
MicroLogix 1100

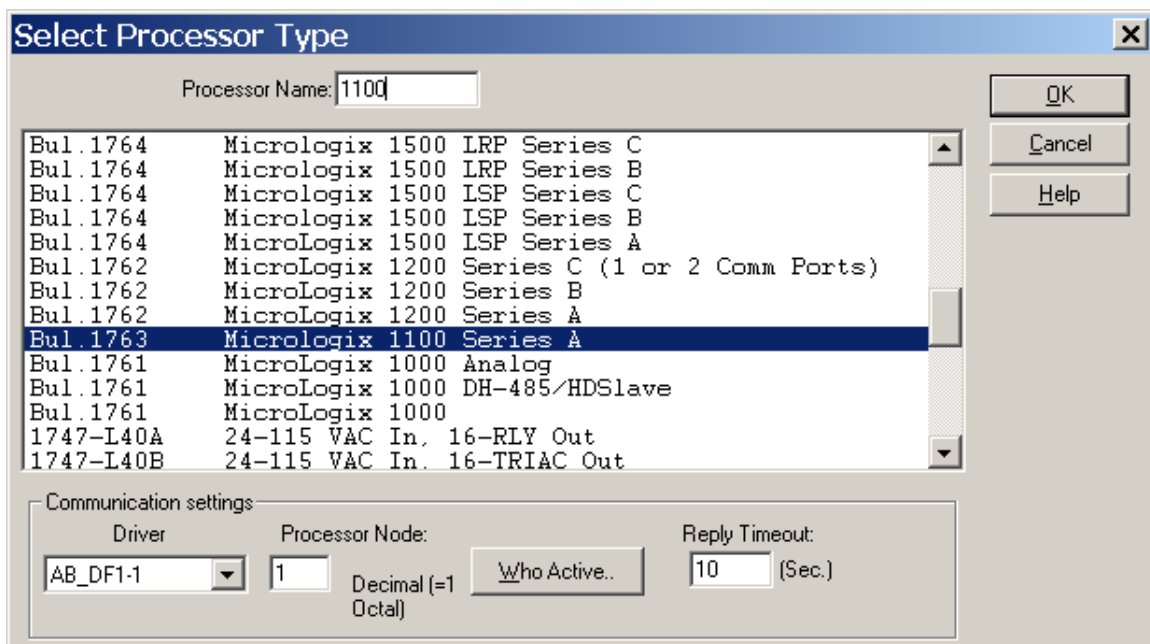
In this lab, we will examine the new MicroLogix 1100. This controller has many features built in that similar size controllers do not.

Key Topics Covered in this Lab:

- The Micro 1100, supports online editing
 - The integral display also allows for data input
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Configuring the MicroLogix 1100

1. Open the RSLogix 500 programming software.
2. Click File → New → Fill in the window as follows:

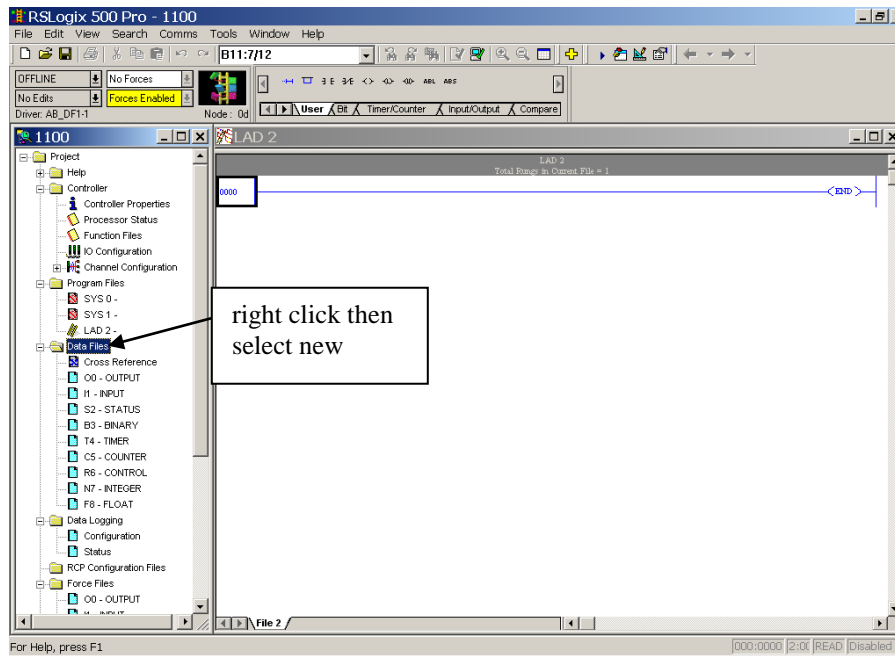


3. Click OK

Using the LCD Display

We will use the String data type to display text on the LCD on the front of the Micro1100. So, a String Data File needs to be created.

4. Right click on Data Files in the left hand pane → New → Fill in the window as follows:



File: 9

Type: String

Name:

Desc:

Elements: 10 Last:

Attributes

Debug

Skip When Deleting Unused Memory

Scope

Global

Local To File: 2 -

Protection

Constant Static None

Memory Module / Download

OK Cancel Help

5. Fill in the information above then click on OK.

6. Again, right click on Data Files → New → Fill in the window as follows then click OK:

File: 10

Type: Message

Name:

Desc:

Elements: 10 Last:

Attributes

Debug

Skip When Deleting Unused Memory

Scope

Global

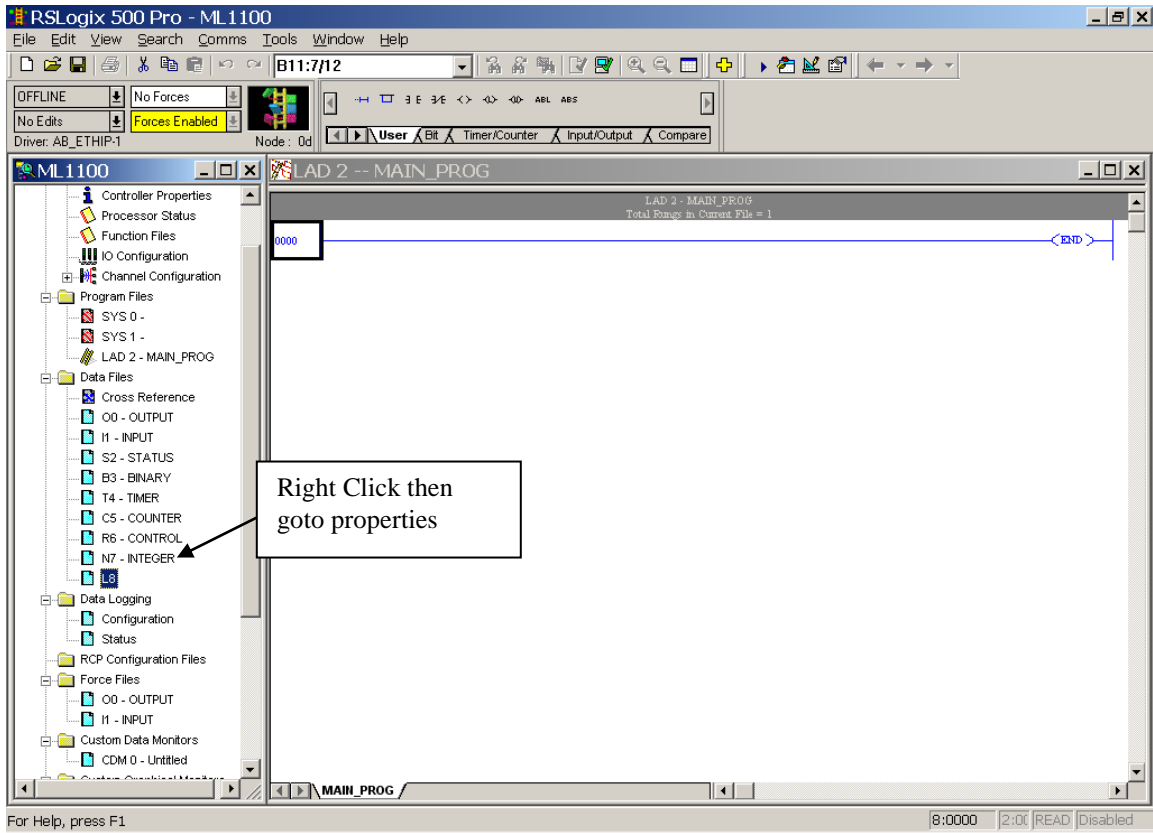
Local To File: 2 -

Protection

Constant Static None

Memory Module / Download

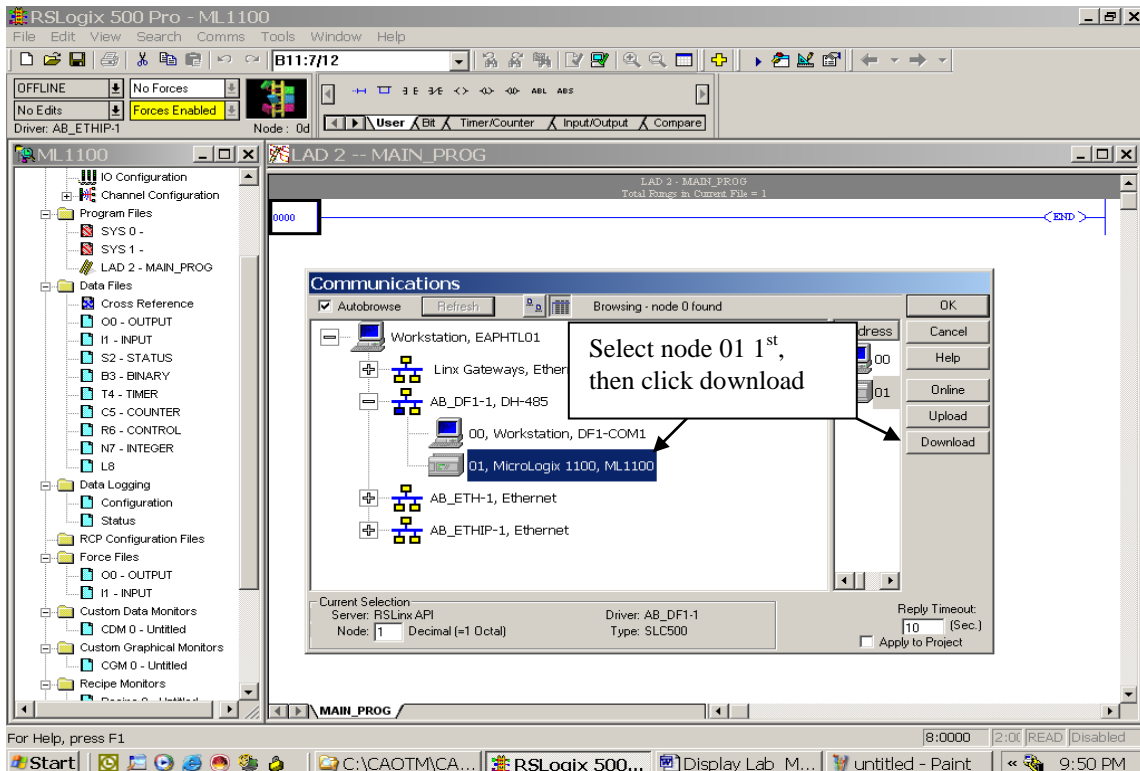
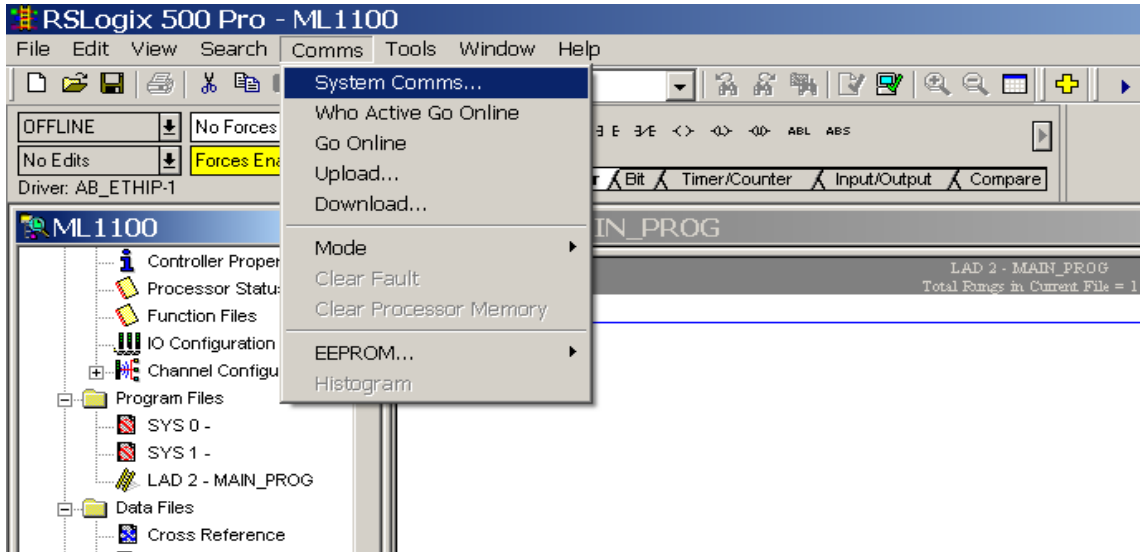
OK Cancel Help



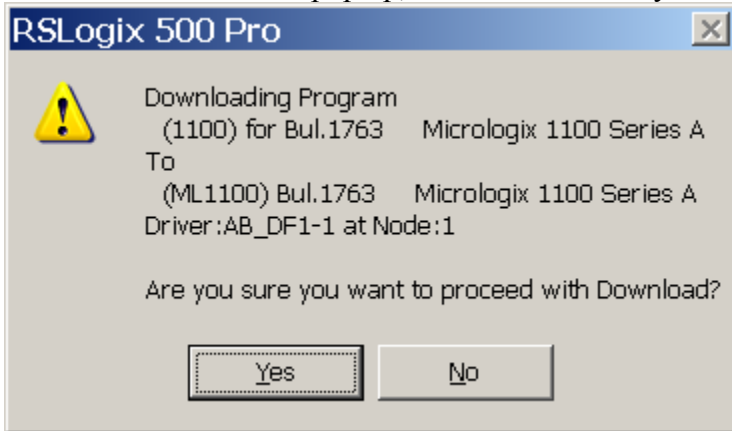
7. Right click the N7-INTEGGER file then select properties.
8. Set Elements to 100 then click OK.

The Micro 1100 supports **online editing**, so we will download the program now and do our ladder editing online.

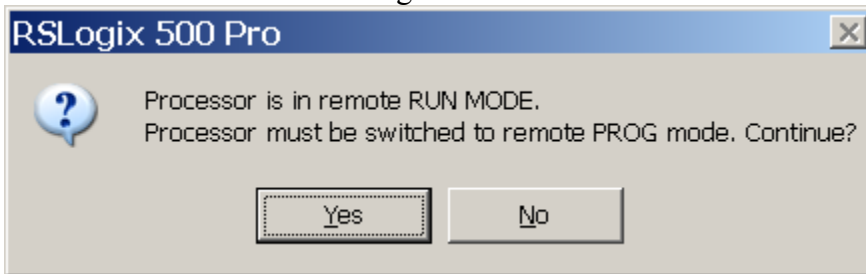
10. Click Comms → System Comms → browse and select the AB_DF1,DH485 driver.



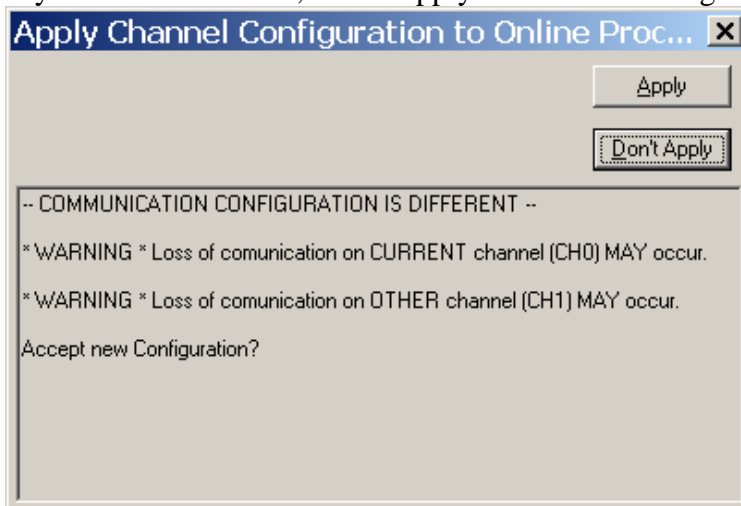
11. You should see this pop up, Click Yes to “Are you sure you want to proceed...”



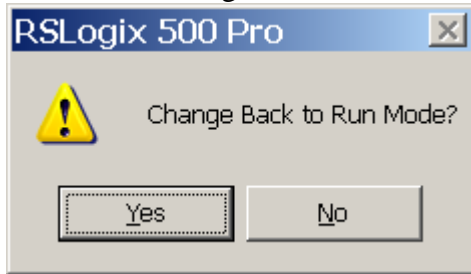
12. Then select “YES” to change modes.



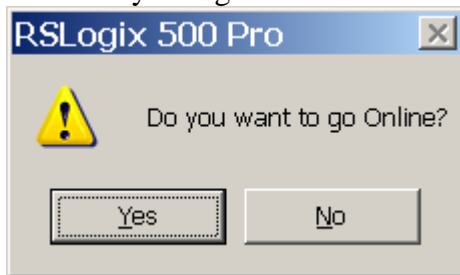
13. If you see this window, select Apply for channel configuration changes



14. Click Yes to go back to run mode.



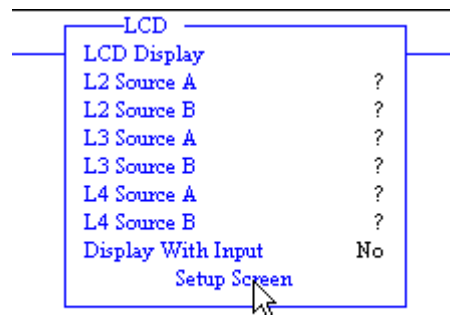
15. Click yes to go online



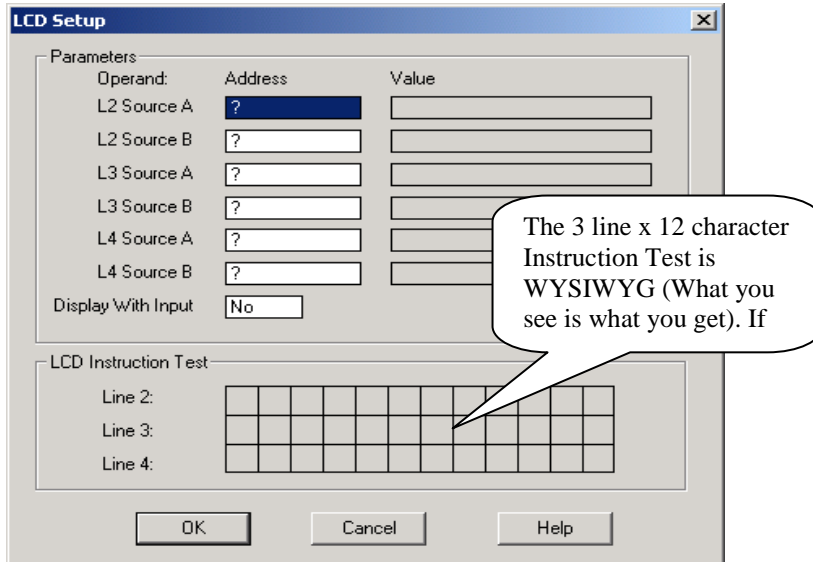
Next, we will explore the LCD display on the front of the MicroLogix 1100.

16. Right click on Rung 0000 → Insert Rung.

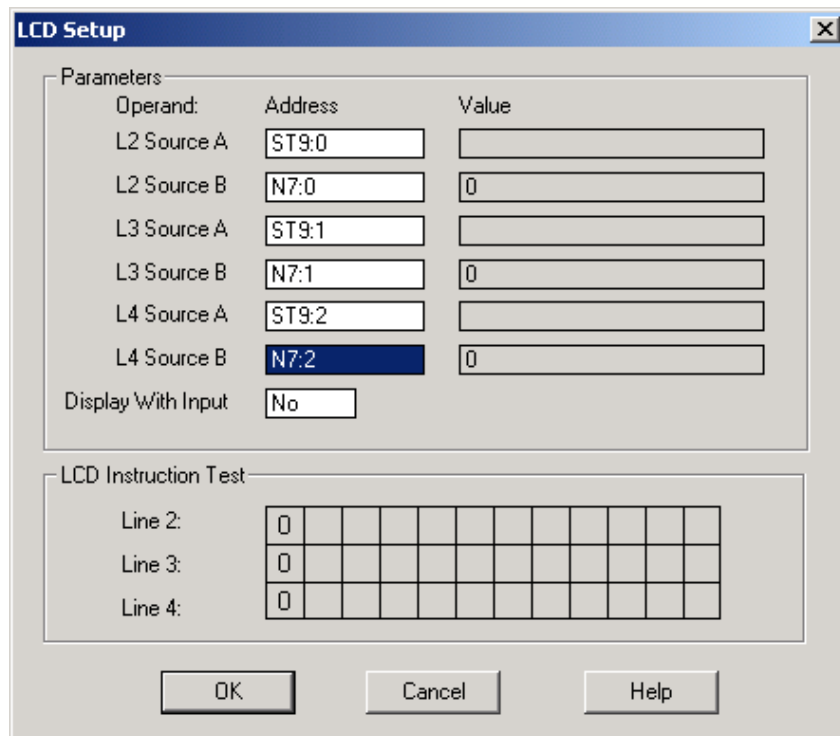
17. Type **LCD** and press Enter on your keyboard. The LCD instruction appears:



18. Double click **Setup Screen** at the bottom of the instruction. The following screen appears:



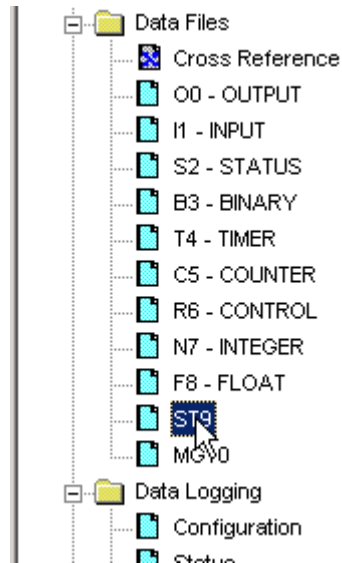
19. The first display we do will be the simplest. Fill in the LCD Setup as follows:



Notice the LCD Instruction Test only shows a “0” at the beginning of each line. To really test out the instruction, text needs to be put into the strings.

20. Click OK to exit the LCD Setup screen.

21. Double click the ST9 Data File.



22. Fill in the first three strings as shown. Remember, each line can only have 12 characters.

Offset	LEN	String Text	(Symbol)	Description
ST9:0	6	Parts=		
ST9:1	6	Model=		
ST9:2	9	Downtime=		
ST9:3	0			
ST9:4	0			

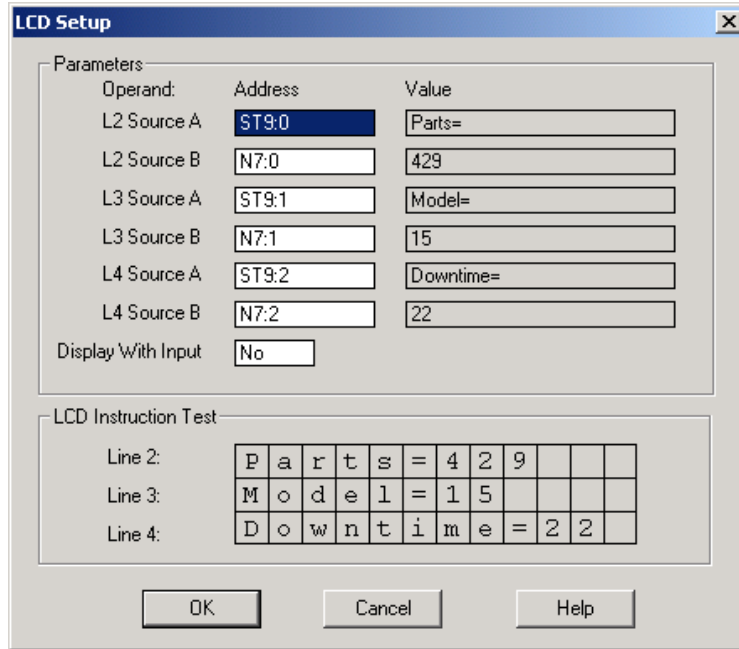
23. Close the Data File ST9 window.

24. Double click the N7 – INTEGER Data File, fill it in as shown:

Offset	0	1	2	3
N7:0	429	15	22	0
N7:10	0	0	0	0
N7:20	0	0	0	0

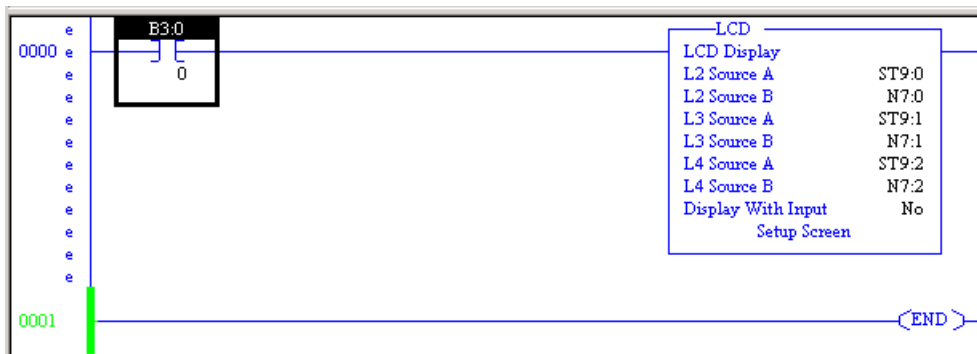
25. Close the Data File N7 window.

26. In the LCD instruction, double click “Setup Screen” again and notice that this time, the Instruction test shows a much more informative screen:

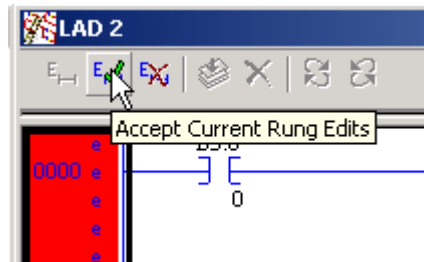


27. Click OK to close the Setup Screen.

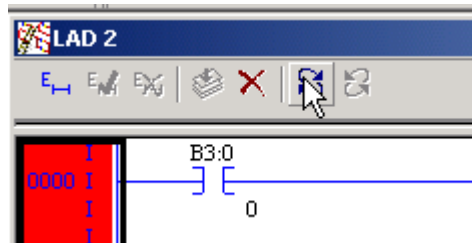
28. Insert an XIC with address B3:0/0 to activate the rung:



29. Click the Accept Current Rung Edits icon:

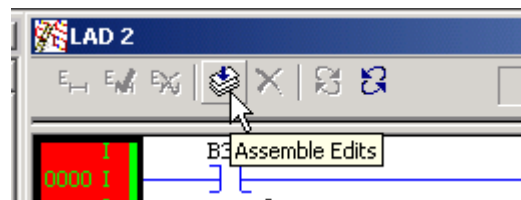


30. Click the Test Edits icon:



31. Click Yes if a window informs you that outputs will be left in their last state.

32. Click the Assemble Edits icon



33. Click Yes to the “Are you sure...” window.

34. Right click on B3:0/0 and click Toggle Bit so that it is energized.

Turn your attention to the MicroLogix 1100 on your DIN rail. The display that you saw in the LCD Instruction Test will soon be displayed on the LCD on the Micro 1100.

35. The LCD is currently displaying the status of the Inputs and Outputs. Press the ESC key.

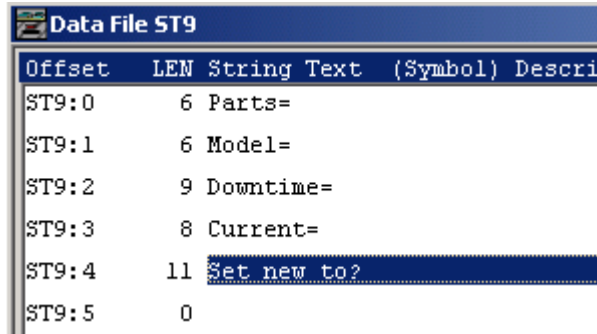
36. Press the Down Arrow until the asterisk is to the left of “User Displ”

37. Press OK. The message that you configured is now displayed.

38. While your message is displayed on the LCD, double click the ST9 Data File and change one of the strings, pressing your keyboard Enter key when done. Notice that the text changes on the LCD.

Next we will examine how to **input** data into the Micro using the LCD and keys on the front. We will add a second LCD screen which is displayed when the first screen is not.

39. The second LCD instruction will use two different text strings, so fill in ST9:3 and ST9:4 as follows:



Offset	LEN	String Text	(Symbol)	Descri
ST9:0	6	Parts=		
ST9:1	6	Model=		
ST9:2	9	Downtime=		
ST9:3	8	Current=		
ST9:4	11	Set new to?		
ST9:5	0			

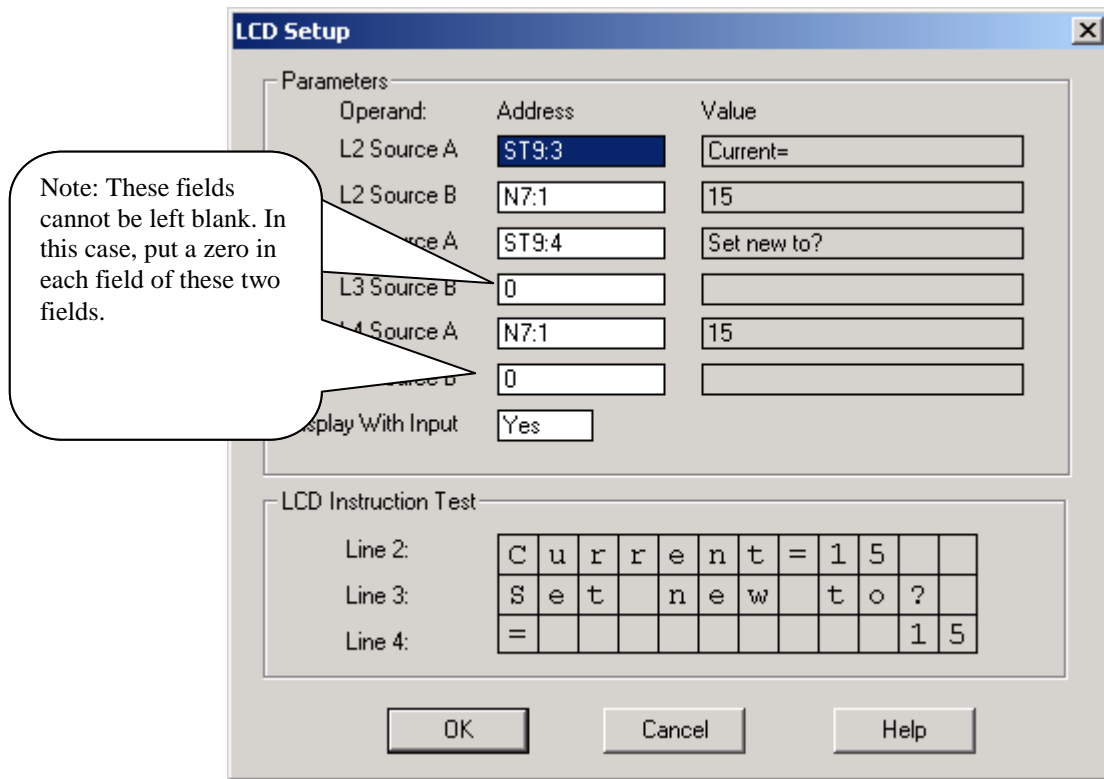
40. Close the ST9 Data File.

41. Right click on Rung 001 (the END rung), and click Insert Rung.

42. Type, "XIO B3:0/0 LCD" and press Enter.

43. Change "Display With Input" from "No" to "Yes."

44. Double click the setup screen and fill it in as follows:



45. Click OK to close the LCD setup.

46. Accept, Test and Assemble this rung.

47. Toggle B3:0/0 so that it is off.

Turn your attention back to the MicroLogix. The second screen is now displayed. Notice that the value of the current model is the same as it was on the first LCD screen that was displayed. This second screen also allows you to change the model number to a new value, which is blinking under the words, "Set new to?"

48. Use the up and down arrows on the Micro to change the value from 15 to something different.

49. Press the OK button on the Micro to accept these changes. Notice that the change is reflected on the "Current=" line.

50. Toggle the bit in RSLogix 500 again.

51. Back on the Micro, press OK and notice that the change is reflected on the original screen.

52. You might want to get out of the User Display. Hold the ESC button on the front of the Micro1100 down for 2 seconds, which will take you back to the menu screen.

TIP: If you hold the OK button down for 5 seconds, the serial port communications config will be set back to DF1 defaults. This will not affect the Ethernet configuration.

Now that is a powerful little controller!

END OF LAB