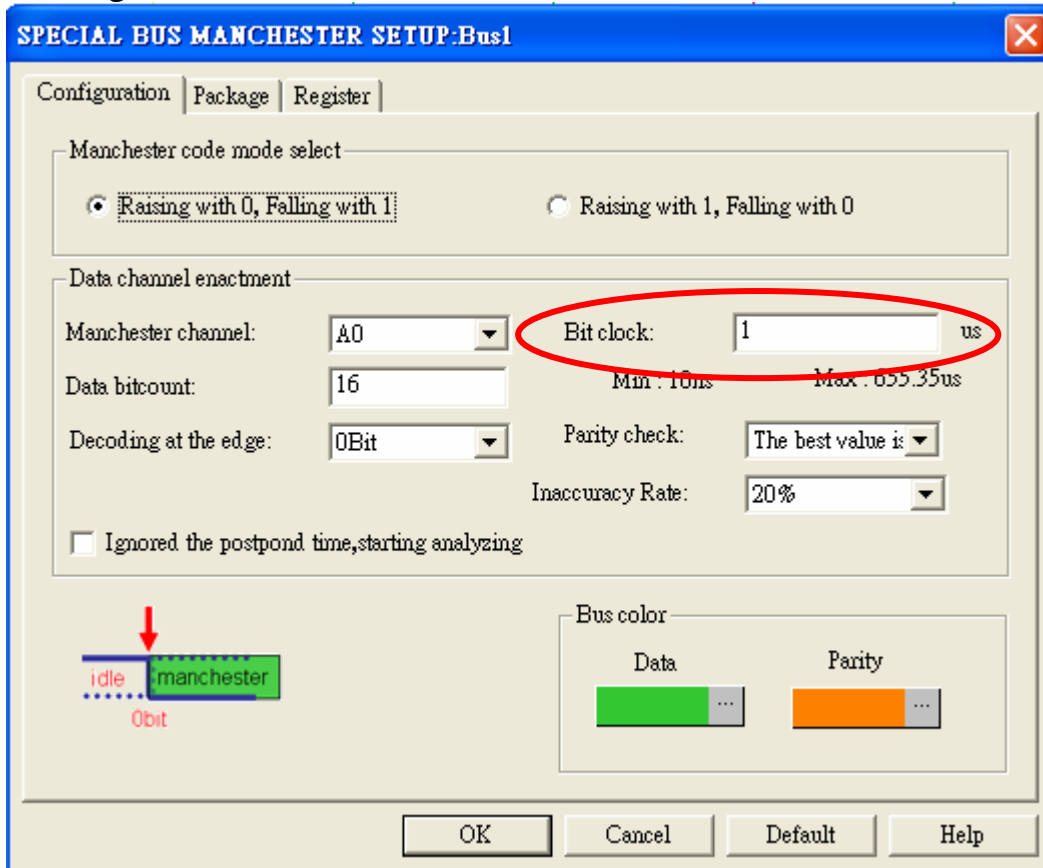
STEP 5. At first, select **Manchester Code Mode Select** to ensure the Code Mode, there are two modes as the images below; the default mode is **Raising with0, Falling with1**.



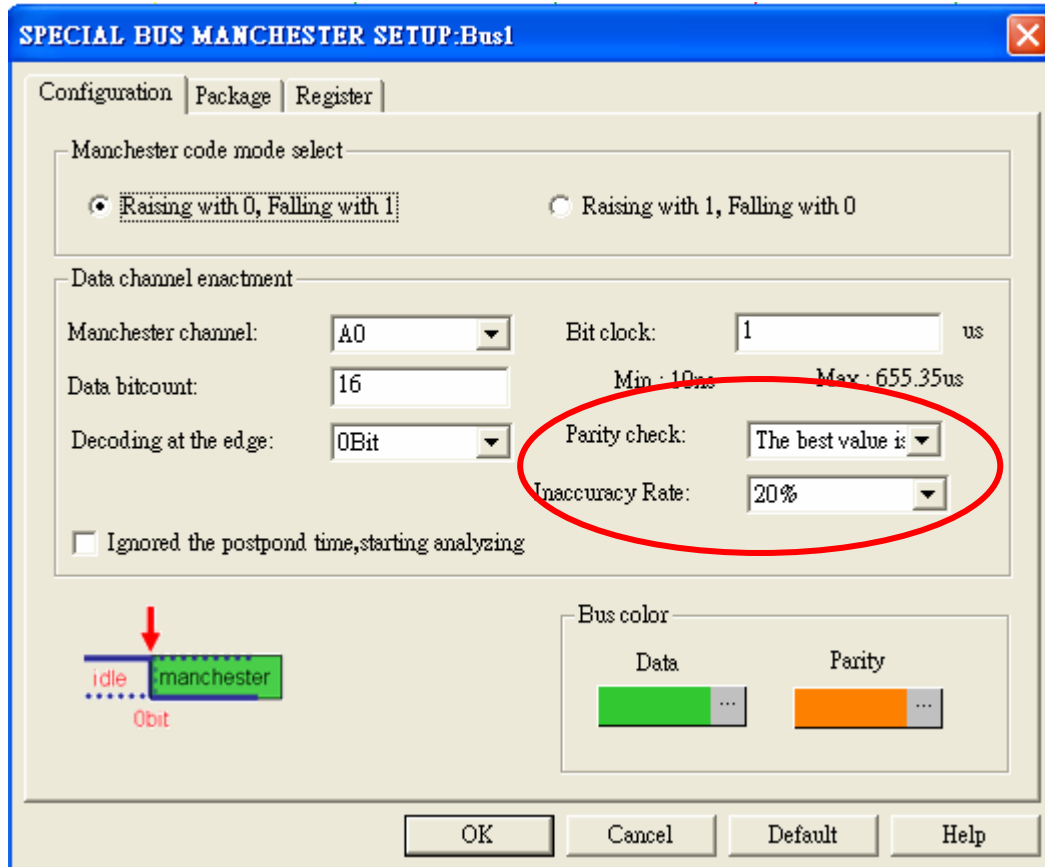
STEP 6. On the **Data Channel Enactment**, choose Manchester channel from the channel list, the default is A0, and then enter a value on the Data Bit count to ensure the Bit Count, next select the decoding at the edge on the bit list, the default decoding at the edge is 0Bit.



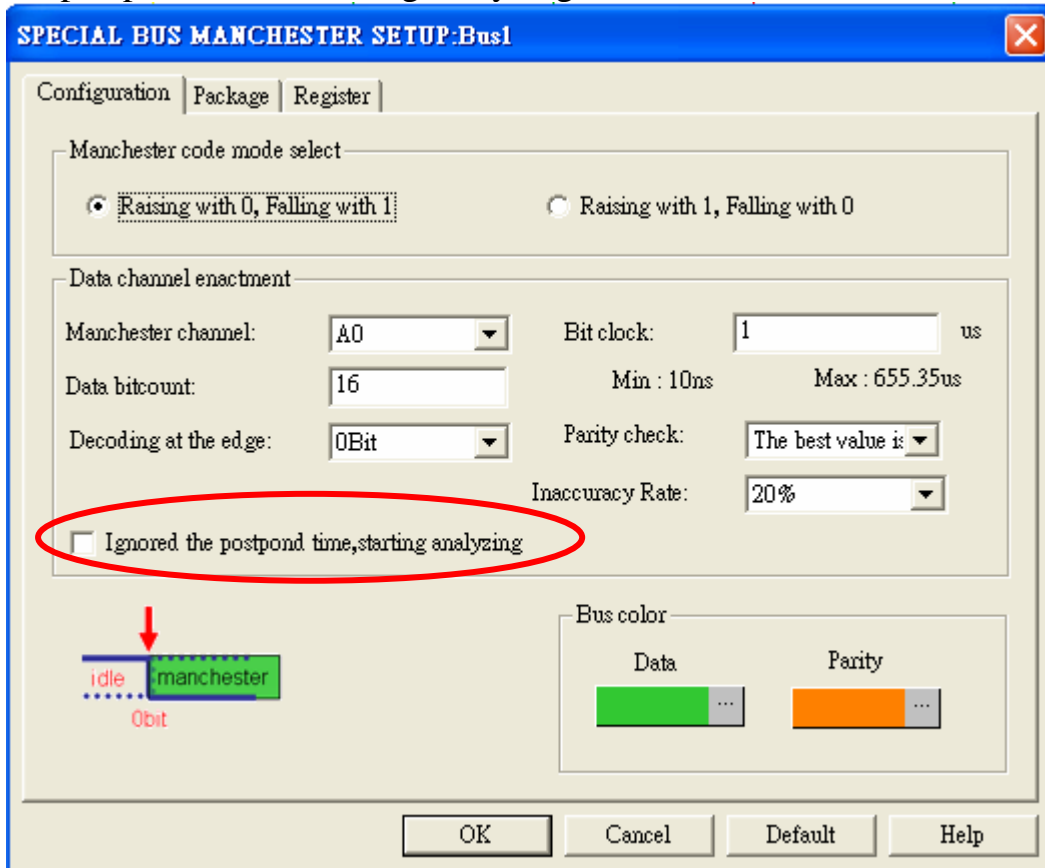
STEP 7. After setting Data channel enactment, , enter a value on the bit clock , the range is 5ns~327.675us, and the default is 2.



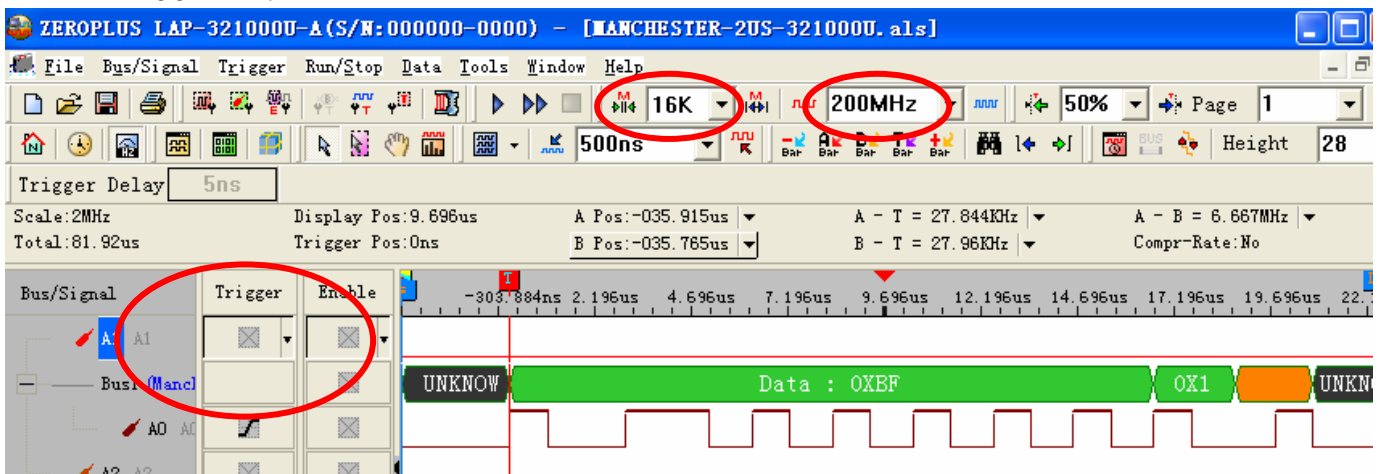
STEP 8. Next, set **Parity check** and **Inaccuracy Rate**, select values on the list of Parity check and **Inaccuracy Rate**, Parity Check default is Even parity. **Inaccuracy Rate** default is 20%.



STEP 9. The bus data analysis determines if it is necessary to select “Ignored the postponed time, starting analyzing”.



STEP 10. Following picture shows that the completion of bus decoding. The conditions are set as that Memory depth is 16K and Sampling Frequency is 200MHz.



Following picture shows the package list and waveforms displaying.

