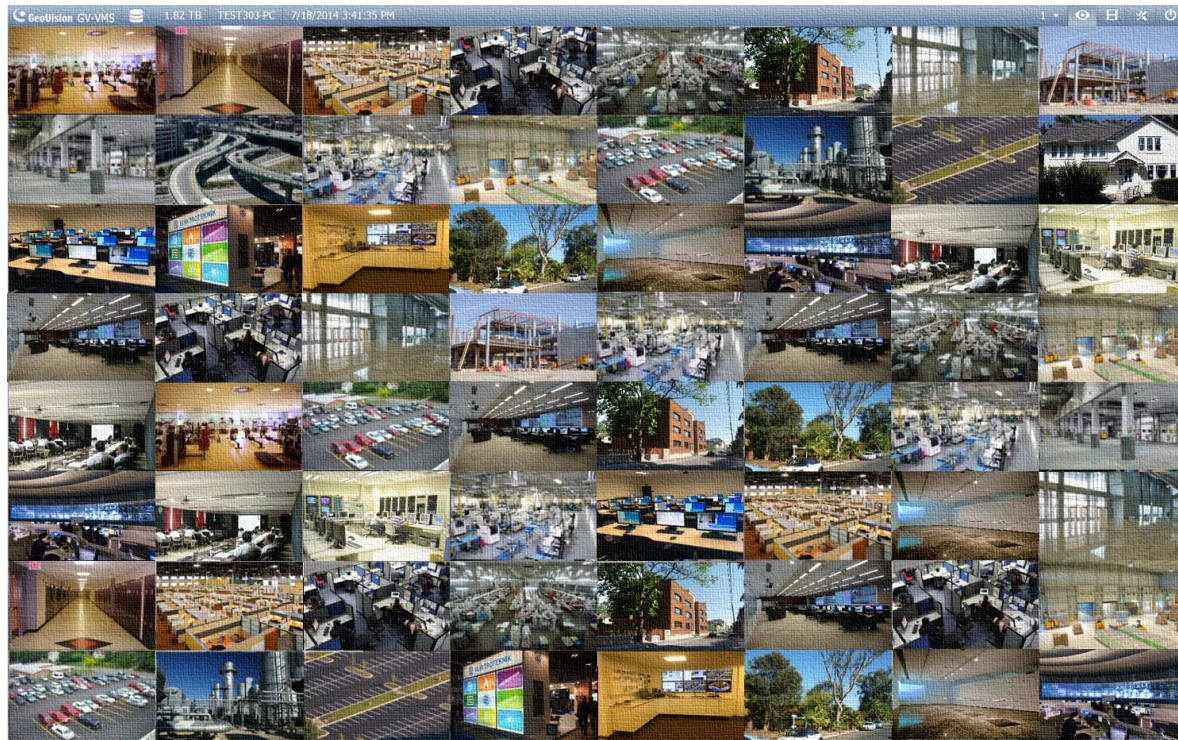


GV-VMS V14.10



Outline

- What's GV-VMS
- System Requirements
- License Policy
- Key Features
- Useful case

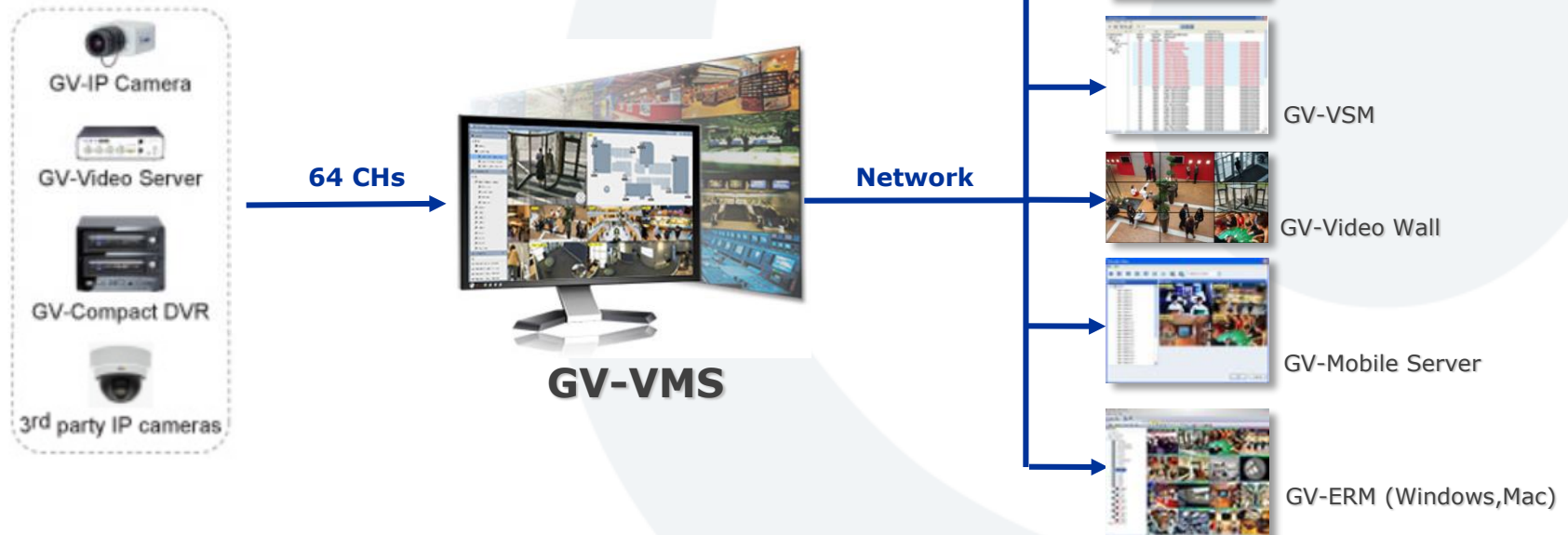
What's GV-VMS

Video management software running on a Windows server, supplies the basis for video monitoring, analysis, and recording.

GV-VMS	Version	14.	1.0
---------------	----------------	------------	------------

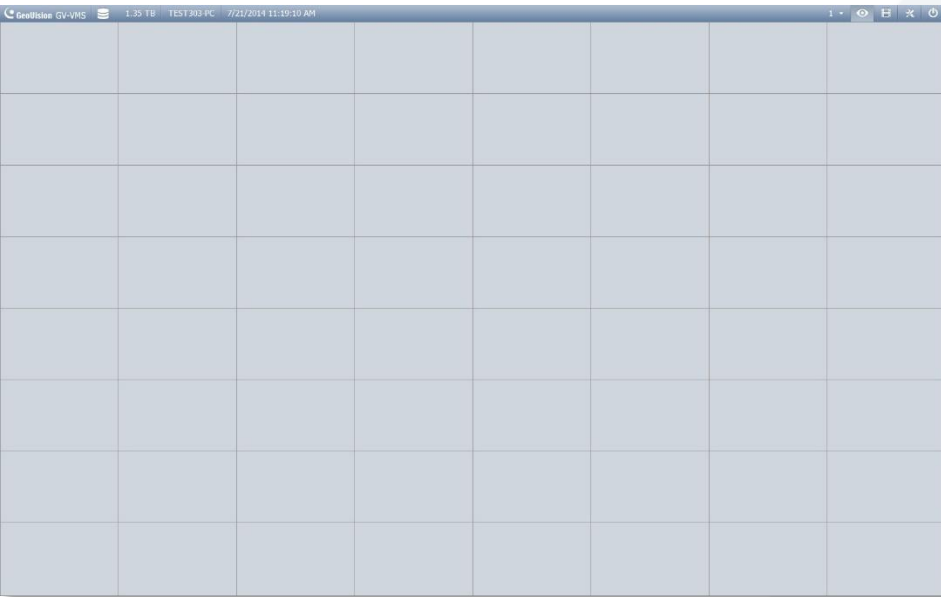
14 → Year (2014)

1.0 → Official release version number

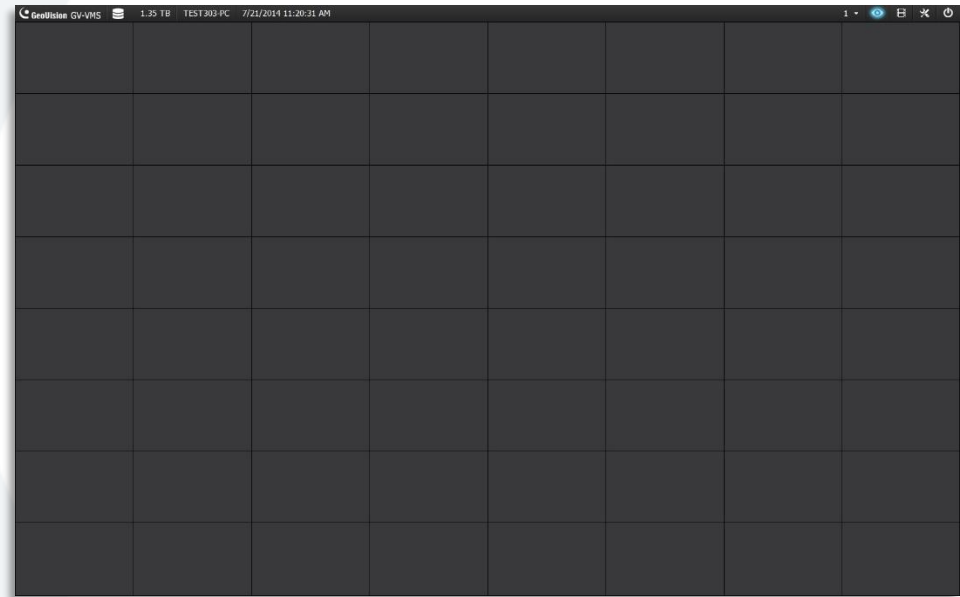


Style




In the GV-VMS Style offers two selectable above, namely light style and black style.



Light Style (Default)



Black Style

Model		GV-VMS
GeoVision and 3 rd party IP Camera Supported		UP to 64 Channels
OS Supported	64-bit	Windows 7 / 8 / 8.1 / Server 2008 R2 / Server 2012 R2
Protocol Supported		  
Language		22 Multi-Languages Bulgarian / Czech / Danish / English / French / German / Greek / Hebrew / Hungarian / Italian / Japanese / Persian / Polish / Portuguese / Russian / Serbian / Simplified Chinese / Slovakian / Slovenian / Spanish / Traditional Chinese / Turkish

Note: Non support Capture Card, POS, Wiegand.

System Requirements

Total Frame Rate Supported

■ 64 CHs – Intel Core i7-4770 (3.4 GHz), 8G RAM

Codec	Full-Frame Channels Supported	Resolution	Bitrate	Total FPS Supported	CPU Usage (%)	Virtual Memory Usage (MB)	Physical Memory (MB)
H.264	64 CHs (Dual Stream)	1.3 MP (1280 x 1024)	5.05 Mbps	1920	30	3509	2910
		2 MP (1920 x 1080)	7.01 Mbps	1920	40	4261	3060
		3 MP (2048 x 1536)	10.48 Mbps	1280	34	3374	4020
		5 MP (2560 x 1920)	16.48 Mbps	640	39	3295	2900

■ 32 CHs – Intel Core i3-4130 (3.4 GHz), 4G RAM

Codec	Full-Frame Channels Supported	Resolution	Bitrate	Total FPS Supported	CPU Usage (%)	Virtual Memory Usage (MB)	Physical Memory (MB)
H.264	32 CHs (Dual Stream)	1.3 MP (1280 x 1024)	5.05 Mbps	960	41	2079	1980
		2 MP (1920 x 1080)	7.01 Mbps	960	52	2084	2040
		3 MP (2048 x 1536)	10.48 Mbps	640	43	2050	2000
		5 MP (2560 x 1920)	16.48 Mbps	320	61	2089	2060

Hard Disk Limitations

Frame rate limit in a single hard disk when connecting to IP cameras.

Video Resolution	H.264	
	Frame Rate	Bit Rate
1.3 MP (1280 x 1024)	660 fps	5.05 Mbit/s
2 MP (1920 x 1080)	660 fps	7.01 Mbit/s
3 MP (2048 x 1536)	440 fps	10.48 Mbit/s
4 MP (2048 x 1944)	330 fps	11.65 Mbit/s
5 MP (2560 x 1920)	220 fps	16.48 Mbit/s

Note: The data above was determined using the bit rate listed above and hard disks with average R/W speed above 110 MB/s.

H.264: \\192.168.0.60\Hardware Team\01_Product Test result\Others\040114.GV-IPCAM Video Source\02_動態(大bit rate)場景

MJPEG: \\192.168.0.60\NVR Team\3. GV-Simulator\0829_TestSample

License Policy

Supported Devices	Channels	License
GV IP Devices Only	32 ch	No license required.
	64 ch	GV-VMS Pro license required, 32 ch per license.
GV + 3rd-Party IP Devices	32 ch	3rd-Party license required, in increments of 1 ch.
	64 ch	GV-VMS Pro license required, 32 ch per license. 3rd-Party license required, in increments of 1 ch.

Camera Install:

<input checked="" type="checkbox"/>	61	●	192.168.8.99	10044	1920X1080(H264) / 448X252(H264)	14316 / 3373 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	62	●	192.168.8.99	10045	1920X1080(H264) / 448X252(H264)	14316 / 3373 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	63	●	192.168.8.99	10046	1920X1080(H264) / 448X252(H264)	14371 / 3373 kbps	GeoVision_GV-BL110D_Series	
Active camera count :		64	Bitrate(Main/Sub/Total) :		849.5/169.6/1019.2 Mbps		License(GV/Others) :	64/64 (MAX : 64)

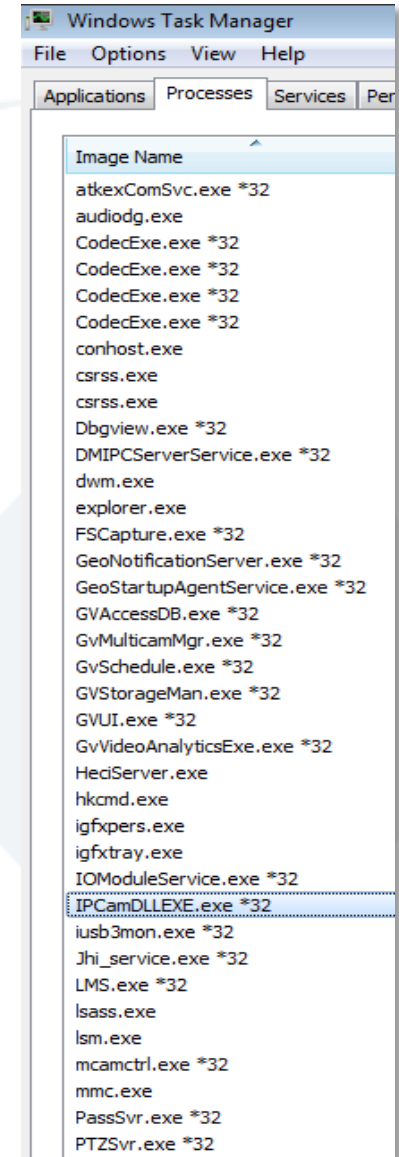
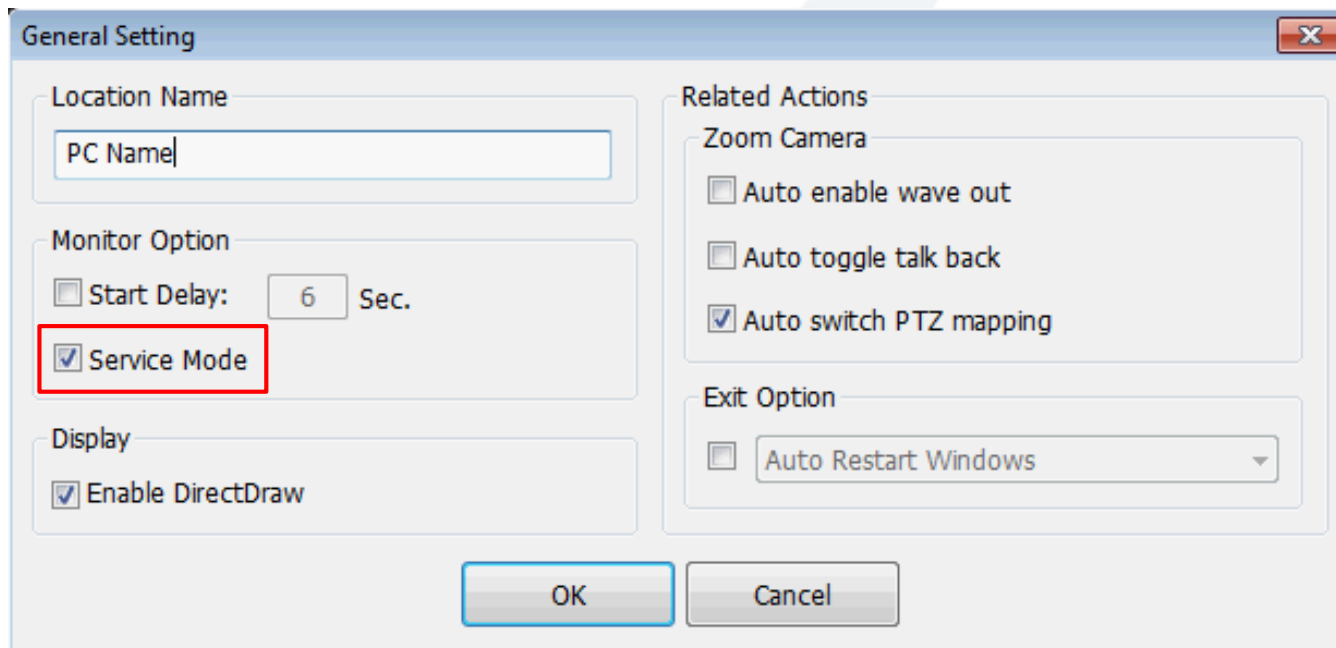
Key Features

Monitoring - **GPU Decode and Dewarping**

- ✓ Intel Sandy Bridge Chipsets only support GPU decoding of 1.3 MP to 2 MP videos
- ✓ Intel Ivy Bridge and Haswell Chipsets support GPU decoding of 1.3 MP to 5 MP videos
- ✓ Support GPU dewarping of fisheye views, the graphics card must support DirectX 10 or later.

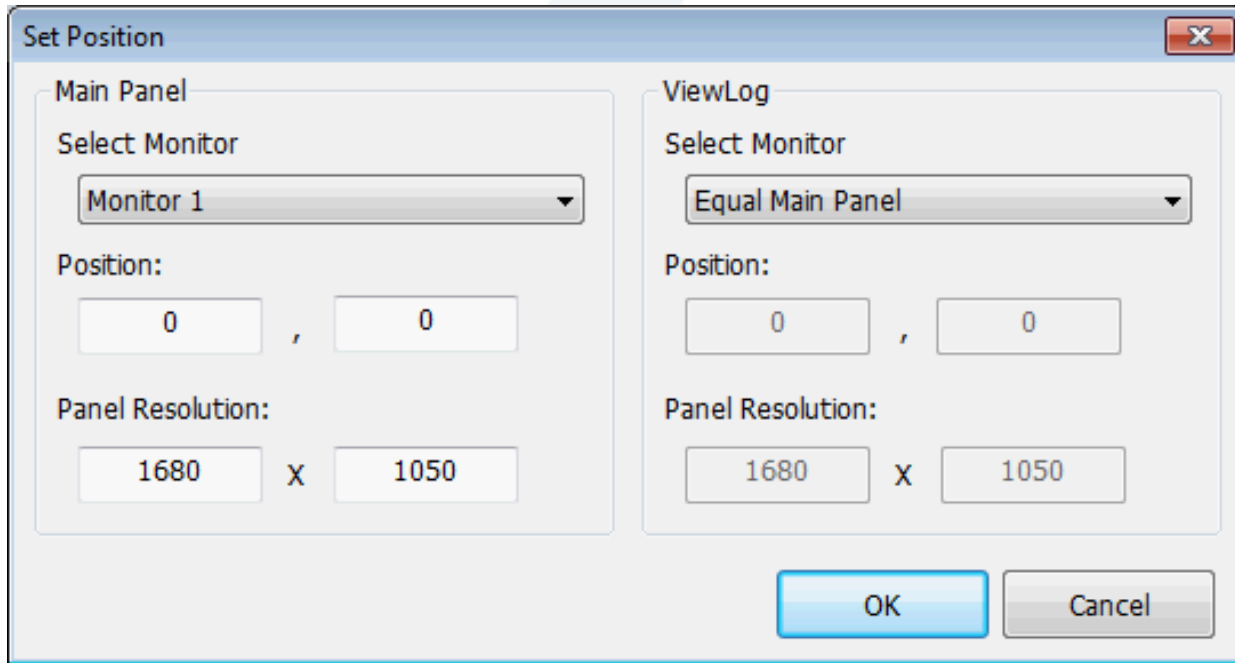
Monitoring – Service Mode

Enable the "Service Mode" function can be run in Windows background.



Monitoring – Panel Resolution

When GV-VMS first open, panel resolution presented by default with the same monitor resolution full screen, and you can manually adjust the panel resolution and the Position.



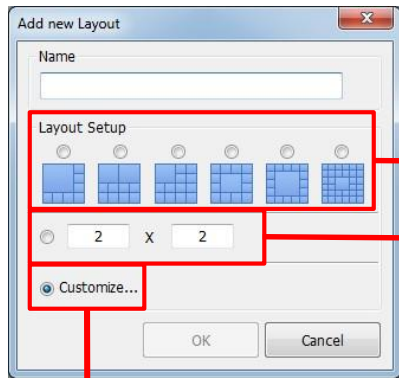
Set Position

Section	Select Monitor	Position (X, Y)	Panel Resolution (W x H)
Main Panel	Monitor 1	0, 0	1680 x 1050
ViewLog	Equal Main Panel	0, 0	1680 x 1050

Buttons: **OK** | **Cancel**

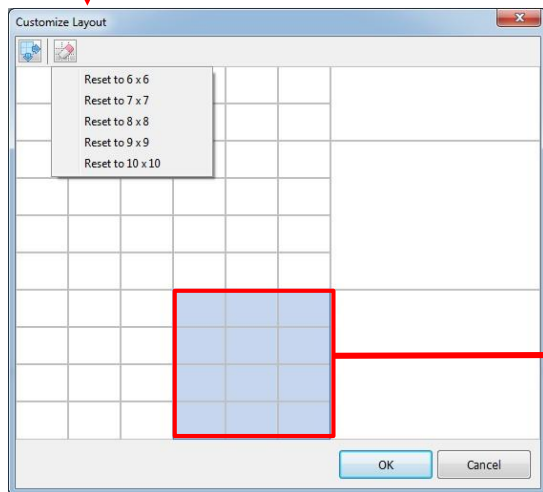
Monitoring - Layout

Choose to use default, define or custom create a new layout.

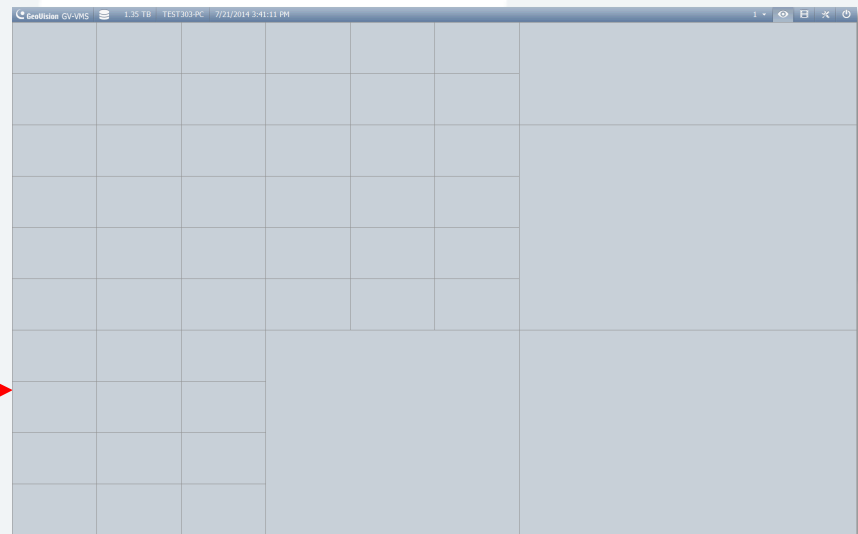


Default Layout (8, 10, 13, 17, 33)

Define Layout (Max 10 x 10)

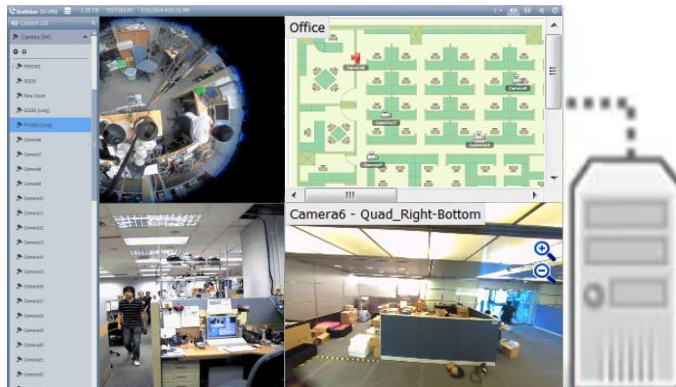


Merger



Monitoring - Multiple Screens

Layout can be applied to multiple monitors.




Primary Monitor


Apply Layout





Multiple Monitors


Monitoring – Camera Install



































Add Camera — 

Scan Camera — 

Automatic Setup — 

Import Camera — 

IP Device Utility — 

<input checked="" type="checkbox"/>	ID	Status	Server address	Port	Video Resolution	Bitrate	Brand	Setting
<input checked="" type="checkbox"/>	1		192.168.0.180	10000	2560X1920(H264)	6579 kbps	GeoVision_GV-FER5302/3	
<input checked="" type="checkbox"/>	2		192.168.0.21	10000	1920X1080(H264) / 448X252(MJPEG)	4363 / 3142 kbps	GeoVision_GV-SD220/GV-SD2301	
<input checked="" type="checkbox"/>	6		192.168.5.193	10002	2048X1536(H264) / 320X240(H264)	19523 / 4375 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	7		192.168.5.193	10003	2048X1536(H264) / 320X240(H264)	19311 / 4375 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	8		192.168.5.193	10004	2048X1536(H264) / 320X240(H264)	19224 / 4303 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	9		192.168.5.193	10005	2048X1536(H264) / 320X240(H264)	19224 / 4329 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	10		192.168.5.193	10006	2048X1536(H264) / 320X240(H264)	19380 / 4404 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	11		192.168.5.193	10007	2048X1536(H264) / 320X240(H264)	19010 / 4304 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	12		192.168.5.193	10008	2048X1536(H264) / 320X240(H264)	18127 / 4326 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	13		192.168.5.193	10009	2048X1536(H264) / 320X240(H264)	20034 / 4331 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	14		192.168.5.193	10010	2048X1536(H264) / 320X240(H264)	18199 / 4381 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	15		192.168.5.193	10011	2048X1536(H264) / 320X240(H264)	18367 / 4332 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	16		192.168.5.193	10012	2048X1536(H264) / 320X240(H264)	18482 / 4330 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	17		192.168.5.193	10013	2048X1536(H264) / 320X240(H264)	18548 / 4332 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	18		192.168.5.193	10014	2048X1536(H264) / 320X240(H264)	18127 / 4341 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	19		192.168.5.193	10015	2048X1536(H264) / 320X240(H264)	18542 / 4331 kbps	GeoVision_GV-BL110D_Series	
<input checked="" type="checkbox"/>	20		192.168.5.193	10016	2048X1536(H264) / 320X240(H264)	18282 / 4333 kbps	GeoVision_GV-BL110D_Series	

 **Connected**

 **Inactive Camera**

 **Connecting**

Started Monitoring

 **Connection Failed**

Pre-Rec Enable

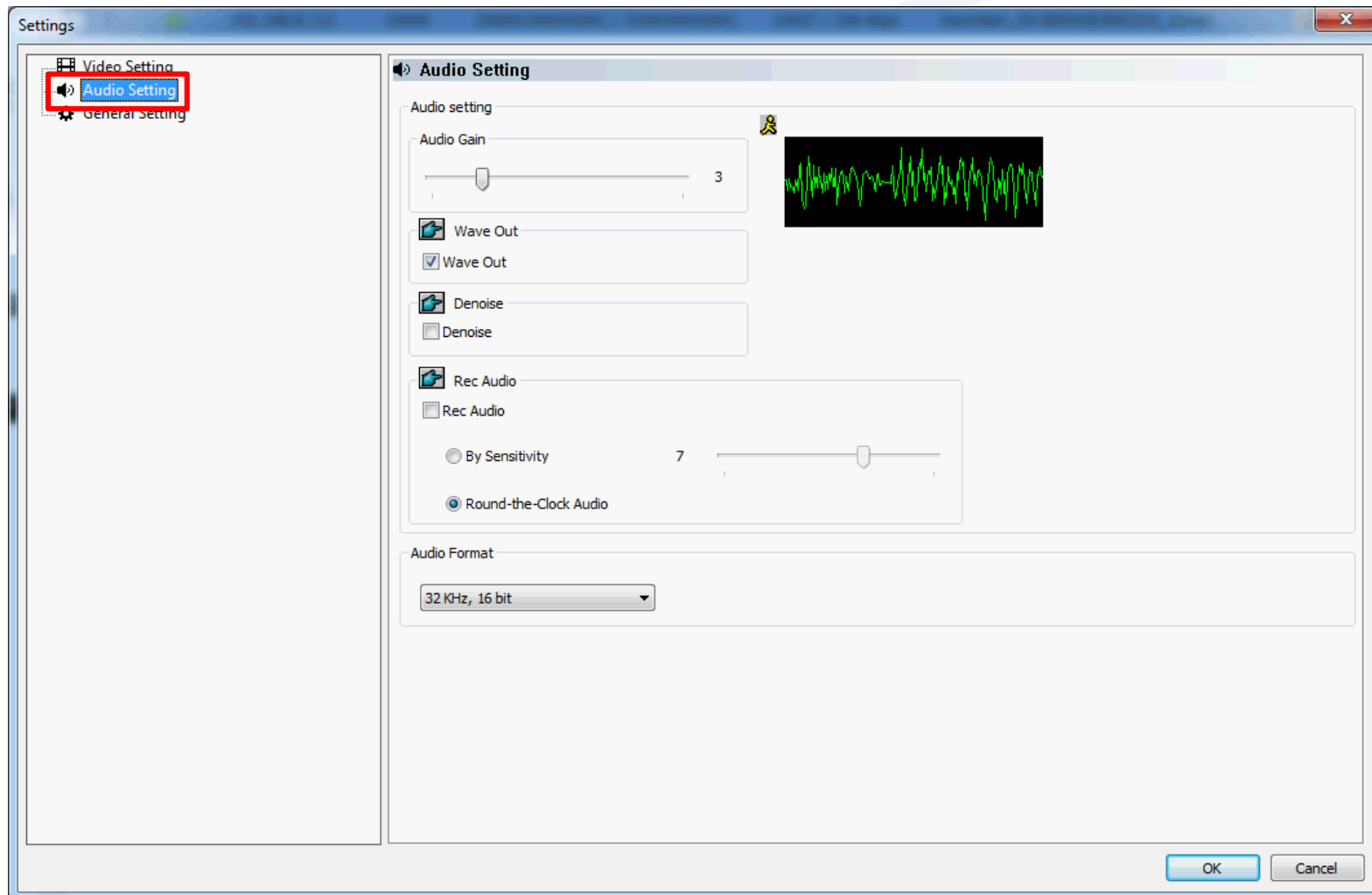
Monitoring – Camera Setting (Video Setting)

The screenshot shows the 'Settings' window in the GeoVision software. The 'Video Setting' tab is selected and highlighted with a red box. The window is divided into several sections for configuring camera parameters:

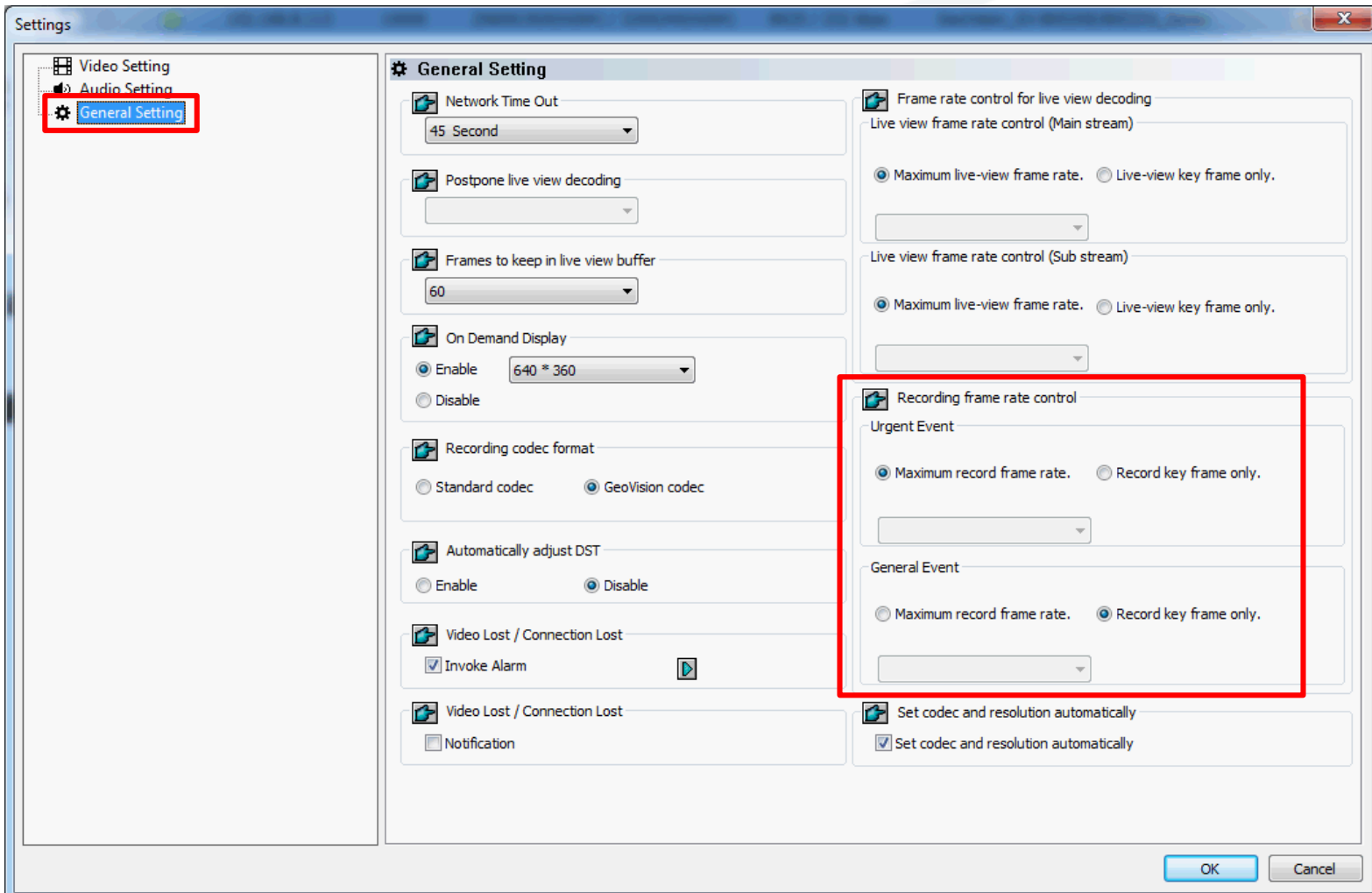
- General Setting:** Camera Name: Camera 1; IP Address: 192.168.8.113; Port: 10000; User name: admin; Password: [masked].
- Stream Setting:** Main stream selected; Codec Selection: H264; FPS: 10.
- Quality / Bitrate:** VBR selected; Quality: Good; Max. Bitrate: 20 Mbit.
- Resolution:** 4:3 selected; Main stream: 2560x1920; Sub Stream: 320x240.
- Video Lost / Connection Lost:** Trigger output checkbox is unchecked; Mod. 1 and Pin. 1 are selected.
- Camera Lens:** General selected.
- Video Attribute:** Sliders for Brightness (50), Contrast (0), Saturation (50), Sharpness (50), and Gamma (50). Buttons for Default and Save are present.
- Image Orientation:** Buttons for Normal, Horizontal Mirror, Vertical Flip, and Rotate 180.

At the bottom right, there is a preview window showing a person's hands at a computer workstation with two monitors displaying video feeds. The 'OK' and 'Cancel' buttons are located at the bottom of the window.

Monitoring – Camera Setting (Audio Setting)



Monitoring – Camera Setting (General Setting)



Monitoring – ONVIF

Profile Select

Single Stream Dual Stream

Stream1 : profile_Default ...

Stream2 : profile2_Default ...

Infomation

Stream1		Stream2	
Codec :	H264	Codec :	H264
Resolution :	1920 x 1080	Resolution :	448 x 252
Quality :	1.000000	Quality :	2.000000
Frame rate :	30	Frame rate :	30
Gov :	30	Gov :	30

Advance OK Cancel

VE_Default

Codec : H264

Resolution : 1920 x 1080

Quality : 1

FramRate : 30

Bitrate (kbps) : 8000

Gov : 30

Apply Cancel

Monitoring – Record Setting

Pre-Rec is no longer follow Max Video Clip.

Record Setting

Video Record

Max Video Clip: 2 Min.

Post-Rec: 3 Sec.

Pre-Rec: 1 Video Clips

Video Clips 5 Sec.

Use Digital Watermark Protection

Recycle

Database Folder

D:\CameraDBs\

Record Error Process : ▶

Camera

Record Type : Round-the-clock ▶

Storage : Storage 1 ▶

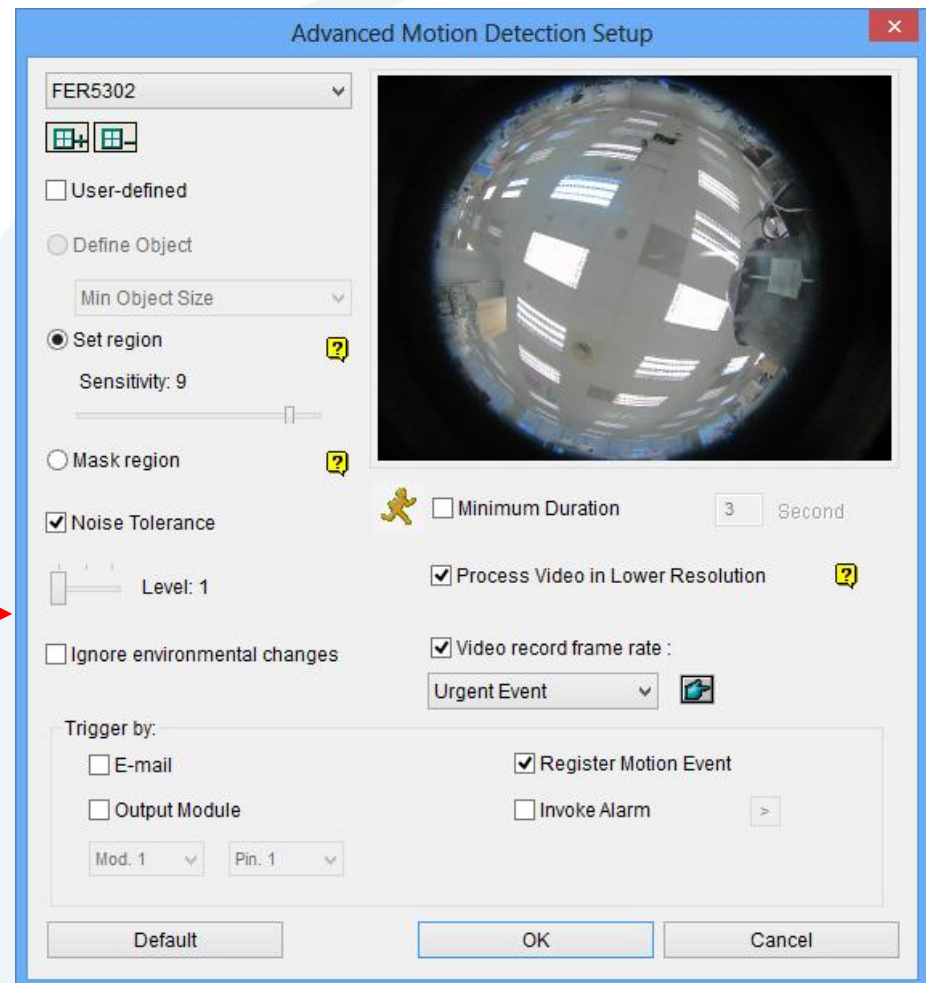
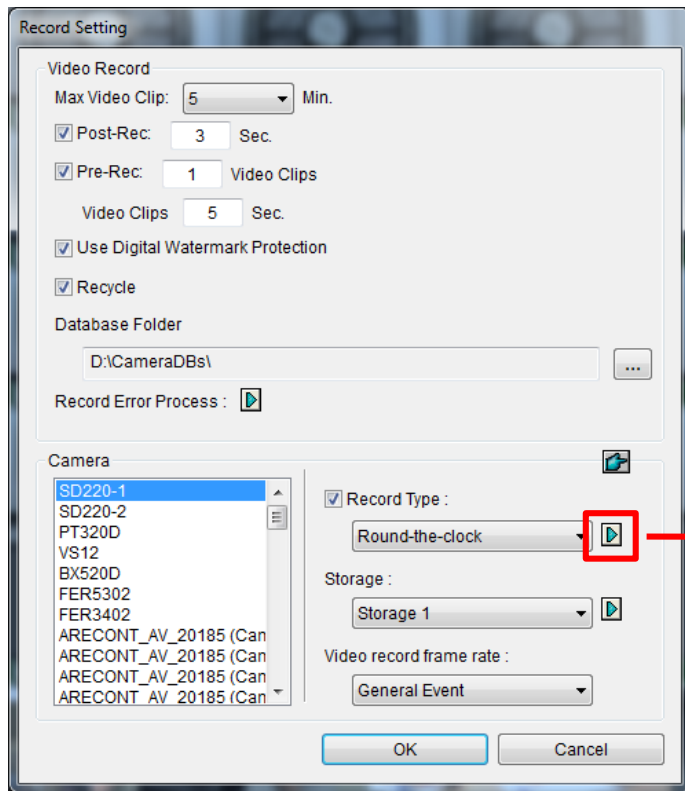
Video record frame rate : Urgent Event ▶

OK Cancel

✓ **Round-the-clock**
✓ **Motion Detect**

✓ **Urgent Event**
✓ **General Event**

Monitoring – Motion Detect



Monitoring – Schedule

Plan Schedule
X

Plan-Weekdays
 Plan-Holiday

<
2014 Jul
>
Today : 2014/7/23

SUN	MON	TUE	WED	THU	FRI	SAT
		1 Plan-Weekdays	2 Plan-Weekdays	3 Plan-Weekdays	4 Plan-Weekdays	5 Plan-Holiday
6 Plan-Holiday	7	8	9	10	11	12 Plan-Holiday
13 Plan-Holiday	14	15 Plan-Weekdays	16 Plan-Weekdays	17 Plan-Weekdays	18 Plan-Weekdays	19 Plan-Holiday
20 Plan-Holiday	21	22	23	24	25	26
27	28	29	30	31		

Monitoring – Schedule Plan

The screenshot displays the 'Plan-weekdays' window in the GeoVision software. On the left, a vertical list of applications is shown, with 'I/O Monitoring' and 'PTZ Object Tracking' highlighted. The main window area shows 'Camera2' selected in the 'Application' dropdown. Below this, there is an 'Apply to all cameras' button and a 24-hour timeline. The timeline has a blue bar from 0 to 11 and a yellow bar from 13 to 24. The following table represents the schedule plan shown in the interface:

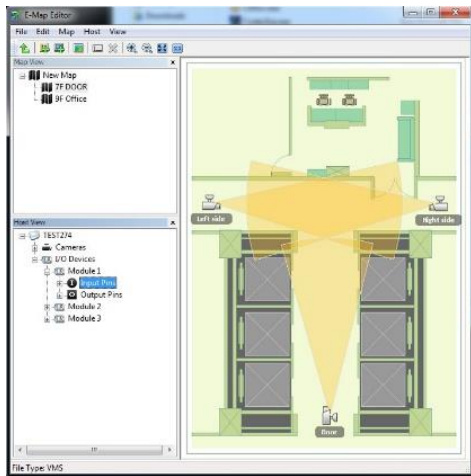
Application	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Round the Clock Rec...	Blue bar											Yellow bar													
Motion Detection Rec...																									
Alarm Trigger																									
PTZ																									

External labels with red arrows point to the following elements:

- 'I/O Monitoring' (from the application list)
- 'PTZ Object Tracking' (from the application list)
- 'PTZ Object Tracking' (from the application list)
- 'Advance Single Cam...' (from the application list)

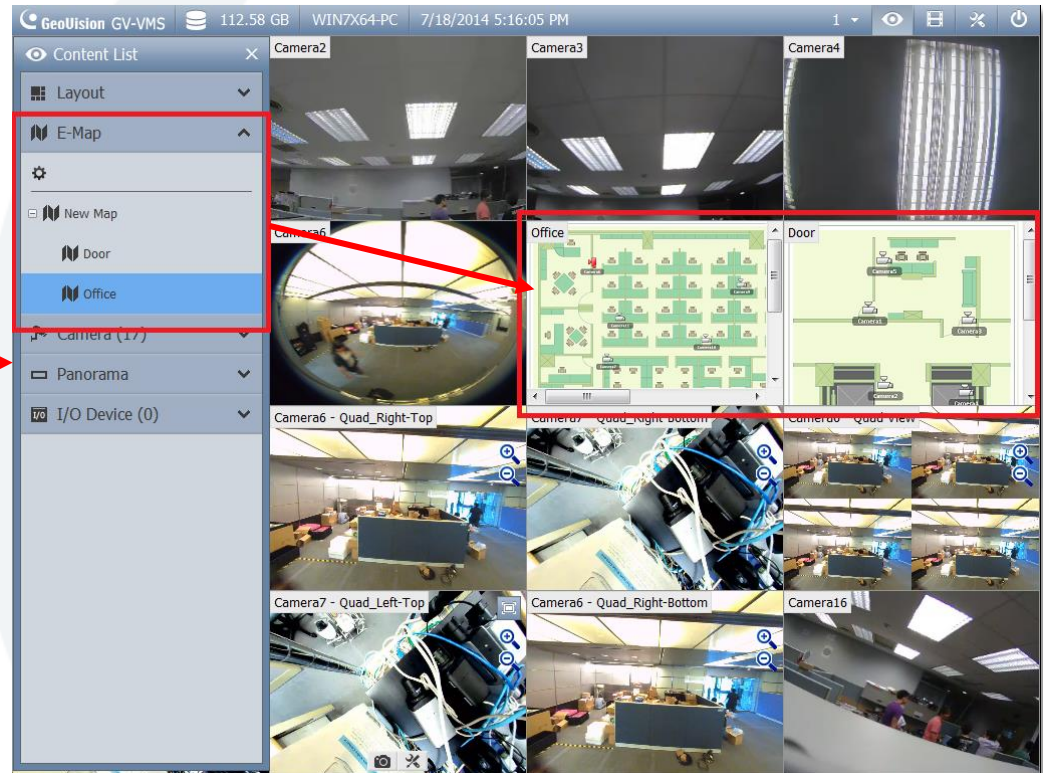
Monitoring – E-Map

E-Map can drag with the left mouse button to directly from the content list in the layout.



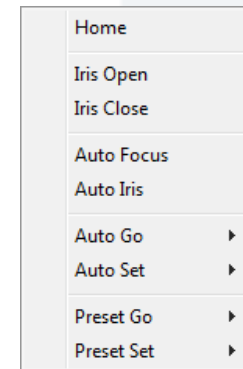
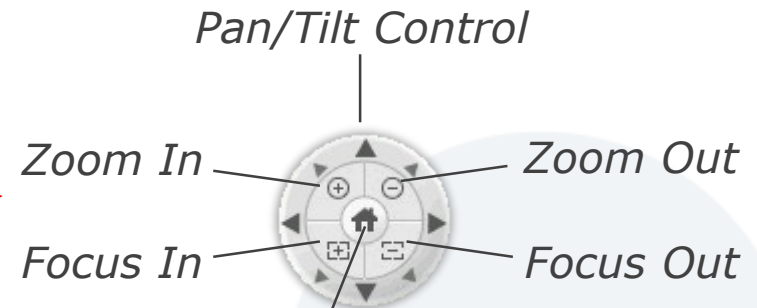
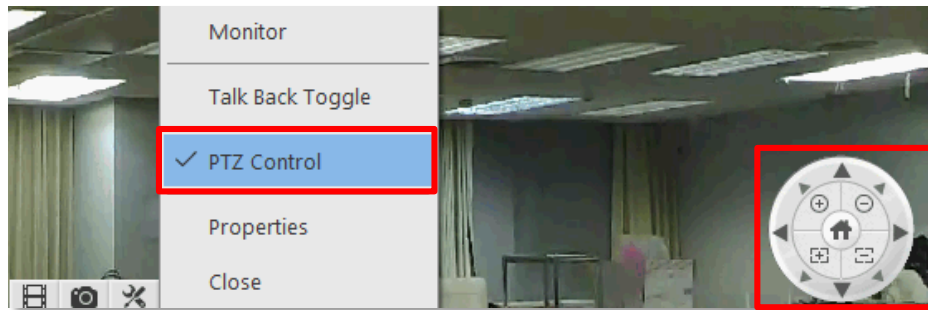
E-Map Editor

Save to VMS



Monitoring – PTZ

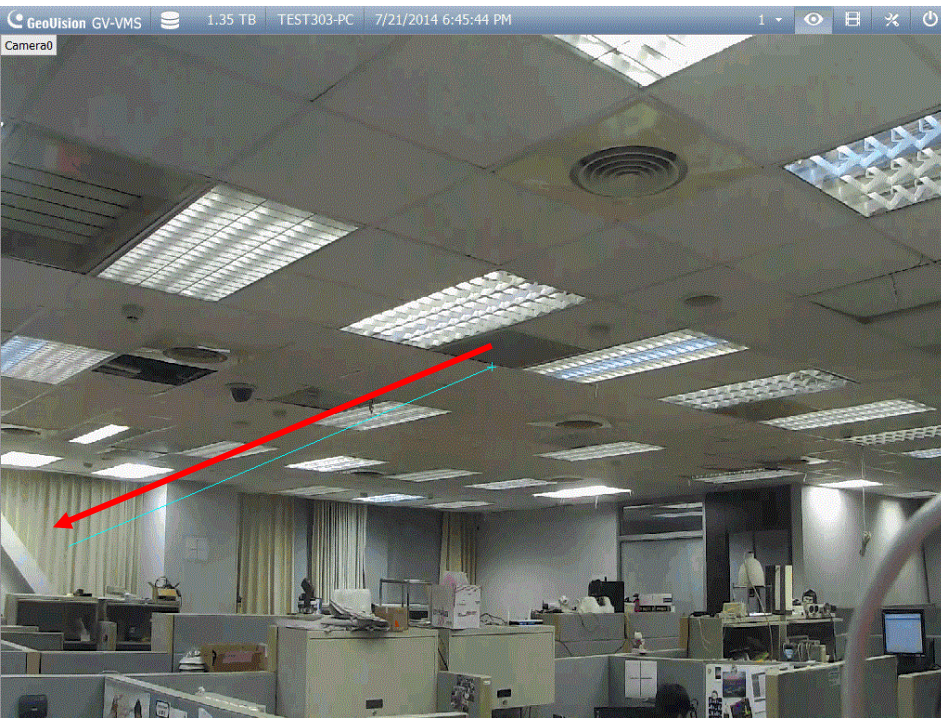
Check the “PTZ Control” to enable PTZ function.



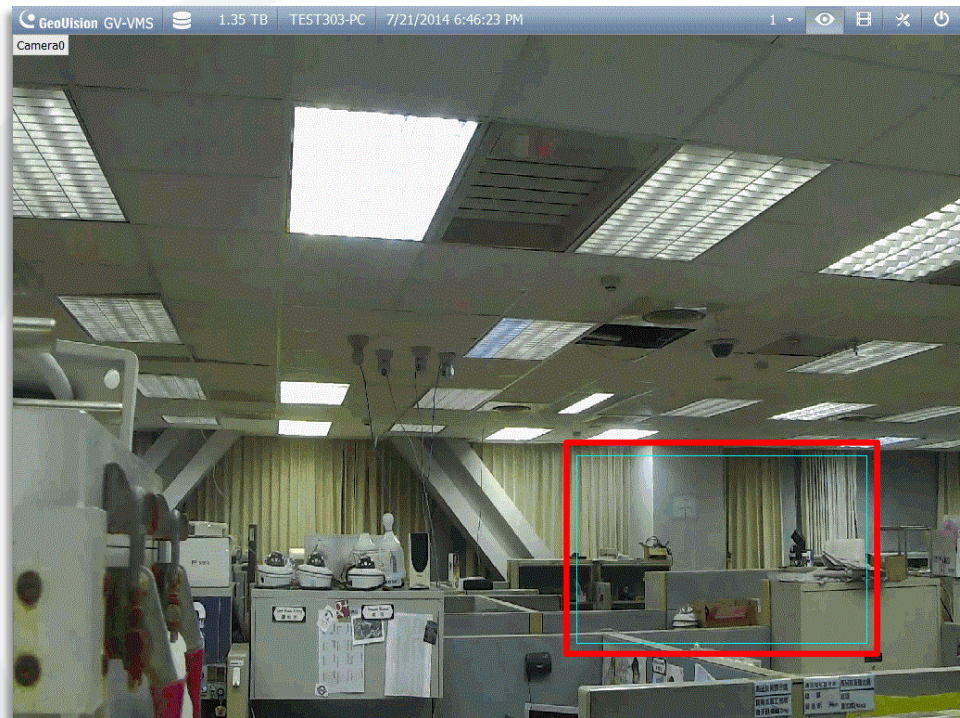
 — Option

Functions included in the Option may be different in terms of PTZ models.

Monitoring – PTZ

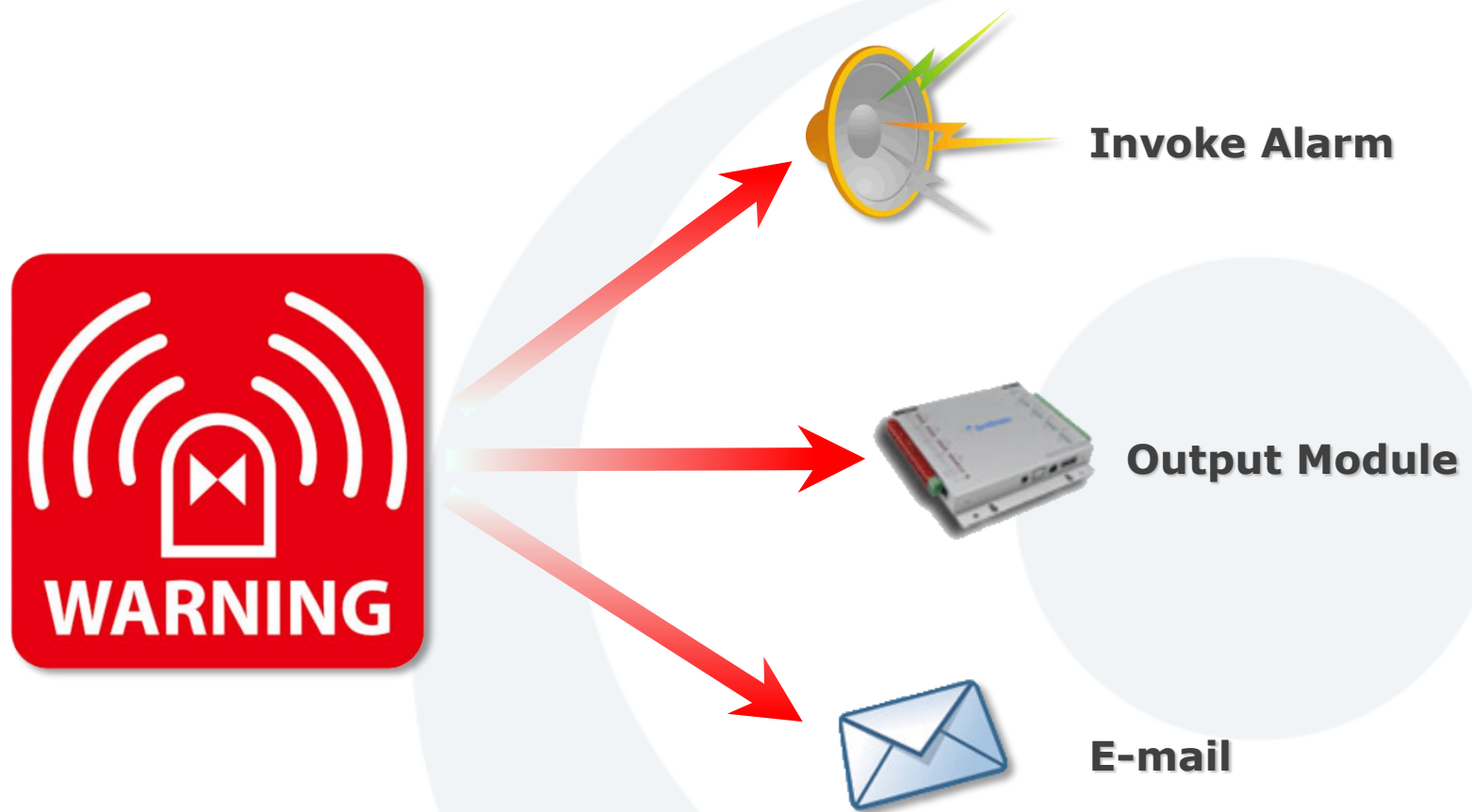


Random Move



Center Move
(GV-SD220 Only)

Monitoring – Notification



* **Note:** Non support SMS.

Monitoring – Two-way audio

Voices can be transmitted in both directions at the same time. The control site can speak to and receive voices from the monitored site. So does the monitored site.



Video Process – Fisheye Dewarping



Video Process – Guard Tour



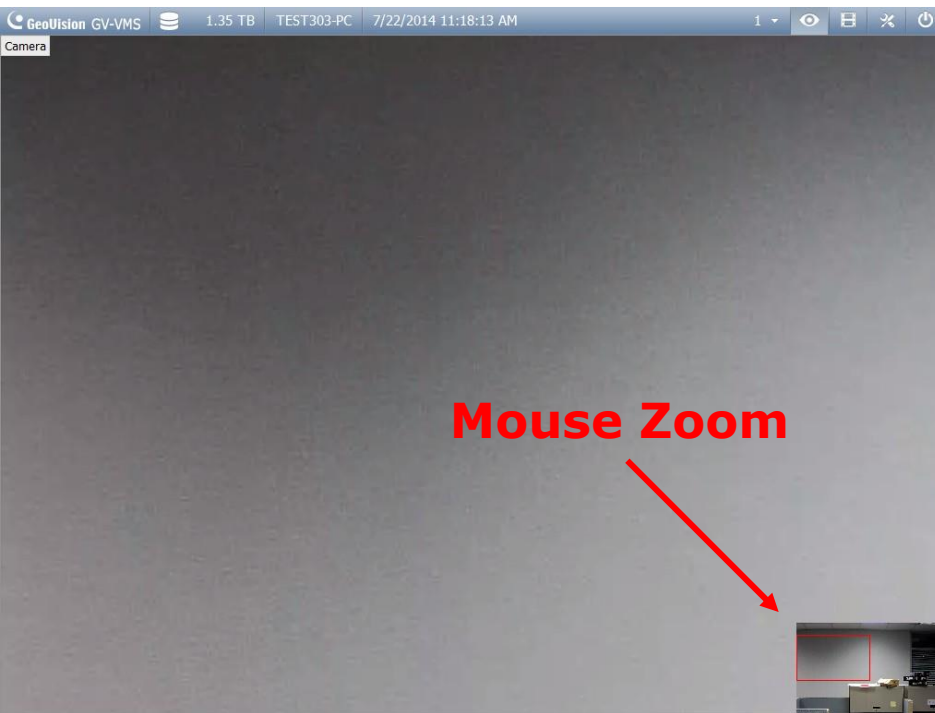
Single View

Guard Tour List

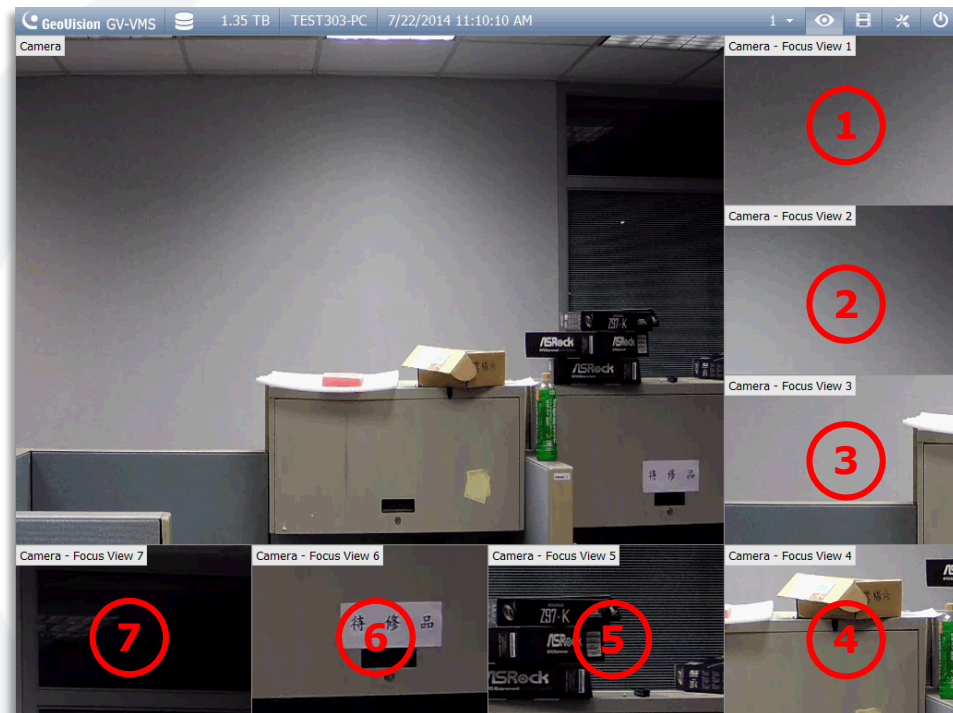
Preset ID	Dwell Time
Home	3
Preset1	5
Preset2	3
Preset3	6
Preset4	2
Preset5	10

View Order

Video Process – PIP and Focus View



PIP View



Focus View

Video Process – Panorama

Content List

- Layout
- Camera (64)
- Panorama**
- Settings
- Panorama 1
- Panorama 2
- Panorama 3
- Panorama 4
- I/O Device (1)



Panorama View

Video Process – Video Analytics

- ✓ **Object Index** (Max: 16CHs)
- ✓ **Privacy Mask (Max: 64CHs)**
- ✓ **Defog (Max: 64CHs)**
- ✓ **Stabilizer** (Max: 4CHs)
- ✓ **Intruder / Counter (Max: 32CHs)**
- ✓ **Crowd Detection** (Max: 16CHs)
- ✓ **Advanced Unattended Object Detection** (Max: 16CHs)
- ✓ **Advanced Scene Change Detection** (Max: 16CHs)
- ✓ **Advanced Missing Object Detection** (Max: 16CHs)
- ✓ **Text Overlay (Max: 64CHs)**

Accessories

✓ **Support GV-IOBOX 4 Ports, 8 Ports, 16 Ports (Max: 9)**



✓ **Support GV-Joystick V1, V2 (Max: 8)**



✓ **Support GV-Keyboard V2, V3 (Max: 8)**



✓ **Support GV-IR Remote Control**



Playback Functionality

- ✓ **Maximum 64 channels with simultaneous playback**
- ✓ **Customizable layout for playback with drag-and-drop support**
- ✓ **1/8x, 1/4x, 1/2x slow-down playback**
- ✓ **2x, 4x, 8x, 16x, 32x video playback speed**
- ✓ **Support PIP & focuses / Fisheye Dewarp / Panorama view**
- ✓ **Export media files of recorded video**
- ✓ **Supports snapshot and print out**
- ✓ **Time Line search**
- ✓ **Object search**

Playback User Interface

A.

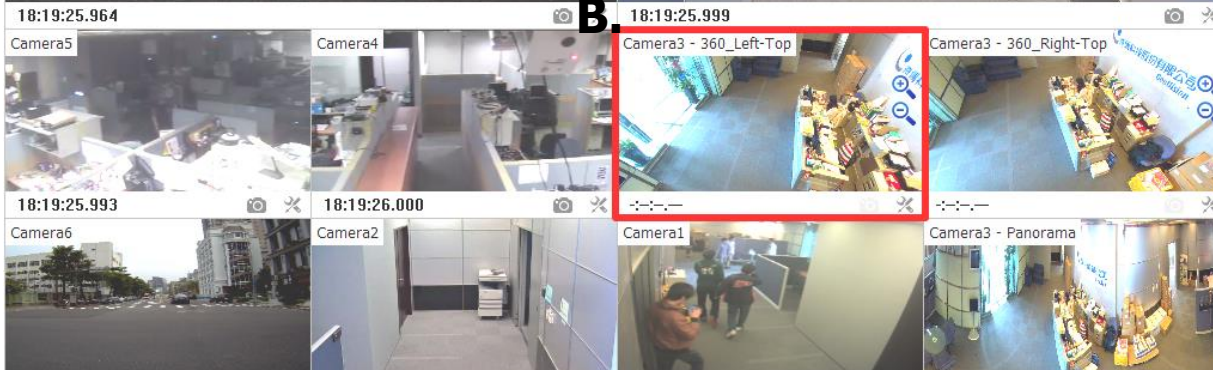


A . Toolbar & Status Panel

B . Playback View

C . Video Event Time Line

D . Playback control panel



C.



D.



Playback User Interface - Tools bar



Display play panel



Playback User Interface - Tools bar



Tools

- Basic Search
- Object Search
- System Log** >
- Backup
- Delete
- Save as Avi
- Display Merging List

- Monitor Table
- CMS Table
- Advanced

Monitor Table

Time	Device	Information	Event	Note
12/21/2014 15:46...	Camera2		Intruder	
12/21/2014 15:47...	Camera2		Intruder	
12/21/2014 15:47...	Camera2		Intruder	

CMS Table

Time	User...	Event	Service	IP Address
7/25/2014 10:55:21		Start Service	Remote ViewLog	

Event lists From 2014/12/21 to 2014/12/21 - Advanced Log Browser

ID	Time	Device	Information	Event	Note	DST Rollb...
1	2014/12/21 12:50:51	Camera7		Camera Connecti...		
2	2014/12/21 12:50:51	Camera 8		Camera Connecti...		
3	2014/12/21 12:50:51	Camera7		Camera Connecti...		
4	2014/12/21 12:50:51	Camera 8		Camera Connecti...		

Playback User Interface - Tools bar



Configure

Effects >

- ✓ Apply text overlay's camera name / time render
- ✓ Set timeline to current time when ViewLog starts

System Log Setting

- Sample
- Defog
- Stabilizer
- Wide angle lens dewarping

System Log Setting

<input checked="" type="checkbox"/> Monitor Event	<input checked="" type="checkbox"/> Counter Event	<input checked="" type="checkbox"/> Delete	<input checked="" type="checkbox"/> Notifi
<input checked="" type="checkbox"/> General Event	<input checked="" type="checkbox"/> Merge	<input checked="" type="checkbox"/> CMS	
<input checked="" type="checkbox"/> Login/Logout Event	<input checked="" type="checkbox"/> Backup	<input type="checkbox"/> Playback	

Interval of Motion Event: Sec.

Interval of Input Event: Sec.

Always Keep Live Log

Import Previous Days of Live Log Browser:

Keep Days: !

Recycle !

Log Path

Available: 31.22 GB

...

Database Type OK Cancel

Playback User Interface - Tools bar



Content List

Layout setting
Add layout & group
Delete / Rename

Layout list
(Unlimited number of groups)

Panorama list
(Up to 4)



Camera list
(Up to 64)

Playback User Interface - Event timeline



DST Event

Event preview



represent the focused camera.



represent all cameras

- Frame by Frame
- Just Key Frame
- Real Time
- Smooth playback

Rec status

Display panel

Playback User Interface - Event timeline

The screenshot displays a video playback interface. At the top, a fisheye camera view shows an indoor scene with a timestamp of 16:46:14. To the right of the video, a vertical toolbar contains four icons: a running person, a key, a hand, and a document. Red dashed arrows point from these icons to the following event types:

- Motion Rec Event
- I/O Rec Event
- Never Recycle Event
- Intrusion Alarm Event

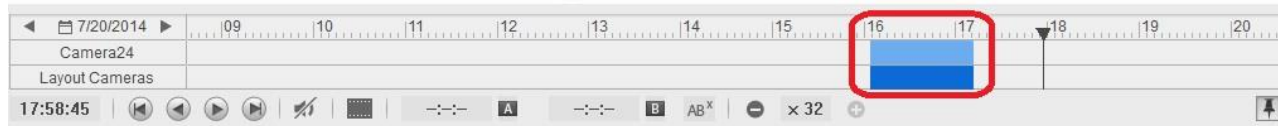
Below the video is a timeline with a date of 7/21/2014 and a time range from 16:46:05 to 17:00. The timeline shows two vertical bars: an orange one and a blue one. A red dashed arrow points from the orange bar to the text "All alarm Event status". Another red dashed arrow points from the blue bar to the text "RTC Event status". A red dashed arrow points from the text "second timeline" to the timeline area.

Playback User Interface - Event timeline

24hr



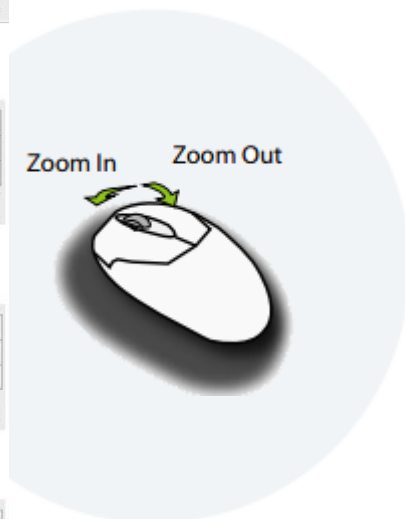
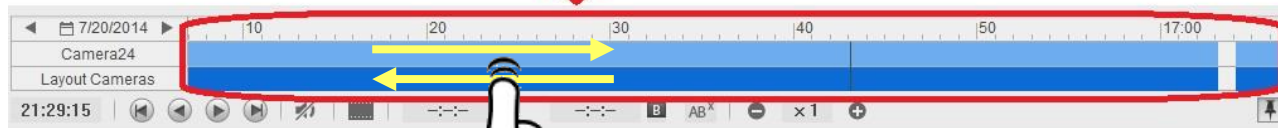
12hr



6hr

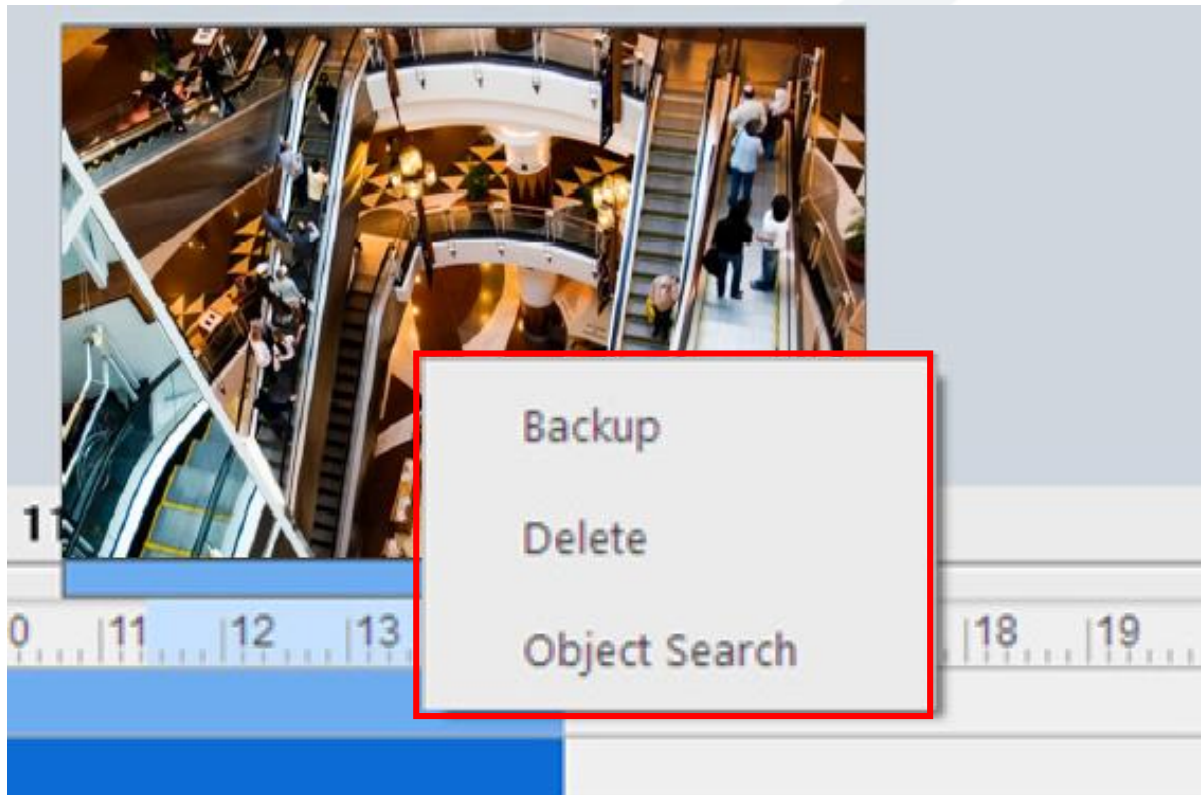


1hr



Playback User Interface - Event timeline



Right-click and drag on the timeline



Playback User Interface - Search

Basic Search

Event Time

12/21/2014  13:17:27 

Search event in DST

Description

ViewLog : Using Event time selector, it is possible to jump straight to video archive from a specific point in Time.

Object Search



The Object Search interface features a central video player showing a hallway with a desk and a chair. Below the video is a blue bar displaying the date '12/21/2014' and the time '15:36:53:951' for 'Camera2'. To the right of the video player are search options:

- Video Process:** Alarm (dropdown menu)
- Option:**
 - Play All Events
 - Show Mask
 - Find and Stop
- Result:** In: 0, Out: 0 (with a yellow figure icon)
- (with a question mark icon)

At the bottom of the interface is a playback control bar with buttons for power, search, play, stop, previous, next, and volume.

Playback User Interface – Backup & Delete

Backup Video Event

Backup

Media

Using Hard Disk
C:\SIBK20141222\

Backup Folder Name :
SIBK20141222

Using CD / DVD / BD
F:\ [SPD2517T : 4.70 GB]

Burning Software :
[...]

Using OS-Burning ?

Media Information

Used Size : 3.47 GB

Free Size : 1.23 GB

Total Size : 4.70 GB

Add time frame

12/22/2014 6:47:05 ~ 12/22/2014 8:01:22

- Camera1 : 9 Files, 287.72 MB
- Camera2 : 9 Files, 53.05 MB
- Camera3 : 9 Files, 602.71 MB
- Camera4 : 9 Files, 58.28 MB
- Camera5 : 9 Files, 53.32 MB
- Camera6 : 9 Files, 303.71 MB
- Camera11 : 10 Files, 506.12 MB
- Camera12 : 10 Files, 560.64 MB
- Camera13 : 10 Files, 478.48 MB
- Camera14 : 10 Files, 525.99 MB

Include Player

Viewlog v

Erase Rewritable Disc
Add time frame
OK
Cancel

Delete Video Event

Delete

Time Period

Start Time : 12/22/2014 - 00:00:45

End Time : 12/22/2014 - 23:58:46

Select Camera(s)

Camera(s)	Files	Status
<input checked="" type="checkbox"/> Camera1	9 + 0	Ready
<input checked="" type="checkbox"/> Camera2	9 + 0	Ready
<input checked="" type="checkbox"/> Camera3	9 + 0	Ready
<input checked="" type="checkbox"/> Camera4	9 + 0	Ready
<input checked="" type="checkbox"/> Camera5	9 + 0	Ready
<input checked="" type="checkbox"/> Camera6	9 + 0	Ready
<input checked="" type="checkbox"/> Camera11	10 + 0	Ready
<input checked="" type="checkbox"/> Camera12	10 + 0	Ready
<input checked="" type="checkbox"/> Camera13	10 + 0	Ready
<input checked="" type="checkbox"/> Camera14	10 + 0	Ready
<input checked="" type="checkbox"/> Camera11	0 + 0	Ready
<input checked="" type="checkbox"/> Camera12	0 + 0	Ready
<input checked="" type="checkbox"/> Camera13	0 + 0	Ready

Video + Audio Event v

Include Never-Recycle Event.

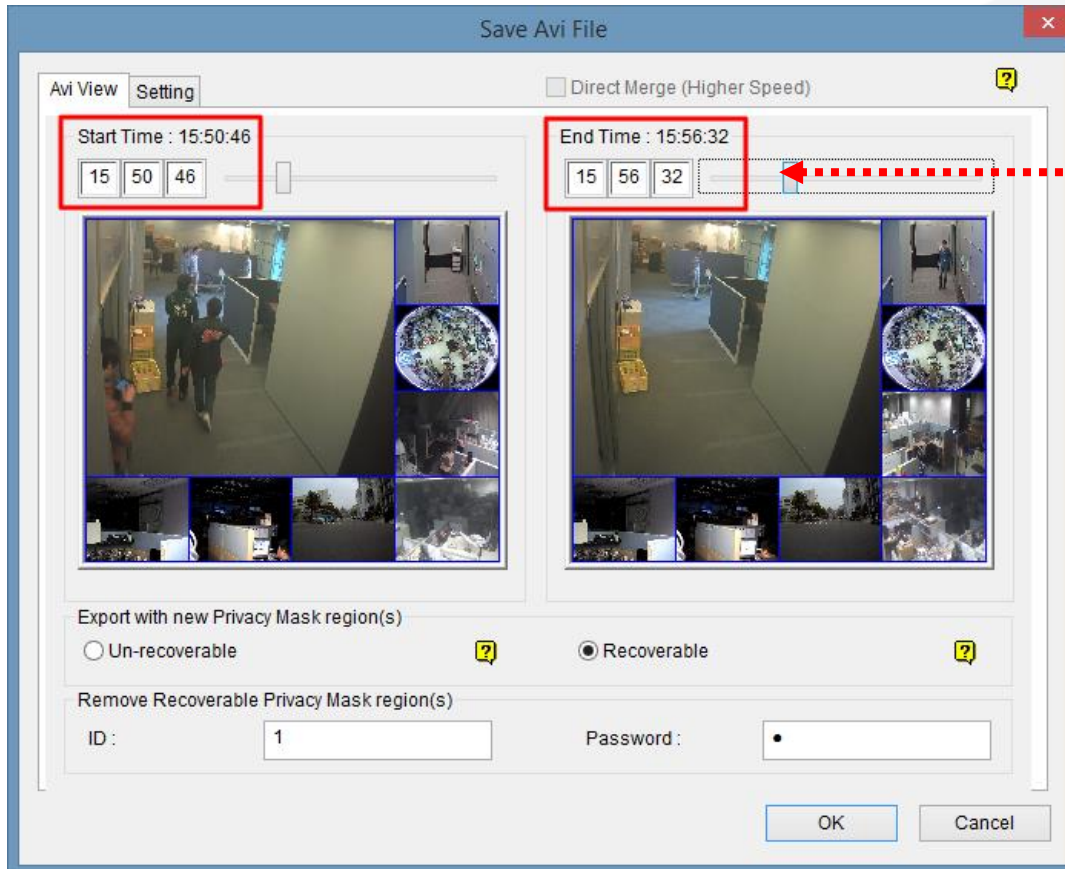
Include daylight saving rollback events.

Total Event : 94

Total Size : 3 GB

Delete
Close

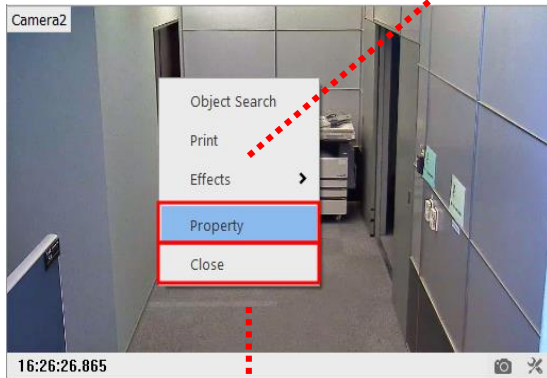
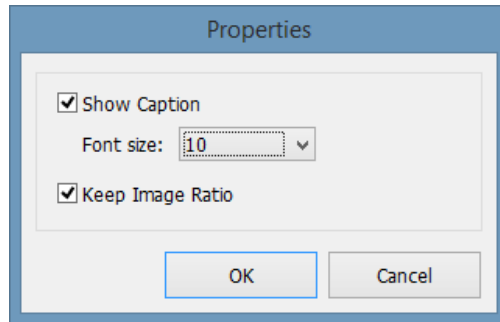
Playback User Interface – Save as Avi



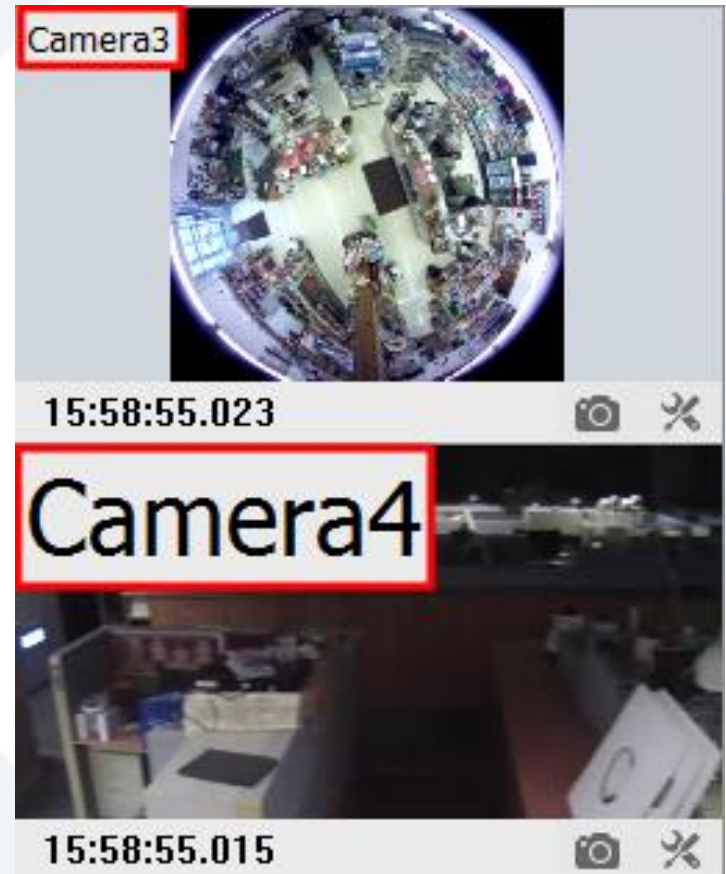
manual Enter the time

Playback User Interface

Video cell function



Remove Video cells

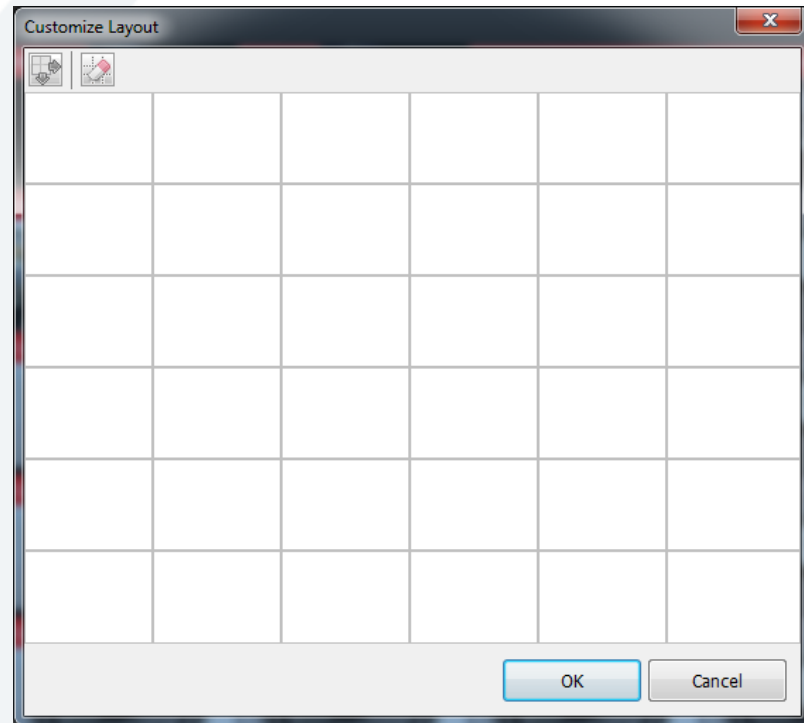


Useful Case

Case1. How to set Customize Layout?



Screen Resolution



Customize Layout

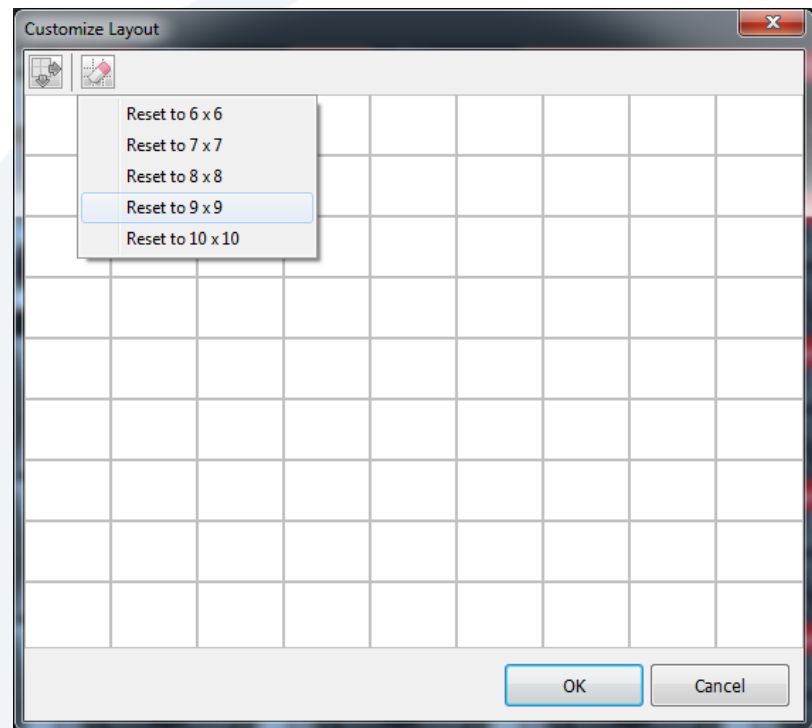
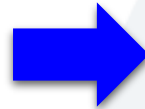
Useful Case



Screen Resolution

$$3840 / 9 = 427$$

$$2160 / 9 = 240$$



Customize Layout

Useful Case

3840

The screenshot displays the GeoVision GV-VMS interface. The main window shows a 360-degree panoramic view of a room with a person in a white shirt. The panoramic view is annotated with a vertical dimension of 240 x 8 and a horizontal dimension of 2560. To the right, a multi-camera grid view is shown, with a vertical dimension of 720 and a horizontal dimension of 1280. Below the grid, a row of camera thumbnails is visible, with a horizontal dimension of 427 x 6. A large red number 3840 is positioned above the panoramic view. On the far right, a vertical stack of red numbers 2, 1, 6, 0 is displayed.

Useful Case

Case2. How to set Pre-REC efficiently?

➤ **GV-NVR (V8590)**

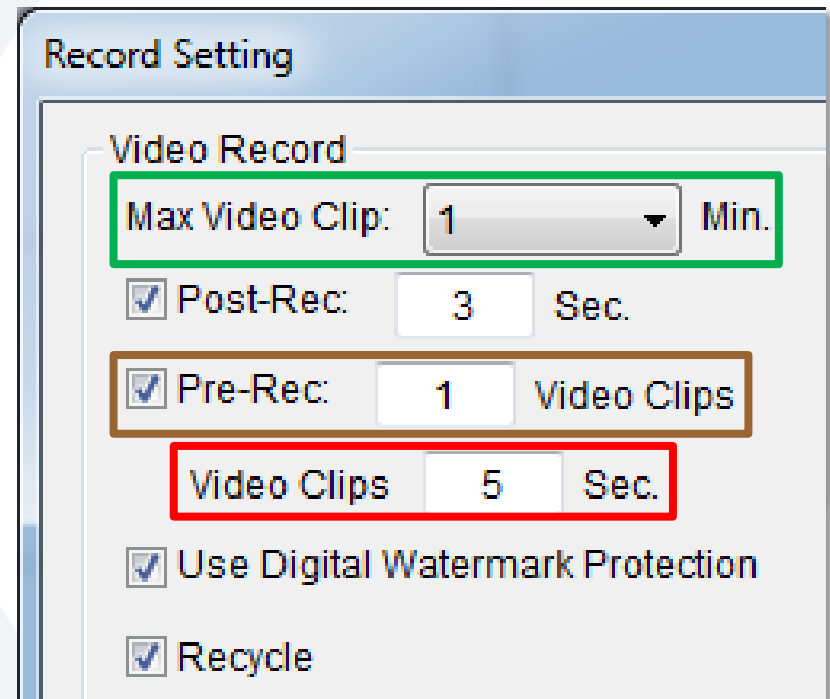
Video Clips x Max Video Length

(Follow max video length)

➤ **GV-VMS (V1410)**

Video Clips x Video Length

(Customize video length)

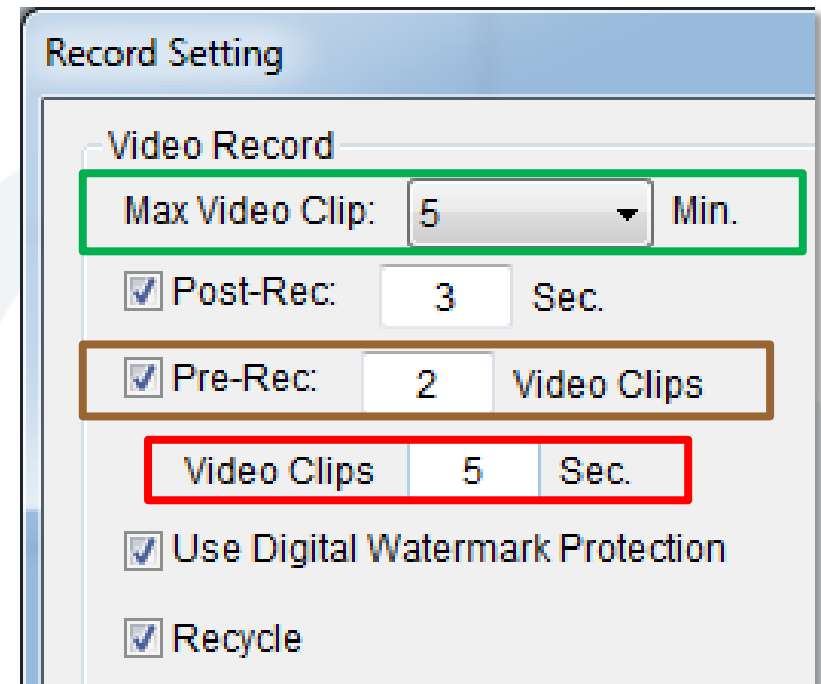


Useful Case

- **Motion Record – 10 Sec**
- **Record Setting:**
MAX Video Clip: 5 Min
Pre-Rec: 2 Video Clips
Video Clips 5 Sec



- **GV-NVR (V8590)**
2 Video Clips x 5 Min Max Video Length = **10 Min** + Motion: 10 Sec
(Follow max video length)
- **GV-VMS (V1410)**
2 Vido Clips x 5 Sec Video Length = **10 Sec** + Motion: 10 Sec
(Customize video length)



END
Thank you