

Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	1/13

How to use VC to do count operation?

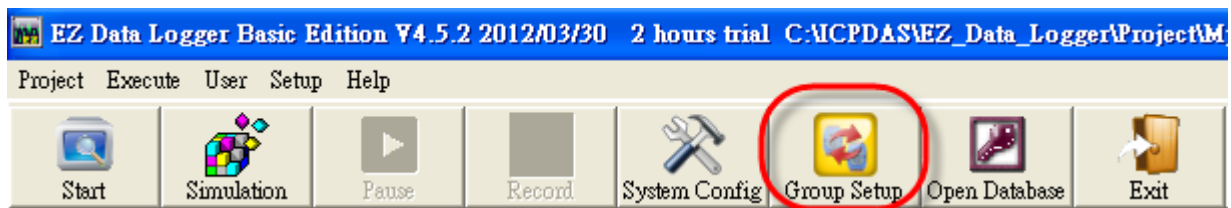
Applied to:

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

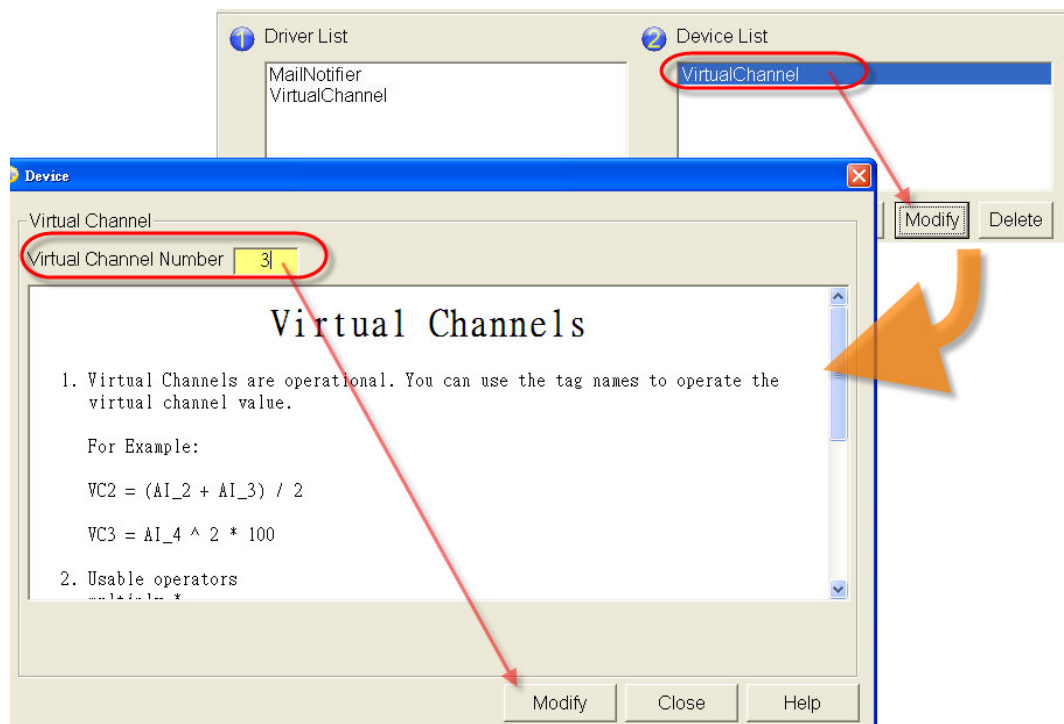
You can operate the data into the virtual channel by channel tag name easily. The below steps demonstrate how to use VC to do count operation, and how to reset the counter.

I. How to set the Virtual Channel to be a counter

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



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



Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	2/13

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

Step4 : Edit **Nickname** 、 **Tag** name 、 **Description** of VC channel → Set **Init Value** = 0, and set the operation: **Counter₁=Counter₁ + 1** → Select the **component style** → Click the **Modify** button.

Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	3/13

Step5 : The setting result of the selected virtual channel is as below picture ↓

Channel List

AI List	AO List	DI List	DO List
Counter List	Freq List	Virtual Channel	Control Logic
Contact List	Web Camera		

Operation Demo	Description
VC0 + 1	Up count timer
(AI3 + AI4) / 2	Average
Abs(AI5)	Absolute Value Function
DO4 And DO5	Boolean operator

Nickname	Tag	Location	Init Value	Operation	Description
Counter1	Counter_1	VC0	0	Counter_1 + 1	Counter
VC1	VC1	VC1	0	VC1 * 1	VC1
VC2	VC2	VC2	0	VC2 * 1	VC2

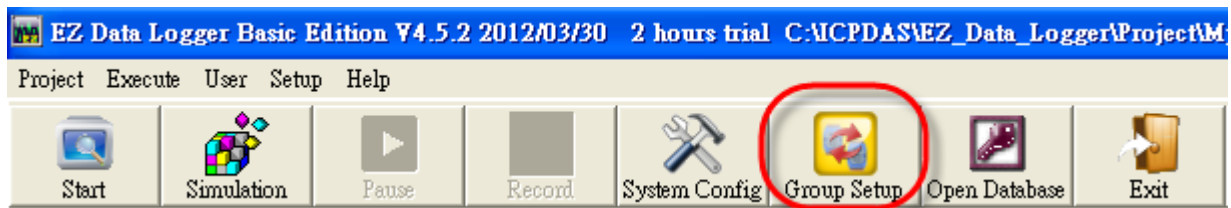
Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	4/13

II. How to reset the counter

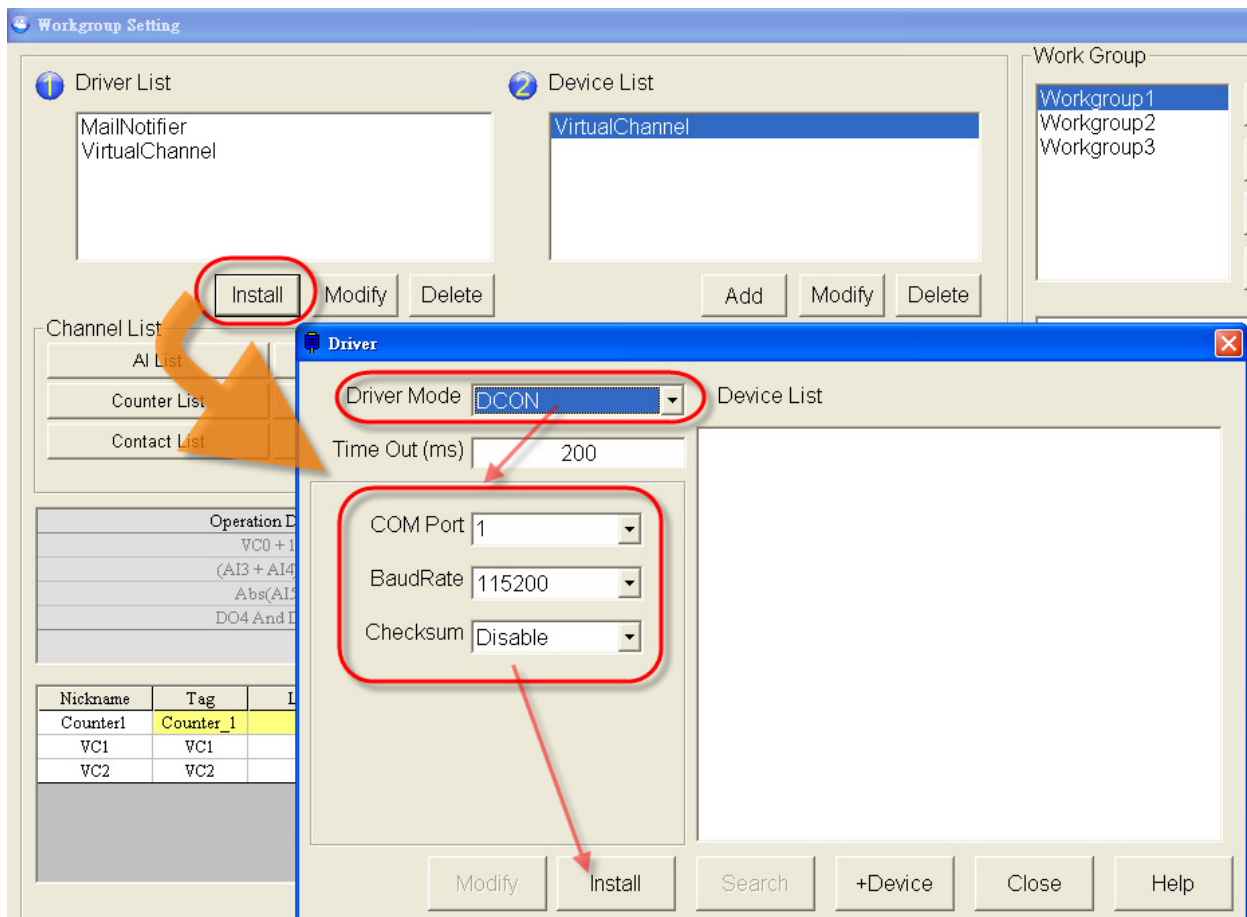
After you set the VC channel to be a counter, you need to add a reset button for the counter. So that when you execute the project, you can reset the counter by the button. There are three methods that you can refer to set the reset button.

1. Add a DI module wired a button to reset the counter.

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

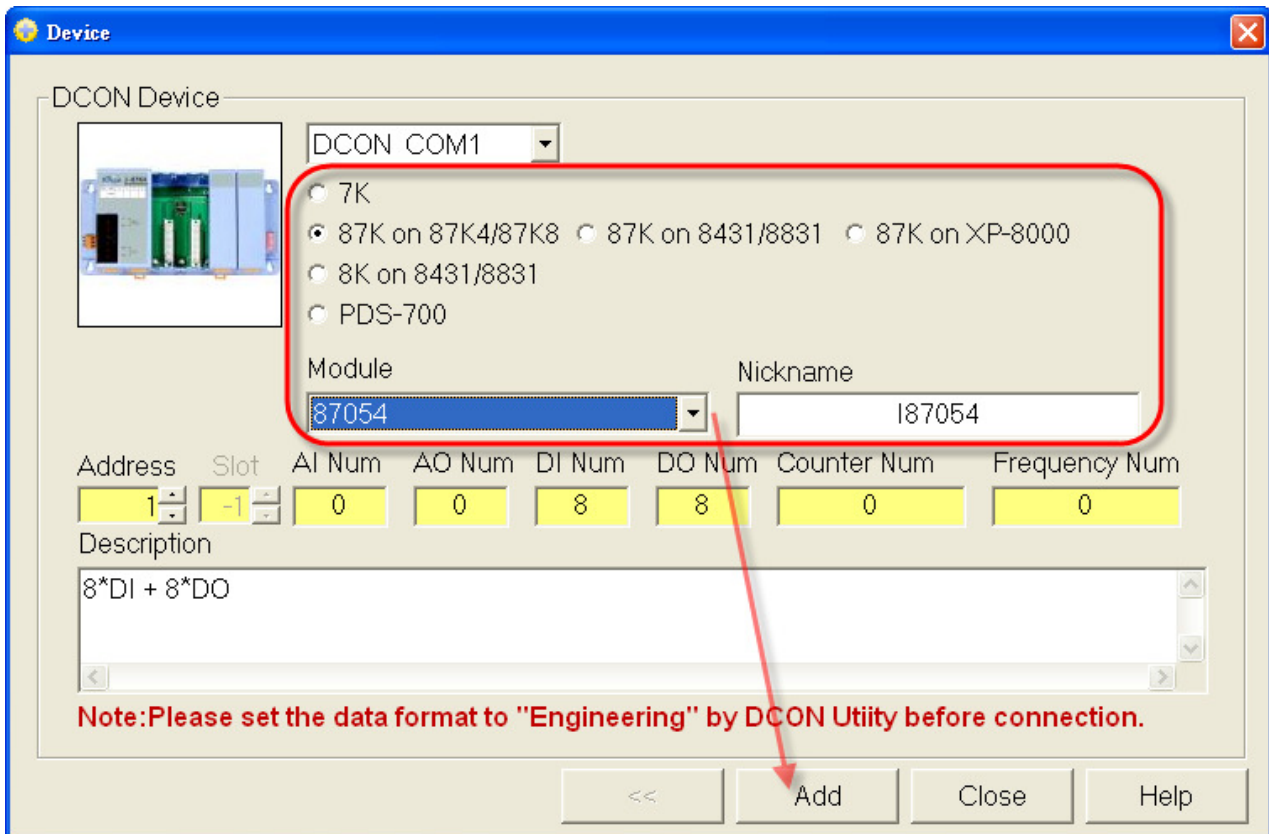
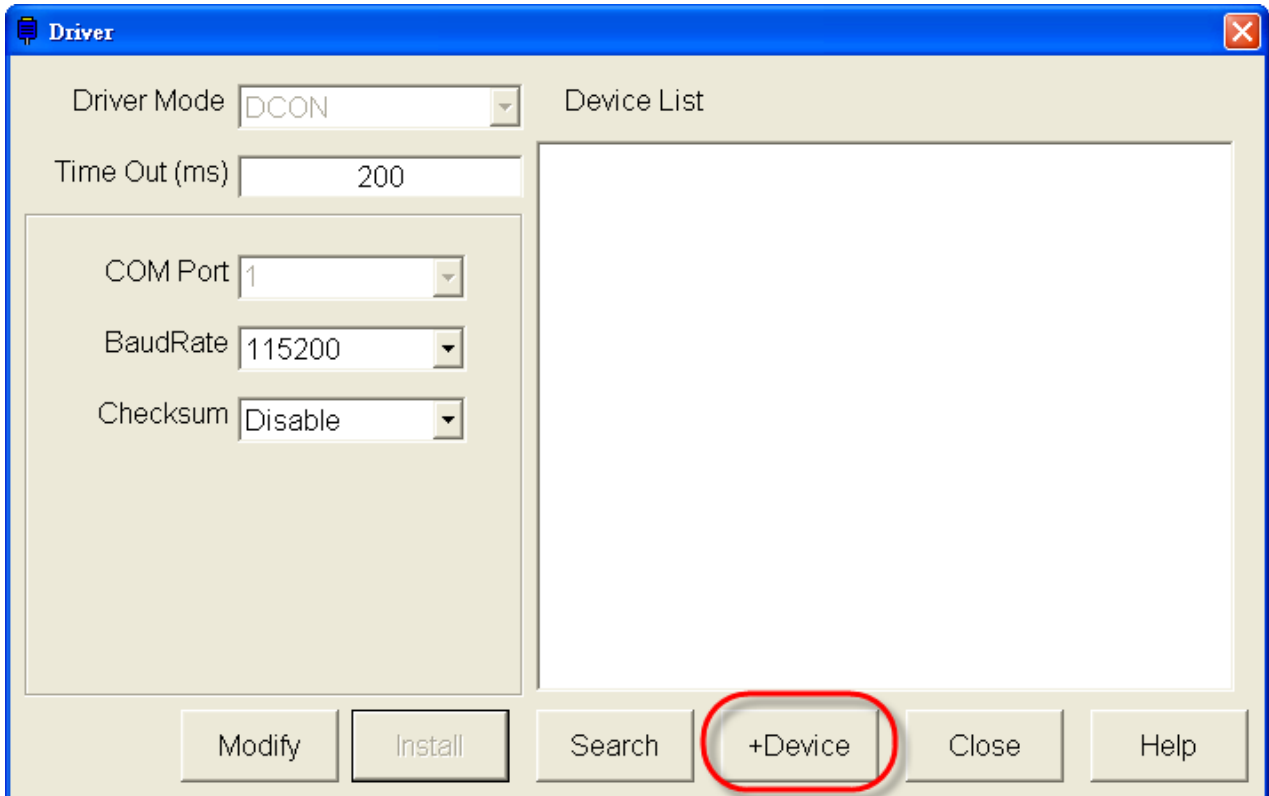


Step2 : Click the **Install** button under “Driver List” to open the “Driver” setting form→ Select **DCON** driver and set its properties→ Click the **Install** button.



Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	5/13

Step3 : Click the **+Device** button to open the “Device” setting form→ After select the matching controller and module, click the **Add** button.



Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	6/13

Step4 : Select the DI channel which connects with a physical button and then click the **Modify** button to open its setting channel.

Channel List

AI List	AO List	DI List	DO List
Counter List	Freq List	Virtual Channel	Control Logic
Contact List	Web Camera		

Nickname	Tag	Location	Description
I87054_DI_0	I87054_DI_0	I87054 Ch0	I87054_DI_0
I87054_DI_1	I87054_DI_1	I87054 Ch1	I87054_DI_1
I87054_DI_2	I87054_DI_2	I87054 Ch2	I87054_DI_2
I87054_DI_3	I87054_DI_3	I87054 Ch3	I87054_DI_3
I87054_DI_4	I87054_DI_4	I87054 Ch4	I87054_DI_4
I87054_DI_5	I87054_DI_5	I87054 Ch5	I87054_DI_5
I87054_DI_6	I87054_DI_6	I87054 Ch6	I87054_DI_6
I87054_DI_7	I87054_DI_7	I87054 Ch7	I87054_DI_7

3 Modify Add>>

Step5 : Configure the properties of DI channel, “Component Style” select **Toggle**, and then click the **Modify** button to save settings.

Modify Channel

Nickname: Reset
 Tag: Reset_DI0
 Description: Reset button of Counter1

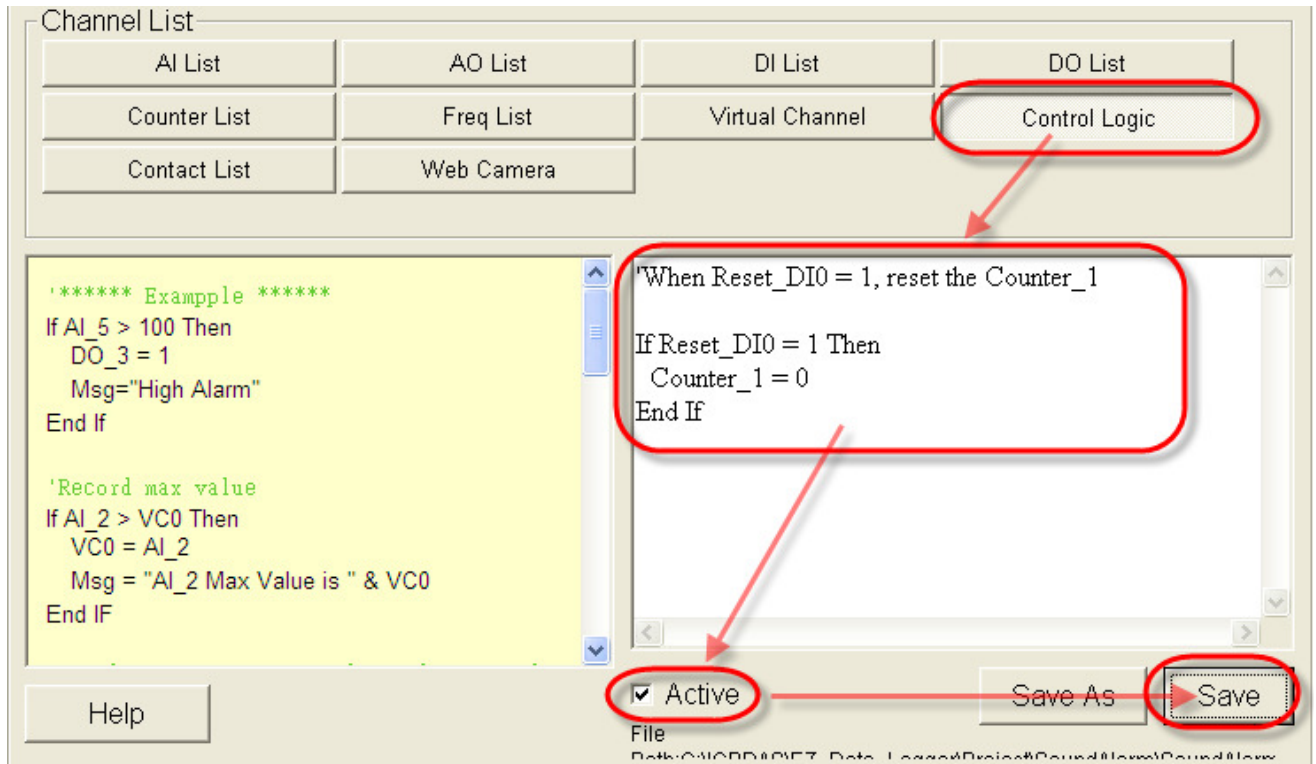
Component Style: Toggle

- Toggle_Basic.ini
- Toggle_Basic_01.ini
- Toggle_Basic_02.ini
- Toggle_Blue_Circle.ini
- Toggle_Blue_Light.ini
- Toggle_Button.ini
- Toggle_Green_Circle.ini
- Toggle_Green_Light.ini
- Toggle_Green_Square.ini
- Toggle_Red_Circle.ini
- Toggle_Red_Light.ini

Modify Cancel

Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	7/13

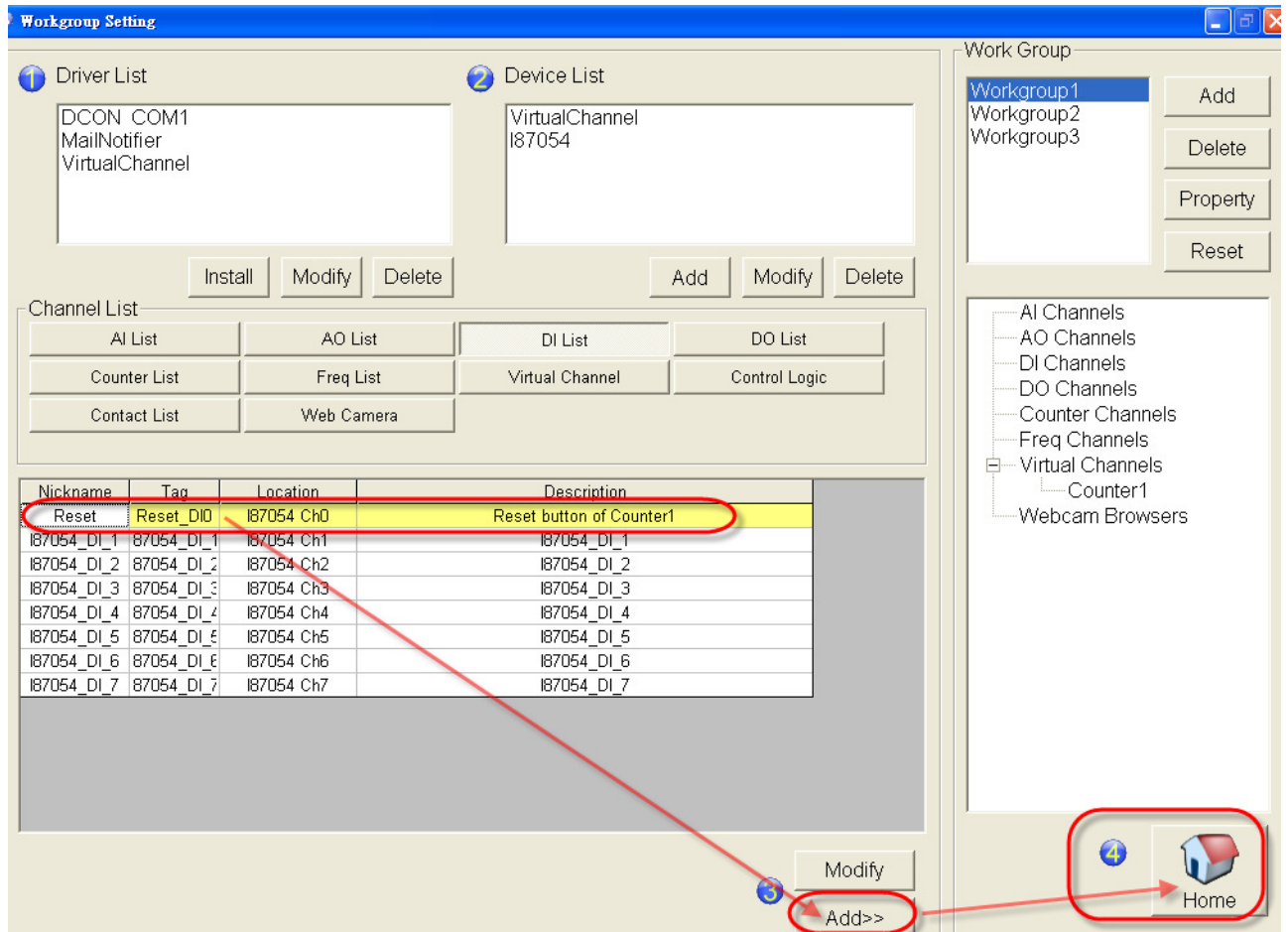
Step6 : In the "Workgroup setting" form, click **Control Logic** to edit VB Script→ Tick **Active**
→ Click the **Save** button to save settings.



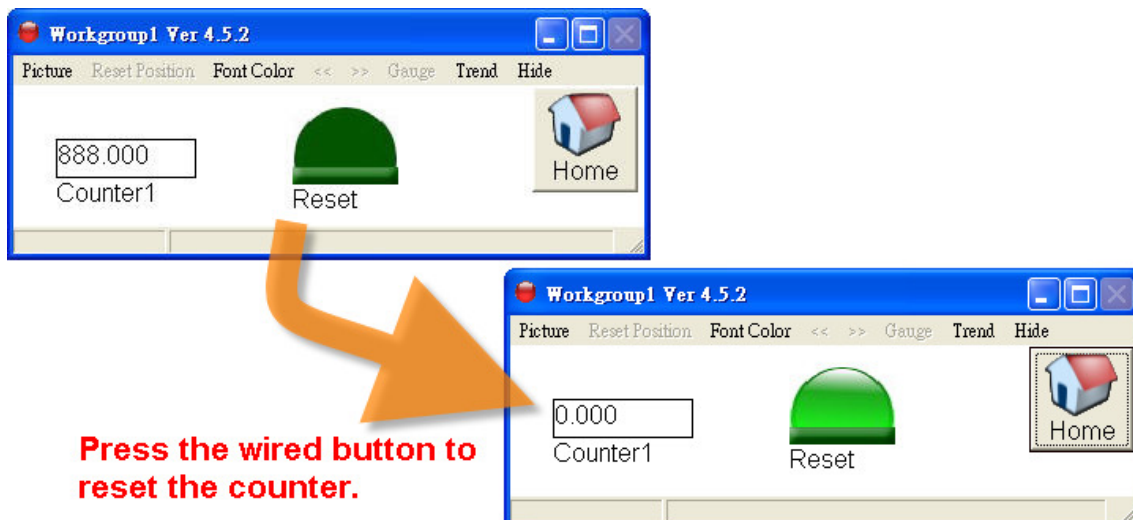
Note : In the VB Script, 1=ON and 0=OFF. But True/False operand is no use here. That is say True =\= ON and False =\= OFF.

Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	8/13

Step7 : In the “Workgroup Setting” form, select the VC and DI channels that have been set and add them into Workgroup1, and then click the **Home** button to back the main form to execute the project.



Step8 : Click **Layout** to show the execution state like the below picture ↓



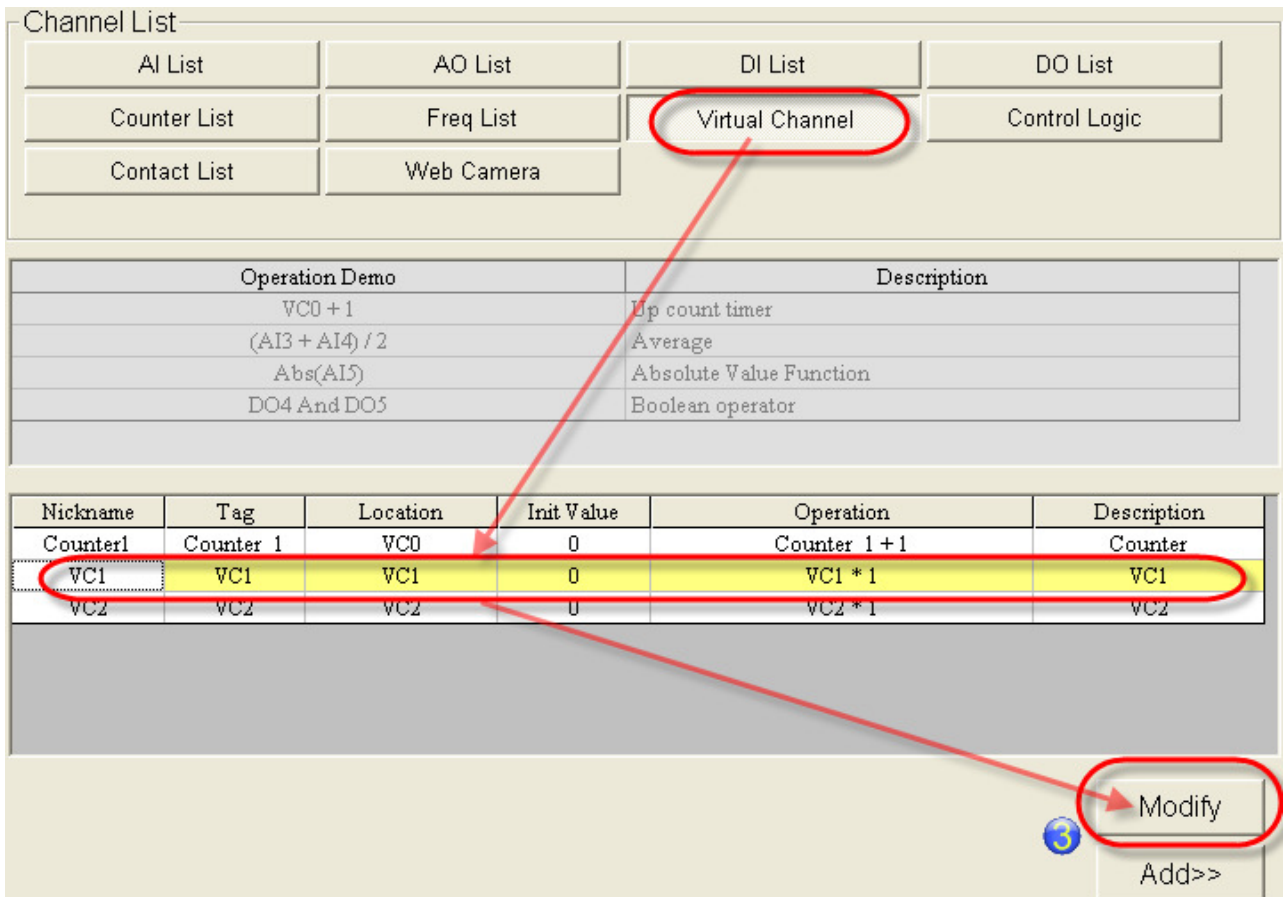
Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	9/13

2. Add a new VC channel, and set it to be a reset button for the counter.

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

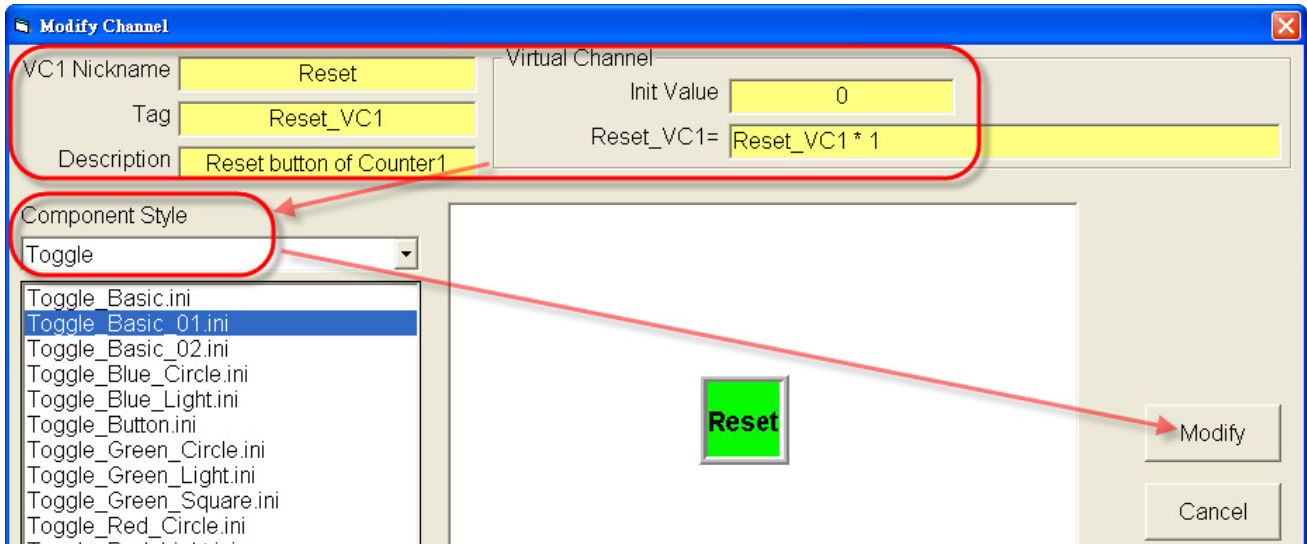


Step2 : Choose a new VC channel, and then click the **Modify** button to open its setting form.

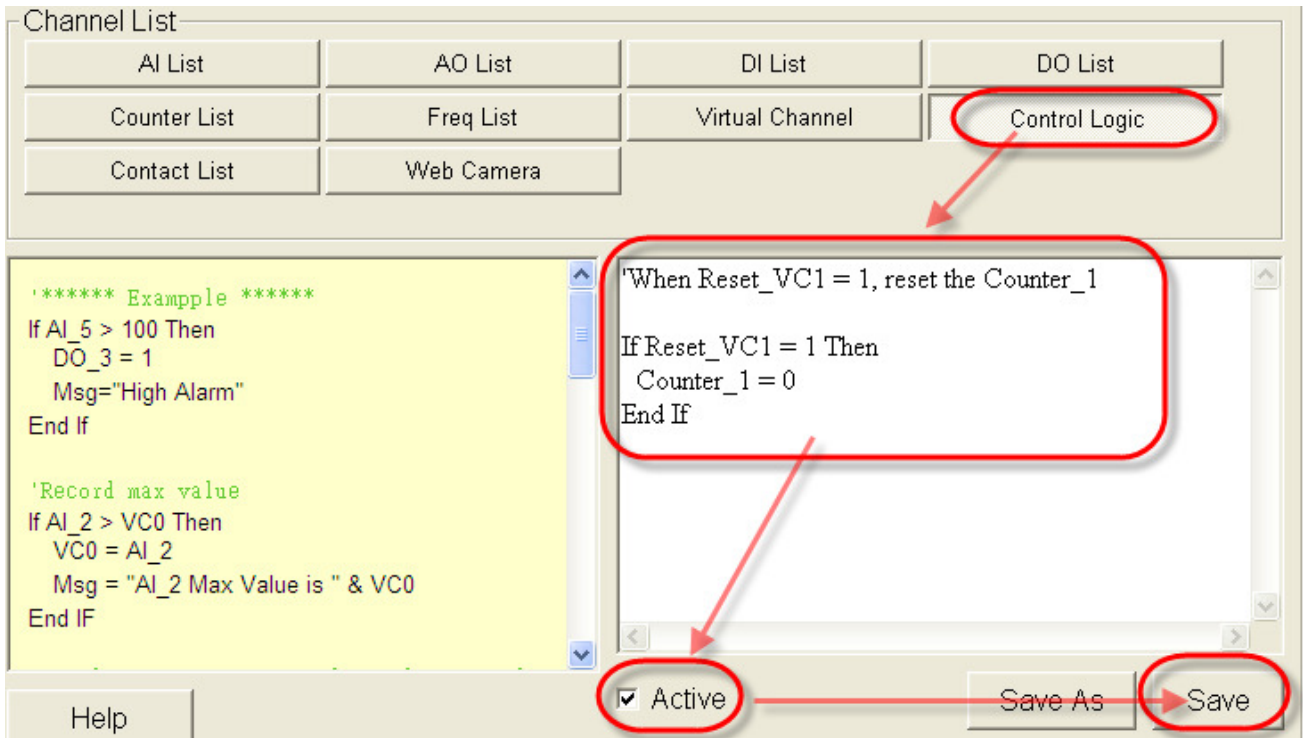


Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	10/13

Step3 : Configure the properties and operation of VC1, “Component Style” select **Toggle**, and then click the **Modify** button to save settings.



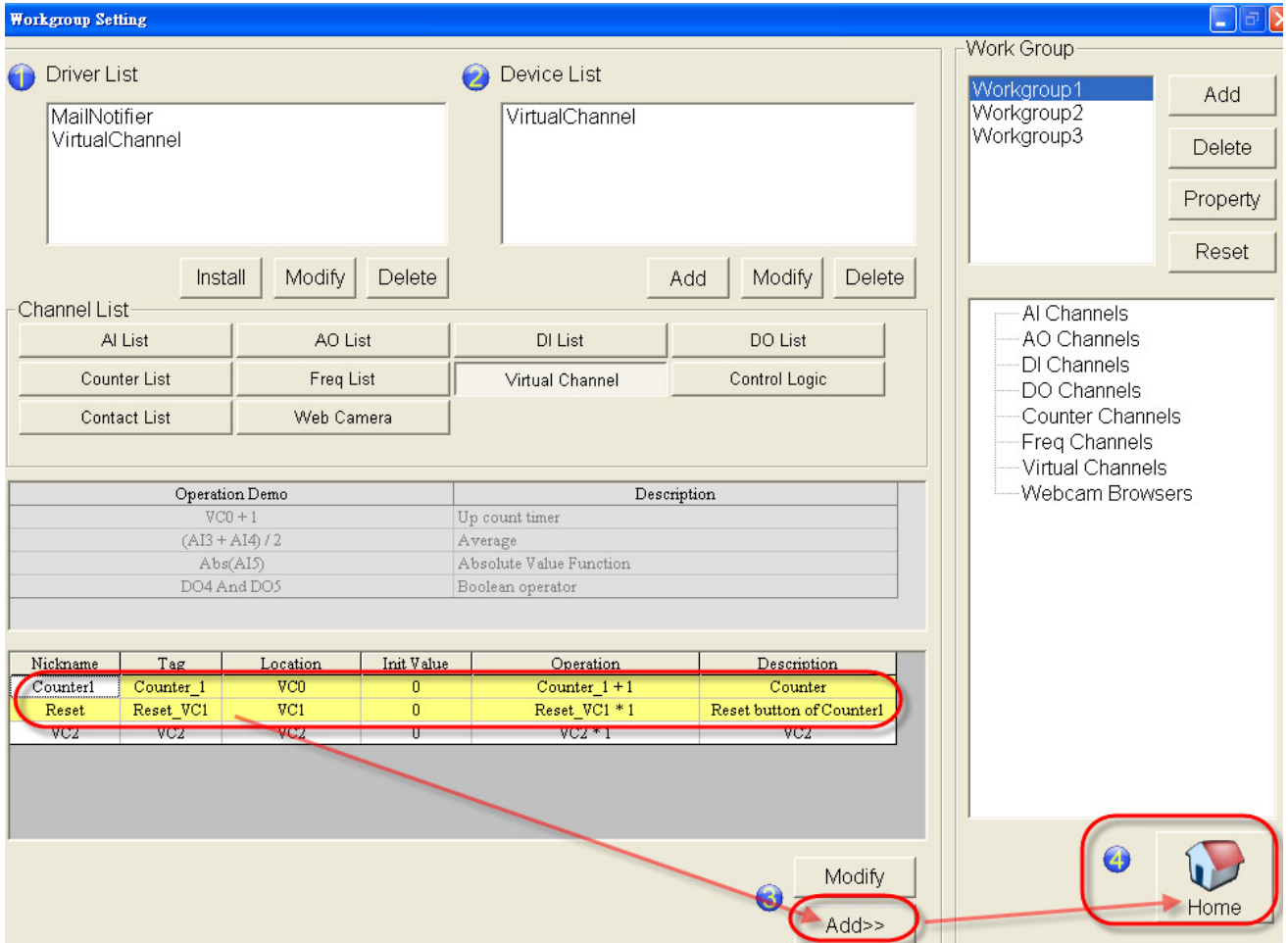
Step4 : In the “Workgroup setting” form, click **Control Logic** to edit VB Script→ Tick **Active**
 → Click the **Save** button to save settings.



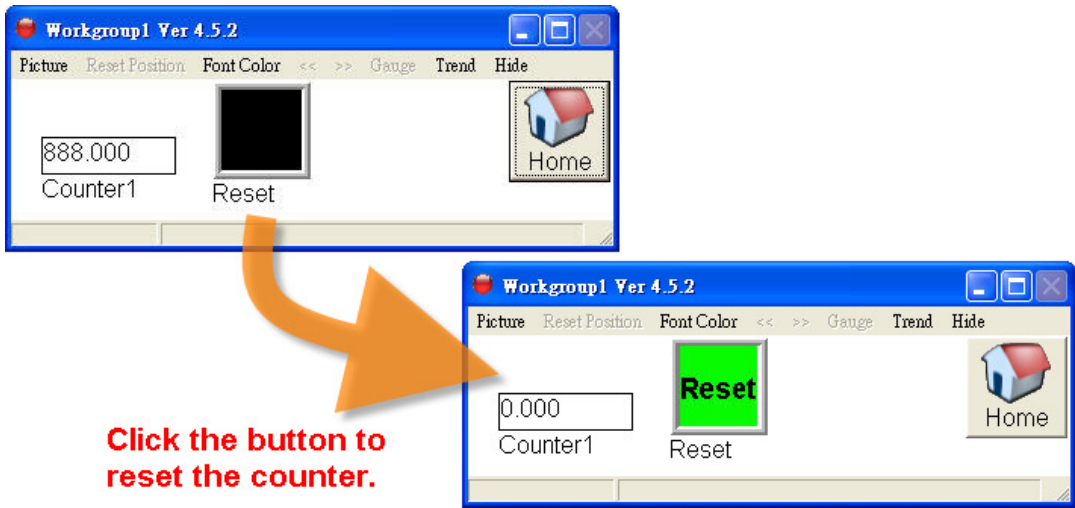
Note : In the VB Script, 1=ON and 0=OFF. But True/False operand is no use here. That is say True =\= ON and False =\= OFF.

Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	11/13

Step5 : In the “Workgroup Setting” form, select the VC channels that have been set and add them into Workgroup1, and then click the **Home** button to back the main form to execute the project.



Step6 : Click **Layout** to show the execution state like the below picture ↓



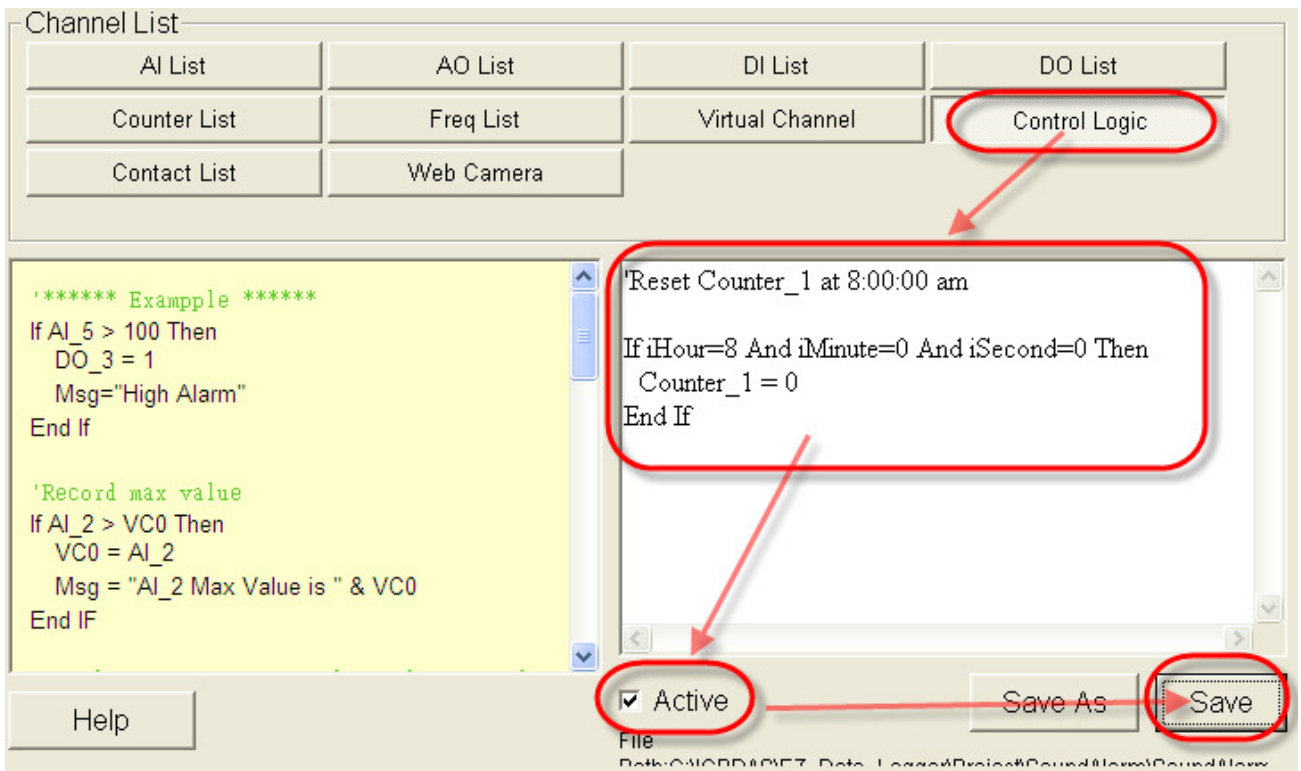
Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	12/13

3. Use the “Control Logic” to reset the counter at a particular time.

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



Step2 : In the “Workgroup setting” form, click **Control Logic** to edit VB Script → Tick **Active**
→ Click the **Save** button to save settings.



Note : In order to start the scan process at the exact set scan time it is important to set the scan interval to 1 second. If the scan time interval is not set to 1 second the scan process will start with a delay. You can set the scan time interval (Sampling Time) in “System Config” form.

Classification	Virtual Channel Applied FAQ on EZ Data Logger				No.	2-009-01	
Author	Amber	Version	1.0.0	Date	2012/05/29	Page	13/13

Step3 : In the “Workgroup Setting” form, select the VC channel that have been set and add it into Workgrou1, and then click the **Home** button to back the main form to execute the project.

Workgroup Setting

1 Driver List
MailNotifier
VirtualChannel

2 Device List
VirtualChannel

Install Modify Delete Add Modify Delete

Channel List

AI List	AO List	DI List	DO List
Counter List	Freq List	Virtual Channel	Control Logic
Contact List	Web Camera		

Operation Demo

Operation Demo	Description
VC0 + 1	Up count timer
(AI3 + AI4) / 2	Average
Abs(AI5)	Absolute Value Function
DO4 And DO5	Boolean operator

Nickname	Tag	Location	Init Value	Operation	Description
Counter1	Counter_1	VC0	0	Counter_1 + 1	Counter
VC1	VC1	VC1	0	VC1 * 1	VC1
VC2	VC2	VC2	0	VC2 * 1	VC2

Work Group

- Workgroup1
- Workgroup2
- Workgroup3

AI Channels
AO Channels
DI Channels
DO Channels
Counter Channels
Freq Channels
Virtual Channels
Webcam Browsers

Home