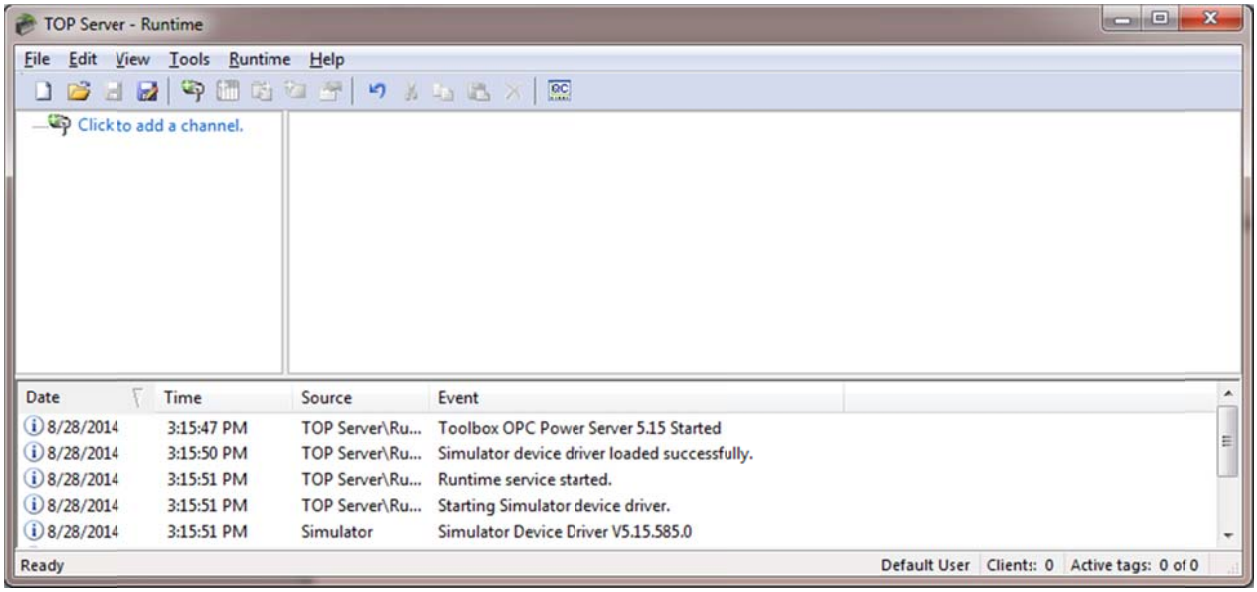
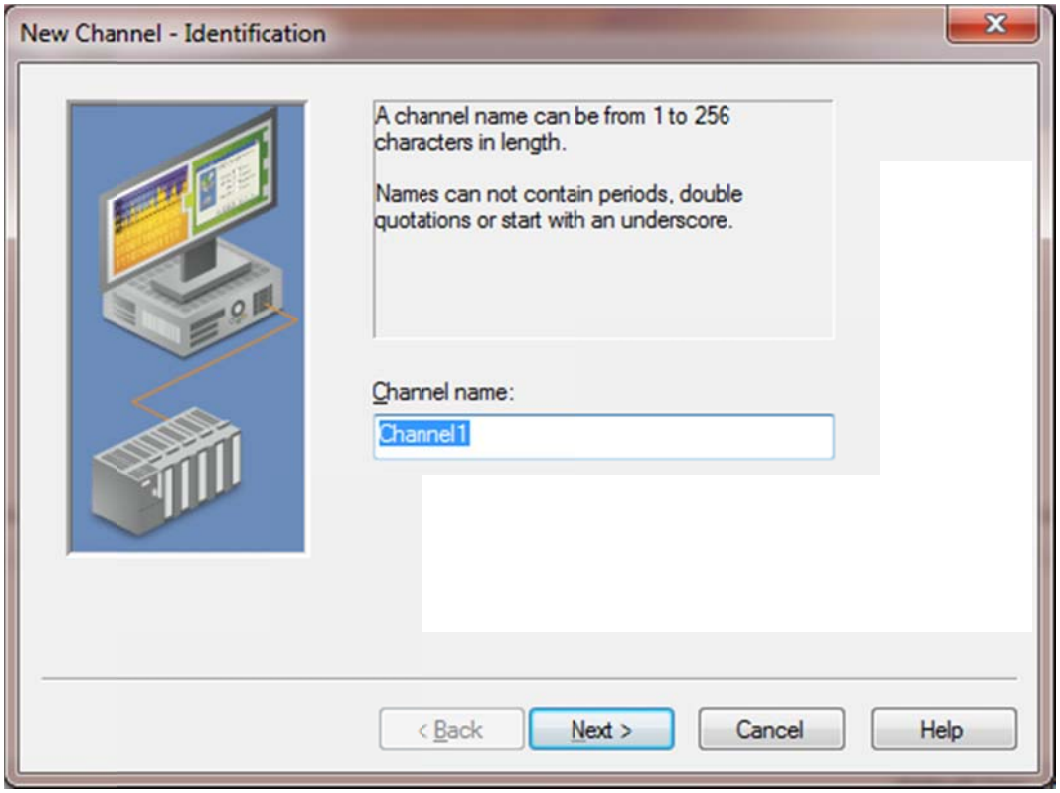
DLPCIE DF1/DH+ Application note accessing Allen Bradley SLC504 and PLC5 using Top Server

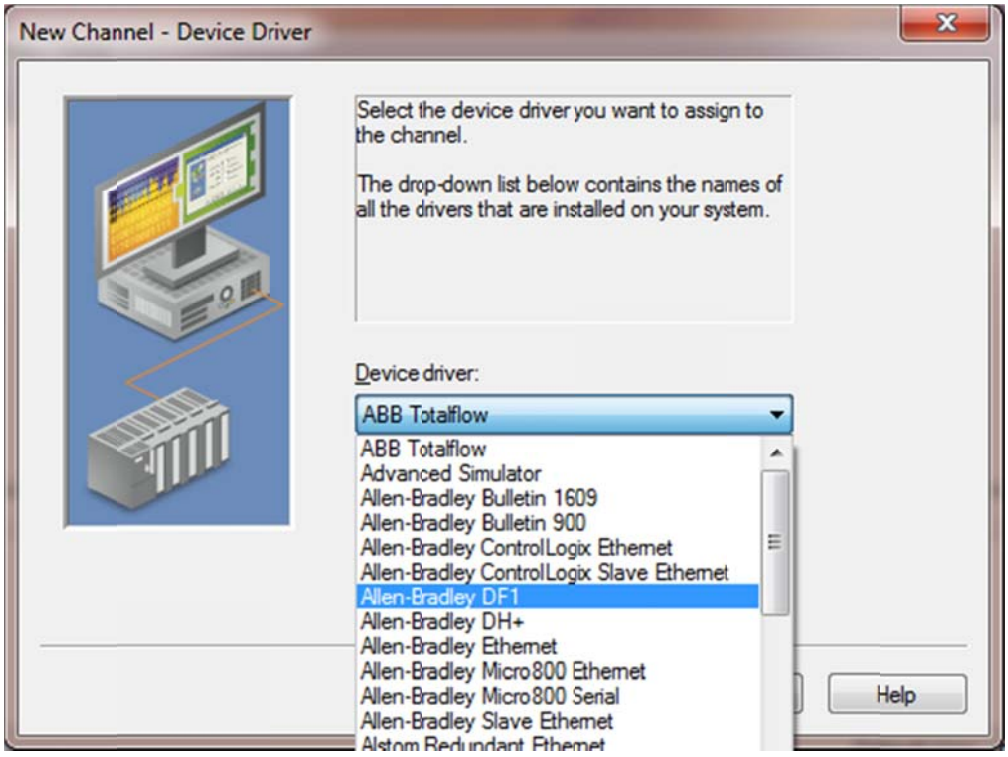
Start TopServer and click to add channel.



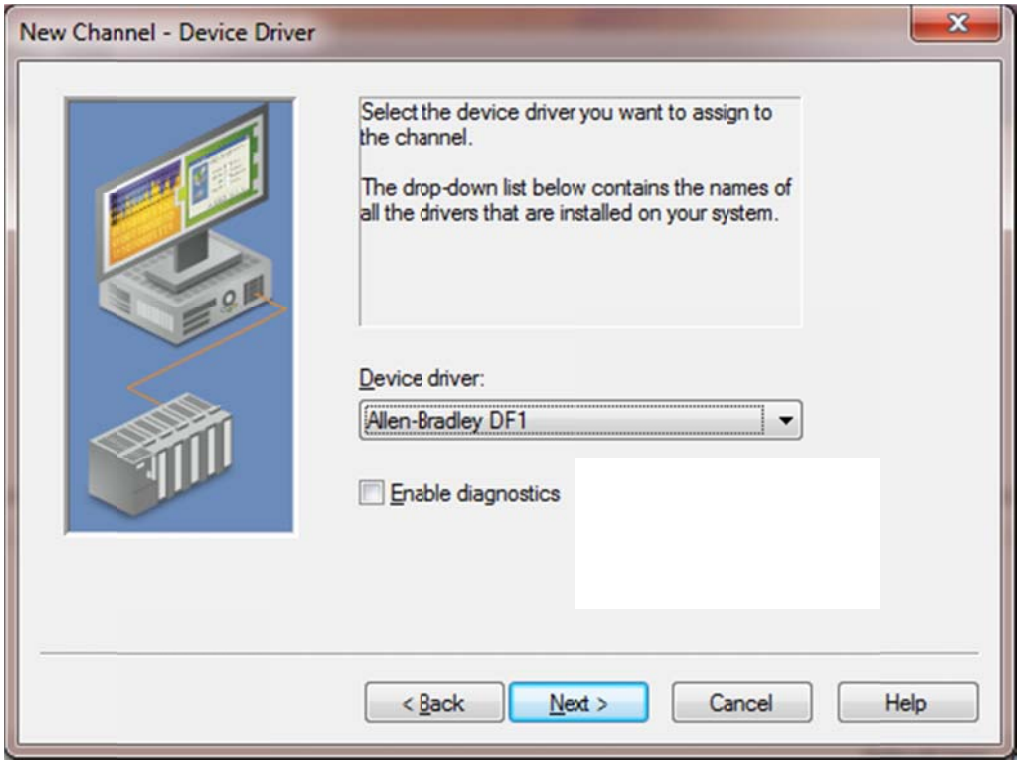
Name the channel and click on Next



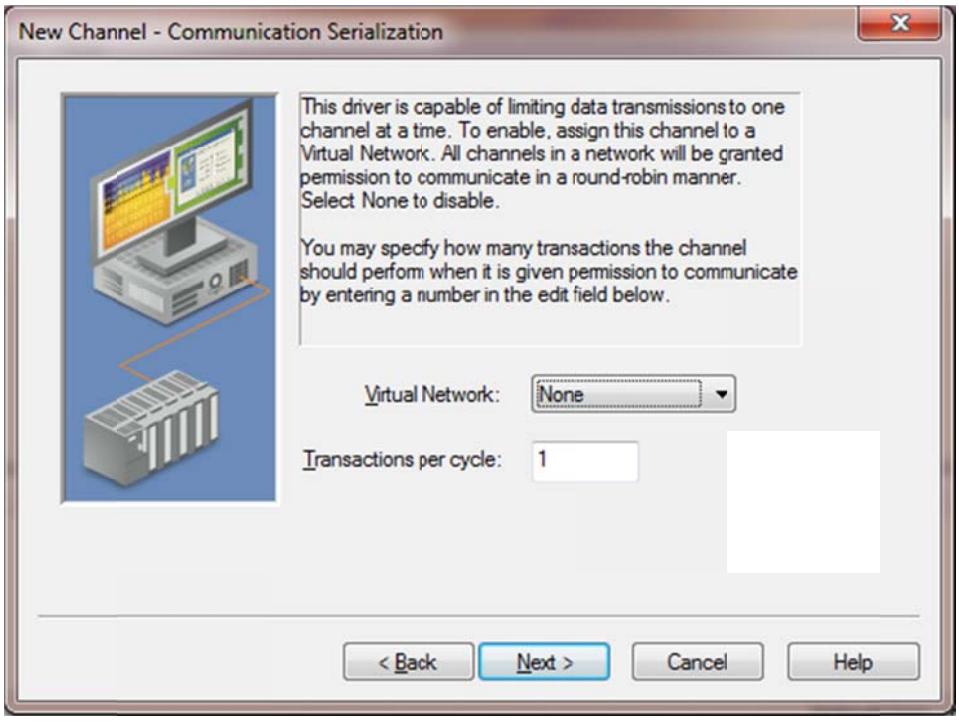
From the drop menu select Device Driver, Allen Bradley DF1



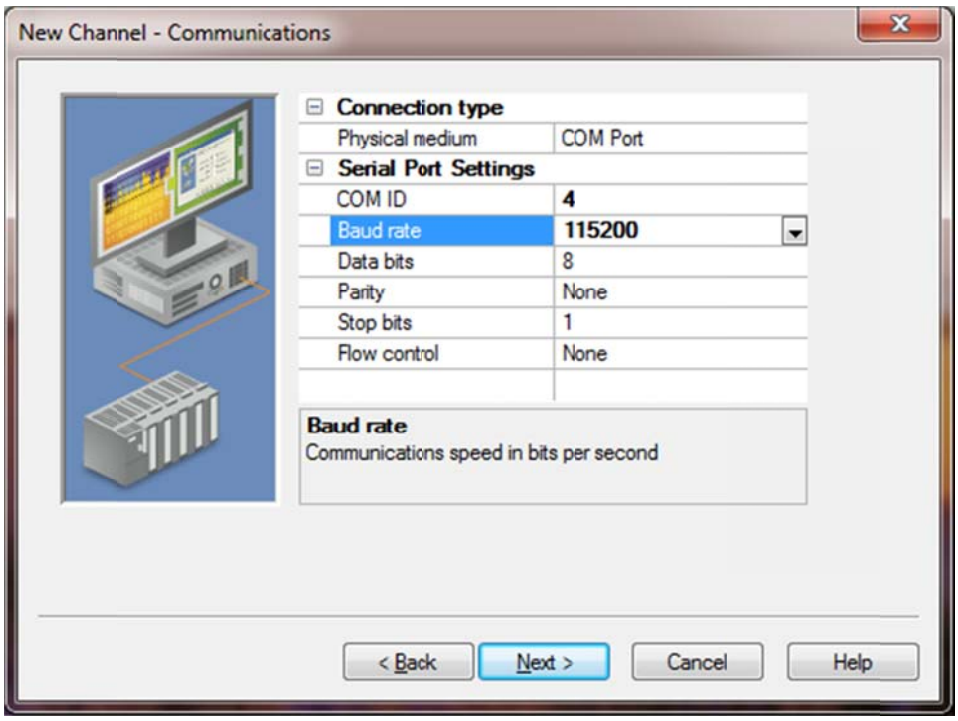
After selecting Allen Bradley DF1 click on Next.



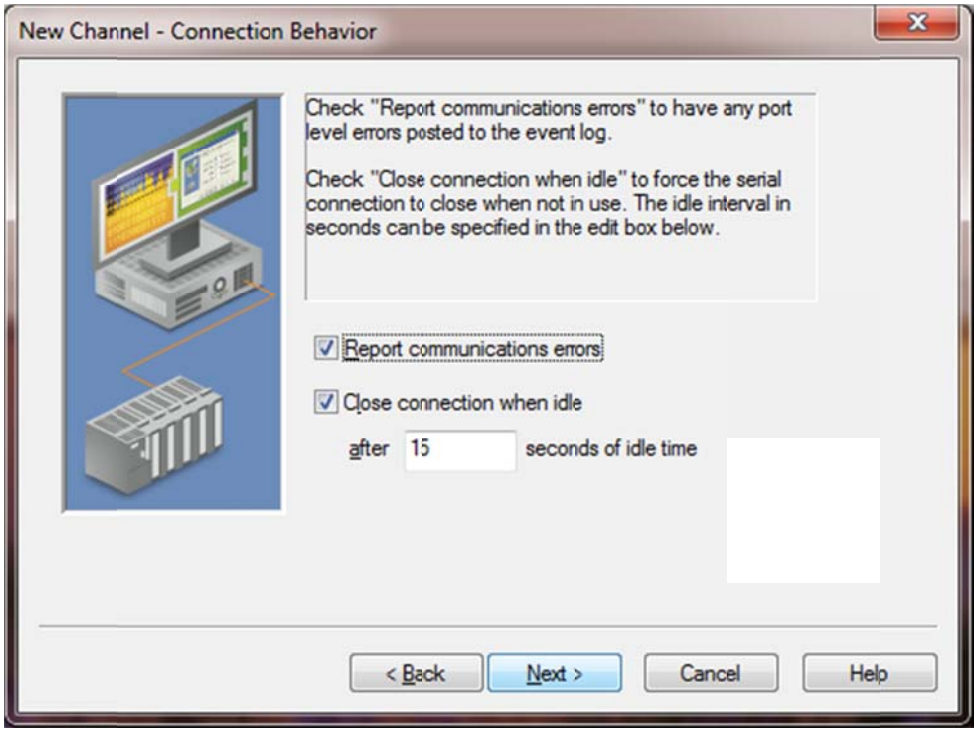
If you do not want to assign virtual network click on Next otherwise select the virtual network from the drop menu.



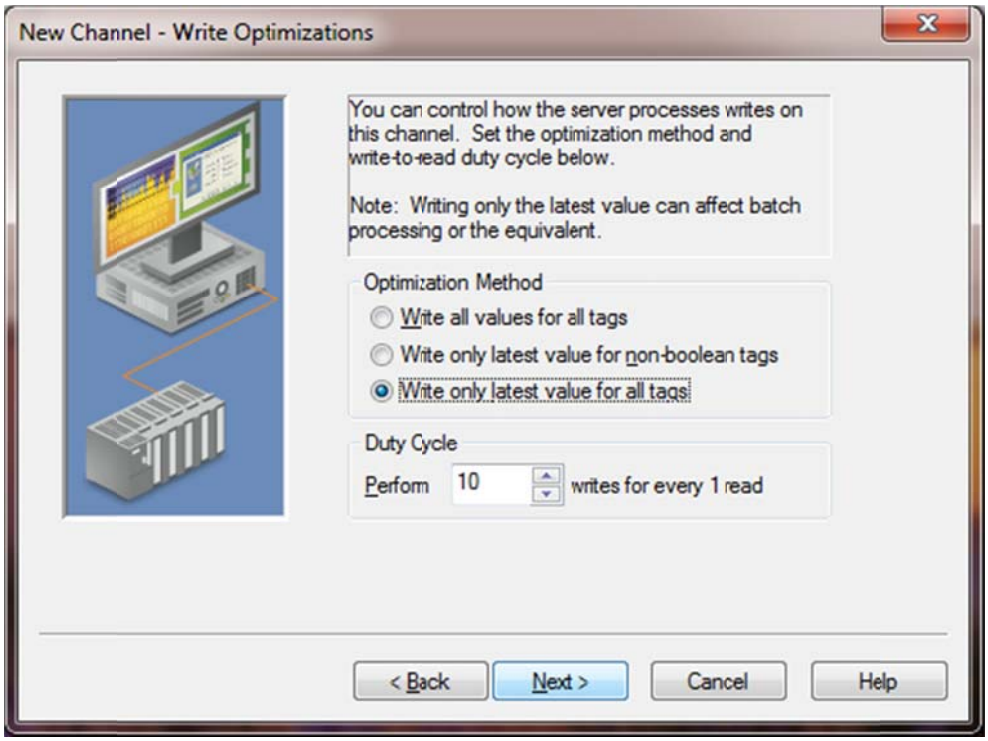
Enter your serial parameters exactly same as those you configured the DLPCIE serial DF1 parameters to, please note here COM ID is the virtual serial port number assigned to the DLPCIE under device manager, in our example it is COM4. After entering all the setting click on Next



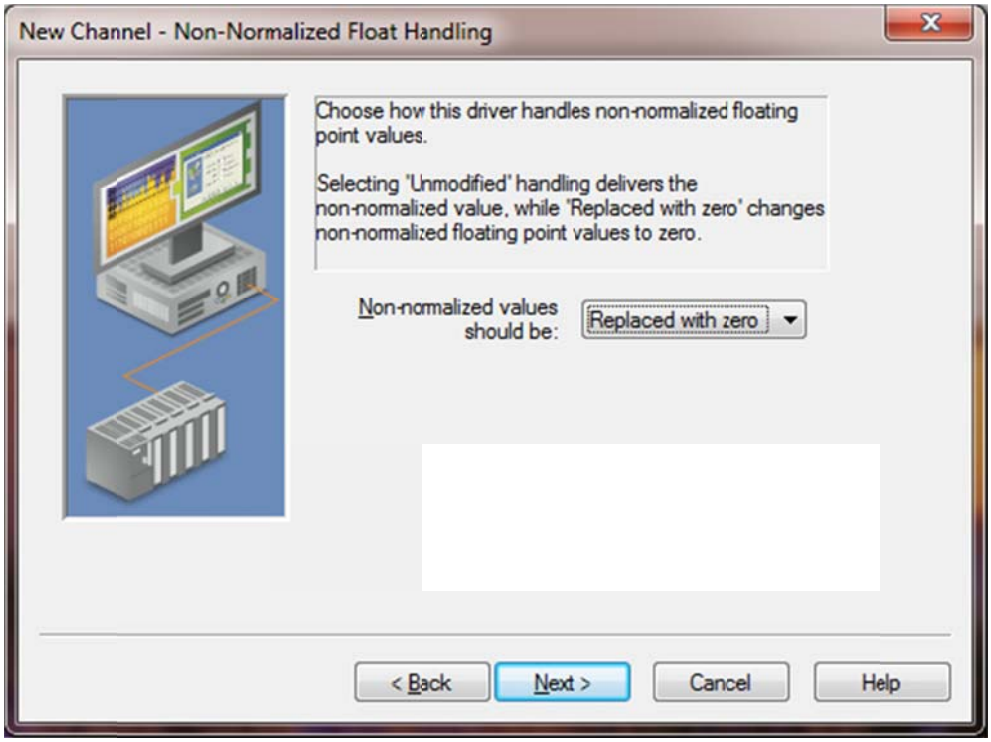
Click on Next



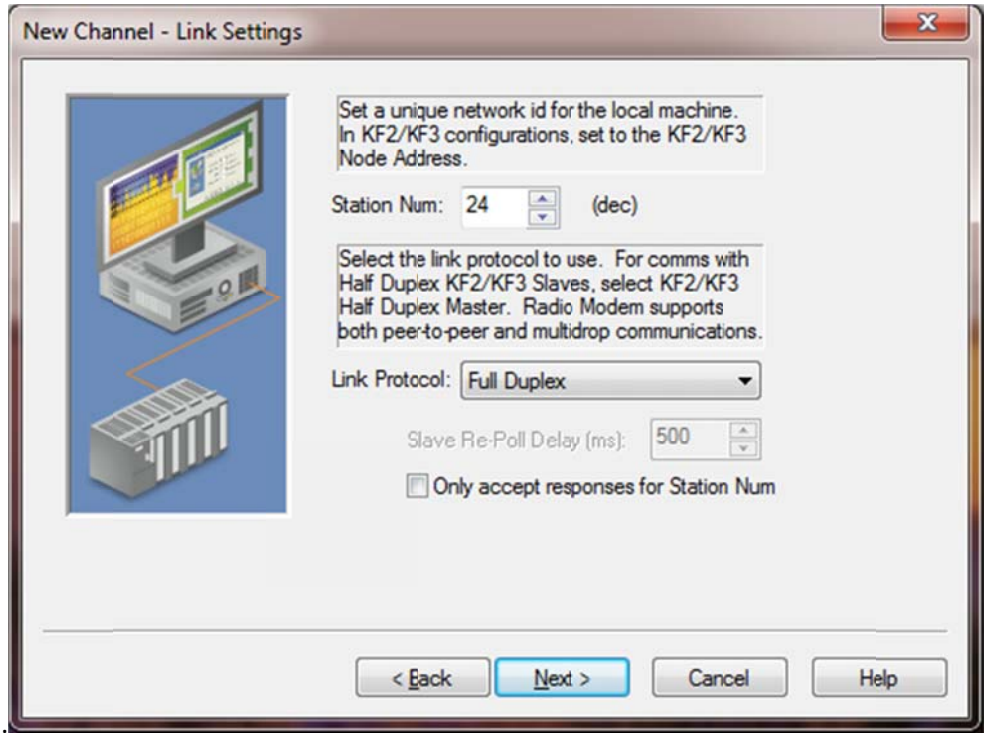
Select your optimization method and click on Next.



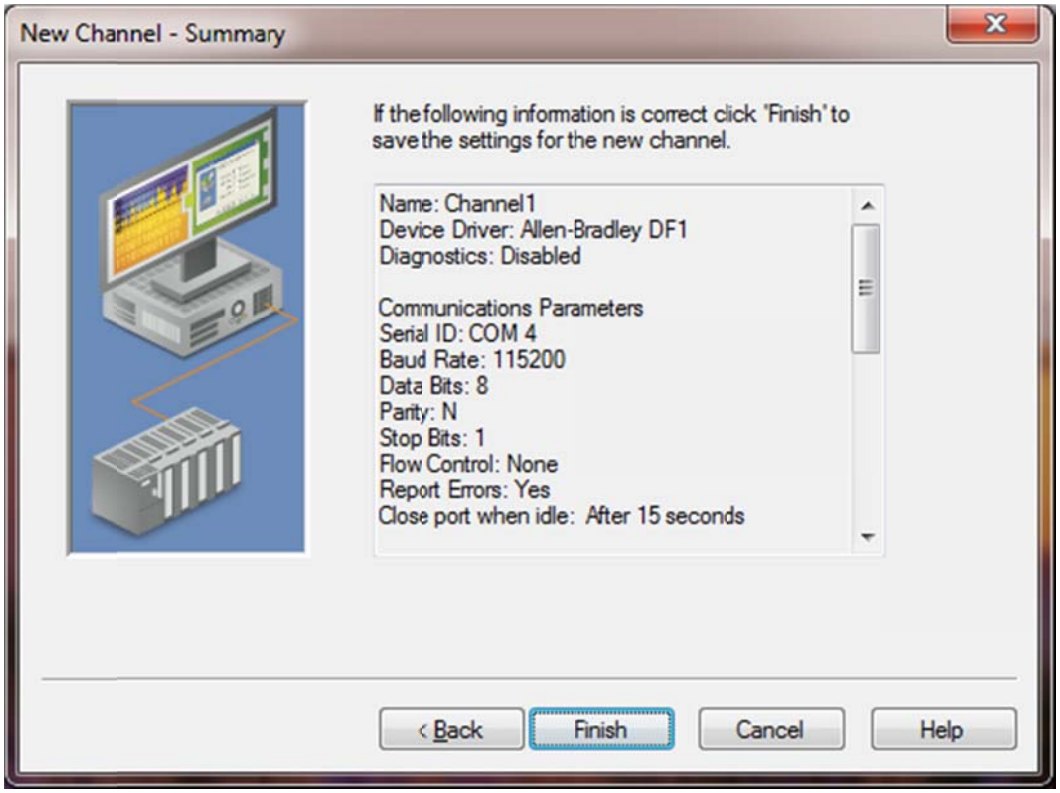
Choose how to handle non-normalized floating point values and then click on next.



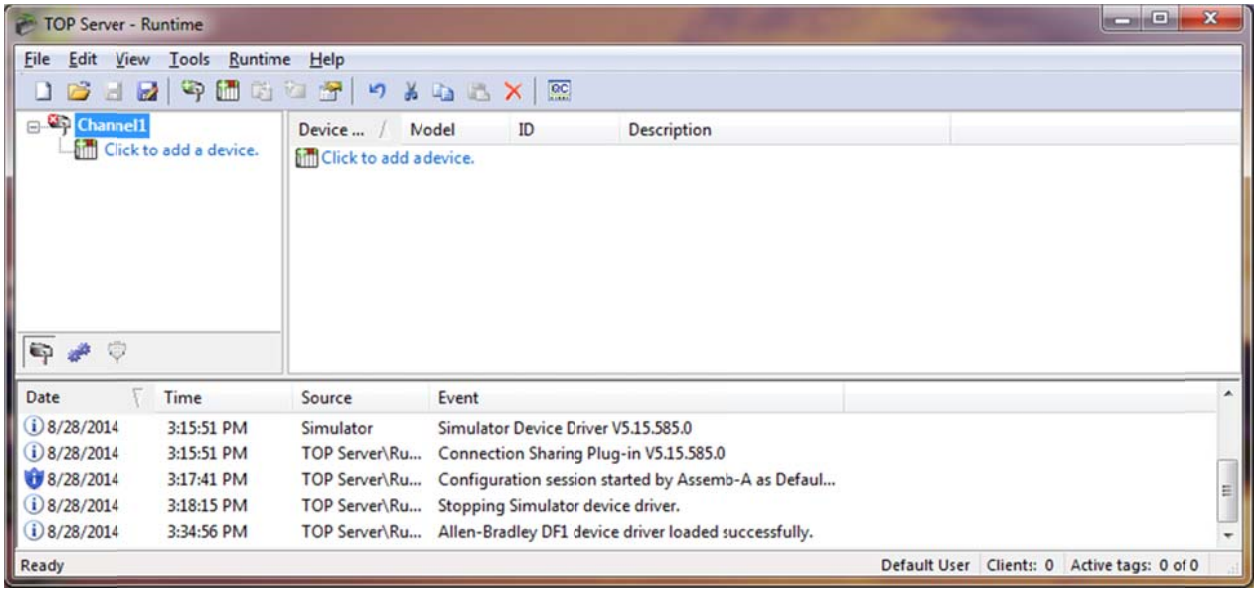
Select the station number in our example here the DLPCIE was set to DH+ node address number 30 Octal which is going to be 24 decimal, also select Full Duplex for the Link protocol, then click on Next.



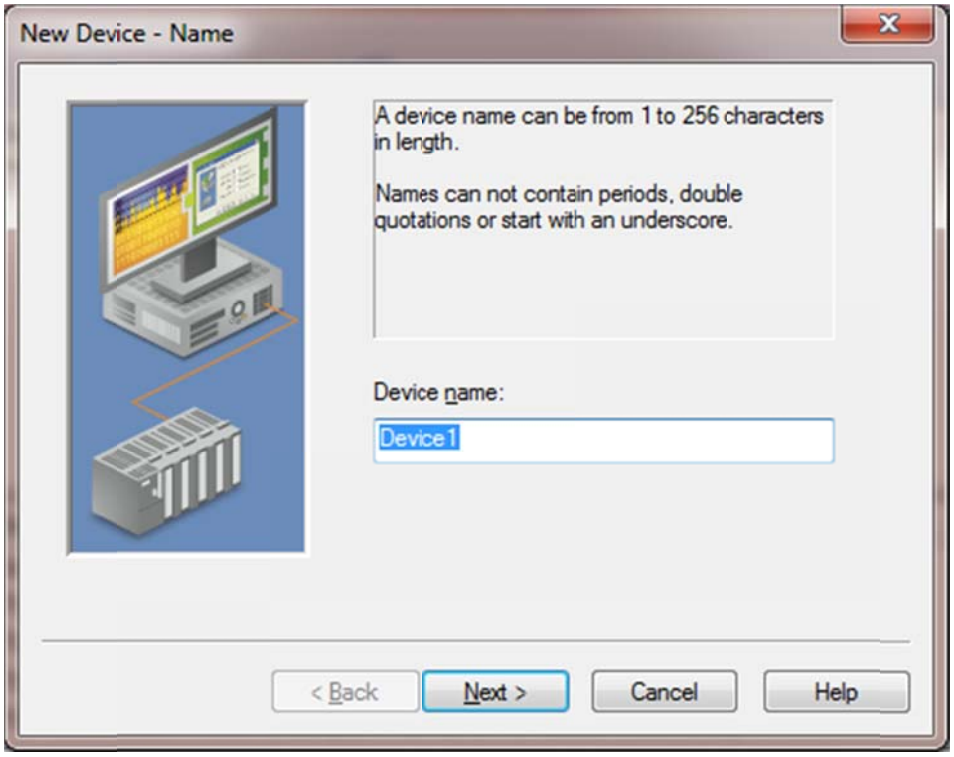
When Done with Channel setting click on Finish.



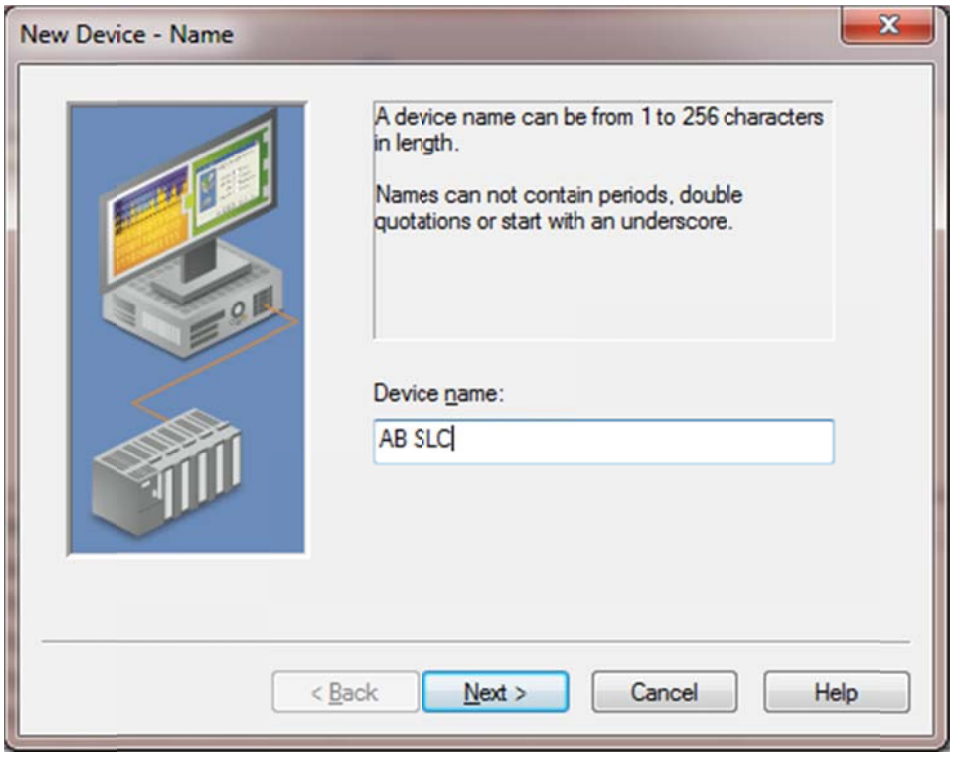
From Top Server window Click to add a device.



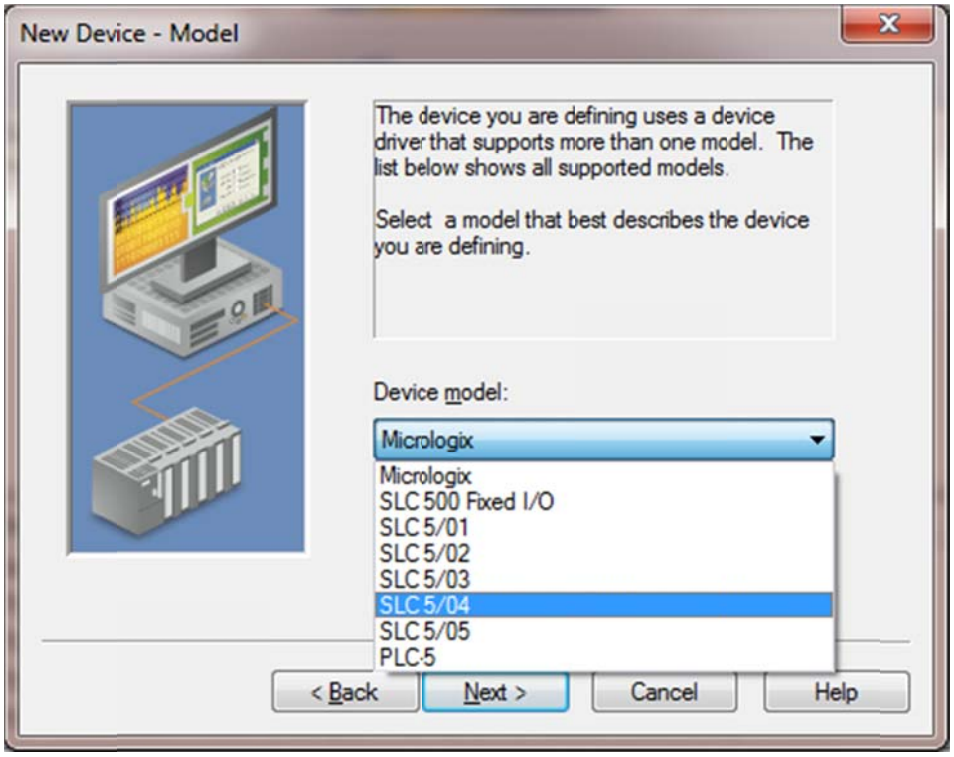
Name your device in this example we will use AB SLC.



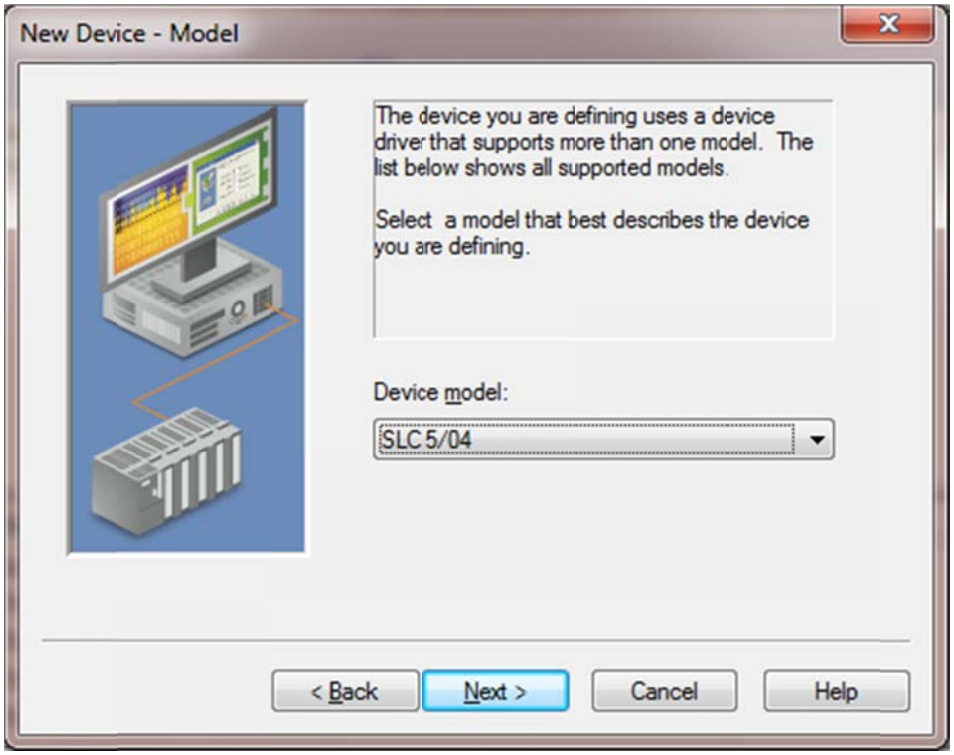
Click on Next.



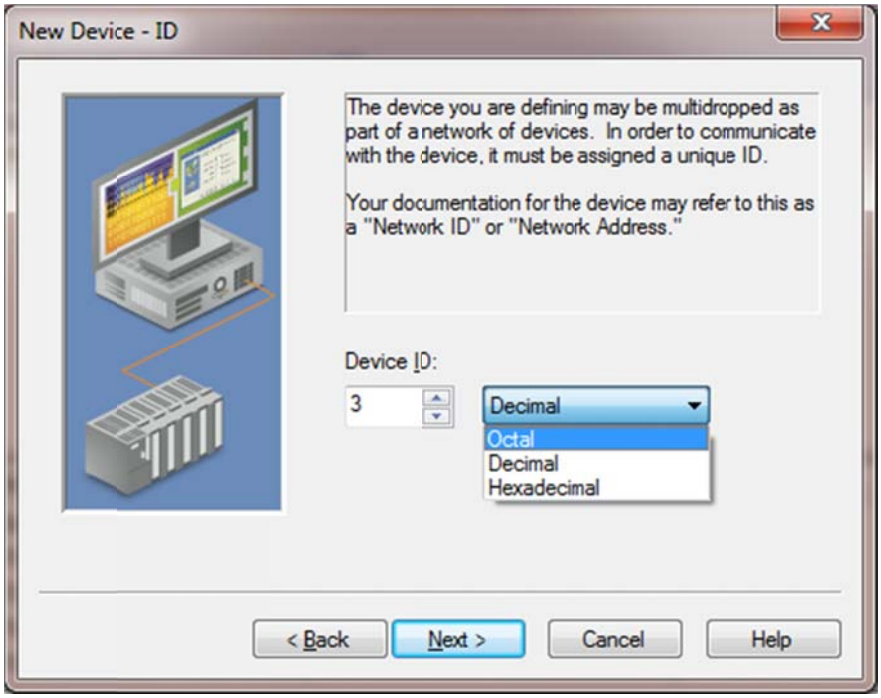
Device model from the drop menu select your processor, in this example we used SLC 5/04.



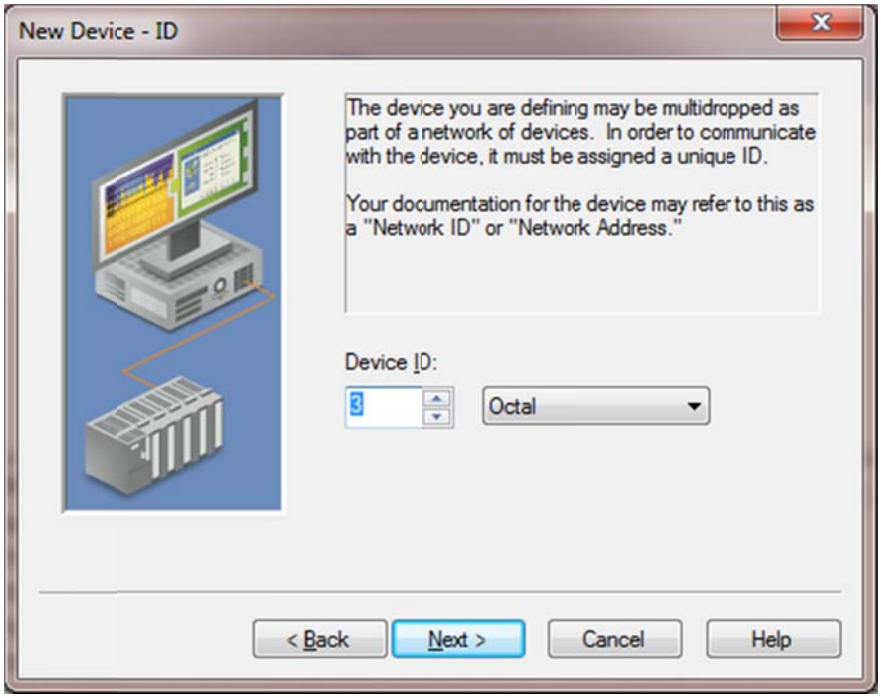
Click on Next



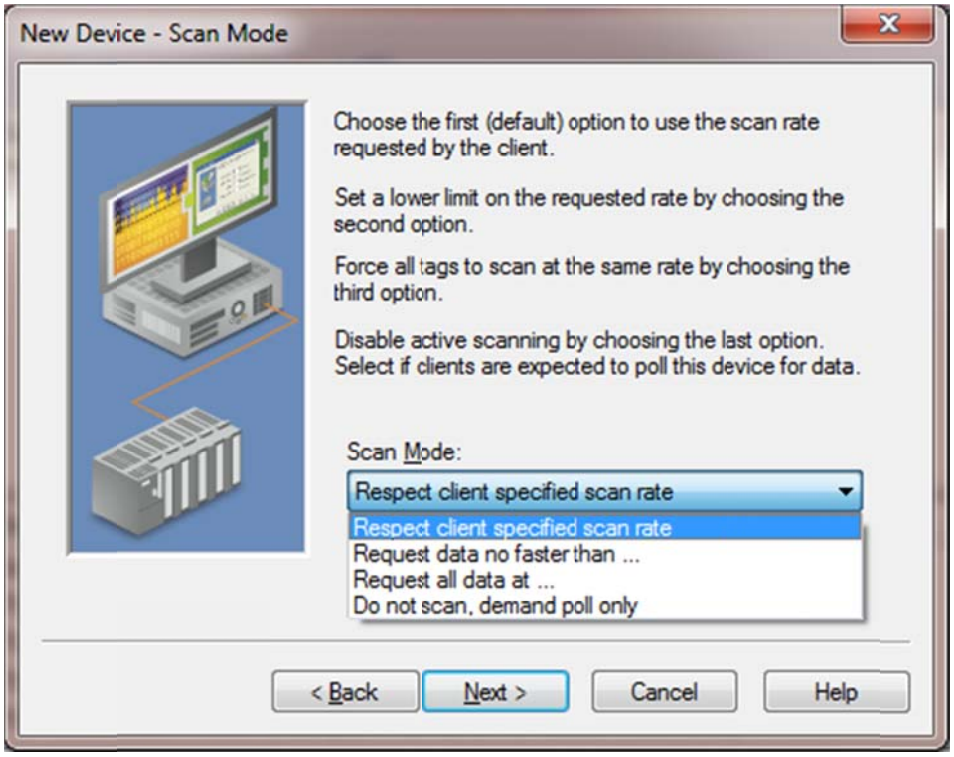
In device ID enter the node address number of the Processor you are trying to communicate with, in this example here, SLC504 node address number is 03 Octal, from the drop menu please make sure to select the right format for the device ID (Node address number), All Allen Bradley SLCs and PLCs on DH+ are all in Octal. So either enter the octal ID and select Octal, or convert the node number to Decimal and select Decimal, here 03 octal is equal 03 decimal, but it matters when ID is bigger than 07.



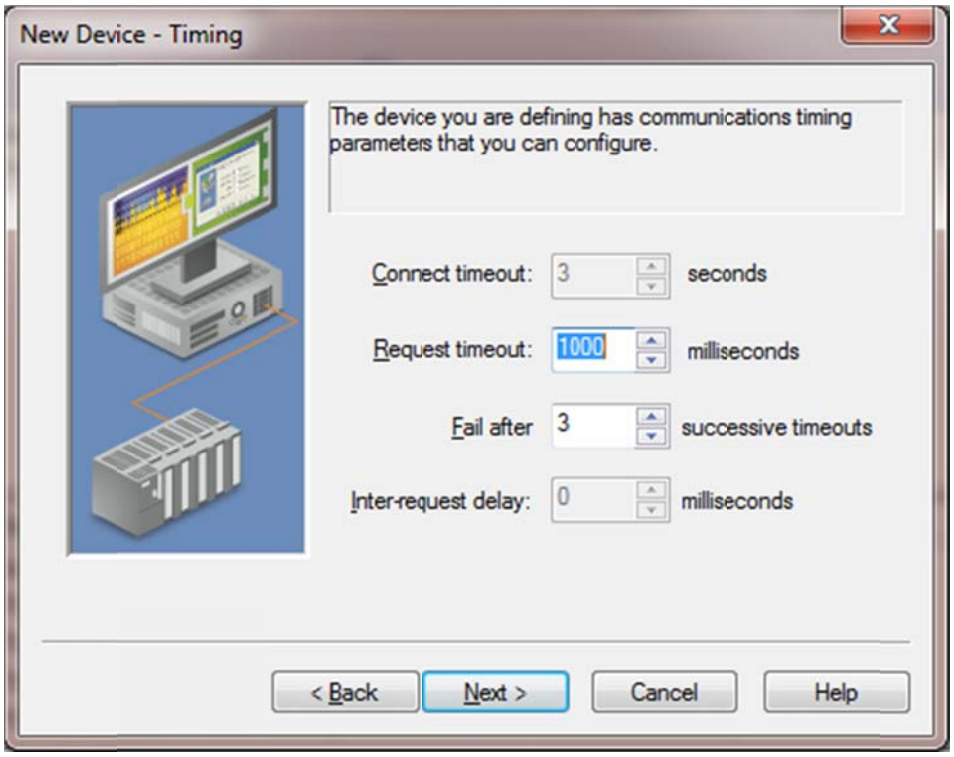
Click on Next



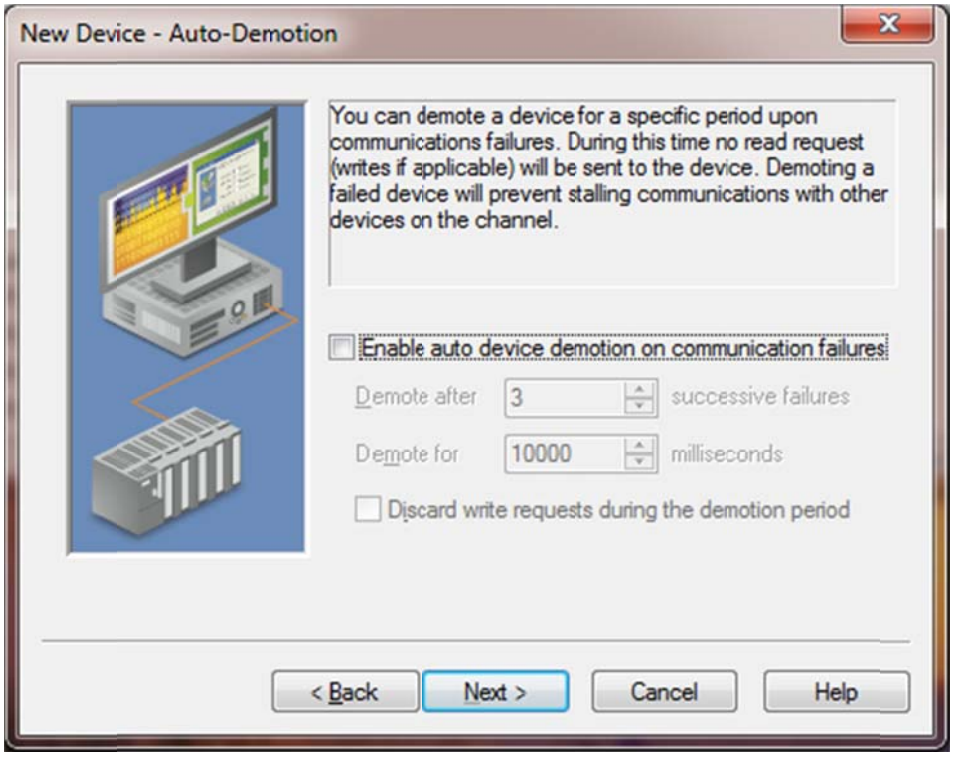
From the drop menu select your Scan Mode, then click on Next.



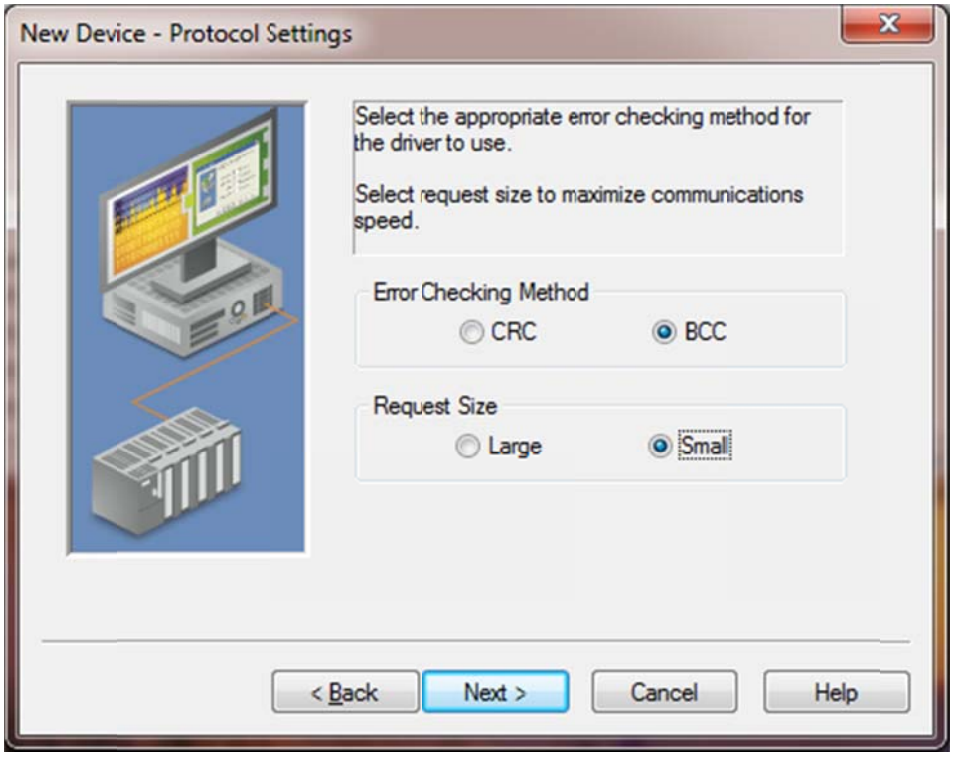
Enter timing parameters and click on Next.



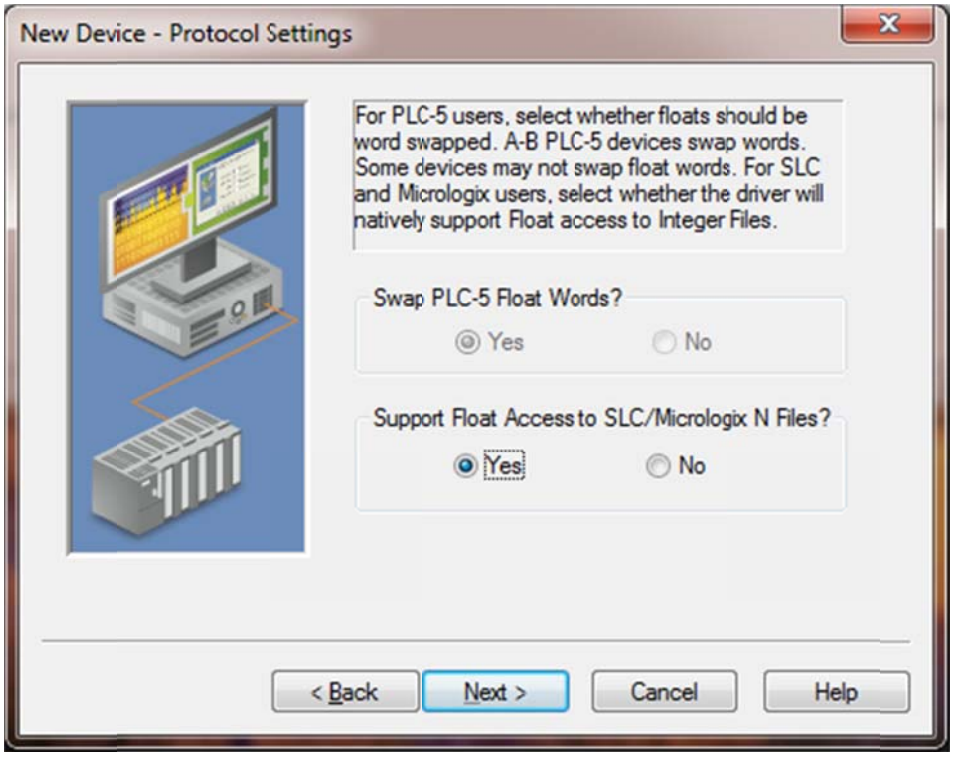
If you want to demote a device check mark otherwise click on Next.



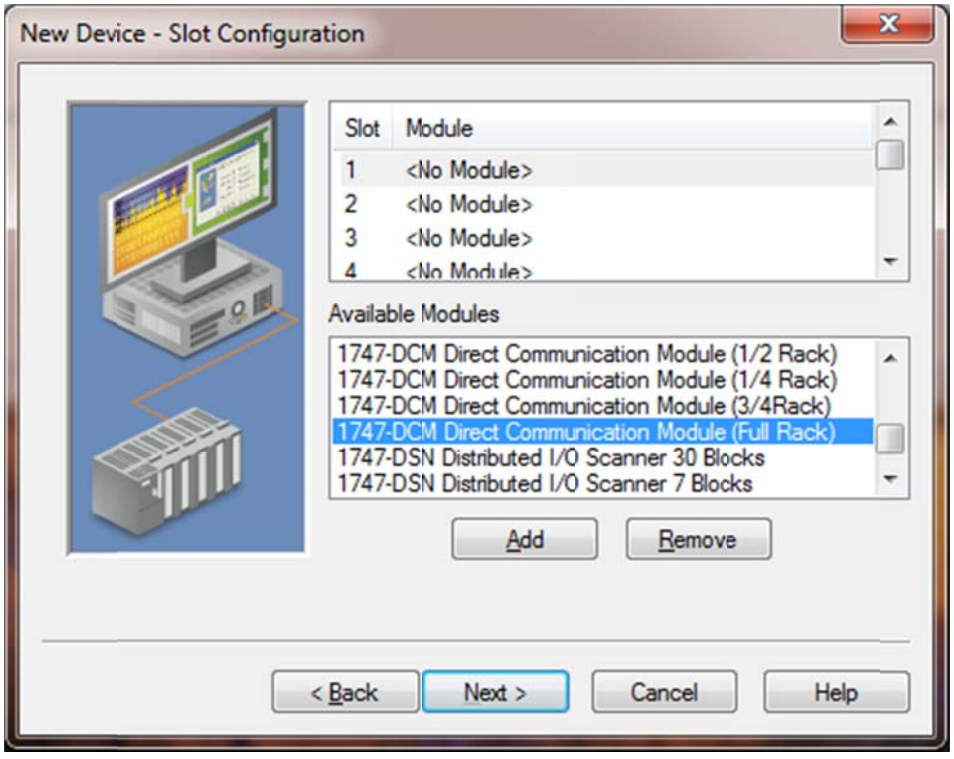
Select the Error checking method (remember this has to match the DLPCIE configuration error checking), also select Request packet size, then click on Next.



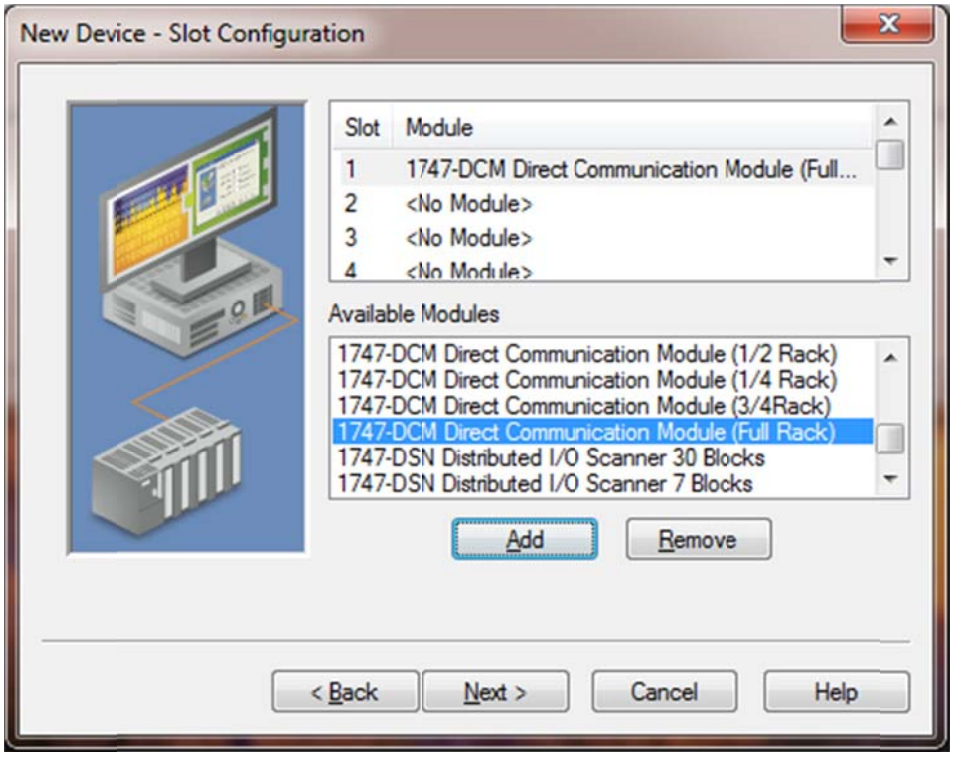
If you have floating point data select Yes and click on Next.



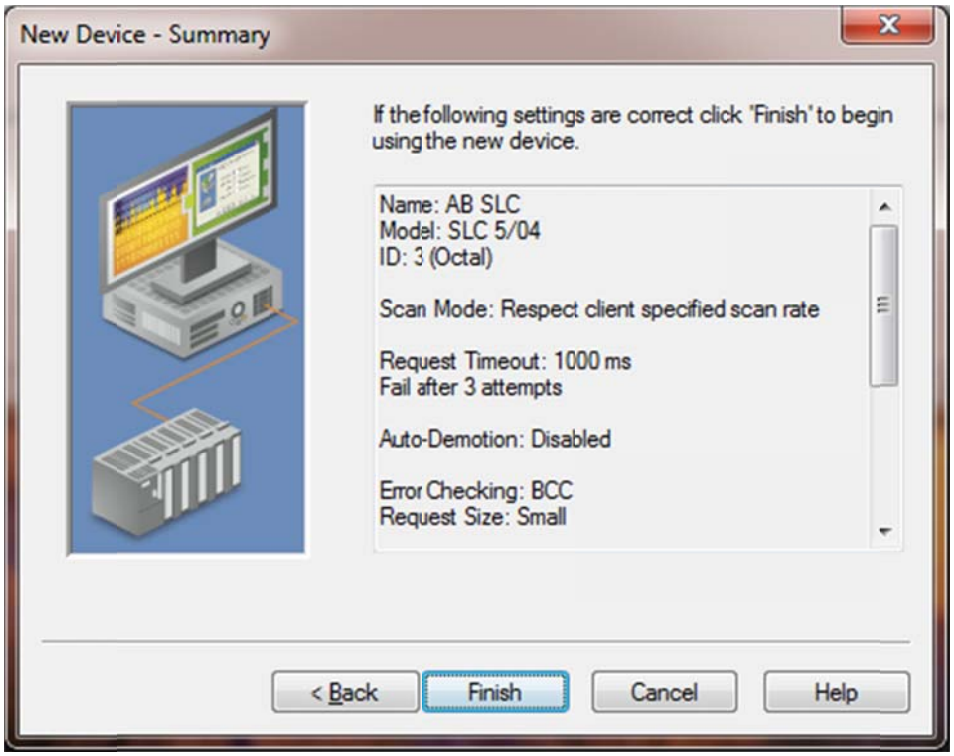
Select and add your SLC modules, in our example we are communicating with only the processor SLC504, which is 1747 Communication Module.



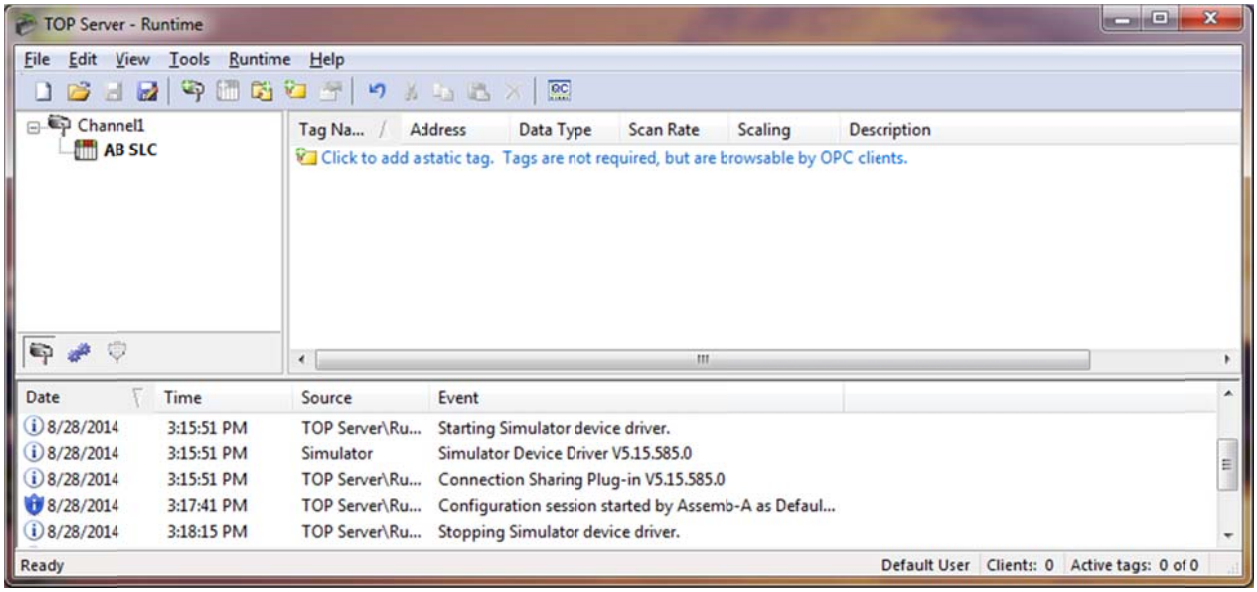
After adding the necessary modules, click on Next



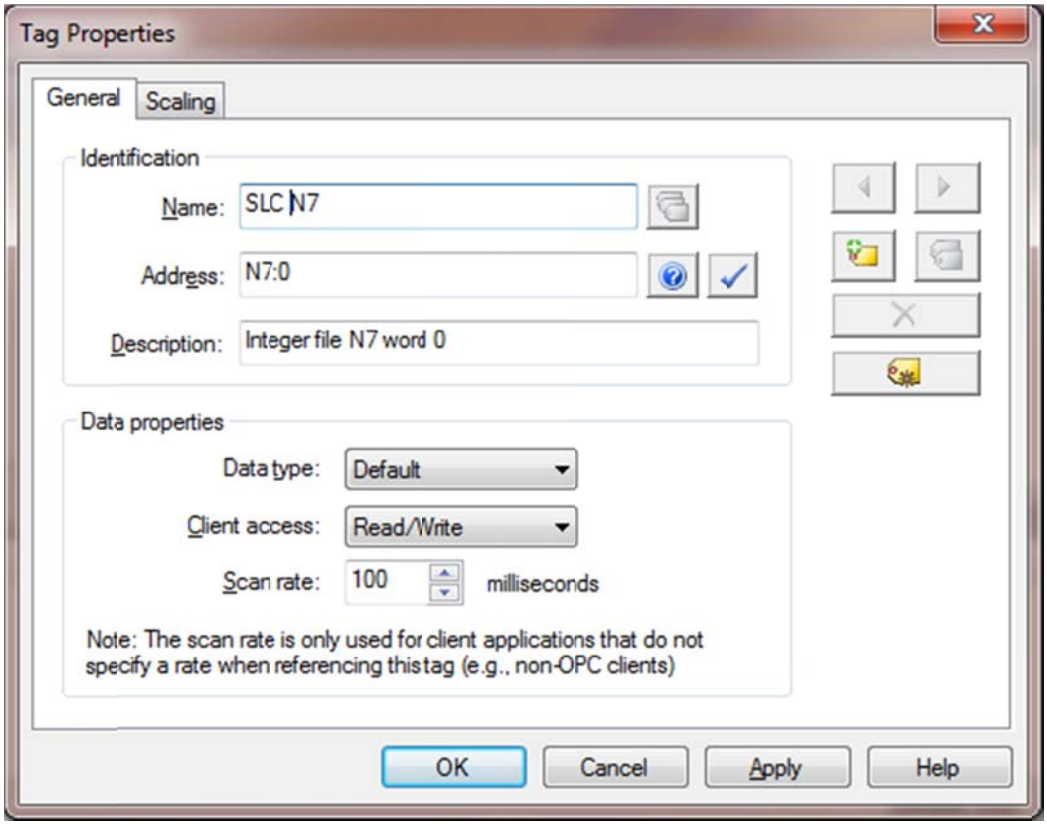
Click on Finish



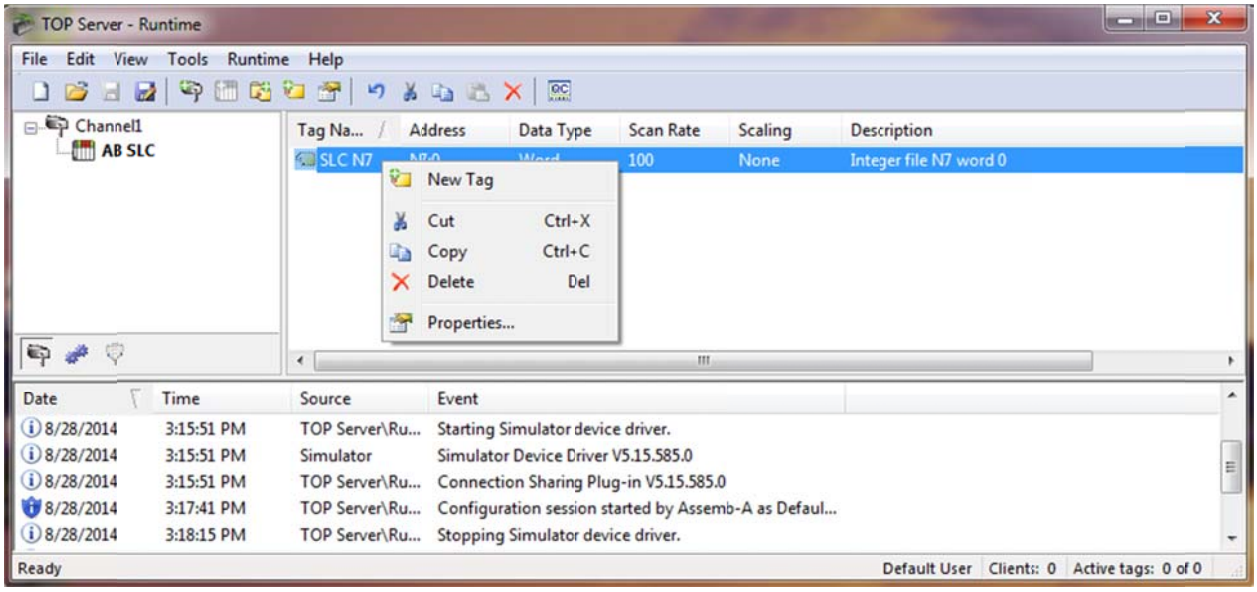
Click to add tag.



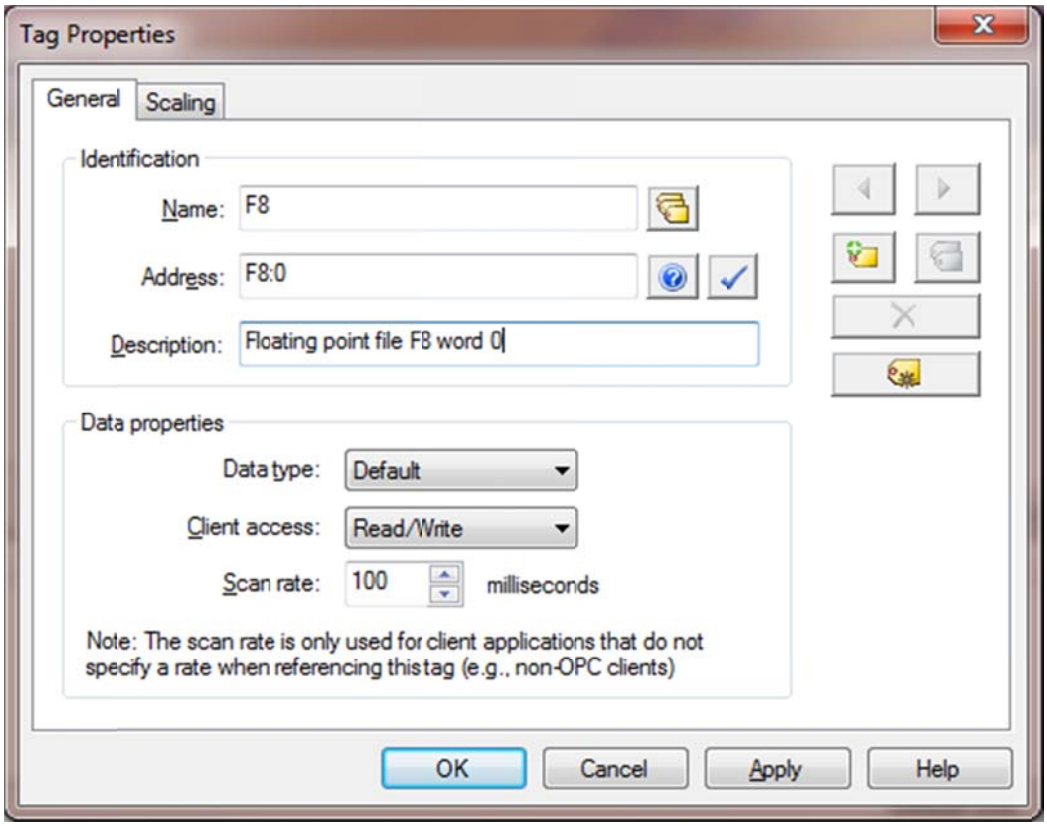
Enter tag properties and click on apply then Ok, in our example we select integer file 7 word 0.



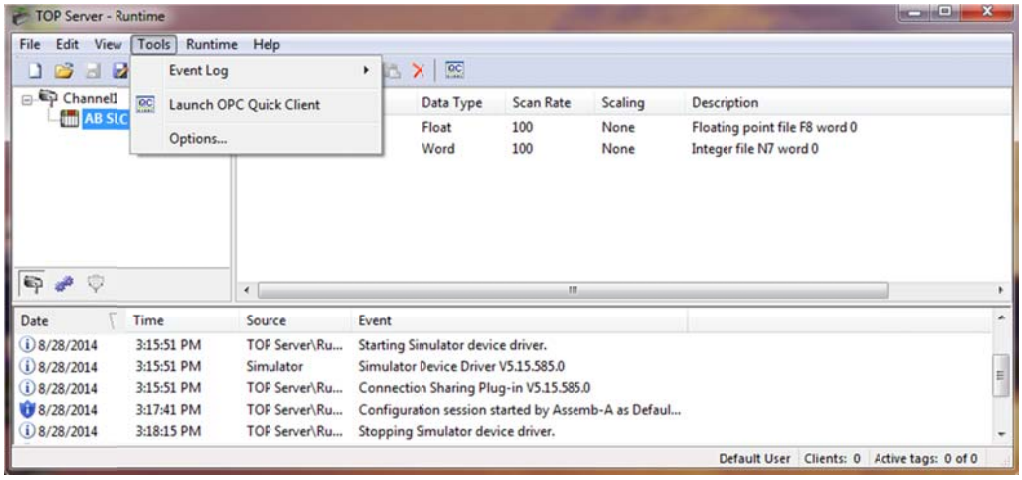
Right click to add a new tag as shown below.



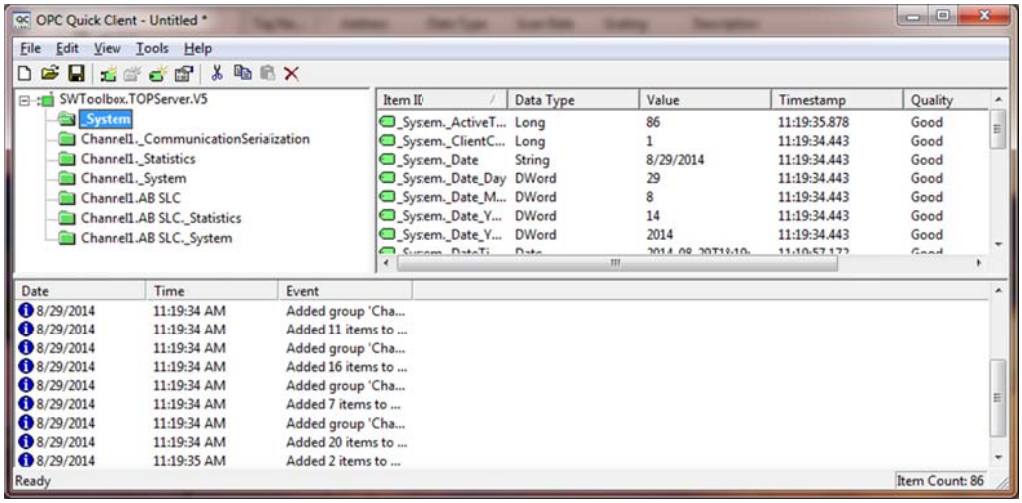
Enter tag properties and click on Apply then Ok, in our example we select floating point file 8 word 0.



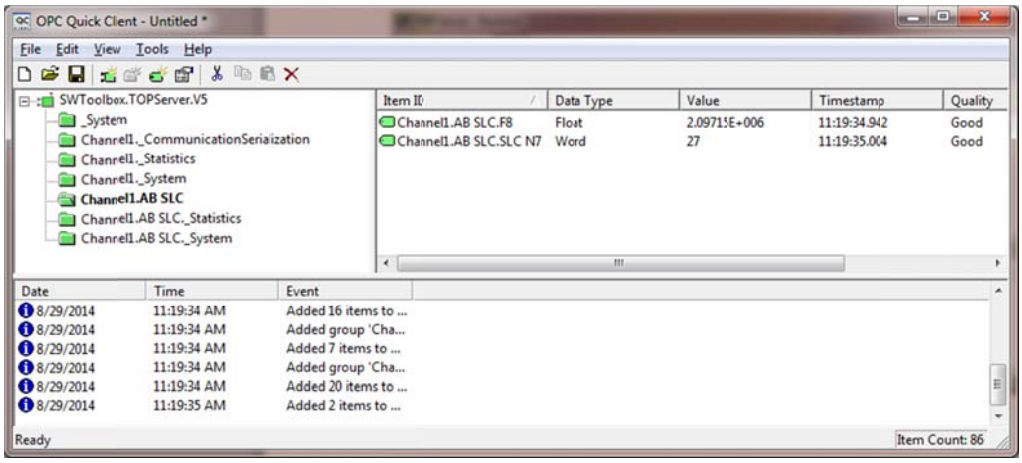
Click on Tools then click on Lunch OPC Quick Client.



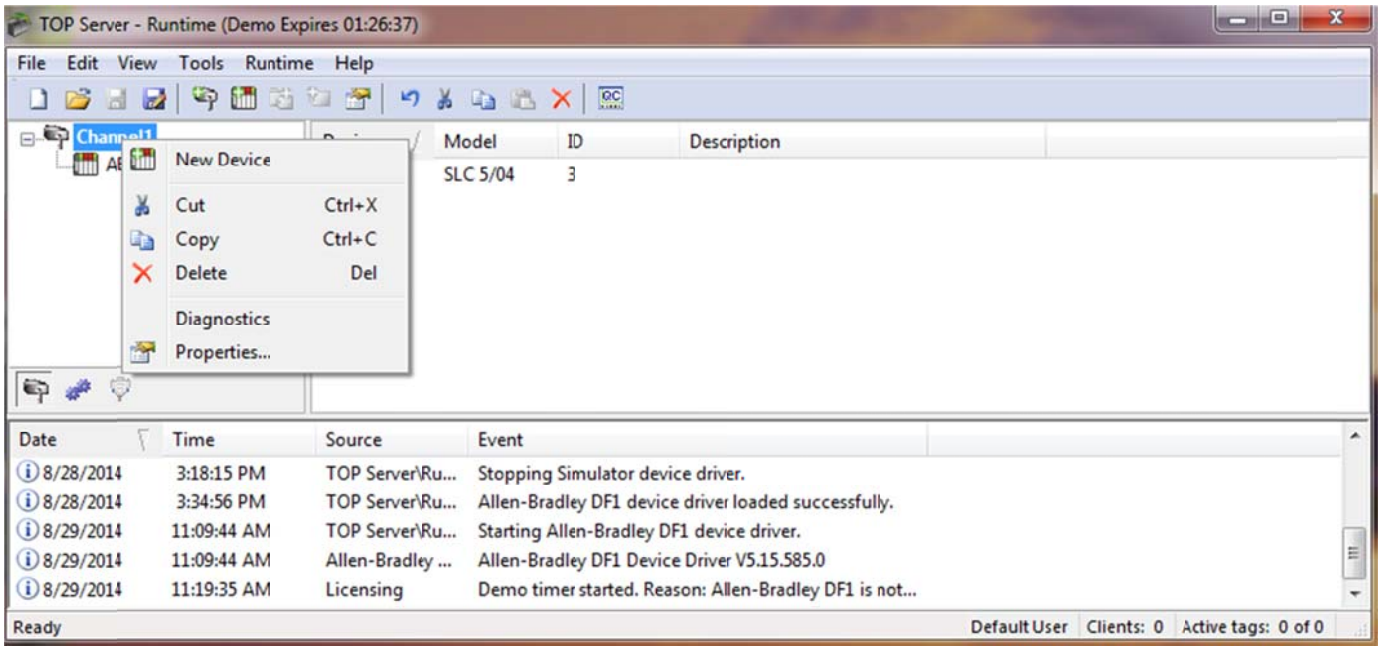
Click on the Channel and device you created, in this example Channel1 AB SLC.



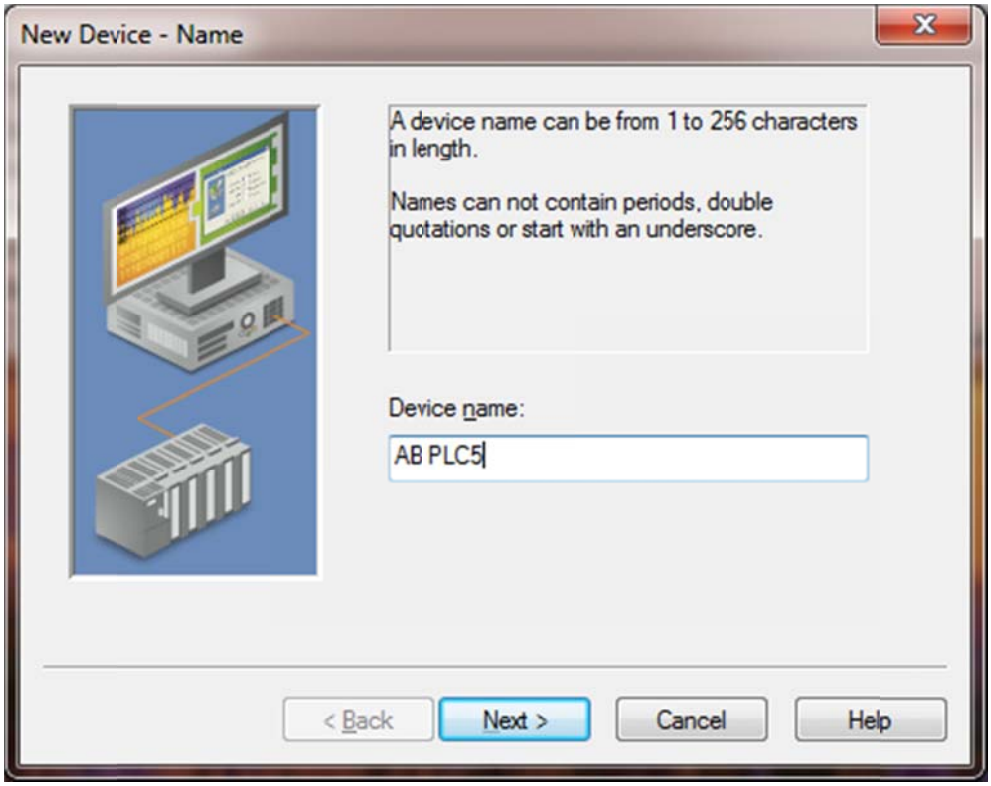
This show both tags values, Integer file N7 word 0 and Floating point File F8 word 0.



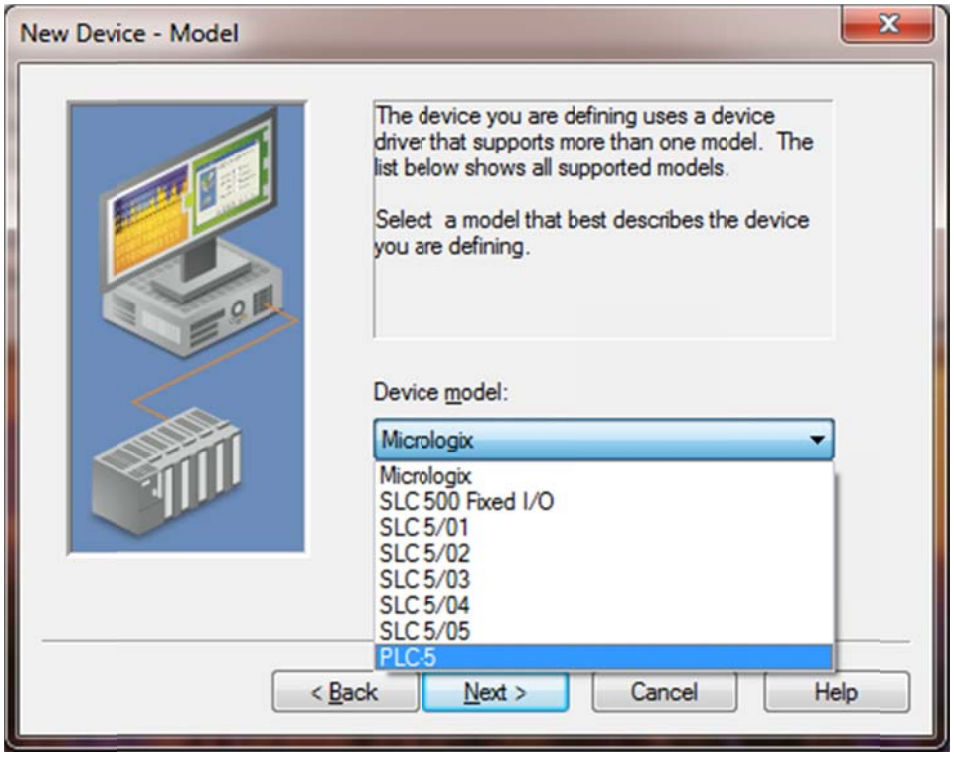
To add another device, in this example a PLC5, right click on Channel, and click on New Device as shown below.



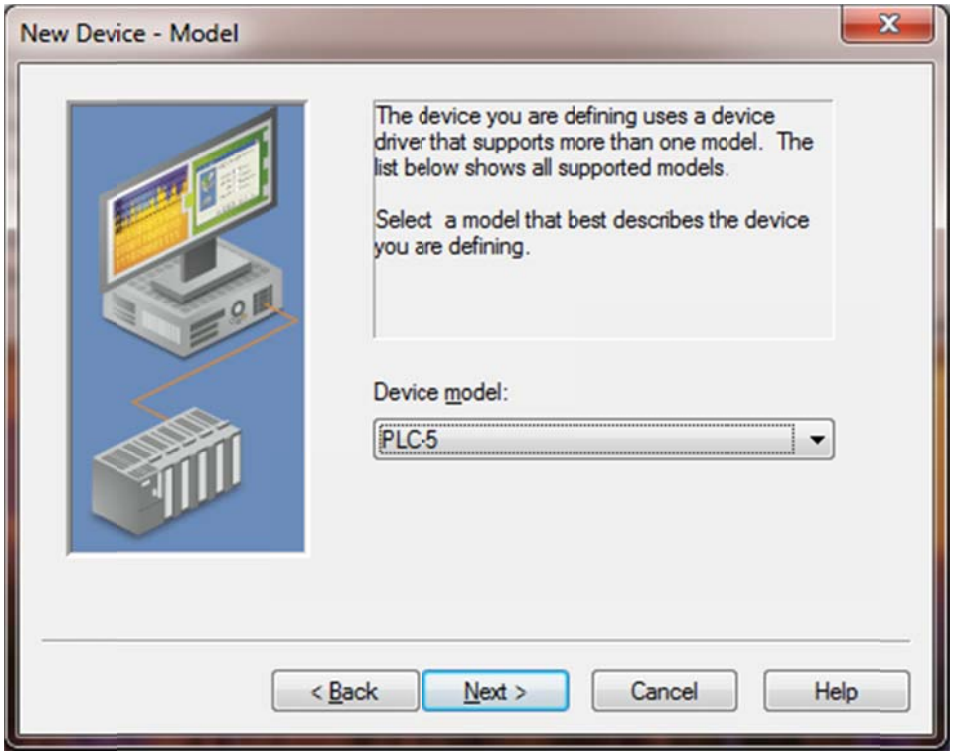
Name your Device and click on Next.



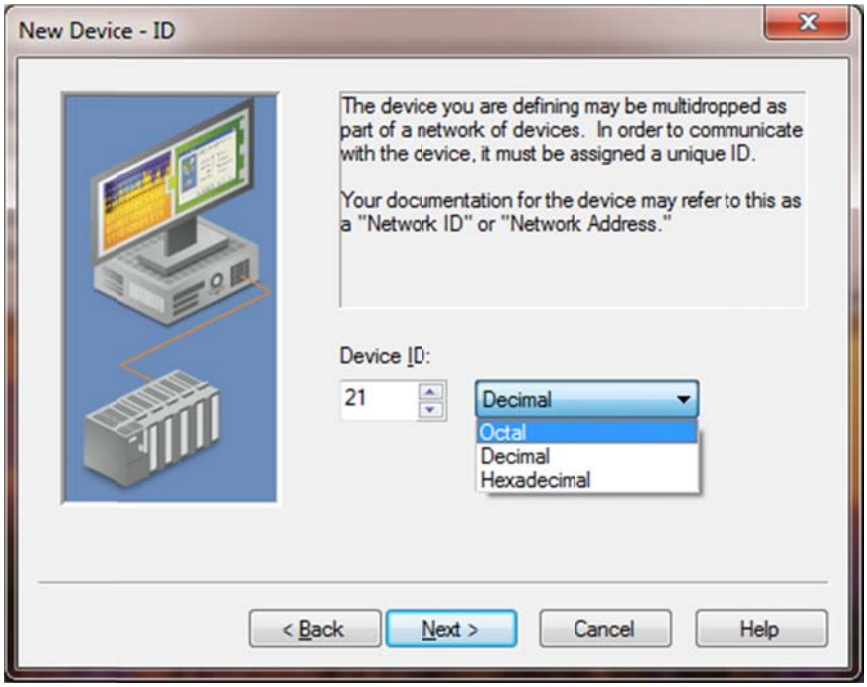
From the drop menu select PLC5.



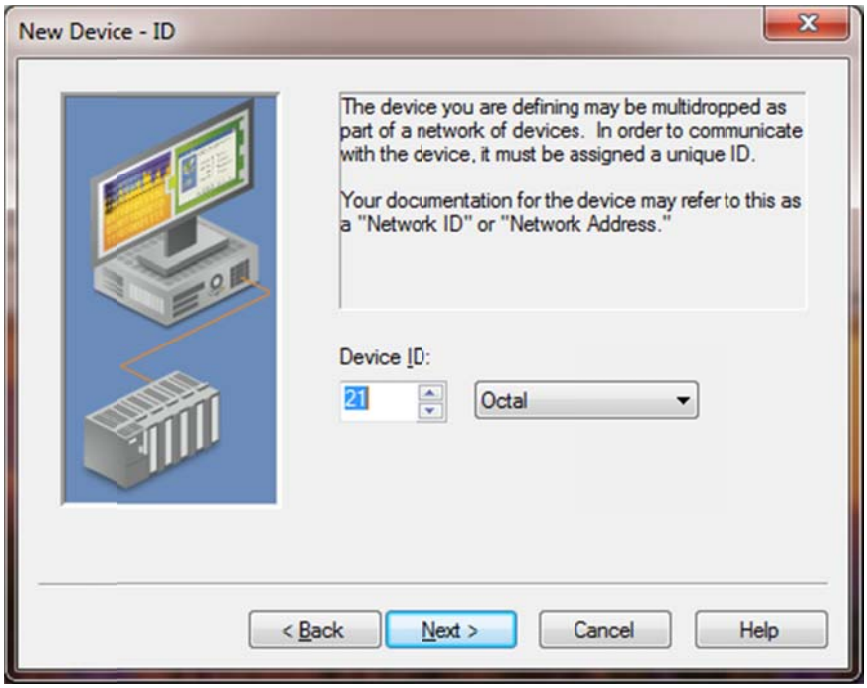
Click on Next.



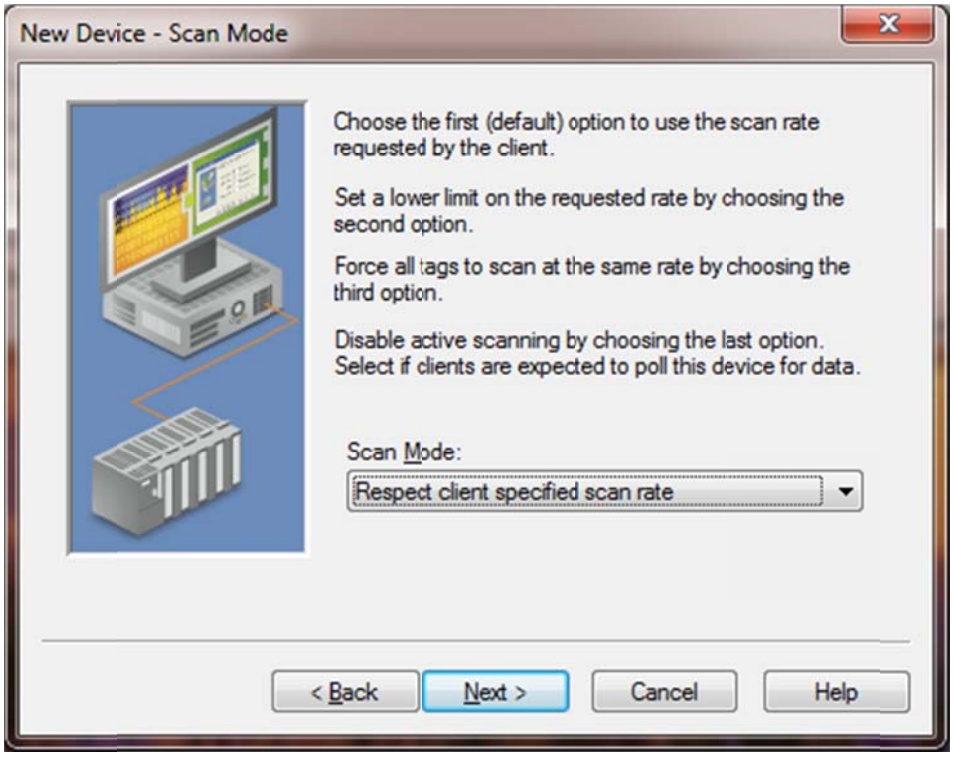
In device ID enter the node address number of the Processor you are trying to communicate with, in this example here, the PLC5 node address number is 21 Octal, from the drop menu please make sure to select the right format for the device ID (Node address number), All Allen Bradley SLCs and PLCs on DH+ are all in Octal. So either enter 21 and select Octal, or convert the node number to Decimal enter 17 and select Decimal.



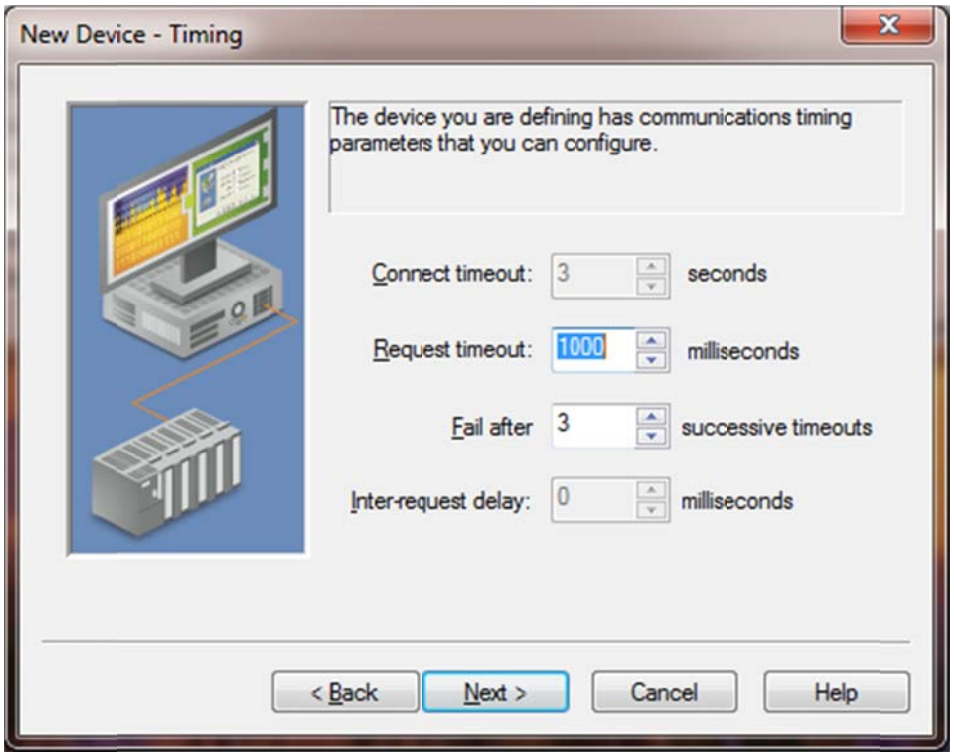
Click On Next



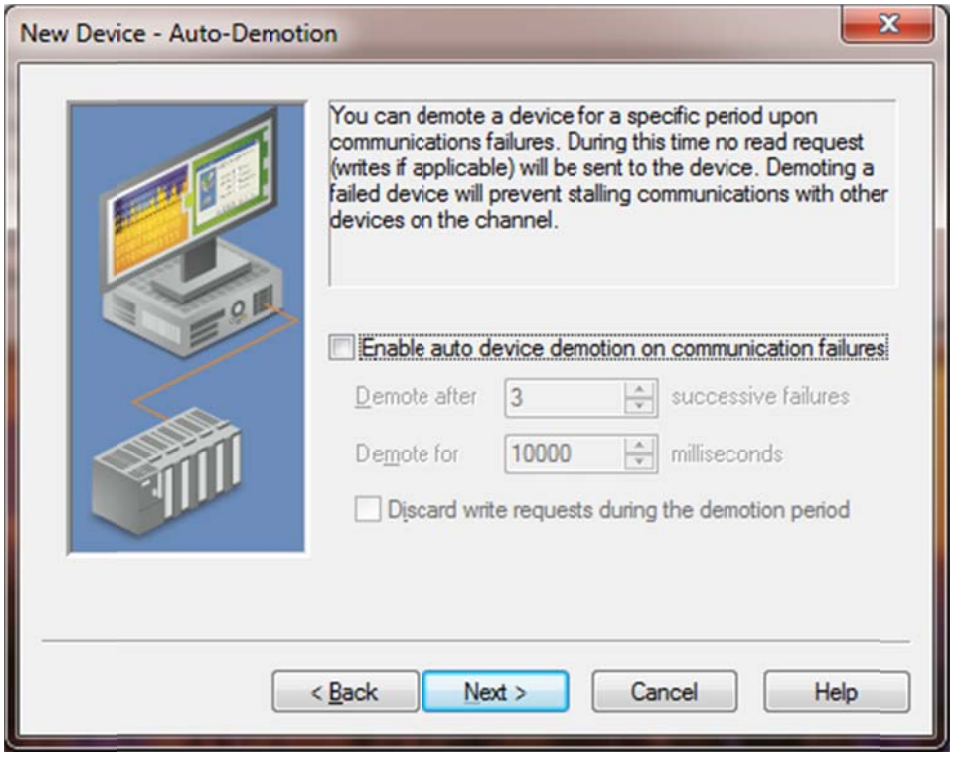
Select the scan rate from the drop menu scan mode, then click on Next.



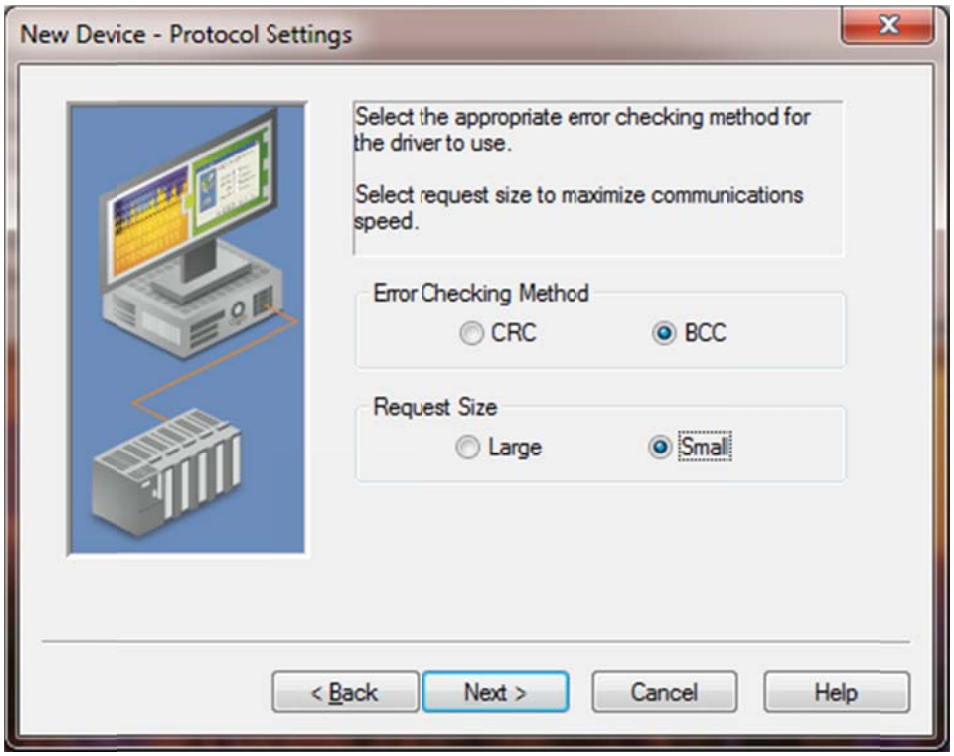
Enter timing parameters then click on next.



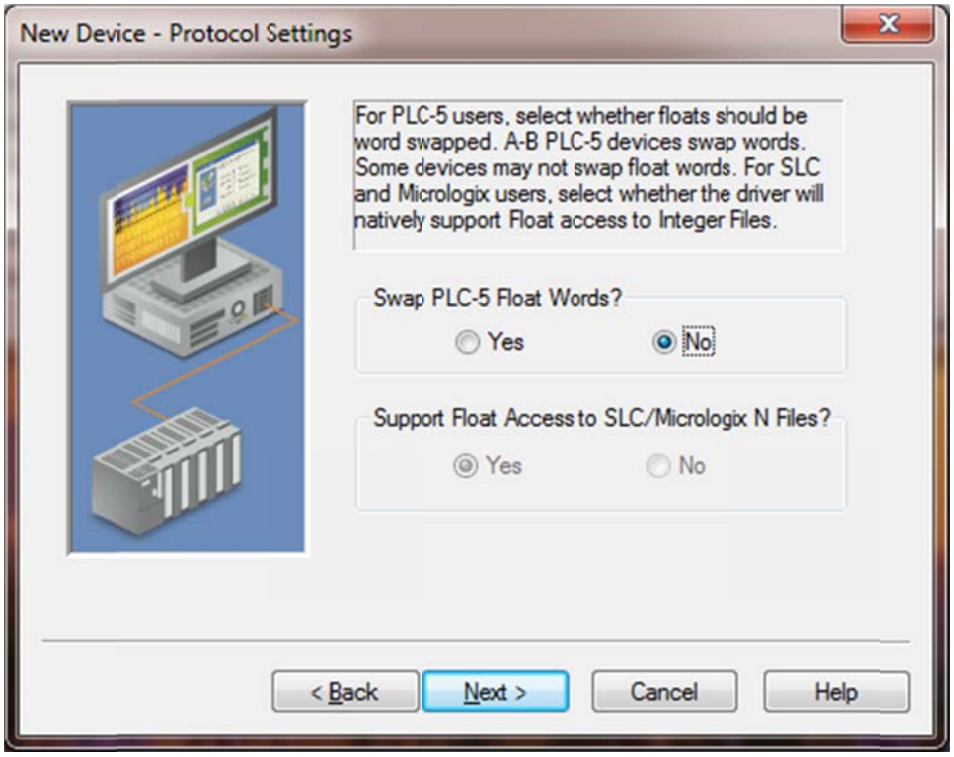
If you want to demote the device check mark enable otherwise click on Next.



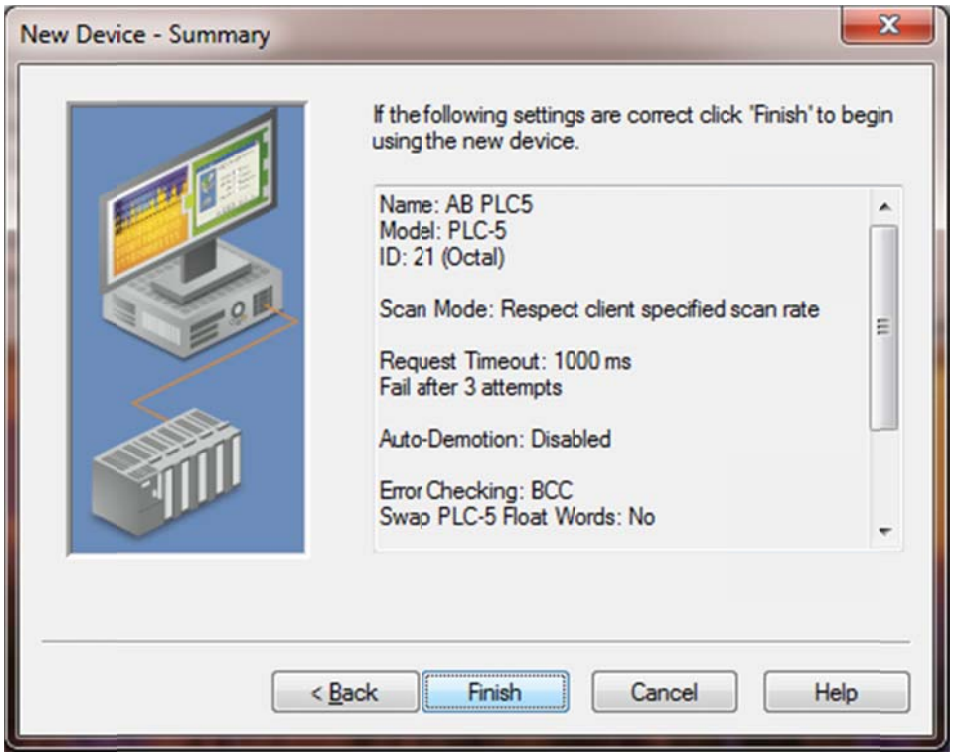
Select Error checking method, again make sure it is same as the DLPCIE, then click on next.



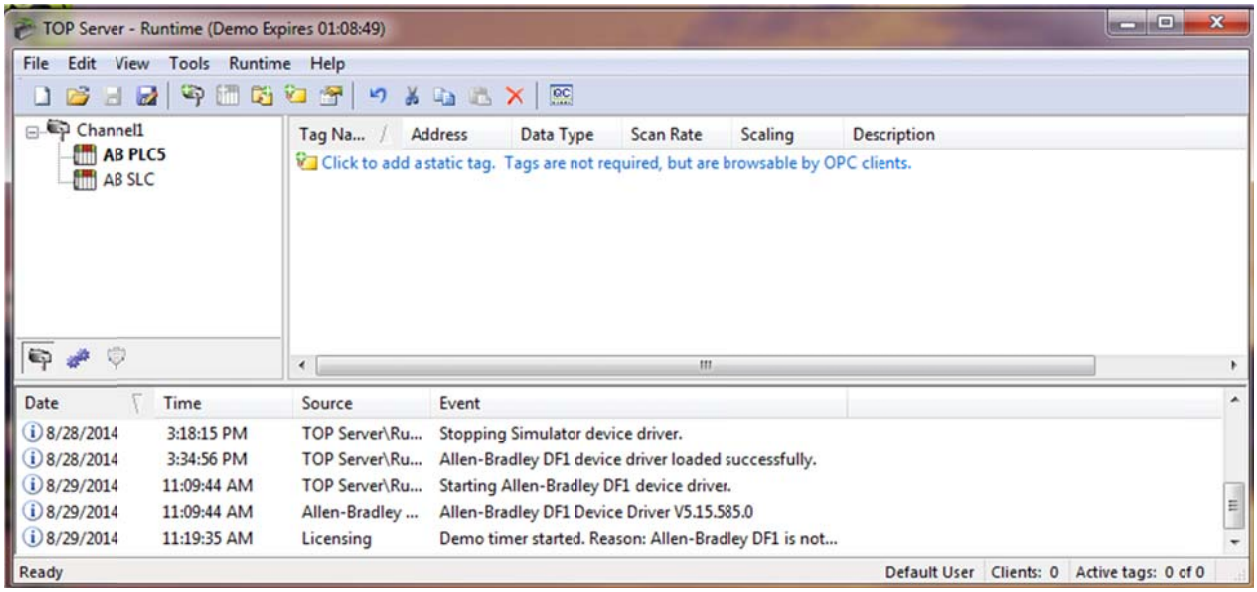
Depending if you want the floating swapped or not, select yes or No, then click on Next.



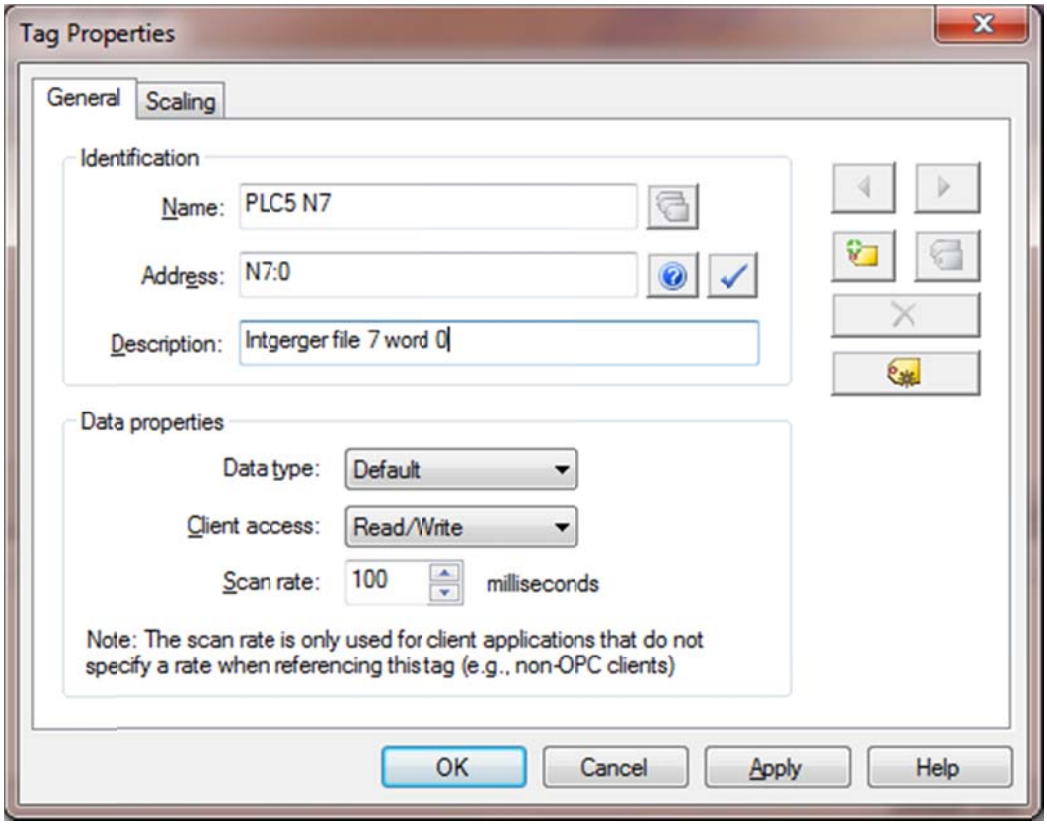
Click on Finish



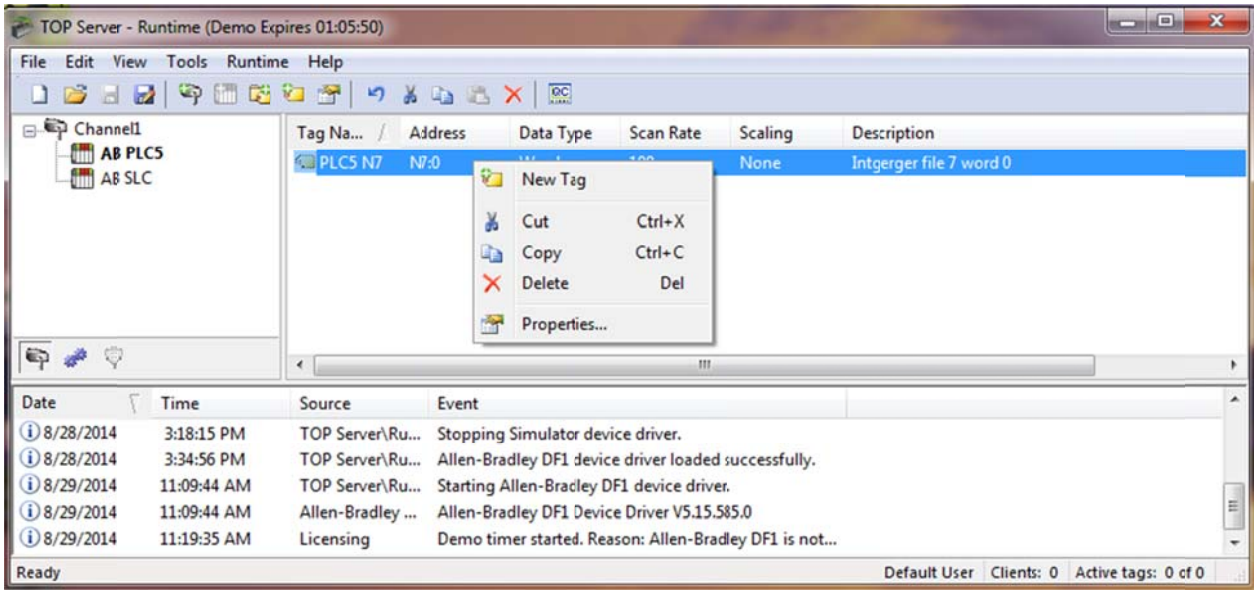
Click to add a tag



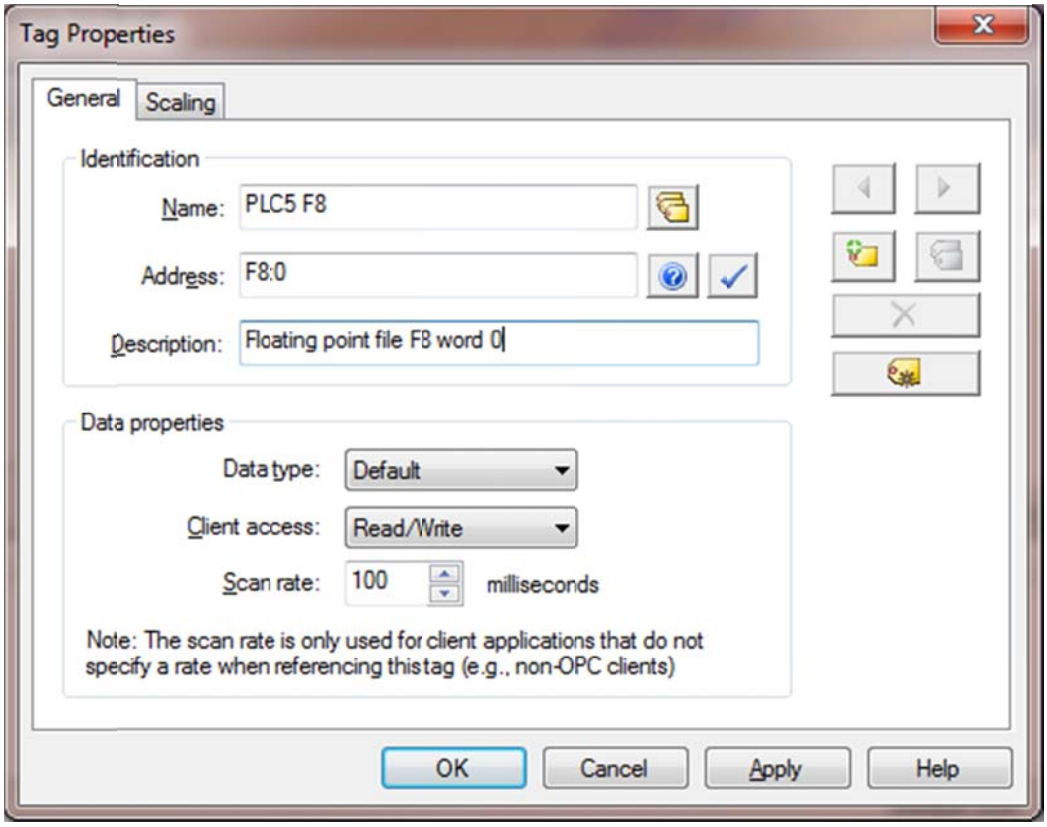
In this example integer file 7 word 0 is entered, and click on Apply then ok.



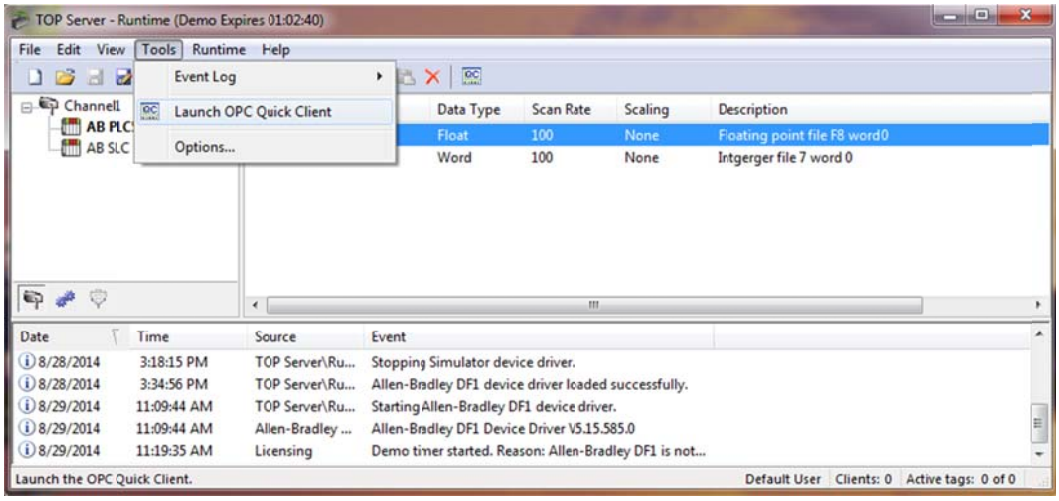
Right click on the previous tag to add a new one, click on New tag as shown below.



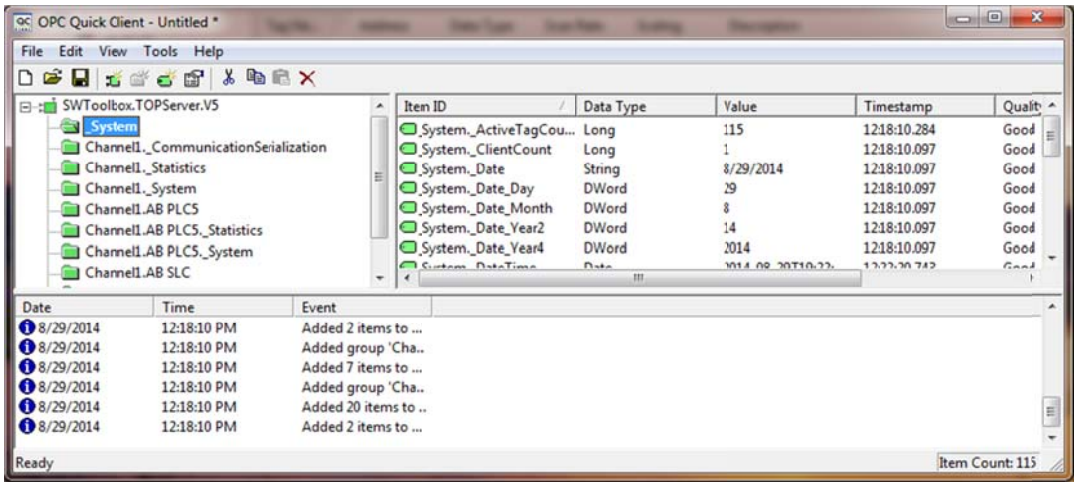
In this example floating file 8 word 0 is entered, and click on Apply then ok.



Under Tools, click on Lunch OPC Quick Client.



In OPC quick client click on the channel and the device you created, in our example Channel1 AB PLC5.



In our example below you can see the values of N7:0 and F8:0