

PLC133 LAB 2.3: RSNETWORX WORKING OFFLINE

Student Name: _____

Student ID: _____

LAB OUTCOMES:

1. Explain how to setup a configuration file (.dnt) with RSNetWorx for DeviceNet offline.
2. Demonstrate how to change Node Addresses offline

LAB PROCESS:

This lesson will cover how to setup a DeviceNet configuration file offline using RSNetWorx for DeviceNet.

Part 1

1. Open the RSNetWorx for DeviceNet software

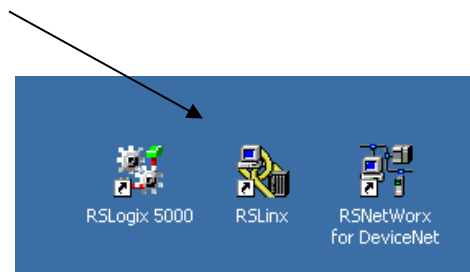


Figure 1-A

- Start a new DeviceNet Configuration File.



Figure 2-A



Figure 3-A

Window for New DeviceNet Configuration File

- The left side window contains available DeviceNet components divided into Categories (folders) base on device function.
- Does not need to be Allen Bradley / Rockwell devices

Note: Devices assigned to a Network Configuration File from Hardware window require registered EDS (Electronic Data Sheet) files in RSNetWorx

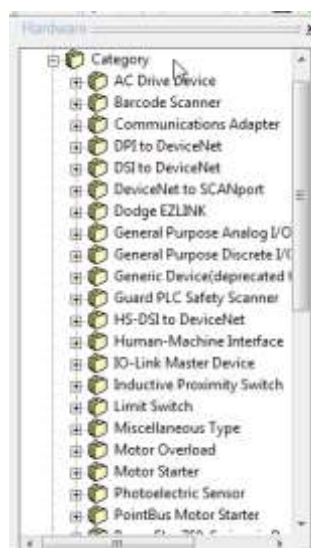


Figure 4-A

Hardware Window - Categories

- Click the + sign to the left of a Category Folder to view components.

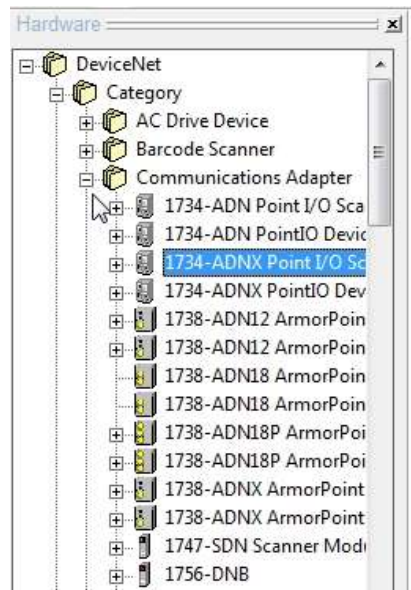


Figure 5-A
Category Devices

- Click the + sign to the left of a component to view available Revisions.

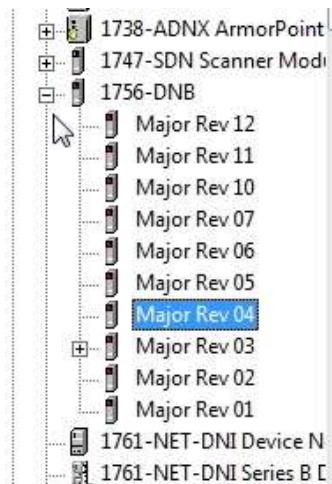


Figure 6-A
Device Revisions

6. Device Components can be searched for by using the Find Hardware utility

Right click in the Hardware window to show Find Hardware Utility.

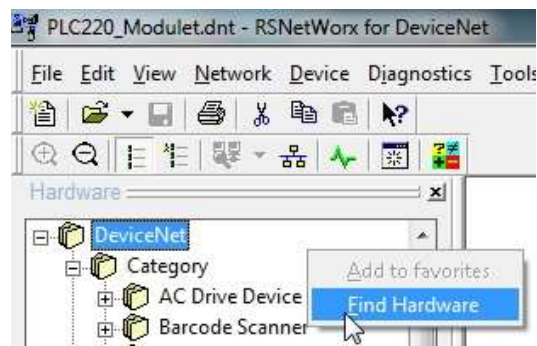


Figure 7-A
Find Hardware Utility

7. Click Find Hardware to show Find Hardware window.

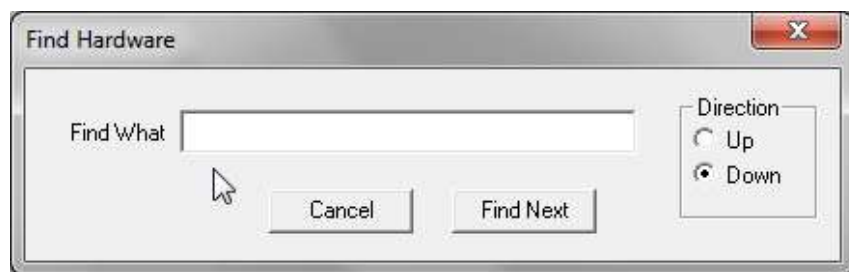


Figure 8-A
Find Hardware Window

8. Type in a description or part number in the Find What box for the component to Find
Example: Stack Light

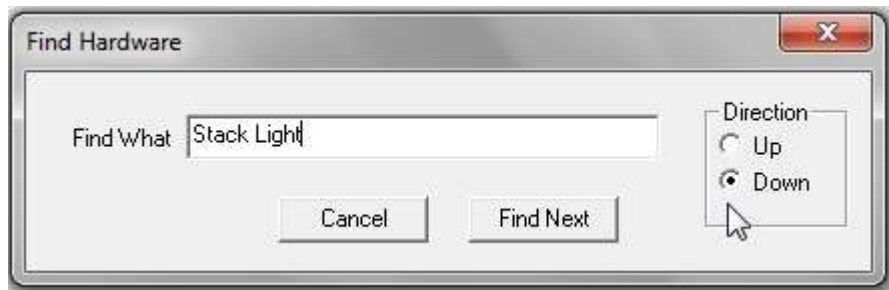


Figure 8-A

Choose a Direction (Up or Down) to search the Hardware Categories.

Note: The Search starts at the cursor location in the Hardware window. The Search does not wrap.

9. Click the Find Next to initiate Search

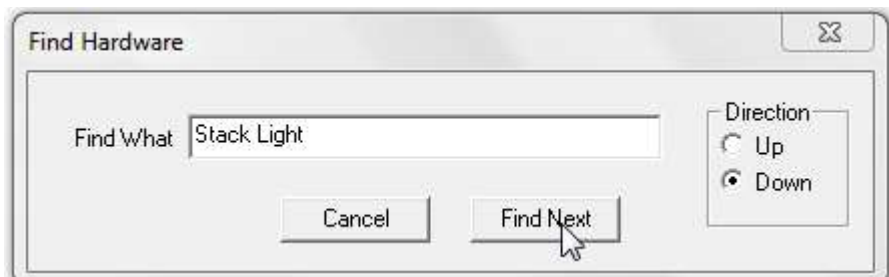


Figure 9-A

10. If a component is found, the component will have a grey highlight in the Hardware window

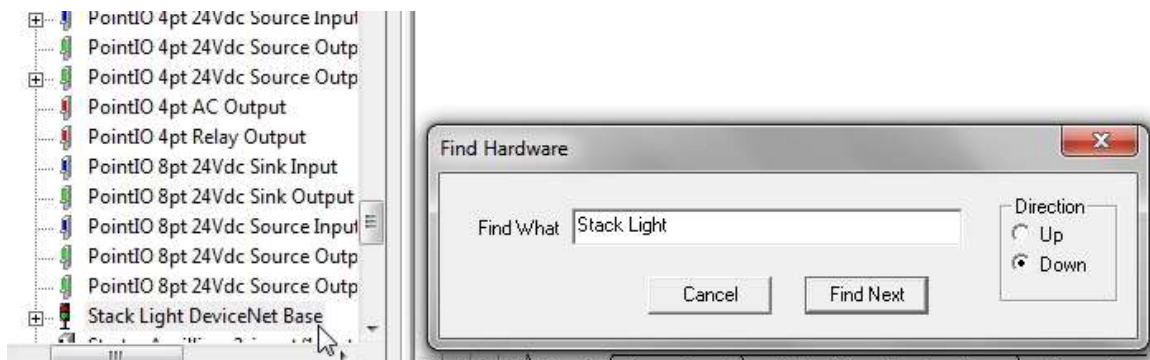


Figure 10-A

Stack Light Found Using Find Hardware Utility

11. When Search is Successful - Click the Red X to close Find Hardware window

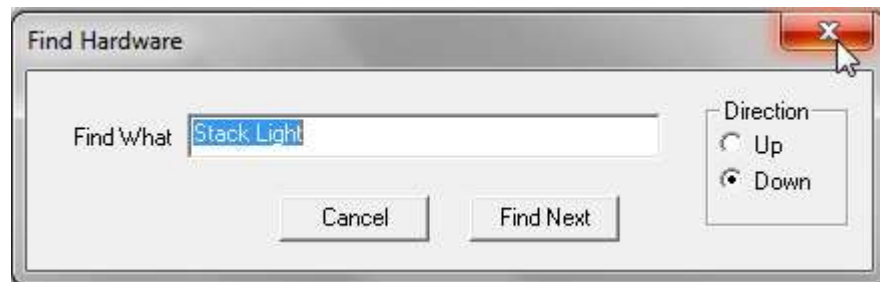


Figure 11-A

12. If a device has more than one Major Revision – click the + sign to the left of the device icon to choose required Major Revision (Rev)

Note: If there is no + sign the device has only one major revision registered in RSNetWorx for DeviceNet.

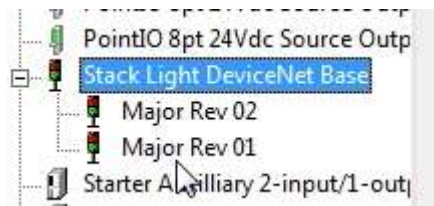


Figure 12-A

Device Major Rev

13. Click on the device or its required Major Rev to add it to the network layout window

Note; If there are multiple Major Revs for a device and one is not specifically selected the latest Major Rev will be assigned to the device.



Figure 13-A
Network Window – Device Added

Note: The device will be assigned the next available Node Address on the network

Example: The Stack Light is the first component added to the network – the Stack Light is assigned a Node Address 00.

14. To change the Node (MAC) Address (ID) – right click the device icon and choose Properties from the context menu

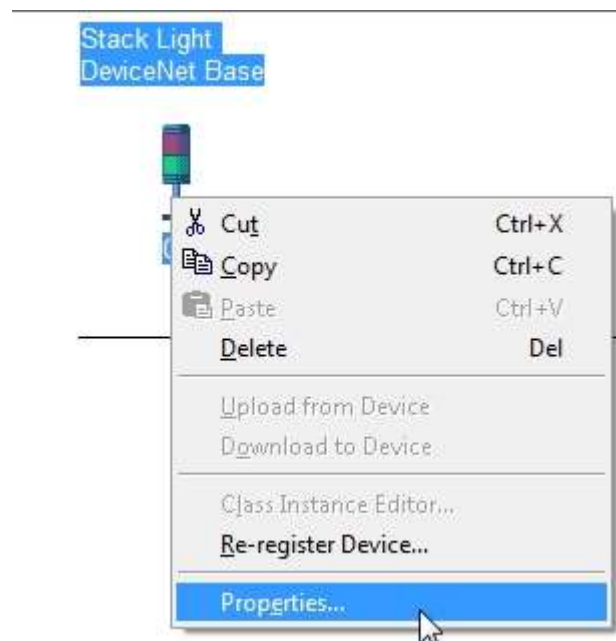


Figure 14-A
Stack Light Properties

15. From the General Tab – Address Spin box shows current device Address (Node)

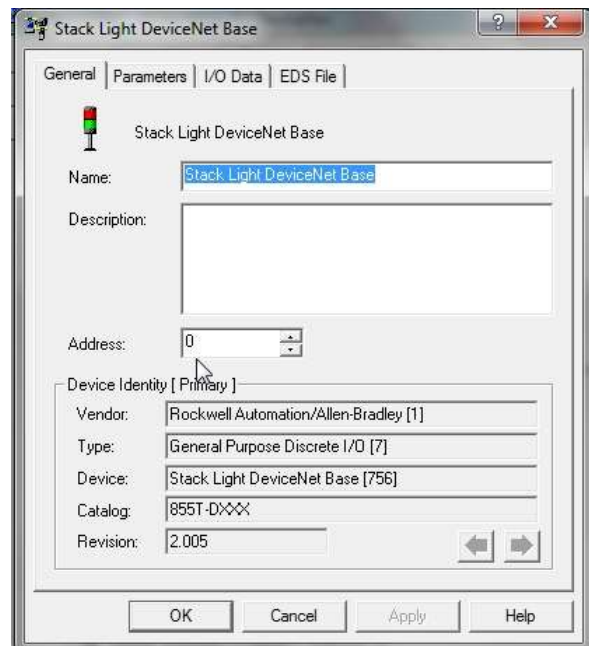


Figure 15-A
View Device Address

Note: Device Revision information also shown on General tab

16. Modify Address to required network node.

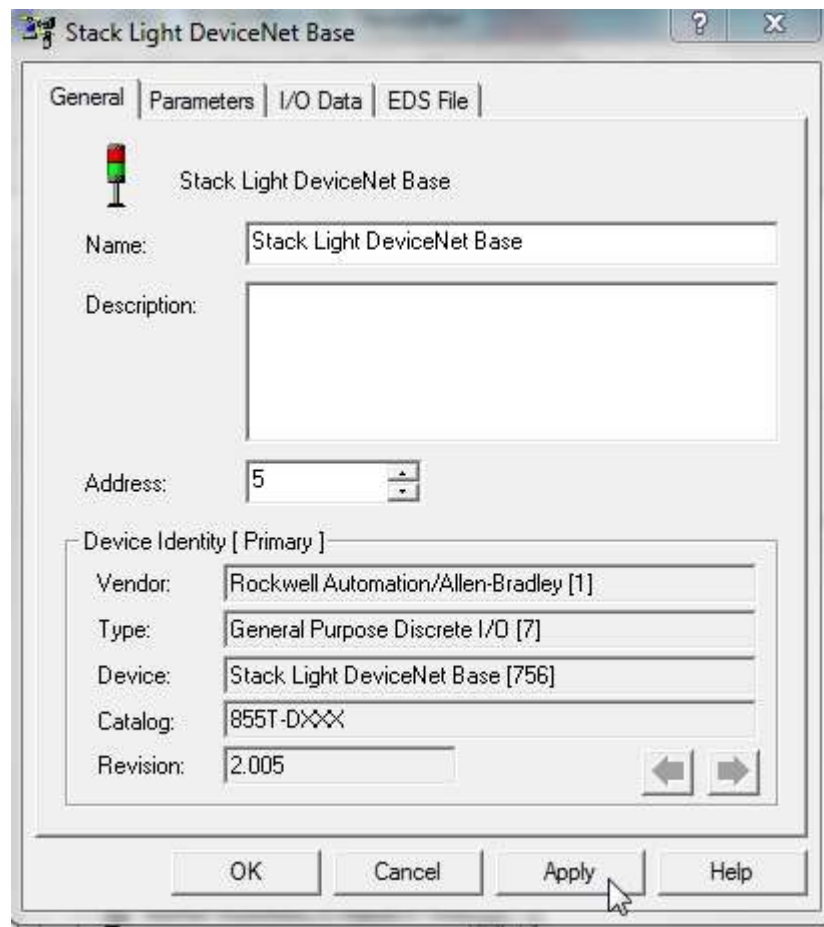


Figure 16-A
Modify Device Address

Click the Apply or OK button to accept the change

17. From the Network layout window - Component now has different Address assigned

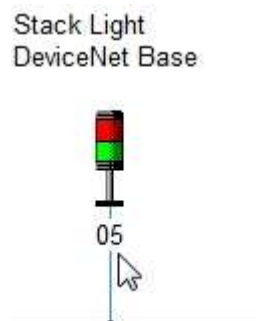


Figure 17-A
Stack Light – Node (Address) 05

18. An alternate way of modifying the device's address to double click the node Address number below the device icon on the Network Layout window

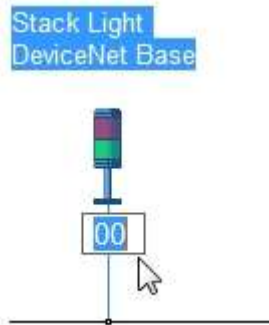


Figure 18-A
Modifying Device Address

19. Type the new / required address in the entry box.

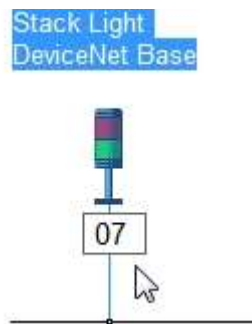


Figure 19-A
Assigning a New Device Address

20. Press Enter key on keyboard or click white space on Network Layout window to assign modified address setting

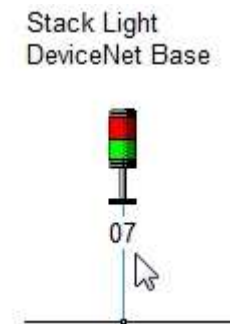


Figure 20-A
New Device Address Assigned

Create on Offline Network Configuration

Use the follow component information to create a DeviceNet Network Configuration offline

- Node 01 1756-DNB Module Major Rev 7
- Node 03 RightSight Standard Diffuse Photoeye
- Node 06 Stack Light DeviceNet Base Major Rev 2
- Node 02 PowerFlex 4 1P 110V .25HP Major Rev 4

Figure 21-A shows the completed Network Configuration

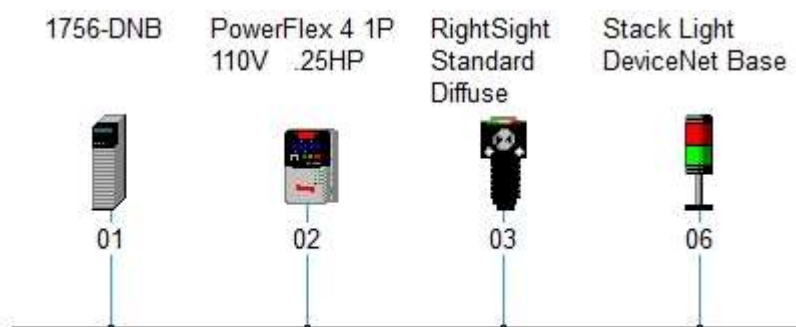


Figure 21-A

Save the Network Configuration File as: PLC220_Module4_Offline_EX3.dnt

Review Questions

1. T F ALL NETWORK DEVICES REQUIRE A REGISTERED EDS FILE.

2. WHICH SOFTWARE IS USED TO BUILD A DEVICENET CONFIGURATION FILE
 - A) RSLOGIX 5000
 - B) STUDIO 5000
 - C) RSLINX
 - D) RSNetWORX FOR DEVICENET

3. WHICH DEVICE IN THE ABOVE NETWORK CONFIGURATION IS NODE 10:
 - A) 1756-DNB
 - B) POWERFLEX 4 VFD
 - C) RIGHTSIGHT PHOTOEYE
 - D) STACK LIGHT

4. T F A 1756-DNB MODULE MUST BE NODE 01 ON A DEVICENET NETWORK

5. A 1756-DNB MODULE IS WHAT CATEGORY OF DEVICENET COMPONENT?
 - A) GENERAL PURPOSE DISCRETE I/O
 - B) COMMUNICATION ADAPTER
 - C) DEVICENET PROCESSOR
 - D) DEVICENET TO SCANPORT
 - E) INTERFACE I/O

6. TRUE OR FALSE. ALL HARDWARE DEVICES LISTED IN RSNetWORX FOR DEVICENET ARE ALLEN BRADLEY DEVICES?

The outcomes of this exercise (listed on page 1) specifies the skills that the Student must demonstrate to the Instructor. Once the Instructor is satisfied with the demonstration of Knowledge & Skills by the individual student, they will sign this document (for the student), then enter a 100% into the Hands-On Lab grade in Sakai.

I verify that this student has completed all of the requirements of this Hands-On Assessment:

Student Name: _____

Faculty Signature: _____ Date: _____

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