Classification	Virtual Chan	nnel Applied FAQ on EZ	Data Logge	er	No.	2-009-01		
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low to the		do count or	rotion	<b>റ</b>				
low to u	ise vc to	o do count ope	eration	<i>:</i>				
Applied to	o:							
	Platform		OS Version					
	PC	W	/indows 98/I	NT/2000/XP/	Vista			
						<b>T</b> L . L . L		
	-	ata into the virtual cha	-	-	-			
eps demons	strate now to u	ise VC to do count op	eration, and	a now to rese	et the cou	nter.		
How to	set the virt	tual Channel to be	e a count	<u>er</u>				
Step1 : Op	en EZ Data L	ogger, and then from	the button	list click the	Group Se	etup button		
🙀 EZ Data	Logger Basic Ed	ition ¥4.5.2 2012/03/30	2 hours trial(	C:VICPDASVEZ_	Data_Logge	r\Project\M		
Project Exe	ecute User Setup	Help	-					
			*					
Step2 : In t	the "Device Lis	Pause Record S		en click <b>Moc</b>		$\sum_{E \times it}$		
Step2 : In t	the "Device Lis	st" select VirtualChar Channel Number (up <sup>st</sup>	nnel, and th	en click <b>Moc</b> annels). Ther	<b>lify</b> buttor	$\rightarrow$ In the		
Step2 : In t Device" form	the "Device Lis , type <b>Virtual</b> Oriver Lie MailNoti VirtualC	st" select VirtualChar Channel Number (up <sup>st</sup>	<b>inel</b> , and th to 256 cha	en click <b>Moc</b> annels). Ther	<b>lify</b> buttor	$\rightarrow$ In the		
Step2 : In t Device" form	the "Device Lis , type Virtual Oriver Lin MailNoti VirtualC	st" select VirtualChar Channel Number (up <sup>st</sup> fier <sup>hannel</sup>	<b>inel</b> , and th to 256 cha	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		
Step2 : In t Device" form	the "Device Lis , type Virtual Oriver Lin MailNoti VirtualC	st" select VirtualChar Channel Number (up <sup>st</sup>	<b>inel</b> , and th to 256 cha	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		
Step2 : In t Device" form	the "Device Lis , type Virtual Driver Lin MailNoti VirtualC	st" select VirtualChar Channel Number (up <sup>st</sup> fier <sup>hannel</sup>	nnel, and th to 256 cha Device List	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		
Step2 : In t Device" form	the "Device Lis , type Virtual Driver Lin MailNoti VirtualC el el Number 3 Vir al Channels are operat	st" select VirtualChar Channel Number (up st fier hannel tual Channels	nnel, and th to 256 cha Device List	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		
Step2 : In t Device" form	the "Device Lis , type Virtual Driver Lis MailNoti VirtualC el el el Number 3 Virt al Channels are operata	st" select VirtualChar Channel Number (up st fier hannel tual Channels	nnel, and th to 256 cha Device List	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		
Step2 : In t Device" form Virtual Channe Virtual C	the "Device Lis , type Virtual Driver Li MailNoti VirtualC el el el Number 3 Vir al Channels are operat al channel value.	st" select VirtualChar Channel Number (up st fier hannel tual Channels	nnel, and th to 256 cha Device List	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		
Step2 : In t Device" form Virtual Channe Virtual C	the "Device Lis , type Virtual Driver Lie MailNoti VirtualC el el el Number 3 Vir al Channels are operat al channel value. xample: (AI_2 + AI_3) / 2 AI_4 ^ 2 * 100 e operators	st" select VirtualChar Channel Number (up st fier hannel tual Channels	nnel, and th to 256 cha Device List	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		
Step2 : In t Device" form Virtual Channe Virtual C	the "Device Lis , type Virtual Driver Lie MailNoti VirtualC el el el Number 3 Vir al Channels are operat al channel value. xample: (AI_2 + AI_3) / 2 AI_4 ^ 2 * 100 e operators	st" select VirtualChar Channel Number (up st fier hannel tual Channels	nnel, and th to 256 cha Device List	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		
Step2 : In t Device" form Virtual Channe Virtual C	the "Device Lis , type Virtual Driver Lie MailNoti VirtualC el el el Number 3 Vir al Channels are operat al channel value. xample: (AI_2 + AI_3) / 2 AI_4 ^ 2 * 100 e operators	st" select VirtualChar Channel Number (up st fier hannel tual Channels	to operate the	en click <b>Moc</b> annels). Ther	lify buttor	$\rightarrow$ In the		

Channel	ect one virtua	ai channei,			ing button.		
	Al List		List	DI Li	st	DO Lis	t
Co	unter List	Free	q List	Virtual C	hannel	Control L	ogic
Cc	intact List	Web (	Camera	]			
	Operati	on Demo			Descriptio	on	
	(AI3 + Abs	D + 1 AI4) / 2 (AI5) nd DO5	Demo	Up count timer Average Absolute Value I Boolean operato			
Nickname	Tag	Location	Init Value		Operation	De	scription
VC0	VC0	VC0	0		VC0 * 1		VCO
VC1 VC2	VC1 VC2	VC1 VC2	0		VC1 * 1 VC2 * 1		VC1 VC2
						0	Modify Add>>
-		-		-	channel→ Se component s		

VC0 Nickname Tag Description	Counter1 Counter_1 Counter	Virtual Channel Init Value 0 Counter_1= Counter_1 + 1
Component Style TextBox Angular_Circle_Go Angular_Circle_Go Angular_Square_B Angular_Square_G	en.ini lue.ini	123.456 Modify Cancel
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# Step5: The setting result of the selected virtual channel is as below picture $\downarrow$

Channel List			
Al 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
Counterl	Counter_1	VCO	0	Counter_1 + 1	Counter
VC1	VC1	VC1	0	VC1 * 1	VC1
VC2	VC2	VC2	0	VC2 * 1	VC2

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# 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 $\rightarrow$  Select **DCON** driver and set its properties $\rightarrow$  Click the **Install** button.

Driver List	💋 Device			Work Group Workgroup Workgroup	
MailNotifier VirtualChannel	Virtual	Channel		Workgrout Workgrout	52 53
	Modify Delete	Add	/lodify Delete		
Channel List	📮 Driver				×
Counter List	Driver Mode DCON	Device List	:		
Contact List	Time Out (ms) 200				
Operation VC0 +					
(AI3 + AI Abs(A	Baddrate 115200	•			
DO4 And	Checksum Disable				
Nickname Tag					
Counterl Counter_1 VC1 VC1					
VC2 VC2					
	Modify	stall Search	+Device	Close	Help

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**Step3** : Click the **+Device** button to open the "Device" setting form $\rightarrow$  After select the matching controller and module, click the **Add** button.

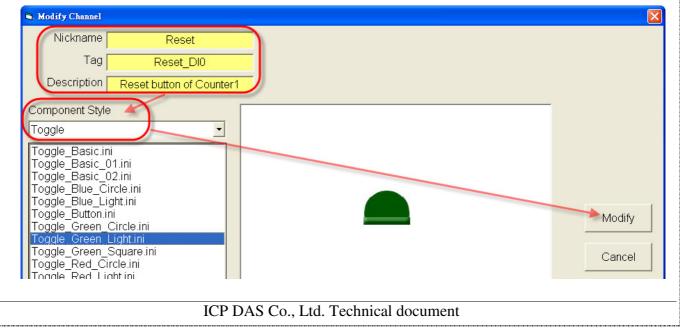
Driver	X
Driver Mode DCON	Device List
Time Out (ms) 200	
COM Port 1	
BaudRate 115200	
Checksum Disable	
Modify Install	Search (+Device) Close Help
<ul> <li>7K</li> <li>87K on 87K4/87K</li> <li>8K on 8431/8831</li> <li>PDS-700</li> <li>Module</li> <li>87054</li> </ul>	Kon 8431/8831 © 87K on XP-8000      Nickname     I87054
Address Slot Al Num AO Num E	DI Num DO Num Counter Num Frequency Num 8 8 0 0
8*DI + 8*DO	
Note:Please set the data format to "E	Engineering" by DCON Utiity before connection.
	<

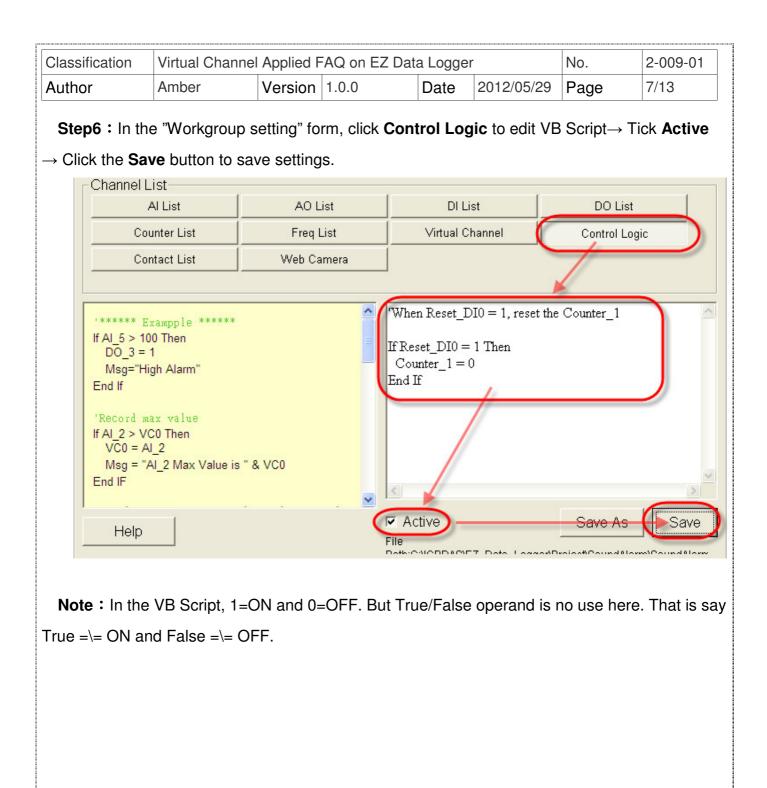
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**Step4**: Select the DI channel which connects with a physical button and the click the **Mofify** button to open its setting channel.

Channel Lis	t					
	List	AO List	DI List	DO List		
Count	er List	Freq List	Virtual Channel	Control Logic		
		Web Camera				
Nielmene	Taq	Location	Descri			
Nickname			Descri			
87054 DI 0	187054_DI_0		187054_			
I87054_DI_1	187054_DI_1		187054_			
187054_DI_2	I87054_DI_2		187054_			
187054_DI_3	187054_DI_3		187054_			
187054_DI_4	187054_DI_4		187054_DI_4			
187054_DI_5	187054_DI_5	5 187054 Ch5	187054_	_DI_5		
187054_DI_6	187054_DI_8	6 - 187054 Ch6	187054_	_DI_6		
187054_DI_7	187054_DI_7	7 187054 Ch7	187054_	_DI_7		
				G Modify Add>>		

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



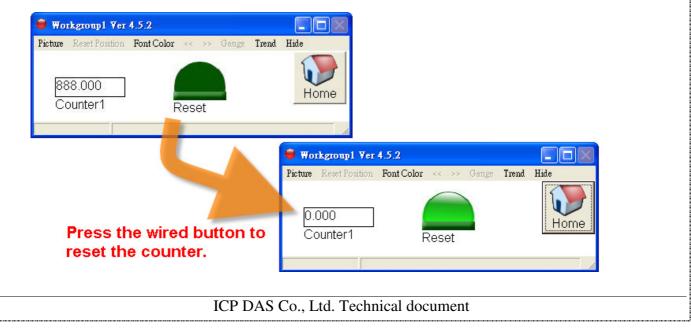


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**Step7**: In the "Workgroup Setting" form, select the VC and DI channels that have been set and add them into Workgrou1, and then click the **Home** button to back the main form to execute the project.

Workgroup Setting				
🕕 Driver List		🥑 Device List		Work Group Workgroup1 Add
DCON COM1 MailNotifier VirtualChannel		VirtualChannel I87054		Workgroup2 Workgroup3
				Property
Insta	all Modify Delete		Add Modify Delete	Reset
Channel List		-		Al Channels
Al List	AO List	DI List	DO List	AO Channels
Counter List	Freq List	Virtual Channel	Control Logic	DI Channels
Contact List	Web Camera			Counter Channels
		•		Freq Channels
Nickname Tag	Location	Description		
Reset Reset DIO	187054 Ch0	Reset button of Counter	art	Webcam Browsers
187054 DI 1 87054 DI 1	187054 Ch1	187054 DI 1		Webcalli Diowseis
187054 DI 2 87054 DI 2	187054 Ch2	187054 DI 2		
187054 DI 3 87054 DI 3	187054 Ch3	187054 DI 3		
187054 DI 4 87054 DI 4	187054 Ch4	187054 DI 4		
187054 DI 5 87054 DI 5	187054 Ch5	187054 DI 5		
187054 DI 6 87054 DI 6	187054 Ch6	187054 DI 6		
187054 DI 7 87054 DI 7	187054 Ch7	187054 DI 7		
			Modify	Co Home

Step8 : Click Layout to show the execution state like the below picture  $\downarrow$ 



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### 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.

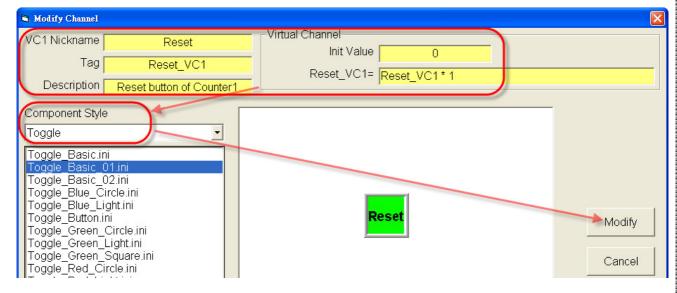
🌇 EZ Data Lo	ogger Basic E	dition ¥4.5.	2 2012/03/30	2 hours trial	C:\ICPDAS	EZ_Data_Log	ger\Project\M
Project Execut	e User Setup	Help			$\frown$		
				$\approx$			2
Start	Simulation	Pause	Record	System Config	Group Setup	Open Database	Exit

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

	List	AO I	_ist	DI List	DO List
Coun	nter List	Freq	List	Virtual Channel	Control Logic
Cont	act List	Web Ca	amera		
	Operat	ion Demo		Descri	ption
		20 + 1		p count timer	
		+ AI4) / 2 s(AI5)		Average Absolute Value Function	
		And DO5		Boolean operator	
lickname	Tag	Location	Init Value	Operation	Description
Counterl	Counter 1	VC0	0	Counter 1+1	Counter
UC1	VC1	VC1	0	VC1 * 1	VC1
VC1 VC2	VC2	VC2	-	VC2 * 1	VC2
				VC2 * 1	VC2
				VC2 * 1	
			U	VC2 * 1	6 Modify
				VC2 * 1	6 Modify
			U	VC2 * 1	6 Modify
			U	VC2 * 1	6 Modify
				VC2 * 1	6 Modify
			U	VC2 * 1	6 Modify
				VC2 * 1	6 Modify

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**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

 $\rightarrow$  Click the **Save** button to save settings.

-Channel List Al List	AO List	DI List	DO List
Counter List	Freq List	Virtual Channel	Control Logic
Contact List	Web Camera		
			×
<pre>'***** Exampple ***** If AL_5 &gt; 100 Then DO_3 = 1 Msg="High Alarm" End If 'Record max value If AL_2 &gt; VC0 Then VC0 = AL_2</pre>		When Reset_VC1 = 1, re If Reset_VC1 = 1 Then Counter_1 = 0 End If	eset the Counter_1
Msg = "AI_2 Max Value is End IF Help		Active	Save As Save
	1=ON and 0=OFF.	But True/False operan	nd is no use here. That is s

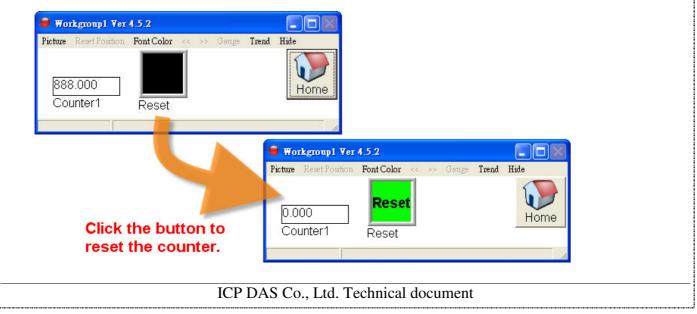
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**Step5**: In the "Workgroup Setting" form, select the VC channels that have been set and add them into Workgrou1, and then click the **Home** button to back the main form to execute the project.

orkgroup Setting					Week Onese	
Deiverliet			🤗 Device List		Work Group	
Driver List			👩 Device List		Workgroup1	Add
MailNotifier			VirtualChannel		Workgroup2 —	
VirtualChannel					Workgroup3	)elete
					Pr	oper
						Rese
	Install Modify	Delete		Add Modify Delete		tese
Channel List	Instan Infoany			Add Wodily Delete		
Al List	A01	List	DI List	DO List	Al Channels	
					DI Channels	
Counter List	Freq	List	Virtual Channel	Control Logic	DO Channels	
Contact List	Web Ca	amera			Counter Channels	
			1		Freq Channels	
					Virtual Channels	
0	peration Demo VC0 + 1		Des Up count timer	scription	Webcam Browsers	
(4	AI3 + AI4) / 2		Average			
	Abs(AI5)		Absolute Value Function			
D	104 And DO5		Boolean operator			
		T 11 TT 4				
Nickname Tag Counter Counter	Location	Init Value		Description		
Nickname Tag Counter1 Counter Reset Reset_V	_1 VC0	Init Value 0 0	Operation Counter_1 + 1 Reset_VC1 * 1	Description Counter Reset button of Counter1	5	

Step6 : Click Layout to show the execution state like the below picture  $\downarrow$ 



		nel Applied F				No.	2-009-0-
uthor	Amber	Version	1.0.0	Date	2012/05/29	Page	12/13
llse the "	Control Logi	c" to reset	the coun	ter at a na	rticular time		
03e tile							
Step1 : Ope	en <b>EZ Data L</b> o	ogger, and t	hen from	the button	list click the	Group Se	tup button
🙀 EZ Data	Logger Basic Ed	ition ¥4.5.2 20	12/03/30 2	hours trial (		Data_Logger	(Project\M)
Project Exec	ute User Setup	Help			_		
				22			
Start	Simulation	Pause	Record S		roup Setup	Databasa	Exit
51011	Sindadon	1.0.035	Necota N	VSIEILI COULIS	Tout setup oper		EAR
Step2:In th	e "Workgrou	o settina" for	m. click <b>(</b>	Control Loo	<b>aic</b> to edit VI	3 Script→	Tick Activ
-	-				<b>J</b> • • • • • • • •		
	ve button to	save setting	5.				
Channel L	1		. 1		. 1		. 1
	Al List	AO Lis	t	DI Li:	st	DO Lis	st
Cou	inter List	Freq Lis	st	Virtual Cł	nannel	Control Logic	
Cor	tact List	Web Carr	hera			1	
						0	
****** E	ampple *****			Keset Counter_	1 at 8:00:00 am		
If AI_5 > 10 DO_3 = 1			B	fiHour=8 And	iMinute=0 And	iSecond=07	Then
Msg="Hig				$Counter_1 = 0$	)		
End If	,		F	ind If			
					/		
'Record ma							
If AI_2 > VC VC0 = AI	2						
If AI_2 > VC VC0 = AI	_2 I_2 Max Value is	" & VC0					
If AI_2 > VC VC0 = AI	- 20 Alternative - 2020/2020 - 2020	" & VC0					>
If AI_2 > VC VC0 = AI Msg = "A	- 20 Alternative - 2020/2020 - 2020	" & VC0					>
If AI_2 > VC VC0 = AI Msg = "A	- 20 Alternative - 2020/2020 - 2020	" & VC0		Active		Save As	Save

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	Step3: In the "Workgroup Setting" form, select the VC channel that have been set and add it								
into \	Norkgrou1,	and then click	the Hom	e button to ba	ack the r	main form to	execute the	e project.	
	Workgroup Setting								
	~		~				-Work Group		

Driver List     Device List     Work Group       MailNotifier     VirtualChannel     Workgroup2       Workgroup3     Workgroup3	
MailNotifier VirtualChannel Workgroup1 Workgroup2	
	Add
VirtualChannel	
	Delete
	Property
	Reset
Install Modify Delete Add Modify Delete	
Channel List	
Al List AO List DI List DO List — AO Channels — DI Channels	
Counter List Freq List Virtual Channel Control Logic DO Channels	
Contact List Web Camera Counter Channe	els
Freq Channels	_
Operation Demo Description Description	
VC0+1 Up count timer	
(AI3 + AI4) / 2 Average	
Abs(AL5) Absolute Value Function	
DO4 And DO5 Boolean operator	
Nickname Tag Location Init Value Operation Description	
Nickname Tag Location Init Value Operation Description Counter_1 VCO 0 Counter_1 + 1 Counter	
Nickname         Tag         Location         Init Value         Operation         Description           Counter1         Counter_1         VC0         0         Counter_1 + 1         Counter           VC1         VC1         U         VC1 + 1         VC1	
Nickname         Tag         Location         Init Value         Operation         Description           Counter1         Counter_1         VC0         0         Counter_1 + 1         Counter	
Nickname         Tag         Location         Init Value         Operation         Description           Counter1         Counter_1         VC0         0         Counter_1 + 1         Counter           VC1         VC1         U         VC1 + 1         VC1	
Nickname         Tag         Location         Init Value         Operation         Description           Counter1         Counter_1         VC0         0         Counter_1 + 1         Counter           VC1         VC1         U         VC1 + 1         VC1	
Nickname         Tag         Location         Init Value         Operation         Description           Counter_1         Counter_1         VC0         0         Counter_1 + 1         Counter           VC1         VC1         U         VC1 * 1         VC1           VC2         VC2         VC2         0         VC2 * 1         VC2	
Nickname         Tag         Location         Init Value         Operation         Description           Counter1         Counter_1         VC0         0         Counter_1 + 1         Counter           VC1         VC1         0         VC1 * 1         VC1	