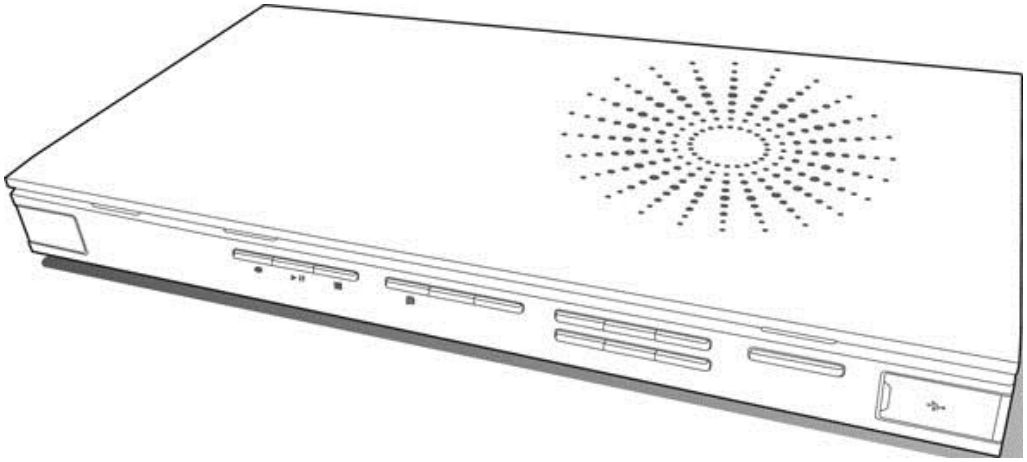
VS-LC102
CaptureVision Station

User Manual - English



[Important]

To download the latest version of Quick Start Guide, multilingual user manual, software, or driver, etc., please visit Lumens
http://www.Mylumens.com/support.php

Lumens™

Table of Contents

Copyright Information **4**

Chapter 1 Safety Instructions **5**

Chapter 2 Package Contents **6**

Chapter 3 Product Overview **7**

3.1 Front-End Panel Descriptions 7
3.2 Rear-End I/O Descriptions 7
3.3 Panel Keys Descriptions 8
3.4 Panel Indicator Introduction 8
3.5 Remote Control Buttons Descriptions 9

Chapter 4 System Requirements **11**

4.1 Basic Devices 11
4.2 Recommended Devices 11

Chapter 5 Instruction for installation **12**

5.1 How to Connect 12
5.2 Initial Setup 14

Chapter 6 OSD Function Descriptions **22**

6.1 Setting Menu 23
6.2 Basic Instruction 24

Chapter 7 Web Function Description – System Configuration **30**

7.1 System Configuration 31
7.1.1 System Information 31
7.1.2 Video Source Setting 32
7.1.3 Network Setting 33
7.1.4 Record Setting 33
7.1.5 Local Storage Setting 35
7.1.6 Layout Manager 35
7.1.7 Lecture Manager Configuration 36
7.1.8 Photo Manager 36
7.1.9 Schedule Manager Configuration 37
7.1.10 Event Log: 37
7.1.11 About Page Description 38
7.2 System Configuration Operation 39
7.2.1 Change Host Name 39
7.2.2 Change System Time 39

7.2.3 Source Setting 39
7.2.4 Connect IP Camera 40
7.2.5 Volume adjustment 42
7.2.6 Add Logo or Other Video in a Video 42
7.2.7 Storage Device Setting 43
7.2.8 Layout Management 44
7.2.9 Schedule Manager 46
7.2.10 Lecture Manager 46
7.2.11 Edit Lecture Keynote 47
7.2.12 Change Username and Password 47
7.2.13 Startup Screen 48
7.2.14 Network Setting 48
7.2.15 Webpage Language 48

Chapter 8 Webpage Function Description-Director 49
8.1 Director Instructions 50
8.1.1 Director Introduction 50
8.1.2 Director Instructions 51
8.1.3 Director Screen Instructions - Record Setting 52
8.2 Director Instructions 53
8.2.1 Basic Recording Operations 53
8.2.2 Change Display Layout 53
8.2.3 Insert Key Notes 53
8.2.4 Network Camera Control 54
8.2.5 Other Recording Settings 54
8.2.6 Webpage Language 54

Chapter 9 Web Page Function Description - Viewer 55
9.1 Page Description 56

Chapter 10 Advanced Function Menu 57
10.1 Enable Automatic Recording Backup 57
10.1.1 Set Up FTP Connection 57
10.1.2 Backup Setting 58
10.2 Use RTP to Share Screen 59
10.2.1 Set RTP Sharing 59
10.2.2 Start RTP Sharing 59
10.2.3 View Screen Sharing 59
10.2.4 Use Online Director page for RTP sharing setup 60
10.3 How to live stream 61
10.3.1 Enable the YouTube live streaming 62
10.3.2 Create a live event 64
10.3.3 Configure VS-LC102 66

10.3.4 Start live streaming 67
10.4 Insert and Use Key Notes 68
10.4.1 Insert Key Notes 68
10.4.2 Modify Index 68
10.4.3 Use Key Notes 69
10.5 PPT Installation and Instructions 69
10.5.1 Installation 69
10.5.2 Interface Description 69
Chapter 11 Troubleshooting 71
Attachment 1 73

Copyright Information

Copyrights © Lumens Digital Optics Inc. All rights reserved.

Lumens is a trademark that is currently being registered by Lumens Digital Optics Inc.

Copying, reproducing or transmitting this file is not allowed if a license is not provided by Lumens Digital Optics Inc. unless copying this file is for the purpose of backup after purchasing this product.

In order to keep improving the product, Lumens Digital Optics Inc. hereby reserves the right to make changes to product specifications without prior notice. The information in this file is subject to change without prior notice.

To fully explain or describe how this product should be used, this manual may refer to names of other products or companies without any intention of infringement.

Disclaimer of warranties: Lumens Digital Optics Inc. is neither responsible for any possible technological, editorial errors or omissions, nor responsible for any incidental or related damages arising from providing this file, using, or operating this product.

Chapter 1 Safety Instructions

Please use the product following the safety instructions below:

1 Operation

1.1 Please use the product in the recommended operating environment.
1.2 Do not place the product in tilted position.
1.3 Do not place the product on an unstable trolley, stand or table.
1.4 Do not use this product near water or source of heat.
1.5 Use attachments only as recommended.
1.6 Use the type of power source indicated on this product. If you are not sure of the type of power available, consult your dealer or local electricity company for advice.
1.7 Always take the following precautions when handling the plug. Failure to do so may result in sparks or fire:
- Ensure the plug is free of dust before inserting it into a socket.
- Ensure that the plug is inserted into the socket securely.

1.8 Do not overload wall sockets, extension cords or multi-way plug boards to avoid potential risks.
1.9 Do not block slots and openings in the case of this product as poor ventilation may lead to overheating of this product.
1.10 Except as specifically instructed in this User Manual, do not attempt to open or remove covers by yourself. It may expose you to electric shock or other hazards. Refer all servicing to licensed service personnel.
1.11 Unplug this product from the outlet and refer servicing to licensed service personnel when the following situations happen:
- If the power cords are damaged or frayed.
- If liquid is spilled into the Product or the Product has been exposed to rain or water.

2 Storage

2.1 Do not place the Product where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
2.2 Never push objects of any kind through cabinet slots. Never allow liquid of any kind to spill into the Product.
2.3 Unplug this product during thunderstorms or if it is not going to be used for an extended period.
2.4 Do not place this product or accessories on top of vibrating equipment or heated objects.

3 Cleaning

3.1 Unplug all the cables before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.

4 Remote control (if the accessories are equipped with remote control)

4.1 Using an incorrect battery type in the remote control may result in breakdown. Follow local instructions on how to dispose of used batteries.

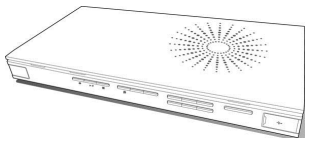
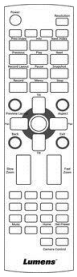
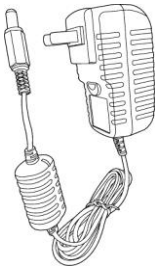
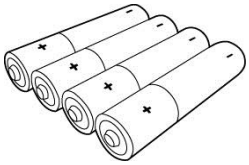
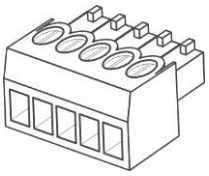
- **FCC Warning**

The product has been tested and found to comply with the limits for a Class B digital device, pursuant to Article 15-J of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

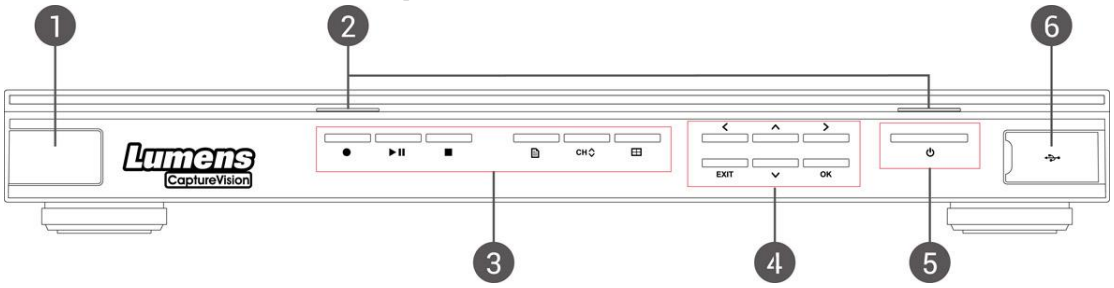
Cet appareil numerique respecte les limites de bruits radioelectriques applicables aux appareils numeriques de Classe B prescrites dans la norme sur le material brouilleur: "Appareils Numeriques," NMB-003 edictee par l'Industrie.

Chapter 2 Package Contents

VS-LC102	Quick Installation Guide	Remote Control
		
Power Adapter	**Battery x 4**	**DIDO connector**
 Appearance may vary depending on country/region		

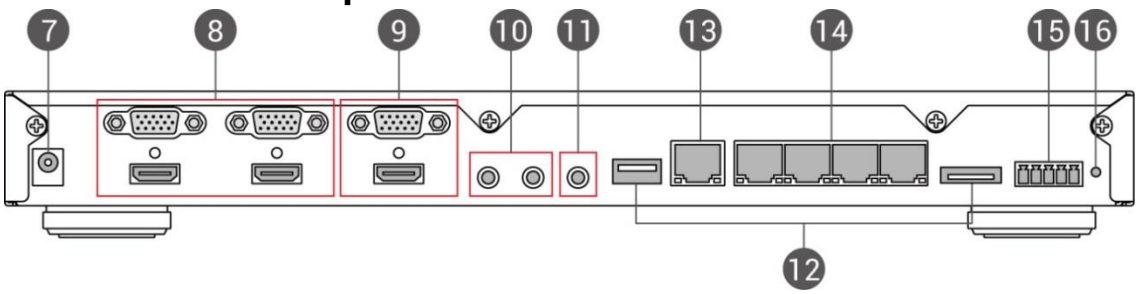
Chapter 3 Product Overview

3.1 Front-End Panel Descriptions



NO.	Name	Function Descriptions
1.	Remote Control Receiver	Infrared remote control reception area
2.	Indicator	Recording/Power
3.	Function Shortcuts	Record/Play/Pause/Stop/Menu/Channel/Layout Display
4.	Operation Selection	Up/Down/Left/Right/Return/OK
5.	Power Button	Power Switch
6.	USB Port	Use the USB drive to insert an export file or proceed with firmware update through the USB drive

3.2 Rear-End I/O Descriptions

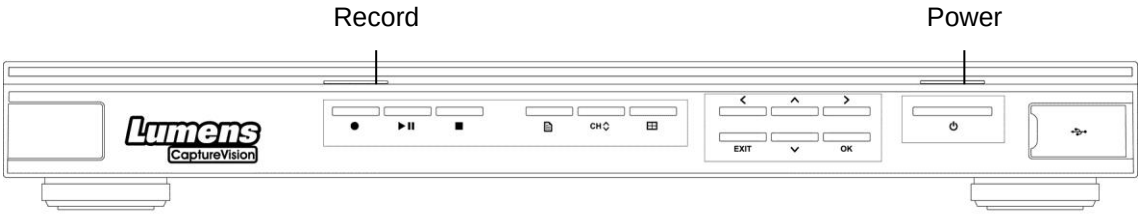


NO.	Name	Function Descriptions
7.	Power IN	12V/2A
8.	Image Input	VGA/HDMI device image input **Note:** Compatible with DVI to HDMI adapter or VGA adapter for device image input
9.	Image Output	VGA/HDMI device image output
10.	Audio In	Line/MIC device Audio In
11.	Audio Out	Allows line audio out to amplifier transfer
12.	Hard Disk In	USB/eSATA interface for hard drive storage
13.	WAN	LAN access
14.	LAN port	1. Image input for IP camera 2. Connect to the computer directly for online management operations
15.	DIDO	RS-232 control signal port
16.	Reset	Reset to factory default settings

3.3 Panel Keys Descriptions

NO.	Icon	Name	Function Descriptions
1.	⏻	Power	Turn on and off.
2.	●	Record	Start recording.
3.	▶II	Play/Pause	Play video/Pause video during playback
4.	■	Stop	Stop playback/Exit recording
5.	🗎	Menu	Enter Main Menu: Playback/Recording/Settings
6.	CH ⇕	Channel	Change channels.
7.	⊞	Layout Display	Change monitor layout during playback
8.	⌃⌄ 〈 〉	Direction Keys	Move up/down/left/right and select item
9.	**OK**	OK	Execute item in the menu screen. Enlarge display window during playback
10.	↩	Return	Return to the previous menu or cancel selection

3.4 Panel Indicator Introduction



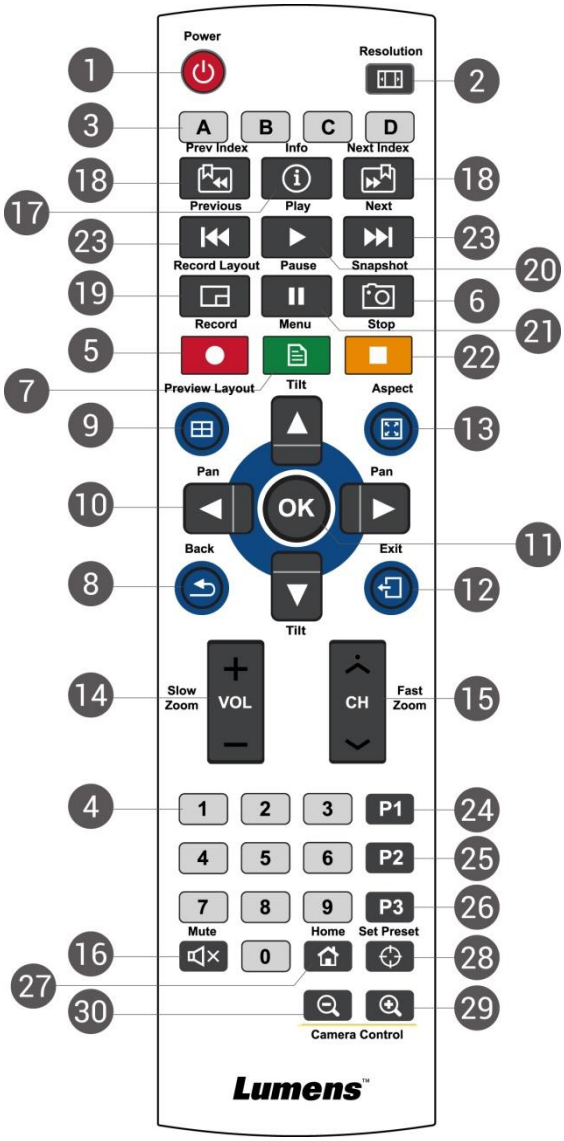
Indicator	Indicator Display	Description
Record	Orange light stays lit	Recording in progress
Power	Red light stays lit	In standby mode
	Red and green indicators alternately flicker	Startup in progress
	Green light stays lit	Startup completed
	Flickering red light	Abnormal fan
	Flickering green light (once)	Receiving remote control command

3.5 Remote Control Buttons Descriptions

When using the remote control, please point the remote control at the infrared reception area on the front panel of the product to ensure that the signal is successfully received. The valid angle of the remote control is +/- 30°, and the vertical range is within 10 m.

<Remark 1> The remote control and panel commands become invalid when controlling the product through the web.

<Remark 2> The camera **control** function becomes available once the Webcam channel is switched to full-screen mode.



NO.	Icon	Name	Function Descriptions
1.	⏻	Power	Turn on and off
2.		Aspect Ratio	Automatic output resolution detection and adjustment
3.	A B C D	ABCD	A: Exit export USB drive B ~ D: Function keys; please refer to the instructions provided on each
4.	1 2 3 4 5 6 7 8 9 0	Numeric Keys	Camera: PRESET setting by the camera
5.	●	Record	Start recording
6.		Snapshot	Capture screenshot and save as image file
7.		Menu	Enter/Exit Menu

NO.	Icon	Name	Function Descriptions
8.		Return	Return to the previous menu or cancel selection
9.		Layout Display	Change monitor layout during playback
10.	▲▼◀▶	Top, Bottom, Left and Right	LC102: Move up/down/left/right and select item Camera: Rotate camera lens
11.	**OK**	OK	Select and activate menu item
12.		Exit	Exit all settings or dialogue windows and return to display window
13.		Maximize Display	Sequentially switch between the methods for maximizing windows of all channels
14.	**VOL**	Volume/ Slow zoom	LC102: Adjust volume Camera: Fine-tune image size
15.	**CH**	Channel/ Fast zoom	LC102: Switch layout channels Camera: Adjust image size
16.		Mute	Turn off sound
17.		Information	Display detailed video information
18.		Previous Key Note Next Key Note	During playback, select key note to rapidly switch chapters [Remark] Key notes must be inserted within the video beforehand to activate this function
19.		Recording Layout	Changing screen layout during recording
20.	▶	Play	Play video. Press this key during playback to pause the video.
21.	❚❚	Pause	Pause video playback/recording
22.	■	Stop	Stop video playback/recording
23.	⏮ ⏭	Previous/Next	Skip to previous/next video during playback
24.	**P1**	P1	Reserved
25.	**P2**	P2	Reserved
26.	**P3**	P3	Reserved
27.		Home	Camera: Return to initial position
28.		Set Preset	Camera: Set default position
29.		Zoom In	Camera: Zoom in the image
30.		Zoom Out	Camera: Zoom out the image

Chapter 4 System Requirements

To control this product remotely via the Internet, please use the following recommended browser:

Browser	Version	Operating System	
		Windows	MAC
IE	IE9 and above	Yes	NA
360 Safe Browsing	7.1 and above (Applicable only in "Speed Mode")	Yes	NA

[Note] Browsers, such as Chrome, Firefox, and Safari have stopped supporting NPAPI and cannot install the FireBreadthed VLC component. It is not recommended for use with VS-LC102

4.1 Basic Devices

- VS-LC102 x 1
- Computer (or Laptop) x 1
- Router x 1 (Giga routers are recommended)
- Lumens Webcam x 1-3; e.g. VC-A20P x 3
- Network cables x 3-5
- HDMI or VGA cable x 2
- Speaker x 1
- Microphone x 1

4.2 Recommended Devices

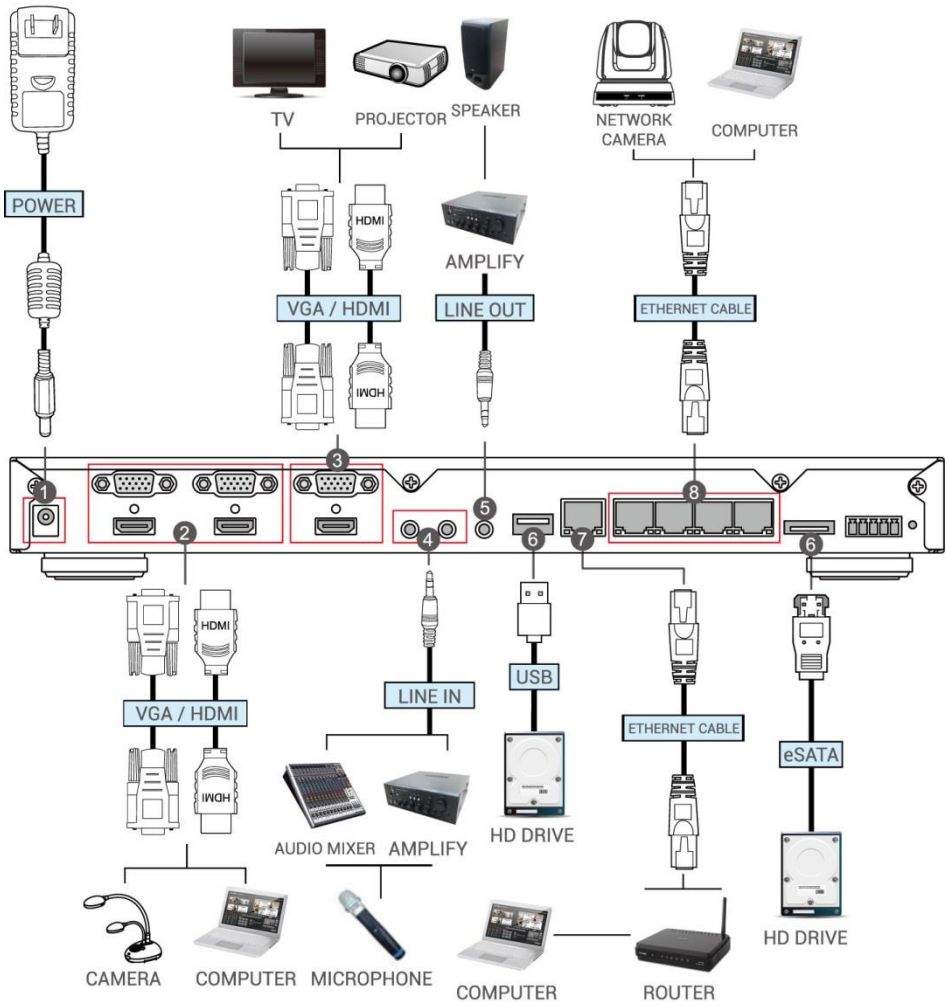
- Display x 1
- Amplifier x 1
- Mixer x 1

[Remark] The number of connected devices can be increased or adjusted based on environment needs

Chapter 5 Instruction for installation

5.1 How to Connect

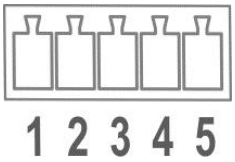
- Please follow the following instructions to connect your devices.



NO.	Function	How to connect
1.	Power	Connect the power cord
2.	Image Input	Connect the image output cable of the computer with the image input port (HDMI IN/VGA IN) to establish an HDMI or VGA connection **Note:** Alternative devices can be used to replace the computer as the image input device, such as cameras or projectors…
3.	Image Output	Connect HDMI OUT to HDMI of the TV screen **Note:** If HDMI is not available on the TV, adapters can be used according to the specification of the TV
4.	Audio In	Connect the audio input cable of a line device, such as an amplifier, mixer, or microphone
5.	Audio Out	Connect the audio output cable of a line device, such as an amplifier
6.	Storage Device	Insert a USB or eSATA external hard drive as the storage device
7.	WAN	Connect the WAN port to the router and computer to remotely control the VS-LC102 **Note:** Please connect the computer to the LAN port (8) first, and then connect the computer to a router after the completion

		of external network settings
8.	LAN port	1. Connect an IP camera (e.g. VC-A20P) as the image input 2. Connect to the computer directly for online management; for the initial use, please connect the port for further operations
9.	Digital I/O	Connect the RS232 device

5.1.1 Digital I/O Pin Descriptions



Pin NO.	Function
1	Gnd
2	CTS
3	RxD
4	RTS
5	TxD

5.1.2 Digital I/O Connection Descriptions

VS-LC102 Digital I/O	DIDO connector
5.TxD	RxD
4.RTS	CTS
3.RxD	TxD
2.CTS	RTS
1.Gnd	Gnd

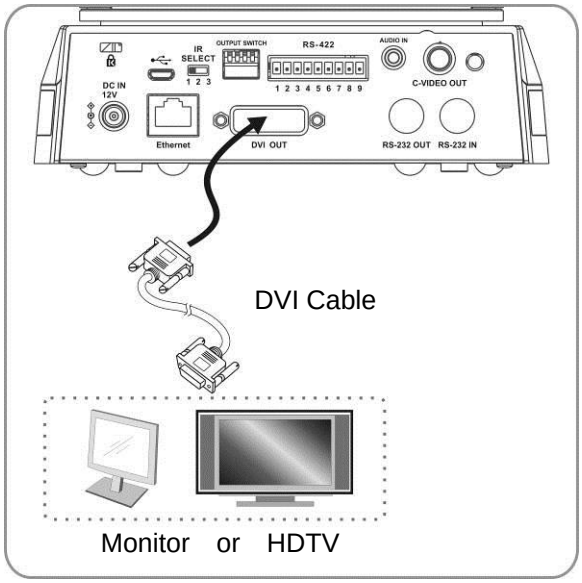
5.2 Initial Setup

5.2.1 Confirm and Set the VC-A20P Network Settings

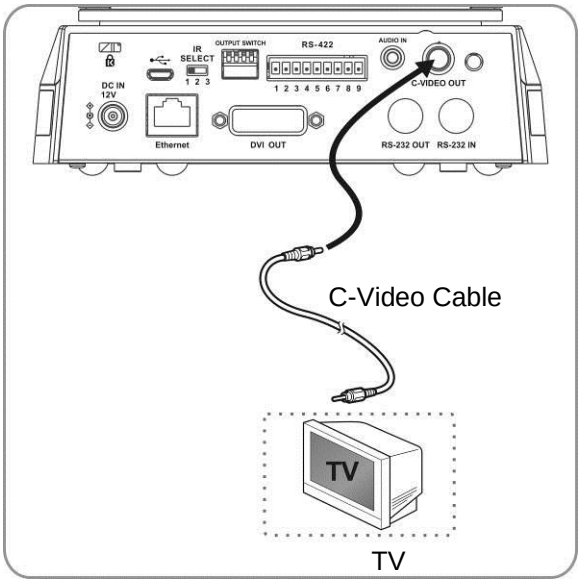
- Use a C-Video or a DVI cable to connect the VC-A20P with the monitor (please refer to the connection diagram for the connection method).
- After startup, press the **[MENU]** on the VC-A20P remote control to open the OSD menu.
- Scroll down to **[Ethernet]**, and press [↵] to enter.
- Press [↵] to enter the **[DHCP]** settings screen. Confirm **[DHCP]** is set as **[Closed].**
- Press **[MENU]** to exit the **[DHCP]** settings screen.
- Confirm the default **[IP Address]** is set as **[192.168.100.150]**.

[Remark] If more than one VC-A20P devices are installed, sequentially modify the IP addresses as **[192.168.100.x]**, e.g. [**192.168.100.151]**, **[192.168.100.152]**, and so forth…

- After confirming the IP addresses and completing modifications, press [MENU] repeatedly to exit the OSD menu.



/



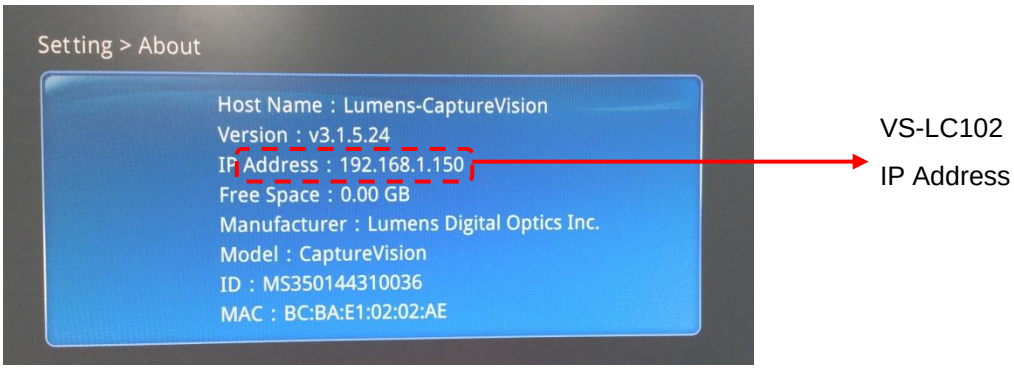
[Remark] For more instructions related to VC-A20P operations, please go to the Lumens website and download the **VC-A20P User Manual**

✧ Before continuing with settings below, please ensure that the settings in **5.1 How to Connect** have been completed.

5.2.2 Confirming the VS-LC102 IP Address

- Press the button on the VS-LC102 remote control to open the OSD menu.
- Scroll right to **[Setting]** and press **[OK]** to enter the settings screen.
- Scroll down to **[About]** and press **[OK]** to enter the **[About]** page and confirm the IP address.
- Repeatedly press the button to exit the OSD menu.

[Remark] If the IP address indicates 169.175.x.x, reconfirm the connection and the router settings.



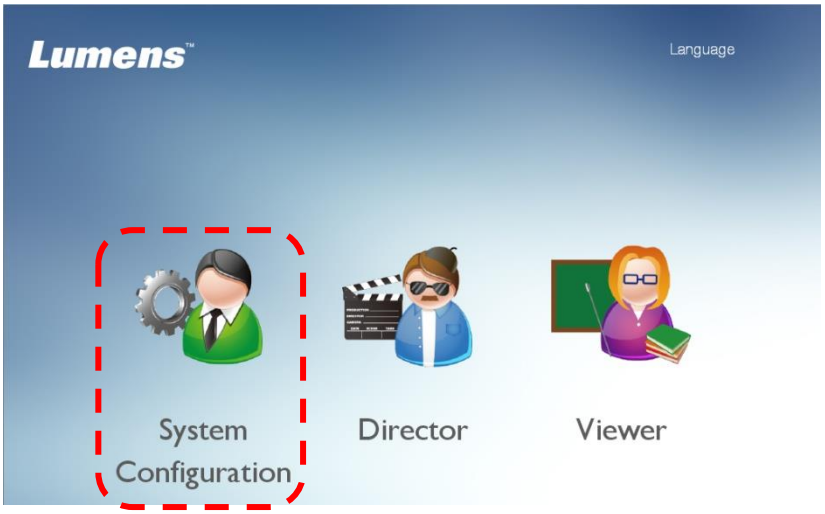
5.2.3 Connecting to the VS-LC102 Webpage (Incl., log in)

[Remark 1] For the initial setting, please directly connect the computer to the VS-LC102 LAN port, and set to automatically obtain IP address

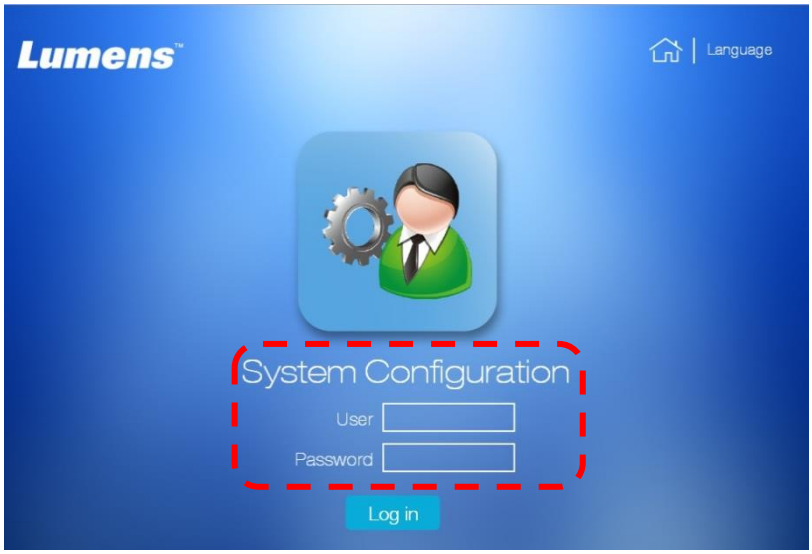
- Open the computer's Internet browser.

[Remark 2] For the browser, it is recommended to use Firefox or Safari (for MAC)

- Enter the VS-LC102 IP address; e.g. http://192.168.1.150 (default IP address)
- Select **[System Configuration]**



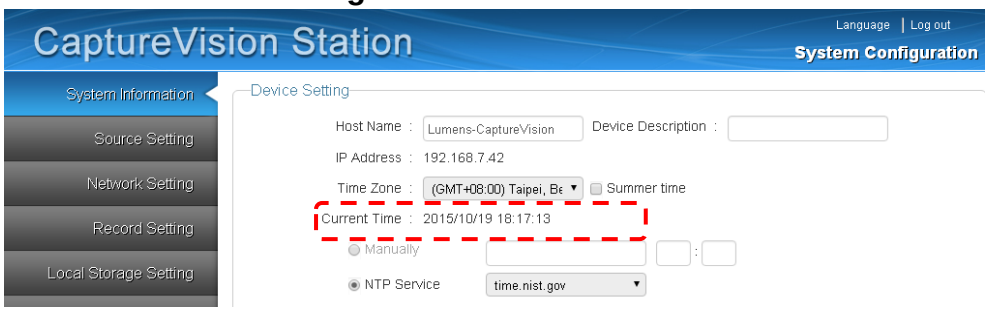
- Enter the VS-LC102 Admin username and password.
  User: admin
  Password: admin



- Click **[Log in]** to enter the System Configuration.

5.2.4 Settings

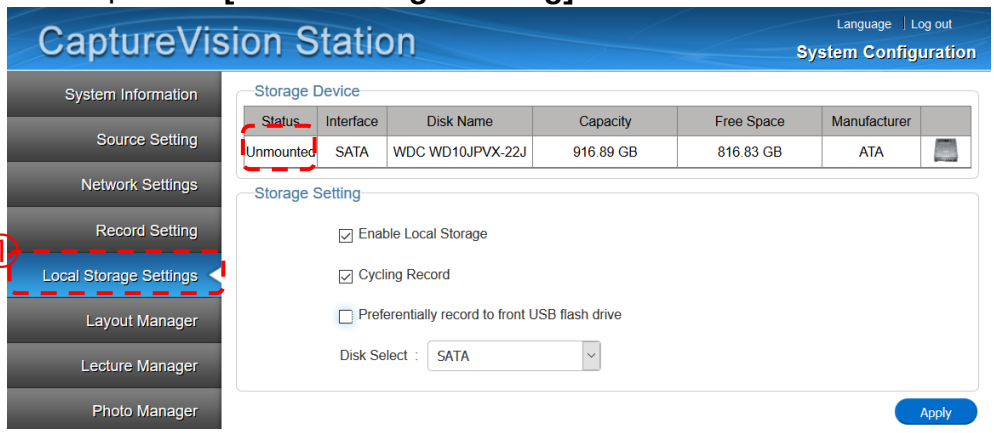
1 Confirm Time Setting



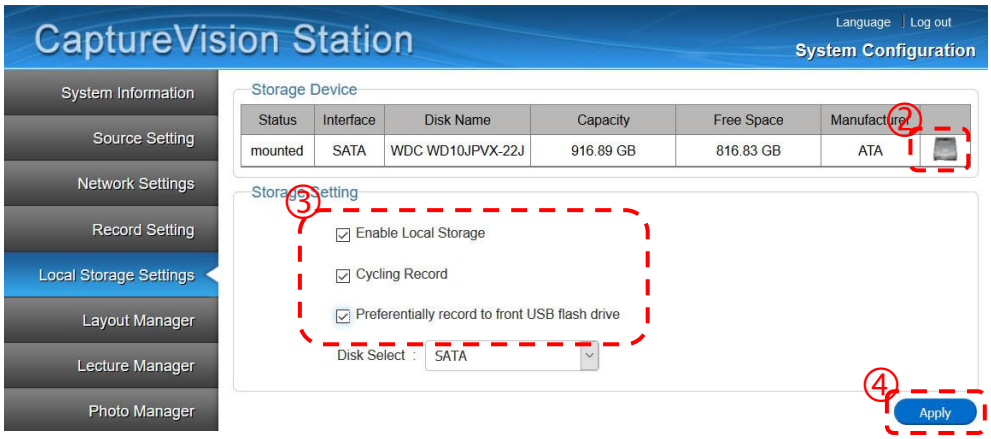
- Confirm the time setting. The time can be manually set or chosen from other NTP servers if modifications are required.

2 Confirm hard drive status

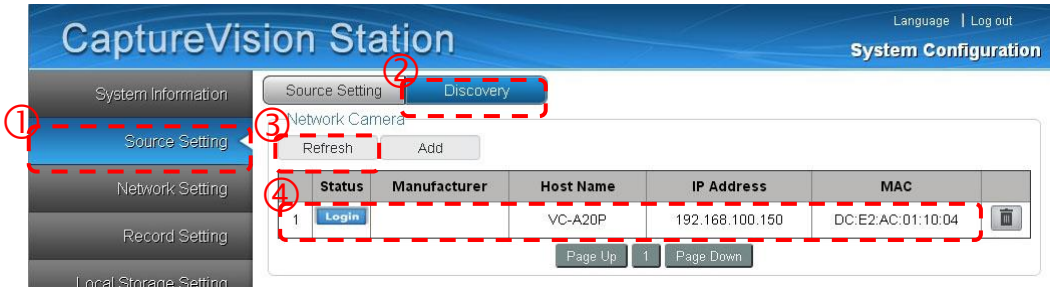
- Open the **[Local Storage Setting]**



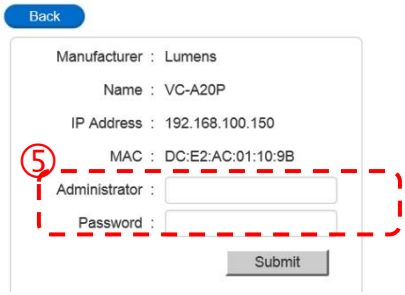
- Confirm hard drive status and then configure depending on the status
  Unformatted: Click to format the hard drive, which will take several minutes depending on the storage device format; do not close the page until successful operation (**Note:** Backup hard drive prior to formatting, as it will erase the whole hard drive)
  Unmounted: Follow the instruction below to mount the hard drive
  Mounted: Skip this step to connect to a camera
- Check **[Enable Local Storage]** to mount the hard drive.
- Check **[Cycling Record]** to cycle hard drive space. When the hard drive space is used up, the oldest data will be automatically overwritten by the newest data, allowing the system to continue storing information.
- Select the drive **[SATA/USB/eSATA]** and choose the desired storage device.
  Select **[SATA]** for the built-in hard drive.
  Select **[USB/eSATA]** for the external hard drive.
- Click **[Apply]** to apply the settings.
- The storage device status changes to **[Mounted]**, indicating that the storage device has been successfully set.



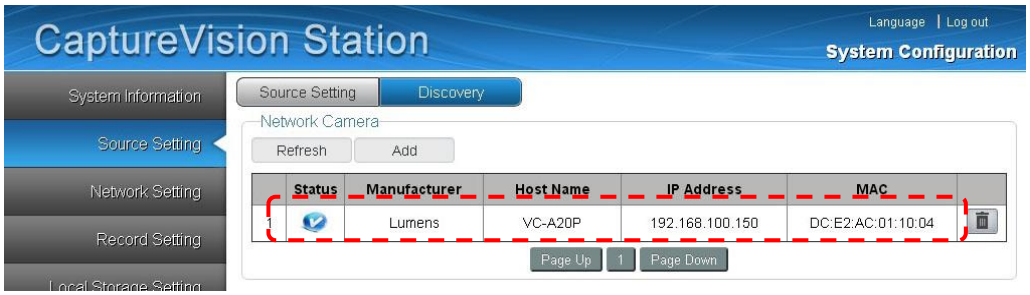
3 Connect IP Camera



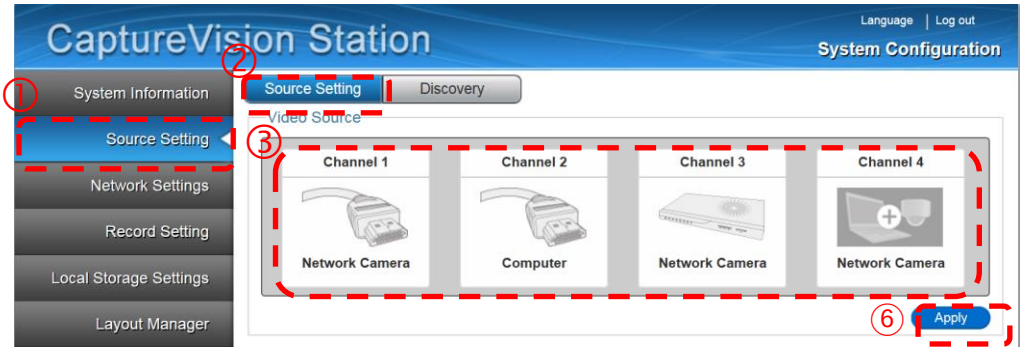
- Open the **[Source Setting]**.
- Click on **[Discovery]** and then **[Refresh]**.
- After the search is complete, the available camera will be shown in the list. Select the Login.
- Enter the VC-A20P account name and password.
  Administrator: admin
  Password: 9999

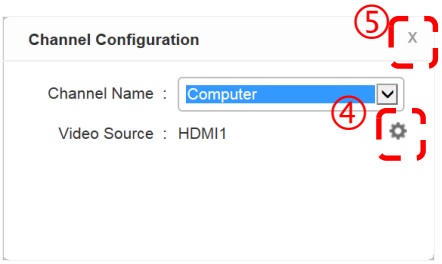


- Click **[Submit]**, and wait until the camera status changes to **[OK]**.



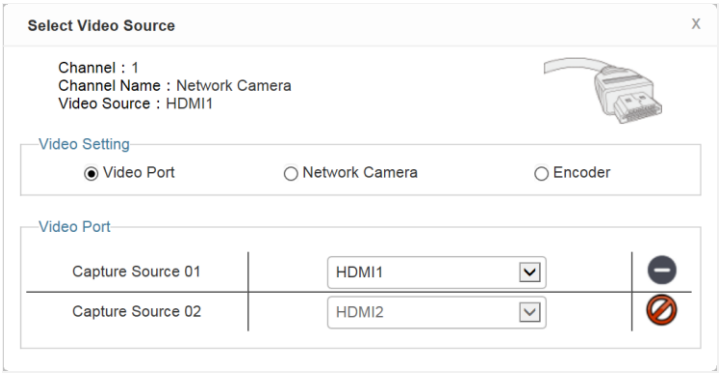
4 Image Input Settings





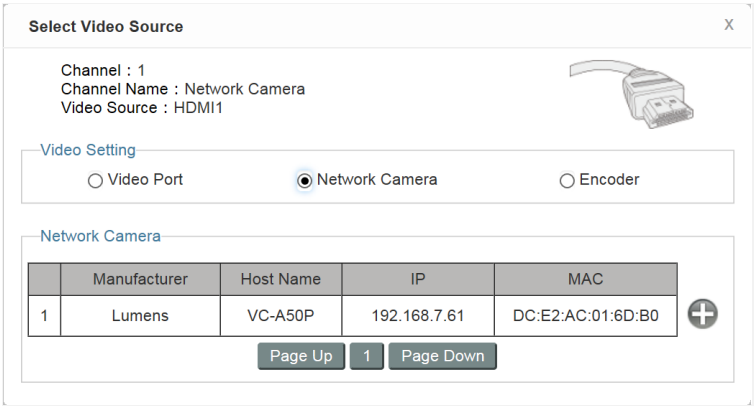
- Open the **[Source Setting]**
- Select the **[Source Setting]** page. Set the video sources for Channel 1 to 4
- Click the [+] symbol to set the input channel name/image source for image capture
- After the setting of image source is completed, click [x] to close the p op-up window
- Click **[Apply]** to apply the settings

➢ Image Port



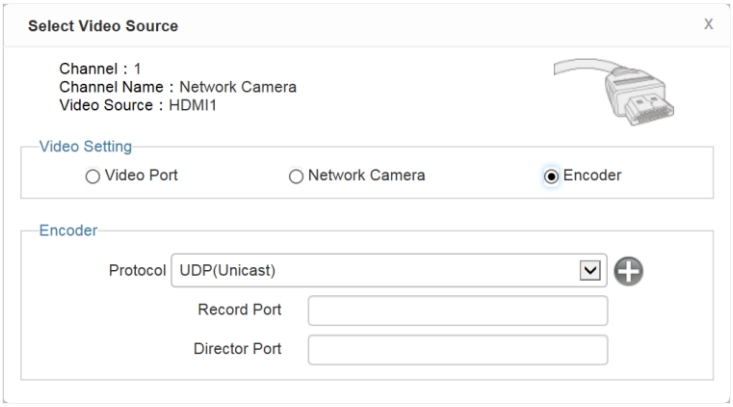
- In Image Setting, select **[Image Port]**
- Select the image port as **[HDMI or VGA]** according to the capture source

➢ Network Camera



- In Image Setting, select **[Network Camera]**
- Select the network camera that has been connected and press the [+] symbol to confirm

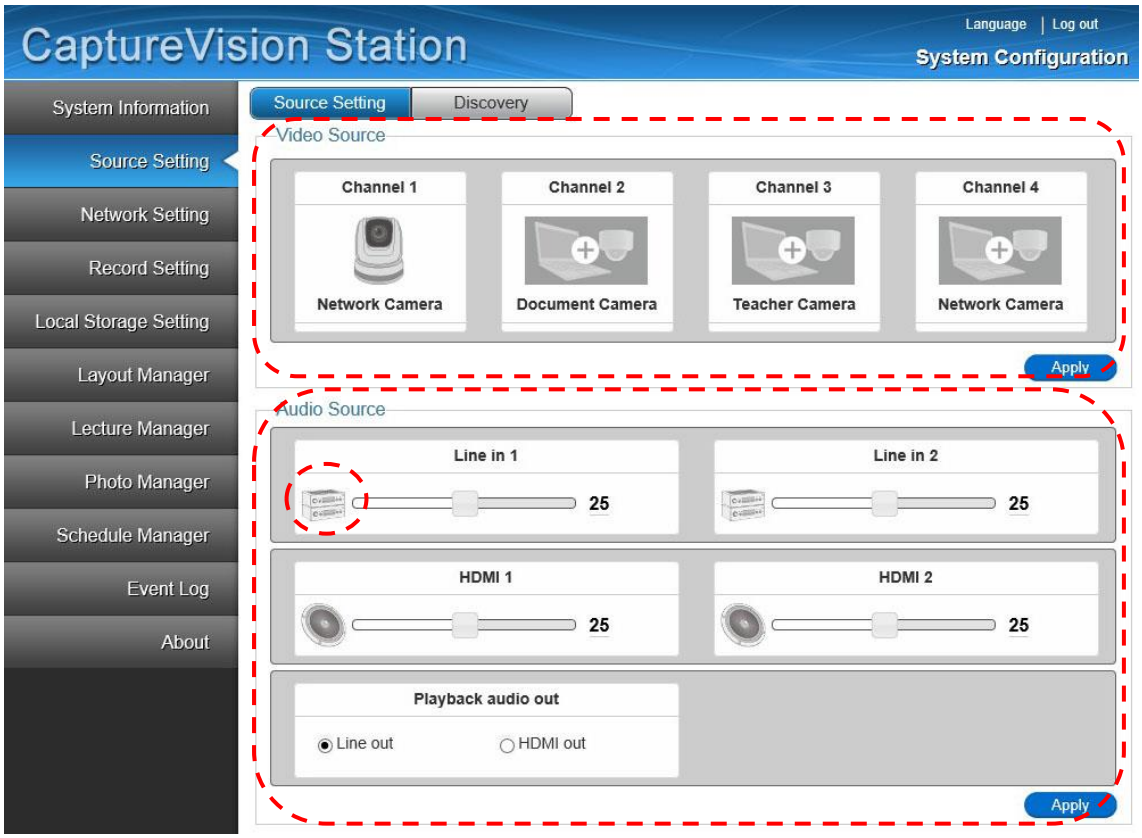
➢ Network Encoder



- When the image source is an encoder, input the UDP or RTP connection port number of encoder settings.
- If the source encoder setting has more than two connection port numbers, one of them is for recording and another for casting in order to distinguish sources of signal.
- Click the [+] symbol to select the image input encoder that you want to connect.

[Note] The encoder must be used in Unicast mode

5 Image Input Settings



- Set Audio In
- Select the audio output according to the output device
  ([**Note**] Line audio output is preferably selected)
- Click **[Apply]** to apply the settings.

[Remark] When connecting Line In to a microphone, click to change to microphone input .

6 Monitor and Recording Screen Configuration

- Open **[Layout Manager]**.
- Set style in **[Display Layout]**. 9 sets of styles can be selected.
- Set style in **[Record Layout]**. 9 sets of styles can be selected.

[Remark] Refer to [7.2.8 Layout Management] for layout configuration related to layout.

Log out the webpage once the above settings are completed.

5.2.5 Confirm Various Settings

1 Confirm Layout Style Settings

Confirm CH1 to CH4 screens. If the screen is different from the setting, please refer to [5.2.4 Settings (Image Input Settings)] to reset **image input**.

- Press the button on the remote control and check if the 9 layout recording styles are consistent with the settings. Blue indicates that a style is currently applied. Press again to exit.

- Press the button on the remote control and check if the 9 layout styles are consistent with the settings. Blue indicates that a style is currently applied. Press again to exit.

2 Confirm Capture Screenshot Function

Use the remote control to test the Capture Screenshot function. If it fails, please refer to **5.2.4 Settings (Confirm hard drive status)** to check whether the hard drive is properly installed.

- Press on the remote control to take a screenshot.

3 Confirm Recording Function

Use the remote control to test the recording function. If recording fails, refer to **5.2.4 Settings (Confirm hard drive status)** to check whether the hard drive is properly installed.

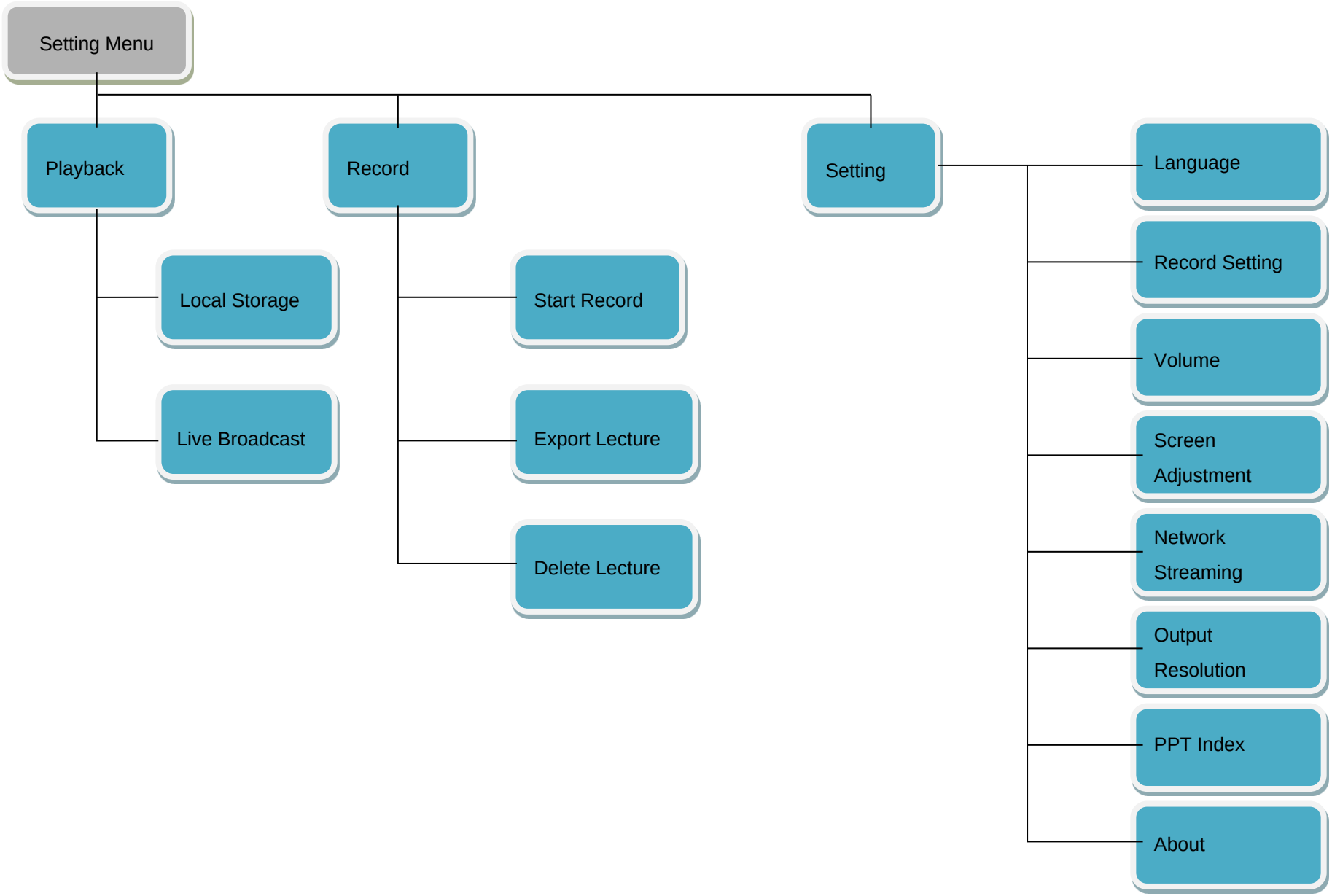
- Press ● on the remote control to access the recording screen. Press ● again to begin recording. Recording begins following the countdown. Press ■ to stop recording.

4 Confirm Playback Function

Use the playback function to confirm screenshot and recording results.

- Press on the remote control to access the OSD menu.
- Select [**Playback**] ->[**Local Storage**]
- [**Photo**] ->Select folder by date ->Select picture
- Press to exit picture browser.
- [**Video**] ->Select folder by date ->Select and playback video.
- Check whether the record screen layout and audio are normal and whether video and audio are synchronized. If the video and audio are not synchronized, go to the **Recording Setting in System Configuration**, adjust audio lag, and repeat the recording and playback actions until the playback is synchronized.
- Press to exit video playback.
- Press to exit screen.

Installation is completed once the above functions operate normally.


Setting Menu
Playback
Record
Setting
Local Storage
Live Broadcast
Start Record
Export Lecture
Delete Lecture
Language
Record Setting
Volume
Screen Adjustment
Network Streaming
Output Resolution
PPT Index
About

6.1 Setting Menu

<Remark> Press **[MENU]** on the **Remote Control** to enter the setting menu.

1st Level Major Items	2nd Level Minor Items	3rd Level Options	Function Descriptions
Playback	Local Storage	Video/Photo	Read stored videos or images
	Live Broadcast	NA	Broadcast the video directly streaming from other VS-LC102 For related settings and usage, please refer to **10.2 Use RTP to Share Screen**
Record	Start Record	NA	Start Recording
	Export Lecture	Video/Photo	Export stored videos and images to USB drive
	Delete Lecture	Video/Photo	Delete stored videos or images
Setting	Language	1.Traditional Chinese 2.Simplified Chinese 3.English	Change setting menu language
	Record Setting	Record Layout	Set recording screen configurations
	Volume	1.HDMI 1 2.HDMI 2 3.Line in / Mic 1 4.Line in / Mic 2 5.Output	Set input/output volume
	Screen Adjustment	1.Brightness 2.Contrast 3.Saturation 4.Hue 5.Default	Adjust screen brightness/contrast/saturation/ hue
	Streaming	Turn On / Turn Off	Network Streaming Address
	Resolution	1.Auto Scan 2.1920x1080[16:9] 3.1280x720[16:9] 4.1280x1024[5:4] 5.1024x768[4:3]	Adjust monitor output resolution
	PPT Index	1.Disconnect with PC 2.Clear paired PC	The connection and pairing settings of the PPT Index software can be used to remove the connection or clear paired PCs
	About	1.NA	VS-LC102 information; e.g. IP address, available capacity, etc…

6.2 Basic Instruction

Monitor menu, remote control, and panel instructions are provided below.

6.2.1 I would like to view screenshots or videos

- Press **[Menu]** on the remote control or panel to access the main menu.
- Use [◄ ►] to select **[Playback]**. Press **[OK]** to enter.
- Use [▲▼▲▼] to select **[Local Storage]**. Press **[OK]** to enter
- Use [▲▼] to select the desired **image** or **video**. Press **[OK]** to play.
- Press **[EXIT]** or **[Return]** to exit.

6.2.2 I would like to capture screenshot

Use the Remote Control or Control Panel:

- Press to take a screenshot.

6.2.3 I would like to start recording

Use the Remote Control or Control Panel:

- Press ● to access the recording preview screen.
- Press ●or **[OK]** to start recording
- Click **[STOP]** ■ to stop recording

Use the Main menu:

- Press **[Menu]** on the remote control or panel to access the main menu.
- Use [◄ ►] to select **[Record]**. Press **[OK]** to enter
- Use [▲▼] to select **[Start Record]**. Press **[OK]** to access the recording preview screen.
- Press **[OK]** to start recording

Viewing details under recording preview:

1. **Recording Codec:** Display current recording format
2. **Output Resolution:** Display current resolution
3. **Storage Drive:** Display the location of the saved files
4. **Available Space:** Display the free space on the hard drive
5. **Available Recording Time:** Display current recording time available
6. **Network Streaming:** Display network streaming status
7. **Key Note:** Display key note insertion method
8. **Recording Mode**

∗ Please refer to **6.2.6 Switch Record screen layout** for instructions to Switch Record screen layout.

∗ Please refer to **7.1.4 Record Setting** for instructions on custom recording format; e.g. recording layout, length of countdown, output resolution, etc…

∗ Please refer to **8.2 Director Instructions** for online director and recording methods.

6.2.4 In-Recording Actions

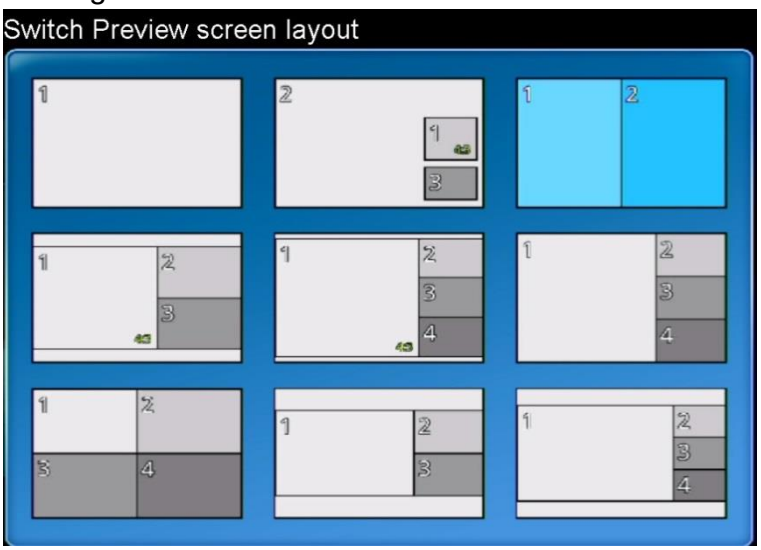
- Remote Control or Panel: Press ❚❚ / ▶❚❚ to pause recording; press ■ to stop recording.
- In-Recording rapid key note insertion: Press **[C]** on the remote control to insert a key note.

[Remark] For **other d**etailed operation related to **key notes**, please refer to **10.4 Insert and Use Key Notes**

6.2.5 Switch Preview screen layout

The display screen is set to CH1 full screen by default. Users can change the layout of the channels as desired. 9 layout style presets are available, or users can redefine layout settings as desired. Please refer to **7.2.8 Layout Management** for relevant instructions.

- Press ⊞ on the remote control or the panel to access **[Switch Preview Screen Layout]**
- Use [▲▼◀▶] and **[OK]** to select layout.
- After selecting the **layout display**, press **[CH]** to cycle through the channels within the layout. However, channels already displayed on the monitor cannot be changed.



6.2.6 Switch Record screen layout

The Record Screen Layout is set to CH1 full screen by default. Users can change the layout of the channels as desired. 9 layout style presets are available, or users can redefine layout settings as desired. Please refer to **7.2.8 Layout Management** for relevant instructions.

Use remote control:

- Press ⊟ to sequentially switch the preset recording layout.

Use the Main menu:

- Press **[Menu]** on the remote control or panel to access the main menu.
- Use [◀▶] to select **[Setting]**. Press **[OK]** to enter
- Use [▲▼] to select **[Record Setting]**. Press **[OK]** to enter
- Select **[Record Layout]** and press **[OK]**.
- Use [▲▼◀▶] to select the **Record Screen Layout** and press **[OK]**. Press ↩ or **[MENU]** to exit.

6.2.7 Channel Full-Screen Mode

Change channel to full-screen mode.

- Press [▲▼◀▶] on the remote control to select channel.
- Press **[OK]** to switch channel to full-screen mode. Press **[OK]** to restore channel to the original size.

[Remark] If the selected channel is a camera, the VS-LC102 can be used to control the camera.

6.2.8 Maximize Display Settings

Each channel in the **Layout Display** can be independently enlarged.

- Use the remote control to select the channel to switch to full-screen mode.
- Press ⛶ on the remote control to cycle through the method of enlarging the channel (Fit to Height/Fit to Width/Fill/Letter Box/Auto Cut).

Picture	Name	Description
	Fit to Height	Adjust to channel to fit the height of the window
	Fit to Width	Adjust to channel to fit the width of the window
	Fit to Height and Width	Adjust to channel to fit the width of the window
	Original Image	Restore to original output size
	Maximize Display	Enlarge channel to fit the window

6.2.9 Screen Resolution Settings

Adjust **display screen resolution** to match the output resolution with the display device.

Use remote control:

- Press ⊡ to automatically detect the optimal settings supported by the monitor.

Use the Main menu:

- Press **[Menu]** on the remote control or panel to access the main menu.
- Use [◄ ►] to select **[Setting]**. Press **[OK]** to enter
- Use [▲▼] to select **[Resolution]**. Press **[OK]** to enter
- Press [▲▼◄ ►] and **[OK]** to set the resolution (1920 x 1080 / 1280 x 720 / 1280 x 1024 / 1024 x 768 / Auto)

Name	Description
1920x1080	Full HD output
1280x720	HD output
1280x1024	SXGA output
1024x768	XGA output
Auto detection	Auto-detect and switch to the optimal resolution supported by the output device

6.2.10 Image Quality Settings and Adjustment

Adjust the **brightness, contrast, saturation, and tone** of the image to increase the color saturation, contrast, and vividness of the image, achieving optimal output.

- Press **[Menu]** on the remote control or panel to access the main menu.
- Use [◄ ►] to select **[Setting]**. Press **[OK]** to enter.
- Use [▲▼] to select **[Screen Adiustment]**. Press **[OK]** to enter.
- Press [▲▼◄ ►] to select and adjust various settings or restore **default settings**.

Name	Description
Brightness	The monitor become brighter with a higher brightness value
Contrast	Whites and blacks become brighter with a higher contrast value
Saturation	Color purity increases with a higher saturation value; otherwise, the color become greyer
Tone	Screen become bluer with a lower tone value; otherwise the screen become greener
Default Settings	Restore to default settings

6.2.11 Volume Setting

HDMI in; Line in/Mic; Output Volume Adjustment

- Press **[Menu]** on the remote control or panel to access the main menu.
- Use [◄ ►] to select **[Setting]**. Press **[OK]** to enter.
- Use [▲▼] to select **[Volume]**. Press **[OK]** to enter.
- Press [▲▼◄ ►] to select and adjust.
- Press 🔇 to mute audio output.

6.2.12 I would like to export lecture

Recordings and images can be exported to portable storage devices, enabling users to view the content easily.

Prior to export, ensure that the storage device (e.g., portable flash disk or hard drive) is plugged into the USB port on the front panel of the host device. A progress meter is displayed during export.

Users can exit during export, canceling backup.

Use remote control:

- Press [MENU] to access the main menu.
- Use [◀ ▶] to select **[Record]**. Press **[OK]** to enter.
- Use [▲ ▼] to select **[Export Lecture]**. Press **[OK]** to enter
- Use [▲ ▼] to move to the desired **image** or **video**. Press **[OK]** to select. Press **[OK]** again to cancel selection.
- Multiple files can be selected for in a single export.
- Press **[C]** to cancel all selections.
- Press **[D]** to export. Press **[Confirm]**. Press **[OK]** to begin exporting the lecture.
- Press to cancel course export.

[Remark] VLC Player is suggested for viewing videos for better quality.

6.2.13 I want to upload files to FTP

You must first complete FTP connection settings before using this function. Please refer to **10.1.1 Set up FTP Connection**

Use remote control:

- Press **[MENU]** to access the main menu
- Use [◀ ▶] to select **[Record]**. Press **[OK]** to enter
- Use [▲ ▼] to select **[Export Lecture]**. Press **[OK]** to enter
- Use [▲ ▼] to move to the desired **video**. Press **[OK]** to select. Press **[OK]** again to cancel selection
- Multiple files can be selected for in a single export
- Press **[C]** to cancel all selections
- Press **[D]** to export. Press **[OK]** to begin exporting the lecture,
- Select export method **[FTP]**
- Select export format **[MP4]** to start uploading
- Press to cancel course uploading

6.2.14 I would like to delete lecture

- Press **[Menu]** button on the remote control or panel to access the main menu.
- Use [◀ ▶] to select **[Record]**. Press **[OK]** to enter.
- Use [▲ ▼] to select **[Delete Lecture]**. Press **[OK]** to enter.
- Use [▲ ▼] to move to the desired **image** or **video**.

- Press **[OK]** to exit the window. Press **[Confirm]** to delete. Press **[Cancel]** to cancel deletion.

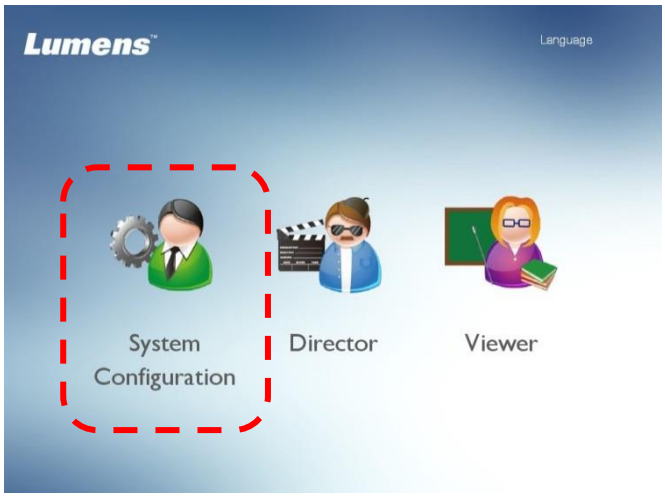
6.2.15 I would like to change the menu language

- Press [**Menu**] button on the remote control or panel to access the main menu
- Use [◀ ▶] to select [Function Setting]. Press [**OK**] to enter
- Use [▲ ▼] to select [Language Setting]. Press [**OK**] to enter
- Use [▲ ▼] to select the desired language. Press **[Confirm]** to apply

Chapter 7 Web Function Description – System Configuration

System management enables users to manage basic system settings, advanced function settings, and data storage.
Before adjusting the settings in System Configuration, follow the below instructions to log in.

- Open the web browser on the PC and enter the IP address of VS-LC102; e.g. http://192.168.1.150.
- Select **[System Configuration]**.



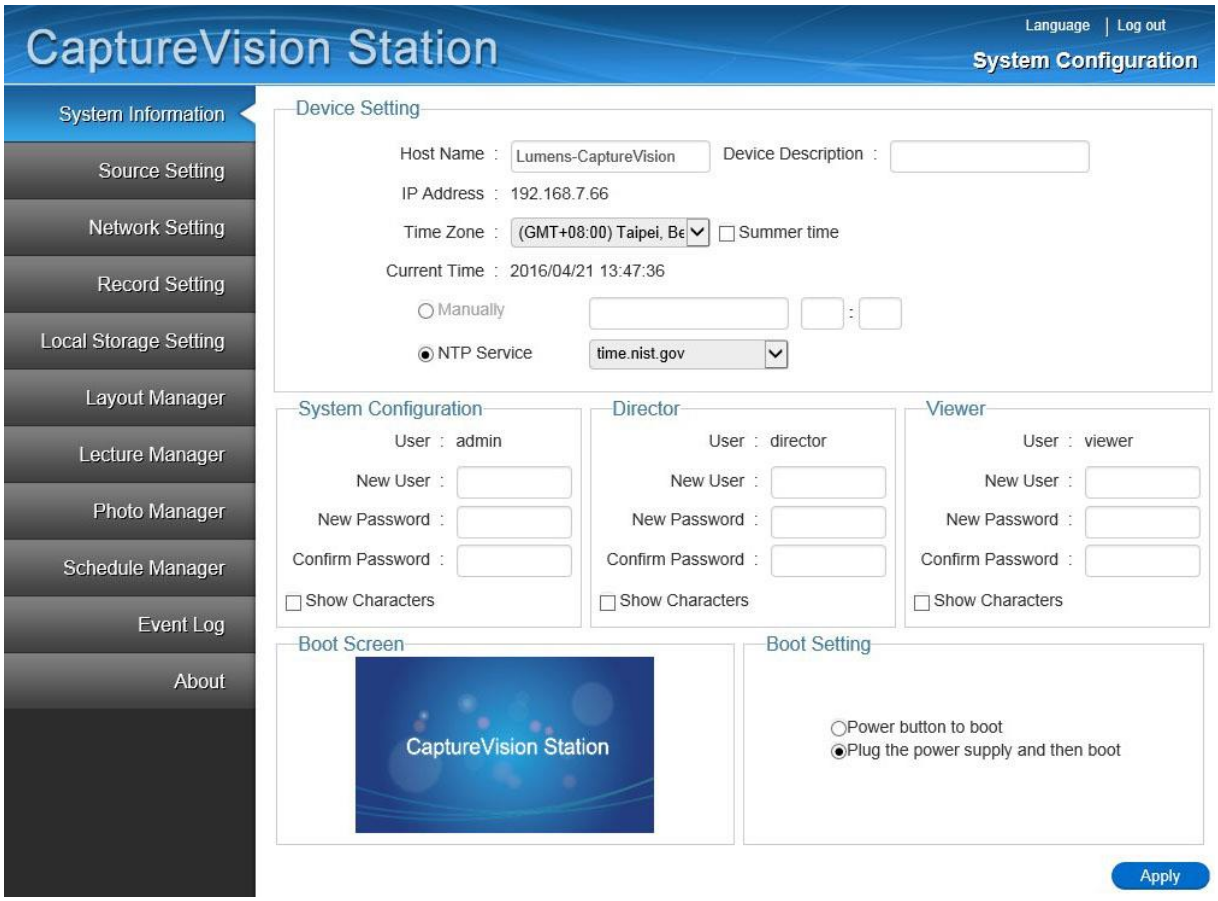
- Enter the VS-LC102 Admin username and password.
  User: admin
  Password: admin

- Click **[Log in]** to enter the System Configuration.

7.1 System Configuration

[Remark] After the desired settings are adjusted, press [Apply] on the bottom-right of the screen to apply the adjustments.

7.1.1 System Information



1 **Device Setting**

1.1 **Host Name:** Name of the host device

1.2 **Host Description:** User-defined device description

1.3 **IP Address:** IP address of the host device

1.4 **Time Zone:** Current selected time zone

1.5 **Current Time:** System time can be **adjusted manually/automatically**

2 **System Configuration/Director/Viewer: Change Username and Password**

2.1 **New User:** Enter a custom username for **System Configuration/Director/Viewer**

2.2 **New Password:** Enter a custom password for **System Configuration/Director/Viewer**

2.3 **Confirm Password:** Enter again the custom password for **System Configuration/Director/Viewer**

2.4 **Show Characters:** Display the keystrokes onscreen when entering the password

3 **Boot Screen: Select the display screen during startup**

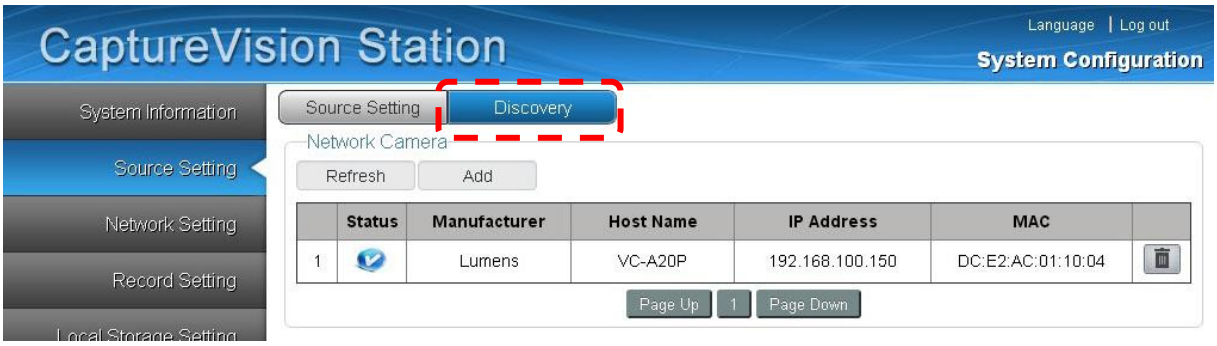
4 **Boot Setting: Set startup mode**

7.1.2 Video Source Setting

1 **Source Setting:**

1.1 **Video Source: Video priority**

1.2 **Audio source: Set input/output audio**



2 **Discovery**

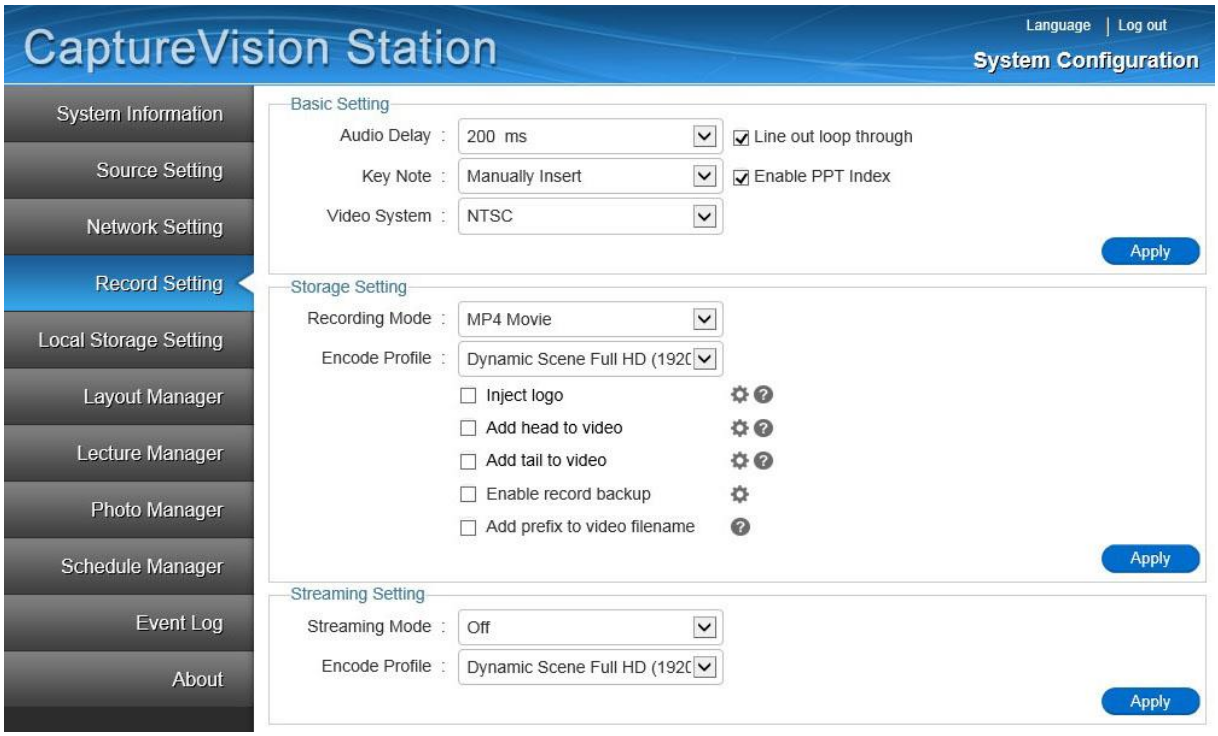
2.1 **Network Camera:** Network camera list, including located, connected, and previously connected network cameras

7.1.3 Network Setting

1 **DHCP:** Automatically allocate IPs based on the connected router

2 **Manual Configuration:** Manually enter network information

7.1.4 Record Setting



1 **Basic Settings:**

1.1 **Audio Delay:** Set audio delay time after video is transmitted

1.2 **Line out Loop Through:** Activate/Deactivate line out loop through. A high-frequency high-pitched sound is played back if audio from the speaker is picked up by the microphone, amplified, and retransmitted from the same speaker; in this instance deactivate line out loop through to prevent feedback

1.3 **Key note:** Key notes can be inserted manually, or automatically on a fixed timer or when changing PPT index

1.4 **Enable PPT Index:** Check to enable PPT index software. For other related operations, please refer to **10.4 Insert and Use Key Notes**

1.5 **Video Systems:** NTSC or PAL can be selected

2 **Storage Setting:**

2.1 **Recording Mode: Movie mode (MP4)**

2.2 **Encode Profile:** Offers 15 encoding formats and user customization

2.3 **Inject Logo:** Select screen position from the pull-down menu and press ⚙ to upload the inserted Logo file

2.4 **Add Head/Tail to Video:** To add a head or tail to the video, press ⚙ to select or upload the desired video file

2.5 **Enable Record Backup:** To automatically upload and backup video via FTP/SFTP, press ⚙ to access the backup settings window. For other related operations, please refer to **10.1 Enable Automatic Recording Backup**

2.6 **Enable prefix to the filename**：To add name of lecture to the filename of the video exported to USB/FTP.

3 **Streaming Setting:**

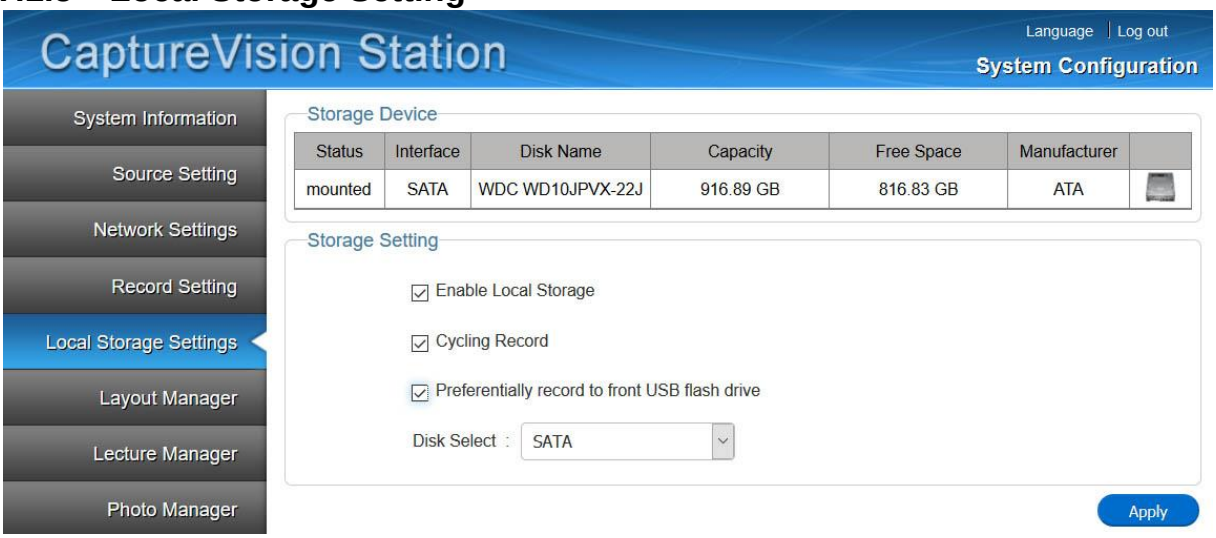
3.1 **Streaming Mode:** Supports RTP multicast and online director. For other related operations, please refer to **10.2 Use RTP to Share Screen** and **10.3 Use RTMP Live Broadcast Function**

3.2 **Encode Profile:** Offers 15 encoding formats and user customization

- Encoding Formats

Items	Compression Format	Description
1	Dynamic Scene Full HD (1920 x 1080)	Large film site; local drive recording
2	General Scene Full HD (1920 x 1080)	Medium film site; local drive recording
3	Static Scene Full HD (1920 x 1080)	Small film site; local drive recording
4	Dynamic Scene HD (1280 x 720)	Large film site; LAN streaming
5	General Scene HD (1280 x 720)	Medium film site; LAN streaming
6	Static Scene HD (1280 x 720)	Small film site; LAN streaming
7	Dynamic Scene SD (720 x 480)	Large film site; LAN streaming
8	General Scene SD (720 x 480)	Medium film site; LAN streaming
9	Static Scene SD (720 x 480)	Small film site; LAN streaming
10	Dynamic Scene for Internet (720 x 480)	Large film site; online director (for viewing on PCs and tablets)
11	General Scene for Internet (720 x 480)	Medium film site; online director (for viewing on PCs and tablets)
12	Static Scene for Internet (720 x 480)	Small film site; online director (for viewing on PCs and tablets)
13	Dynamic Scene Mobile Network (720 x 480)	Large film site; online director (for viewing on mobile devices)
14	General Scene Mobile Network (720 x 480)	Medium film site; online director (for viewing on mobile devices)
15	Static Scene Mobile Network (720 x 480)	Small film site; online director (for viewing on mobile devices)
16	User-Defined	To customize settings, press ⚙ to access the configuration window

7.1.5 Local Storage Setting



1 **Storage device:** Set local storage device

2 **Storage Setting:**

- 2.1 **Enable Local Storage:** Save record file
- 2.2 **Cycling Record:** Enabling the cycle record function can prevent recording error when storage device is full
- 2.3 **Preferentially record to front USB flash drive:** Videos or pictures will be preferentially recorded to the USB flash drive which has already been connected to the front USB port.
- 2.4 **Disk Select:** When two or more storage devices are installed, the priority of the devices can be set

7.1.6 Layout Manager

1 **Display Layout:** Select the default screen display layout; the layout can be changed quickly using the remote control

2 **Record Layout:** Select the default record screen layout; the layout can be changed quickly using the

remote control

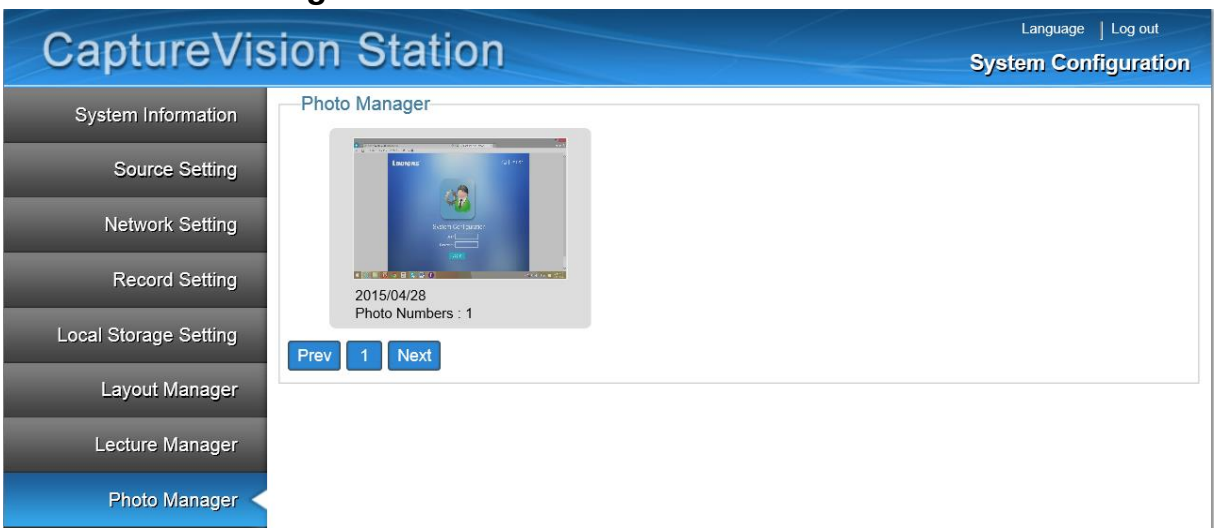
3 **Layout List:** Manage layout templates

4 **Editor:** Manage layout templates

7.1.7 Lecture Manager Configuration

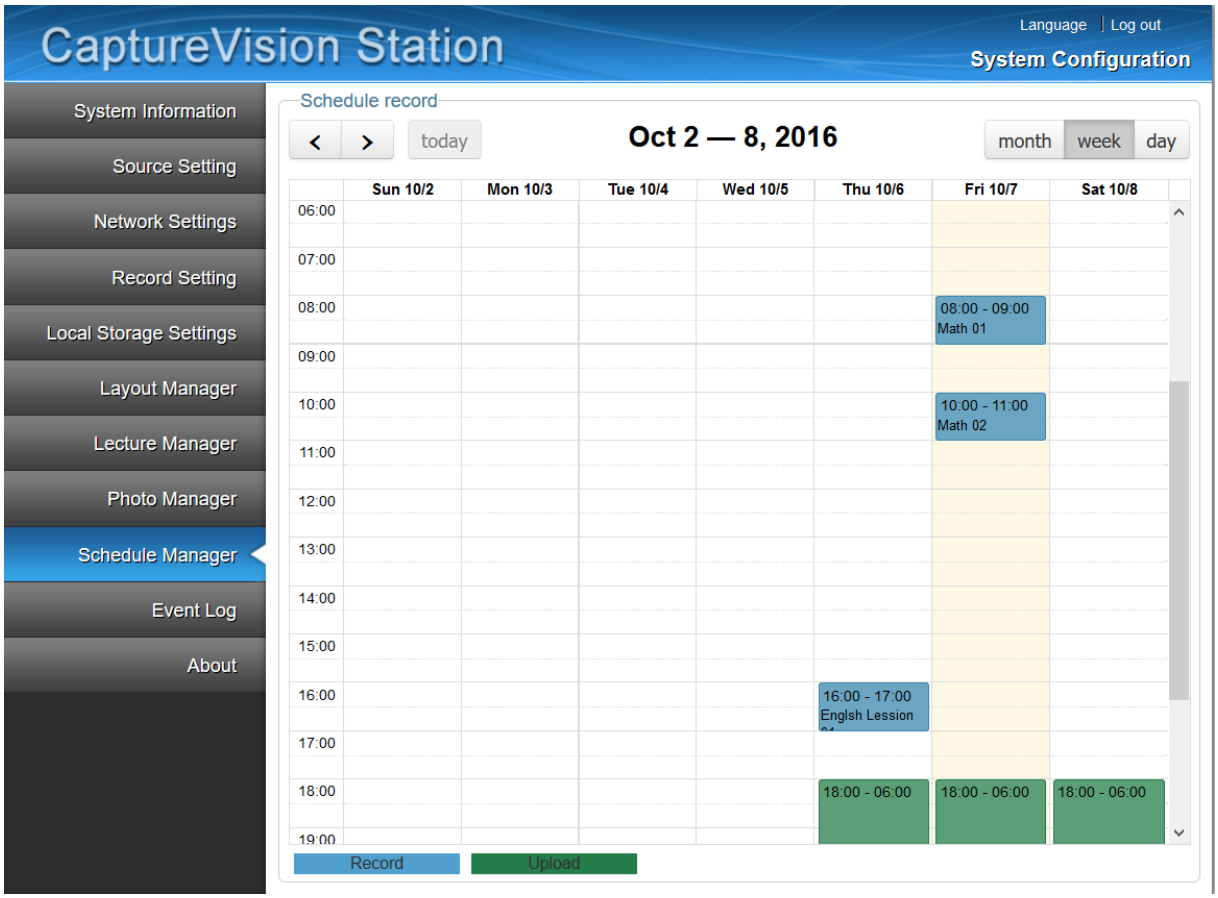
1 **Lecture Information:** Record lecture tables; edit, delete and download lecture information

7.1.8 Photo Manager



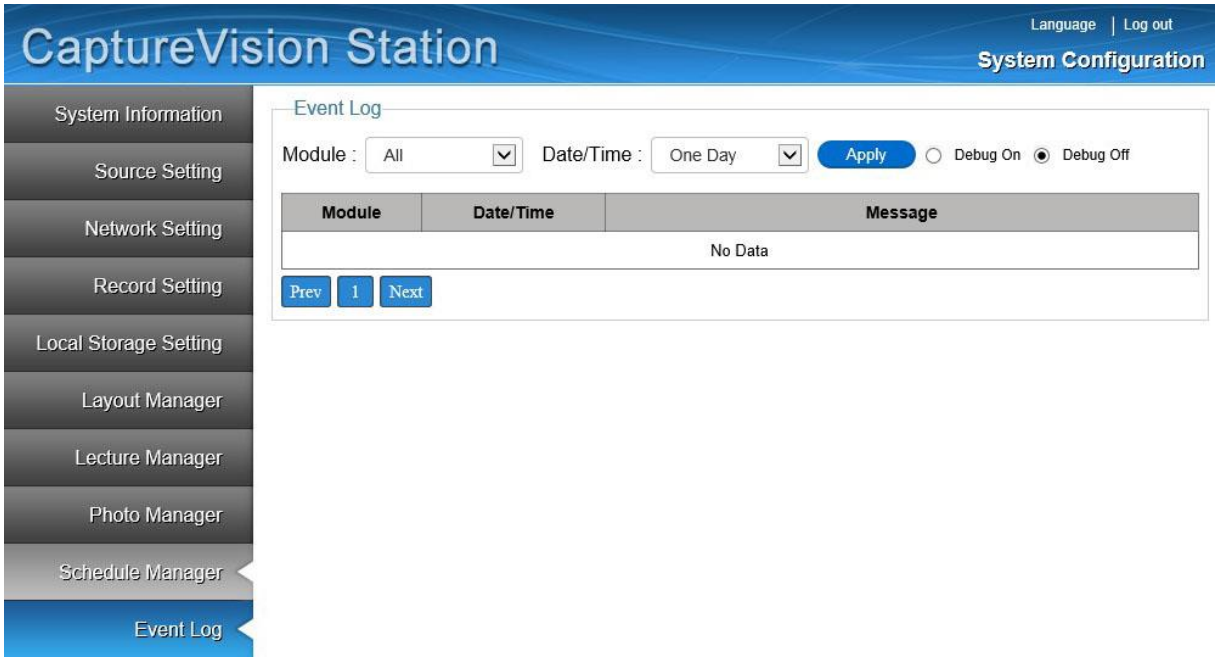
1 **Photo Manager:** Sorted by date; delete and download images

7.1.9 Schedule Manager Configuration



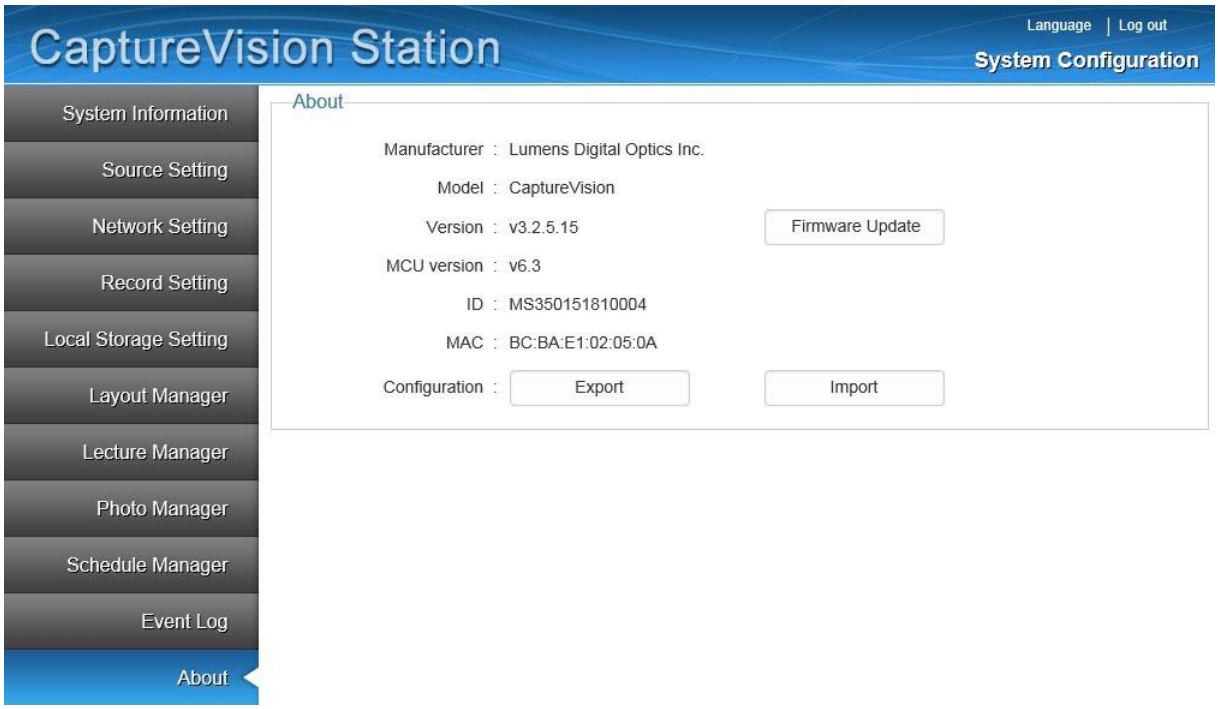
1 **Schedule Manager:** Pre-set when to start recording, and edit lecture information.

7.1.10 Event Log:



1 Browse event message, warning, and error logs

7.1.11 About Page Description



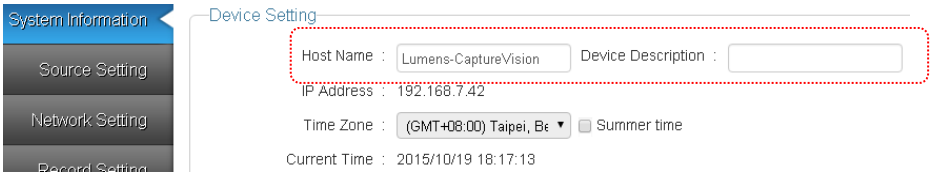
1 **Firmware Update:** Update product firmware

2 **Export:** Export settings

3 **Import:** Select and upload update file

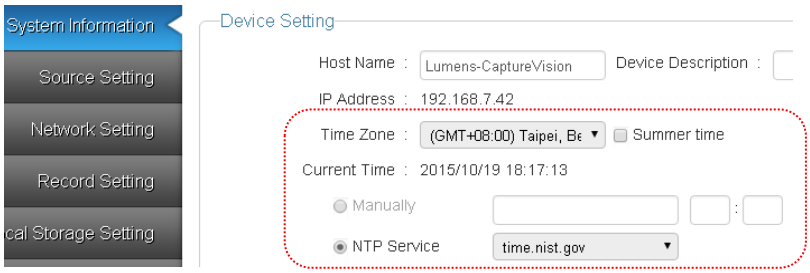
7.2 System Configuration Operation

7.2.1 Change Host Name



- Go to **[System Information]**. Change host name and description, click **[Apply]** on the bottom right to apply change.

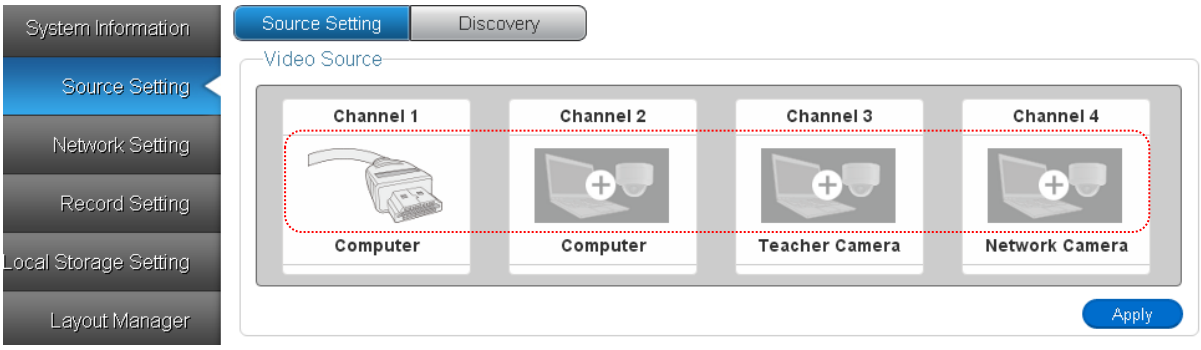
7.2.2 Change System Time



- Go to **[System Information]**. Change date and time using NTP service or manually.
  - **NTP:** Check **[NTP Service]**. Choose NTP server to change system time to reflect the server time, select **Time Zone**, and check **Daylight Saving Time** if required. Click **[Apply]** at the bottom right to apply changes.
  - **Manually :** Check **[Manually]**. Select the correct date and enter the correct time in the time fields. Click **[Apply]** on the bottom right to apply changes.

7.2.3 Source Setting

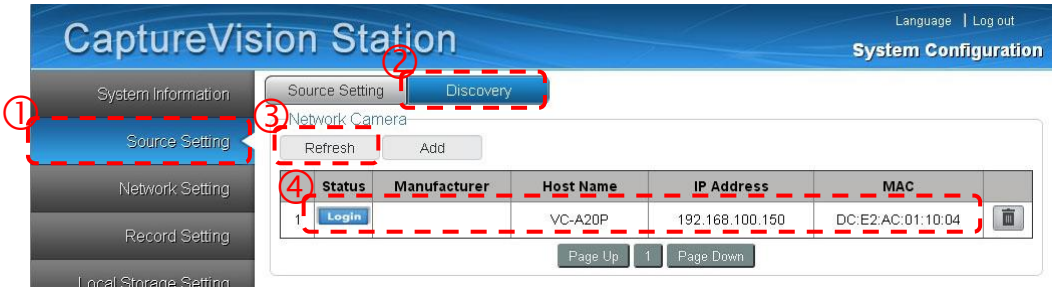
Go to **[Source Setting]** and then **[Video Source]**. Click on the **[images]** to set name/video source/image setting/image port of the image capture input channel.



- VGA or HDMI can be selected for the image capture source, which is the host input port VIDEO IN 1 and 2. When either VGA or HDMI is connected, the host automatically detects and switches to the signal source.
- To connect a network camera, the connection settings in the network camera must first be set. Refer to [7.2.4 Connect IP Camera] for instructions.

7.2.4 Connect IP Camera

Switch to **[Discovery]** in **[Source Setting]**. Cameras can be added automatically or manually.

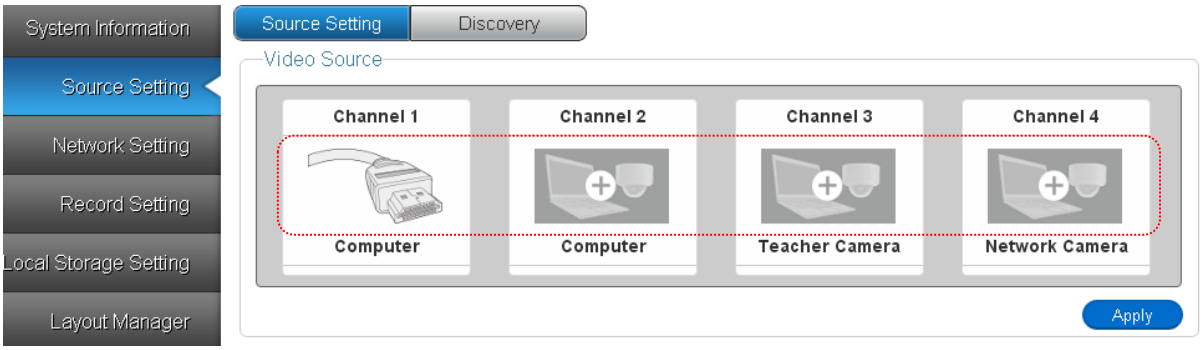


7.2.4.1 Automatic Search

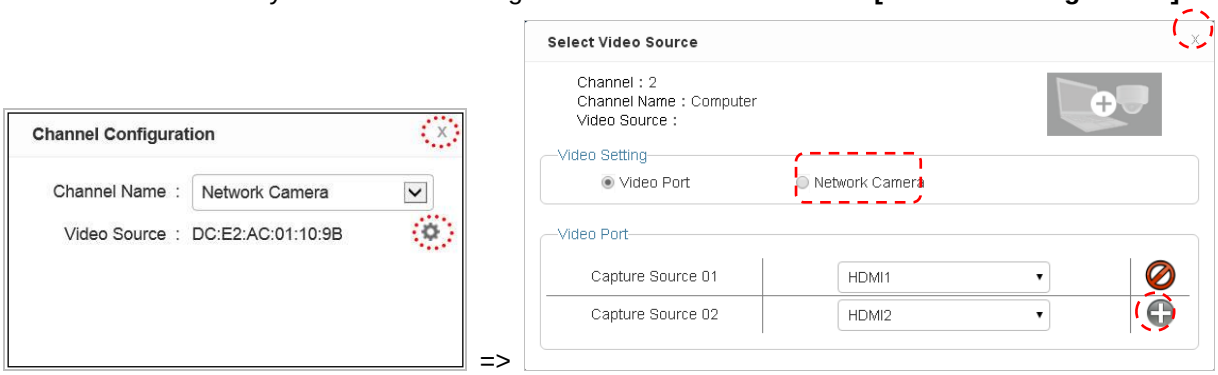
- Ensure the camera is connected to the host.
- **Detect Network Camera:** Click **[Refresh]** to detect network camera. A Login appears in the status field when a device is detected or added.
- Click Login. On the device settings, enter the **username** and **password** to connect the network camera. The status field will be changed to .

7.2.4.2 Setting the Network Camera as the Video Source

Go to **[Source Setting]** and then **[Video Source]**. Click on the **[images]** to set name/video source/image setting/image port of the image capture input channel.



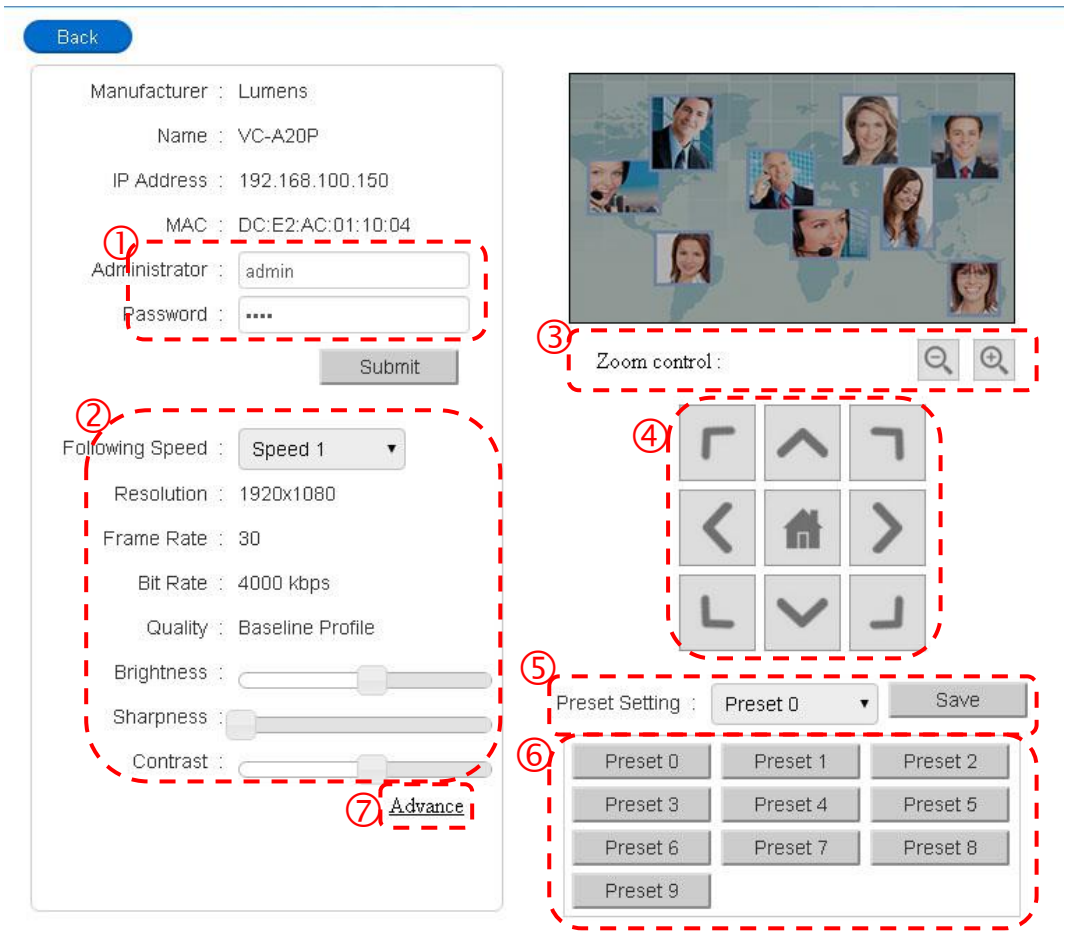
- Click on any of the channel images in Video Source to access **[Channel Configuration]**.



- Click in **[Channel Configuration]** to access **[Select Video Source]**.
- Click the [+] on the right of desired network camera in the list to connect the camera.
- Click **[x]** on the top right of the window to exit **Channel Configuration**.
- Click **[Apply]** in Video Source to apply settings.

7.2.4.3 Network Camera Information

Switch to **"Search"** on **"Video Source Setting"**. Select the camera.



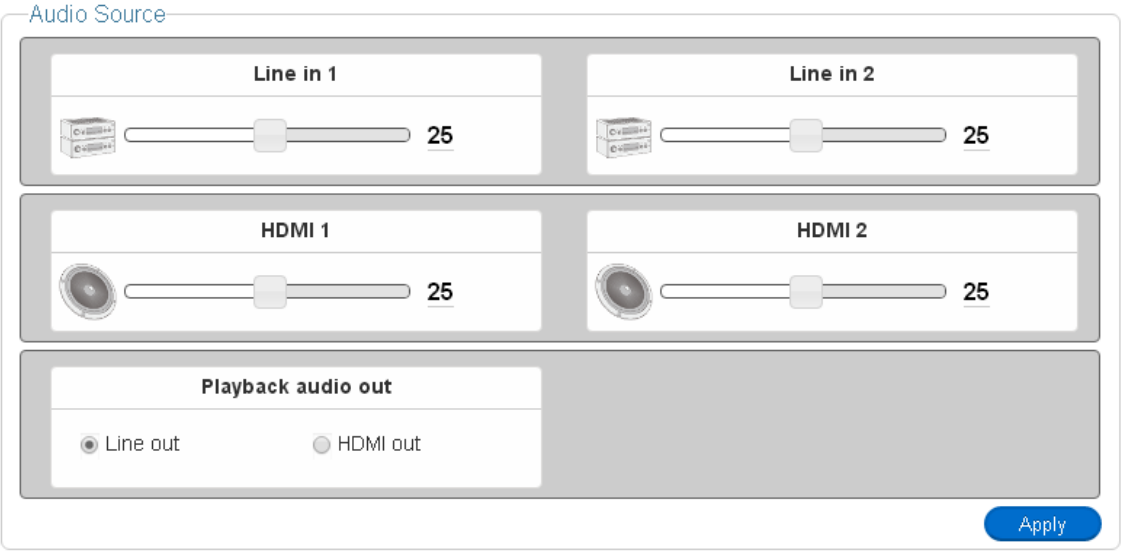
1. Enter the username and password to connect the network camera. Images can be captured with the camera once the login details are accepted.
2. Camera quality information and brightness settings
3. Camera screen zoom in/out
4. Camera lens angle adjustment
5. **Changing Default Camera Lens Position:** Adjust lens angle. Select preset **[Preset 0-9]**. Click **[Save]** to change present setting
6. Change lens angle to default position
7. **Advance:** Access Camera Settings

7.2.4.4 Deleting Network Camera Position

- Reconfigure video source settings according to **7.2.4.2 Setting the Network Camera as the Video Source**. Click [-] to remove camera connection.
- Switch to **[Search]** in **[Video Source]**. Click in the camera list to delete the camera.

7.2.5 Volume adjustment

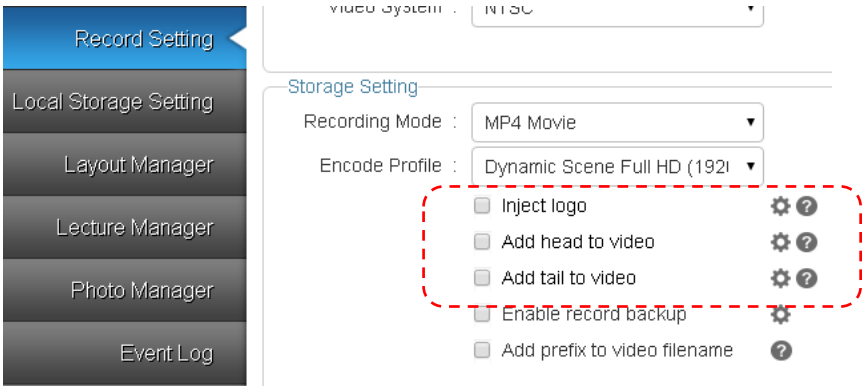
Open **[Source Setting]**



- To adjust Line in 1 and Line in 2 input audio, change to . Mic1 and Mic2 are interchangeable.
- To adjust HDMI1 and HDMI2 audio, change the HDMI input volume
- The volume of the audio source can be adjusted from 0 to 50
- Audio output mode is set according to the connection

7.2.6 Add Logo or Other Video in a Video

Enable **[Record Setting]**



7.2.6.1 Inserting a logo into Video

- Click to access the logo uploader
- Select the position of image in the drop down menu
- Select the logo file
- Click **[Upload]** and return to Record Setting
- Check **[Insert Logo]**
- Click **[OK]** on the bottom right of **[Save Setting]** to apply settings

  [**Remark**] Click ? to view supported file formats

7.2.6.2 Add Head/End to Video

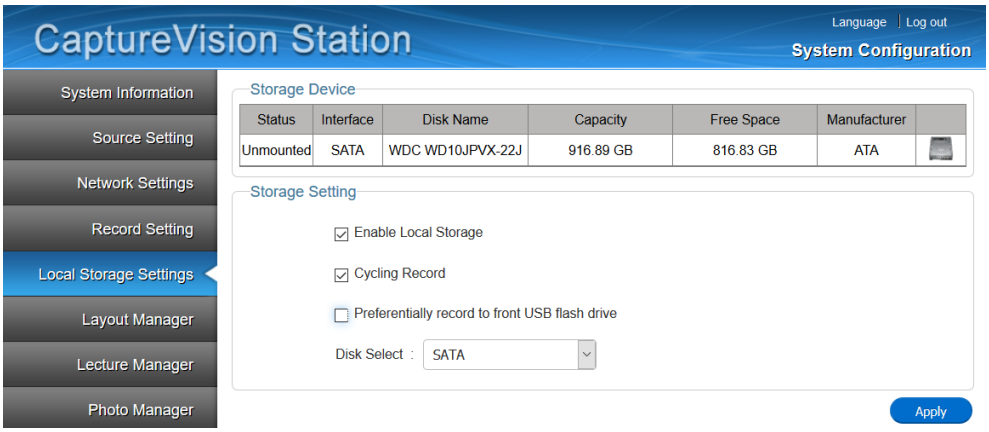
- Press to open the upload window
- Select the video files to be inserted

- Click **[Upload]** and return to Record Setting
- Check **[Add Head to Video]/[Add End to Video]**
- Click **[OK]** on the bottom right of **[Save Setting]** to apply settings

  [**Remark**] Click ? to view supported file formats

7.2.7 Storage Device Setting

Open **[Local Storage Setting]**



For initial hard disk installation, follow the following installation instructions:

- **Format hard drive:** Select hard disk and click . A query window will appear to confirm format. Click “Yes” to begin formatting. After formatting is complete, close the message box to complete the process.

  [**Remark**] Formatting the hard drive will erase all the information on the hard drive. Please backup any data on the hard drive before formatting the disk.

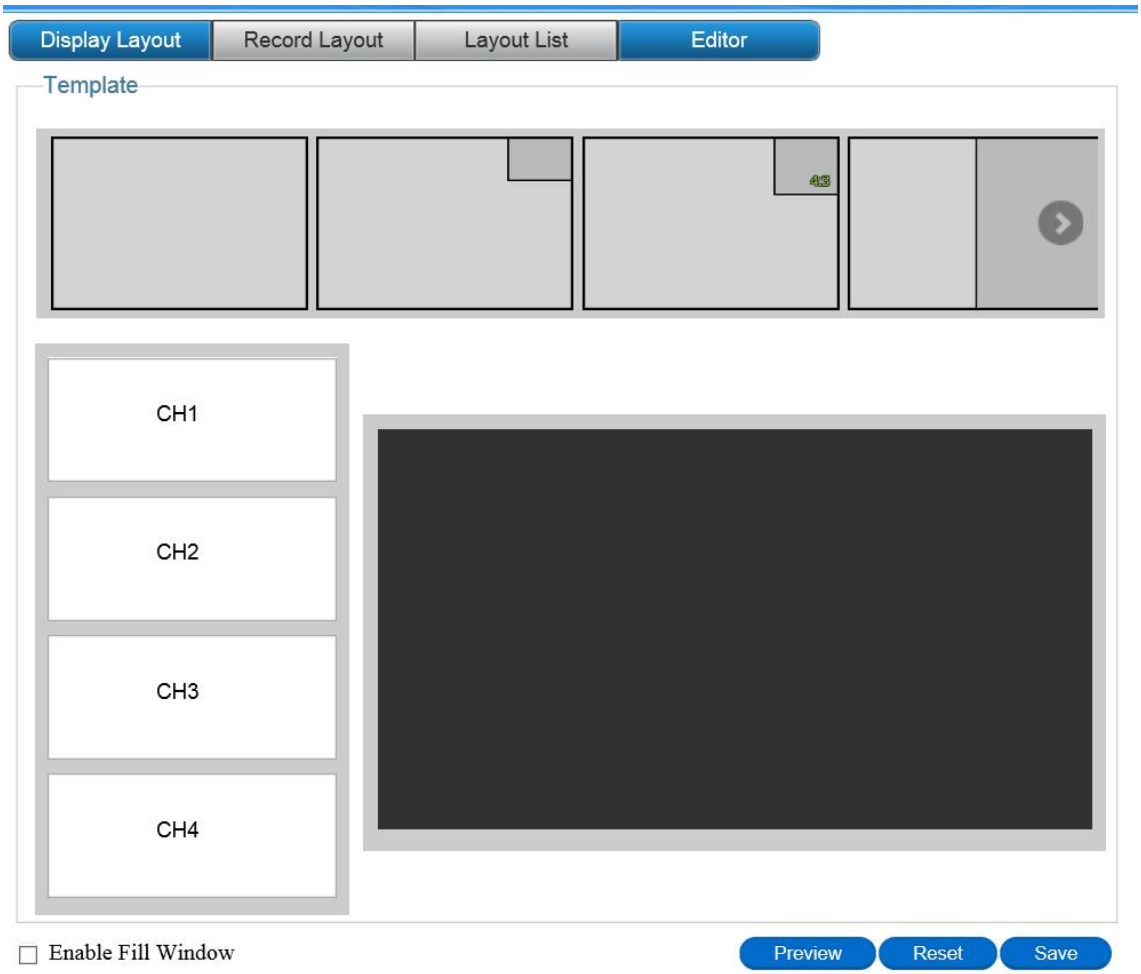
  [**Remark**] Format time differs depending on hard disk specification. Do not close the window while the hard disk is formatting.
- **Check [Enable Local Storage]:** Checking this item enables files to be stored to this hard disk once it is mounted.
- **Check [Cycling Record]:** When the hard drive space is used up, the oldest data will be automatically overwritten by the newest data, allowing the system to continue storing information.
- **Check the option of [Preferentially record to front USB flash drive]:** Videos or pictures will be preferentially recorded to the USB flash drive which has already been connected to the front USB port.
- **Mounting a Hard Disk:** Select according to the storage device **[USB1/eSATA/SATA]**, and click [Apply] on the bottom right to complete the mounting

  (**[Note]** The device to mount must be specified when two or more storage devices are connected)

7.2.8 Layout Management

Open **[Display Layout]**. This window enables users to add, delete, or reset screen layout.

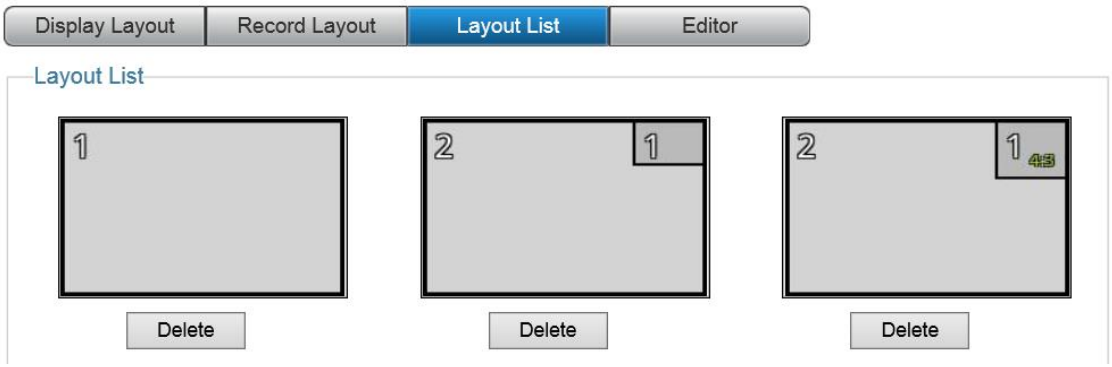
7.2.8.1 Add Layout templates



- Select a layout from the top section.
- Drag the left channel into the right section.
- If a small triangle icon is available at the bottom right corner of the grey frame in the panel, click the icon to freely enlarge, shrink, or move the frame.
- Check **[Enable Fill Window]** to maximize the channel on the output screen.
- After each section is configured, click **[Save]** on the bottom right to complete addition.
- In editor, click **[Preview]** at any time to view the output screen, or click **[Reset]** to clear all setting and restart.

7.2.8.2 Delete Layout templates

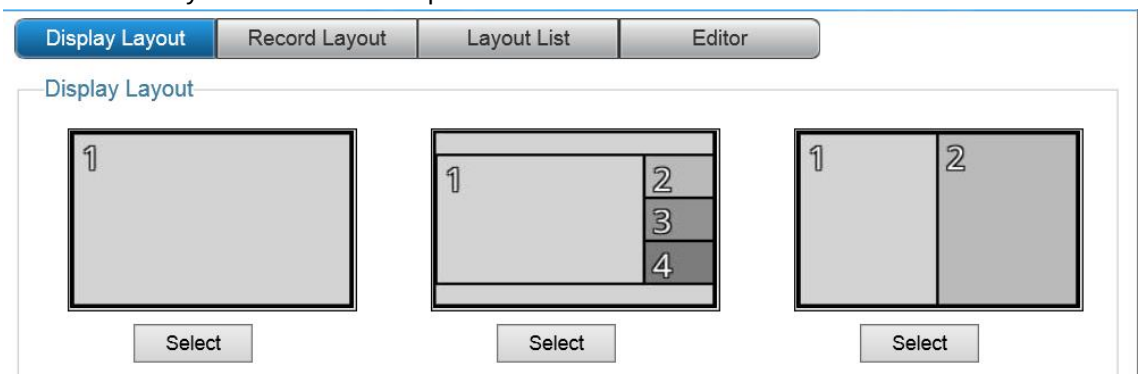
Display and delete the preset and user-defined layouts.



- Click **[Delete]** at the bottom of the layout. A reminder will appear. Click **[OK]** to delete the layout.

7.2.8.3 Change Display Layout/Record Layout

Select a layout as one of the 9 presets.

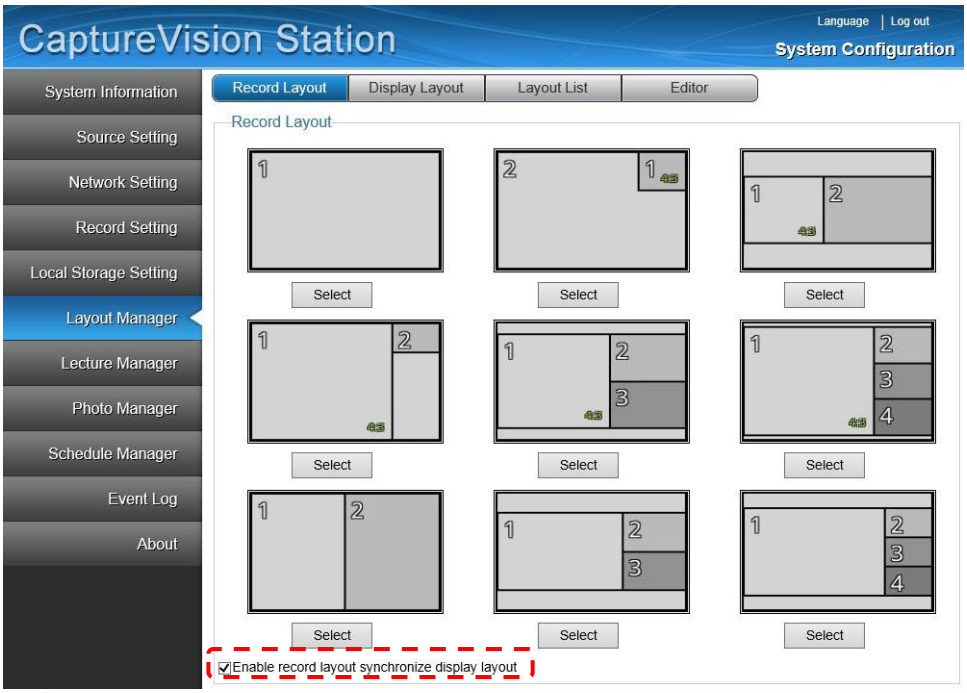


- Select a layout. Click **[Select]** at the bottom. The layout window will appear. Select layout to change the layout.

  [Remark] During recording, the layout is defined by the online director. Refer to **8.2.2 Change Display Layout** for instructions

7.2.8.4 Align the record layout with the display layout

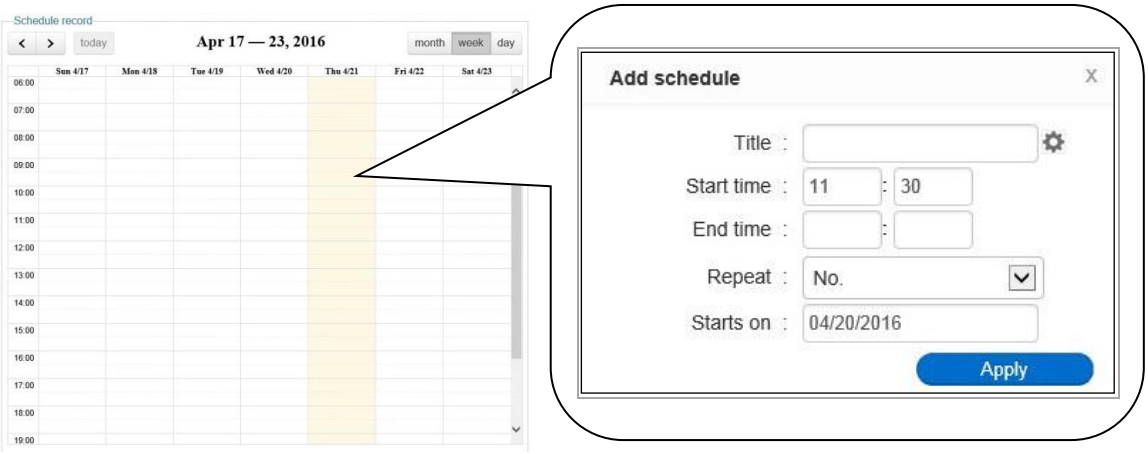
Have the record layout aligned with the display layout for consistent screen display.



- Under the **[Record Layout]**, check **[Enable record layout synchronize display layout]** to align the record layout with the display layout
- Uncheck **[Enable record layout synchronize display layout]** to set the record layout and the display layout separately

7.2.9 Schedule Manager

Open **[Schedule Manager]** to book recording time and pre-edit lecture related information



7.2.9.1 Add recording schedule

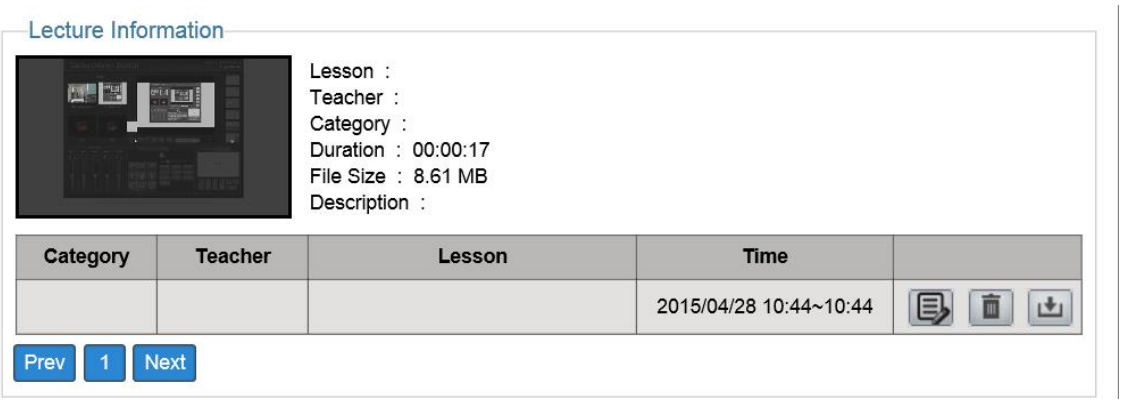
- Click the time table to open the **[Add schedule]** page
- Enter the name of the lecture, set the recording start and end times, and press ⚙ to edit lecture details
- Click **[Apply]** to apply the setting

7.2.9.2 Modify or delete the recording schedule

- Click the schedule already set to open the schedule setting page
- After the modification is complete, press **[Apply]** to apply the setting
- Press **[Delete]** to delete a specific recording schedule

7.2.10 Lecture Manager

Open **[Lecture Manager]**. This window enables users to delete, download, and edit lecture information and key notes.



7.2.10.1 Delete Lecture

- Select lecture and click 🗑. A reminder will be presented. Click **[OK]** to delete lecture.

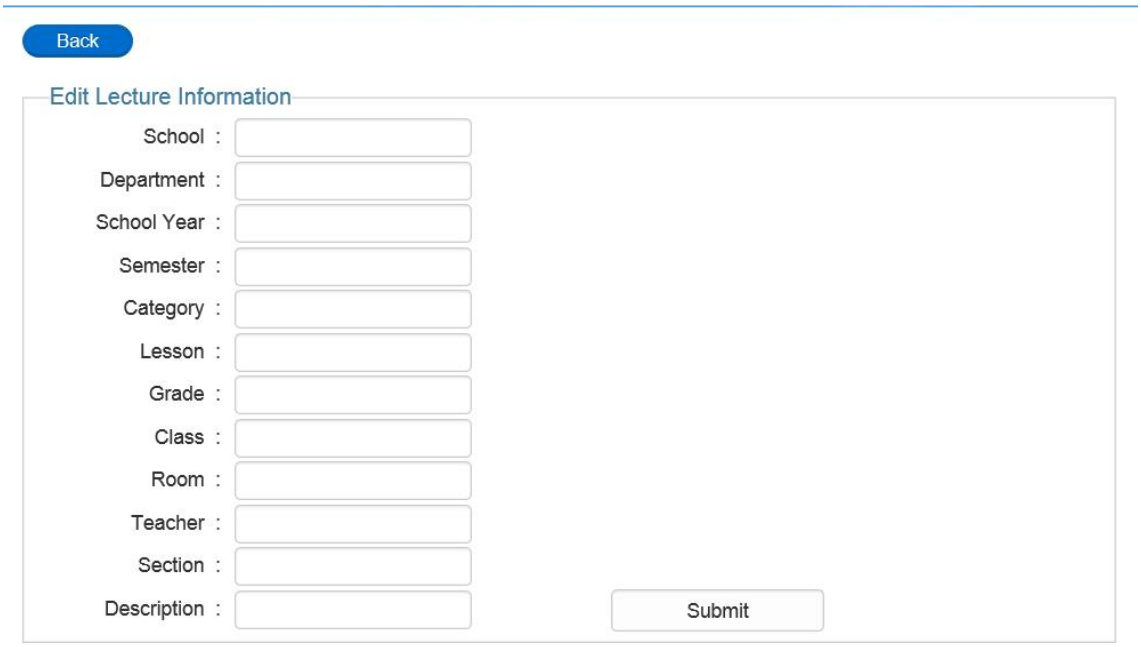
7.2.10.2 Download Lecture

- Select lecture and click . A reminder will be presented. Click **[OK]** to download lecture.

  [**Remark**] The downloaded file format is *.mp4. Please use Video Playback Software to view

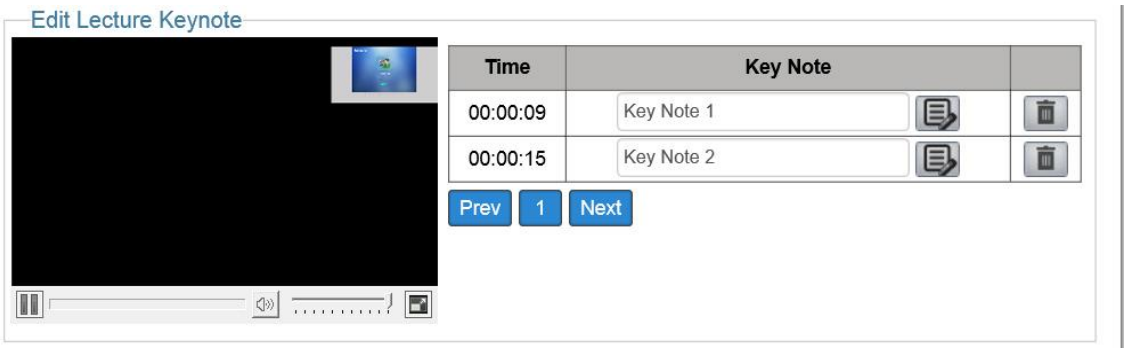
7.2.10.3 Edit Lecture Information

- Select lecture and click to access [Edit Lecture Information]. Enter lecture information and click **[Submit]** to complete editing.



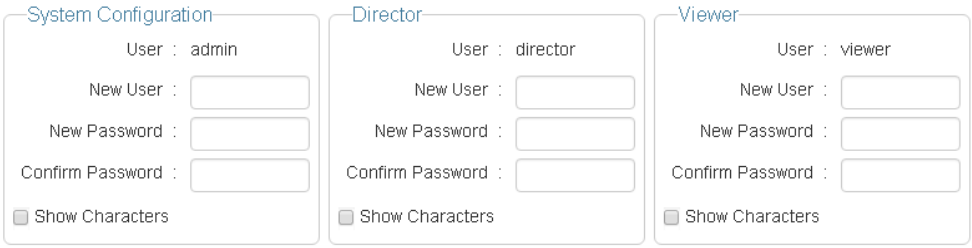
7.2.11 Edit Lecture Keynote

- Select lecture and click to access **[Edit Lecture Information]**.



- Edit Lecture Keynote: Enter title in Key Note 1 and click to apply the changes.
- Delete key note: Select the keynote and click . A reminder will be presented. Click **[Confirm]** to delete keynote.

7.2.12 Change Username and Password



- Go to **[System Information]**.
- Enter the new username and password into **System Configuration/ Director/ Viewer** and click **[Apply]** on the bottom right to accept changes.
- Check **[Show Characters]** to show the characters that are being typed to ensure that the password is properly set.

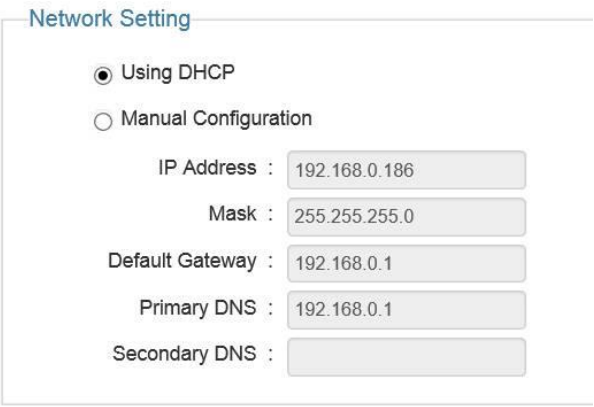
  [Remark] Re-log in once the administration account has been changed.

7.2.13 Startup Screen

- Go to **[System Information]**.
- Select the startup image to open the uploader window.
- Select the startup image.
- Click **[Send]** to accept changes.

  [Remark] A file should be a 1280 x 720 *.png file.

7.2.14 Network Setting



- Switch to **[Network Setting]**.
- Depending on the type of network, check either **Using DHCP** or **Manual Configuration**.
- For manual configuration, change the IP address based on your network configurations.
- Click **[Confirm]** at the bottom right once changes have been made to accept the changes.

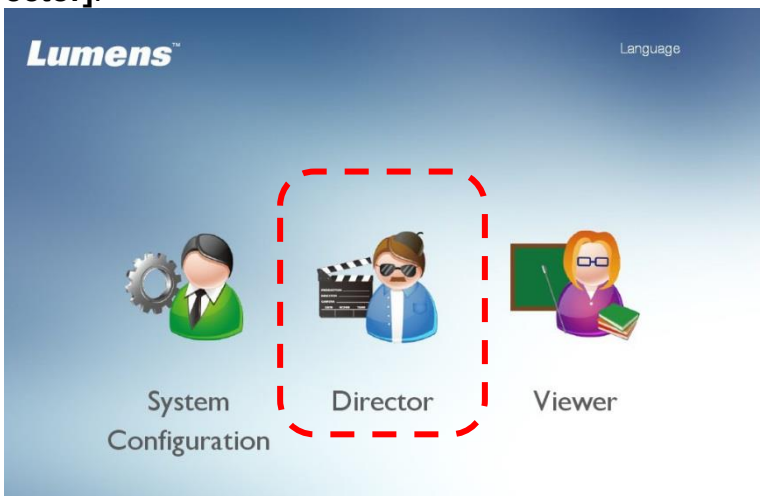
  [Remark] Re-log in once the IP address has been changed.

7.2.15 Webpage Language

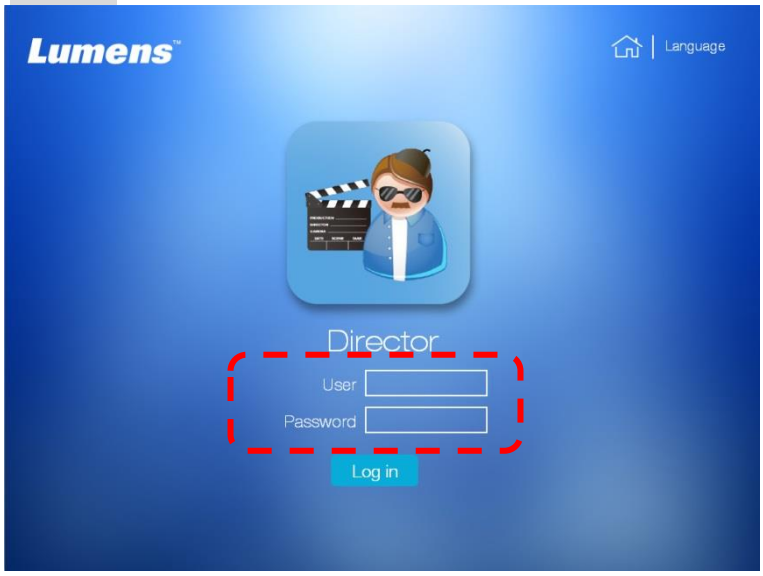
Click **[Language]** at the bottom right of either the Network Configuration or Director screen to switch the operating language at any time. Currently, the system supports [Traditional Chinese/Simplified Chinese/English].

The Director function enables users to record or change recording settings.
Before using the Director functions, following the below instructions to log in.

- Open the web browser on the PC and enter the VS-LC102 IP address; e.g. http://192.168.1.150.
- Select **[Director]**.



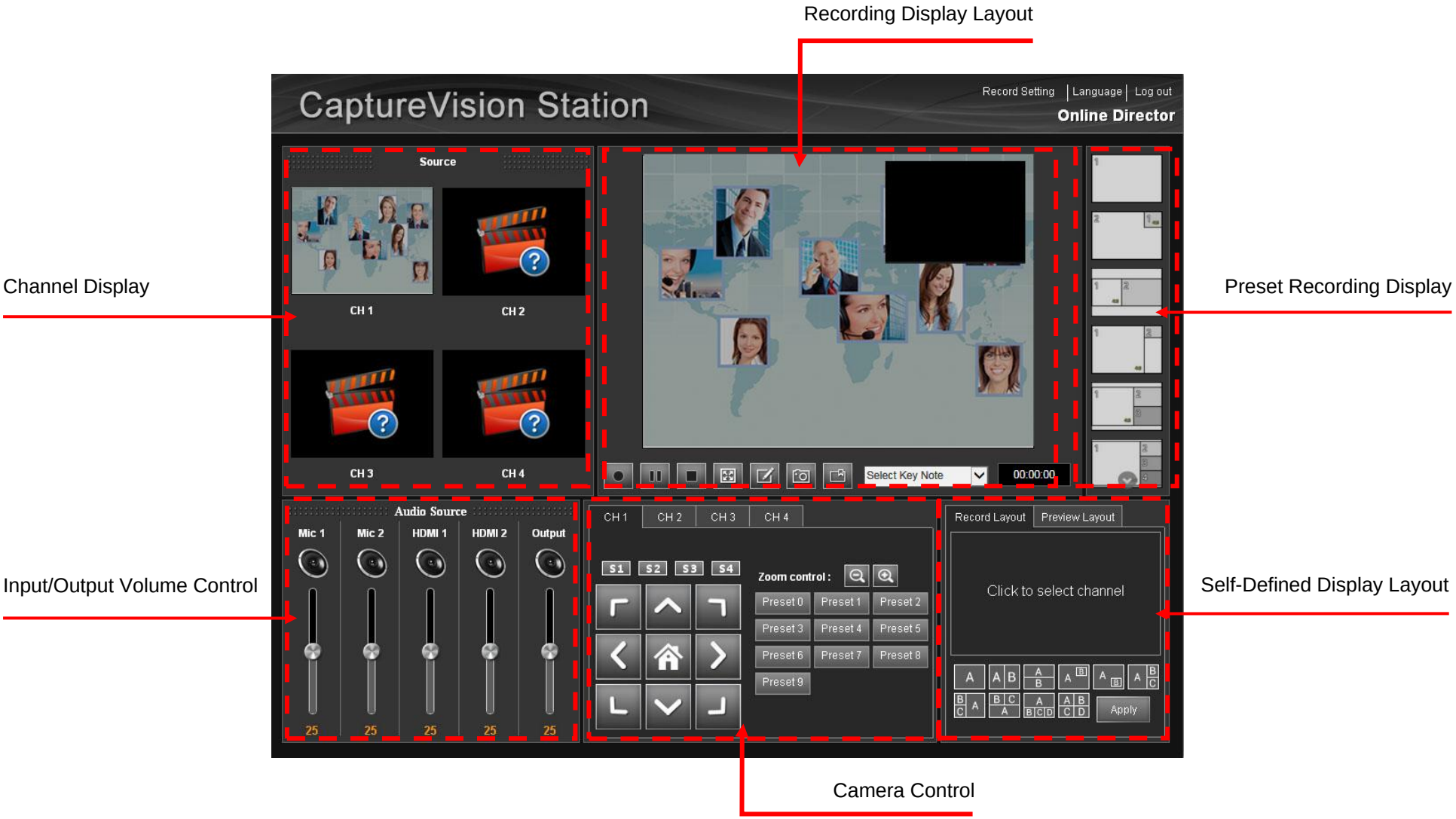
- Enter the VS-LC102 director username and password.
  User: director
  Password: director



- Click **[Log In]** to access the Online director.
- Installation of the **FireBreadthed VLC** plugin will be promoted on initial login to streaming. Follow the instructions presented onscreen to install the plugin.

8.1 Director Instructions

8.1.1 Director Introduction



8.1.2 Director Instructions

1 **Source:** The output video for each channel

2 **Audio Source:** Various input/output audio volume adjustment

3 Recording display layout preview; also offers recording and snapshot functions

- **3.1** : Record
- **3.2** : Pause Recording
- **3.3** : Stop Recording
- **3.4** : Enlarge channel to fit the window
- **3.5** : Edit course information, and it must be completed before starting the recording
- **3.6** : Take Snapshot
- **3.7** : Add Key Note
- **3.8** Select Knowledge : Set Auto-Keynote Time

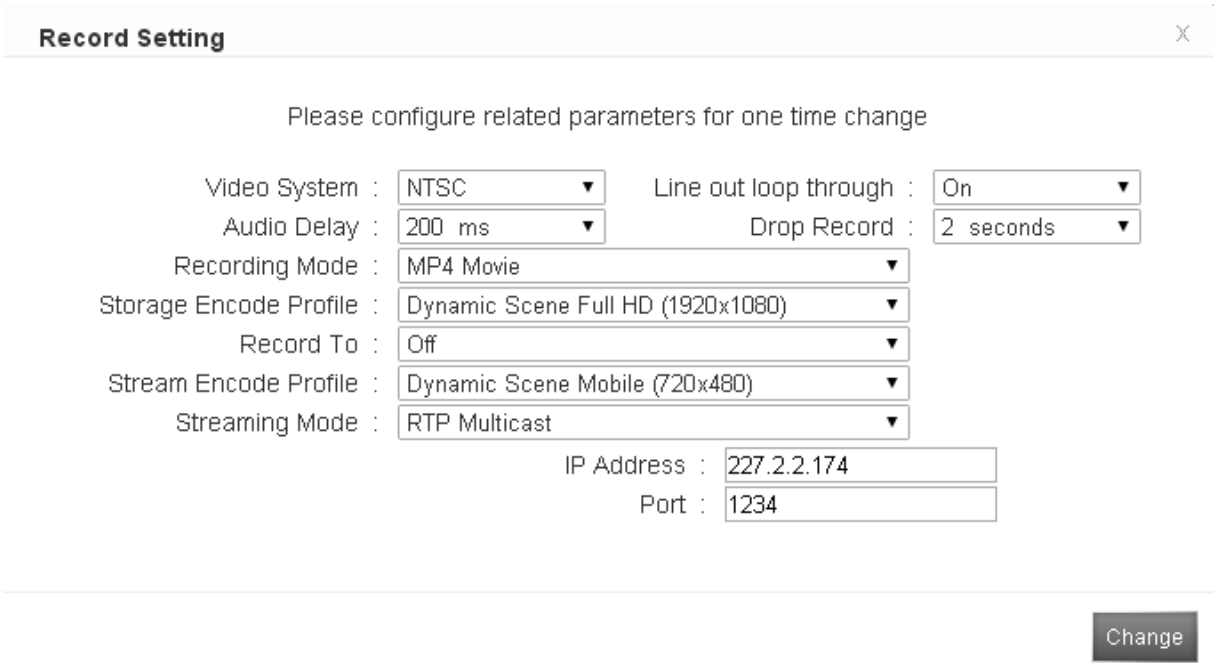
4 **Channel 1 – 4:** Recording angle control; Lumens network cameras must be used

5 Preset recording display layouts; rapid switching between layouts

6 **Recording Layout/Preview Layout:** Self-defined recording display layout and monitor display layout channel configuration

7 Record Setting/Language /Log Out

8.1.3 Director Screen Instructions - Record Setting



1 **Video System:** NTSC or PAL can be selected

2 **Line out Loop Through:** Activate/Deactivate line out loop through A high-frequency high-pitched sound is played back if audio from the speaker is picked up by the microphone, amplified, and retransmitted from the speaker; in this instance deactivate line out loop through to prevent feedback

3 **Audio Delay:** Set audio delay time after video is transmitted

4 **Drop Record:** Adjust recording intervals. If 1 second is selected, a 1-second interval is delayed before recording begins

5 **Recording Mode: MP4 Movie**

6 **Storage Encode Profile:** Offers 15 encoding formats and user customization

7 **Record To:** Set local recording storage location

8 **Stream Encode Profile:** Offers 15 encoding formats and user customization

9 **Streaming Mode:** Supports RTP multicast and online streaming. Refer to **10.2Use RTP to Share Screen** and **10.3 Use RTMP Live Broadcast Function** for detailed instructions

8.2 Director Instructions

8.2.1 Basic Recording Operations

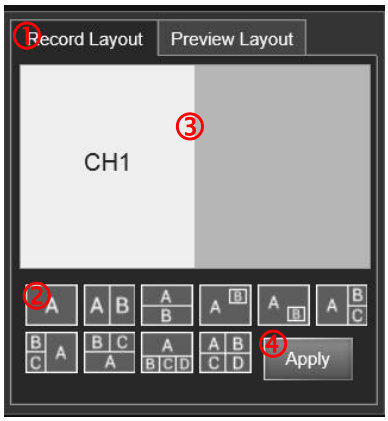
- Click to start recording
- Click to pause recording
- Click to stop recording

8.2.2 Change Display Layout

8.2.2.1 Rapidly switch between display layout channels

- Double-click the right template to rapidly switch between recording display layout channels

8.2.2.2 Self-Defined Recording Display Layout



- Click the Record Layout tab on the bottom right template
- Click any layout configuration
- Click on a block to set the various used channels
- Click **[Apply]** after the display layout is set to take effect.

8.2.2.3 Custom Layout

- Click the video template on the bottom right to switch to the teacher video template
- Click any layout configuration
- Click on a block to set the various used channels
- Click **[Apply]** after the display layout is set to take effect.

8.2.3 Insert Key Notes

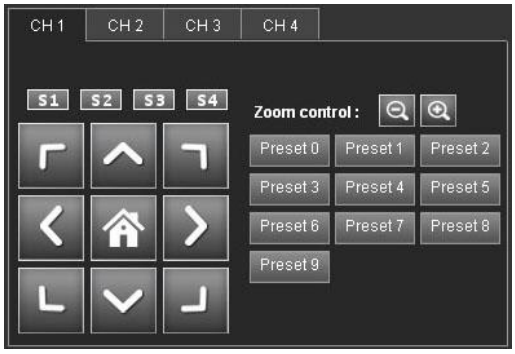
- **Custom:** Click while recording to add a keynote
- **Timed:** Set Select Knowledge to automatically add a keynote at a set time

while recording

[Remark 1] When using PPT index, a keynote is automatically added each time a page is changed

[Remark 2] Keynotes can be renamed or deleted in the Configuration. Refer to **7.2.10 Edit Lecture Keynote** for detailed instructions

8.2.4 Network Camera Control

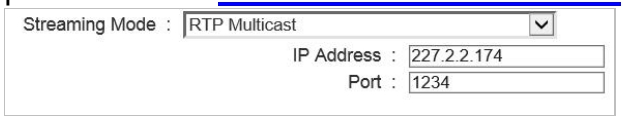


- **Select Camera:** Select Channels 1 to 4 to switch between camera channels
- **Rotate Camera:** Click the keypad on the right to rotate the camera lens. Click [Home] to return the lens to the center position
- **Change the rotational speed of camera lens: Click S1 - S4 to switch the moving speed**
- **Rapidly Change Camera Angle:** Click [Presets 0 to 9] to rotate the camera lens to the set position
- : Adjust Zoom In (+)/Zoom Out (-)

[Remark 1] The default position can be changed in the Configuration. Refer to **7.2.4.3Network Camera Information** for detailed instructions

8.2.5 Other Recording Settings

- **Change Local Recording Output Resolution:** The local recording output resolution can be changed in **[Storage Encode Profile]**
- **Change Streaming Media Output Resolution:** The streaming media output resolution can be changed in **[Streaming Encoding Profile]**
- **Streaming Mode-RTP:** When changing **[Streaming Mode]** to **[RTP Multicast]**, depending on IP address and connection ports, you can use VLC and other software or use other **Intellectual Recording System** in the same domain to connect and view synchronously. For related operations, please refer to **10.2 Use RTP to Share Screen**



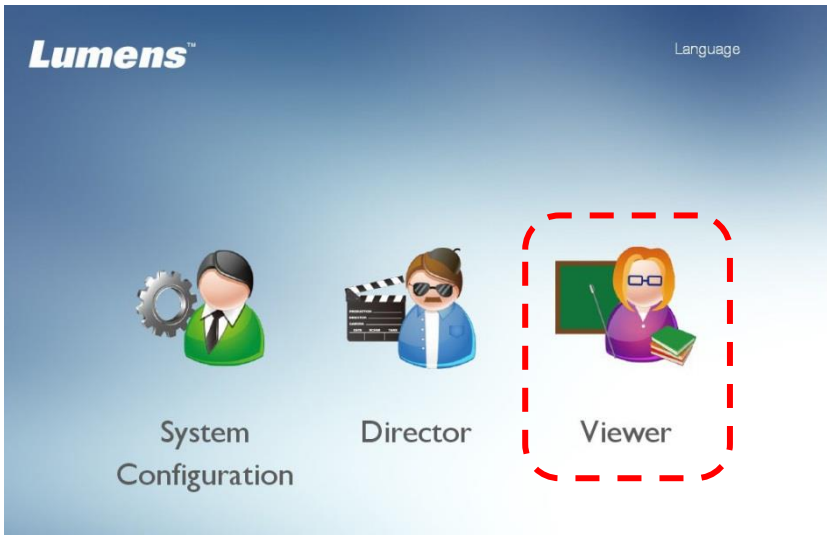
- **Streaming Mode-WebCasting:** When changing **[Streaming Mode]** to **[WebCasting]**, the connection address can be directly entered into the URL field to stream video after starting recording. For related operations, please refer to **10.3 Use RTMP Live Broadcast Function**

8.2.6 Webpage Language

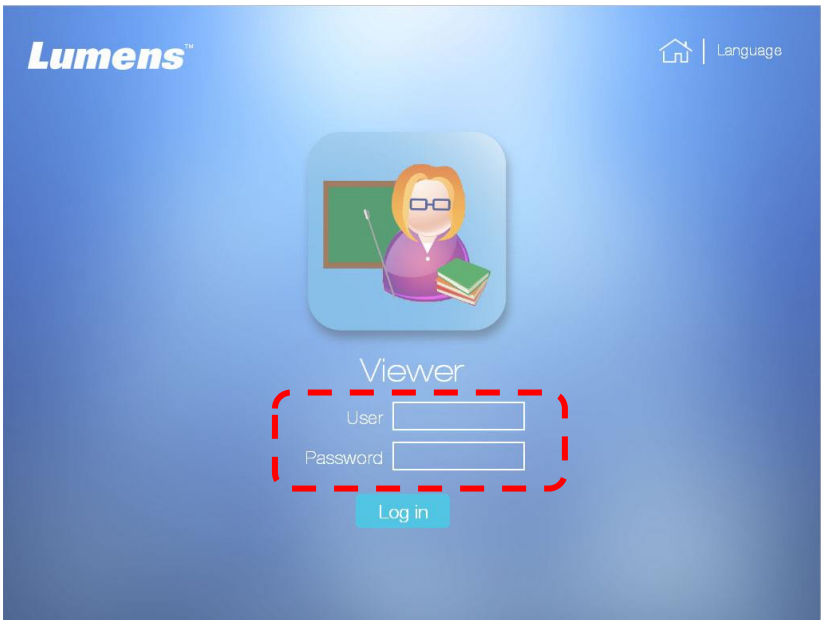
Click **[Language]** at the bottom right of either the Network Configuration or Director screen to switch the operating language at any time. Currently, the system supports [Traditional Chinese/Simplified Chinese/English].

The user can browse or download videos in this page.
Before adjusting the settings in System Configuration, follow the below instructions to log in.

- Open the web browser on the PC and enter the IP address of VS-LC102; e.g. http://192.168.1.150
- Select **[Viewer]**

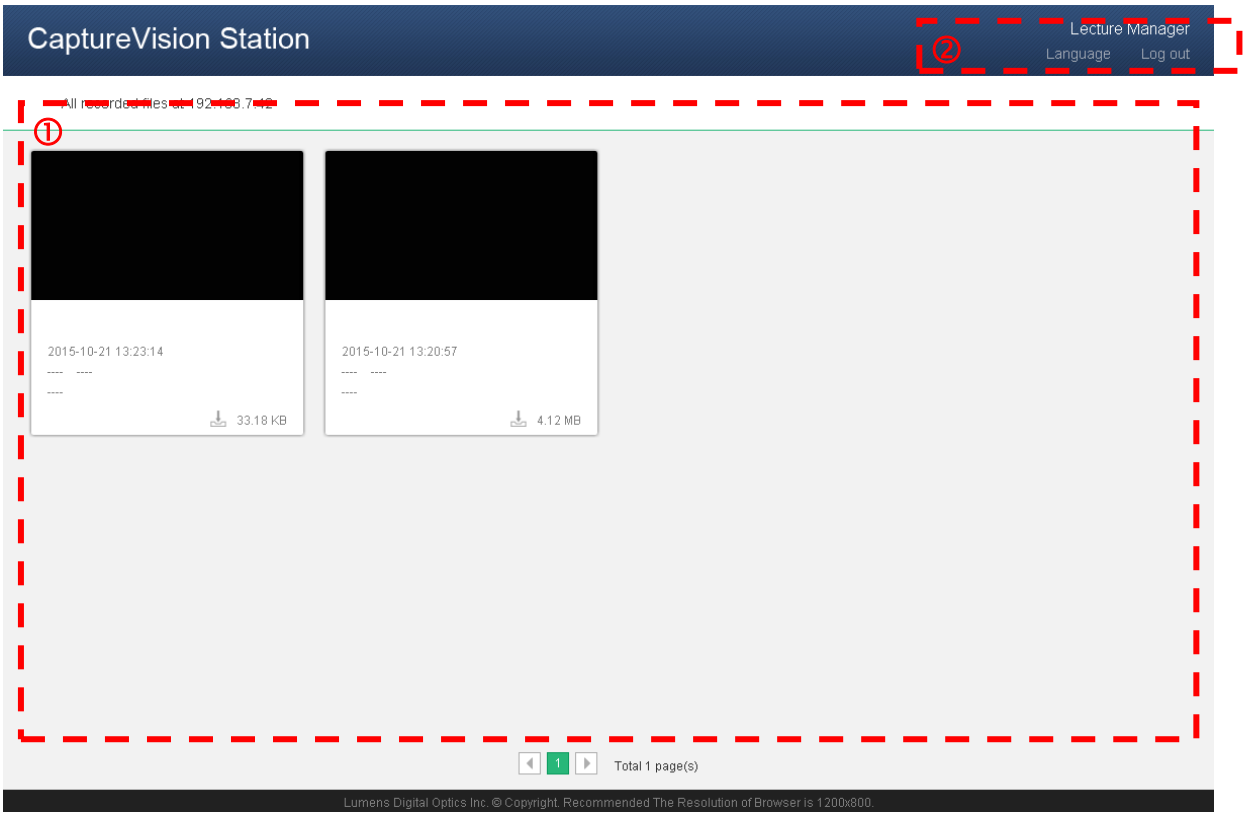


- Enter the VS-LC102 Viewer username and password
  User: viewer
  Password: viewer



- Click **[Login]** to enter the Viewer page

9.1 Page Description



1 **Course List:** Provide course online viewing and download

2 Change screen language/Log Out

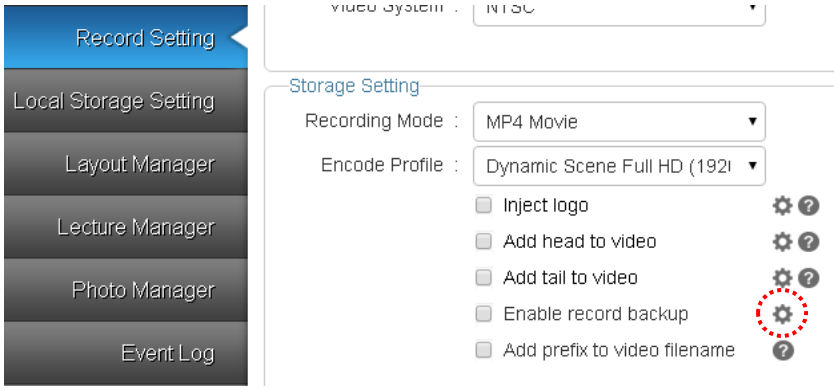
Chapter 10 Advanced Function Menu

10.1 Enable Automatic Recording Backup

[Remark] When connecting to FTP for the first time, all courses saved will be uploaded. Thus, please proceed with FTP setup after the operation is complete

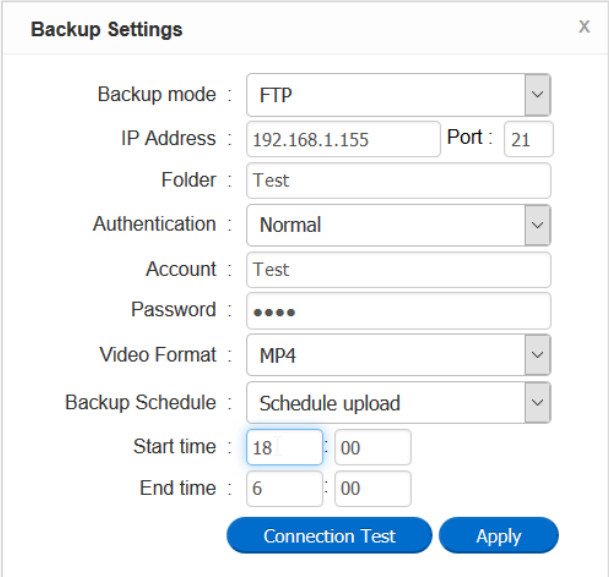
10.1.1 Set Up FTP Connection

- Open the browser and log into the system administration page
- Switch to **[Storage Setting]**
- Click ⚙ behind **[Enable Record Backup]** to open the **[Backup Setting]** window



- Enter FTP Connection Setting
  - **Backup Mode: FTP / SFTP**
  - **IP Address: Please enter FTP connection IP**
  - **Folder: Please enter the existing FTP folder name**
  - **Username/Password: Please enter the FTP username/ password**
  - **Video format: MP4 format**
  - **Backup Schedule: Upload after recording stopped/Upload before turned off/Schedule upload**
  - **Start time/End time: Please set the routine schedule for backup while the routine upload is activated**
- Press **[Connection Test]** to confirm the FTP connection setting
- Press **[OK]** to apply connection setting
- Select the [Enable Recording Backup] to turn on the backup function
- Click **[Apply]** in the lower right corner to apply the settings

10.1.2 Backup Setting



1 **Backup Mode:** Set FTP Uploading

2 **IP Address/Port:** FTP connection IP address and port number

3 **Folder:** FTP folder name

4 **Account/Password:** Set the desired login account and password

5 **Video Format:** Upload the backup video format

6 **Backup Schedule:** Pull-down menu to set the backup start time **[After Recording Stopped/Before shutdown/Schedule upload]**

[Remark] If it is set that a backup is performed after recording stops, the backup will be initiated approximately 3 minutes after the recording is completed

7 **Start time/End time:** Set the routine schedule to upload routinely

10.2 Use RTP to Share Screen

10.2.1 Set RTP Sharing

- Open the browser and log into the system administration page
- Go to **[Record Setting]**. Change **[Streaming Setting]** as follows
  Streaming Mode: RTP Multicast
  Encode Profile: Dynamic Scene HD (1280 x 720)

- Click **[Apply]** in the lower right corner to apply the settings
- Log out the web administration page

[Remark] After the page setup is complete, you can open the screen sharing at any time

10.2.2 Start RTP Sharing

Use the Remote Control or Control Panel:

- Press • to access the recording preview screen
- Press • or **[OK]** to start recording, and provide screen sharing
- After pressing ■ to stop recording, screen sharing is stopped

[Remark] After recording is started, the connection can be conducted to obtain the screen sharing

10.2.3 View Screen Sharing

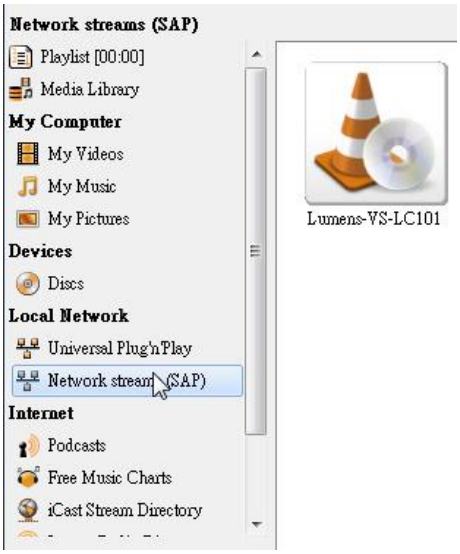
10.2.3.1 Use the computer connection and viewing

VLC and other software can be used for Stream connection; VLC provides the following two connection methods

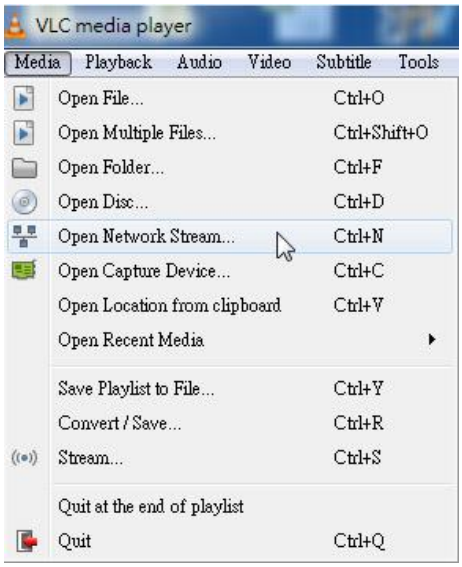
- Local Area Network (LAN) Connection

  [Remark] Use a LAN connection; the computer and the host must be located in the same segment, e.g. 192.168.1.x

  ➢ Open VLC, click [Network Stream (SAP)] and devices that can be connected will appear in the right pane, and click on a device to start viewing



- Stream Connection
  - ➢ Get the host Stream address
    - Press the button on the VS-LC102 remote control to open the OSD menu
    - Scroll right to [Setting] and press [OK] to enter the settings screen
    - Confirm Network Streaming Address
  - ➢ Open VLC, click [Media] in the list at the top, select [Open Network Stream...] and enter the network streaming address to start viewing



10.2.3.2 Use VS-LC102 for Connection and Viewing

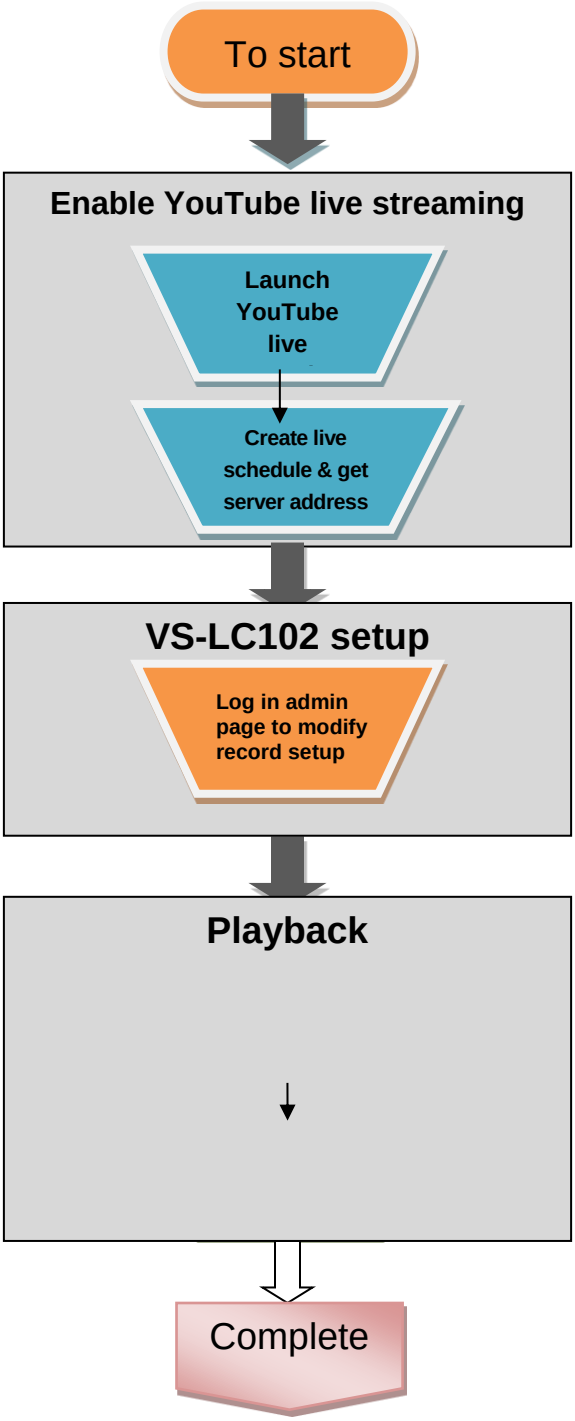
- Press **[Menu]** on the remote control or panel to access the main menu
- Use [◄ ►] to select **[Playback]**. Press **[OK]** to enter
- Use [▲ ▼] to select **[Live Broadcast]**. Press **[OK]** to enter
- Press **[EXIT]** or **[Return]** to exit

10.2.4 Use Online Director page for RTP sharing setup

- Open the browser and log into the Online Director page
- Click **[Recording Setting]** in the upper right of the screen, and change **[Streaming Setting]** as follows
  Streaming Mode: RTP Multicast
  Stream Encode Profile: Dynamic Scene HD (1280 x 720)
- Click [Apply] in the lower right corner to save the settings
- Press • to start recording, and to start sharing
- For how to connect and view, please refer to **10.2.3View Screen Sharing**
- After recording is stopped, the screen will stop sharing

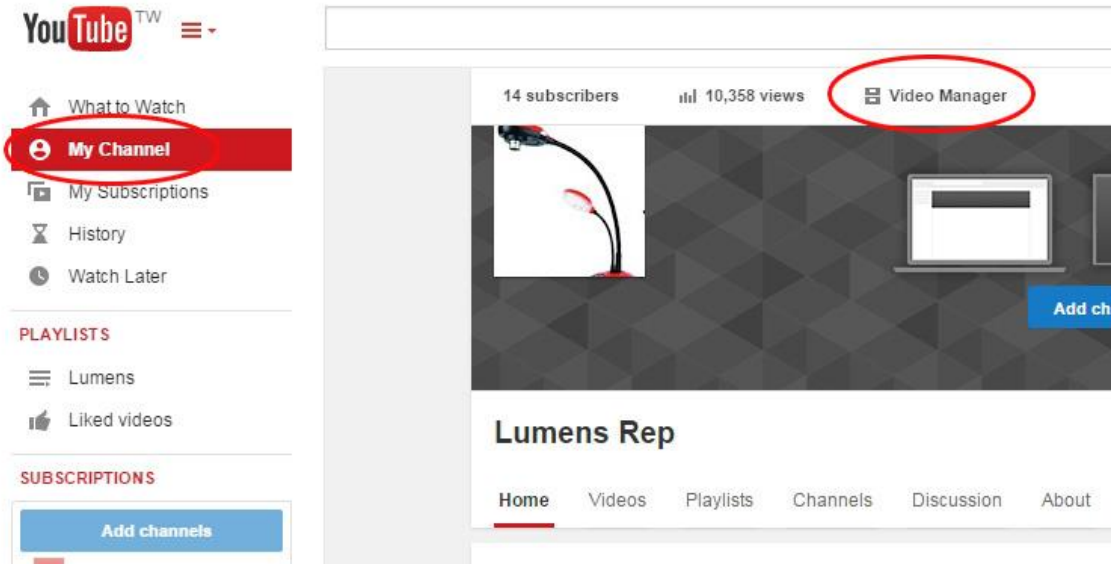
10.3 How to live stream

This product supports live events online. It allows you to live stream via YouTube online. The steps are as follow:

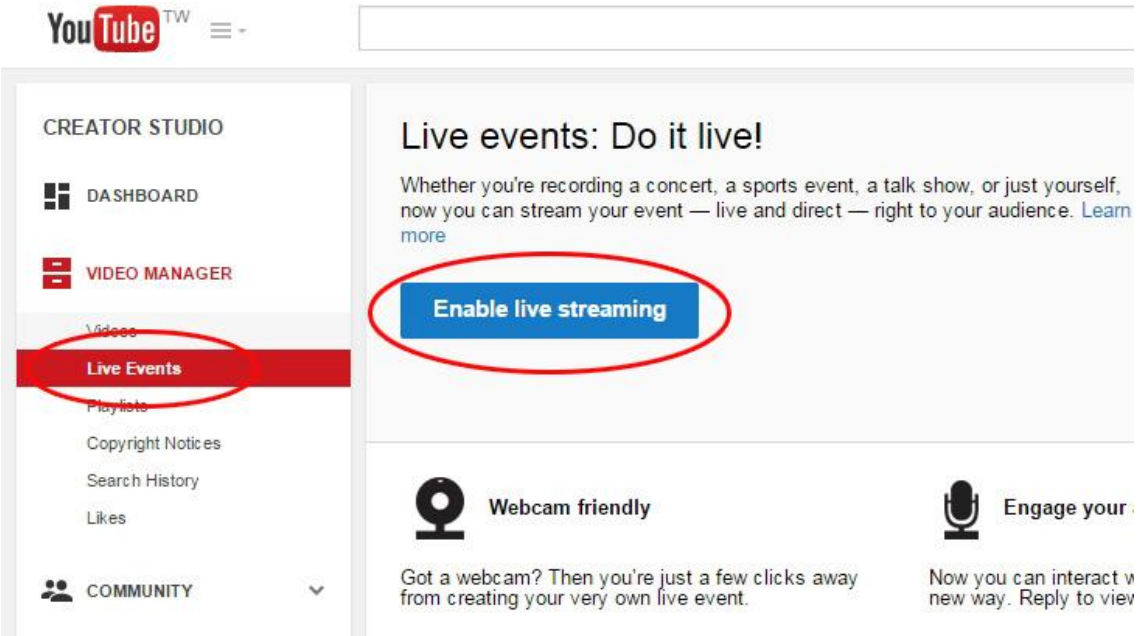


10.3.1 Enable the YouTube live streaming

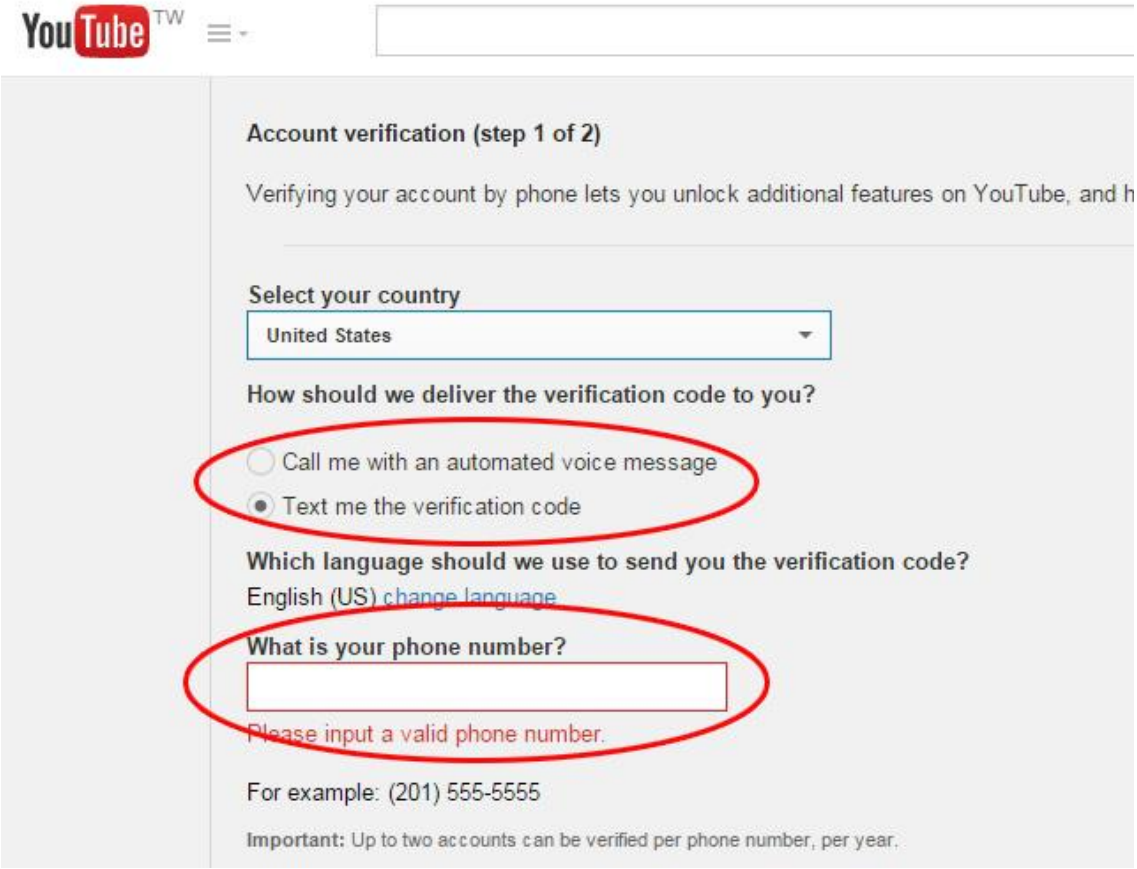
- Log in your YouTube account
- Select [My Channel] => [Video Manager]



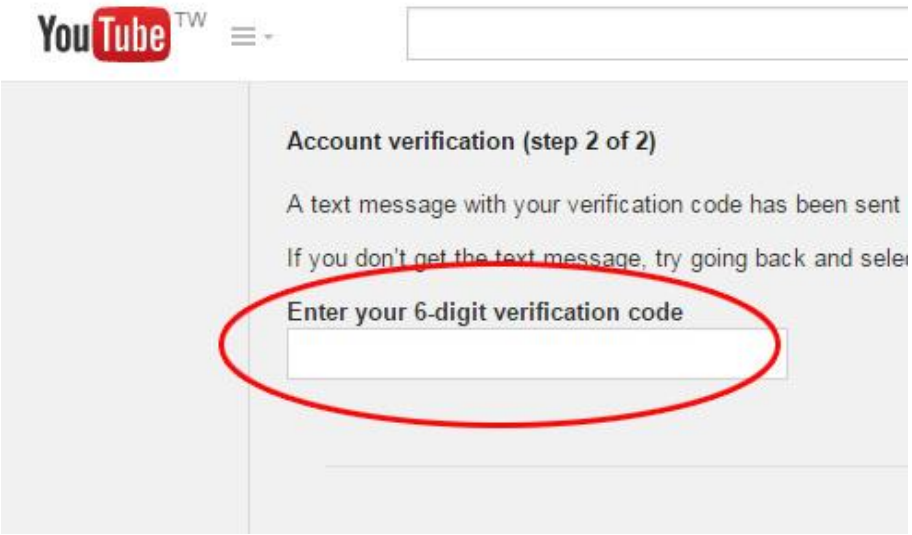
- Click [Live Events] => [Enable live streaming]



- To complete the account verification, select how you like to receive the verification code and enter your mobile phone number

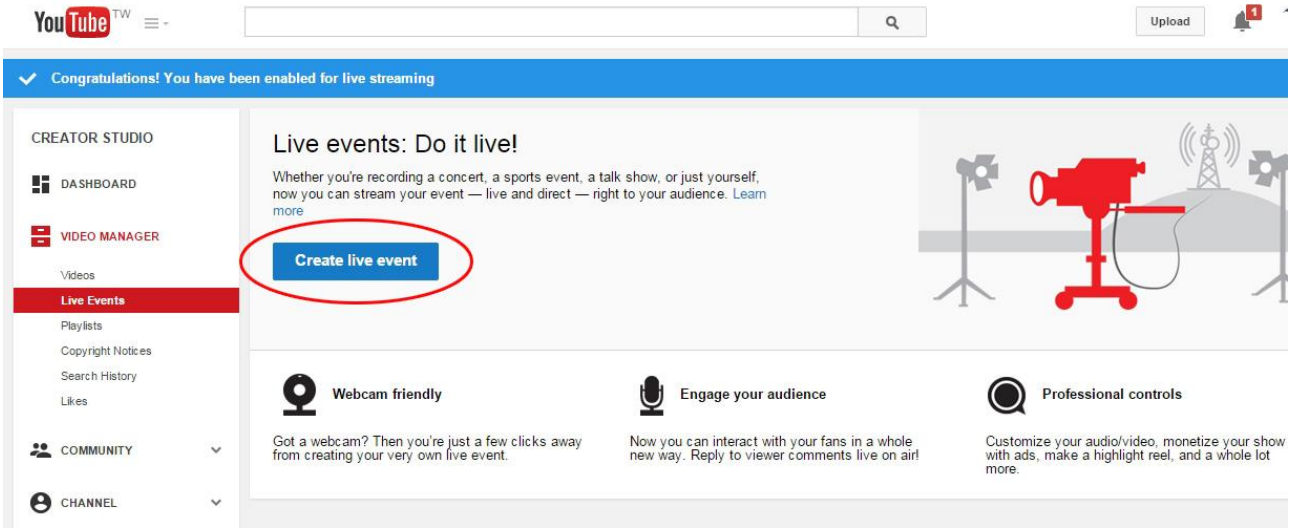


- Enter the verification code received to complete the process

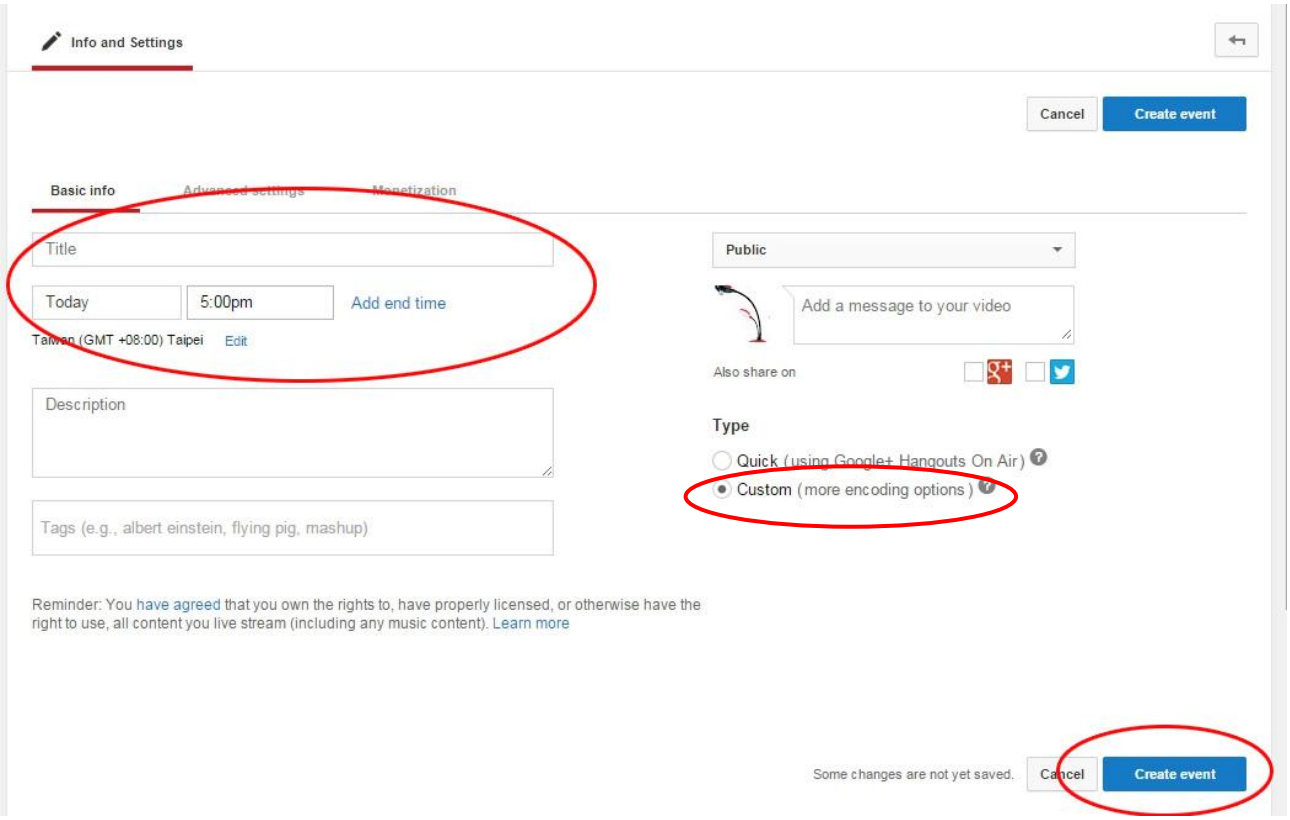


10.3.2 Create a live event

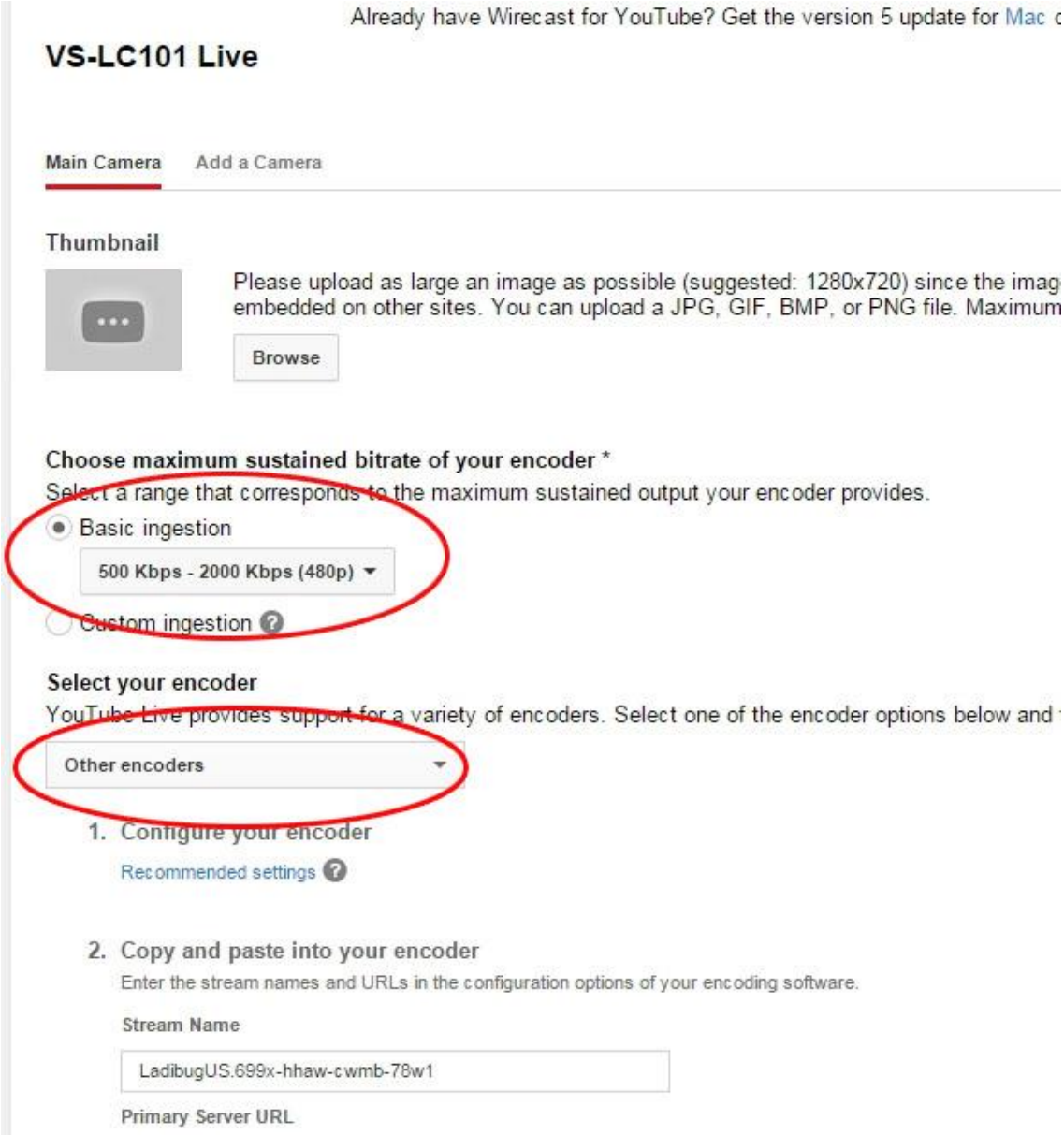
- Create a live event (Schedule a new event)



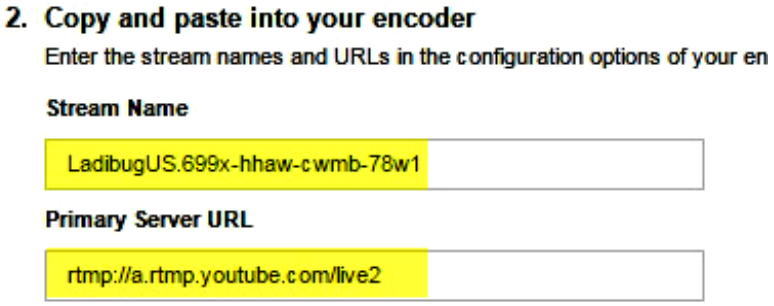
- Select the [Custom] Type, then enter the start time, end time and title of the event and click [Create event].



- Select a basic ingestion bitrate in the content capture setup. Any bitrate larger than 720P is not suggested
- Select [Other encoders] under [Select encoder].



- Below [Copy and paste into your encoder] are [Stream Name] and [Primary Server URL]. Copy the data in the two sections and paste into VS-LC102

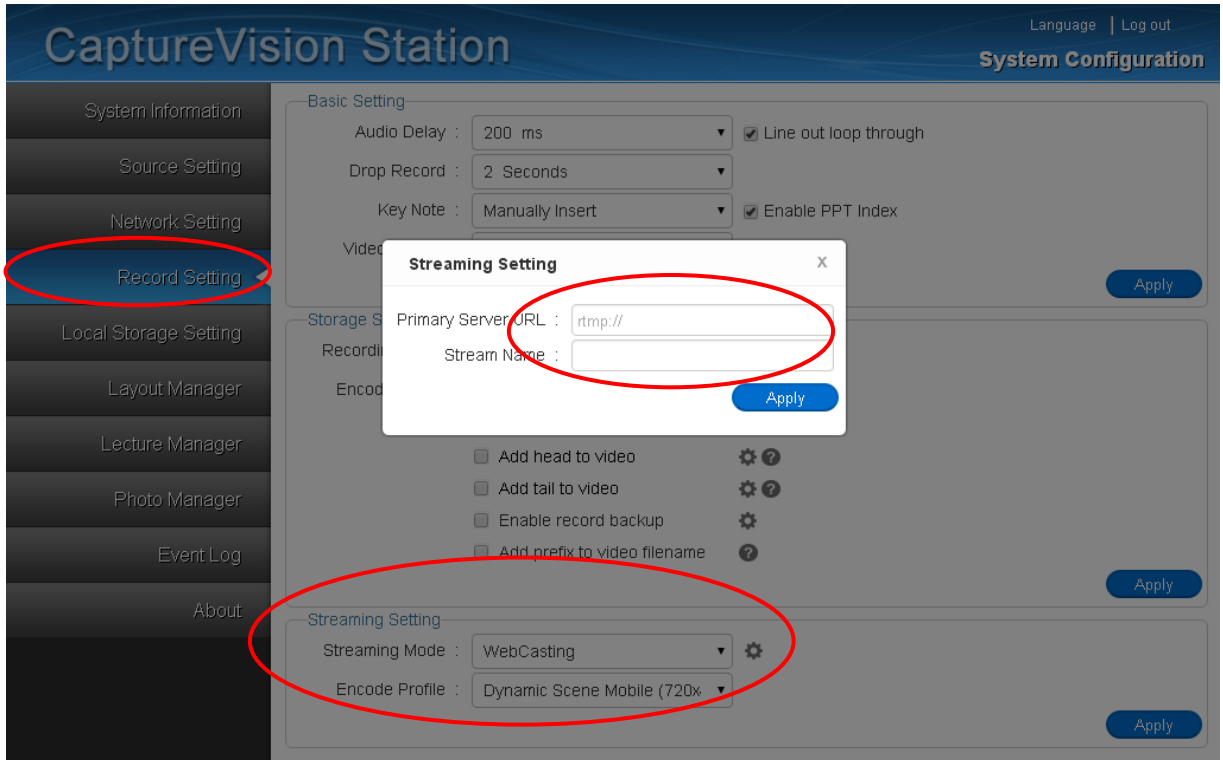


10.3.3 Configure VS-LC102

- Open a web and log in the VS-LC102's System Administration page
- Select [Record Setting] page and modify the setting as below

  Streaming Mode: WebCasting

  Encode Profile: Dynamic Scene SD (720x480). This setup need to match your setup [**Basic ingestion**] in YouTube



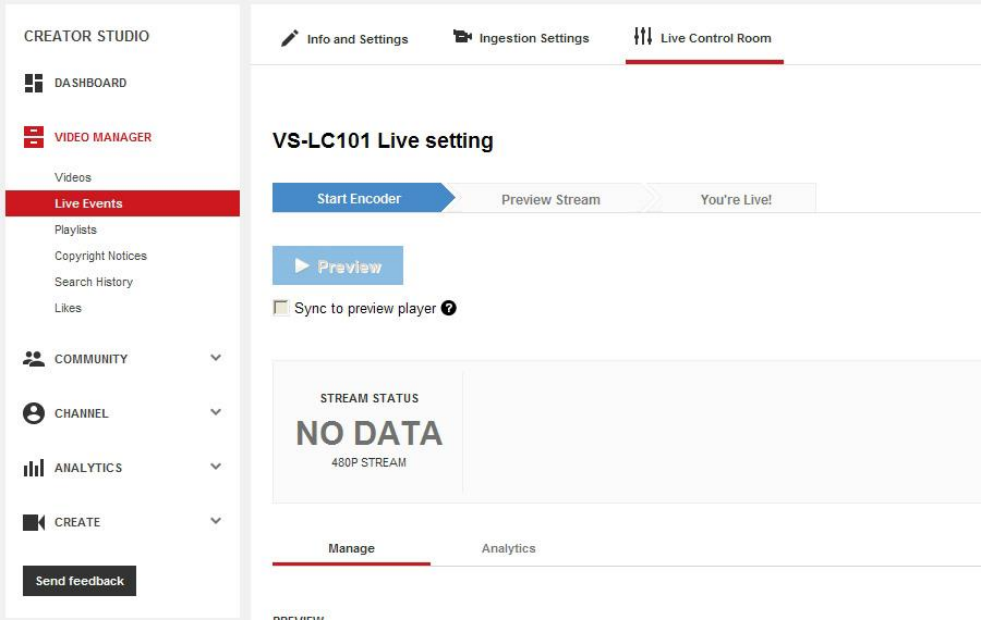
- Press ⚙, and enter the URL: The main server website and streaming name, e.g.

  Primary Server URL: rtmp://a.rtmp.YouTube.com/live2

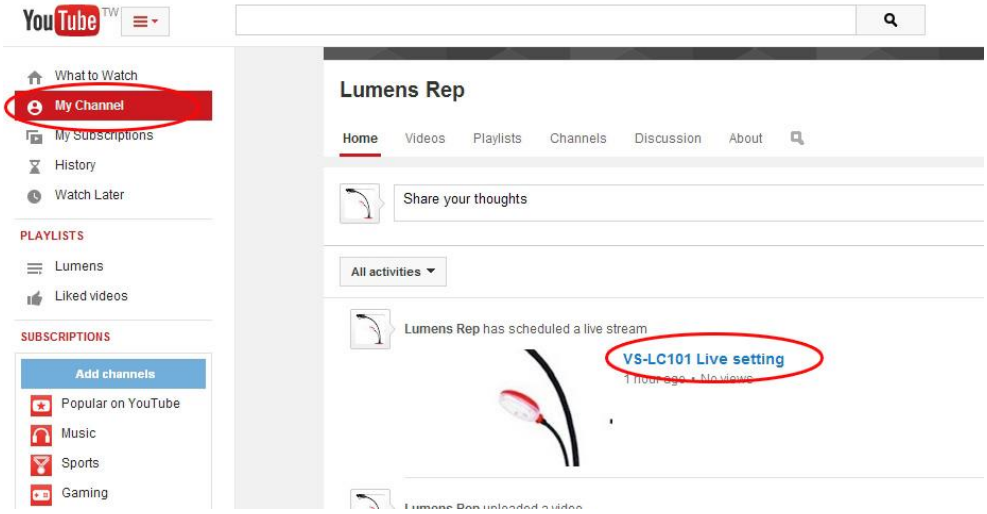
  Stream Name: LadibugUS.k6k4-qgsj-vq32-46mw
- Log out of the System Administration page
- Start recording function in VS-LC102 using online directing or a remote controller

10.3.4 Start live streaming

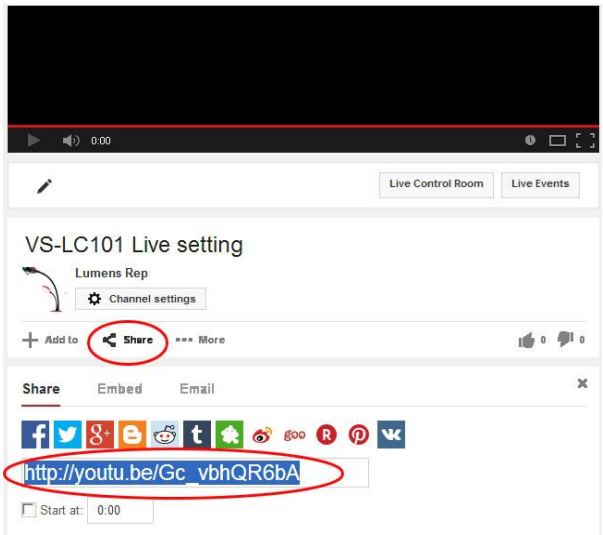
- Go back to YouTube's [Video manager] and open [Live Control Room]. You can take a preview on this page and start live streaming



- Go back to [My Channel] and you can see the scheduled stream setting on the right



- Click on it and select [Share] to see links for sharing. This link is provided to allow other users to watch this channel



10.4 Insert and Use Key Notes

During the video recording, mark an index for video searching

10.4.1 Insert Key Notes

VS-LC102 provides manual adding, automatic timing, PTT of the remote control and other ways for index marking, which are described below

10.4.1.1 Manual Adding

- Remote Control or Panel: Press • to start recording
- Press **[C]** on the remote control to insert a key note

10.4.1.2 Auto Adding

- Launch the web, and log in VS-LC102 administration page
- Select **[Record Setting]** page, change the setting as follows

Key Note: Select the time interval to add a key note

Enable PPT Index: Select the function, which can work with PPT Index to automatically add a key note

- Click **[Apply]** in the lower right corner to apply the settings
- Log out the web administration page

[Remark] After completing the setup, a key note will be added according to the preset time interval when recording is started

10.4.1.3 PPT Index

Key notes are automatically added during PPT playback, which must be collocated with PPT software. Please download the software from LUMENS website. For installation instructions, please refer to **10.5 PPT Installation and Instructions**

- Open PPT Index, and click to search VS-LC102
- Double-click to open VS-LC102; do not close the window after the connection to confirm the program is working

  [Remark] In case of multiple VS-LC102, please confirm the IP address of VS-LC102 to connect
- Open PPT Files
- VS-LC102 to start recording
- After a presentation is finished, please stop recording, close PPT, and stop PPT connection sequentially

10.4.1.4 Use Online Director Adding

In addition to the above methods, key notes can also be added when using online director management. Please refer to **8.2.3 Insert Key Notes**

10.4.2 Modify Index

You must log in the administration page to modify and delete the name of key notes. For related modification, please refer to **7.2.11Edit Lecture Keynote**

10.4.3 Use Key Notes

When playing videos, switch a key note to directly jump to a labeled paragraph, as follows:

1. Switch paragraph sequentially: Press the button on the remote control to select the previous or next key notes
2. Select a specific paragraph: Press the button ⓘ on the remote control and video key notes will appear, press [▲▼] to select a key note, and press [OK] to switch thereto

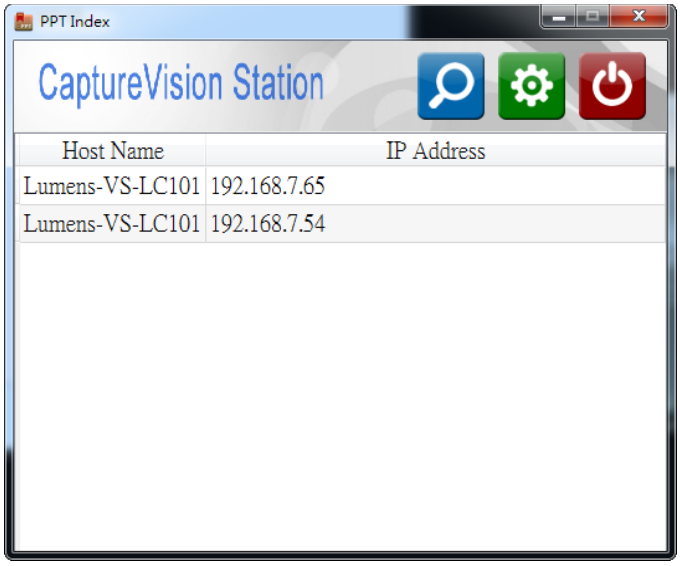
10.5 PPT Installation and Instructions

10.5.1 Installation

- Please download **PPT-Indexer** software at **Lumens™** website.
- Extract the file downloaded and then click **[PPT-Indexer-Setup-vxx]** to install.
- The installation wizard will guide you through the process. Please follow the on-screen instruction through the installation process.

10.5.2 Interface Description

- Main Screen



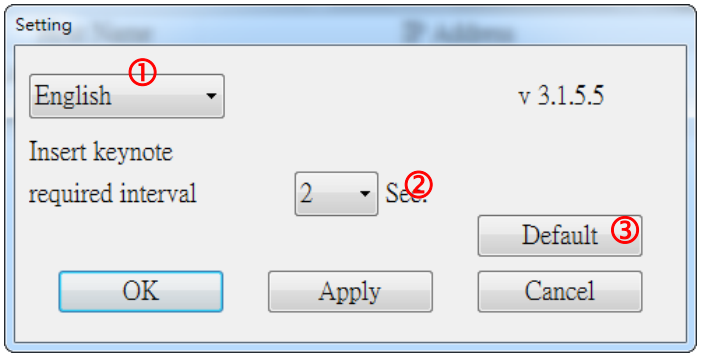
1 **Device List:** List of the available VS-LC102

2 **Discovery:** Search for the available VS-LC102 hosts

3 **Settings:** Change language and delay time for adding a key note after slide changes

4 **Power:** Close the software

- Settings Screen



1 **Change Language:** Support English, Traditional Chinese, and Simplified Chinese

2 **Delay Settings:** The delay time for adding a key note after slide changes

3 **Reset to the default value**

Chapter 11 Troubleshooting

This chapter describes problems you may encounter while using VS-LC102. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurred, please contact our distributors or service center.

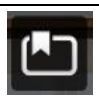
No.	Problems	Solutions
1.	**Boot without power signal**	Make sure you have plugged in the power cord.
2.	**No image output**	1. Check the power. 2. Check if the input/output device cables are loose 3. Replace the cables and make sure they are not faulty. 4. Confirm if the input source is set correctly, refer to the **5.2.4Settings (video input)**
3.	**The live streaming function lags when 4 VC-A20P are connected to the network**	Because live streaming is transferred over the network, connecting 4 network cameras may result in insufficient broadband. Please change VC-A20P settings. ● Resolution: 1920x1080 ● FPS: 30fps ● Bitrate: 2M
4.	**No image output after logging into Director**	Certain browsers may have firewall limitations. Change the firewall permission to include the software. Please following the below instructions to set up your browser: 1. Click **[Start]** and then **[Control Panel]** In the search field, enter [Firewall] and click **[Windows Firewall]**. 2. Click [Allow an app or feature through Windows Firewall] on the left panel. 3. Click [Change Settings]. (Administrator privileges required) If an administer password or confirmation is required, enter the password or provide confirmation information. 4. Select the program from the checkbox for approval and press [Confirm]. If the above configuration is invalid, first suspend the antivirus software and ensure that the program is not blocked by the antivirus.
5.	**Unable to log into System Configuration or Director once the VS-LC102 is connected**	1. Check username and password. These fields are caps sensitive. 2. Check browser version. Refer to **4. System Requirements** to view the supported versions.
6.	**Unable to record with USB with the error message, "Failed to record, please check storage device or turn-on streaming."**	1. Check Local Storage Settings configuration and whether the portable disk is formatted. Refer to **5.2.4 Settings (Format Hard Drive)**. 2. Check connection method. The PC must be connected to the VS-LC102 via a router, and the IP address must be on the same network segment. 3. Test with another portable disk. 4. Deactivate network streaming: Open browser and log into System Configuration/Director. Change recording settings and deselect streaming mode.
7.	**"HDCP Lock" is displayed when connecting the VS-LC102 to a notebook**	HDMI with HDCP encryption is the default output for a variety of notebooks. Configure the notebook to VGA output.
8.	**Can I access System Configuration or Director without connecting the VS-LC102 to my PC via a**	Yes, but the IP address of the VS-LC102 and the PC must be manually adjusted to the same network segment (e.g., 192.168.0.x) before connecting the PC network to the WAN terminal of the VC-LC102. [Remark] 169.172.x.x is an invalid network segment, and should not be

	router	used.
9.	**The remote control or panel keys are not responding**	The remote control and panel keys become non-functional when logging into the system
10.	**The remote control is not responding, but the panel keys are**	The remote control uses infrared signals. Devices with a stronger infrared signal is placed nearby (e.g., infrared digital whiteboards) may interfere with the signal of the remote control. Please keep the VS-LC102 away from such devices.
11.	**Lecture information is not presented when selecting a lecture in System Configuration**	The system uses the FireBreadthed VLC plugin to view lecture information. If lecture information fails to load, this may be because this component has not been installed. Refer to **Chapter 8** to access Director and begin installation.
12.	**Forget username and password**	Use a small screwdriver to press the **Reset Button** on the rear side of the host for several seconds to restore the host to its factory settings
13.	**When playing PPT with the PPT-index, VS-LC102 does not automatically add a key note**	Please open a browser, log in the **administration page**, switch to **[Record Setting]** page, and confirm if the **[Start PPT Index]** is enabled. Confirm **[Start PPT Index]** is enabled, log out the administration page after applying the settings, and re-execute the PPT playback and recording.
14.	**After switching the FTP server, the video is not automatically uploaded**	VS-LC102 will mark videos that have been uploaded to FTP, which will not be automatically uploaded again. To upload the video to other FTP, you can upload files manually after FTP setup is complete. For related instructions, please refer to **6.2.13 I want to upload files to FTP**
15.	**What is the duration of the recording schedule by the schedule manager**	The duration of the recording schedule is at least within the following 6 months for a single recording
16.	**Will a scheduled recording be activated when a manual recording is being performed at the same time?**	No, the current manual recording will not be interrupted (manual recording will take precedence over the scheduled recording)
17.	**When powered off and the scheduled recording is about to start, will CaptureVision be automatically turned on and start recording**	No, the scheduled recording will start only when the CaptureVision Station is turned on
18.	**The maximum duration of a single recording**	The maximum duration of a single recording is 8 hours

Attachment 1

See table below for event icons for local teaching and teaching display screens during performing.

Icon	Name	Function Description
	Network Disconnected	LAN connection failure
	Network connected	LAN connection successfully
	Auto display screen	Auto detect output device and set to optimum screen resolution
	Display 16:9	Display screen resolution: Full HD(1920x1080)/ HD (1280x720) output
	Display 5:4	Display screen resolution: XGA(1024x768) output
	Display 4:3	Display screen resolution: SXGA(1280x1024) output
	Display failure	Display screen output failure for lack of support to resolution of the display. You may run the Display Ratio function of remote controller.
	Hard disk lost	Hard disk set for local recording removed. Please check it.
	Hard disk about to be full	Insufficient free space of local hard disk. Please check its free space.
	HD digital contents protection	Source of signal is HDCP protected.
	Administrator mode	There is user log in the system configuration page. The panel and remote controller operation permission are revoked.
	Online director mode	There is user log in the online director page.
	Streaming recording	Start up network streaming recording mode.
	Local recording	Record to local hard disk.
	Pause	Recording paused. Video and audio data are lost before recording is resumed.
	Remote controller ineffective	This button of remote controller is functionless now.
	Snap shot	Capture current display.
	Channel enlarge	Current channel goes to full screen mode.

	Fit the frame	Zoom in the channel to fit the frame.
	Fit width	Zoom in the channel to fit the frame horizontally.
	Fit height	Zoom in the channel to fit the frame vertically.
	Fit width and height	Zoom in the channel to fit the frame both vertically and horizontally.
	Original image	Output source image of the channel without adjustment.
	Manual knowledge point	Manual insert knowledge point with remote controller during recording.
	Auto Key Note	Auto inserts Auto-Tracking Mount by the presentation indexing software.
	Eject USB export drive	Export completed, eject the USB export drive.