

Quick Start Guide GV-VMS



Thank you for purchasing GV-VMS. This guide is designed to assist the new user in getting immediate results from the GV-VMS. For advanced information on how to use the GV-VMS, please refer to *GV-VMS User's Manual* online.

VMS1718-QG-B

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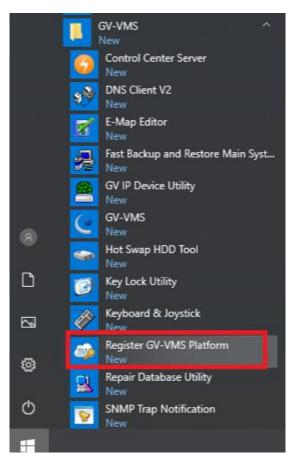


GV-VMS Licensing

GV-VMS is a comprehensive video management system, and requires a purchased license starting from V18.1, that records up to 64 channels of GeoVision and/or third-party IP devices. Make sure your purchased *GV-Dongle* or *software license* has been inserted into or activated on the PC prior to running GV-VMS.

IMPORTANT:

 For users who have purchased a software license, it must be registered through the License Activation Tool using the corresponding serial key. For details on software licensing, click <u>here</u>.



2. For users with GV-US dongle of earlier versions of GV-VMS, it must be upgraded to run V18.1 or later.



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Chapter 1 Introduction

Welcome to the *GV-VMS Quick Start Guide*. Through this guide, you will learn the basic settings of GV-VMS. For the complete instructions, refer to <u>*GV-VMS User's Manual*</u>.

1.1 License

• GV-VMS V17 (Free 32 GV Channels)

GV-VMS V17 series supports connection of up to 64 IP devices, and up to 32 channels of GeoVision IP Devices are for free. If you need to connect more than 32 channels of GeoVision IP Devices or connect with third-party IP devices, additional licenses are required.

Supported Devices	Channels	License
	32 ch	No license required
GV-IP Devices Only	64 ch	GV-VMS Pro license required, 32 ch per license
	16 ch	Trial Version: 16 channels of 3rd-Party IP devices
GV + 3rd-Party IP	32 ch	3rd-Party or HD DVR license required, in increments of 1 ch
Devices	64 ch	 2 licenses required: • GV-VMS Pro license, 32 ch per license. • 3rd-Party or HD DVR license, in increments of 1 ch.

Note:

- 1. The licensing comes in two forms: *GV-USB dongle* and *software license*. The two are incompatible. If a GV-USB dongle has been inserted on the computer with the system, please remove it before using software licensing.
- 2. GV-USB dongle comes in internal and external dongles. Internal dongle is recommended for the Hardware Watchdog function, which restarts the PC when Windows crashes or freezes.
- 3. GeoVision offers a 60-day trial period that allows you to connect to 16 channels of thirdparty IP devices without license. Currently, you cannot remotely access the trial channels using remote applications.

Note for GV-VMS V17.4.5 or later:

- 1. The HD DVR license is only supported by GV-VMS V17.4.5 or later.
- 2. The **HD DVR** license is required for connecting UA-XVR and UA-XVL series (only **analog** channels supported)
- 3. The **3rd-Party** license is required for connecting UA-IP cameras.



• GV-VMS V18 (for AI Integration)

GV-VMS V18.1 or later is a paid software for AI integration that supports connection of up to 64 IP devices, and can connect up to 32 GeoVision IP devices upon initial purchase. If you need to connect more than 32 channels of GeoVision IP devices or connect with third-party IP devices, additional licenses are required.

Supported Devices	Channels	License
	32 ch	Initial license
GV-IP Devices Only	64 ch	 2 licenses required: • GV-VMS V18.1 or later initial license • GV-VMS Pro license, 32 ch per license
	32 ch	 2 licenses required: • GV-VMS V18.1 or later initial license • 3rd-Party license required, in increments of 1 ch
GV + 3rd-Party IP Devices	64 ch	 3 licenses required: • GV-VMS V18.1 or later initial license • GV-VMS Pro license, 32 ch per license • 3rd-Party license, in increments of 1 ch

Note:

- 1. The licensing comes in two forms: *GV-USB dongle* and *software license*. The two are incompatible. If a GV-USB dongle has been inserted on the computer with the system, please remove it before using software licensing.
- 2. GV-USB dongle comes in internal and external dongles. Internal dongle is recommended for the Hardware Watchdog function, which restarts the PC when Windows crashes or freezes.

Note for GV-VMS V18.3.1 or later:

- 1. The HD DVR license is only supported by GV-VMS V18.3.1 or later.
- 2. The **HD DVR** license is required for connecting UA-XVR and UA-XVL series (only **analog** channels supported)
- 3. The 3rd-Party license is required for connecting UA-IP cameras.



1.2 Minimum System Requirements

Below are the minimum PC requirements for connecting GV-VMS with 32 and 64 channels of GeoVision and 3rd party IP cameras (dual streams).

• GV-VMS V17

CPU	GV-VMS (Up to 32 Channels)	GV-VMS Pro (Up to 64 Channels)	
OS	64-bit Windows 7 / 8 / 8.1 / 10 / 11 / Server 2008 R2 / Server 20 / Server 2016 / Server 2019		
CPU	4th Generation i5-4670, 3.4 GHz	4th Generation i7-4770, 3.4 GHz	
Memory	8 GB RAM	16 GB RAM	
Processor Graphics	To obtain the maximum frame rate p specifications here.	ossible, see GPU Decoding	

Note:

- 1. To use the fisheye dewarping function, the graphic card must support DirectX 10.1 or above.
- 2. The system requirements are determined in round-the-clock recording mode with live view only, while remote connections and video analysis features being disabled.
- 3. H.265 decoding requires 6th Generation Intel Desktop Processor (Skylake) or above, which comes with onboard GPU.

• GV-VMS V18

CPU	GV-VMS (Up to 32 Channels)	GV-VMS Pro (Up to 64 Channels)	
OS	64-bit Windows 10 / 11 / Server 2016 / Server 2019		
CPU	4th Generation i5-4670, 3.4 GHz	4th Generation i7-4770, 3.4 GHz	
Memory	8 GB RAM	16 GB RAM	
Processor Graphics	To obtain the maximum frame rate specifications here.	possible, see GPU Decoding	

Note:

- 1. To use the fisheye dewarping function, the graphic card must support DirectX 10.1 or above.
- 2. The system requirements are determined in round-the-clock recording settings with live view only, while remote connections and video analysis being disabled.
- 3. H.265 decoding, searching of face recognition events by face images, and PVD motion detection require 6th Generation Intel Desktop Processor (Skylake) or above, which comes with onboard GPU.



1.3 Minimum Network Requirements

The data transmitting capacity of GV-VMS depends on the number of Gigabit connections available. The numbers of Gigabit network cards required to connect **64** channels are listed below according to the resolution and codec of the source video.

Codec	Resolution	Bitrate Used (Mbps)	Total FPS for 64 ch	Gigabit Network Cards Required	Max. Channels Supported per Network Card	
	1.3 MP	5.05	1920	1	Max. 64 ch / card	
H.264	2 MP	7.01	1920	1	Max. 64 ch / card	
	3 MP	10.48	1280	1	Max. 64 ch / card	
	4 MP	11.65	960	2	Max. 50 ch / card	
	5 MP	16.48	640	2	Max. 38 ch / card	
	8 MP	17.14	1600	2	Max. 38 ch / card.	
	12 MP	16.67	960	2	Max. 38 ch / card	
H.265	3 MP	7.06	1920	1	Max. 64 ch / card	
	4 MP	9.44	1600	1	Max. 64 ch / card	
	5 MP	7.52	1920	1	Max. 64 ch / card	
	1.3 MP	32.36	1920	3	Max. 22 ch / card	
	2 MP	44.96	1920	4	Max. 16 ch / card	
	3 MP	38.73	1280	4	Max. 18 ch / card	
MJPEG	4 MP	40.35	960	4	Max. 17 ch / card	
	5 MP	30.48	640	3	Max. 22 ch / card	
	8 MP	58.52	1600	6	Max. 12 ch / card	
	12 MP	65.98	960	6	Max. 11 ch / card	
Note: The	Note: The network requirements may vary depending on the bitrate of the streams.					

1.4 Installing GV-VMS

Before You Start

For optimal performance of your system, it is important to follow these recommendations before installing the GV-VMS:

- It is highly recommended to use separate hard disks; one for installing Windows OS and GV-VMS, while the other for storing recorded files and system logs.
- When formatting the hard disks, select NTFS as the file system.
- When GV-VMS is running, it is not recommended to perform disk defragmentation at the same time.
- Since the size of transmitted data from IP cameras may be quite large and reach beyond the transfer rate of a hard disk, you should note the total of recording frame rates that you can assign to a single hard disk when single-stream (Main or Sub stream) recording is applied, as listed below:

	H.264		H.265		
Video Resolution	Frame Rate (fps)	Bitrate (Mbps)	Frame Rate (fps)	Bitrate (Mbps)	
1.3 MP (1280 x 1024)	660	5.05	N/A	N/A	
2 MP (1920 x 1080)	660	7.01	N/A	N/A	
3 MP (2048 x 1536)	440	10.48	660	5.35	
4 MP (2048 x 1944)	330	11.65	550	7.74	
5 MP (2560 x 1920)	220	16.48	660	6.73	
8 MP (3840 x 2120)	550	14.13	N/A	N/A	
12 MP (4000 x 3000)	330	14.47	N/A	N/A	
Note: The data above was determined using the bitrate listed above, hard disks with					

Frame rate limit in a single hard disk with single-stream recording applied

Note: The data above was determined using the bitrate listed above, hard disks with average R/W speed above 110 MB/s, and with single-stream recording (Main or Sub stream) recording is applied.

Recording Main and Sub streams together will require significantly more hard drive space than single-stream recording. When single- stream (either Main or Sub stream) recording is applied, up to 22 channels can be assigned to one hard disk. But when dual-stream (Main and Sub streams) recording is enabled, only up to 11 channels can be recorded to one hard disk.

The frame rate limit is based on the resolution of video sources. The higher the resolutions, the lower frame rates you can assign to a single hard disk. In other words, the higher the frame rates you wish to record, the more hard disks you'll need to. For detailed information of recording frame rates, refer to the user's manual of the IP camera that you wish to connect to.

Installing GV-VMS

- Download GV-VMS by selecting **Primary Applications** from the drop-down list and clicking **Download** of **GV-VMS** do n <u>GeoVision's website</u>.
- 2. If you are using a USB dongle, insert the dongle to your computer. See *1.1 License* for connections requiring dongle license(s).
- To install USB driver, select Driver, F/W, Patch from the drop-down list and click
 Download of GV-Series Card Driver / GV-USB Device Driver.
 - To verify the driver is installed correctly, go to Windows Device Manager and expand **DVR-Devices**. You should see the **GV-Series USB Protector**.



1.5 Running GV-VMS

- 1. When you run GV-VMS for the first time, the system will prompt you for a Supervisor ID and Password.
- 2. Type the desired **ID**, **Password** and a **Hint** to remind you of the password.
- 3. Optionally click **E-Mail List** to enter e-mail addresses used to receive the password when forgotten.
- 4. Click **OK**. The main screen of GV-VMS and a dialog box appears.
- To choose how to save your system database, select Microsoft Office Access
 Database or Microsoft SQL Server and fill out the required fields.
- Upon first-time starting of the GV-VMS, you are prompted with the Automatic Setup dialog box to assist you in quickly adding IP devices to the GV-VMS



1.6 Main Screen of GV-VMS

In the main screen of GV-VMS, the main setting buttons are located in the top-right corner.



Name	Description
Login ID	Click to manage accounts and passwords for accessing GV-VMS.
Audio	Click to control the volume of your PC.
Home	Shows the live view of connected cameras.
ViewLog	Shows a timeline of recorded events for playback.
	Brings up these options when Home is selected:
	Monitor: Start / Stop monitoring, I/O monitoring and schedule monitoring
	• Network: Enable Webcam Server and connection to other GeoVision software.
	Tools: Show / hide volume indicator and set up Object Index.
	• Configure: Set up camera, recording, system, schedule, video processing and I/O devices.
Toolbar	• Content List: Configure live view layout, of cameras, I/O devices and E-Maps.
	Brings up these options when ViewLog is selected:
	Display Play Panel: Display / Hide the ViewLog timeline.
	• Tools: Manage event search, system log, event backup and event export.
	Configure: Apply video effects and text overlay during playback.
	Content List: Manage playback layout and access camera list.
Exit	Click to Minimize or Exit GV-VMS.

Chapter 2 Getting Started

2.1 Adding IP Cameras to GV-VMS

When logging in for the first time after installing GV-VMS, the **Automatic Setup** dialog box appears. Follow the steps below to add IP cameras.

1. Click **Automatic Setup** to search for IP cameras on the LAN. Then select / deselect the desired cameras and click **Apply**.

	IP[192.168.4.223] Realte		/8111C(P) Family PCI-E	Gigab ▼ Port : 15000
Automatic Setu	p	Progress :		
lame	IP Address	Port	MAC Address	Brand
GV-CAW120	192.168.4.95	10000	0013E204FC0D	GeoVision_GV-CAW120
GV-MFD520	192.168.5.115	10000	0013E2054F24	Geovision_GV-MFD520
GV-BX2500	192.168.5.125	10000	0013E209C3F3	GeoVision_GV-BX2500
GV-PT320D	192.168.5.168	10000	0013E20550C5	GeoVision_GV-PT320D
				Þ

- 2. The default login information for cameras is **admin** / **admin**. Double-click the camera to modify the login info of cameras if needed.
- 3. Cameras added are now listed in the IP Device List.

D		ID	Status	Server address	Port	Video Resolution	Bitrate	Brand	Setting
	~	2	•	192.168.4.88	10000	1280X1024(H264) / 320X256(H264)	81 / 18 kbps	GeoVision_GV-EBX1100	×
		7	۲	192.168.7.25	10000	1920X1080(H264) / 448X252(H264)	2736 / 140 kbps	GeoVision_GV-BX220D/BX2300_Series	*
		10	•	192.168.5.181	10000			GeoVision_GV-FD120D/FD1200/FD1210_Series	26
	~	1	0	192.168.5.115	10000			GeoVision_GV-MFD520_Series	*
		3	0	192.168.4.89	10000			GeoVision_GV-UBX2301_Series	26

Status icons illustrated:

	Connected	The camera is connected.
•	Connecting	GV-VMS is trying to connect to the camera.



Connection Failed Unable to connect to the camera. Move the cursor onto the red icon to see the error message.

- **Inactive Camera** The camera is inactive. Click the checkbox to connect.
- **Started Monitoring** The camera is under monitoring.
- **Pre-Rec Enabled** Pre-recording is enabled.
- 4. To adjust camera settings, click **Setup** knext to the camera. Refer to 3.2 *Configuring Camera Settings* for details.
- 5. Close the dialog box by clicking X in the top-right corner. When adding camera for the first time, the cameras will be automatically assigned to the live view grid.

Note:

- You can also access the IP Device Setup dialog box by clicking Home > Toolbar
 > Configure > Camera Install.
- 2. If your camera was not detected during the scan in Automatic Setup, you can click the **Manual Setup** button **O** to type the camera connection information manually.

2.2 Accessing Camera Live View

After adding cameras, you can access camera live view by dragging the camera in the Content List to the live view grid.

Click Home > Toolbar > Content List
. Then click Camera to see the list of cameras added, and drag the desired cameras to the live view grid.

€ GeoUlsion GV-VMS	13:22 PM		1 - ◀) 💿 🗄 💥 ੯
	 Content List 	×	
	E Layout	~	
	🔊 Camera (3)	^	
+	Camera1	_	
	Camera2		
	📌 Camera3		
	🗖 Panorama	~	
	I/O Device (0)	~	

For details, see Chapter 4 Live View in this Quick Start Guide.

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2.3 Start Monitoring

After setting up cameras and the live view, be sure to start monitoring the cameras to activate the following functions.

- Recording (See Section 3.1)
- Video Analysis (See Chapter 5)
- I/O Applications (See Section 7.1)

To start monitoring of connected cameras, click **Toolbar** > **Monitor** \square > **Start All Monitoring** or select individual cameras.

To see how to access recorded videos, refer to Chapter 6 Video Playback and Backup.

Note: If you have set a schedule, you can select **Start Schedule Monitoring**. The schedule takes precedence and the functions listed above will enable and disable accordingly. See *7.2 Setting up Schedules*.

Chapter 3 Camera Setup

3.1 Configuring Recording Settings

To configure the recording settings of connected cameras, click **Home** > **Toolbar** > **Configure** > **System Configure** > **Record Setting**.

Record Setting									
Video Record									
Max Video Clip: 5 🗸 Min.	Database Folder								
PreRecord:	C:\GV-VMS\C	ameraDBs\							
Recycle	🗌 Use Digital Wa	Use Digital Watermark Protection							
Register Event	Sync recording	from camera SD card when	reco	nnected					
Storyline 💌									
Record Error Process :	_					_			
Camera	2	3		-4		- 5			
Camera									₹~
Camera Name	Record Type 🏾 🖶	Video record frame rate	₽.	Storage	₽.	Stream	- F	%	^
Camera1	Motion Detection 🗸 🗸	Urgent Event	~	Storage 1		Main Stream	~	%	
Camera2	Motion Detection 🗸	Urgent Event	~	Storage 1		Main Stream	~	%	
									~
Add Log Location 💌	Apply Partition to Record					ОК	С	ancel	

- 1. Select the camera(s) you want to configure.
- 2. Under Record Type, select Disable, Motion Detection or Round-the-Clock.
- 3. You can set different recording frame rates. Select **Urgent Event** to record in full frame rate or **General Event** to record only the key frames.

The frame rate for General Event and Urgent Event can be defined in the camera's General Setting page. See *General Setting* in *3.2 Configuring Camera Settings*. Normally, you would set a higher frame rate for Urgent Events (e.g. full frame) and a lower frame rate for General Events (e.g. key frame only).

Note: By default, the recording mode is set to Motion Detection and the Recycle function is enabled with the Recycle Threshold set to 32 GB.

If there are more than one storage locations, click the ✓ next to Storage to specify where to store the recorded videos. To configure storage settings, click Add Log Location.

5. Under **Stream**, select the stream(s) you want to record. By default, **Main Stream** is set to record high-resolution video images, while **Sub Stream** records lower-resolution video images. Select **Main Stream and Sub Stream** to record both streams simultaneously.

For details on Motion Detection settings, see *Setting up Motion Detection*, Chapter 1, *GV-VMS User's Manual*.

3.2 Configuring Camera Settings

To configure camera settings, click the **Setup** button \aleph of an active camera in the IP Device List. The settings available vary depending on the camera's firmware and whether the camera is connected or not.

There are three setup dialog boxes in the left menu of the camera's setting dialog box: **Video Setting**, **Audio Setting**, and **General Setting**. Clicking the Finger button **1** to apply the same settings to all connected cameras.

[Video Setting]

In Video Setting, you can configure the camera name, codec, frame rate, GOP, bitrate, resolution, trigger output, lens, video attributes and image orientation of the camera. Note that changes made to the Video Setting dialog box will change the settings on the IP camera.

ettings		
	H Video Setting	
Audio Setting	General Setting Set camera na	ame
🖾 🛱 General Setting	Camera Name : Camera 2	Video Lost / Connection Lost
	IP Address : 192.168.6.79	Mod. 1 🔹 Pin. 1 💌 💽
	Port : 10000	Camera Lens Set video attributes
	User name : admin	General
	Password :	Video Attribute
	Stream Setting	Brightness: 50
	Main stream 🔹	Contrast: 0 0
Set codec and FPS	Codec Selection : H265 -	, and the second s
det couec and i i o	FPS: 30 •	Saturation: 50
	GOP : 1.00 -	Sharpness : 50
	Quality / Bitrate	Gamma : 50
	O VBR.	Default Save
	Quality : Good ~	
	Max. Bitrate : 12 Mbit +	Image Orientation Normal Horizontal Mirror
	© CBR	Vertical Flip Rotate 180
	Max. Bitrate : 14096 Kbps 👻	Rotate 270 Rotate 90
	Smart Stream	
	Static Scene : Quality : Good	
	Max. Bitrate : 4 Mbit	N. M.
	Dynamic Scence :	
	Quality : Good 🗸	
	Max. Bitrate : 8 Mbit 🗸	
	Bitrate Reduction Level :	
	300 (30 - 300)	
	The bigger the lower bitra	ate.
	Resolution	
	4_3	
	Main stream : 2592x 1944 💌	
	Sub Stream : 640x480 -	
		OK Cancel
		UN Calife



[Audio Setting]

In Audio Setting, you can configure audio functions for live view and recording, which are disabled by default.

Settings		x
E Video Setting Audio Setting General Setting Setting	Audio Setting Audio Setting Audio Setting Audio Gain Wave Out Select Wave Out Penoise Penoise Penoise Penoise Penoise Rec Audio By Sensitivity 7 Rec Audio Audio Format 16KHz, 16 bit	
	OK C	ancel

- 1. To listen to the audio around the camera, enable Wave Out.
- 2. To record the audio around the camera, enable **Rec Audio** and select **By Sensitivity** or **Round-the-Clock**.

Note: After Wave Out is enabled here, you can enable audio on the live view of the camera by clicking the **Tools** icon **X** and select **Set to Wave Out**.



[General Setting]

In General Setting, you can configure network timeout, on-demand display, live view frame rate, and recording frame rate settings.

		Set live view frame rate
Settings		
Video Setting	🛱 General Setting	
	Network Time Out 45 Second	Frame rate control for live view decoding Live view frame rate control (Main stream)
	Postpone live view decoding	Maximum live-view frame rate. Uive-view key frame only.
	Frames to keep in live view buffer	30 Live view frame rate control (Sub stream)
	30 Solution Demand Display	Maximum live-view frame rate.
	Enable I.2x Disable	Recording frame rate control
	Recording codec format	Urgent Event
	Standard codec GeoVision codec	Maximum record frame rate. Record key frame only.
	Automatically adjust DST Enable Disable	30 V General Event
	Video Lost / Connection Lost	Maximum record frame rate. Record key frame only.
	Invoke Alarm	1
	Video Lost / Connection Lost	Set codec and resolution automatically Set codec and resolution automatically
]L	OK Cancel

Set recording frame rate

- 1. Under Live view frame rate control (Main / Sub Stream), you can set the live view frame rate.
 - When using **MJPEG**, every frame is a key frame, so you can specify the number of key frames to decode for live view.
 - When using H.264 / H.265, only 1 key frame is transmitted per Group of Pictures (GOP), so you can decode Key frames only to omit all intermediate frames or Max. frame to include key frames and all intermediate frames.

Note:

- 1. The **GOP** setting can be configured in the **Video Setting** page (*Video Setting*, *3.2 Setting Camera Setting*). A GOP of 30 means that there is 1 key frame for every 30 frames, so an IP device with a frame rate of 30 fps will have 1 key frame per second.
- You can change the camera's main stream and sub stream to H.264, H.265 or MJPEG in the Video Setting page (Video Setting, 3.2 Setting Camera Setting). After changing codec, you need to click OK to apply the change before switching to the General Setting. Note that changing the camera's main stream and sub stream to H.264, H.265 or MJPEG will affect the frame rate setting options under General Setting.



2. Under Recording frame rate control, define the recording frame rates for **Urgent event** and **General event**. Refer to the step above for details. Make sure the related settings are configured accordingly in the Recording Settings dialog box as described in step 3 of *3.1 Configuring Recording Settings*.

For details on Video Setting, Audio Setting, and General Setting, see *Configuring Individual IP Cameras*, Chapter 2, *GV-VMS User's Manual*.

Chapter 4 Live View

4.1 Arranging Live View Layouts

1. In the Content List, click Layout.



- 2. To add a layout, click Add ^O and click Add Layout. The Add New Layout dialog box appears.
- 3. Name the new layout and select one of the three available methods under Layout Setup to define a layout and click **OK**.
- 4. 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 squares and click **Merge** to create a larger square.
 - c. Click **OK** when you are done.

A message appears. Click **Yes** if you want to automatically assign the cameras to the new layout.



4.2 Functions on the Live View

Place the mouse cursor on the camera live view to see the icons below.



Icons	Functions		
Instant Play	Plays back the video recorded.		
Snapshot 🔯	Captures a snapshot of the current live view.		
Talk Back Toggle / Push-to-Talk	Talk to the surveillance site. For details, refer to [The behavior of the talk back button] in <i>1.6.1 Configuring General Setting</i> , GV-VMS User's Manual.		
Tools 🔀	Includes the following options:		
	Monitor: Starts monitoring of the camera.		
	Properties:		
	 Show Caption: Shows camera name on live view using the specified font size. 		
	- Keep Image Ratio: Locks aspect ratio of the camera image.		
	Close: Removes the camera from the layout grid.		
	The following options are available when related function is enabled:		
	• Set to Wave Out: Enables live view audio. (See [Audio Setting] in Section 3.2)		
	• PTZ Control: Enables PTZ functions. (See Section 4.4)		
	• Add to bookmark: Bookmarks a scene to watch later in ViewLog. This function is only available when the channel is recording.		
	• Storyline: Records a sequence of short video clips of a specific incident.		
Zoom 트	Switches the live view to full screen. If there is a designated Zoom window, clicking the Zoom button will replace the live view in the zoom window instead.		
Volume Indicator	Display an audio volume indicator on the top-left corner of the camera live view. Click Home > Toolbar > Tools > Audio > Show Volume Indicator .		



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

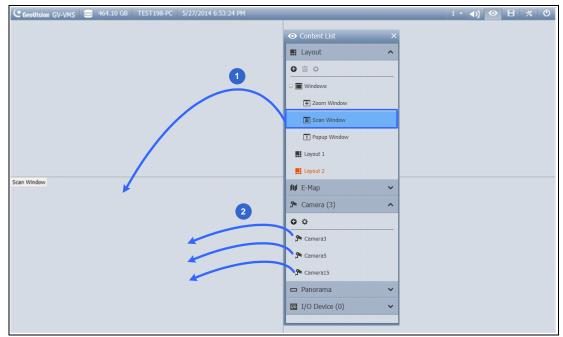
The live view screen can be controlled using the actions below.

4.2.1 Zoom Window

- To designate a Zoom Window to see a close-up view of the camera without changing the live view layout, click Layout > Windows in the Content List and drag Zoom Window to a live view grid.
- 2. Move the mouse cursor to a camera live view and click **Zoom** in the top-right corner. The camera live view is displayed in the Zoom Window.
- To remove the camera from the Zoom window, place the cursor on the live view, click Tools X and select Close. To change the live view grid back to a normal window, repeat this step again to close the Zoom Window.

4.2.2 Scan Window

- To assign multiple cameras to a Scan Window, to be shown in sequence, click Layout
 > Windows in the Content List and drag Scan Window to a live view grid.
- 2. Drag multiple cameras into the Scan Window.





3. Move the cursor to the Scan Window, click **Tools X** and select **Properties**.

Scan Pr	operties				
1	Name	Scan Interval			
Ŧ	Camera1	5			
	Camera7	5			
Ê	Camera8	5			
	Default Scan Interval:				
	5 🚔 Sec. 🛃				
	Show Caption				
	Font size: 10				
	🗏 Keep Image Ratio				
	ОК	Cancel			

- 4. To adjust the order of a camera, click **Up 1** and **Down 1**.
- 5. To specify how many seconds to show the live view, click and adjust the **Scan Interval** of each camera. Optionally click the **Finger** to apply this Scan Interval to all cameras.

4.2.3 Popup Window

You can designate a Popup Window to display live images of cameras, upon events, on a separate monitor. For this function to work, you must first create a live view layout on another monitor.

- 1. In the Content List, click Layout > Add O > Add Layout to create a new layout.
- 2. After clicking **OK**, select a desired monitor from the **Apply to...** list to activate the layout on the designated monitor.
- In the Content List, click Windows > Add > Add camera popup window to select the cameras to be displayed in the Popup Window.
- 4. Rename the Popup Window if necessary and drag the Popup Window from the Content List to the layout created in Step 3.

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4.2.4 Focus View and PIP

Focus View

You can create up to 7 close-up views per camera and place these created close-up views inside live view grid. This function is not supported for Fisheye and PTZ Cameras.

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

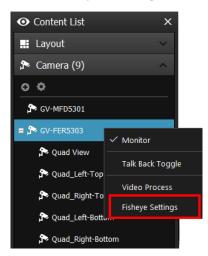
O Content List X	Focus View - Camera6
📰 Layout 🗸 🗸	
🏞 Camera (2) 🔺	
• •	
📌 Camera6	
Monitor	
Talk Back Toggle	
Video Process	
Focus View Setup	
	Color:
	Focus View Area:
	OK Cancel

- 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. Optionally click the **Color** drop-down list to change the color of the box.
- 4. Click **OK**. The created focus views are listed under the camera.
- 5. You can now drag the focus views to live view grids.



4.3 Setting up Fisheye Cameras

- 1. From the Content List, drag the fisheye camera (circular source image) or one of the dewarpped fisheye images (e.g. Quad View) to the live view grid.
- 2. To change the fisheye settings, right-click the fisheye camera from the Content List and select **Fisheye Settings**. The Fisheye Setting dialog box appears.



3. Right-click on the Fisheye Setting dialog box, point to Fisheye Option to access settings.

For details on the fisheye functions, see 3.18.1 Fisheye View, GV-VMS User Manual.

4.4 Setting up PTZ Cameras

- 1. Move the cursor to the camera live view and click **Tools X**.
- 2. Click PTZ Control to enable PTZ function.



- 3. You can control GV-IP Speed Domes using the following actions:
 - **Double-Click:** The camera will center on the spot you clicked.
 - **Drag:** You can select Random Move or Center Move after right-clicking the live view.

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- **Random Move:** Drag a line on the live view and the camera will move toward the direction you dragged.
- Center Move: Drag a box on the live view and the camera will zoom in on the area you dragged.

For details, see 1.11.1 Accessing PTZ Control Panel and Auto Functions, GV-VMS User Manual.



Chapter 5 Video Processing

GV-VMS offers a number of video processing functions. To configure video processing functions, follow the steps below.

Click Home > Toolbar > Configure > Video Process. This dialog box appears.

Setup	X
Camera list Camera1 Camera7 Camera8	Video Analysis Object Index Setting Clear All Select All OK Cancel
	Send Event Alerts
	Max 16 Select 0

- 2. Select a function under Video Analysis.
- 3. In the Camera List, select the camera(s) you want to configure.
- 4. Click the **Setting** button to access the configuration page.
- 5. To send e-mail notification upon video analysis events, click next to **Send Event Alerts**.

For details on event alert functions, see 3.21 Event Alert through E-mail Notification, GV-VMS User's Manual.

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The following Video Processing functions are only enabled when you **start monitoring** on the cameras.

- Object Index/Monitor Setup
- Counter / Intruder Alarm Setting
- Crowd Detection
- Advanced Unattended Object Detection
- Advanced Scene Change Detection
- Advanced Missing Object Detection
- Face Count
- Text Overlay Setting
- Heat Map
- Video Analysis by Camera (IPCVA)

If you have set an AVP schedule, Video Processing functions will be enabled according to the schedule regardless of monitoring. See *7.2 Setting up Schedules* on how to set a schedule.

For details on video processing functions, see *Chapter 3 Video Analysis*, *GV-VMS User's Manual*.

Chapter 6 Video Playback and Backup

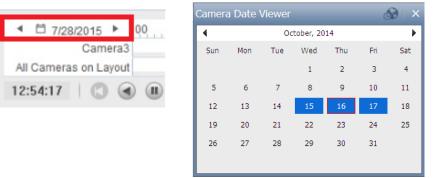
6.1 Playing Back Recorded Videos

- 1. Select ViewLog 📃 > Toolbar 🔀 > Content List 🔳. The Content List appears.
- 2. Select Add **O** > Import from Live to import current live views to the playback screen.

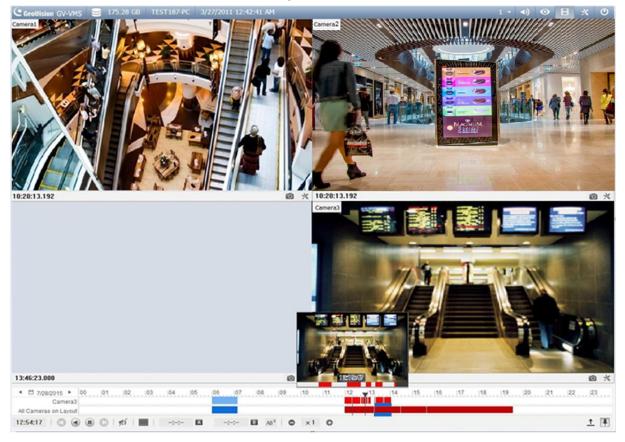


3. Optionally drag and drop more cameras from the Content List to the playback screen.

4. On the timeline, click the arrows or the date to select a date from a pop-up calendar.



- 5. Click on the timeline to select a time with video recordings. You can scroll the mouse to zoom in and out on the timeline.
 - Light Blue areas: videos recorded in round-the-clock mode.
 - Red areas: motion and other alarm events.
 - Dark Blue areas: audio recorded during motion and other alarm events.



- 6. Use the playback control buttons to play back recordings. Place the cursor on the buttons to see the name of the function.
- 7. Click **Play** to start playing back.

For details, see Chapter 4 Video Playback, GV-VMS User's Manual.

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6.2 Backing Up Recorded Videos

1. In ViewLog, click Toolbar 🔀 > Tools 🔲 > Backup. This dialog box appears.

Backup		
Media		Add time frame
🔘 Using Hard Disk		
C:\SIBK20141216\		
Backup Folder Name :		
SIBK20141216		
Using CD / DVD / BD		
E:\[DV-W520GM : 4.70 GB]	•	
Burning Software :		
O Using OS-Burning	2	
Media Information		-
Used Size :	120.65 MB	
Free Size :	4.58 GB	V Include Player
Total Size :	4.70 GB	Viewlog 🗸
Erase Rewritable Disc		Add time frame OK
		Cancel

- 2. Select a destination media to back files using **Hard Disk**, **CD / DVD / BD** or **OS-Burning**.
- 3. Click the **Add Time Frame** button to define a time period and which files to back up.
- 4. To include the player to the backup files, select **Include Player** at the right bottom of the Backup dialog box and select **ViewLog** or **Single Player**.
- 5. Click **OK** on the Backup dialog box to start the backup.

For details on backing up files, see 5.2 Backing Up Recorded Files, GV-VMS User's Manual.

Chapter 7 Other Important Features

7.1 Setting up I/O Functions

1. To set up I/O devices on GV-VMS, click **Home** > **Toolbar** > **Configure** > **Accessories** (if available) > **I/O Device** (if available) > **I/O Device Setup**.

I/O Device Setup	
Add Remove Modify Module Device Description 1 GVIOBox IOBOX-01(192.168.7.117)	Input 1 Name Input 1 Vertical Signal Type
	N/O N/C Latch Trigger
	Name Image: Control of the second s
	N/O Toggle N/O Toggle N/O Pulse N/C Pulse N/C Pulse OK Cancel

Note: The **Accessories** option only appears when GV-Keyboard or GV-Joystick has been set up on the GV-VMS. The **I/O Device** option only appears after at least one I/O device has been added.

- 2. Click Add. Then select IO Box (USB), GV IP Device, or IO Box (IP) and configure its connection settings.
- For I/O devices connected through USB, you can configure Signal Type and Latch Trigger on GV-VMS.



4. After the I/O devices are added, select **Toolbar** \ge > **Configure** \Rightarrow > **Accessories** (if available) > **I/O Device** > **I/O Application Setup**. This dialog box appears.

I/O Application Setting					
Image: All of the second s	Monitor Input Rec. Video: 5 Sec. Urgent Event Invoke Alarm: Invoke to Send Alerts: Nod. 1 Pin. 1 Register Input Event Input Overlay: Preset Go by I/O:				
Preset Go by I/O - Alarm On Dwell Time: 10 Sec. Never Recycling Input - Triggered Events I/O Error Sound I/O Error Alert Deactivate notification when selected pin is ON Mod. 1					
Momentary Mode Maintained Mode Start/Stop Camera Monitoring by I/O Mod. 1 Pin. 1 Start/Stop IO Monitor by I/O Mod. 1 Pin. 1					
U OK Cancel					

- 5. Select an input and specify the actions to take when the input is triggered.
- 6. Click **OK** to apply the settings.
- 7. To activate I/O functions, click Home Toolbar
 Solution > Nonitor
 Solution > Nonitor
 I/O
 Monitoring or Start All Monitoring.

For details on I/O setup, see Chapter 6 I/O Applications, GV-VMS User's Manual.

7.2 Setting up Schedules

You can create a schedule to enable and disable recording, video analysis, I/O monitoring, connection with Center V2 / Vital Sign Monitor / WebCam Server / Mobile Service / GV-Edge Manager and PTZ object tracking at specific times each day.

1. Click **Home** > **Toolbar** × > **Configure** × > **Schedule Edit**. This dialog box appears.

		<	2014 May	\geq	Today : 2	014/5/29
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

- 2. Click Schedule and select Setup Wizard. The Setup Wizard dialog box appears.
- 3. Specify when to apply the schedule plan and click **Next**.
- 4. Name the schedule plan and click **Next**.
- 5. Select a button on the left (**Camera**, **AVP**, **I/O Monitoring**, **or Server** or **PTZ Object Tracking**) and drag across the timeline to enable it during that time.

Setup Wizard		X
🗐 🗊 🥖 🧭	Ť	
Application		
Camera		
AVP		0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
	Round the Clock Rec	
I/O Monitoring	Motion Detection Rec	
	Alarm Trigger	
Server	Enable Webcam Con	
PTZ Object	Enable ERM/Control	
Tracking		

To set a recording schedule, click **Camera**, select a camera and click and drag on the desired time periods to specify how the camera is monitored throughout the day.



6. Click **Next** and **Finish** when you are done. The plan created appears on the calendar.

nd Sch			<	2014 May		Today : 20	14/5/29
	SUN	MON	TUE	WED	THU	FRI	SAT
					1	2	3 Weekend Sch
	4 Weekend Sch	5	6	7	8	9	10 Weekend Sch
	11 Weekend Sch	12	13	14	15	16	17 Weekend Sch
	18 Weekend Sch	19	20	21	22	23	24 Weekend Sch
	25 Weekend Sch	26	27	28	29	30	31 Weekend Sch
	Weekend Sch 25						Weeke 31

Tips:

- 1. You can add multiple plans to the calendar.
- 2. You can also add a plan to the calendar by dragging an existing plan and dropping it on a date in the calendar.
- 7. Click Home > Toolbar > Monitor > Start Schedule Monitoring.

For details on setting schedule, see 1.8 Schedule, GV-VMS User's Manual.



Chapter 8 Dongle Upgrade

GV-USB Dongle can be upgraded to include more functions or enhance the system. You need to collect the data from your dongle and send it back to GeoVision for an upgrade. The upgrade is charged services. To upgrade your dongle, follow these steps:

1. Each dongle has its own serial number. Find it on the side of the dongle. Later this serial number will be used in naming the files for upgrading.



- 2. Insert the dongle to the computer.
- 3. In the software folder, double-click GVUsbKeyUpClient.exe. This dialog box appears.

🛃 GeoVision USB Key Upgrade Client		×
USB Keys:		>>
VMS (024D4B00)	Information VMS-14112068 (024D4B00) HW Serial: 14112068 Internal Serial: 0001383C Softwares: VMS VMS Pro Max. number of regular IP products(VMS): 64	* *
	Save Key ID Data Betch Save	
	Upgrade Batch Upgrade	
Select All Select None	Machine ID	Exit

4. To retrieve the data from the dongle, click **Select All**. The information of the dongle will be displayed in the information field. Note the displayed number of **HW Serial** should be the same as that on the dongle.

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- 5. To save the data to your local computer, click Save Key ID Data. If you have more than one dongle to upgrade, click Batch Save. Different dongle data will be saved as separate files. The file will be named after the serial number on the dongle and saved as *.out. For example, if a dongle serial number is 7116442, the file is named "VMS-7116442.out".
- 6. Send this data file to GeoVision at sales@geovision.com.tw. The GeoVision will examine the data file and send an *.in file back to you. The file name also includes the serial number of that dongle. In this example, the data file to be sent back is named "VMS-7116442.in".
- 7. After you receive the updated file, insert the correct dongle matching the .in file you receive, and then run **GVUsbKeyUpClient.exe**.
- Click Select All to read the dongle, click Upgrade and then open the updated file to upgrade the dongle. You can also select more than one dongle in the list and click Batch Upgrade to upgrade them at the same time. Make sure these dongles match the updated files you receive.