



**BusWorks® 900EN Series
10/100 Mbps Industrial Ethernet I/O Modules**

APPLICATION NOTE

**Communicating To Acromag
Series 9xxEN-60xx Ethernet Modules
From Legacy Allen Bradley or
Rockwell Automation Devices**

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OBJECTIVE

This document illustrates a procedure for configuring message commands for Acromag Series [9xxEN Ethernet/IP modules](#) using ladder logic programming and an SLC5\05 Programmable Logic Controller. It is assumed that the user has a working knowledge of ladder logic programming, the RSLogix500 software, and the SLC 5\05 hardware.

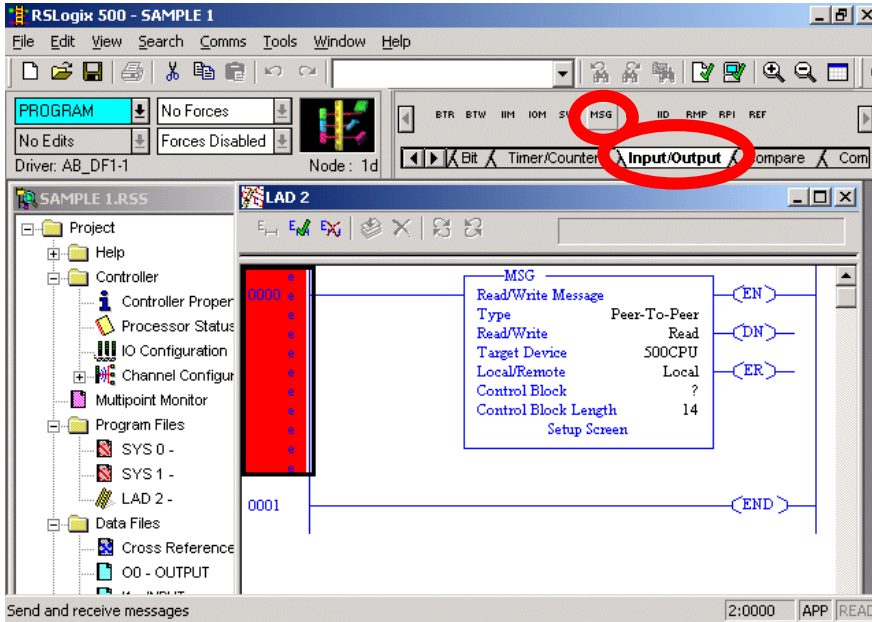
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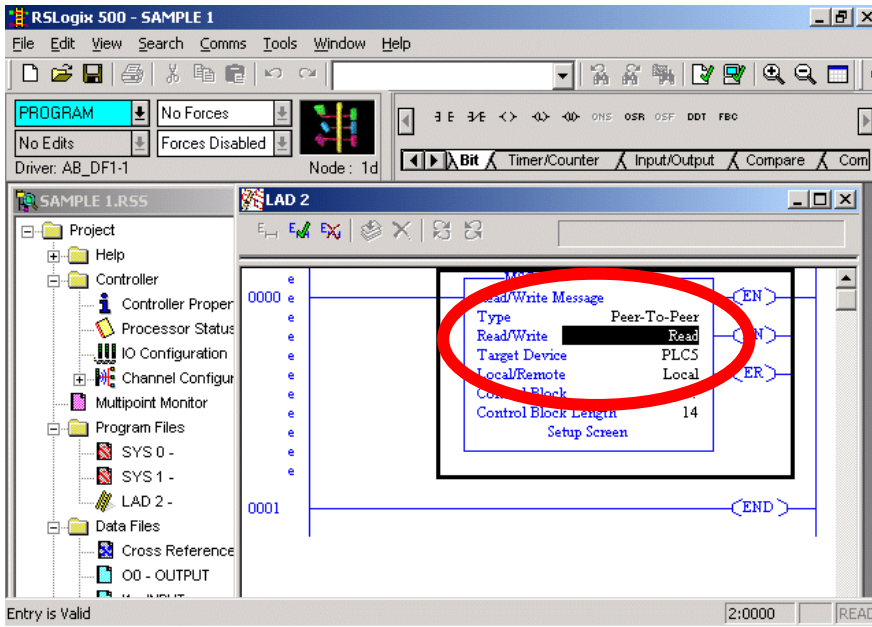
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Setup Of PCCC Communication To Series 9xxEN-60xx I/O Modules

1. From a new or existing project, insert a Message Box by clicking on the **Input/Output** tab on the SLC500 Instructions box, then clicking on **MSG**.

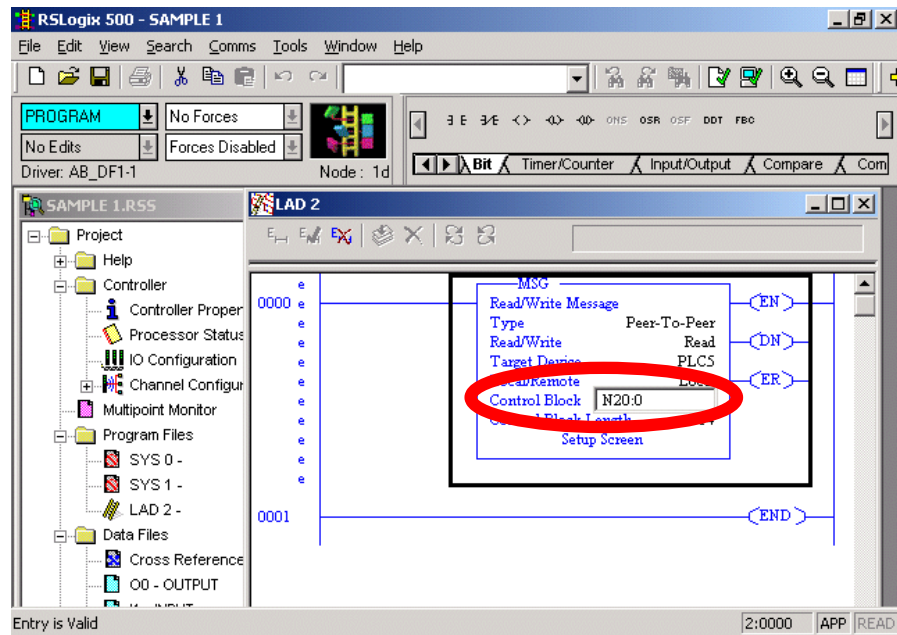


2. In the **MSG** box, verify that the message is **Peer-To-Peer**.
3. Double-Click on the **Read/Write** option and choose either a **Read** or **Write** to the module.
Note: All N7:XX addresses are READ ONLY.
4. Double-Click the **Target Device** option, and select **PLC5**.
5. Double-Click the **Local/Remote** option and select **Local**.



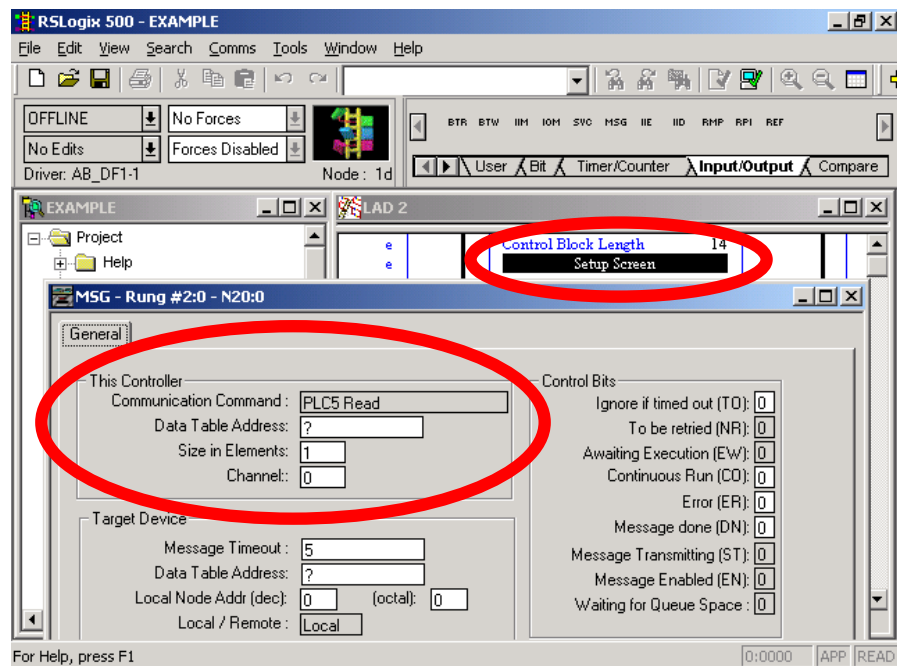
6. For the **Control Block**, a free address must be chosen. For this example, the chosen address begins at N20:0.

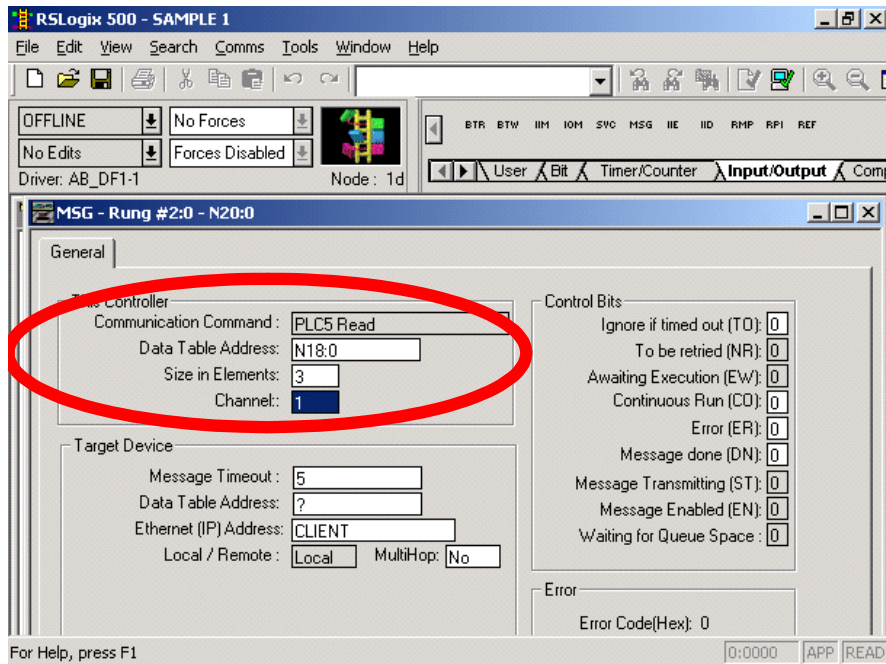
Note: Enough space must be allocated to the control block for the MSG command to work properly. In this example, the first message box starts the control block at N20:0. The Control block length is 51, which means N20:0 – N20:50 must only be used for this message. If a second control block were to be added, it must start at N20:60, to prevent interfere with the first control block.



7. Next, Double-Click on the **Setup Screen** option.
8. In the Setup Screen window, locate the box labeled **This Controller**. Inside the box there are three changeable attributes: **Data Table Address**, **Size in Elements**, and **Channel**.

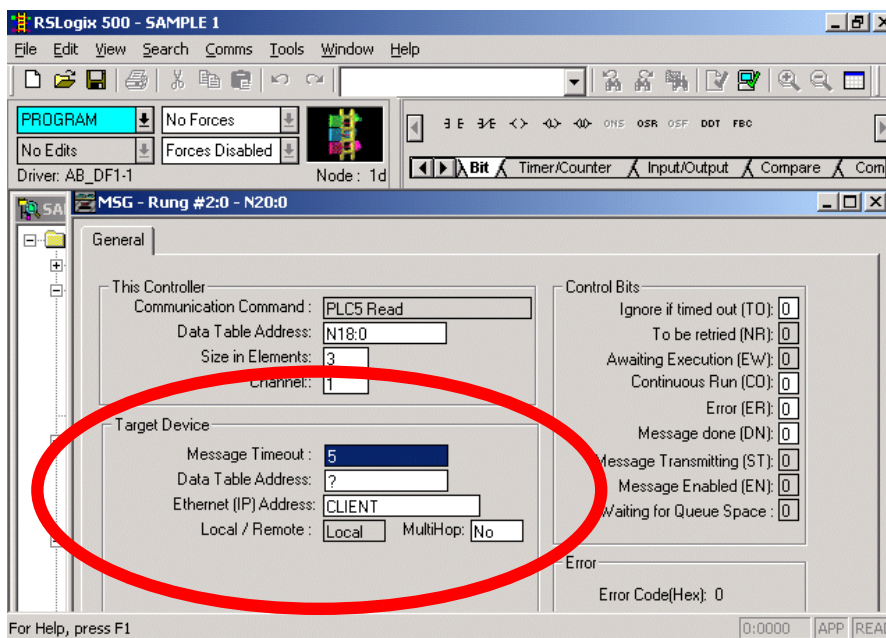
The **Data Table Address** option allows the user to choose where the data to be written, or the data read back from the module is stored. Double-click on the **Data Table Address** box and type in the desired address, then press **Enter**. In the example below, the address used was N18:0, but can be any unused data block.





The **Size in Elements** option allows the user to read or write multiple addresses. Double-click the **Size in Elements box**, type in the number of addresses to read or modify, and press **Enter**. In this example, the size in elements is 3, so addresses N18:0, N18:1 and N18:2 will be used to store what is read from three module addresses (Determined in Step 9).

The **Channel** option allows the user to choose between using the RS232 port or the Ethernet port. Double-click on the **Channel box**, select **1**, and press **Enter**. In this example, Channel 1 was chosen, which represents the Ethernet port.

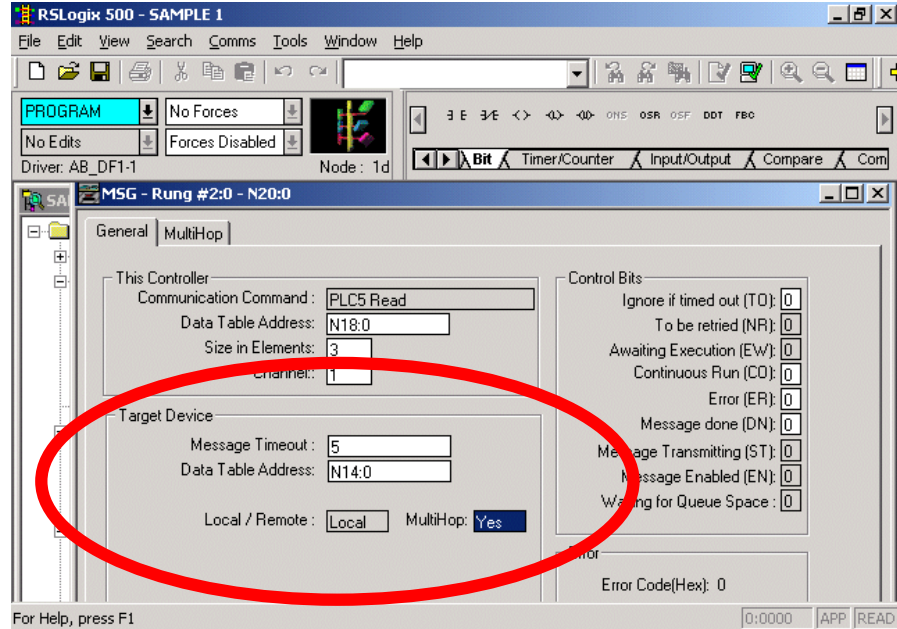


- In the Setup Screen window, under the **Target Device** box, there are 4 changeable attributes: **Message Timeout, Data Table Address, Ethernet (IP) Address, and MultiHop.**

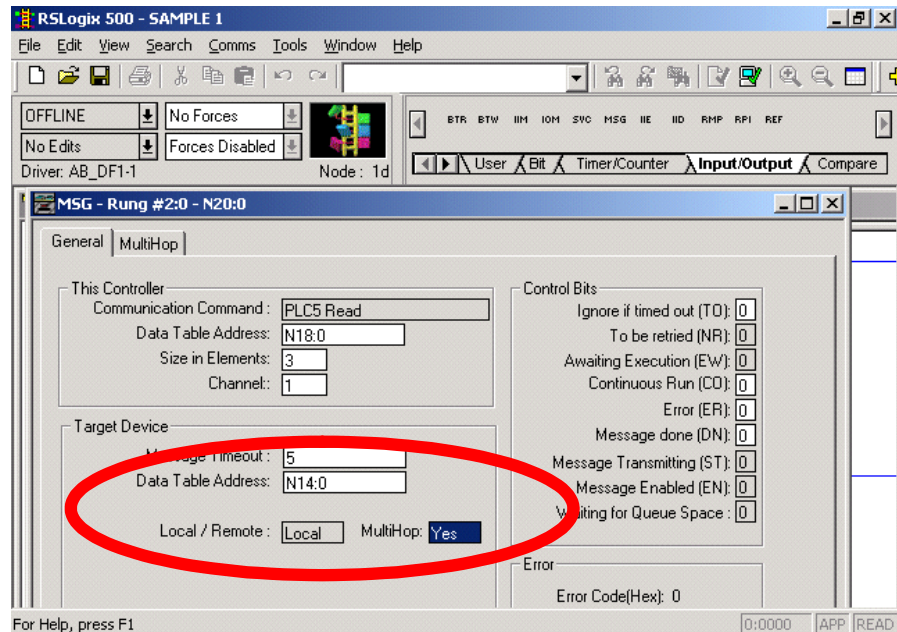
The **Message Timeout** is a user-specified timeout (in seconds) to receive or send a message. In this example, a value of 5 was chosen.

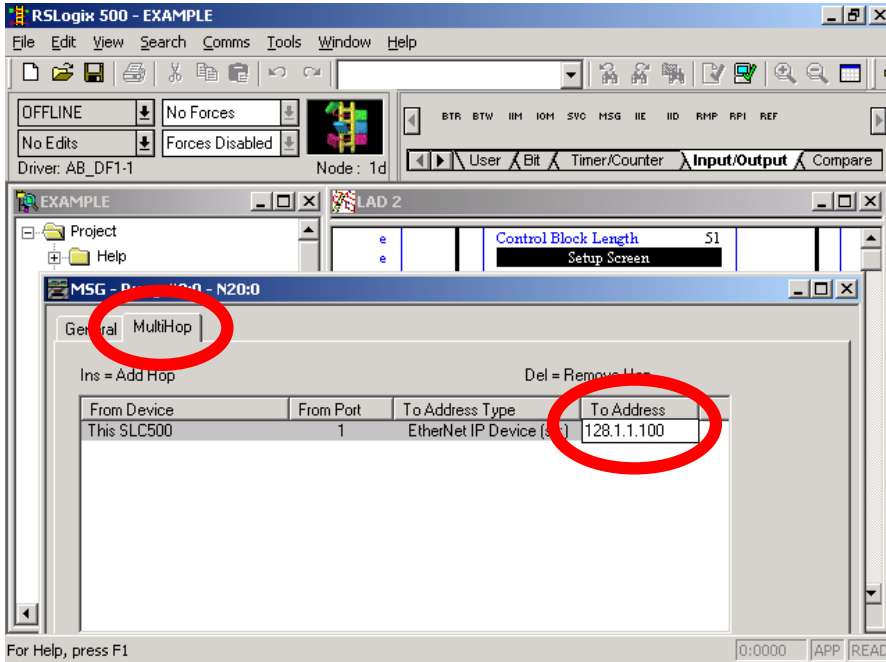
The **Data Table Address** option allows the user to specify where the message is reading/writing from/to the module. To change the address, double-click the **Data Table Address box**, type in the desired address, and press **Enter**. In this example, the addresses N14:0, N14:1, and N14:2 (three elements), are read from the module and stored in the address specified by the data table address given under **This Controller**.

Note: The PCCC mapping for any 9xxEN-60xx module is located in the PCCC Object section of the user's manual.



The **MultiHop** option should be turned on to ensure that PCCC communicates over Ethernet/IP. This is done by double-clicking the **MultiHop box**, selecting Yes, then pressing **Enter**. In this example, MultiHop was selected. With MultiHop on, the **Ethernet (IP) Address** option has been removed from the box.





10. In the Setup Screen window, select the **MultiHop** tab and type in the address to the module under the heading **To Address**. After this is completed, press **Enter** to save the changes. In this example, the default address of an Ethernet/IP module was entered. This address may vary depending on the configuration of your SLC 5/05.
11. Repeat steps 1 through 10 for another message command.

Notes: