# Use ICP DAS EtherCAT I/O device in eLogger

Please make sure you have installed ICPDAS ECDAQ SDK before use. You can download and install it from the following website:

https://www.icpdas.com/en/product/guide+Software+Development__Tools+ECATDAQ

## Step1: Put the files in the eLogger folder.

1. Please download the required files from the following website(**eLogger_ECATDAQ.zip**)。

   https://www.icpdas.com/en/download/show.php?num=8802

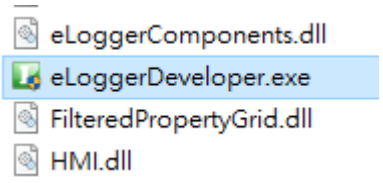
2. Unzip the downloaded file.
3. Place the **eECATDAQ.dll** files in For Developer_driver folder to the \ eLogger_Vxxx_yyyymmdd \ Developer \ Driver.

4. Place the **eECATDAQ.dll** files in For RuntimePC folder to the \ eLogger_Vxxx_yyyymmdd \ RuntimePC.

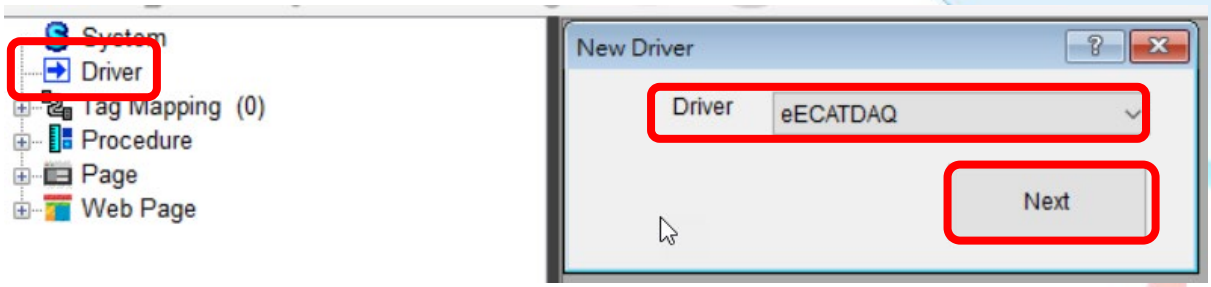
Note: The two eECATDAQ.dll files are not the same.

## Step2: Create a device in eLoggerDeveloper.

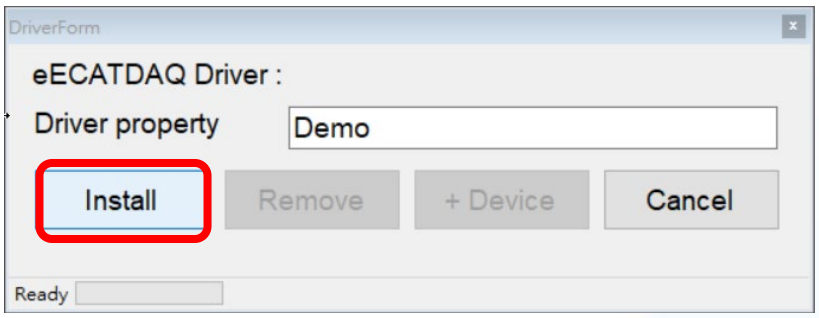
1. Execute **eLoggerDeveloper.exe**。



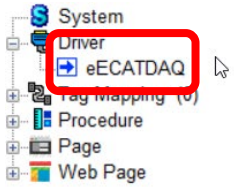

2. Click **Driver** on the left, select **eECATDAQ** and click **Next**.



3. Click **Install**。

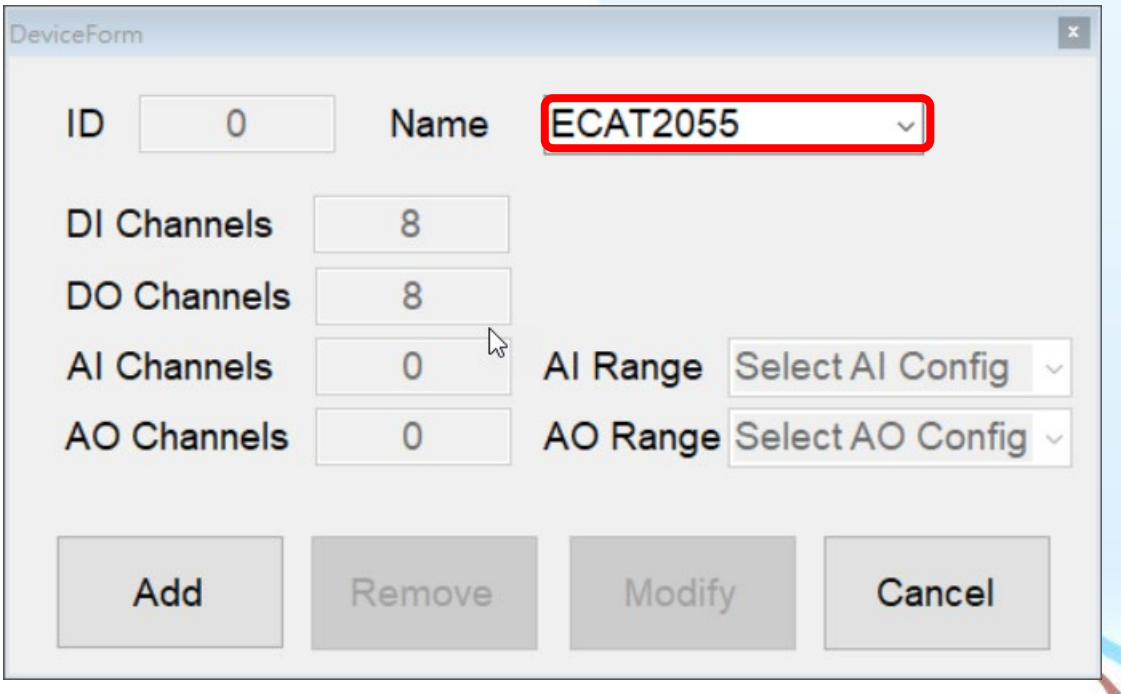



4. Click **eECATDAQ** on the left，and then click **+Device.**

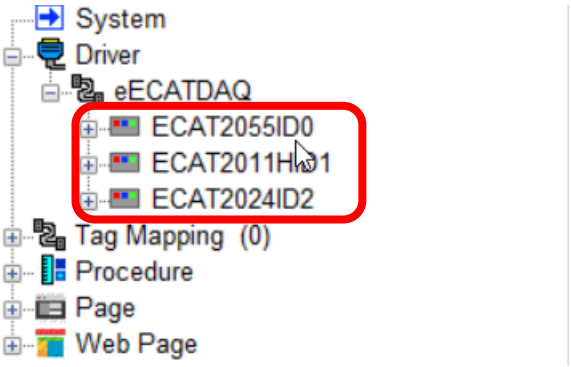




5. Select the device and make related settings. For device with AI and AO channels, you need to select the configuration code. After setting, click **Add**

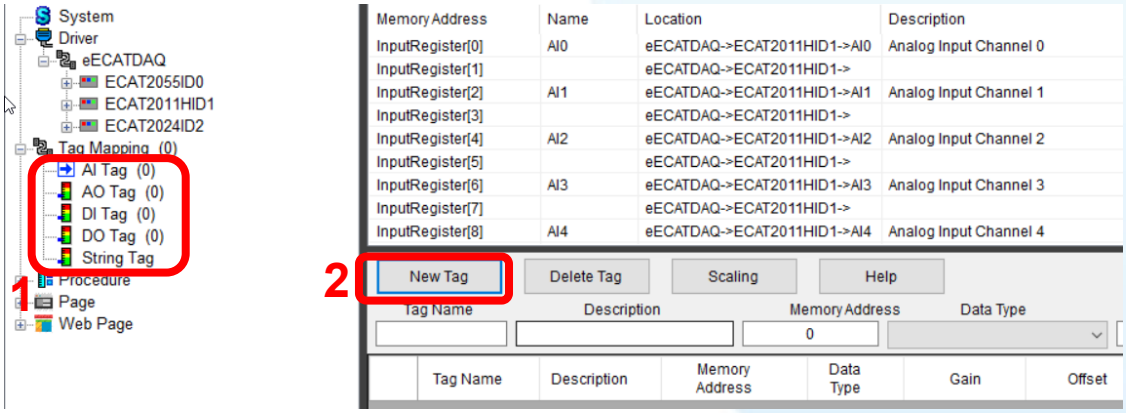


6. If there are other EtherCAT devices that need to be installed, please repeat steps 4 and 5 to install them. You can confirm them in the left window. After confirming that the installation is complete, skip to step 7 for subsequent settings.

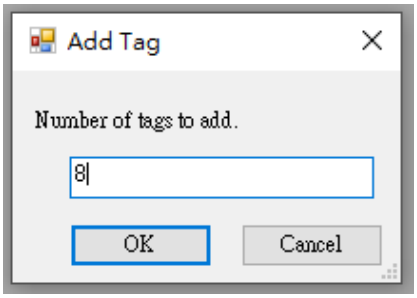



## Step3: Add corresponding tags in eLoggerDeveloper.

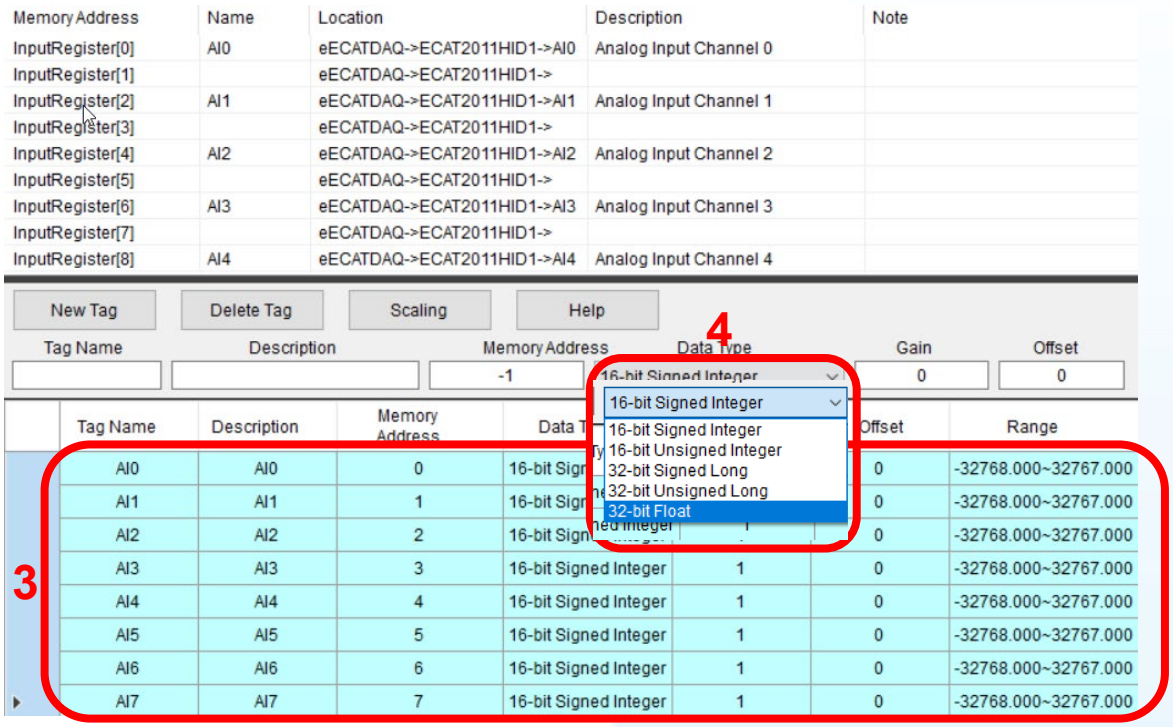
1. Double-click **Tag Mapping** on the left, and then select a tag (using AI as an example).



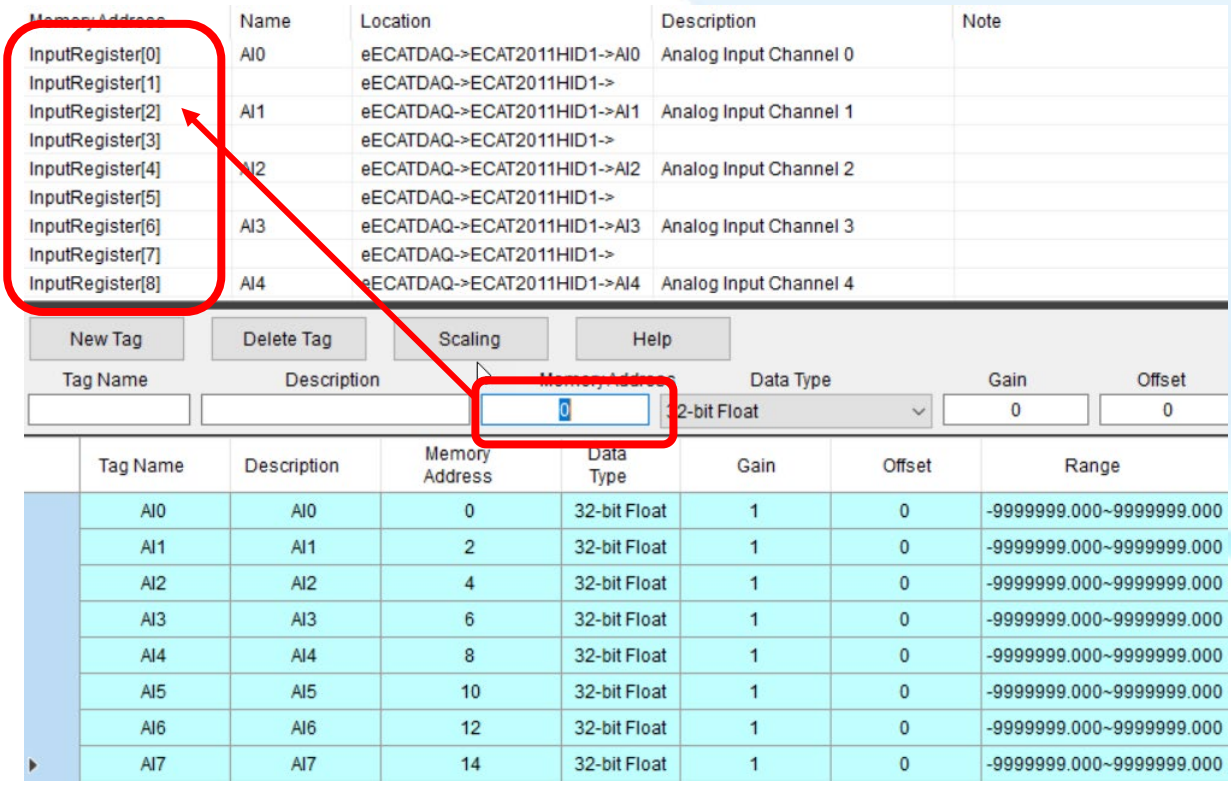

2. Click **New Tag**, enter the number of new tags, and click **OK**.



3. Select the added Tag (you can hold down the mouse button and drag the cursor to select multiple tags).
4. Change the Data Type to 32-bit Float.




5. Enter the start address in the Memory Address field (the rest of address will automatically be filled).



6. The practice of AO, DI, DO, String is the same.

| | Tag Name | Description | Memory Address |
|---|---|---|---|
| | DI0 | DI0 | 0 |
| | DI1 | DI1 | 1 |
| | DI2 | DI2 | 2 |
| | DI3 | DI3 | 3 |
| | DI4 | DI4 | 4 |
| | DI5 | DI5 | 5 |
| | DI6 | DI6 | 6 |
| ▸ | DI7 | DI7 | 7 |

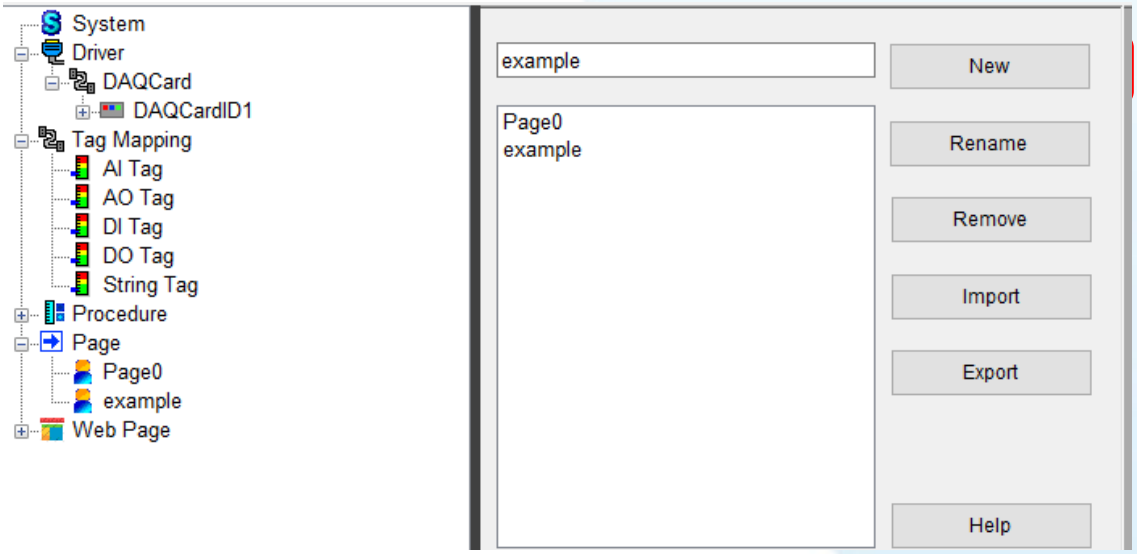
| | Tag Name | Description | Memory Address |
|---|---|---|---|
| | DO0 | DO0 | 0 |
| | DO1 | DO1 | 1 |
| | DO2 | DO2 | 2 |
| | DO3 | DO3 | 3 |
| | DO4 | DO4 | 4 |
| | DO5 | DO5 | 5 |
| | DO6 | DO6 | 6 |
| ▸ | DO7 | DO7 | 7 |

| | Tag Name | Description | Memory Address | Data Type | Gain | Offset | Range |
|---|---|---|---|---|---|---|---|
| | AO0 | AO0 | 0 | 32-bit Float | 1 | 0 | -9999999.000~9999999.000 |
| ▸ | AO1 | AO1 | 2 | 32-bit Float | 1 | 0 | -9999999.000~9999999.000 |

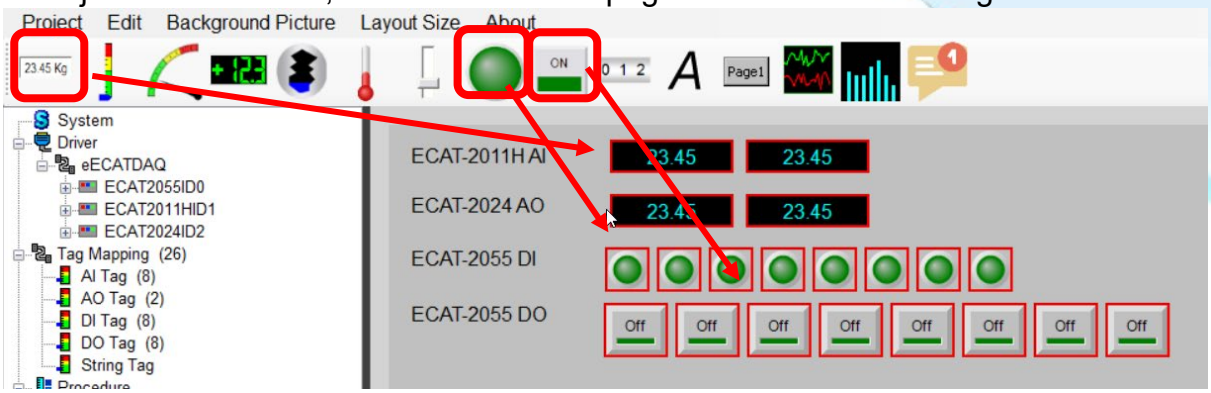
| | Tag Name | Description | Memory Address |
|---|---|---|---|
| ▸ | String0 | String0 | 0 |

## Step4: Create HMI page in eLoggerDeveloper.

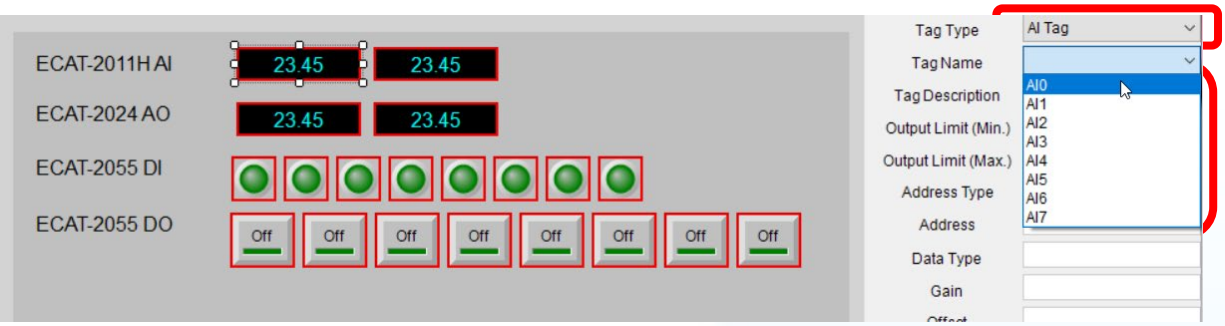
1. Double-click the **page** on the left, there is a default page 0, or you can enter a name and click **New** to create a new page.




2. Click the page you want to edit on the left (take **example** as an example). Click an object in the toolbar, and add it into the page with mouse click-drag-release.

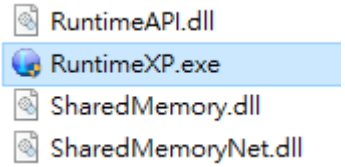


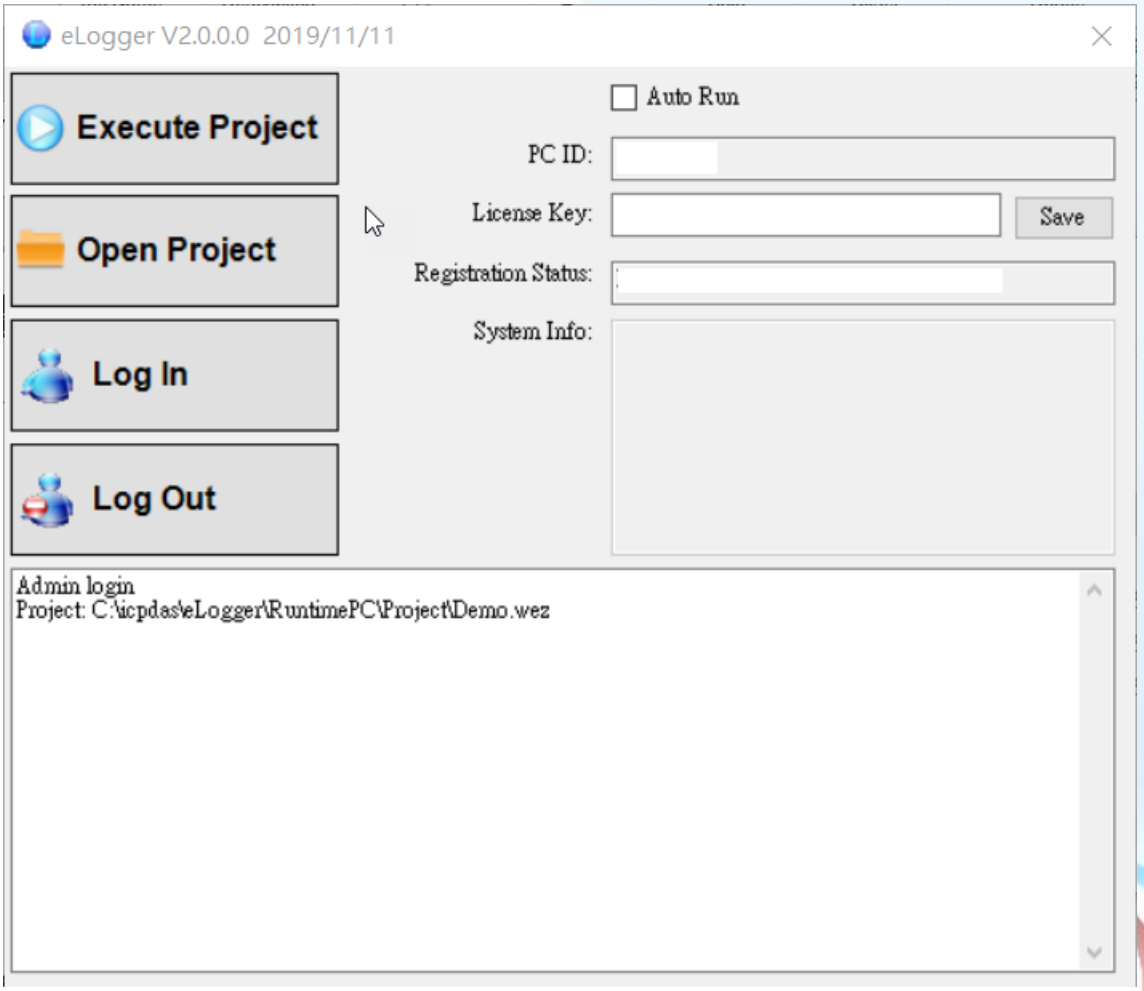
3. Select an object to display the property pane and then set parameters



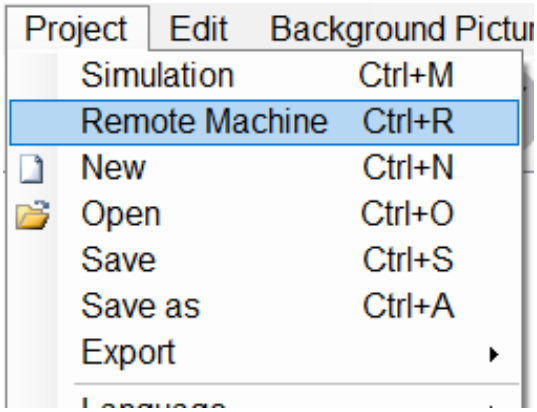

## Step5：Upload the project and run.

1. Execute **RuntimeXP.exe** in the RuntimePC folder on the PC with the installed device.

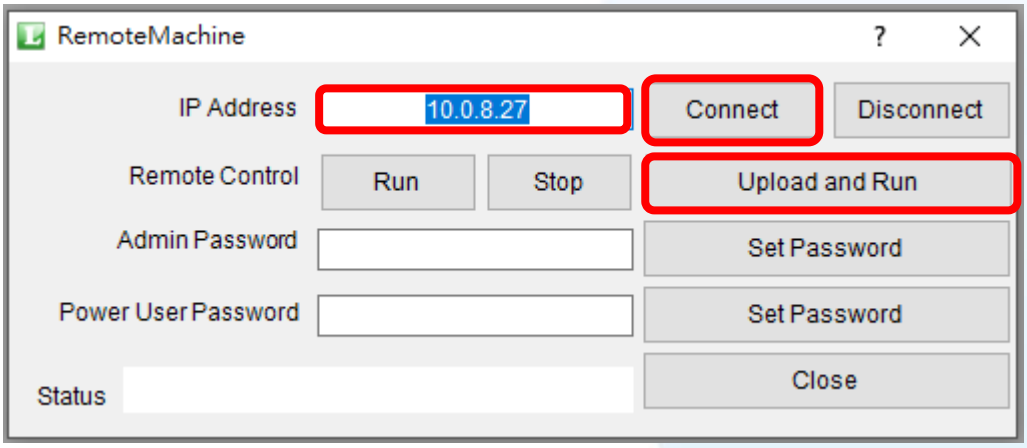


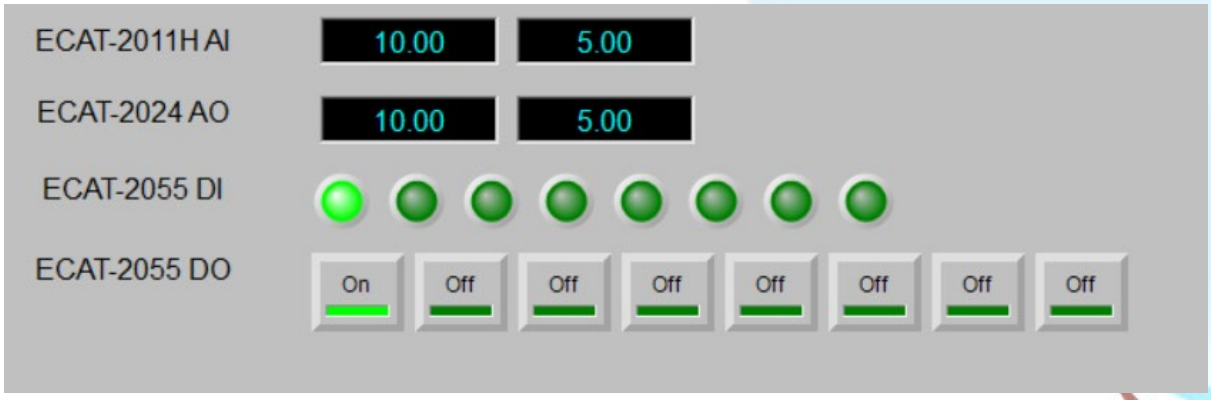
2. Back to eLogger Developer, click **Project** >> **Remote Machine** in the menu bar.




3. Enter the IP address of the PC running **RuntimeXP.exe**, click **Connect**, and then click **Upload and Run** to upload the project and run it.




4. The execution result is shown in the figure. You can click AO, DO to control the device (hardware wiring AO0 is connected to AI0, AO1 is connected to AI1, and DO0 is connected to DI0).



Supported device:

ECAT-2000 DIO series

ECAT-2000 AI series

ECAT-2000 AO series

EC2-DIO series