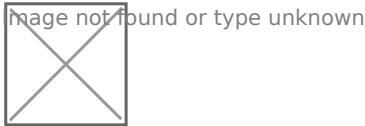# Configuring a remote eGauge

Best practice is to set up all the registers on all devices before attempting to pull registers from the secondary eGauge(s) to the main eGauge. Adding and importing registers after the initial configuration will **not** retroactively import data for those registers.

1. Determine which eGauge should be the main device. Ideally, this will be the device with the best network connection (hard wired with Ethernet is preferable) and the greatest number of registers (this means that it has to pull in fewer registers from the remote device, which saves on network overhead).

2. Navigate to **Settings -> Installation**. Under the **Remote Devices:** header, click "Add Device". Enter whatever you want for the Device Name; for example, "solar" or "egauge12345" or "north building generation". This name is completely arbitrary, but it should make sense to the end user.
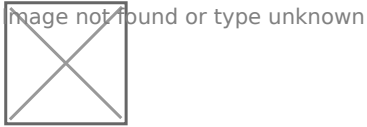

eGauge Remote Devices field - partially completed

3. Click the "Edit" button on the far right. This will allow you to change the communication protocol using the drop down menu and enter the device address. The two protocols supported by the eGauge are "remote eGauge via UDP" or "remote eGauge via TCP". Use the UDP option when the devices are on the same network (connected to the same router). When the devices are located on different networks or as a backup when UDP will not connect, use the TCP option.

4. Next, enter the device address. For an eGauge using UDP, it is simply the device name (for example, egauge12345). For an eGauge using TCP, you will need the whole address (for example, egauge12345.egaug.es). Do not include "http://" or "www." at the start of the address.
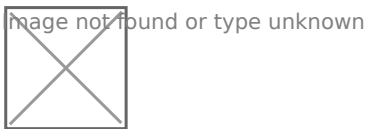
> Remote eGauge meters using TCP because they are geographically separated will be more prone to accumulating excess due to more uncertain network conditions than meters communicating on the same LAN over UDP. For more information on what excess is, see:
>
> What is Excess?

5. Now, attempt to fetch registers from the device. Click on the grey question mark "?" between the "Device address" field and "Edit" button. After a few seconds, this should turn into a green check mark. If it turns into a red "X", the remote device is offline, the address is entered incorrectly, or a connection cannot be established.

Green check mark

6. Once you obtain a green check mark, you need to import specific registers. To do so, click "Add Registers" under the Registers: header. Name the register whatever is appropriate, then click on the drop down menu containing the letter "P". Select your remote device's device name from this menu. Another menu will appear to the right; from here you can select the register you wish to import. You must create a new register on the main eGauge for each register you wish to import.

Example of registers imported from a remote device

7. After you have added all the registers you wish to record on the main eGauge, click "Save" at the bottom of the screen. You may be asked for your username and password.

One final note: if you navigate away from the installation page, you will need to repeat step 5 in order to fetch additional registers.

Please visit kb.egauge.net for the most up-to-date documentation.