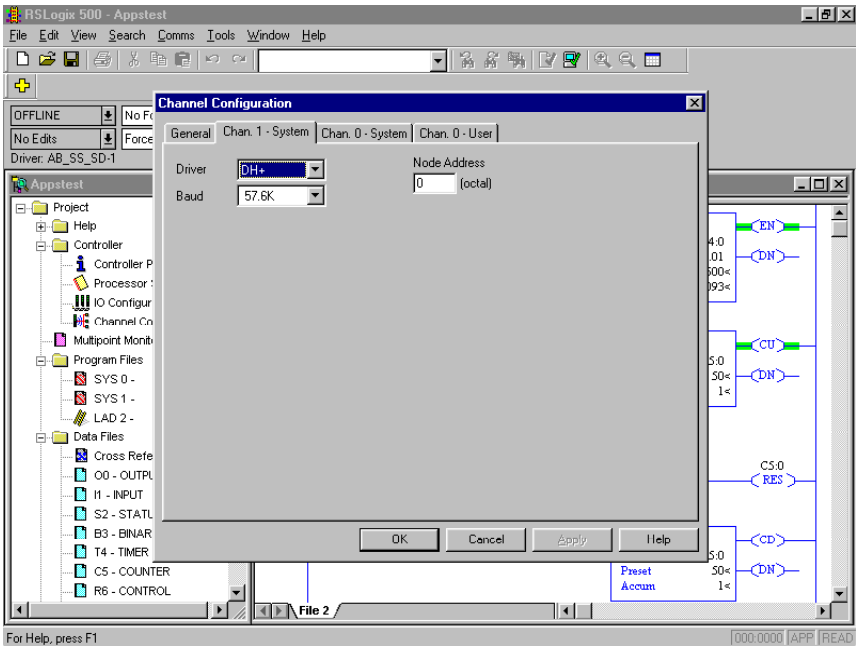
OPERATOR INTERFACE PRODUCTS APPLICATION NOTE

Subject: How to configure the DH+ communication using a PC 104 card, AN# 1099
Date: June 15, 2001
Name: Allen Heskett
Page: 17

Description: Use a Synergetic PC 104 card on a CE unit, configure it to run with a Design Studio Application and a SLC 504.

A. First ensure that the PLC program is set up to use DH+ with the same settings as the PC 104 card. See the example below.



B. Now go set up the CE unit and the DH+ Interface Card using the following procedure.

Using the Synergetic card takes the place of one (1) of the COM ports on the CE device.One of the COM ports on the CE device must be disabled in the BIOS for the DH+ card to work properly. Equipment used: Windows CE 2.11 on a 3410T, Synergetic card SMS-CIF104-RIODHP, Allen Bradley SLC5/04 CPU, Design Studio Version 3.3 with SP2.

OPERATOR INTERFACE PRODUCTS APPLICATION NOTE

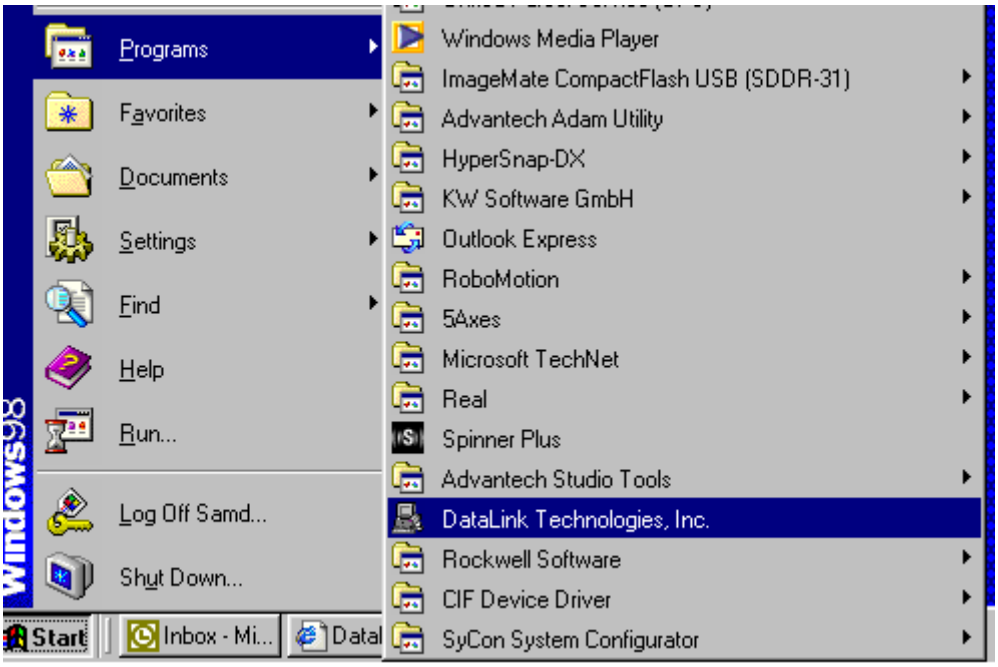
1. On your development PC download and install the three disk version of the configuration software from the following website
   http://www.dltech.net/software.shtml

2. Plug the PC104 card into the CE device. Connect the PC104 card to a COM port on your development PC, via the Phoenix 5 pin to DB-9 cable that is provided with the Synergetic card.

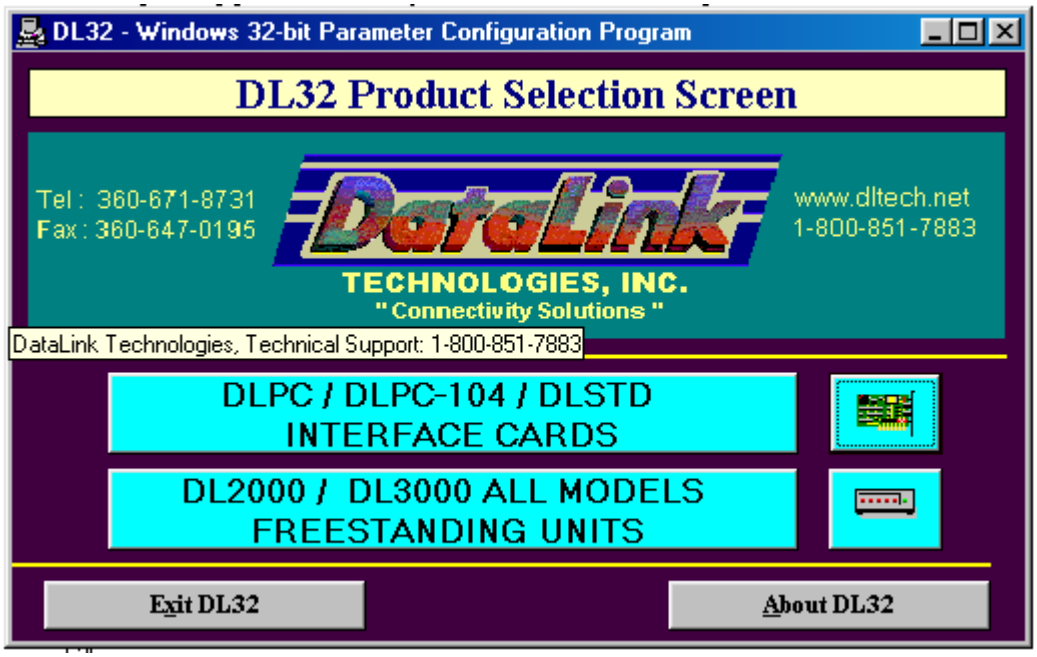
---

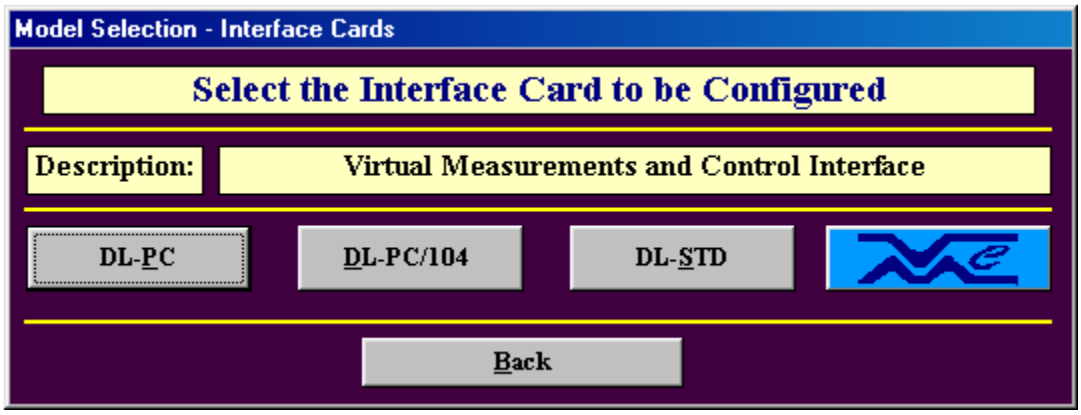
3. Please read step 3 completely before proceeding.
   Connect a keyboard to the CE device and power up the unit. During the boot up process press the delete key to enter into the CMOS setup utility. Using the arrow keys on you keyboard cursor over to the integrated peripherals heading and press the enter key. Disable one (1) of the onboard serial ports. Save the changes and exit the CMOS setup utility.

4. On your development PC run the Datalink Technologies program.

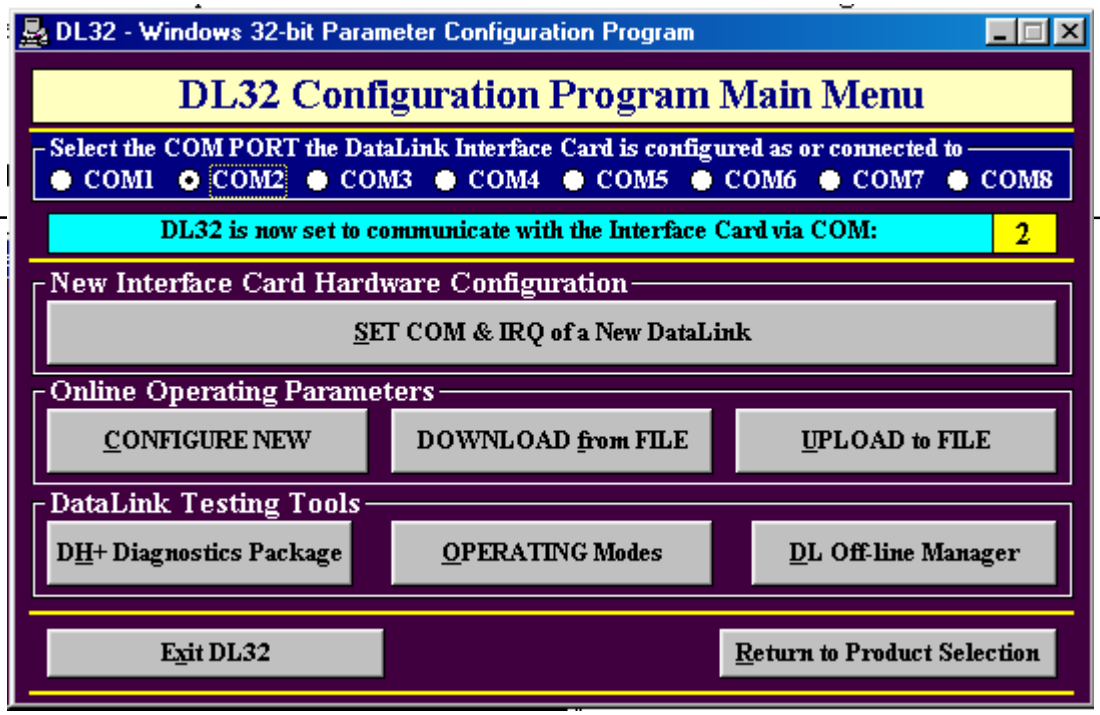


5. On the next two screens select the card that you are using.



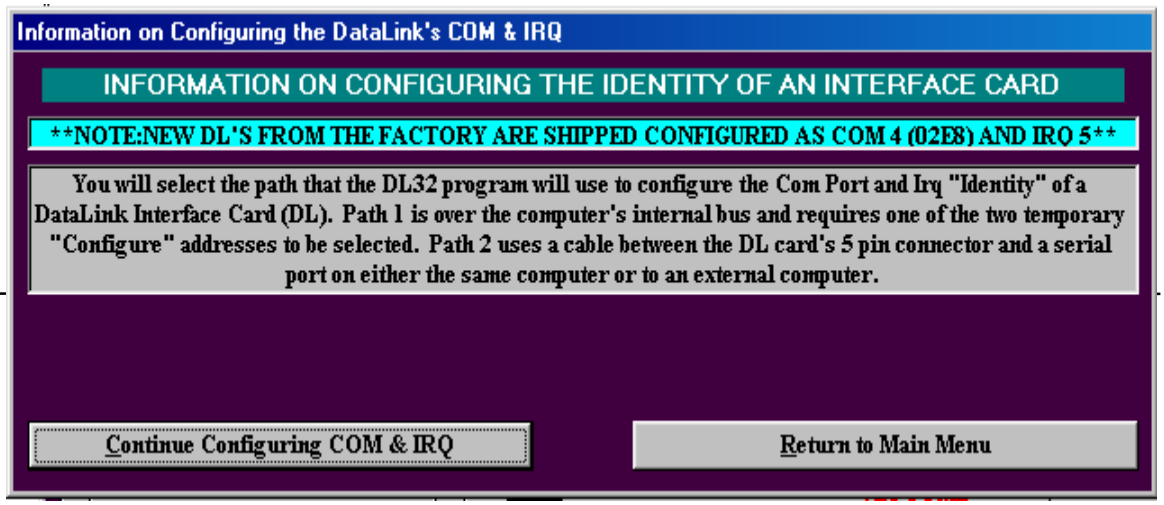


6. Select the COM port that the interface card is connected to, this would be the COM port on the development PC running the Datalink software.
   Next select, Set COM &IRQ of a New Datalink.

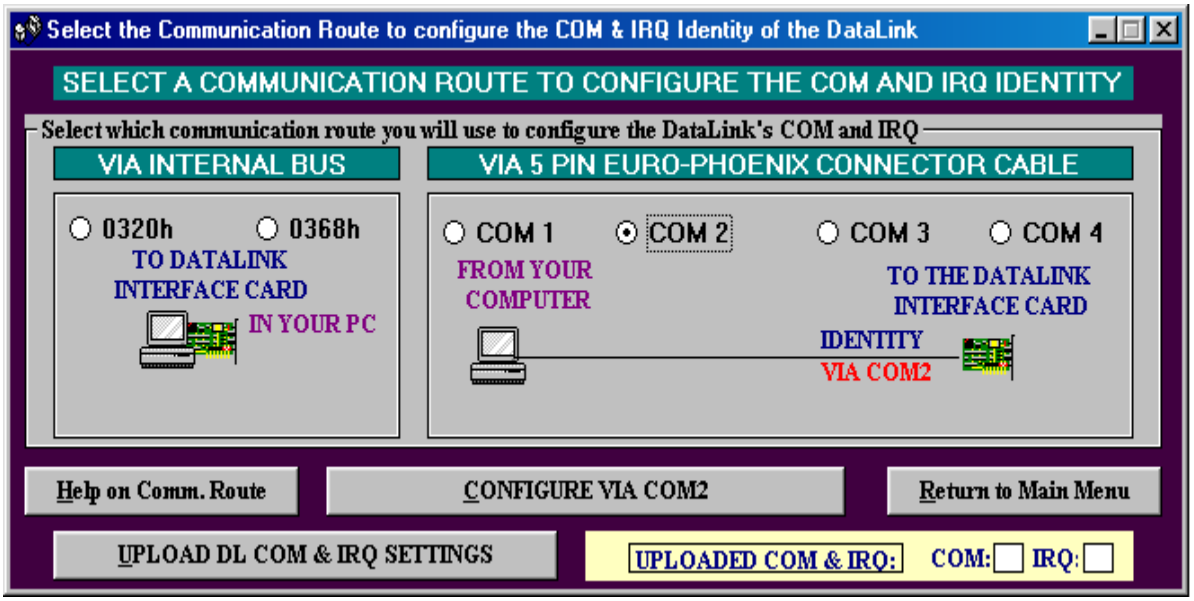


7. Select your operating system.

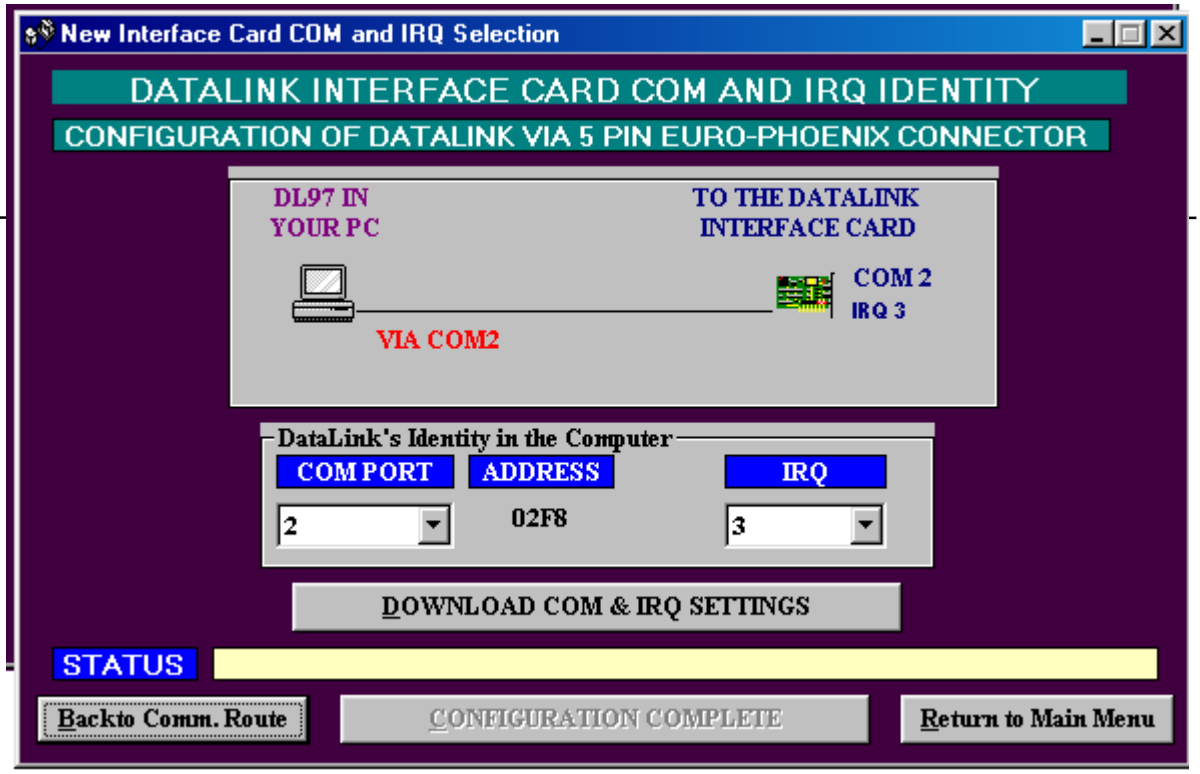
8. On the next screen select, Continue Configuring COM and IRQ.



9. On this screen select the COM port that will be used to configure the COM and IRQ of the interface card, this would be the COM port on the development PC running the Datalink software. And then select, Configure Via COM 2 (for this example).

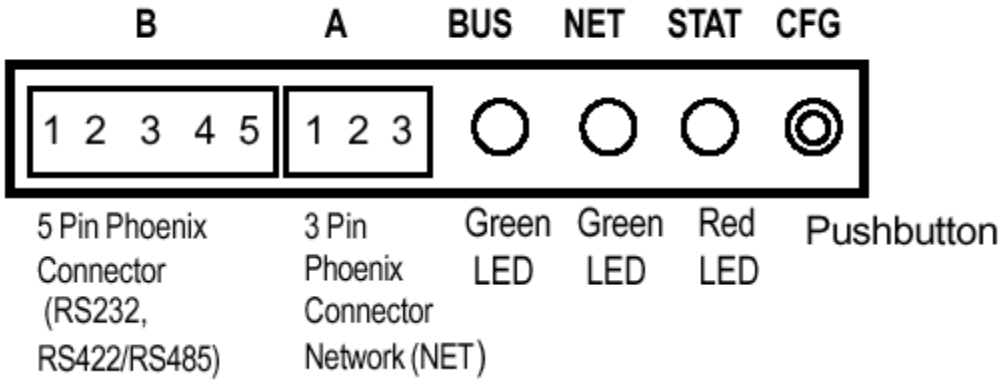


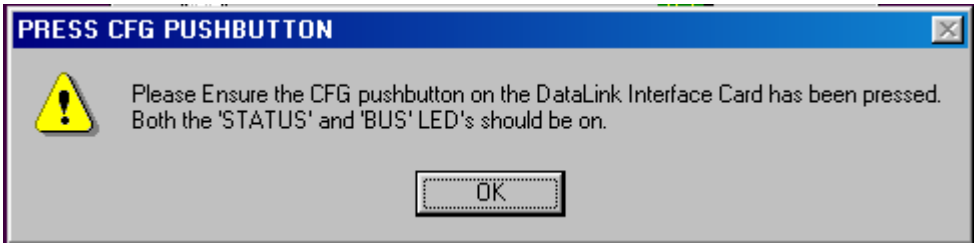
10. On the next screen select the COM port and IRQ that the interface card will be configured as.
    In this example COM 2 IRQ 3. And then select, Download COM & IRQ Settings.



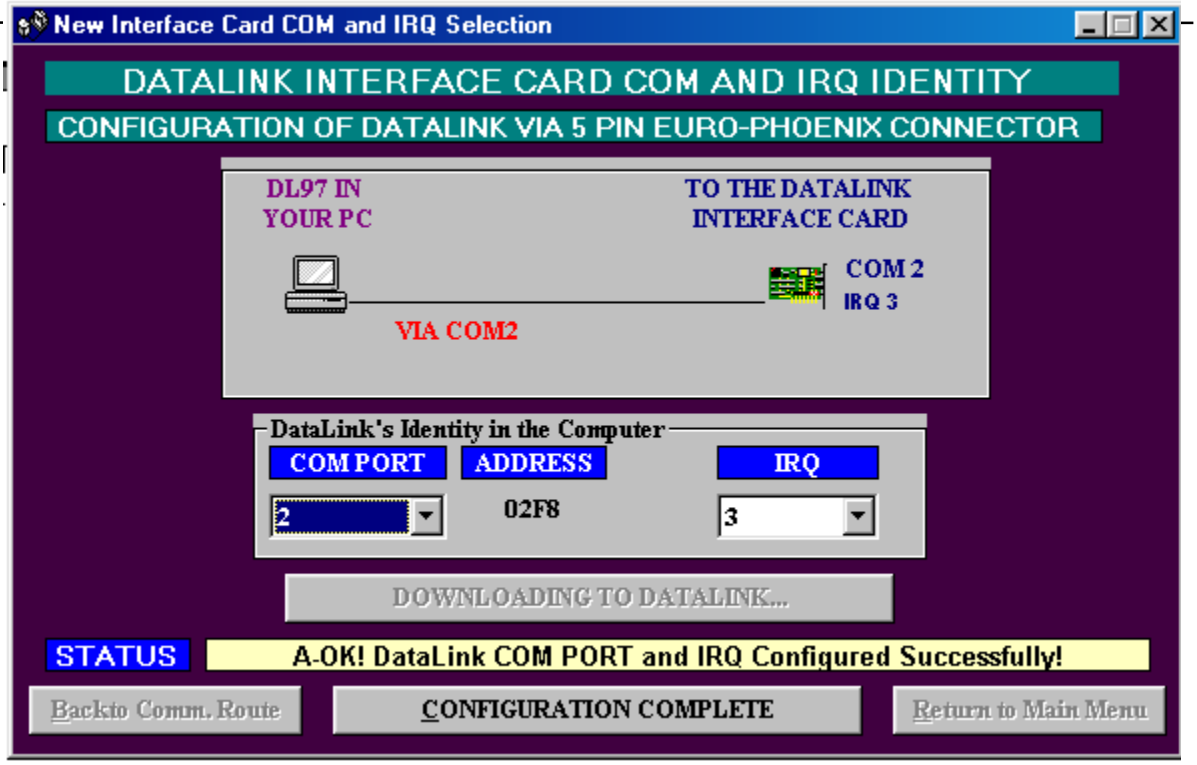
11. This next step is very important.
    Press the CFG pushbutton on the interface card. Verify that both the Status and Bus LED are on.

DL-PC/104:

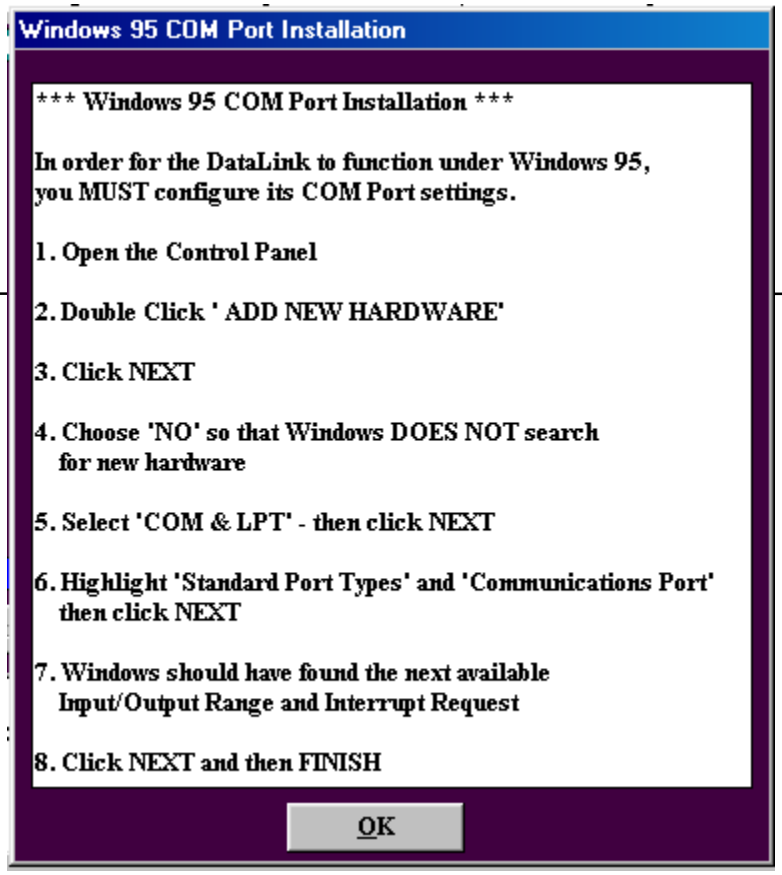




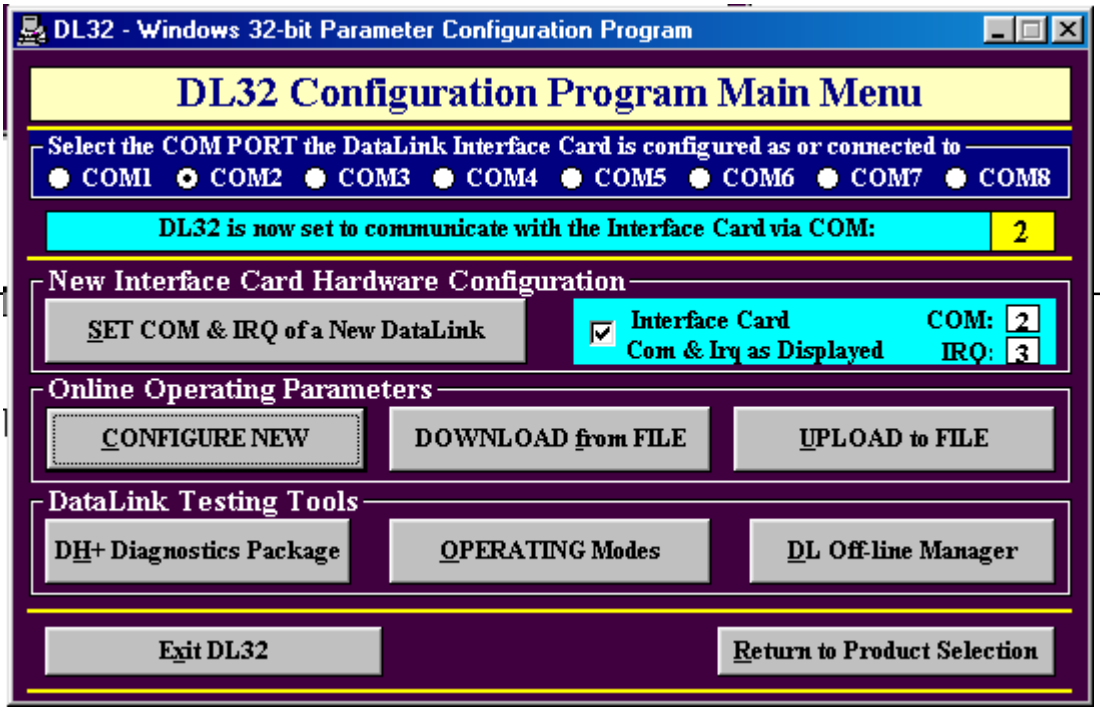
12. You should see the following message in the Status block,
A OK! Datalink COM port and IRQ configured successfully.
If successful then select, Configuration Complete.



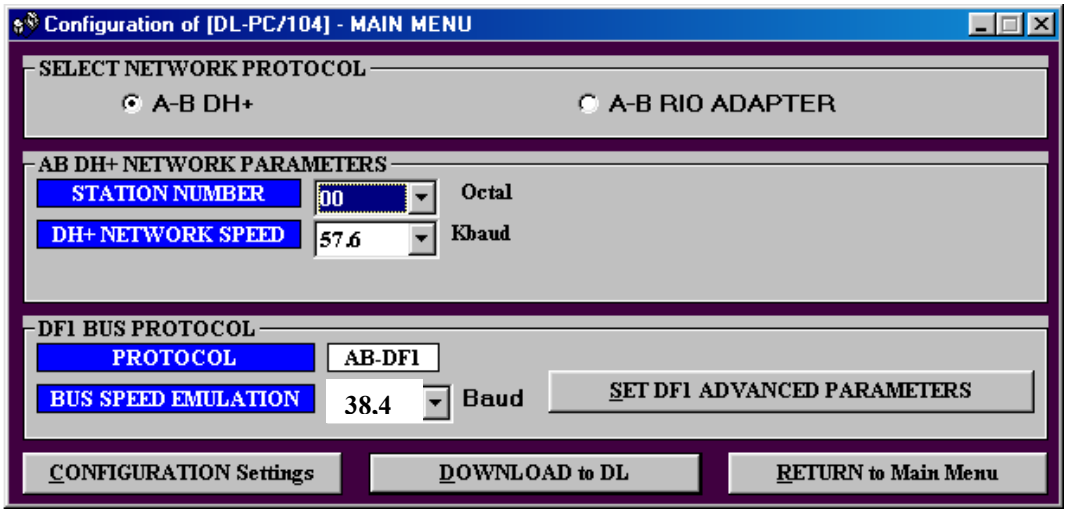
13. Ignore the next screen. And press OK.



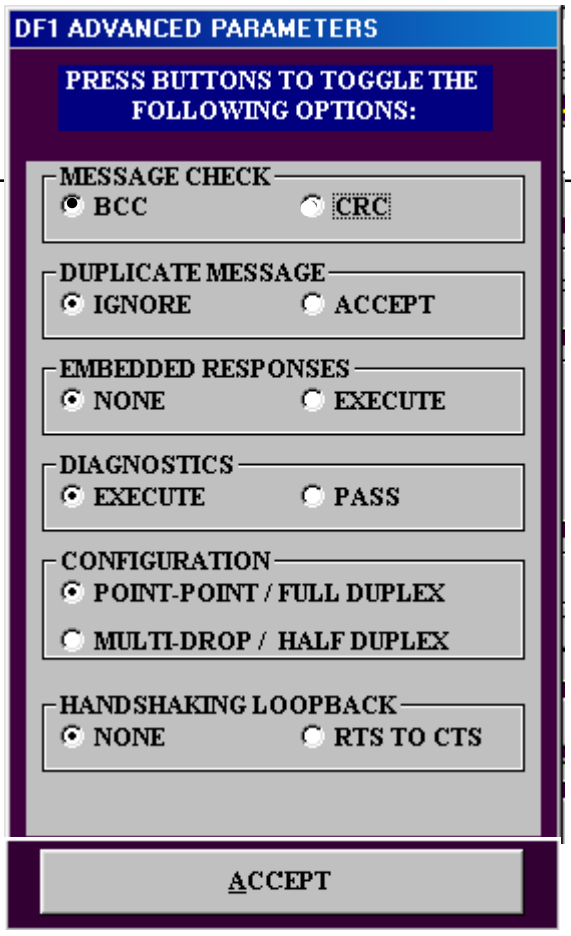
14. On this screen select, Configure New.



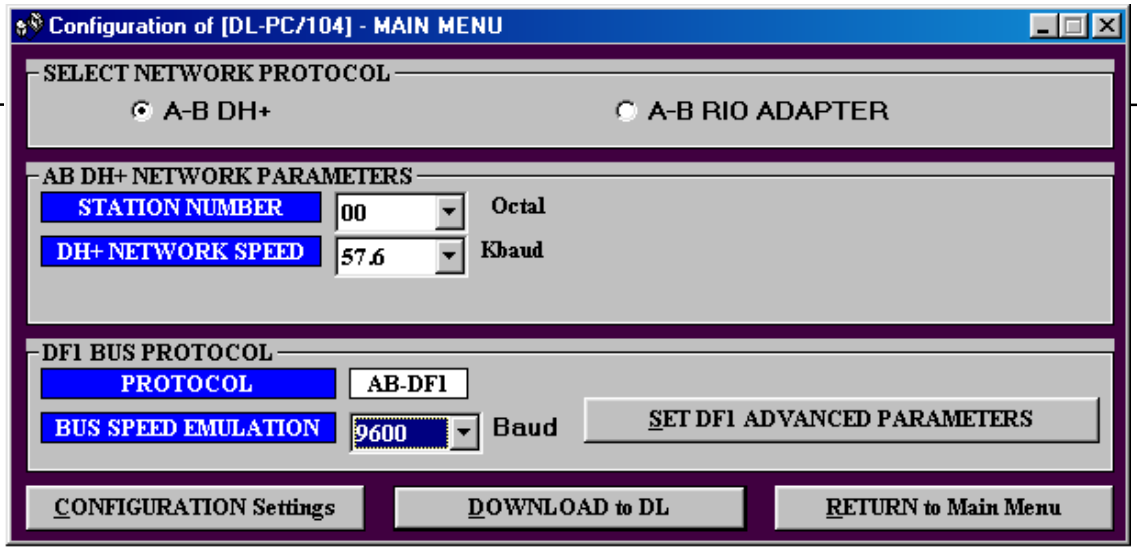
15. On this screen set the parameters for your application.
And then select, Set DF1 Advanced parameters.



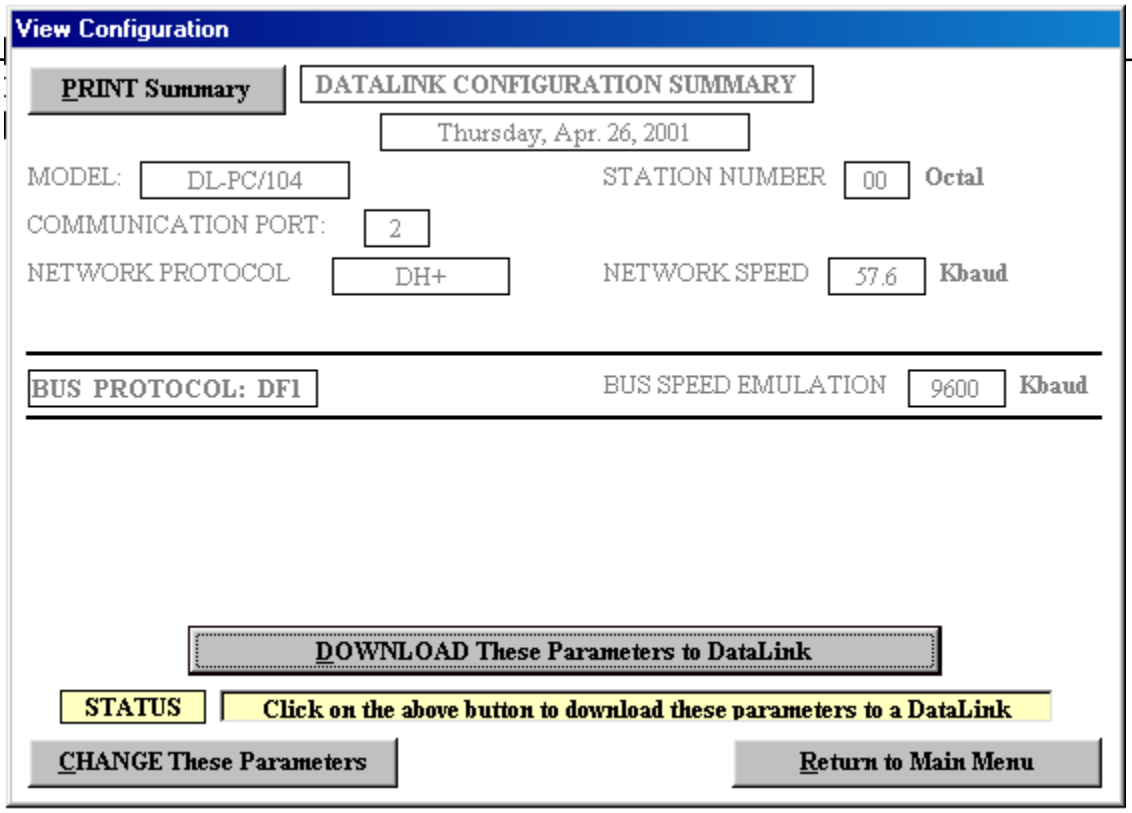
16. On this screen set the parameters for your application.
    And then select, Accept.



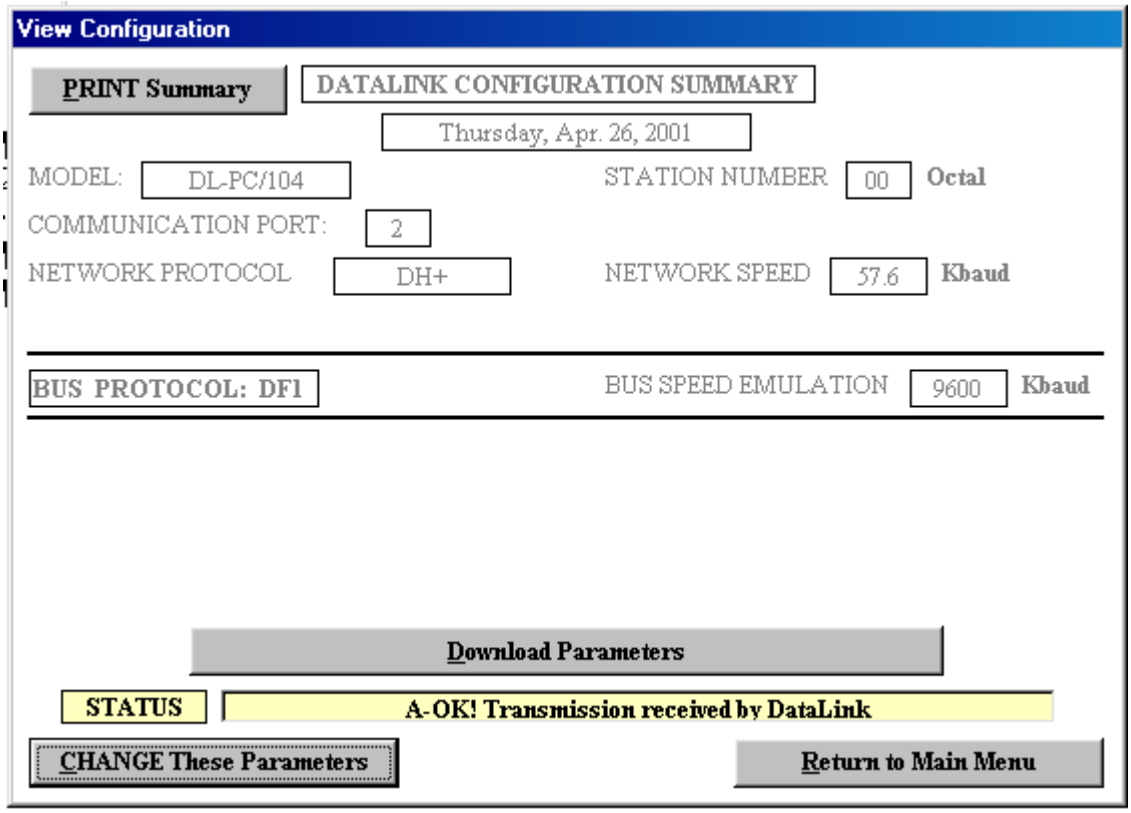
17. On this screen select, Download to DL.



18. It is a good idea to print the next screen for reference.
    And then select, Download these parameters to Datalink.



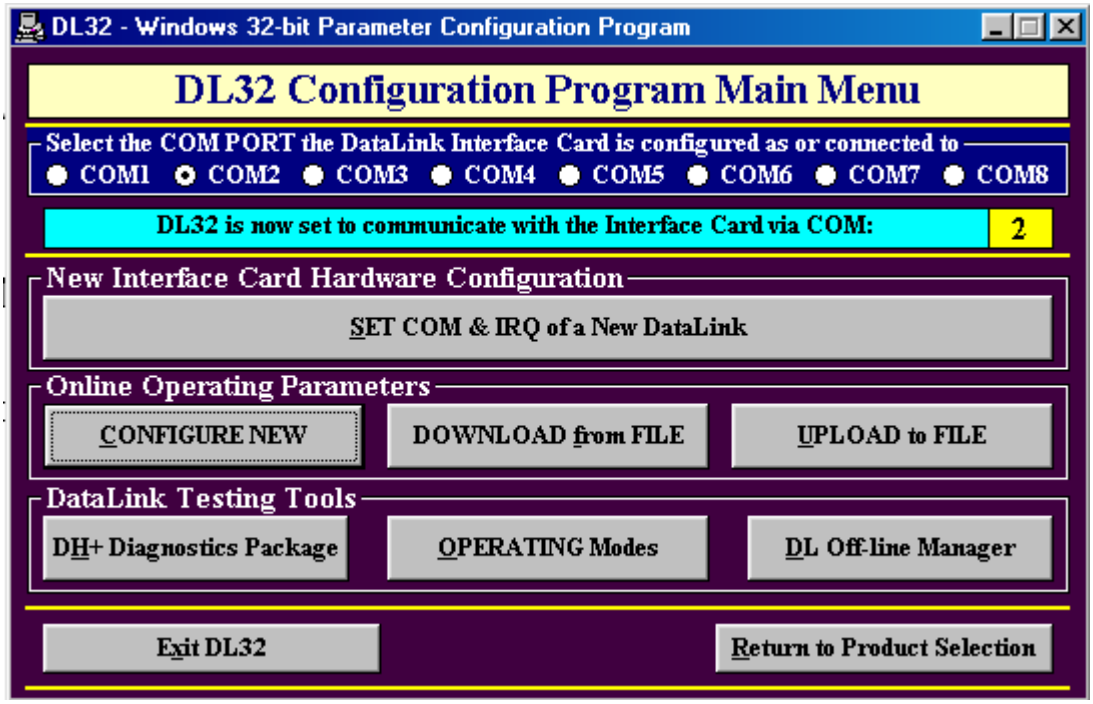
19. You should see the following message in the Status block.
    A OK! Transmission received by Datalink.
    If successful then select, Return to Main Menu.



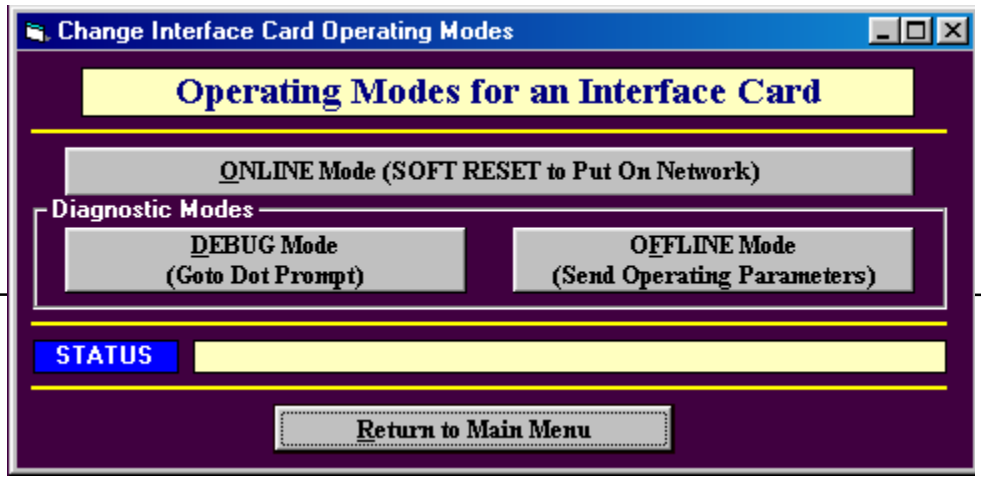
20. On this screen select, Operating Modes.

XYCOM AUTOMATION

OPERATOR INTERFACE PRODUCTS APPLICATION NOTE

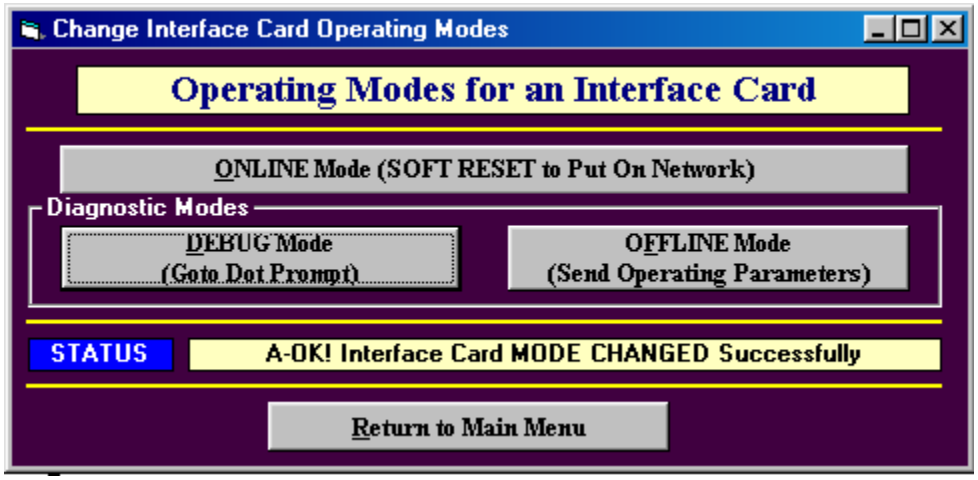


21. On this screen select, Online Mode (Soft reset to put on network).



22. You should see the following message in the Status block,
A OK! Interface card mode changed successfully.

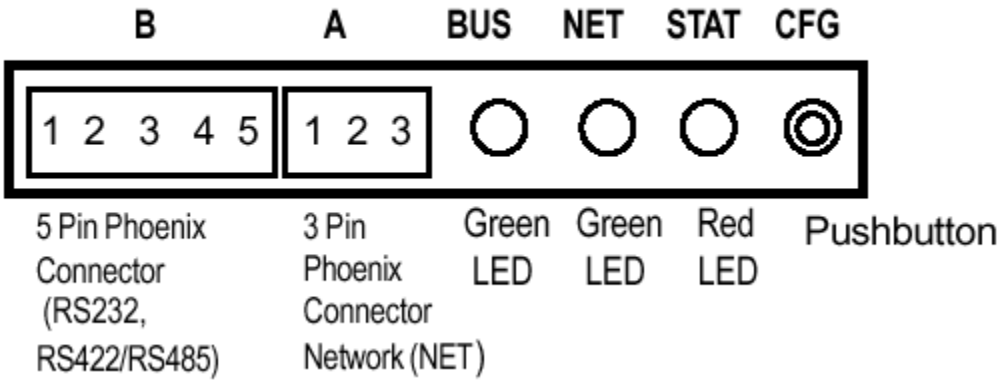
    If successful select, Return to Main Menu.



23. The setup of the interface card is now complete.
Close the Datalink Technologies program.

24. The Design Studio application communication parameters and the PLC communication parameters must match what the DH+ card parameters were set to. Connect the interface card to the PLC .If everything is configured properly the green Bus LED on the DH+ card and the green DH+ LED on the PLC will be on.

DL-PC/104:



25. Very important!!!!

DH+ is configured on an octal numbering system. The user must remember to configure the driver sheets within Design Studio for the decimal equivalent. For example, if a SCL5/04 was configured as node 45 octal, the decimal equivalent is

37. The number 37 must be entered into the station heading block on the driver sheet in Design Studio.