



APPLICATION NOTE

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Product: DataWorx
Subject: Do-more PLC support

Number: AN-DW-001
Date Issued: 02/12/14
Revision: Revision B

DataWorx now has direct support for the Do-more PLC and this application note contains instructions on how to configure DataWorx for the Do-more PLC.

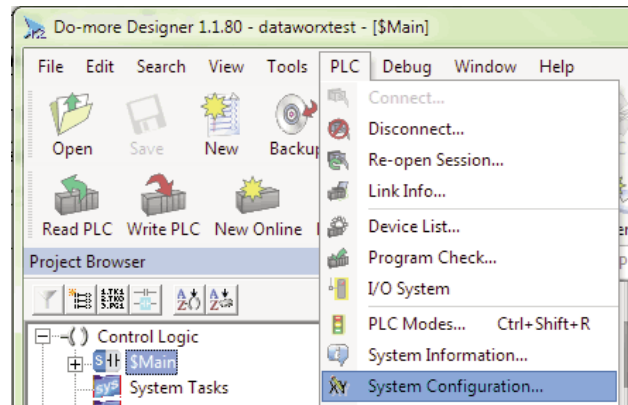
NOTE: You will need DataWorx version 2.2 build 99 or higher and a Do-more CPU with a built-in Ethernet port for this exercise.

NOTE: The Do-more PLC must have firmware version 1.1.2 or higher with a Booter version of 3.0.5 or higher for proper operation with DataWorx.

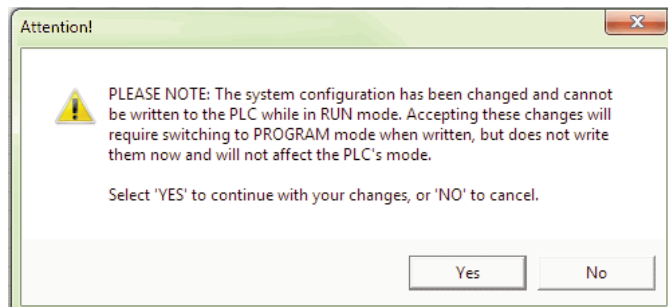
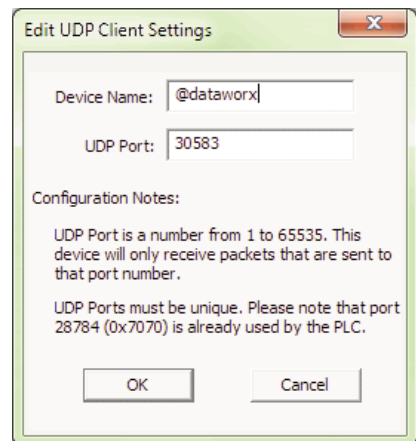
In Do-more Designer, first create a UDP device that will be used in the PACKETOUT instruction.

NOTE: Ensure you have assigned an IP address to the Do-more CPU either in NetEdit or under System Information in Do-more Designer.

- 1) Click on PLC from the menu bar > then click on System Configuration.
- 2) Now select Device Configuration > then New Device.



- 3) In the Device name field enter '@dataworx', and in the UDP port field enter '30583' > then hit ok > then hit ok once again to close out the configuration window.
- 4) Select 'Yes' to the pop up window.





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- 5) Next, on a empty rung enter a 'PACKETOUT' Instruction and fill in the fields with the below information:
 - a. **Device:** Select the newly created '@dataworx' device.
 - b. **IP Address:** Select Fixed and enter the IP Address of the PC running DataWorx.
 - c. **To UDP Port Number:** Enter '30583' (port number DataWorx is listening to).
 - d. **Data Start:** Select Numeric Data Block and enter: (These will match our DataWorx setup in a later step)
 - i. Buffer Start = V0
 - ii. Number of Bytes to Output = 8 (This will match our DataWorx setup in a later step)
 - e. **On Success:** Leave as default or select an unused C bit.
 - f. **On Error:** Leave as default or select an unused C bit.
- 6) Select the green checkmark to accept your selections.
- 7) Now for the input leg to the PACKETOUT instruction enter a Normally Open contact (F2) and assign an input or bool bit.

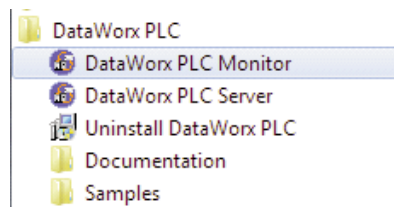
NOTE: Do not send data from the Do-more PLC to the DataWorx software using anything faster than a 500 msec update rate.

- 8) Accept and Download this project to the Do-more CPU.



These next steps focus on configuring DataWorx:

- 9) Open DataWorx PLC Monitor.



- 10) Now click on Options > Configure Server > then Add.

- 11) Use DataWorx to setup the PLC Configuration:
 - a. **IP Address:** enter IP Address of your Do-more CPU.
 - b. **Data Directory:** Select a directory in which you would like the .csv file stored.
 - c. **Do-more PLC:** Check this box. Do-more PLC
 - d. **PLC Configuration:** Enter 'V0'.

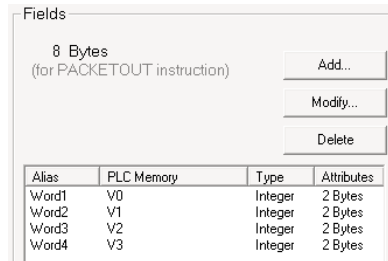
PLC Configuration

Start PACKETOUT Location

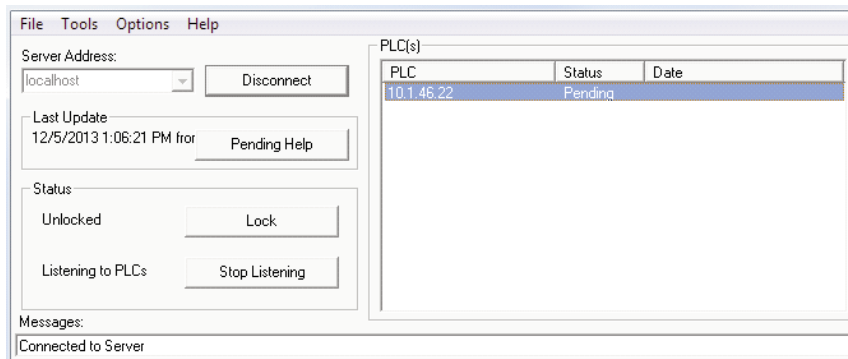


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12) Select Add and enter four (Integer) 2-byte words starting with V0.

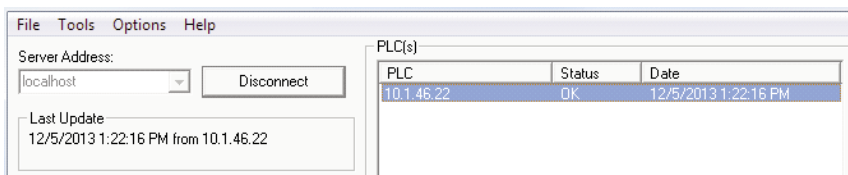


13) Select OK to finish the configuration. The DataWorx PLC Monitor should now look similar to the following.



14) Now trigger the input rung to the PACKETOUT instruction in the Do-more PLC.

15) You should get the below update in the DataWorx PLC Monitor window:



16) Now open the excel .csv file stored in the Data Directory we set up in step 11 b and verify the data was written.

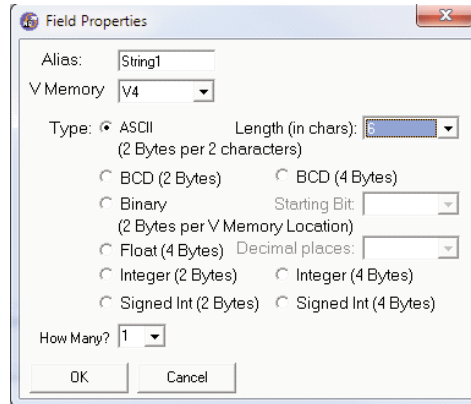


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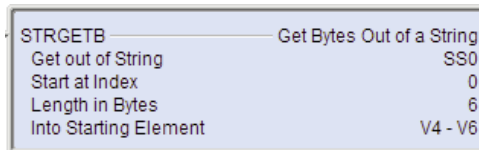
The following steps demonstrate how to send fixed length String (ASCII) data from the Do-more PLC to the DataWorx software:

NOTE: Close the .csv file, if open from the previous section, prior to proceeding.

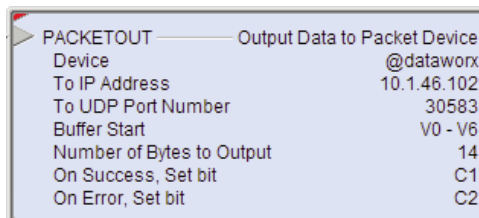
- 1) Open DataWorx Monitor > Connect > right click on device > configure.
- 2) Next click on Add, then configure the following settings:



- 3) Click on OK.
- 4) Open the Do-more project used in the previous section, if not already open, and go online.
- 5.) On Rung 1 insert a STRGETB instruction before the PACKETOUT instruction.
- 6.) Configure the STRGETB with the following settings:



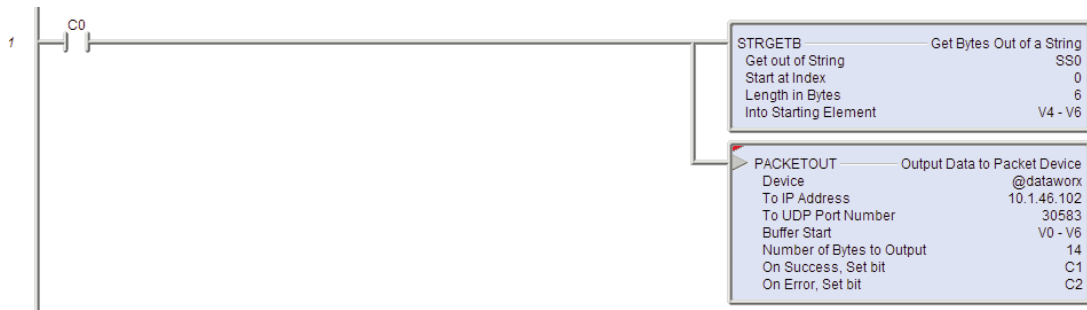
- 7) Add/Modify the PACKETOUT settings as seen below:



- 8) Rung 1 should now look like the following:



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- 9) Accept the changes > Write them to the PLC.
- 10.) Open Dataview > Enter SS0 into the Element field > in the Edit field enter 'abc123' and select Write Edits.
- 11.) Delete the .csv file stored in the DataWorx Data Directory we set up in step 11 b.

NOTE: This will allow a new .csv to be created once new data is received.

- 12.) Trigger the C0 contact.
- 13.) Now open the excel .csv file stored in the Dataworx Data Directory and verify the data was written.
- 14.) You should now see the previous V0-V3 and the new String1 data 'abc123' in your file.

NOTE: If a new .csv was not created or the data was not written, verify your setup and try again.

Technical Assistance

If you have any questions regarding this Application Note, please contact Technical Support at 770-844-4200.