



**Where  
Automation  
Connects.**

## Technical Note



# Migration Application Sample for the AN-X2-AB-DHRIO RIO Scanner

**Document Code:** TN130619-001

**Author:** Tom Lenigan

**Date:** June 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

europa@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*

## Document Information

Author	Tom Lenigan
Description	Sample Migration Application for the Remote I/O Scanner
Date	June 2013
Revision	1.01
Product Name	AN-X2-AB-DHRIO
Document Code	TN130619-001

### ProSoft Technology

5201 Truxtun Ave., 3rd Floor

Bakersfield, CA 93309

+1 (661) 716-5100

+1 (661) 716-5101 (Fax)

<http://www.prosoft-technology.com>

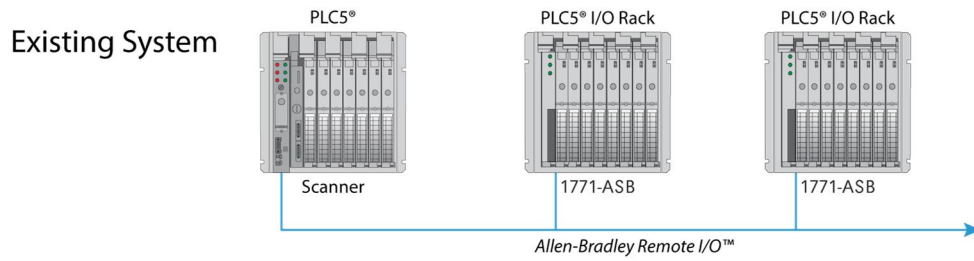
Copyright © ProSoft Technology Incorporated 2013. All Rights Reserved.

All ProSoft Technology® products are backed with unlimited technical support.

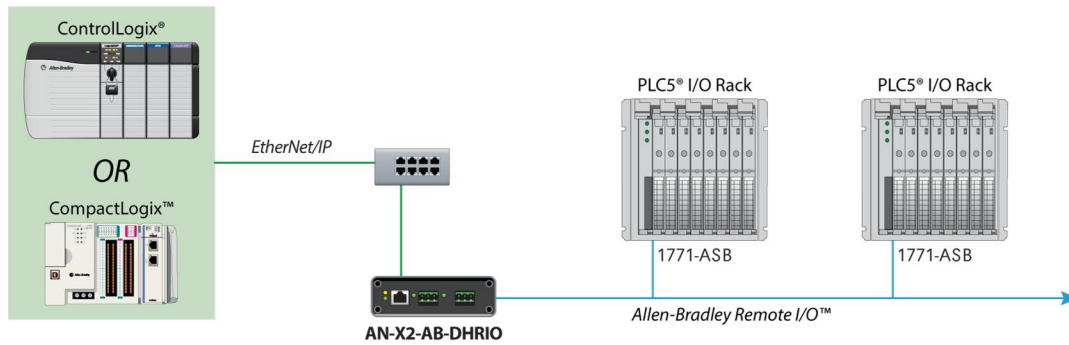
June 19, 2013

ProSoft Technology® is a Registered Trademark of ProSoft Technology, Inc. All other brand or product names are or may be trademarks of, and are used to identify products and services of, their respective owners.

This Technical Note will illustrate how to migrate a simple PLC5 Remote I/O Application to a CompactLogix or ControlLogix application using the AN-X2-AB-DHRIO gateway with the Remote I/O Scanner firmware loaded.

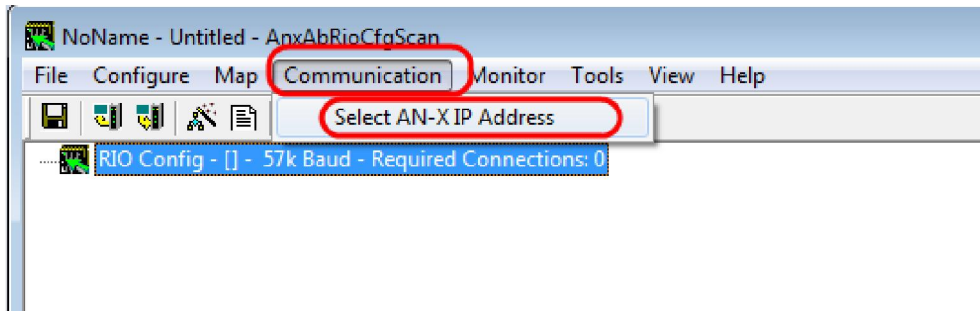


## Processor Migration

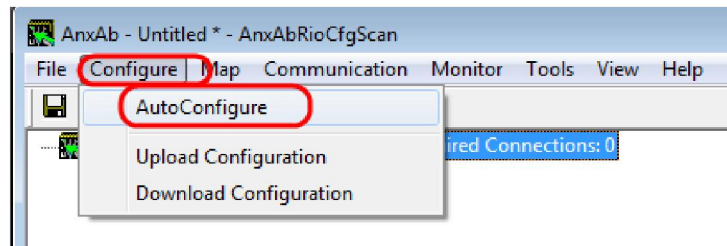


**Step 1: Connect the Gateway to the Ethernet and the Remote I/O networks, and then launch AnxAbRioCfgScan.exe.**

**Step 2: Specify the IP Address of the Gateway**

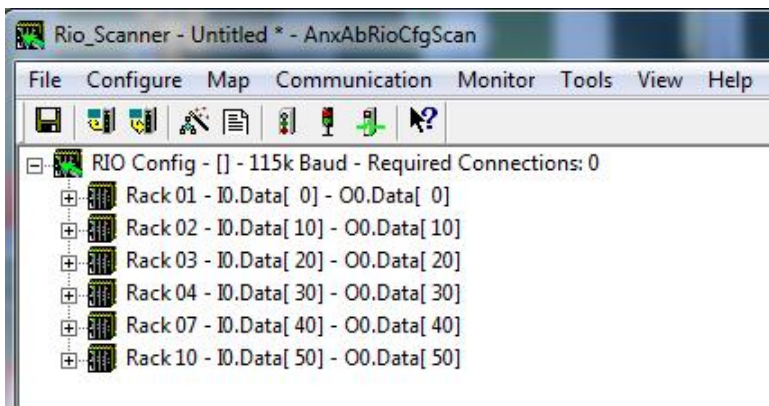


**Step 3: Auto-configure the gateway**



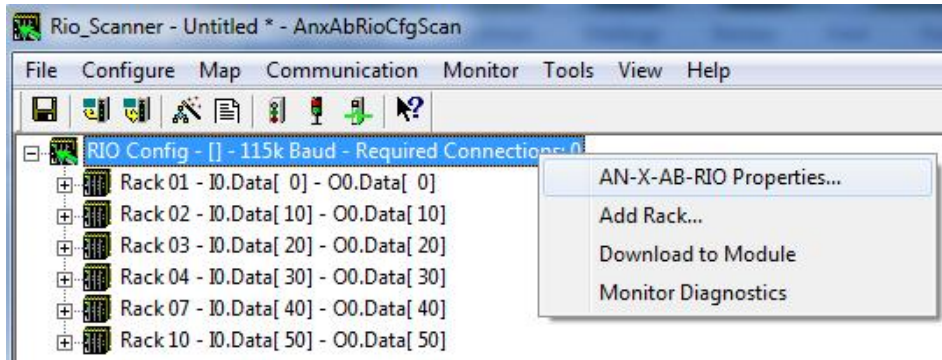
NOTE: The gateway will automatically detect the baud rate of the Remote I/O network in addition to detecting any remote racks of I/O that are present on the network.

**Step 4: Review the Racks and modules discovered to ensure that all are present**

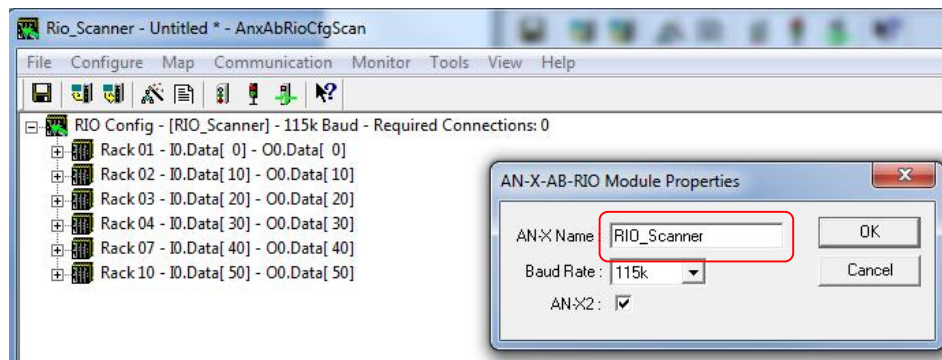


## Step 5: Specify the Name of the gateway

Right click on the top line and select properties



Enter the name

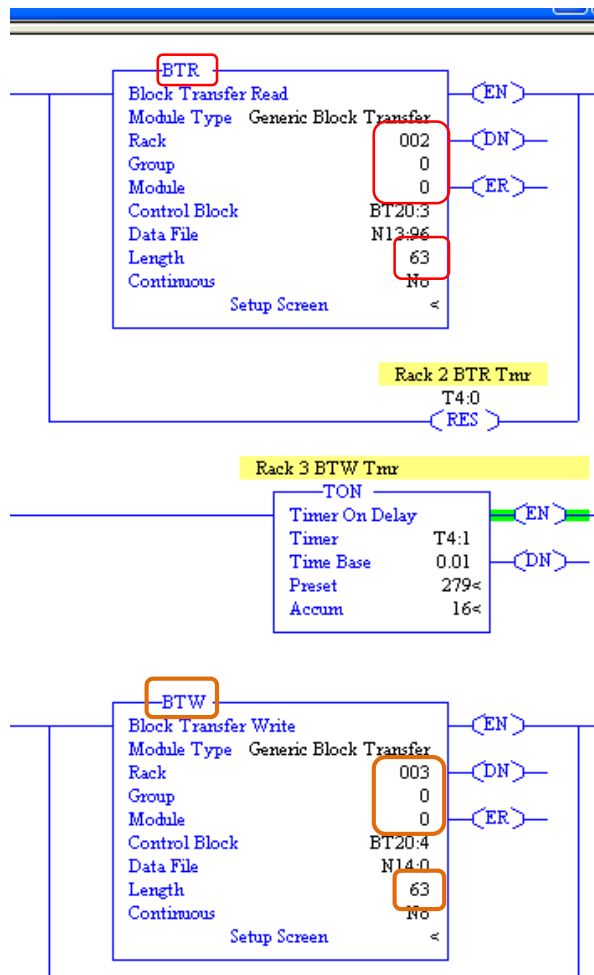


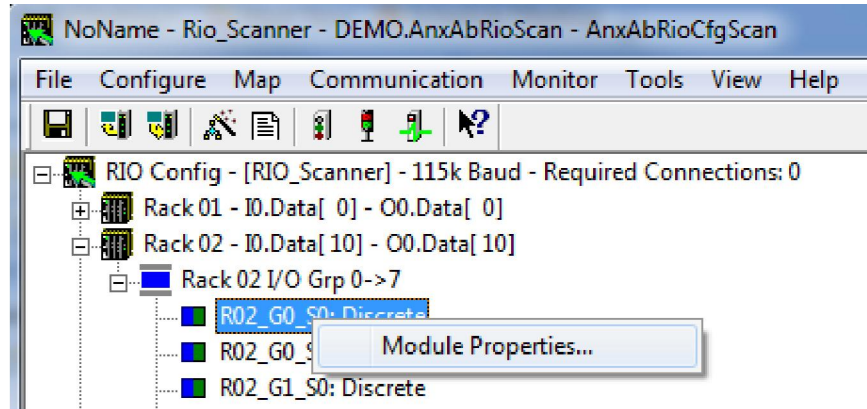


## Step 6: Configuring Block Transfers (Not all devices or applications require these)

It is important to note that Block Transfers must be manually configured, and are most easily configured by referencing the existing BTR and BTW instructions that exist in the legacy PLC.

### Step 6A: Examine old ladder and then navigate to the Rack / Group / Slot where a BTR or BTW is needed Right Click and select properties



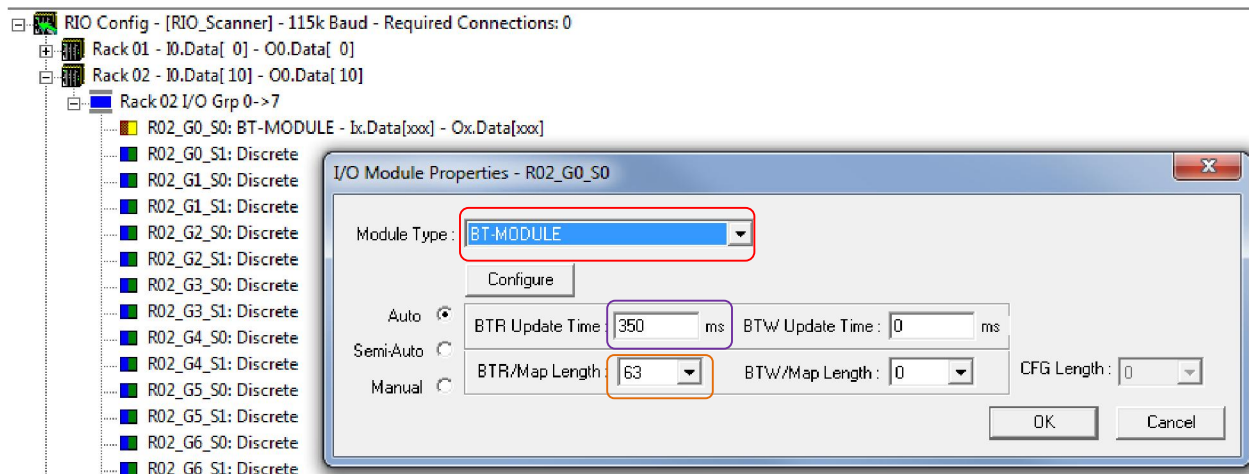


### Step 6B: Configure a BTR

Select BT-Module in the Module Type drop down list

Enter correct Length in the BTR Length drop down list

Specify BTR Update Time

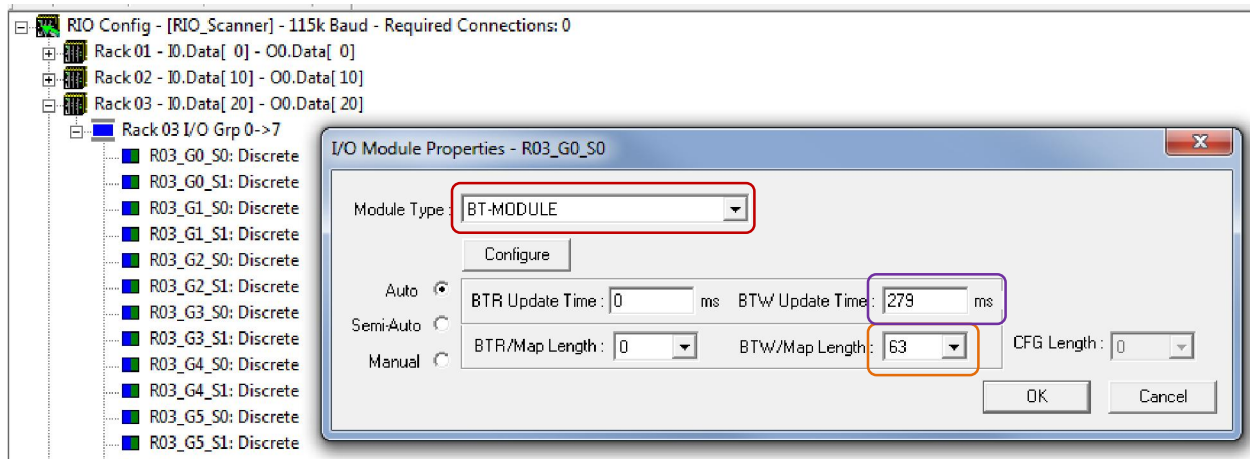


## Step 6C: Configure a BTW

Select BT-Module in the Module Type drop down list

Enter correct Length in the BTW Length drop down list

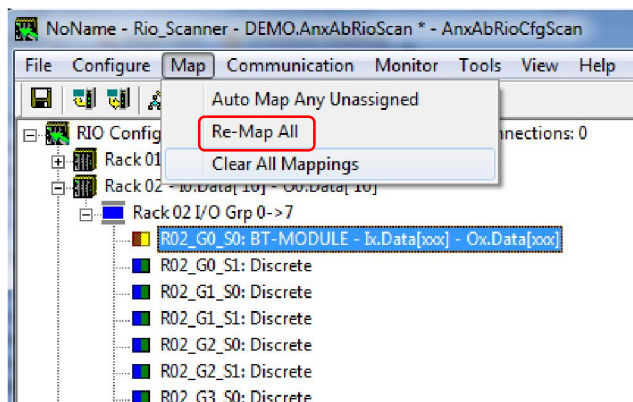
Specify BTW Update Time



NOTE: If a specific Rack, Group, and Slot has both a BTR and a BTW you can enter them at the same time since this is done in the same I/O Module Properties window.

## Step 7: Reconfigure Mappings to include All BTRs and BTWs

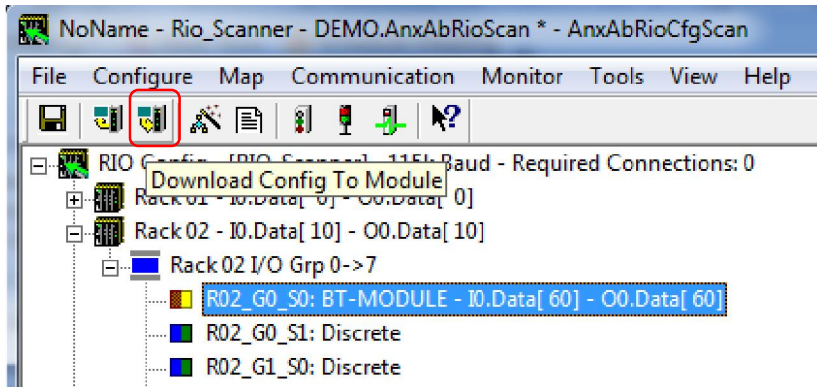
Select Re-Map All



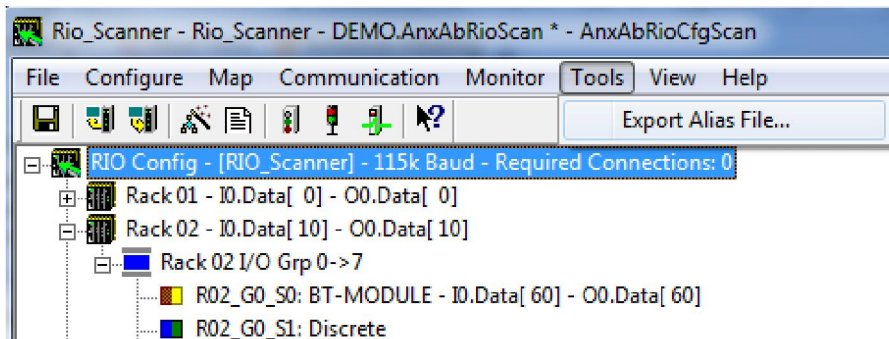


## Step 8: Download Configuration to the Gateway

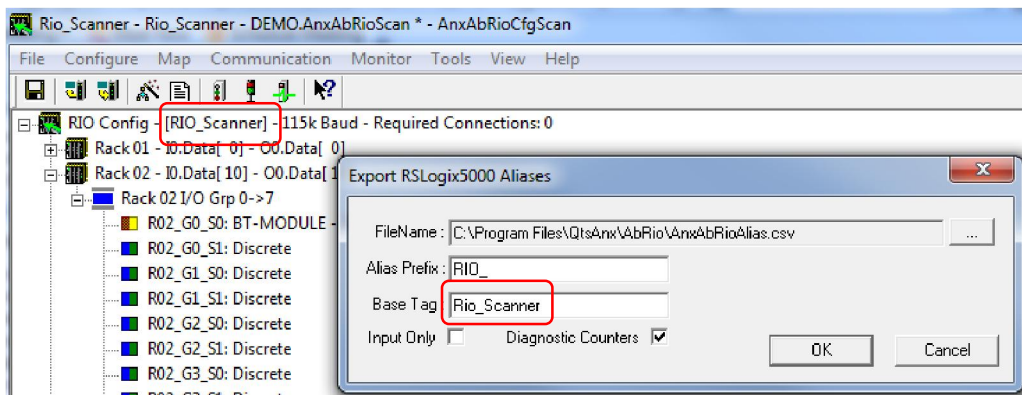
Click the download icon



## Step 9: Export Alias tags



### Step 9A: Validate Base Tag Name = AN-X2 Name and click OK



## Step 10: RSLogix 5000 Configuration

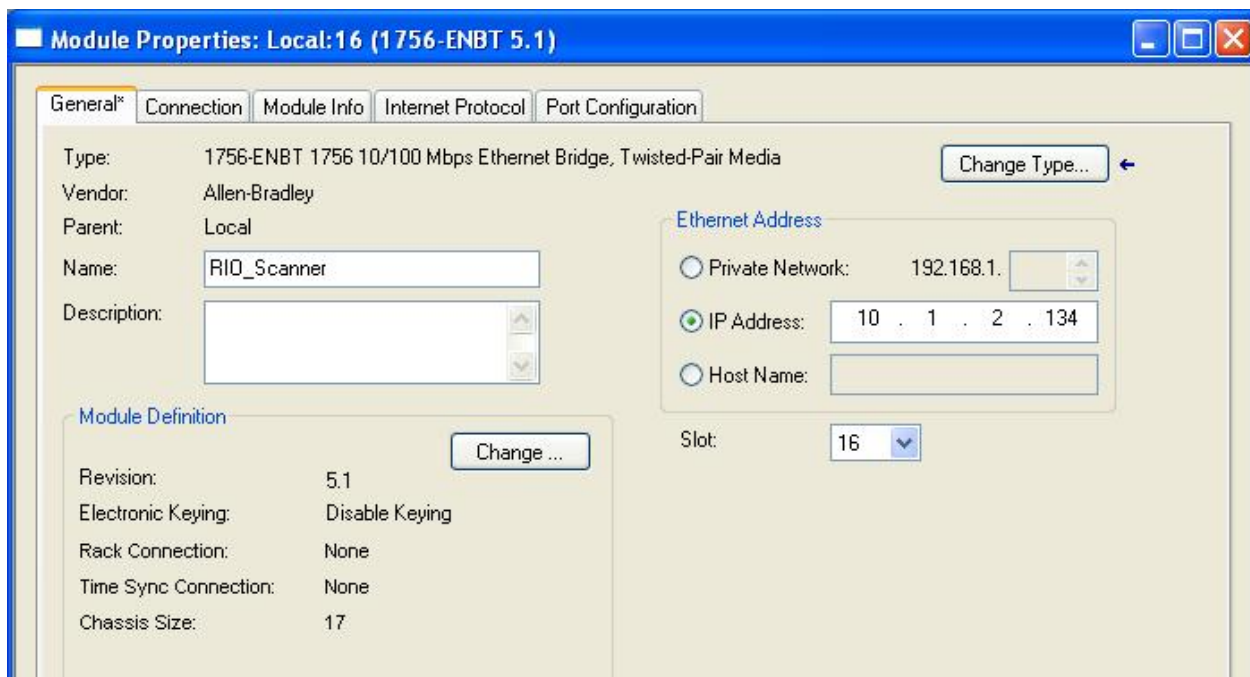
## Step 10A: Adding the remote rack of I/O into the application

In the I/O tree in the Ethernet segment right click and add a 1756-ENBT

Set the IP Address to that of the AN-X2 Gateway

Name the Module the same name of the AN-X2 Gateway

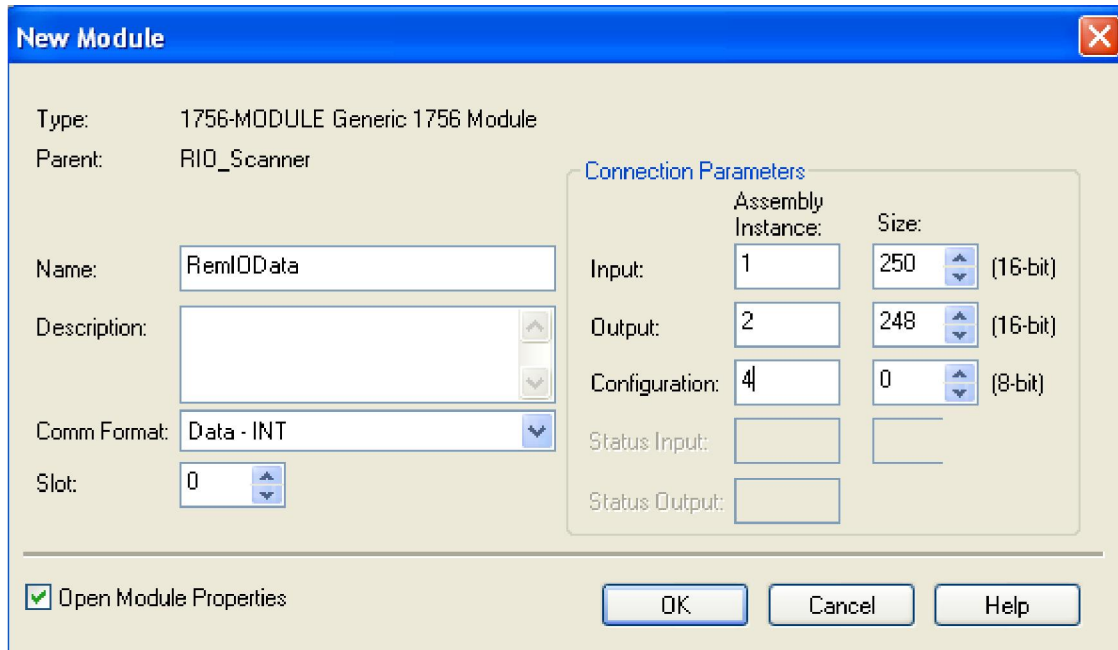
Set the Module Definition and Slot Number to match the settings below:



## Step 10B: Adding in the Remote I/O Data

Add a 1756-MODULE module into slot 0 of the I/O Rack

Set RPI no faster than 5 mSec (Recommended > 20mSec)



**New Module**

Type: 1756-MODULE Generic 1756 Module  
 Parent: RIO\_Scanner

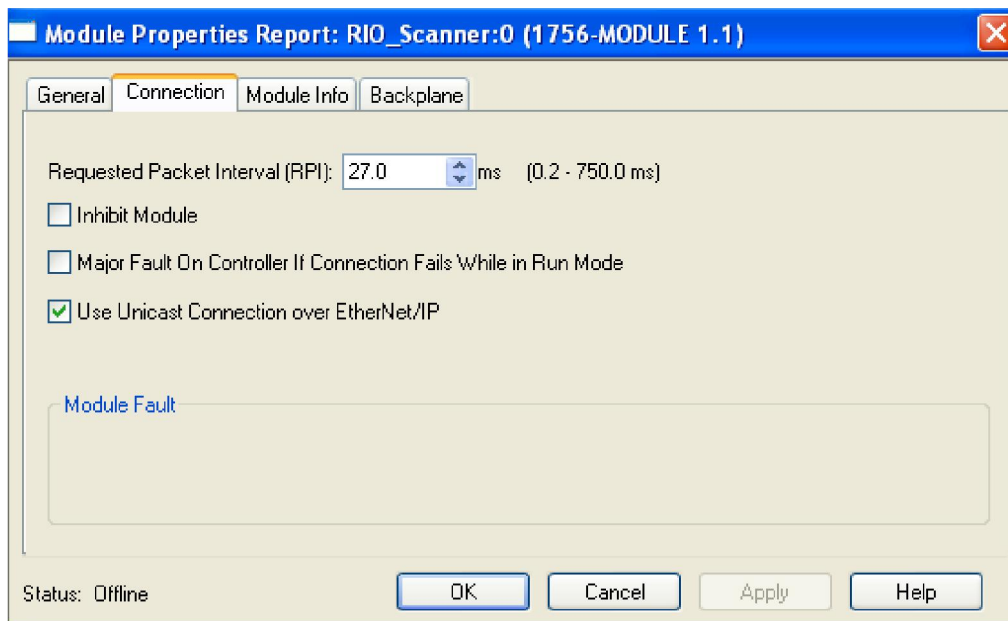
Name: RemIOData  
 Description:  
 Comm Format: Data - INT  
 Slot: 0

**Connection Parameters**

	Assembly Instance:	Size:	
Input:	1	250	(16-bit)
Output:	2	248	(16-bit)
Configuration:	4	0	(8-bit)
Status Input:			
Status Output:			

Open Module Properties

OK Cancel Help



**Module Properties Report: RIO\_Scanner:0 (1756-MODULE 1.1)**

General Connection Module Info Backplane

Requested Packet Interval (RPI): 27.0 ms (0.2 - 750.0 ms)

Inhibit Module  
 Major Fault On Controller If Connection Fails While in Run Mode  
 Use Unicast Connection over EtherNet/IP

Module Fault

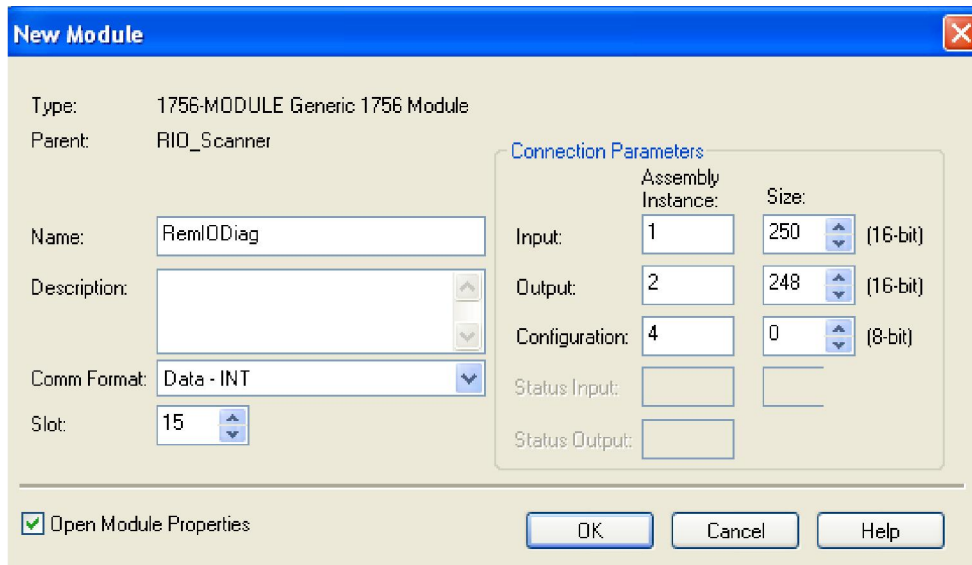
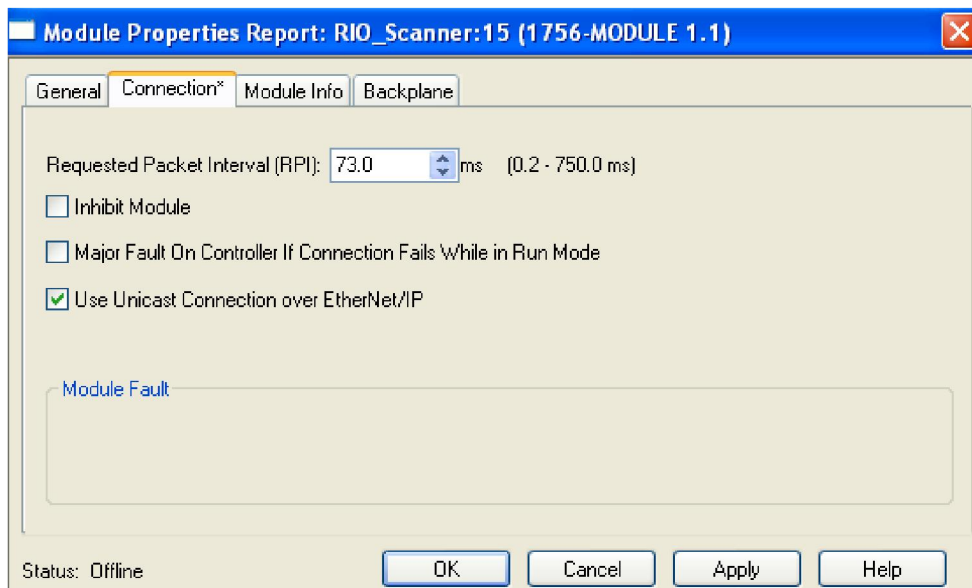
Status: Offline

OK Cancel Apply Help

## Step 10C: Adding in Remote I/O Diagnostic Data

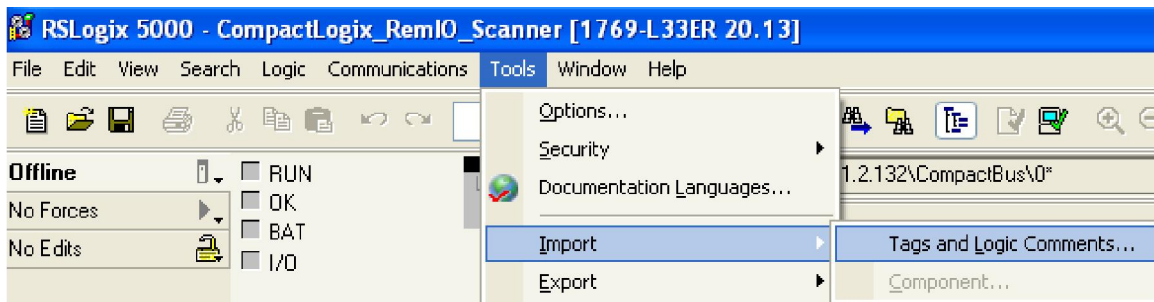
Add another 1756-Module into slot 15 of the I/O Rack

Configure slower RPI since it is only diagnostic data

## Step 10D: Importing Alias tags that the AN-X2 gateway generated

Select Import Tags and Logic Comments and then browse to where the Alias file was saved (default location: c:\Program Files\QtsAnx\AbRio\AnxAbRioAlias.csv)



### Imported Tag Samples

Name	Value	Style	Data Type	Description
+ RIO_I011	0	Decimal	INT	Rack-01 Grp-1 Discrete Input
+ RIO_I012	0	Decimal	INT	Rack-01 Grp-2 Discrete Input
+ RIO_I013	0	Decimal	INT	Rack-01 Grp-3 Discrete Input
+ RIO_I014	135	Decimal	INT	Rack-01 Grp-4 Discrete Input
+ RIO_I015	0	Decimal	INT	Rack-01 Grp-5 Discrete Input
+ RIO_I016	0	Decimal	INT	Rack-01 Grp-6 Discrete Input
+ RIO_I017	0	Decimal	INT	Rack-01 Grp-7 Discrete Input
+ RIO_I018	0	Decimal	INT	Rack-01 Grp-8 Discrete Input
+ RIO_R02_CTL	0	Decimal	INT	Rack-02 Control
+ RIO_R02_STS	0	Decimal	INT	Rack-02 Status
RIO_r02g0s0_BT_INH	0	Decimal	BOOL	BT Inhibit
+ RIO_r02g0s0_BTR_00	1	Decimal	INT	Generic BTR Data 00
+ RIO_r02g0s0_BTR_01	0	Decimal	INT	Generic BTR Data 01
+ RIO_r02g0s0_BTR_02	3	Decimal	INT	Generic BTR Data 02
+ RIO_r02g0s0_BTR_03	0	Decimal	INT	Generic BTR Data 03

## Step 11: Write your control program using the Alias Tags to make future I/O and control Program migration activities simpler.

More information is available in the products user manual and/or in training videos which can be found at:

<http://www.prosoft-technology.com/SERVICES-SUPPORT/Training>



## Conclusion

This document shows a sample on how to develop the Remote I/O configuration using the AnxAbRioCfgScan configuration tool and RSLogix 5000. If you have any additional questions please contact us.

### Asia Pacific

#### Malaysia Office

Phone: +603.7724.2080

[asiapc@prosoft-technology.com](mailto:asiapc@prosoft-technology.com)

Languages spoken: Chinese, English

#### China Office

Phone: +86.21.5187.7337

[asiapc@prosoft-technology.com](mailto:asiapc@prosoft-technology.com)

Languages spoken: Chinese, English

### Europe

#### France Office

Phone: +33 (0)5.34.36.87.20

[support.emea@prosoft-technology.com](mailto:support.emea@prosoft-technology.com)

Languages spoken: French, English

#### Middle East and Africa

Phone: +971.(0)4.214.6911

[mea@prosoft-technology.com](mailto:mea@prosoft-technology.com)

Languages spoken: English, Hindi

### North America

#### California and Wisconsin Offices

Phone: +1 661.716.5100

[support@prosoft-technology.com](mailto:support@prosoft-technology.com)

Languages spoken: English, Spanish

### Latin America

#### Brazil Office

Phone: +55.11.5083.3776

[brasil@prosoft-technology.com](mailto:brasil@prosoft-technology.com)

Languages spoken: Portuguese, English

#### Mexico and Central America Office

Phone: +52.222.3.99.6565

[soporte@prosoft-technology.com](mailto:soporte@prosoft-technology.com)

Languages spoken: Spanish, English

### Regional Office

Phone: +1.281.298.9109

[latinam@prosoft-technology.com](mailto:latinam@prosoft-technology.com)

Languages spoken: Spanish, English