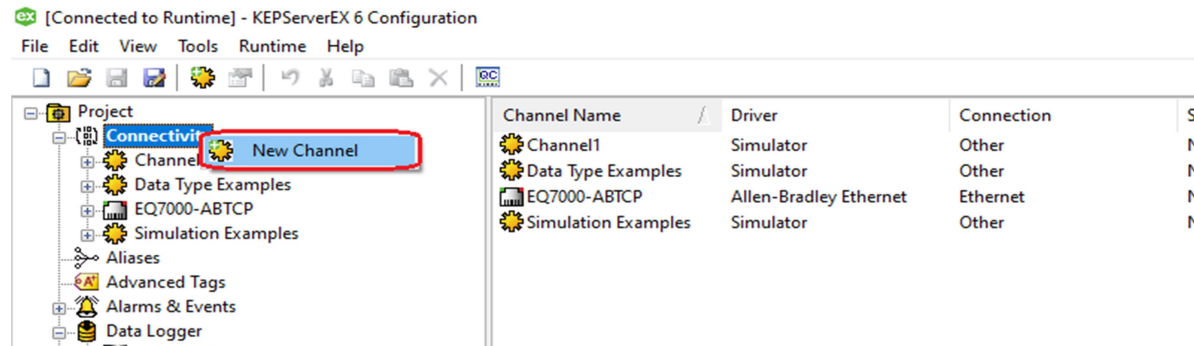
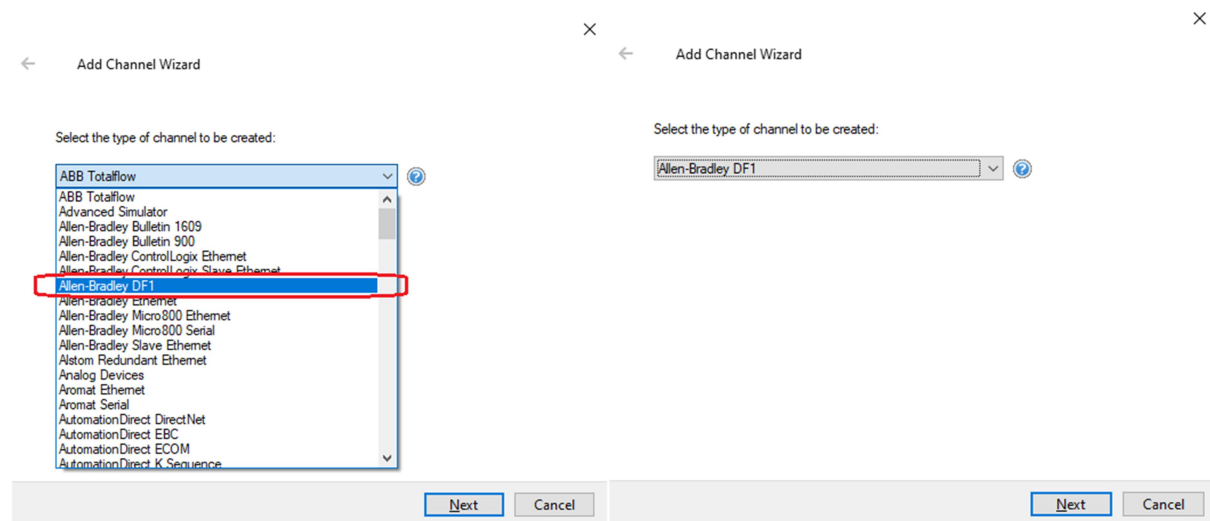


# Kepware KEPServerEX Ethernet Encapsulated DF1 Driver Accessing Data from AB DH485 SLC503 using Equustek DL4500

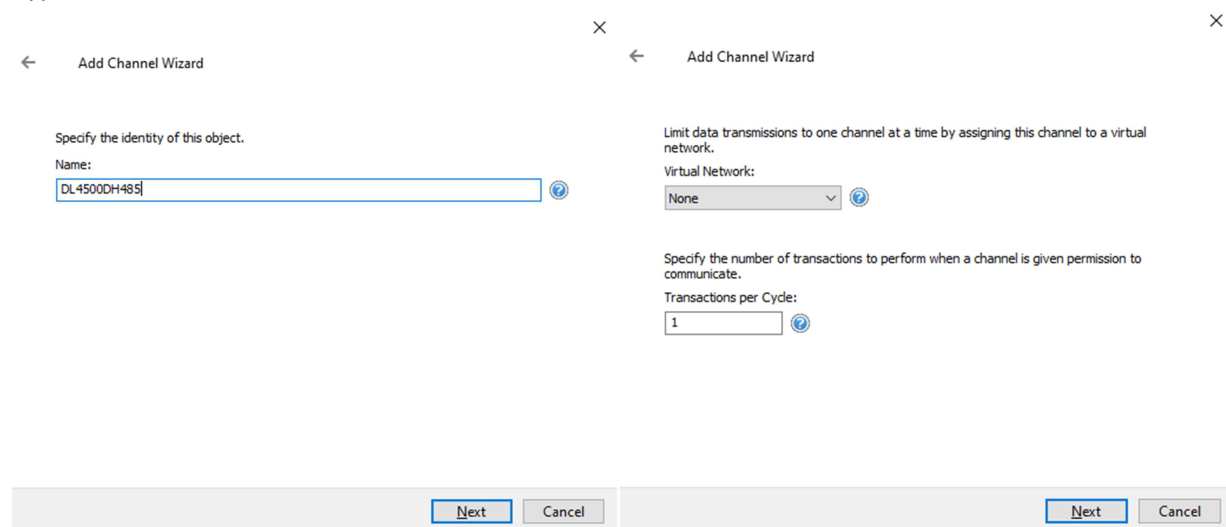
Start KEPServerEX and click on New Channel



Select Allen Bradley DF1 as the type of channel to be created, and then click Next.



Type a name for the channel.



## Select Ethernet Encapsulated

← Add Channel Wizard

Select the hardware device type for data communications (or None).

Physical Medium:  

COM Port  
None  
COM1 Port  
**Ethernet Encap.**

COM ID:  

1

Select the communications speed of the hardware in bits per second.

Baud Rate:  

19200

Next

Cancel

← Add Channel Wizard

Select the hardware device type for data communications (or None).

Physical Medium:  

Ethernet Encap.

Specify the name of a network adapter to bind or allow the OS to select the default.

Network Adapter:  

Default

Next

Cancel

← Add Channel Wizard

Choose whether or not COM port connections are terminated when inactive.

Close Idle Connection:  

Enable

Define the time, in seconds, a connection can be inactive before being terminated.

Idle Time to Close (s):  

15

Next

Cancel

← Add Channel Wizard

Choose how write data is passed to the underlying communications driver when more than one write exists in the write queue.

Optimization Method:  

Write Only Latest Value for All Tags  
**Write All Values for All Tags**  
Write Only Latest Value for Non-Boolean Tags  
Write Only Latest Value for All Tags

Specify one read or write operation for read operations, based on one read per configurable number of writes.

Duty Cycle:  

10

Next

Cancel

← Add Channel Wizard

Choose how to send invalid floating-point numbers to the client.

Floating-Point Values:  

Replace with Zero  
**Replace with Zero**  
Unmodified

Next

Cancel

← Add Channel Wizard

Set a unique network ID for the local machine or converter. In KF2/KF3 configurations, set to the KF2/KF3 node address. The Station ID must not conflict with any Device ID within the channel.

Station ID (decimal):  

22

Select the standard for communication on this connection. Device model can dictate protocols supported. Protocol determines master and slave ratios, update rates, sink and source behavior, and attempt limits.

Link Protocol:  

Full Duplex

Enable to only accept responses for the station indicated in the Station ID field.

Ignore Responses for other Stations:  

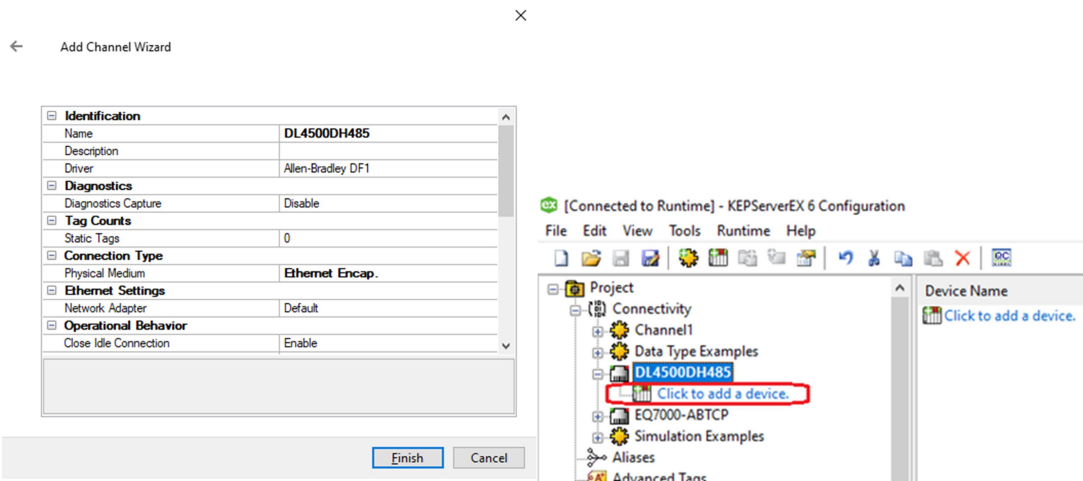
Enable

Next

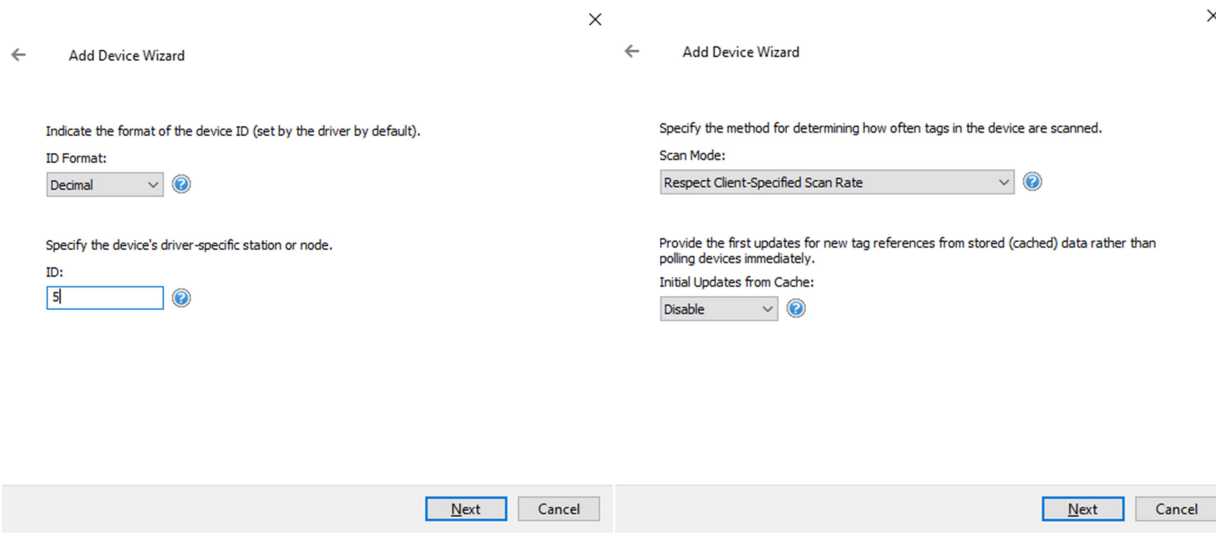
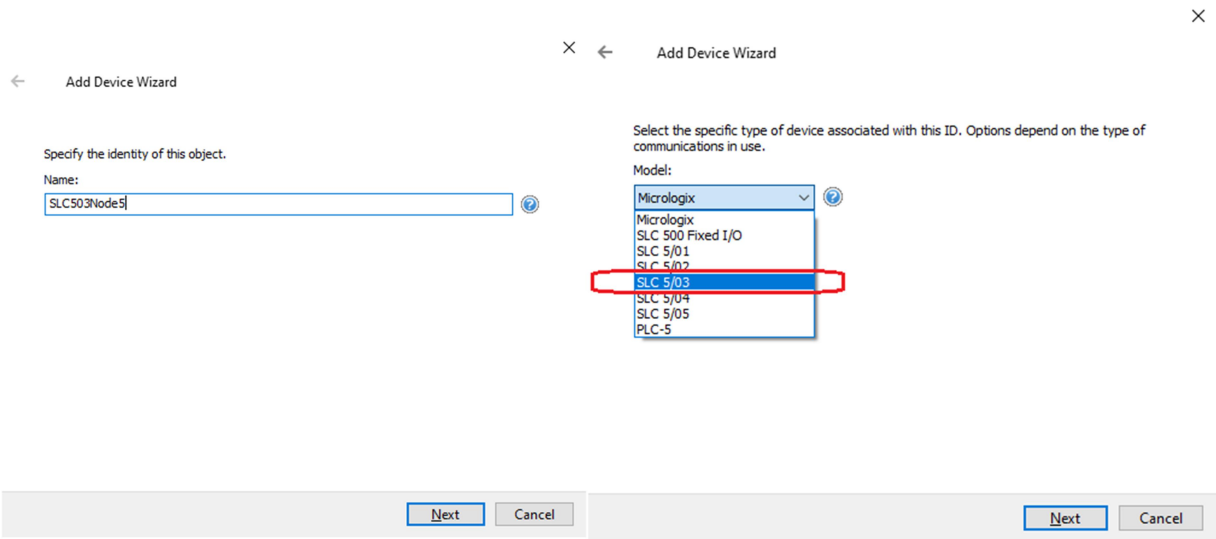
Cancel

Enter the station ID (the DL4500 node address number) which is the last octet of the IP address, if it is greater than 31 like in our case is 54 you keep subtracting 32 until you get a number between 0-31.

Click on add new device



Type a name for the device and select your SLC500 or MicroLogix or any DH485 device want to access



Type in the IP address of the DL4500 and Ethernet port number as 10001 as it was set in Telnet settings

← Add Device Wizard

Specify the four-field IP address of the terminal server for this device.  
IP Address:

The port number the device uses to communicate. The most common ports are 2101 and 10001.  
Port:

Select TCP/IP or UDP communications for the terminal server in use.  
Protocol:

Next Cancel

← Add Device Wizard

Define the maximum amount of time, in seconds, allowed to establish a connection to a remote device. Connection time is often longer than communication request time for a  
Connect Timeout (s):

Indicate how many times the driver sends a connection request before considering the request to have failed and the device to be in error.  
Connect Attempts:

Specify an interval, in milliseconds, to determine how long the driver waits for a response from the target device to indicate completion.  
Request Timeout (ms):

Next Cancel

Please Make sure the Error checking is set to BCC

← Add Device Wizard

Automatically remove the device from the scan due to communication failures.  
Demote on Failure:

Next Cancel

← Add Device Wizard

Select the checksum validation supported by the target device.  
Error Checking Method:

Indicate whether data requests should be small or large to optimize performance and PLC memory use.  
Request Size:

Next Cancel

← Add Device Wizard

Enable to support float access to integer files for SLC and MicroLogix.  
N File Float Access:

Next Cancel

← Add Device Wizard

Identification

Name	SLC503Node5
Description	
Driver	Allen-Bradley DF1
Model	SLC 5/03
Channel Assignment	DL4500DH485
ID Format	Decimal
ID	5

Operating Mode

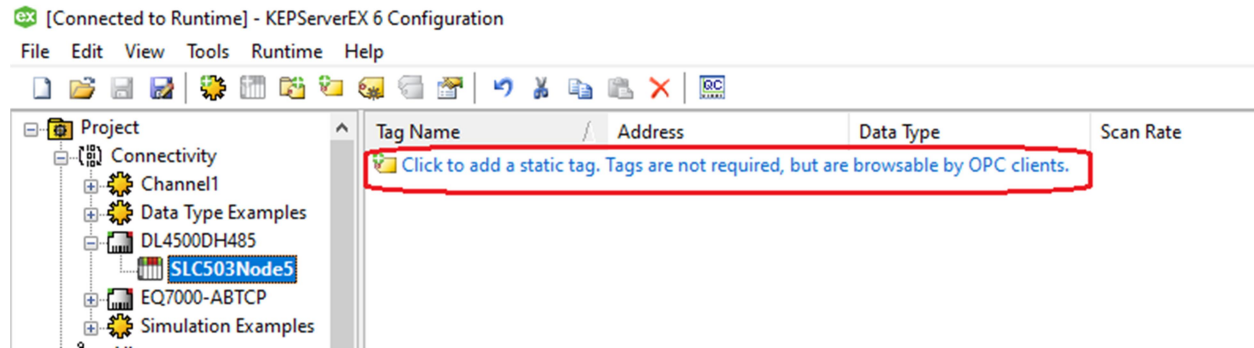
Data Collection	Enable
Simulated	No

Tag Counts

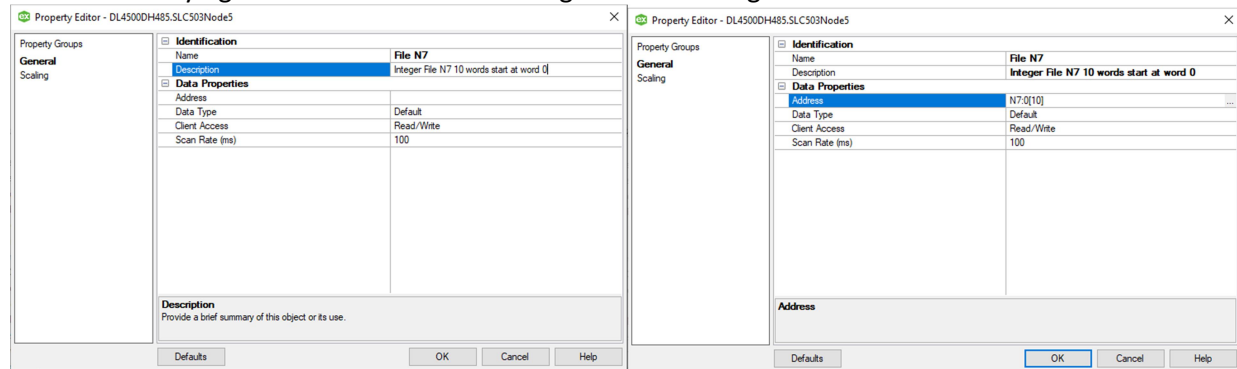
Static Tags	0
-------------	---

Finish Cancel

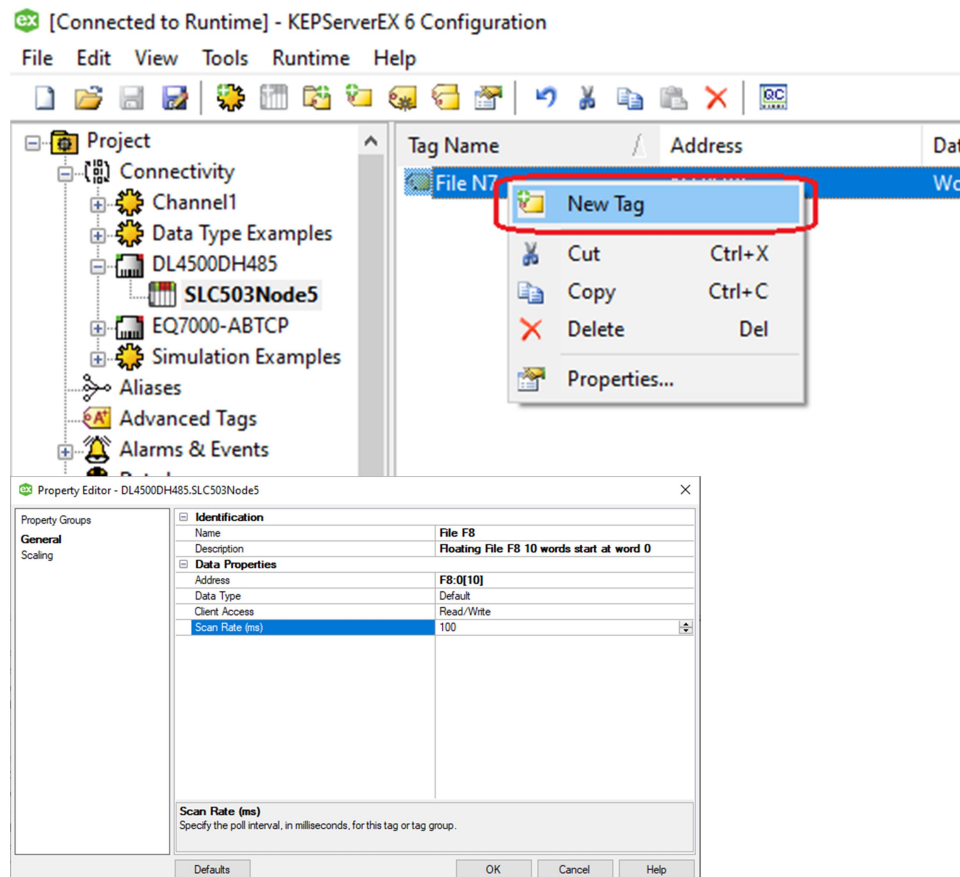
Click on add a tag to read from the DH485 device here our SLC5/03



Here we are trying to read 10 words from integer file 7 starting at word 0.



Repeat for adding a tag to read 10 words from floating file 8.



## Launch OPC Quick Client

[Connected to Runtime] - KEPServerEX 6 Configuration

File Edit View Tools Runtime Help

Event Log

Launch OPC Quick Client

Launch License Utility

Options...

Project

Connect

Change Data

DL4500DH485

SLC503Node5

EQ7000-ABTCP

Simulation Examples

Aliases

Address

F8:0[10]

N7:0[10]

OPC Quick Client - Untitled \*

File Edit View Tools Help

Item ID	Data Type	Value	Timestamp	Quality	Update Count
DL4500DH485.SLC503Node5.File F8	Float Array	[ 987.12, 12.34, 45.67, 89.01, 99.88, 11.22, 623.45, 885.23, 45321.3, 582.31 ]	11:07:50.496	Good	1
DL4500DH485.SLC503Node5.File N7	Word Array	[ 272, 544, 816, 0, 0, 0, 0, 0 ]	11:07:50.671	Good	1

Date Time Event

2021-10-14 11:07:50 AM Connected to server 'Kepware.KEPServerEX.V6'.

2021-10-14 11:07:50 AM Added group 'DataLogger' to 'Kepware.KEPServerEX.V6'.

2021-10-14 11:07:50 AM Added 4 items to group 'DataLogger'.

2021-10-14 11:07:50 AM Added group 'System' to 'Kepware.KEPServerEX.V6'.

2021-10-14 11:07:50 AM Added 26 items to group 'System'.

2021-10-14 11:07:50 AM Added group 'ThingWorx' to 'Kepware.KEPServerEX.V6'.

2021-10-14 11:07:50 AM Added 13 items to group 'ThingWorx'.

Ready

Item Count: 614

Results should be exact to those read from RSLINX through the same DL4500 and same SLC503.

RSLinx Classic Lite - [RWho - 1]

File View Communications Station DDE/OPC Security Window Help

Autobrowse Refresh Browsing - node 3 not found

Workstation, LAB-D-PC

Linux Gateways, Ethernet

701078, DH-485

AB\_ETH-1, Ethernet

AB\_ETHIP-1, Ethernet

DL4500EDH485, DH-485

04, MicroLogix 1000, MICROT

05, SLC-5/03, SLC503

22, Workstation, DL4500-EDH

22 DL4500-EDH 04 MICROT 05 SLC503

SLC-5/03 (8): 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										

Status: Active

SLC-5/03 (8): Data File F8

	0	1	2	3	4	5	6	7	8	9
F8:0	987.12	12.34	45.67	89.01	99.88	11.22	623.45	885.23	45321.3	582.31

Status: Active