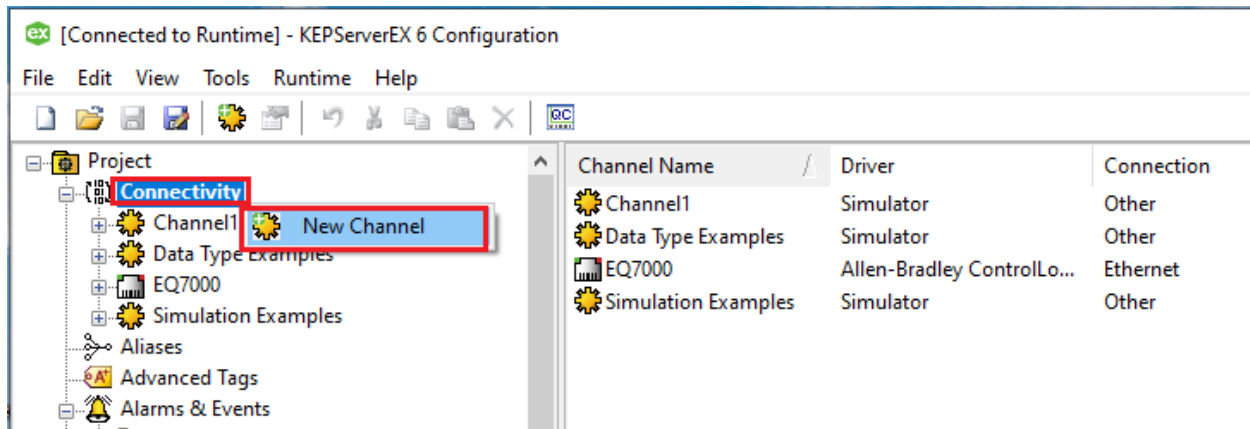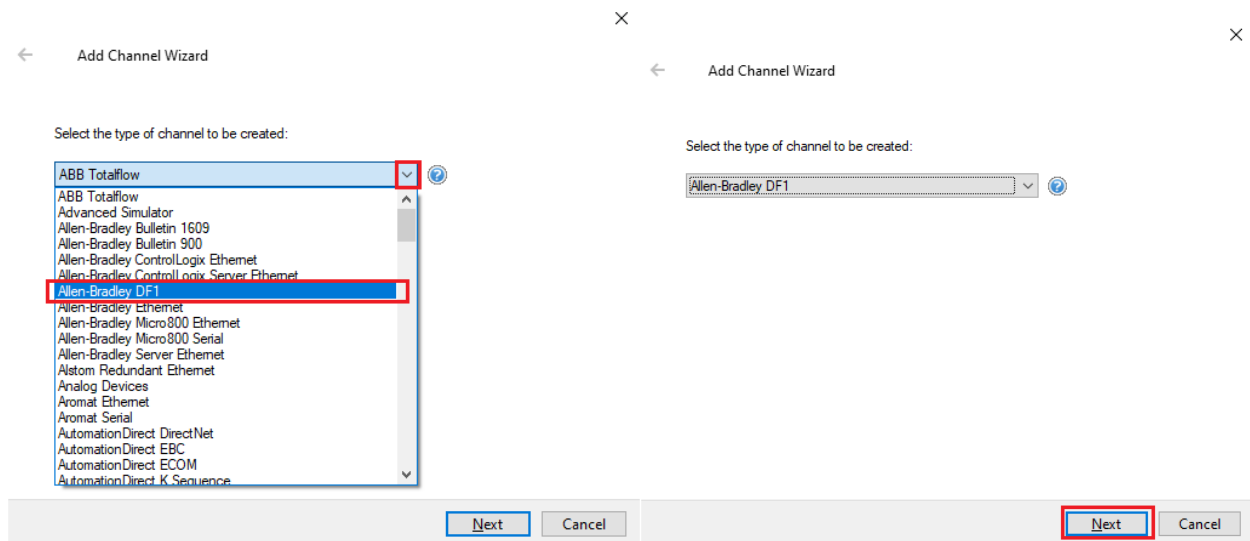# Allen Bradley FactoryTalk accessing PLC5 & SLC504 with KEPServer OPC using DLPCIe DH+ card
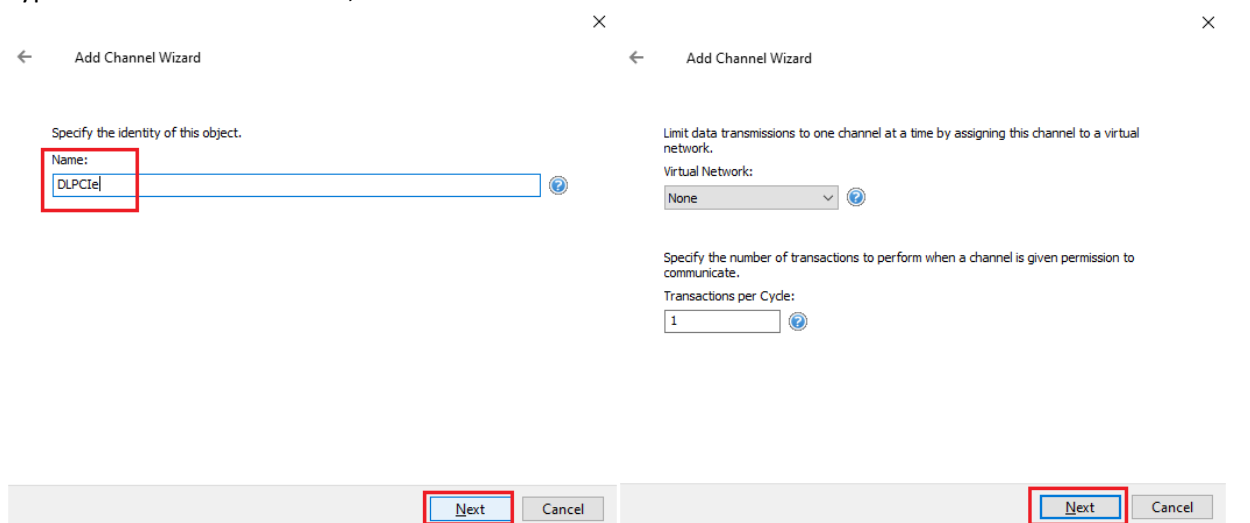
Start Kepware KEPServerEX, right click on Connectivity or click on New Channel icon to add a new Channel
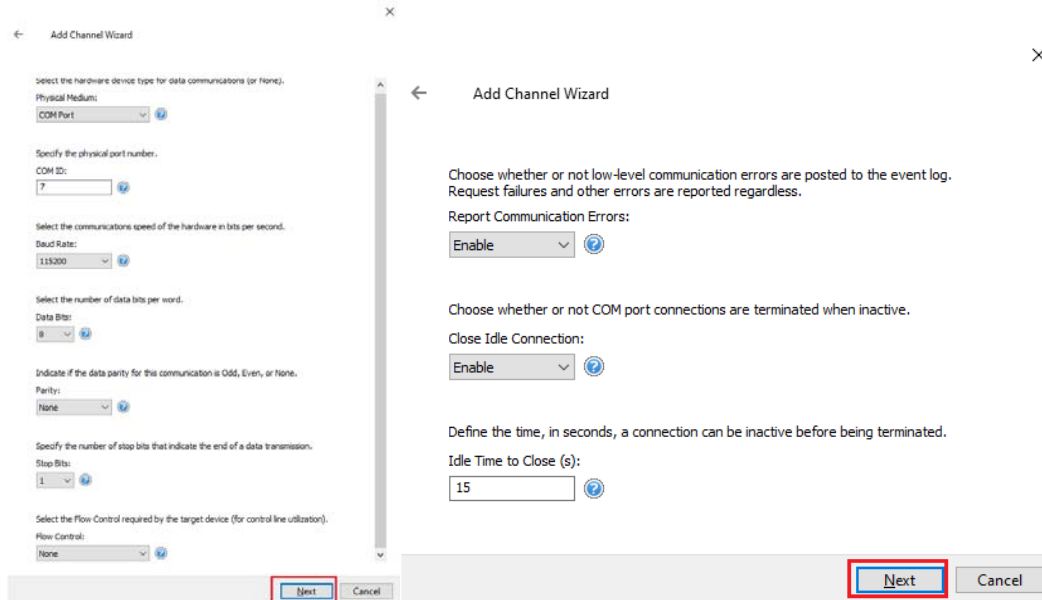

From the Drop Menu select Allen Bradley DF1, Click Next.

Type a name for the Channel, Click on Next

From the Drop menus enter the serial port of the DLPCIe card found under Device manager, also enter the card serial settings done in EQ32 configuration software & click Next

Continue with selecting Channel settings.

Enter the node address of the DLPCIe as a station ID then click Finish when the serial settings are done.

Click to add a new Device.

Type a name for the Device, click Next. From the drop Menu select PLC5.
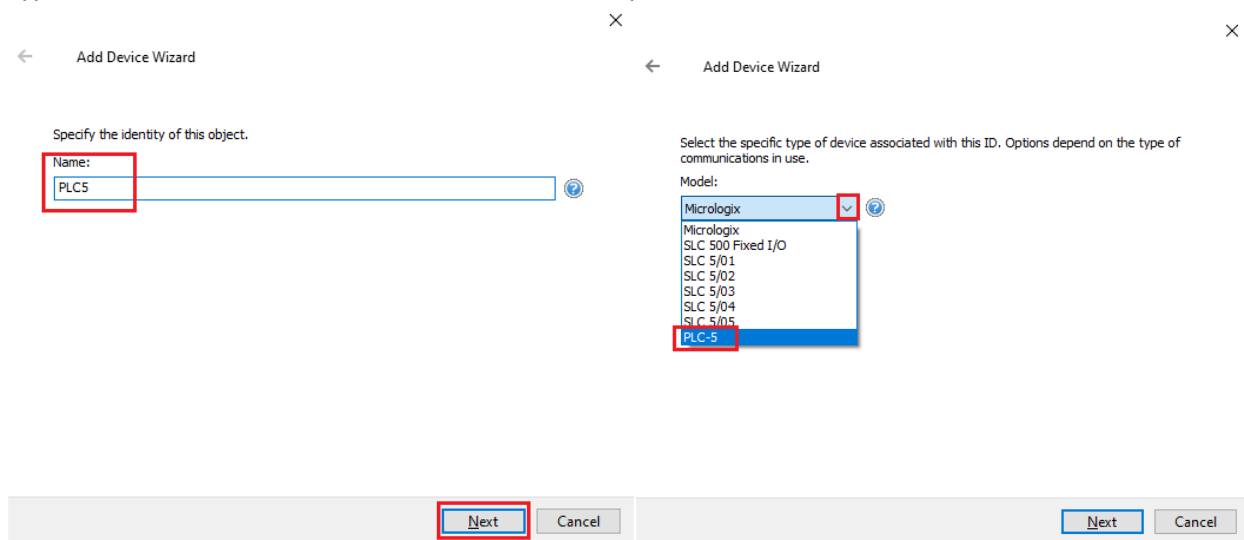
Click Next. Enter the node address number of the PLC5 following ID format Decimal or Octal & click Next.
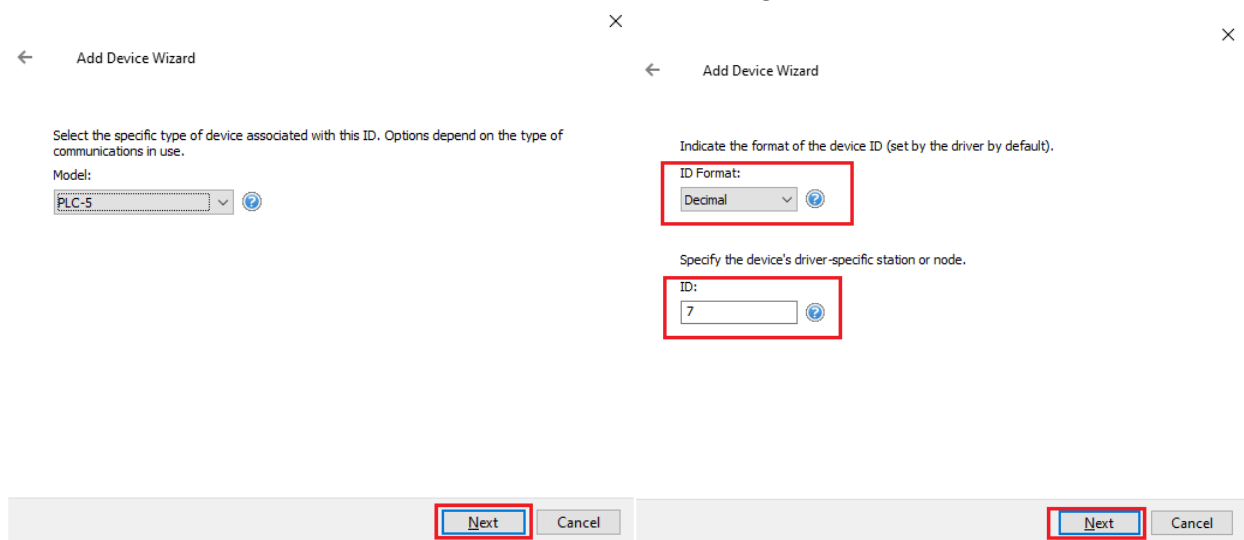
Continue with Device settings

Add Device Wizard

Specify the method for determining how often tags in the device are scanned.

Scan Mode:

Respect Client-Specified Scan Rate

Provide the first updates for new tag references from stored (cached) data rather than polling devices immediately.

Initial Updates from Cache:

Disable

[Next] [Cancel]

Add Device Wizard

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):

1000

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

Attempts Before Timeout:

3

[Next] [Cancel]

Select the Error checking method, make sure it is similar to what the DLPCIe was set for.

Add Device Wizard

Automatically remove the device from the scan due to communication failures.

Demote on Failure:

Disable

[Next] [Cancel]

Add Device Wizard

Select the checksum validation supported by the target device.

Error Checking Method:

CRC

| CRC |
| BCC |

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

Request Size:

Large

[Next] [Cancel]

Click on Finish.

Add Device Wizard

Enable to rearrange message order with lower words first, then upper. Select No to maintain order as received (typically upper words first, then lower).

Swap Float Words:

Enable

[Next] [Cancel]

Add Device Wizard

| Identification	
Name	PLC5
Description	
Driver	Allen-Bradley DF1
Model	PLC-5
Channel Assignment	DLPCIe
ID Format	Decimal
ID	7
Operating Mode	
Data Collection	Enable
Simulated	No
Tag Counts	
Static Tags	0
Scan Mode	
Scan Mode	Respect Client-Specified Scan Rate
Initial Updates from Cache	Disable
Communication Timeouts	
Request Timeout (ms)	1000
Attempts Before Timeout	3
Auto-Demotion	
Demote on Failure	Disable
Protocol Settings	
Error Checking Method	BCC
Swap Float Words	Enable
Request Size	Large

[Finish] [Cancel]

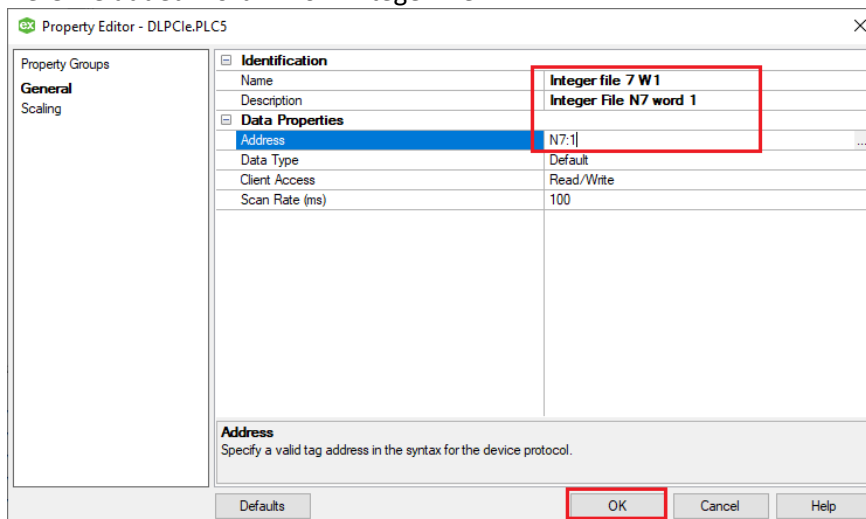Click to add tags or words that needed to be read from the PLC.
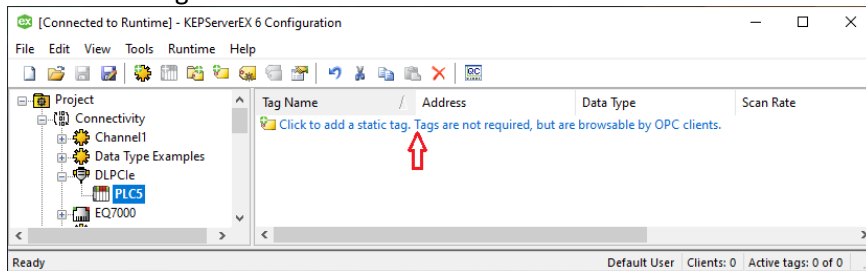
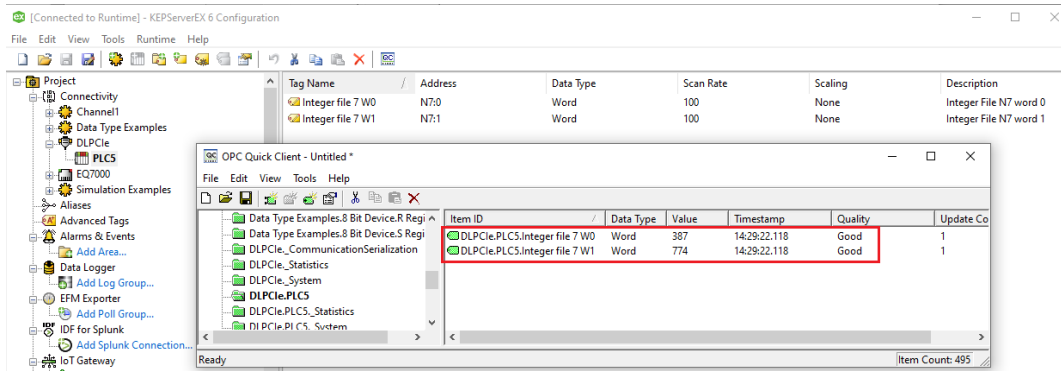Here we added word 0 from integer file N7
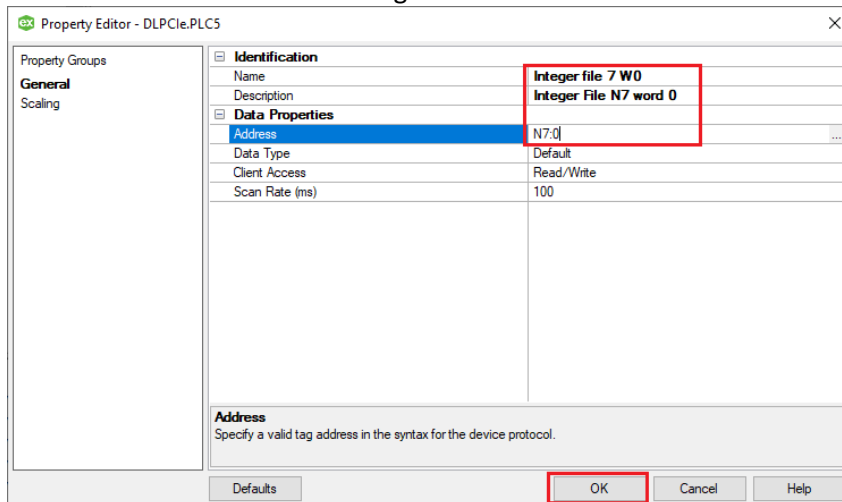
Right click on the created tag to add another New Tag.
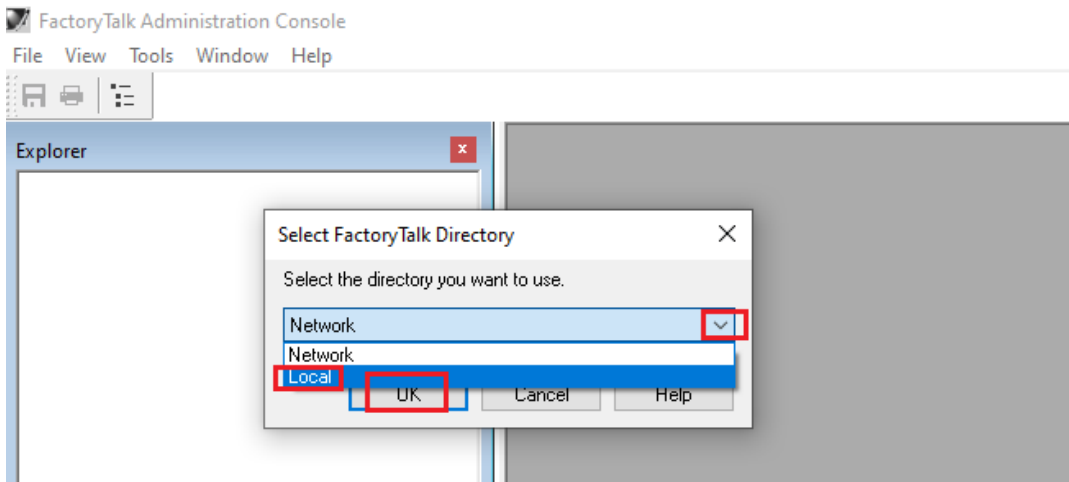

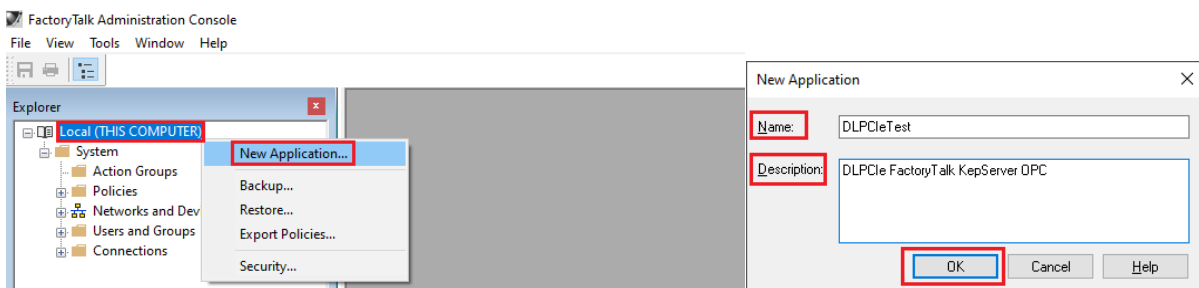Here we added word 1 from integer file 7.

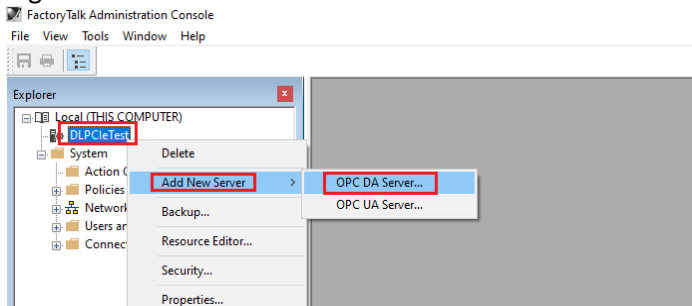To read those two words click on OPC Quick Client under Tools.

Now to use that KEServerEX OPC in FactoryTalk, open Allen Bradley FactoryTalk Administration Console, select Local and click OK.
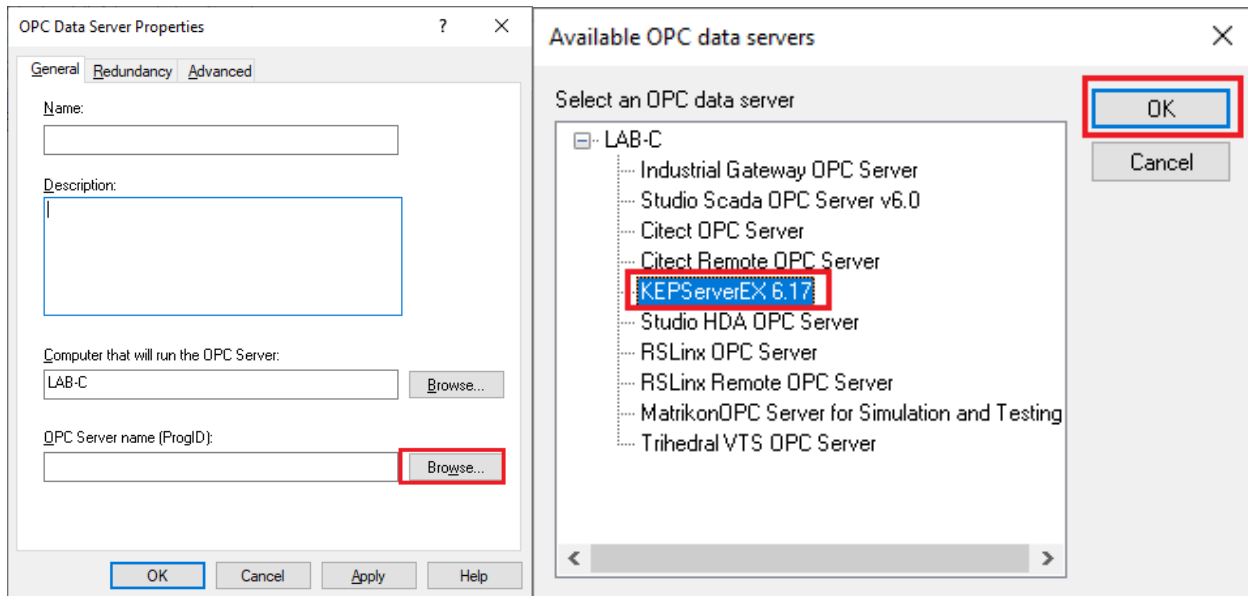

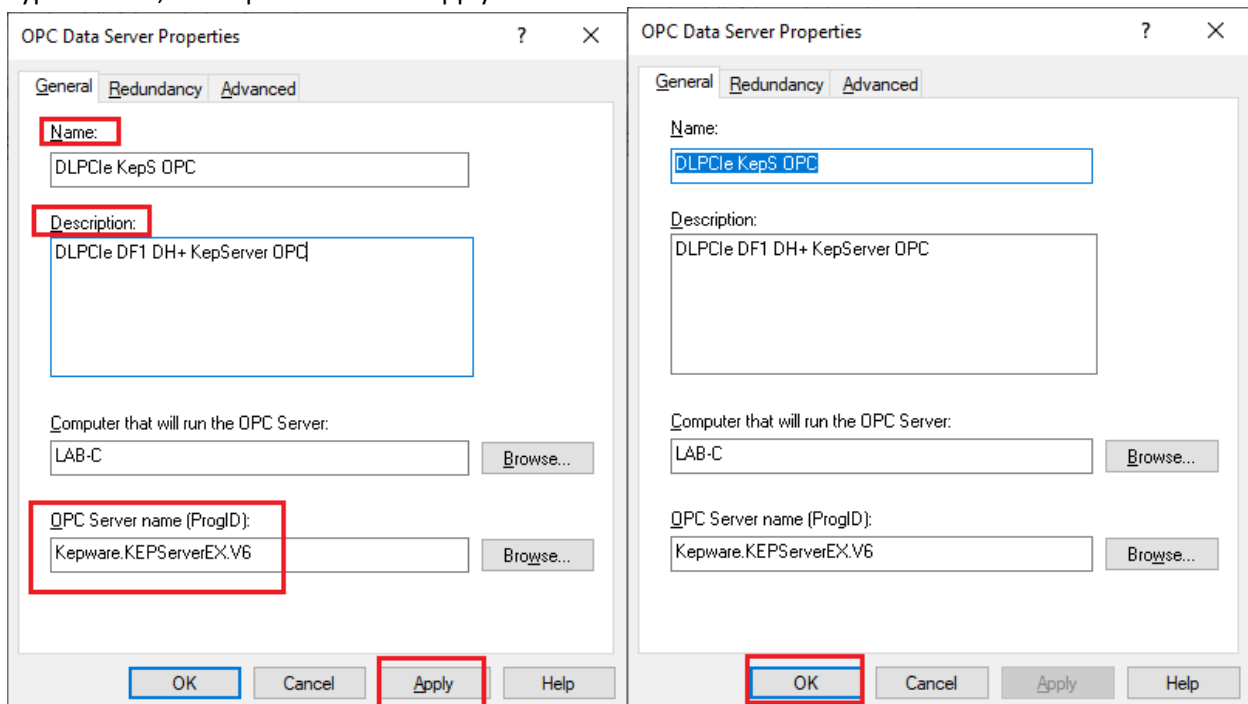Create a new application, type a name and description for it then click on OK.

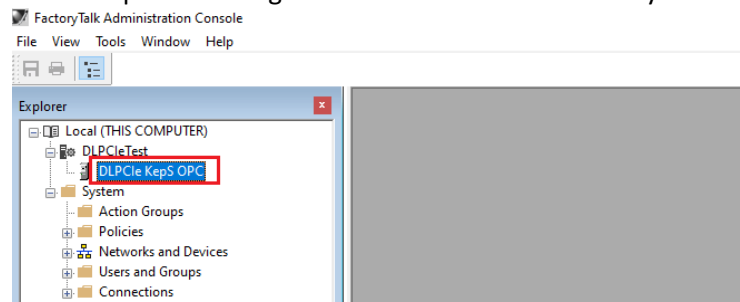Right click ot add the New OPC DA Server.

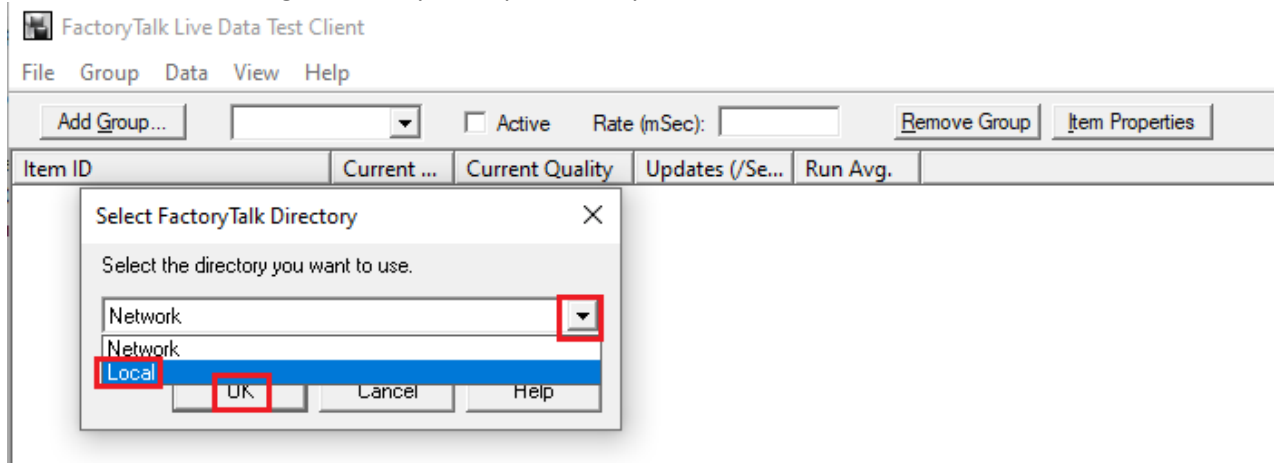Click on Browse then Select the KEPServerEX and click OK.

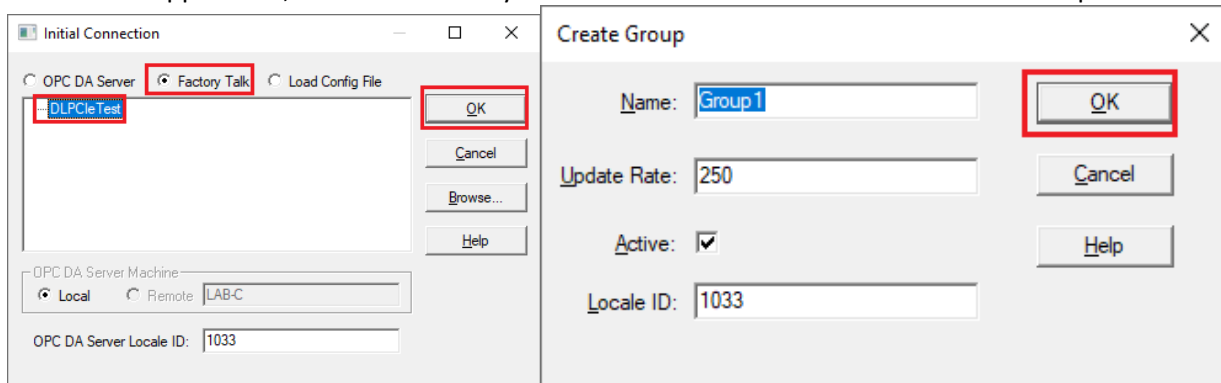Type a name, Description and click Apply then click OK.

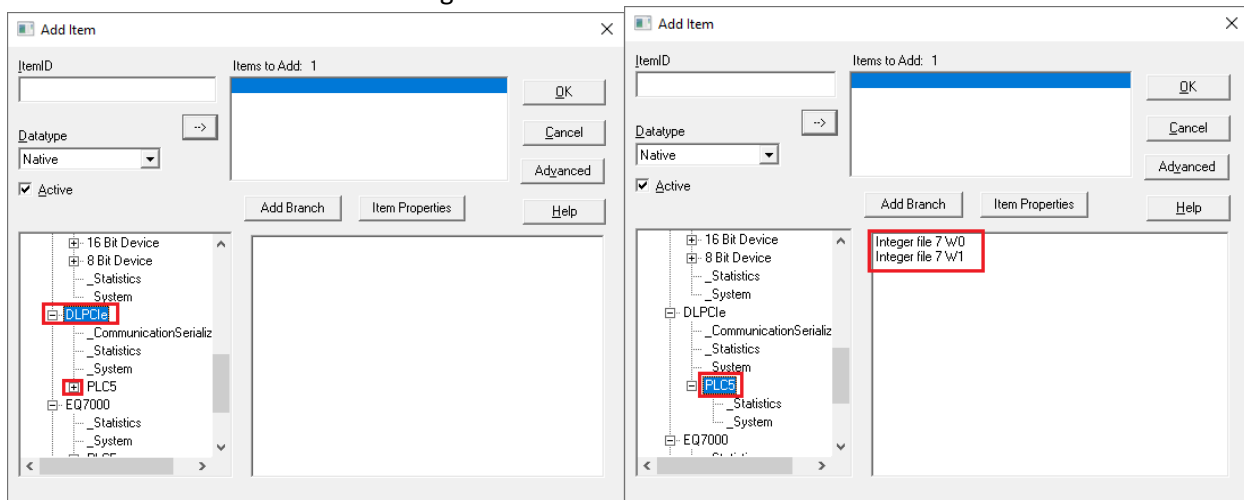That completes adding the KEPServerEX to the FactoryTalk.

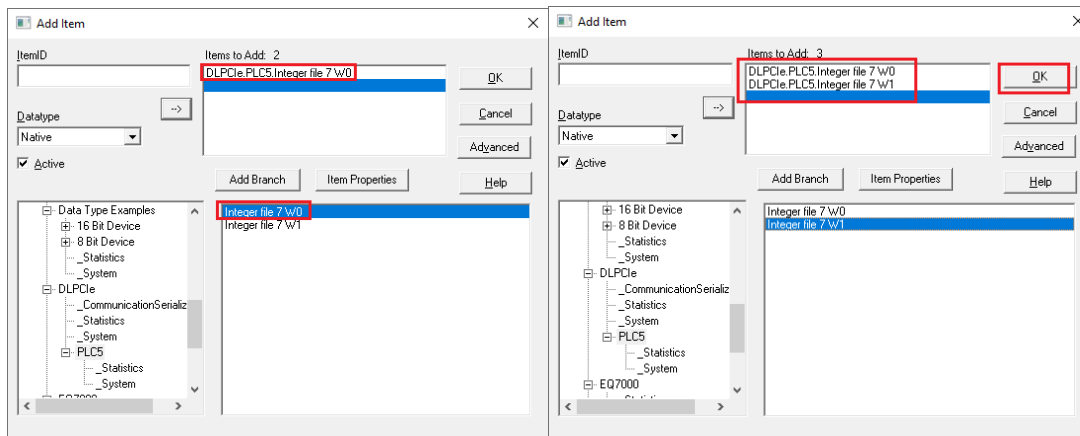Now to access those tags in Factory Talk open FactoryTalk Live Data Test Client, select Local & click Ok.

Click on the application, make sure FactoryTalk is selected and click on Ok to create a Group.
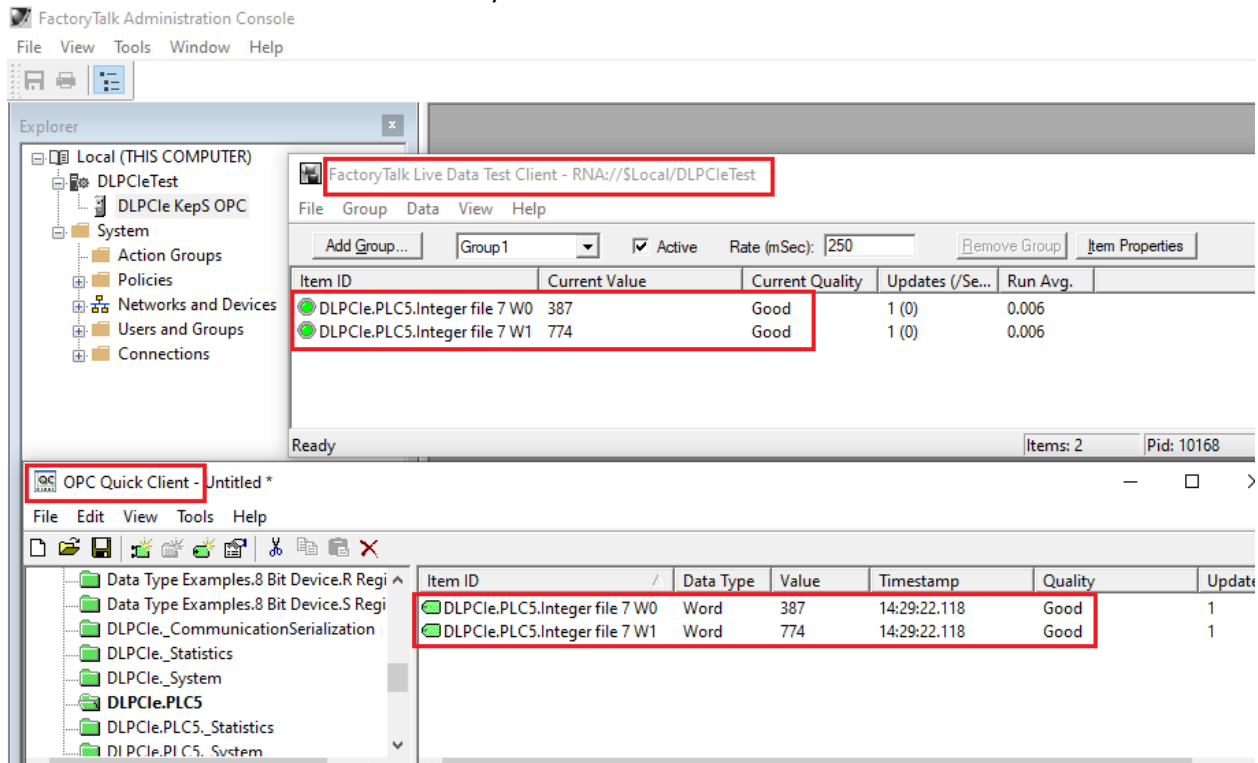

Click on PLC5 under DLPCIe to see tags added in KEPServerEX.

Double click on each word to add them both then click OK.

Here we can see the value read in FactoryTalk similar to those read in KEPServerEX OPC Quick Client.

Same procedure can be done for the SLC504 or any other PLC on the DH+ network.