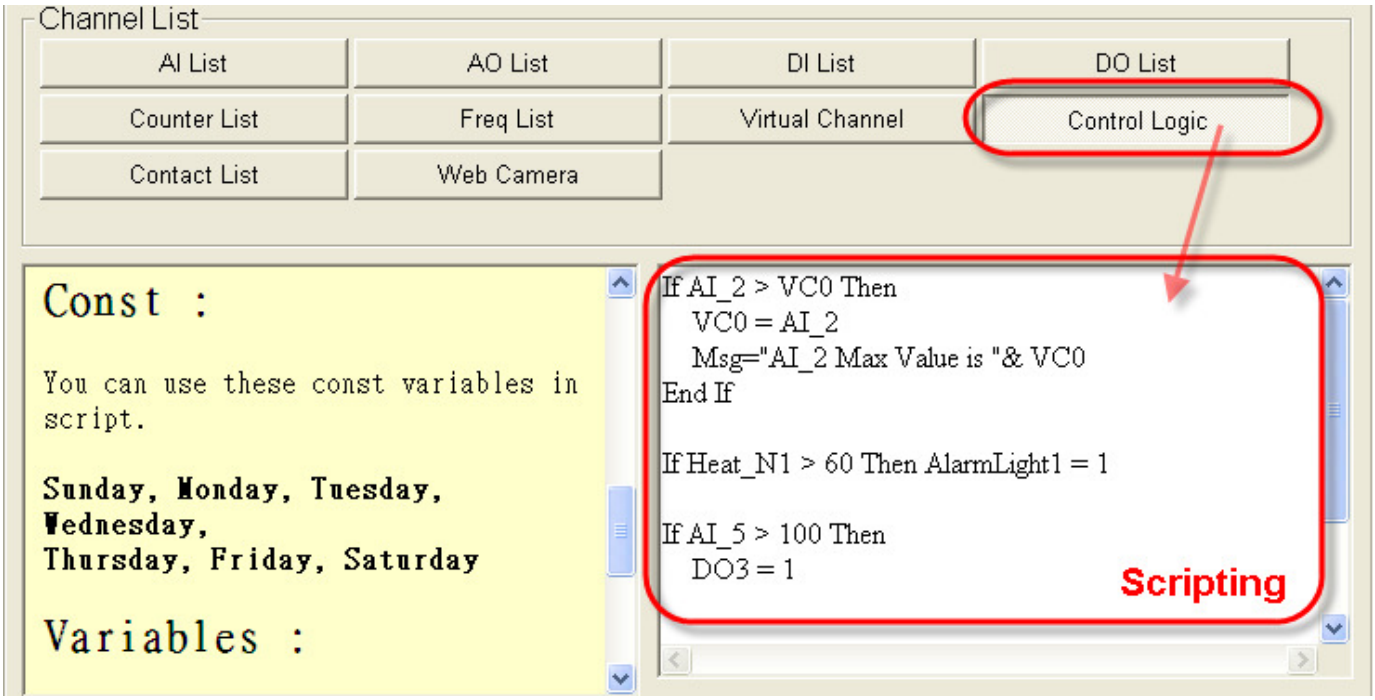
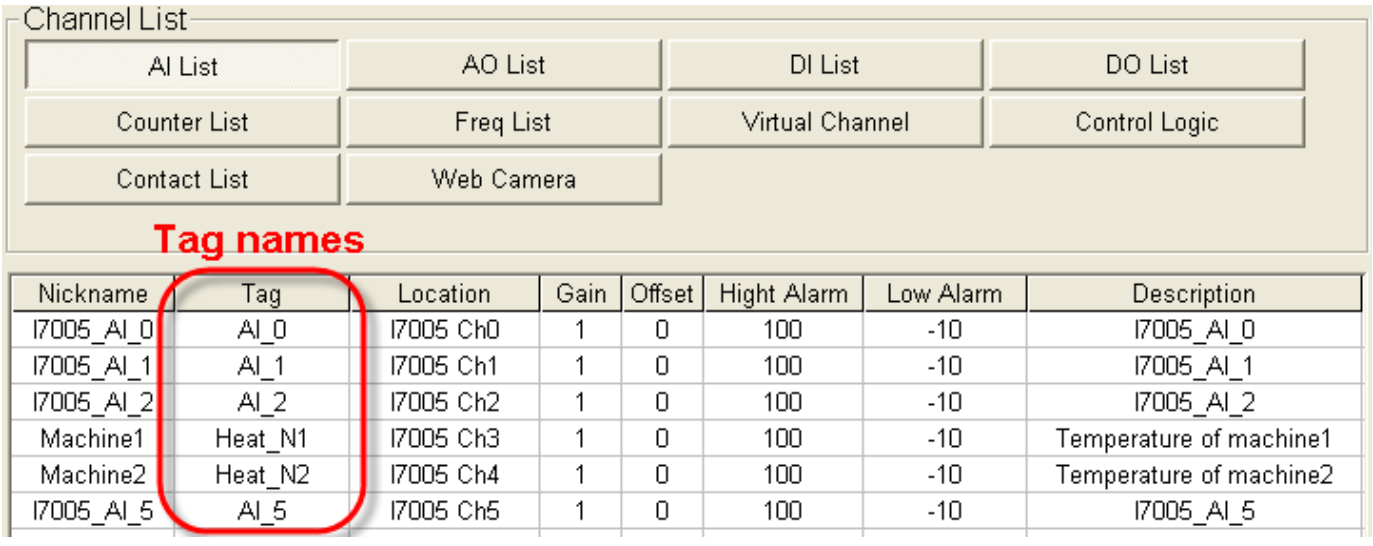
How to record the previous value to VC?

Applied to:

Platform	*OS Version*
PC	*Windows 98/NT/2000/XP/Vista*

EZ Data Logger supports the “Control Logic” function. Control Logic uses the VB script. You can edit the script to set the output values or to calculate data into virtual channels. You can get/set the channel values by channel tag names.





Nickname	Tag	Location	Gain	Offset	Hight Alarm	Low Alarm	Description
I7005_AI_0	AI_0	I7005 Ch0	1	0	100	-10	I7005_AI_0
I7005_AI_1	AI_1	I7005 Ch1	1	0	100	-10	I7005_AI_1
I7005_AI_2	AI_2	I7005 Ch2	1	0	100	-10	I7005_AI_2
Machine1	Heat_N1	I7005 Ch3	1	0	100	-10	Temperature of machine1
Machine2	Heat_N2	I7005 Ch4	1	0	100	-10	Temperature of machine2
I7005_AI_5	AI_5	I7005 Ch5	1	0	100	-10	I7005_AI_5

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I. How to use VBScript to do Control Logic

1. Statements：

You can use “Conditional Statements” or “Looping statements” in script. The below form demonstrate how to use the statements.

	Conditional Statements	Lopping Statements
Example	**If...Then...Else**	**For...Next...**
Explanation	Perform different actions for different decisions.	Run the same block of code a specified number of times.

Code	**If** condition1 **Then**
	[statementblock-1]
	ElseIf condition2 **Then**
	[statementblock-2]] …
	Else
	[statementblock-n]]
	End If
		For counter **=** start **To** End [**Step** step]
		[statements]
		[Exit For]
		[statements]
		Next

2. Variables：

You can use these updated variables in script.

iYear	Year
iMonth	Month
iDay	Date
iHour	Hour
iMinute	Minute
iSecond	Second
iWeekDay	Weekday (Sunday = 1, Monday = 2, Tuesday = 3……Saturday = 7)
Now	Return the current system time
Timer	The Timer function returns the number of seconds since 12：00 AM
Msg	If Msg is not null, it will be print in the main warning text.

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3. Const：

You can use these const variables in script.

Const
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday

4. Functions：

You can use these functions in script.

Sin(*number***)**	Return the sine of a specified number (radian)
Cos(*number***)**	Return the cosine of a specified number (radian)
Tan(*number***)**	Return the tangent of a specified number (radian)
Atn(*number***)**	Return the arctangent of a specified number
Abs(*number***)**	Return the absolute values of a specified number
Sqr(*number***)**	Return the square root of a specified number

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II. How To record the previous value to VC

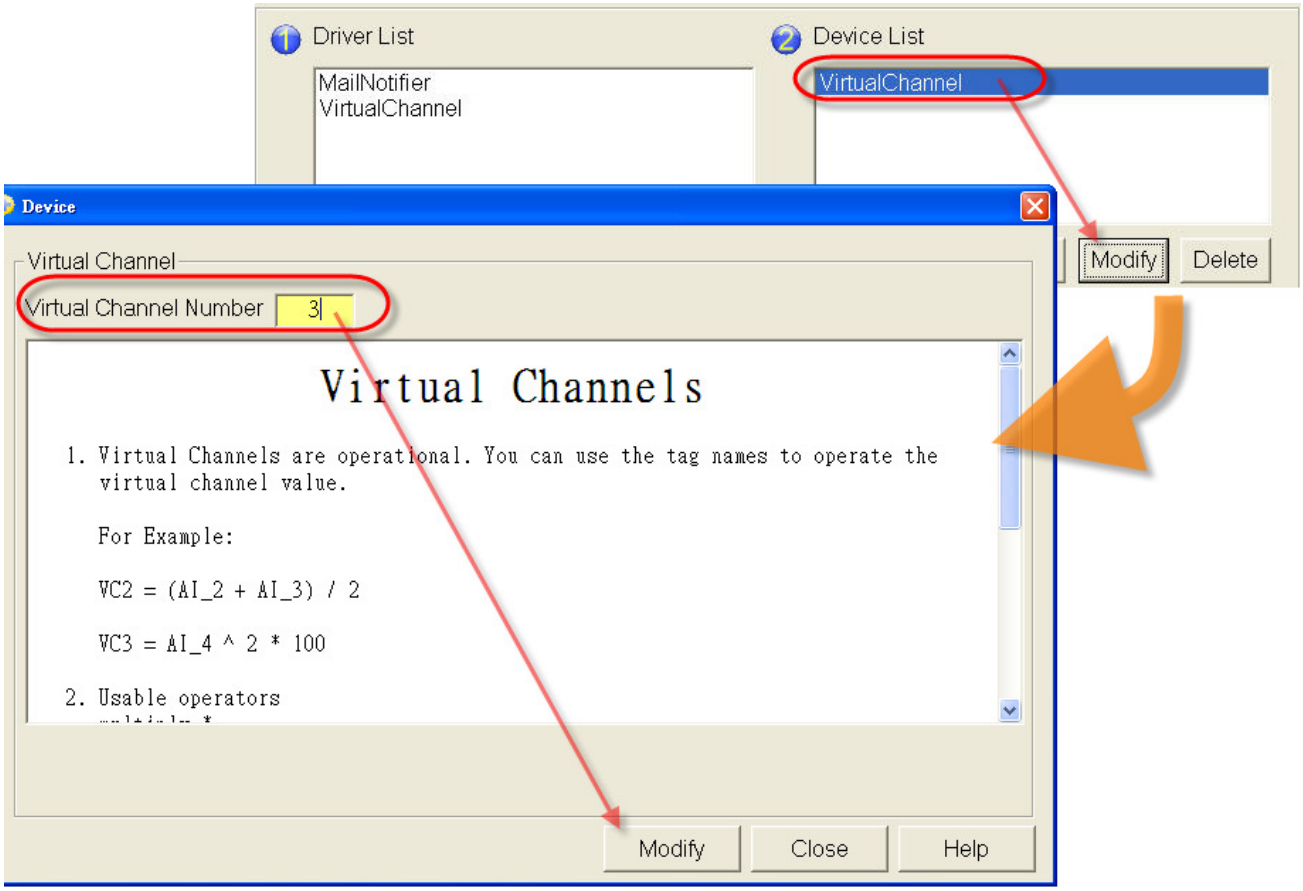
You can record the previous value to Virtual Channel, and use it to do various applications. For Example, you can record the pre-value of thermometer to VC and through the control logic to calculate the change of temperature. The output device will then control the temperature variation within a specified range. Please refer to the following steps to record the pre-value to VC by control logic.

Step1：Open **EZ Data Logger**, and then from the button list click the **Group Setup** button.



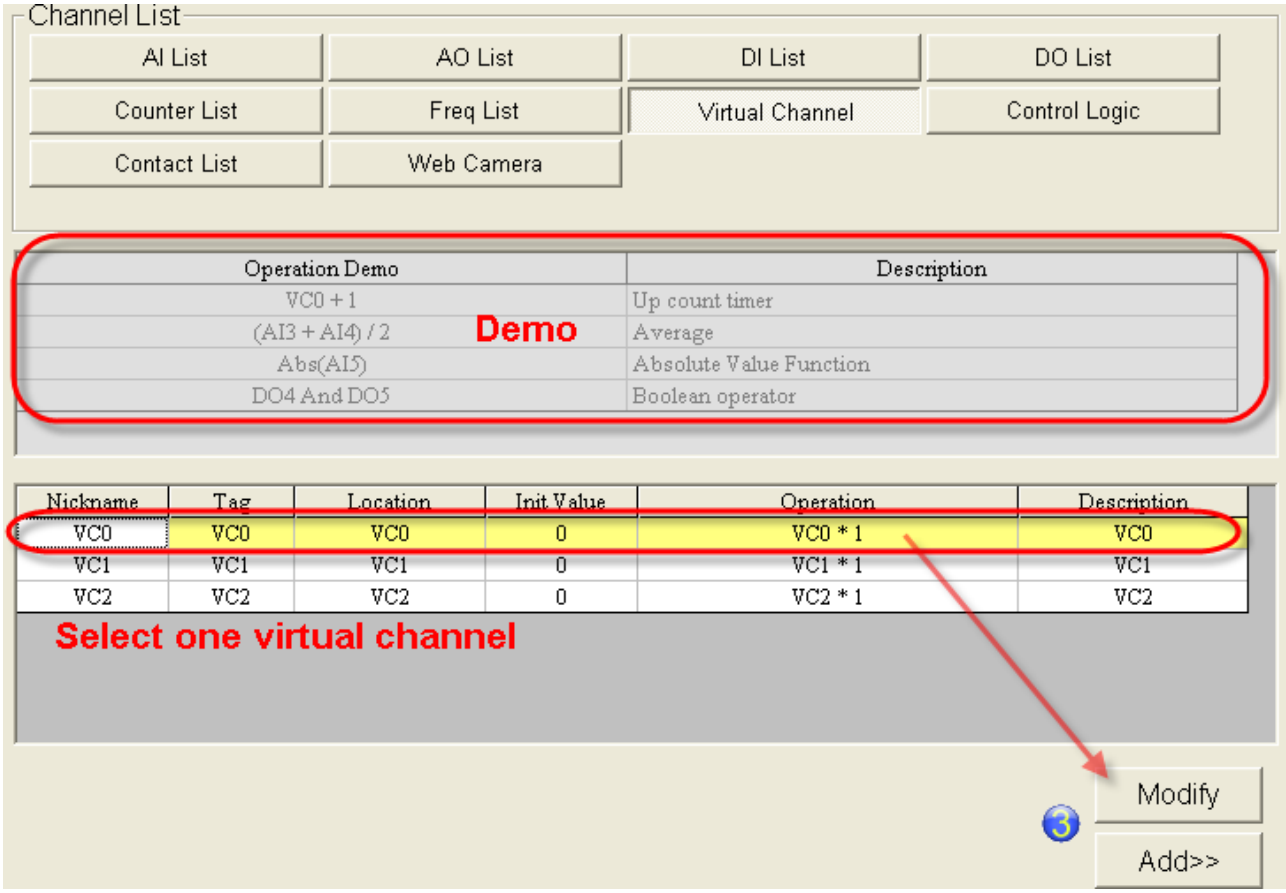
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Step2：From “Device List” select **VirtualChannel**, and then click **Modify** button→ In the popup “Device” form, type the **Virtual Channel Number** (up to 256 channels), and then click the **Modify** button.

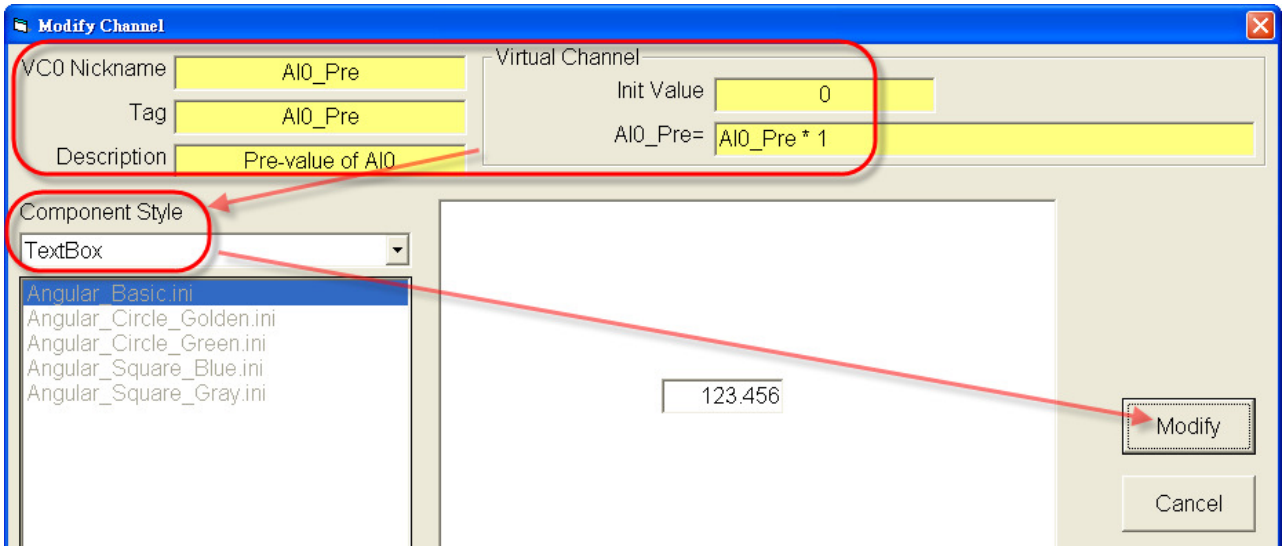


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Step3：Select one virtual channel, and then click the **Modify** button.

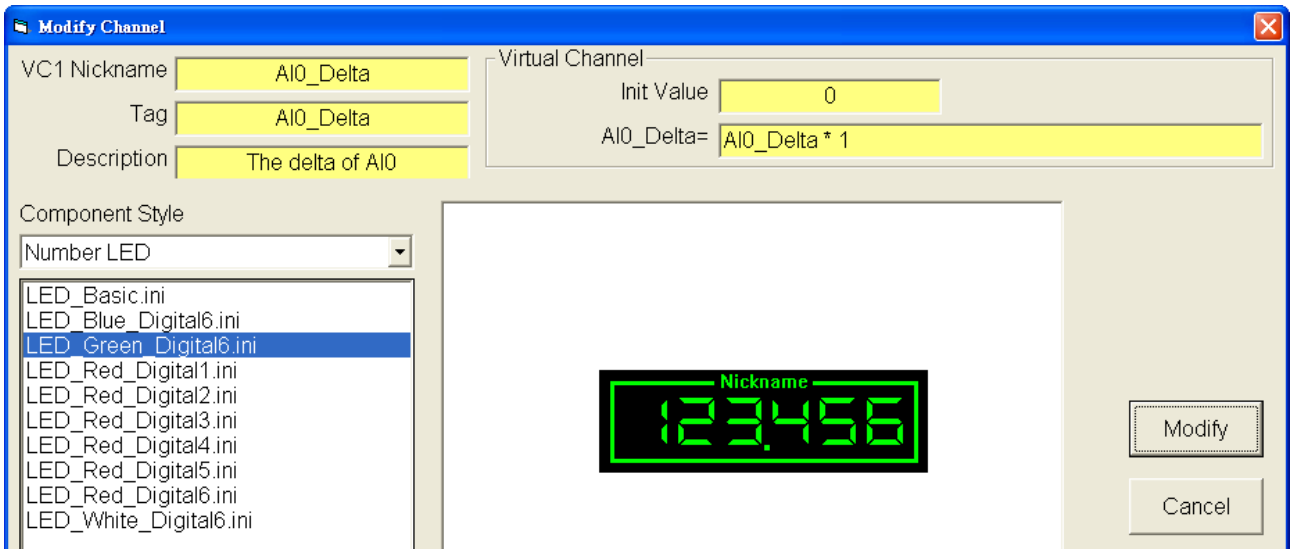


Step4：Edit **Nickname**、**Tag** name、**Description** of VC0→ Set **Init Value** = 0, and set the operation: **AI0_Pre = AI0_Pre * 1** → Select **component style**→ Click the **Modify** button.

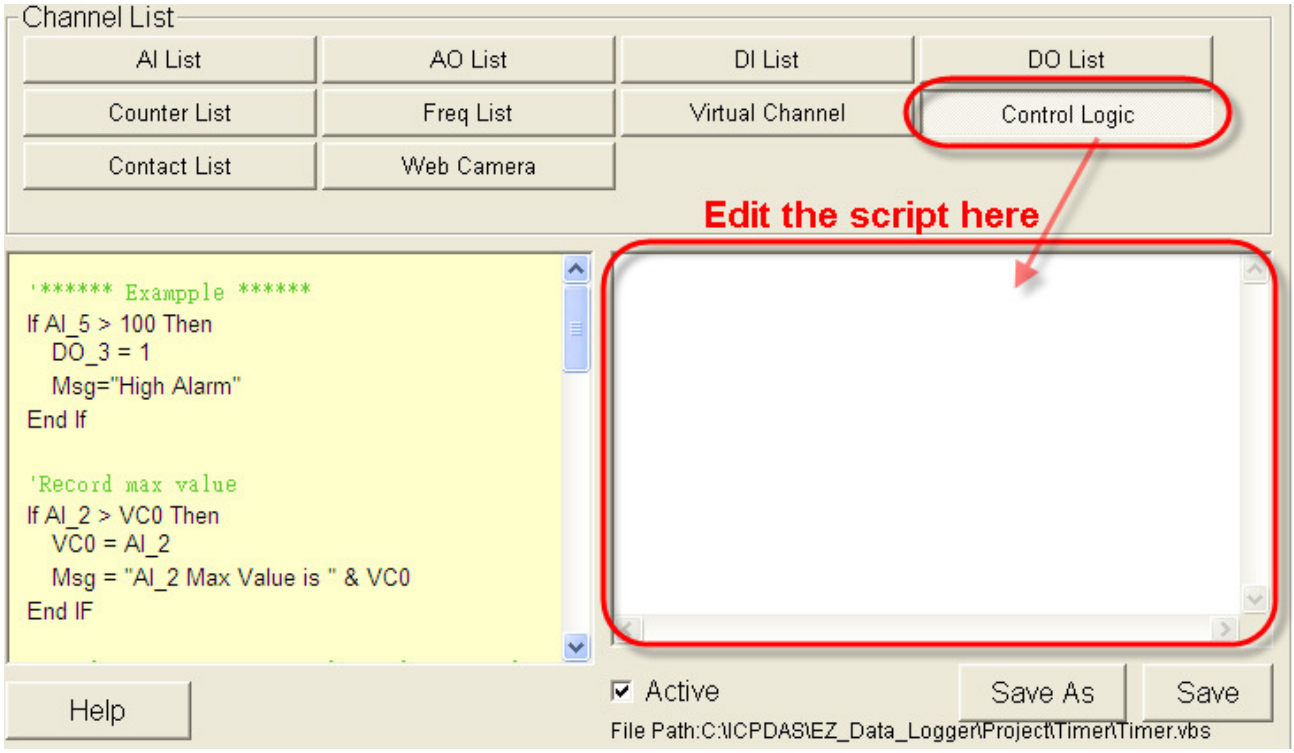


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Step5：Repeat Step3~4 to set another VC.



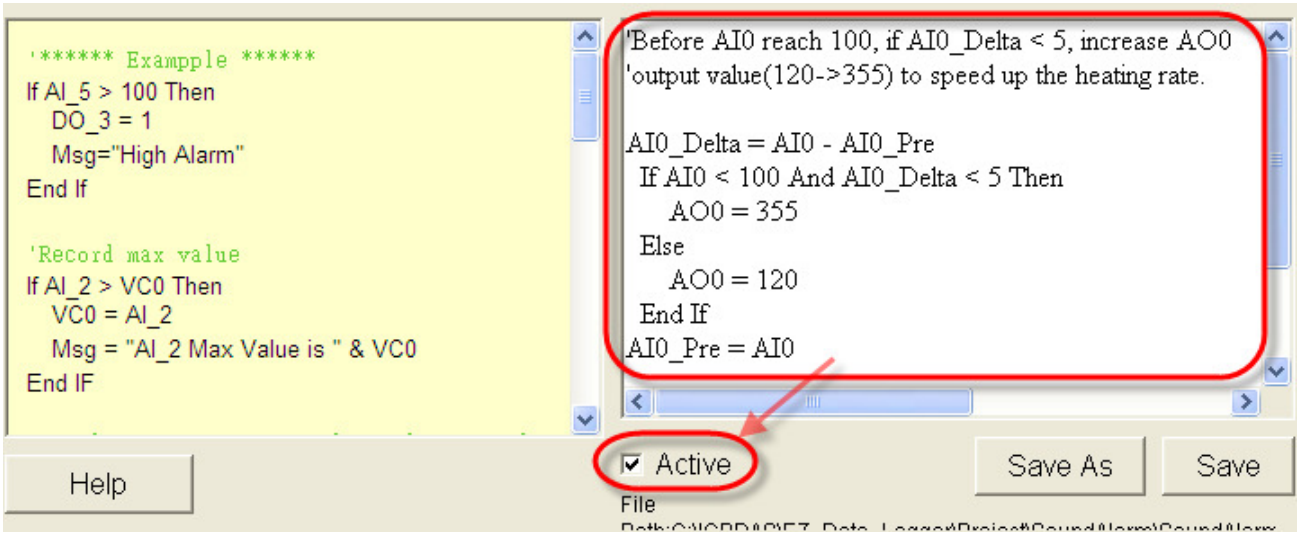
Step6：From the “Channel List” click the **Control Logic** button to edit script.



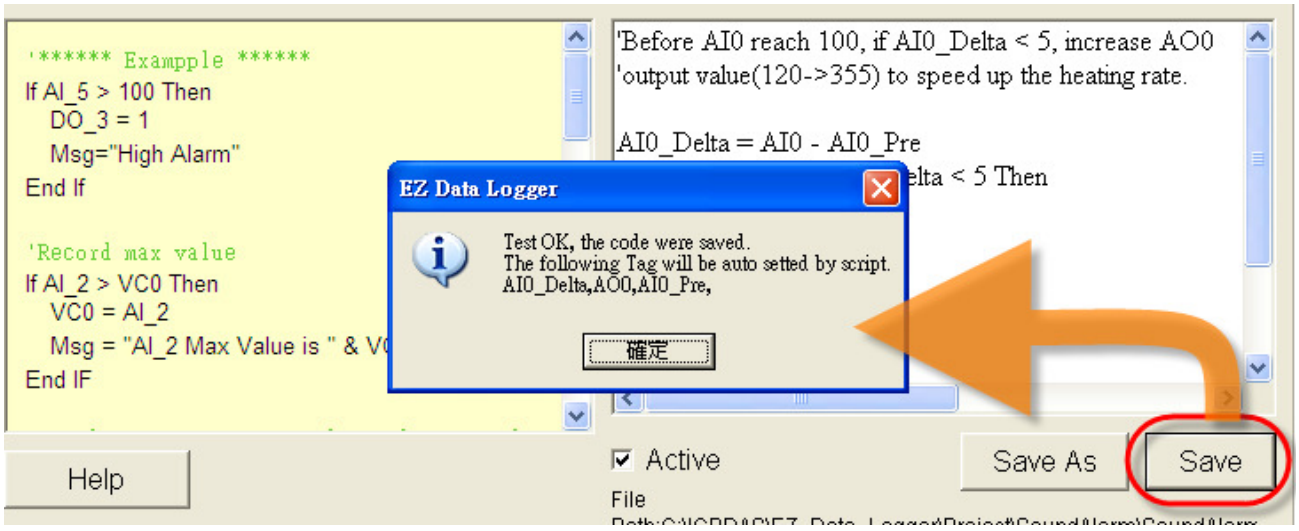
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Step7：Edit the script.

First calculate the temperature variation (AI0_Delta = AI0 - AI0_Pre), and then use "**If…Then…Else**" statements to increase AO0 output power(355) to do the heating action if AI0 not yet reaches 100 degrees and AI0_Delta is less than 5, otherwise keep AO0 output power(120). Last set the AI0_Pre value that equal to AI0→ Tick **Active** to enable the control logic function.

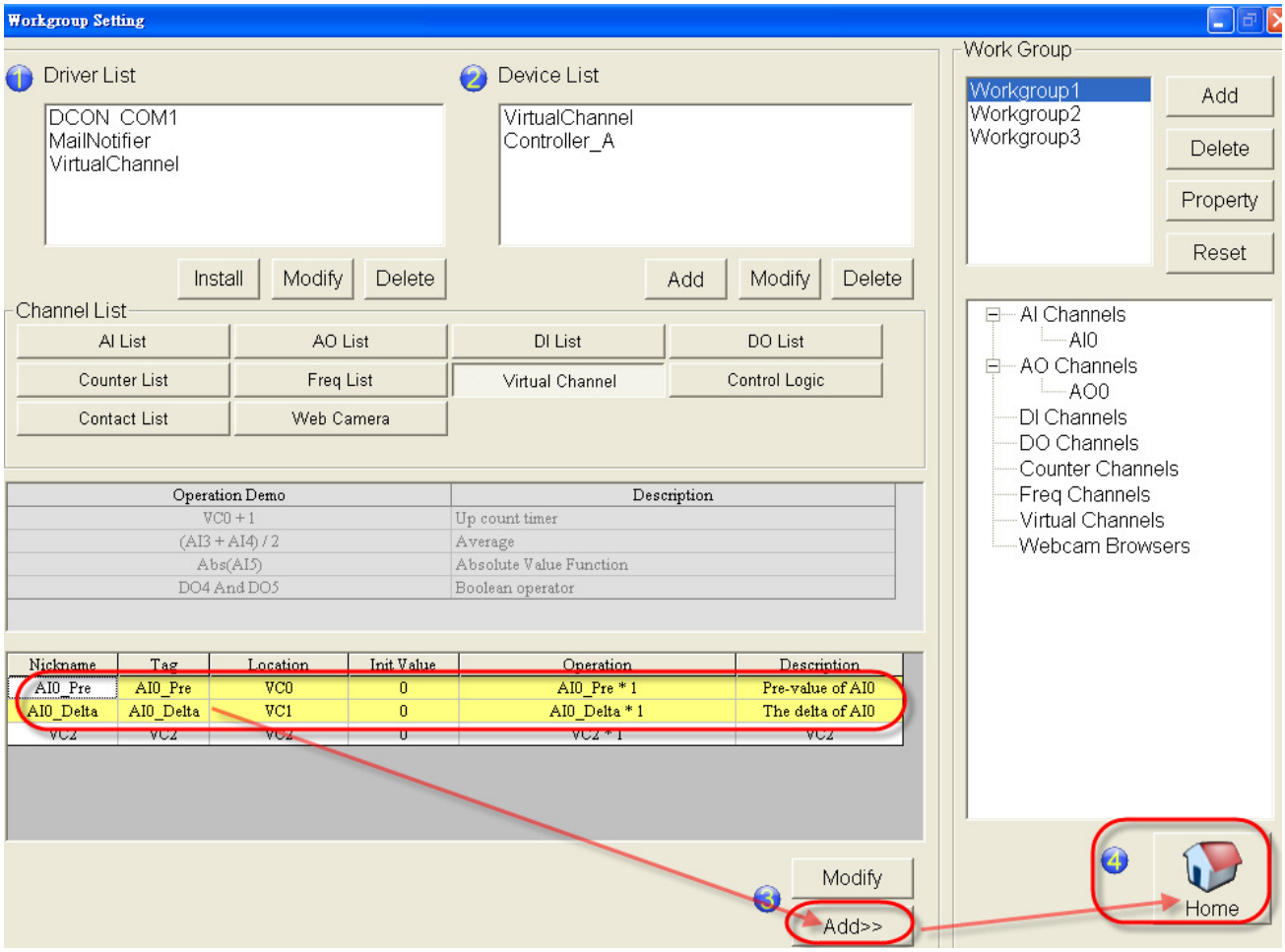


Step8：Click the **Save** button to save the script setting into your project. Next time the control logic will load the setting you saved, and you do not have to re-edit. If your setting is correct, the popup window will show you that it is correct. Otherwise it will show you that your setting is wrong, and you can not save your editing.



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Step9： In the “Workgroup Setting” form, select the channels that have been set and add them into Workgrou1, and then click the **Home** button to back the main form to execute the project.



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