Technical Note

ProSoft®
T E C H N O L O G Y

Sample Message Instructions for Processor to Processor Communications using the AN-X2-AB-DHRIO DH Plus Bridge

Document Code:TN130628-001
Author: Tom Lenigan
Date: July 2013

Asia Pacific
Malaysia Office
Phone: +603.7724.2080
asiapc@prosoft-technology.com
Languages spoken: Chinese, English

China Office
Phone: +86.21.5187.7337
asiapc@prosoft-technology.com
Languages spoken: Chinese, English

Europe, Middle East, Africa
France Office
Phone: +33 (0)5.34.36.87.20
europe@prosoft-technology.com
Languages spoken: French, English

Middle East and Africa
Phone: +971.(0)4.214.6911
mea@prosoft-technology.com
Languages spoken: English, Hindi

North America
Corporate Headquarters
Phone: +1 661.716.5100
support@prosoft-technology.com
Languages spoken: English, Spanish

Latin America
Brazil Office
Phone: +55.11.5083.3776
brasil@prosoft-technology.com
Languages spoken: Portuguese, English

Mexico and Central America Office
Phone: +52.222.3.99.6565
soporte@prosoft-technology.com
Languages spoken: Spanish, English

Regional Office
Phone: +1.281.298.9109
latinam@prosoft-technology.com
Languages spoken: Spanish, English

ASIA PACIFIC | AFRICA | EUROPE | MIDDLE EAST | LATIN AMERICA | NORTH AMERICA

Document Information

Author	**Tom Lenigan**
Description	**Sample Message instructions for Processor to Processor communications**
Date	**July 2013**
Revision	**1.01**
Product Name	**AN-X2-AB-DHRIO**
Document Code	**TN130628-001**

ProSoft Technology
5201 Truxtun Ave., 3rd Floor
Bakersfield, CA 93309
+1 (661) 716-5100
+1 (661) 716-5101 (Fax)
http://www.prosoft-technology.com

The AN-X2-AB-DHRIO gateway when operating with the AN-X2-DHP firmware selected emulates a ControlLogix Hardware Gateway. This gateway enables Programming Terminals, SCADA, DCS, HMIs, and processors to communicate through the gateway to various legacy processors on the DH+ network.

This TechNote will show samples of Processor to Processor communications via Message instructions, and how to configure the path to the devices on the DH+ network. The DH+ bridge firmware has been designed to take communications from the Ethernet interface and pass them to the devices on the DH+ network. Communications that originate from the DH+ network cannot be routed to devices on the Ethernet network.
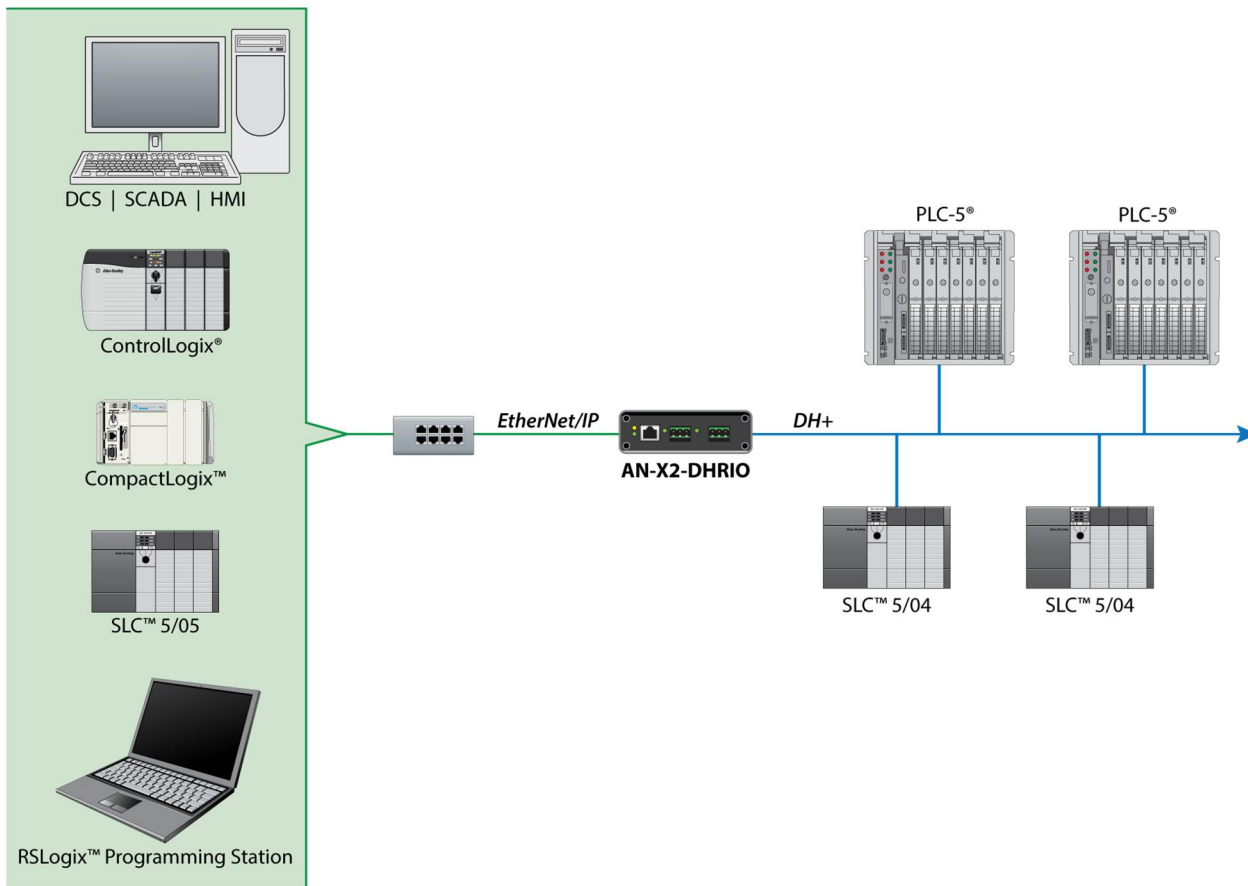
General Message Instruction Information:

1) When using CompactLogix™ or ControlLogix® processors:
   a. It is not possible to configure MSG instructions with binary data types
   b. It is not necessary to add in the AN-X2 gateway into the I/O tree when using MSG instructions

2) The Source and destination tags or data files data types must match

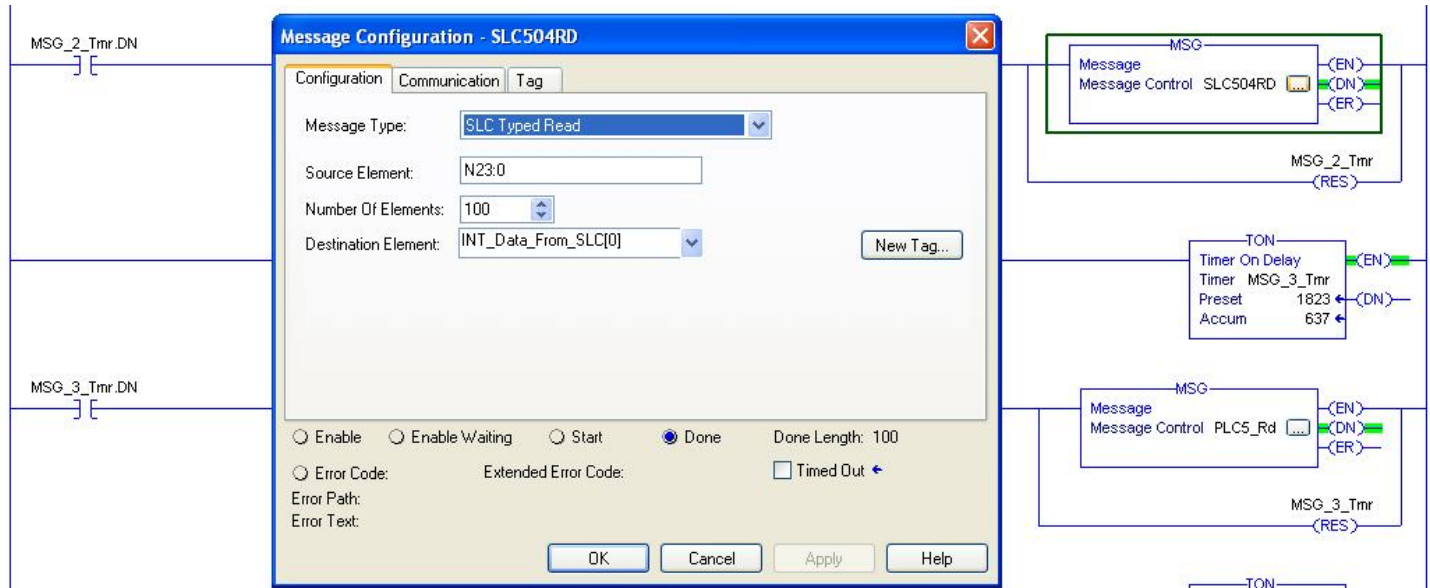3) Cannot be continuously enabled, but must be enabled based upon some trigger condition

CIP Path Information:

Since the AN-X2 Gateway emulates a 4 slot ControlLogix® Hardware Gateway here is the breakdown of the CIP portion of a CompactLogix™ sample path:


Out the Ethernet Port

To the backplane (Emulated by the gateway)

AN-X2 IP Address (Emulated 1756-ENBT)

To Slot 1 (Emulated 1756-DHRIO Module)

CompactLogix MSG samples to a SLC5/04

Read

The IP Address listed in the path below is the IP address of the AN-X2 Gateway
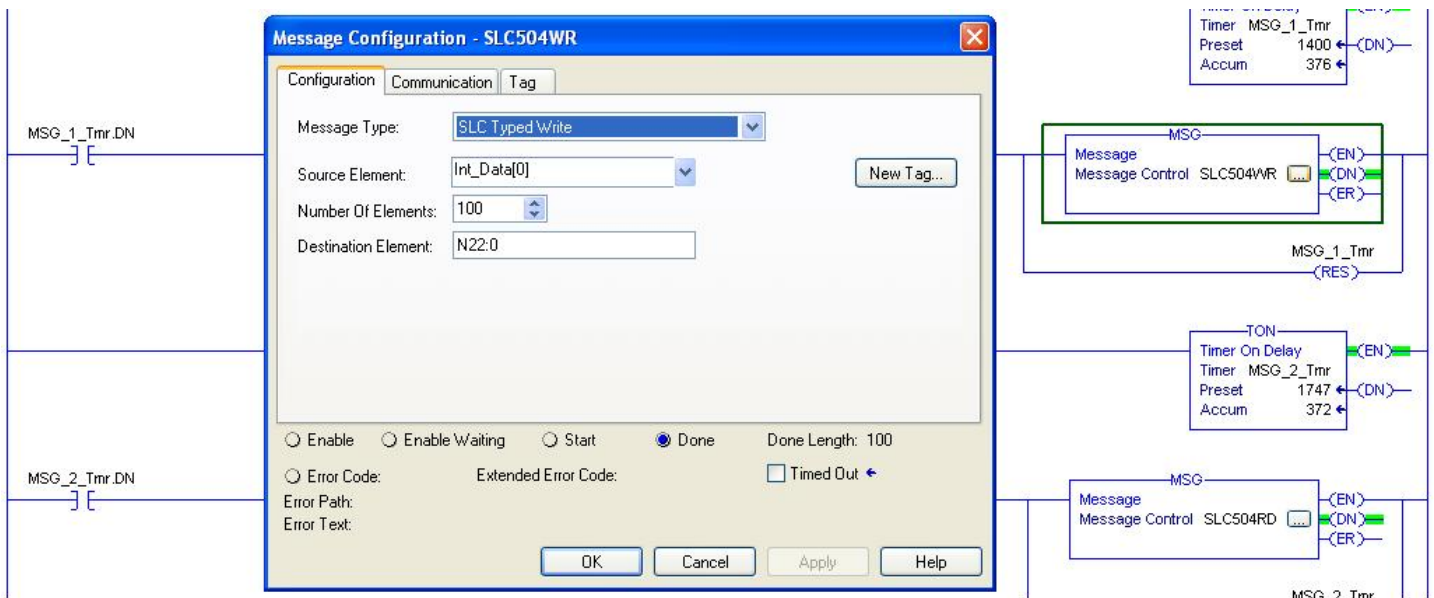
SLC5/04 DH+ Node Address
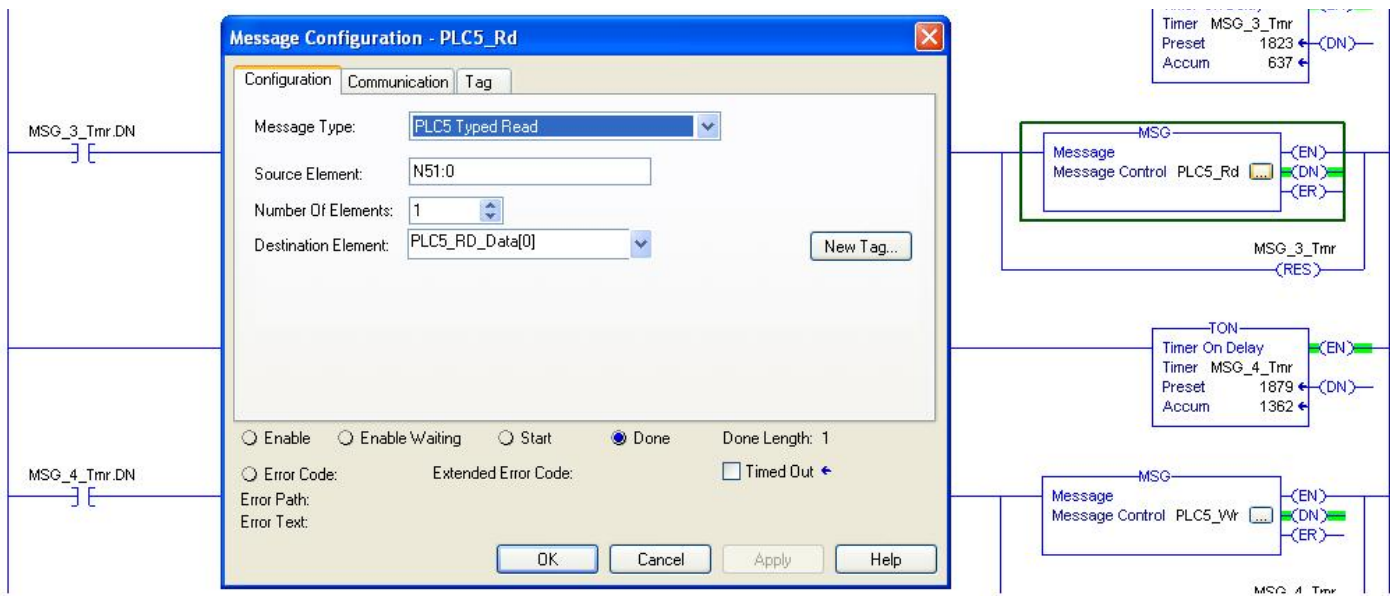
Write

The IP Address listed in the path below is the IP address of the AN-X2 Gateway
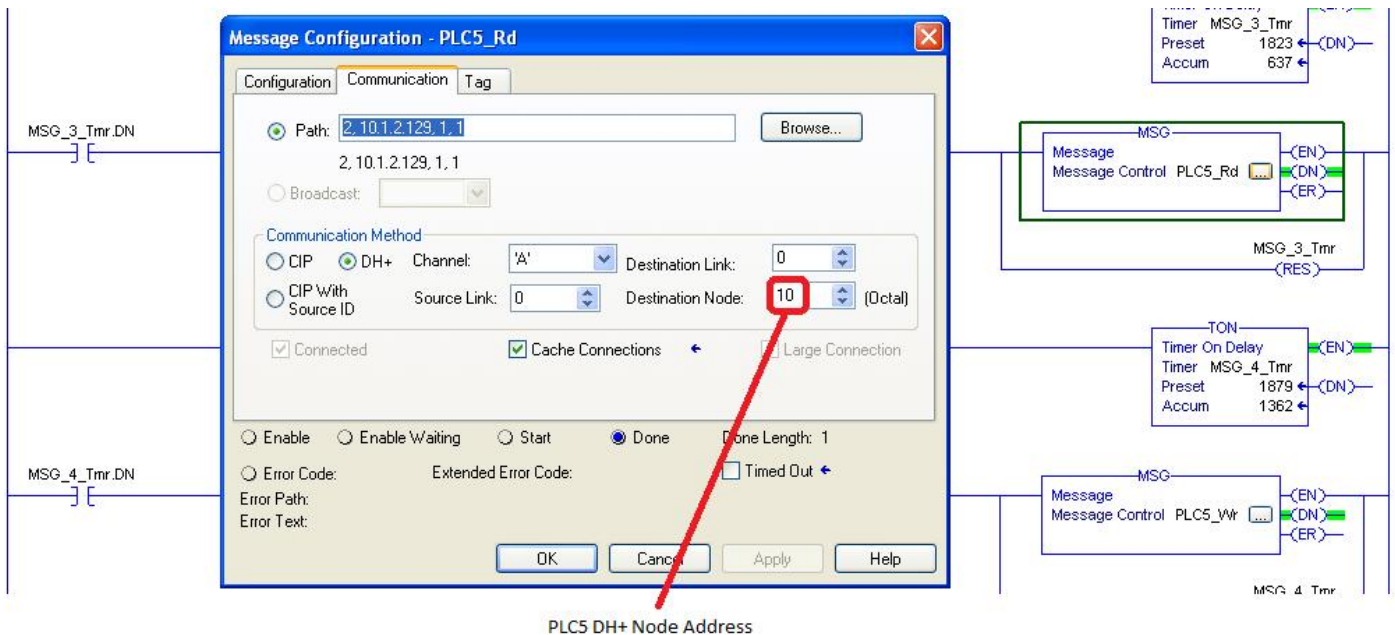

SLC5/04 DH+ Node Address
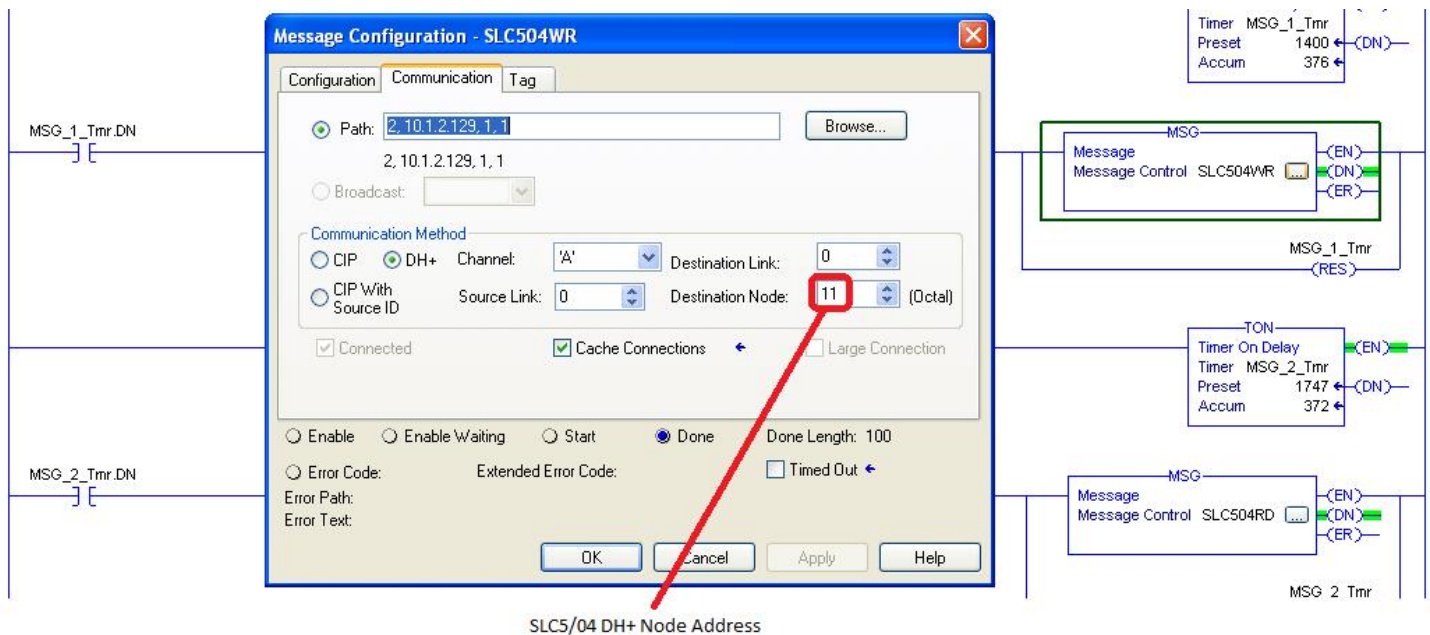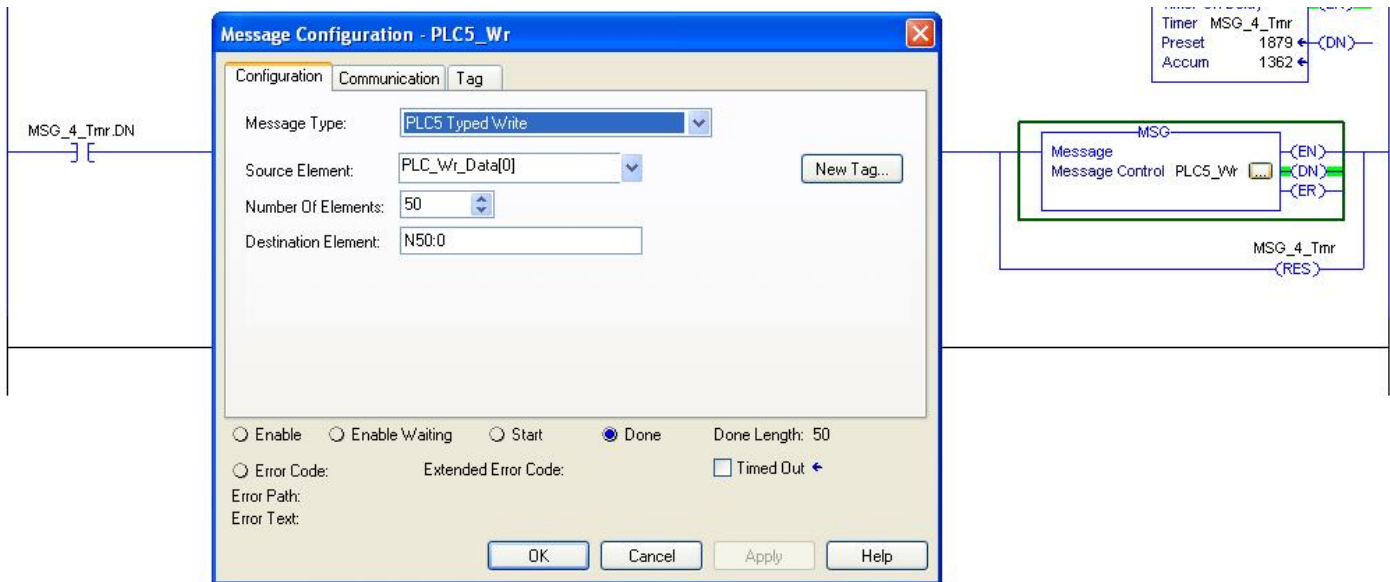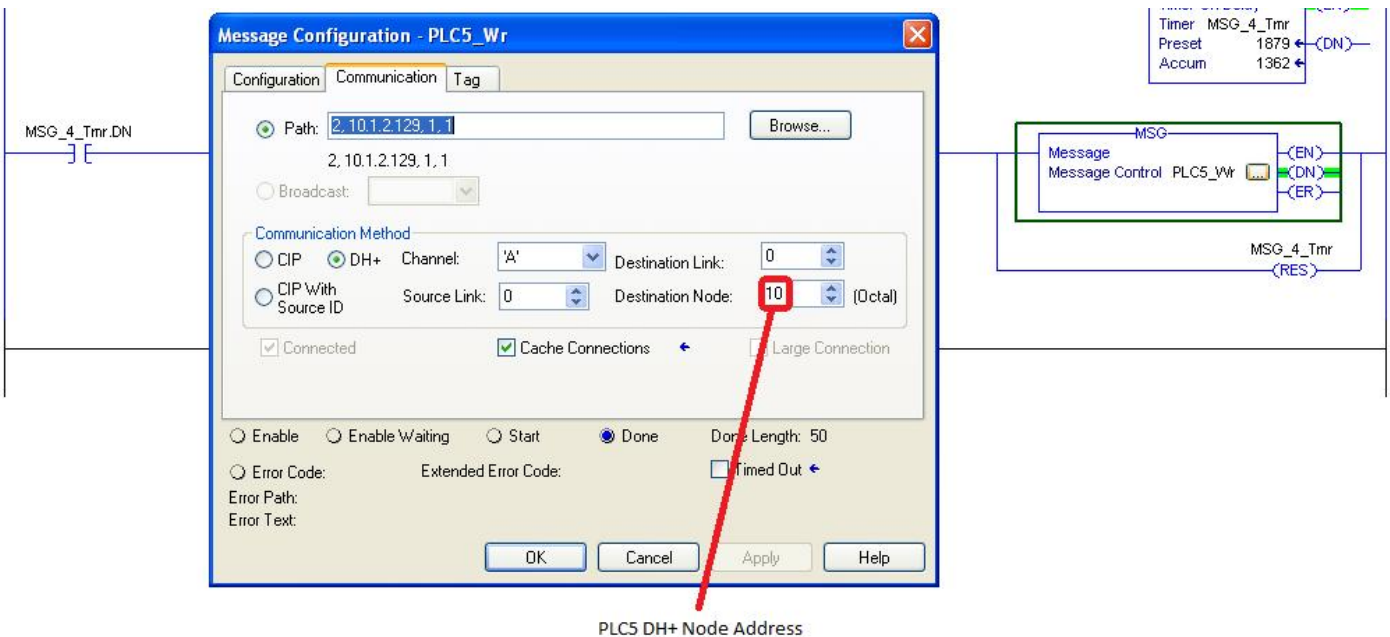
CompactLogix MSG samples to a PLC-5®
Read

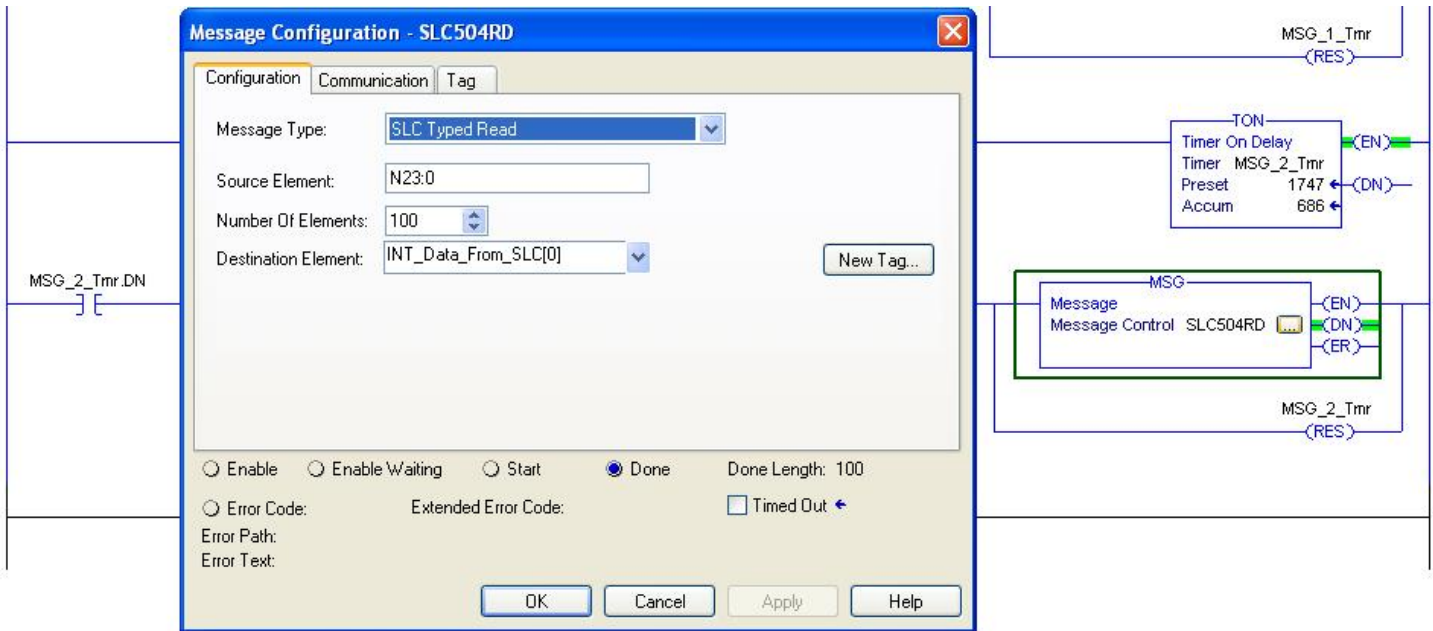The IP Address shown in the Path statement is the IP Address of the AN-X2 Gateway

PLC5 DH+ Node Address

Write

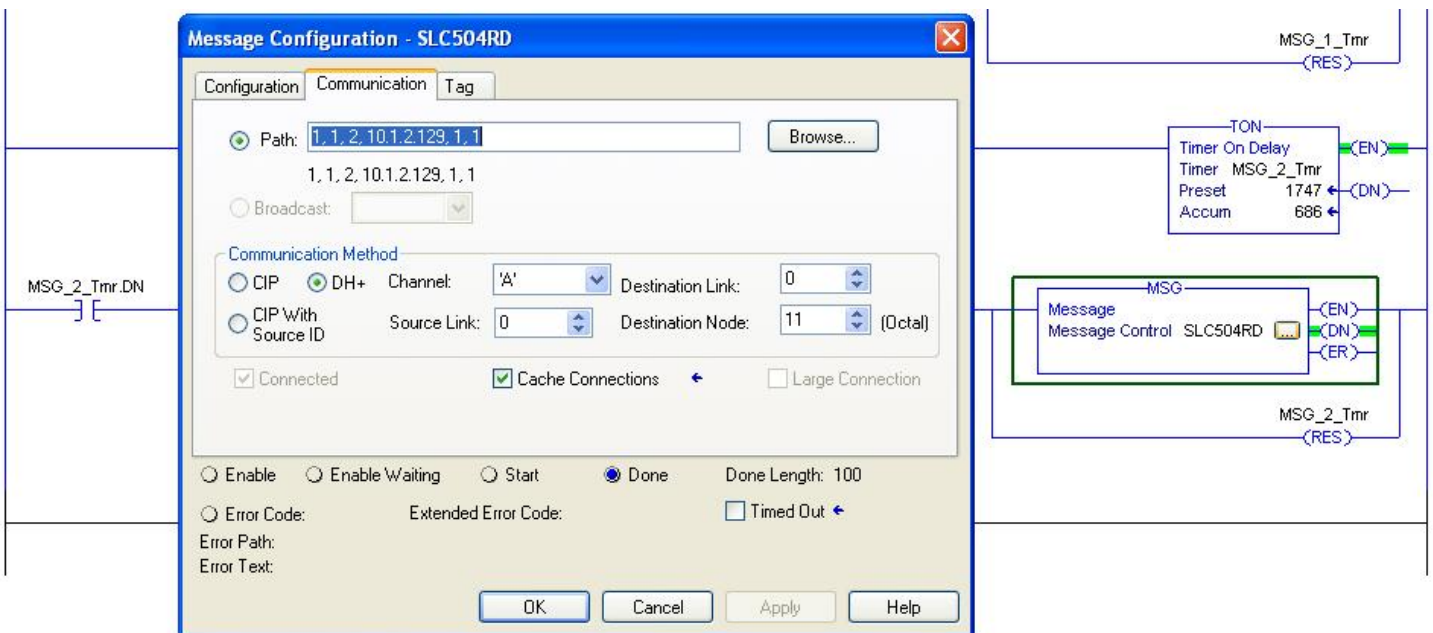The IP Address shown in the Path statement is the IP Address of the AN-X2 Gateway
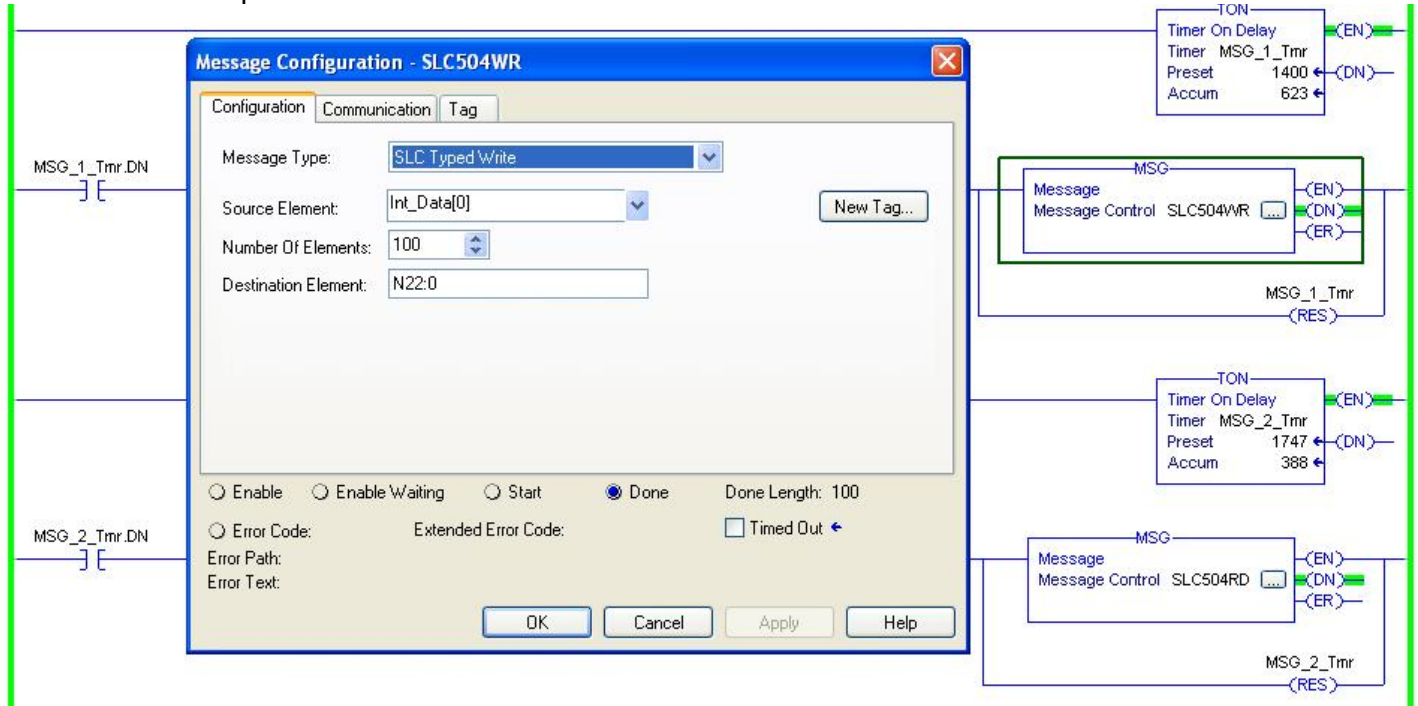

PLC5 DH+ Node Address

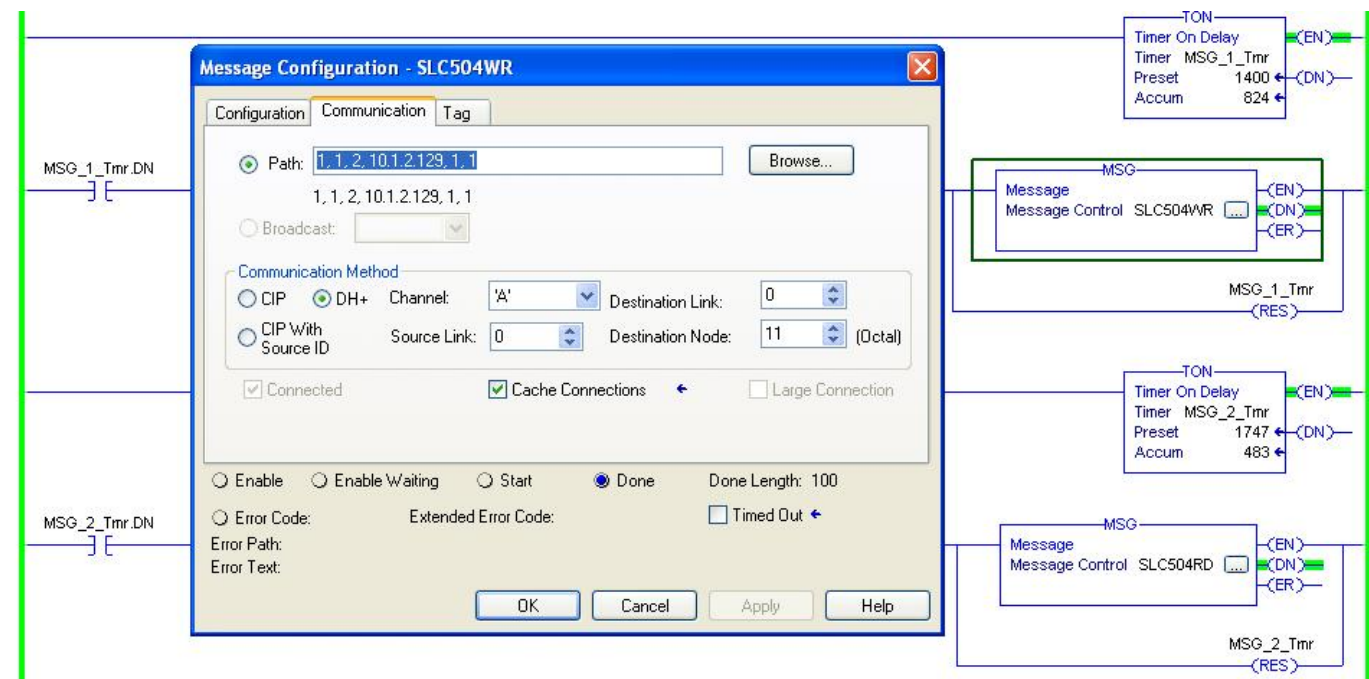**ControlLogix MSG Samples to a SLC5/04**
Read

This sample assumes that a 1756-ENBT/ EN2T/EN3T module is in Slot 1 which is the second parameter listed in the path below. The IP Address is the IP Address of the AN-X2 Gateway.
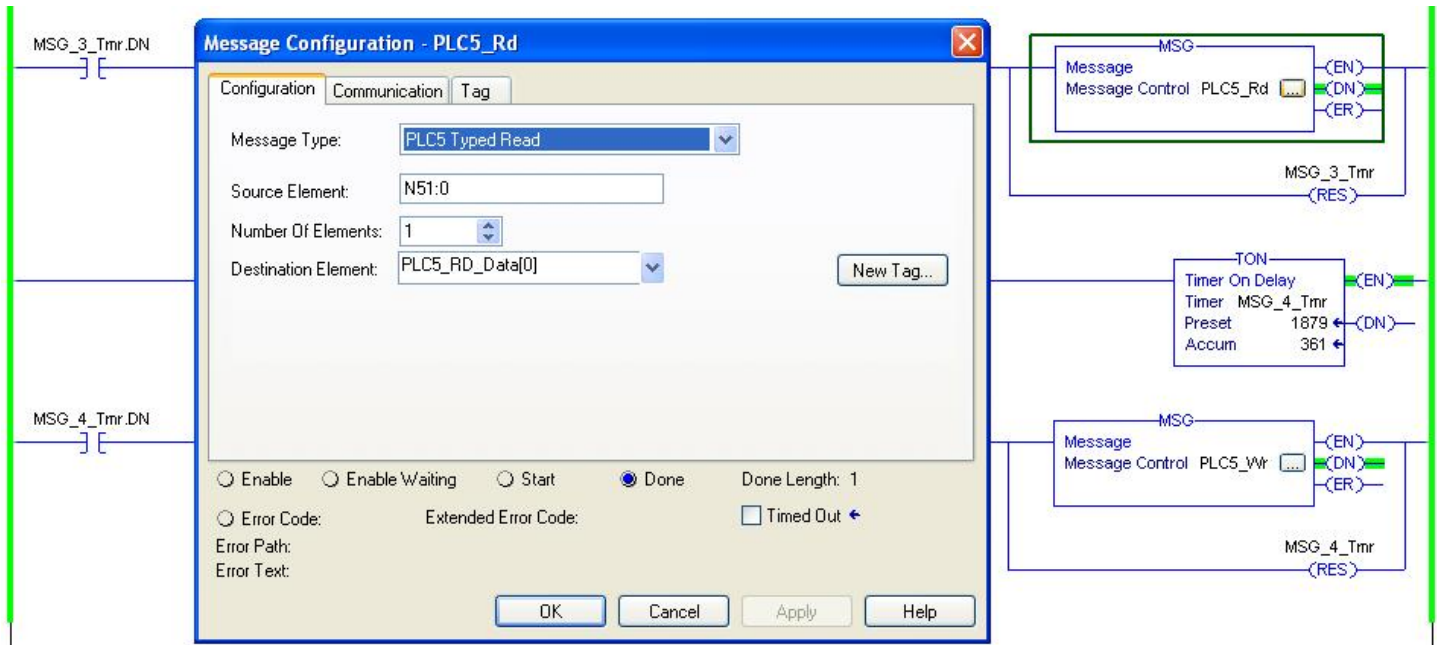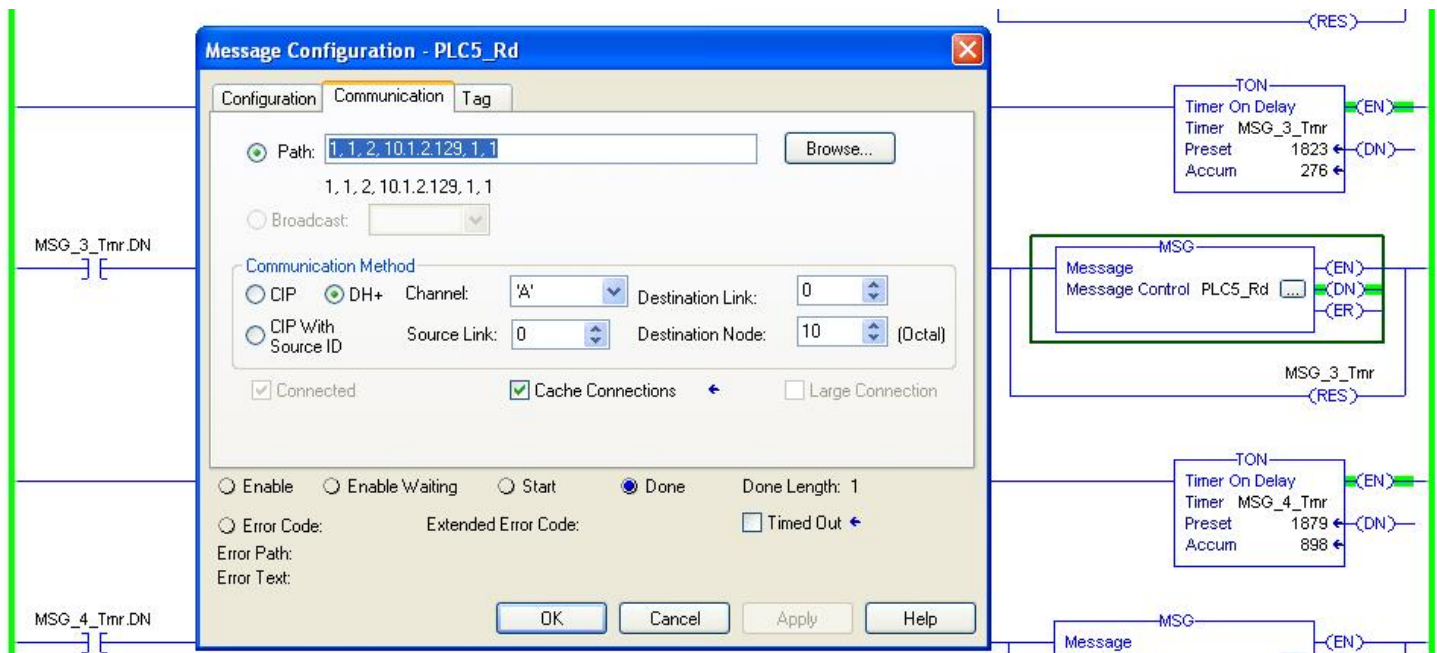
Write Example

This sample assumes that a 1756-ENBT/ EN2T/EN3T module is in Slot 1 which is the second parameter listed in the path below. The IP Address is the IP Address of the AN-X2 Gateway.
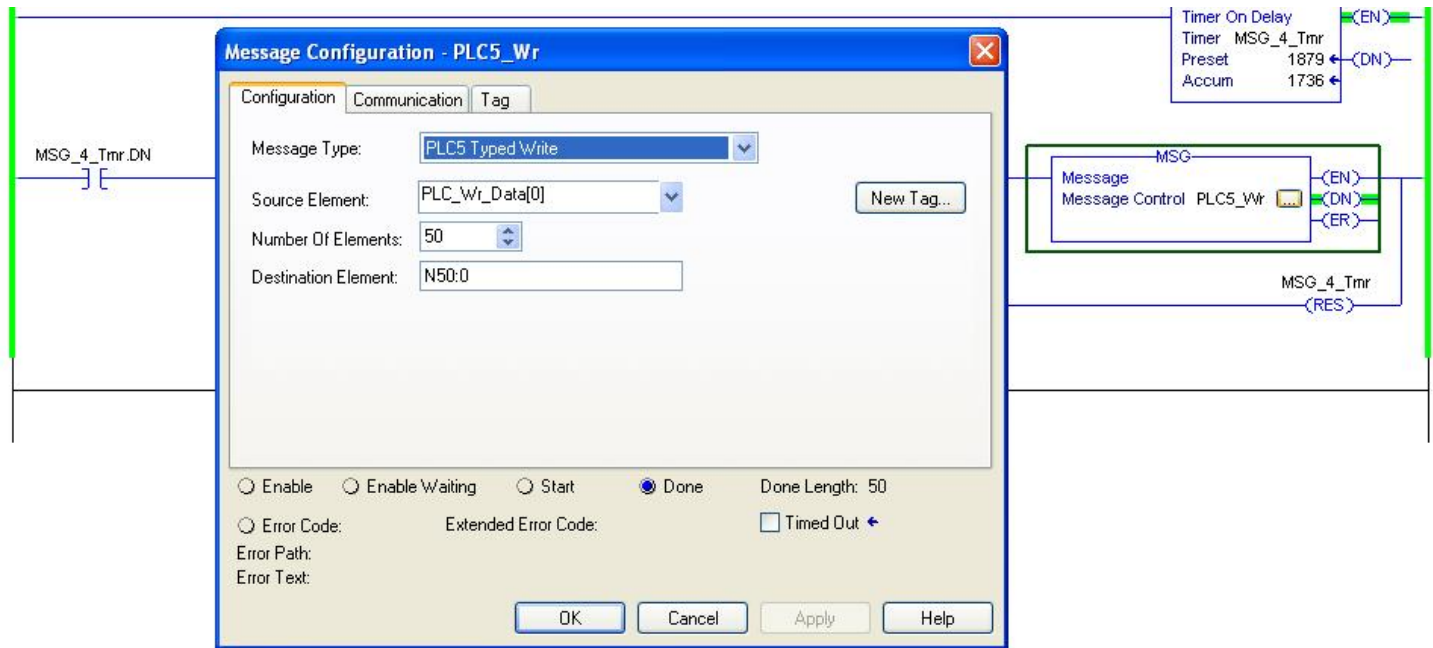
ControlLogix® MSG Samples to a PLC-5®
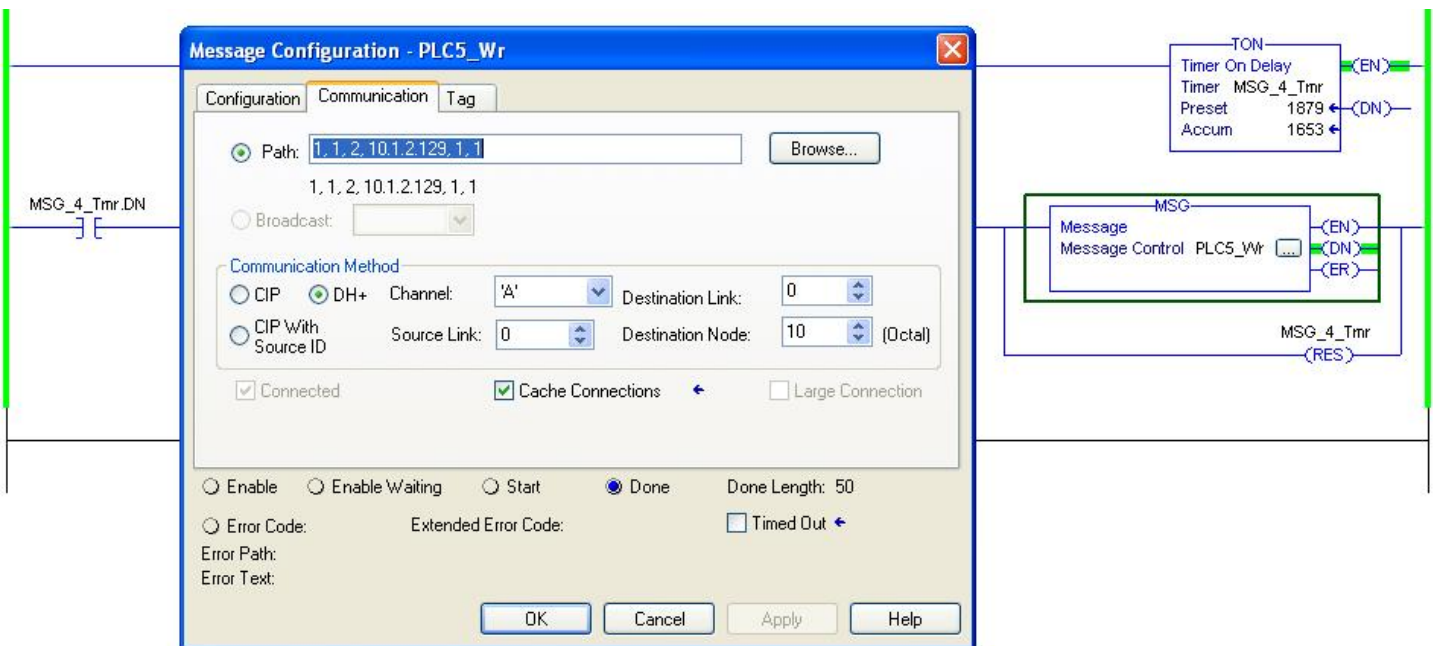### Read

This sample assumes that a 1756-ENBT/ EN2T/EN3T module is in Slot 1 which is the second parameter listed in the path below. The IP Address is the IP Address of the AN-X2 Gateway.
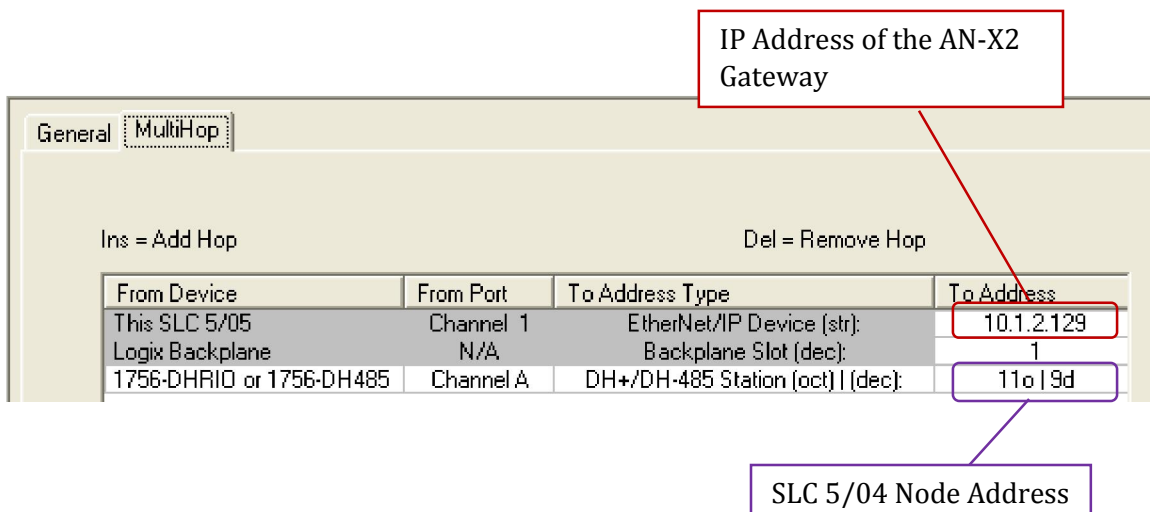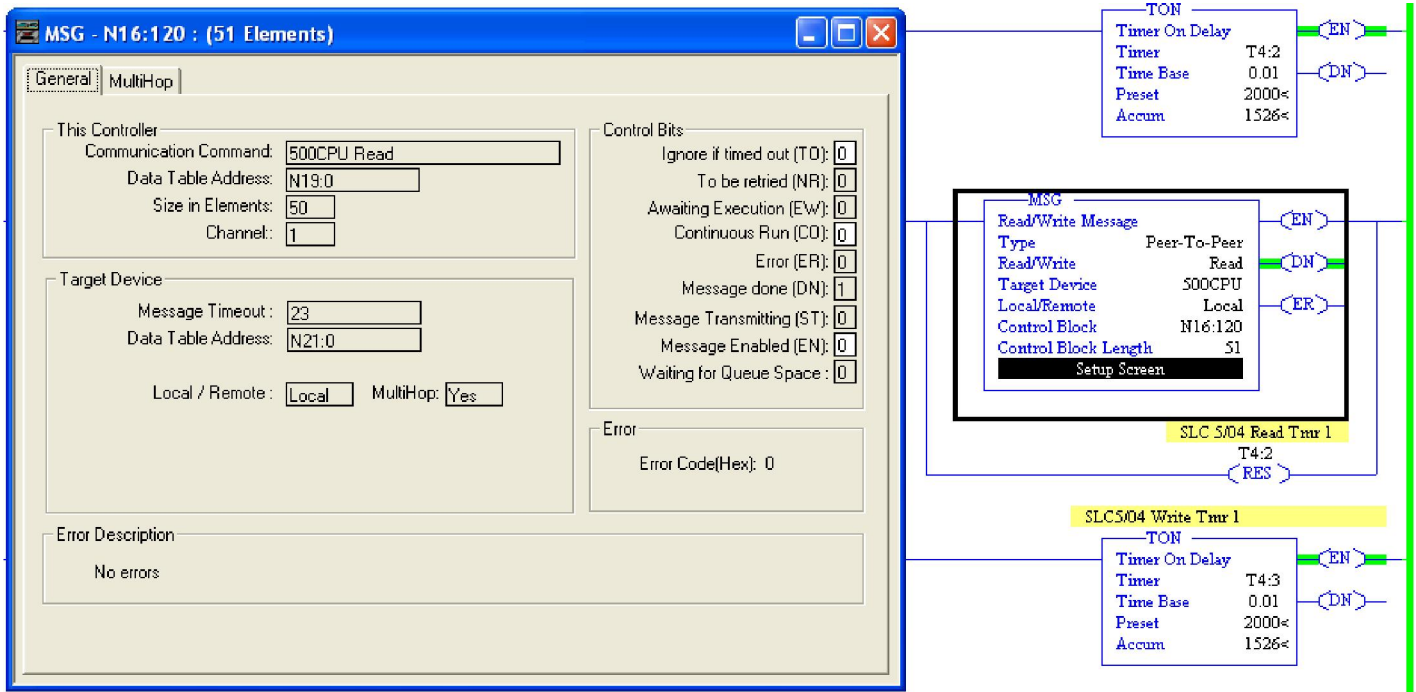
Write

This sample assumes that a 1756-ENBT/ EN2T/EN3T module is in Slot 1 which is the second parameter listed in the path below. The IP Address is the IP Address of the AN-X2 Gateway.
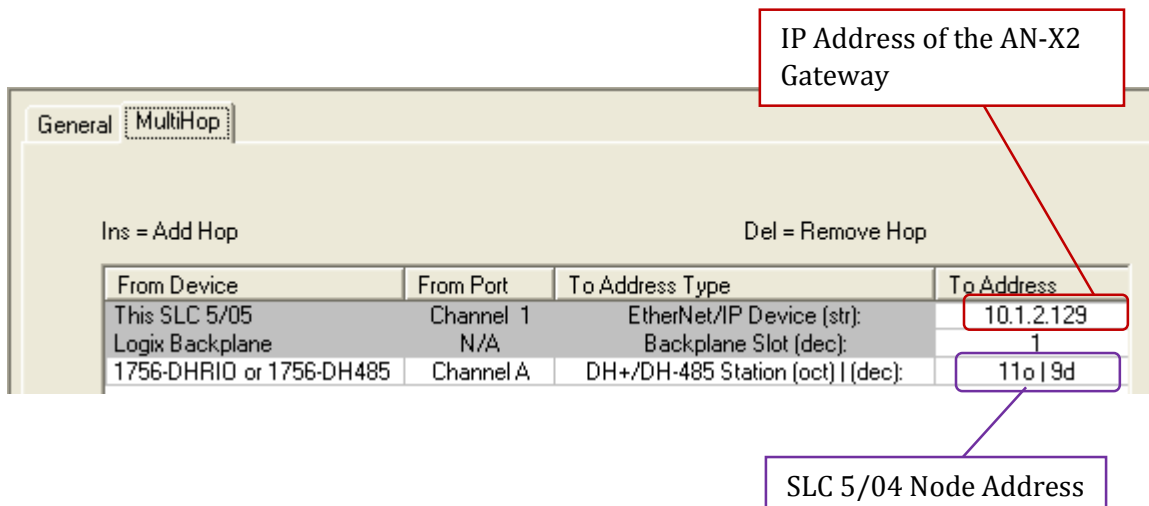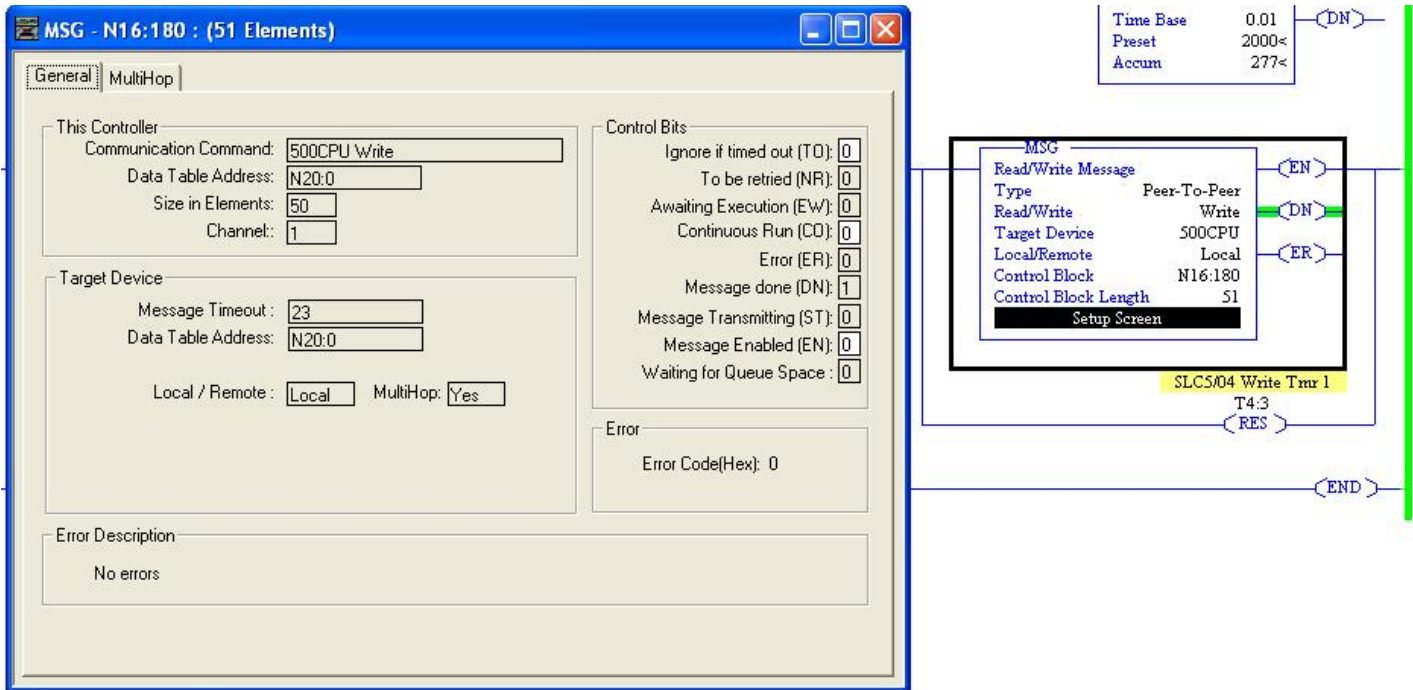
Message Instruction Samples from a SLC5/05 to a SLC5/04

Read Sample

IP Address of the AN-X2 Gateway
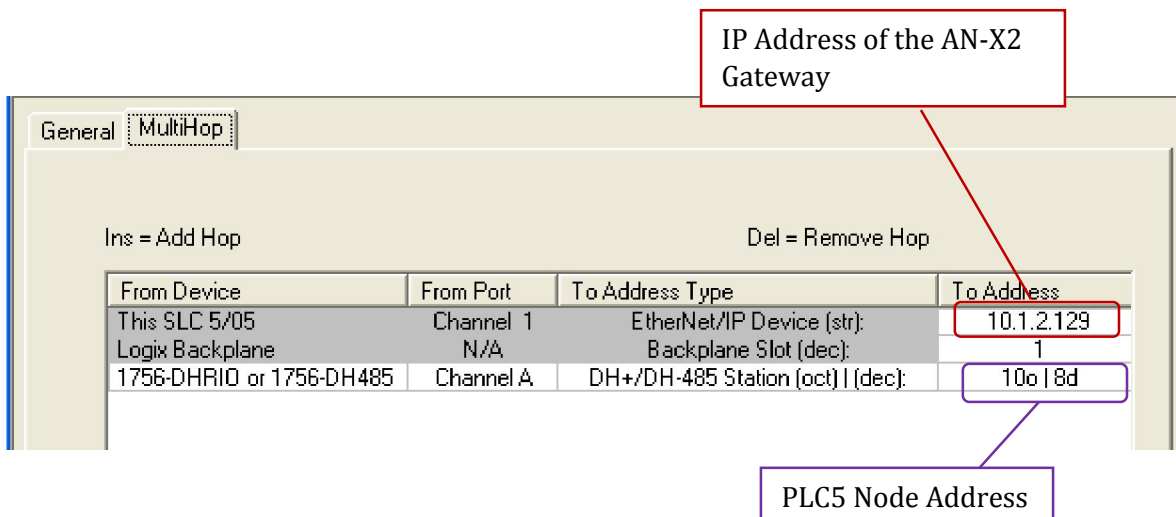
SLC 5/04 Node Address

Write Sample

IP Address of the AN-X2 Gateway

SLC 5/04 Node Address

SLC5/05 PLC to a PLC-5®

Here is a sample Read MSG instruction in RSLogix 500

IP Address of the AN-X2 Gateway

PLC5 Node Address
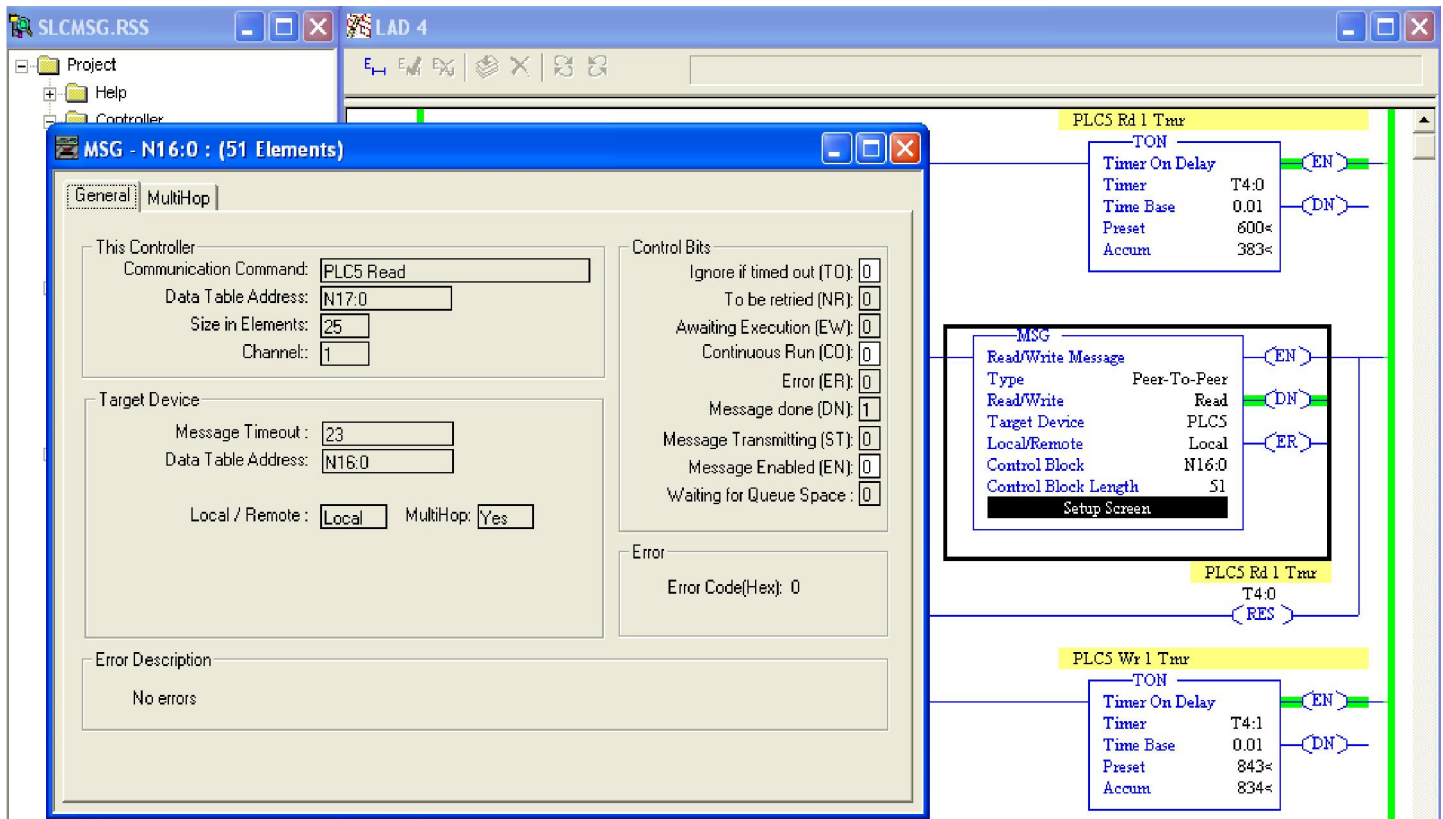
Sample Write MSG instruction in RSLogix 500
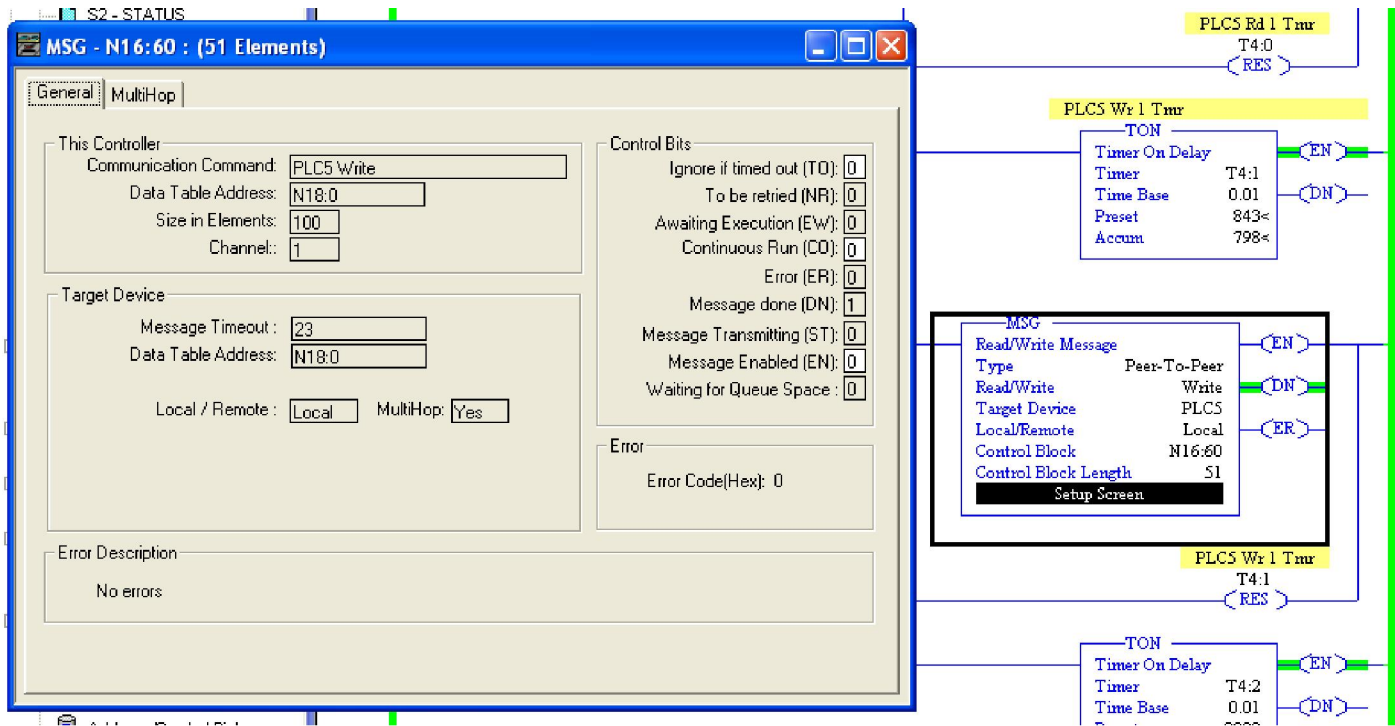
IP Address of the AN-X2 Gateway

PLC5 Node Address

Conclusion

This document has shown samples of various Processor to Processor Message instructions for use with the AN-X2-Ab-DHRIO gateway when running the Data Highway Plus firmware. If you have any additional questions please contact your regional support center listed below.

Asia Pacific

Malaysia Office

Phone: +603.7724.2080

asiapc@prosoft-technology.com

Languages spoken: Chinese, English

China Office

Phone: +86.21.5187.7337

asiapc@prosoft-technology.com
Languages spoken: Chinese, English

Europe

France Office

Phone: +33 (0)5.34.36.87.20

support.emea@prosoft-technology.com
Languages spoken: French, English

Middle East and Africa

Phone: +971.(0)4.214.6911

mea@prosoft-technology.com

Languages spoken: English, Hindi

North America

California and Wisconsin Offices

Phone: +1 661.716.5100

support@prosoft-technology.com
Languages spoken: English, Spanish

Latin America

Brazil Office

Phone: +55.11.5083.3776

brasil@prosoft-technology.com

Languages spoken: Portuguese, English

Mexico and Central America Office

Phone: +52.222.3.99.6565
soporte@prosoft-technology.com

Languages spoken: Spanish, English

Regional Office

Phone: +1.281.298.9109

latinam@prosoft-technology.com

Languages spoken: Spanish, English