

How to control Softmark modules from the Agilent VEE software development package

This document only provides basic information and illustrates how Softmark modules can be controlled using the Agilent VEE software development package.

The document explains how the USB.OCX finds if the Softmark module is connected, which will tell you if communication with the module was established. Also, the USB.OCX will be called to write data to Port P1 (see example below with the USB Relay Card).

Steps to follow

1. Install USB.OCX from the CD before calling the VEE software.
2. In the Agilent VEE program, select "Device" from the pull-down menu, then within this select "Active Control References". See Figure 1 below.

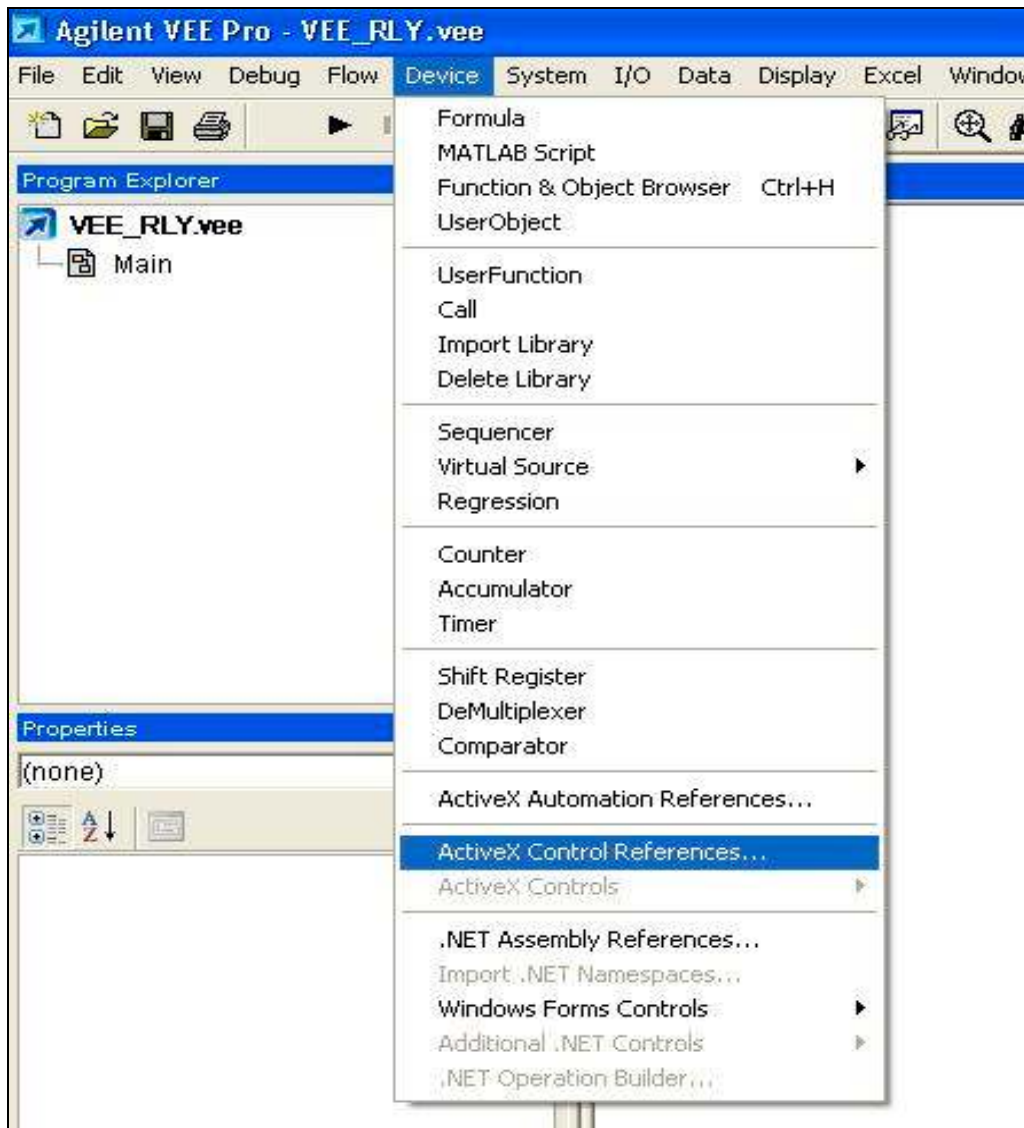


Figure 1.

3. Now you can browse for USB.OCX (your USB.OCX should be in c: windows\system32 directory or just select it from the list. See Figure 2 below.

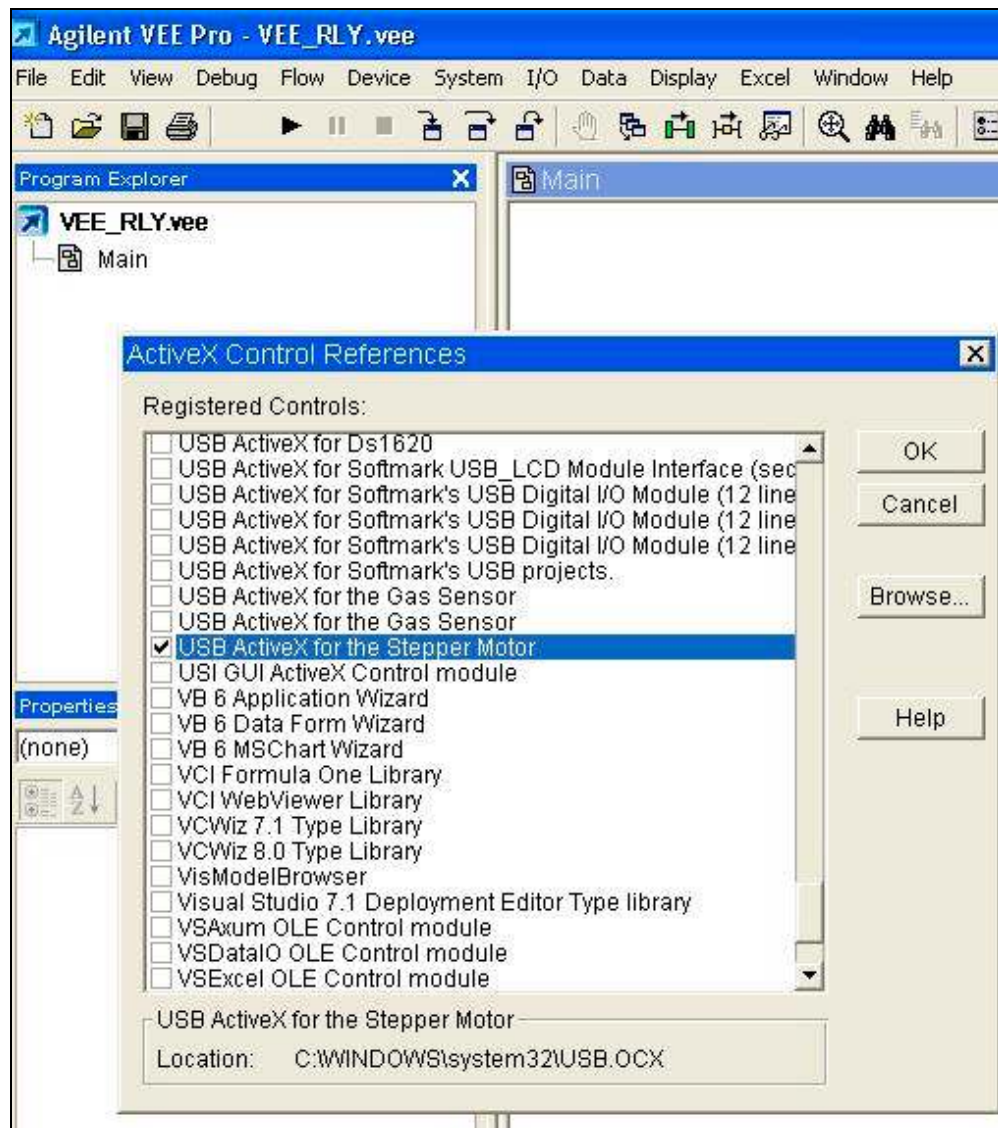


Figure 2.

4. After pressing "OK" nothing will happen on the screen, but the USB.OCX was selected. You have to go back to "Device" from the pull-down menu, select "ActiveX Controls" from the list and double click "USB". See Figure 3.

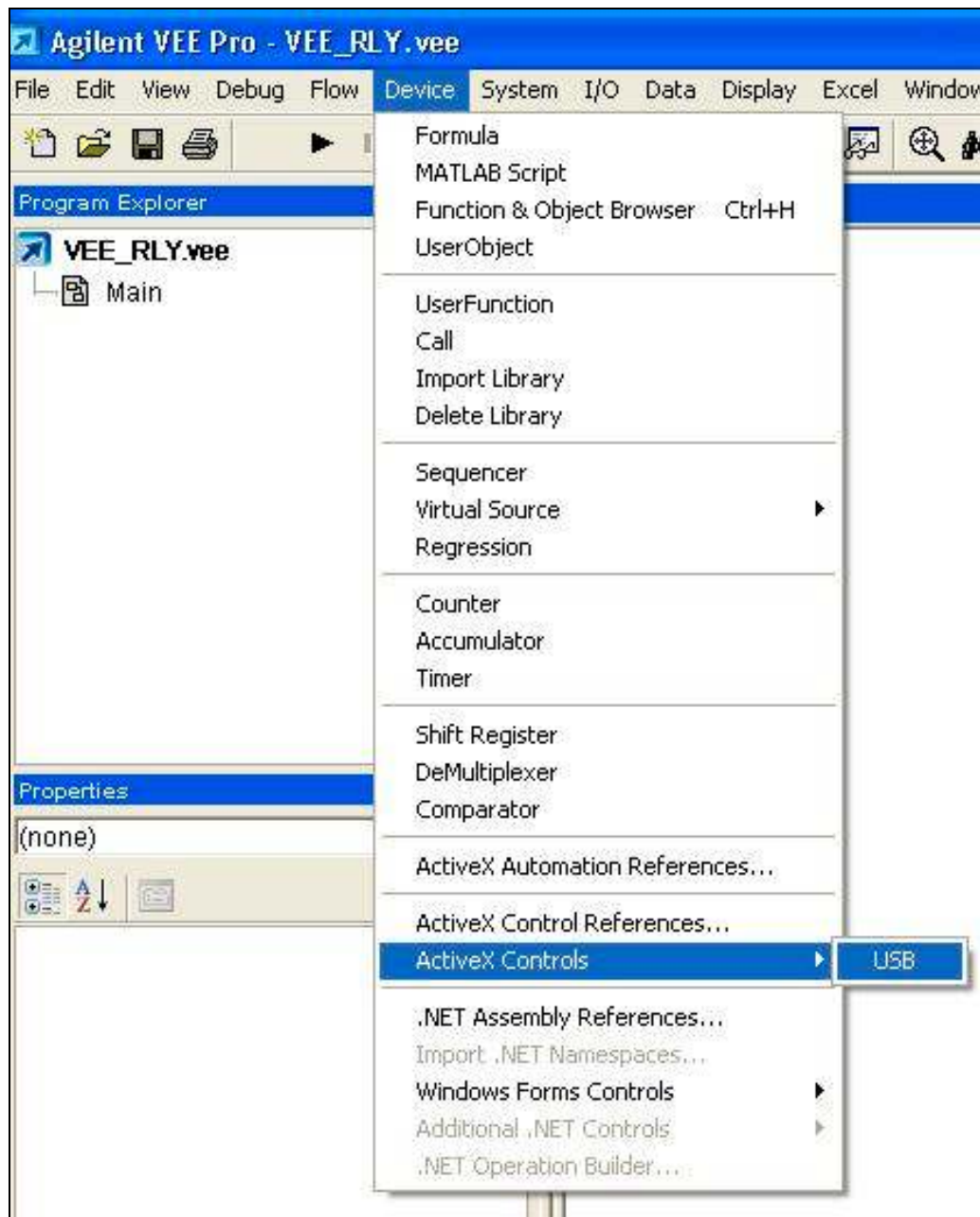


Figure 3.

5. On the screen you will see Figure 4 below.

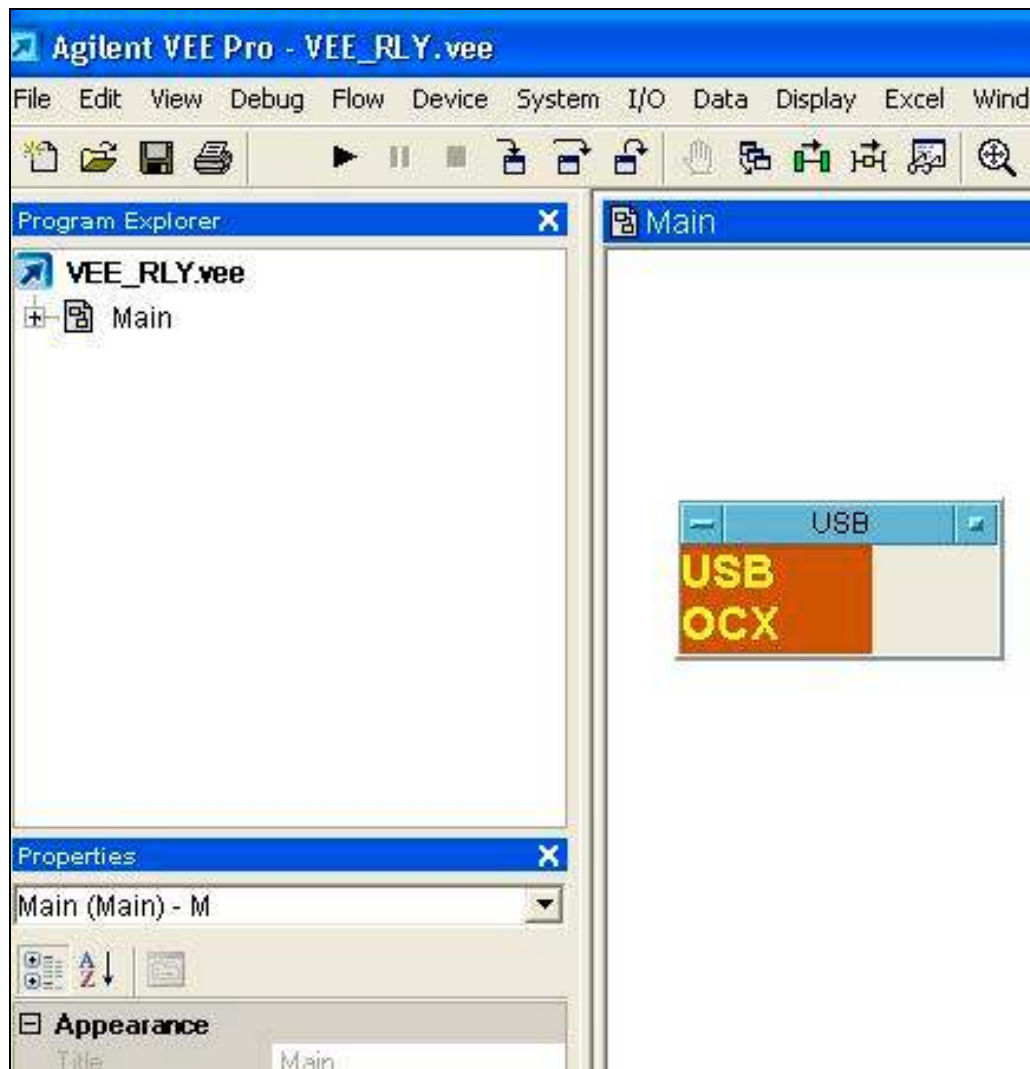


Figure 4.

6. You are now ready to talk to the hardware via USB.OCX. Go to "Device" in the pull-down menu, select "Function & Object Browser" and select "ActiveX Objects" from the "Type" box. Our USB.OCX is listed here. Select it and select the required function/method. For example, if you select "Find_USB_Device" this method will tell you if the attached USB hardware is found by your software. See Figure 5 below.

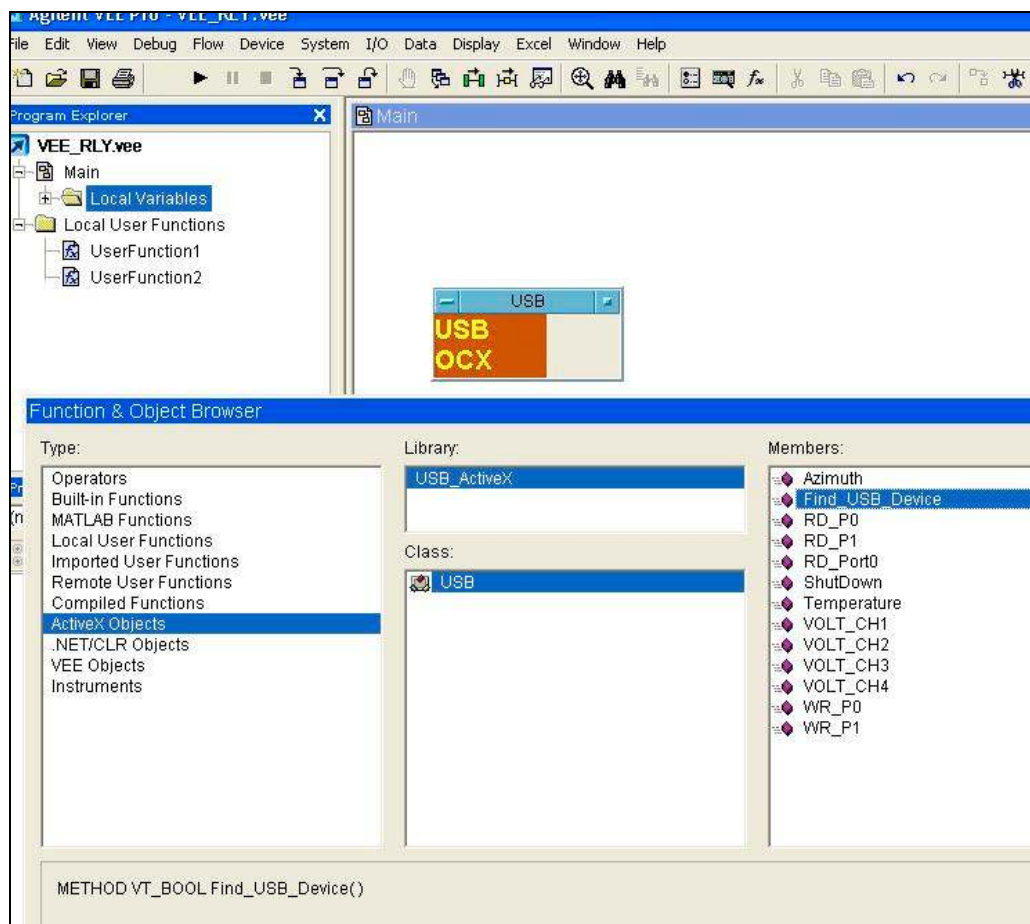


Figure 5.

7. After double clicking on the selected method, a small method form appears on your main development form. Now, we go to "Display" in the pull-down menu and select "AlphaNumeric" box. Connect "Result" (in the small method form) with the input to the "AlphaNumeric" box. Run the program. If a Softmark module is connected to the USB bus, you should get a "True" response from the USB.OCX. See Figure 6 below.

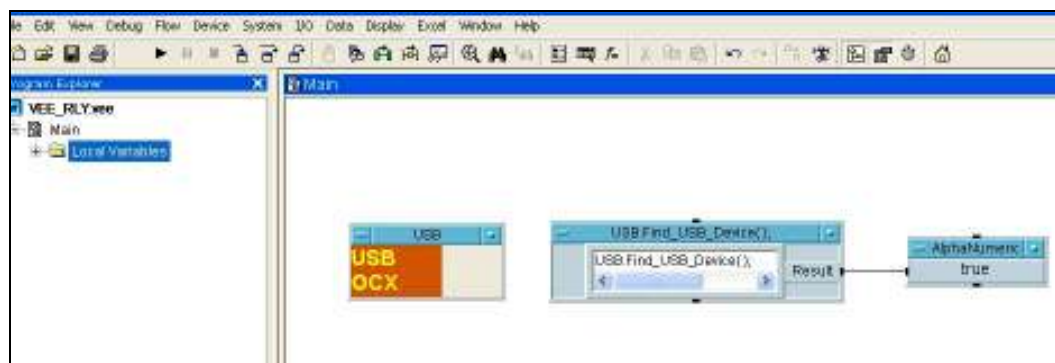


Figure 6.

8. For demonstration purposes, we will show you how to write to the USB Relay Card, but these steps can be followed when using most of our other USB modules (for example, USB Stepper Motor Controller, USB I/O Card, USB PIO Card, USB Voltmeter etc).
9. Go to "Device" in the pull-down menu, and select "Function & Object Browser". See Figure 7 below.

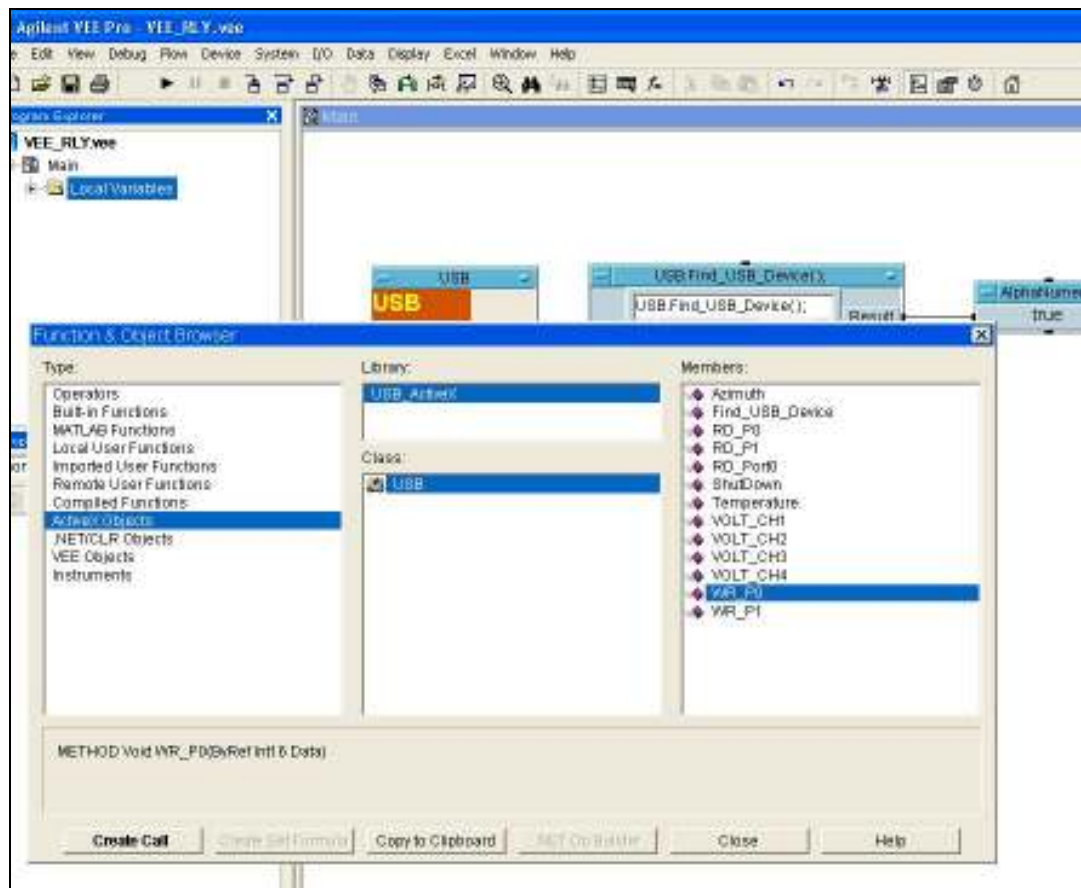


Figure 7.

10. If you double click on the WR_P1 method in the "Members" box, a "USB.WR_P1" form will appear on your main development form. See Figure 8 below.



Figure 8.

11. From "Data" in the pull-down menu, select "Constant" and then "Int16". See Figure 9 below.

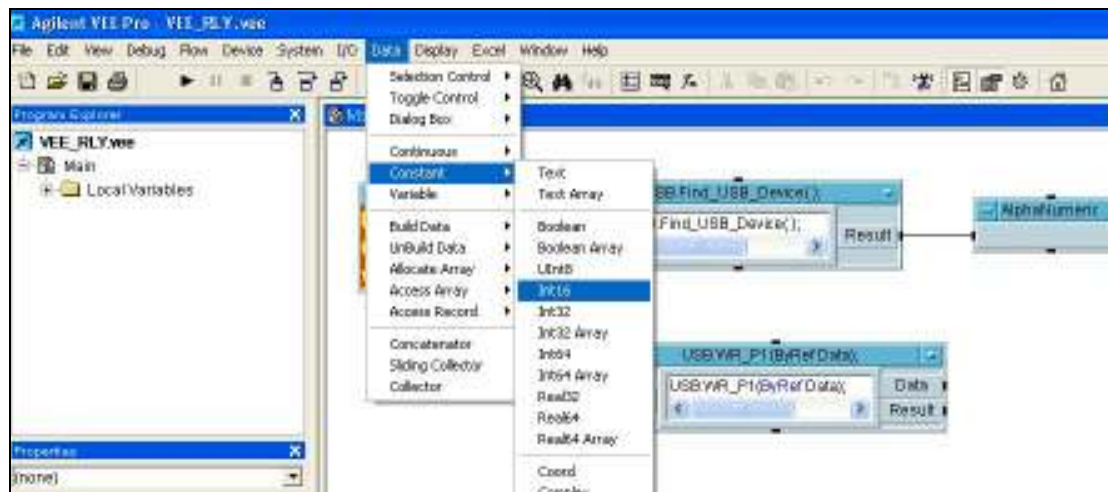


Figure 9.

12. An "Int16" form will appear on your main development form. Connect "Int16" to the input "Data" of the "USB.WR_P1" form. Now you can send data from the "Int16" box to the method which writes data to Port P1. You can set lines on/off on Port P1. See Figure 10 below.

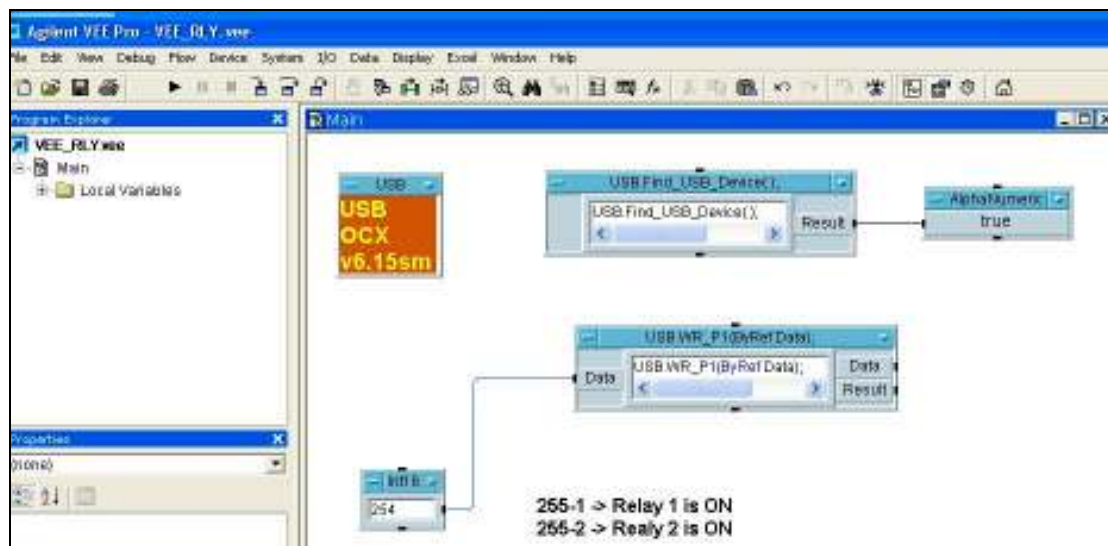


Figure 10.

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