

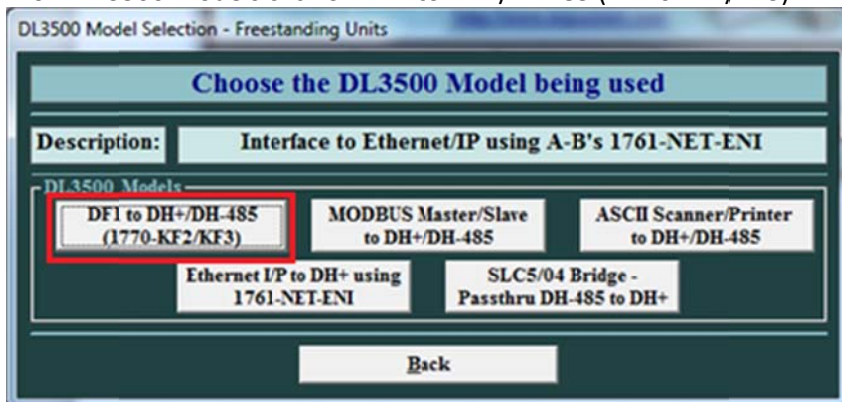
Connecting AB DF1 PLCs & Honeywell TDC 3000 or Emerson Delta V to DH+ using DL3500

This application note shows how to give Data Highway Plus capability to any Allen Bradley with DF1 port like MicroLogix, SLC 5/03, and SLC 5/05 or any DF1 device like Honeywell TDC 3000 or Emerson Delta V using Equustek DL3500-DF1/DH+ similar to using the discontinued Allen Bradley 1770-KF2.

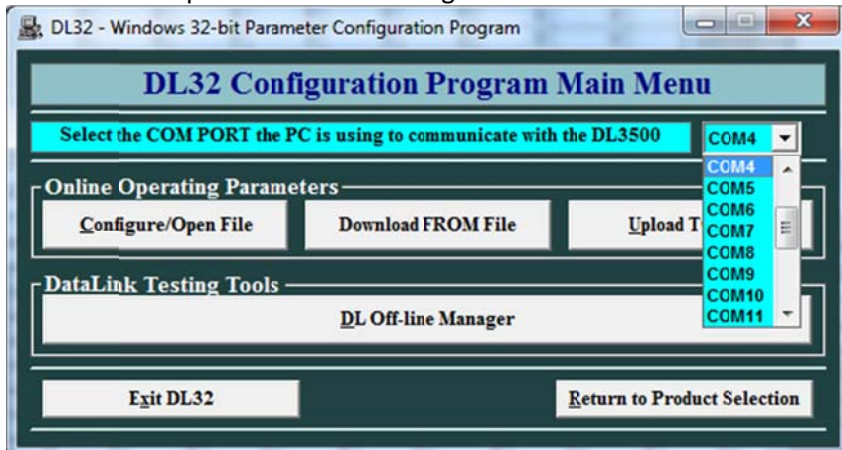
To configure the DL3500, connect it to the PC using either the RS232 or the USB port, then open the DL32 configuration software and select DL3500 Models.



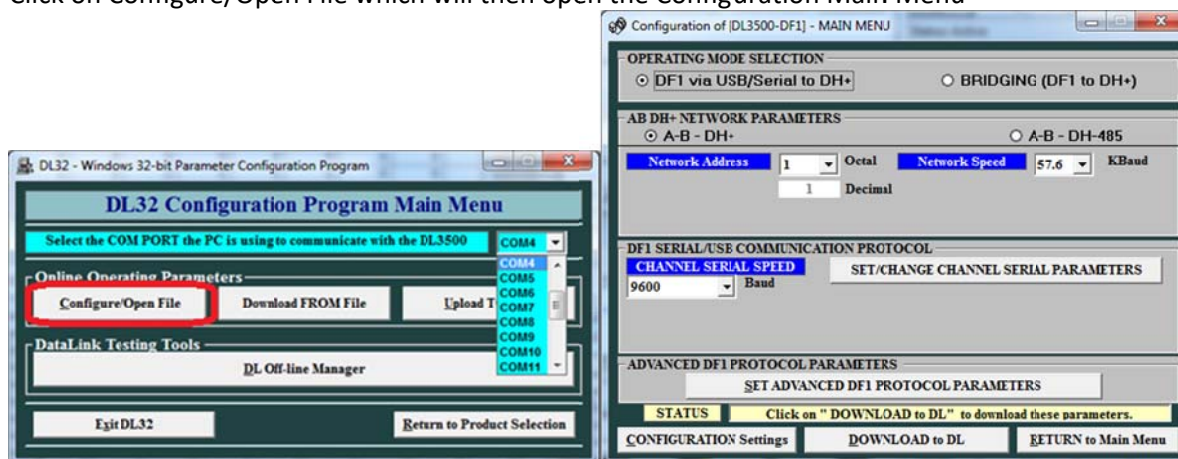
From DL3500 Models click on DF1 to DH+/DH485 (1770-KF2/KF3)



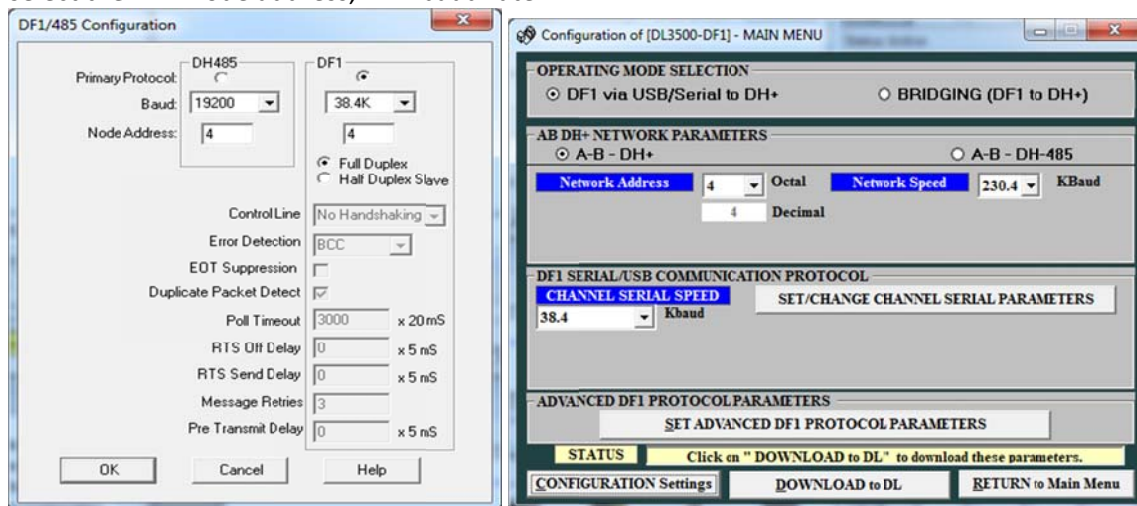
Select the Comport that is connecting the DL3500 to the PC From the drop menu.



Click on Configure/Open File which will then open the Configuration Main Menu



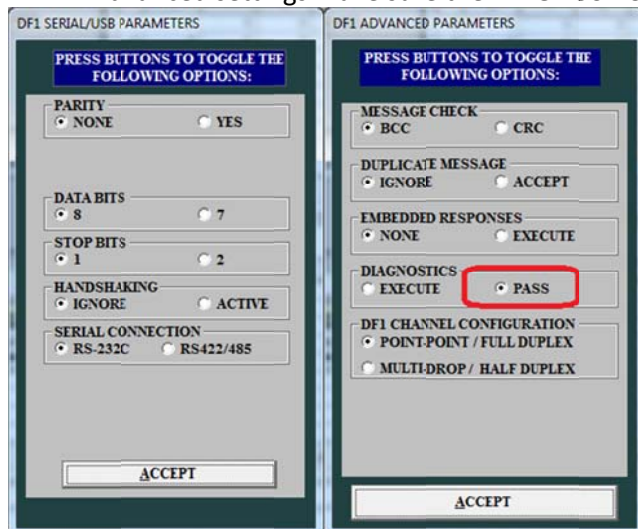
Check the serial settings for the DF1 channel of the Micrologix to make sure they match the settings for the DF1 channel of the DL3500, For DL3500 Operating Mode Selection, select DF1 via serial to DH+, then select the DH+ node address, DH+ baud rate



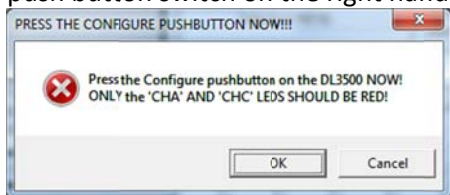
MicroLogix Serial DF1 Channel settings.

DL3500 Settings

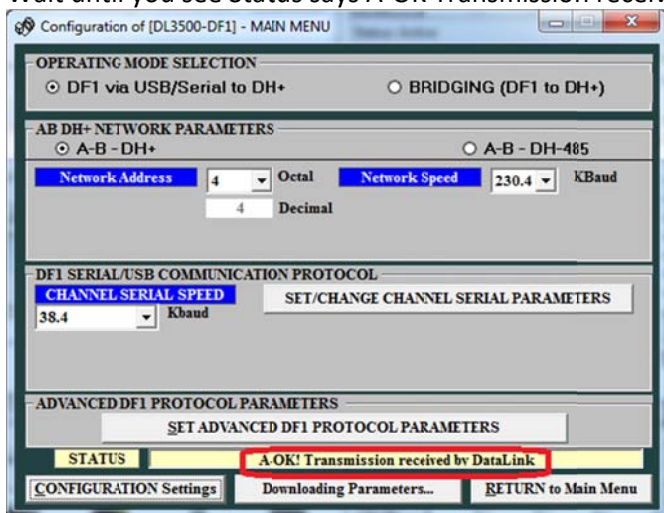
In DF1 Advanced settings make sure the DIAGNOSTICS is set to PASS.



Click on Download, to download the setting to the DL3500, here it will ask to press the Configuration push button switch on the right hand side of the DL3500, press it and click on OK.



Wait until you see Status says A-OK Transmission received by DataLink

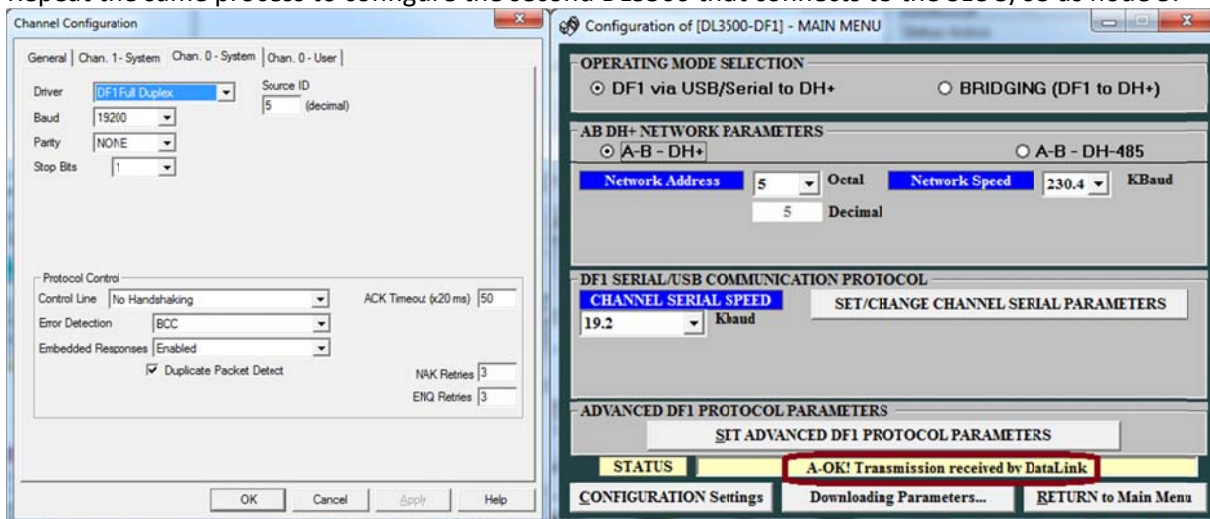


Once setting are downloaded press the RESET push button switch on the left hand side of the DL3500 and click on OK here.

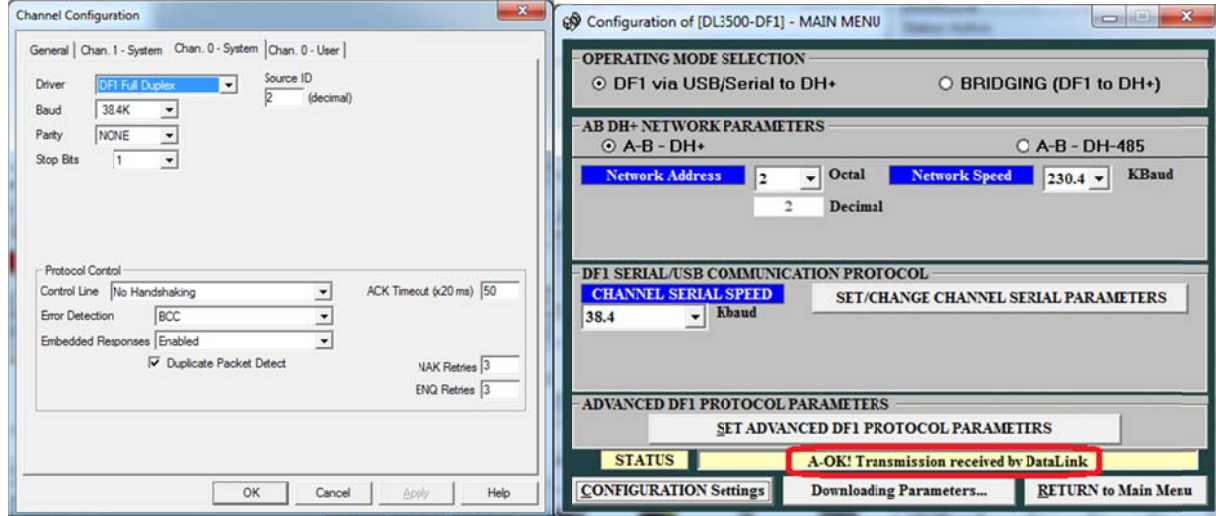


Disconnect the DL3500 from the PC and connect the RS232 CHB of the DL3500 to the serial DF1 channel of the MicroLogix.

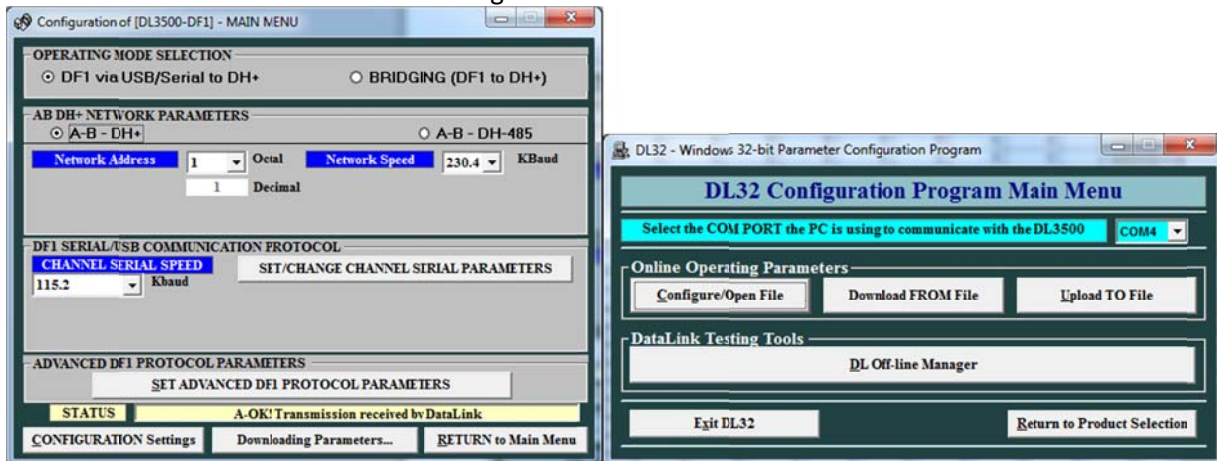
Repeat the same process to configure the second DL3500 that connects to the SLC 5/03 as node 5.



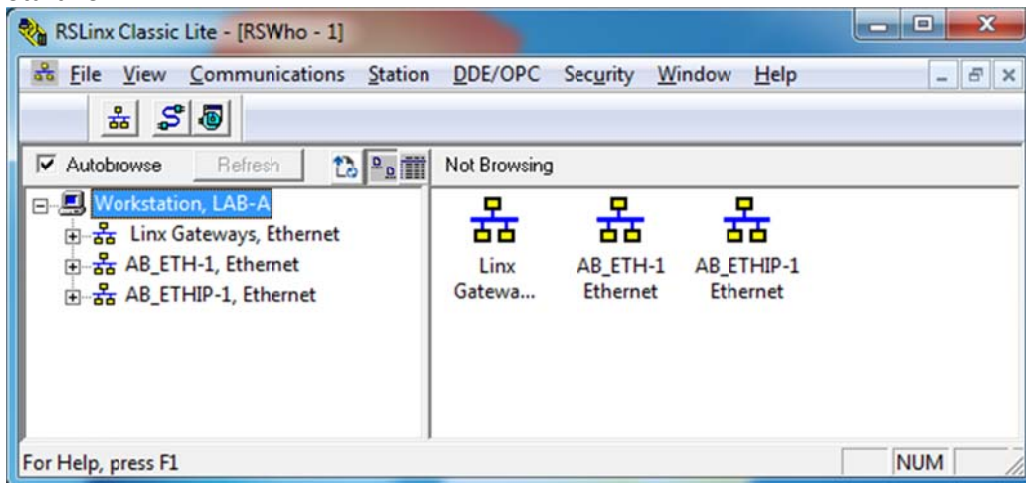
Repeat the same process to configure the third DL3500 that connects to the SLC 5/05 as node 2.



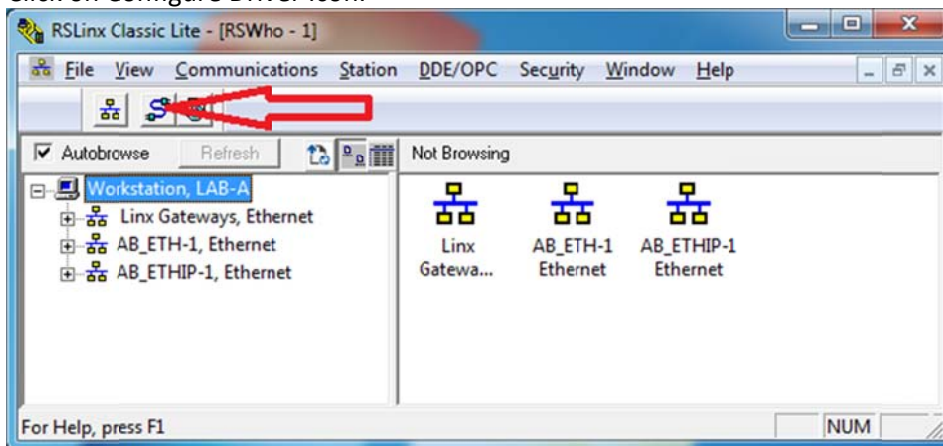
When done with settings all three DL3500s, and when they are connected to the MicroLogix, SLC 5/03 and SLC 5/05, we set another DL3500 to connect to a PC that has RSLINX and RSLOGIX500 installed in it. Settings of the DL3500 to go online with PLCs are shown below, after those settings were downloaded click on Exit DL32 to close the DL32 configuration software.



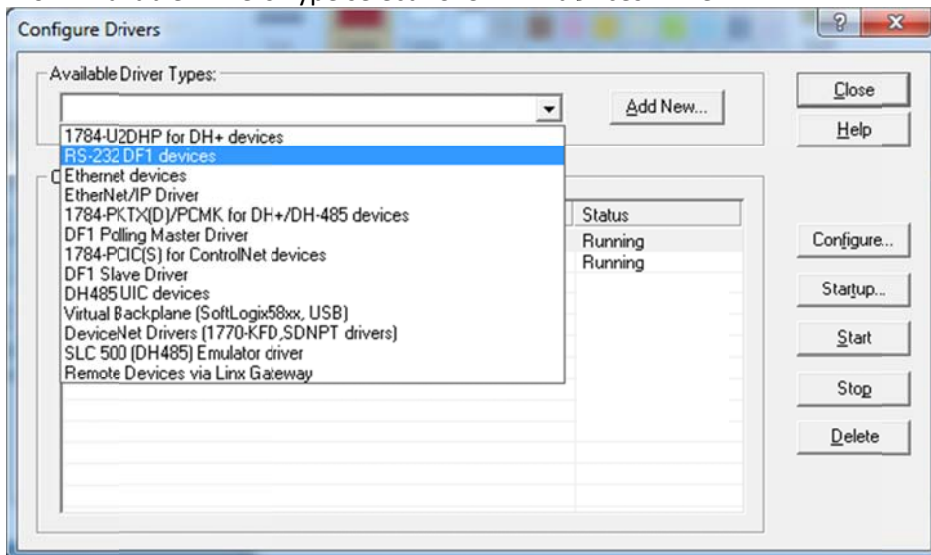
Start RSLINX



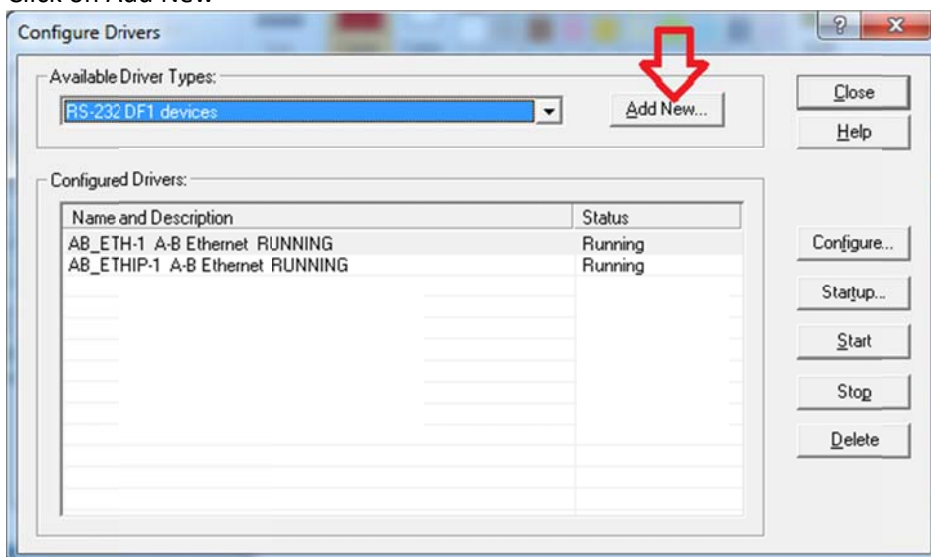
Click on Configure Driver Icon.



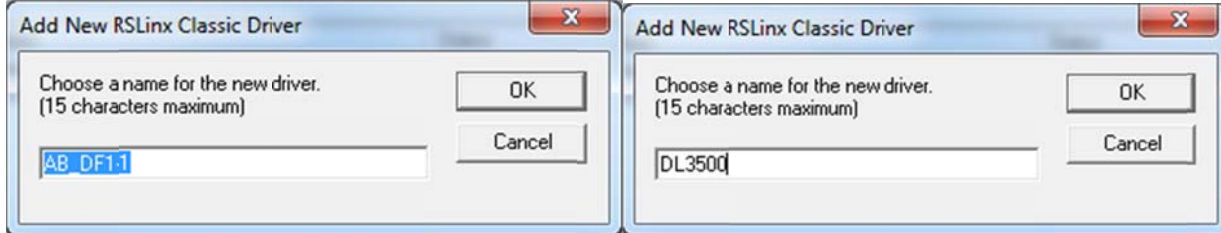
From Available Drivers Type select RS232 DF1 devices Driver.



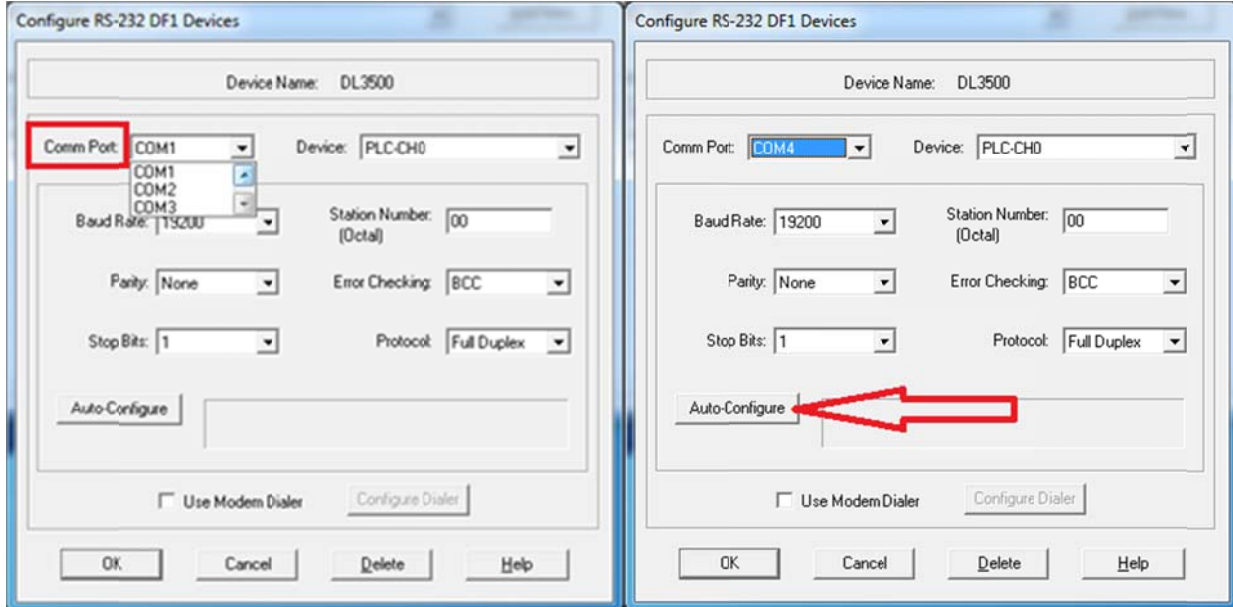
Click on Add New



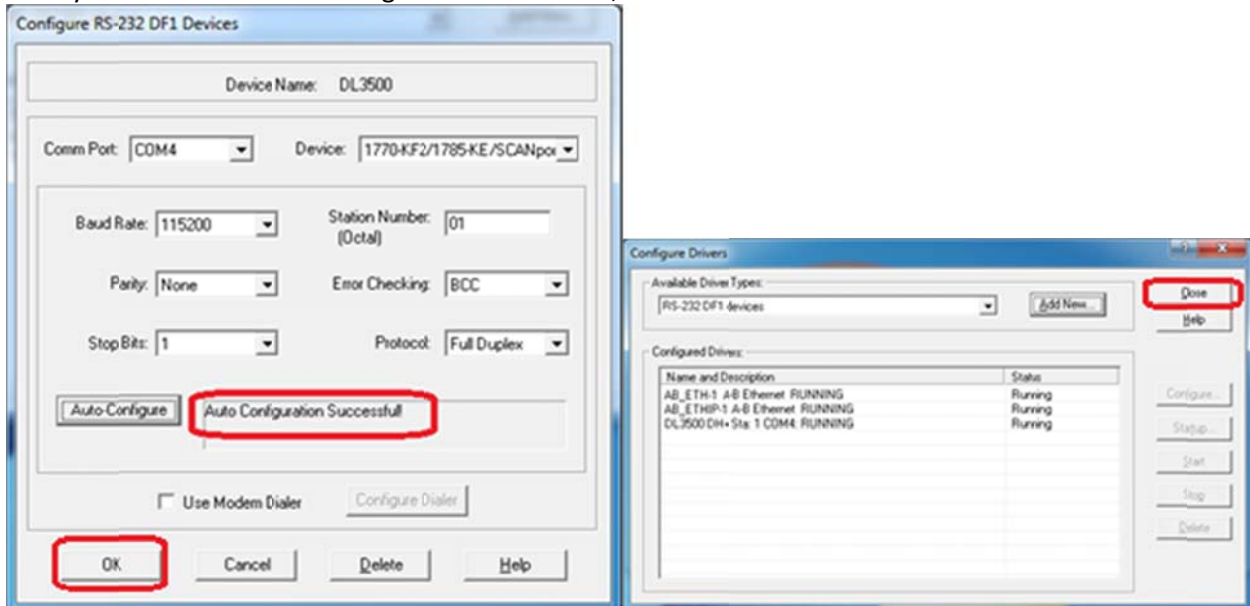
Type any name for the Driver then click on Ok



Select the serial port that is connecting the PC to the DL3500 & click on Auto-Configure

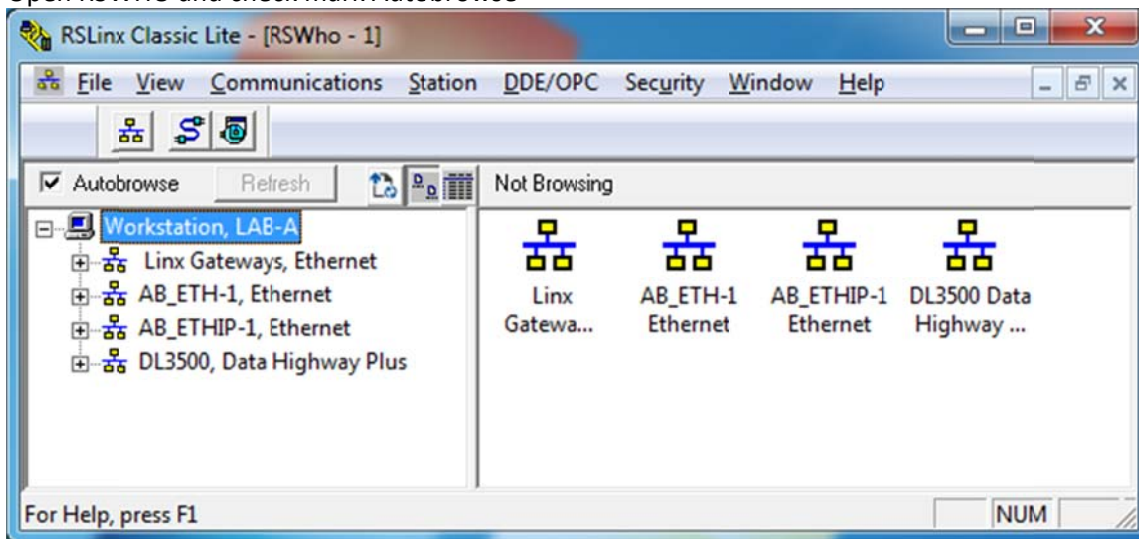


Here you should see Auto Configuration Successful, click on OK.



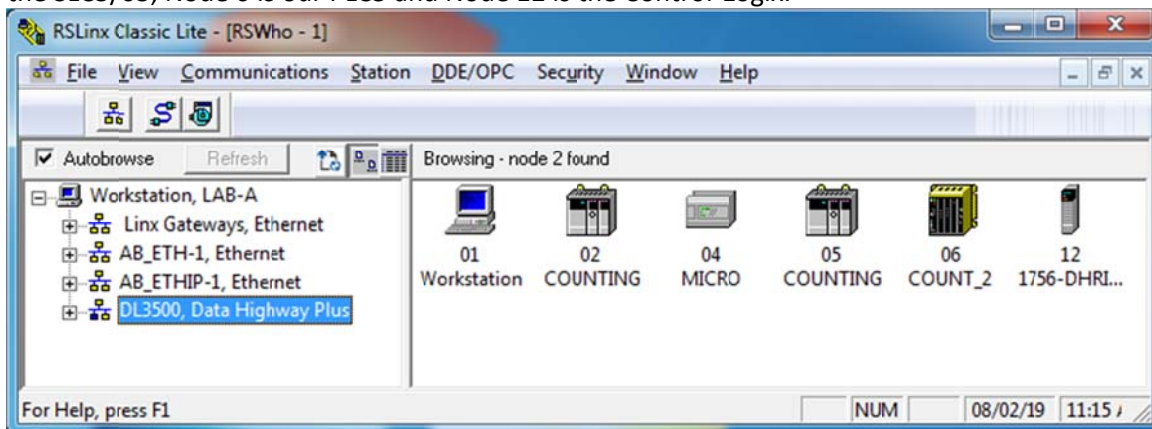
Click on Close

Open RSWHO and check mark Autobrowse

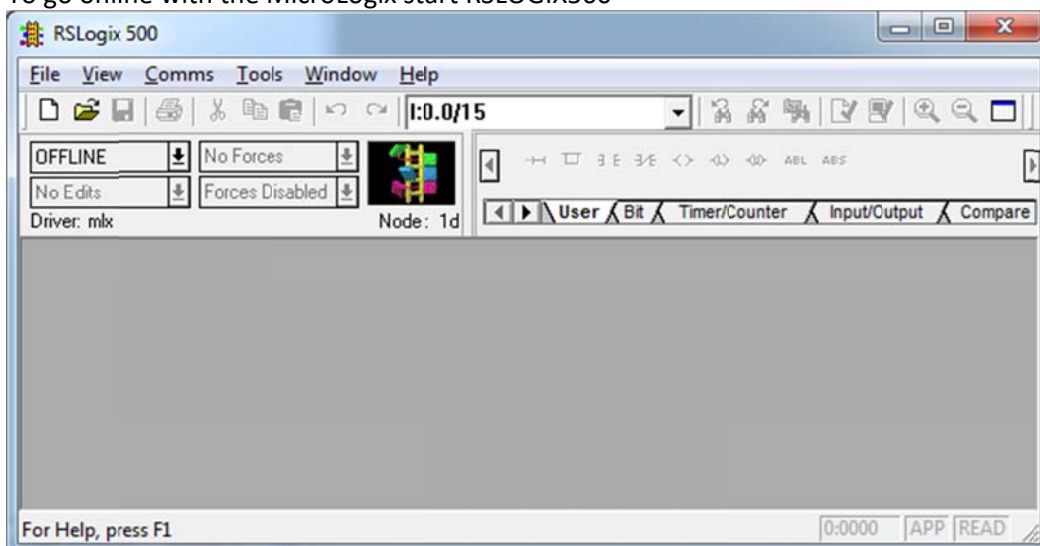


When you Click on the RS232 DF1 driver that was created (DL3500), you should see all the PLCs that are on DATA Highway plus Network as shown below.

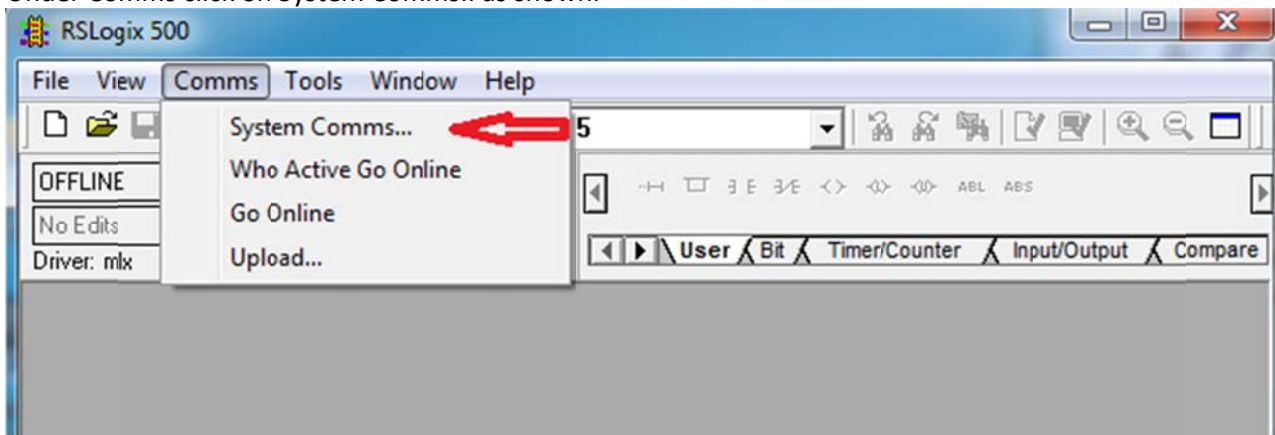
Node 1 is the last DL3500 as a work station, Node 2 is the SLC5/05, Node 4 is the MicroLogix, Node 5 is the SLC5/03, Node 6 is our PLC5 and Node 12 is the Control-Logix.



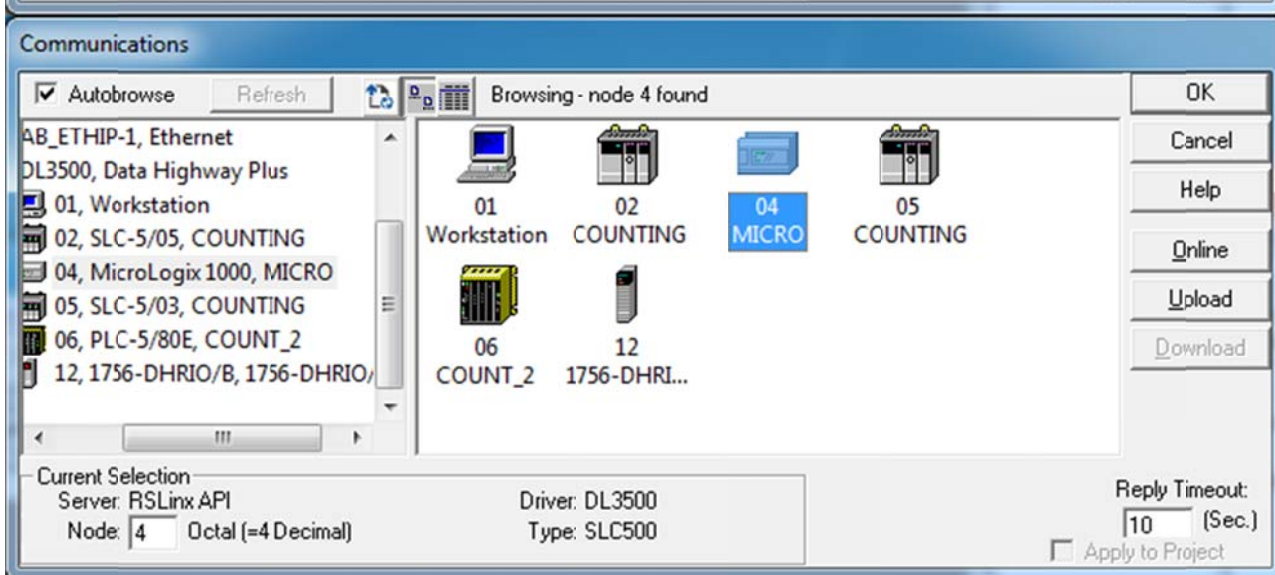
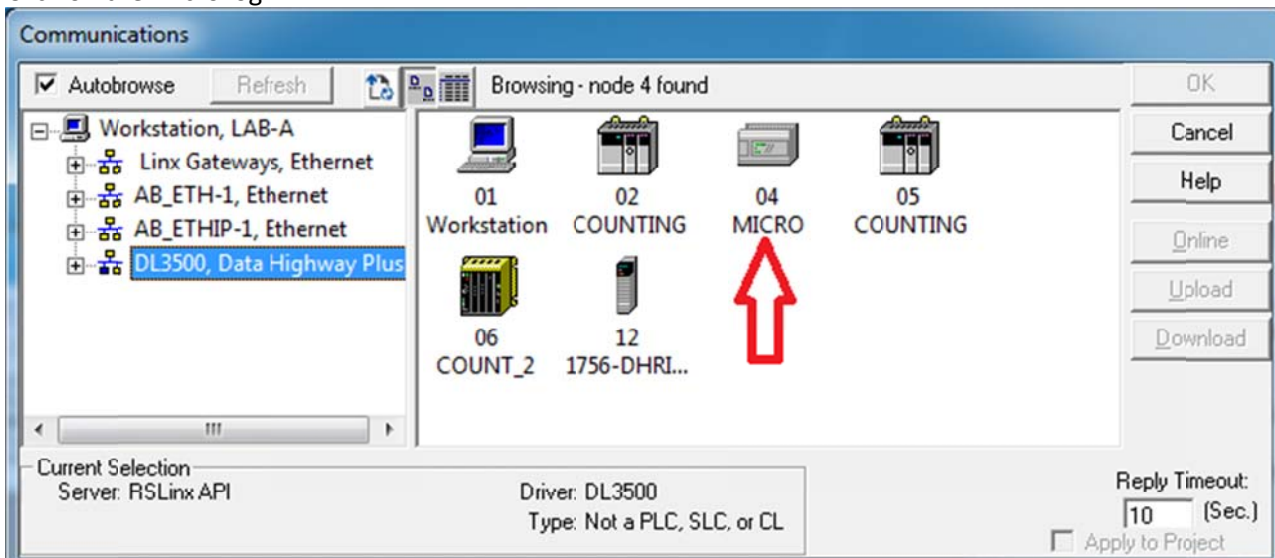
To go online with the MicroLogix start RSLOGIX500



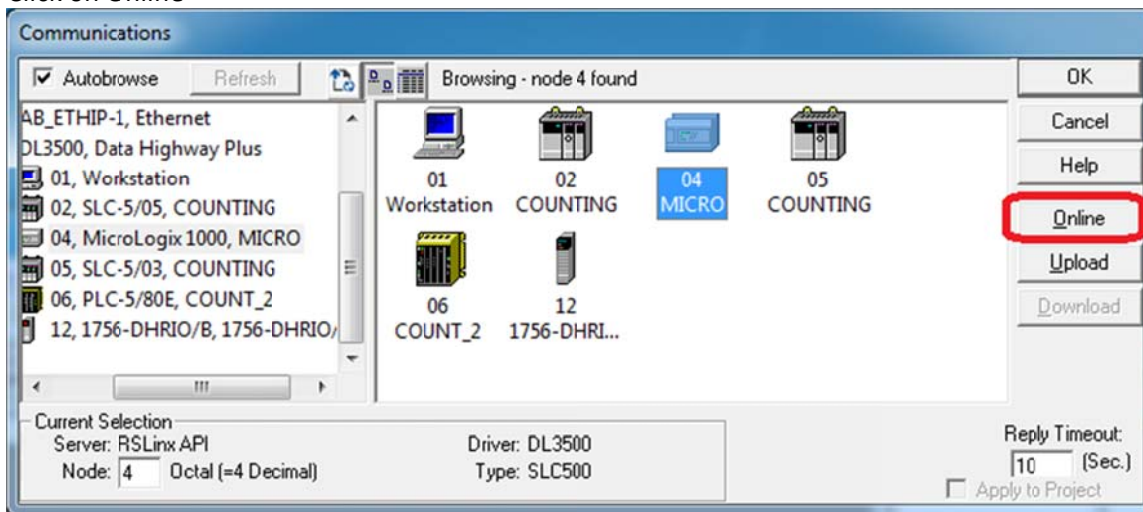
Under Comms click on System Comms.. as shown.



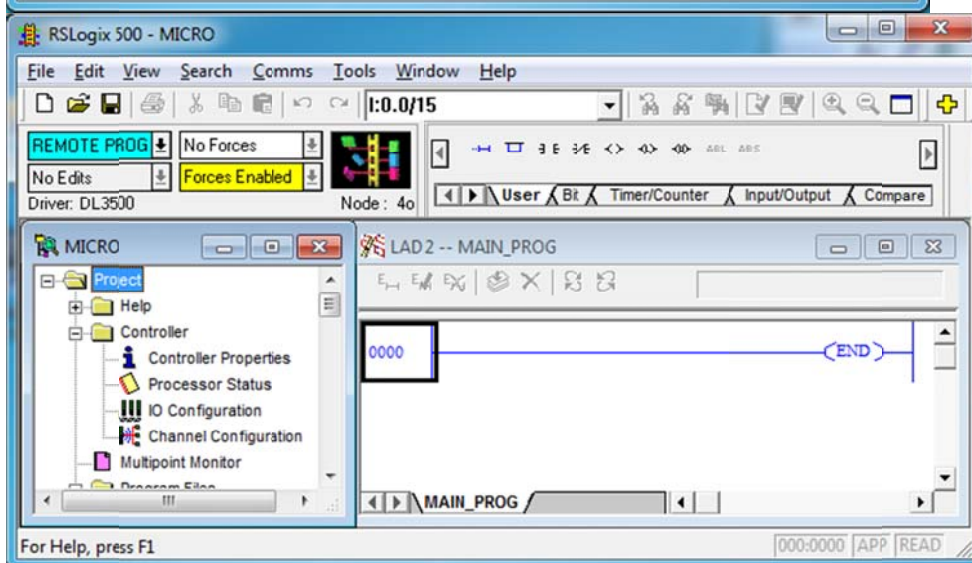
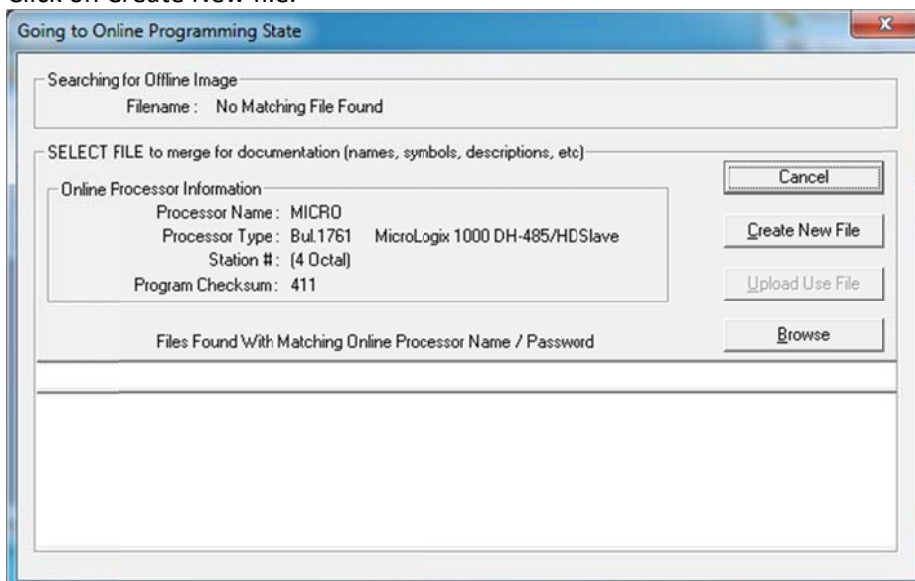
Click on the MicroLogix



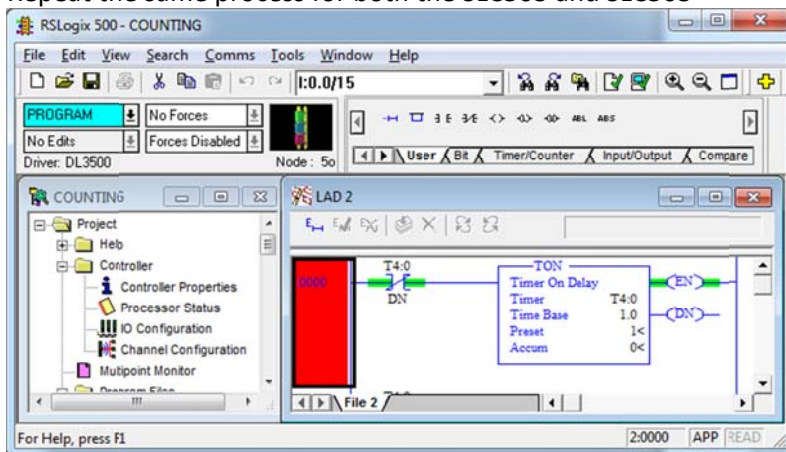
Click on Online



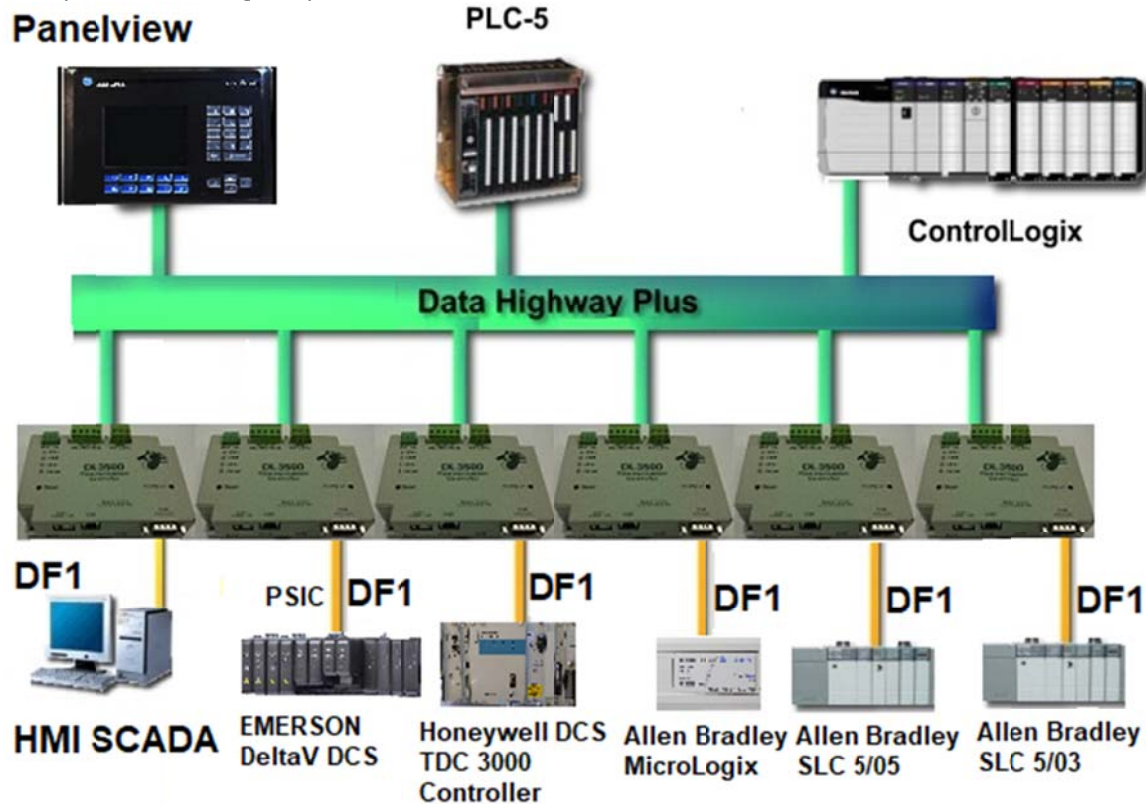
Click on Create New file.



Repeat the same process for both the SLC503 and SLC505



If you have a Honeywell DCS TDC 3000 or Emerson Delta V DCS same will apply when the serial DF1 settings of DL3500 are configured with matching DF1 settings of the TDC3000 or DELTA-V then the DH+ PLCs will see the DCS like any other DH+ device and will be able to communicate with each other similar like any other Data Highway Plus Device.



DL3500-DF1/DH+ allowing DF1 Devices to Communicate with DATA HIGHWAY PLUS PLCs & Devices