

## Technical Note



# Connecting Omron InduSoft Web Studio and CX-Programmer to CX-Simulator



Version 1.0  
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Cat. No. R32I-E-01

### **Overview:**

This document will explain the steps necessary to connect Omron InduSoft Web Studio (any version) and Omron CX-Programmer to Omron CX-Simulator. CX-Simulator is the PLC simulation package included with CX-One that allows the user to test the functionality of the PLC code without having the physical PLC to work with.

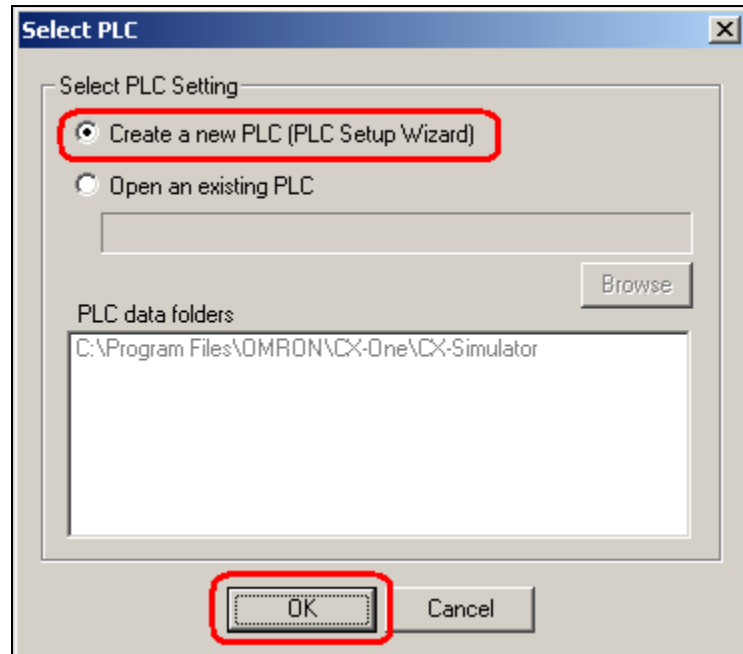
Connecting Omron InduSoft Web Studio to CX-Simulator allows the user to test the interaction of Omron InduSoft Web Studio features such as lamps, buttons, scripts, alarms, trend objects, database connections, and other tools with the ladder code developed for the PLC, thus speeding development and debugging efforts. The simultaneous connection of Omron InduSoft Web Studio and CX-Programmer to CX-Simulator provides the user the ability to debug the PLC and HMI portions of a project at the same time.

The use of InduSoft Web Studio with CX-Simulator requires the OMRON FINS driver to be enabled in Web Studio, which is only possible when using Omron InduSoft Web Studio, purchased through Omron.

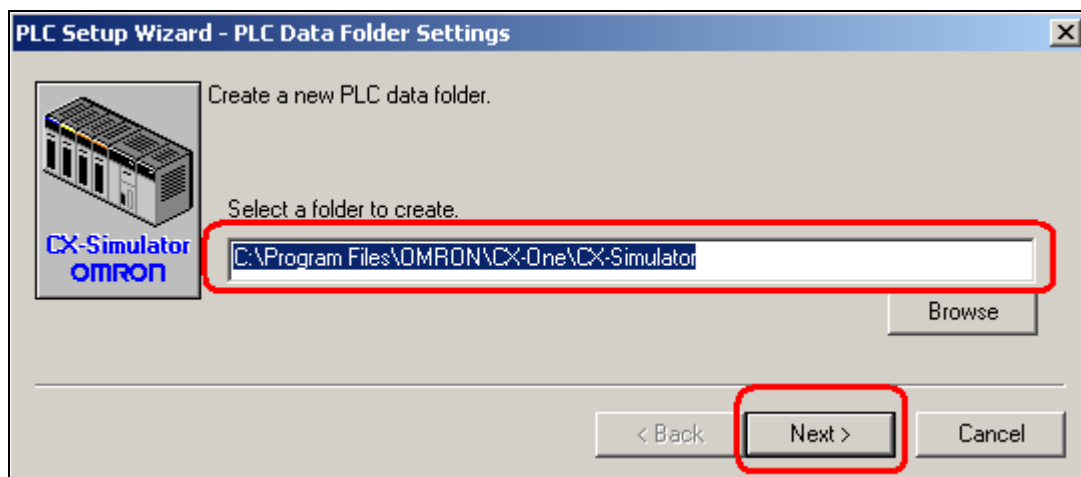
This document assumes that the user has general familiarity with Omron InduSoft Web Studio, and Omron CX-Programmer, and has FINS Gateway or SYSMAC Gateway installed on same PC as Omron InduSoft Web Studio, CX-Programmer, and CX-Simulator.

### Configuring CX-Simulator:

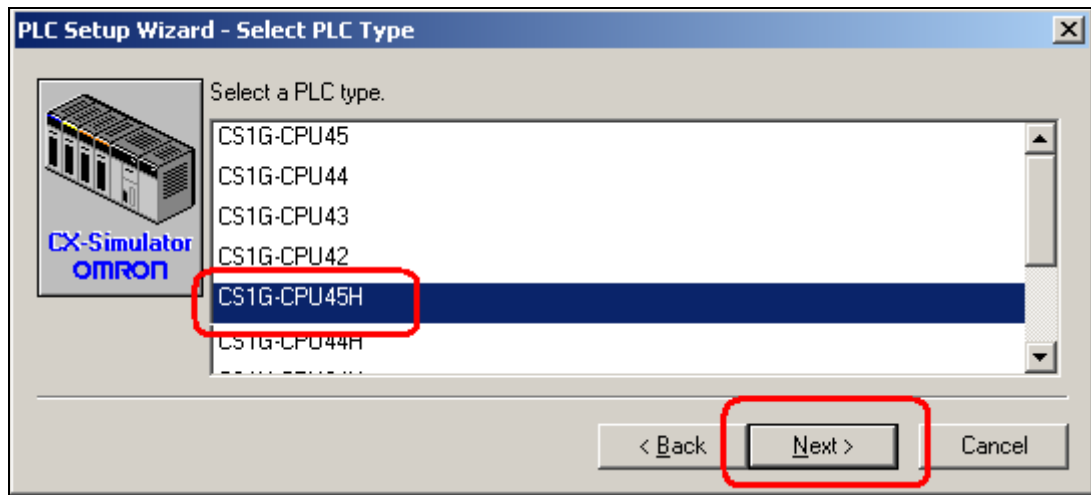
1. From the Start menu, launch CX-Simulator: **Start / Programs / Omron / CX-One / CX-Simulator / CX-Simulator**.
2. Create a new PLC by selecting 'Create a new PLC (PLC Setup Wizard)' and clicking **OK**.



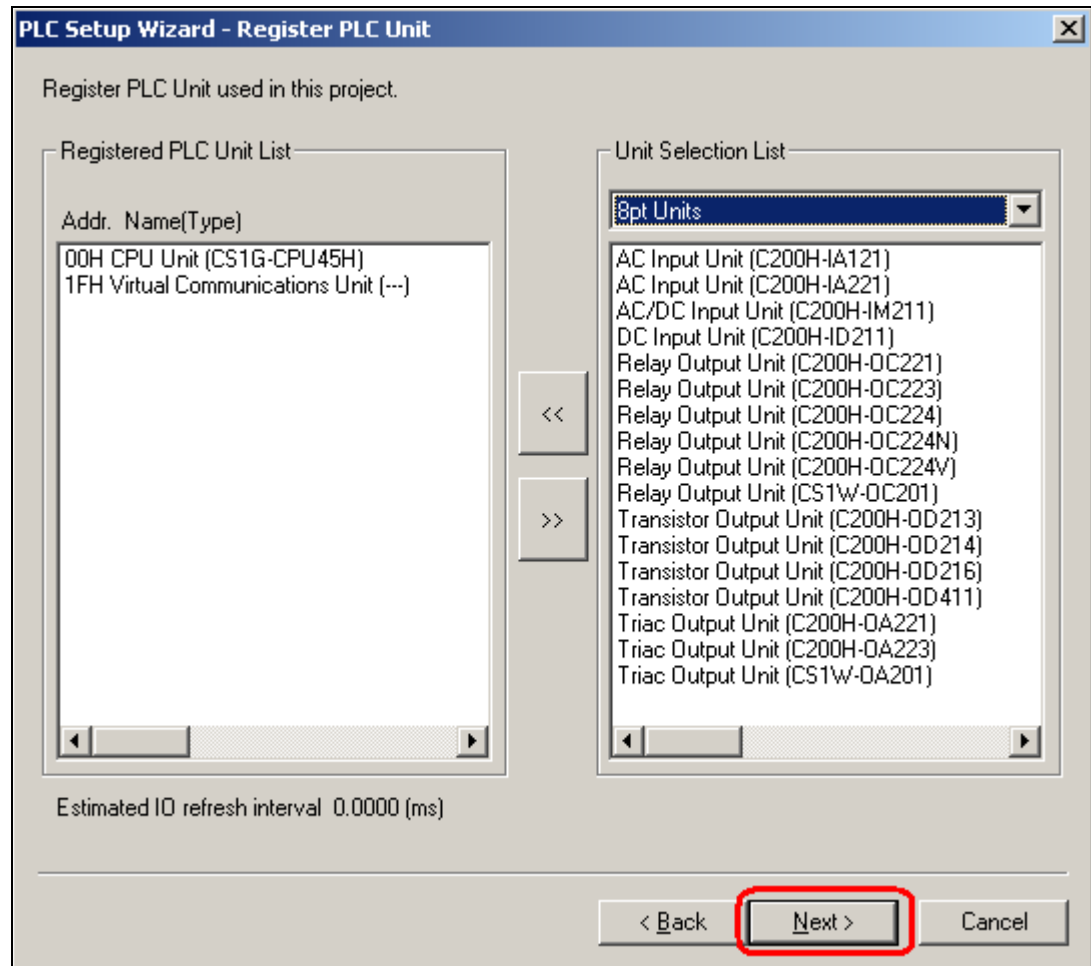
3. Select the location to where the simulated PLC will be stored, and click **Next**.



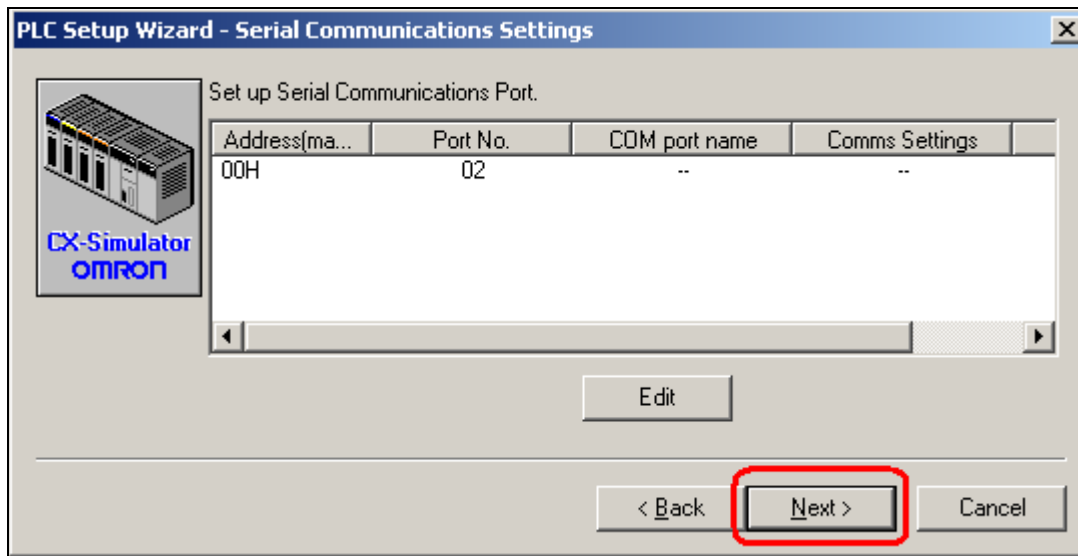
4. Select the PLC type to match the application, and click **Next**.



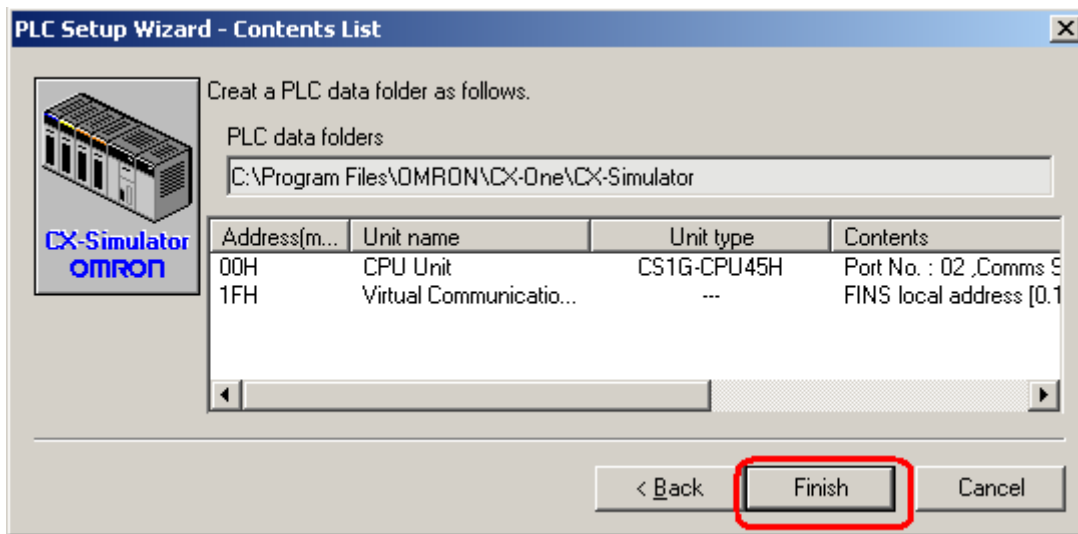
5. It is not necessary to add any units to the simulated PLC. Simply click **Next**.



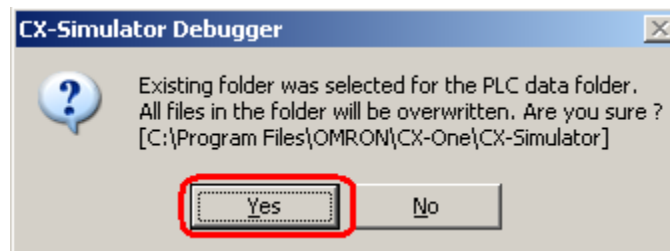
- 6. No Serial Port configuration is necessary. Simply click **Next**.



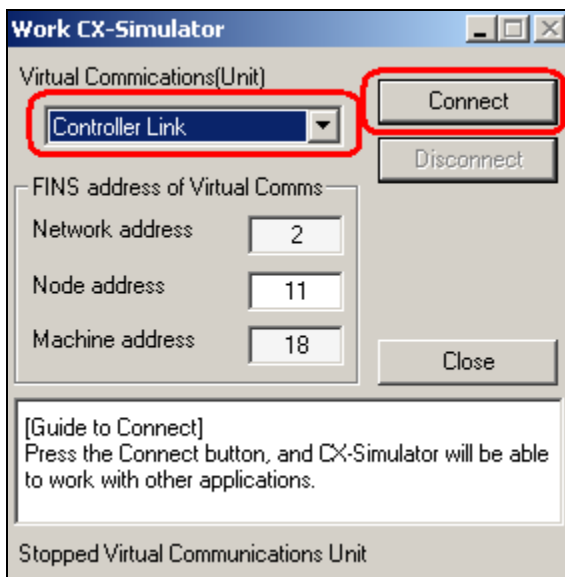
- 7. Click **Finish**.



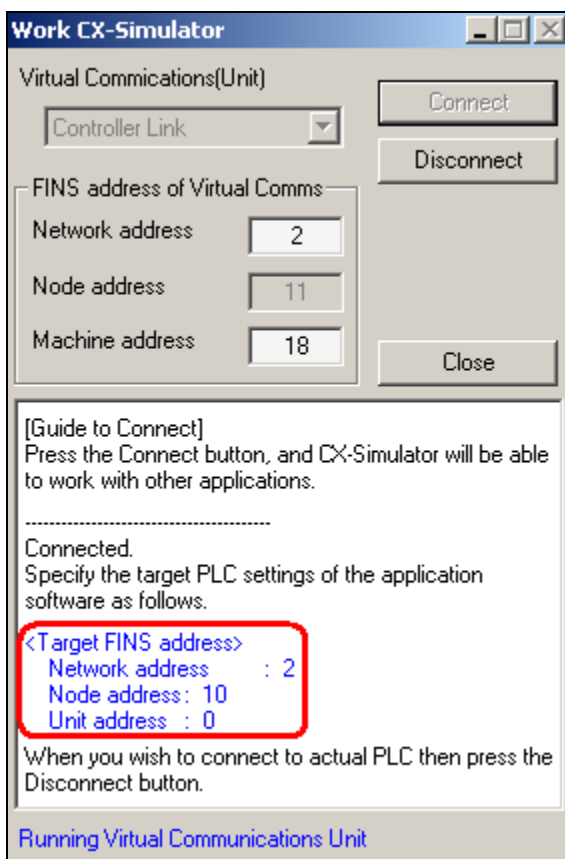
- 8. If prompted, click **Yes** to overwrite the existing simulated PLC.



9. Select the **Controller Link** Virtual Communications Unit, and click **Connect**.

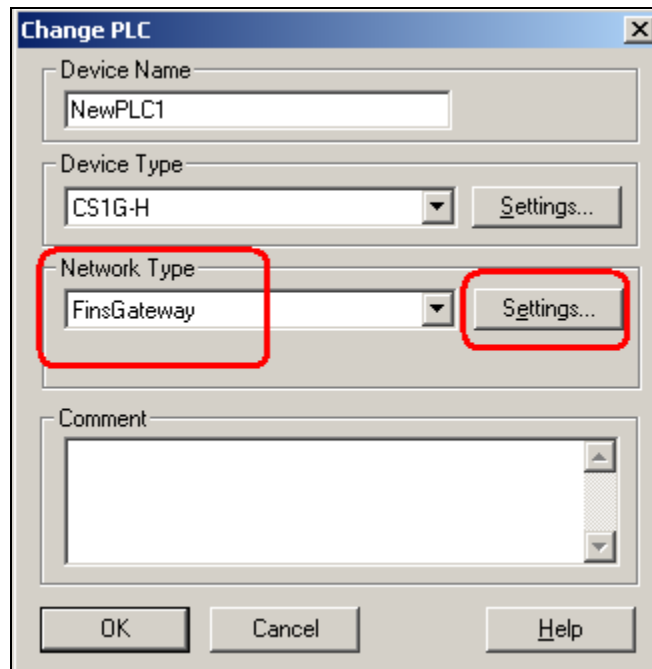


10. The Simulated PLC is now available for other applications (such as CX-Programmer and Omron InduSoft Web Studio) to access by the FINS Addressing shown circled below.

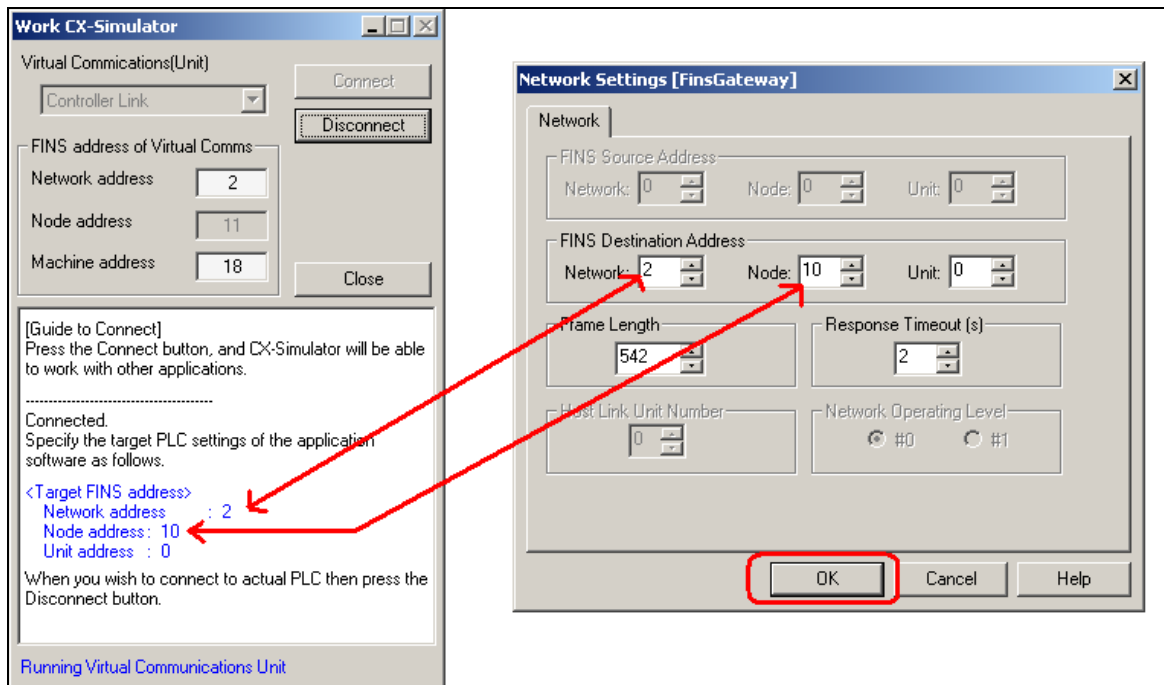


### Configuring CX-Programmer:

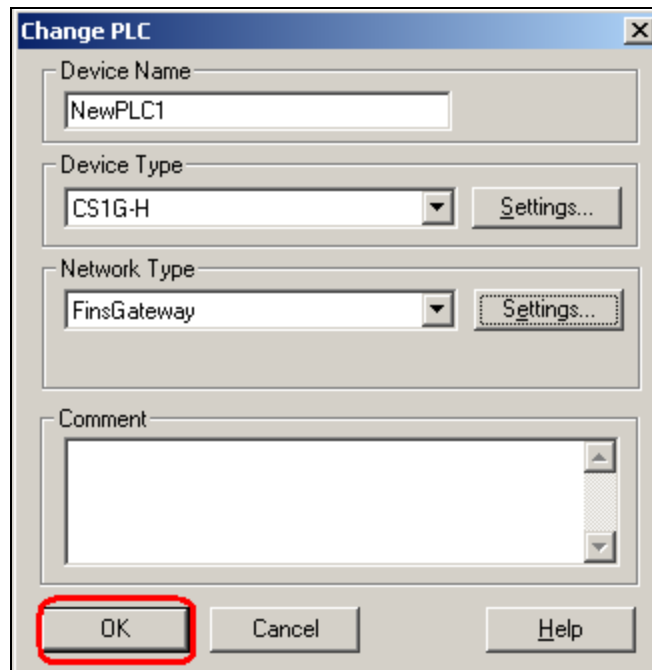
1. In CX-Programmer, configure the PLC Network Type as 'FinsGateway', then click **Settings**.



2. Configure the Network and Node numbers as shown, matching those in CX-Simulator, and click **OK**.



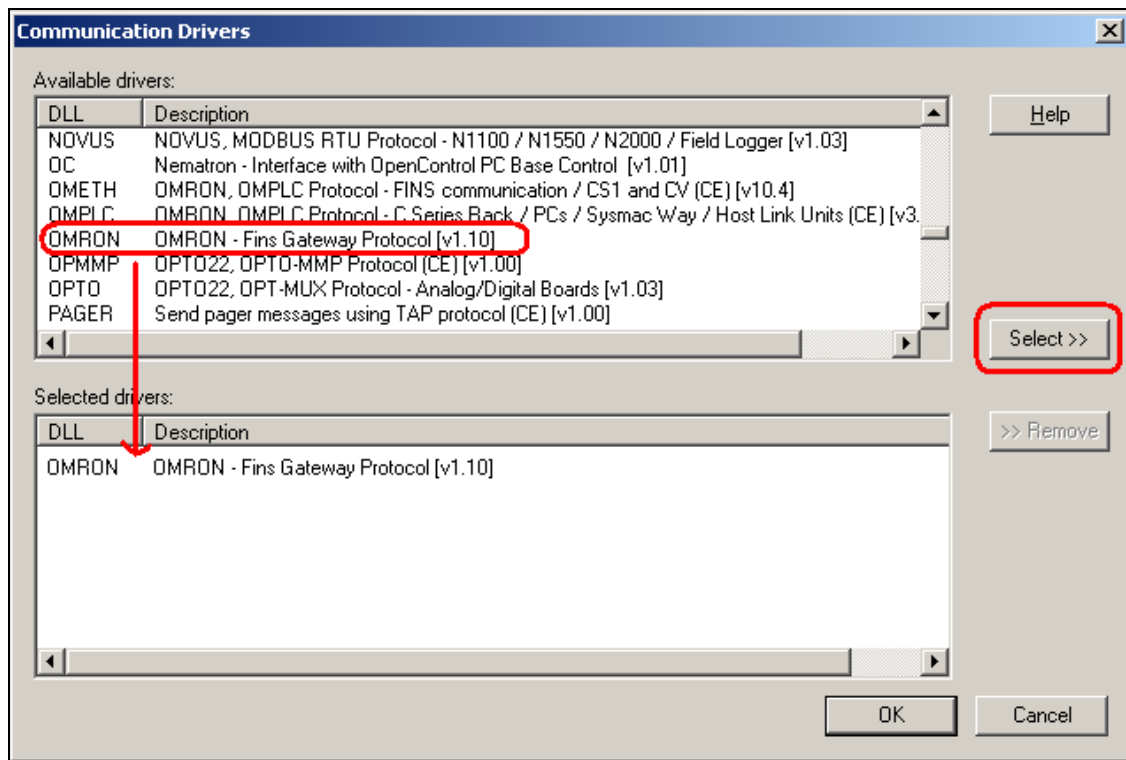
3. Click OK to close the PLC configuration.



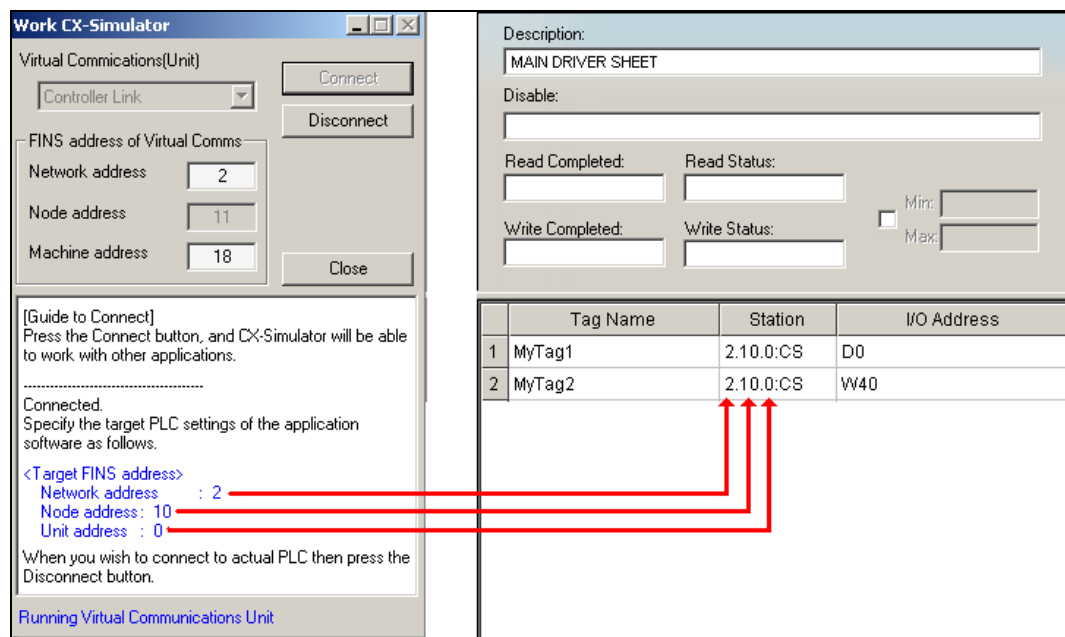


### Connecting Omron InduSoft Web Studio to CX-Simulator:

1. Add the FINS Driver to the Omron InduSoft Web Studio project as shown.



2. On the Main Driver Sheet, use the FINS Network, Node, and Unit numbers from CX-Simulator as the Station: <Net>.<Node>.<Unit> fields. Example: 2.10.0:CS.



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- On a Standard Driver Sheet, use the FINS Network, Node, and Unit numbers from CX-Simulator as the Station: <Net>.<Node>.<Unit> fields. Example: 2.10.0:CS.

**Work CX-Simulator**

Virtual Communications(Unit)

Controller Link: [Dropdown] [Connect] [Disconnect]

FINS address of Virtual Comms

Network address: [2] Node address: [11] Machine address: [18] [Close]

[Guide to Connect]  
Press the Connect button, and CX-Simulator will be able to work with other applications.

.....  
Connected.  
Specify the target PLC settings of the application software as follows.

<Target FINS address>  
Network address : 2  
Node address : 10  
Unit address : 0

When you wish to connect to actual PLC then press the Disconnect button.

Running Virtual Communications Unit

Write Trigger: [1] Enable Write on Tag Change: [1] Write Completed: [ ]

Station: [2.10.0:CS] Header: [D]

	Tag Name	Address	Div
1	MyTag3	10	
2	MyTag4	15	
*			



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