PTZ Camera Companion module

User Manual-English

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Chapter 1 Instructions on Companion Module Installation
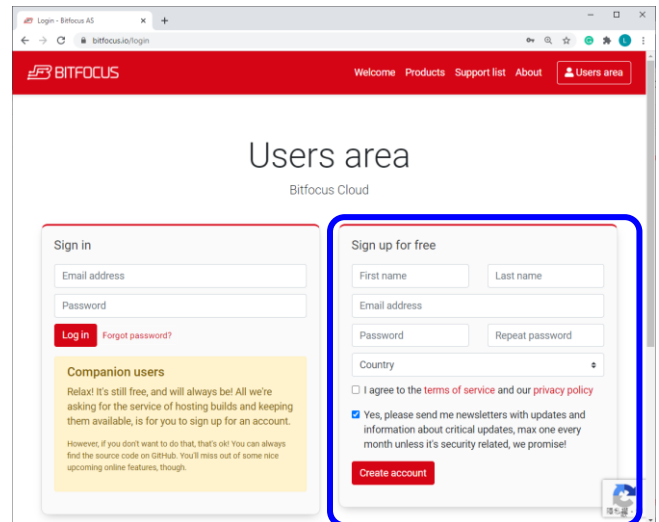
1.1 System Requirements
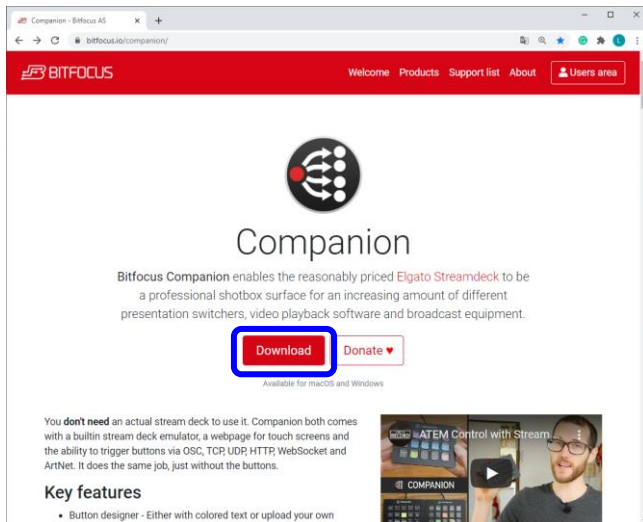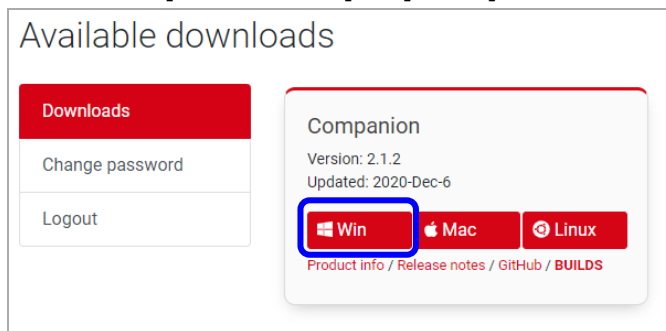- Windows 7 /10
- Mac 10.13 or above

1.2 Install with Windows 7 / 10

1.2.1 Please go to Companion - Bitfocus AS website and click [**Download**].

1.2.2 Sign up for free and sign in with your account to download.

1.2.3 Click [**Download**] → [**Win**] to download.

1.2.4 After the download is completed, click [**companion-win64**] to start the installation.

1.2.5 The installation wizard will guide you through the process. Please follow the instructions and press [**Next**] for the next step.

1.2.6 When the installation is completed, press [**Finish**] to end the installation.

1.2.7 Open the Companion software, click [**Launch GUI**] to enter the admin user interface.
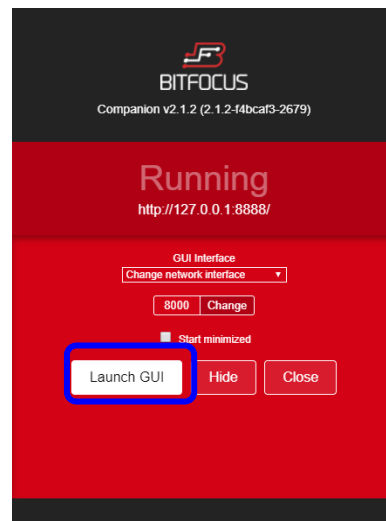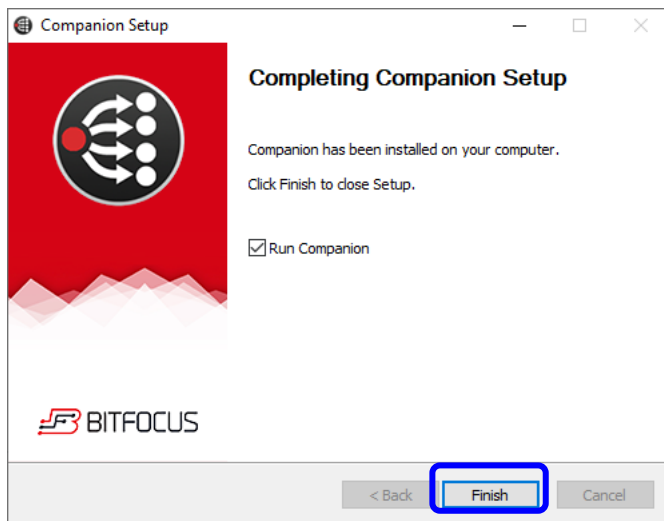
1.3 Install with Mac

1.3.1 Please go to Companion - Bitfocus AS website and click [**Download**].

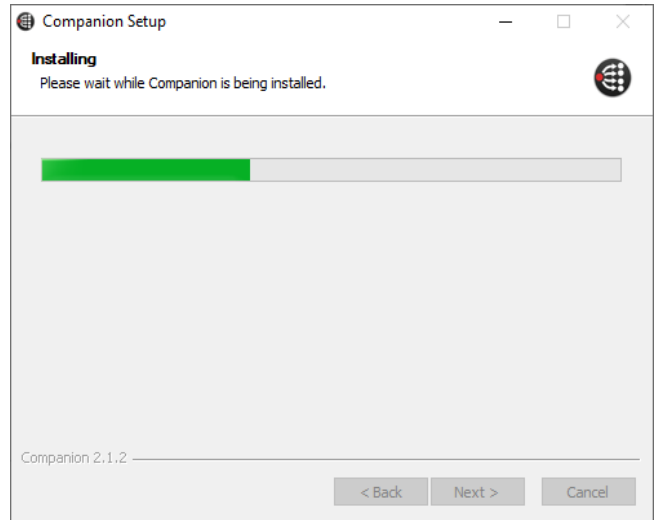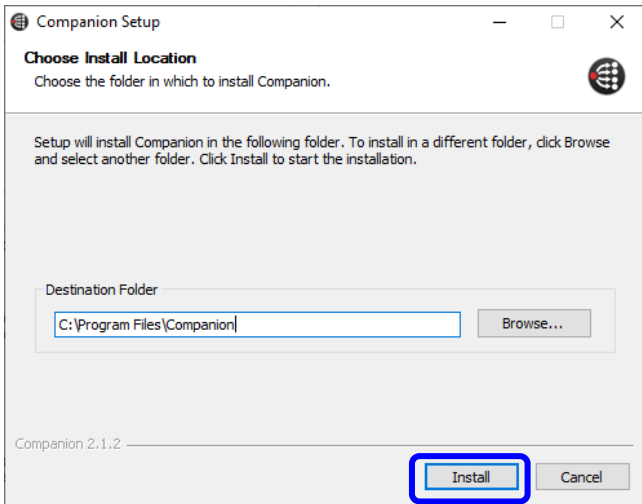**1.3.2** Sign up for free and sign in with your account to download.

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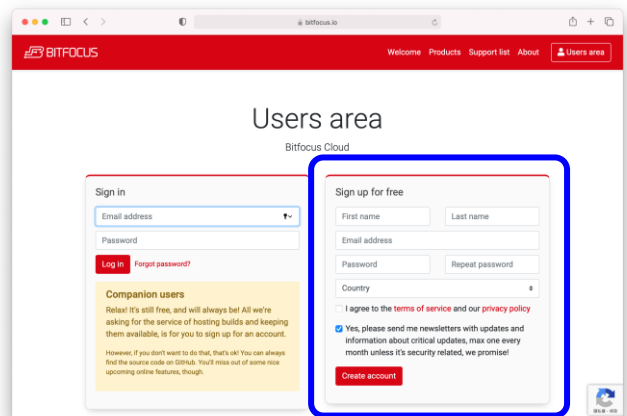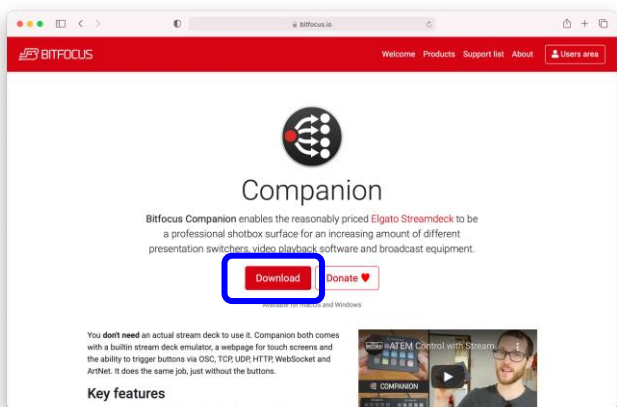
1.3.3 Click [**Downloads**] → [**Mac**] to download.

1.3.4 After the download is completed, click [**Companion**] to open the Companion software.

1.3.5 Click [**Launch GUI**] to enter the admin user interface.

Chapter 2 Setting Instructions

2.1 Check the Network setting

2.1.1 Make sure the computer IP address must be set on the same network segment with the device.
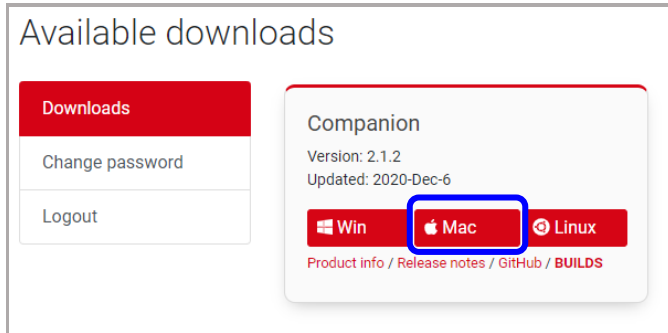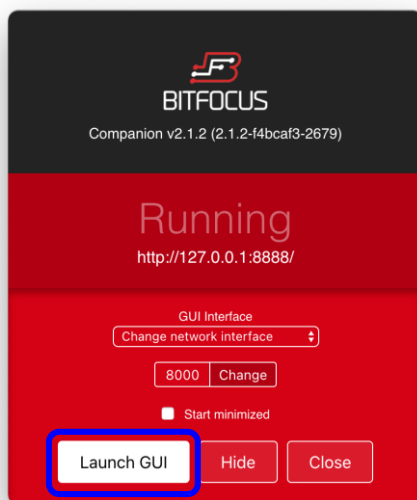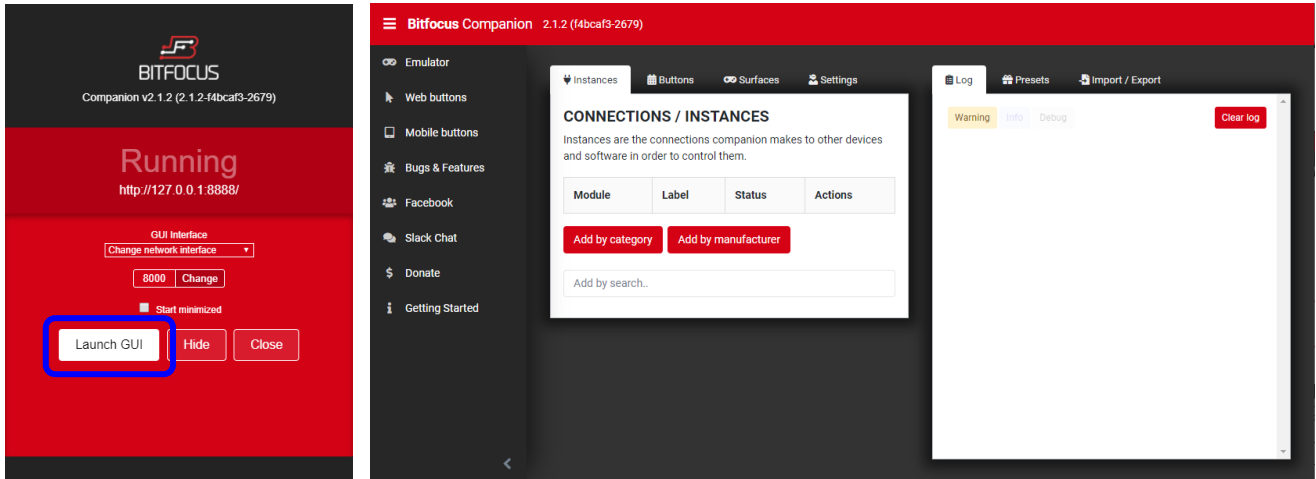
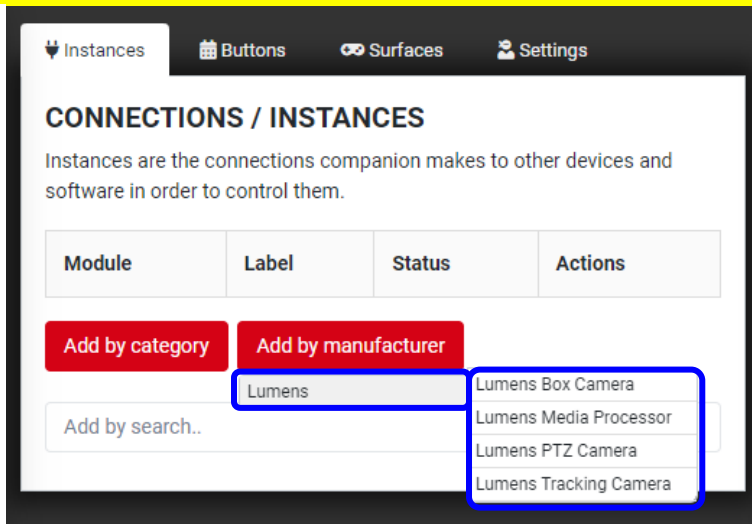**2.1.2** Check the IP address of the device.

2.1.3 Open the Companion software, click [**Launch GUI**] to enter the admin user interface.

2.2 Add new device

2.2.1 In [**Instances**] page, click [**Add by category**] or [**Add by manufacturer**] , or search [**Lumens**] in the search bar → [**Lumens**] → Select the device type.
You can select: **Box Camera**、**Media Processor**、**PTZ Camera**、**Tracking Camera**

2.2.2 Will open a new page [**Camera Configuration**] or [**MediaPrecessor Configuration**], you can do the device setting on this page. After finishing setting, click [**Apply changes**].

2.2.2.1 Camera settings (Box Camera, PTZ Camera, Tracking Camera)
- **Label:** Enter the camera model or name, it will be easier identified.
- **Target IP**: Enter the IP address of the camera.
- **Target Port**:Enter "52381" (Default:52381)
- **Camera id:** Select[**id 1**]

< Caution> The camera DIP switch also needs to be set on ID1

2.2.2.2 MediaPrecessor settings
- **Label:** Enter the device model or name, it will be easier identified.
- **Target IP:** Enter the IP address of the LC200
- **Target Port:** Enter "5080" (Default:5080)

2.2.3 Press [**Instances**], the device status shows "**OK**" which means the device has been added and connected successfully.
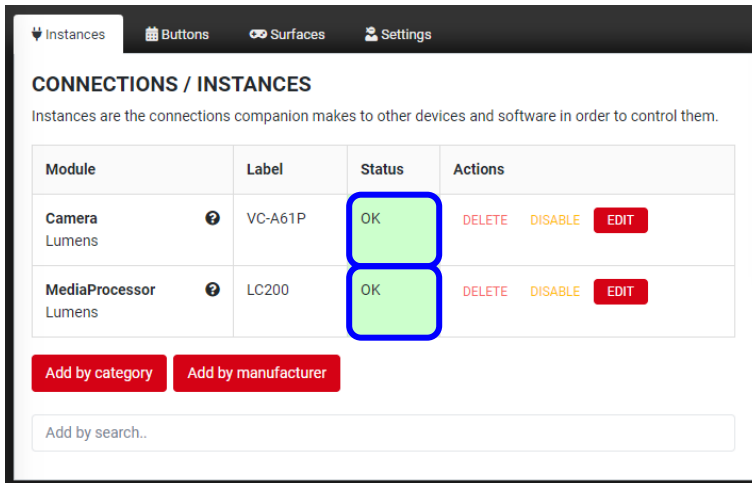
2.3 Add new button - Though by Presets page

2.3.1 Press [**Preset**] to the preset page → Select the device(The device name is displayed at the end) → Select the action type.

< **Remark**> **Please refer to Chapter 5 Preset Actions List for the device model and supported actions.**
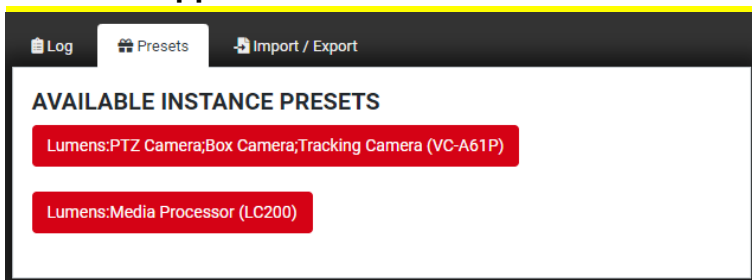
■ **Equipment:** Camera
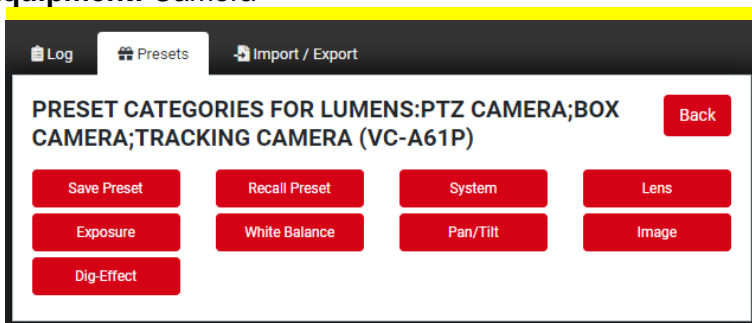
■ **Equipment:** MediaPrecessor
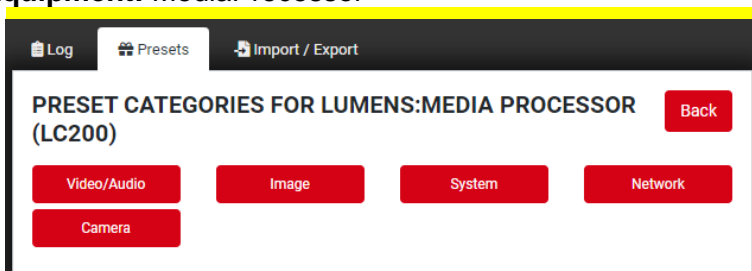
2.3.2 Press [**Buttons**] to the button page, drag the action button from Presets page and drop to the simulation button on the [**Buttons**] page.
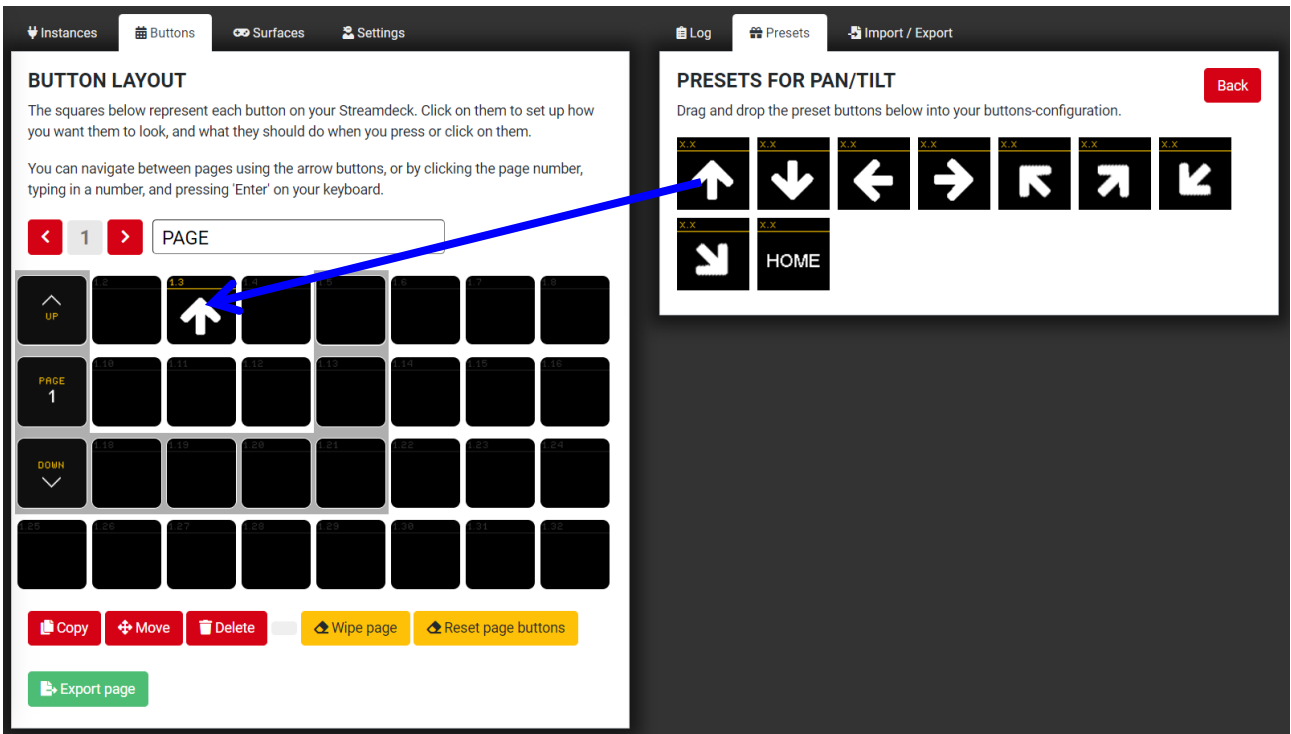
2.3.3 Click the added action button on [**Buttons**] page will open [**Edit button**] page.It will shows the button's settings and can be edited on [**Edit button**] page. Please refer to **3.8 Edit button** for button settings.
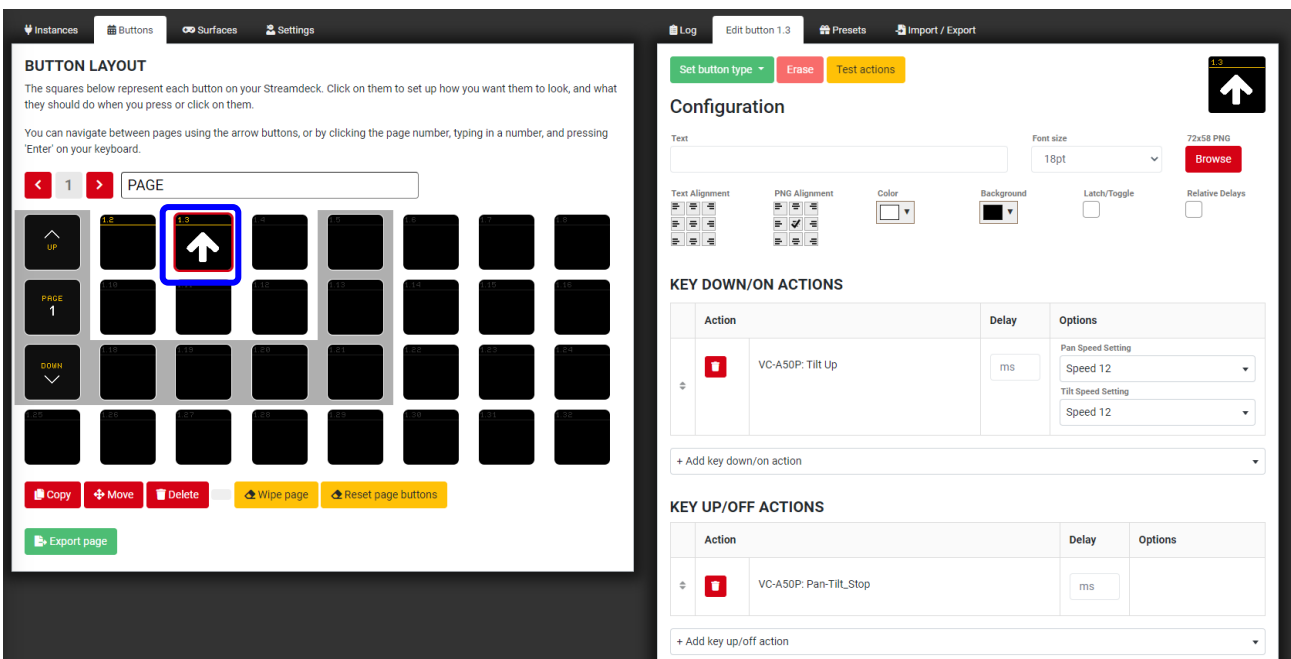
2.4 Add new button - Though by Buttons page

2.4.1 Press [**Buttons**] to the button page, click on the blank area of the simulated button to open the [**Edit button**] page.
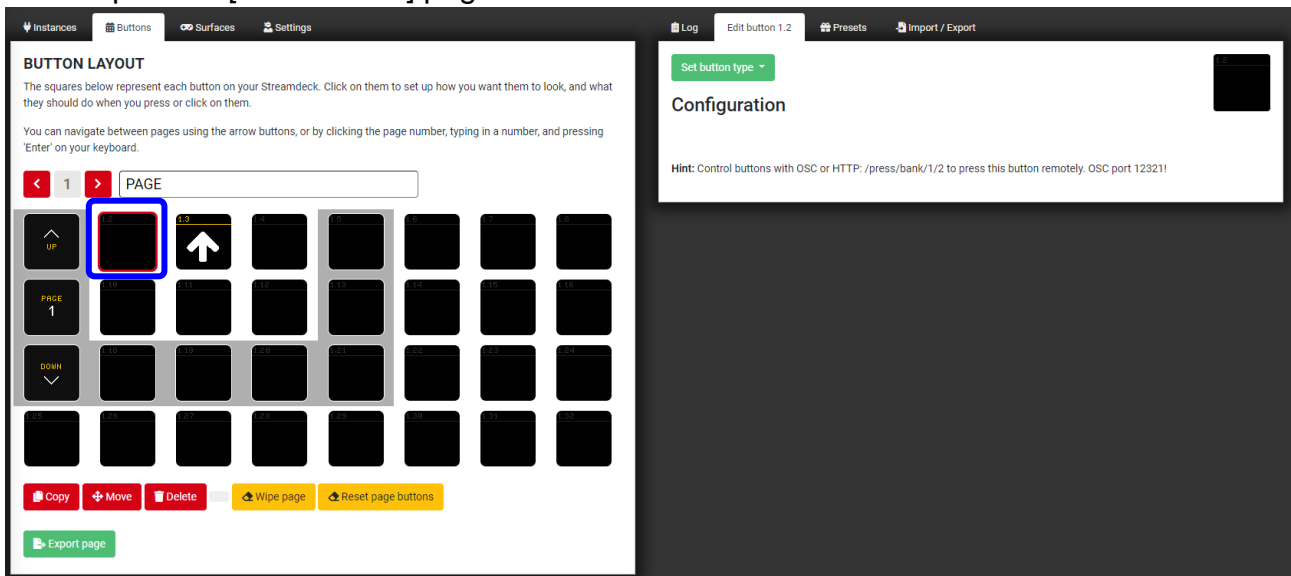
2.4.2 Click [**set button type**] and select [**Regular button**] to add new button.

2.4.3 It will shows the button's settings and can be edited on [**Edit button**] page. Please refer to **3.8 Edit button** for button settings.

2.5 Control the device - Through by Emulator

2.5.1 Press [**Emulator**], it will open a new window and shows the button emulator.

2.5.2 You can control the device by clicking the buttons directly.

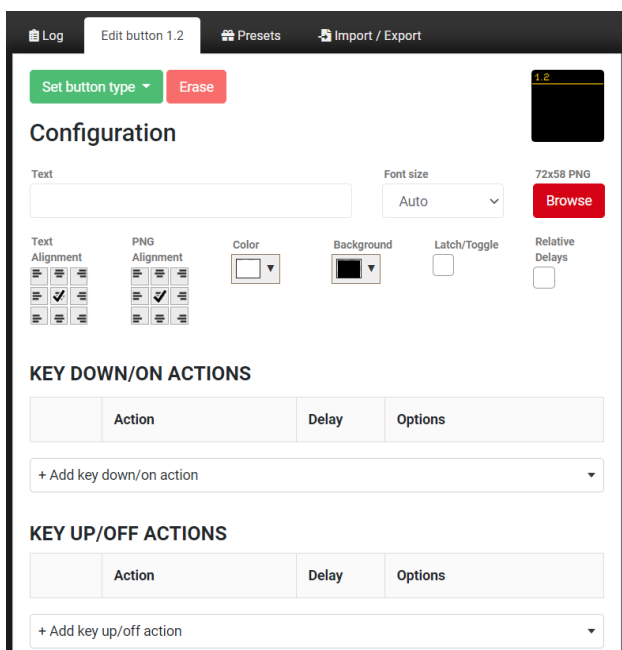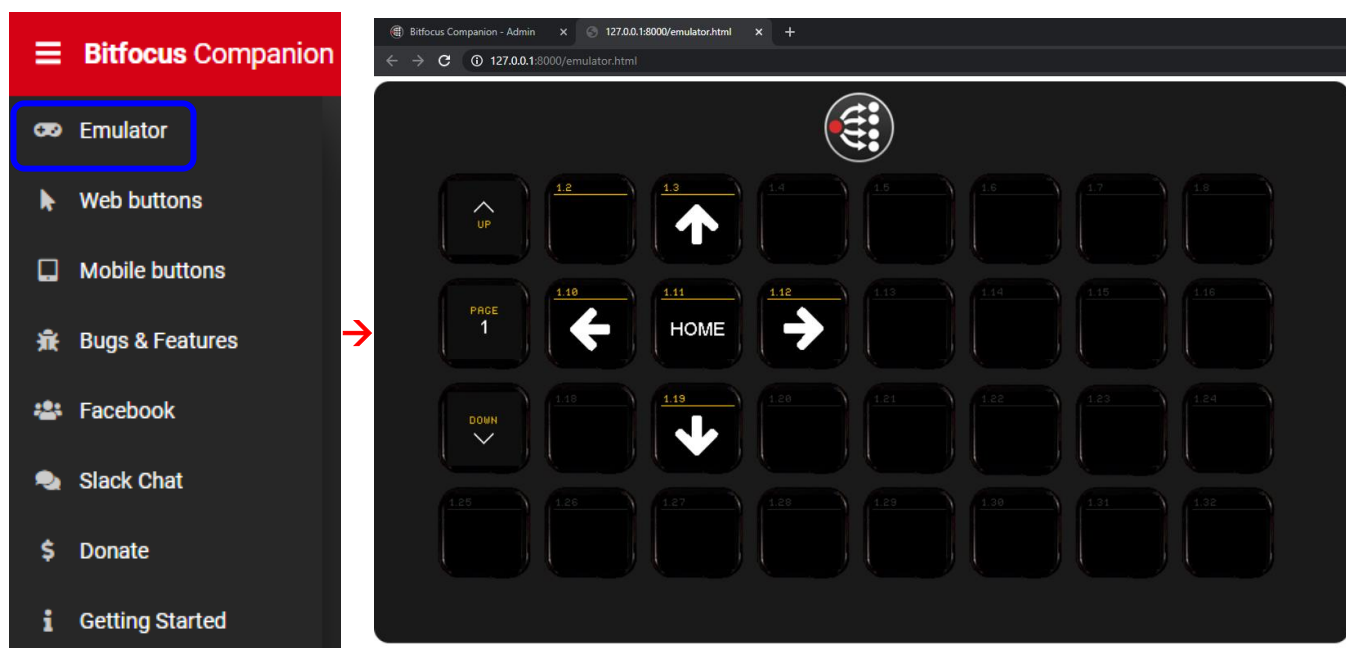## 2.6 Control the device - Through by Web buttons

2.6.1 Press [**Web buttons**], it will open a new window and shows all buttons on one monitor.

2.6.2 You can control the device by clicking the buttons directly.
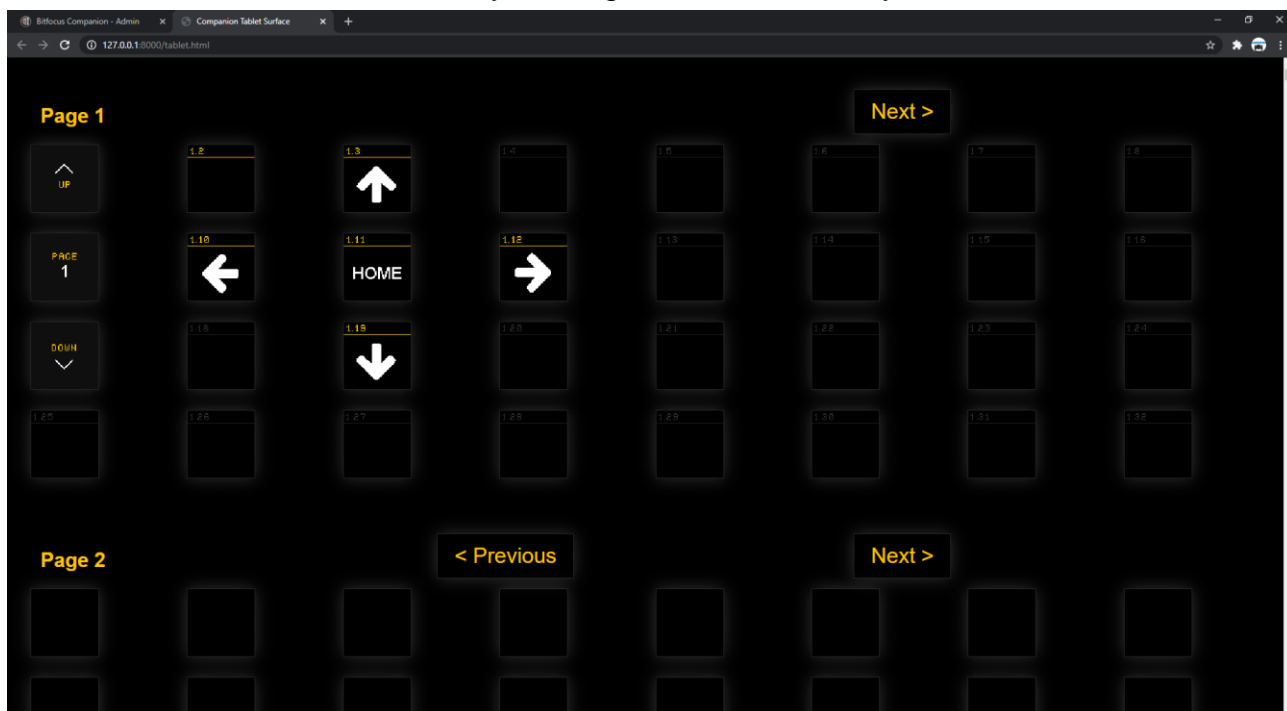
<Caution> If you would like to just view one page or a select few, you can add text to the end of the URL in your browser. Just add?pages=and the page numbers you want to see separated by a comma.

E.g.: http://127.0.0.1:8000/tablet.html?pages=2   (*Includes only page 2*)

http://127.0.0.1:8000/tablet.html?pages=3,7,12   (*Includes only pages 3, 7, and 12*)

Chapter 3 User Interface Description

3.1 Admin User Interface

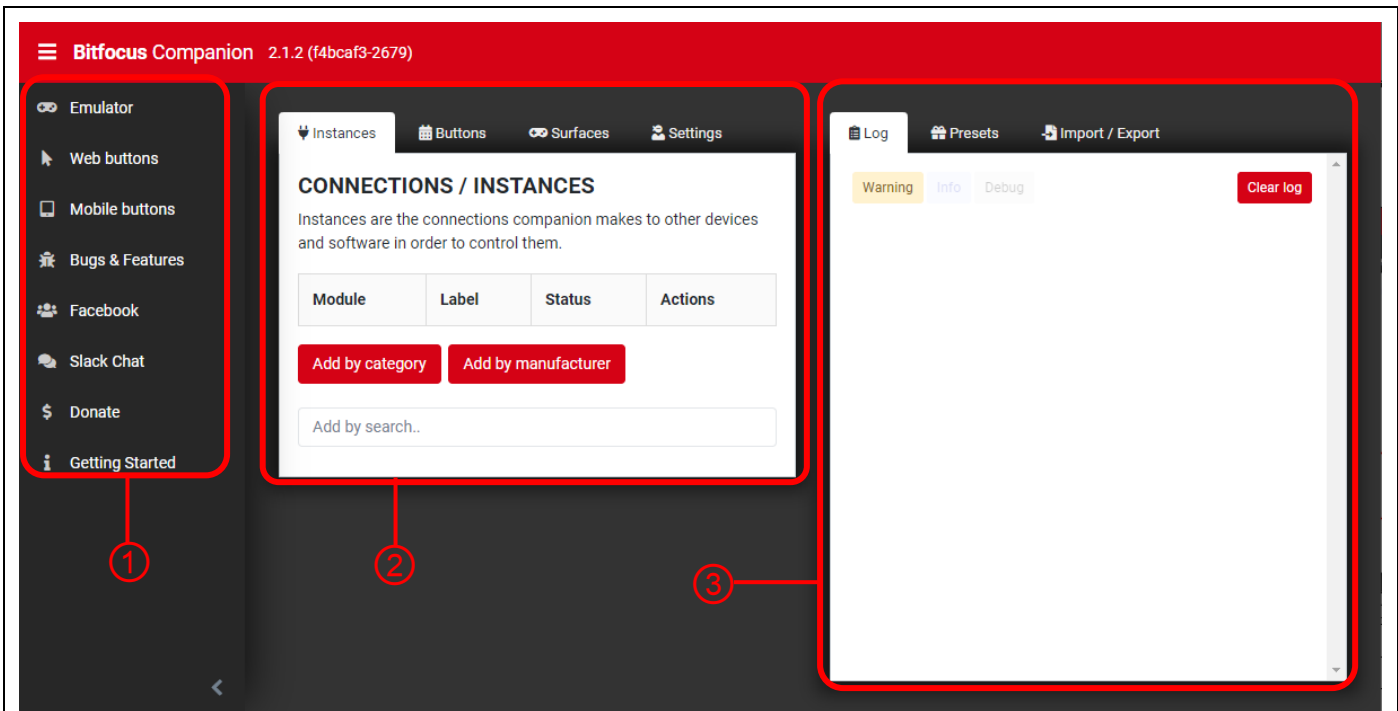| No	Item	Function Descriptions
1	Sidebar	Include Emulator, Web buttons and community links. You can collapse the sidebar by clicking the [menu icon] icon on the left of Companion logo, or shrink it by clicking the arrow at the bottom of the sidebar.
2	Main admin controls and settings	This is where all the connections, buttons, and actions are configured.
3	Log, Presets, configuration	This is where display log information, preset, and import/export setting.

3.2 Sidebar

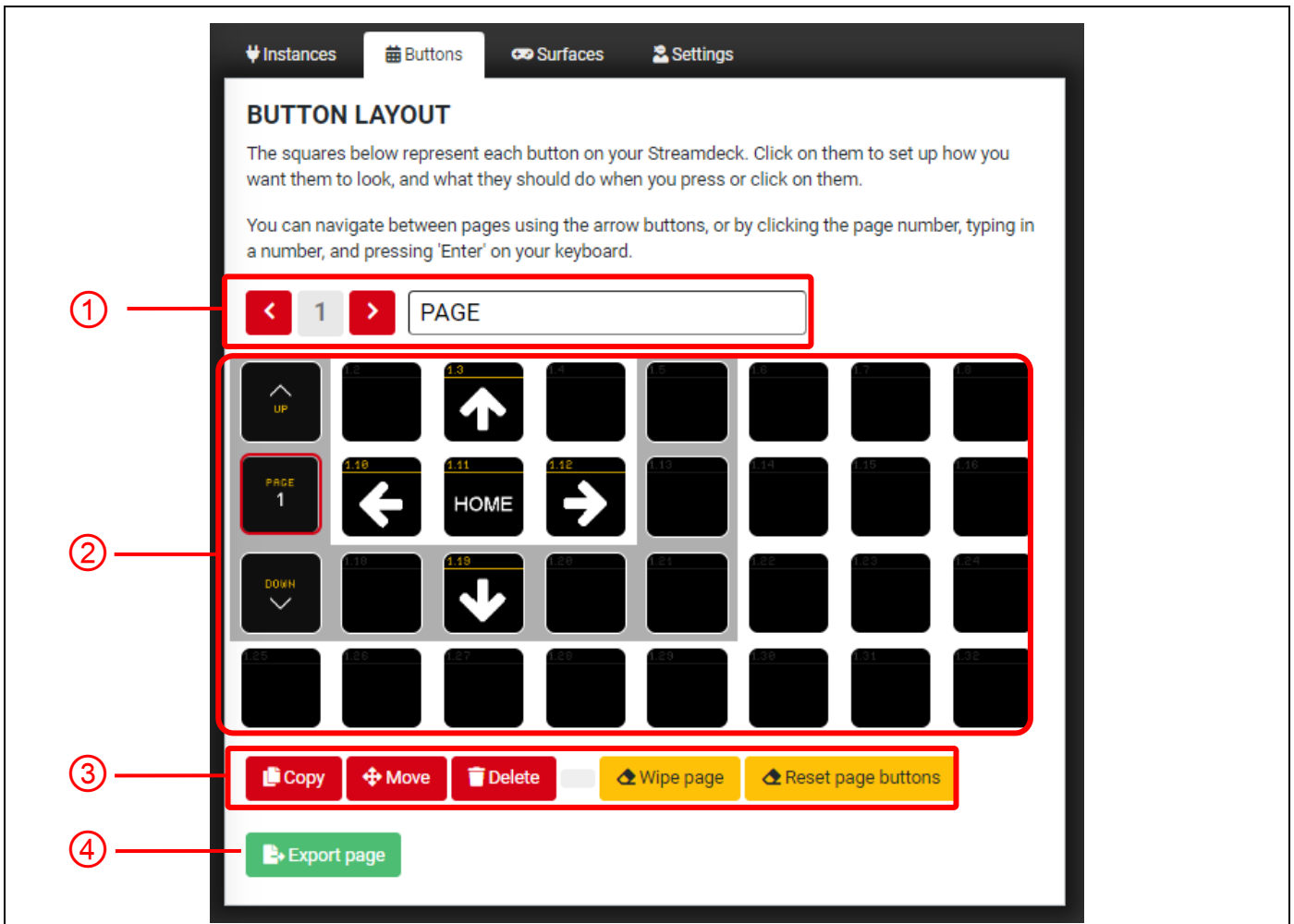| No	Item	Function Descriptions
1	Emulator	Emulator is a tool to test and use the setup, even if you don't have a Stream Deck connected. It will open in a new browser tab and will function just like a Stream Deck would. You can use keyboard hotkeys to control the emulator and trigger button presses. Instructions are found on the bottom of the emulator page.
2	Web buttons	Web buttons is a way of viewing all your buttons across all pages on a single screen.
3	Mobile buttons	It will open in a new browser and display the analog button on the mobile device.
4	Bug & Features	Companion GitHub to report bugs.
5	Facebook	Facebook group to share information and ask questions.
6	Slack Chat	The Slack group for developers.
7	Donate	Donate to show your support and fund future development.
8	Getting Started	Introduction to Companion's basic principles and user interface.

3.3 Instances
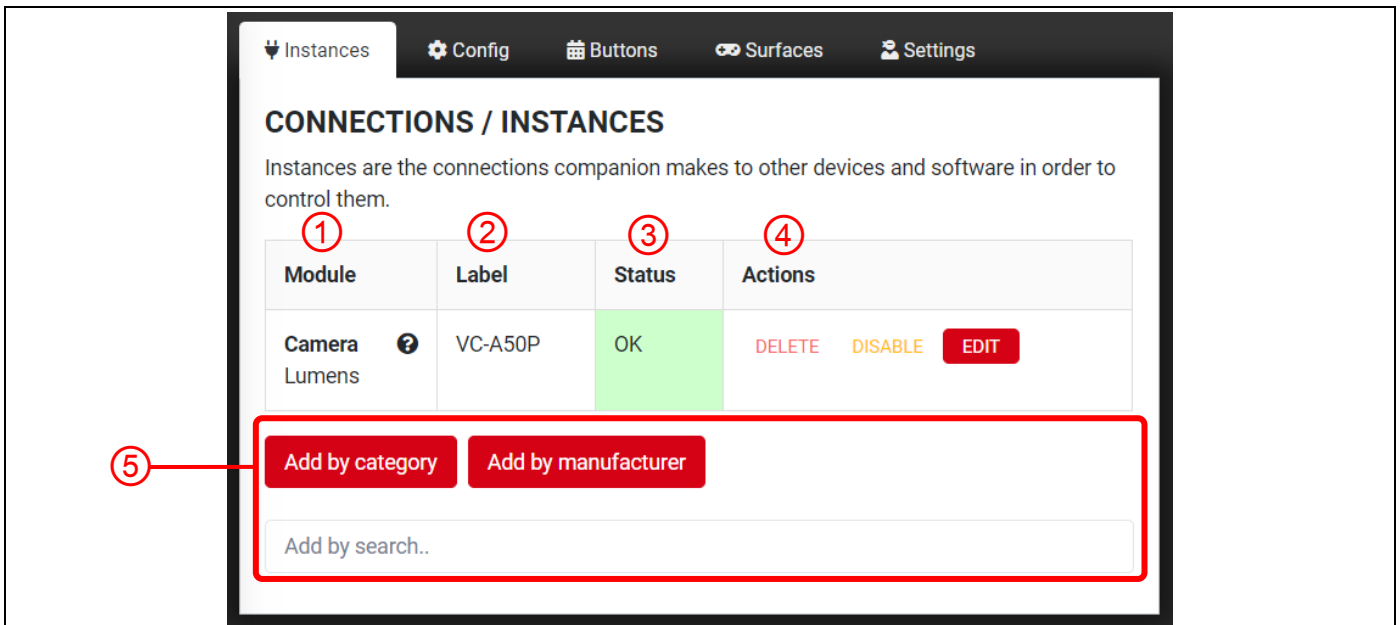
No	Item	Function Descriptions
1	Module	Display the Module name. Press the question mark icon to open that module's help information.
2	Label	Display the name of the newly added custom Label.
3	Status	Display the current connection status with the device.
4	Actions	Click [DELETE] to delete the device. Click [DISABLE] to disable the device. Click [EDIT] to edit the device setting.
5	Add Device	Add a new device, either by finding it by category, by manufacturer, or through a search.

3.4 Config

| No	Item	Function Descriptions
1	Label	Enter the label will be easier to identify when you have several devices.
2	Information	Display the Module's information.
3	Internet Connection Settings	• Target IP: Enter the device's IP address in the Target IP bar. • Target Port: Camera: 52381; MediaPrecessor: 5080 • LUMENS Camera Address: Select [id 1] (MediaPrecessor doesn't has this selection)
4	Apply changes	Click [**Apply changes**] after you finish setting.

3.5 Buttons

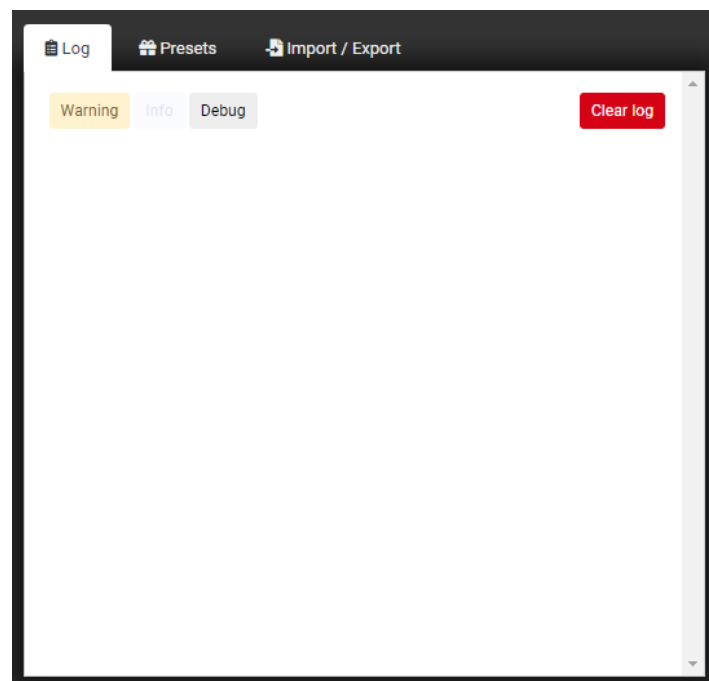| No	Item	Function Descriptions
1	Page Selection	It can be navigated using the red left/right arrows. You can move to a specific page by clicking on the gray page number, entering in the desired page number, and pressing the ENTER key on your keyboard.
2	Buttons	You can add, edit and remove buttons for your Stream Deck. If you hold down the SHIFT key on your keyboard, you can trigger a button directly by clicking on it.
3	Edit buttons	● **Copy, Move, Delete** Click on the desired action, then click on the button you want to apply that action to. Finally click on the destination button. ● **Wipe page** Erases all buttons on the page and adds the navigation buttons. ● **Reset page buttons** Leaves the buttons intact, but adds the navigation buttons.
4	Export page	To download which can later be imported to another page or a different Companion configuration.

3.6 Surfaces
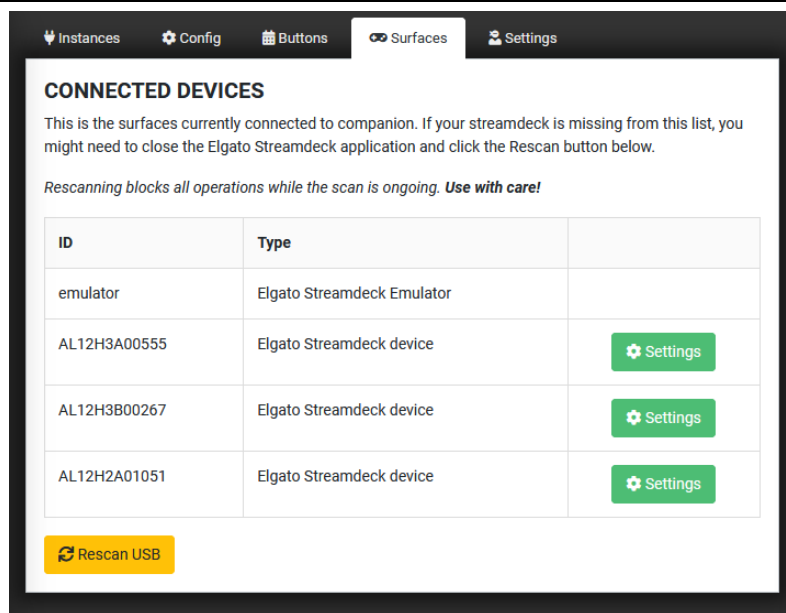
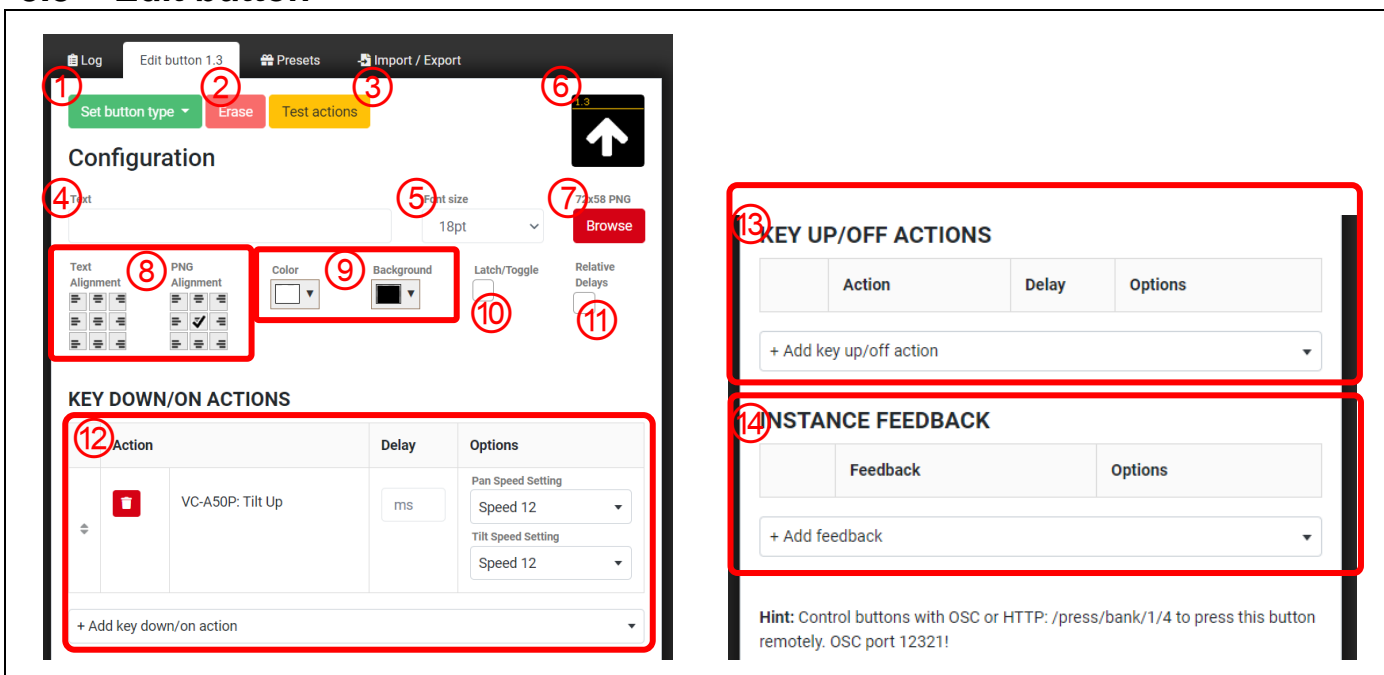| Descriptions |
| --- |
| This tab will show the connected Elgato Stream Decks. |
| If any of your Stream Decks are not showing up, press the [**Rescan USB**] button. |
| **<Remark>** Use with care as rescanning will block all operations while the scan is ongoing. |
| **<Caution>** If your devices are showing but they don't show the ID, you need to update your Stream Deck using the Elgato app. |

3.7 Log

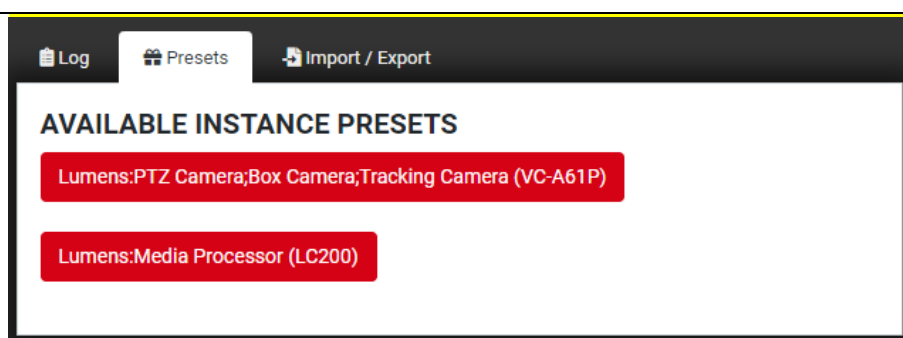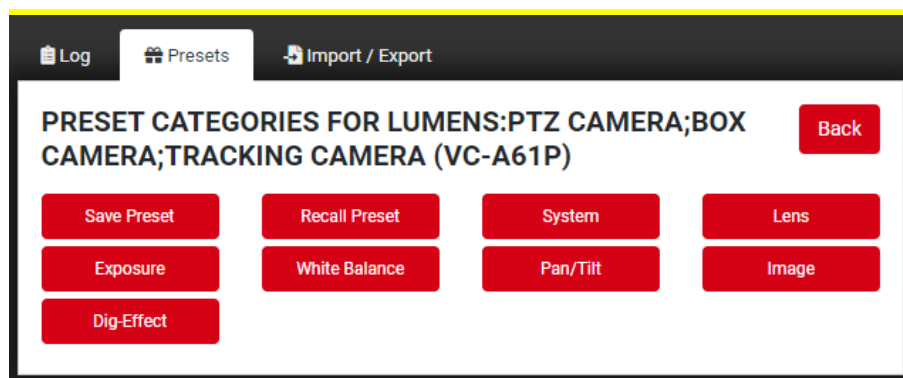| Descriptions |
| --- |
| The Log section gives status updates of commands going out and coming back to Companion. Different log levels can be filtered. |
| Be sure to check here if you're running into problems with a module. |

3.8 Edit button

No	Item	Function Descriptions
1	Set button type	● **Regular button** 一般按鈕，可觸發動作。 ● **Page up** 頁碼按鈕，可移至上一按鈕頁面。 ● **Page number** 頁碼按鈕，顯示目前頁面編號。按此按鈕將回到頁面 1。 ● **Page down** 頁碼按鈕，可移至下一按鈕頁面。
2	Erase	Erase all settings for this button.
3	Test actions	Click and can test the actions you set on this button.
4	Text	Enter the text you want to display on the button. You can force a newline in a label by typing **\n** where you want the newline to appear.
5	Font size	Adjusting the font's size.
6	live preview	A live preview will be shown on here. Button information will update in real-time in the Emulator and Stream Deck.
7	Browse PNG image	Click the red **Browse** button and choose the PNG (72x58px) file you want to use as a button's background. Text can be applied over the image.
8	Alignment	Setting the alignment of the text / PNG image.
9	Text color / Background color	Changing the text's color / button's background color.
10	Latch/Toggle	The Latch/Toggle checkbox changes the push behavior of the button, making the first press of the button trigger all the Key down/on actions, and a second press of the button trigger the Key up/off actions. When a button is pressed and is latched, its header will appear solid.

		Each action can be delayed to run a certain number of milliseconds after the button is
11	Relative delays	triggered. Delays can be configured to be Absolute (default) or Relative, by toggling the checkbox in the button styling section.
12	KEY DOWN / ON ACTIONS	You can add multiple actions and set delay times for each action. Multiple actions, even those from multiple modules, can be linked to a button. An action may also have options to let you customize how the action performs.
13	KEY UP / OFF ACTIONS	The **KEY DOWN/ON ACTIONS** will be performed when the button is triggered. The **KEY UP/OFF ACTIONS** are performed when the button is released, or when the button becomes unlatched.
14	INSTANCE FEEDBACK	Some modules are able to provide feedback back to the button, such as changing the button's foreground or background colors to reflect the current status of the device.

3.9 Presets

Camera

/ MediaPrecessor
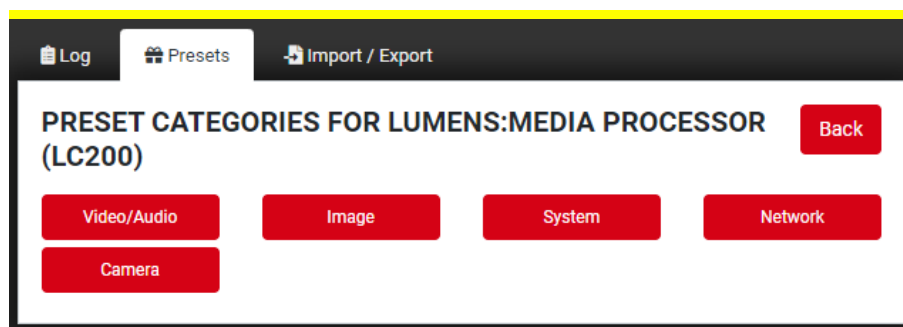
Descriptions
Click the model first then select the preset type. Drag the preset buttons onto a page's button when in the Button Layout view. You may still need to configure the preset after adding it to a button. Please refer to **Chapter 5 Preset Actions List** to see more information.

3.10 Import / Export

| Descriptions |
| --- |
| This tab lets you import or export your configuration to a ".**companionconfig**" file, which can be used to backup your configuration or move it to a new computer. You can also choose to import just a single page from your file. You're also able to completely reset your configuration here as well. |

Chapter 4 Connect Stream Deck

4.1 Connect Stream Deck

4.1.1 Connect Stream Deck directly to a USB port on your PC or Mac. Do not use a USB hub.
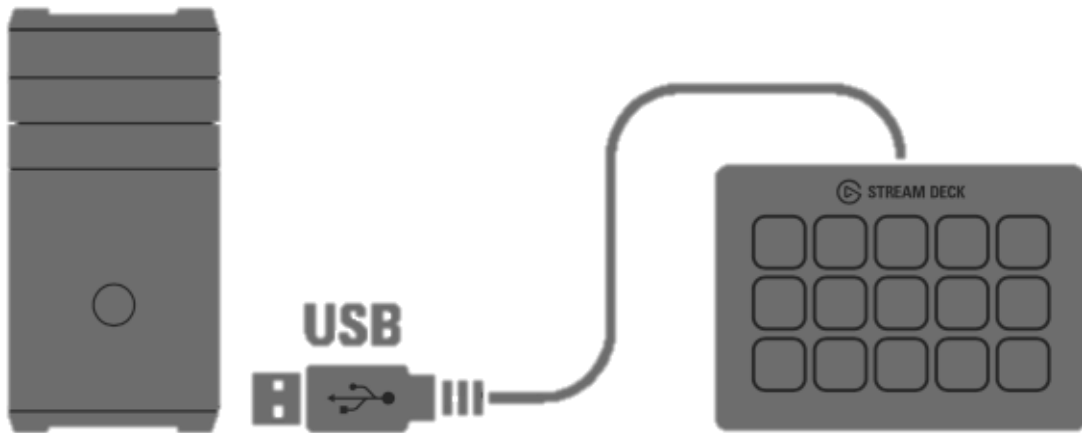
4.1.2 Open the Companion software, click [**Launch GUI**] to enter the admin user interface.

4.1.3 Enter [**Surfaces**] page, press [**Rescan USB**] to scan for any newly attached Stream Decks.

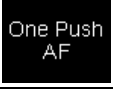**<Caution>** Please close down Stream Deck Software, it will not scan devices as the Stream Deck app is running. Use with care as rescanning will block all operations while the scan is ongoing.
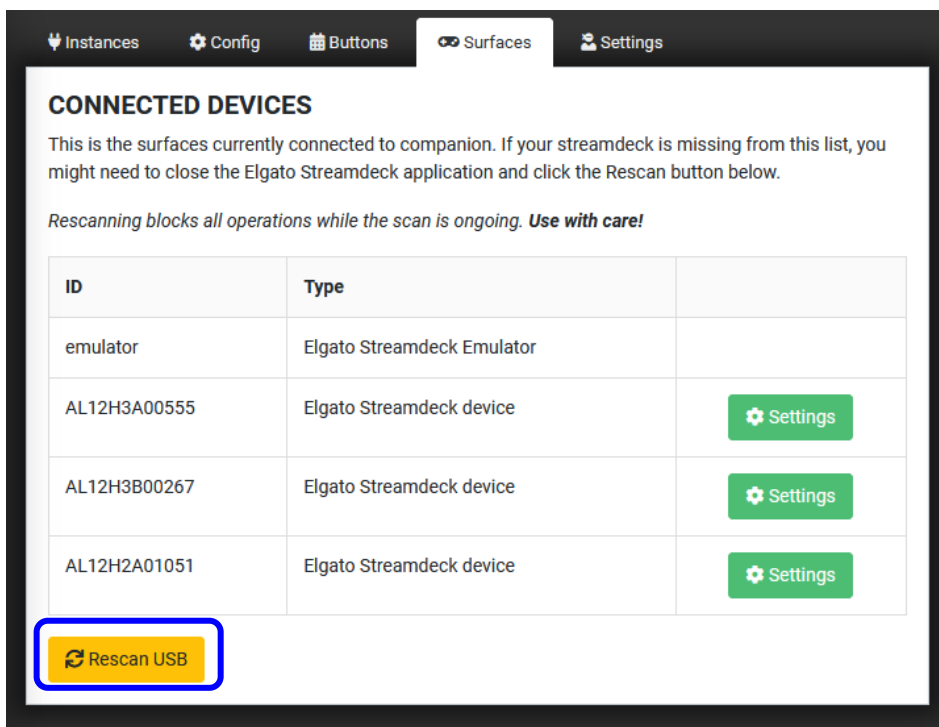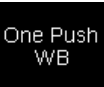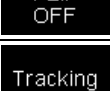
4.1.4 If the newly Stream Deck Device is showing, which means connect successfully. Any update in Companion will also update to stream Deck.

Chapter 5 Preset Action List

5.1 Camera-Preset Actions

Item	Icon	Model / Action	PTZ Camera			Box Camera			Tracking Camera
			VC-A50P	VC-A61P	VC-A71P	VC-BC301P	VC-BC601P	VC-BC701P	VC-TR1
Save / Recall Preset	SAVE PSET 1	Save Preset 1 ~32	✓	✓	✓	✓	✓	✓	✓
	Recall PSET 1	Recall Preset 1 ~32	✓	✓	✓	✓	✓	✓	✓
	< Remark> VC-TR1 some specific preset positions have been used, so they are not available and won't show on the list. Please refer to **Chapter 6 Troubleshooting** to get more details.								
System	Power ON	Power On	✓	✓	✓	✓	✓	✓	✓
	Power OFF	Power Off	✓	✓	✓	✓	✓	✓	✓
	Tally OFF	Tally off	✗	✓	✓	✓	✓	✓	✗
	Tally Red ON	Tally Red ON	✗	✓	✓	✓	✓	✓	✗
	Tally Green ON	Tally Green ON	✗	✓	✓	✗	✗	✗	✗
Lens	ZOOM IN	Zoom In	✓	✓	✓	✗	✓	✓	✓
	ZOOM OUT	Zoom Out	✓	✓	✓	✗	✓	✓	✓
	FOCUS FAR	Focus Far	✓	✓	✓	✗	✓	✓	✓
	FOCUS NEAR	Focus Near	✓	✓	✓	✗	✓	✓	✓
	AUTO FOCUS	Auto Focus	✓	✓	✓	✗	✓	✓	✓
	One Push AF	One Push Auto Focus	✓	✓	✓	✗	✓	✓	✓
Exposure	Expos. Auto	Full Auto	✓	✓	✓	✓	✓	✓	✓
	Expos. Manual	Manual	✓	✓	✓	✓	✓	✓	✓
	Shutter Pri.	Shutter Priority	✓	✓	✓	✓	✓	✓	✓

Item	Icon	Model / Action	PTZ Camera			Box Camera			Tracking Camera
			VC-A50P	VC-A61P	VC-A71P	VC-BC301P	VC-BC601P	VC-BC701P	VC-TR1
	Iris Pri.	Iris Priority	✓	✓	✓	✗	✓	✓	✓
	Shutter UP	Shutter Up	✓	✓	✓	✓	✓	✓	✓
	Shutter DOWN	Shutter Down	✓	✓	✓	✓	✓	✓	✓
	IRIS UP	Iris Up	✓	✓	✓	✗	✓	✓	✓
	IRIS DOWN	Iris Down	✓	✓	✓	✗	✓	✓	✓
	GAIN UP	Gain Up	✓	✓	✓	✓	✓	✓	✗
	GAIN DOWN	Gain Down	✓	✓	✓	✓	✓	✓	✗
White Balance	WB Auto	WB-Auto	✓	✓	✓	✓	✓	✓	✓
	One Push WB	WB-One Push WB	✓	✓	✓	✓	✓	✓	✓
	R Gain UP	R Gain Up	✓	✓	✓	✓	✓	✓	✓
	R Gain DOWN	R Gain Down	✓	✓	✓	✓	✓	✓	✓
	B Gain UP	B Gain Up	✓	✓	✓	✓	✓	✓	✓
	B Gain DOWN	B Gain Down	✓	✓	✓	✓	✓	✓	✓
Pan / Tilt	↑	Tilt Up	✓	✓	✓	✗	✗	✗	✓
	↓	Tilt Down	✓	✓	✓	✗	✗	✗	✓
	←	Pan Left	✓	✓	✓	✗	✗	✗	✓
	→	Pan Right	✓	✓	✓	✗	✗	✗	✓
	↖	Pan-Tilt_UpLeft	✓	✓	✓	✗	✗	✗	✓

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Item	Icon	Model / Action	PTZ Camera			Box Camera			Tracking Camera
			VC-A50P	VC-A61P	VC-A71P	VC-BC301P	VC-BC601P	VC-BC701P	VC-TR1
	↗	Pan-Tilt_UpRight	✓	✓	✓	✗	✗	✗	✓
	↙	Pan-Tilt_DownLeft	✓	✓	✓	✗	✗	✗	✓
	↘	Pan-Tilt_DownRight	✓	✓	✓	✗	✗	✗	✓
	HOME	Pan-Tilt_Home	✓	✓	✓	✗	✗	✗	✓
Image	Default Image	Image mode – Default	✓	✓	✓	✓	✓	✓	✗
	Brightness UP	Brightness +	✓	✓	✓	✓	✓	✓	✗
	Brightness DOWN	Brightness -	✓	✓	✓	✓	✓	✓	✗
	Sharpness UP	Sharpness +	✓	✓	✓	✓	✓	✓	✗
	Sharpness DOWN	Sharpness -	✓	✓	✓	✓	✓	✓	✗
Dig-Effect	MIRROR ON	Mirror On	✓	✓	✓	✓	✓	✓	✗
	MIRROR OFF	Mirror Off	✓	✓	✓	✓	✓	✓	✗
	FLIP ON	Flip On	✓	✓	✓	✓	✓	✓	✗
	FLIP OFF	Flip Off	✓	✓	✓	✓	✓	✓	✗
	MIRROR FLIP ON	Mirror + Flip On	✗	✓	✓	✓	✓	✓	✗
	MIRROR FLIP OFF	Mirror + Flip Off	✗	✓	✓	✓	✓	✓	✗
Auto-Tracking	Tracking ON	Auto-Tracking On	✗	✗	✗	✗	✗	✗	✓
	Tracking OFF	Auto-Tracking Off	✗	✗	✗	✗	✗	✗	✓

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5.2 MediaPrecessor- Preset Actions

5.2.1 Video/Audio

Icon	Action	Icon	Action	Icon	Action	Icon	Action
(Start Record)	Start Record	HDMI OUT Vol. 100	Line & HDMI Out Volume 100	HDMI / Line OUT	Unmute Line & HDMI Audio Out	CH1 HDMI 1	Channel 1 ~4 Video source 1
(Stop Record)	Stop Record	HDMI OUT Vol. Max	Line & HDMI Out Volume Max	PGM OUT	Mute PGM Audio Out	CH1 HDMI 2	Channel 1 ~4 Video source 2
IN 1 Vol. 25	Audio In 1 ~4 Volume 25	PGM OUT Vol. 25	PGM Out Volume 25	PGM OUT	Unmute PGM Audio Out	CH1 HDMI 3	Channel 1 ~4 Video source 3
IN 1 Vol. 50	Audio In 1 ~4 Volume 50	PGM OUT Vol. 50	PGM Out Volume 50	Line IN 1	Audio Input 1 ~4 Line In	CH1 HDMI 4	Channel 1 ~4 Video source 4
IN 1 Vol. 75	Audio In 1 ~4 Volume 75	PGM OUT Vol. 75	PGM Out Volume 75	MIC IN 1	Audio Input 1 ~4 Mic In	CH1 Video Source 5	Channel 1 ~4 Video source 5
IN 1 Vol. 100	Audio In 1 ~4 Volume 100	PGM OUT Vol. 100	PGM Out Volume 100	HDMI IN 1	Audio Input 1 ~4 HDMI In	CH1 Video Source 6	Channel 1 ~4 Video source 6
IN 1 Vol. Max	Audio In 1 ~4 Volume Max	PGM OUT Vol. Max	PGM Out Volume Max	IP Audio IN 1	Audio Input 1 ~4 IP Audio	CH1 Video Source 7	Channel 1 ~4 Video source 7
HDMI OUT Vol. 25	Line & HDMI Out Volume 25	IN 1 (mute)	Mute Audio Input 1 ~4	ALL OUT	Audio Output ALL	CH1 Video Source 8	Channel 1 ~4 Video source 8
HDMI OUT Vol. 50	Line & HDMI Out Volume 50	IN 1 (unmute)	Unmute Audio Input 1 ~4	Line / PGM OUT	Audio Output Line Out + PGM	CH1 Video Source 9	Channel 1 ~4 Video source 9
HDMI OUT Vol. 75	Line & HDMI Out Volume 75	HDMI / Line OUT	Mute Line & HDMI Audio Out	Multiview OUT	Audio Output Multiview	CH1 Video Source 10	Channel 1 ~4 Video source 10

5.2.2 Image

Icon	Action	Icon	Action	Icon	Action	Icon	Action
(Snapshot)	Snapshot	BKGD Off	Background Off	Overlay Off	Overlay Off	Scene 1	Scene ID 1 ~10
Layout 1	Layout ID 1 ~12	BKGD 1	Background ID 1~9	Overlay 1	Overlay ID 1 ~10	Macro 1	Macro 1 ~3

5.2.3 System

Icon	Action	Icon	Action	Icon	Action	Icon	Action
(Standby)	Standby	(Wake up)	Wake up	(Start Backup)	Start Backup to USB	(Stop Backup)	Stop Backup to USB

5.2.4 Network

Icon	Action	Icon	Action
(((•))) 1	Start Stream 1 ~3	(((•))) 1	Stop Stream 1 ~3

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5.2.5 Camera

Icon	Action	Icon	Action	Icon	Action	Icon	Action
Call CH1 Preset 1	Call Channel 1~4 Camera Preset 1	Call CH1 Preset 7	Call Channel 1~4 Camera Preset 7	Save CH1 Preset 4	Save Channel 1~4 Camera Preset 4	↑ CH1	Move CH1 ~4 Camera UP
Call CH1 Preset 2	Call Channel 1~4 Camera Preset 2	Call CH1 Preset 8	Call Channel 1~4 Camera Preset 8	Save CH1 Preset 5	Save Channel 1~4 Camera Preset 5	↓ CH1	Move CH1 ~4 Camera DOWN
Call CH1 Preset 3	Call Channel 1~4 Camera Preset 3	Call CH1 Preset 9	Call Channel 1~4 Camera Preset 9	Save CH1 Preset 6	Save Channel 1~4 Camera Preset 6	← CH1	Move CH1 ~4 Camera LEFT
Call CH1 Preset 4	Call Channel 1~4 Camera Preset 4	Save CH1 Preset 1	Save Channel 1~4 Camera Preset 1	Save CH1 Preset 7	Save Channel 1~4 Camera Preset 7	→ CH1	Move CH1 ~4 Camera RIGHT
Call CH1 Preset 5	Call Channel 1~4 Camera Preset 5	Save CH1 Preset 2	Save Channel 1~4 Camera Preset 2	Save CH1 Preset 8	Save Channel 1~4 Camera Preset 8	⊕ CH1	Channel 1 ~4 Zoom IN
Call CH1 Preset 6	Call Channel 1~4 Camera Preset 6	Save CH1 Preset 3	Save Channel 1~4 Camera Preset 3	Save CH1 Preset 9	Save Channel 1~4 Camera Preset 9	⊖ CH1	Channel 1 ~4 Zoom OUT

Chapter 6 Troubleshooting

This chapter describes problems you may encounter while using Companion module. If you have questions, please refer to related chapters and follow all the suggested solutions.

No.	Problems	Solutions
1.	**How to setting on [Settings] page?**	Please press "Getting Started" on the sidebar to get more Settings information.
2.	**When setting VC-TR1 Preset position, some preset positions are not displayed.**	Some VC-TR1 special preset positions have been used, so these preset positions will not be displayed when setting the preset positions. Preset position used: 0.1.5.6.7.8.80.81.95.96.99.121.122.123
3.	**Why cannot scan the Stream deck device?**	Please close down Stream Deck Software, it will not scan devices as the Stream Deck app is running.
4.	**Why cannot connect to the camera?**	Please confirm: **1.** The computer IP address is set on the same network segment with the device. **2.** The IP address of device is correct. **3.** Target PORT: Camera - enter 52381; MediaPrecessor - enter 5080. If the device is PTZ camera, please also confirm: 1. Select id1 on LUMENS Camera Address. 2. The camera DIP switch is set on ID1.

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