WISE module solution.

適用於:

平台	*作業系統版本*
PC	*Windows 98/NT/2000/XP/Vista*

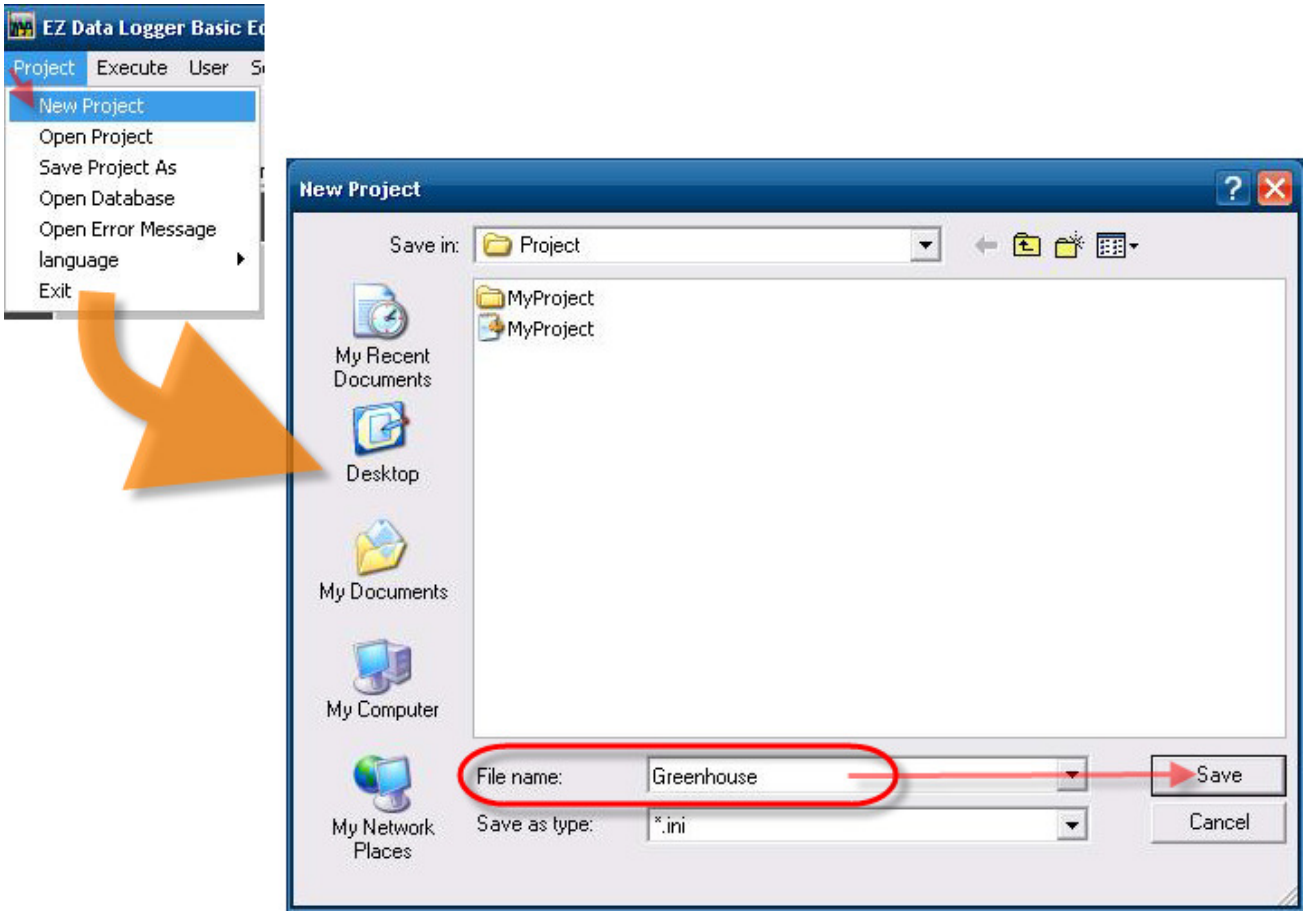
The Wise-71xx module is an Intelligent AIO & DIO controller. You can choose from the controllers to meet your demands for use in various industrial applications. The Wise-71xx modules support the Modbus TCP protocol and can be used with the EZ Data Logger to easily plan HMI and offer a variety of functions that meet different requirements of the projects, such as remote message notification function(SMS, Email), data logger(local database, SQL Server),etc.

The following example is greenhouse automation solution and use ICP DAS WISE-7118Z. WISE-7118Z is equipped with 10 thermocouple inputs that allow real-time monitoring of the temperature humidity in the greenhouse; 6DO outputs of the controller can be connected to various greenhouse facilities. It will real-time detect the greenhouse status and in response to sensors connected; the control system will automatically adjust vent position, fans, heating, fogging, shading, lighting, irrigation frequency, irrigation nutrient levels and CO2 levels, etc. WISE-7188Z will tirelessly monitor the key environmental factors that affect crop quality and will make constant changes that a grower could not possibly achieve the same consistency level. In addition, WISE controller also support Modbus TCP interface so that you can use EZ Data Logger in the control center to instantly receive the information, make real time monitoring of the overall status for each greenhouse more efficiently, log data to database, and load to trend or report.

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Step1：Before you start to plan for EZ Data Logger, please configure the wiring and software of WISE-7118Z well.

Step2：Open **EZ Data Logger**→ From the menu in the main form click **Project**→ **New Project**→ Type the new project name **Greenhouse**→ Click **Save** and then EZ Data Logger will restart automatically.

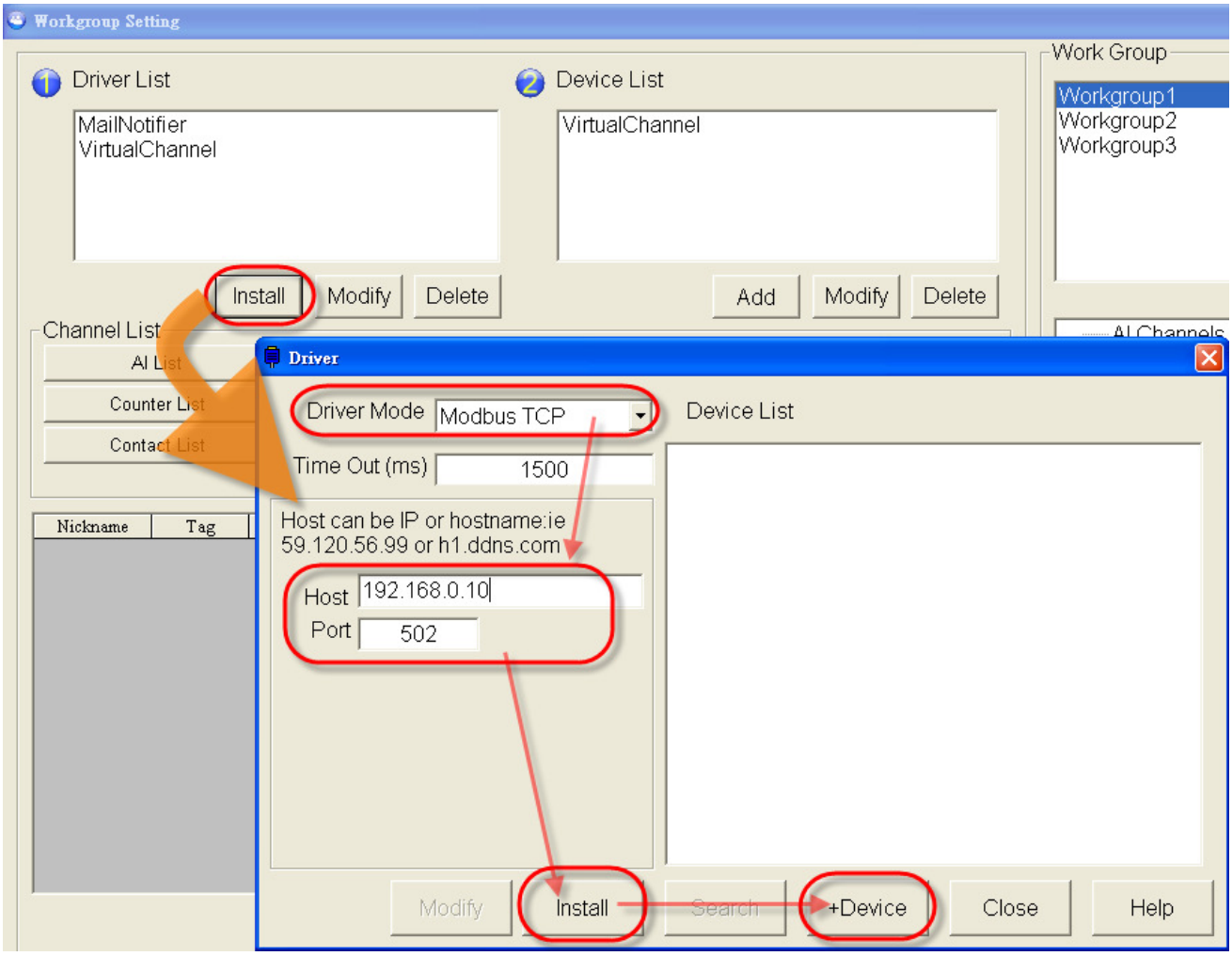


Step3：From the button list click the **Group Setup** button.



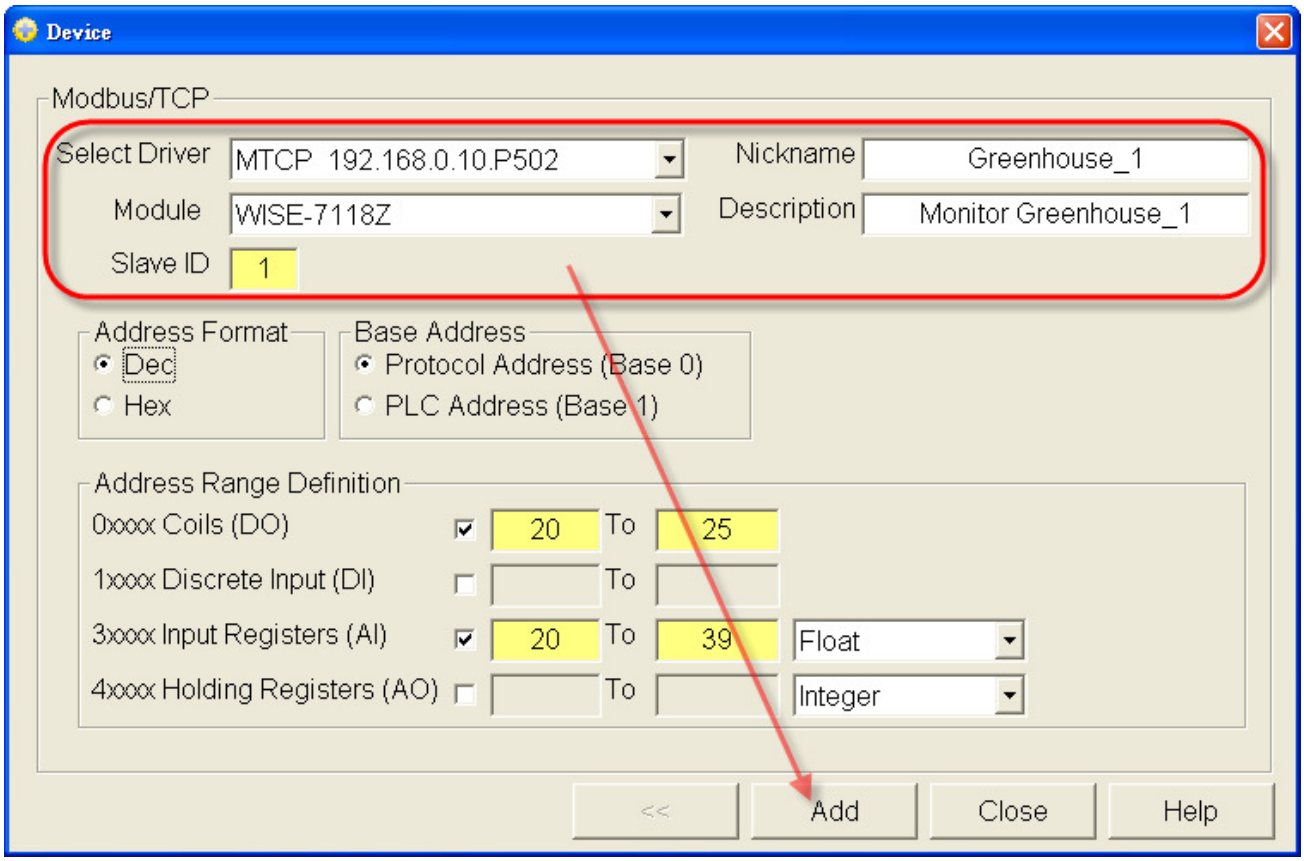
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Step4：Click the **Install** button under “Driver List” to open the “Driver” setting form→ Select **Modbus TCP** driver and set its **Host** and **Port**→ Click the **Install** button to add the driver→ Click the **+Device** button to open the “Device” setting form.



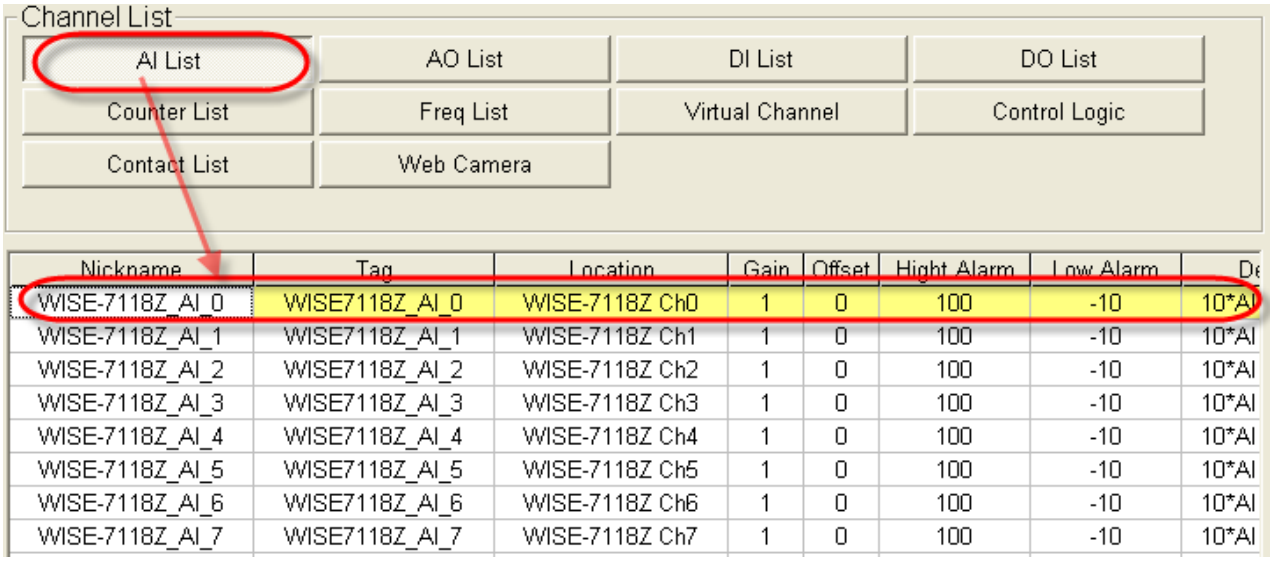
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Step5：Select Driver and Module、set properties and then click the **Add** button.



Step6：Set the alarm notifies of AI channels.

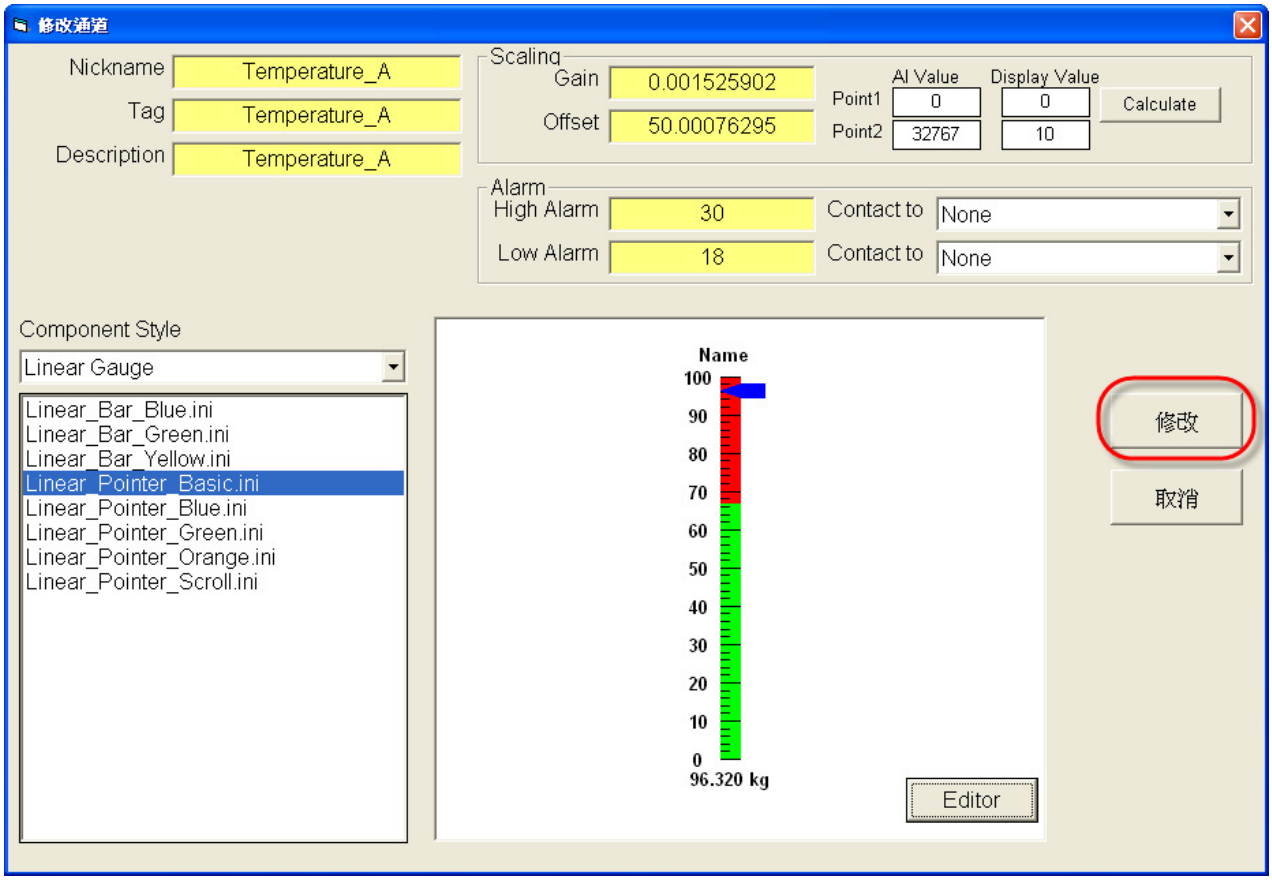
6.1. Double-click on an AI channel to open its setting form.



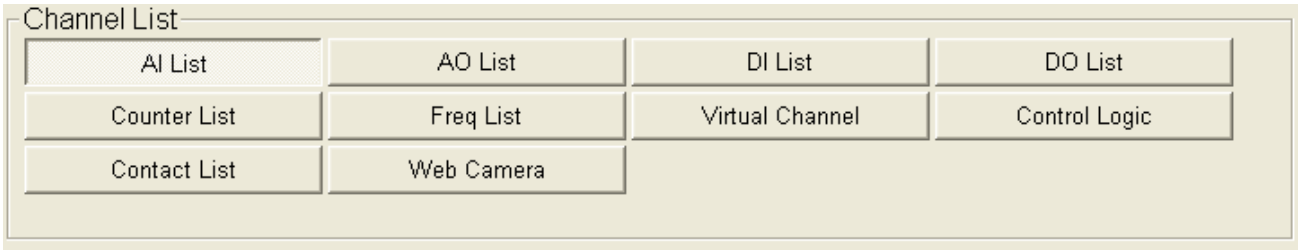
Nickname	Tag	Location	Gain	Offset	Hight Alarm	Low Alarm	De
WISE-7118Z_AI_0	WISE7118Z_AI_0	WISE-7118Z Ch0	1	0	100	-10	10*AI
WISE-7118Z_AI_1	WISE7118Z_AI_1	WISE-7118Z Ch1	1	0	100	-10	10*AI
WISE-7118Z_AI_2	WISE7118Z_AI_2	WISE-7118Z Ch2	1	0	100	-10	10*AI
WISE-7118Z_AI_3	WISE7118Z_AI_3	WISE-7118Z Ch3	1	0	100	-10	10*AI
WISE-7118Z_AI_4	WISE7118Z_AI_4	WISE-7118Z Ch4	1	0	100	-10	10*AI
WISE-7118Z_AI_5	WISE7118Z_AI_5	WISE-7118Z Ch5	1	0	100	-10	10*AI
WISE-7118Z_AI_6	WISE7118Z_AI_6	WISE-7118Z Ch6	1	0	100	-10	10*AI
WISE-7118Z_AI_7	WISE7118Z_AI_7	WISE-7118Z Ch7	1	0	100	-10	10*AI

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6.2. Set the **High/Low Alarm** values and properties, and then click the **Modify** button to save.



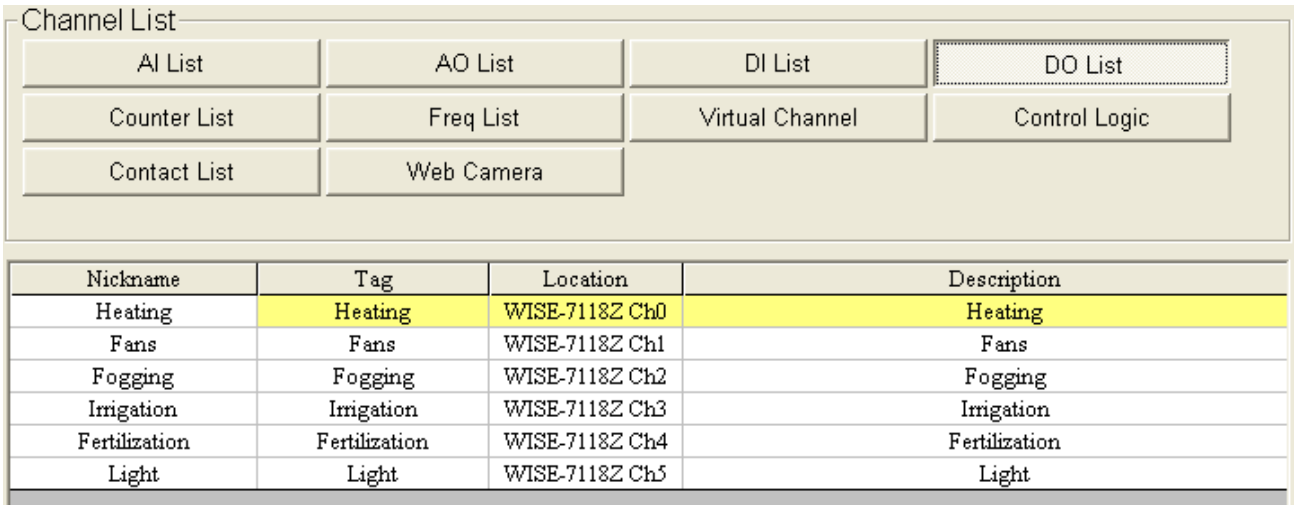
Step7：Set the AI channels to measure temperature、relative humidity and CO2 levels, etc. The configuration is as the below picture ↓



Nickname	Tag	Location	Gain	Offset	Hight Alarm
Temperature_A	Temperature_A	WISE-7118Z Ch0	0.001525902	50.00076295	30
Temprature_B	Temprature_B	WISE-7118Z Ch1	1	0	33
CO2	CO2	WISE-7118Z Ch2	0.000305185	0.	1000
Humidity	Humidity	WISE-7118Z Ch3	0.1	0.	50
PH	PH	WISE-7118Z Ch4	0.00015259	5.0000763	5.5

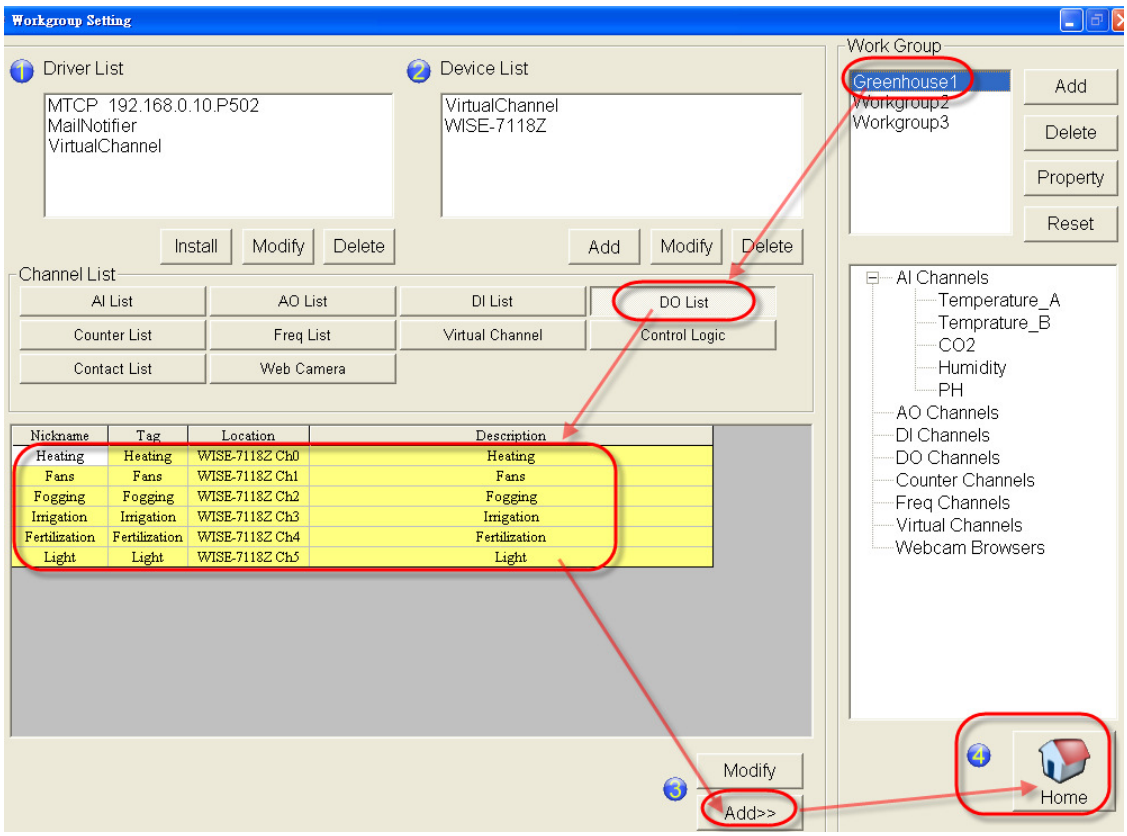
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Step8：Set the DO channels to control heating machine、fans and water sprinklers, etc. These machines not only can be automatically started or stopped by the “Logic control” function in WISE-7118Z, but also can be manually controlled by EZ Data Logger in the control center. Please refer to the pre-steps to set DO channels. The configuration is as the below picture ↓



Nickname	Tag	Location	Description
Heating	Heating	WISE-7118Z Ch0	Heating
Fans	Fans	WISE-7118Z Ch1	Fans
Fogging	Fogging	WISE-7118Z Ch2	Fogging
Irrigation	Irrigation	WISE-7118Z Ch3	Irrigation
Fertilization	Fertilization	WISE-7118Z Ch4	Fertilization
Light	Light	WISE-7118Z Ch5	Light

Step9：In the “Workgroup Setting” form, select the AI and DO channels that have been set→ Click the **Add>>** button to add them into **Greenhouse1** and then click the **Home** button.

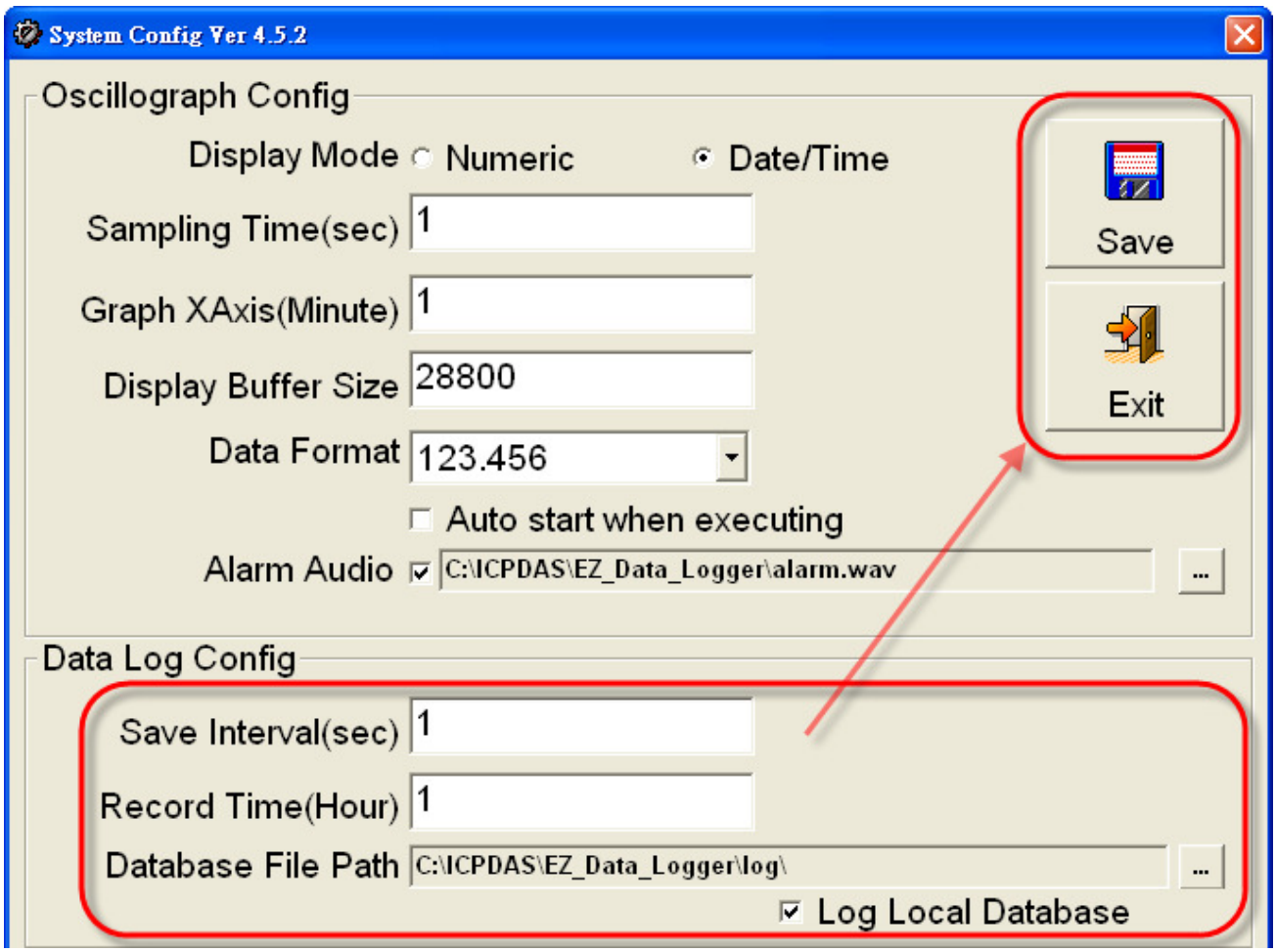


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Step10：From the button list click the **System Config** button.

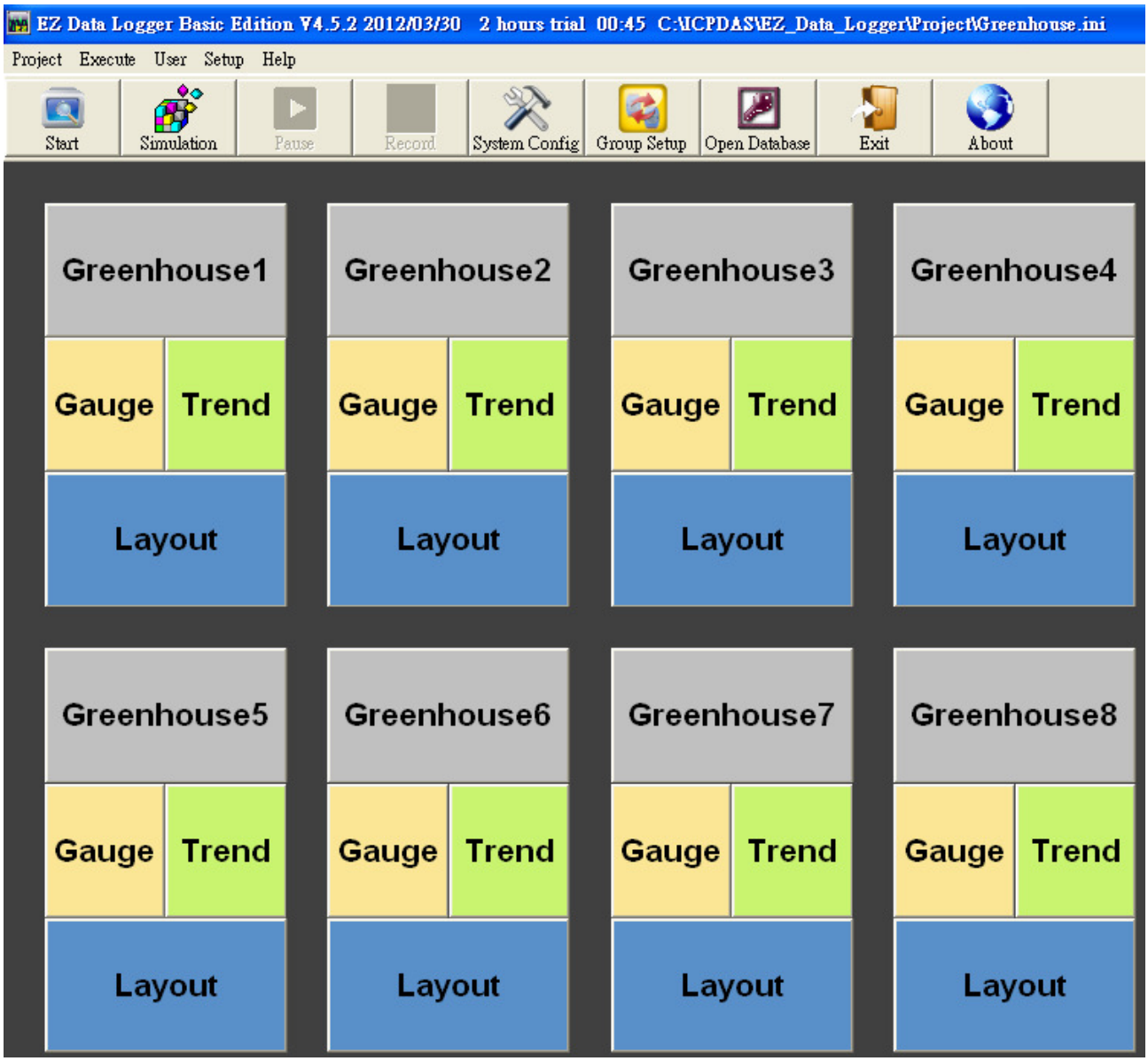


Step11：Set **Save Interval** and **Record Time**, and enable **Log Local Database**→ **Save**→ **Exit**.

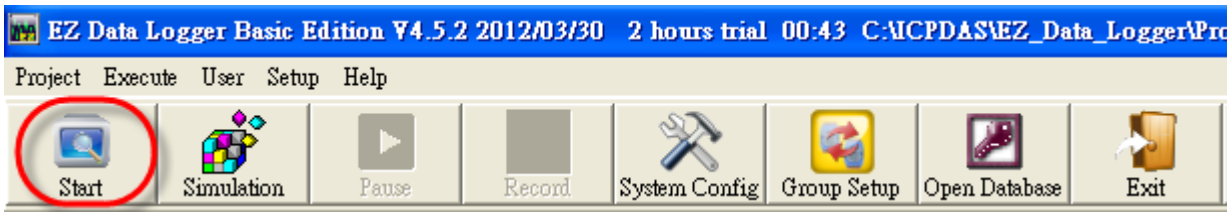


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Step12：In the project you can set multiple groups to manage multiple greenhouses.

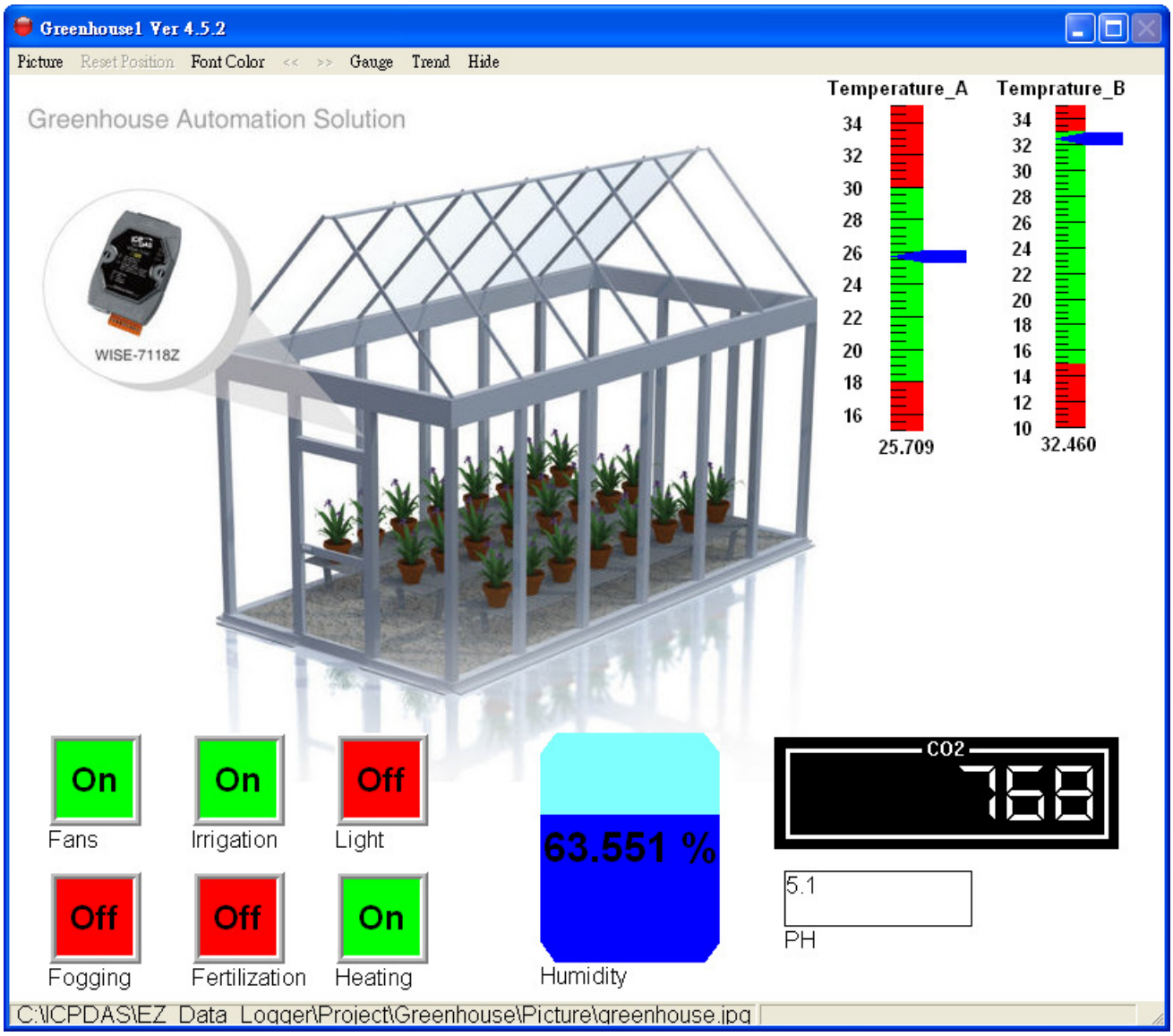


Step13：From the button list click the **Start** button to execute your project.



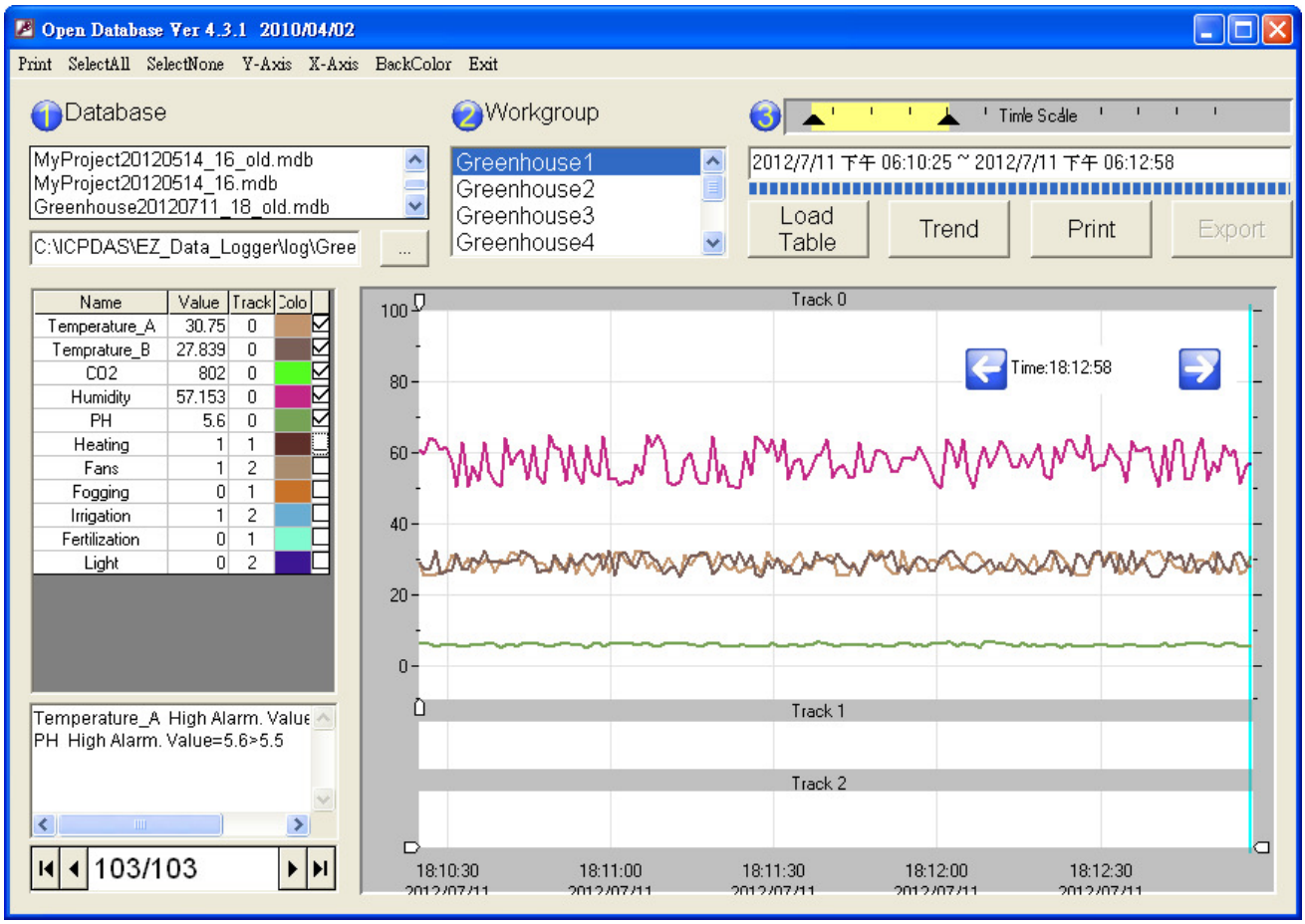
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Step14：Click **Layout** of “Greenhouse1”, and you can see the screen as shown below ↓



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Step15：You can open the local database of Greenhouse1 to display trend, and you can see the screen as shown below ↓



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