

## EQ-DCM to MicroLogix & SLC500 Using RSLINX RSLOGIX500 & AB Ethernet IGS driver

EQ-DCM Configuration MLX on DF1 CHA and SLC503 on DF1 CHB

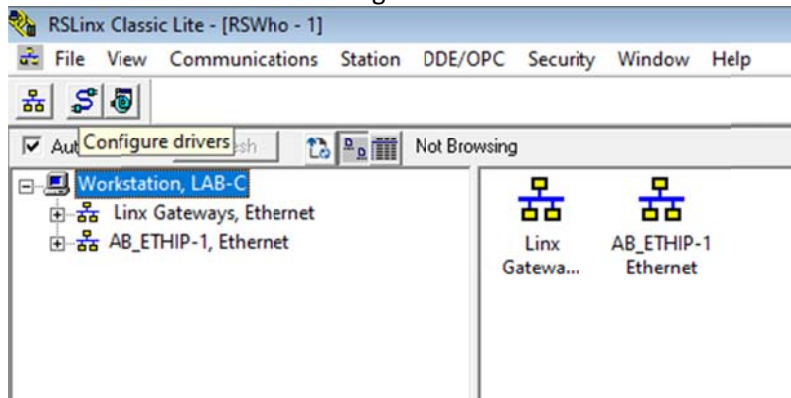
The screenshots show the following configuration steps:

- Serial Communication Settings:** Configures Channel A (Baud Rate: 38400, Data Bits: 8, Stop Bits: 1, Parity: None, Handshaking: No) and Channel B (Enabled: True, Baud Rate: 19200, Data Bits: 8, Stop Bits: 1, Parity: None).
- Ethernet Communication Settings:** Configures DHCP (Disabled), IP Address (192.168.2.55), Subnet Mask (255.255.255.0), Default Gateway (192.168.2.1), Speed (Auto Detect), and Socket Timeout (30 s).
- Serial Protocol Settings (Channel A):** Sets Protocol to DF1, Communication Mode to Full Duplex, and Error Checking to CRC.
- Serial Protocol Settings (Channel B):** Sets Protocol to DF1, Communication Mode to Full Duplex, and Error Checking to BCC.
- Ethernet Protocol Settings:** Sets Protocol to AB Ethernet, indicating that no configuration is needed.
- Routing Table Setup:** Defines the routing table for incoming messages.

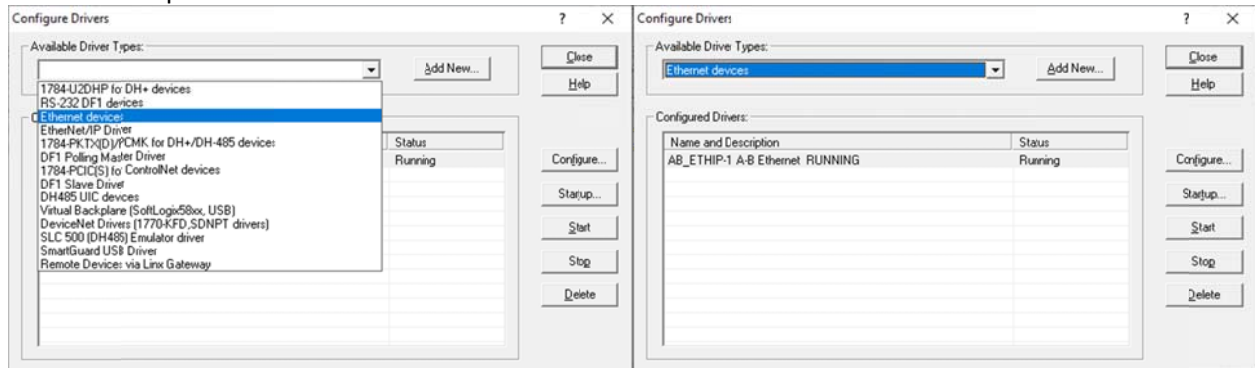
Slot	Source Port	Destination Range Low	Destination Range High	Destination Port
1	Ethernet	4	4	Channel A
2	Ethernet	5	5	Channel B
3	Channel A	4	5	Channel B

Message Timeout is set to 10000 ms.

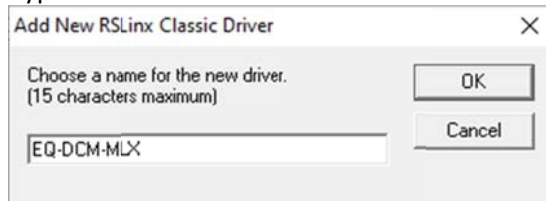
Start RSLINX and click on Configure drivers icon.



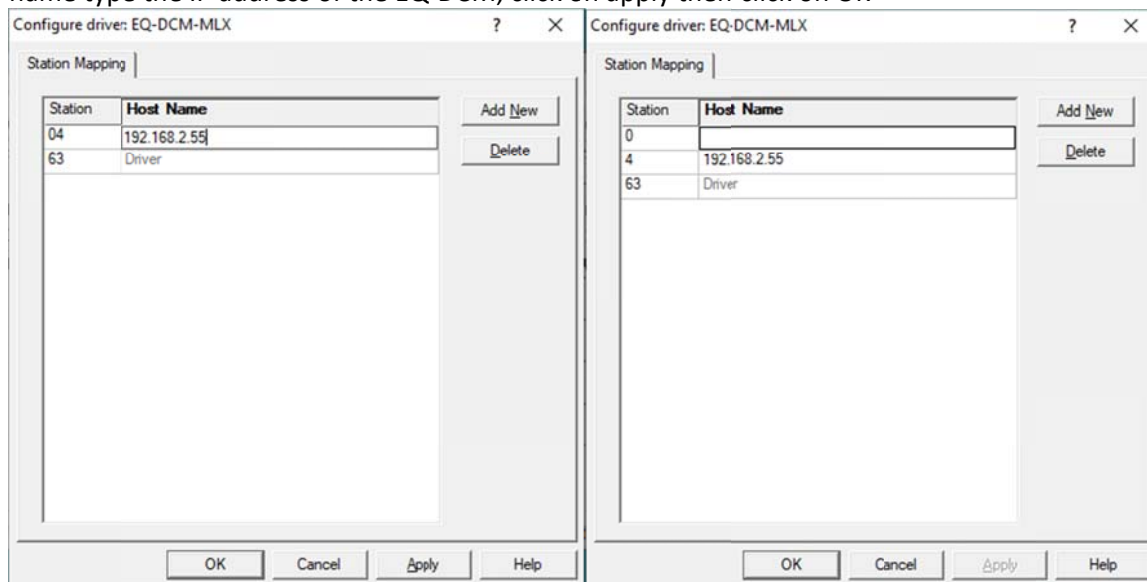
From the drop menu select Ethernet devices and click on Add New



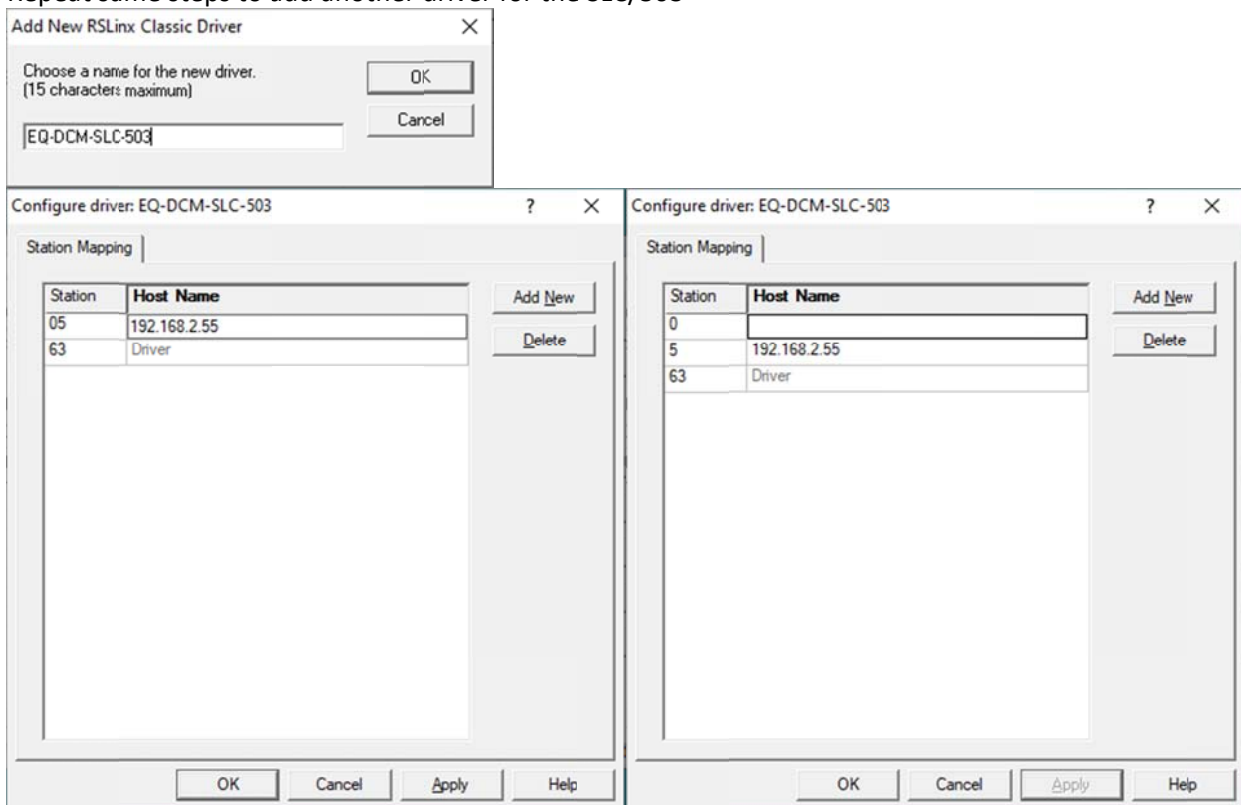
Type a name for the driver and click on OK



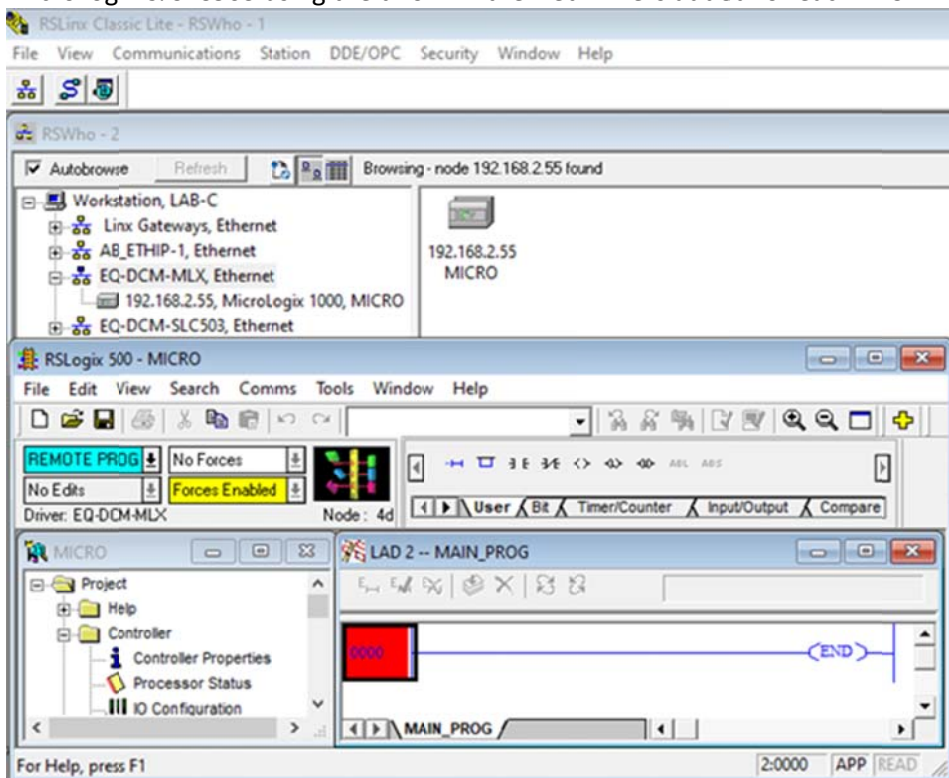
Under Station type the node address of the MicroLogix here in this application node 4, then under Host name type the IP address of the EQ-DCM, click on apply then click on OK

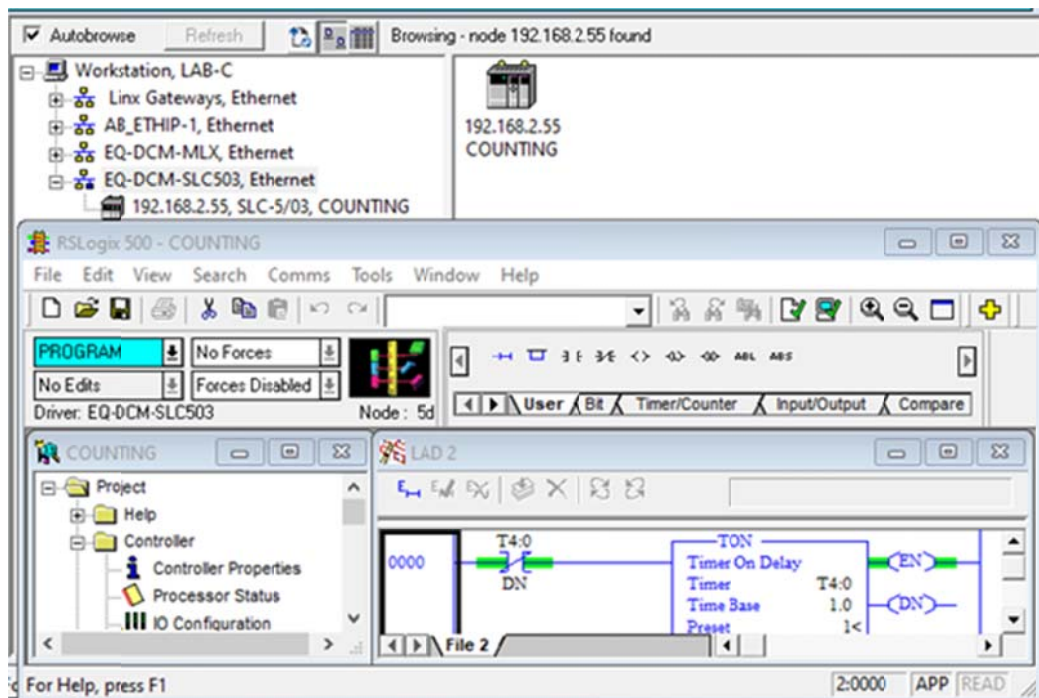


Repeat same steps to add another driver for the SLC/503

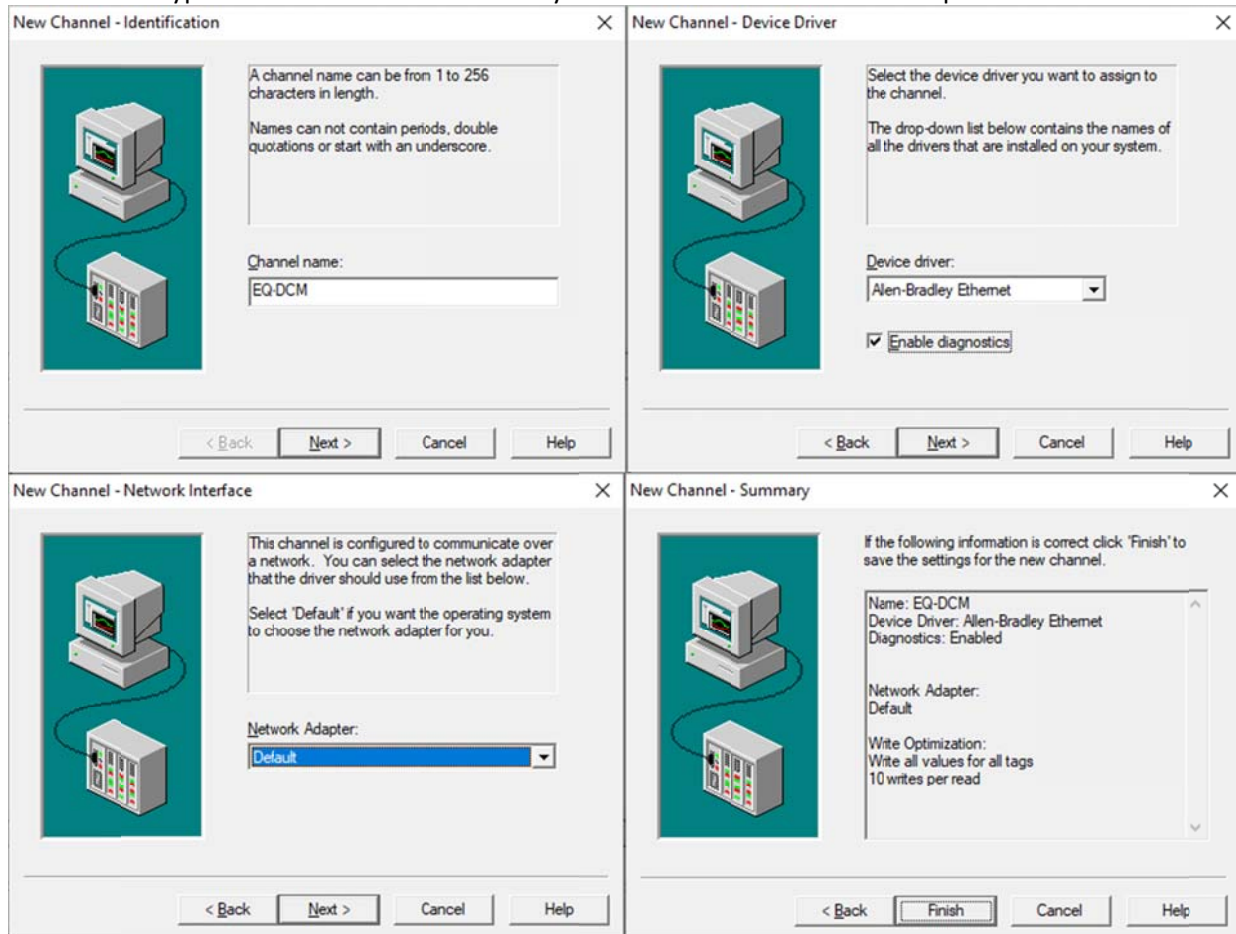


Start RSLOGIX 500 and go online with Micro Logix and the SLC-503 using the two drivers added above, as shown below, you can see in the next two screen shots RSLINX and RSLOGIX 500 online with both MicroLogix & SLC503 using the two AB Ethernet Drivers added for each PLC.





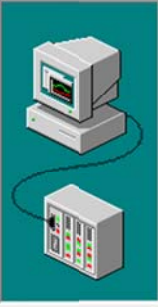
Now to see that we can get data from both the MicroLogix and the SLC/503 using IGS, start IGS, add new channel and type its name Select Allen Bradley Ethernet from Device driver drop menu.





Add New Device and type its name here we typed MLX 1000 for the MicroLogix 1000

New Channel - Write Optimizations



You can control how the server processes writes on this channel. Set the optimization method and write-to-read duty cycle below.

Note: Writing only the latest value can affect batch processing or the equivalent.

Optimization Method

☒ Write all values for all tags

☐ Write only latest value for non-boolean tags

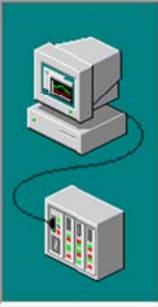
☐ Write only latest value for all tags

Duty Cycle

Perform  writes for every 1 read

< Back Next > Cancel Help

New Device - Name



A device name can be from 1 to 256 characters in length.

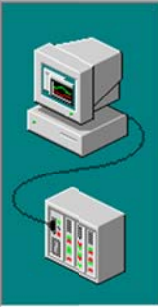
Names can not contain periods, double quotations or start with an underscore.

Device name:

< Back Next > Cancel Help

Select SLC5/05 from Device model drop menu and type the EQ-DCM IP address under Device ID

New Device - Model



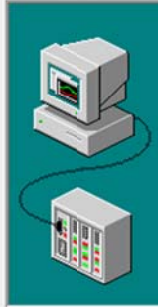
The device you are defining uses a device driver that supports more than one model. The list below shows all supported models.

Select a model that best describes the device you are defining.

Device model:

< Back Next > Cancel Help

New Device - ID



The device you are defining may be multidropped as part of a network of devices. In order to communicate with the device, it must be assigned a unique ID.

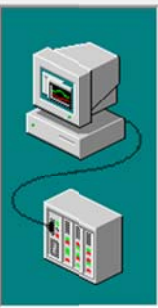
Your documentation for the device may refer to this as a "Network ID" or "Network Address."

Device ID:

< Back Next > Cancel Help

Click On Next

New Device - Timing



The device you are defining has communications timing parameters that you can configure.

Connect timeout:  seconds

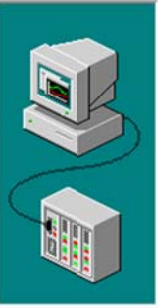
Request timeout:  milliseconds

Fail after  successive timeouts

Inter-request delay:  milliseconds

< Back Next > Cancel Help

New Device - Auto-Demotion



You can demote a device for a specific period upon communications failures. During this time no read request (writes if applicable) will be sent to the device. Demoting a failed device will prevent stalling communications with other devices on the channel.

☒ Enable auto device demotion on communication failures

Demote after  successive failures

Demote for  milliseconds

☐ Discard write requests during the demotion period

< Back Next > Cancel Help

Leave the Port number to default 2222 and then type in the Destination node address of the MicroLogix which is 4 as shown.

**New Device - Communications Parameters**

Set the TCP/IP port number the device is configured to use. The default port is 2222.

Select the ethernet protocol used by the device.

Set the request size in bytes. This determines the maximum number of bytes the driver can request in a transaction.

Port Number:

Protocol:

Request Size:  Bytes

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**New Device - Protocol Parameters**

For DF1 gateway applications, specify the node address of the destination device in question (e.g. DH+ or DH-485 node).

For non-DF1 gateway applications, enter 0 (Default).

Destination Node Address (DST):

< Back Next > Cancel Help

Click On Next and then on Finish

**New Device - Slot Configuration**

Slot	Module
1	<No Module>
2	<No Module>
3	<No Module>
4	<No Module>
5	<No Module>

Available Modules

- 0000-Generic Module
- 1203-SM1 SCANport Comm. Module - Basic
- 1203-SM1 SCANport Comm. Module - Enhanced
- 1394-S.T GMC Turbo System
- 1746-BAS Basic Module 5/02 Configuration
- 1746-BAS Basic Module 500 5/01 Configuration

Add Remove

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**New Device - Summary**

If the following settings are correct click 'Finish' to begin using the new device.

Name: MLX1000  
Model: SLC 5/05 Open  
ID: 192.168.2.55

Connect Timeout: 3 Sec.  
Request Timeout: 1000 ms  
Fail after 3 attempts

Auto-Demotion: Disabled

Port Number: 2222  
Protocol: TCP/IP  
Request size in bytes: 512

< Back Finish Cancel Help

Add tags, here we added 5 words from Integer file N7 starting at word 0

**Tag Properties**

General | Scaling

Identification

Name:

Address:

Description:

Data properties

Data type:

Client access:

Scan rate:  milliseconds

CK Cancel Apply Help

**Tag Properties**

General | Scaling

Identification

Name:

Address:

Description:

Data properties

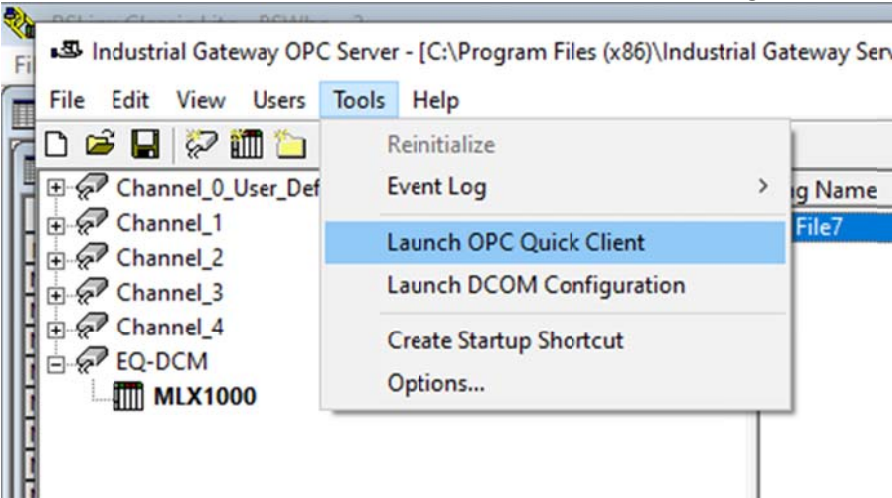
Data type:

Client access:

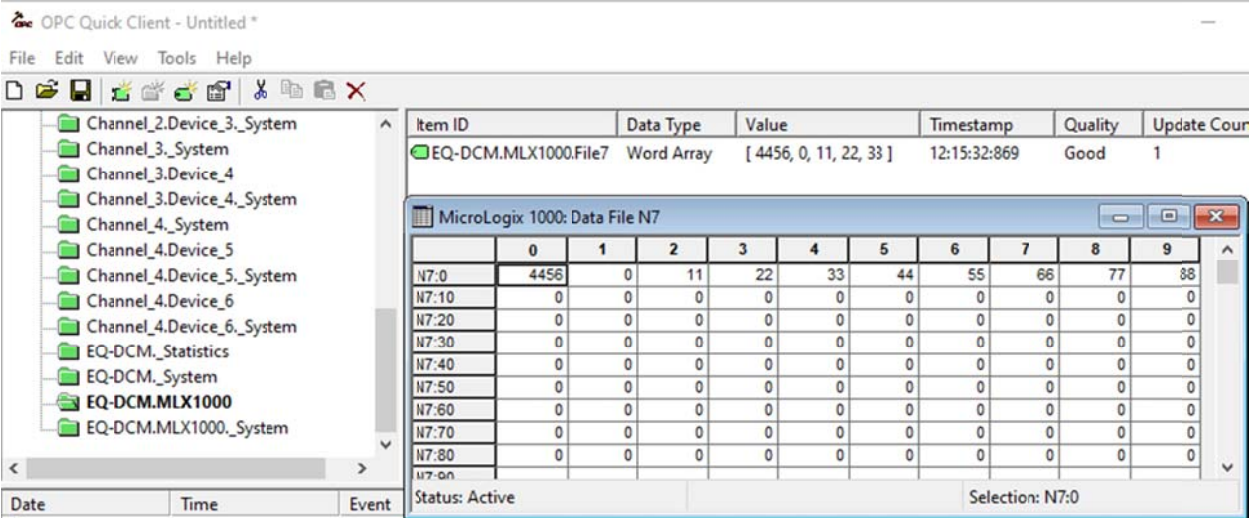
Scan rate:  milliseconds

OK Cancel Apply Help

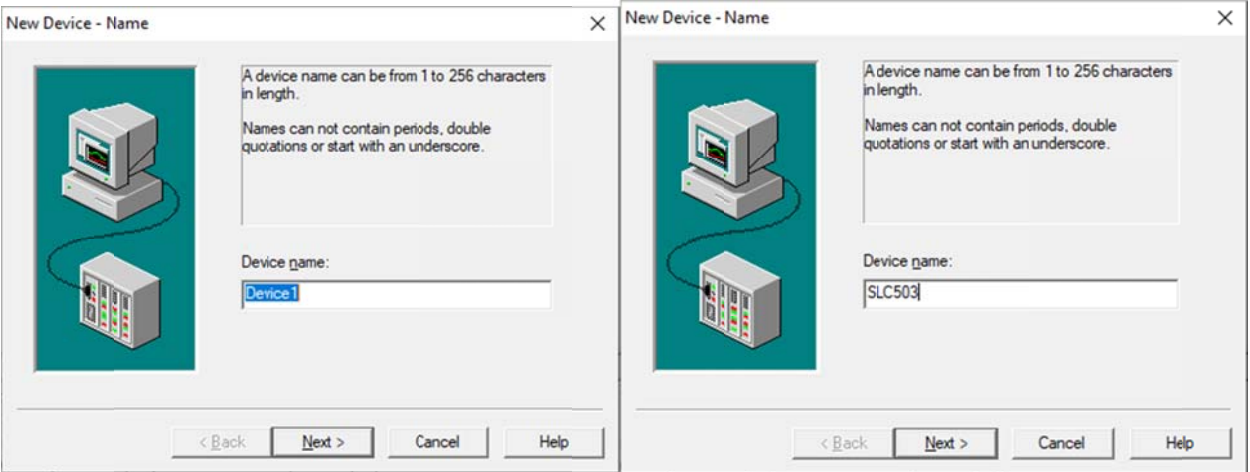
Start OPC Quick client to confirm that we can read data of integer file 7 from the Micro Logix 1000.



Here can see values of integer file N7 from both RSLINX and IGS in MicroLogix.



Now repeat add new device in IGS for SLC503





**New Device - Model**

The device you are defining uses a device driver that supports more than one model. The list below shows all supported models.

Select a model that best describes the device you are defining.

Device model:  
SLC 5/05 Open

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**New Device - ID**

The device you are defining may be multidropped as part of a network of devices. In order to communicate with the device, it must be assigned a unique ID.

Your documentation for the device may refer to this as a "Network ID" or "Network Address."

Device ID:  
192.168.2.55

< Back Next > Cancel Help

**New Device - Timing**

The device you are defining has communications timing parameters that you can configure.

Connect timeout: 8 seconds

Request timeout: 1000 milliseconds

Fail after: 3 successive timeouts

Inter-request delay: 0 milliseconds

< Back Next > Cancel Help

**New Device - Auto-Demotion**

You can demote a device for a specific period upon communications failures. During this time no read request (writes if applicable) will be sent to the device. Demoting a failed device will prevent stalling communications with other devices on the channel.

☐ Enable auto device demotion on communication failures

Demote after: 3 successive failures

Demote for: 10000 milliseconds

☐ Discard write requests during the demotion period

< Back Next > Cancel Help

Here the node address number of the SLC503 is 5 entered as destination.

**New Device - Communications Parameters**

Set the TCP/IP port number the device is configured to use. The default port is 2222.

Select the ethernet protocol used by the device.

Set the request size in bytes. This determines the maximum number of bytes the driver can request in a transaction.

Port Number: 2222

Protocol: TCP/IP

Request Size: 512 Bytes

< Back Next > Cancel Help

**New Device - Protocol Parameters**

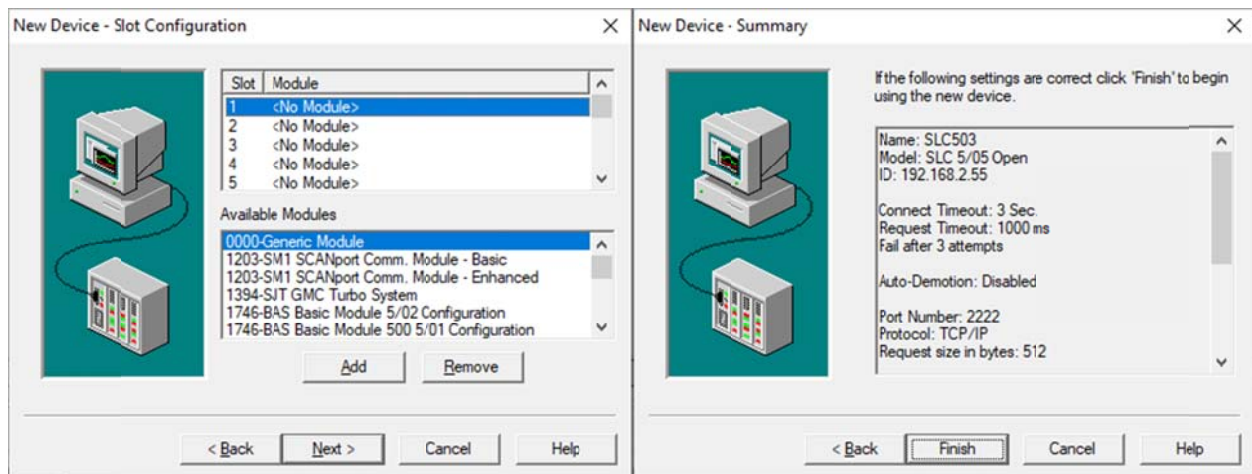
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For non-DF1 gateway applications, enter 0 (Default).

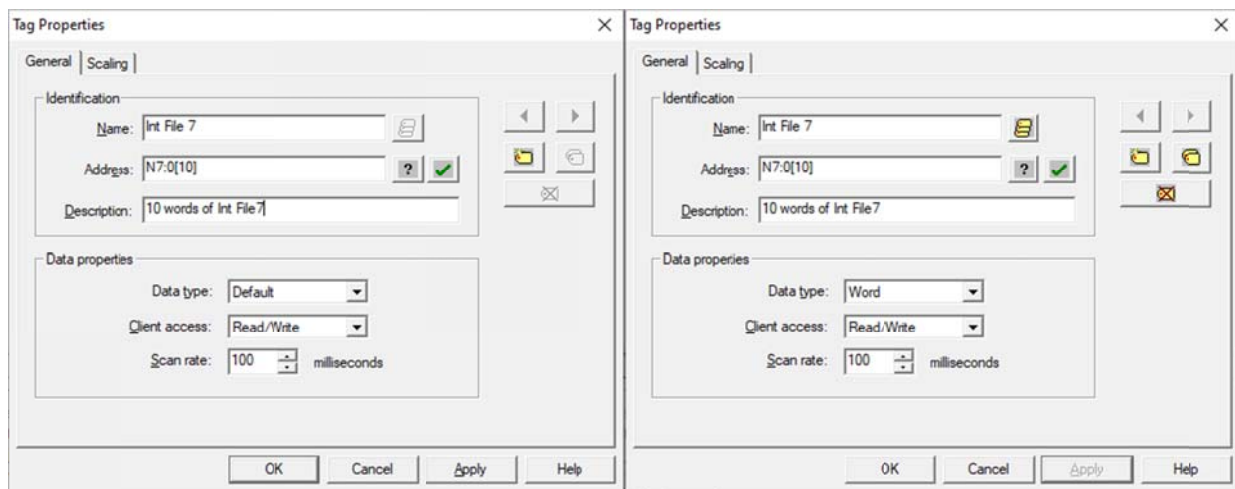
Destination Node Address (DST): 5

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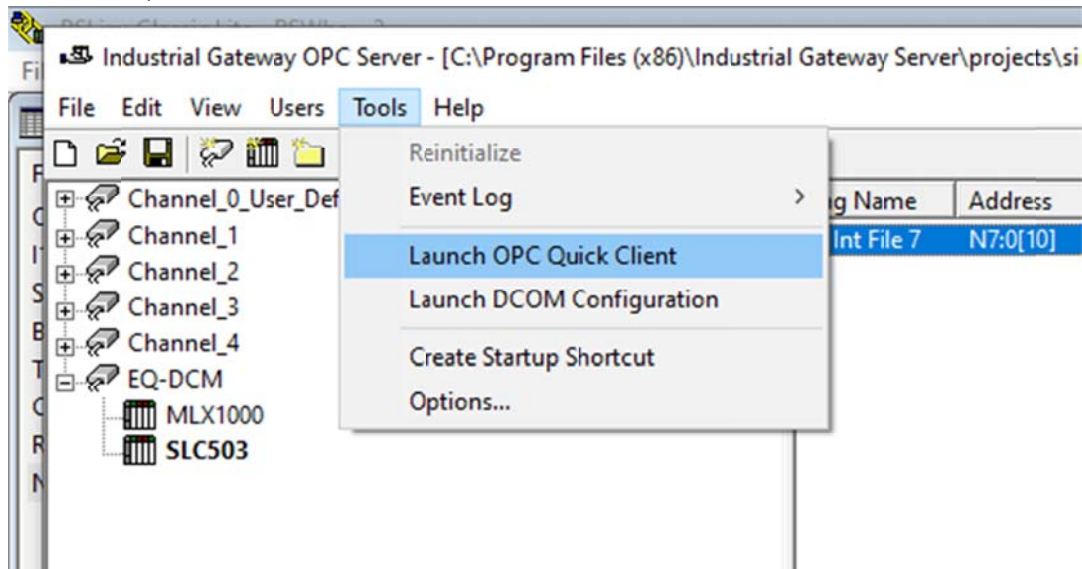




Adding a tag to read 10 words from the SLC/503 integer file N7.



Start OPC Quick Client to confirm N7 data can be read from the SLC503.



Here can see values of integer file N7 in the SLC503 using both RSLINX data monitor and IGS OPC Quick Client.

OPC Quick Client - Untitled \*

File Edit View Tools Help

Channel\_3.Device\_4

Channel\_3.Device\_4\_System

Channel\_4\_System

Channel\_4.Device\_5

Channel\_4.Device\_5\_System

Channel\_4.Device\_6

Channel\_4.Device\_6\_System

EQ-DCM\_Statistics

EQ-DCM\_System

EQ-DCM.MLX1000

EQ-DCM.MLX1000\_System

EQ-DCM.SLC503

EQ-DCM.SLC503\_System

Date	Time	Event
2020-05-13	12:20:50 PM	Added group
2020-05-13	12:20:50 PM	Added 13 items to ...
2020-05-13	12:20:50 PM	Added group 'EQ-...
2020-05-13	12:20:50 PM	Added 1 items to ...
2020-05-13	12:20:50 PM	Added group 'EQ-...
2020-05-13	12:20:50 PM	Added 13 items to ...

Item ID	Data Type	Value	Timestamp	Quality	Update Co...
EQ-DCM.SLC503.Int Fil...	Word Array	[ 272, 544, 816, 0, 0, 0, 0, 0, 0 ]	12:20:55:053	Good	3

SLC-5/03 (2): Data File N7

	0	1	2	3	4	5	6	7	8	9
N7:0	272	544	816	0	0	0	0	0	0	0
N7:10	1060	2120	3180	0	0	0	0	0	0	0
N7:20	0	0	0	0	0	0	0	0	0	0
N7:30	0	0	0	0	0	0	0	0	0	0
N7:40	0	0	0	0	0	0	0	0	0	0
N7:50	0	0	0	0	0	0	0	0	0	0
N7:60	0	0	0	0	0	0	0	0	0	0
N7:70	0	0	0	0	0	0	0	0	0	0
N7:80	0	0	0	0	0	0	0	0	0	0
N7:90										

Status: Active

Selection: N7:0

Ready

Item Count: 172