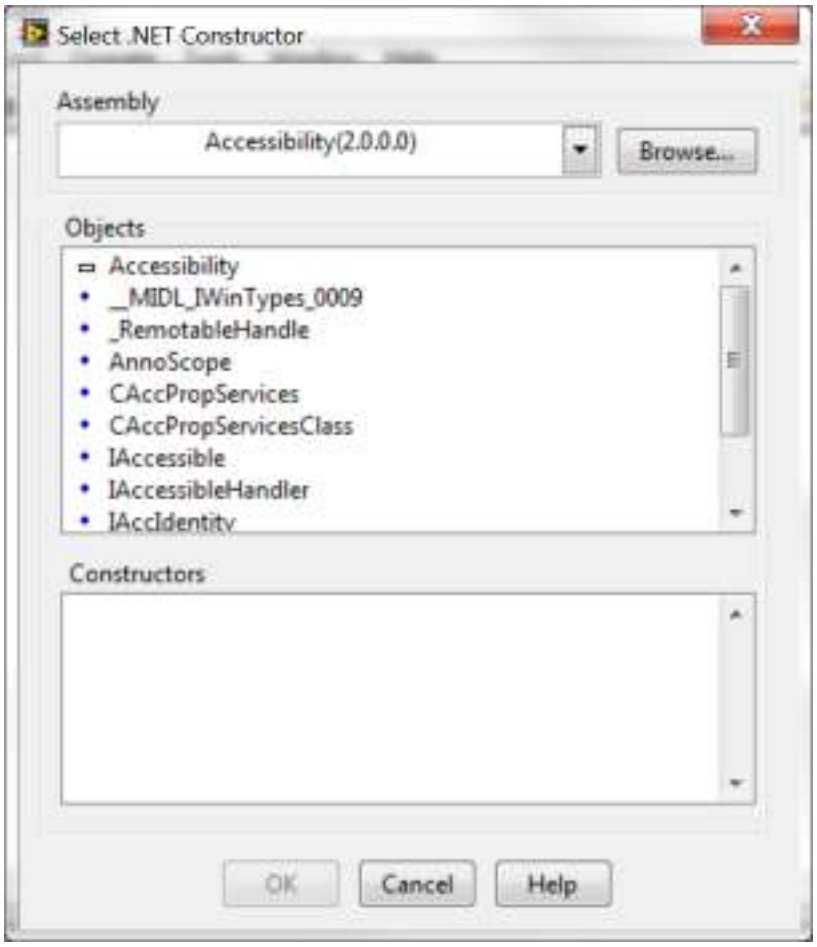
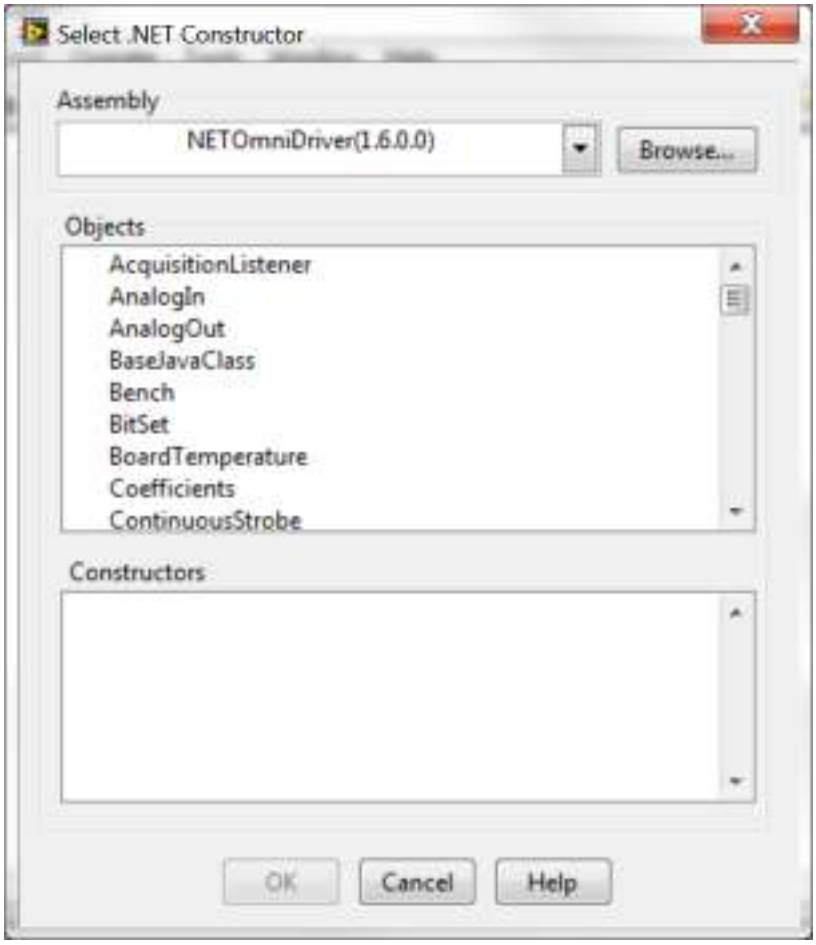
How to use the .NET interface to OmniDriver in LabVIEW

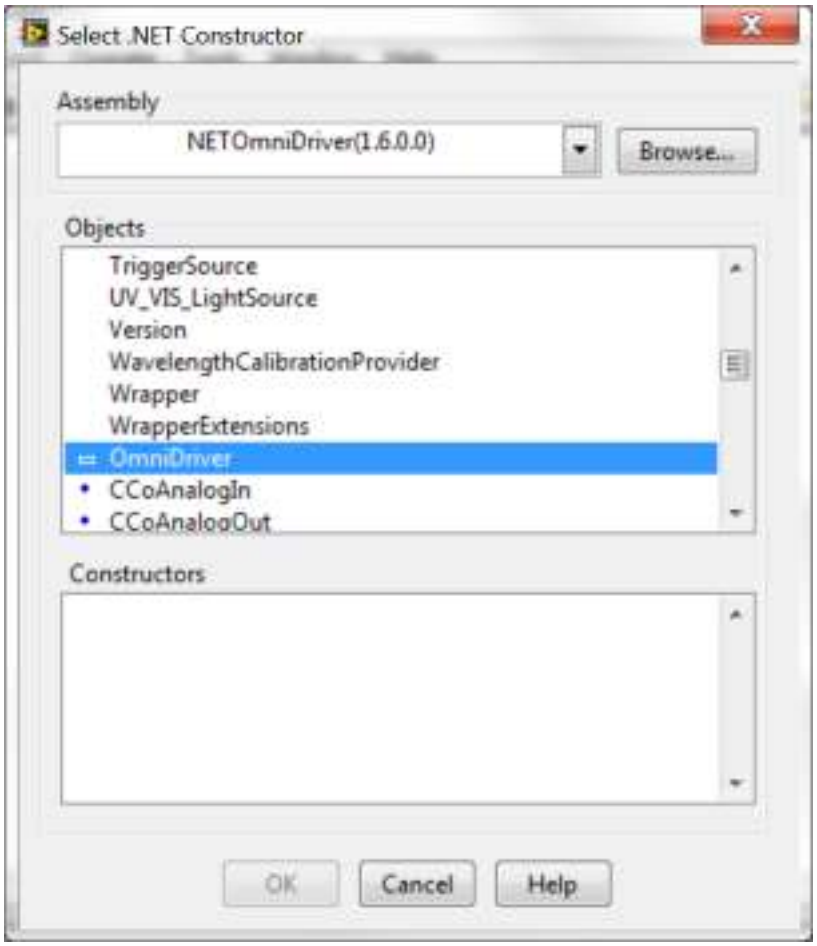
1. NETWrapper constructor
    a. Right click on a block diagram and select Connectivity / .NET / Constructor Node and then click on the block diagram.



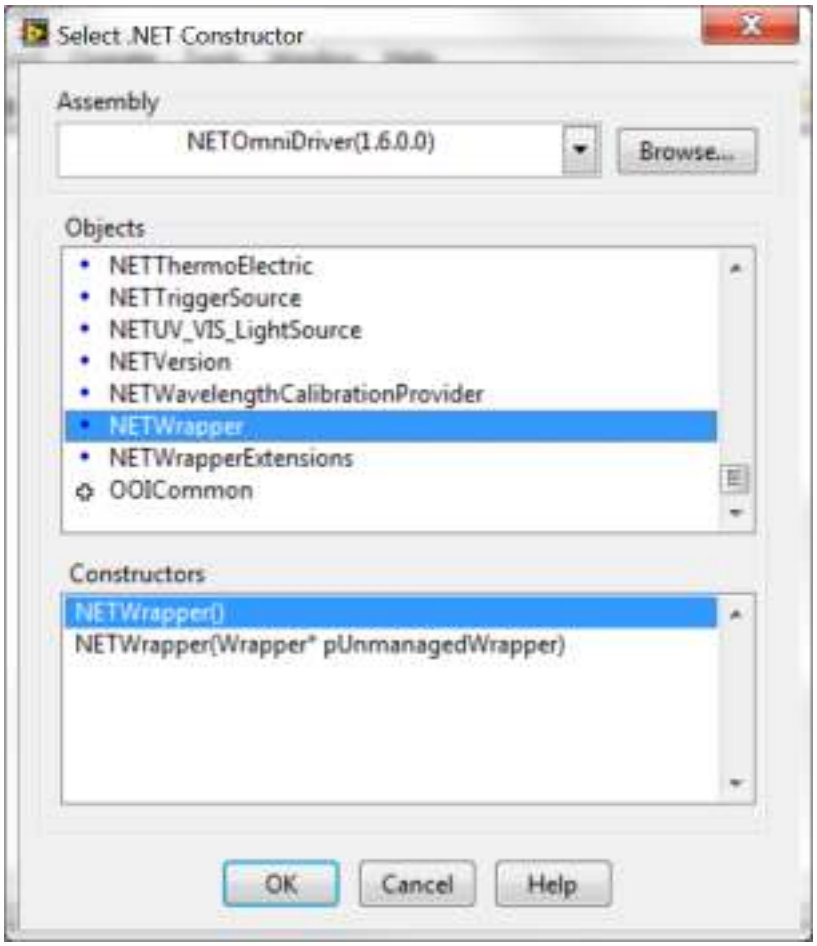
b. Click the “Browse” button in the upper-right and navigate to the OOI_HOME directory and select the appropriate DLL file. For .NET 2.0 (LabVIEW 7.1-2012, use NETOmniDriver-20.dll and for .NET 4.0, use NETOmniDriver-40.dll (LabVIEW 2013), and useNETOmniDriver.dll for OmniDriver 2.20 or older where .NET 2.0 and .40 DLL files were located in separate installers.



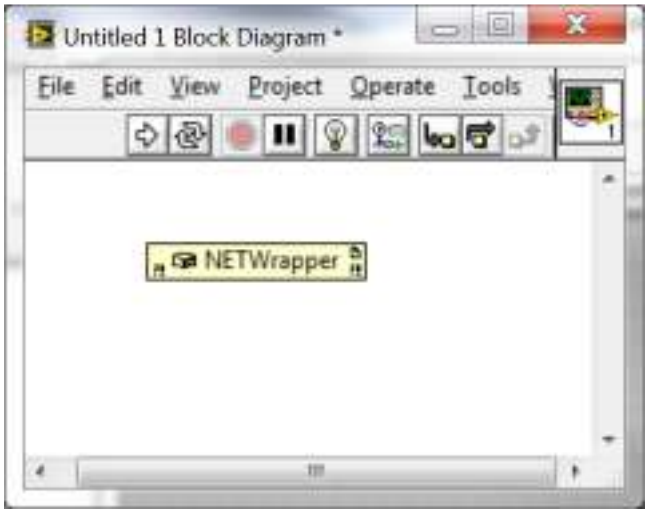
c. In the “Objects” listbox, scroll all the way to the bottom and double-click the line that says “OmniDriver.”



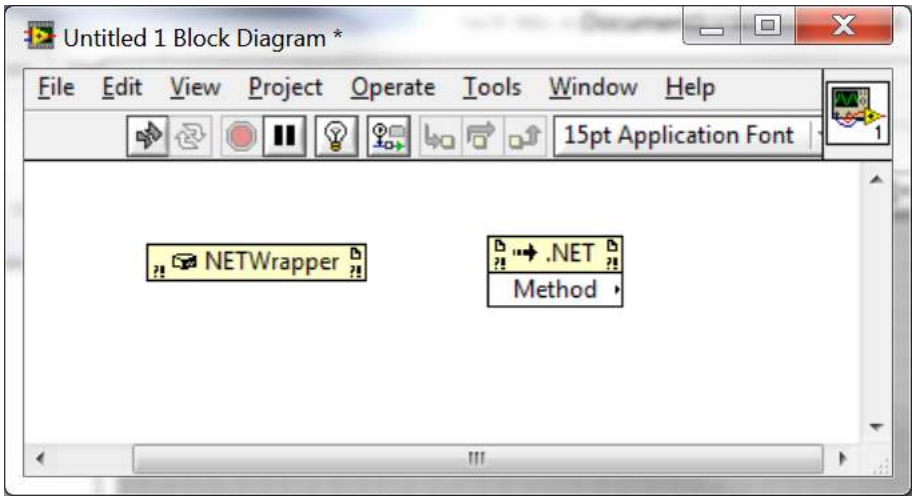
d. Again, scroll all the way to the bottom of the listbox and select “NETWrapper.” Then, click the “OK” button.



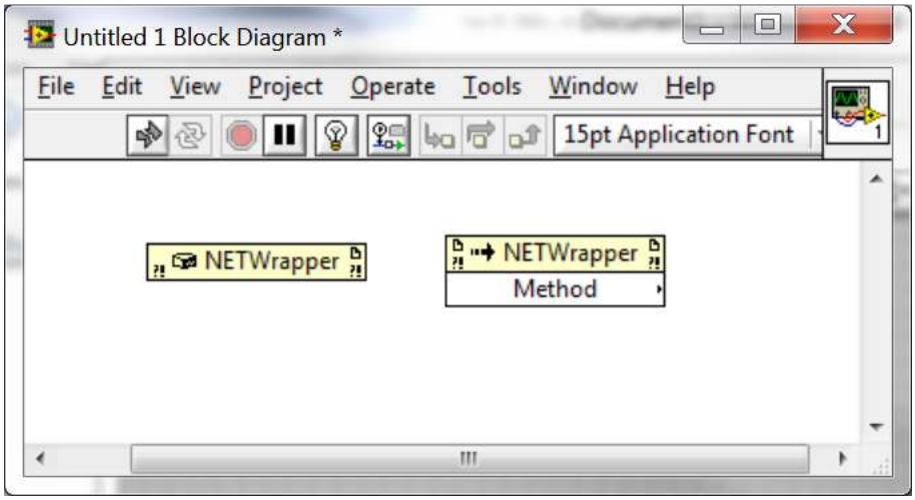
e. You will then have a NETWrapper constructor.



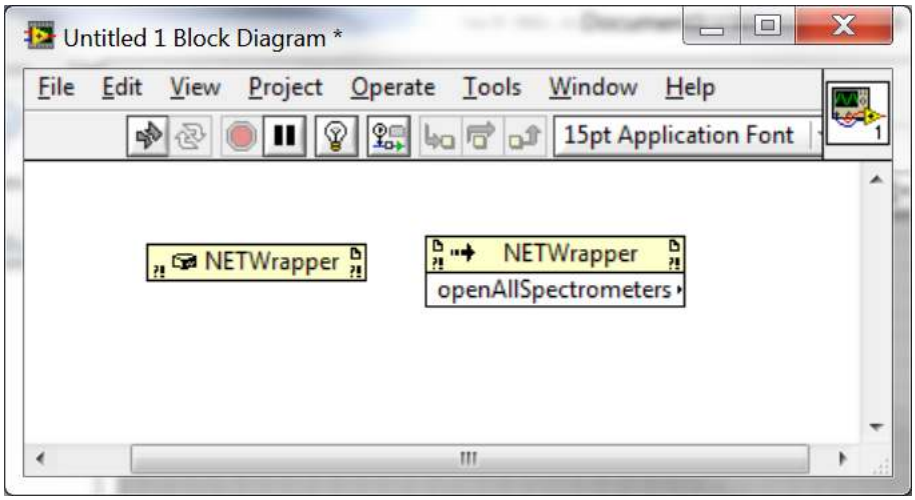
2. Methods
    a. Right click on the block diagram and select Connectivity / .NET / Invoke Node (.NET) and then click on the block diagram.



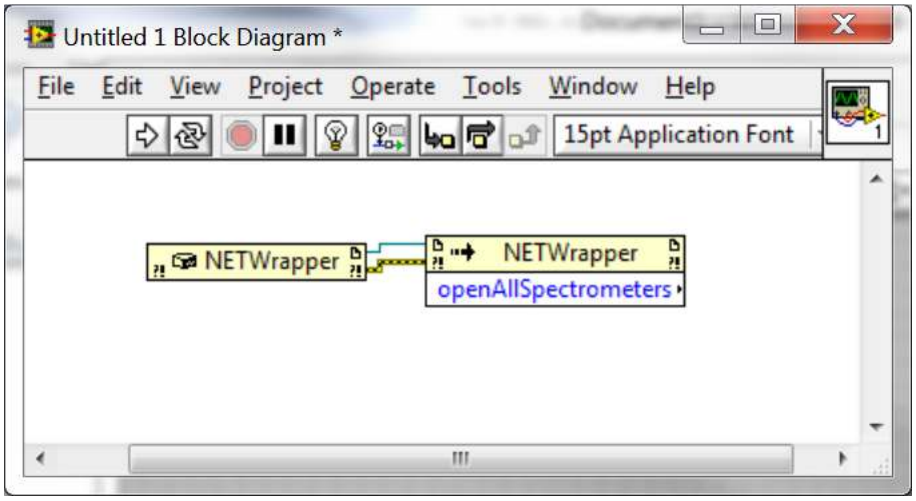
    b. Right-click on the invoke node and choose Select Class / .NET / OmniDriver.NETWrapper



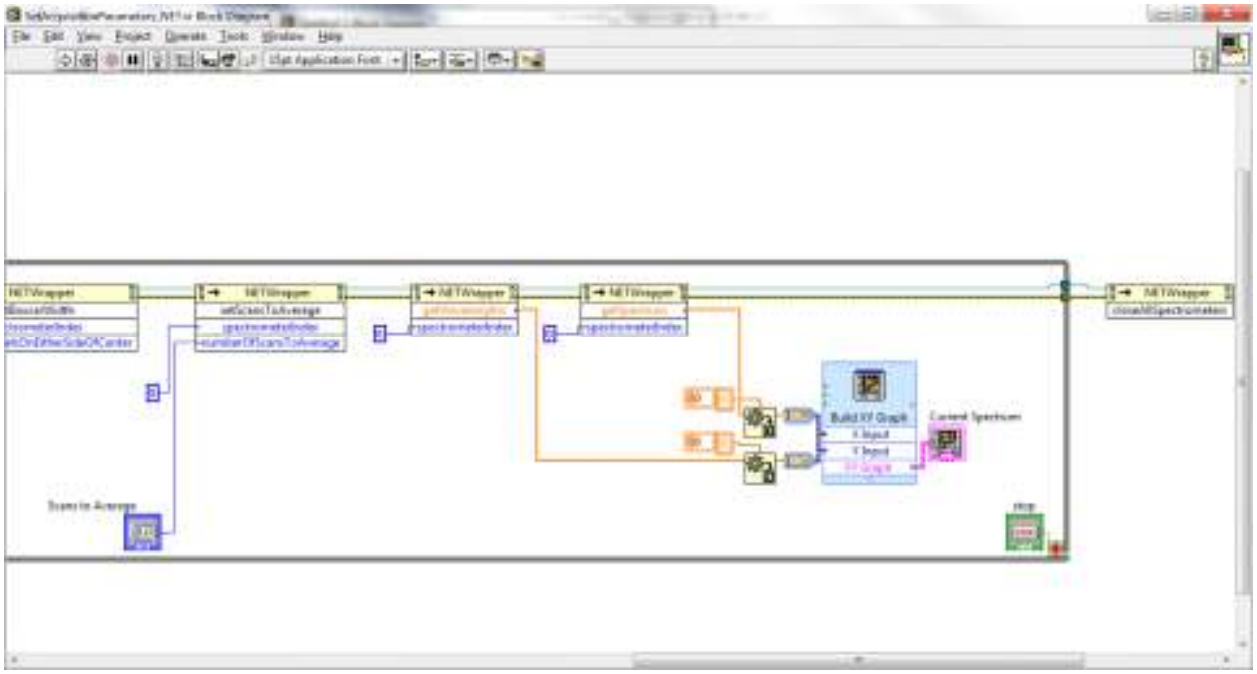
    c. Again right-click on the invoke node and choose Select Method / openAllSpectrometers().



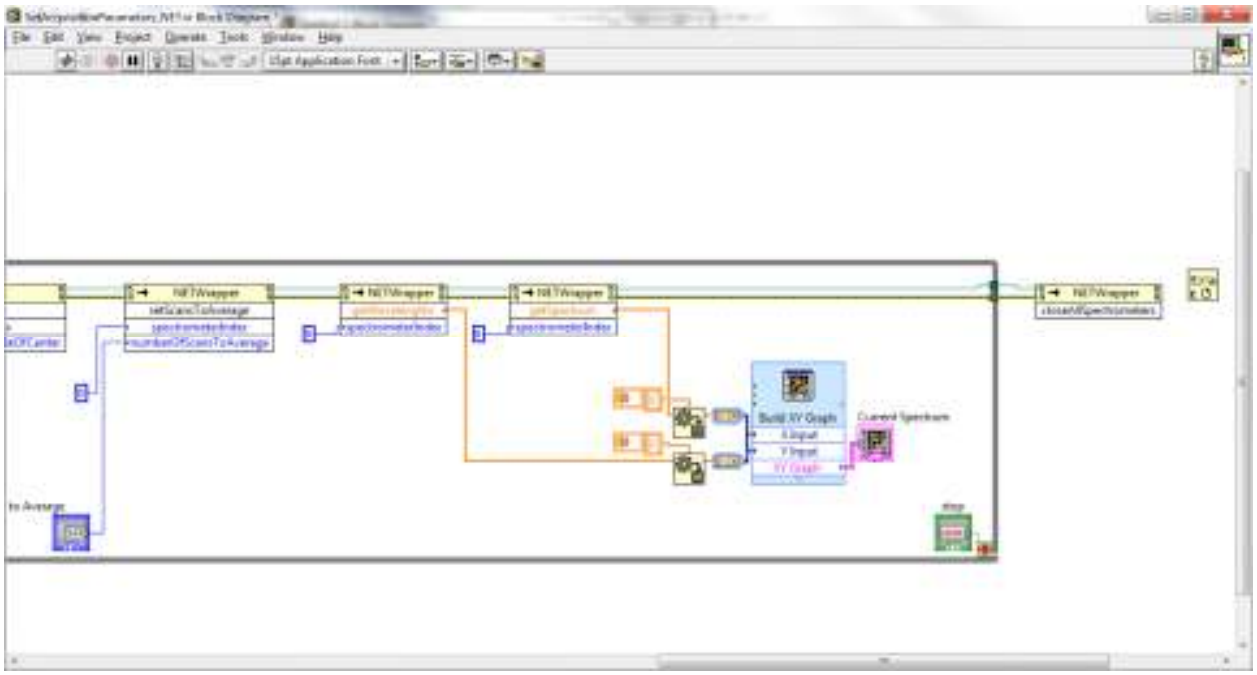
d. Connect the reference and error wires.



e. Repeat until all needed methods are used. Place the method closeAllSpectrometers() at the end.



3. Close Reference
    a. Right click on the block diagram and select Connectivity / .NET / Close Reference and then click on the block diagram.



    b. Connect the reference and error wires to complete the VI.