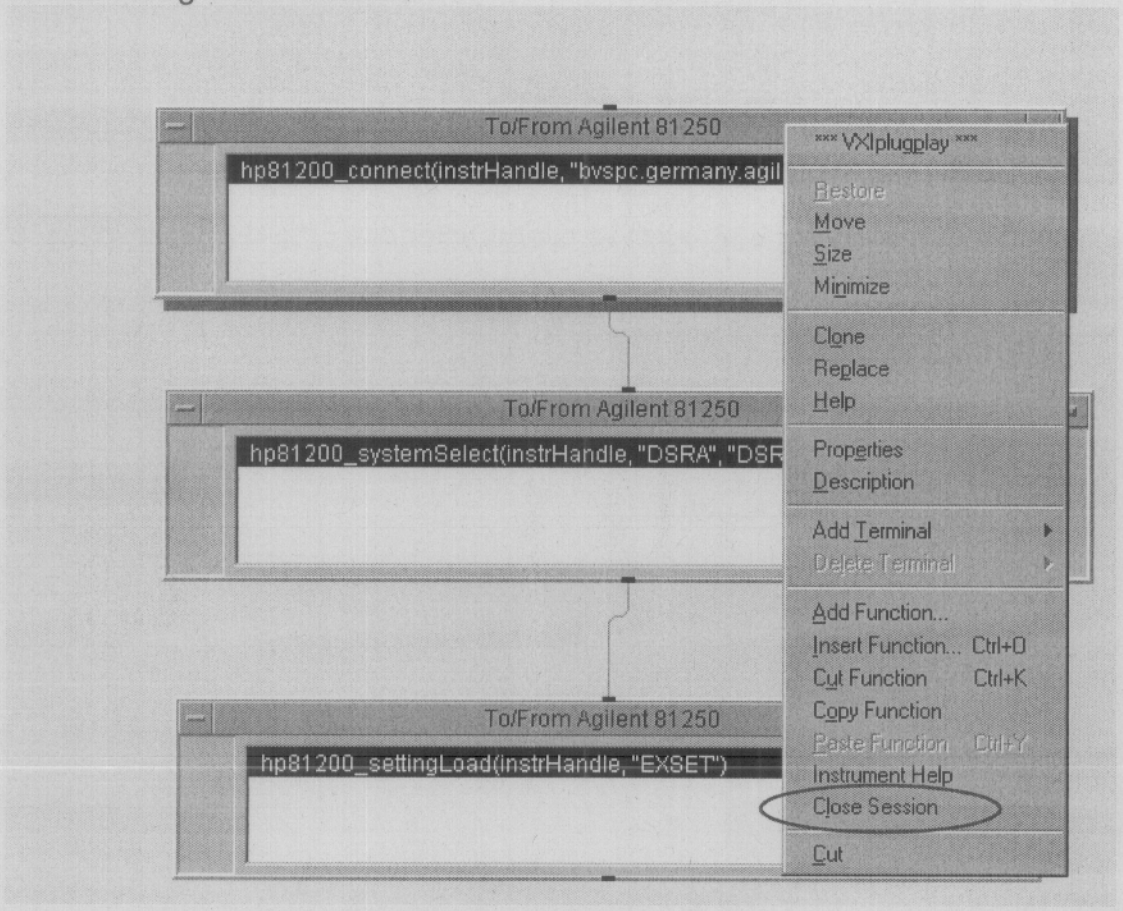
# Getting started programming the Agilent 81250 using - Agilent VEE -

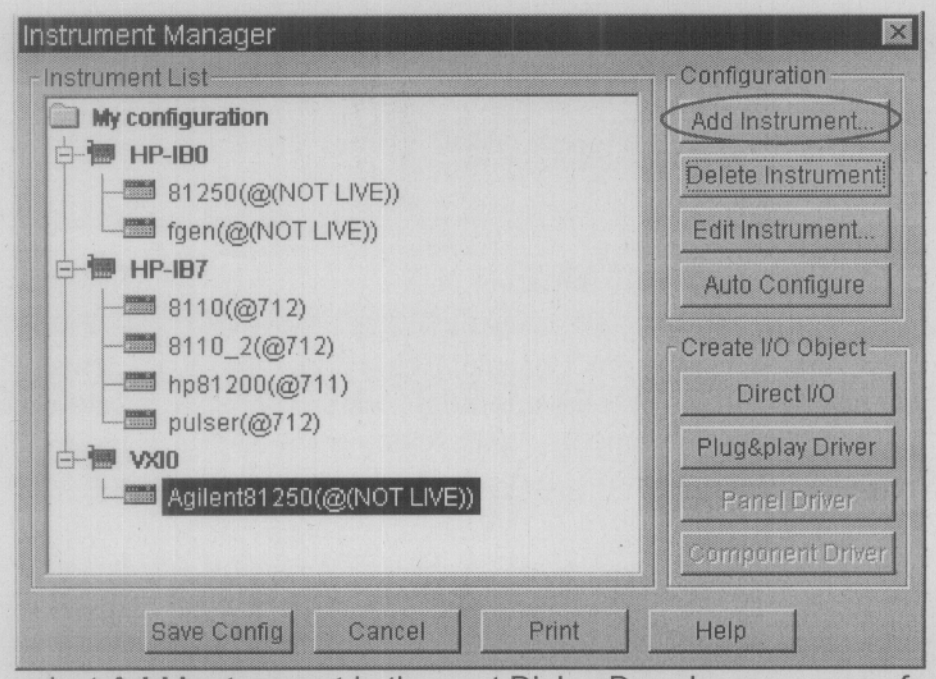
## 1. Introduction to Agilent VEE

Note that the init and close functionality is done in the Agilent VEE framework. If the program runs smoothly you don't have to worry about these functions otherwise if the program hangs, you have to do the close manually before you can run another program this is done by right-clicking anywhere on a block and selecting Close Session.

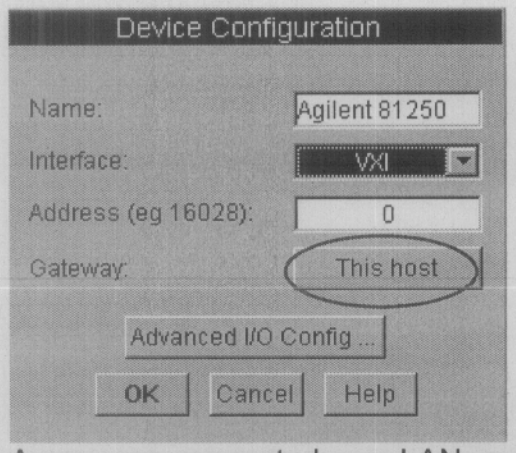



## 2. Include the PnP drivers

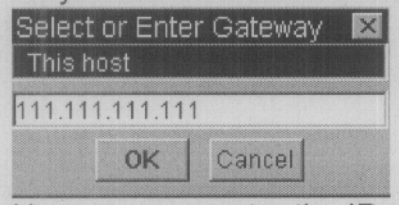
In order to use the PnP drivers with your Agilent 81250 you have to add the instrument first. To do so select **I/O** from the menu bar and click on **Instrument Manager**. Once in the Instrument Manager




select **Add Instrument** in the next Dialog Box choose a name for your instrument (e.g. Agilent 81250) and from the Interface drop-down list select **VXI**.

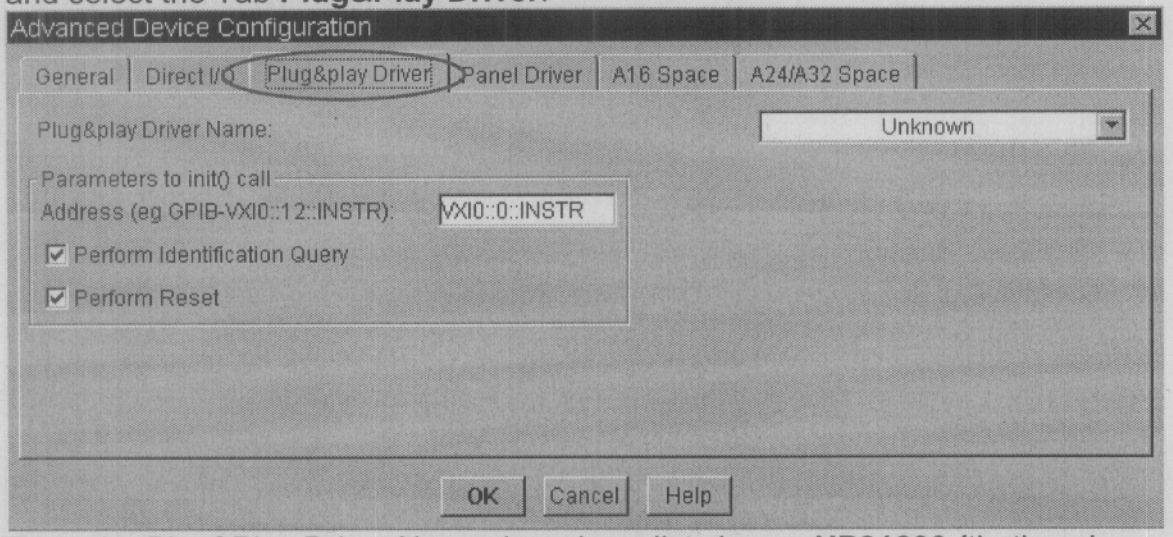



As you are connected over LAN you have to click on This host.




Here you can enter the IP address of the host where the firmware server runs.

Click OK. Back at the Device Configuration click on **Advanced I/O config** and select the Tab **Plug&Play Driver**.



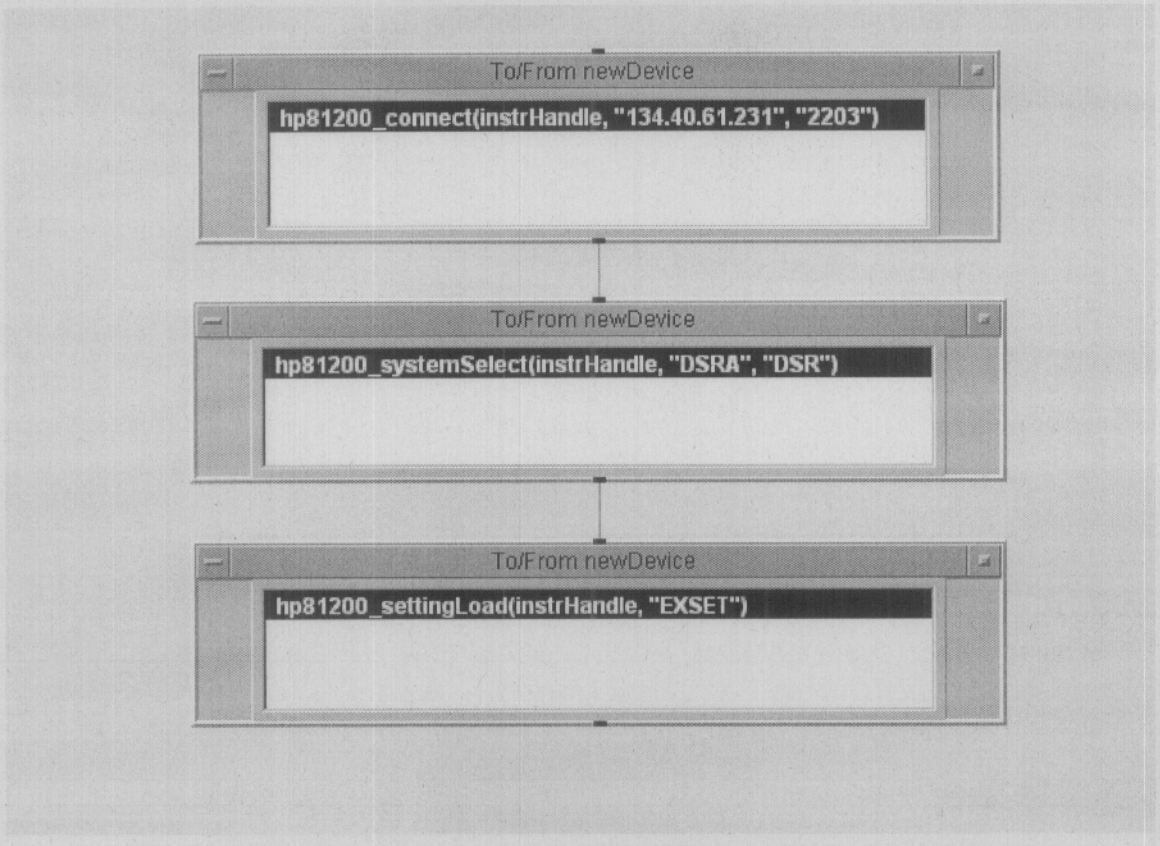

From the Plug&Play Driver Name drop-down list choose **HP81200 (**that's only available if you have installed your Plug&Play Driver Software). Click on OK until you are back at the Instrument Manager. You could add your Plug&Play driver function by clicking on **Plug&Play Driver**. And placing the To/From VXIPlug&Play object somewhere in your main window. This will be explained in chapter 4.

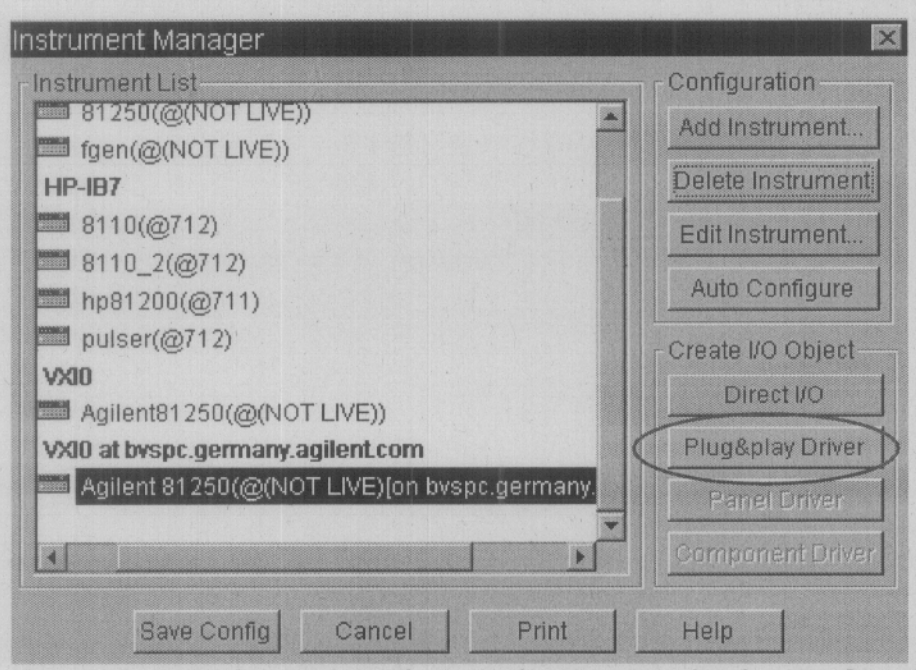
## 3. Preparations

As our program should load a setting, go to the GUI and prepare any Setting under DSRA save it as EXSET. Click on the Setting New icon  before returning to your LabVIEW program.

## 4. Writing your program

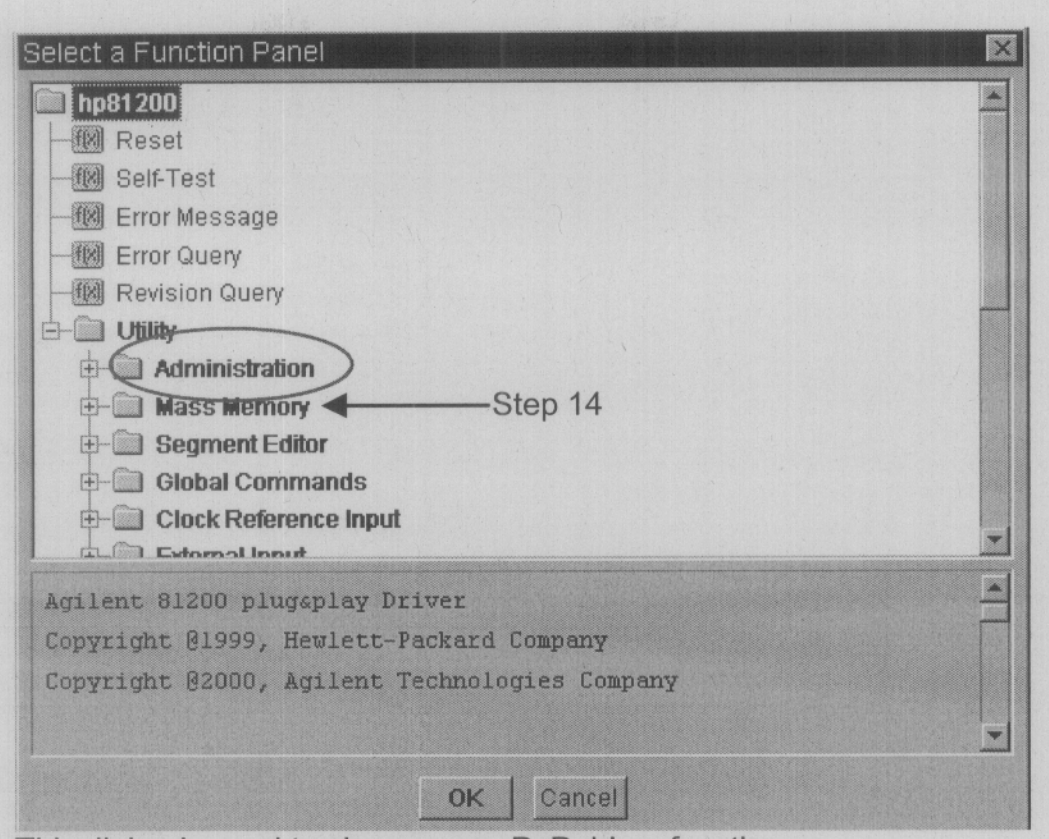
Your final program will look like the following, a step by step guide can be found afterwards:




1. From the menu bar choose **I/O** and further **Instrument Manager...**
2. 

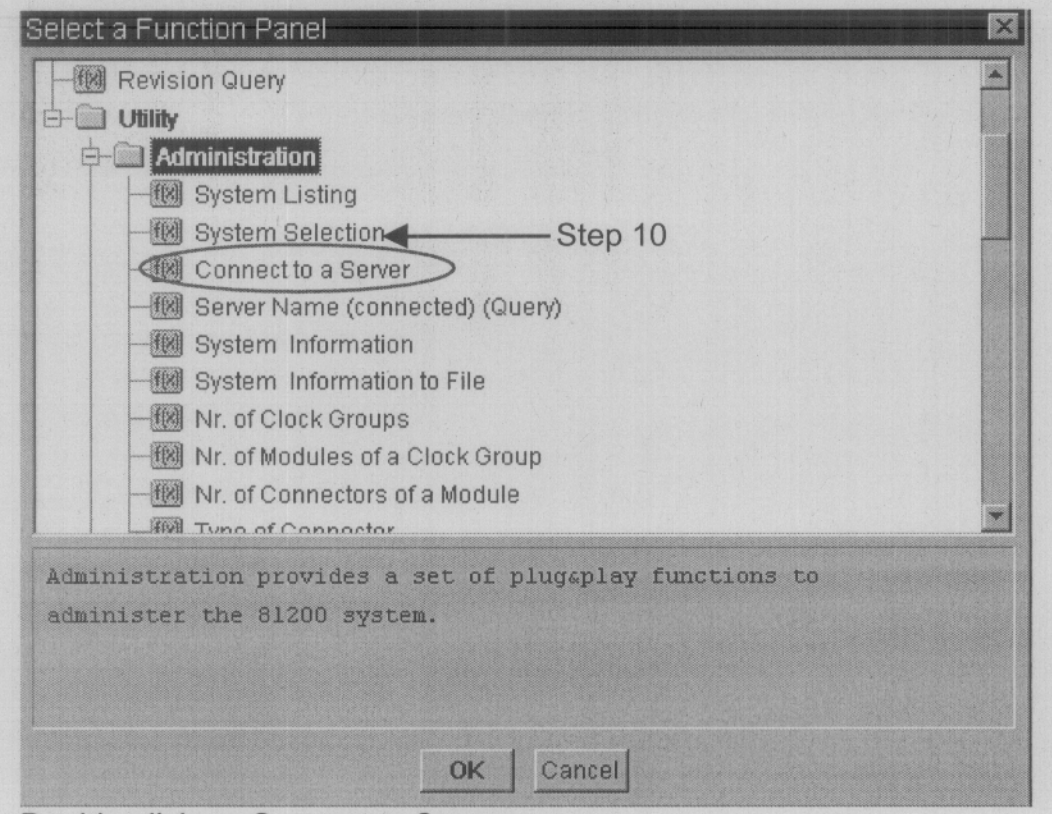
   Here select the Instrument that you have set up in chapter 2 and click on Plug&play Driver.
3. Click into your Main window to position the To/From Agilent 81250
4. Double-click on the blue line that appears in the box.

5.



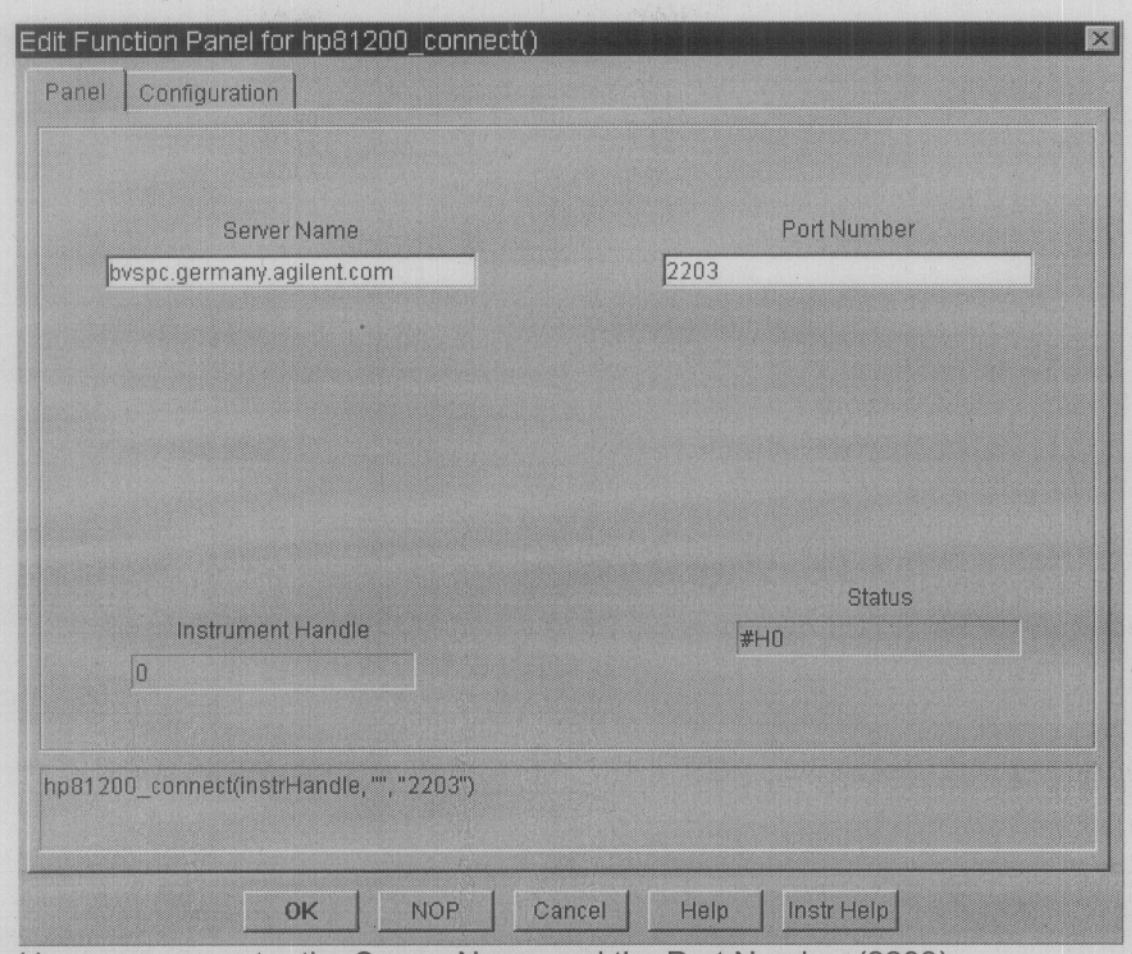

This dialog is used to choose your PnP driver function.

6. Double-click on Administration.
7.




Double-click on Connect to Server

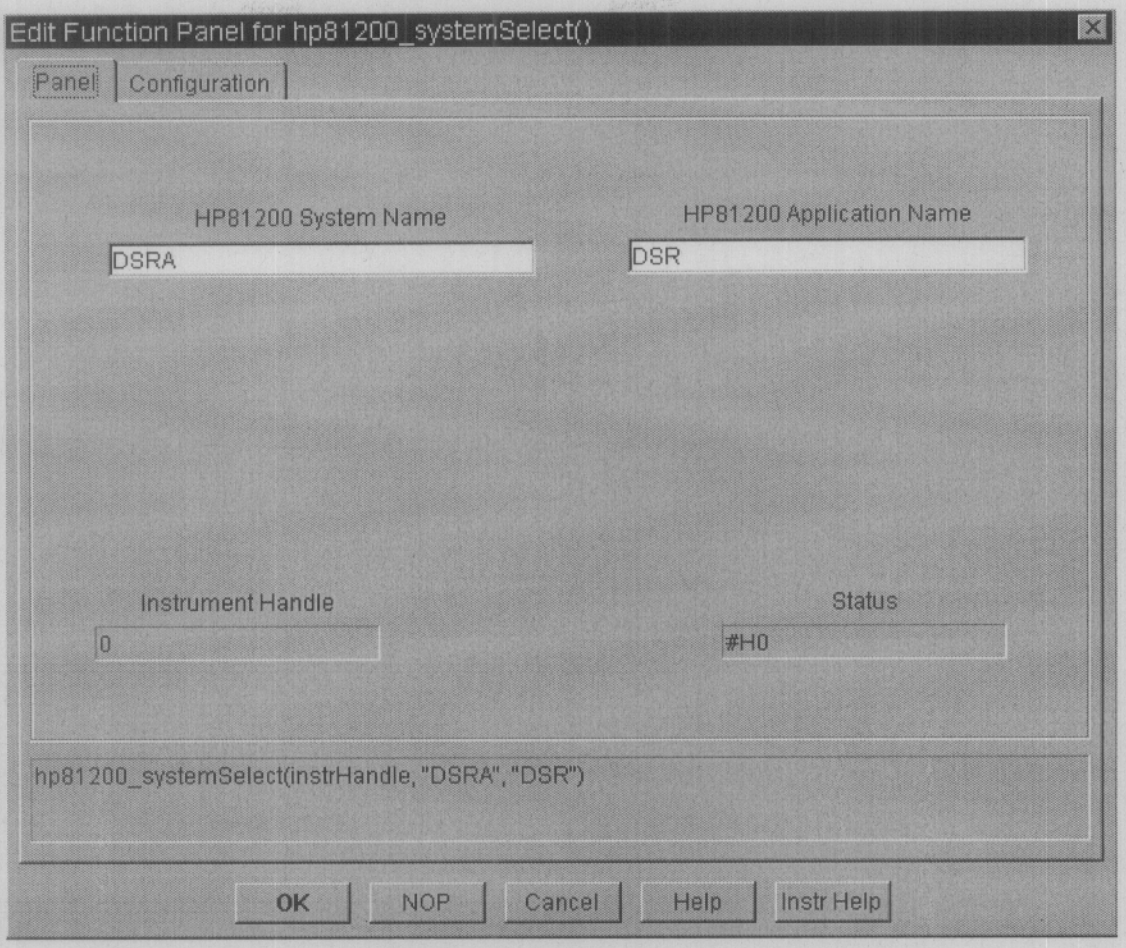
8.




Here you can enter the Server Name and the Port Number (2203)

9. Repeat steps 1 to 6
10. Double-click on System Selection (see step 7)

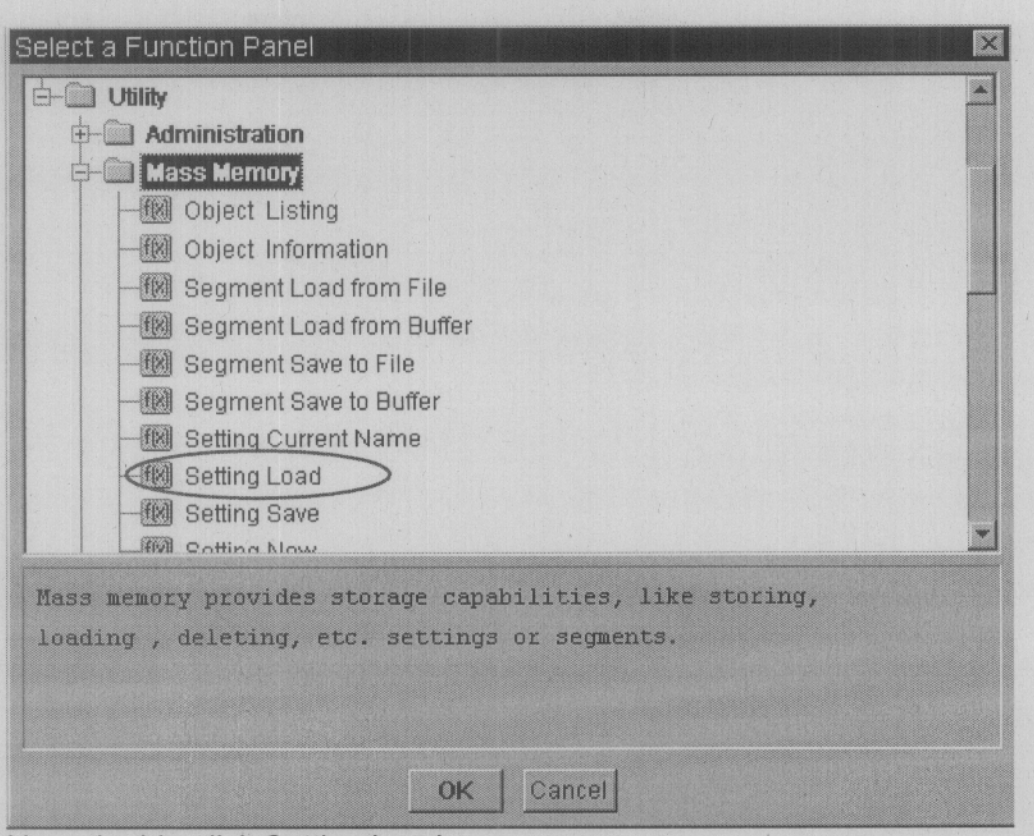
11.




Here you can enter the System Name(DSRA, DSRB, DSRC,…) and the Application Name(DSR).

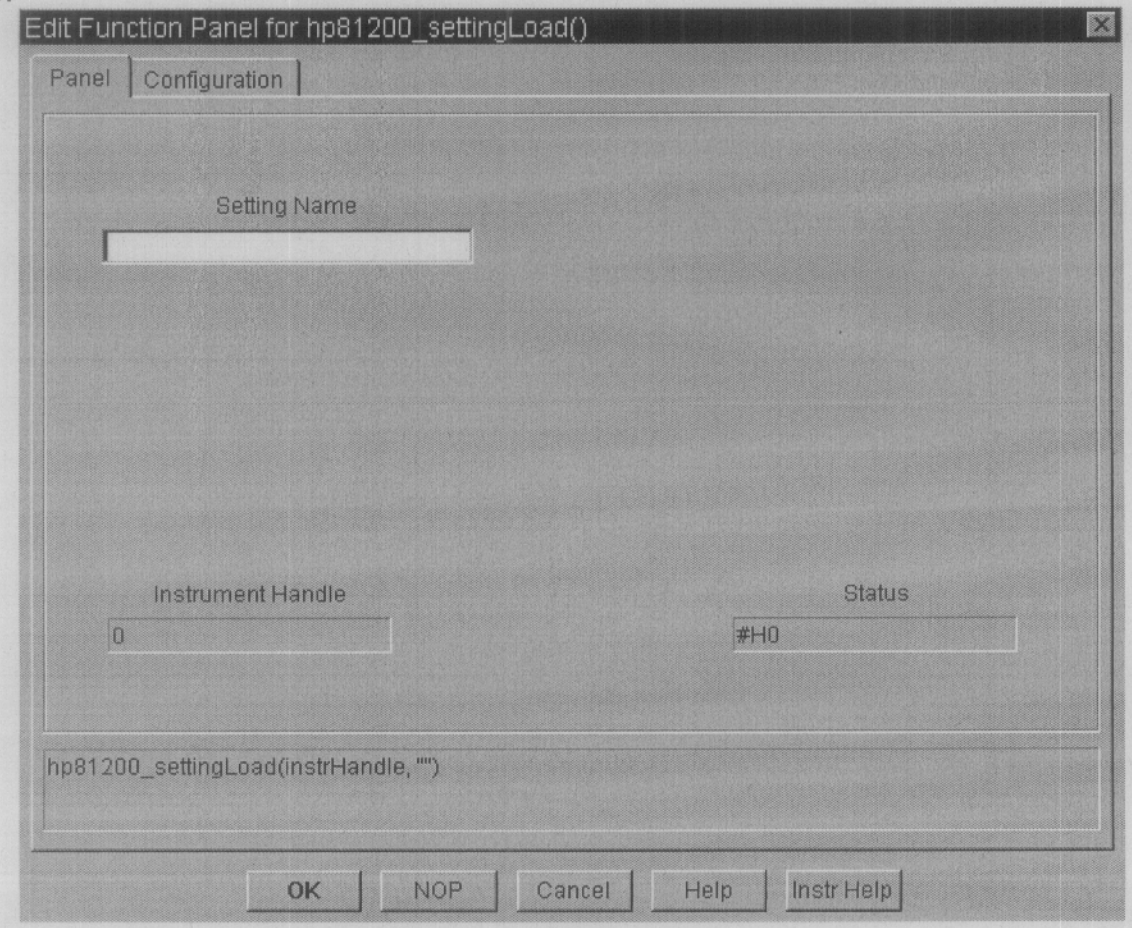
12. Click on OK
13. Repeat step 1-5
14. Double-click on Mass Memory this is found after Administration (see step 5)

15.




Here double-click Setting Load.

16.



Insert the Setting Name (EXSET) here.

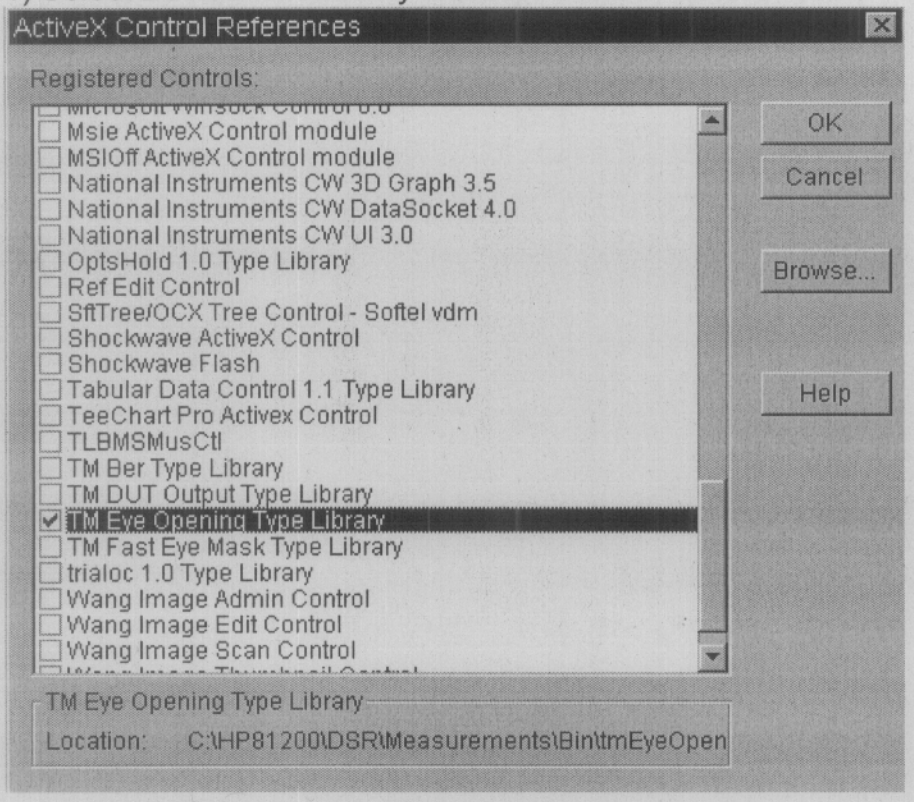
17. Click on OK
18. Connect the first box with the second box and the second box with the third box.
19. Click on run  which you'll find in the menu bar

# Tasks for advanced Agilent VEE users
# MUI – Eye Opening

## 1. ActiveX

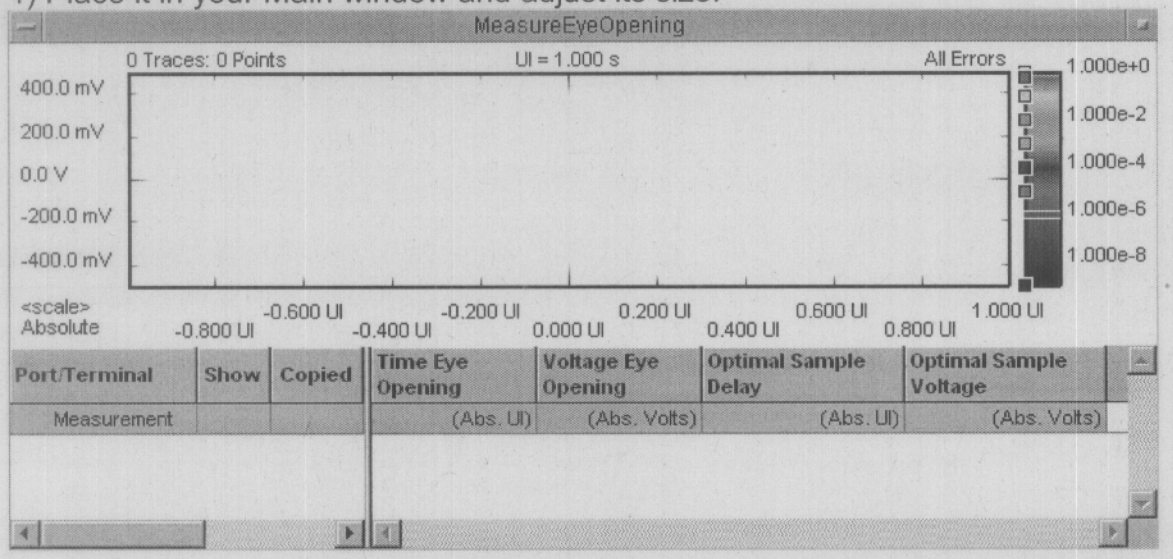
For writing an Agilent VEE program that controls the MUI, ActiveX can be used. For the MUI to run you need to have a bit synchronization setting loaded in the GUI (take care that you use the same system name and port in the GUI and MUI).
Do the following to import the ActiveX Control.

1) Select **Device** followed by **ActiveX Control References...**



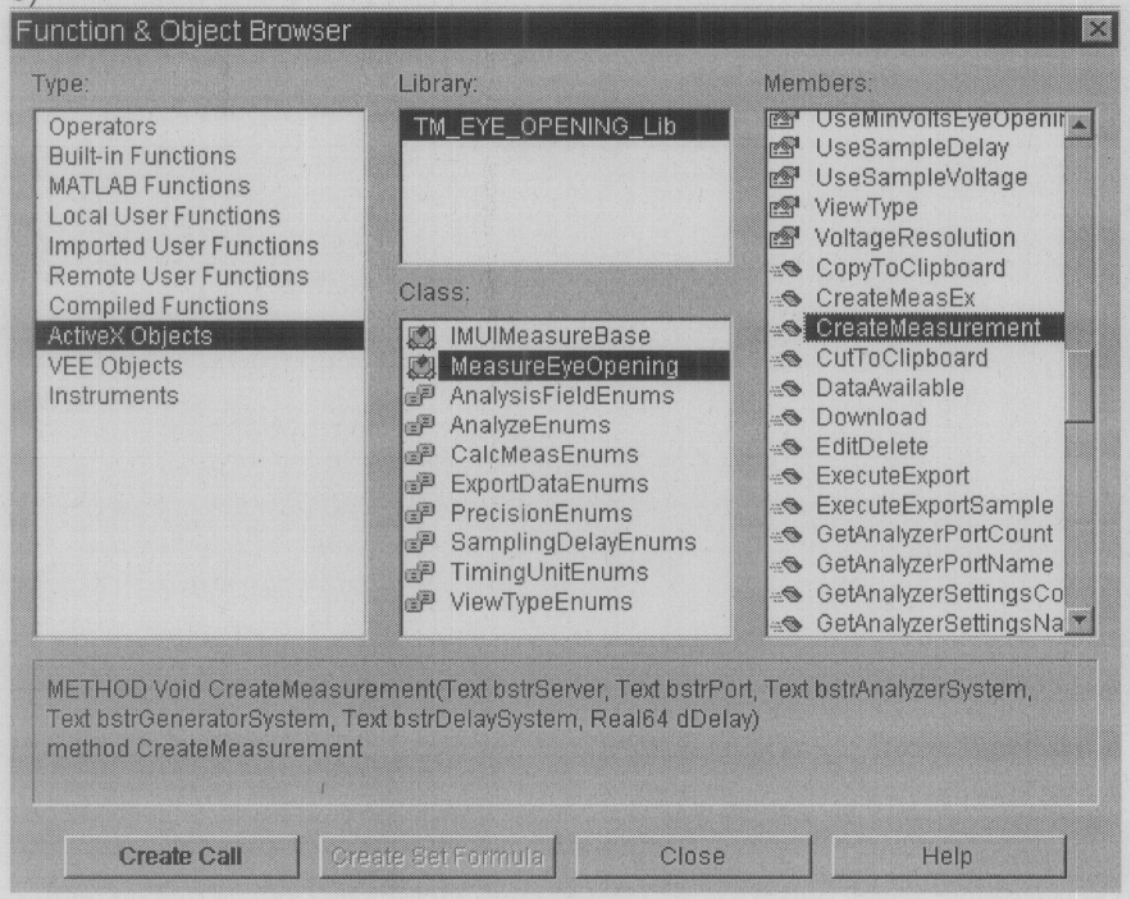

2) Click OK
3) From the menu bar select **Device** and then **ActiveX Controls** where MeasureEyeOpening should be listed.

4) Place it in your Main window and adjust its size.




5) A function to control the ActiveX in Agilent VEE is created by selecting **Device >> Function & Object Browser...**

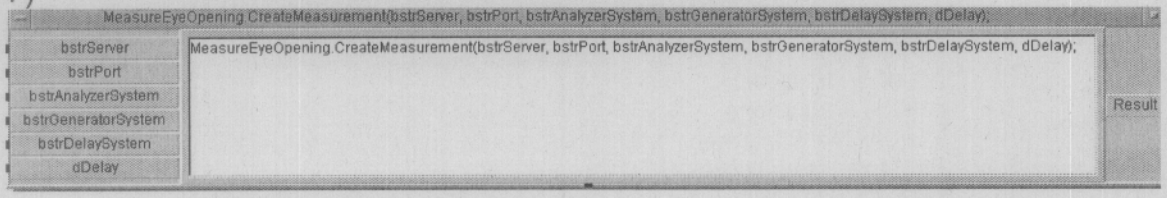
6)




As Type choose ActiveX Objects, the Library is TM_EYE_OPENING_Lib,

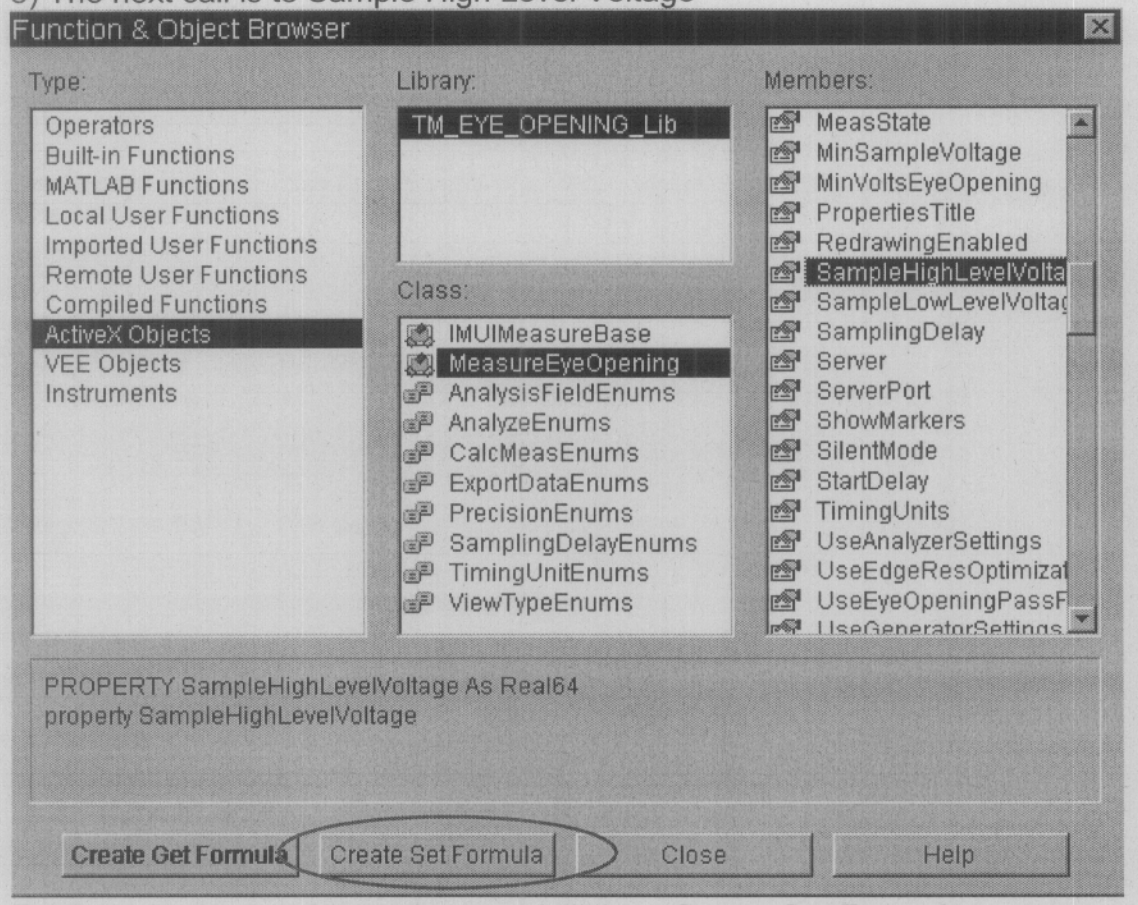
as class select MeasureEyeOpening from Members choose as first function CreateMeasurement. Click on Create Call.

7)




It looks like this connect all the inputs:
Server: the name of the firmware server
Port: 2203
Analyzer System: e.g. DSRA, DSRB,…
Generator System: e.g. DSRA, DSRB,…
Delay System: Empty String – leave it blank
Delay: 0

8) The next call is to Sample High Level Voltage

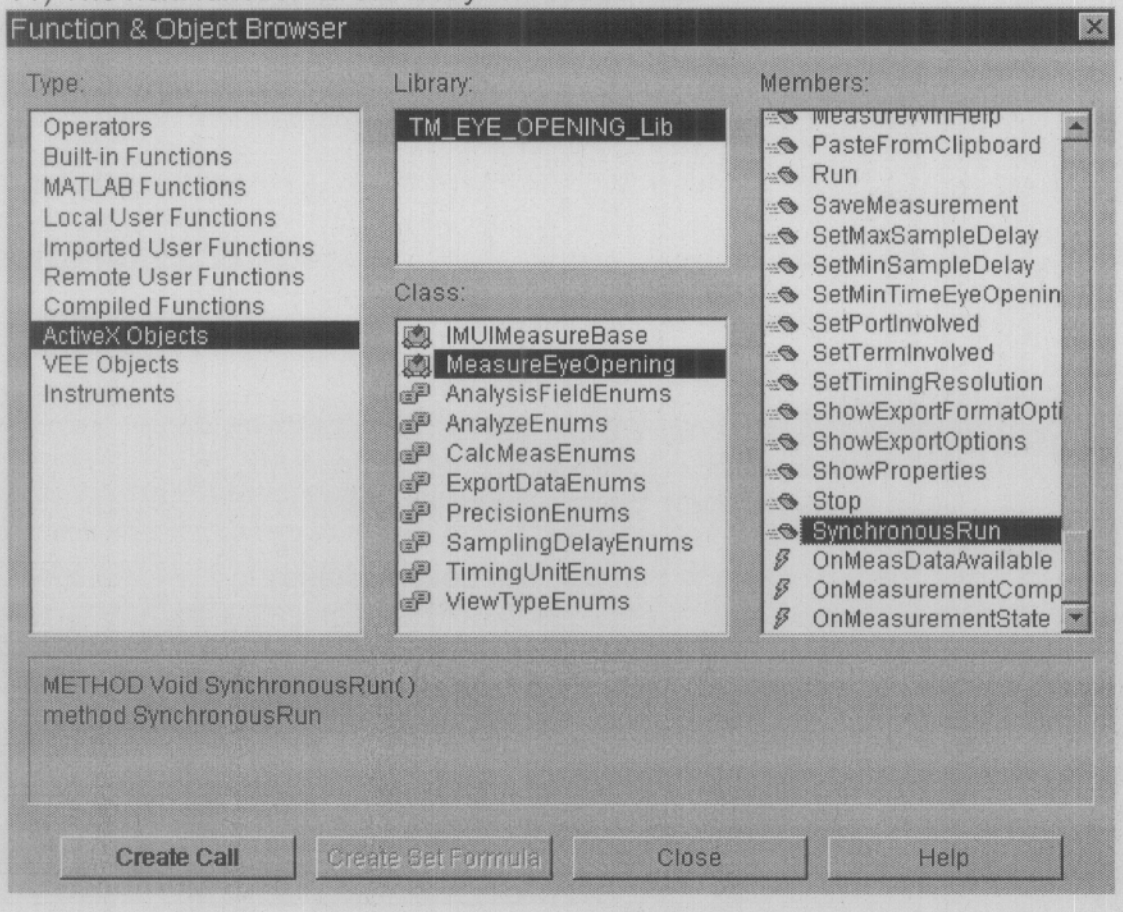



Do the selection as shown above and click on **Create Set Formula**.

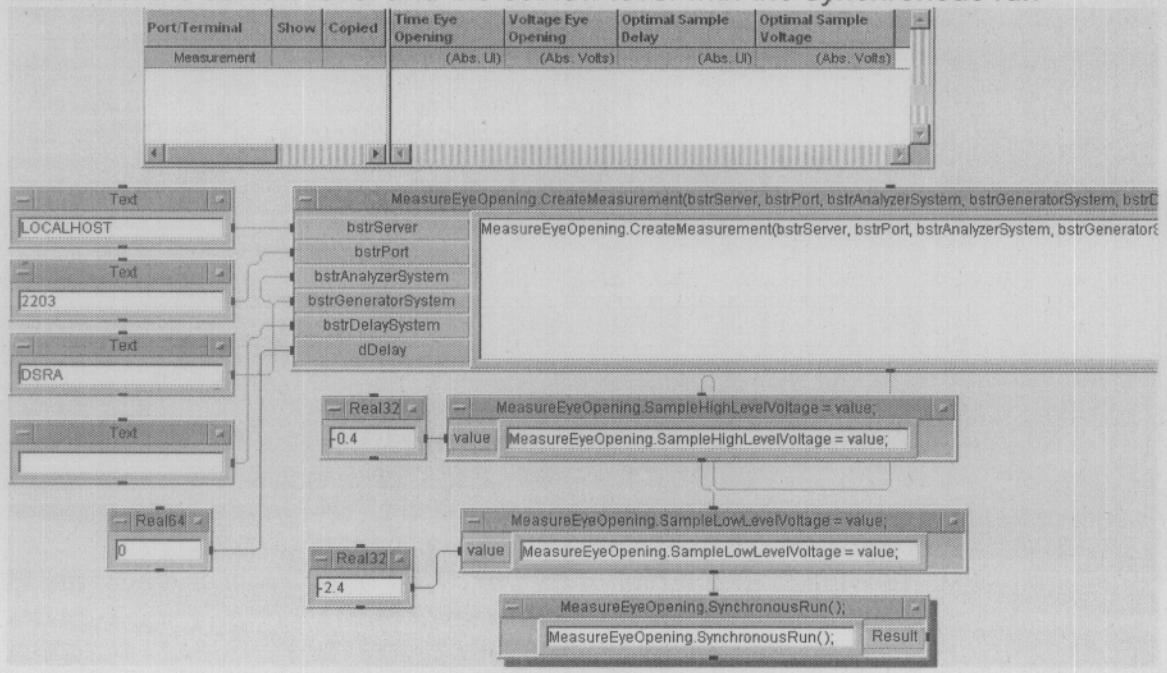
9) Repeat step 8 for Sample Low Level voltage.

10) The input for the high level box is the high level you set in the GUI +0.5 volts and the input to the low level box is the low level from the GUI -0.5 volts.

11) The next function to call is Synchronous Run




12)Connect the Create Measurement with the set high level, the set high level with the set low level and the set low level with the synchronous run



13) If you want to see your results in the diagram you have to add a for loop because otherwise Agilent VEE resets the diagram as soon as it is finished with the program.

14) Your final program looks like the following