LUMA
SURVEILLANCE

VMS
Video Management Software

Software
Manual

Important Notes

This software is a third-party program. Luma Surveillance does not make any warranties, guarantees, or representations regarding either this software or the manual.

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Table of Contents

Introduction

Luma VMS is a versatile security management program that provides real-time live view, video recording, remote search and playback, file backup, alarms, and more, for connected devices.

Requirements

For stability and performance, we recommend the following:

Operating System: Microsoft Windows 7 / Windows 8.1 / Windows 10 (32-bit or 64-bit), Microsoft Windows XP SP3 (32-bit), Microsoft Windows 2008 R2 / Windows Server 2012 (64-bit).

CPU: Intel Core i3 Processor or above

Memory: 2 GB or above

Video Card: Radeon X700 series or better

GPU: 256 MB

Resolution: 1280×768 and above. For best results, we recommend using 1280×1024.

Notes:

Luma VMS does not support 64-bit; your 64-bit operating system must support 32-bit applications as well.

Hardware decoding function is only supported on systems more recent than Windows XP.

Running VMS for the First Time

Admin Registration

When you run Luma VMS the first time, it requires you to register a super user (admin) login.

1. Input the admin name and password. The software judges password strength automatically, and we highly recommend you to use a strong password to ensure your data security.

Pro Tip: For best security, use something other than *admin* for your admin's username.

- The admin user name cannot be longer than 16 characters. Also, it cannot contain any of the following characters: / \ : * ? " < > |.
- The password must be at least 6 characters long.
- Your most secure passwords are long, cannot be found in the dictionary, and do not relate to personal details like address or date of birth (e.g., *Ilovepepperonipizza!* would be a good password).
- Proper configuration of all passwords and other security settings is the responsibility of the installer and end user.

2. Confirm the password.
3. Optionally, check the checkbox **Enable Auto-login** to log into the software automatically.
4. Click Register.

Pro Tip: Luma VMS checks your password strength. We strongly recommend changing the password (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) to increase the security of your product. And we recommend you reset your password regularly, especially in high-security systems.

If you later forget this password, click the **Forgot Password** button. Copy the character string that appears in the pop-up window. Contact SnapAV tech support and send the encrypted string to him to reset your password.

Live View Performance

This table provides performance based on surveillance parameters.

H.264

Resolution	Bit Rate (Mbps)	Frame Rate (fps)	CPU: i3-8100 Graphics Card: GT1030 D5 Windows 7 64-bit		
			Channels	CPU(%)	Memory(MB)
720P	3	30	-	-	-
1080P	6	30	-	-	-
8MP	12	30	-	-	-
4CIF	1	30	57	58-78	1,577

H.264+

Resolution	Bit Rate (Mbps)	Frame Rate (fps)	CPU: i3-8100 Graphics Card: GT1030 D5 Windows 7 64-bit		
			Channels	CPU(%)	Memory(MB)
720P	3	30	24	62-84	1,208
1080P	6	30	11	60-89	1,024
8MP	12	30	-	-	-

H.265

Resolution	Bit Rate (Mbps)	Frame Rate (fps)	CPU: i3-8100 Graphics Card: GT1030 D5 Windows 7 64-bit		
			Channels	CPU(%)	Memory(MB)
720P	3	30	14	69-91	1,054
1080P	6	30	8	64-81	1,105
8MP	12	30	-	-	-

CPU: i5-4590@3.3GHz Graphics Card: GTX970 Windows 7 64-bit			CPU: i7-6700k@4GHz Graphics Card: GTX1070 Windows 7 64-bit		
Channels	CPU(%)	Memory(MB)	Channels	CPU(%)	Memory(MB)
25	78-89	1,330	41	81-90	1,286
11	65-82	460	19	75-89	1,242
3	79-90	2,099	5	63-75	1,454
-	-	-	-	-	-

CPU: i5-4590@3.3GHz Graphics Card: GTX970 Windows 7 64-bit			CPU: i7-6700k@4GHz Graphics Card: GTX1070 Windows 7 64-bit		
Channels	CPU(%)	Memory(MB)	Channels	CPU(%)	Memory(MB)
27	63-90	1,382	48	53-80	1,125
12	61-90	1,536	21	80-90	1,161
3	70-91	686	6	64-92	1,249

CPU: i5-4590@3.3GHz Graphics Card: GTX970 Windows 7 64-bit			CPU: i7-6700k@4GHz Graphics Card: GTX1070 Windows 7 64-bit		
Channels	CPU(%)	Memory(MB)	Channels	CPU(%)	Memory(MB)
15	70-90	850	26	71-89	1,251
8	60-85	1,239	15	70-88	1,284
2	77-92	666	3	51-64	1,075

Setup and Configuration

Luma VMS opens into the Device Management tab of the home page (see "Device Management Module" on page 19 for details).

Setup Wizards

Luma VMS provides various connection wizards that help you integrate VMS with your system quickly. These including wizards for video feeds, video walls, security control panels, access control and video intercoms, and attendance; each guides you through adding devices and selecting settings and operations.

To access these wizards, click the Add New Device Type button at the left of the home page and follow the instructions.

For detailed configuration about the wizards, please refer to the appropriate section of the manual.

Anatomy of the Home Page

The home page of Luma VMS has a lot of information on it.

The Top Bar

At the left end are the menus.

To the right are the current user account; network, CPU, and memory use (of your current PC); and the standard window controls.

The Module Tabs

Below the top bar are tabs for the various modules you have open at this time. The active module is shown with a dark blue tab; other open modules have a light blue tab. Any module can be closed by clicking the red X at the top right of its tab.

The Module Area

This shows the functional area of the active module. Each module is described in its own section.

The Bottom Bar

The latest alert messages and error messages appear here.

You can also click the image icon to enable/disable the image pop-up in Alarm Event interface.

Account Management Module

Up to 50 user accounts can be added to Luma VMS, and you can assign different permissions to each user.

Note: The user account you first registered is set as the admin.

Account Management can be found under the Control Panel module, or under the Tool menu.

Adding a User
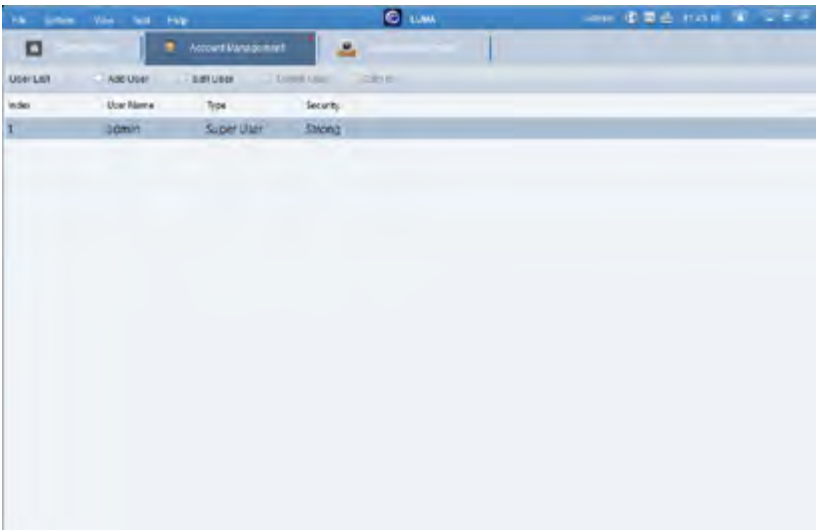
Click **Add User** to open the Add User dialog box (next page).

Select the user type from the drop-down list, though each user's permissions can be edited. The two types are:

- **Administrator:** The administrator account has all permissions by default, and can modify the passwords and permissions of all operators and its own account.
- **Operator:** The operator account has no permission by default and you can assign the permissions manually. An operator can only modify the password of its own account.

Input the user name, password and confirm password as desired. The software judges password strength; we highly recommend you to use a strong password to ensure your data security.

- The user name cannot be longer than 16 characters. Also, it cannot contain any of the following characters: / \ : * ? " < > |.
- The password must be at least 6 characters long.
- Your most secure passwords are long, cannot be found in the dictionary, and do not relate to personal details like address or date of birth (e.g., *Ilovepepperonipizza!* would be a good password).
- Proper configuration of all passwords and other security settings is the responsibility of the installer and end user.

Check the checkboxes to adjust the permissions for the created user.

You can select a user in the **Copy from** drop-down list to copy that user's permissions to the current user account.
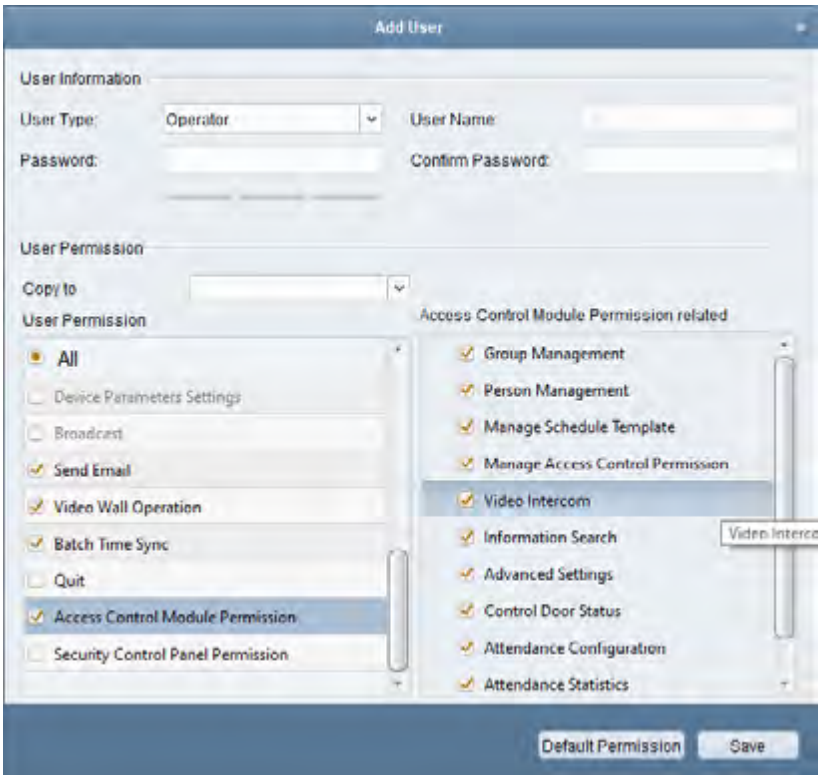
Click **Default Permission** to default the current user's permissions.

Click **Save** to save the settings.

Managing Users

All current users are listed on the Account Management page. You can click **Edit User** or **Delete User** to adjust the user accounts.

With all admin accounts, you can click the **Copy to** button to copy the permissions to other user(s).

Note: The admin account cannot be deleted; you can only edit its password.

Alarm Event Module

This module lets you review recent alarms and events of all added devices. Here you can aggregate alarm information from your connected devices for viewing and management.
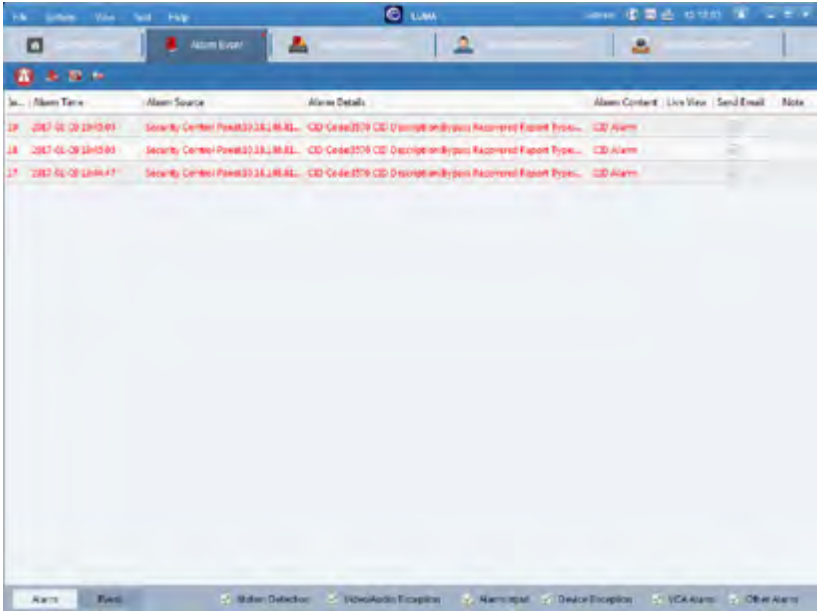
Top Bar Controls

The top bar of this module has several key settings.

- When an alarm occurs, the red button with the yellow triangle twinkles to call your attention to it. The alarm information, including the time, source, details and content is displayed.

- The siren button clears the information of alarms and events displayed on the list.

- The photograph toggle enables and disables a pop-up image when an alarm occurs.

- Finally, the speaker toggle enables and disables an audible warning for the alarm.

These buttons are global, they cannot be set individually per alarm.

Bottom Bar

To decide which alarms and alerts you want to see, click on the Alarm/Event toggle, then check the desired events to the right.

The different alarm types are: Motion Detection, Video/Audio Exception, Alarm Input, Device Exception, VCA Alarm, and Other Alarm.

Main Window

The main window sorts all alarm events by number, time, source device, details, and content.

When an alarm occurs, click the green play button to get a live view from the triggered camera, as shown below.
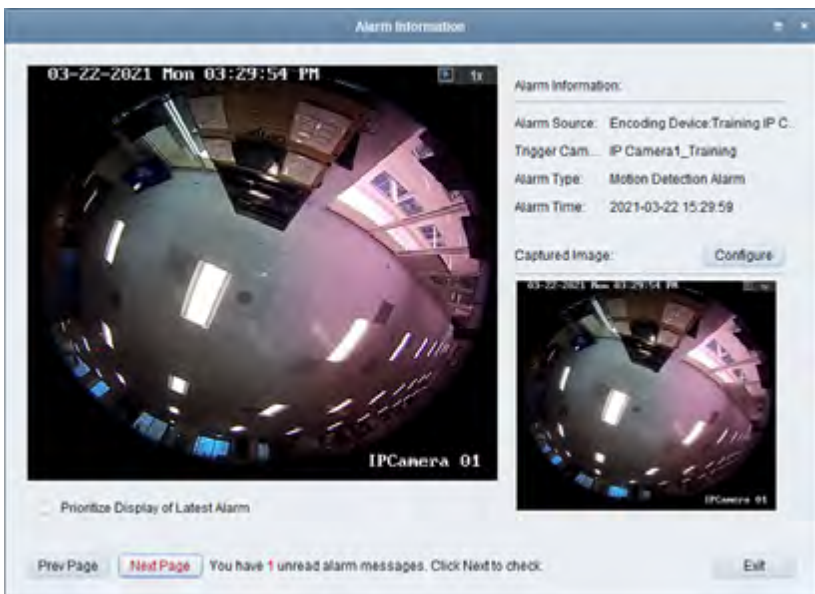
You can also click Prev Page or Next Page buttons to view information on the previous or next alarm.

Below the image, Prioritize Display of Latest Alarm is unchecked by default. You can check this checkbox to make the latest triggered alarm display automatically. The alarm window is in 4-window division. The latest alarm replaces the earliest alarm window of the displayed four windows.

To the right, check the Configure button to set the parameters for picture storage.

Click the envelope button to send an email notification of the alarm to the configured recipients.

Viewing Events Information

Click the Event button in the lower left.

The main area displays the event information, including the time and detailed description.

To clear the event information, click the siren icon, or right-click on the event log and then click Clear.

Viewing Pop-up Alarm Information

If you have enabled Alarm Triggered Pop-up Image (on the event linkage) and the Enable Alarm Triggered Pop-up Image function (on the client), an image automatically pops up when the corresponding event/alarm is triggered.

You can view the live video of the triggered camera. In the right panel, the alarm picture displays.
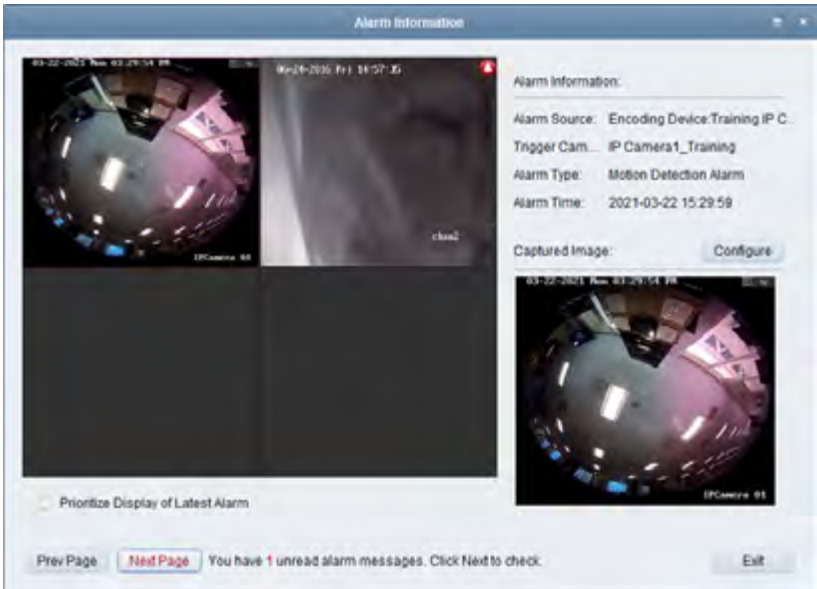
By default, the pop-up window is a 2x2 display, and the latest alarm video replaces the oldest alarm window. You can change this behavior by unchecking the Prioritize Display of Latest Alarm. The view switches to the current triggered alarm. Click the Prev Page or Next Page buttons to view the previous or subsequent alarm information.

Control Panel Module

This module allows for quick navigation. You can also edit (to a degree) the modules that appear here.

This module appears under the View menu.

Clicking on any listing on this page activates it as detailed below.
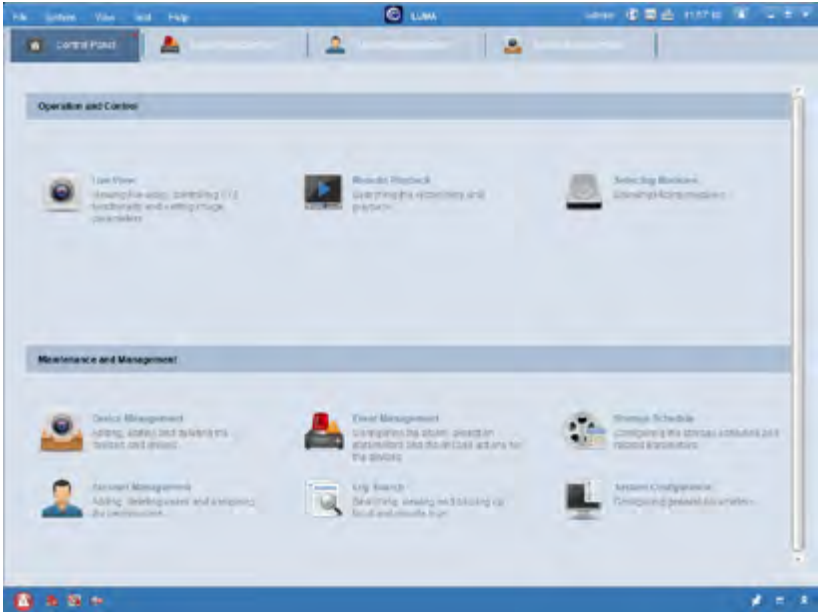
Operation and Control

Live View: This provides live view of network cameras and video encoders, and supports some basic operations. See "Live View Module" on page 47.

Remote Playback: This module provides the search, playback, export of video files. See "Remote Playback Module" on page 53.

Selecting Modules: This opens a dialog box wherein you can select which of the previous four modules appear when the program launches (and after any change you make in this dialog).

- **Alarm Event:** See "Alarm Event Module" on page 13.
- **E-map:** See "E-Map Module" on page 29.
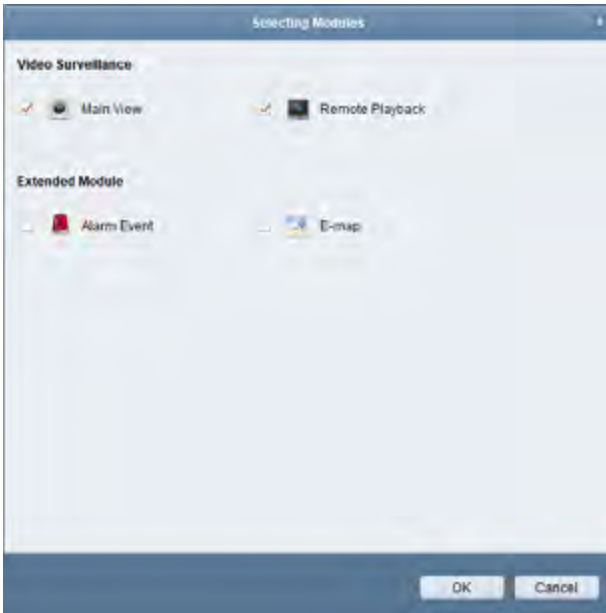
Maintenance and Management

Device Management: This lets you add, modify, and delete different devices. The devices can be imported into groups for management. See "Device Management Module" on page 19.

Event Management: This module provides the settings of arming schedule, alarm linkage actions and other parameters for different events. See "Event Management Module" on page 36.

Storage Schedule: This provides the schedule settings for recording and pictures. See "Storage Schedule Module" on page 67.

Account Management: This module provides the adding, modifying and deleting of user accounts and different permissions can be assigned for different users. See "Account Management Module" on page 10.

Log Search: This module provides the query of system log files and the log files can be filtered by different types. See "Log Search Module" on page 51.

System Configuration: This module provides the configuration of general parameters, file saving paths, alarm sounds and other system settings. See "System Configuration" on page 72.

Device Management Module

There are two major tabs in the Device Management module: the Device tab and the Group tab. These tabs appear at the top of the module area. Each is described in its own section.

Device Tab

Clicking the Device tab opens the following interface:
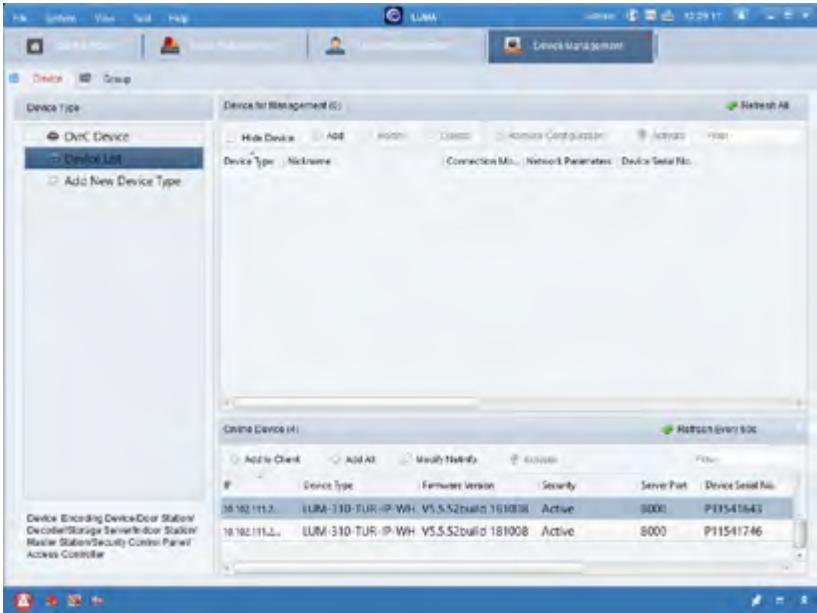
This interface is divided into three windows.

Device Type Window

This window has three clickable entries: OvrC Device, Device List, and Add New Device Type.

OvrC Devices: This lists all NVRs and DVRs that the currently open OvrC account (if any) has permission to see. It does not list standalone cameras. You must log in to OvrC to use this feature.

Pro Tip: When setting this up for a customer, only give the customer access to their own system using OvrC's Groups & Permissions feature.

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Device List: This lists all devices currently connected to Luma VMS.

Add New Device Type: This opens a dialog box to add devices. Adding a device is covered in the following pages of this section.
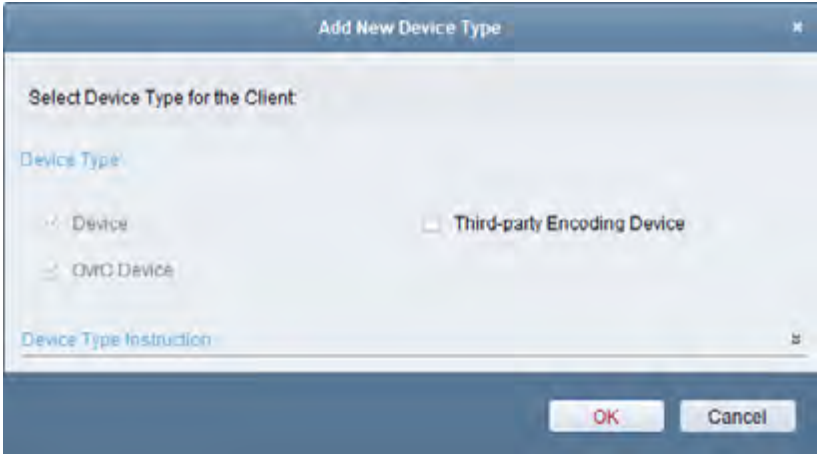
Devices for Management Window

Once added, devices are displayed in the device list, along with the resource usage, HDD status, recording status, and other information for each device.

Click **Refresh All** in the title bar to refresh the information of all devices in the window.

You can input text in the **Filter** field to search for devices with that text in their name.

Click the **Add** button to add a new device.

When a device is selected, you can:

- Click **Modify** to edit the information of the selected device.
- Click **Delete** to remove the selected device from management.
- Click **Remote Configuration** to adjust its settings (see the device's user manual for details).
- Click **Activate** to prepare new hardware for first-time use.

Online Devices Window

This window shows all of the active devices that the Luma VMS can detect on the local subnet, but that have not yet been added to Luma VMS for management.

Click **Refresh Every 60s** in the title bar to refresh the information of all devices once per minute until the button is unclicked.

You can click the double arrow (to the right of the Refresh button) to hide the Online Device area.

Input text in the **Filter** field to search for devices with that text in their name.

Click on a device to select it. When a device is selected, you can:

- Click **Modify Netinfo** to edit the network information of the selected device. You must enter the admin password for the device to modify its parameters.
- Click **Activate** to prepare new hardware for first-time use.
- Click **Add to Client** to add the device to Luma VMS.

Click **Add All** to add all selected devices to Luma VMS.

Adding a Device from the Online Devices Window

You can add a device directly from the Online Devices window.

Click on a device to select it to add. The device must be activated (with a proper password) before you can add it to Luma VMS.

Click the **Add to Client** button to open the dialog shown here:

Nickname: Enter a name for the device as you want.

Address: The device's IP address is auto-filled.

Port: Input the device service port. The default value is 8000.

User Name and Password: Enter the device's admin credentials.

Check the **Export to Group** checkbox to create a group named for this device. You can import all the channels of the device to the corresponding group by default.

Click **Add**.

Adding an Offline Device

Adding an offline device is handled the same as the above. However, you must also click the **Add Offline Device** checkbox, and enter the device channel number and alarm input number.

When the offline device comes online, it automatically connects.

Adding Multiple Online Devices

If you want to add multiple online devices at once, hold Ctrl while clicking multiple devices, then click **Add to Client** to open the device adding dialog box. In the dialog, enter the admin credentials for the devices to be added (which must be held in common) and click **Add**.

Click the Export to Group checkbox to create a group named for each device named for its IP address.

Add All Online Devices

If you want to add all the online devices found in the subnet by Luma VMS, click the **Add All** button and click **OK** in the pop-up.

Luma VMS then prompts you to enter the admin credentials for the devices to be added (which must be held in common).

Adding Devices by IP or Domain Name

Click the **Add** button above the device list to open the device adding dialog box.

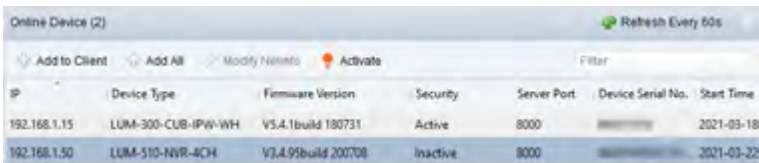Enter the device's the following information.

- **Nickname:** A user-friendly name for the device.
- **Address:** The device's IP address or domain name.
- **Port:** Input the recorder's port. The default value is 8000.
- **User Name and Password:** Enter the device's admin credentials.
- **Export to Group:** For a recorder, click this checkbox to create a group using the device's nickname. You can import all the channels of the device to the corresponding group by default.
- **Add Offline Device:** Click this checkbox is the device is not currently powered. When the offline device comes online, Luma VMS connects to it automatically.

Click the **Add** button at the bottom to add the device.

Activating a Device

Some devices require activation before you can add them to Luma VMS. Such devices show as **Inactive** in the window.

To activate the device, click on the device's entry (in the Device for Management or the Online Device area.

IP	Device Type	Firmware Version	Security	Server Port	Device Serial No.	Start Time
192.168.1.15	LUM-300-CUB-IPW-WH	V5.4.1build 180731	Active	8000	———	2021-03-18
192.168.1.50	LUM-510-NVR-4CH	V3.4.95build 200708	Inactive	8000	———	2021-03-22

Online Device (2) — Refresh Every 60s — Add to Client — Add All — Modify Netinfo — Activate — Filter

Click the **Activate** button to pop up the Activation dialog. In that dialog, create and confirm an admin password.
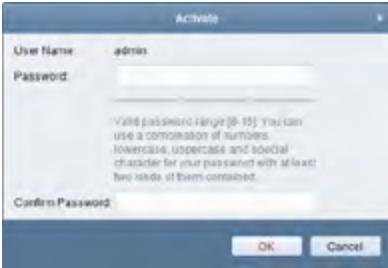
If the device is in the Online Devices window, Click the **Modify Netinfo** button to pop up the Modify Network Parameter interface.

To change the device's IP address to be on the same subnet as your computer, edit the IP address manually or check the **DHCP** checkbox.

Enter the admin password and click **OK** to complete the changes.
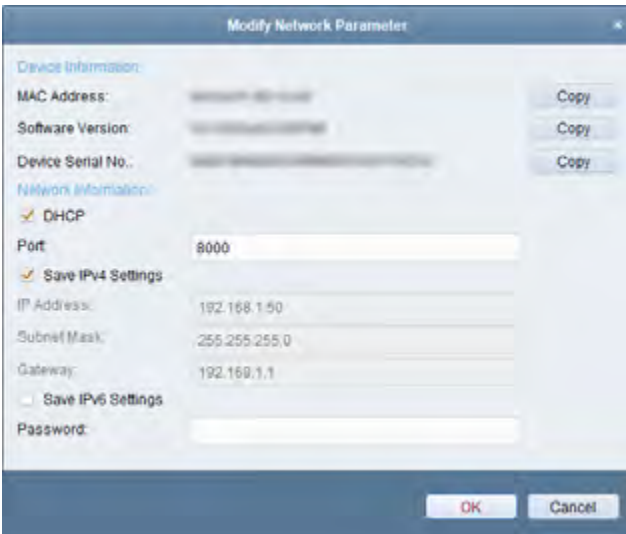
Group Tab

For convenient management, this tab organizes your devices into groups. This lets you fetch the live view, play recordings, and do other actions efficiently.

You must add a device to Luma VMS before you can add it to a group.

Adding a Group

Click green **+ Folder** icon to open the Add Group dialog.

Name the group name as you want. You can click the **Create Group by Device Name** checkbox if the name of the selected device is sufficient.

Click **OK** to add the new group to the group list.

## Importing Encoding Channel or Alarm to Group

Click the **Import** button. To import an encoding device, select the **Encoding Channel** tab. To import an alarm, select the **Alarm Input** tab.

The left pane is where you select the cameras or alarms to be added. It has buttons to switch between a list view or a thumbnail view. While in list view, you can also search.

On the right side of the dialog, select a group from the group list. The search function helps you locate a specific desired group. You can also click the **+** icon above the group pane to add a new group.

Click **Import** to add the selected items to the selected group. You can also click **Import All** to import all the items in the list to the selected group.

Up to 256 cameras/alarms can be added to one group.
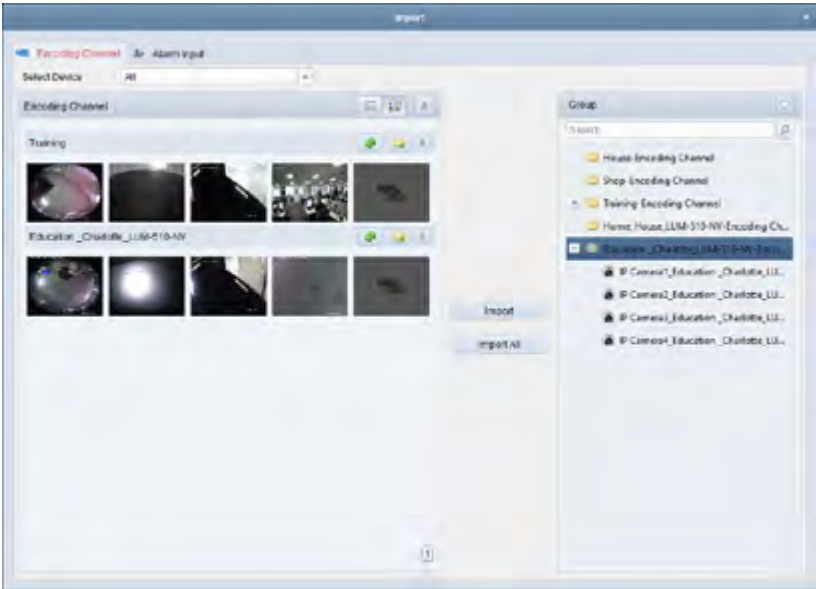
Each encoding channel in the list has the following buttons:

- **Refresh:** Refresh the latest information of added cameras.
- **Import:** Create a group named as *"device name-Encoding Channel (Alarm Input)"* and import the devices to that group.
- **Collapse/Expand:** Collapse or expand the thumbnails.

Modifying a Group or Camera

You can edit the group and camera information, including the name, the stream type, etc.

To do so, select an item from the list on the Import page. Click the Edit icon, or double-click the group/camera name to open the Modify Group/Camera dialog box.
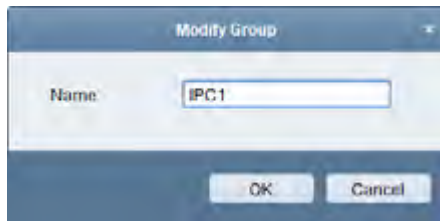
Edit the group/camera information to change the name of the group and/or any camera included in that group. This includes the group/camera name, the stream type, etc. If you change the video stream and protocol type, the new settings take effect after you reopen the live view of the camera.

- **Video Stream:** Select the stream for the camera's live view.
- **Playback Stream Type:** Select the stream for the playback of the camera. This only displays if it supports dual-stream.
- **Rotate Type:** Select the rotation for the live view or playback of the camera.
- **Protocol Type:** Select the transmission protocol for the camera.
- **Stream Media Server:** Configure to get the camera stream via a media server. You can select and manage the available stream media server.
- **Copy to…:** Copy the configured parameters to other camera(s).
- **Refresh:** Get a new captured picture from the live view.

Click **OK** to save the new settings.

You can also double-click the encoding channel on the Resource list in the Group Management interface, or select the encoding channel and click Modify to open the Modify Camera dialog box.
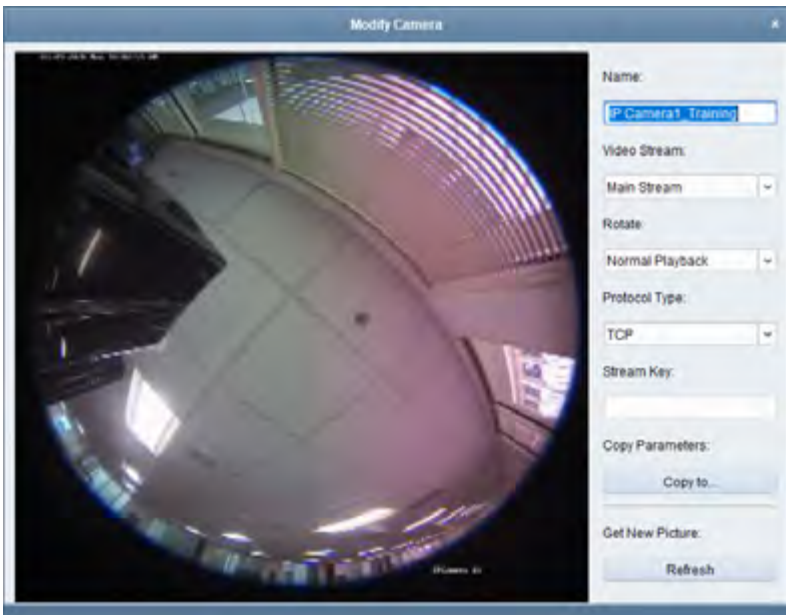
Removing Cameras from the Group

1. Select the camera from the group list on the Import Encoding Channel page.

2. Move the mouse to the camera and click the red X to remove the camera from the group. You can also select the camera on the Group Management interface, and then click Delete to remove the camera from the group.

3. Select the group from the group list on the Import Encoding Channel page, move the mouse to the group and click the red X and you can remove all the cameras from the group.

Deleting a Group

1. Select the group on the Group Management interface.

2. Click Delete Group, or move the mouse to the group and click the red X icon, the selected group and the resource under it will be deleted.

E-Map Module

The E-map module gives a visual overview of the locations of the installed cameras, alarm inputs, zones, and access control points.

You can fetch live views from the map, and you will get a notification message from the map whenever an alarm is triggered. You can also use the E-map to control access control points, such as opening and closing a door.

To launch the E-Map module, go to **Control Panel > Selecting Modules** and enable it. Then you can click it in the Control Panel, or find it under the View menu.

The left side of the module has the group list.

The main area to the right is the display area.

At the bottom is the E-map toolbar.

Adding a Parent E-map

The E-map module does not use Google Maps or any other online service. Instead, you can load a map file of your own design, for example, a floorplan of your office building.

You can add a separate map for each device group. Each group can only have one map. The map must be either a *.png, *.jpg, or *.bmp.

To add a map file:

1. Select a group for which you want to add a map.
2. Click the map icon with the green + in the bottom bar.
3. In the text box at the top, add a descriptive name for the map.
4. In the bottom browse box, navigate to the location of the desired map file.
5. Click OK.
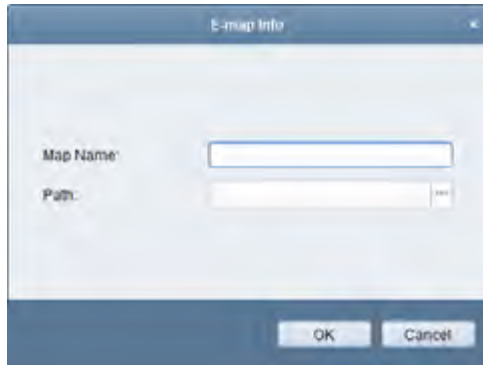
Using the Map

When the group is selected, its map displays to the right. Use the mouse wheel (or click the + or - buttons) to zoom in or out. Click and drag the yellow window in the lower right corner (or use the direction buttons and zoom bar) to adjust the map area shown.

Previewing the Map

Click the Map Preview button at the bottom. In this mode, two buttons are available at the bottom:

- Clear Alarm Info: The red siren icon clears all alarm information displayed on the map.
- Back to Parent Map: The map with the green arrow returns you to the parent map.

Adjusting the Map

Click the Edit Map button at the bottom. In this mode, several buttons are available at the bottom. Each button has a mouseover. From left to right, these are:

- Modify Map: Modify the map information, including the map name and file path.
- Delete Map: Delete the current map.
- Add Camera Hot Spot: Add a camera as a hot spot on the map.
- Add Alarm Input Hot Spot: Add an alarm input sensor as the hot spot on the map.
- Add Access Control Point Hot Spot: Add an access control point as the hot spot on the map.

- Add Hot Region: Add a map as the hot region on the current map.

- Modify Hot Spot and Hot Region: Modify the information of the selected hot spot or hot region.

- Delete Hot Spot and Hot Region: Delete the selected hot spot or hot region.

There is also a search box at the lower right.

Hot Spots

Cameras and alarm inputs can be added to the map. Each one is added to a hot spot. These hot spots show the locations of the cameras and alarm inputs, and you can also use them to fetch the live view and alarm information of the surveillance devices.

Adding a Hot Spot

Click the Edit Map button in the E-map toolbar.

Click the appropriate Add Hot Spot icon in the toolbar to open the Add Hot Spot dialog box.

In the dialog, check the checkboxes to select the devices to be added.

Optionally, you can edit the hot spot name, select the color and select the hot spot icon by double-clicking each corresponding field.

Click OK to save the settings. The camera icons appear on the map as hot spots and the icons of added cameras changes in the group list to reflect that they are on the map.

You can click-and-drag the camera icons to move the hot spots to the desired locations. You can also click-and-drag the camera icons from the group list to the map directly to add the hot spots.

Modifying or Deleting Hot Spots

You can edit the information of hot spots, including the name, color, icon, etc.
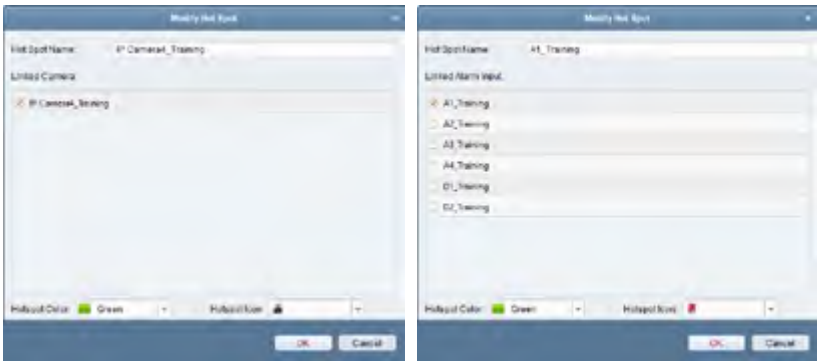
Click the Edit Map button in the E-map toolbar.

Open the Modify Hot Spot dialog box by one of three methods: Select the hot spot icon on the map and then click the modify icon in the toolbar, or right-click the hot spot icon and select Modify, or double-click the hot spot icon on the map.

You can edit the hot spot name in the text field and select the color, the icon and the linked camera or alarm input.

Click OK to save the new settings.

To delete the hot spot, either select the hot spot icon and click the delete button in the toolbar, or right-click the hot spot icon and select Delete.

Previewing Hot Spots

Click the Map Preview button in the E-map toolbar.

Double-click the camera hot spots or right-click it and select Live View, and you can get the live view of the cameras.

If there is any alarm triggered, a siren icon appears and twinkles near the hot spot (it lasts for 10 seconds). Click the alarm icon, and then you can check the alarm information, including alarm type and triggering time.

Note: To display the alarm information on the map, the Alarm on the e-map needs to be set to the alarm linkage action.

Hot Region Function

The hot region function links a map (the child) to another map (the parent). The child map should be a zoomed-in area of the parent map. When you add a map to another map as a hot region, an icon of the link to the added map is shown on the main map.

Note: A map can only be added as the hot region for one map. The reverse is not true. Thus a child can only have one parent, but a parent can have more than one child map.

Adding Hot Regions

You can only add a hot region if a map has been added to another group.

1. Click the Edit Map button in the E-map toolbar to enter the map editing mode.
2. Select an added map as the parent map.
3. Click the Add Hot Region icon in the toolbar.
4. Check the checkbox to select the child map to be linked.
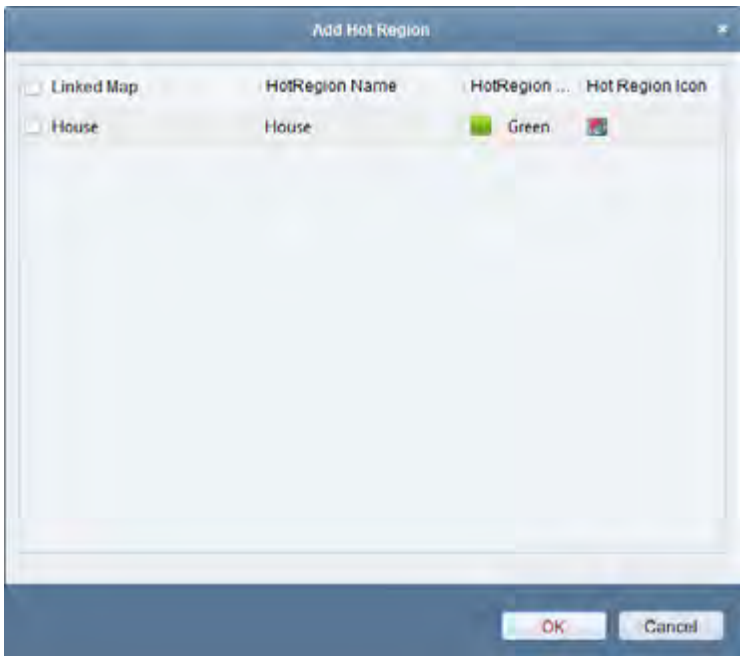
5. Optionally, you can edit the hot region name, and select the hot region color and icon by double-clicking the corresponding field.

6. Click OK to save the settings. The child map icons are added on the parent map as hot regions. Click and drag the child map icons to move the hot regions to their desired locations.

Modifying Hot Regions

You can modify the information of the hot regions on the parent map, including the name, the color, the icon, etc.

1. Click the Edit Map button.

2. Open the Modify Hot Region dialog box by (a) selecting the hot region icon on the parent map and then clicking Modify Hot Spot and Hot Region in the toolbar, (b) right-clicking the hot spot icon and selecting Modify, or (c) double-clicking the hot region icon.

3. Edit the hot region name in the text field. Select the color, the icon, and the linked child map as desired.
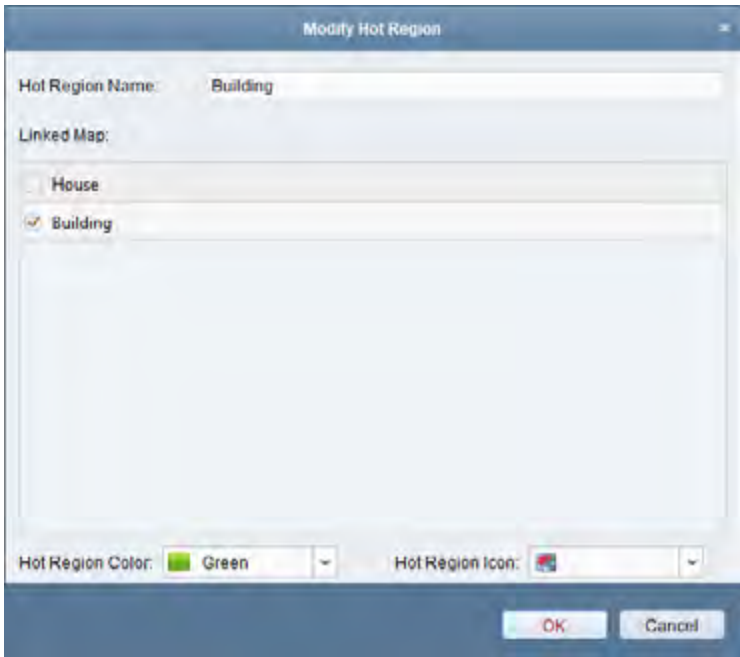
4. Click OK to save the new settings.

5. To delete the hot region, select the hot region icon and click Delete Hot Spot and Hot Region in the toolbar, or right-click the hot spot icon and select Delete.

Previewing Hot Regions

1. Click the Map Preview button in the E-map toolbar.

2. Click the hot region icon to go to the linked child map.

3. The hot spots can also be added on the hot regions.

4. Click the green up arrow map icon in the toolbar to go back to the parent map.

5. If needed, click the delete alarm icon in the toolbar to clear the alarm information.

Event Management Module

Here you set up rules for triggers and events. Each rule assigns linkage actions to a trigger. For example, when motion is detected (trigger), an audible warning sounds (linkage action).
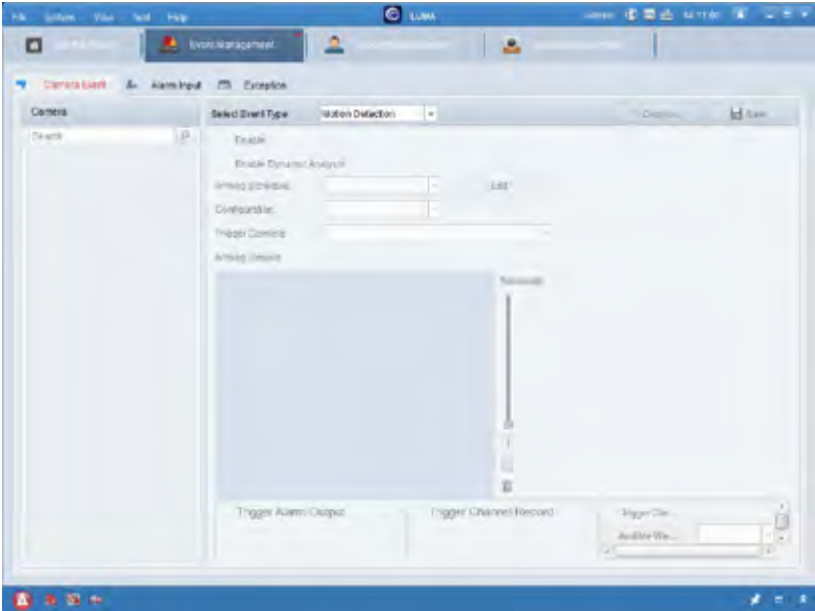
Event detection must be supported by the device. You can set linkage actions for each of the following triggers:

- Camera Event
- Alarm Input
- Exception

The exact event types vary by device and manufacturer. In the configurations shown following, event types are merely examples. For other types, refer to the device's User Manual.

Arming Schedule

The various events use arming schedules to determine when event monitoring is active. These schedules are fully customizable.

Configuring the Arming Schedule

Click Edit (next to the Arming Schedule dropdown) to customize when you want Luma VMS to monitor the camera.
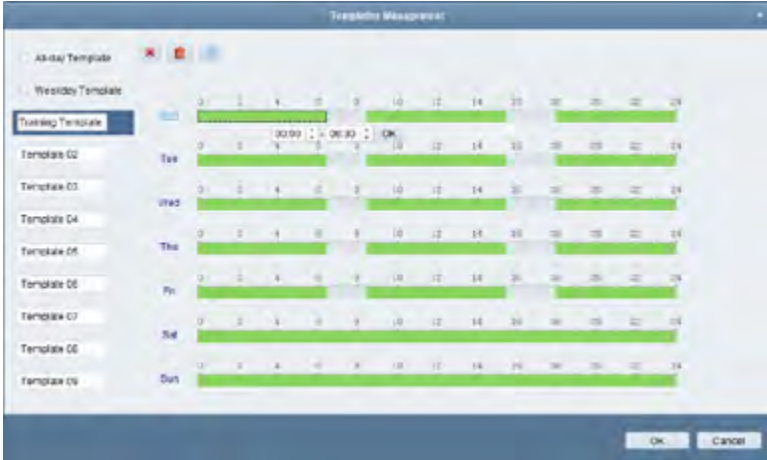
Select the template to edit. You can edit the template name.

Set the time schedule for the selected template by creating up to 8 individual time segments for the system to be active. To create time segments, move your cursor over each day's timeline.

- When the cursor turns to a pencil, click and drag the mouse to create a time period.

- When the cursor turns to a hand, click and drag to move the selected time bar you just edited. You can also edit the displayed time point to set the accurate time period.
- When the cursor turns to a double-headed arrow, click and drag that end of a time segment to lengthen or shorten the bar.

You can select the schedule time bar, and then click the X icon to delete it. Click the trashcan icon to delete all the time bars, or click the copy icon to duplicate the time bar settings to the other days.

Click OK to save the settings.

In the Custom Schedule dialog, click Save as Schedule Template to save the schedule as template 01–09, overwriting previous versions.

Camera Event Tab

Luma VMS supports the following camera events.

- Motion Detection
- Video Tampering Detection
- PIR Alarm
- Video Loss
- Audio Exception Detection
- Defocus Detection
- Face Detection
- Line Crossing Detection
- Intrusion Detection
- Scene Change Detection
- VCA Detection
- Region Entrance Detection
- Region Exiting Detection
- Loitering Detection
- Fast Moving Detection
- People Gathering Detection
- Parking Detection
- Unattended Baggage Detection
- Object Removal Detection

Configuring the Motion Detection Alarm

Here you set linkage actions when the subject camera detects motion.

In the leftmost pane, select a camera. Select Motion Detection as the event type.

Click the Enable checkbox to allow motion detection as a VMS event.

Click the checkbox Enable Dynamic Analysis checkbox to mark the detected objects with green rectangles in live view and playback.

Select an arming schedule template from the drop-down list.

- **All-day:** For all-day continuous arming.
- **Weekday:** For working-hours continuous arming from 8:00 AM to 8:00 PM.
- **01–09:** Fixed templates for special schedules. Click the **Edit** button to the right to adjust these to fit your needs.
- **Custom:** This is for cameras that have a unique schedule. Click the **Edit** button to the right to create this schedule.

Click the **Edit** button to the right to adjust your selection to fit your needs. See "Configuring the Arming Schedule" on page 37.

Select a Configuration. With some cameras, expert mode configures the sensitivity and size of object on area of each area for different day/night switch; refer to the User Manual of the device.

Select the triggered camera. The image or video from the triggered camera pops up on the Video Wall when motion is detected. To record the picture of the triggered camera when the event occurs, set the capture schedule and the storage device in Storage Schedule.
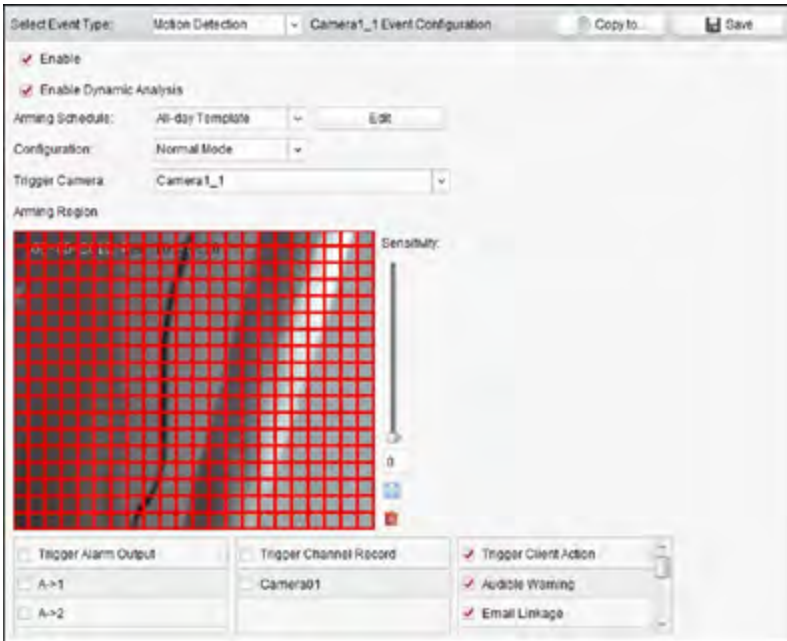
Click-and-drag the mouse to draw a defined area for the arming region. Click the fullscreen icon to set the whole video area as detection area, or the trashcan icon to clear the detection area.

Adjust the sensitivity slider. Drag it up to increase sensitivity, or down to reduce it.

At the bottom, use the checkboxes to select linkage actions to activate.

- **Trigger Alarm Output:** Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.
- **Trigger Channel Record:** Start the recording of the selected cameras when alarm is triggered.
- **Trigger Client Action:** Selecting this lets you activate any or all of the following:
  - **Audible Warning:** The client software gives an audible warning when alarm is triggered. You can select the alarm sound for audible warning. For setting the alarm sound, please refer to "Alarm Sound" on page 77.
  - **Email Linkage:** Send an email notification of the alarm information to one or more receivers.

- **Alarm Trigger:** When set up, the video image with alarm information shows up on-screen while the alarm is active.
- **Alarm on E-map:** Display alarm information on the E-map.

Configuring the Line Crossing Detection Alarm

This function detects people, vehicles, or other objects crossing a defined (virtual) line. The crossing direction can be set as bidirectional or one way.

The connected device must support line crossing detection.

In the leftmost pane, select a camera. Select Line Crossing Detection as the event type.

Click the Enable checkbox to allow motion detection as a VMS event. For motorized cameras, click Lock to prevent it from moving during configuration.

Clicking the Enable Dual-VCA box shows the motion boxes and virtual lines you have drawn across your camera view.
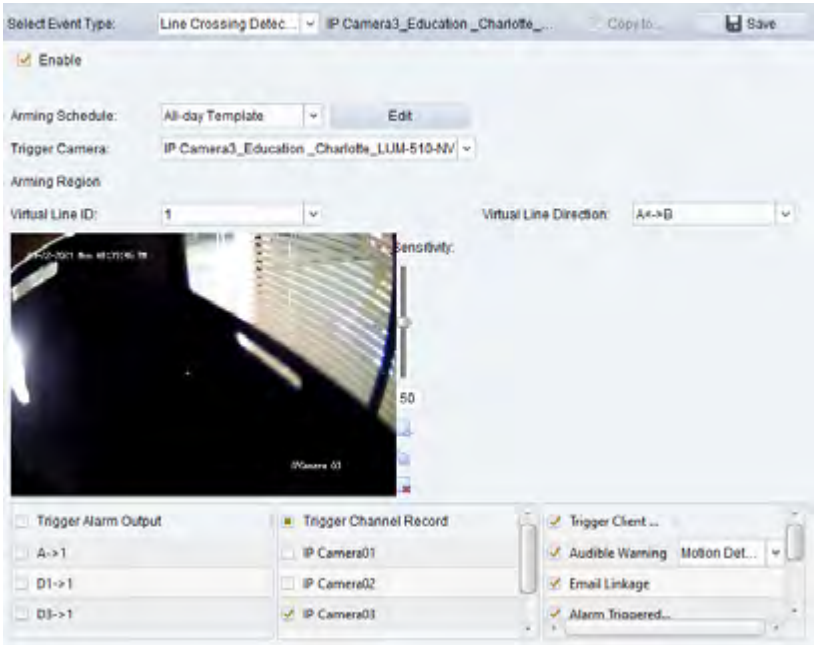
Select the arming schedule template from the dropdown. To edit the schedule, see "Configuring the Arming Schedule" on page 37.

Select a camera. The image or video from the selected camera pop ups (or displays on the video wall) when a line crossing alert occurs.

To record the feed from the camera when an event occurs, set the capture schedule and the storage options in Storage Schedule. For details, see "Storage Schedule Module" on page 67.

Configure the arming region. You can either:

- Select a virtual line by the ID number you assigned to it.
  - Note: For some cameras, you can click PTZ to move the lens to a scene that corresponds to a virtual line ID. In this way, you can configure line crossing detection alarms for multiple views.
  - Select the directions as A<->B (bidirectional), A ->B, and B->A (both one-way).
  - Set the sensitivity [1 to 100].
  - Optionally, you can click the arrow icon and drag the virtual line to adjust its position, or the delete area icon to remove the selected line.
- Click the Add Area icon to draw a new virtual line on the preview window. Luma VMS can have up to four such lines.

At the bottom, use the checkboxes to select linkage actions to activate.

- **Trigger Alarm Output:** Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.

- **Trigger Channel Record:** Start the recording of the selected cameras when alarm is triggered.

- **Trigger Client Action:** Selecting this lets you activate any or all of the following:

  - **Audible Warning:** The client software gives an audible warning when alarm is triggered. You can select the alarm sound for audible warning. For setting the alarm sound, please refer to "Alarm Sound" on page 77.

  - **Email Linkage:** Send an email notification of the alarm information to one or more receivers.

  - **Alarm Trigger:** When set up, the video image with alarm information shows up on-screen while the alarm is active.

 - **Alarm on E-map:** Display alarm information on the E-map.

Alarm Input Tab

When a device's alarm input port receives a signal from an external source such as smoke detector, doorbell, etc., the alarm input linkage actions trigger for notification.

Before you start, you must add the alarm inputs and cameras to Luma VMS.
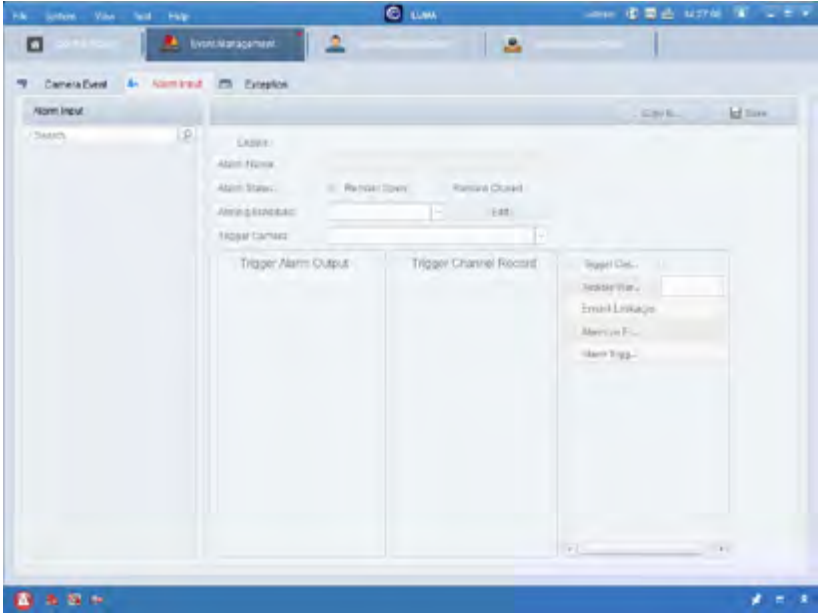
Configuring Alarm Input Linkage

In the list to the left, select the alarm input channel to be configured.

Click the Enable checkbox, and give the alarm a descriptive name.
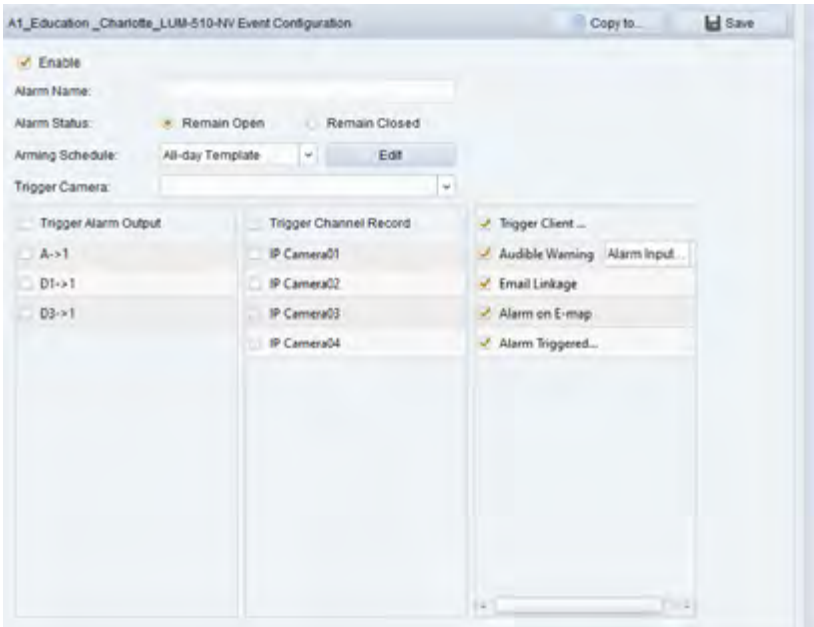
Set the alarm status.

Select the arming schedule template from the dropdown list. If you need to edit the schedule, see "Configuring the Arming Schedule" on page 37.

Select the camera to be triggered by the alarm. The triggered camera's feed pops up (or displays on the Video Wall) when the alarm occurs.

To record the feed from the camera when an event occurs, set the capture schedule and the storage options in Storage Schedule. For details, see "Storage Schedule Module" on page 67.

At the bottom, use the checkboxes to select actions to activate.

- **Trigger Alarm Output:** Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.
- **Trigger Channel Record:** Start the recording of the selected cameras when alarm is triggered.
- **Trigger Client Action:** Selecting this lets you activate any or all of the following:
  - **Audible Warning:** The client software gives an audible warning when alarm is triggered. You can select the alarm

sound for audible warning. For setting the alarm sound, please refer to "Alarm Sound" on page 77.

- **Email Linkage:** Send an email notification of the alarm information to one or more receivers.
- **Alarm on E-map:** Display alarm information on the E-map.
- **Alarm Trigger:** When set up, the video image with alarm information shows up on-screen while the alarm is active.

Exception Tab

This covers how your system reacts to abnormal situations.

Configuring HDD Full Exception

This detects abnormal behavior or potential failure of the hard drive. Naturally, this function requires the connected device to support it.

Select the group to be configured in the left-hand pane.

Select HDD Exception as the exception type and check the Enable box.

Under Linkage Action, Select the triggering channel.

At the bottom, use the checkboxes to select the linkage actions to activate.

- **Trigger Alarm Output:** Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.
- **Trigger Client Action:** Selecting this lets you activate any or all of the following:
  - **Audible Warning:** The client software gives an audible warning when alarm is triggered. You can select the alarm sound for audible warning. For setting the alarm sound, please refer to "Alarm Sound" on page 77.
  - **Email Linkage:** Send an email notification of the alarm information to one or more receivers.
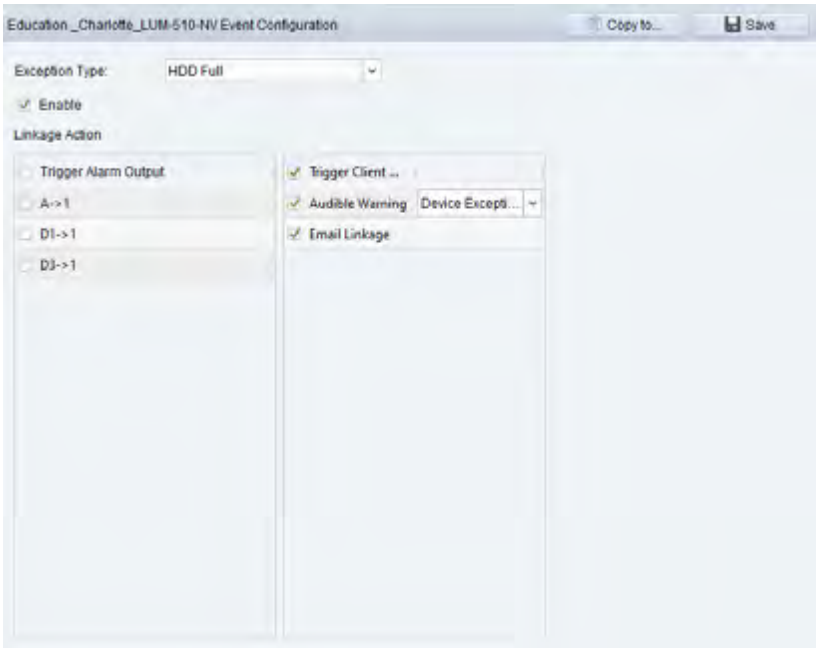
Live View Module

This lets you view the live video of any video feed that you have added. Some basic operations are supported, including snapshots, manual recording, PTZ control, etc.
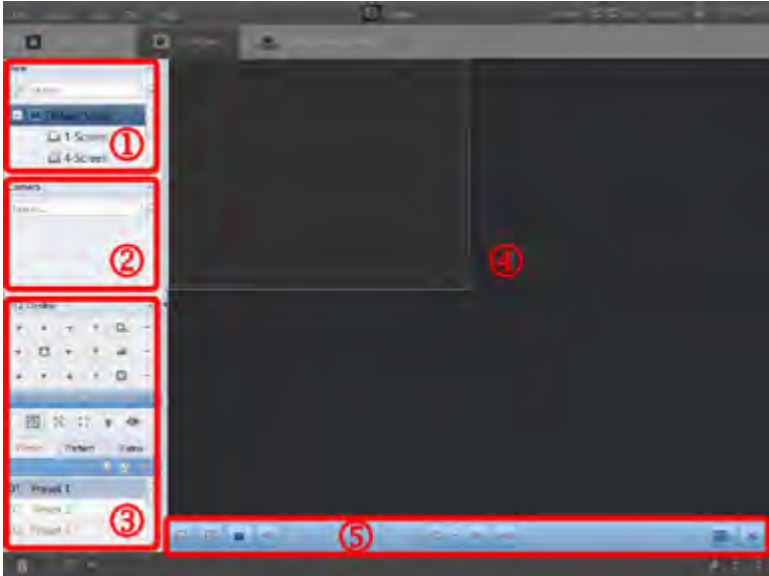
You must have defined a camera group for live view. See the Group Management Module for details.

1. Grid Mode
2. Camera List
3. PTZ Control Panel
4. Display Window of Live View
5. Live View Toolbar

PTZ Control

The software provides PTZ control for cameras with pan/tilt/zoom functionality. You can set the preset, patrol and pattern for the cameras on the PTZ Control panel. And you can also open window PTZ control for the operations of PTZ cameras.

Click the carat icon to expand or collapse the PTZ Control panel.

Q	Zoom
▲	Focus
◎	Iris
◙	3D Positioning
[•]	Auxiliary Focus
[ ]	Lens Initialization
♀	Light
◀▶	Wiper
▣	Manual Tracking
≡	Menu
⟳	One-touch Patrol
♙	One-touch Park

- For the analog speed dome, you can click the menu icon to display its local menu. For detailed operation of the menu, please refer to the User Manual of the speed dome.

- For the speed dome with auto-tracking function, you can enable the auto-tracking (via right-click menu) for it and then click manual tracking to manually track the target by clicking on the video.

- For the one-touch patrol function, you can click one-touch patrol and the speed dome will start patrol from the predefined preset No.1 to preset No.32 in order after a period of inactivity (park time). For setting the park time, please refer to the User Manual of the speed dome.

- For the speed dome with one-touch park function, you can enable the one-touch park by clicking one-touch park and the speed dome will save the current view to the preset No.32. The device starts to park at preset No. 32 automatically after a period of inactivity (park time). For setting the parking time, please refer to the User Manual of the speed dome.

- LumaLink only supports the PTZ movement to the direction of upside, downside, left, and right.

Presets

A preset is a predefined camera position defined by pan, tilt, focus, zoom, and other parameters.

To create a preset:

1. Click the **Preset** tab to enter the PTZ preset configuration panel.
2. Use the PTZ control panel to adjust the camera's aim to the desired view.
3. Click on a PTZ preset, then click the edit (pencil) icon at the top of the list.
4. Enter a name for the preset in the pop-up dialog box.
5. Click **OK** to save the settings.

To call a configured preset:

1. Click to select a live view window.
2. Double-click the preset, or click the preset and click the play (green) icon at the top of the list.

Alternative method to call the preset.

1. Click to select a live view window.
2. To call presets 1–9, click the corresponding number (on the screen) key (e.g., 4) to call the preset. For other presets, click "[", the number of the preset (e.g., 124), and "]" to call that preset.

To modify a configured preset, select the preset from the list and click the edit (pencil) icon.

To delete a configured preset, select the preset from the list and click the delete (red X) icon.

Patterns

A pattern is a memorized, repeating series of pan, tilt, zoom, and preset functions.

To create a pattern:

1. Click the Pattern tab to enter the PTZ pattern configuration panel.

2. Click the play (green) icon to start recording the pattern path.

3. Use the direction buttons to control the camera's movement.

4. Click the stop (red square) icon to stop and save the pattern recording.

Click the play (green) icon to call the pattern. To stop executing the pattern, click the stop (red square) icon.

To delete a pattern, select it and click the delete (red X) icon. Click the trash can icon to delete all the patterns.

Log Search Module

The Log Search module provides helps you locate specific log files.
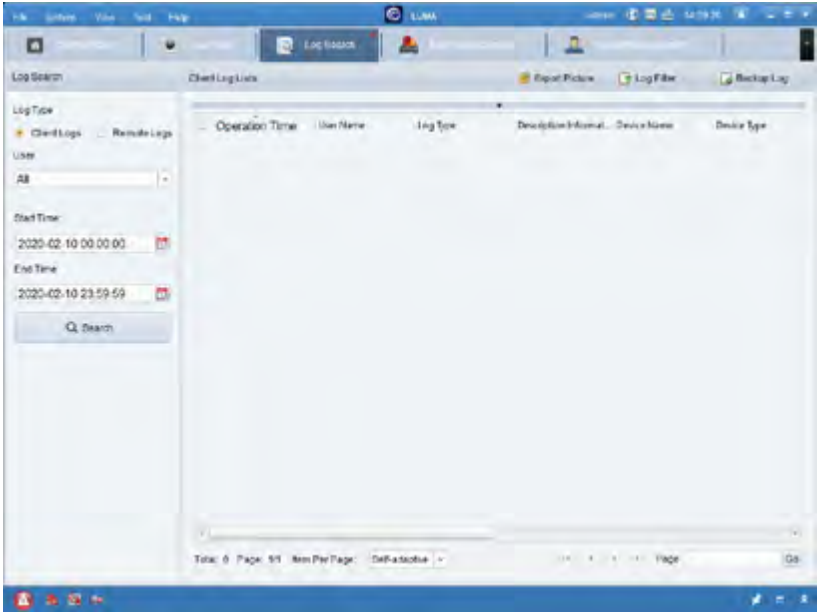
Since there may be multiple pages of log entries, the controls at the bottom of the page allow you to navigate through the pages by browsing, jumping, etc.

The main area, labeled Client Log Lists, displays the data for the currently selected log, with all filters applied.

Buttons

Export Picture: Select a picture in the list and click this button to download that picture to your computer.

Log Filter: See below.

**Backup Log:** Saves the current log (filtered, if selected) to your computer.

Log Filter

When you click the log filter button, use the radio buttons to filter by keyword or by condition.

- If filtering by keyword, enter that keyword into the text box.
- If filtering by condition, use the dropdown menus to select the log type and description text.

Press the Filter button to apply the filter to the list, or the Clear Filter button to remove all selections.

The More button opens a dialog in which you can apply filters for conditions like time, user, device, and more.
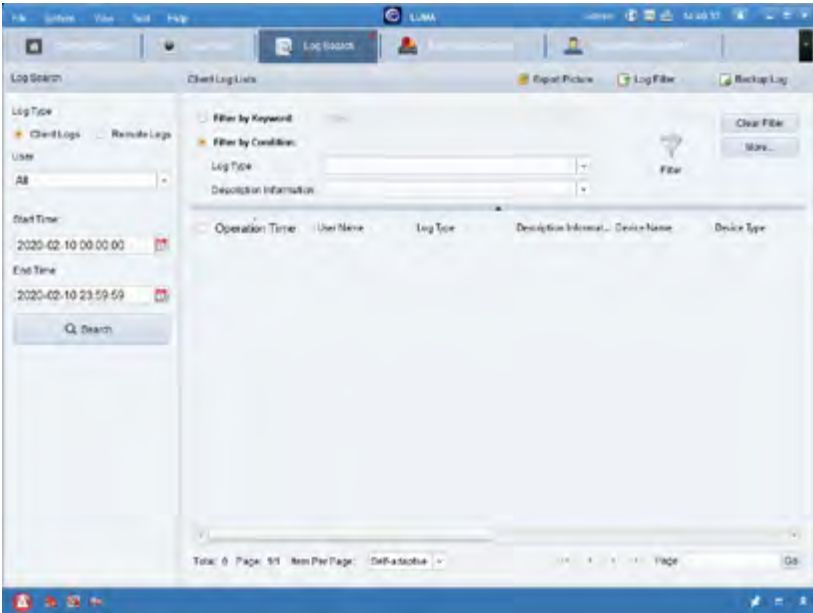

Log Search Section

This tool searches within the filtered log file for events that meet your criteria.

- Select Client Logs to search the VMS log file. This lets you select a user and a time spread top search within.
- Select Remote Logs to search for devices in a selected remote group.

Remote Playback Module

This module lets you search and play any recorded video that is available via the network.

Optionally, you can use Group Management to set the cameras to rotate direction for playback, from live view to recordings.
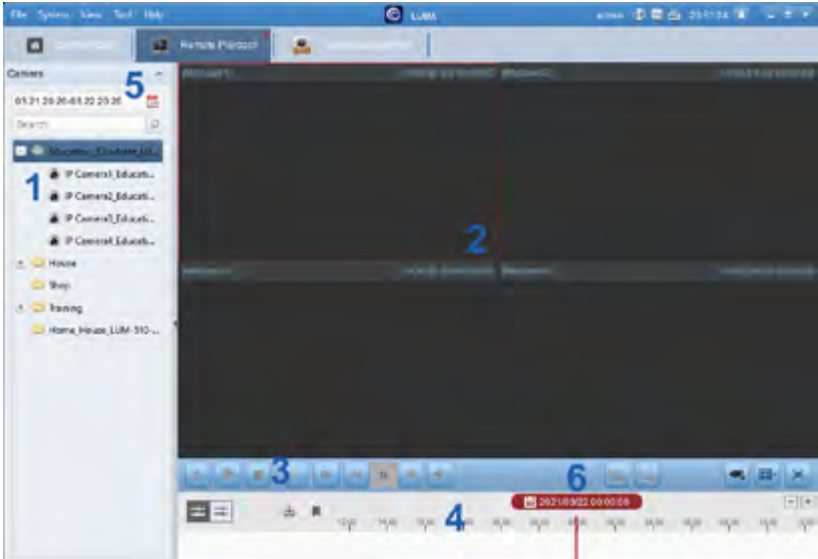
1. Camera List
2. Playback Window
3. Playback Control Buttons
4. Timeline
5. Calendars
6. Search Condition

The Playback Toolbar

To the left side of the playback bar are a set of controls. These are similar to the controls for most video playback and recording devices; pop-up tool tips are also available.

The center buttons are filters. Event Playback searches for recordings that were triggered by an event, such as motion detection, video loss or video tampering. VCA Playback searches for video files initiated by a VCA event, for example intrusion and line crossing. These may not appear in all situations.

The rightmost buttons are specialized.

- **Download for Multiple Cameras** lets you download video files for multiple cameras at the same time.
- **Window Division** lets you choose how many cameras to view simultaneously, as well as pick their arrangement.
- **Full Screen** hides the playback bar and file list so the camera feeds can be as large as possible. Press Esc to exit.

These buttons may not appear in all situations.

Right-click on the display window in playback to open the Playback Management Menu:
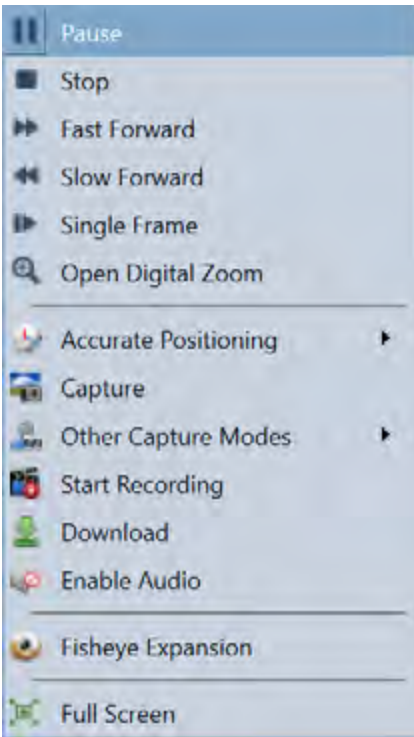
The following items are available on the right-click Playback Management Menu:

- **Pause/Start**
- **Stop**
- **Fast Forward**
- **Slow Forward** plays the video at a reduced speed.

- **Single Frame** advanced the video one frame.
- **Open Digital Zoom** enables the digital zoom function. Click again to disable it.
- Show/Hide Temperature Information, where supported, displays (or hides) the temperature spectrum on the live view.
- **Accurate Positioning** lets you specify the exact time from which to play the video file.
- **Capture** takes a snapshot of the playback.
- **Other Capture Modes** include the following:
  - **Print Captured Picture:** Send the image to your printer.
  - **Send Email:** Capture the image and then send it in an email to one or more recipients.
  - **Custom Capture:** Save the current image as a graphic file.
- **Start/Stop Recording:** The video file is stored in the PC.
- **Download** the video files of the camera to the PC. You can select to download by file or by date.
- **Enable/Disable Audio** in the playback.
- **Fisheye Expansion:** Click to enter the fisheye playback mode; see "Fisheye Playback" on page 62.
- **Full Screen.** Click the icon again or press Esc to exit.

Normal Playback

Note: LumaLink only supports normal playback.

If the camera supports two streams, you can switch between main stream and sub-stream for playback as follows: in the Group Management module, open the Modify Camera dialog, then set the video stream of the camera to main stream or sub-stream.

Searching Video Files for Normal Playback

Open the Remote Playback page.

Click the calendar icon to open the search dialog.

You can search on up to 16 cameras simultaneously.

In the calendar, dates with scheduled recordings are marked with a blue tab, and dates with event recordings are marked with a red tab.

Select the start and end date and set the desired time. Click OK to searching with those parameters.

The search results for the selected group or camera are displayed to the right of the interface in chronological order. You can filter the results through the Filter text field.

To start playback, click and drag the camera or group to the display window, or double-click the camera or group.

The first video file plays back automatically.

Playing Back Video Files

By File List: Select the video file from the search result list, then either click the green play icon by the video name, or double-click the video file. You can also select a display window and click the play icon in the toolbar to play back the corresponding video file.

Playback by Timeline: The timeline displays the duration of the various video files, and the files are color coded by type. Click on the timeline to play the video from the specific time.

Use the mouse wheel or the + and - keys to adjust the timeline scale. Click and drag the timeline bar to move to a different time period.

Alarm Input Playback

Note: LumaLink only supports normal playback.

This lets you play videos associated with alarm events. The camera must support this operation.

Searching Video Files for Alarm Input Playback

On the left, click the down carat to show the Alarm Input panel.

If desired, click the calendar icon to activate the search dialog. Select the start and end date and set the desired time, and click OK.

The search results for the selected group or camera are displayed to the right of the interface in chronological order. You can filter the results through the Filter text field.

To start playback, either click and drag the alarm input to the display window, or double-click the alarm input.

Playing Back Video Files

By File List: Select the video file from the search result list, then either click the green play icon by the video name, or double-click the video file. You can also select a display window and click the play icon in the toolbar to play back the corresponding video file.

Playback by Timeline: The timeline displays the duration of the various video files, and the files are color coded by type. Click on the timeline to play the video from the specific time.

Use the mouse wheel or the + and - keys to adjust the timeline scale. Click and drag the timeline bar to move to a different time period.

Event Playback

Note: LumaLink only supports normal playback.

This lets you play videos associated with VCA events. The camera must support this operation.

### Searching Video Files for Event Playback

Select the camera and start normal playback.

Click the playback icon and the motion detection triggered recording is searched by default.

Click the calendars icon to open the search dialog box. Select the start and end date and set the desired time, and click OK.

In the calendar, dates with scheduled recordings are marked with a blue tab, and dates with event recordings are marked with a red tab.

Select the event type from the drop-down list and the matching video files are displayed. You can filter the results using the Filter text field. Click the red X to go back to the normal playback.
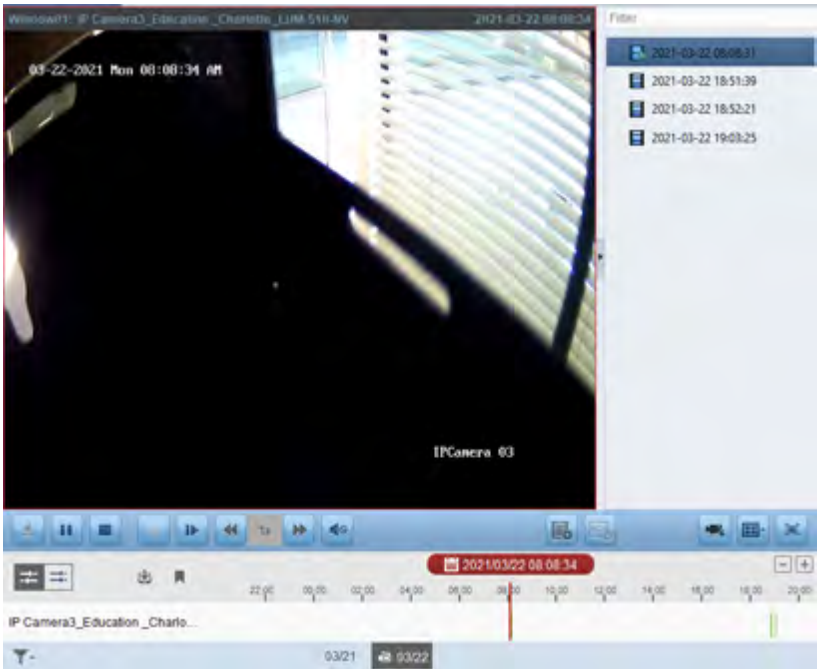
Playing Back Video Files

By File List: Select the video file from the search result list, then either click the green play icon by the video name, or double-click the video file. You can also select a display window and click the play icon in the toolbar to play back the corresponding video file.

Playback by Timeline: The timeline displays the duration of the various video files, and the files are color coded by type. Click on the timeline to play the video from the specific time.

Use the mouse wheel or the + and - keys to adjust the timeline scale. Click and drag the timeline bar to move to a different time period.

Synchronous Playback

Note: LumaLink only supports normal playback.

In synchronous playback, up to 16 multiple video files played simultaneously and in synchronization.

Search for video files from at least two cameras, as with normal playback.
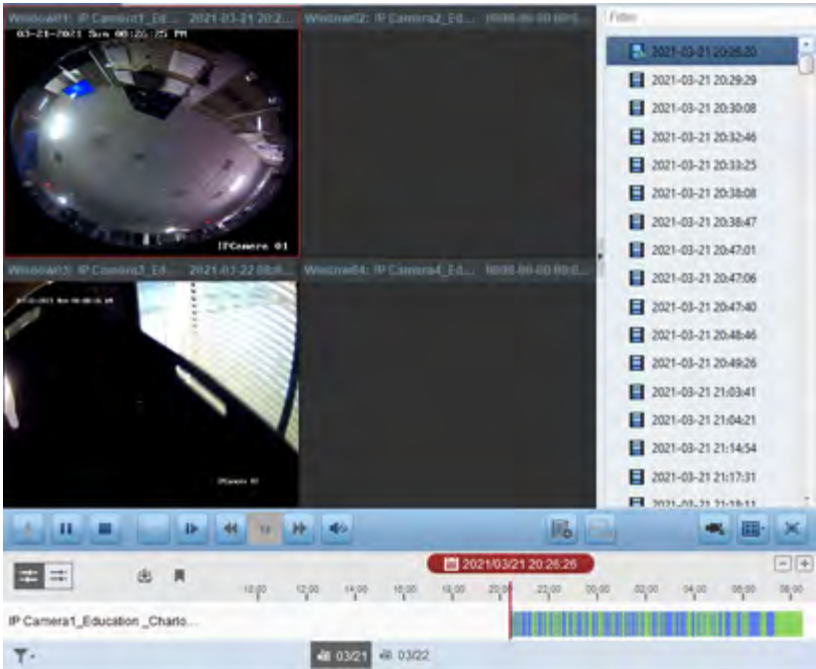
Click the synchronous playback button (at the left end of the timeline) to enable the synchronous playback.

To disable the synchronous playback, click the icon again.

VCA Playback

Note: LumaLink only supports normal playback.

This searches and plays video initiated by a VCA event, such as area intrusion and line crossing, marking such videos with a red tab.

Select the camera and start normal playback.

Click the VCA Playback button to enter the VCA playback interface.

Select the VCA Type, draw the detection region and set the sensitivity.

- **Motion Detection:** Get all the motion detection events that occurred in the defined region.
- **Intrusion Detection:** Detect whether there are objects moving into the defined region.

Line Crossing Detection: Detect objects that cross a defined line in either direction.

Creating Areas

To create an area or line for VCA analysis, click the green plus-area button. How it functions depends on which VCA you have selected.

- For motion detection, click and drag the mouse across the playback window to create a grid rectangle as the detection region. Or you can click the full screen to set the entire view as the detection region.
- For intrusion detection, click on the playback window to set the vertex for the detection region from the vertex to the bottom of the camera view.
- For line crossing, click and drag on the playback window to set the detection line.

To delete the drawn region or line, click the red X.

Click the calendars icon to open the search dialog box. Select the start and end date and set the desired time, and click OK.

Click Search and any VCA events that occurred in the defined area are marked red on the timeline. When playing these files, Luma VMS defaults to a playback speed of 1x when playing VCA events, and

8x for sections that have no VCA events detected. You can set the program to skip video with no events in System Configuration; see Live View and Playback Settings.

Playing Back Video Files

After searching the recordings, you can play video files as follows:

By File List: Select the video file from the search result list, then either click the green play icon by the video name, or double-click the video file. You can also select a display window and click the play icon in the toolbar to play back the corresponding video file.

Playback by Timeline: The timeline displays the duration of the various video files, and the files are color coded by type. Click on the timeline to play the video from the specific time.

Use the mouse wheel or the + and - keys to adjust the timeline scale. Click and drag the timeline bar to move to a different time period.
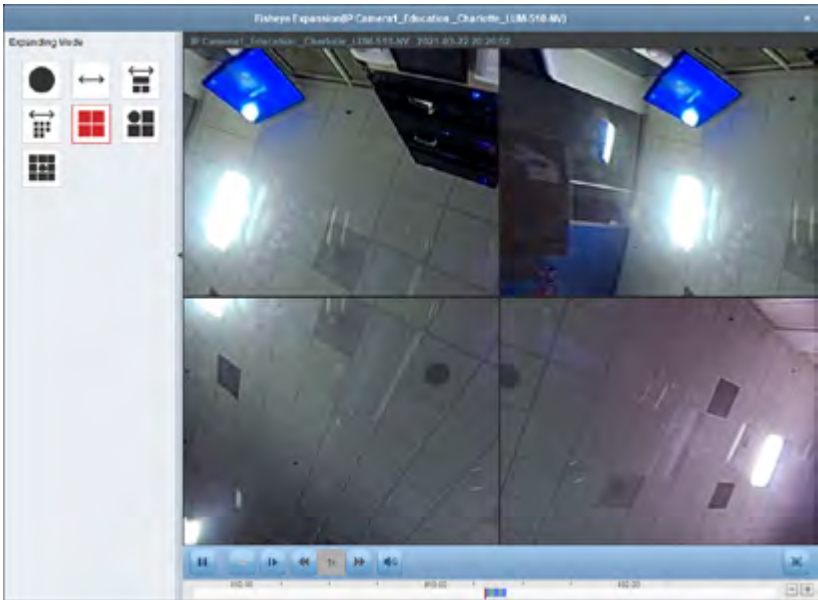
Fisheye Playback

Note: LumaLink is not supported on a standalone fisheye camera.

To play back a fisheye recording, first select the camera and start normal playback.

Right-click on the video file and select Fisheye Expansion to enter Fisheye Expansion Mode.

Set the mounting type to match the manner in which the fisheye camera is mounted (wall vs. ceiling).

Select the expanding mode for playback as desired.

- **Fisheye:** This displays the whole wide-angle view of the camera. The lens produces curvilinear images of a large area, distorting the perspective and angles of objects in the image.

- **Panorama / Dual-180° Panorama / 360° Panorama:** This transforms the distorted fisheye image to normal perspective.

- **PTZ:** This is a close-up view of a defined area of the fisheye view. This supports a virtual PTZ function, which allows you to move this defined area around. Each PTZ view is marked on the fisheye view and panorama view with a navigation box. You can drag this navigation box on the fisheye view or panorama view to adjust the PTZ view, or drag the PTZ view to adjust the view to the desired angle.

Right-click on a playing window and you can switch the selected window to full-screen mode. Press the ESC key on the keyboard or right-click on the window and select Quit Full Screen to exit full-screen mode.
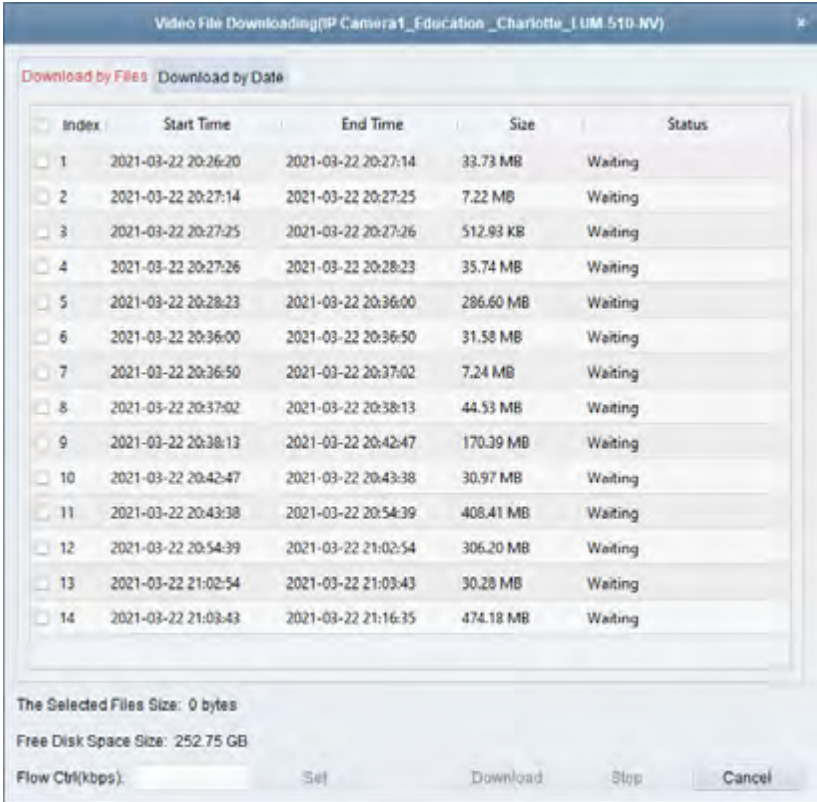
Downloading Video Files

During playback, you can click the download button to the left side of the timeline to download the video files directly to your PC.

You can download by file, date, or tag. You can download files for multiple cameras at the same time.

You cannot download files from your LumaLink device.

Download by Files

Click the Download by Files tab in the File Download interface. You can view the file information.

Click the checkboxes of the video files. The total download size is shown below.
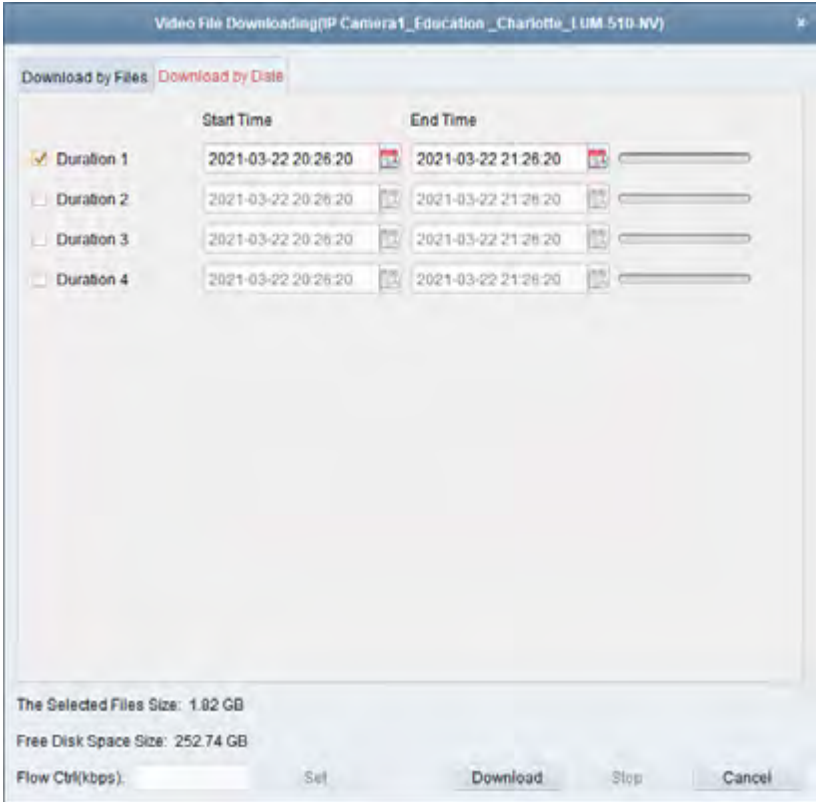
Click the Download button. You can control the download speed to keep your system operating smoothly.

Click Stop to manually suspend the download.

Download by Date

Click the Download by Date tab in the File Download interface.

Click the checkbox to enable time duration from the options given. To further refine the start and end times, click the calendar icon.

Click Download to start downloading the file to the local PC. The progress bar shows your progress.

You can edit the download speed (0 to 32768 kbps) and click Set to control its impact on your network. You can also click Stop to suspend the manually.

Note: When downloading video file of one time duration, you can set to merge the video files. The video files in the set time duration can be merged for downloading. For configuring merging downloaded video files, refer to "Live View and Playback" on page 73.

Download for Multiple Cameras

Purpose:

You can download the video files of the multiple cameras simultaneously.

Start playback for multiple cameras, then click the Download for Multiple Cameras icon at the right side of the toolbar.

Use the checkboxes to select the cameras for which you want to download video. Set the start and end times you want.

If desired, check the Download Player checkbox.

Click Download to start saving the selected files to your PC.
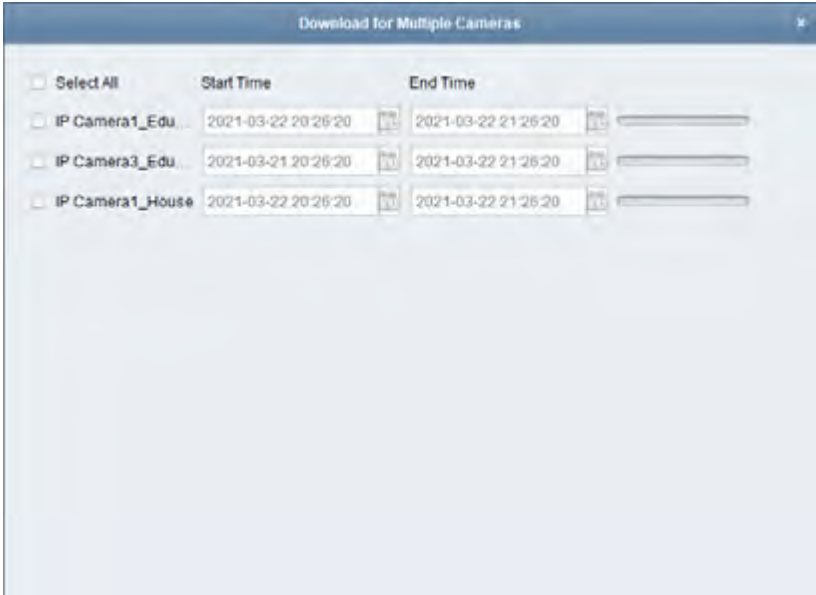
You can edit the download speed (0 to 32768 kbps) and click Set to control its impact on your network. You can also click Stop to suspend the manually.

Luma VMS supports downloading video files of up to 16 cameras simultaneously.

Storage Schedule Module

The video files and captured pictures can be stored on the HDDs, Net HDDs, SD/SDHC cards on the local device, or the storage server connected.
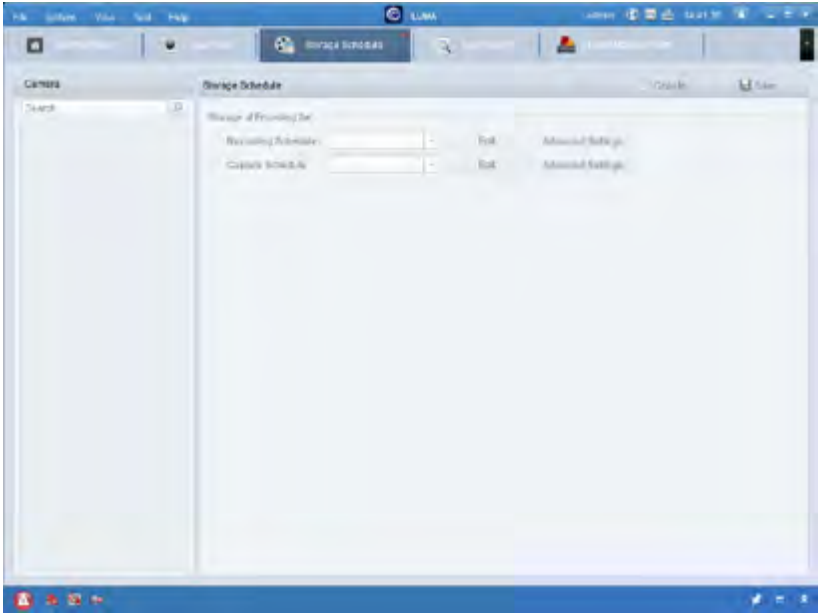
Storing on a DVR, NVR, or Network Camera

Here you set a recording schedule or snapshot schedule for the channels of the local devices.

Note: The pictures captured through the capture schedule are stored on the remote device and can be searched on the remote configuration page of the device.

To set up a storage schedule:

1. Select the camera in the Camera Group list.
2. Check the checkbox Recording Schedule / Capture Schedule under Storage of Encoding Server to enable device local recording or capture.

3. Select the record or capture schedule template from the drop-down list.

- All-day Template: for all-day continuous recording.
- Weekday Template: for working-hours continuous recording from 8:00 AM to 8:00 PM.
- Event Template: for the event triggered recording.
- Template 01 to 08: fixed templates for specific schedules. You can edit the templates if needed.
- Custom: can be customized as desired.
- If you need to edit or customize the template, refer to Configuring Recording Schedule Template.

4. Click Advanced Settings to set additional recording parameters (see below).

Note: The displayed items vary with the devices.

You can click **Copy to...** to duplicate the recording schedule settings to other channels.

Click **Save** to save the settings.

Advanced Settings

Pre-record: Normally used for the event triggered record, when you want to record before the event happens

Post-record: After the event finished, the video can also be recorded for a certain time.

Keep Record Files for: The time for keeping the video files in the storage device, once exceeded, the files will be deleted. The files will be saved permanently if the value is set as 0.

Redundant Record: Save the video files not only in the R/W HDD but also in the redundant HDD.

Record Audio: Record the video files with audio or not.

Video Stream: Select the stream type for the recording.
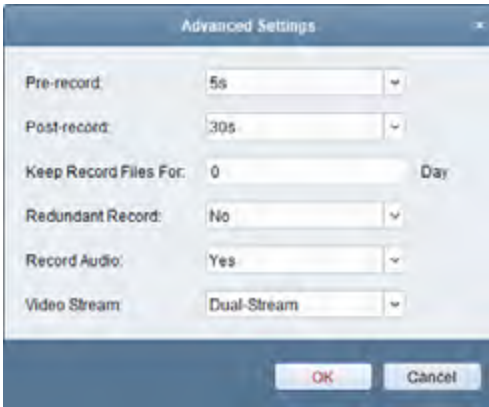
Note: For specific type of devices, you can select Dual-Stream for recording both main stream and sub-stream of the camera. In this mode, you can switch the stream type during remote playback.

Advanced Capture Settings

This requires an SD card to be mounted in the camera.

Resolution: Select the resolution for the snapshots.

Picture Quality: Set the image quality for the snapshots.

Interval: Select the time period between two snapshots.

Captured Picture Number: Set the quantity of pictures captured at the given interval.

Configuring the Recording Schedule Template

The recording schedule is highly customizable.

1. From the dropdown list, select Template 01–08 and click the Edit button, or select Custom. Both of these open the editable schedule.
2. Edit the template names as desired.
3. Set the time schedule for the selected template by clicking a button.

   - The **Schedule Recording** button refers to normal recording. The schedule time bar is marked in blue.
   - The **Event Recording** button refers to the recording during a detected event. The schedule time bar is marked with brown, or green if the Command option is not available.
   - The **Command** button refers to the recording triggered by the user. The schedule time bar is marked in green.

4. Edit the schedule

   - When you click on a type of recording you want to edit, the cursor becomes a pencil, and you can set the time period.

- When you hover over one end of a timeline, the cursor becomes a hand, and you can move the entire time bar.

- If you move the cursor over the end of a time period, it turns into a double arrow. Use this to lengthen or shorten the selected time bar.

- Select a schedule time bar and click the red X icon to delete the time bar, or click the trashcan icon to delete all the time bars, or click the clipboard icon to copy the time bar settings to the other days.

5. Click **OK** to save the settings.

Dialog Boxes

Selecting Modules

For the first time running the software, you can click on the control panel to select the modules to display on the Operation and Control area of the control pane.

Steps:

1. Click "Selecting Modules" to pop up the following dialog.
2. Check the module checkboxes to display them on the control panel according to the actual needs.

   ● After adding the access control device in Device Management module, the Access Control, Status, and Time and Attendance module displays on the control panel automatically.

   ● After adding the security control panel in Device Management module, the Security Control Panel and Real-time Alarm modules displays on the control panel automatically.

3. Click **OK** to save the settings.

System Configuration

This selection under the Tools menu helps you set up specific parameters for system operation.

General

Here you set basic parameters for the app.

○ **Log Expiry Date:** Logs older than the selected time are automatically deleted.

○ **Network Performance:** Based on the current network conditions, set this as Normal, Better or Best. Test the settings to see which gives you the best operation.

○ **Maximum Mode:** Select Maximize or Full Screen as the maximum mode. With Maximize, the software still shows the taskbar. With Full Screen, the image occupies the full screen.

○ **Enable Auto-login:** Logs you (the admin) into the software upon launching the program.

- **Pop up Security Prompt When Using Default Password:** This prompt warns you if the default password of an added device has not been changed. Please change the password for security.

- **Enable Alarm Triggered Pop-up Image:** This sets an alert image to pop up when an alarm occurs.

- **Pop Up Alarm Image for Minimized Client When Alarm Triggered Pop-up Image Enabled:** If the above is enabled, this displays the alert image even when Luma VMS is minimized.

- **Pop Up Error Message When Email Settings are Empty:** Select this to display an error prompt if the email is not configured.

- **Auto Time Adjustment:** Adjust the time automatically at a specified interval.

- **Enable Keyboard and Joystick:** Set to enable a keyboard and joystick for PTZ control. Once enabled, you can set the shortcuts for the keyboard and joystick.

- **Registration Management Server Port:** Port for alarm management server. The port number should be no higher than 9999. The default port number is 7660. You must restart Luma VMS for this change to take effect.

- **Alarm Management Server Port:** Port for alarm management server. The port number should be no higher than 9999. The default port number is 7300. You must restart Luma VMS for this change to take effect.

Click **Save** to save the settings.

Live View and Playback

Here you set the parameters for live view and playback, including picture format, pre-play duration, etc.

Picture Format lets you choose your output.

Merge Downloaded Video Files, if you opt to merge them into one file, also sets the maximum size of the merged file when downloading by date.

Search Video Files Stored in lets you specify where to search for playback files.

Pre-play for tells the system when to start playback when reviewing event playback.

Enable Screen Toolbar Display shows the toolbar on each display window in live view or playback.

Prioritize Playback of Video Files on Storage Server sets the system to use files on the server over video files recorded on the local device.

Resume Latest Live View Status after Restart restores you r live view when you log in.

Disconnect Background Videos in Single Live View means, when you double-click a live video to display it, other live video streams are suspended to improve play performance.

Enable Wheel for Zoom lets you use the mouse wheel to zoom a PTZ in or out, or to zoom in or out of a video in digital zoom mode.

Skip Unconcerned Video during VCA Playback skips the video that you have identified as unimportant and moves to the next video in the queue.

Image

The image parameters of the software can be configured, such as view scale, play performance, etc.

- **View Scale:** The aspect ratio of the video can be set as Full Screen, 4:3, 16:9 or Original Resolution.
- **Play Performance:** The play performance of the live video. It can be set as Shortest Delay, Balanced, or Fluency.
- **Auto-change Stream Type:** Change the video stream (main stream or sub-stream) automatically in live view according to the size of the display window.
- **Hardware Decoding Preferred:** Set to enable decoding by hardware for live view and playback. Hardware Decoding can provide better decoding performance and lower CPU usage when playing the HD videos during live view or playback.
- **Enable Highlight:** Mark the detected objects with green rectangles in live view and playback.
- **Display Transaction Information:** Display the transaction information in the live view.
- **VCA Rule:** Display the VCA rule in the live view.
- **Enable Frame Extracting for High-speed Playback:** When play back the video in high-speed (8x speed and above), you can disable this function to make the image of playback more fluent to view the details.
- **Display Temperature on Captured Picture:** For the thermal device, set to display the temperature information on the

captured pictures.

Click **Save** to save the settings.

File

Snapshots and recorded video are stored on the local PC. You can configure where the files are saved.

Click the ellipsis (triple-dot) icon to edit the location. This opens a standard navigation dialog where you select a local path.

Click **Save** to save the settings.

Toolbar

Here you customize which icons appear in which order, on both the toolbar in the live view and playback window.

Click an icon to toggle whether it displays. Click and drag an icon to rearrange its position on the toolbar.

For live view:

- **Stop Live View:** Ends the live view in the display window.
- **Capture:** Takes a photo of the live view window and stores it on your PC.
- **Record** starts a recording that is stored on the PC.
- **PTZ Control Start** begins PTZ mode. Click and drag in the view to control the PTZ camera.
- **Two-way Audio** opens a two-way audio connection with the current live-view device.
- **Digital Zoom** enables or disables the digital zoom function.
- **Instant Playback** switches to instant playback mode.
- **Remote Configuration** opens the remote configuration page for the camera that is displaying live view.

For playback:

- **Capture:** Takes a photo of the current window and stores it on your PC.
- **Record** starts a recording that is stored on the PC.
- **Digital Zoom** enables or disables the digital zoom function.
- **Download** saves the video files of the camera to your PC. You can download by file or by date.

Alarm Sound

When an alarm is triggered, Luma VMS can be set to give an audible warning. You can configure the audio for each of the six types of alarm.

To change an alarm sound, click the ellipsis (triple-dot) icon to the right. This opens a standard file selection dialog from which you can select a new *.wav audio file.

To hear an audio file, click the speaker icon.

Click the Add button to add an additional customized alarm. Double click the Type field to customize the added alarm sound name. You can select an added custom alarm sound and click Delete to permanently remove it. You cannot delete the six fixed sounds.

Click **Save** to save the settings.

Email

Luma VMS can send an email notification when a system alarm occurs. You must configure email settings as follows:

- **Server Authentication:** If your email server requires authentication, check this box and enter the account credentials required to log in to the server.
- **SMTP Server:** Input the SMTP Server address.
- **Encryption Type:** Select either Non-Encrypted, SSL, or STARTTLS.
- **Port:** The communication port of the email service. This is port 25 by default.
- **User Name:** Input the user name of the sender email address if Server Authentication is checked.
- **Password:** Input the password of the sender Email address if Server Authentication is checked.
- **Sender Address:** Input the email address of the sender.
- **Receiver 1–3:** Input the email addresses of up to three recipients.

Click the **Send Test Email** button to ensure the email settings are working properly.

Click **Save** before exiting.

<div style="text-align:center">

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File Menu

Open Image File

The pictures captured in live view are stored on the PC running the software. To view the captured pictures:

1. Select the camera to be searched from the Camera Group list.
2. Click the calendar icons to specify the start time and end time for the search.
3. Click Search. The pictures captured between the start time and end time will be displayed.
4. Double-click the captured picture to enlarge it for a better view.
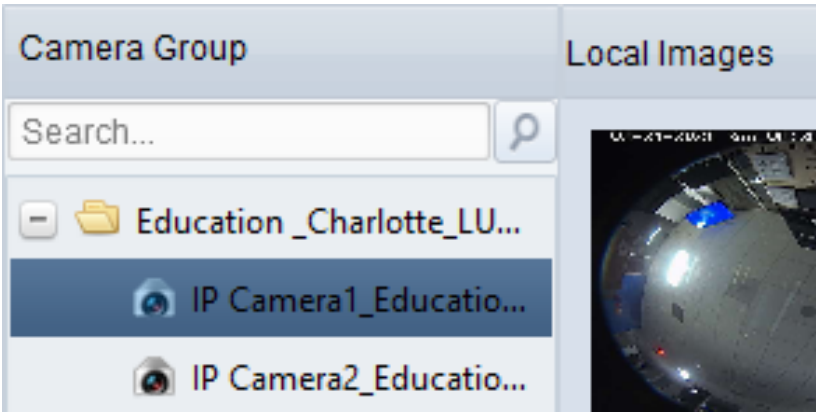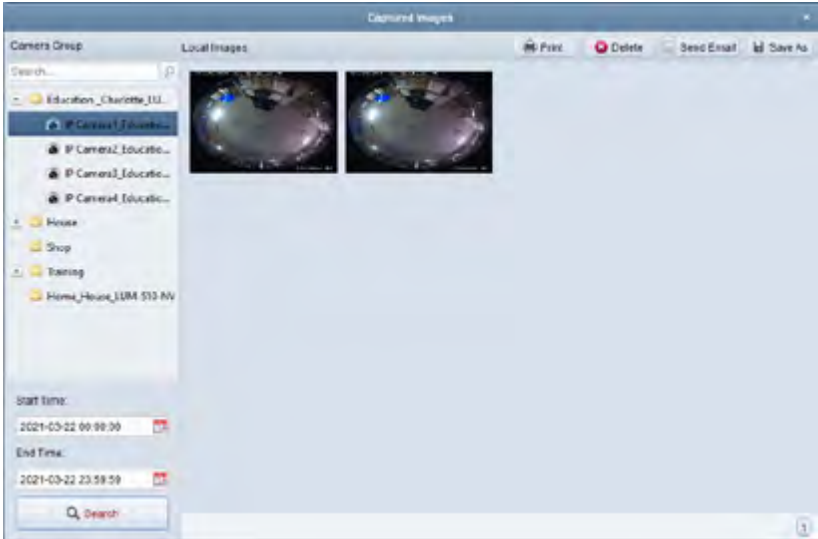

When you select a captured picture, you can click the buttons at the top right to print, delete, or save the picture, or send an email with that picture attached.

Open Video File

The videos captured in live view are stored on the PC running the software. To view the captured videos:

1. Select the camera to be searched from the Camera Group list.
2. Click the calendar icons to specify the start time and end time for the search.

3. Click Search. The video files recorded between the start time and end time are displayed.

When you select a captured picture, you can click the buttons at the top right to delete or save the video, or send an email with that video attached.

Double-click the video file and the video file can be played back locally.

Open Log File

View the backup log files.

Exit

Exit the Luma VMS client software.

System Menu

Lock

Lock screen operations. You must log in again to continue.

Switch User

Logs you out and allows another user to log in.

Import System Config File

This opens a standard browsing window so you can find your configuration file on your local computer. Use this to restore your VMS configuration as needed.

Export System Config File

This opens a browsing window so you can save your VMS client's current configuration to your local computer. Use this to create a backup of your VMS configuration before any upgrade or change.

Auto Backup

This sets a weekly schedule to save the configuration data automatically. Set the file path, day, and time to suit your needs.
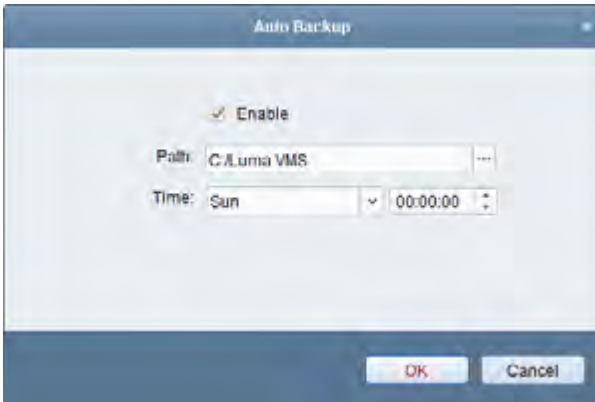
View Menu

(Window Size Options)

Each menu option resizes the program window as specified. Selecting Maximize fills the current monitor's screen.

Control Panel

Selecting this opens (or switches to) the Control Panel module. See "Control Panel Module" on page 17.

Live View

Selecting this opens (or switches to) the current feeds from your cameras. See "Live View Module" on page 47.

Remote Playback

Selecting this opens (or switches to) the Remote Playback module, which shows remote playback options. See "Remote Playback Module" on page 53.

Auxiliary Screen Preview

Selecting this opens (or switches to) the Auxiliary Screen module, which shows options for managing multiple screens.

Tool Menu

Device Management

Selecting this opens (or switches to) the Device Management module. See "Device Management Module" on page 19.

Event Management

Selecting this opens (or switches to) the Event Management module. See "Event Management Module" on page 36.

Storage Schedule

Selecting this opens (or switches to) the Storage Schedule module. See "Storage Schedule Module" on page 67.

Account Management

Selecting this opens (or switches to) the Account Management module. See "Account Management Module" on page 10.

Log Search

Selecting this opens (or switches to) the Log Search module. See "Log Search Module" on page 51.

System Configuration

Selecting this opens the System Configuration dialog box. See "System Configuration" on page 72.

Broadcast

Selecting this opens the Broadcast dialog box, which is used to send an audio stream from the PC running VMS to the device you selected. If that device is equipped with a properly configured speaker, this

allows you to transmit your voice from your PC to the speaker and interact with the person at the other end.

Batch Time Sync

Selecting this opens the Batch Time Sync dialog box. Here you can select any or all cameras and recorders. When you press **OK**, all selected devices sync their time with your PC. Click **Cancel** to avoid the time sync.

Player

This opens the Player dialog box, which allows you to play a file you have saved on your PC or in a net-work accessible folder (without having to open another media program).

Message Queue

This opens the E-Mail List dialog box, which shows the emails that are about to be sent and their status.

Help Menu

About

This gives information about your program.

Support

Need Help? Contact Tech Support!

If you need further clarification, please email support@SnapAV.com. For more information, instructional videos, support documentation, or ideas, visit our website and view your item's product page.

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