

## 1 Introduction

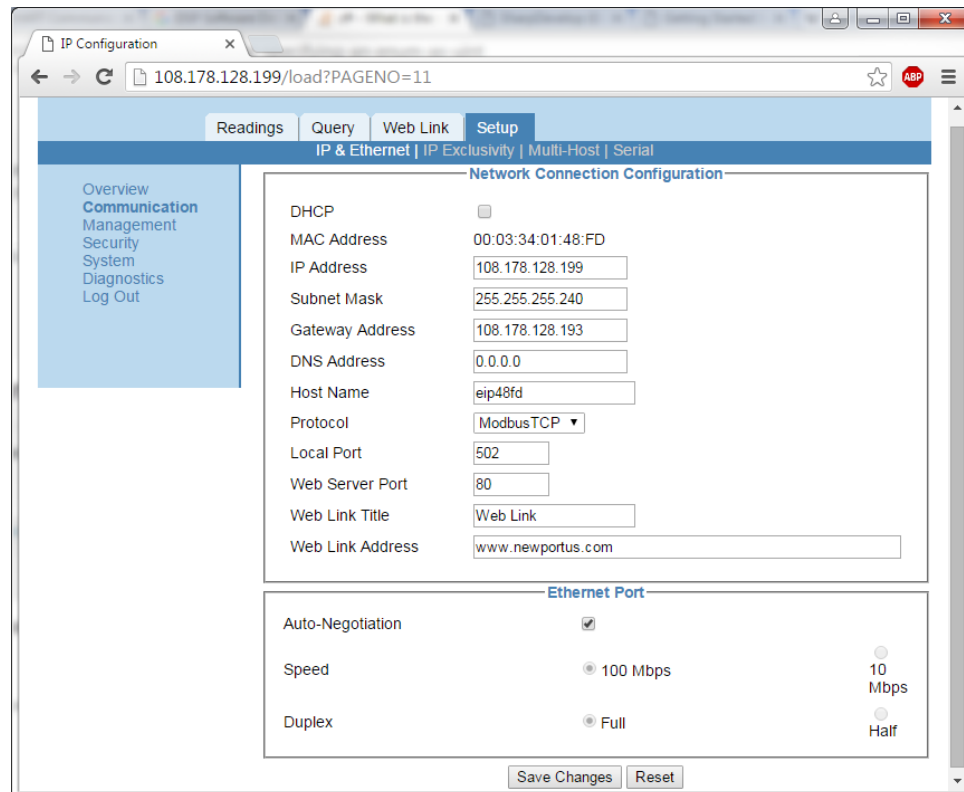
OPC Data Servers provide a means to exchange data between a many different devices using a consistent data mechanism. The Omega Platinum controller may be easily integrated with a number of popular industrial OPC Data server such as KEPServerEX using standard Modbus protocol (v1.1B3) without additional device drivers. Below are the step by step instructions for integrating Platinum with KEPServerEX v5.

### 1.1 Ensure Platinum Configuration Is Correct

KEPServerEX uses Modbus TCP/CP to communicate with network-enabled Modbus device. To ensure that KEPServerEX can communicate with Platinum, the first step is to make sure that the Platinum controller is configured use Modbus TCP. To do this we need:

1. Set the Platinum internal Ethernet interface (EIP) to Modbus TCP.
2. Connect to Platinum using a standard Web browser. The default device address is IP 192.168.1.20, the default login password is 12345678 and the default admin password is 00000000. Navigate to the setup page and under the communication menu ensure that Modbus TCP is selected using 100 Bbits/second.
3. Set the Platinum Communicate protocol on to Modbus RTU.

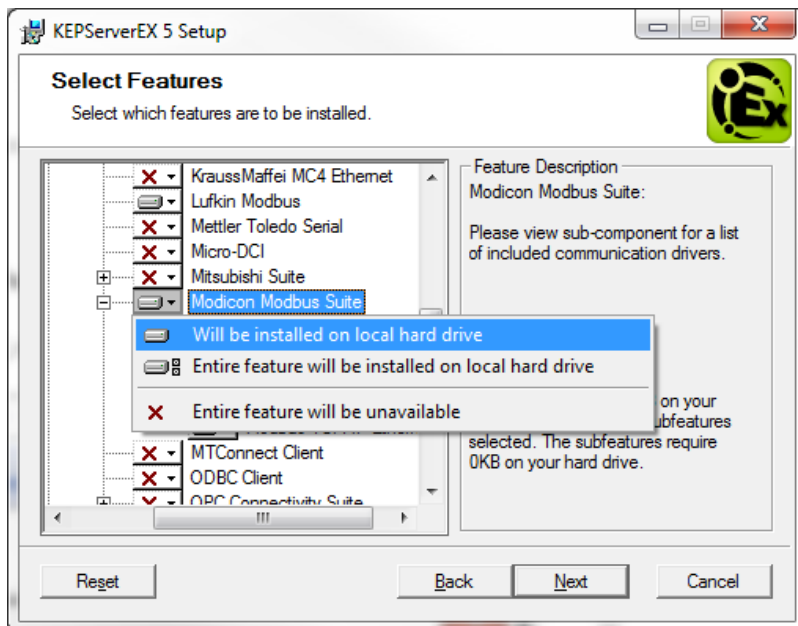
Using the Platinum front panel navigate to: Init→COMM→ETHN→PROT→M.Bus→RTU. Use the 'enter' button to select.



## 1.2 Config KEPServerEX

KEPServerEX includes three default Modbus drivers: Lukfin, Modicon, and Enron. Please ensure that you have the Modicon driver enabled. Enabling Modbus can be done during the installation.

1. Right click the Modicon Modbus Suite in the driver list and select “will be installed on local hard drive”.

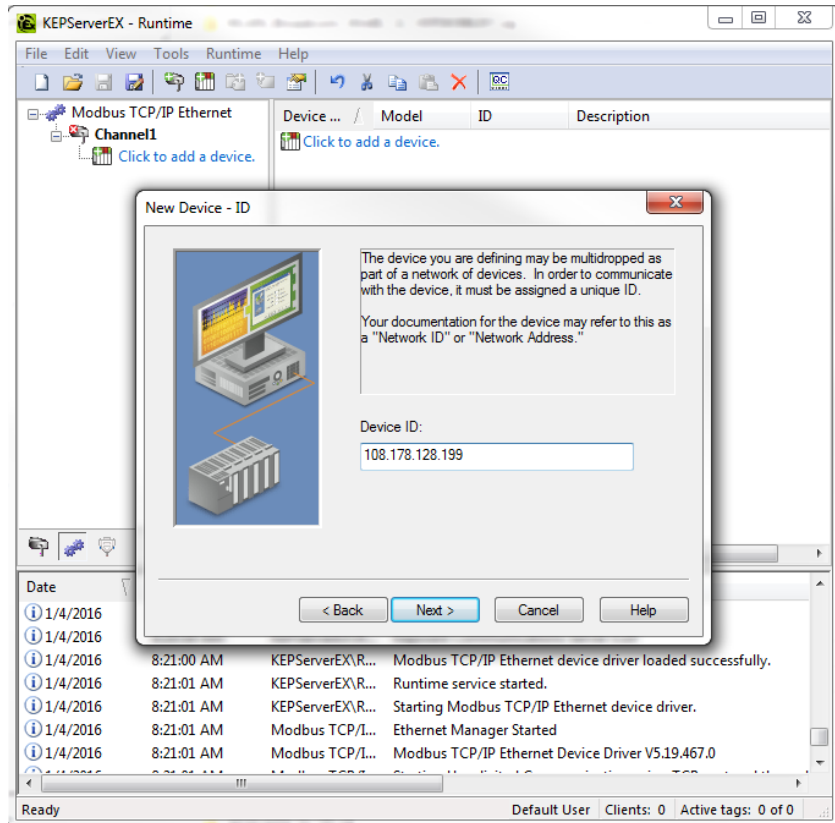


With the driver enabled you can add the channel, device and tag.

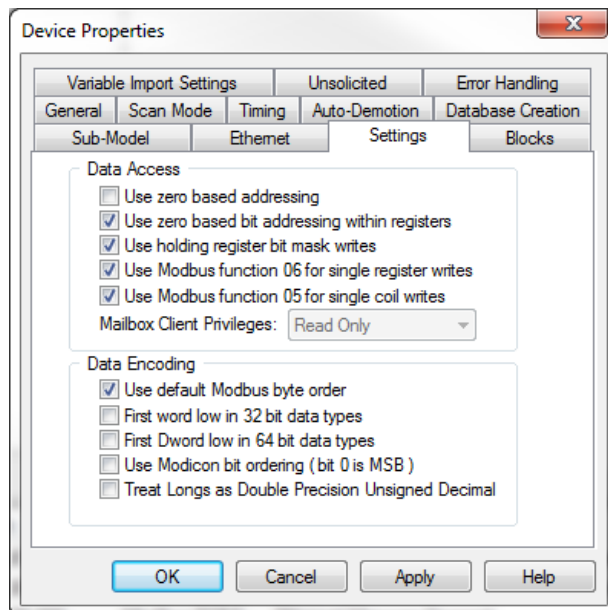
2. Add a channel, select Modbus TCP, next through all rest pages in the wizard dialog.



3. Add a device. You must select the IP address (here we use a public IP as an example). We will change default settings later



4. To change default settings of the device, right click the device and select properties → settings. Use exact setting below



## Config KEPServerEX

5. Add tag. Note: KEPServerEX uses Modicon register address notation.
  - coil *numbers* span from **000001** to **065536**
  - discrete input *numbers* span from **100001** to **165536**
  - input register *numbers* span from **300001** to **365536**
  - holding register *numbers* span from **400001** to **465536**

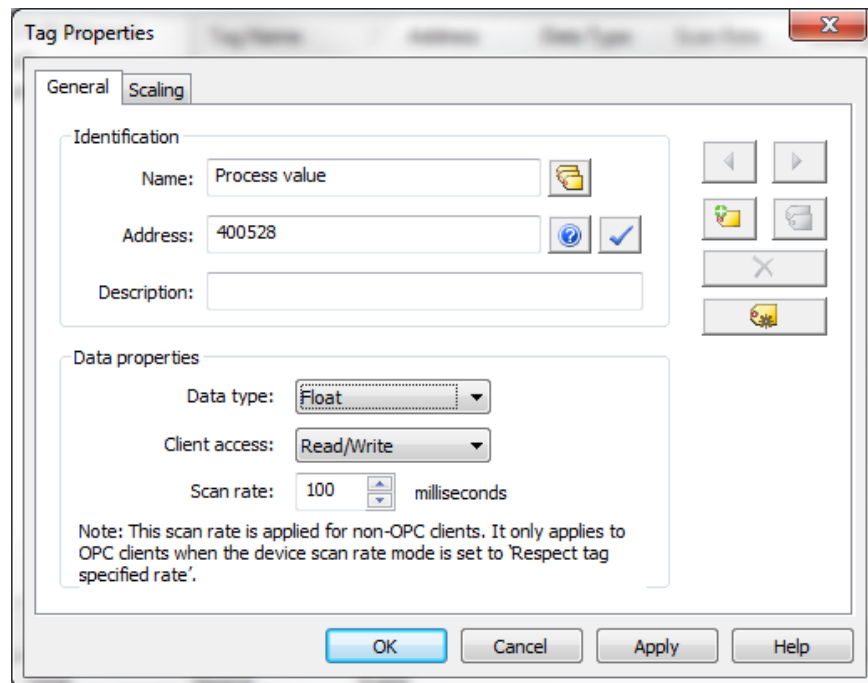
Platinum doesn't use this notation but rather follows the Modbus standard V1.1B3 with Omega's definitions of register addresses. Internally, The KEPServerEX translate the register address to the actual register address by removing the notation designation. For example, to access register address 528 (Current Process Value), put address 400528 in the address field showing below. The KEPServerEX will automatically translate 400528 to read register 528 on platinum.

Please refer Omega Modbus protocol for register addressing:

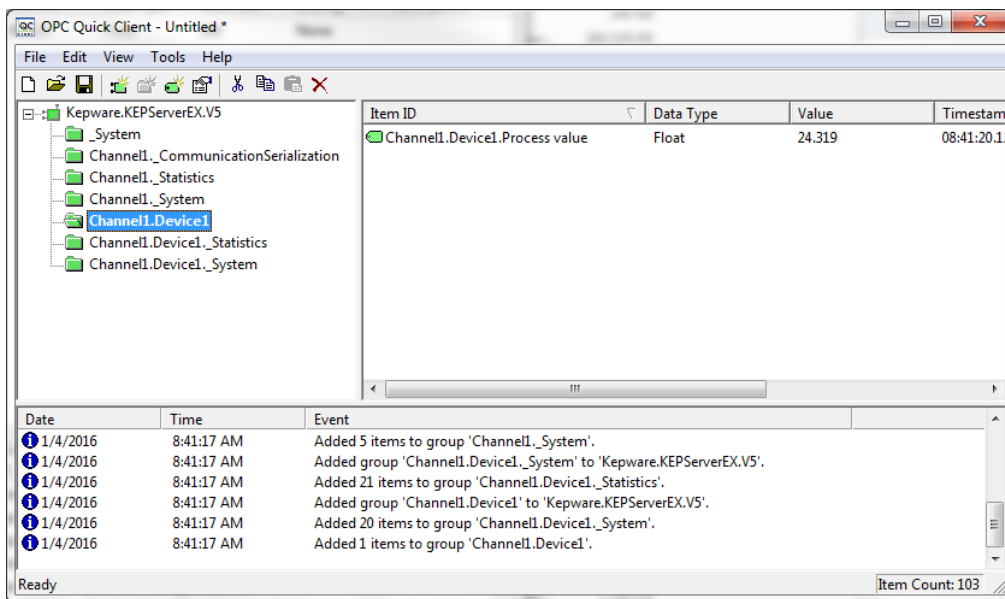
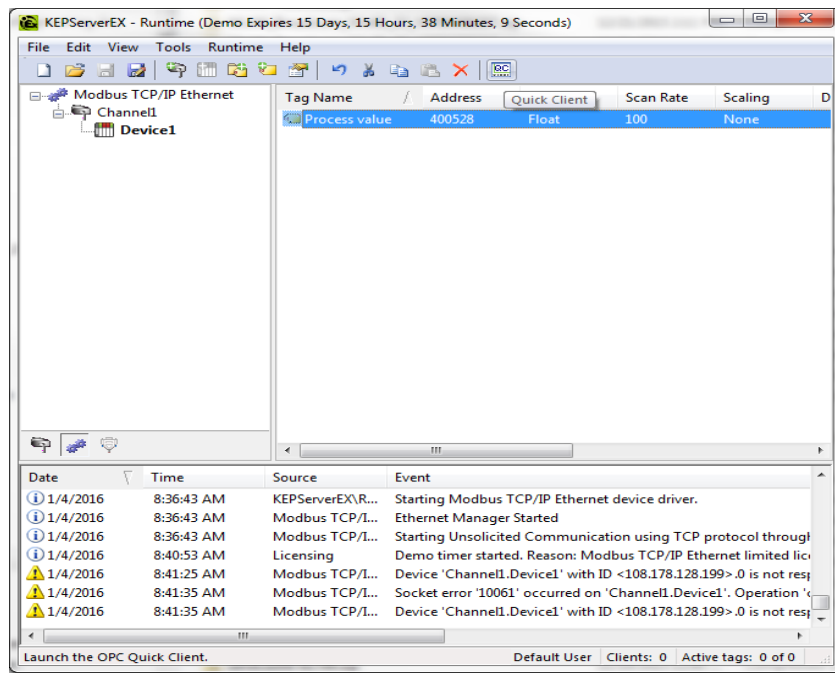
<http://www.omega.com/Manuals/manualpdf/M5458.pdf> .

You can also find more about the Modicon register addressing notation here:

<https://en.wikipedia.org/wiki/Modbus>.



6. Use the Quick client to view the value.



### 1.3 Support

For support, Please visit us at <http://www.omega.com/cservice/contactus.html>

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