## Presentation 之 Lumina 反應鍵設定 (單手四鍵、雙手二鍵)



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## 注意事項:

- 1. 此份文件以 notebook(windows 7)使用 Lumina 單手四鍵反應鍵為例。
- 2. 電腦系統不建議使用 windows 8。
- 3. 使用 Lumina 反應鍵前,請先安裝 rs232 to usb driver。
- 此份文件提供之設定僅供參考,請使用者務必至中心模擬磁振造影室做實際 測試。

## 設定步驟:

一、開啟 Lumina 反應盒電源, Mode 設定: ASCII / MEDx, Speed 設定: 9600 (for PC)。



二、將 KVM 之電腦調整至 notebook。



三、將 Lumina 輸出線及 presentation 的 dongle 接至 notebook 上。確認 Lumina 端的 port 亮綠燈。



四、至 notebook 的「控制台→硬體和音效→裝置和印表機」,找到接上 Lumina 輸出端的 USB 裝置(FT232R USB UART)。

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新増裝置 新増印表機					. 0
	Writer	WIP CZJJI PCE 0	2010		^
▲ 裝置 (3)					
AXQ B5MZWTMRW SCSI CdRom Device	USB Optical Mouse				
					H
UART Software Protection Device					-
10 個項目					

五、於 FT232R USB UART 圖示上,點按滑鼠右鍵,在「硬體」內確認 Port 名

稱:USB Serial Port (COM7)。

註:每台電腦找到的會不同。

FT232R USB	UART - 內容	×
一般 硬體		
FT23	2R USB UART	
装置功能:		
名稱		類型
📙 IISB Serial	Converter	通田库利匯
USB Serial	Port (COM7)	連接埠 (CO
装置功能摘到	<u>ج</u>	
製造商:	FTDI	
位置:	在 USB Serial Converter	
¥ 置狀態:	這個裝置操作正常。	
	確定	<b>取消</b> 套用(A)

六、點按「內容」,確認「連接埠設定」。

USB Serial Port (COM)	7) - 內容
一般 連接埠設定	驅動程式 詳細資料
	每秒傳輸位元(B): 9600 👻
	資料位元(D): 8
	同位檢查(P): 無
	停止位元(S): 1 ▼
	流量控制(F): 無
	進階(A) 還原成預設值(R)
	<u>  確定</u> 」  取消

七、開啟 Presentation,按「Setting」後,再按「Response」。

Experiment Editor Tools License Help Main Scenarios Parameters Settings Editor Demos History  * NCKU demo Logfile Directory: E:WCKUWRI_center/申謝控制程式\Presentation_DEMO Run Scenario Polder count.sce E:WCKUWRI_center/申謝控制程式\Presentation_DEMO fmri_chess_pulse.sce E:WCKUWRI_center/申謝控制程式\Presentation_DEMO fmri_tones_pulse.sce E:WCKUWRI_center/申謝控制程式\Presentation_DEMO fmri_tones_pulse.sce E:WCKUWRI_center/申謝控制程式\Presentation_DEMO
Main       Scenarios       Parameter:       Setting       Editor
► Demos     History     History     Folder     Cognie Directory: E·WCKUMRI_center/刺激控制程式Presentation_DEMO     Run     Scenario Folder     count sce E·WCKUMRI_center/刺激控制程式Presentation_DEMO     fmri_chess_pulse.sce E·WCKUMRI_center/刺激控制程式Presentation_DEMO     fmri_tones_pulse.sce E·WCKUMRI_center/刺激控制程式Presentation_DEMO
Logfile Directory:       E:WCKUUMRI_center/刺激控制程式Presentation_DEMO         Run         Scenario       Folder         count.sce       E:WCKUUMRI_center/刺激控制程式Presentation_DEMO         fmri_chess_pulse.sce       E:WCKUUMRI_center/刺激控制程式Presentation_DEMO         fmri_tones_pulse.sce       E:WCKUUMRI_center/刺激控制程式Presentation_DEMO         fmri_tones_pulse.sce       E:WCKUUMRI_center/刺激控制程式Presentation_DEMO
Run           Scenario         Folder           count see         E:WCKUWARI_center/刺激控制程式Vresentation_DEMO           fmri_chess_pulse.see         E:WCKUWARI_center/刺激控制程式Vresentation_DEMO           fmri_tones_pulse.see         E:WCKUWARI_center/刺激控制程式Vresentation_DEMO
Scenario         Folder           count.sce         E:WCKUWARI_center/刺激控制程式Presentation_DEMO           fmri_chess_pulse.sce         E:WCKUWARI_center/刺激控制程式Presentation_DEMO           fmri_tones_pulse.sce         E:WCKUWARI_center/刺激控制程式Presentation_DEMO
🌮 Presentation 📃 🖂
Experiment Editor Tools License Help
Main Scenarios Parameters Settings Editor
Scenarios Active Buttons
Veneral default # Button Name Device
3 F Standard PS/2 Keyboard
Response 4 S Standard PS/2 Keyboard Remove
5 Space Standard PS/2 Keyboard Clear
7 E Standard F5/2 Keyboard
Video 8 D Standard PS/2 Keyboard
9 F (up) Standard FS/2 Keyboard
Active Axis/Force Devices
Type Index Device Properties
mouse 1 滑鼠 Remove
Port Response Devices
Devices Buttons
Logides 課盤 評盤 評證
Standard FX/Z Keyboard Synaptics SYZ Port Compatible TouchPad
Image: FTP     Image: Im
FTP     Use Mouse     具 HD 功能的取用者控制裝置     按钮 2 (up)       FTP     Use Mouse     pointing device     按钮 3 (up)       Use Joystick     gameport device     按钮 3 (up)
FTP     Use Mouse     具 HD 功能的取用者控制裝置     按钮 2 (up)       FTP     Use Mouse     bound device     按钮 3 (up)       Use Joystick     Use Joystick     按钮 4 (up)
Image: State of the state
Image: State of the state
Image: State of the state
Image: State of the state

八、於「Devices」panel 空白處點按滑鼠右鍵→Add port device。

Presentation					
Experiment Editor Tools License Help					
Main Scenarios Parameters Settings Editor					
Scenarios			Active Buttons		
General default NBS Demo see	# Butte	n Name	Device	A	
	1 按鈕	0	滑鼠		
	2 按鈕	1	<b>滑鼠</b>	Test	
	3 F		Standard PS/2 Keyboard		
Response	4 S		Standard PS/2 Keyboard	Remove	
	5 Space	•	Standard PS/2 Keyboard	Clear	
	6 M		Standard PS/2 Keyboard		
Video	7 E		Standard PS/2 Keyboard		
1400	8 D		Standard PS/2 Keyboard		
	9 F (up	)	Standard PS/2 Keyboard	<b>•</b>	
Active Axis/Force Devices					
A 10.10	Туре	Index	Device	Properties	
	mouse	1	滑鼠	Remove	
Port					
Response Devices					
	Devices		Buttons	_	
Logfiles 键盤			按鈕 0 (up)		
Standard PS/2 Keybo	oard Compatible To	uchPad	按鈕 1 按鈕 1 (m)		
Properties 具 HID 功能的取用	者控制装置	0.511 00.	按鈕 2	TTer	
Use Mouse sound device			按鈕 2 (up)	0.36	
PIT Use Jourstick gameport device	Remov	a device	(up)	Refresh	
	Remo	ve device			
Advanced Use Force	Add p	ort device			
	Re-en	umerate d	evices	E Parnin davias nome	
				match when loading	
(Right	-click for optic	ins)			
Displays the names of (possibly) available input devices				.:	

九、輸入 Name 後,點「Properties」按鍵。

Port Response Device	Properties
Name:	Lumina 1
Input Channel:	Properties
Range restriction:	
Software debouncing:	None
	Standard
	Rising interval
	Falling interval
Debounce interval:	ms
	ОК

十、於 Port Devices 內選擇「Serial Port: COM7」。

註:(1)請依據在「裝置和印表機」中找到的 USB Serial Port 做點選。

```
(2) 若沒有顯示 Port Devices,請按「Re-enumerate」。
```

Туре	Device	Identifier			Add
Serial Port	COM7	COM7			Remove
					Re-enumerate
Properties					_
Type: Serial Port	Rate:	•	CTS control:	off	-
Device: COM7	Custom rate:		DSR out control:	off	•
Identifier: COM7	Parity:	•	DSR in control:	off	•
	Data Bits:	•	DTR control:	disable	•
	Stop Bits:	•	RTS control:	disable	•
		🔽 Set FIF	0 interrupt		
t Input Channels					
	Properties				

十一、依據在「裝置和印表機」中 USB Serial Port 的連接埠做設定,輸入 「Rate:9600」,「Parity:none」,「Data Bits:8」,「Stop Bits:1」。

Remove Re-enumerate		COM7	
Re-enumerate			Senal Port
			Properties
•	CTS control: off	Rate: 9600	Type: Serial Port
•	SR out control: off	Custom rate:	Device: COM7
•	DSR in control: off	Parity: none	Identifier: COM7
•	DTR control: disable	Data Bits: 8	
-	RTS control: disable	Stop Bits: 1	
	interrupt		
		Properties	rt Input Channels
		Tropolass	
	ano nogr	Properties	ort Input Channels

十二、點「Port Input Channels」左下方「Add」按鍵,輸入 name。

Add	d Port Input Cha	nnel 🖷 🛛 –	. 🗆	×
Enter a na	me for this input channe	l		
usb1				
	OK	Cancel		

十三、Port 選擇:COM7。

Туре		Device		Identifier			Add
Serial Port		COM7		COM7			Remove
							Re-enumerate
Properties							
Type: S	erial Port	Rate:	9600	•	CTS control:	off	•
Device: C	COM7	Custom rate:			DSR out control:	off	▼
Identifier: C	COM7	Parity:	none	-	DSR in control:	off	•
		Data Bits:	8	•	DTR control:	disable	-
		Stop Bits:	1	•	RTS control:	disable	-
				📝 Set F	IFO interrupt		
t Input Chann	els						
ծ 1		Proj	perties				
			Po:	rt: COM7	-		
ldd Rema	ve Rename	Test					

十四、按下「Test」按鍵後,即可測試 Lumina 反應鍵,此時會在螢幕顯示每一個 Lumina 反應鍵的反應訊號。

Туре	Device		Identifier			Add
Serial Port	COM7		COM7			Remove
Properties						
Type: Serial Port	Rate:	9600	•	CTS control:	off	•
Device: COM7	Custom rate:			DSR out control:	off	•
Identifier: COM7	Parity:	none	•	DSR in control:	off	•
	Data Bits:	8	-	DTR control:	disable	•
	Stop Bits:	1	•	RTS control:	disable	-
			📝 Set H	FIFO interrupt		
t Input Channels	Proj	perties				
sb 1		Port:	COM7	•	M	fask:
		Mode	Data	•	Inversion M	íask:
Add Remove Re	name Test	[	_ Interpre	t as state changes		

Input Channel Test	
Any code sent by the device should appear below           Values(s): 49(s)           OK	
Input Channel Test Any code sent by the device should appear below Values(s): 50(s) OK Disable display delay	
Input Channel Test Any code sent by the device should appear below Values(s): 51(s) OK Disable display delay	
Input Channel Test Any code sent by the device should appear below Values(s): 52(s) OK Disable display delay	

十五、按下「Close」後,回到 Setting 畫面。在「Devices」中選擇 Lumina 1 後,再按左上方的「Properties」按鍵

Туре	Device		Identifier			Add
Serial Port	COM7		COM7			Remove Re-enumerate
Properties						
Type: Serial	Port Rate:	9600		CTS control:	off	•
Device: COM	7 Custom rate	:		DSR out control:	off	•
Identifier: COM	7 Parity	none	-	DSR in control:	off	•
	Data Bits:	8	•	DTR control:	disable	•
	Stop Bits	1	•	RTS control:	disable	-
			📝 Set F	IFO interrupt		
Input Channels	-Pn	nerties				
b 1		Port	СОМ7	•	м	lask:
		Mode:	Dete	-	Inversion M	fask:
		MOUE.	Internet	•		
dd Remove	Rename Test	l	Interpre	i as state changes		

2							Р	resenta	tion		↔		×
Expe	riment Edito	r Tools	s Licer	nse	Help								
Main	Scenarios F	arameters	Settings	Edito	or								
			Scena	rios					Ac	ctive Buttons			
	General	default count.s	ce			#	Butto	n Name	Device				
	•	fmri_cl	ness_pulse. mes_pulse	sce		1	1		鍵盤				
	<b>—</b>					2	2		建築			Test	
	Response					3	4		建設			Remove	
						5	6		鍵盤			Class	_
						6	7		鍵盤			Ciear	_
	Video					7	8		鍵盤				
	V 10.00					8	9		键盤				
									Active A	vic/Force Devices			
	Audio					Тл	ne	Index	Device	IAINTOICE DEVICES		Properties	
						- /1	~		20120			Remove	
	<b>.</b>												
	Port	Pernor	nse Device										
	6	respo	1130 1204100	·		Devic	es			Buttons			
	Loofiloo			滑腳	<b>記</b>								
	Logines			Sta	ndard PS/2 K	eyboard							
		Pro	operties	Mi	crosoft Comf crosoft 硬體 )	ort Mouse。 HSB 滑鼠	4500 (Mo	ouse and K	eyboa				
		Use	e Mouse	sou	ind device						Use	_	
	FIP	II.se	Ioustick	2 poi	nting device	_					Refresh		
		0.30	-	Lu	mina 1						IIse fMR	T	
	Advanced	Us	e Force										
											Require	e device name	
					(R	ight-click :	for ontio	ns)			match	when loading	
					(4)	- on onote		,					

十六、	「Input Channel」	選擇	usb1
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Port Response Device	Properties	
Name:	Lumina 1	
Input Channel:		Properties
Range restriction:	Add new channel	
Software debouncing:	None	
	🔘 Standard	
	Rising interval	
	Falling interval	
Debounce interval:	ms	
	ОК	

十七、如此一來,即可從 Buttons 列表中,選擇要使用的 Lumina 按鍵。
註:由於測試時得知四個反應鍵分別為:49、50、51、52,故選擇使用
49、50、51、52 四個按鍵。

<b>%</b> Presentation										
Experiment Editor Tools License Help										
Main Scenarios Parameters Settings Editor										
Scenarios			Active Buttons							
General default NES Demo.sce	# Butto	n Name	Device							
					Test					
Reserver 1					Remove					
					Clear					
Video										
			Active Axis/Force Devices							
Audio	Туре	Index	Device		Properties					
					Remove					
Port					]					
	Devices		Buttons							
Logfiles HID-compliant mou	se		42 (**) 43 (+)							
Properties Standard PS/2 Keyb Symptics PS/2 Port	oard Compatible Tou	ichPad	44 (;) 45 (-)							
Use Mouse 具 HID 功能的取用 Sound device	有控制转置		46 (.') 47 (7) 49 (0)	Refrest						
Use Joystick gameport device			49 (1) 50 (2)							
Advanced			51 (3) 52 (4)							
			53 (5) 54 (6) 55 (7)	Requir	e device name when leading					
(Righ	t-click for optio	ns)	56 (8)	* maich	when manif					

十八、設定好反應鍵後,請記得存檔。下一次使用時,先將 Lumina 輸出線接上 notebook 後,再開啟 Presentation,就能自動偵測已設定好的反應鍵。

2 Presentation											
Experiment Editor Tools License Help											
New Experiment Ctrl+Shift+N											
2 Open Experiment											
Active Buttons											
Save Experiment As	# Butto:	n Name	Device								
Run Experiment Ctrl+Shift+R	1 49 (*	1)	Lumina 1								
	2 50 (	2)	Lumina 1		Test						
Quick Start Ctri+Shift+A	3 51 (	3) MD	Lumina 1		Remove						
Zip Experiments	4 52 (	4)	L'oninia i								
Create Secure Package					Clear						
Exit											
			Active Axis/Force Devices								
Audio	Тупе	Index	Device	Properties							
			20080		Remove						
( <sup>37</sup>											
Port			•								
Response Devices	Devices		Buttons								
通見 通見 ほうしん 消見			49 (1)								
Logfiles III-compliant mou	ise		51 (3)								
Properties Standard PS/2 Keyb Symptics PS/2 Royt	oard Compatible Tor	ichPad	52 (4) 53 (5)		_						
Use Mouse 具 HID 功能的取用	目者控制装置	011 00	54 (6)	Use							
FIP Sound device			55 (7) 56 (8)	Refresh							
gameport device			57 (9)								
Advanced Use Force			59 (5)								
			61 ('=')								
			62 (>) 63 (?)	V Require	e device name when loading						
(Righ	t-click for optio	ns)	64 (10)	*							
					.::						