URVISION CO., LTD All Rights Reserved. Icore IP-2P2S-50A 閃頻控制器設定入門

Chapter 1 接線方式





Chap1-2 銜接 RS232 以電腦修改控制器設定

- 1. 連接電腦 RS-232 至 Icore 控制器 RS-232 Port,注意 RS-232 線材 TX/RX 需要跳線
- 2. 設定電腦 COM Port 為 115200/8/無/1/無
- 3. 按 Chap 2-1 連線 iPulse Configurator,以電腦修改控制器設定



baud Rate	: 115200 bps(Selectable	9600, 38400)
Data Bit	: 8 bit	
Parity Bit	: No Parity	
Stop bit	: 1 stop bit	
Flow control	: None	
CRC Check	: Yes	
Cable Length	: < 100 meter (@baud rat	e 115200)



Chap1-3 銜接 LED 燈頭

- 1. 如圖1,先關閉LED供電。勾選LED1 & 2,設定50%輸出,依LED規格設定額定電流 (Rated Current)以保護LED
- 2. 如圖2,安裝 LED 燈頭至 CH1 及 CH2
- 3. 如圖3,將Sequence Mode切換到OFF,將Operation切換到Continuous點亮LED
- 4. 如圖3,LED點燈亮起後,按下View LED Status按鈕,查看電壓電流是否正常





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Description

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Туре

Input

Input

VIEWORKS

Camera Link 1

Camera Link 2

Chap1-4-2 銜接 相機連動光源觸發電路 以 Vieworks 相機 4-pin Strobe Out 接頭為例,用於相機曝光時觸發光源 相機連動光測 外部裝置觸發相機曝光請透過 Camera Link 或 CXP 影像卡,本篇不再敘述 1. 4 1

- 相機曝光時要連動觸發光源控制器,請接相機 Pin3/Pin4 2.
 - 如標準電路圖A,相機 Pin4 為 Strobe Out, Pin3 為接地
 - Icore 光源控制器之光耦合觸發電路接法如圖 B ٠
 - 將 Pin4 接到 Digital IO 的 In+ •
 - 將 Pin3 接到 Digital IO 的 In-
 - 如圖C,更改 iPulse Configurator 設定
 - 將 Trigger Input 改為 Digital IO,讓控制器接收外部訊號
 - Trigger Output 為預設值的 LED Output Sync 即可,不用接線 ٠

Pin4

Pin3

Pin Number

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Trigger Input(0x301) Trigger Output(0x303) C Internal(0) EED Output Sync.(0) Digital IO(1)
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 C Trigger Input(1) C RJ45(2) C Error Event Signal(2) C SoftTrigger(3) Send C Low(3) Channel Port(4) C High(4) C Bypass(5)



圖A

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Signal

Trigger Input +

Trigger Input -

圖C

Chapter 2 設定

iPulse Configurator

8

Chap2-1 連線 iPulse Configurator

- 1. 先按 Chap1-2 連接 RS-232
- 2. 執行 iPulse Configurator(xxxx).exe 工具程式
- 3. 如圖1,按 Search 按鈕,程式會自動搜尋,搜尋成功後會顯示 "COM# Detected" COM5 Detected 🔽 Search
- 4. 如圖2,在 "COM# Detected" 情況下,按 Port Open 按鈕,下方會彈出 Icore 控制器型號,滑鼠雙擊該型號
- 5. 如圖3,成功連線 Icore 控制器

	iPulse Configurator Ver1.1.12 X File View About COMS-Detected Search Port Open Port Close	iPulse Configurator Ver1.1.12 × File View About COM5 - Detected ▼ Search Port Open Port Close	lan - n Model - 2000 ma
IPulse Configurator(Ver1.1.12).exe	ID List : 0 Device Boud Rate : 115200 Refresh	ID List : 1 Device Detected Boud Rate : 115200 Refresh SID Model S/N OP Mode SW Ver. IsID0 2P2S-50A 002000 PULSE(2) v1.17	File Operation View Function Help Size Addet(0):2001; 0 2 Card Prameter Stere Amander Refer Www.Concorp.com Concorp.com Concorp.com
V			Mickie Stylbreis Grand Hammer V LED: 100 % 000 % 000 mA SS2_Jedes (0.038) (-2) V LED: 100 % 000 mA SS2_Jedes (0.038) (-2) For 2000 A V LED: 100 % 000 mA SS2_Jedes (0.038) (-2) For 2000 A V LED: 100 % 000 mA SS2_Jedes (0.038) (-2) For 2000 A V LED: % % mA SS2_Jedes (0.038) (-2) For 2000 A V LED: % % mA SS2_Jedes (0.038) (-2) For 2000 A Traing Setting Trainger Compthicable mark SS2_Jedes (0.038) (-2) For 2000 A Trainger Compthicable (-100 Count for cold) (-100 Count for cold) -100 Count for cold (-100 F) -100 Count for cold (-100 F) Trainger Compthicable (-100 Count for cold) (-100 Count for cold (-100 F) -100 Count for cold (-100 F) Trainger Count for cold (-100 F) (-100 Count for cold (-100 F) -100 Count for cold (-100 F) -100 Count for cold (-100 F) Trainger Count for cold (-100 F) (-100 Count for cold (-100 F) -100 Count for cold (-100 F) -100 Coun
	圖1	圖2	(*Neutrum Freq.: 200.01H2)
	High Accuracy High Speed High Stability innovation to the Core High Accuracy LED Controller	High Accuracy High Speed High Stability innovation to the Core High Accuracy LED Controller	

Chap2-2 iPulse Configurator 選項說明 (1/4)

= 0 , Model = 21 • Operation	P2S-50A View Funcion	Help						
ave Address(0x200); 0 ?	?	1 Load Parameter	Save Parameter	Refresh	www.iCoreC	orp.com	icore
Operation(0x300) - OFF(0) Continuous(1) Pulse(2) 2	Trigger Input(0x: Internal(0) Digital IO(1) RJ45(2) SoftTrigger(3 Channel Port	301) 4) <u>Senc</u> (4)	Trigger Activation(0 Rising edge(0) Falling edge(1) Sequence Mode(0x: GOFF(0) C Sequence(1)	x302) Sequence 5 305) SEQ_0 SEQ_1 SEQ_1 SEQ_1	Setting 9 Start (0x306): iount (0x307): dex0 (0x380): dex1 (0x381):		Auto Vo Auto Vo LPF Moc Trigger Sequence TimeOi	Innovation to the Cor Itage Adjustment(0x307) Ie(0x308) Output Inverter(0x304) the Auto Reset ut : 1000 ms
rightness Setting - LED Con Enable Brigh ✓ LED1 ✓ LED2 ↓ LED3 ↓ LED4	tinuous Pulse htness Brightnes 100 % 100 100 % 100 % %	s C % [% [% [Lated urrent 100 mA 100 mA mA mA	SEQ_In SEQ_In SEQ_In SEQ_In SEQ_In SEQ_In	dex2 (0x382): dex3 (0x383): dex4 (0x384): dex5 (0x385): dex6 (0x386): dex7 (0x387):	4 8 1 2 4 8	For 2P2P-2	am Clear(0x309) 2004 J/OFF can(OverDrving Enable)
iming Setting Duration(Period(Trigger Delay(Maximum Voltage(Multi Trigger(0x310): 5000.0 0x312): 10000.0 0x314): 100.0 0x316): 24 0x318): 1	us us us	Trigger Output(0x303) C LED Output Sync. (C C Trigger Input(1) C Error Event Signal(2 C Low(3) G High(4) Bypass(5)	2) Read Only Trigger_ Error_ AlramC Sequence Perior	Parameter Count(0x100) : Count(0x102) : lode(0x104): Index(0x106) : d Limit(0x108) :	1 0x00000000 1 5000.00	Reset Reset Reset us	View LED Status

- 1. 快速參數儲存/載入功能
 - Load Parameter:將控制器內的參數讀到畫面上
 - Save Parameter:將畫面上的參數儲存到控制器
 - 4 設定: 與控制器交握, 並重新整理設定畫面資訊

主要操作模式

2.

3.

- **OFF**: 關閉所有 LED 燈光
- Continuous: 恆亮模式
- Pulse: 閃頻模式

LED 亮度及電流設定

- [V]: 可個別勾選或停用 LED 通道 (CH1, CH2, ...)
- Continuous Brightness: 設定恆亮模式時的亮度 (0~100%)
- Pulse Brightness: 設定閃頻模式時的亮度 (0~1000%)

• Rated Current: 設定額定電流,為保護 LED 請依照實際規格設定

4. 觸發輸入設定

• Internal: 使用內部時序,不使用外部觸發

Digital IO: 外部觸發由 Digital IO 接腳提供





- **RJ45**: 外部觸發由 RS-485 接腳提供
- SoftTrigger:由使用者按下 [Send] 命令模擬外部觸發,
- Channel Port: 僅 IP-2P2S-200A 支援此功能

Chap2-2 iPulse Configurator 選項說明 (2/4)

= 0 , Model = 2 e Operation	P2S-50A View Funcion Help				
lave Address(0x20	0): 0 ? ?	1 Load Parameter Save	Parameter Refresh		P
Operation(0x300) OFF(0) Continuous(1) Pulse(2) 2	Trigger Input(0x301) Tinternal(0) Digital IO(1) RJ45(2) SoftTrigger(3) Channel Port(4)	Trigger Activation(0x302) Rising edge(0) 5 Falling edge(1) 5 Sequence Mode(0x305) G OFF(0) C Sequence(1) 6	Sequence Setting 9 SEQ_Start (0x306): SEQ_Count (0x307): SEQ_Index0 (0x380): SEQ_Index1 (0x381):	innevation to th innevation	14)
rightness Setting LED Cor Enable Brig ✓ LED1 ✓ LED2 ✓ LED3 ✓ LED4 ✓ LED4	ntinuous Pulse htness Brightness 100 % 100 % 100 % 100 % 100 % 00 % % %	Rated Current 100 mA 100 mA mA mA	SEQ_Index2 (0x382): SEQ_Index3 (0x383): SEQ_Index4 (0x384): SEQ_Index5 (0x385): SEQ_Index5 (0x386): SEQ_Index7 (0x387):	Auto Alram Clear(0x309) Auto Alram Clear(0x309) For 2P2P-200A Fan ON/OFF AreaScan(OverDrving Enab 8	le)
iming Setting Durationi Period Trigger Delayi Maximum Voltagel Multi Trigger	(0x310): 5000.0 us (0x312): 10000.0 us (0x314): 100.0 us (0x316): 24 V (0x318): 1	Trigger Output(0x303) C LED Output Sync.(0) C Trigger Input(1) C Error Event Signal(2) C Low(3) G High(4) Bypass(5)	Read Only Parameter Trigger_Count(0x100) : Error_Count(0x102) : AlramCode(0x104): SequenceIndex(0x106) : Period Limit(0x108) :	Auto Refresh(View LED Statu O Reset O Reset O Reset I Reset I Reset I Reset O Reset I Reset O Reset I Concolous Concol	0.5s) s

- 5. 外部觸發機制
 - Rising Edge: 外部觸發電壓上升時可觸發點燈
 - Falling Edge: 外部觸發電壓下降時可觸發點燈
 - 輪流點燈模式
 - OFF: 停用輪流點燈模式
 - Sequence: 啟用輪流點燈模式,參考項目8設定輪流方式
- 7. 時序設定

6.

8.

- Duration: 閃頻模式時,設定點燈持續時間 (1~5000 us)。Pulse Brightness 超過 100%時,最大持續時間會降低,例如 1000%只能用 100 us。
- Period: 閃頻模式時,如果4設定為 Internal,會以此處間隔時間進行閃燈。
- Trigger Delay: 收到外部觸發後,多久時間才引發點燈觸發事件,用於微調實際 點燈時間與曝光的同步。
- Maximum Voltage: 設定範圍為 3V~ 電源供應器的最大電壓 (24V or 48V)
- Multi Trigger: 4 設定使用外部觸發時 (非 Internal),被觸發一次可引發多次觸發 事件。例如 2 設定為 Pulse,4 設定為 Digital IO,Multi Trigger 設定為 2,則收到 一次外部觸發後,先閃燈一次,再間隔 Period 時間後閃第二次,依此類推。

腳位輸出設定

- LED Output Sync: LED 點亮的時候輸出 ON, 熄滅輸出 OFF
- Trigger Input:項目4輸入甚麼則直接複製過來
- Error Event Signal: 如果項目 11 的觸發 Error Count 有值則輸出 ON
- Low: 輸出 OFF (0V)
- High: 輸出 ON (5V)

Chap2-2 iPulse Configurator 選項說明 (3/4)

D = 0 , Model = 2F ile Operation \	P2S-50A √iew Fur	ncion Help						×
Slave Address(0x200)) : 0	? ?	Load Parameter Save	Parameter	Refresh	www.iCoreC	orp.com	icore
Operation(0x300) Trigger Input(0x301) Trigger Activa © OFF(0) C Internal(0) 4 C Rising edg C Construction(1) C District In(1)			Trigger Activation(0x302)	igger Activation(0x302) Sequence Setting 9 Rising edge(0) 5 Falling edge(1) 5 equence Mode(0x305) SEQ_Count (0x307): OFF(0) 5		0	innovation to the Core	
Continuous(1) C Digital IO(1) Pulse(2) RJ45(2) C SoftTrigger(3) Send		Sequence Mode(0x305) • OFF(0) C Sequence(1)	2			LPF Mode(0x308) Trigger Output Inverter(0x304) Sequence Auto Reset		
Brightness Setting -	C Chan	nel Port(4)		SEQ_In SEQ_In	dex1 (0x381): dex2 (0x382):	2	TimeOu	u t: 1000 ms am Clear(0x309)
LED Cont Enable Brigh	tinuous P Itness B 100 %	ulse R rightness C 100 %	urrent 100 mA 3	SEQ_In SEQ_In	dex3 (0x383): dex4 (0x384):	8	For 2P2P-2	I/OFF
LED2	100 %	100 %	100 mA mA	SEQ_In SEQ_In SEO In	dex5 (0x385): dex6 (0x386): dex7 (0x387):	2 4 8	F AreaS	san(OverDrving Enable)
Timing Setting	76	%	Trigger Output(0x303)	-Read Only	Parameter			Auto Refresh(0.5s)
7 Duration(0 Period(0	0x310): 0x312):	5000.0 us 10000.0 us	C LED Output Sync.(0) Trigger Input(1)	Trigger_	Count(0x100) : Count(0x102) :	1	Reset Reset	View LED Status
Trigger Delay(C Maximum Voltage(C Multi Trigger(C	0x314):	100.0 us	C Low(3) (• High(4) 8	AlramC Sequence Period	ode(0x104): Index(0x106) : d Limit(0x108) :	0x00000000 1 5000.00	Reset Reset us	11
			, bypass(5)		(= Maximum Fre	eq. : 200.00	Hz)

9. 輪流點燈細部設定 (只有項目 6 啟用才有作用)

- SEQ_Start: 指定由哪個 index 開始輪,預設為0。如果是 Pulse 模式,則等待觸發生效才點亮該 index;如果是 Continuous 模式,則馬上先點亮該 index,再等 觸發生效後立即跳入下一個 index。
- SEQ_Count: 指定總共要幾個 index 輪流,如設 2,則會啟用 SEQ_Index0 及 SEQ_Inde1
- SEQ_Index#: 設定該組 index 要點燈的 bit 值,決定要點哪盞燈。設定參考下表,如果設 0 表示通通都不點亮,如果設 2 表示要點亮 CH2,如果設 3 表示 CH1+CH2 一起點亮。

想	SEQ_Index#			
CH4	CH3	CH2	CH1	應輸入的 bit 值
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	1	0	0	4
1	0	0	0	8
1	1	1	1	15

Chap2-2 iPulse Configurator 選項說明 (4/4)

ID = 0 , Model = 21 File Operation	2S-50A √iew Funcion	Help					×
Slave Address(0x200); 0 ?	?	Load Parameter Save	Parameter Refresh	www.iCoreC iCoreAll@ico	orp.com recorp.com	icore
Operation(0x300) OFF(0) Continuous(1) Pulse(2)	Trigger Input(Internal(0) Digital IO(1 RJ45(2) SoftTrigger)x301) — () (3) <u>Se</u>	Trigger Activation(0x302) C Rising edge(0) 5 C Falling edge(1) 5 Sequence Mode(0x305) C OFF(0) 6	Sequence Setting 9 SEQ_Start (0x306): SEQ_Count (0x307):		Auto Vo	innovation to the Core oltage Adjustment(0x307) de(0x308) Output Inverter(0x304) toe Auto Reset
-Brightness Setting	C Channel Po	rt(4)		SEQ_Index0 (0x380): SEQ_Index1 (0x381):	2	TimeC	Dut: 1000 ms
LED Con Enable Brigh	tinuous Pulse htness Brightn	ess	Current	SEQ_Index3 (0x382): SEQ_Index3 (0x383): SEQ_Index4 (0x384):	8	For 2P2P-	200A
	100 % 10 %	00 %	100 mA	SEQ_Index5 (0x385): SEQ_Index6 (0x386):	2	Areas	Scan(OverDrving Enable)
	%	%	mA	SEQ_Index7 (0x387):	8		Auto Refresh(0.5s)
7 Duration(0x310): 500	0.0 us	C LED Output Sync.(0)	Trigger_Count(0x100) : Error Count(0x102) :	1	Reset Reset	View LED Status
Trigger Delay(0x314): 10	0.0 us	C Error Event Signal(2) Low(3)	AlramCode(0x104):	0x00000000	Reset	11
Multi Trigger(()x318):	1	← High(4) 8 ← Bypass(5)	Period Limit(0x108) :	5000.00 (= Maximum Fre	us eq. : 200.00) Hz)

| 10. 全域設定

- Auto Voltage Adjustment: 是否啟用電壓自動微調
- LPF Mode: 是否啟用外部觸發高頻雜訊過濾功能
- Trigger Output Inverter: 將項目 8 的觸發輸出反相。
- Sequence Auto Reset: 啟用項目 6 輪流模式的時候,若等待切換輪流 index 的觸發時間過久 (超過 TimeOut 設定的 ms 時間),則自動將 index 恢復到 SEQ_Start 所設定的值,重新輪流。

11. 控制器狀態

- Trigger Count:目前成功引發的觸發事件統計總數
- Error Count: 不合規範的觸發事件統計總數
- AlarmCode: 0x00000 表示正常,其餘為有異常,請見下表
- SequenceIndex: 根據項目 6、9 的設定, 監測目前輪流到的 index
- Period Limit: 根據項目 7 Duration 幫你換算最小的 Period 可以設到多少 us (最大的頻率可以到多少 Hz)

Alarm mask	Description	조치 사항
0X0002	PCB Temperature 70도 이상	When it is used at high temperature or generates heat out of overloading, the PCB temperature may increase. It is recommended to attach the case on a structure that radiates heat well.
0X0008	FPGA Register Check Error	 In the event that FPGA communication errors occur after FPGA upgrading, the upgrading process needs to be retried.
0X0010	Flash Memory Check Error	 When this symptom occurs, consult with the manufacturer.
0X0020	Power Range Over	An alarm is issued when the LED output exceeds the output setting.
0X0040	LED Short Circuit	-, An alarm is issued when there is a short in the LED wire or when the LED + operation voltage is lower than 2V. Remove the LED wire and check the symptoms.
0X0100	LED1 Not Connected	An alarm is issued when there is no load on the LED
0X0200	LED2 Not Connected	output. Check the LED polarity and connection status.
0X0400	LED3 Not Connected	When the LED voltage exceeds the rated operation
0X0800	LED4 Not Connected	voltage, the LED does not work with the operation voltage increasing to the peak.

Chapter 3 庭用 以 IP-2P2S-50A 搭配 GigE Vision Area 相機為例



URVISION Chap3-1 來料觸發或固定間隔觸發相機移動中飛拍並閃燈



表A	相機設	值	
	Acquisition Mode		Continuous
	Acquisition Frame Count		1
	Trigger – Acquisition Start	Trigger Mode	Off
		Trigger Source	х
		Trigger Activation	x
	Trigger – Frame Start	Trigger Mode	On
		Trigger Source	Line1
		Trigger Activation	RisingEdge
	Digital IO Control	Line Selector	Line0
		Line Mode	Output
		Line Inverter	False
		Line Source	ExposureActive
		User Ouput Selector	UserOutput0

1. 應用:來料觸發或以固定間隔觸發相機移動中飛拍並閃燈

- 若是來料感應觸發: 相機觸發 (圖A紅線路) 接至感應 sensor, 有料時須為 5V, 無料時須為 0V
- 若是固定間隔觸發: Encoder 接至編碼器計數卡或運動控制卡,再由卡片換算 Encoder A/B Counter 滿足移動間隔後,由卡片輸出 5V 觸發給相機 (圖A紅線路)
- 2. 接線方式:按照 Chap 1-3、1-4
- 3. 相機設定方式:參考表A,相機用**連續取像**模式,設定由Line1(如Chap1-4之Pin2)觸發FrameStart曝光,再由 ExpsureActive (開始曝光事件)觸發由Line0(如Chap1-4之Pin4)觸發光源控制器
- 4. 光控器設定方式:參考圖B
 - 使用 Pulse 模式,Trigger Input為 Digital IO,勾選要閃的 LED,Pulse Brightness 先用 100% 視情況調整
 - Trigger Activation 先查詢相機光觸發電壓,若觸發為高準位,請用Rising Edge;反之則用Falling Edge
 - 勾選要閃的LED,先設定Pulse Brightness為100%,視情況調整
 - 關閉Sequence為OFF
 - 調整 Duration、Trigger Delay時間,一邊觀察相機曝光畫面,直到閃燈亮起時間跟相機曝光同步最佳化

∃B	Operation(0x300) OFF(0) Continuous(1) Pulse(2)	C Int C Int C Dig C RJ C So C Ch	r Input(0x3 ternal(0) gital IO(1) 45(2) ftTrigger(3) annel Port(4	01) - F)	end	Trigger Activation(0x302) Rising edge(0) Falling edge(1) Sequence Mode(0x305) OFF(0) Sequence(1)			
	Brightness Setting	Brightness Setting							
	LED Cont Enable Brigh	tinuous tness	Pulse Brightness		Rated Current				
	I LED1	50 %	100	%	100	mA			
	LED2	50 %	100	%	100	mA			
	ED3	%		%		mA			
	LED4	%		%		mA			
	Timing Setting					gger Output(0x303)			
	Duration(0	x310):	5000.0	us	C	LED Output Sync. (0)			
	Period(0)x312):	500000.0	us	C	Trigger Input(1)			
	Trigger Delay(0)x314):	100.0	us	0	Error Event Signal(2)			
	Maximum Voltage(0	x316):	24	v		LOW(3) High(4)			
	Multi Trigger (0)x318):	1		0	Bypace(5)			

Chap3-2相機一個料連拍2張並輪流觸發2閃燈

	相機連動光控器	以0~5V	TTL觸發相機 1
₽- <u>-</u> 2	A 光控器觸發閃燈 2P2S-50A	相機	23
	扣機ӭ	告	
表A	Acquisition Mode		Multi Frame
	Acquisition Frame Count	2	
	Acquisition Frame Rate	先設 10 fps 看相機輸出訊號線路穩定度, 燈穩定可調快,若閃燈常失敗	
	Trigger – Acquisition Start	Trigger Mode	On

- .. 應用:相機一個料連拍2張並輪流觸發2閃燈
 - 若是來料感應觸發: 相機觸發 (圖A紅線路) 接至感應 sensor , 有料時須為 5V , 無料時須為 0V
 - 若用固定間隔觸發: Encoder 接至編碼器計數卡或運動控制卡,再由卡片換算 Encoder A/B Counter 滿足移動間隔後,由卡片 輸出 5V 觸發給相機 (圖A紅線路)
- 2. 接線方式:按照 Chap 1-3、1-4
- 3. 相機設定方式:參考表A,相機用MultiFrame取像模式,張數設2,設定由Line1(如Chap1-4之Pin2)觸發 AcquisitionStart後會引發2次曝光,再由ExpsureActive (開始曝光事件)觸發由Line0(如Chap1-4之Pin4)觸發光源控 制器。這樣一次Line1觸發2次曝光都會連動觸發閃燈。
- 4. 光控器設定方式:參考圖B
 - 使用 Pulse 模式,Trigger Input為 Digital IO,勾選要閃的 LED,Pulse Brightness 先用 100% 視情況調整
 - Trigger Activation 先查詢相機光觸發電壓,若觸發為高準位,請用Rising Edge;反之則用Falling Edge
 - 勾選2個要閃的LED,先設定Pulse Brightness為100%,視情況調整
 - 啟用Sequence為ON,SEQ_Start = 0,SEQ_Count = 2,第一次先閃 SEQ_Index0 = 1 (LED1),第二次再閃SEQ_Index = 2 (LED2)
 - 調整 Duration、Trigger Delay時間,一邊觀察相機曝光畫面,直到閃燈亮起時間跟相機曝光同步最佳化

quisition Frame Count		2	sID = 0, Model = 2P2S-50A
quisition Frame Rate		先設 10 fps 看相機輸出訊號線路穩定度,若觸發閃 燈穩定可調快,若閃燈常失敗則調慢	File Operation View Function Help Slave Address(0x200): 0 ? ? Load Parameter Save Parameter Refresh www.iCoreCorp.com iCoreAll@icorecorp.com iCoreAll@icorecorp.com
gger – Acquisition Start	Trigger Mode	On	C OFF(0) C Internal(0) C Rsing edge(0) SEQ_Start (0x306); 0 ✓ Auto Voltage Adjustment(0x307) C Continuous(1) G Digital IO(1) G Faling edge(1) SEQ_Start (0x307); Z ✓ LPP Mode(0x308)
	Trigger Source	Line1	Confrager (3) Send Confrager (3)
	Trigger Activation	RisingEdge	Brightness Setting SEQ_Index1(0x38); TmeOut: 1000 ms Brightness Setting SEQ_Index2(0x382); 4 □ Auto Aram Clear(0x309)
gger – Frame Start	Trigger Mode	Off	LED Continuous Pulse Rated SEQ_index3 (0x383); 8 Enable Brightness Brightness Current SEQ_index3 (0x383); 8 For 2929-200A
	Trigger Source	x	F LED2 50 % 100 % 100 mA F LED2 50 % 100 % 100 mA SEQ_Index5 (0x386): 2 Image: Fan ON/OFF Image: Fan ON/OFF
	Trigger Activation	x	I ED/3 78 96 mA I ED/4 % mA SEQ_Index7 (0x387): 8
gital IO Control	Line Selector	Line0	Timing Setting Trigger Output(0x303) Read Only Parameter I Addu Reirestito.337 Duration(0x310): 500.0 us C LED Output Sync.(0) Trigger_Count(0x100): 0
	Line Mode	Output	Period(0x312): 500000.0 us C Trigger Input(1) Error_Count(0x102): 0 Reset Trigger Delay(0x314): 100.0 us LaranCode(0x104): 0x0000000 Reset
	Line Inverter	False	Maximum Voltage(0x316); 24 V C Low(3) SequenceIndex(0x106); 0 Reset Multi Trionger(0x318); 1 C Period Limit(0x108); 5000.00 us
	Line Source	ExposureActive	(= Maximum Freq. : 200.00 Hz)
	User Ouput Selector	UserOutput0	

附錄 程式控制

程式控制 (1/3)

- 1. 先按 Chap1-2 銜接 RS232 並確認電腦可正常連接控制器
- 2. 查看控制器操作程式的 View -> Modbus Packet Monitor 可叫出指令監視器視窗



程式控制 (2/3)

3. 您在控制程式按的任何按鈕背後都有指令,並於監視器視窗立即顯示按過的指令

- 4. 指令送出後 (WRITE) · 控制器也會回應相同指令 (ACK) · 代表一個指令完成
- 5. 例如先下關燈、再下連續開燈,最後調整 LED1的亮度為 100%,會用到以下三個指令



程式控制 (3/3) – Sample Code



此為一種程式控制範例 (Adaptive Vision Studio 圖控式開發程式語言),實際請按您用的程式語言而定。

1. 設定控制器連線

NITIALIZE	0. SerialPort_Config +					
		Sh	ow/Hide Ports		inPort	
	inPortId	0	0			
	inPort	۲	COM4			
	inBaudRate	0	115200			
	inParity	0	None			
	inDataBits	0	8			
	inFlowControl	0	NoFlowControl			
	inStopBits	0	One			

2. 對控制器下達連續開燈 (Continuous) 指令

M:	acrofilter Inputs	准備指今碼		
Write_OFF = {0x00, 0: 0x9f}	x06, 0x03, 0x00, 0x00, 0			
Write_OFF				
1. Write	eToBuffer: Integer[]	<u>+</u>		
inBuffer	10100	inValue		
outBuffer[]				
2. Write	ToBuffer: BufferArray			
nSourceBuffers[]	10101			
putBuffer	IDent Micher Bufferst			
3. Seria	iPort_write: Burier			
nBuffer	other other		向 Serial Port 送出指令碼 (WRITE	
4. Seria	alPort Read: Buffer +			
outBuffer?			向 Serial Port 讀取回傳碼 (ACK)	
Ма	crofilter Outputs			
outBuffer	Ţ			
ennerneenneenneetheeenn	er an en	economicanee!		

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THANK U FOR Watching