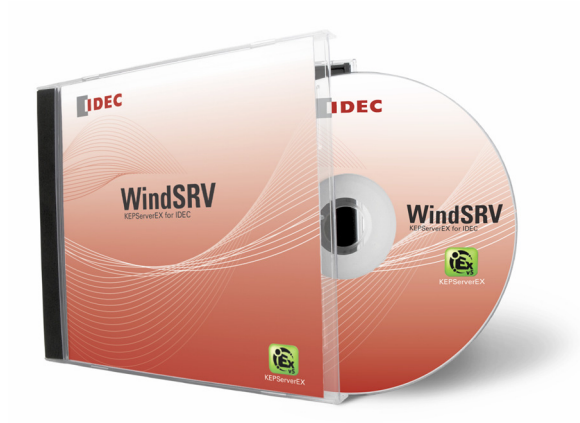


Configuring WindSRV (KEPServerEX5) OPC Server Software

Ethernet Connection
with IDEC MicroSmart Pentra PLCs



Overview

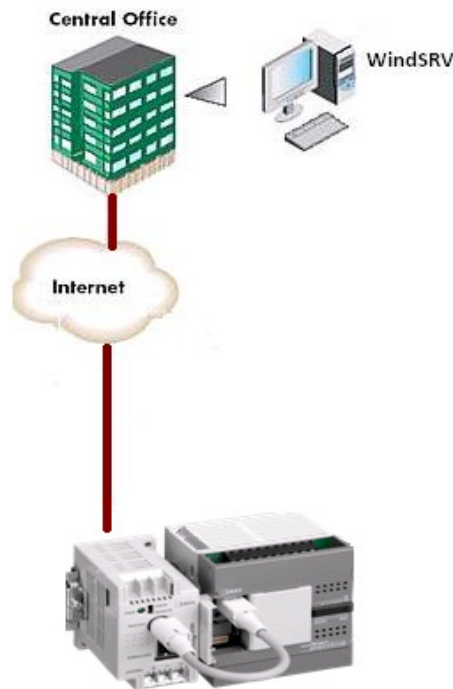


Fig. 1: Ethernet connection

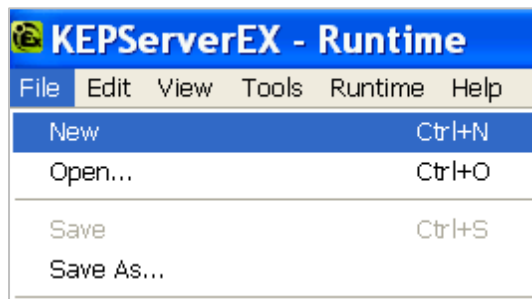
The purpose of this document is to give users step-by-step instructions on how to configure WindSRV (aka KEPServerEX) for Ethernet encapsulation as illustrated in Figure 1.

Parts Used

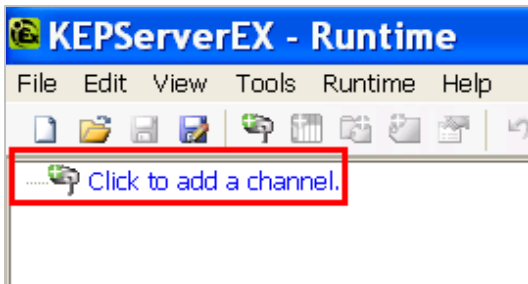
- FC5A MicroSmart Pentra CPU
- FC4A-ENET Web Server module for Ethernet connection

1. Launch KEPServerEX 5

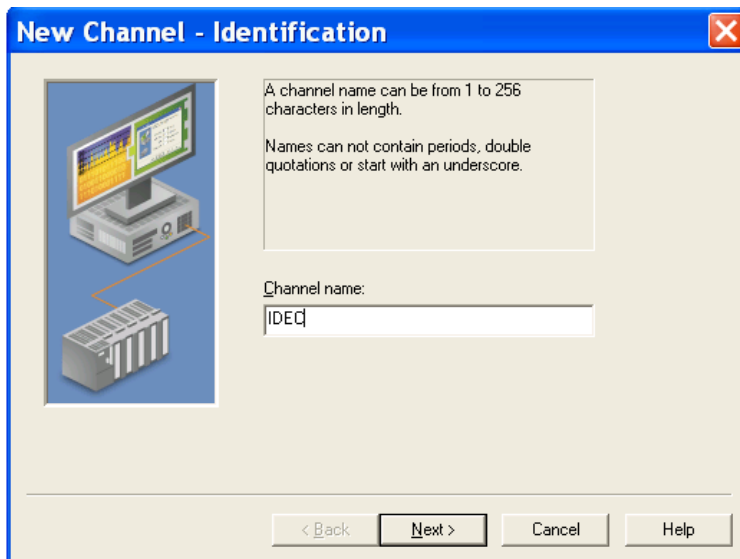
2. Click *File* → *New*



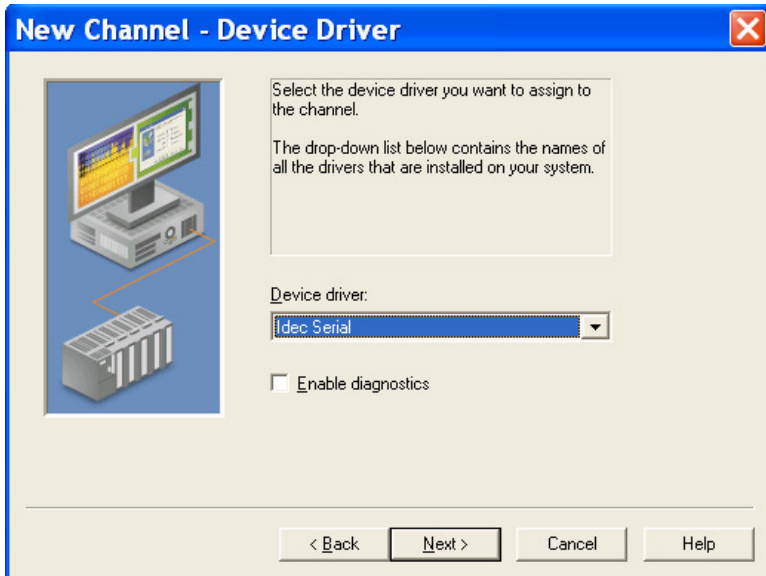
3. Click *Click to add a channel.*



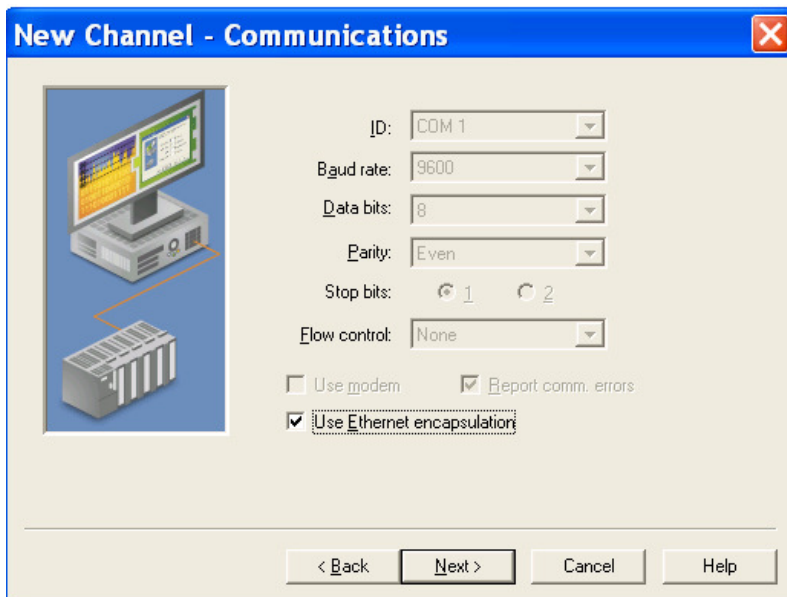
4. The New Channel – Identification dialog box will appear.
5. Under Channel Name, assign a Channel name for your project. For the purpose of this example, we'll use IDEC as a channel name. Click *Next.*



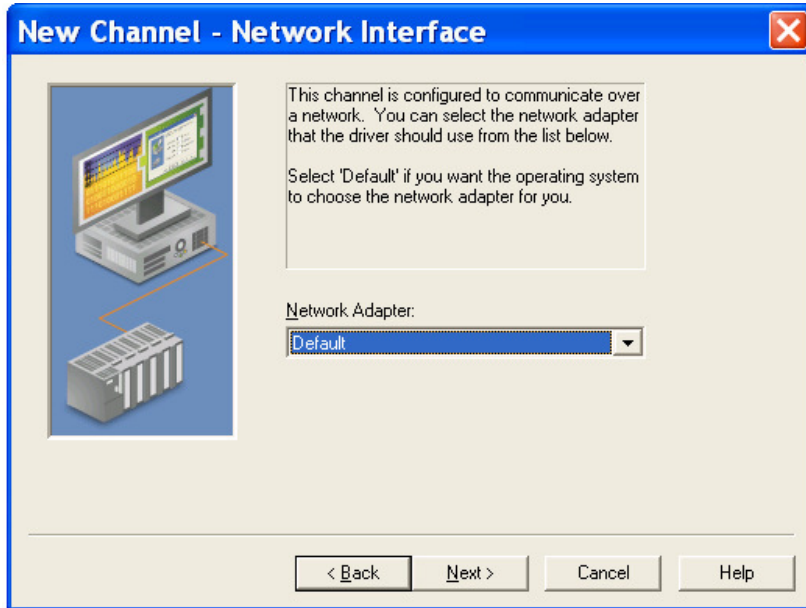
6. Select *Idec Serial* under Device driver. Click *Next*.



7. Under New Channel – Communications, check *Use Ethernet encapsulation*. Click *Next*.

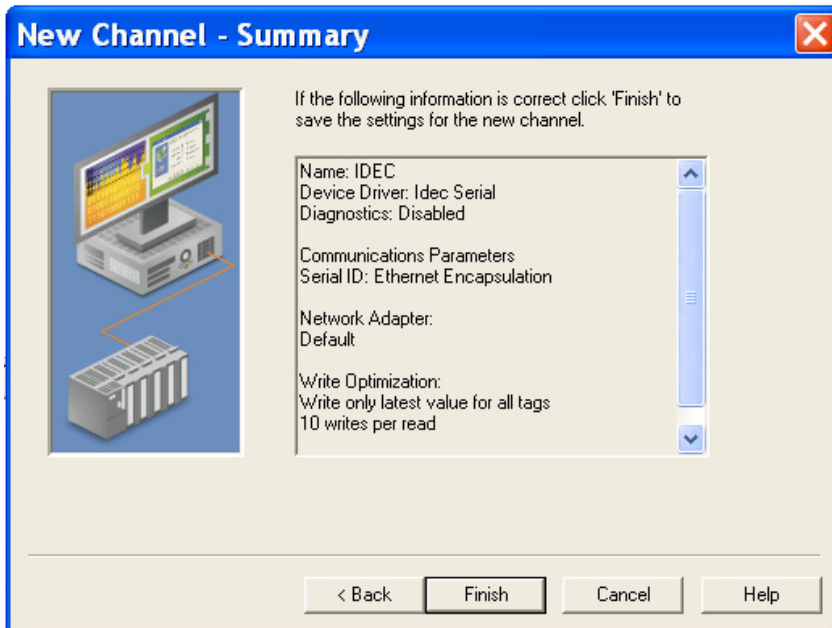


8. New Channel – Network Interface dialog box appears, Network Adapter is Default. Click [Next](#).

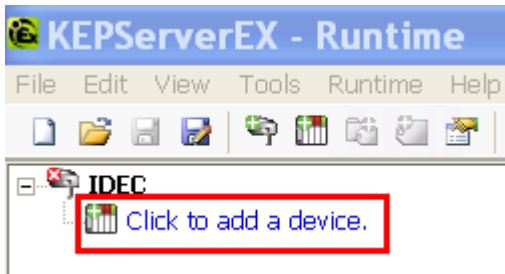


9. New Channel – Write Optimizations dialog box appears, click [Next](#).

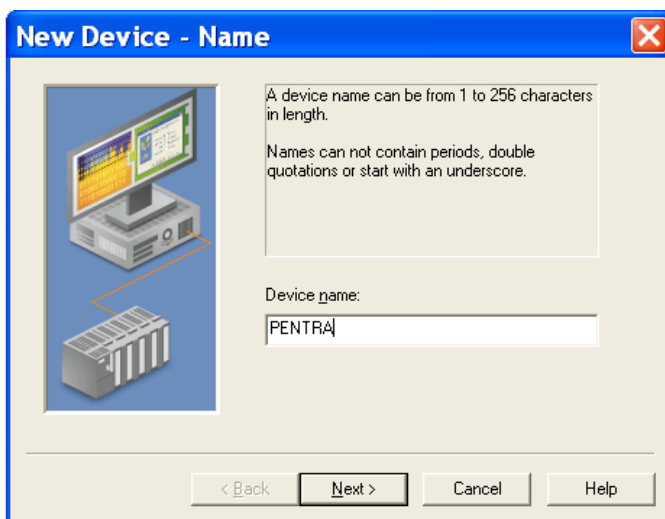
10. New Channel – Summary dialog box appears, click [Finish](#).



11. Click [Click to Add a Device](#).



12. Under Device - Name, assign a device name for your project. For the purpose of this example, we'll use PENTRA as a device name. Click [Next](#).

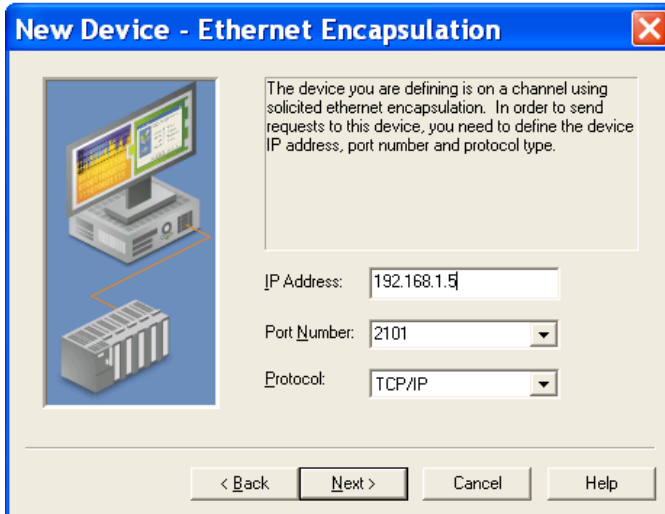


13. Under New Device – Model, select [MicroSmart](#).



14. New Device – ID dialog box appears, click *Next*.

15. New Device – Ethernet Encapsulation dialog box appears. Input your IP Address and leave the Port Number and Protocol as Default. For the purpose of this example, we'll use IP Address = 192.168.1.5. Click *Next*.



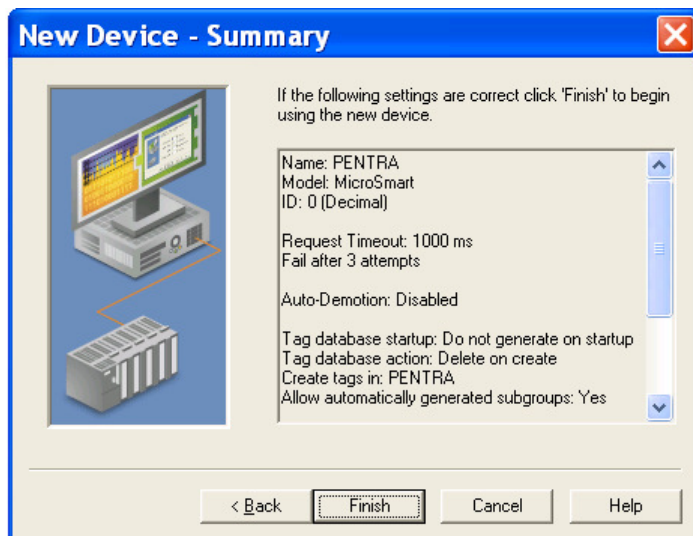
16. New Device – Timing dialog box appears, click *Next*.

17. New Device – Auto Demotion dialog box appears, click *Next*.

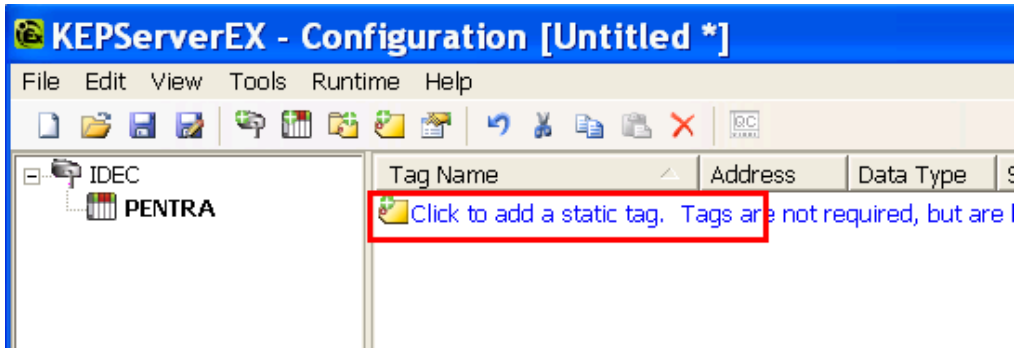
18. New Device – Database Creation dialog box appears, click *Next*.

19. New Device – Tag Import Setting dialog box appears, click *Next*.

20. New Device – Summary dialog box appears, click *Finish*.

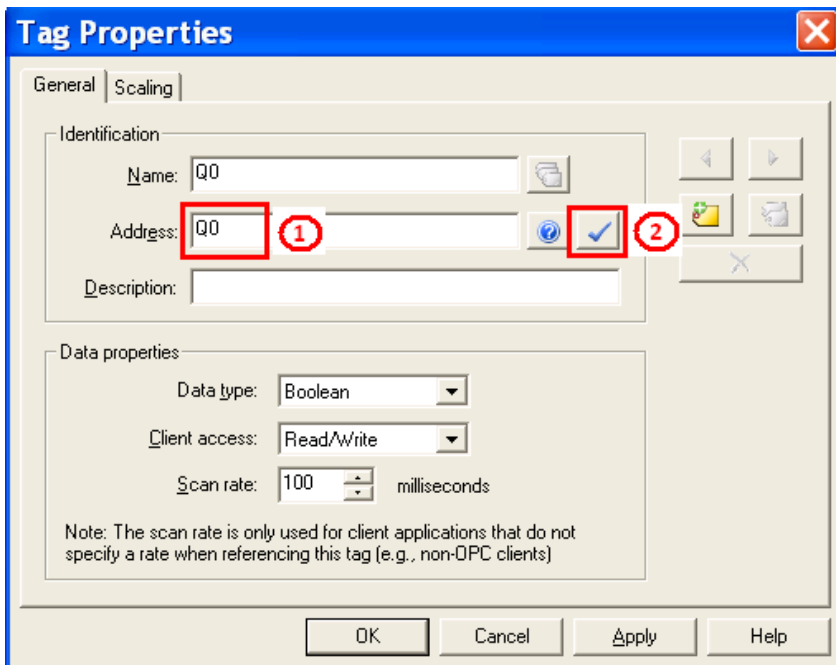


21. Click [Click to add a static tag](#).



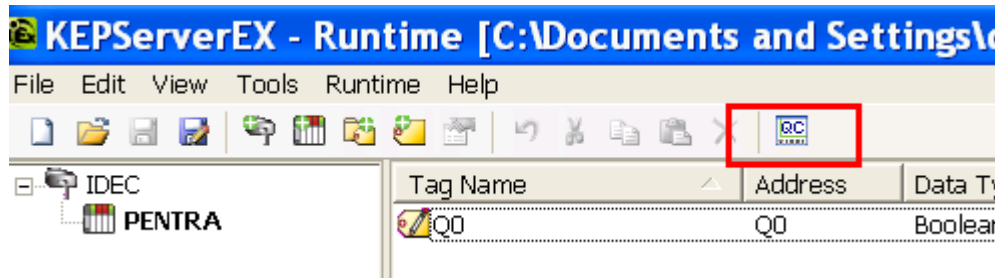
22. Tag Properties dialog box appears, enter the PLC Address you want to monitor. For the purpose of this example, we will monitor output Q0.

- Enter Q0 into the Name and Address fields (see ① below)
- Click the check mark button (see ② below)
- Click [Apply](#)

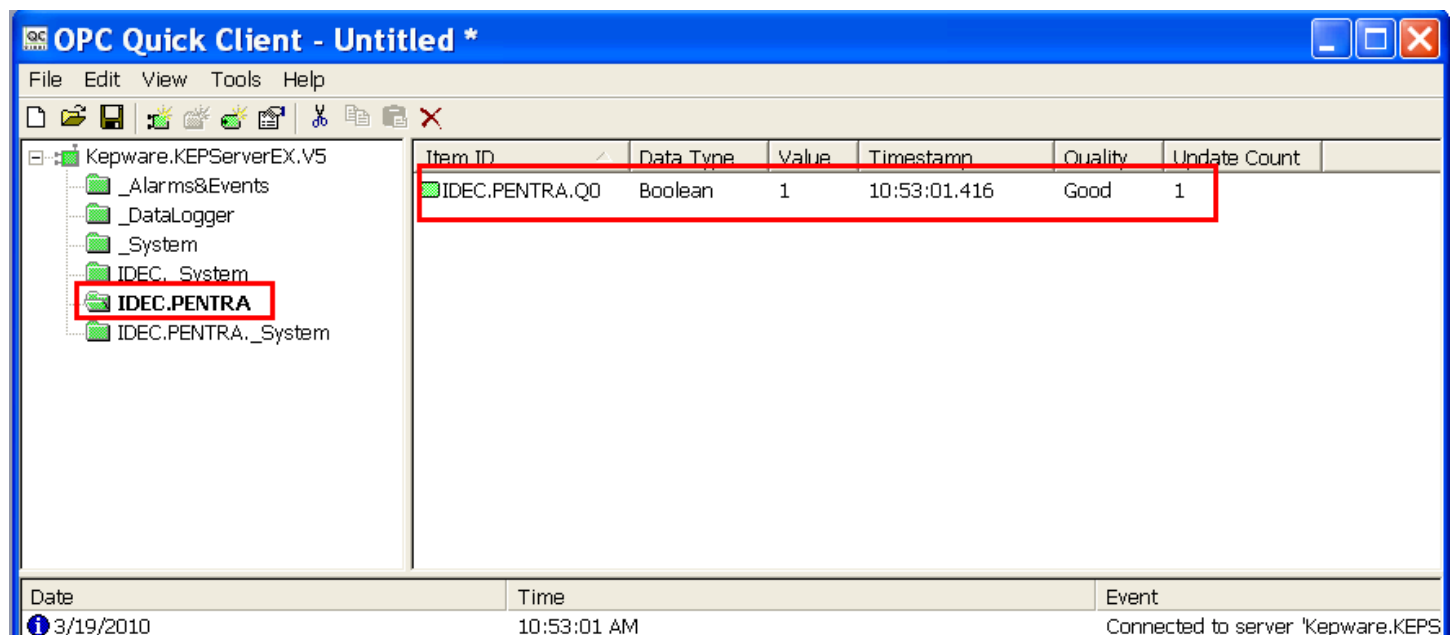


23. Click [OK](#).

24. Click OPC Quick Client icon.



25. OPC Quick Client window appears, select *IDEC.PENTRA*. You have successfully established communication between WindSRV and the IDEC PLC if the Quality is showing Good.



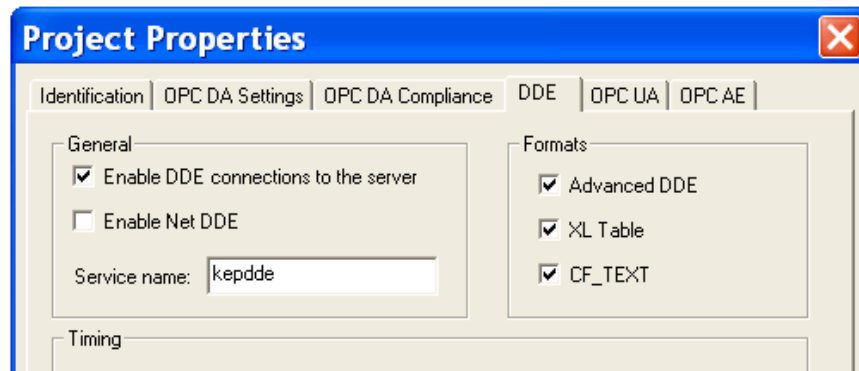
26. Launch Microsoft Excel.

27. Type the following command into one of the cells in Excel:

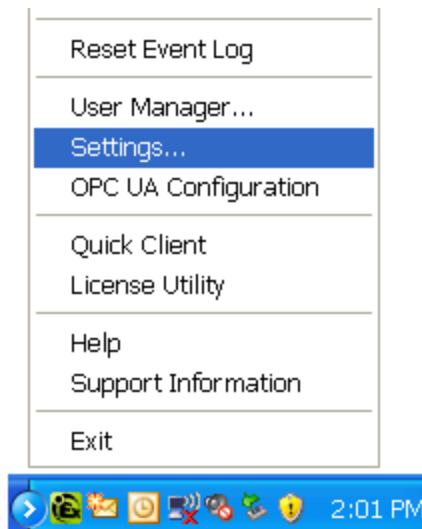
=kepdde|_ddedata!IDEC.PENTRA.Q0

(Note: IDEC = Channel, PENTRA = Device and Q0 = PLC Address)

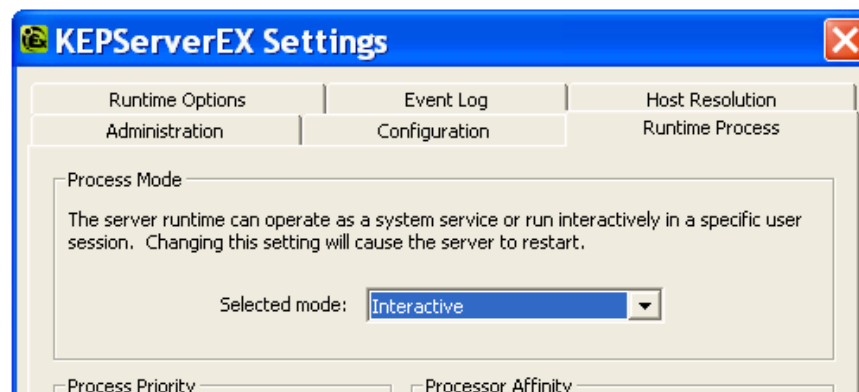
28. If Excel is NOT communicating with the connected PLC, please check the following settings:
- a. Make sure *Enable DDE connections to the server* is checked.
 - Click File → Project Properties
 - Under DDE tab, check *Enable DDE connections to the server*. Click **OK**.



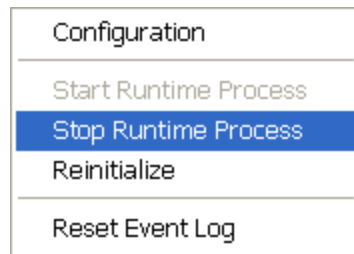
- b. Make sure **Runtime Process** is set to Interactive.
 1. On system tray, right mouse click on the **Ex** administration icon and select **Settings**. (**Ex** administration icon can also be launched from *Start → All Programs → Kepware → KEPServerEX 5 → KEPServerEX5 Administration*)



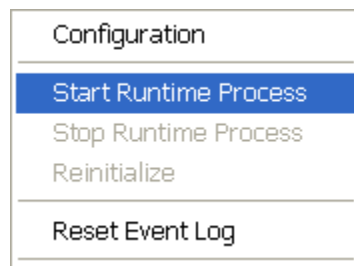
2. Click **Runtime Process** tab. Under Selected mode, select **Interactive**. Click **OK**.



3. On system tray, right mouse click **Ex** administration icon and select **Stop Runtime Process**.



4. On system tray, right mouse **Ex** administration icon again and select **Start Runtime Process**.



Using Excel, you will now be able to monitor all the parameters in the MicroSmart Pentra PLC.

For any further questions, please contact Technical Support at support@idec.com or call 1-800-262-IDEC (4332) extension 2.