

GV-Edge Recording Manager

User's Manual





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Contents

Preface.....	v
Important Notice	v
Naming and Definition.....	vi
Note for Upgrading GV-Edge Recording Manager ..	vi
Introduction.....	1
Features.....	2
System Requirements	3
Supported GeoVision Products	5
GPU Decoding Specifications	7
Windows Version.....	9
Chapter 1 Overview	10
1.1 Main Window.....	10
1.2 The Toolbar	11
1.3 The Host List	12
1.4 The I/O List.....	13
Chapter 2 Getting Started	14
2.1 Installing GV-Edge Recording Manager.....	14
2.2 Login Account Settings	14
2.3 Adding Hosts	15
2.3.1 Automatically Adding Multiple Hosts.....	15
2.3.2 Manually Adding a Host	18
2.3.3 Connecting to GV-DVR / NVR / VMS	19
2.3.4 Creating a Camera Group	21
Chapter 3 Batch Management	22
3.1 Configuring the IP Address.....	22

3.2 Renaming Devices	23
3.3 Synchronizing Host Time.....	23
3.4 Connecting to Hosts with Identical Credentials	24
3.5 Accessing Device Connection Status on the Host List.....	25
3.6 Updating Host Information	26
3.7 Configuring NAS.....	26
3.7.1 Assigning NAS Storage for Recording.....	27
3.7.2 Changing the NAS Storage for Recording	29
3.7.3 Deleting the NAS Storage for Recording	29
3.7.4 Viewing Storage Information	29
Chapter 4 Live View.....	30
4.1 The Live View Window	30
4.2 Live View Layouts	33
4.2.1 Arranging Live View Layouts	33
4.2.2 Setting Focus View	34
4.2.3 Setting a Scan Window	35
4.2.4 Multiple Monitor Display	37
4.2.5 Adding GV-IP Decoder Box for Remote Monitor Display	38
4.3 Enabling Host Recording	39
4.4 Taking Snapshots.....	40
4.5 Fisheye View	41
4.5.1 Setting up Fisheye View.....	42
4.5.2 Object Tracking	44
4.5.3 Virtual PTZ Tour.....	46
4.6 Panoramic PTZ View	47
4.7 Adjusting Distorted Views	48
4.8 Enabling QView Display	49
4.9 Remote AI Event Logs.....	50
Chapter 5 Audio Communication.....	51
Chapter 6 Playback.....	52
6.1 The Playback Window	52
Chapter 7 Remote VMS / NVR.....	58

7.1 Remote Desktop.....	58
7.1.1 Running Remote Desktop	58
7.1.2 Transferring File	59
7.2 Data Event Query	60
Chapter 8 System Configuration	61
8.1 General Settings.....	61
8.2 Live View Settings	62
8.3 SMTP Settings	63
8.4 Exporting and Importing Settings.....	64
8.4.1 Exporting Settings	64
8.4.2 Importing Settings	64
8.5 Fast Key Settings	65
Chapter 9 Account Management.....	66
9.1 User	66
9.1.1 Editing Login Credentials	66
9.1.2 Creating User Accounts	67
9.1.3 Managing User Privileges	69
9.2 Security	71
9.3 Account Login After Forgotten Password.....	72
Chapter 10 System Log.....	74
10.1 Setting up System Log	74
10.2 Viewing System Log	75
Chapter 11 Authentication Server.....	76
Appendix	78
PTZ Control Using GV-Joystick.....	78
Mac Version	79
Chapter 12 Overview	80
12.1 Main Window.....	80
12.2 The Camera List.....	81

12.3 The Toolbar	82
Chapter 13 Getting Started	83
13.1 Installing GV-Edge Recording Manager.....	83
13.2 Adding Hosts	84
13.2.1 Automatically Adding Hosts.....	84
13.2.2 Manually Adding a Host	87
Chapter 14 Batch Management	89
14.1 Configuring the IP Address.....	89
14.2 Renaming Devices	92
14.3 Viewing Storage Information.....	94
14.4 Assigning NAS Storage for Recording	96
Chapter 15 Live View.....	100
15.1 The Live View Window	100
15.2 Purchasing License	103
15.3 Enabling Host Recording	104
15.4 Taking Snapshots.....	106
15.5 Viewing Event List	107
15.6 Fisheye View	108
15.6.1 Setting Up the Fisheye View	109
Chapter 16 Audio Communication.....	110
Chapter 17 Playback.....	111
Chapter 18 System Configuration.....	115
18.1 General Settings.....	115
18.2 Live View Color Settings.....	117
18.3 Network Settings	118
18.4 Exporting and Importing Settings	119
18.4.1 Exporting Settings	119
18.4.2 Importing Settings	120
Specifications	121

Preface

Welcome to *GV-Edge Recording Manager User Manual*.

For Windows and Mac Version

GV-Edge Recording Manager is supported by Windows- and Mac-based computers. For details on the Windows and Mac versions, refer to chapters 1 to 11 and chapters 12 to 18, respectively.

Software versions of GV-Edge Recording Manager

For Windows Version	V2.3.0
For Mac Version	V1.3.1

Important Notice

Before upgrading to **GV-Edge Recording Manager (Windows Version) V2.0.0**, take note of the following:

1. Administrator Password and Host List settings will remain unchanged after upgrading from V1.4.0 to V2.0.0.
2. When using the Import / Export Data functions (see *8.4 Exporting and Importing Settings*) to import previously saved settings from V1.4.0 to V2.0.0, only the Administrator Password and Host List settings will be applied.

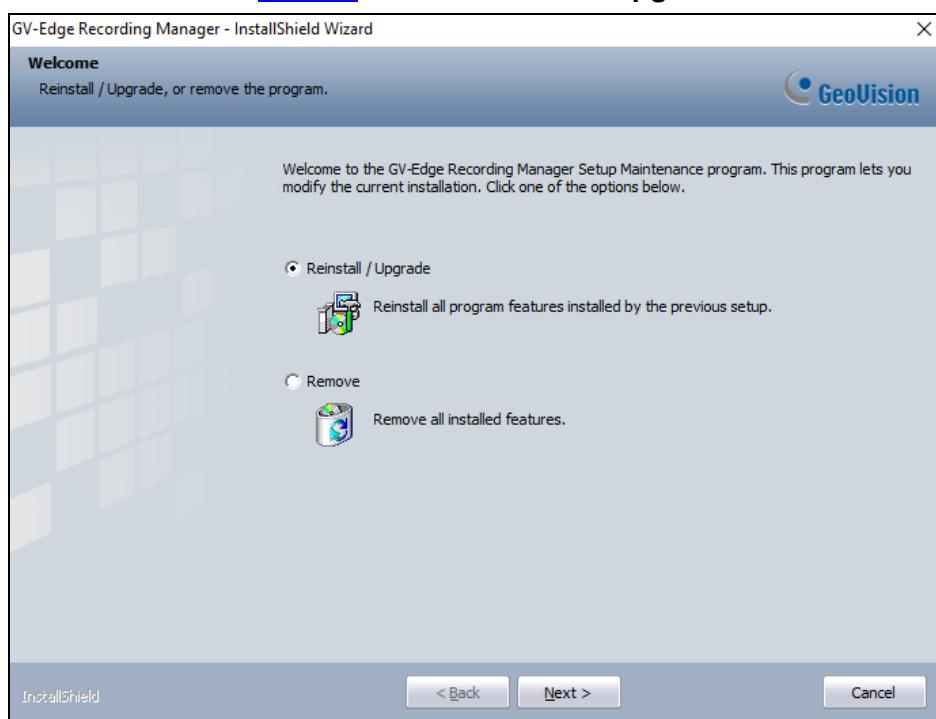
Naming and Definition

GV-DVR / NVR	GeoVision Analog and Digital Video Recording Software. GV-DVR / NVR also refers to Multicam System or GV-Hybrid DVR .
GV-Recording Server	GeoVision video streaming server designed for large-scale video surveillance deployments that can record up to 256 channels while transmitting up to 600 channels.
GV-VMS	GeoVision Video Management System for IP cameras

Note for Upgrading GV-Edge Recording Manager

Manager

To upgrade GV-Edge Recording Manager, run the **Installer** (setup.exe) included in the latest software downloads from our [website](#). Select **Reinstall / Upgrade** to start.

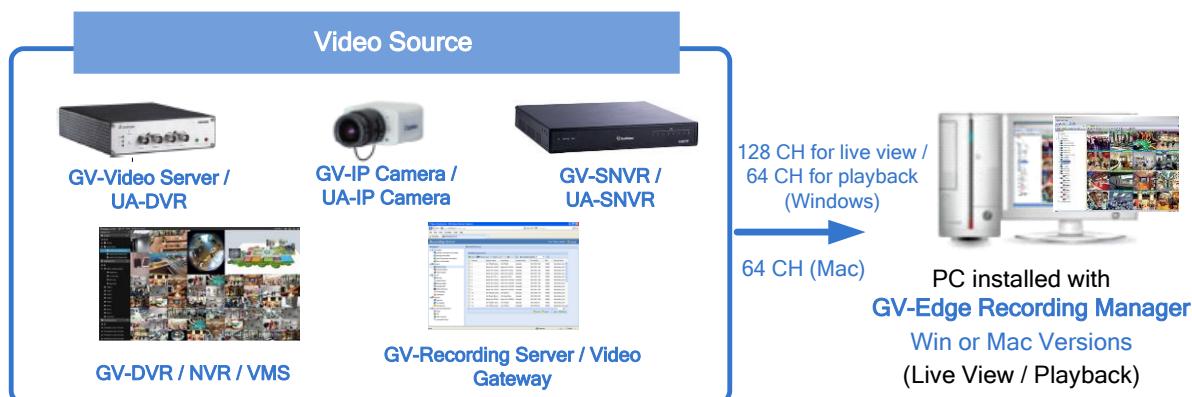


Introduction

GV-Edge Recording Manager is designed for remote live viewing and playback of GeoVision IP devices and software. It provides a unified interface to access live view, enable or disable recording, play back videos, and manage multiple IP cameras at once—all without separate logins for each device or software. Connections to hosts can be terminated without affecting recording or device operation.

GV-Edge Recording Manager integrates remote control of IP cameras, GV-Video Server, GV-SNVR, GV-NVR / VMS, and GV-Recording Server / Video Gateway under a single management platform.

Windows and Mac Versions



Assigning Recording to NAS Servers

Through GV-Edge Recording Manager, you can assign GV-IP Cameras to record to NAS servers and also view the storage information, such as occupied and remaining space.



Note: The NAS application is not supported by GV-Edge Recording Manager (Windows Version) V2.2.7 or later.

Features

Windows Version

- Display up to 32 channels for free, up to 128 channels using a GV-USB dongle or software license
- On-demand display for dual channels
- Fisheye dewarping
- Varieties of live view displays: PIP / PAP View, Focus View, Scan Window, projecting a live view display onto another monitor
- Take snapshots of live images
- Remotely enable or disable recording to GV-IP Camera, GV-DVR / NVR / VMS
- Remote playback
- Batch IP address assignment
- PTZ control
- Two-way audio
- Import and export of system configuration
- Storage information (free and occupied space) of GV-IP Camera
- Trigger output devices of connected hosts
- Support for up to 4-monitor display
- Support for GV-IP Decoder Box Optimal for remote monitor display

Mac Version

- Display up to 32 channels for free, up to 64 channels using In-App Purchase
- On-demand display for dual channels
- Fisheye dewarping
- PIP / PAP view
- Take snapshots of live images
- Remotely enable or disable recording to GV-IP Camera
- Assign NAS storage for recording
- Remote playback
- Batch IP address assignment
- PTZ control
- One-way audio
- Import and export of system configuration
- Storage information (free and occupied space) of GV-IP Camera
- Video decoding acceleration on live view

System Requirements

Make sure that you install GV-Edge Recording Manager on a computer that meets the following system requirements.

Minimum System Requirements (Windows Version)

OS	64-bit	Windows 10 / Windows 11 / Server 2016 / Server 2019 / Server 2022
CPU	32 channels (Dual Streams)	Core i3-4130, 3.4 GHz
	64 channels (Dual Streams)	Core i5-4670, 3.4 GHz
	96 / 128 channels (Dual Streams)	Core i7-8700, 3.2 GHz
Memory	32 channels (Dual Streams)	8 GB
	64 channels (Dual Streams)	16 GB
	96 / 128 channels (Dual Streams)	16 GB
Graphics Card	32 / 64 channels	PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
	96 / 128 channels	NVIDIA GeForce GT650 Ti BOOST
Note:		
<ol style="list-style-type: none"> 1. Support for 32-bit OS and 64-bit Windows 7 / 8 / 8.1 / Server 2008 R2 / Server 2012 R2 has ended. 2. H.265 decoding requires 6th-Gen Intel Desktop Processor or above, which comes with onboard GPU. 		

Minimum System Requirements (Mac Version)

OS Supported		OS X 10.15 or later
Mac PC	32 channels (Dual Streams)	Mac mini (Core i5-3210M, 8 GB RAM)
	64 channels (Dual Streams)	iMac (Core i7-4770s, 8 GB RAM)

License (Windows and Mac Version)

Free License		32 channels
Maximum License	Windows	128 channels
	Mac	64 channels
Paid License Option	Windows	64 / 96 / 128 channels with 4-monitor display, GV-Joystick use, or System Log
	Mac	64 channels
Optional Combinations		N/A
License Type	Windows	Software Licensing, Internal or External Dongle
	Mac	In-App Purchase
<p>Note:</p> <ol style="list-style-type: none"> 1. GV-USB dongle comes in internal and external dongles. It is recommended that you use the internal GV-USB Dongle to have the Hardware Watching function which restarts the PC when Windows crashes or freezes. 2. You can only purchase software license for Mac online. For details, see 15.2 Purchasing License. 3. The licensing for Windows version comes in two forms: <i>GV-USB dongle</i> and <i>software license</i>. The two are incompatible. If a GV-USB dongle has been inserted on the system, remove it before using software licensing. For details on software licensing, click here. 4. To apply a 4-monitor display on Windows version, a paid license (64 / 96 / 128-channel) is required (up to 64-channel divisions are supported for each monitor). 5. A paid license (64 / 96 / 128-channel) is required for using GV-Joystick and the System Log function on Windows version. 		

Supported GeoVision Products

GV-IP Devices		Supported Version
GV-Cloud Bridge Pro		V1.10 or later
GV-IP Camera		All GV-IP Cameras with the latest firmware.
GV-IP Decoder Box Optimal		V1.02 or later
GV-IP Decoder Box Ultra		V1.09 or later
GV-IP Display 116		V1.02 or later
GV-IP Speaker	GV-IPSC10	V2.0 or later
	GV-IPSH30	V2.0 or later
	GV-IPSS40	V2.0 or later
GV-SNVR System	GV-SNVR0400F	V1.10 or later
	GV-SNVR0411	V2.10 or later
	GV-SNVR0412	V1.00 or later
	GV-SNVR0811	V2.40 or later
	GV-SNVR0812	V1.00 or later
	GV-SNVR1600	V1.10 or later
	GV-SNVR1611	V1.00 or later
	GV-SNVR1612	V1.00 or later
	GV-SNVR3203	V1.00 or later
	GV-SNVR6403	V1.00 or later
	GV-RNVR256G0-N	V1.00 or later
	GV-RNVR3240-N	V1.00 or later
GV-Video Server	GV-RNVRL810-P	V1.00 or later
	GV-VS11	V1.03 or later
	GV-VS12	V1.07 or later
	GV-VS14	V1.01 or later
	GV-VS2400/2420	V1.00 or later
UA-IP Camera	GV-VS2800/2820	V1.00 or later
		All UA-IP Cameras with the latest firmware.
UA-HD DVR	UA-XVL810	V1.00 or later
	UA-XVL1610	V1.00 or later
	UA-XVL1611	V1.00 or later
	UA-XVR810	V1.00 or later
	UA-XVR1620	V1.00 or later
UA-SNVR System	UA-SNVRL810-P	V1.00 or later
	UA-SNVR1620	V1.00 or later
	UA-SNVR1620-P	V1.00 or later
	UA-SNVR3240-N	V1.00 or later
GV-Software		Supported Version
GV-AI Guard (Basic)		V1.1 or later
GV-NVR		V8.7.1.0 or later
GV-Recording Server		V1.2.4.0 or later
GV-Video Gateway		V1.2.4.0 or later
GV-VMS		V14.10 or later

Note:

1. The models marked with asterisk* symbols are currently not supported by GV-Edge Recording Manager (Mac Version).
2. For the **NAS application**, it is required to use GV-IP Cameras (firmware V3.00 or later), GV-Target Cameras (firmware V1.02 or later), GV-EFD2101 / EFD3101 / EVD2100 / EVD3100 (firmware V1.00 or later).
3. Files recorded to **GV-NAS Systems** are stored in MPEG4 format and those recorded to memory cards are stored in AVI format.
4. **Remote playback from SD card** is not supported for the following models: GV-ABL / TBL Series, GV-ADR / TDR Series, GV-AVD / TVD Series, GV-EBD Series, GV-FER5702, GV-PBL8800 / PDR8800, GV-PTZ5810-IR, GV-QFER12700, GV-QSD5730 / 5731-IR, GV-SD2322-IR / 2722-IR / 3732-IR / 4825-IR / 4834-IR, GV-TMEB5800, UA-B580F3 / R500F2 / R560F2 / R580F2 / R800F2.
5. Adjusting dome view of **PTZ cameras** by double-clicking on the live view is not supported for those added via GV-VMS.
6. The Center Move function of **GV-PTZ cameras** is not supported for such added via GV-Recording Server / SNVR / VMS.
7. The following features are not supported by **GV-SNVR**:
 - A. Instant playback (No. 2, Figure 4-1).
 - B. Audio not supported for recording backup.
8. While GV-Edge Recording Manager (Windows Version) supports a maximum of 128-ch live view with its minimum system requirements satisfied, ensure to meet the remote connection criteria of the following hosts before building the connection:
 - **GV-VMS / NVR:** Maximum remote connections depend on CPU specifications and usage, and available bandwidth.
 - **GV-Recording Server:** Supports a maximum of 600 remote connections. See the [GV-Recording Server datasheet](#) for details.
 - **GV-SNVR0412/0812/1600/1611/1612:** Maximum remote connections vary by model. See the *Remote Monitoring* section in [GV-SNVR Comparison Chart](#) for details.
 - **GV-SNVR3203/6403, GV-RNVR Series:** Maximum remote connections depend on the total output bandwidth. See the *Max. Bandwidth* spec in [GV-SNVR Comparison Chart](#) for details.
 - **UA-SNVR/HD DVR:** Maximum remote connections depend on the total output bandwidth. See the columns of *Max. Output Bandwidth* in [UA-SNVR Comparison Table](#) and [UA-HD DVR Comparison Table](#) for details.
9. The function of remote camera and layout assignment for GV-IP Decoder Box Optimal / Ultra / GV-IP Display 116 is only supported by GV-Edge Recording Manager V2.2.8 or later.

GPU Decoding Specifications

GPU (Graphics Processing Unit) decoding can lower the CPU loading and increase the total frame rate supported by GV-Edge Recording Manager. GPU decoding can be performed on onboard GPU, external GPU, or both, under the following specifications.

Onboard GPU: GPU decoding is only supported when using the following Intel CPUs:

For **H.264** Video Compression

- 2nd ~ 8th Generation Intel Core i3 / i5 / i7 Desktop Processors
- 9th ~ 14th Generation Intel Core i3 / i5 / i7 / i9 Desktop Processors

For **H.265** Video Compression

- 6nd ~ 8th Generation Intel Core i3 / i5 / i7 Desktop Processors
- 9th ~ 14th Generation Intel Core i3 / i5 / i7 / i9 Desktop Processor

External GPU: GPU decoding is only supported when using NVIDIA graphics cards with a compute capability of 3.0 or above and a memory of 2 GB or above. To look up the computing capability of the NVIDIA graphics cards, refer to:

<https://developer.nvidia.com/cuda-gpus>.

Note:

1. Only one external NVIDIA graphics card is supported for GPU decoding, with up to 8 MP resolution.
2. To ensure optimal performance and compatibility, it is recommended to use graphics cards of the same model and brand.

Onboard GPU + External GPU: To have both the onboard and external GPU perform GPU decoding, the GPUs must follow their respective specifications listed above.

Note:

1. If you have both onboard and external GPU installed, the onboard GPU must be connected to a monitor for H.264 / H.265 GPU decoding.
2. CUDA compute capability 5.0 or higher is required to ensure optimal performance.

Software Specifications

GPU decoding is only supported under the following operating system, resolution, and codec.

Intel Core Generation		2 nd Gen	3 rd ~ 4 th Gen	6 th ~ 14 th Gen
Operating System	64-Bit	Windows 10 / Windows 11 / Server 2016 / Server 2019 / Server 2022		
Resolution		1 MP / 2 MP	1 MP / 2 MP / 3 MP / 4 MP / 5 MP / 8 MP / 12 MP	1 MP / 2 MP / 3 MP / 4 MP / 5 MP / 8 MP / 12 MP
Codec		H.264		H.264 / H.265

Windows Version



Chapter 1 Overview

1.1 Main Window

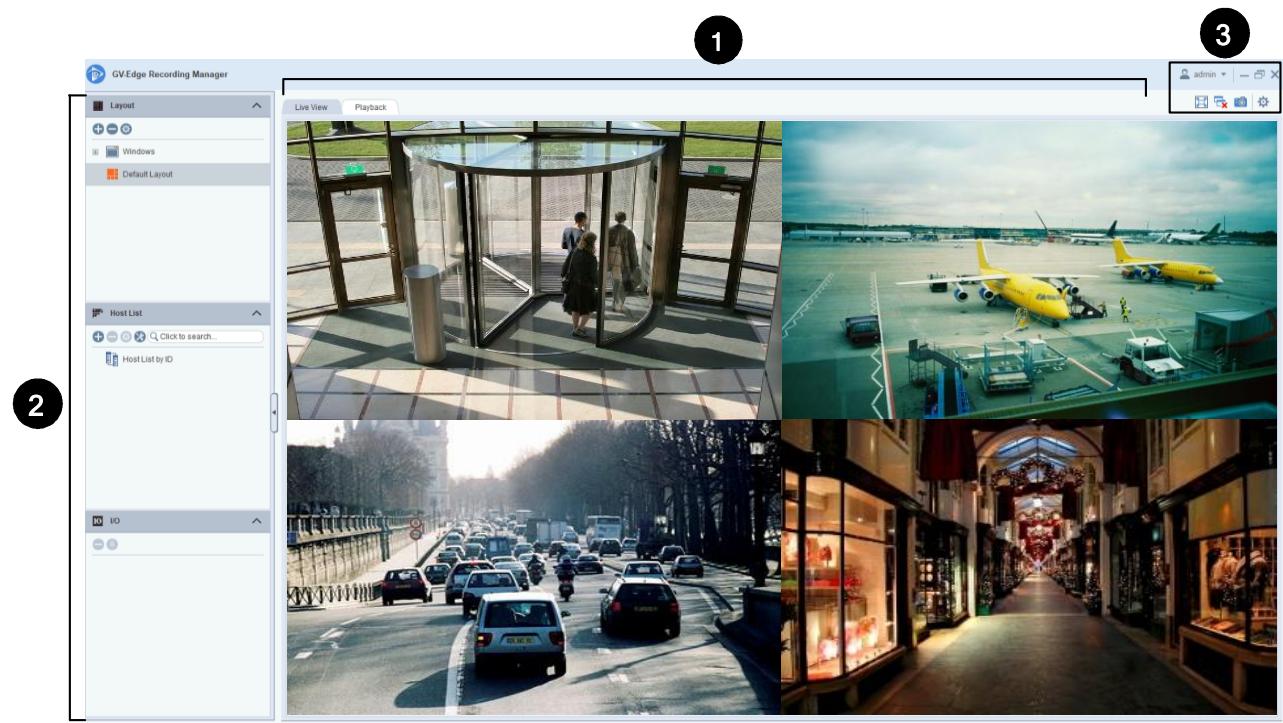


Figure 1-1

By default, there are three areas on the main window:

No.	Name	Description
1	Camera Channels	Displays the live views / recordings of added hosts. For details, see <i>4.1 The Live View Window</i> or <i>Chapter 6 Playback</i> .
2	Device Lists & Layout	Contains the hosts added to GV-Edge Recording Manager and their I/O devices, and configures layout settings. For details, see <i>1.3 The Host List</i> and <i>4.2 Live View Layouts</i> .
3	Toolbar	Contains buttons to quickly access system settings, functions and close image windows. For details, see <i>1.2 The Toolbar</i> .

1.2 The Toolbar

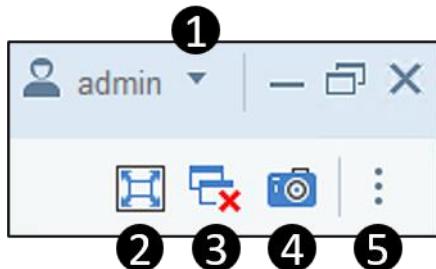


Figure 1-2

No.	Name	Description
1	Account Settings	Allows users to manage accounts, lock the session, switch accounts, and log out. See 2.2 <i>Login Account Settings</i> .
2	Full Screen	Diminishes all setting windows and toolbars and displays only the main screen.
3	Close All Videos	Closes all videos currently streamed on the main screen.
4	Snapshot	Takes a snapshot of a desired camera channel.
5	Configure	Allows users to customize general and fast key settings, import / export data, set up event rules, access IP Device Utility, and manage software licenses in GV-Edge Recording Manager.

1.3 The Host List

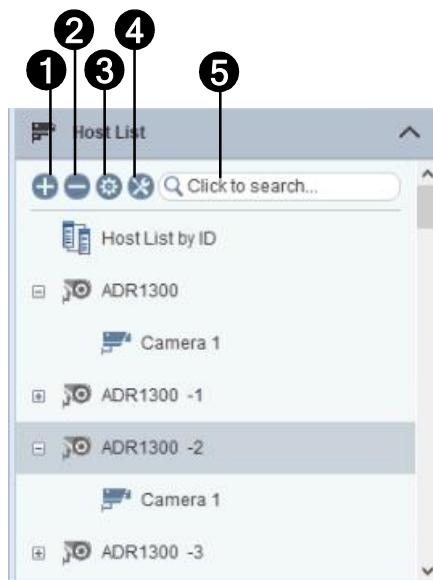


Figure 1-3

No.	Name	Description
1	Add Hosts	Adds hosts. See 2.3 <i>Adding Hosts</i> .
2	Delete Hosts	Deletes the selected host.
3	Configure Hosts	Modifies the host settings including host name, IP address, ID, password, connection ports, numbers of cameras and I/O devices.
4	Tools	Accesses tools and additional settings, such as Auto Set IP Address, Upgrade Device Name, Change ID and Password, Time Synchronization, Broadcast Service, Host Monitor, and Recording Server Management Tool. Tip: Click Recording Server Management Tool to launch it. You must install it first from Utility in GeoVision Website .
5	Search	Searches for added hosts.

1.4 The I/O List

You can trigger output devices of the connected hosts in the I/O List.

Drag and drop the I/O hosts directly into the I/O List to add the subordinate I/O devices. To trigger an output, click the **Output**  button in the I/O List.



Figure 1-4

Note:

1. GV-Edge Recording Manager cannot connect to an I/O box directly.
2. Up to 5 I/O hosts can be added to the I/O List.

Chapter 2 Getting Started

2.1 Installing GV-Edge Recording Manager

Follow the steps below to install GV-Edge Recording Manager from the GeoVision Website.

1. Go to the **Download** page of GeoVision Website:

[http://www.geovision.com.tw/download/product/GV-Edge%20Recording%20Manager%20\(Windows%20Version\)](http://www.geovision.com.tw/download/product/GV-Edge%20Recording%20Manager%20(Windows%20Version))

2. Click the **Download** icon  of **GV-Edge Recording Manager (Windows)**.

2.2 Login Account Settings

Upon first-time startup, the user will be prompted to set a login password for the Administrator account, which has access rights to all the settings of GV-Edge Recording Manager.

To access account-related settings, click **Account Settings** on the main screen (No. 1, Figure 1-2) > **Account Setup**. The Account Management dialog box appears. Right-click the Administrator account to access its settings.

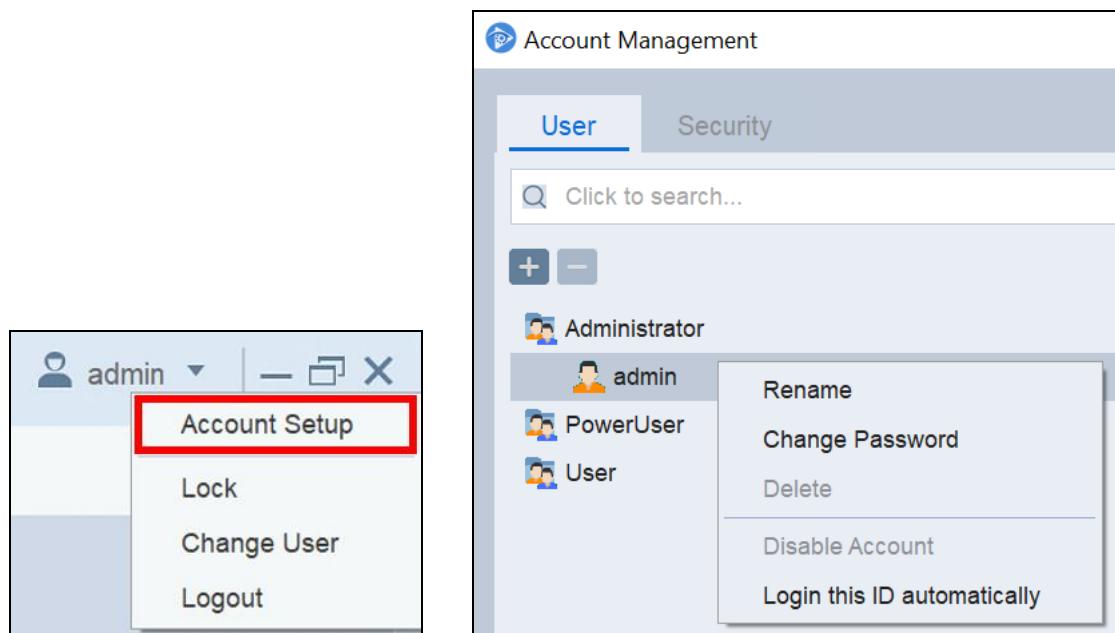


Figure 2-1

Name	Description
Rename	Changes the username of the account.
Change Password	Changes the login password of the account.
Login This ID Automatically	Select to automatically log in as the selected account when starting GV-Edge Recording Manager.

Note: See *Chapter 9 Account Management* for details on creating accounts, managing user privileges, and configuring security settings.

2.3 Adding Hosts

GV-Edge Recording Manager is able to search for and add GV-IP Devices and servers installed with GeoVision software that are within the same LAN. To add multiple hosts, follow the instructions in *2.3.1 Automatically Adding Multiple Hosts*. To add a single host, follow the instructions in *2.3.2 Manually Adding a Host*.

Note: To add a GV-IP Speaker as a host, see *2. Adding to GV-Control Center / Edge Recording Manager* in [GV-IP Speaker User's Guide](#).

2.3.1 Automatically Adding Multiple Hosts

1. On the Host List, click **Add**  **> Add Host > Search Host**. GV-IP Devices and servers installed with GeoVision software within the same LAN are listed in the Search Host window.

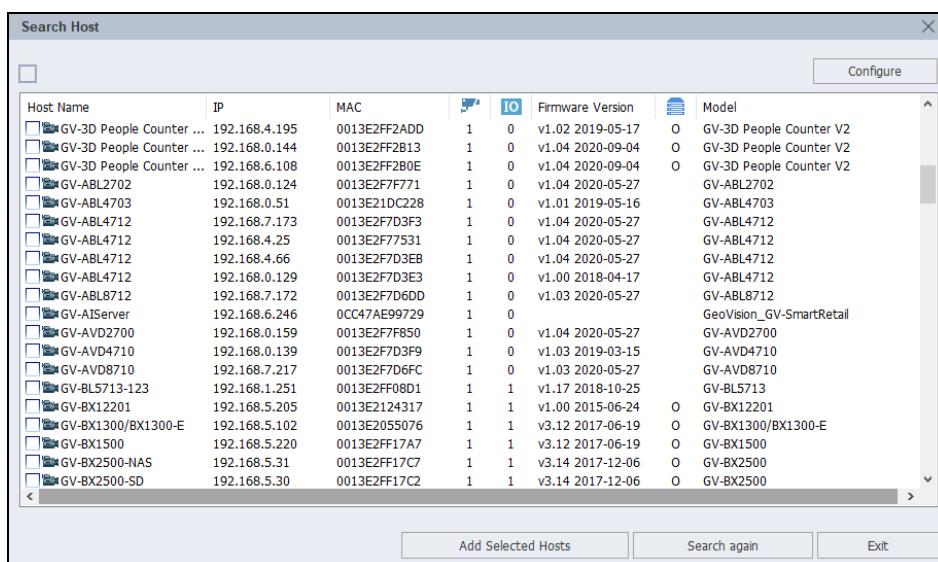


Figure 2-2

2. When the search is finished, you are prompted to reassign the IP addresses of certain IP devices found. To optionally assign new IP addresses for these devices:
 - A. Select the desired IP devices and type a **Start IP Address**.
 - B. Optionally select and modify the **Subnet Mask**, **Default Gateway** and **DNS Server** if needed.
 - C. Click **Start**. The select devices are assigned with the new IP addresses starting from the **Start IP Address**, in sequential order.
3. To add all the hosts found:
 - A. Click  on the left top of the Search Host window. This dialog box appears.

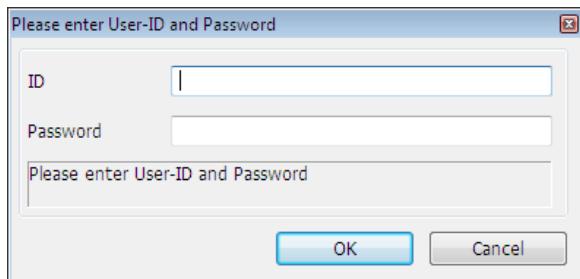


Figure 2-3

- B. Type the ID and Password for all the hosts and click **OK**.
4. To add a selection of hosts:
 - A. Click a host to be added. The ID and password request appear (Figure 2-3).
 - B. Type the ID and Password of the selected host and click **OK**.
 - C. To add more hosts, repeat steps 4A and 4B.
5. Click the **Add Selected Hosts** button to add the selected hosts. A prompt appears.
6. Click **OK** to accept the prompt. The selected hosts are added to the Host List.
7. Once added, users can drag and drop the desired cameras from the Host List onto the Live View Window for live view display. See *Chapter 4 Live View* for details.

Note:

1. If a router or firewall is installed, ensure the following communication ports required by the Host Search function are open:
 - TCP/IP ports **5201** (for searching GV-DVR / NVR / VMS) and **5202** (for searching GV-IP Devices)
 - Multicast port **5200**To change the mentioned default ports, see *2.3.1.1 Changing Network Port Settings*.
2. If antivirus software is installed, the **Search Host** function may be interfered and will

not detect the available hosts. In this case, turn off the antivirus software and try again.

2.3.1.1 Changing Network Port Settings

To access GV-Edge Recording Manager's port settings, follow Step 1 in *2.3.1 Automatically Adding Multiple Hosts* and click **Configure** in the Search Host window. The Network dialog box appears.

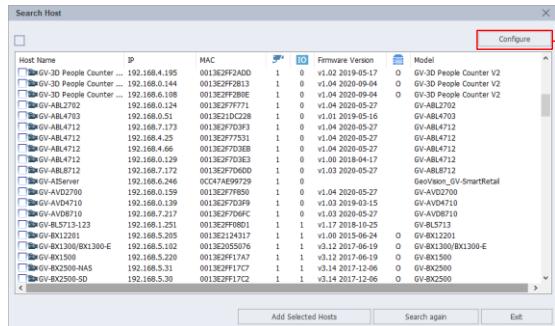


Figure 2-4

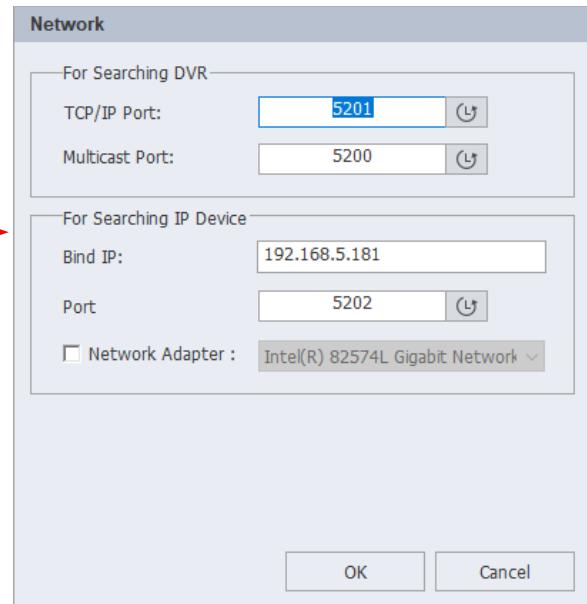


Figure 2-5

The Network tab contains port settings for GV-DVR / NVR and IP device hosts. To use the **Search Host** function, make sure the hosts' TCP port and multicast port match the port settings here in GV-Edge Recording Manager.

For searching GV-DVR / NVR hosts, the default TCP/IP port is **5201** and **5200** for multicast port. For searching IP devices, the default TCP/IP port is **5202**. You can select a LAN card to perform the search for IP devices if you have more than one LAN card installed. Keep the default settings and only change them when necessary.

2.3.2 Manually Adding a Host

1. From the Host list, click **Add**  **> Add Host** and select a device type. The Host Settings dialog box appears. The settings may vary slightly for different device types. The following is an example of IP Camera.

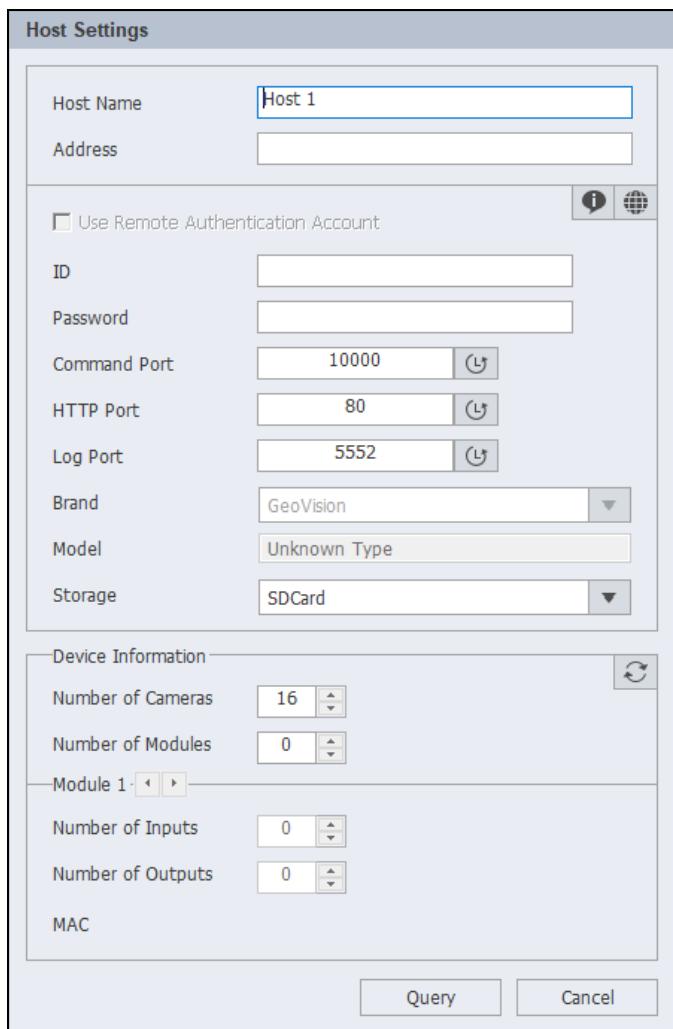


Figure 2-6

2. Type the Host Name, IP Address, ID and Password of the host. Modify the Communication Port if necessary.
3. Click the **Update Information** button  to request for the number of cameras and I/O modules installed.
4. Click **OK** to add the host. The host is added to the Host List.
5. Once added, users can drag and drop the desired cameras from the Host List onto the Live View Window for live view display. See *Chapter 4 Live View* for details.

2.3.3 Connecting to GV-DVR / NVR / VMS

1. To add GV-DVR / NVR / VMS hosts, make sure that both **Control Center Service** and **Remote ViewLog Service** are enabled ahead to allow remote access from GV-Edge Recording Manager.

GV-DVR / NVR & GV-VMS V17:

- Network button > Control Center Server > Start Default Service

GV-VMS V18 / V20:

- Network button > Control Center / ERM Service > Start Default Service
- Network button > Remote ViewLog Service > Start Service

[GV-DVR / NVR]

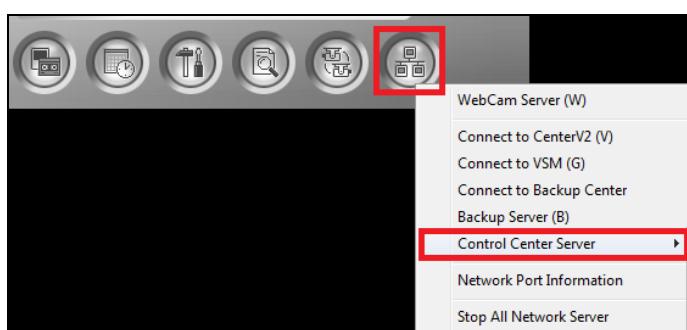


Figure 2-7

[GV-VMS V17]

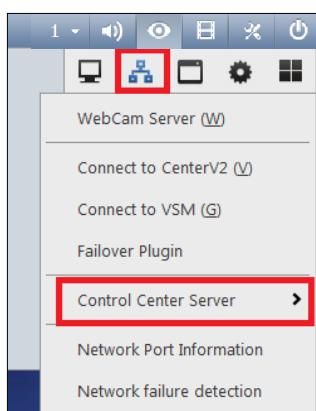


Figure 2-8

[GV-VMS V18 / V20]

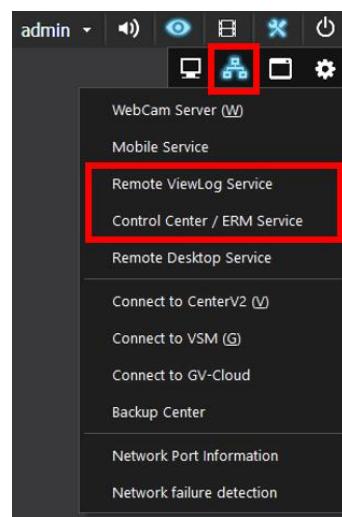
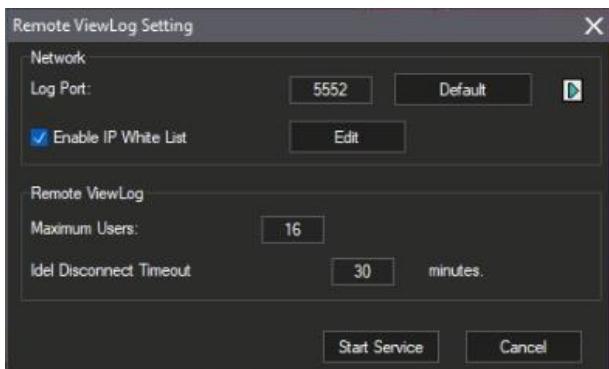


Figure 2-8-2

2. Optionally configure Control Center Service Settings. For details, see [2.4.2 Advanced Settings in the *GV-Control Center User's Manual V4*](#).
3. Optionally configure Remote ViewLog Settings. For the settings for **GV-VMS V18 / V20**, see below.



[Network Settings] Keep the communication ports as default, unless otherwise necessary.

- **Enable IP White List:** Limit access to GV-Control Center Server by assigning IP ranges.

[Remote ViewLog] Set the maximum number of users to access the recordings for playback from 1 to 16, and also set the idle time after which to end the playback application.

Note: For the Remote ViewLog Settings for **GV-DVR / NVR & GV-VMS V17**, see [2.4.2 Advanced Settings in the *GV-Control Center User's Manual V4*](#).

4. For **GV-VMS V16.11 or later**, you can specify the time length allowed for GV-Edge Recording Manager to access GV-VMS. To do this, click the account ID at the top of GV-VMS's main screen, click **Password Setup > Local Account Edit**. In the **Control Center** tab, select the **Limit Connection Time** option and specify the time length between 10 and 3600 seconds.

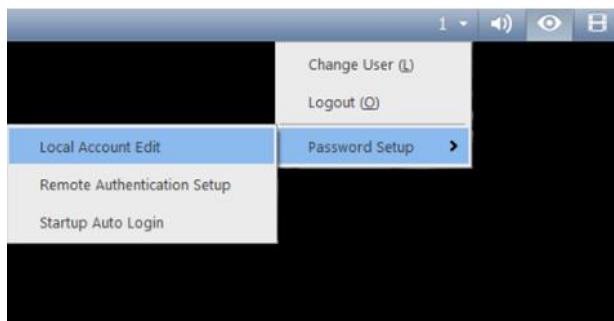


Figure 2-9

5. By default, GV-VMS live stream images are compressed to optimize bandwidth usage, which increases CPU load. The maximum number of remote connections from the GV-VMS depends on its CPU specifications and usage.
6. For **GV-VMS V17.1 or later**, you can enable the **Substream FIFO** function under **CMS Service** settings (Network button > Control Center Server > Control Center Service) to improve streaming quality from GV-VMS, which increases bandwidth usage. The maximum number of remote connections from the GV-VMS depends on its available bandwidth.

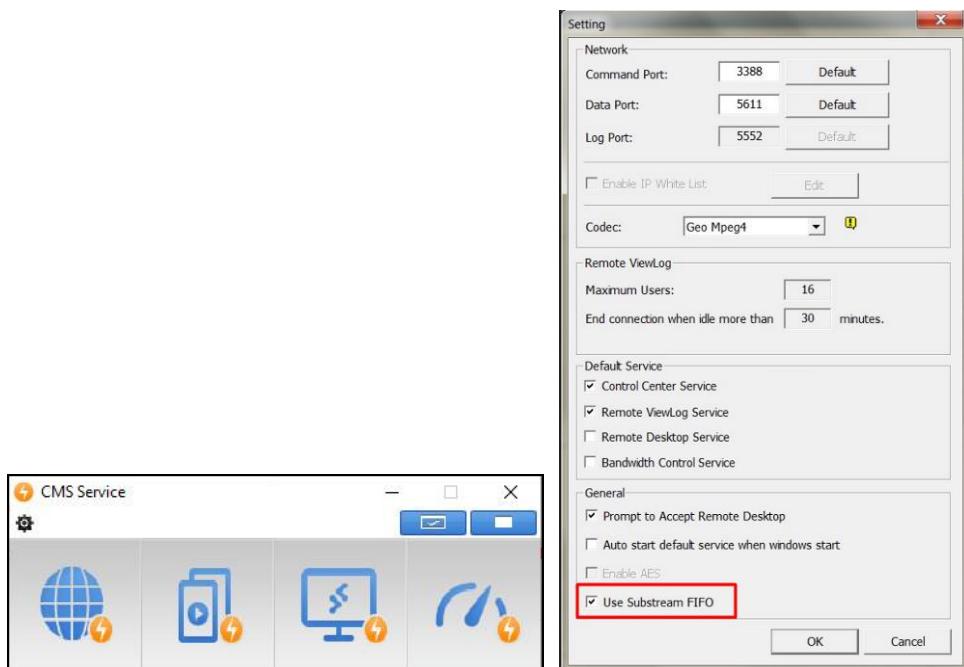


Figure 2-10

2.3.4 Creating a Camera Group

You can add multiple cameras to a group and drag the group onto a live view grid for display. At least 8 cameras are required on the Host List for this function to work.

1. On the Host List, click **Add**  **> Add Group** and type a name for the group.
2. Drag the desired cameras into the group.
3. Drag the created group onto a live view grid for display.

Chapter 3 Batch Management

The batch functions allow you to manage a mass number of hosts without the need to visit each host's interface. You can change IP addresses, rename devices, fill in identical login credentials, sync time, and assign network storage devices to multiple hosts at a time.

3.1 Configuring the IP Address

You can set the IP addresses of multiple hosts at a time.

Note: The batch management function is only supported by GV-Video Server and GV-IP Cameras.

1. On the Host List, click **Tools**  > **Auto Set IP Address**. The Auto Set IP Address dialog box appears.
2. Select the devices to be configured from the **Host Name** column. To select all devices, click .
3. To assign consecutive IP addresses to multiple GV-IP Devices:
 - A. Configure the **Start IP address**, **Subnet Mask**, **Default Gateway** and **DNS server**.
 - B. Click the button  to preview the new IP address in the **Assign IP** column.
4. Click **Start** to apply the changes.

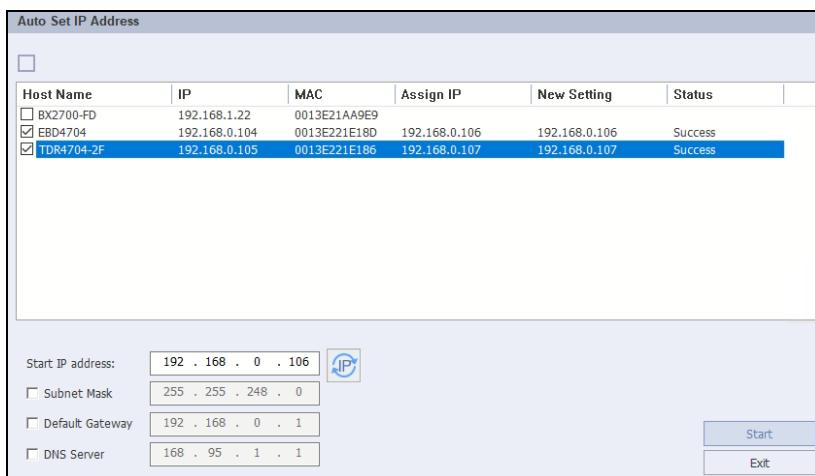


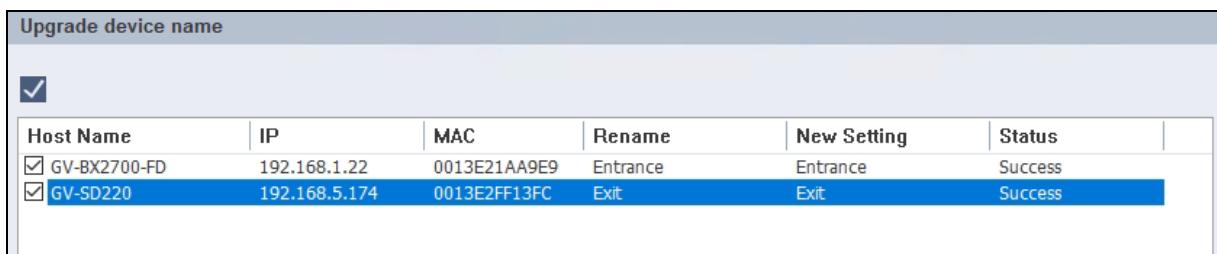
Figure 3-1

3.2 Renaming Devices

You can modify the device names of multiple hosts at a time.

Note: The batch management function is only supported by GV-Video Server and GV-IP Cameras.

1. On the Host List, click **Tools**  > **Upgrade Device Name**. The Upgrade Device Name dialog box appears.
2. Select the devices to be configured from the **Host Name** column. To select all devices, click the square .
3. Type the new device name directly in the **Rename** column.
4. Click **Start** to apply the changes.



Upgrade device name						
<input checked="" type="checkbox"/>	Host Name	IP	MAC	Rename	New Setting	Status
<input checked="" type="checkbox"/>	GV-BX2700-FD	192.168.1.22	0013E21AA9E9	Entrance	Entrance	Success
<input checked="" type="checkbox"/>	GV-SD220	192.168.5.174	0013E2FF13FC	Exit	Exit	Success

Figure 3-2

3.3 Synchronizing Host Time

You can synchronize the system time of multiple hosts at a time.

Note:

1. Make sure you have disabled device monitoring before synchronization.
2. The batch management function is only supported by GV-Video Server and GV-IP Cameras.

1. On the Host List, click **Tools**  > **Time Synchronization with Edge Recording Manager**.
2. Select the devices you wish to synchronize with GV-Edge Recording Manager and click **Start** to sync.

3.4 Connecting to Hosts with Identical Credentials

When you have a mass number of hosts using the same ID and password, use the following method to fill in the login ID and password at a time.

1. On the Host List, click **Tools**  > **Change ID and Password**.
2. Select hosts, type a common **ID** and **Password**. After confirming the password, click **Start** to apply the changes.
3. The common ID and Password will be filled in the Host Settings of the selected hosts, as illustrated below.

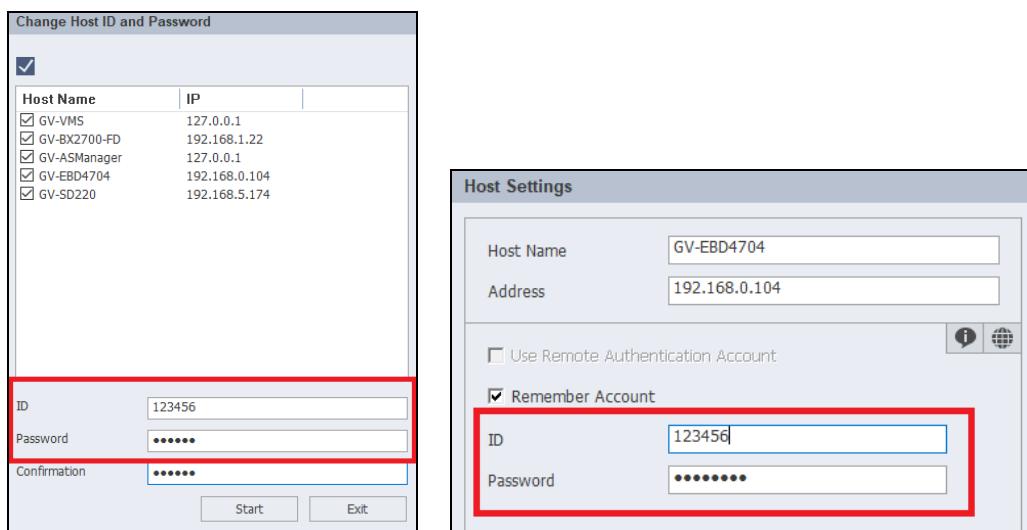


Figure 3-3

3.5 Accessing Device Connection Status on the Host List

When you have a mass number of devices under individual hosts, use the **Host Monitor** function to quickly access the device connection status on the Host List.

1. On the Host List, click **Tools**  > **Host Monitor**.
2. A red camera icon will appear next to the disconnected device, while the gray icons indicate a successful connection.

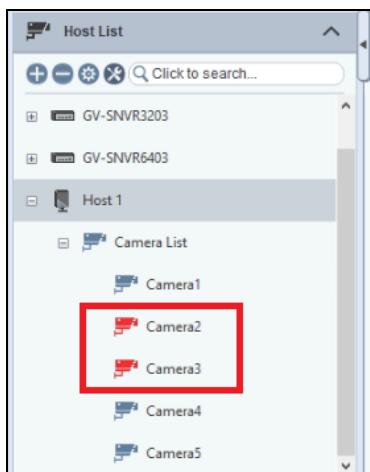


Figure 3-3

Note: This function is only applicable to GV-VMS hosts.

3.6 Updating Host Information

You can update the information of multiple hosts at a time, such as the connection status, the number or the names of cameras / input and output modules installed.

On the Host List, right-click on the desired hosts (or a group), and select **Update**.

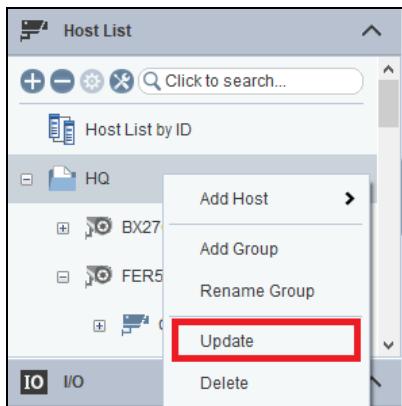


Figure 3-4

1. The Update Host Information window appears, listed with the selected hosts.
2. Select / deselect hosts and click **Update Information** to start updating the information from hosts.

3.7 Configuring NAS

You can set GV-IP Cameras to record to NAS (Network-Attached Storage) devices.

To see whether your camera models can record to NAS devices, check the NAS feature in from [this table](#).

IMPORTANT:

1. The NAS application is only supported by GV-Edge Recording Manager (Windows Version) V2.2.6 or earlier.
2. For the NAS application, it is required to use GV-IP Cameras (firmware V3.00 or later), GV-Target Cameras (firmware V1.02 or later), GV-EFD2101 / EFD3101 / EVD2100 / EVD3100 (firmware V1.00 or later).
3. For system performance and compatibility, it is highly recommended to use GV-NAS Systems for recording.
4. Make sure the computer installed with GV-Edge Recording Manager is under the same LAN with the NAS devices.

3.7.1 Assigning NAS Storage for Recording

IMPORTANT: For system performance and compatibility, it is highly recommended to use GV-NAS Systems for recording.

1. On the Host List, click **Tools**  > **NAS Setup**. The cameras that support NAS devices appear in the NAS Setup window.

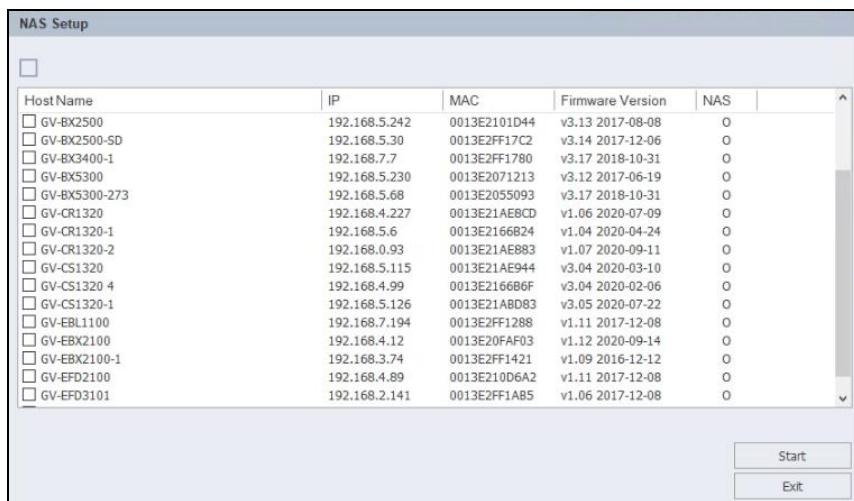


Figure 3-5

2. Select cameras for NAS management and click **Start**. The NAS Setup window appears.
3. Click **Search for network host**  to detect the NAS installed within the LAN. The detected network hosts are listed.

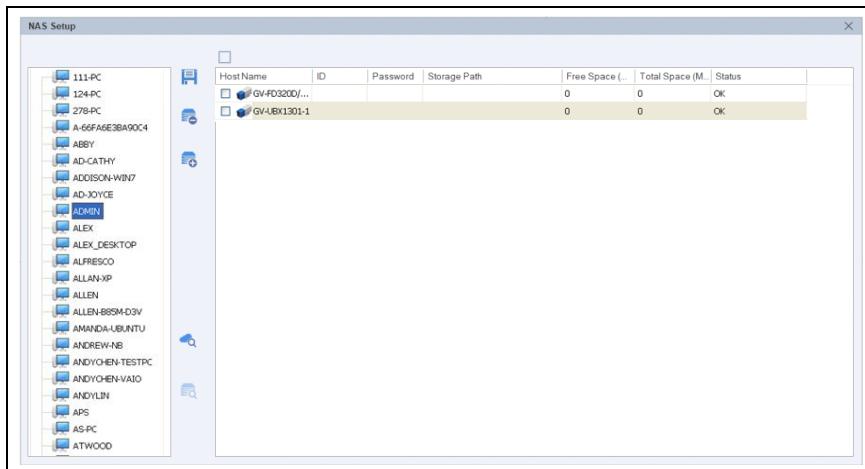


Figure 3-6

4. Select a NAS from the list and click the **Search the host's network storage** button to detect its shared folder(s). This dialog box appears.

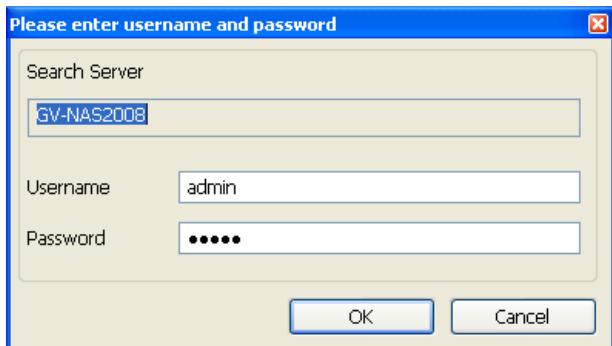


Figure 3-7

5. Type the administrator username and password of the NAS device that allows for highest level of access. The server's folders are detected and shown.
6. Expand the sever to show its folders



Figure 3-8

7. Assign storage paths for the cameras.

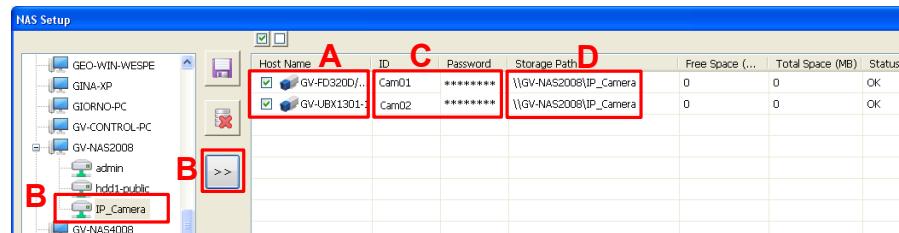


Figure 3-9

- A. On the NAS Setup window, select at least one camera to assign the storage path.
- B. Select a NAS folder from the list and click **Select this storage path for the device**  to assign this storage path. The storage path appears in the Storage Path column immediately.

- C. In the ID and Password column, type the ID and password of an established account of the NAS server.
- D. In the Storage Path column, you can manually change the IP address of a NAS.
- 8. Click **Save**  to store the settings.

Note:

1. Be sure that you assign each IP camera to record to a different user account in GV-NAS System to avoid disrupting the recycling process.
2. For GV-NAS2008 / 4008, the default username is **Cam01** up to **Cam08** for each of the 8 user accounts; for GV-NAS2016 / 4016, the default username is **Cam01** up to **Cam16** for each of the 16 user accounts. The default passwords are all **12345678**. For details, see *GV-NAS System Quick Start Guide and User's Manual*.

3.7.2 Changing the NAS Storage for Recording

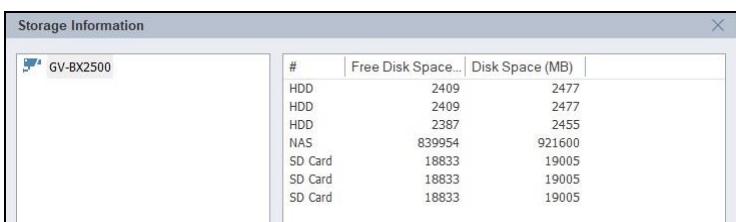
In the NAS Setup window (Figure 3-5), select a camera, select a NAS folder and click . The new storage path is immediately assigned. Alternatively type the storage path, ID and password of a NAS folder. Click **Save**  to apply the settings.

3.7.3 Deleting the NAS Storage for Recording

1. In the NAS Setup window (Figure 3-5), select a camera and its storage path, and click the **Delete the selected storage path**  button.
2. Click **Save**  to store the settings.

3.7.4 Viewing Storage Information

You can view storage information such as the storage type, free space and the overall disk space of GV-IP Cameras supporting the recording to NAS devices. On the Host List, click **Tools**  **> Storage Information**.



The screenshot shows a window titled "Storage Information" with a table of disk space details for a camera named "GV-BX2500".

#	Free Disk Space...	Disk Space (MB)
HDD	2409	2477
HDD	2409	2477
HDD	2387	2455
NAS	839954	921600
SD Card	18833	19005
SD Card	18833	19005
SD Card	18833	19005

Figure 3-10

Chapter 4 Live View

You can utilize GV-Edge Recording Manager to manage multiple live views and their recording status.

4.1 The Live View Window

The Live View Window displays live video streams and provides access to the camera channels displayed. You can monitor up to 128 channels simultaneously. To display live view on this window, drag and drop cameras from the Host List.

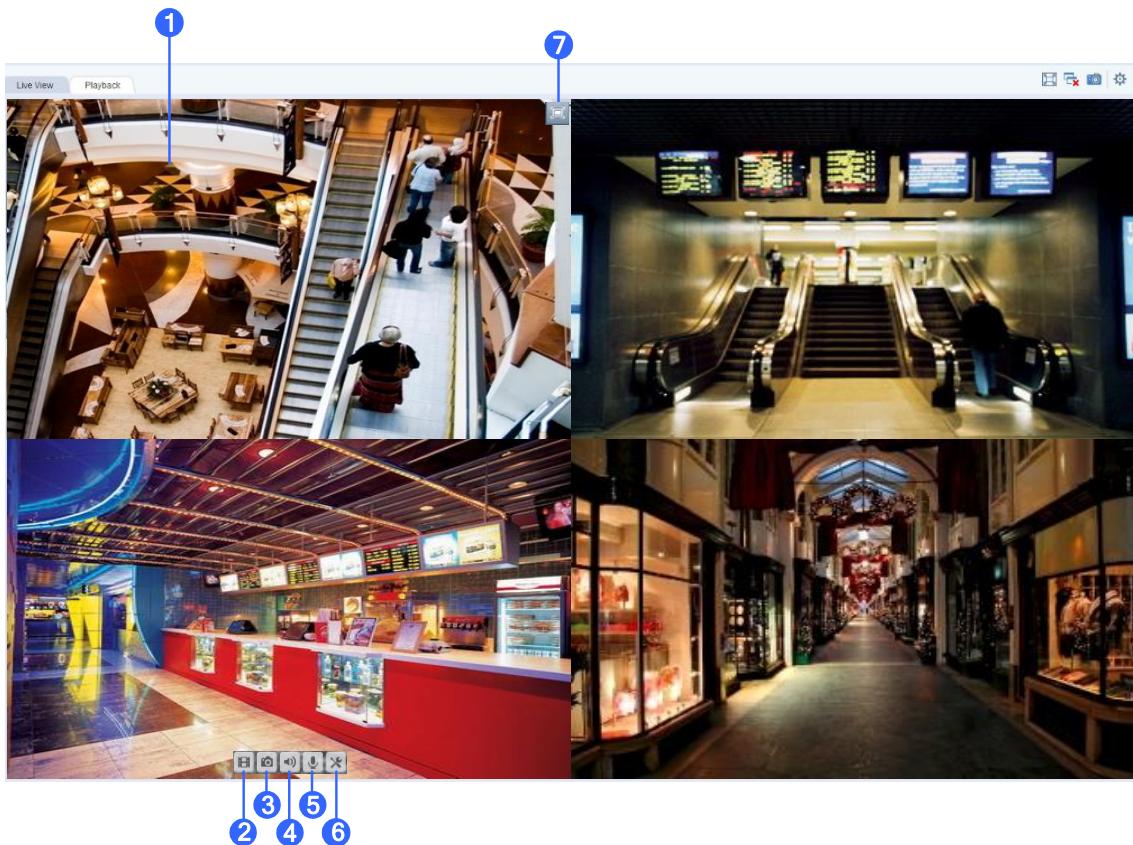


Figure 4-1

No. Name	Description
1. Live View	Displays the live video stream of the camera channel.

No.	Name	Description
2.	Instant Play 	Plays back the video recorded.
3.	Snapshot 	Captures a snapshot of the current live view.
4.	Wave Out 	Receives live audio from the current live view.
5.	Microphone 	Talk to the surveillance site. For details, see <i>Chapter 5 Audio Communication</i> .
6.	Configure 	<p>Includes the following options:</p> <ul style="list-style-type: none"> ■ Monitor: Starts monitoring of the camera. ■ Wide Angle Lens Dewarping: Enables the dewarping setting. For details, see <i>4.7 Adjusting Distorted View</i>. ■ Wide Angle Lens Setting: Corrects the distortion on live view images. For details, see <i>4.7 Adjusting Distorted View</i>. ■ Location on Host List: Highlights the host and camera channel of the current live on the Host List (Figure 1-3). ■ PTZ Control: Enables the PTZ function. Note this function is only supported by IP Cameras that support the PTZ function. ■ IMV1 Panomorph: Dewarps the fisheye view. Note this option is only available for GV-IP Cameras installed with ImmerVision lenses and when the camera resolution is set to 1280 x 1024 or higher. ■ VR360: Pans around the 360° image of GV-VR360. Click  or  to adjust the speed of the auto pan and click  to zoom in. ■ Properties: <ul style="list-style-type: none"> ○ Show Caption: Shows camera name on live view. ○ Keep Image Ratio: Locks aspect ratio of the camera image. ■ Close: Removes the camera from the layout grid.
7.	Full Screen	Extends the Live View Window to full-monitor display. Press the Esc key on your keyboard to exit the full-monitor display.

Note:

1. To view the dewarped image of GV-VR360 on GV-Edge Recording Manager V1.3.0.0 or later, the graphic card must support DirectX 10.1 or above.
2. Up to 2 GV-VR360 can be connected to a GV- Edge Recording Manager with a total frame rate of 24 fps.

Functions on Live View and Host List

The live view screen can be controlled using the actions below.

Actions	Functions
Mouse scroll	Zooms in or out on the live view.
Double-click	Displays the live view in full screen.

In the Host List (Figure 1-3), right-click a camera channel, from a host, to access the following options, when enabled or supported:

Option	Functions
Focus View Setup	Creates up to 7 close-up views for the camera. (See <i>4.2.2 Setting Focus View</i>)
PTZ Setup	Enables PTZ functions. (See <i>4.6 Panoramic PTZ View</i> later in this chapter)
Fisheye Option	Opens the Fisheye Settings dialog box for GV-Fisheye Cameras. (See <i>4.5 Fisheye View</i>)
Remote ViewLog	Accesses the Remote Playback window for playing back recordings of the host selected. (See <i>Chapter 6 Playback</i>)

4.2 Live View Layouts

4.2.1 Arranging Live View Layouts

1. In the **Layout List**, click **Add**  and click **Add New Layout**. This dialog box appears.

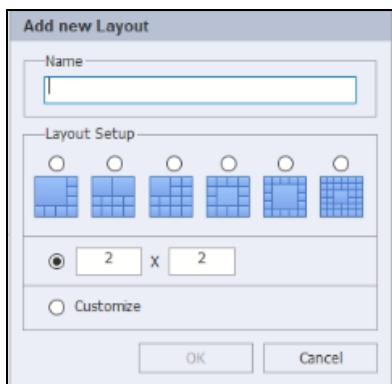


Figure 4-2

2. Name the new layout and select one of the three available methods under Layout Setup to define a layout and click **OK**.
3. If you select **Customize** in the step above, the Customize Layout dialog box appears.
 - a. Click **Reset** to specify a dimension for the grid if needed.
 - b. Select multiple rectangles and click **Merge** to create a larger square.
 - c. Click **OK** when you are done.
4. To create multiple layouts, repeat Step 1-3. Once done, you can switch to the desired layout by double-clicking it.

4.2.2 Setting Focus View

You can create up to 7 close-up views per camera and place these created close-up views inside the live view grid.

1. In the Host List, right-click a camera channel from a host and select **Focus View Setup**. This dialog box appears.

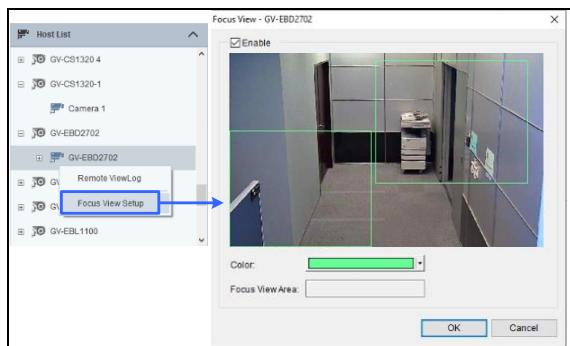


Figure 4-3

2. Click **Enable** and draw a box on the camera view to create a focus view. You can create multiple focus views if needed.
3. Click **OK**. The created focus views are listed under the camera.

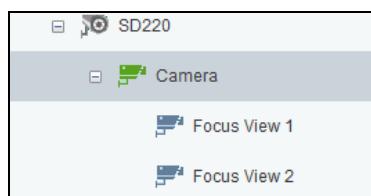


Figure 4-4

4. Drag the focus views to live view grids.

Note: This function is not supported by Fisheye Cameras and PTZ Cameras.

4.2.3 Setting a Scan Window

You can assign multiple cameras to a Scan Window, and each camera will be shown in sequence for the Scan Interval specified.

1. In the Layout List, select **Windows**, and drag **Scan Window** to a live view grid.
2. Drag multiple cameras into the Scan Window.

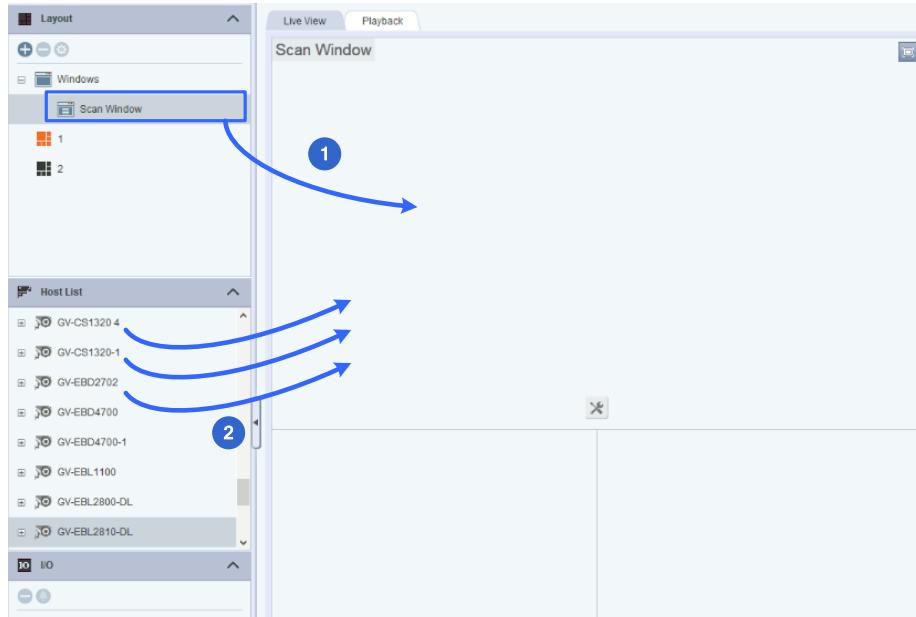


Figure 4-5

3. Move the cursor to the Scan Window, click **Tools** , and select **Properties**. This dialog box appears.

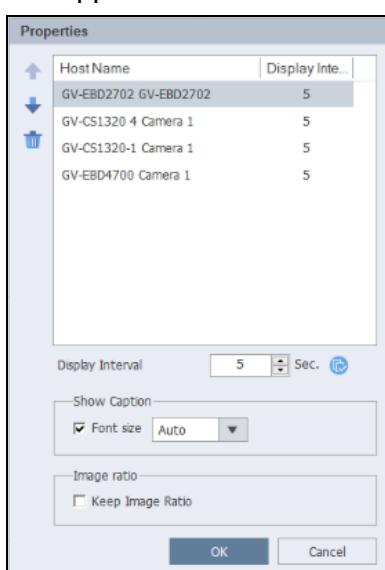


Figure 4-6

4. To adjust the order of a camera, select a camera and click the Up  and Down  arrows.
5. To specify how many seconds to show the live view of each camera, click and adjust the **Scan Interval** of each camera. Optionally click  to apply this Scan Interval to all cameras.
6. To show camera name on live view, select **Show Caption**.
7. To lock the original aspect ratio of the camera image, select **Keep Image Ratio**.
8. Click **OK**.

4.2.4 Multiple Monitor Display

You can project live view display on up to 4 monitors simultaneously.

Note: For 4-monitor display, 64 / 96 / 128-channel license is required.

1. Create the number of layouts based on the number of monitors to display the live view. See [4.2.1 Arranging Live View Layouts](#).
2. On the **Layout List**, right-click the desired layout and select **Apply to**, and select **Main Panel / Live View #1 – 4**.
3. To arrange the monitor positions, right-click any of the layouts and click **Apply to > Application Position**. The dialog box appears.

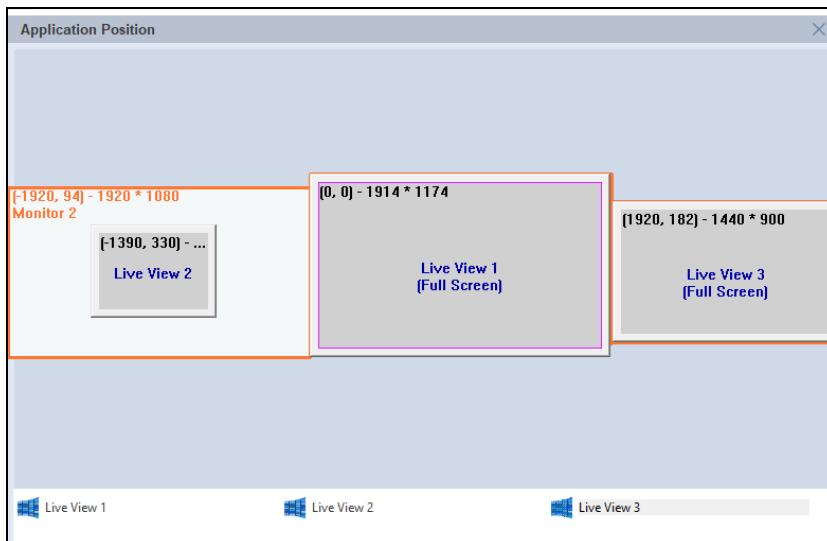


Figure 4-7

4. Right-click the application windows to access the following options:
 - **Show:** Select / unselect to display or hide the application window on or from the monitor.
 - **Full Screen:** Select to set the application window to full screen.
 - **Set Position:** Select to define coordinates of the application window.
 - **Restore to the default size:** Select to restore the application window to the default size.
5. Once changes are made, right-click the layout on the **Layout List** and select **Deactivate Layout** for the settings to apply.

4.2.5 Adding GV-IP Decoder Box for Remote Monitor Display

You can add GV-IP Decoder Box to GV-Edge Recording Manager to be assigned the desired camera channels for remote monitor display. For details, see *Chapter 6 Integration to GV-Software in [GV-IP Decoder Box Series and Display User's Manual](#)*.

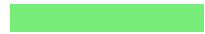
4.3 Enabling Host Recording

You can remotely enable/disable monitoring on the connected host.

Note:

1. This function is only supported by GV-DVR / NVR / VMS, GV-IP Cameras (except GV-ABL / ADR / AVD / EBD / TBL / TDR / TVD series, GV-SD2322-IR / 2722-IR / 3732-IR).
2. For GV-DVR / NVR / VMS, make sure of the account used for connecting to GV-Edge Recording Manager having the privilege to enable monitoring.

From the Live View Window, click **Configure**  on a camera's live view (No. 6, Figure 4-1) and select **Monitor**. The status of a camera channel is indicated as below:

Channel Color	Monitoring & Recording Status
	Not monitoring
	Monitoring but not recording
	Monitoring and recording

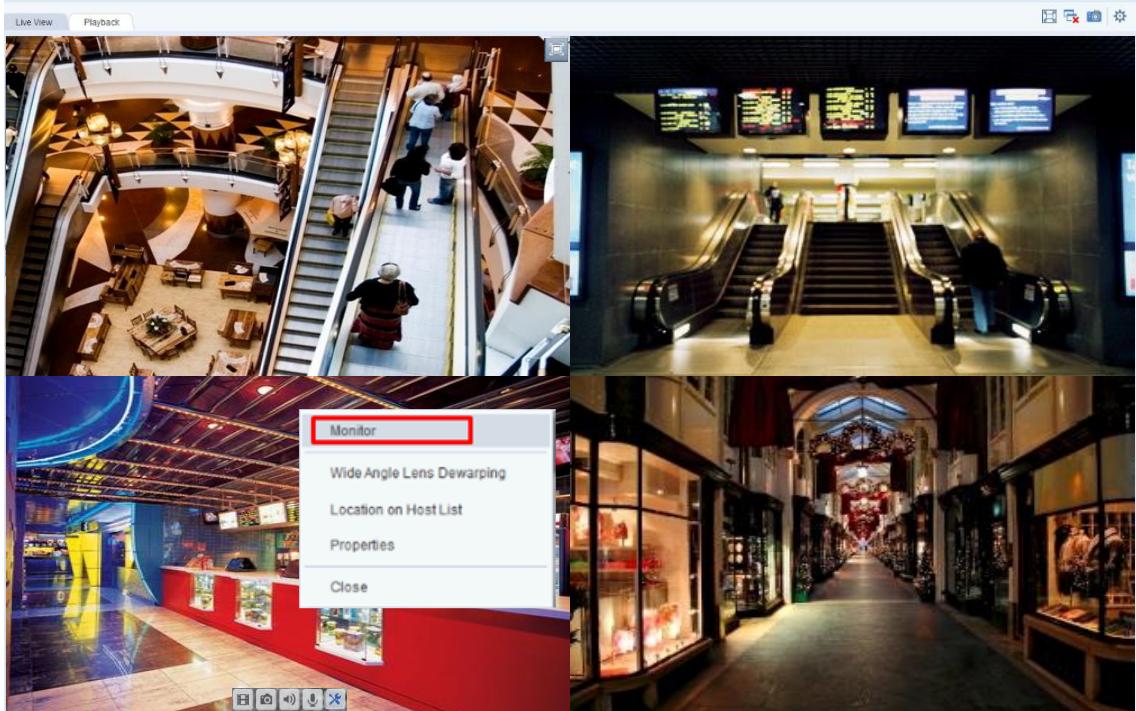


Figure 4-8

4.4 Taking Snapshots

You can take instant snapshots of all displaying live views to save important live images.

Taking Snapshots of All Displaying Live Views

To take snapshots of all the live views displayed simultaneously, click the **Snapshot** button  (No. 4, Figure 1-2) on the top right of the main screen. The images are saved to the default path **C:\GVEdgeRecording\Snapshot**. To change the default path, click **Setup**  (No. 5, Figure 1-2) on the main screen and select **Live View**.

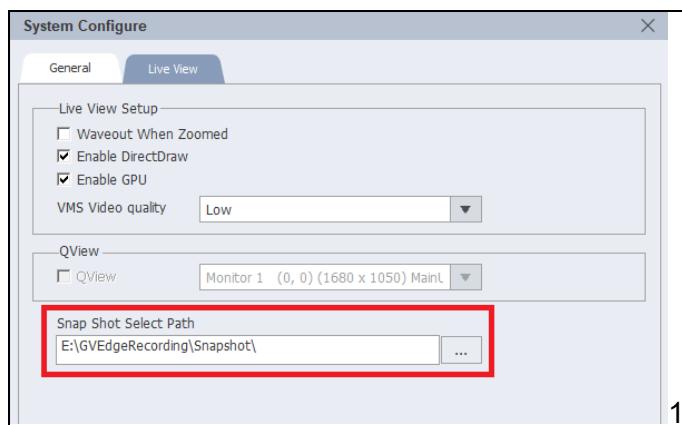


Figure 4-9

Taking a Single Snapshot

To take a snapshot of a single live view, click the **Snapshot** button on the camera's live view (No. 3, Figure 4-1), click  and designate a path to save the snapshot.

4.5 Fisheye View

A fisheye camera allows you to cover all angles of a location with just one camera. The circular fisheye view can be dewarped into the following four view modes, and you can drag PTZ views to different angles.

Note: This function requires a graphic card supporting DirectX 10.1 or later.



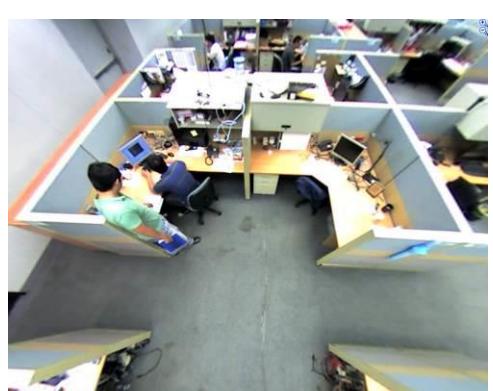
Quad view: 4 PTZ views



360 degree: 2 PTZ view & 1 360° view



Dual 180 degree: 2 180° views



Single view: 1 PTZ view

Figure 4-10

4.5.1 Setting up Fisheye View

1. To display the dewarped view, from the Host List, drag the fisheye camera (circular source image) or one of the dewarped views to the live view grid.
2. To change the dewarped settings, right-click the fisheye camera from the Host List > **Fisheye Option**. The Fisheye Setting window appears.

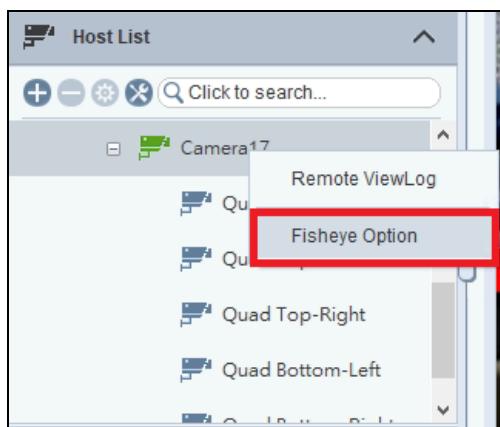


Figure 4-11

3. Right-click on the Fisheye Settings window > **Fisheye Option** to access the following settings:
 - **Camera Mode:** You can choose among four view modes.
 - **Quad view:** Composed of four PTZ views.
 - **360 degree:** Composed of two PTZ views and one 360° panoramic view.
 - **Dual 180 degree:** Composed of two 180° views.
 - **Single view:** Composed of one PTZ view. This view mode supports the advanced Picture-in-Picture (PIP) function, which allows you to have a close-up view without missing the entire view of surveillance site.
 - **Camera Position:** Select **Ceiling**, **Wall** or **Ground** according to installation scenarios.
 - **Adjust Auto Pan Speed At Top-Left Channel:** Select low, medium, or high speed to enable Auto Pan for the PTZ view at the rotation speed of your choice. This option is only available in **Quad view**, **360 degree** and **Single view**.
 - **Zoom:** Select **Zoom In** or **Zoom Out** and then click on the image.
 - **Show Source Video At Top-Right Channel:** Display the circular source image in the top-right quadrant when **Quad view** is selected.

- **360 Object Tracking:** Only available in **360 degree** view. Track and highlight detected motion in live view. For details, see *4.5.2 Object Tracking*.
- **Disable automatic zoom adjustment during 360 Object Tracking:** Enabled by default. When disabled, the zoom ratio will be kept at constant as configured.
- **Disable PIP:** Disables the PIP function in Single View mode.
- **Guard Tour Setting:** Only available in **Single View** mode. Enable to set up a virtual PTZ tour using the defined preset points on live view. For details, see *4.5.3 Virtual PTZ Tour*.
- **Settings:**

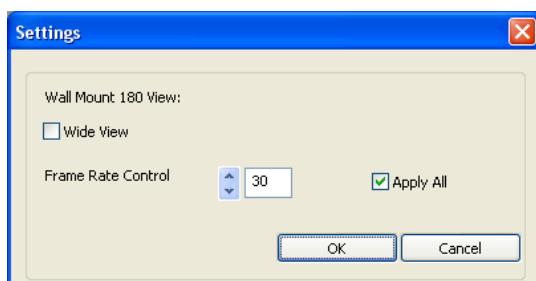


Figure 4-12

- **Wide View:** Increases the height of the 180-degree view when camera position is set to wall mount.



Figure 4-12-1: Wide View Disabled



Figure 4-12-2: Wide View Enabled

- **Frame Rate Control:** Limits the frame rate of the fisheye live view to a specified rate. Select **Apply All** to apply the frame rate to all fisheye views.

4. Drag the dewarped fisheye views from the Host List to live view grids for display. You can drag and drop PTZ view or 180 degree view to adjust the viewing angle.

4.5.2 Object Tracking

You can set up object tracking in fisheye view to track a moving object. The function is only available when the view mode is set to **360 degree**. When motion is detected in the fisheye view, the top-right channel will start tracking the moving object, which is highlighted in the 360-degree view at the bottom.

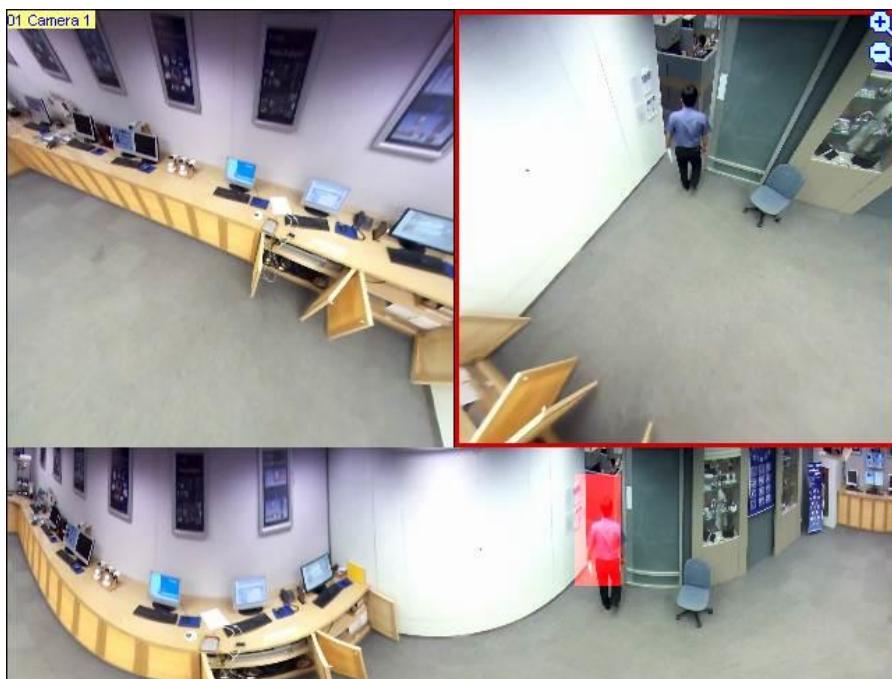


Figure 4-13

1. Set the fisheye view to **360 degrees** by following Step 1 & 2 in *4.5.1 Setting up Fisheye View* and selecting **Camera Mode > 360 degree**.

2. On the Fisheye Settings window, right-click the fisheye view > **Fisheye Option > 360 Object Tracking > Advanced Settings**. This dialog box appears.

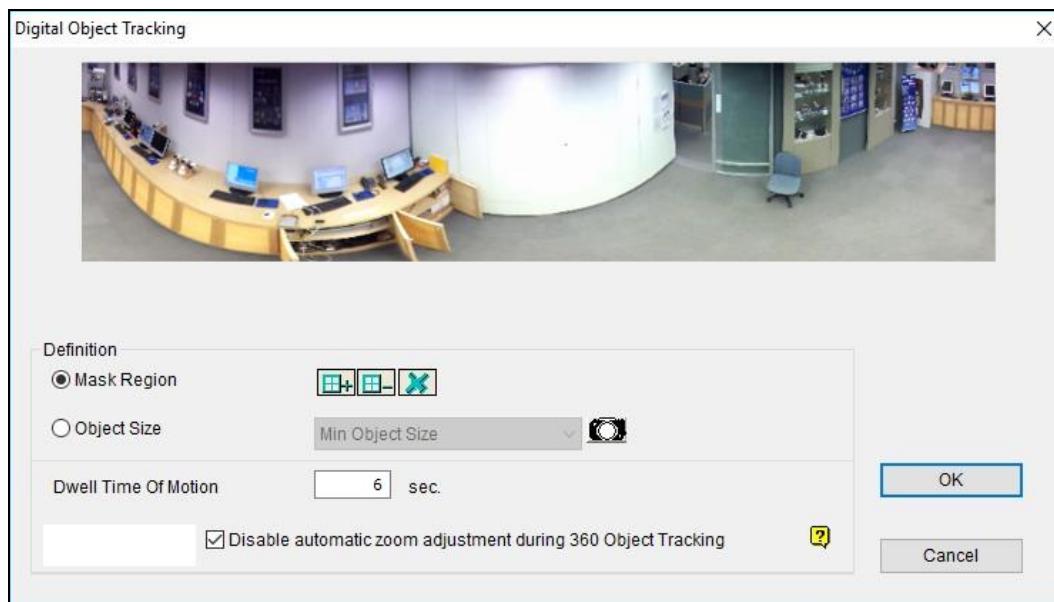


Figure 4-14

- **Mask Region:** Use the mouse to outline a mask region where motion is ignored.
- **Object Size:** Click the camera icon button to pause the live view and then use the mouse to outline the maximum and minimum size of the target object.
- **Dwell Time of Motion:** When the target object stops moving, the highlighted region and the top-right channel will remain fixed for the number of seconds specified. Any new motion detected during the dwell time is ignored to prevent the camera view from frequently jumping from one region to another.

3. To enable object tracking, on the Fisheye Settings window, right-click the fisheye view > **Fisheye Option > 360 Object Tracking > Tracking**.

4.5.3 Virtual PTZ Tour

You can set up a virtual PTZ tour to monitor important spots of your surveillance site. Before you start, make sure your fisheye camera has been set to **Single View** mode.

1. Set the fisheye view to **Single view** by following Step 1 & 2 in [4.5.1 Setting up Fisheye View](#) and selecting **Camera Mode > Single view**.
2. Right-click the fisheye camera on the Host List > **Fisheye Settings**. The Fisheye Settings window appears.
3. Right-click the fisheye view on the window > **Fisheye Option > Guard Tour Setting**. The Guard Tour Setting dialog box appears along with the Fisheye Settings window.
4. On the Fisheye Settings window, move the live view to a desired starting point for the PTZ tour by clicking on the inset window at the bottom right.
5. Enable the settings, type a name for the current view and click **Add**. This view point (preset point) appears under Preset ID.

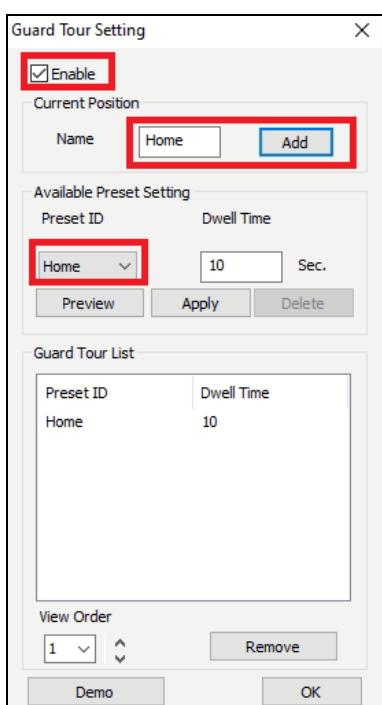


Figure 4-15

6. Specify the duration for the live view to stay on this preset point (dwell time). The default is **10** seconds.
7. Optionally click **Preview** to see a preview of the preset point.
8. Click **Apply**. This preset point is added to Guard Tour Setup.
9. To add more preset points, repeat the steps above.

10. To change the order of the preset points, use the **View Order** drop-down list to move a preset point up or down the list.
11. Optionally, click **Demo** to watch a preview of the PTZ tour.
12. Select **OK** to start the PTZ tour. To stop the PTZ tour, disable the function on the Guard Tour Setting.

4.6 Panoramic PTZ View

With GV-Panoramic PTZ Camera, you can manually track moving objects on its dome view while monitoring all angles of a location through its fisheye view.

To do this:

1. Drag both the fisheye and PPTZ camera channels from the Host List onto the Live View window.
2. Click on any place on the fisheye view. The speed dome will automatically point to the designated area.

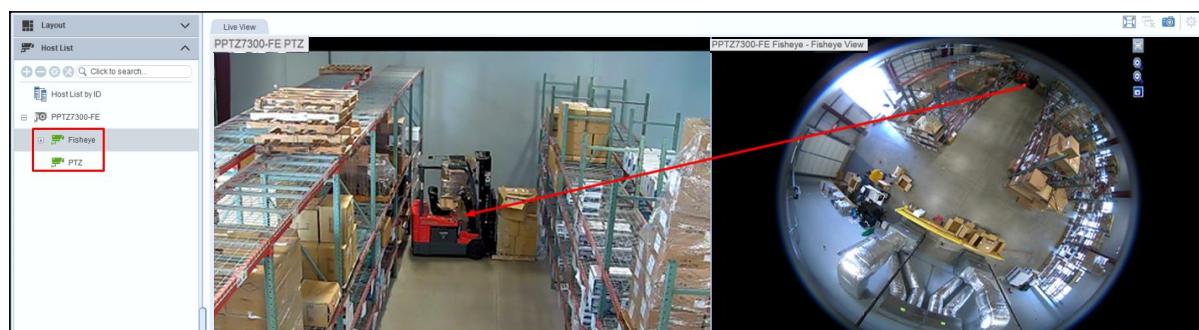


Figure 4-16

4.7 Adjusting Distorted Views

Live view images may be curved near the corners. You can use the Wide Angle Lens Dewarping feature to adjust image distortion.

1. On the Live View window, click **Configure**  on the camera's live view, enable **Wide Angle Lens Dewarping**.
2. Once enable, select **Wide Angle Lens Settings** to configure.
3. Move the slider at the bottom to correct the degree of warping. The adjusted view is shown on the right.

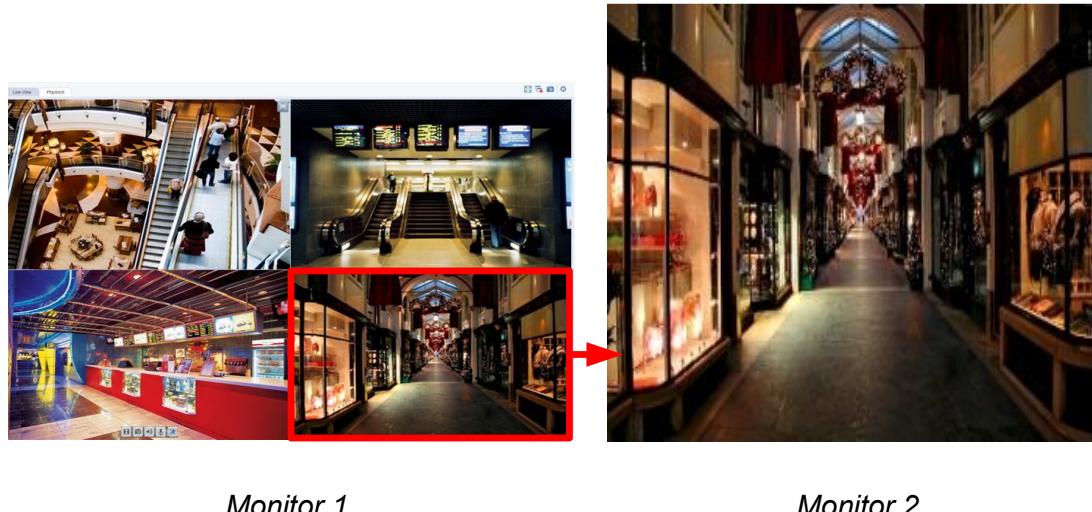


Figure 4-17

4. To apply this dewarping setting to other channels on the Live View window, select **Apply All**.
5. To apply the dewarping setting to a single camera channel, click **Configure**  on the camera's live view and select **Wide Angle Lens Dewarping**. The selected channel is adjusted accordingly.

4.8 Enabling QView Display

When having at least two monitors connected to your computer, you can project a live view display onto another monitor using the QView function and view a live view on a separate monitor as full screen.



Monitor 1

Monitor 2

Figure 4-18

1. On the main screen, click **Configure** (No. 5, Figure 1-2) and select **Setup**. The System Configure dialog box appears.
2. Click the **Live View** tab and select **QView**. Select the desired monitor and click **OK**.

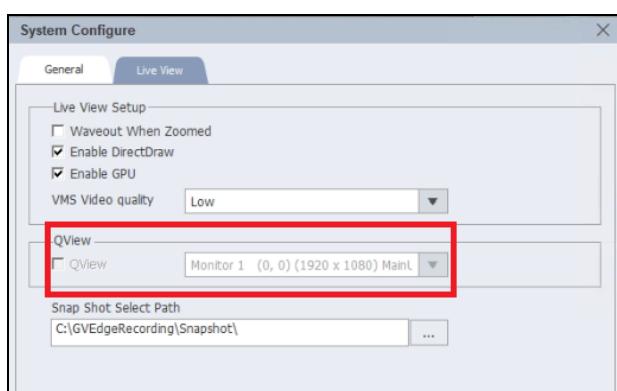


Figure 4-19

3. Click the single live view you wish to project onto another monitor. The live view is displayed onto the monitor selected.

Note: GV-Edge Recording Manager and the QView's setting cannot be applied on the same monitor.

4.9 Remote AI Event Logs

On GV-Edge Recording Manager, you can remotely access AI event logs from the connected hosts.

Note: This function is only applicable to the following AI-capable UA-HD DVR / SNVR models and GV-Software versions:

- UA-SNVR1620-P
- UA-SNVR3240-N
- UA-XVR1620
- GV-VMS V18.3.1 or later

1. From the **Host List**, right-click the host and select **Remote AI Query**. The **Search Log** dialog box appears.
2. Click **Filter** on the upper right corner. This dialog box appears.

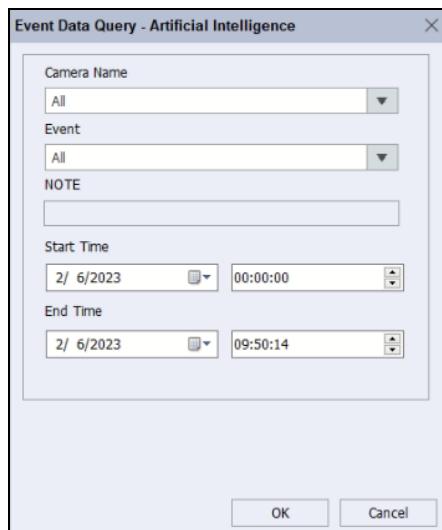


Figure 4-20

3. Set the required criteria for the AI events you wish to access.
4. Click **OK**.

Chapter 5 Audio Communication

You can speak to, listen to and engage in two-way communication with a selected host.

Move the cursor on the live view of a camera and select the following options:

- **Microphone**  to speak to the host through a microphone.
- **Wave Out**  to listen to the camera through a speaker.

Tip: Right-click GV-VMS from the Host List and select **Microphone / Way Out / 2 Way**.

Chapter 6 Playback

You can remotely play back recordings from the connected hosts on GV-Edge Recording Manager.

There are two ways to play back recordings:

- **Instant Playback:** To play back at a pre-defined duration, select **Instant Play**  on a camera live view (No. 2, Figure 4-1).
- **Playback Window:** To play back from any time period within the host's timeline, using the Playback window, see *6.1 The Playback Window*.

Note:

1. The Instant Playback (No. 2, Figure 4-1) and audio recording backup are not supported by GV-SNVR.
2. **Remote playback from SD card** is not supported for the following models: GV-ABL / TBL Series, GV-ADR / TDR Series, GV-AVD / TVD Series, GV-EBD Series, GV-FER5702, GV-PBL8800 / PDR8800, GV-PTZ5810-IR, GV-QFER12700, GV-QSD5730 / 5731-IR, GV-SD2322-IR / 2722-IR / 3732-IR / 4825-IR / 4834-IR, GV-TMEB5800, UA-B580F3 / R500F2 / R560F2 / R580F2 / R800F2.
3. For a GV-DVR / NVR / VMS host, make sure **Remote ViewLog Service** (under Control Center Service) is enabled to allow GV-Edge Recording Manager to remotely access the host for playback.

6.1 The Playback Window

1. To play back the recording of a host device, choose one of the following methods to start:
 - Right-click a host/camera from the Host List and select **Remote ViewLog**.

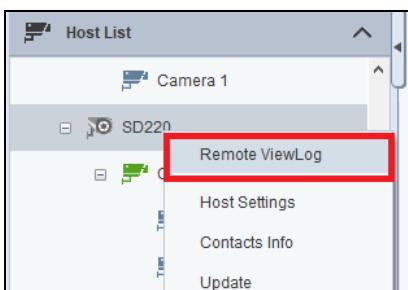


Figure 6-1

6 Playback (Windows Version)

- Select **Playback** at the top of the main screen, and drag a host device or camera from the Host List into the playback window.

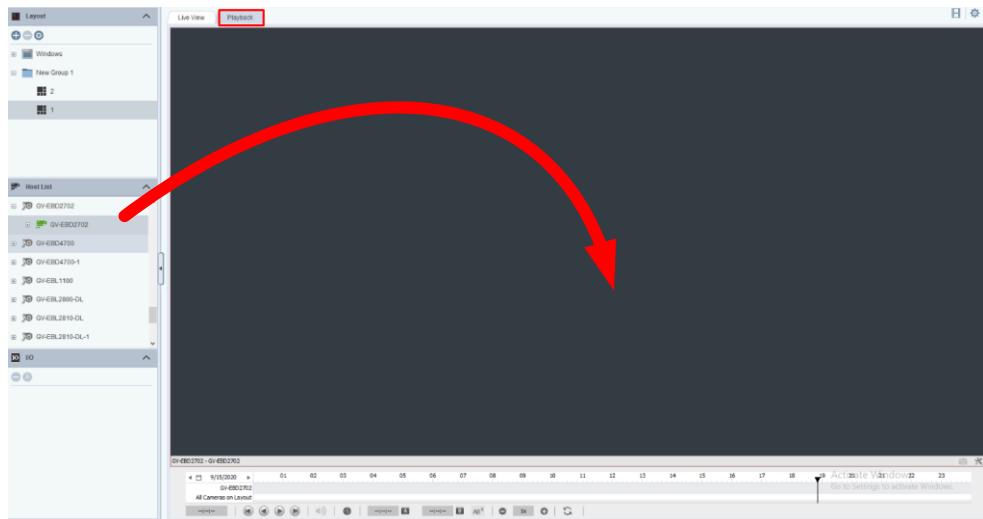


Figure 6-2

Tip: You can customize the number of channels and layout for playback using the Layout function on the left panel.

2. On the timeline, click the arrows or click on the date to select a date with recordings, which are highlighted in blue, from a pop-up calendar.



Figure 6-3

3. Click **Play**  to start playing.

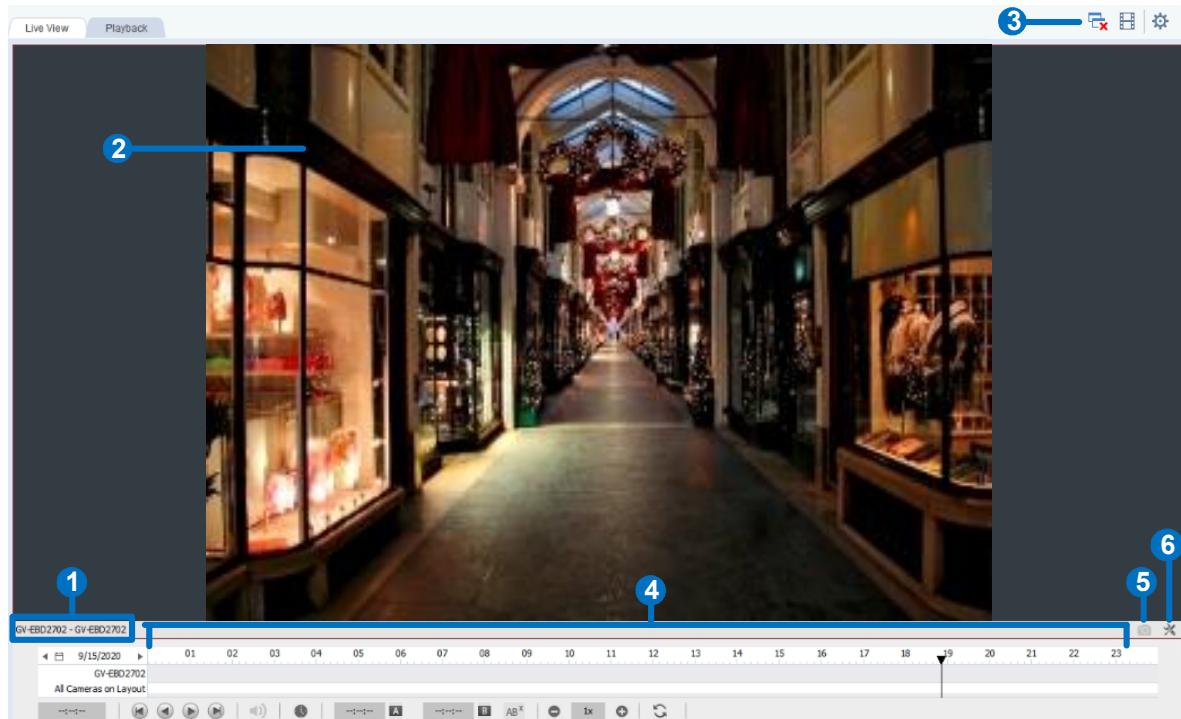


Figure 6-4

No.	Name	Descriptions
1.	Camera Name	Indicates the camera name.
2.	Camera View	Displays the playback video
		Accesses the following playback settings:
3.	Playback Menu	<ol style="list-style-type: none"> Close All Videos: Closes all recordings on the main screen. Search Object Index: Searches for Object Index of the recordings. Bookmark: Accesses all the bookmarks. To create a bookmark, click the Options button (No. 6, Figure 6-4) on a camera channel and select Add to Bookmark. Print: Prints the current camera view. Backup: Backs up recordings. Display Merging List: Displays the merging events of recorded videos. Play Setting: Adjusts the settings for playing back recordings. Display Options: Adjusts the display settings. Path for Cache: Displays the cache directory.
4.	Timeline Player	Indicates the time in which there are recordings and contains the playback controls, see <i>Timeline Player</i> later in this section.
5.	Snapshot	Takes a snapshot of the recording image.

6. Options

Accesses the following functions:

1. **Close Channel:** Closes the playback channel.
2. **Video Effects:** Applies video effects to the recordings.
3. **Keep Image Ratio:** Locks the camera view to its original ratio.
4. **Web POS Search:** Searches for recordings of POS events.

Timeline Player

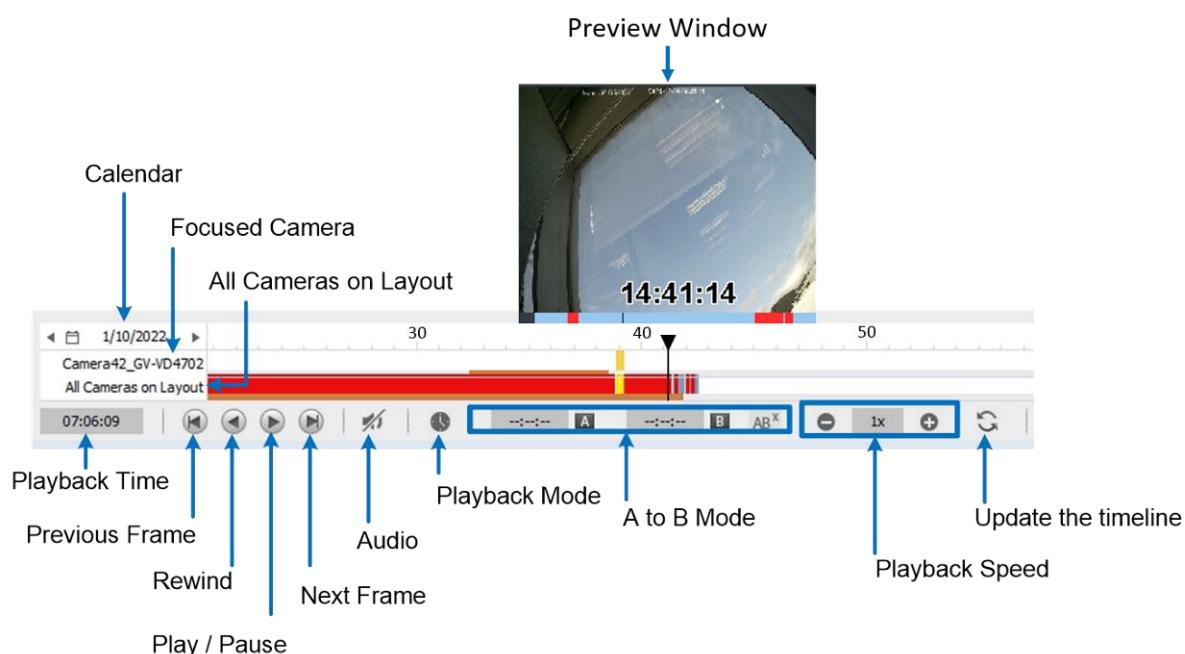


Figure 6-5

Colors in the timeline:

- **Red:** Motion / Intrusion / AI / IO event recordings
- **Blue:** Round-the-clock recordings
- **Orange:** Audio recordings
- **Yellow:** Recordings retrieved from the SD cards of cameras when reconnecting after a temporary disconnection.

Note: The Preview Window is only available for cameras connected from GV-Recording Server or GV-VMS.

Tip: Right-click on the timeline and drag a period of recording time to have a quick access to the following functions for **GV-VMS / NVR / Recording Server** hosts: Backup, Save as AVI, Object Search, Delete (recording files), Mark / Unmark Never Recycle.

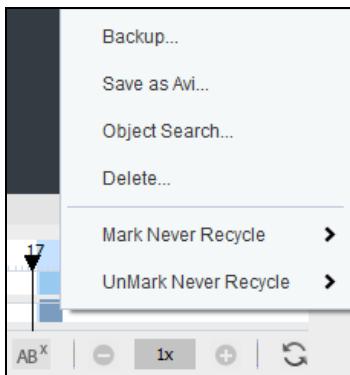


Figure 6-6

Playback Mode Option

By default, The Playback Window is set to play back video in the Real Time mode. To change playback modes, click  on the Timeline Player.

- **Frame by Frame (without audio):** Plays back video frame by frame without audio; however, playback can be delayed depending on the bandwidth and computer performance.
- **Real Time:** Plays back video on real time. Despite saving rendering time, this method drops frames.

A to B Playback Mode

When playing back videos, you can set a start and an end frame for auto-playing:

1. To set the start frame, click **A** and double-click a time on the timeline.
2. To set the end frame, click **B** and double-click a time on the timeline.
3. The start time and end time are displayed besides A and B as illustrated below.

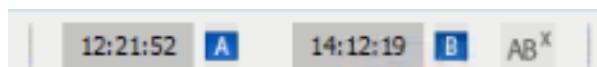


Figure 6-7

4. Click  to start playing back from frame A to B repeatedly.
5. To cancel this playback mode, click

Changing the Displayed Date on the Recording Timeline

You can directly drag the timeline to search and view recordings of a previous or next day with recorded events.

1. Scroll the mouse wheel forth to enlarge the timeline. The default display of the timeline is 24 hours.
2. Click and drag the timeline back and forth. The timeline jumps between the recording days.



Figure 6-8

Note:

1. Only the **Defog**, **Stabilizer**, **Fisheye** and **Download** features are supported in GV-SNVR and GV-NAS System.
2. The **Play Speed** option is not supported in GV-SNVR.
3. The **Heat Map** feature is only supported for GV-VMS V15.10.1.0 or later.

Chapter 7 Remote VMS / NVR

The remote VMS / NVR service allows GV-Edge Recording Manager to access client GV-VMS / NVR and configure their settings remotely. Two features are accessible for remote VMS / NVR: Remote Desktop and Data Event Query.

7.1 Remote Desktop

The remote desktop function allows the GV-Edge Recording Manager operator to access client GV-VMS / NVR and remotely control the client's desktop. GV-Edge Recording Manager has full control of the client's monitoring system and its Windows operation system.

7.1.1 Running Remote Desktop

1. Enable **Remote Desktop Service** (**Toolbar > Network**) in client GV-VMS / NVR.
2. In GV-Edge Recording Manager, right-click a VMS / NVR on the Host List and select **Remote Desktop**.

When the connection is established, the client's desktop will appear in a separate window on the GV-Edge Recording Manager's desktop. If the client is using multiple monitors, click the **Monitor** icon  to switch monitors.

Note: The data port is set to 5611 by default. To ensure a successful connection, make sure the port is not occupied.

7.1.2 Transferring File

The File Transfer function is for transferring files easily between GV-Edge Recording Manager and the client.

1. Run **Remote Desktop**.
2. Click the **File Transfer** button  on the upper left corner of the Remote Desktop. The File Transfer Service dialog box appears.
3. Select the desired file to transfer to **Local** (GV-Edge Recording Manager) or **Remote** (the client).

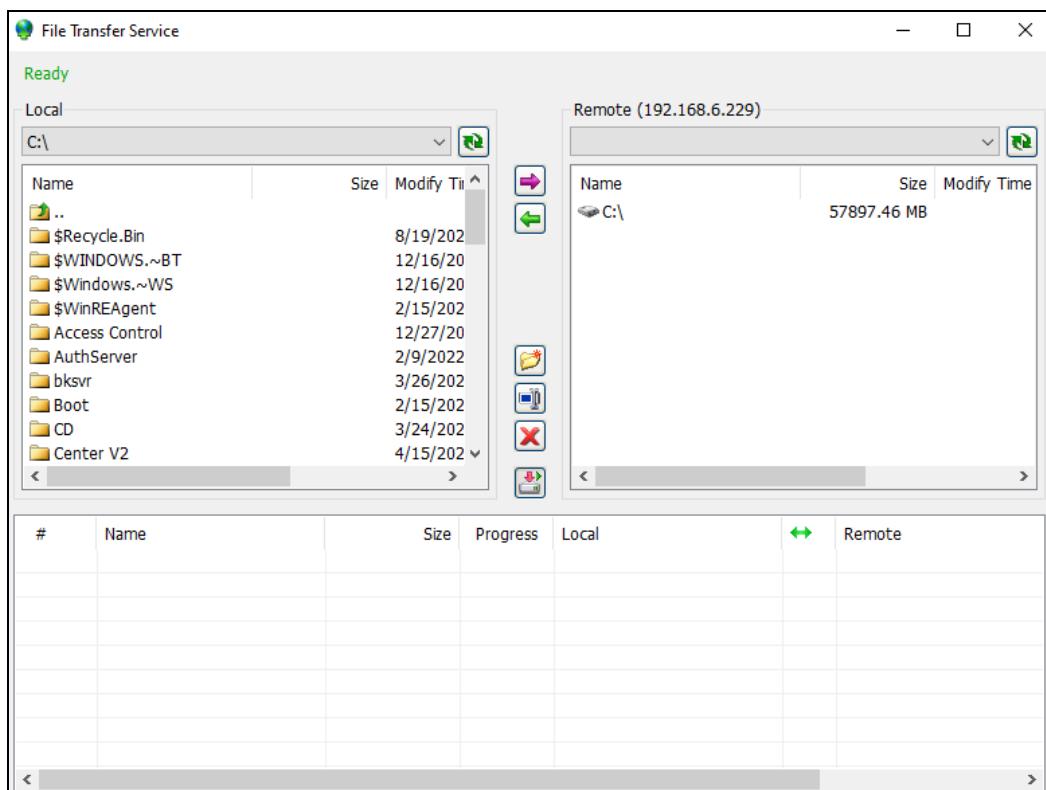


Figure 7-1

Note: The size of one single file for transfer cannot exceed 4 GB, but there is no size limit for multiple files.

7.2 Data Event Query

You can query events from client GV-VMS / NVR by defining search criteria. The search results can be displayed in text or in a graph. You can also export your search results in the form of text, html or excel.

1. Enable **Webcam Server** in GV-VMS / NVR.
2. In GV-Edge Recording Manager, right-click a VMS / NVR on the Host List and select **Event Data Query**.
3. In the Event List Query page, you can define search criteria, and click the Video icon for event playback if available.

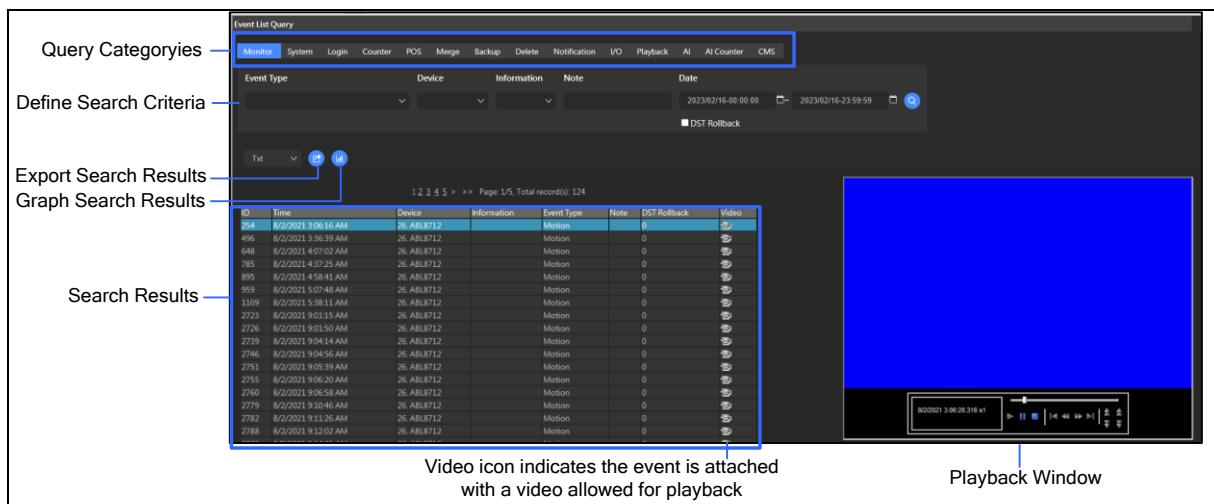


Figure 7-2

Chapter 8 System Configuration

This chapter describes GV-Edge Recording Manager's startup mode, windows and dialog box layout and port settings.

8.1 General Settings

On the main screen, click **Configure** (No. 5, Figure 1-2) > **Setup** > **System Configure**. This window appears. The **General** tab contains the settings on startup, windows layout and interface style.

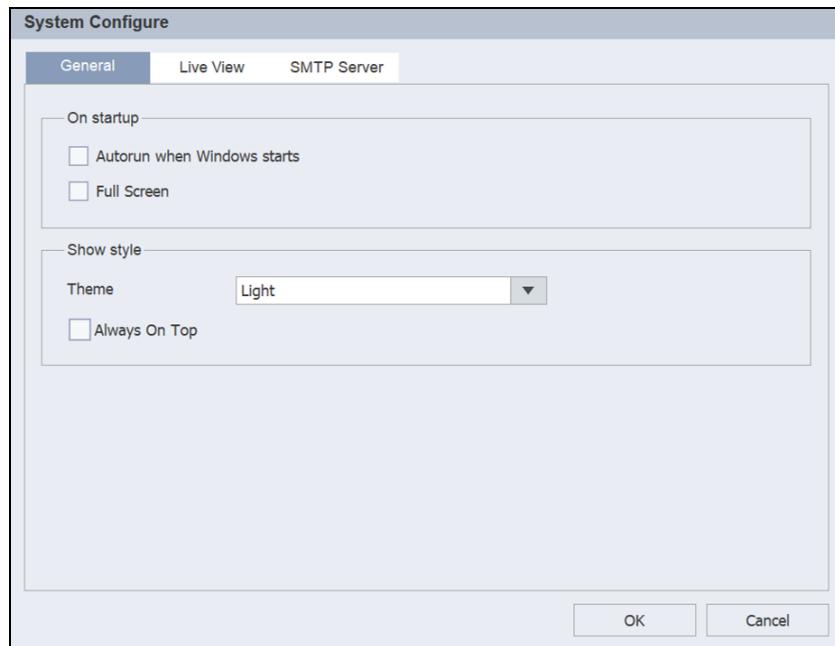


Figure 8-1

[Startup]

- **Autorun When Windows Starts:** GV-Edge Recording Manager starts up when Windows is started.

[Layout]

- **Always On Top:** Each newly opened window or dialog box will stay on the top of other windows or dialog boxes.
- **Show Style:** Select a theme color for the interface.

8.2 Live View Settings

On the main screen, click **Configure** (No. 5, Figure 1-2) > **Setup** > **System Configure** > **Live View** for other live view settings, as below.

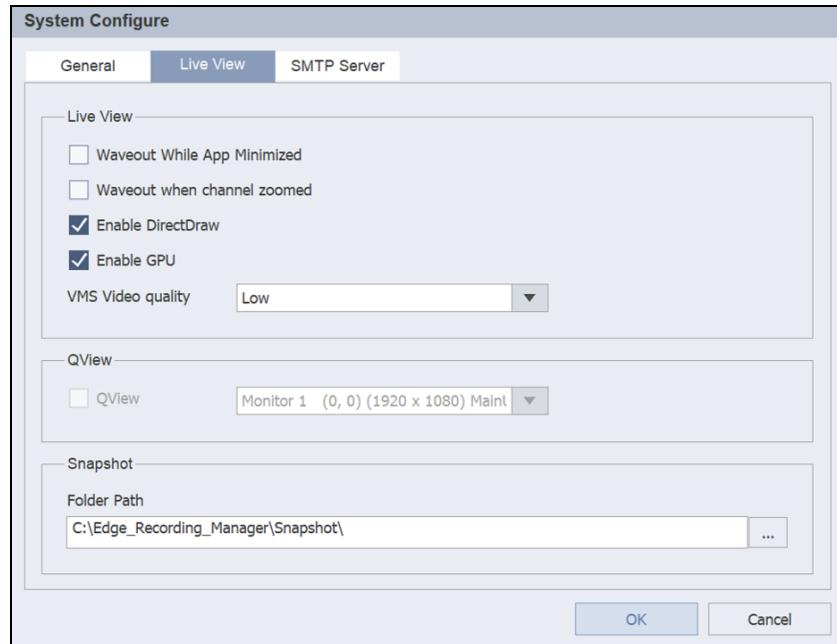


Figure 8-2

- **Wave out While App Minimized:** Automatically receives live audio from the surveillance site when the GV-Edge Recording Manager app is minimized.
- **Wave out When Channel Zoomed:** Automatically receives live audio from the surveillance site when zooming in on its live view, when available.
- **Enable DirectDraw:** Enhances the coloring to have more vivid and saturated images. Some VGA cards might not support DirectDraw and can produce distorted frames. In this case, disable the feature.
- **Enable GPU:** Enabled by default, uses GPU decoding for image decoding to reduce CPU loading.
- **VMS Video Quality:** Selects the quality of the camera images from VMS hosts. Higher the quality, the more network bitrate required.
- **QView:** Projects a live view display onto another monitor when you have at least two monitors connected to the PC, see *4.8 Enabling QView Display*.

8.3 SMTP Settings

On the main screen, click **Configure** (No. 5, Figure 1-2) > **Setup** > **System Configure** > **SMTP Server**, and then click **Edit** to set up the outgoing email server, as below.

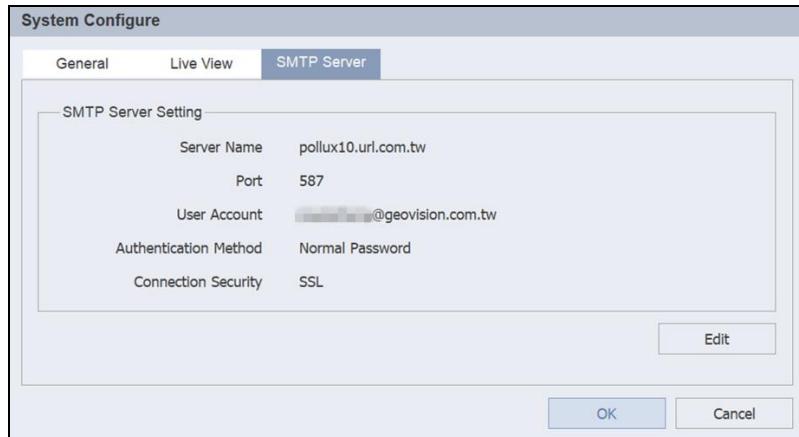


Figure 8-3

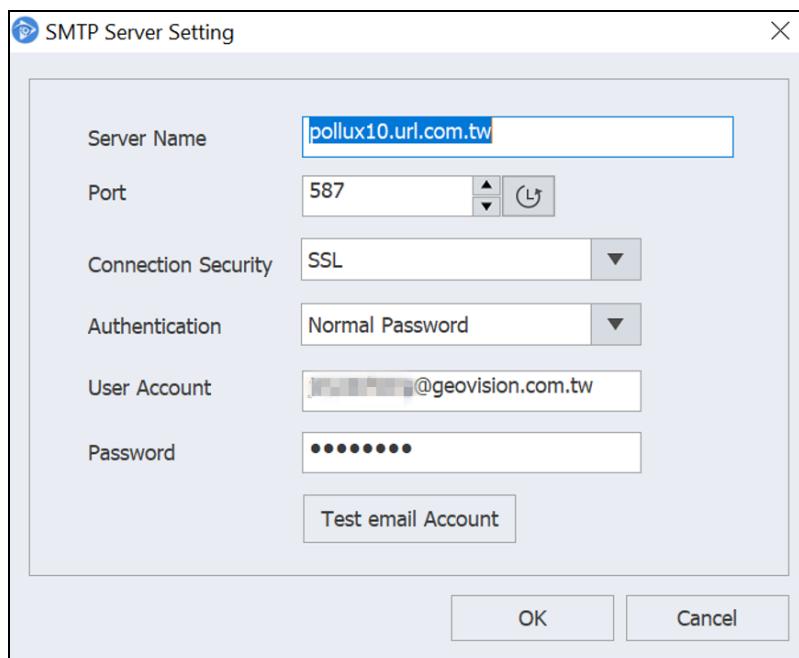


Figure 8-4

You can configure the outgoing email server.

1. Obtain the SMTP server hostname and port number from your email provider.
2. Select **SSL** or **TLS** if the server requires a secure connection.
3. Enable authentication and type your account name and password if login credentials are needed.
4. Click the **Test Mail** button to send a test email and verify the setup. If the email fails to send, review and correct the above settings.

8.4 Exporting and Importing Settings

8.4.1 Exporting Settings

You can back up the settings in the Host List (Figure 1-3) and live view window (Figure 4-1).

1. On the main window, click **Configure** (No. 5, Figure 1-2) > **Export Data**. This dialog box appears.

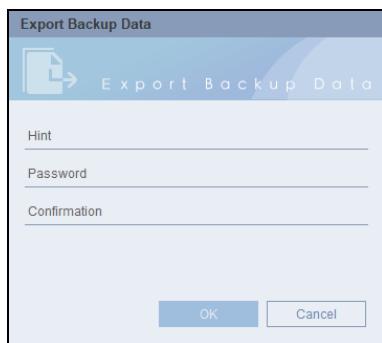


Figure 8-5

2. Set up a password for the exported settings. This password is required when the settings are being imported.
3. Click **OK** to confirm. Select a storage location and modify the file name if necessary.
4. Click **Save**.

8.4.2 Importing Settings

You can import the previously exported settings.

1. On the main window, click **Configure** (No. 5, Figure 1-2) > **Import Data**. A notification message appears.
2. Click **Yes** to confirm. Locate a previously backed-up file and click **Open**. The password request appears.
3. Type the password and click **OK**.

8.5 Fast Key Settings

On the main screen, click **Configure** (No. 5, Figure 1-2) > **Setup** > **Fast Key Config** to configure hotkeys, as below. The **General** tab is for the Main UI, **PTZ** for Live View, and **Playback** for playback.

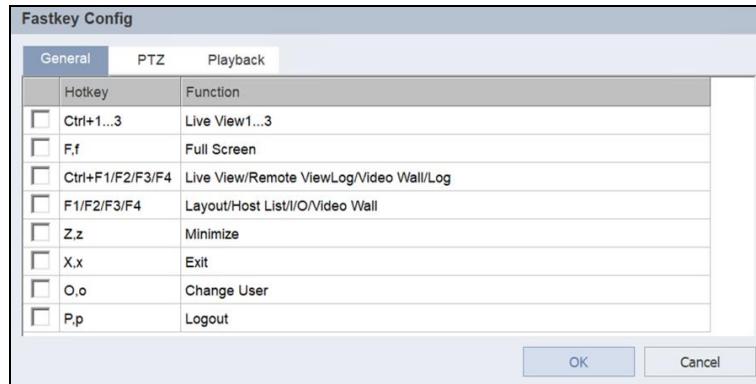


Figure 8-6

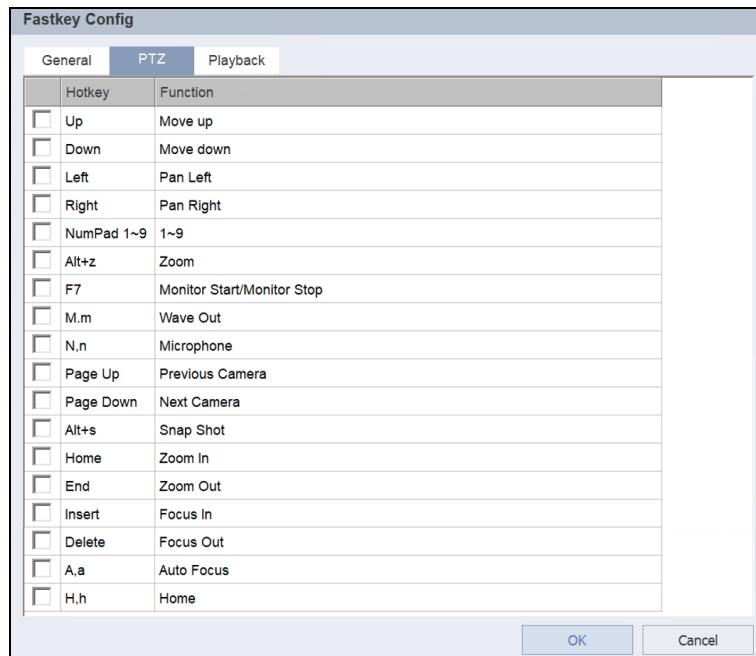


Figure 8-7

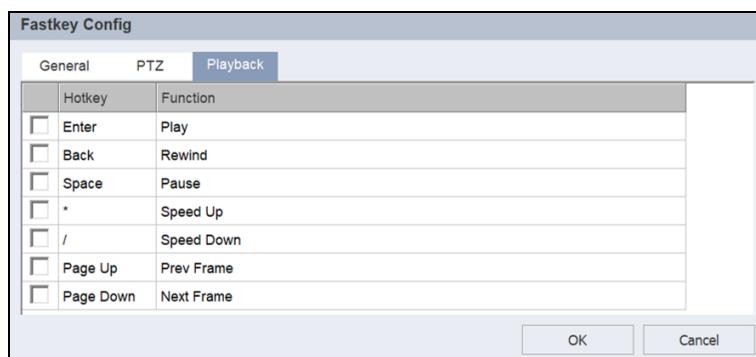


Figure 8-8

Chapter 9 Account Management

This chapter covers account settings in GV-Edge Recording Manager, including account creation, user privilege management, and security configuration.

9.1 User

To access account-related settings, click **Account Settings** on the main screen (No. 1, Figure 1-2) > **Account Setup**. The Account Management dialog box appears. The **User** tab allows editing login credentials, creating user accounts, and managing user privileges.

9.1.1 Editing Login Credentials

See 2.2 *Login Account Settings* for details on changing the username and password of the account, and enabling automatic login.

9.1.2 Creating User Accounts

You can create user accounts.

1. Click the  icon at the left to create an Administrator, Power User, or User account.
See 9.1.3 Managing User Privileges for the differences between the user types.

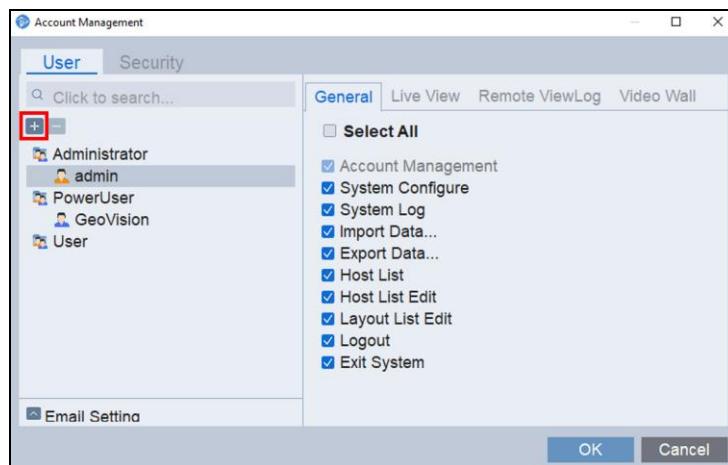


Figure 9-1

2. Type the username and password, confirm the password, and type the password hint.



Figure 9-2

Note: For security, your new password must be at least 8 characters long and include characters from at least 3 of the following 4 categories: uppercase letters (A-Z), lowercase letters (a-z), digits (0-9), and non-alphanumeric characters (~!@#\$%^&*()_=+[]{};':",./>?). Your username must not be used as a password.

3. To enable users to receive a reset email if they forget their password, select the user, expand the **Email Setting** option at the bottom left, and type the user's email address. See *8.3 SMTP Settings* for details on setting up the outgoing email server.

9.1.3 Managing User Privileges

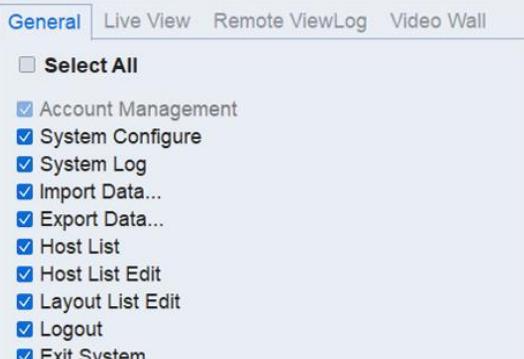
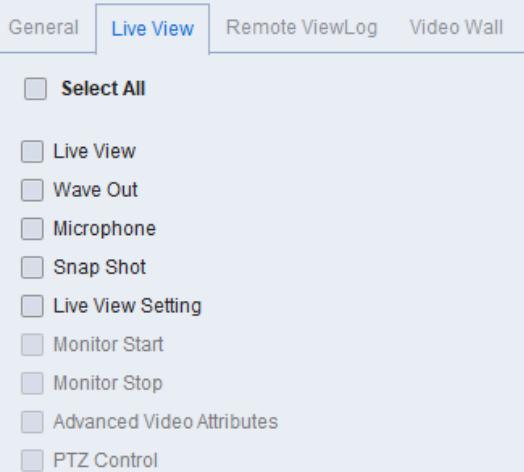
Different user types have varying initial access levels, which can be adjusted by Administrator account users as needed.

The following user types are available.

1. **Administrator:** Full access to all features by default.
2. **Power User:** No access to Account Management, which cannot be enabled. Initially restricted from System Log, Import Data, Export Data, Instant Play, Delete Remote ViewLog Data, Backup/Export Remote ViewLog Data, Remote Control, and Control Layout — all configurable later.
3. **User:** No access to Account Management, which cannot be enabled. Initially restricted from all features Power Users cannot access, and also restricted from System Configure, Host List Edit, Layout List Edit, Live View, Wave Out, Microphone, Snap Shot, Live View Setting, Monitor Start / Stop, Advanced Video Attributes, PTZ Control, Remote ViewLog, Edit Hosts, and Edit Layouts — all configurable later.

Note: Live View Setting manages access to all controls in the Live View window. These privileges – Monitor Start / Stop, Advanced Video Attributes, and PTZ Control – become available to Administrator account users in Account Management only after Live View Setting is enabled.

Administrator account users can adjust user privileges across 4 tabs: General, Live View, Remote ViewLog, and Video Wall.

<p>General:</p>  <p>General Live View Remote ViewLog Video Wall</p> <p><input type="checkbox"/> Select All</p> <p><input checked="" type="checkbox"/> Account Management</p> <p><input checked="" type="checkbox"/> System Configure</p> <p><input checked="" type="checkbox"/> System Log</p> <p><input checked="" type="checkbox"/> Import Data...</p> <p><input checked="" type="checkbox"/> Export Data...</p> <p><input checked="" type="checkbox"/> Host List</p> <p><input checked="" type="checkbox"/> Host List Edit</p> <p><input checked="" type="checkbox"/> Layout List Edit</p> <p><input checked="" type="checkbox"/> Logout</p> <p><input checked="" type="checkbox"/> Exit System</p> <p>Figure 9-3</p>	<p>Live View:</p>  <p>General Live View Remote ViewLog Video Wall</p> <p><input type="checkbox"/> Select All</p> <p><input type="checkbox"/> Live View</p> <p><input type="checkbox"/> Wave Out</p> <p><input type="checkbox"/> Microphone</p> <p><input type="checkbox"/> Snap Shot</p> <p><input type="checkbox"/> Live View Setting</p> <p><input type="checkbox"/> Monitor Start</p> <p><input type="checkbox"/> Monitor Stop</p> <p><input type="checkbox"/> Advanced Video Attributes</p> <p><input type="checkbox"/> PTZ Control</p> <p>Figure 9-4</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Remote ViewLog:

General Live View **Remote ViewLog** Video Wall

Select All

Instant Play
 Remote ViewLog
 Delete Remote ViewLog Data
 Backup/Export Remote ViewLog Data

Figure 9-5**Video Wall:**

General Live View Remote ViewLog **Video Wall**

Select All

Edit Hosts
 Remote Control
 Edit Layouts
 Control Layout

Figure 9-6

9.2 Security

To access account-related settings, click **Account Settings** on the main screen (No. 1, Figure 1-2) > **Account Setup** > **Security**. The **Security** tab allows configuring security settings.

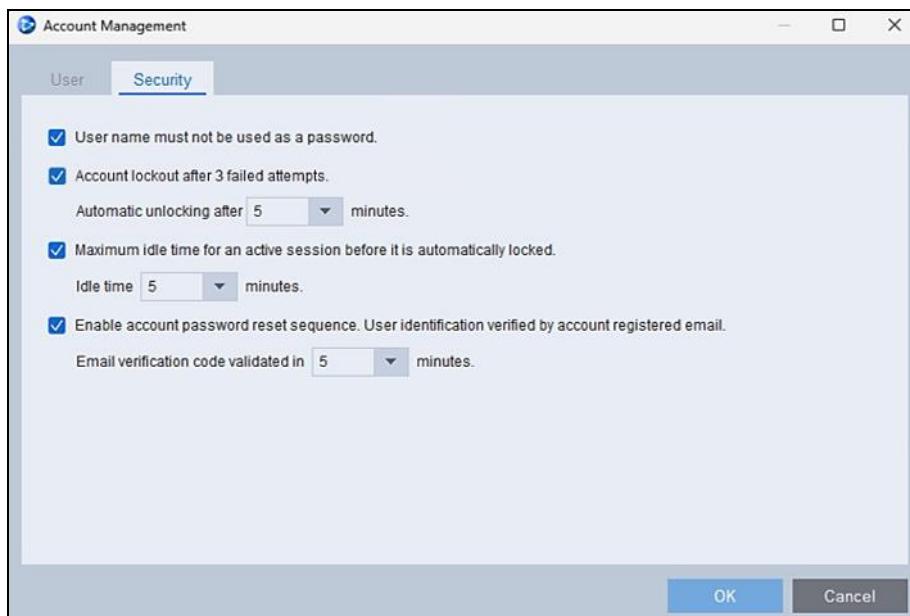


Figure 9-7

- **Disallow Username as Password:** The username cannot be used as a password.
- **Login Attempt Lockout:** The account will automatically lock after 3 failed attempts. Define the lockout duration as 5, 15, or 30 minutes. The account will automatically unlock after the defined duration.
- **Session Idle Lock:** Specifies the maximum idle time for an active session before it is automatically locked. Options include 1, 5, 10, or 15 minutes of inactivity.
- **Enable Password Reset Sequence:** Enables the password reset sequence. User identification is verified via the account's registered email. The email verification code is valid for 1, 5, 10, 15, or 30 minutes.

9.3 Account Login After Forgotten Password

To enable users to regain access after forgetting their passwords, users must configure the outgoing email server, enter the recipient email address, enable password reset sequence, and follow the password reset sequence.

Step 1: Configure Outgoing Email Server:

See 8.3 *SMTP Settings* for details on configuring the outgoing email server.

Step 2: Enter Recipient Email Address

See Step 3, 9.1.2 *Creating User Accounts* for details on entering the recipient's email address to enable password reset verification emails.

Step 3: Enable Password Reset Sequence

See Function 4, 9.2 Security for details on enabling the account password reset sequence.

Step 4: Regain Access After Forgetting Password

To regain access to GV-Edge Recording Manager after forgetting your password, follow the steps below.

1. On the Login page, type the username and click **Forgot Password**.

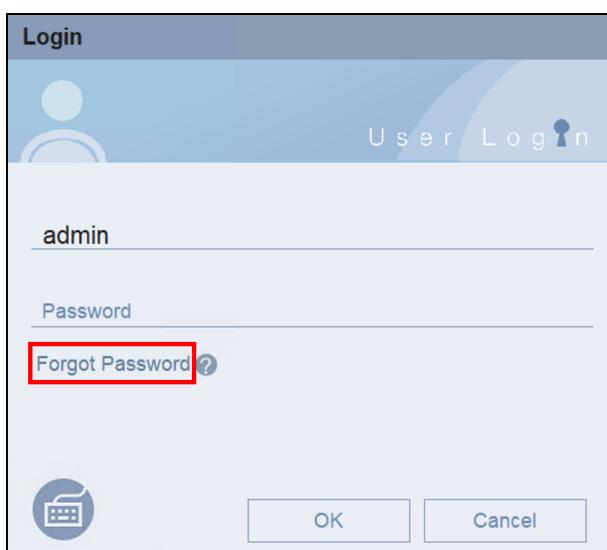


Figure 9-8

9 Account Management (Windows Version)

2. In the **Email Verification** dialog box, the previously registered email address appears. Click **Send**.

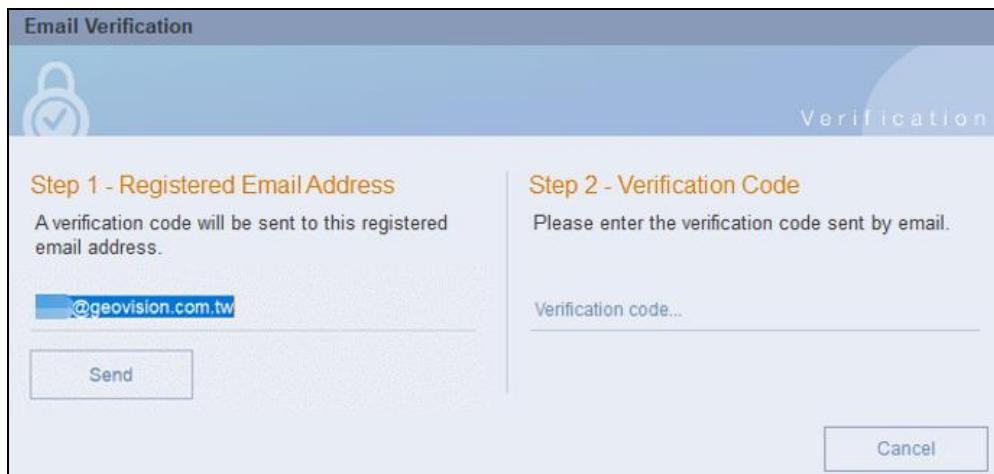


Figure 9-9

3. Check your email to see the verification code.



Figure 9-10

4. In the Email Verification dialog box, type the Verification code. Optionally, click **Change Password** to reset the password. Click **Next**, and you can successfully log in.

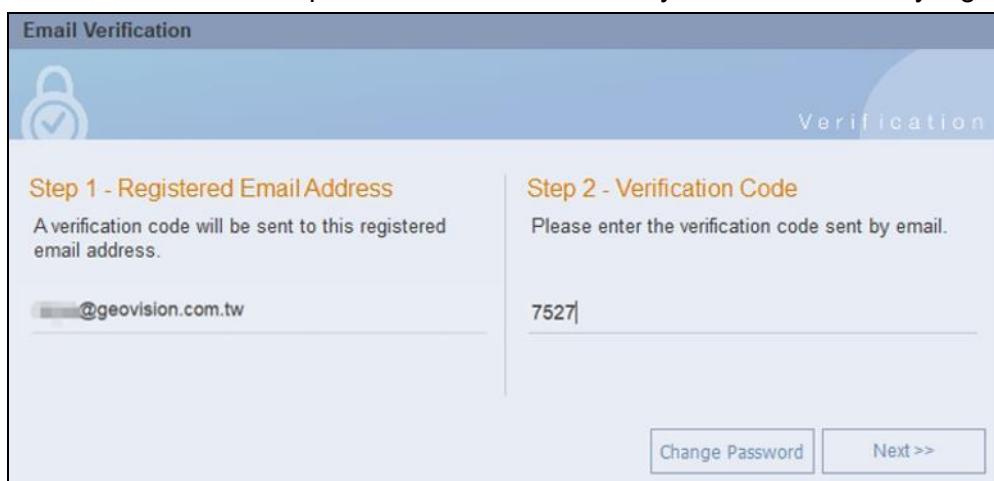


Figure 9-11

Chapter 10 System Log

The System Log provides historical information that helps you track events.

Note: A paid license (64 / 96 / 128-channel) is required for using the System Log function.

10.1 Setting up System Log

In the System Log Settings, you can enable System Log, specify the number of days to keep the logs for, and define the file path. On the main screen, click **Configure** (No. 5, Figure 1-2) > **Setup > System Configure > System Log** for system log settings, as below.

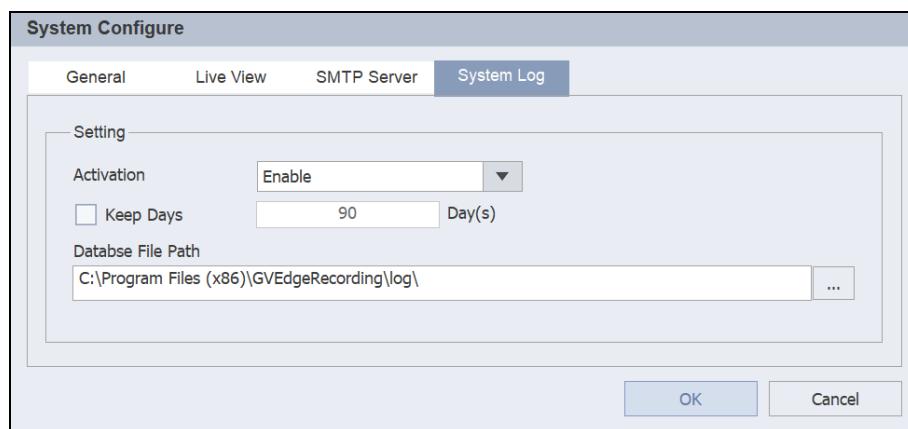
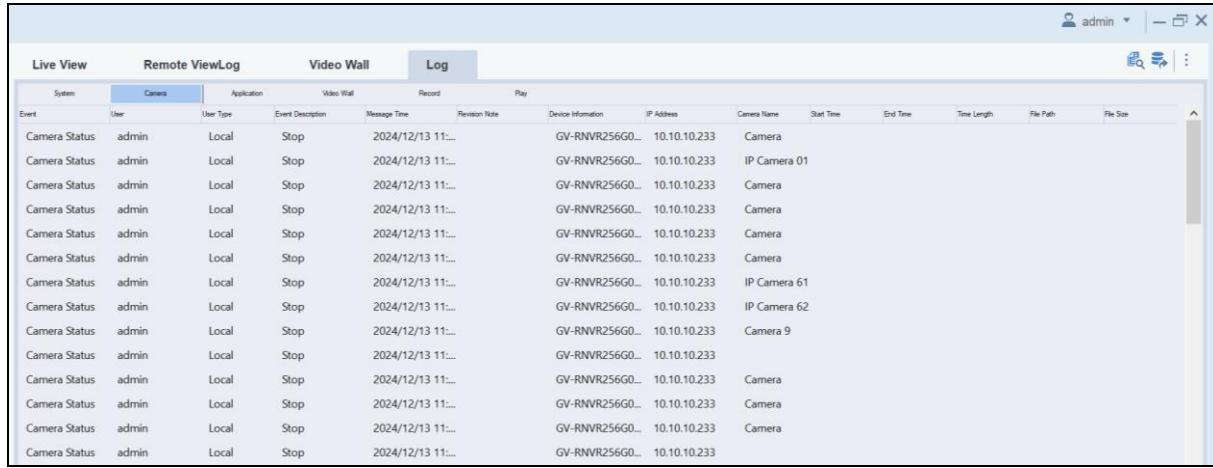


Figure 10-1

- **Activation:** Enable to view the System Log.
- **Keep Days:** Set the number of days to keep the logs.
- **Database File Path:** Specify a storage path for system logs. The available free space of the storage path will be displayed.

10.2 Viewing System Log

To view the System Log, users must first enable System Log. See *10.1 Setting up System Log* for details. After activation, return to the main screen, and select **Log** at the top, as below.



The screenshot shows a software interface with a top navigation bar containing 'Live View', 'Remote ViewLog', 'Video Wall', and 'Log'. The 'Log' tab is selected, highlighted in blue. Below the navigation bar is a table with the following columns: Event, System, User, User Type, Event Description, Message Time, Revision Note, Device Information, IP Address, Camera Name, Start Time, End Time, Time Length, File Path, and File Size. The table contains 15 rows of data, all of which are 'Camera Status' events for 'admin' user, 'Local' type, and 'Stop' description. The 'Message Time' for all entries is '2024/12/13 11:...'. The 'Device Information' column shows 'GV-RNVR256G0...' and the 'IP Address' column shows '10.10.10.233'. The 'Camera Name' column lists 'Camera', 'IP Camera 01', 'Camera', 'Camera', 'IP Camera 61', 'IP Camera 62', 'Camera 9', 'Camera', 'Camera', 'Camera', and 'Camera'. The 'Start Time' and 'End Time' columns are empty. The 'Time Length' column shows '00:00:00'. The 'File Path' and 'File Size' columns are also empty.

Event	System	User	User Type	Event Description	Message Time	Revision Note	Device Information	IP Address	Camera Name	Start Time	End Time	Time Length	File Path	File Size
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	IP Camera 01					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	IP Camera 61					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	IP Camera 62					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera 9					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					
Camera Status	admin	Local	Stop	2024/12/13 11:...			GV-RNVR256G0...	10.10.10.233	Camera					

Figure 10-2

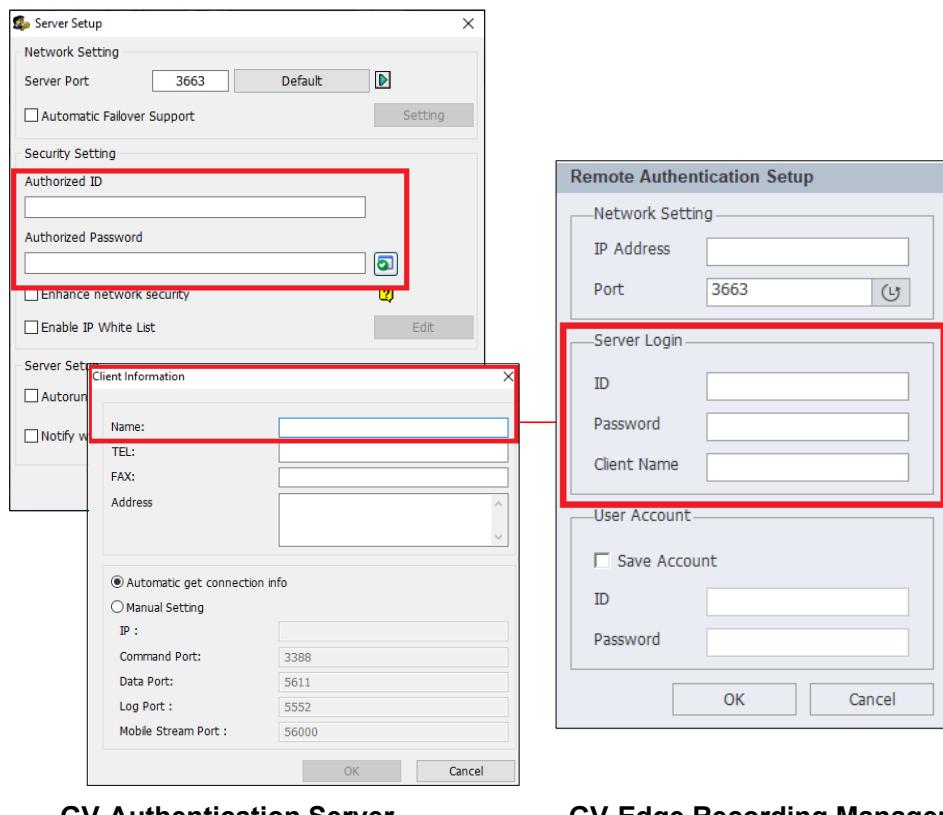
Chapter 11 Authentication Server

GV-Edge Recording Manager can integrate with the Authentication Server to access a specified group of GV-DVR / NVR / VMS hosts and thus the connected cameras of these hosts, through an Authentication user account.

For details on the settings of Authentication Server, see [9.4 Authentication Server](#) in [GV-VMS User's Manual V18](#).

To access the feature, follow the steps below:

1. In the Host List, right-click **Authentication Server** > **Add Authentication Server**. The Remote Authentication Setup dialog box appears.
2. Under **Network Setting**, type the IP address of the Authentication Server.
3. Under **Server Login**, type the Authorized ID, Authorized Password, Client Name of the Authentication Server.



GV-Authentication Server

GV-Edge Recording Manager

Figure 11-1

11 Authentication Server (Windows Version)

- Under **User Account**, type the Account ID and Password created on the Authentication Server. Optionally select **Save Account** to enable GV-Edge Recording Manager to memorize the ID and Password of the Authentication Server.

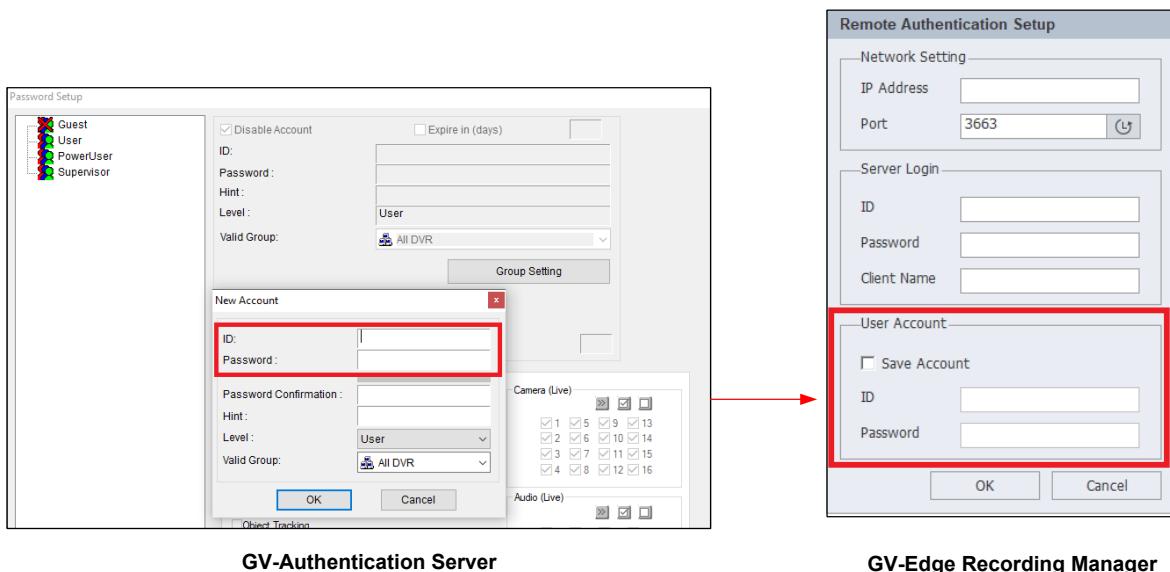


Figure 11-2

- Click **OK**. This dialog box appears.

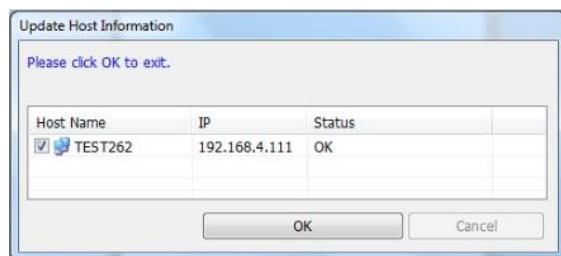


Figure 11-3

- Click **OK**. A list of hosts assigned to the user account created on the Authentication Server will be displayed in the Host List.

Note: GV-Edge Recording Manager V2.1.0 or later supports multiple GV-Authentication Server connections at a time.

Appendix

PTZ Control Using GV-Joystick

A paid license (64 / 96 / 128-channel) is required for using GV-Joystick. The following program must be running in the background when using GV-Joystick for PTZ for control. For details on GV-Joystick operations, see [GV-Joystick User's Manual](#).

1. On the main screen, click **Configure > Joystick**. This dialog box appears

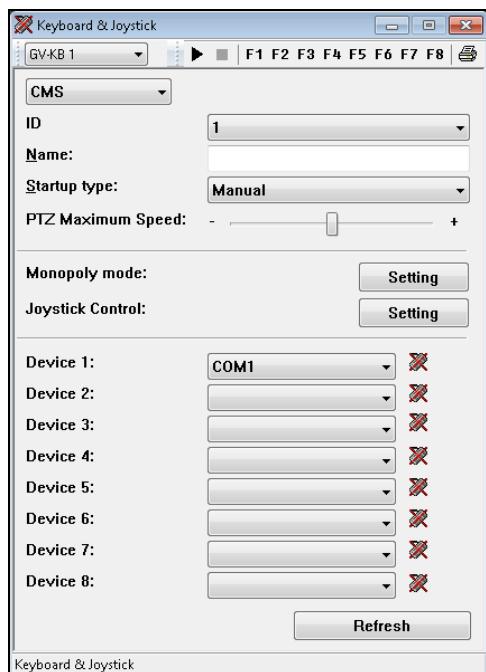


Figure A

2. In the Device field, select **GeoVision Joystick** to connect to GV-Joystick.
3. Click the **Start Service** button ► and then you can use GV-Joystick to control the PTZ camera.
4. If more than one GV-Joystick is connected, repeat Step 2 to set up and use another GV-Joystick.

Mac Version



Chapter 12 Overview

12.1 Main Window

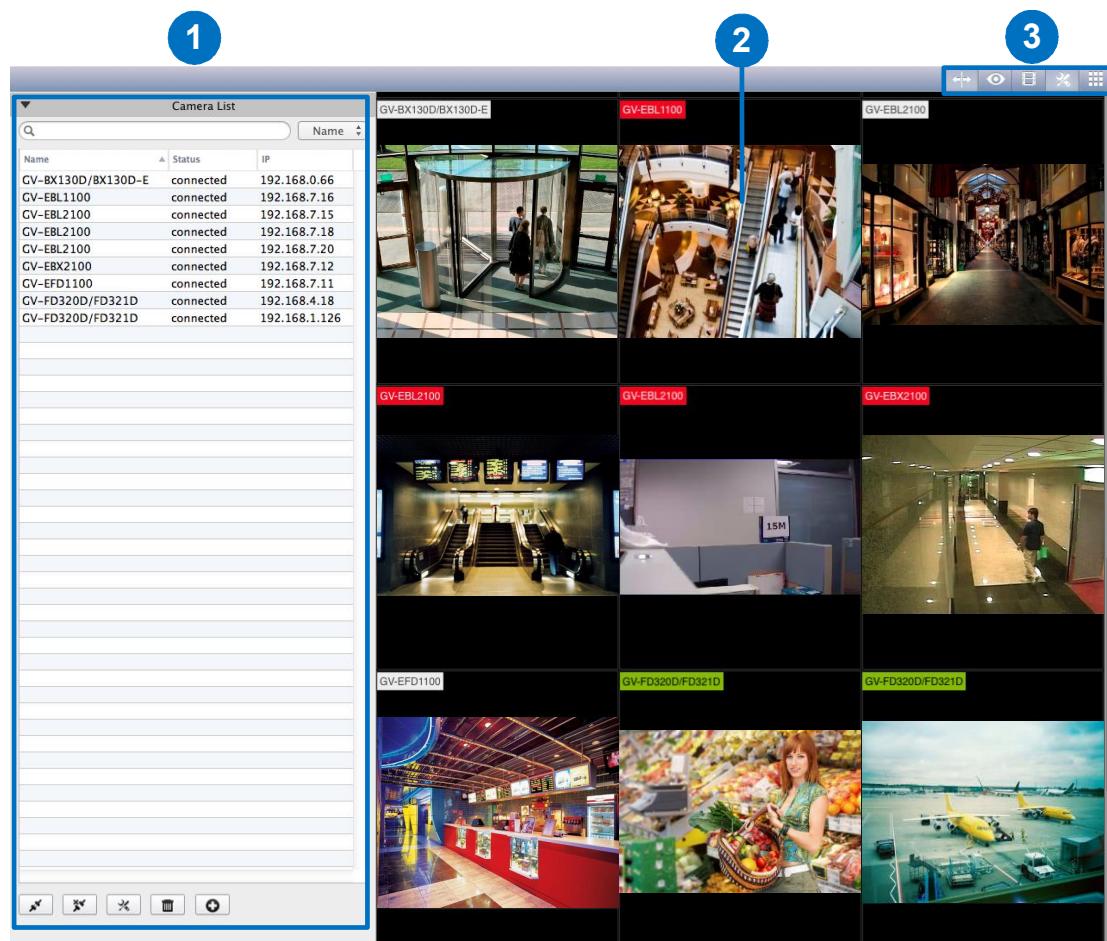


Figure 12-1

By default, there are three areas on the main screen:

No.	Name	Description
1	Camera List	Contains the hosts added to GV-Edge Recording Manager. For details, see 12.2 The Camera List .
2	Live View Window	Displays live views from hosts. For details, see 15.1 The Live View Window .
3	Toolbar	Contains buttons to quickly access system settings, functions and main screen windows. For details, see 12.3 The Toolbar .

12.2 The Camera List

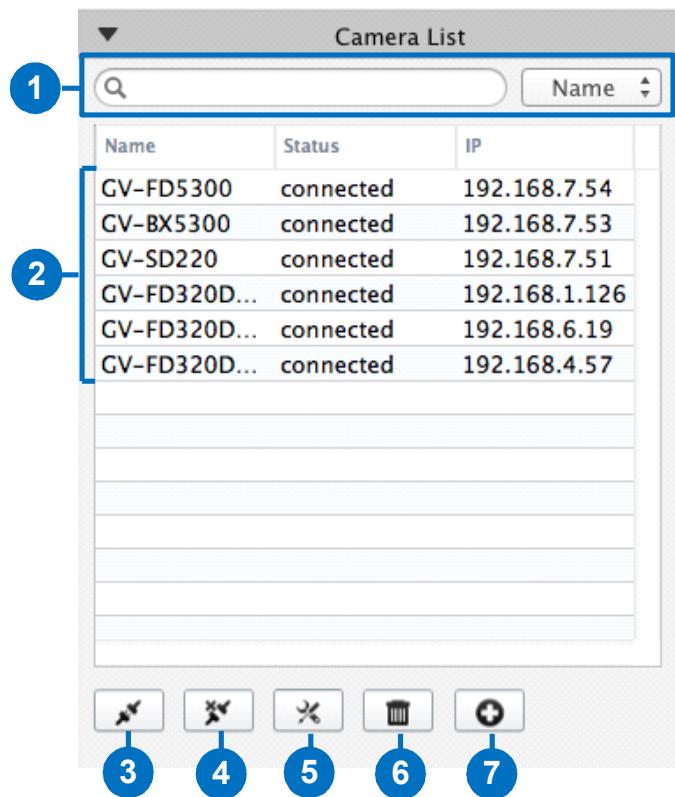


Figure 12-2

No.	Name	Description
1	Search	Search the hosts are under the same LAN with GV-Edge Recording Manager. Select Name or IP using the drop-down list and then type key words to search by host name or IP address.
2	Host Information	Displays the host information including host name, status and IP address. Click the header to sort the devices according to name, status or IP address.
3	Connect	Displays the live view of the selected host.
4	Disconnect	Removes the live view of the selected host.
5	Host Settings	Modifies host settings including the host name, IP address, username, password and connection ports.
6	Delete Host	Deletes the selected host from the Camera List.
7	Add Host	Adds a host. For details, see <i>13.2.2 Manually Adding a Host</i> .

12.3 The Toolbar



Figure 12-3

No.	Name	Description
1	Controller	Click to extend the Live View Window (No. 2, Figure 12-1) to full screen.
2	Event List	Displays events with event type, device name and detection time. For details, see <i>15.5 Viewing Event List</i> .
3	Remote Playback	Click to access the recording calendar which notes dates in which recordings are done. For details, see <i>Chapter 17 Playback</i> .
4	Setup	Click to access the Camera List for host management. For details, see <i>12.2 The Camera List</i> .
5	Layout	Click to switch the live view division. You can choose among 1, 4, 6, 8, 9, 10, 13, 16, 25, 36 and 64 (with In-App Purchase) channels.

Chapter 13 Getting Started

13.1 Installing GV-Edge Recording Manager

Follow the steps below to install GV-Edge Recording Manager from the GeoVision Website.

1. Go to the **Download** page of GeoVision Website:
[http://www.geovision.com.tw/download/product/GV-Edge%20Recording%20Manager%20\(Mac%20Version\)](http://www.geovision.com.tw/download/product/GV-Edge%20Recording%20Manager%20(Mac%20Version))
2. Click the **Link** icon  of **GV-Edge Recording Manager (Mac)**.
3. Click the **View in Mac App Store**  tab. The browser redirects the content to the Mac App Store.
4. Click the **Install** button .

13.2 Adding Hosts

At first startup, GV-Edge Recording Manager automatically searches and displays GV-IP Devices and servers installed with GeoVision software that are under the same LAN. To add multiple hosts, follow the instruction in *13.2.1 Automatically Adding Multiple Hosts*. To add a single host, follow the instruction in *13.2.2 Manually Adding a Host*.

13.2.1 Automatically Adding Hosts

1. For the first startup, you will be prompted to search GV-IP Devices and servers installed with GeoVision software that are under the same LAN with GV-Edge Recording Manager. Click **Start** to search.

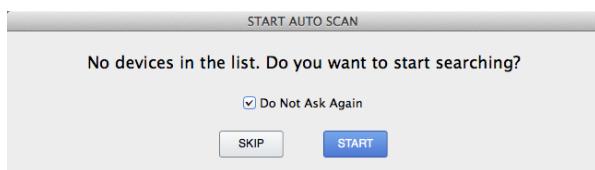


Figure 13-1

2. Click **Start** and click  from the Camera List. The Add Camera window appears and the searched devices are displayed.
3. To refresh the list, click . GV-Edge Recording Manager starts browsing for GV-IP Devices under the same LAN and the found devices are immediately listed.

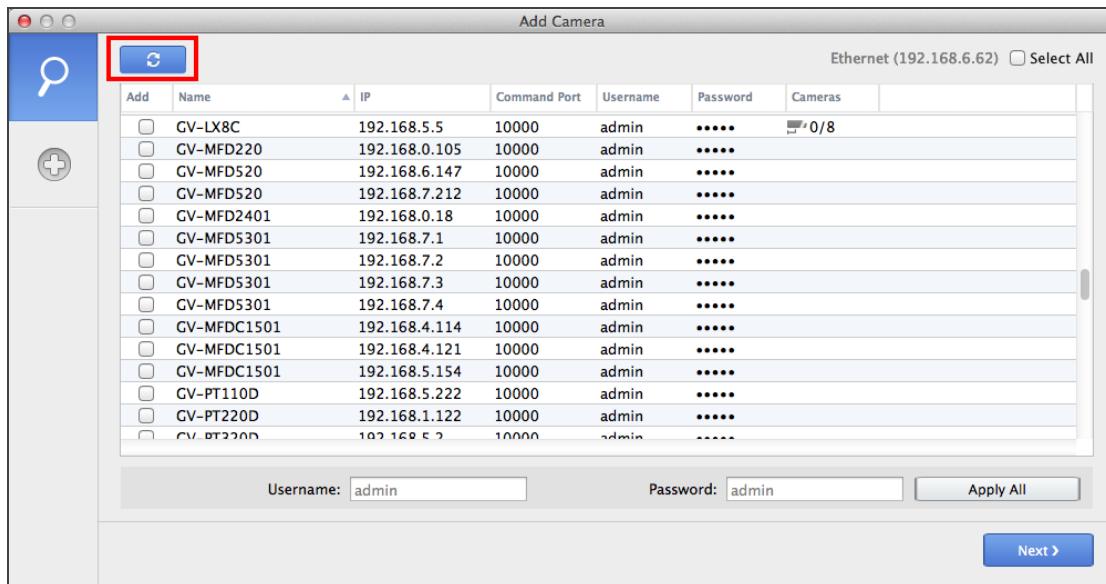


Figure 13-2

4. To add multiple hosts:

- Select hosts from the Add Camera window or click **Select All** to add all the hosts.
- Type the username and Password and click **Apply All** to log in the selected hosts using the username and password or type the Username and Password for each camera. Click **Next**.

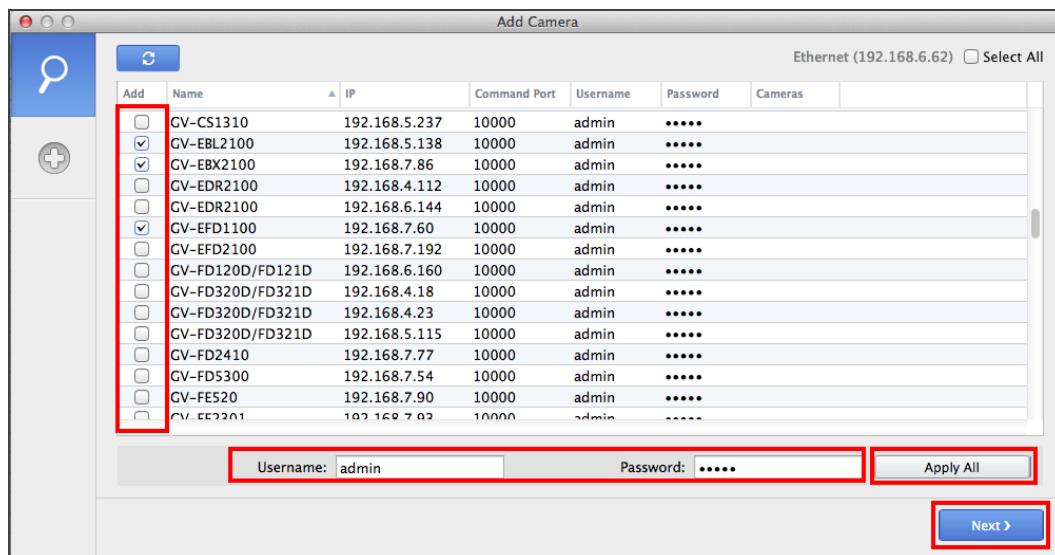


Figure 13-3

C. The selected hosts are shown.

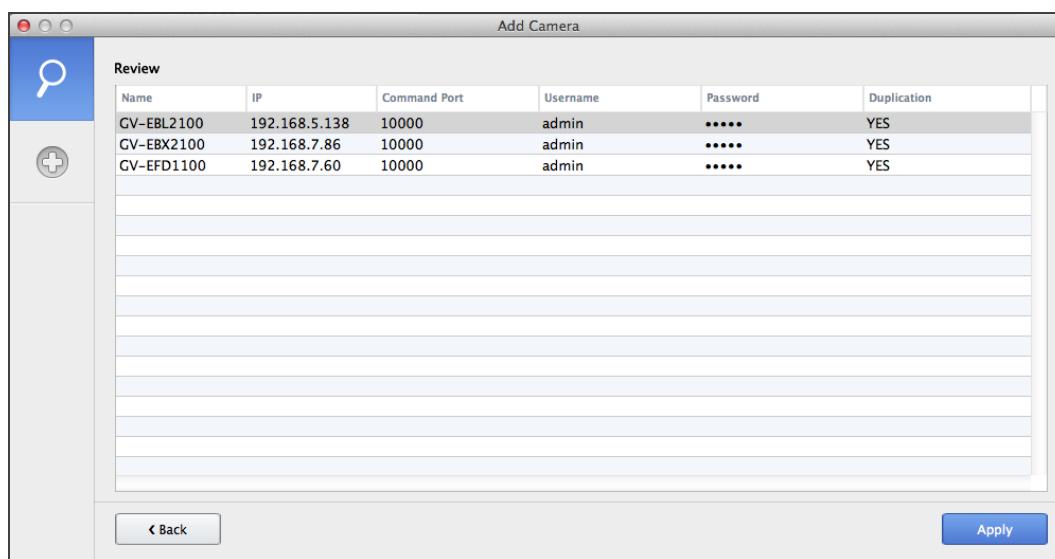


Figure 13-4

D. To remove unwanted hosts, click **Back** to return to the previous step to unselect them. To add these hosts to Camera List, click **Apply**. They are immediately added.

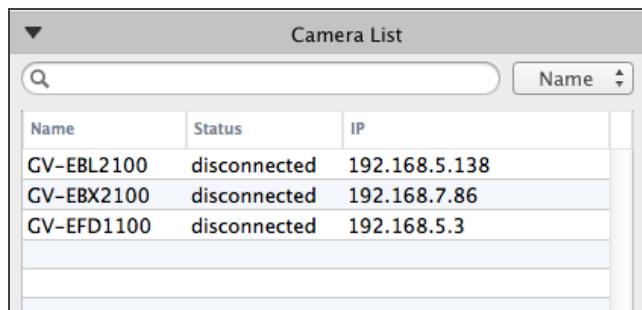


Figure 13-5

5. You can display live view using any of the following method:

- Double-click a host
- Drag and drop a host to the live view
- Select a host on the Camera List and click 

Note:

1. If a router or firewall is installed, ensure the following communication ports required by the Host Search function are open:
 - TCP/IP ports **5201** (for searching GV-VMS) and **5202** (for searching GV-IP Devices)
 - Multicast port **5200**
2. If antivirus software is installed, the Host Search function may be interfered and will not detect the available hosts. In this case, turn off the antivirus software and try again.
3. To add GV-VMS hosts, make sure that **Mobile Service** is enabled ahead to allow remote access from GV-Edge Recording Manager. (Network button > Mobile Service)

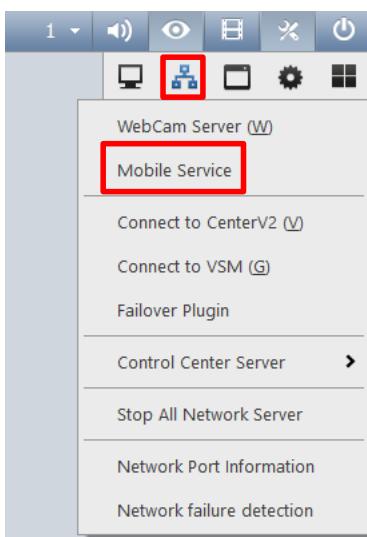


Figure 13-6

13.2.2 Manually Adding a Host

1. Click  from the Camera List. The Add Camera window appears.
2. Click . This page appears.

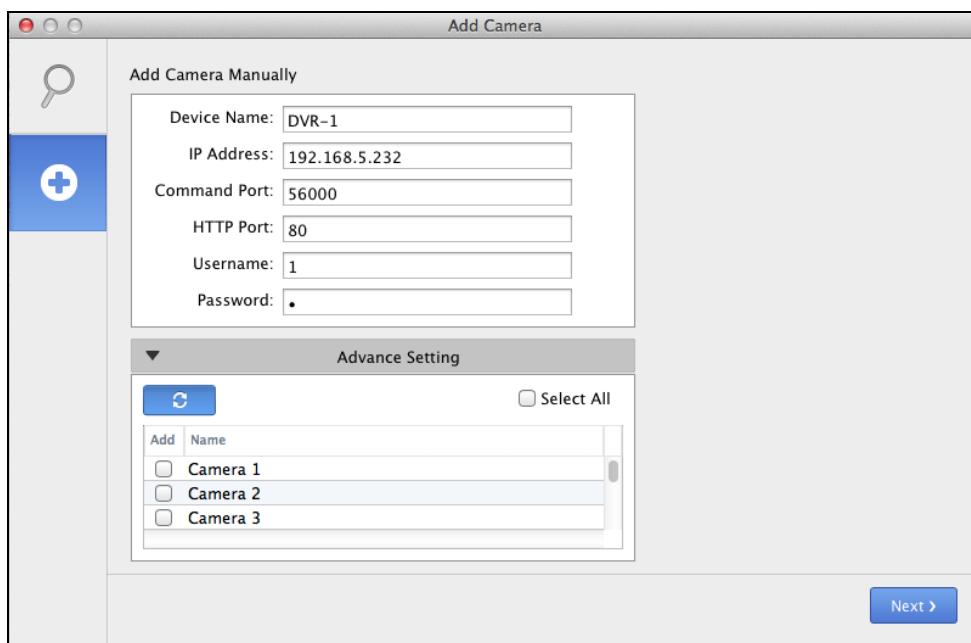
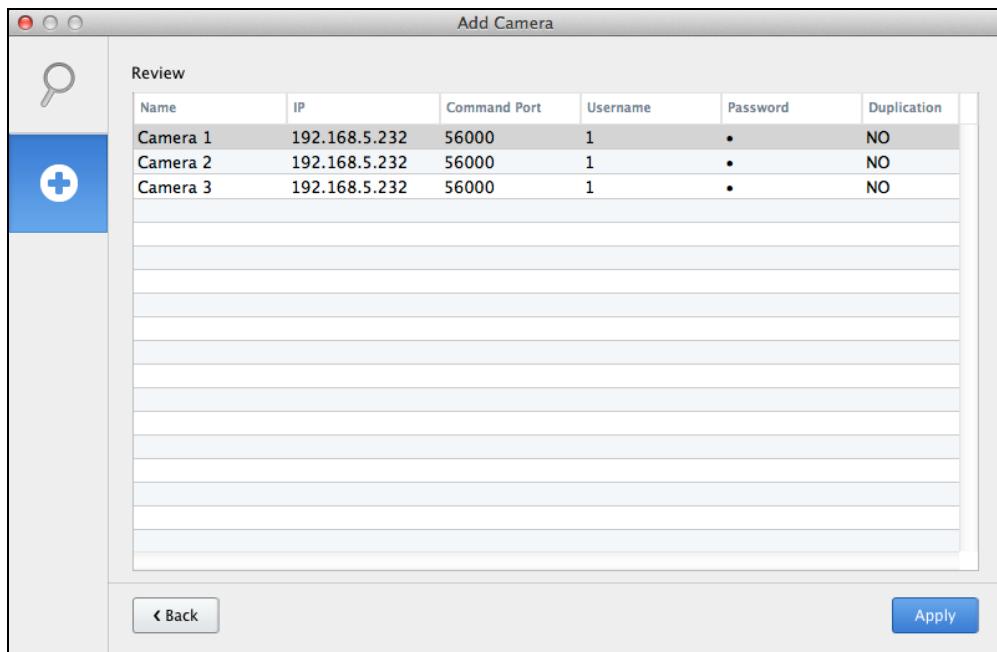


Figure 13-7

3. Type the host's device name, IP address, username and password. The default command port is **10000** for GV-IP Devices, **56000** for GV-VMS, **11000** for GV-Recording Server, and the default HTTP port is **80**. Only modify these values if necessary.
4. Optionally click  to obtain a list of cameras that are connected to the host. This function only applies to GV-VMS and GV-Recording Server which contain multiple cameras.

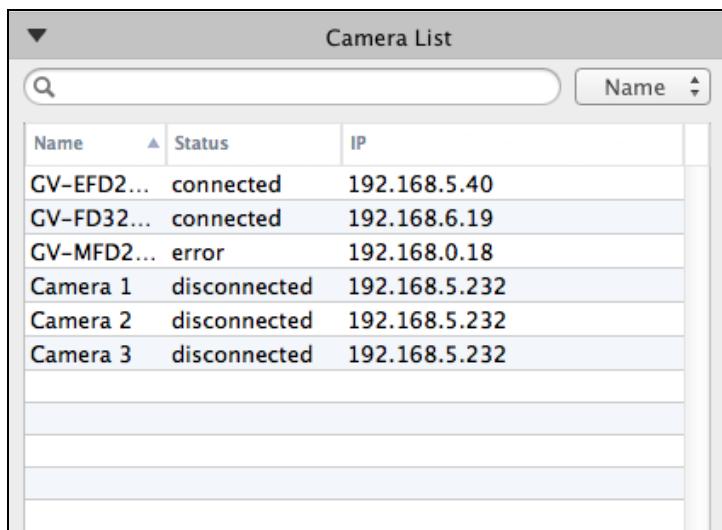
5. Select the cameras to be added and then click **Next**. This page appears.



Name	IP	Command Port	Username	Password	Duplication
Camera 1	192.168.5.232	56000	1	•	NO
Camera 2	192.168.5.232	56000	1	•	NO
Camera 3	192.168.5.232	56000	1	•	NO

Figure 13-8

6. Click **Apply**. These cameras are added to the Camera List.



Name	Status	IP
GV-EFD2...	connected	192.168.5.40
GV-FD32...	connected	192.168.6.19
GV-MFD2...	error	192.168.0.18
Camera 1	disconnected	192.168.5.232
Camera 2	disconnected	192.168.5.232
Camera 3	disconnected	192.168.5.232

Figure 13-9

Chapter 14 Batch Management

The batch functions are integrated interfaces designed for management of mass number of GV-IP Devices without the need to visit each device's Web interface. On these interfaces, you can change/assign IP address, rename devices, assign NAS and view storage space information of multiple GV-IP Devices.

Note:

1. The batch management functions described in this chapter are only supported by GV-Video Server and GV-IP Cameras (**except** GV-ABL / ADR / AVD / EBD / TBL / TDR / TVD series, G-SD2322-IR / 2722-IR / 3732-IR).
2. By default, all the usernames and passwords for batch management functions (under Utilities) are **admin**. To use a different username and password, type in the Username and Password fields.



Figure 14-1

14.1 Configuring the IP Address

You can set the IP address of more than one GV-IP Devices at a time. Follow the steps below.

1. On the main screen, move the cursor to the top, from the emerging toolbar, click **Tools** and then click **Utilities**. The Utilities window appears.

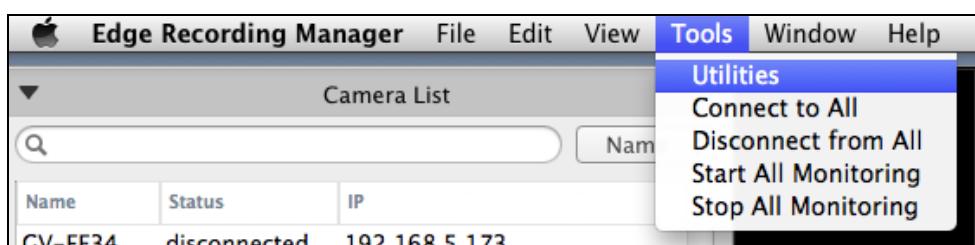


Figure 14-2

2. Click  to browse for GV-IP Cameras under the same LAN. The devices found are listed.

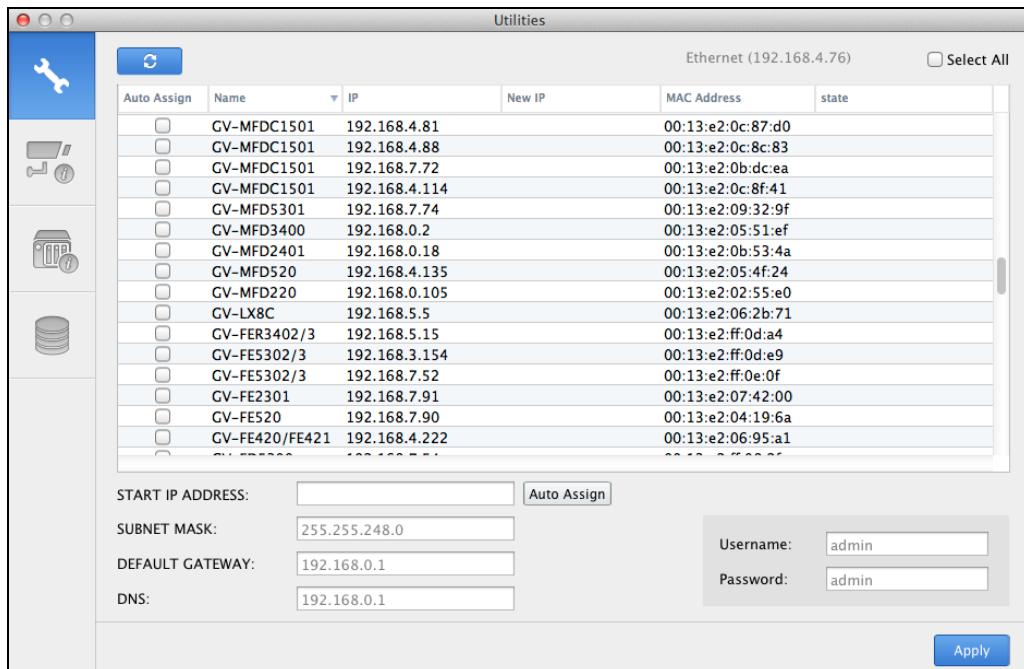


Figure 14-3

3. Select at least one device, type the Start IP address, subnet mask, default gateway, DNS, username and password. For multiple devices, the IP address will proceed from the start IP address you specified.

4. To preview the new IP addresses, click **Auto Assign**. The IP addresses to be assigned are shown in the New IP column.

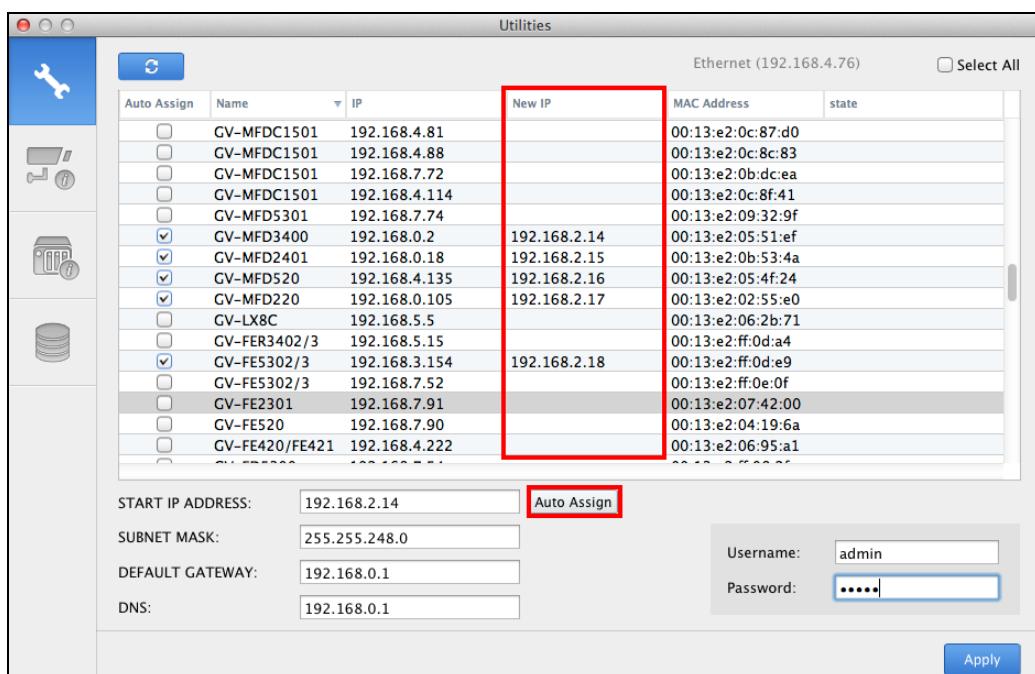


Figure 14-4

14 Batch Management (Mac Version)

5. Click **Apply** to start the update. When update is completed, the “Success” message appears in the State column.

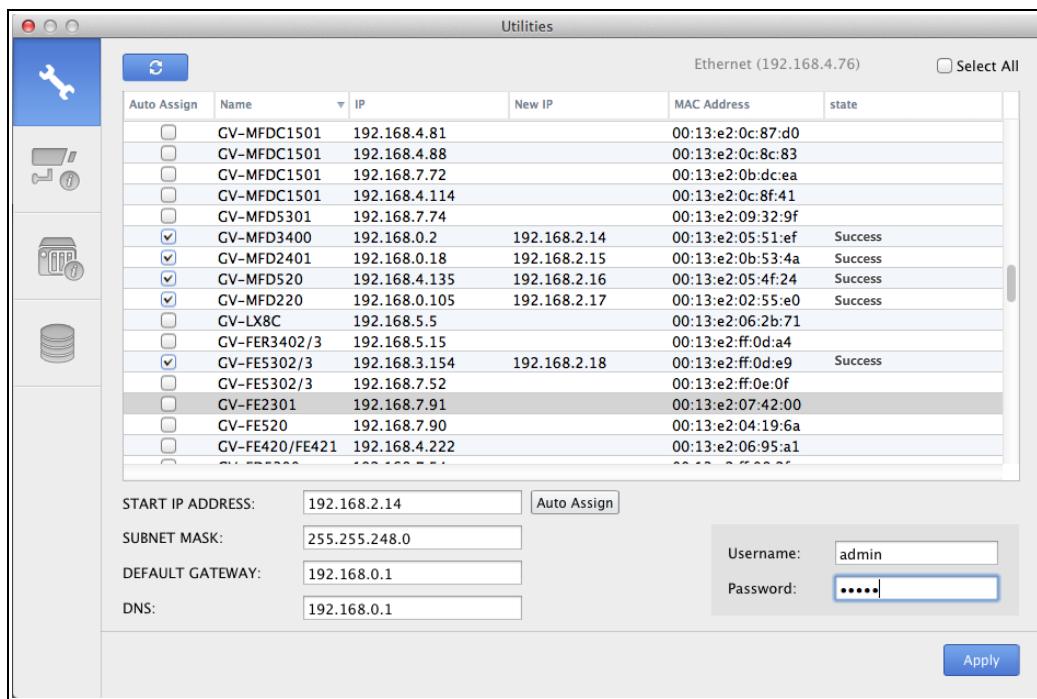


Figure 14-5

14.2 Renaming Devices

You can modify the device name for multiple devices through a single interface, without visiting each device's settings page.

1. On the main screen, move the cursor to the top, from the emerging toolbar, click **Tools** and then click **Utilities**. The Utilities window appears.

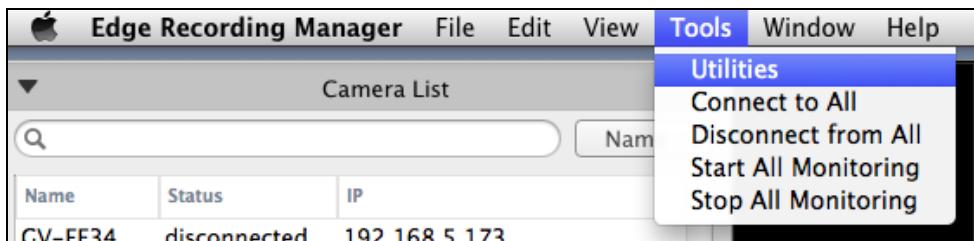


Figure 14-6

2. Click  to switch to the Camera Name page and then click  to browse for GV-IP Cameras under the same LAN. The cameras found are listed.

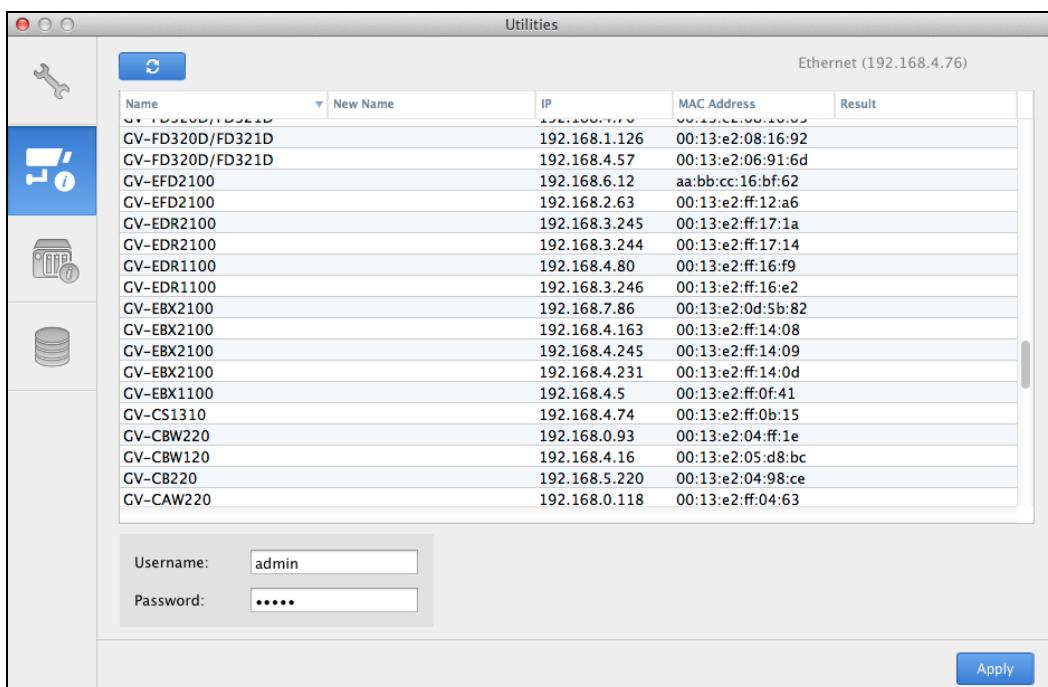
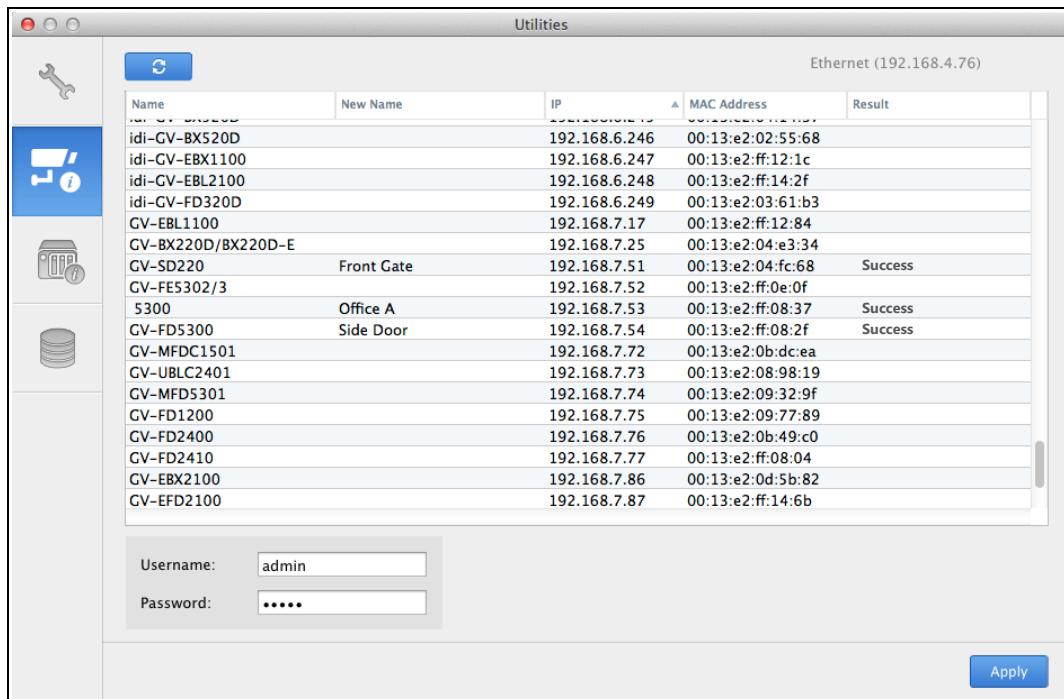


Figure 14-7

14 Batch Management (Mac Version)

3. Type the new device name in the New Name column, username and password and then click **Apply** to start the update. When the update is completed, the “Success” message appears in the State column.



The screenshot shows a software window titled 'Utilities' with a sub-section titled 'Ethernet (192.168.4.76)'. On the left, there is a sidebar with icons for a wrench, a camera, a database, and a stack of disks. The main area is a table with the following columns: Name, New Name, IP, MAC Address, and Result. The table lists 20 devices, many of which have their 'New Name' column populated. The 'Result' column shows 'Success' for several entries. At the bottom of the window, there are fields for 'Username' (admin) and 'Password' (*****), and a blue 'Apply' button.

Name	New Name	IP	MAC Address	Result
idi-CV-BX520D		192.168.6.246	00:13:e2:02:55:68	
idi-CV-EBX1100		192.168.6.247	00:13:e2:ff:12:1c	
idi-CV-EBL2100		192.168.6.248	00:13:e2:ff:14:2f	
idi-CV-FD320D		192.168.6.249	00:13:e2:03:61:b3	
GV-EBL1100		192.168.7.17	00:13:e2:ff:12:84	
CV-BX220D/BX220D-E		192.168.7.25	00:13:e2:04:e3:34	
GV-SD220	Front Gate	192.168.7.51	00:13:e2:04:fc:68	Success
CV-FE5302/3		192.168.7.52	00:13:e2:ff:0e:0f	
5300	Office A	192.168.7.53	00:13:e2:ff:08:37	Success
CV-FD5300		192.168.7.54	00:13:e2:ff:08:2f	Success
CV-MFDC1501		192.168.7.72	00:13:e2:0b:dc:ea	
CV-UBLC2401		192.168.7.73	00:13:e2:08:98:19	
CV-MFD5301		192.168.7.74	00:13:e2:09:32:9f	
GV-FD1200		192.168.7.75	00:13:e2:09:77:89	
GV-FD2400		192.168.7.76	00:13:e2:0b:49:c0	
GV-FD2410		192.168.7.77	00:13:e2:ff:08:04	
GV-EBX2100		192.168.7.86	00:13:e2:0d:5b:82	
GV-EFD2100		192.168.7.87	00:13:e2:ff:14:6b	

Figure 14-8

14.3 Viewing Storage Information

You can view the free and total storage space on this page.

Note: This function is only available for GV-IP Devices. For the supported firmware version, see *Supported GeoVision Products* in *Introduction* of this manual.

1. On the main screen, move the cursor to the top, from the emerging toolbar, click **Tools** and then click **Utilities**. The Utilities window appears.

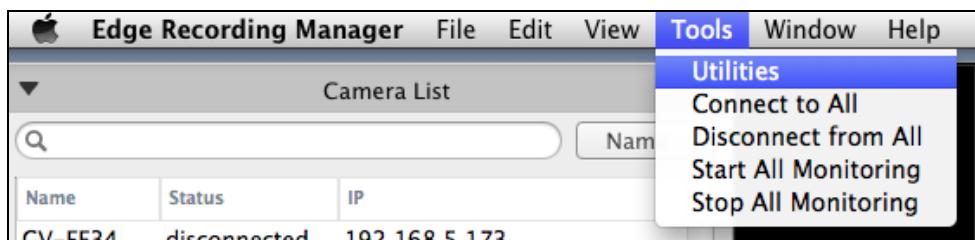


Figure 14-9

2. Click  to show the HDD Information page.
3. Type the username and password of the devices you wish view, and then click  to browse for GV-IP Devices under the same LAN.

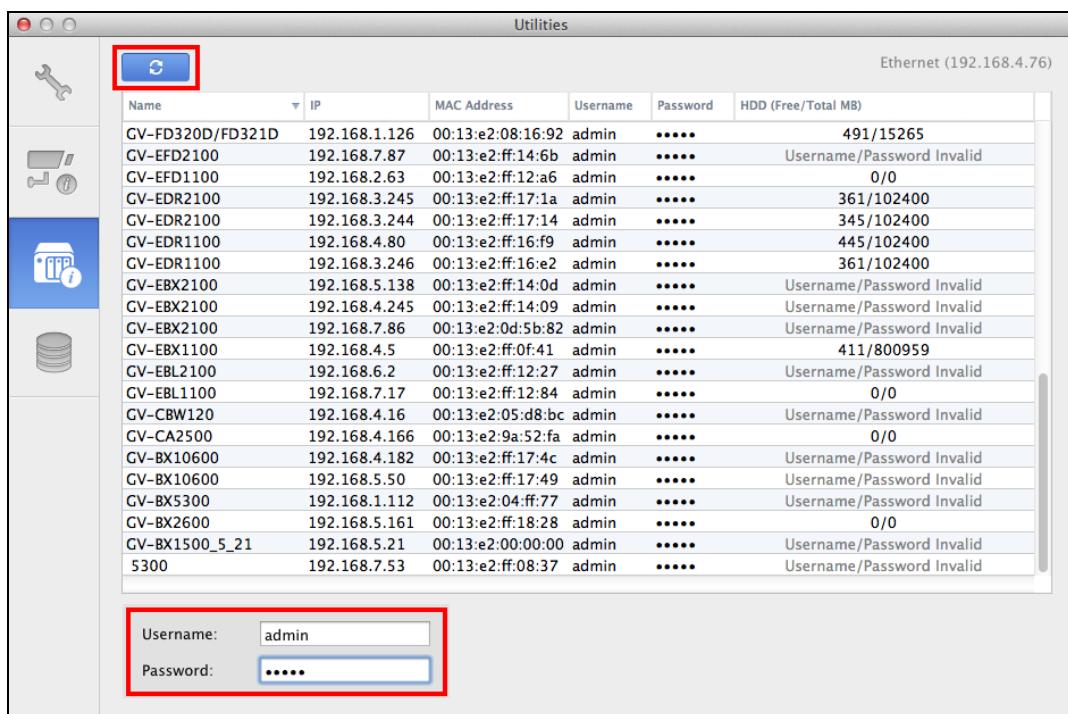


Figure 14-10

14 Batch Management (Mac Version)

4. Click an HDD entry to view the device's free and total storage. This information is only accessible for devices with valid username and password.

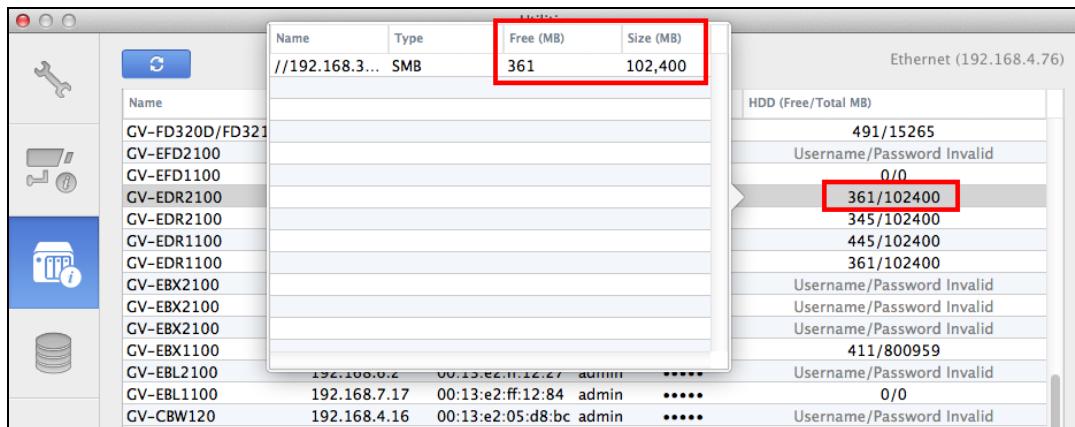


Figure 14-11

14.4 Assigning NAS Storage for Recording

You can record multiple GV-IP Cameras and GV-Target Cameras to NAS through GV-Edge Recording Manager.

IMPORTANT:

1. For the NAS application, it is required to use GV-IP Cameras (firmware V3.00 or later) and GV-Target Cameras (firmware V1.02 or later), GV-EFD2101/EFD3101/EVD2100/EVD3100 (firmware V1.00 or later).
2. For system performance and compatibility, it is highly recommended to use GV-NAS Systems for recording.
3. Make sure the computer installed with GV-Edge Recording Manager is under the same LAN with the NAS.

1. On the main screen, move the cursor to the top, from the emerging toolbar, click **Tools** and then click **Utilities**. The Utilities window appears.

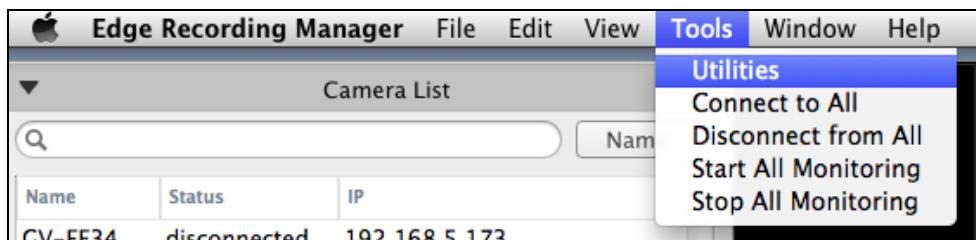


Figure 14-12

2. Click  to show the Storage Setup page.

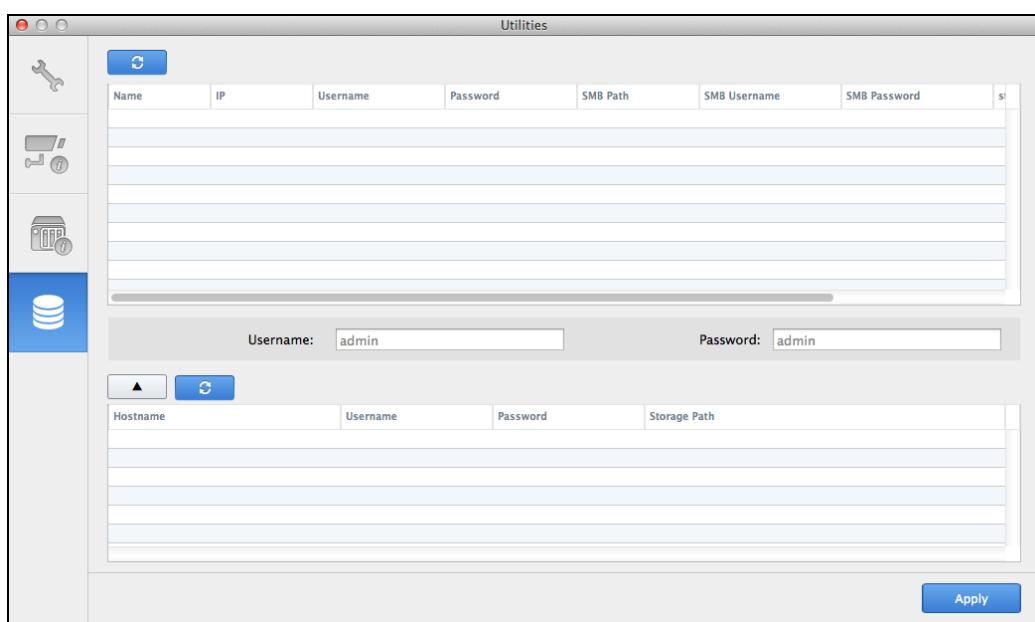


Figure 14-13

14 Batch Management (Mac Version)

3. Type the username and password of the cameras you wish to search and click  to browse. In this example, we search for cameras with the username and password **admin**. This dialog box appears.

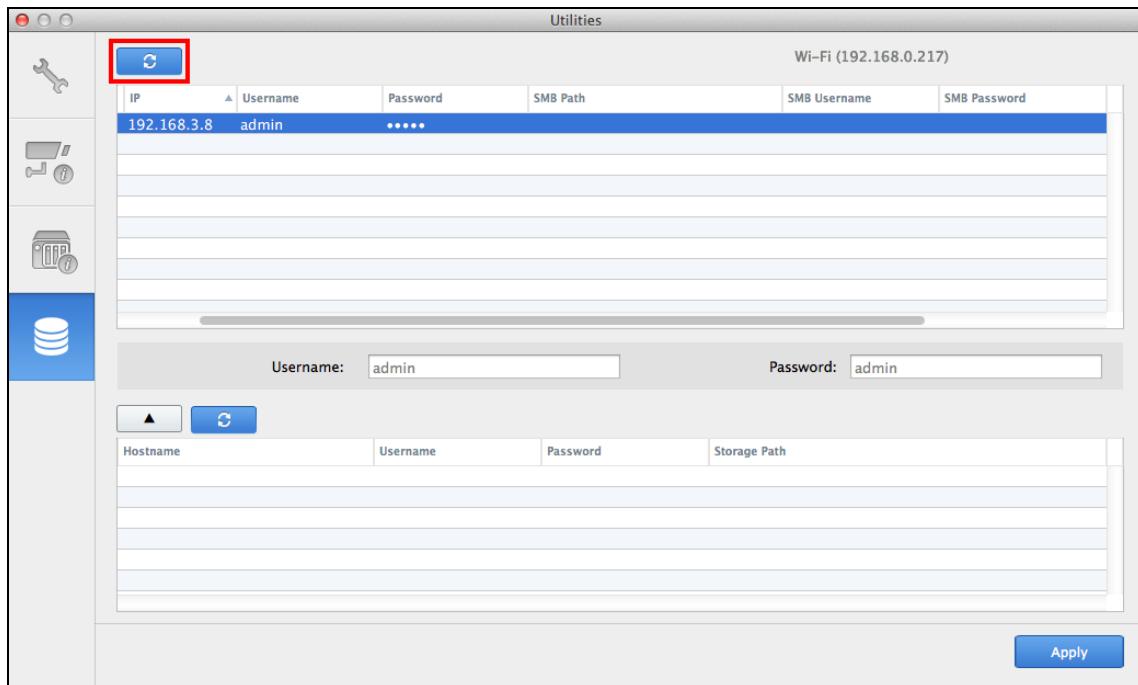


Figure 14-14

4. Select a camera and click  to browse for NAS servers under the same LAN.

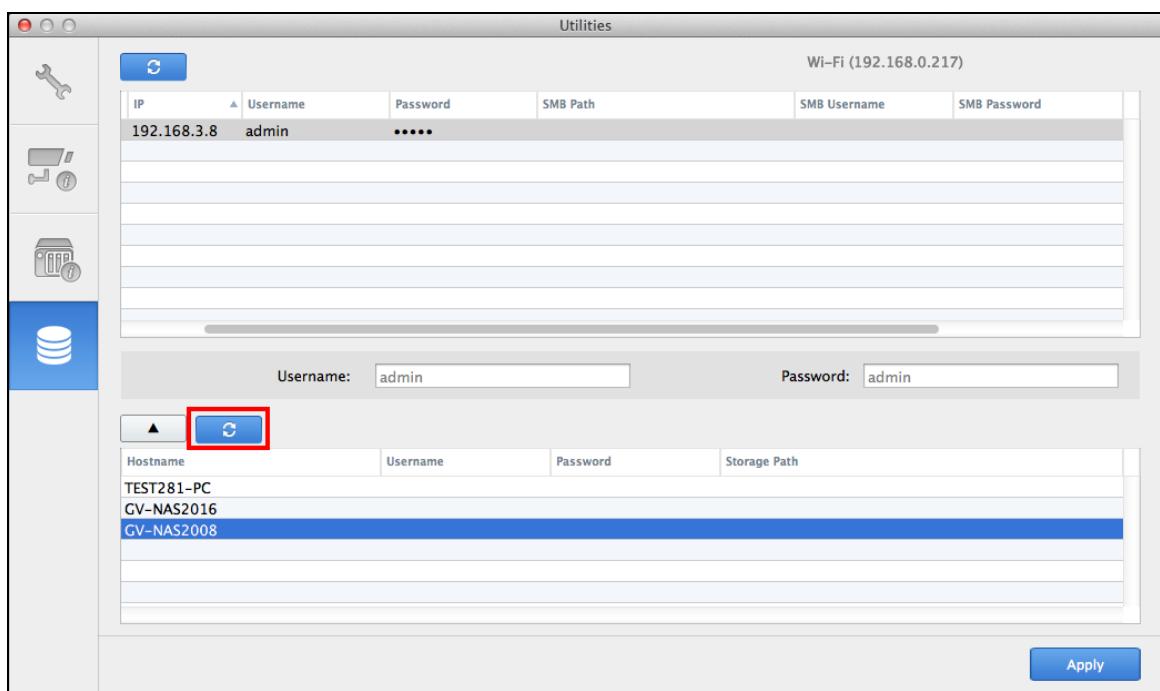


Figure 14-15

5. To assign the storage path, follow the steps below.

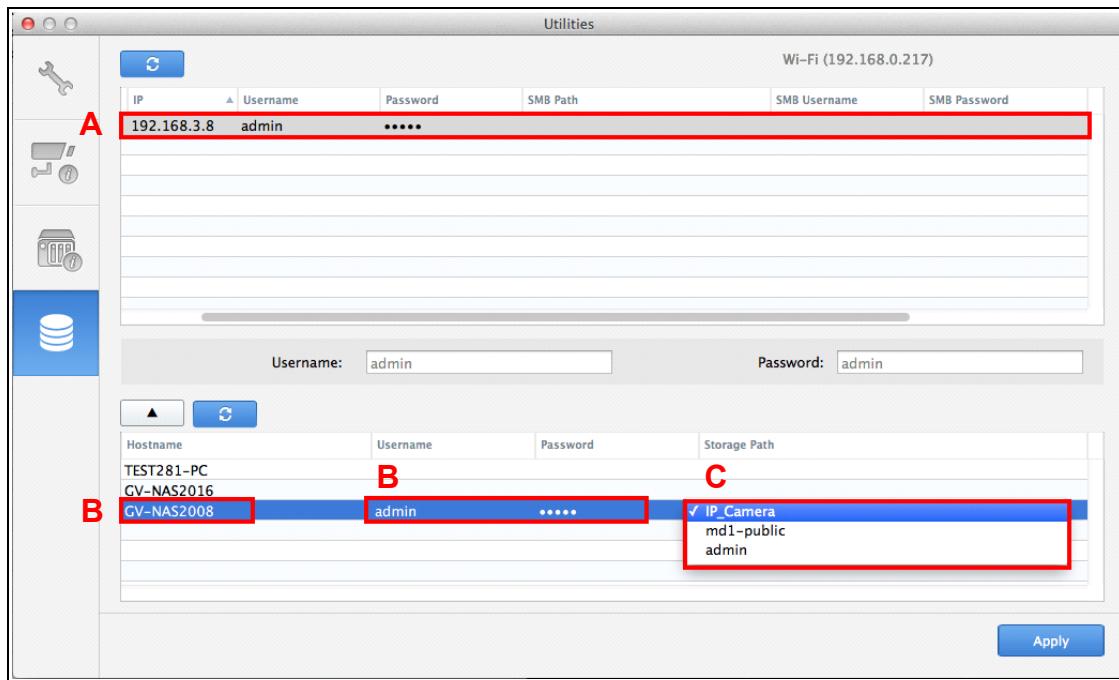


Figure 14-16

- Select a camera from the top list.
- Select a NAS server from the bottom list and type the administrator username and password of the NAS server. For GV-NAS Systems, the default username and password are both **admin**.
- Optionally click on the folder name to change the storage folder.

14 Batch Management (Mac Version)

6. Click  to assign this path to the camera. The storage path appears immediately in the SMB Path column.

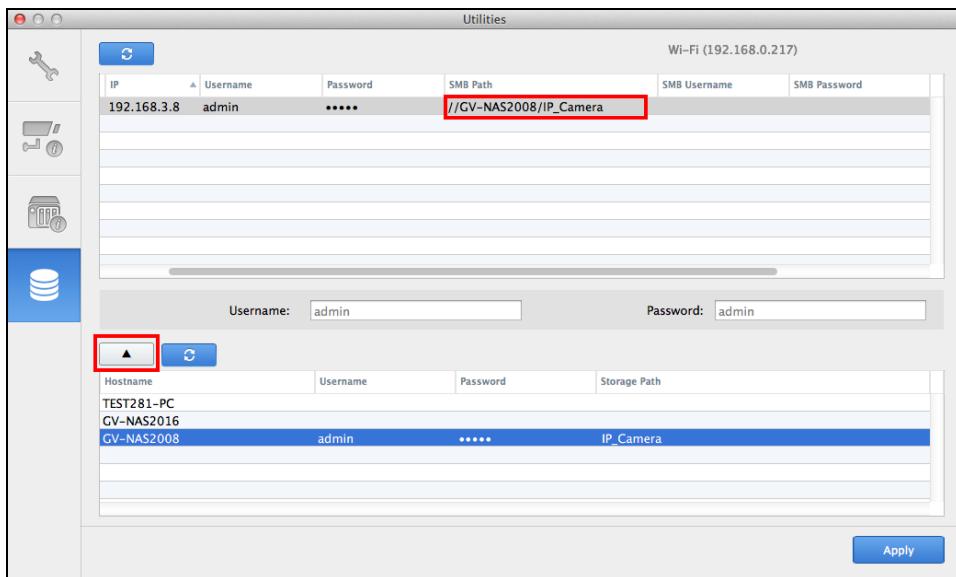


Figure 14-17

7. Type the username and password of an established account in the NAS server. For example, the default username and password for a GV-NAS System is **Cam01** and **12345678**.

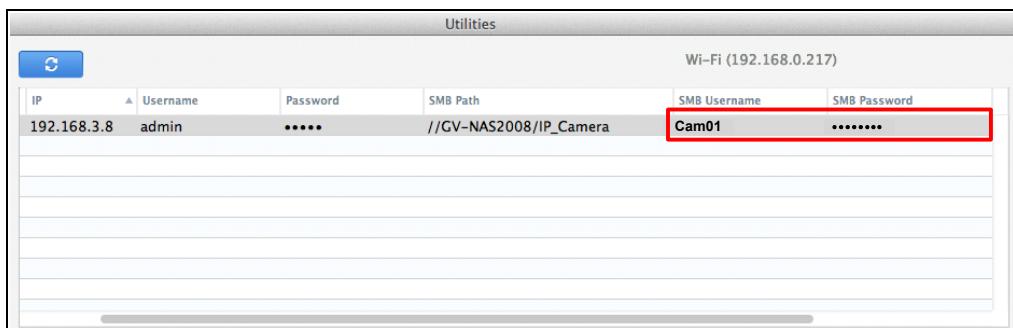


Figure 14-18

Note:

1. Be sure that you assign each IP camera to record to a different user account in GV-NAS Systems to avoid disrupting the recycling process.
2. For GV-NAS2008 / 4008, the default username is **Cam01** up to **Cam08** for each of the 8 user accounts; for GV-NAS2016 / 4016, the default username is **Cam01** up to **Cam16** for each of the 16 user accounts. The default passwords are all **12345678**. For details, see *GV-NAS System Quick Start Guide and User's Manual*.

8. To assign a different recording path for another camera, follow steps 6 and 7.
9. Click **Apply** to save the settings.

Chapter 15 Live View

You can utilize GV-Edge Recording Manager to manage multiple live views and their recording status.

15.1 The Live View Window

The Live View Window can display up to 64 channels and support functions including snapshot, image rotation, PTZ control, monitoring and time synchronization.

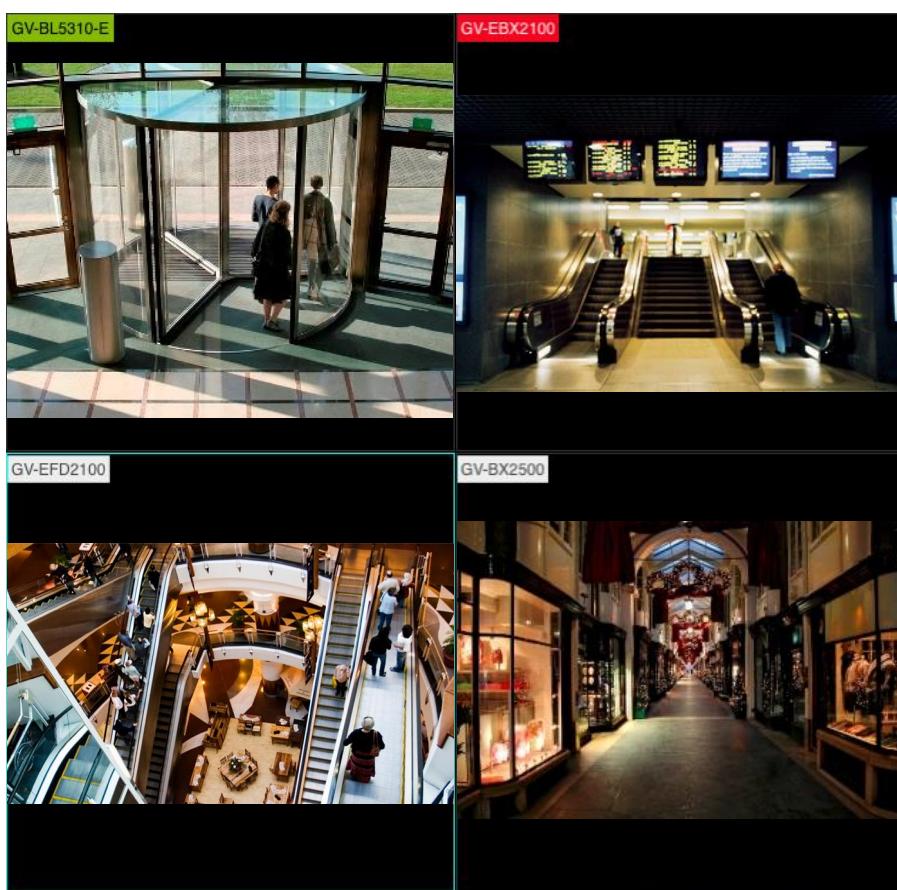


Figure 15-1

Use any of the following method to display live view on this window:

- Drag and drop cameras from the Camera List (Figure 12-2).
- Double-click a camera from the Camera List (Figure 12-2) and double-click again to disconnect.
- Select a device from the Camera List (Figure 12-2) and click .

- To connect the first 64 cameras, move your cursor to the top of the main screen, from the emerging toolbar, click **Tools** and then click **Connect to All**.

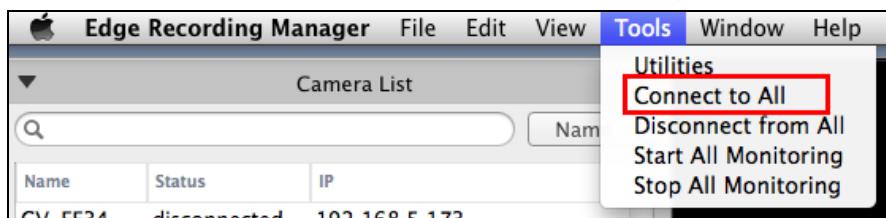


Figure 15-2

To disconnect a live view:

- Right-click a live view and select **Disconnect**.
- Double-click a device from the Camera List (Figure 12-2).
- Select a device from the Camera List (Figure 12-2) and click .
- To disconnect all cameras on the live view, move your cursor to the top of the main screen, from the emerging toolbar, click **Tools** and then click **Disconnect from All**.

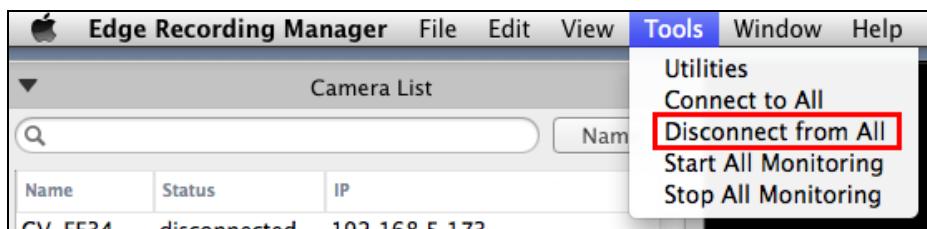


Figure 15-3

Tip:

- Double-click a channel to display it in full screen and double-click the channel again to resume the current division setting.
- If you do not have all the live views displayed on one channel, scroll your mouse to view more live views.

Right-click the live view to access the following features:

No.	Name	Description
1.	Snapshot	Takes a snapshot of the select channel. For details, see 15.4 Taking Snapshots .
2.	Audio	Receives audio from the host. For details on audio communication, see Chapter 16 Audio Communication .
3.	Rotation	Displays the live view rotated at 0°, 90°, 180° and 270°.
4.	PTZ	Enables the PTZ panel. Note this function is only supported by IP Cameras that support the PTZ function.
5.	PIP	The Picture-in-Picture view is used to show a closed-up view or a zoom view of a portion of the live view.
6.	PAP	The Picture-and-Picture view is used to create multiple close-up views on the video.
7.	Monitoring	Enables monitoring (recording) the channel. For details, see 15.3 Enabling Host Recording .
8.	Time Synchronize	Synchronizes the device time with GV-Edge Recording Manager.
9.	Video Stream	Switches between stream 1 and 2. Note this function is only available when Auto Change Video Stream function is disabled. For details, see 18.1 General Settings .
10.	Enable Video Decode Acceleration	Enable Video Decode Acceleration on live view to provide a smoother video
11.	Fisheye	Dewarps the fisheye view. This function is only available for GV-Fisheye Camera. For details, see 15.6 Fisheye View .
12.	Disconnect	Disconnects the device and removes its live view.

15.2 Purchasing License

You can access live view of up to 64 channels by purchasing license online:

1. Select **Edge Recording Manager**, and select **Upgrade**.

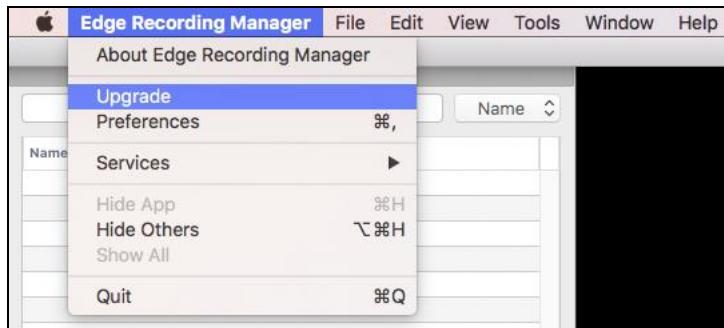


Figure 15-4

2. Click **Buy** to confirm the purchase.

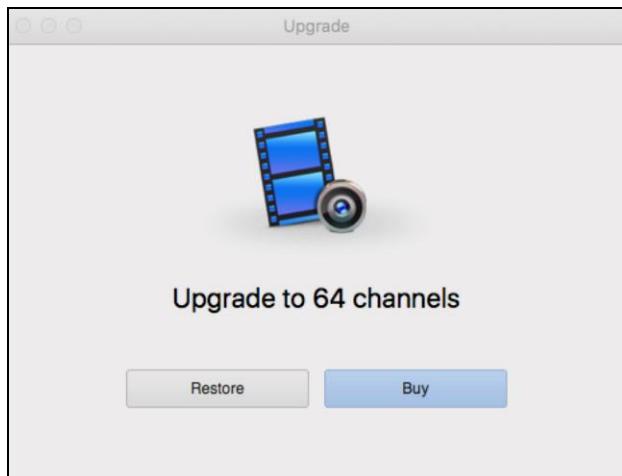


Figure 15-5

15.3 Enabling Host Recording

You can remotely enable/disable monitoring on the connected GV-IP Cameras.

Note: This function is only available for GV-IP Cameras..

Enable Monitoring for a Single Channel

Right-click a live view from the Live View Window, and then select **Monitoring**. Select the same option again to disable. The monitoring & recording status is indicated by the color of device name on the Live View Window:

Channel Color	Monitoring & Recording Status
GV-BX2500	Not under monitoring
GV-BL5310-E	Under monitoring but not being recorded
GV-EBX2100	Under monitoring and is being recorded

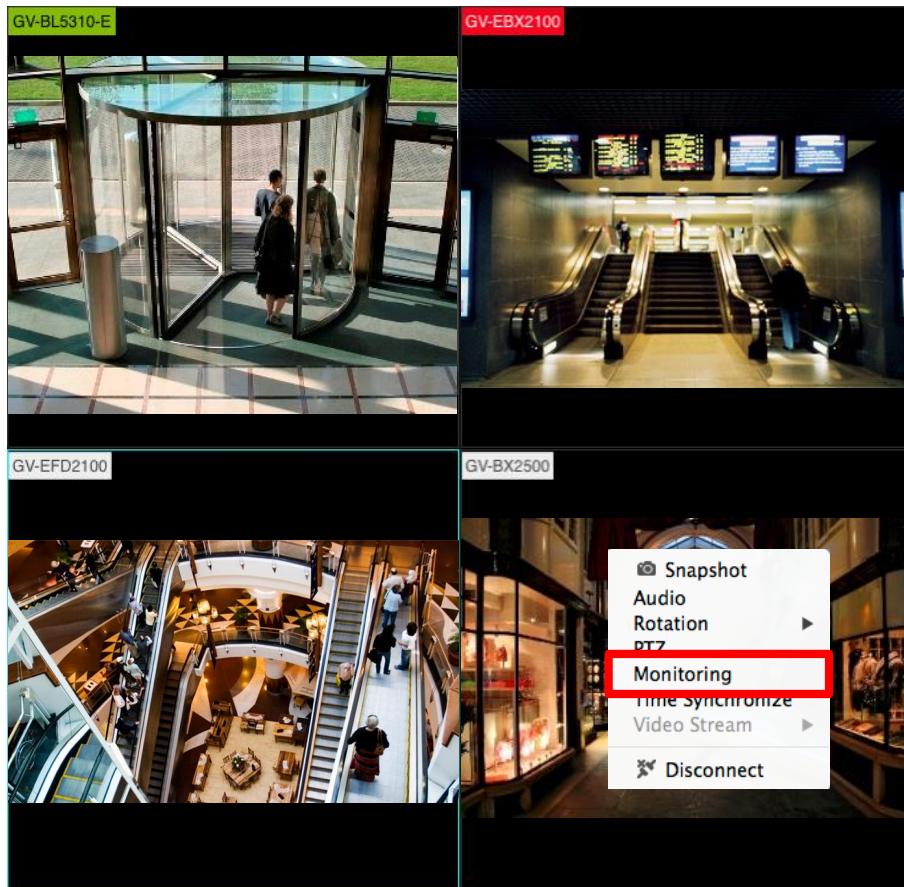


Figure 15-7

Enable Monitoring for All Channels

On the main screen, move the cursor to the top, from the emerging bar, select **Tools** and then select **Start All Monitoring**. To disable monitoring, select **Tools** again and then select **Stop All Monitoring**.

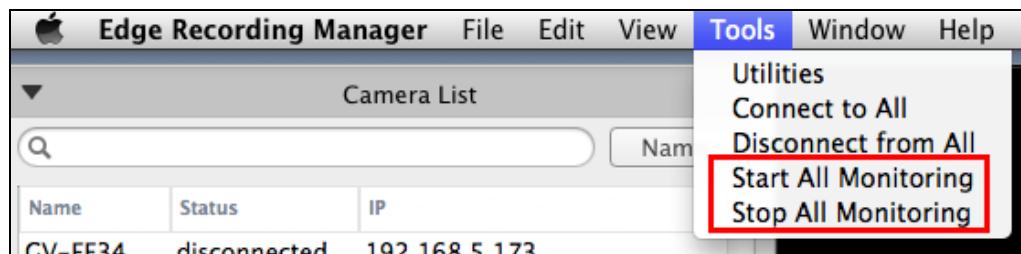


Figure 15-7

15.4 Taking Snapshots

You can take snapshot of live view images. Right-click a live view on the Live View Window (Figure 15-1) and select **Snapshot**. The snapshot is immediately saved and a message appears at the top-right corner of the Live View Window. By default, snapshots are saved to `/user/<username>/Documents/GeoVision/edge_record_mgr/snapshot`. To configure the storage path for snapshots, see **Snapshot Folder** in *18.1 General Settings*.

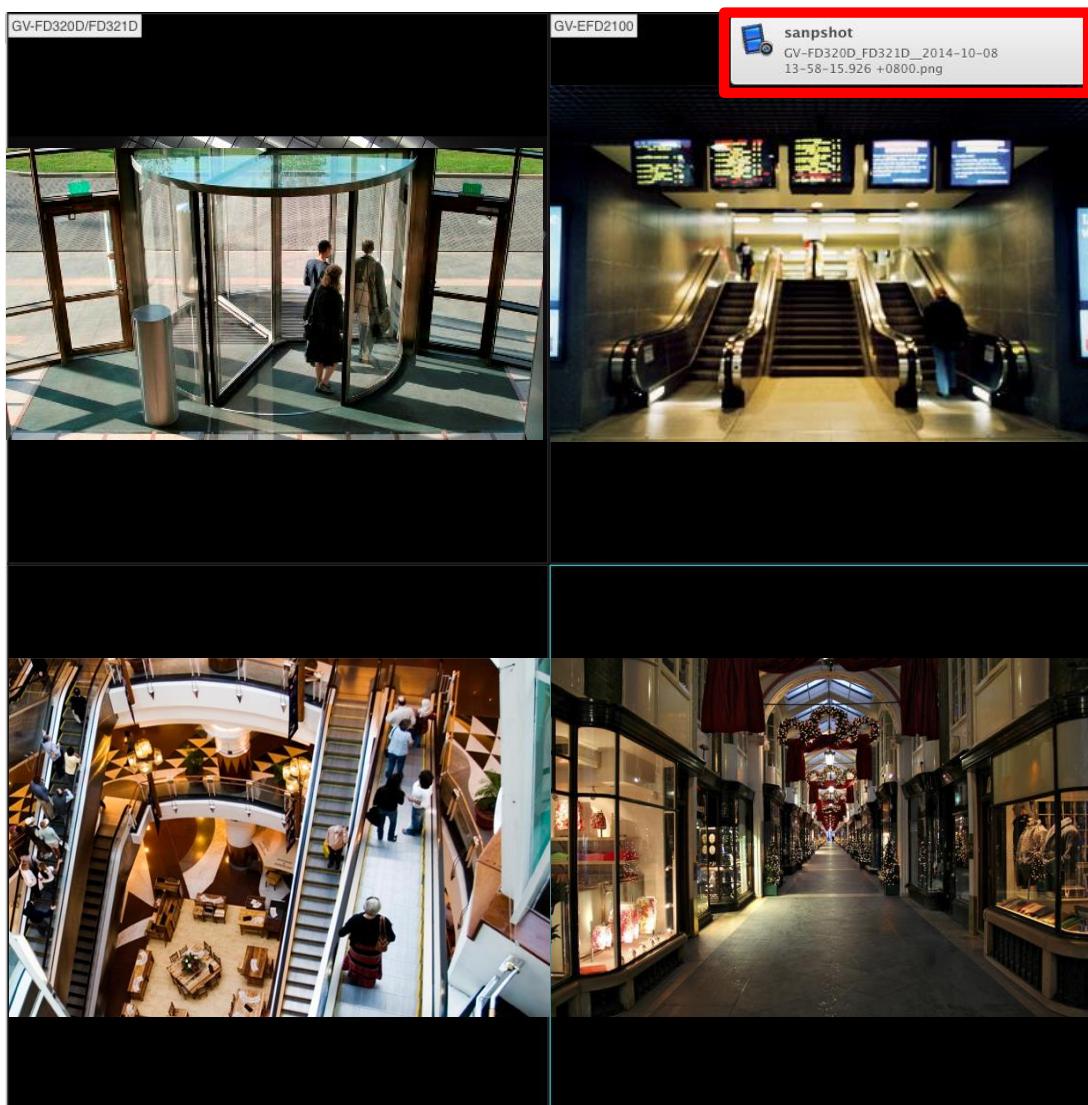


Figure 15-8

15.5 Viewing Event List

You can view a list of events from standalone GV-IP Cameras, GV-Target Cameras, GV-SD220/220S, GV-Video Server and IP Cameras/GV-Target Cameras connected to GV-Recording Server. Click the **Live** button  on the main window. The Event list appears next to the Live View Window.

Note:

1. Make sure that the motion detection function is enabled ahead for each GV-IP Camera, GV-Target Camera, GV-SD220/220-S and GV-Video Server.
2. GV-VMS is not supported for this function.

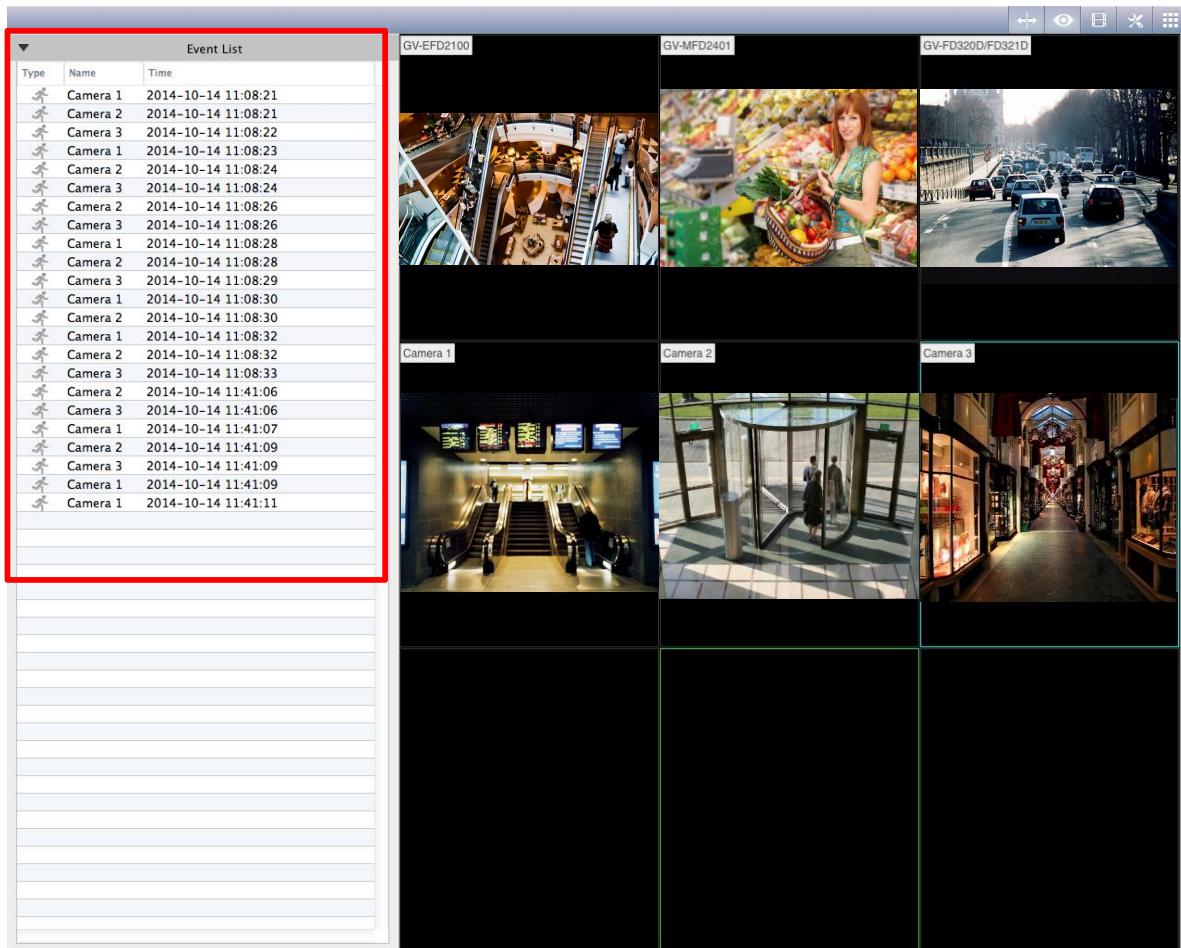


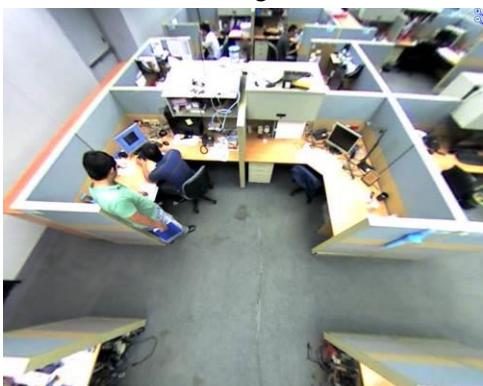
Figure 15-9

15.6 Fisheye View

The hemispherical image of a fisheye host can be converted to a conventional rectilinear projection and displayed on the Live View Window.

Note: This function only supports GV-Fisheye Cameras.

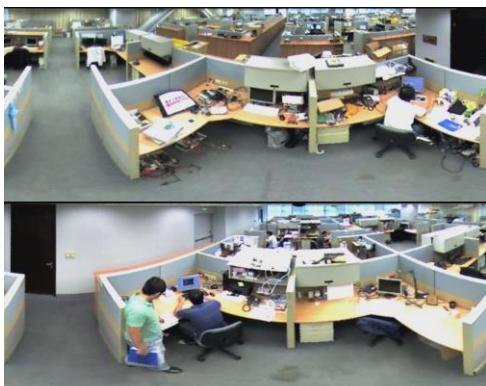
You can choose among four view modes and adjust the PTZ views to different angles.



PTZ: 1 PTZ view



Panorama 360: 2 PTZ view & 1 360° view



Panorama 180: 2 180° views



Quad: 4 PTZ views

Figure 15-10

15.6.1 Setting Up the Fisheye View

1. Right-click the live view and select **Fisheye** to enable the dewarped view. By default, the original hemispherical view is converted to the PTZ view.
2. To customize other settings, right-click the channel to access the following:
 - **Fisheye Alignment:** Aligns the center and part for live view display. Double-click the channel to display it in full screen first before alignment. Unselect this option when alignment is set.
 - **View Mode:** You can choose among four view modes.
 - **PTZ:** Composed of one PTZ view.
 - **Panorama 360:** Composed of two PTZ views and one 360° panoramic view.
 - **Panorama 180:** Composed of two 180° views.
 - **Quad:** Composed of four PTZ views.
 - **Mount Type:** Select **Ceiling**, **Wall** or **Ground** according to where the camera is mounted.
3. You can drag and drop any PTZ view to adjust the viewing angle. Display the channel in full-screen to allow for drag-and-drop control.

Chapter 16 Audio Communication

You can receive sounds from a selected host. Right-click a channel and select **Audio**. The function is immediately enabled and a speaker icon appears on the channel.

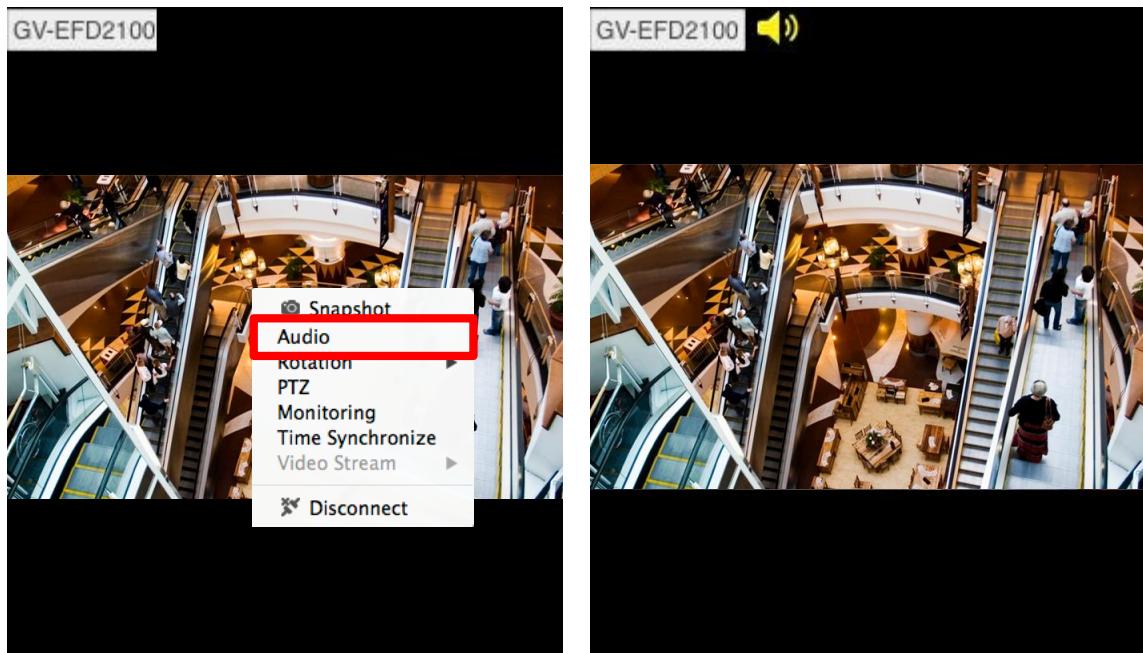


Figure 16-1

Chapter 17 Playback

You can remotely play back host recordings on GV-Edge Recording Manager.

Note:

1. For a GV-DVR / NVR / VMS host, make sure **Remote ViewLog Service** (under Control Center Service) is enabled ahead to allow remote access from GV-Edge Recording Manager for playback.
2. Audio playback is not supported by the Mac version of GV-Edge Recording Manager.
3. **Remote playback from SD card** is not supported for the following models: GV-ABL / TBL Series, GV-ADR / TDR Series, GV-AVD / TVD Series, GV-EBD Series, GV-QSD5730 / 5731-IR, GV-SD2322-IR / 2722-IR / 3732-IR, UA-B580F3 / R500F2 / R560F2 / R580F2 / R800F2.

Follow the steps below to playback:

1. Click the **Playback** button  on the main window. The Playback page appears.
2. Select a device from the left. A calendar appears below.
3. Click to select a date for playback. Recordings of the selected date are listed (if any).
 - On AVI Player: The current date is underlined in green and the selected date blue.
 - On MPEG4 Player: The current date is underlined in green, the selected date blue and dates with recordings are circled red.
4. Double-click an entry and click . The recording is immediately played back.

[AVI Player] Click an entry to play back.

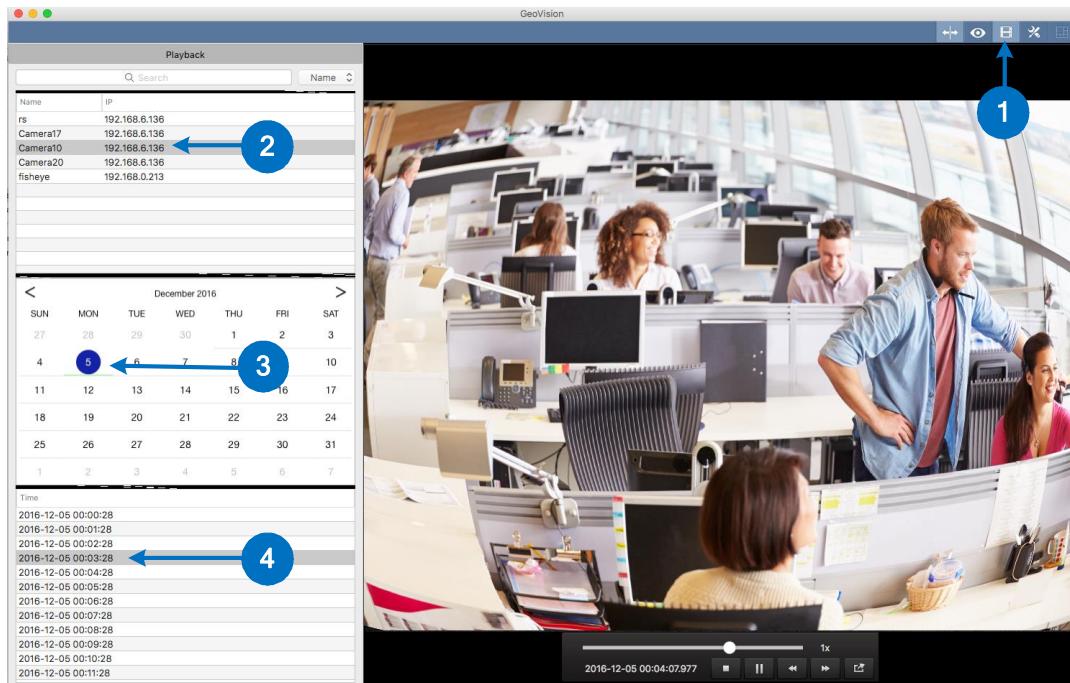


Figure 17-1

[MPEG4 Player]

Files saved on GV-NAS Systems are played back by the MPEG4 player.

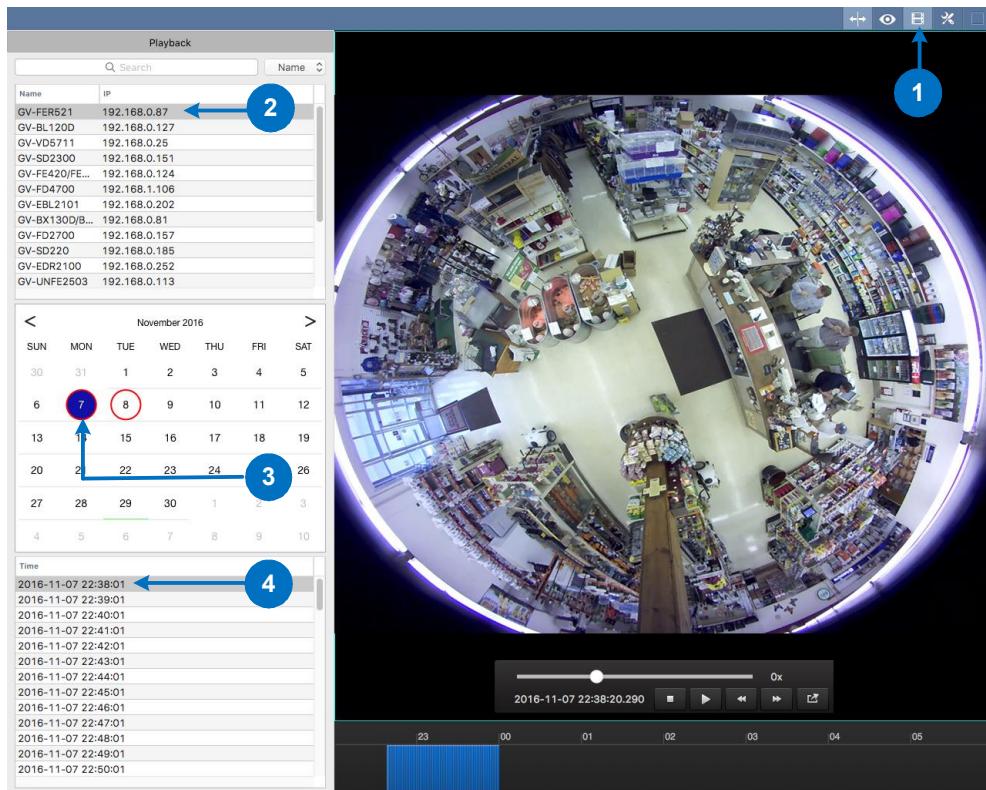


Figure 17-2

The MPEG4 player contains a control panel and a timeline.



Figure 17-3

- Each recording entry is represented by a blue block. Click to play back.
- Use the mouse scroll to change the displayed hours of the timeline.
- Hold and drag the hour numeral to move to different parts of the timeline.

To access more playback features, right-click the Remote Playback window.

Name	Functions
Snapshot	Saves a video image.
PIP	The Picture-in-Picture view is used to show a closed-up view or a zoom view of a portion of the live view.
PAP	The Picture-and-Picture view is used to create multiple close-up views on the video.
Disconnect	Removes the live view of the selected host.

Chapter 18 System Configuration

This chapter describes GV-Edge Recording Manager's general settings, panel settings and network settings.

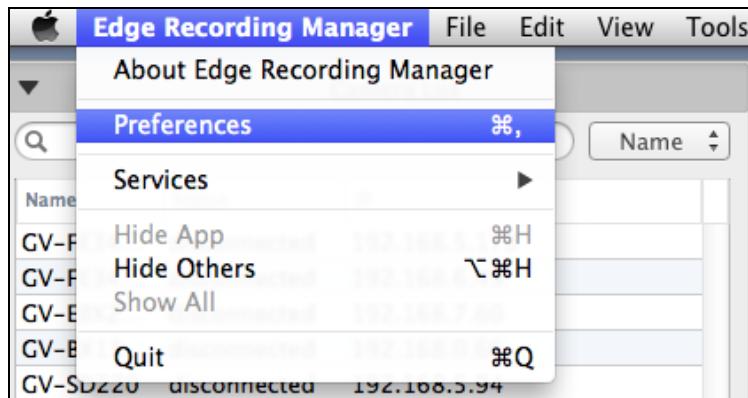


Figure 18-1

18.1 General Settings

On the main screen, move the cursor to the top, from the emerging bar, select **Edge Recording Manager** and then select **Preferences**. This window appears.

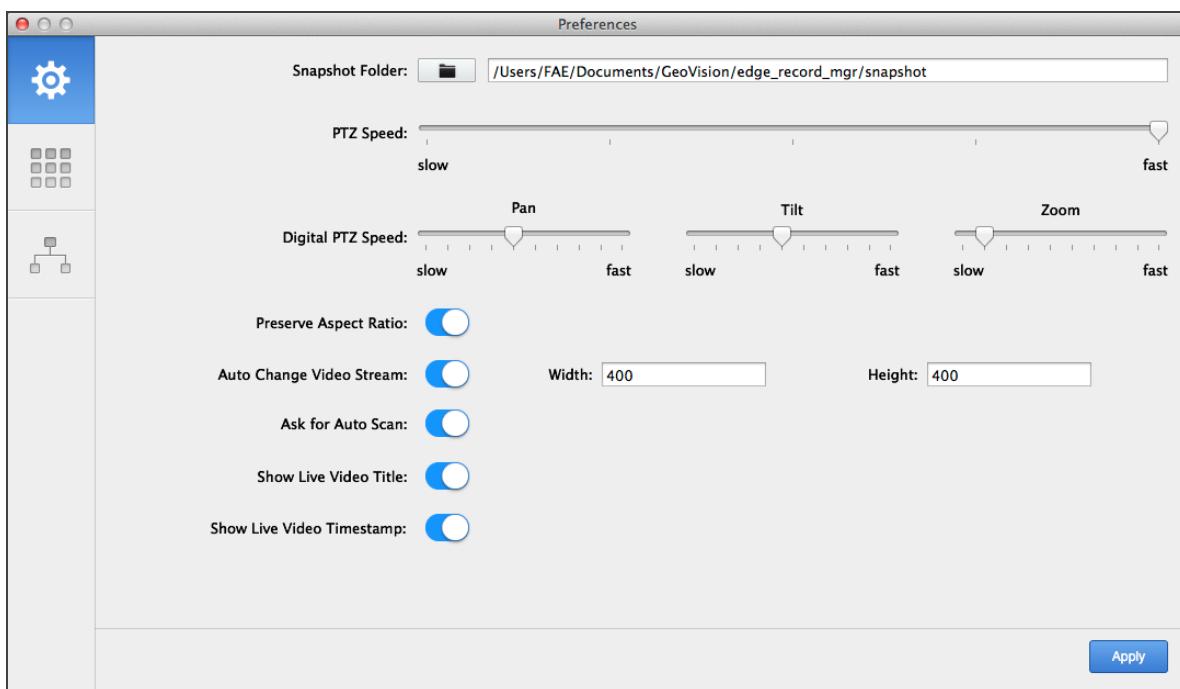


Figure 18-2

- **Snapshot Folder:** Specifies the storage path for snapshots. By default, snapshots are saved to `/user/<username>/Documents/GeoVision/edge_record_mgr/snapshot`. You can type the storage path in the blank or click  to select a folder.
- **PTZ Speed:** Specifies the PTZ speed for PTZ control panel.
- **Digital PTZ Speed:** Specifies the speed for digital pan, tilt and zoom. Under single channel display, you can scroll to zoom the live view and then drag and hold to see different parts of the live view.
- **Keep Video Aspect Ratio:** Displays live view in ratio with its current resolution.
- **Auto Change Video Stream:** Displays stream 1 on live view when the source video exceeds the specified Width and Height. By default, this function is enabled and the Weight and Height are both **400** pixels.
- **Ask Auto Scan:** Prompts the user to search and add GV-IP Devices at startup (of GV-Edge Recording Manager) when the Camera List (Figure 13-2) is empty.
- **Show Live Grid Title:** Shows the device name on live view
- **Show Live Grid Timestamp:** Shows the device time on live view

18.2 Live View Color Settings

You can define the color of grid background, video background and video border, grid title hud color, grid animation speed, grid animation type and scroll speed.

On the main screen, move the cursor to the top, select **Edge Recording Manager**, select **Preferences** and then click . This page appears. Click each option or move the slider bar to change the settings.

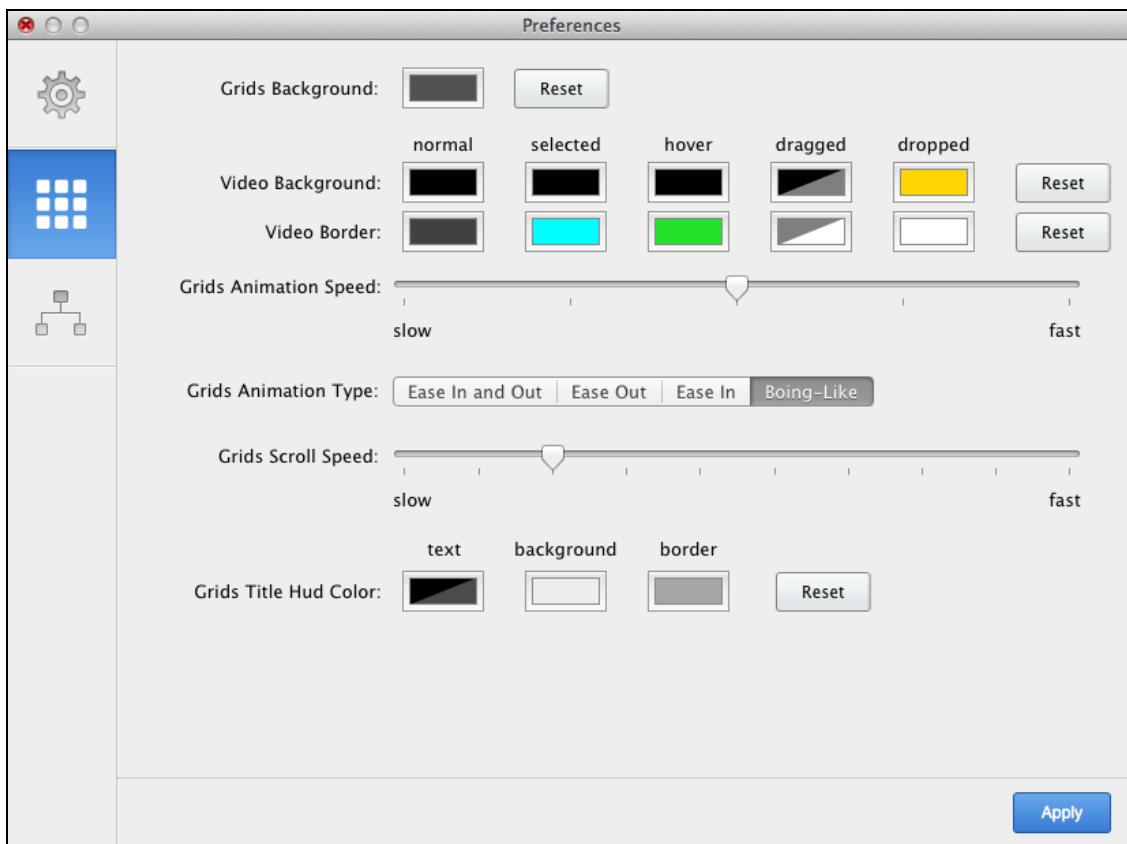


Figure 18-3

18.3 Network Settings

You can change the network interface and look up the current IP address of the computer to which GV-Edge Recording Manager is installed.

On the main screen, move the cursor to the top, select **Edge Recording Manager**, select **Preferences** and then click . This page appears.

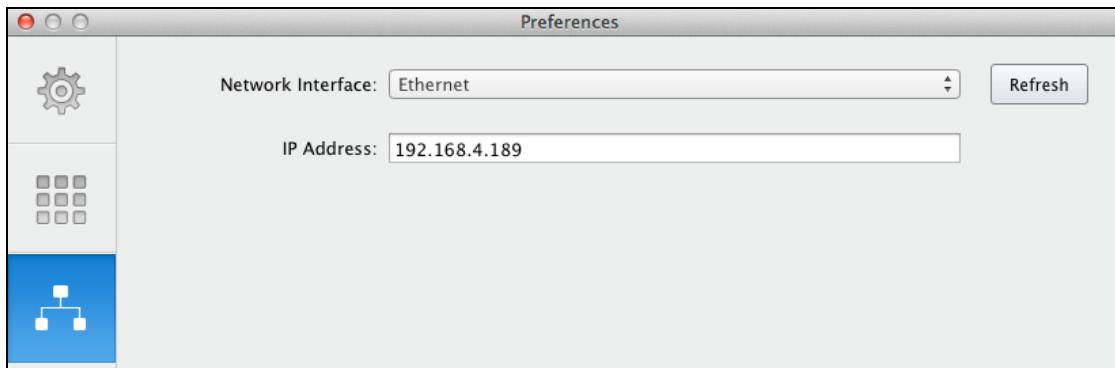


Figure 18-4

- **Network Interface:** Click arrow button to select a network card. To update the network card options, click **Refresh**.
- **IP Address:** Displays the current IP address.

18.4 Exporting and Importing Settings

18.4.1 Exporting Settings

You can back up the settings in camera list (Figure 12-2) and live view window (Figure 15-1).

1. On the main window, move the cursor to the top, from the emerging toolbar, select **File** and then select **Export**. This window appears.

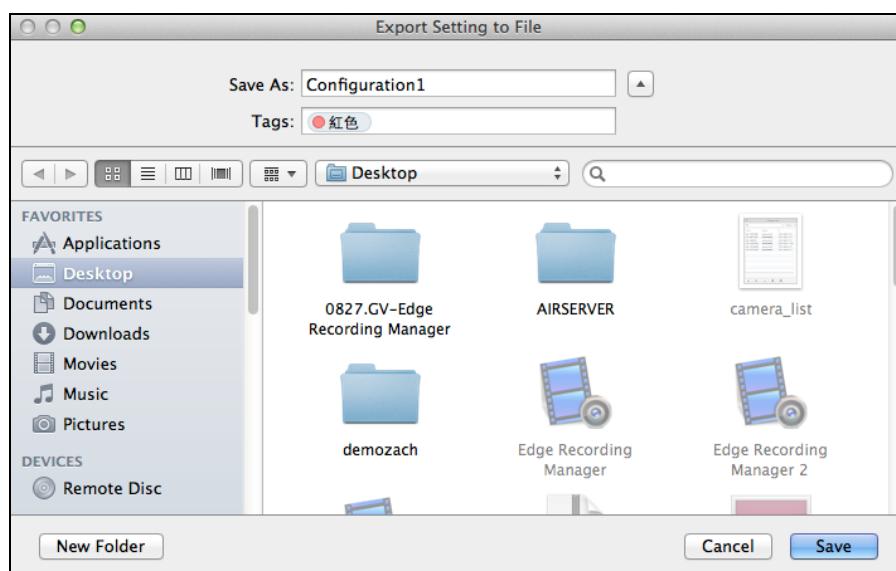


Figure 18-5

2. Select a storage location and modify the file name if necessary.
3. Click **Save**.

18.4.2 Importing Settings

You can import previously saved settings.

1. On the main window, move the cursor to the top, from the emerging toolbar, select **File** and then select **Import**. This window appears.

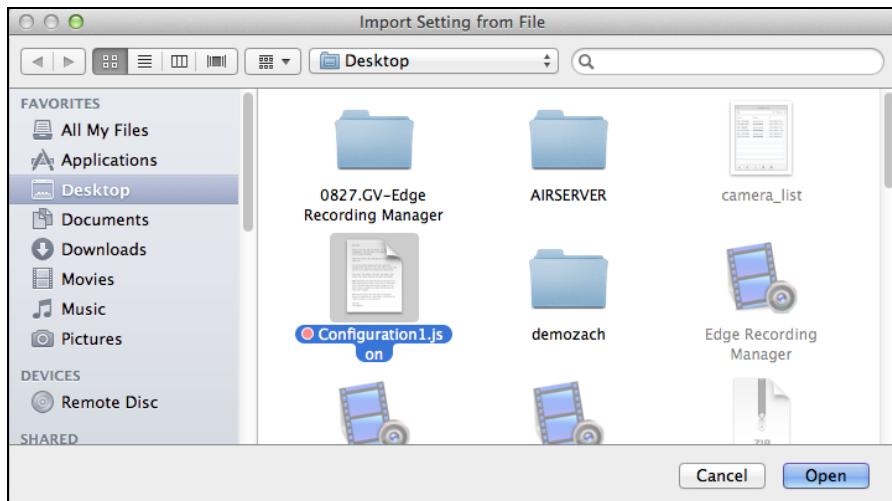


Figure 18-6

2. Select a previously saved file and click **Open**. The settings are immediately applied.

Specifications

For specifications, see details in:

- [Datasheet GV-Edge Recording Manager \(Windows Version\)](#)
- [Datasheet GV-Edge Recording Manager \(Mac Version\)](#)
- [Comparison Chart for GV-Edge Recording Manager Versions](#)