GeoVision inc
The Vision of Security

GV-VMS

New Feature Guide V20



VMS20-FG-A

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Preface

Welcome to the *GV-VMS New Feature Guide V20.*

This guide introduces the new features available in GV-VMS V20. For complete instructions, refer to *GV-VMS User's Manual V20*.

Contents

Preface i

Chapter 1 Licensing 1

Chapter 2 Main Screen 4

2.1 Event List 5

2.1.1 Event Filter 6

2.2 Live View and Playback on One UI 7

2.2.1 Access from Camera Channels 7

2.2.2 Access from Event List 8

2.3 Quick Setup and Screen Control 11

2.3.1 Access PVD and AI Event Settings 11

2.3.2 Resize and Move Main Screen 12

2.3.3 Adjust Camera's Motion Detection 13

Chapter 3 Video Analysis 14

3.1 Local Face Recognition 14

3.2 Video Metadata 18

3.3 Easy AI Event Adjustment 19

3.4 Privacy Masks with Adjustable Blur Intensity 21

Chapter 4 Video Playback 23

4.1 AI Query 23

4.1.1 Using the AI Query Interface 23

4.1.2 Face Search 28

4.2 Customized Event Colors on the Timeline 29

4.3 Smart PVD Motion Search 30

4.4 Backup Schedule 32

Chapter 5 GV-IP Speaker Integration 34

5.1 Scheduling Support for GV-IP Speaker 35

5.2 AI Event-Triggered Audio on GV-IP Speaker 36

5.3 Motion-Triggered Audio on GV-IP Speaker 37

Chapter 1 Licensing

GV-VMS V20 offers a flexible licensing model based on system size, devices, and features, as listed below.

- **Channel count:** GV-VMS V20 supports a connection of up to 256 IP channels, with up to 64 GV-IP device channels available for free. Licenses are required for additional channels.
- **External devices:** Separate licenses are required for 3rd-party IP devices and UA-HD DVRs.
- **AI features:** The AI License is required for full AI functionality.

License Status	Supported Features
No AI License	• AI camera events only
With AI License	• AI camera events • PVD events • Built-in face recognition (Local FR)

GV-VMS V20 License Requirements

<table>
<tr><th>Supported Devices</th><th>Channels</th><th>License Requirements</th></tr>
<tr><td rowspan="2">GV-IP Devices Only</td><td>≤ 64 ch</td><td>No license required.
Optional:
⊙ AI License</td></tr>
<tr><td>65 – 256 ch</td><td>License required:
● GV-VMS Pro License required, in increments of 32 ch.
GV-VMS Pro License
<table>
<tr><th>Levels</th><th>Total Channels</th><th>Additional Channels (Beyond free 64 ch)</th></tr>
<tr><td>#1</td><td>96 ch</td><td>32 ch</td></tr>
<tr><td>#2</td><td>128 ch</td><td>64 ch</td></tr>
<tr><td>#3</td><td>160 ch</td><td>96 ch</td></tr>
<tr><td>#4</td><td>192 ch</td><td>128 ch</td></tr>
<tr><td>#5</td><td>224 ch</td><td>160 ch</td></tr>
<tr><td>#6</td><td>256 ch</td><td>192 ch</td></tr>
</table>
Optional:
⊙ AI License</td></tr>
<tr><td rowspan="2">GV-IP Devices + 3rd-Party IP Devices</td><td>≤ 64 ch</td><td>Licenses required:
● 3rd-Party License for 3rd-party and UA-IP cameras, in increments of 1 ch.
● UA-HD DVR License for UA-XVR and UA-XVL series, in increments of 1 ch.
Optional:
⊙ AI License</td></tr>
<tr><td>65 – 256 ch</td><td>Licenses required:
● GV-VMS Pro License required, in increments of 32 ch.
GV-VMS Pro License
<table>
<tr><th>Levels</th><th>Total Channels</th><th>Additional Channels (Beyond free 64 ch)</th></tr>
<tr><td>#1</td><td>96 ch</td><td>32 ch</td></tr>
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<tr><td>#4</td><td>192 ch</td><td>128 ch</td></tr>
<tr><td>#5</td><td>224 ch</td><td>160 ch</td></tr>
<tr><td>#6</td><td>256 ch</td><td>192 ch</td></tr>
</table></td></tr>
</table>

		• **3rd-Party License** for 3rd-party and UA-IP cameras, in increments of 1 ch. • **UA-HD DVR License** for UA-XVR and UA-XVL series, in increments of 1 ch. Optional: ⊙ **AI License**

IMPORTANT:

1. If you previously purchased the **GV-VMS V18 Platform License**, you can access all functions supported by the **AI License** after upgrading to GV-VMS V20.
2. If you previously purchased a **GV-VMS Pro License** for GV-VMS V17/V18, you will receive an additional 32 channels after upgrading to GV-VMS V20, increasing the total to **96 channels**.
3. If you previously purchased a **3rd-Party License** or **UA-HD DVR License** for GV-VMS V17/V18, it remains valid in GV-VMS V20.
4. If two licensing dongles are used simultaneously, the total channel count is calculated as: **"64 ch" + "the Additional Channels for each selected GV-VMS Pro License level"**.

   For example, for Level #1 and Level #3:
   - 64 ch + (32 ch + 96 ch) = 192 ch

Note:

1. The licensing comes in two forms: *GV-USB dongle* and *software license*. The two are incompatible. If a GV-USB dongle is inserted into the computer with the system, please remove it before using software licensing.
2. Make sure your purchased GV-USB dongle or software license is inserted into or activated on the PC before running GV-VMS.
3. GV-USB dongle is available in internal and external models. The internal dongle is recommended for the Hardware Watchdog function, which restarts the PC when Windows is unresponsive.
4. For details on upgrading the GV-USB dongle, see *Chapter 8 Dongle Upgrade* in the *Quick Start Guide*.
5. GV-VMS automatically disables Memory Integrity on Windows 10/11 during installation. After the installation is complete, restart your PC to ensure a successful operation of GV-VMS.
6. When connecting UA-XVR and UA-XVL series using the **UA-HD DVR** license, only **analog** channels are supported.

Chapter 2 Main Screen

This chapter introduces the new features and enhancements in the Main Screen of GV-VMS V20, as listed below.

- **Always-Visible Content List:** The Content List is no longer toggled via the Toolbar and is permanently pinned to the left of the Home and ViewLog pages for easier access.
- **Real-Time Event List:** The Event List displays detected motion events in a cascading format, updating instantly as new events occur. This provides a clear and organized view of recorded events, allowing users to review past detections and access event playback immediately.
- **Live View and Playback on One UI:** On the Home page, users can now watch live view and playback streams side by side, with full playback controls and timeline access from camera channels and the Event List.



No.	Name	Description
1	Content List	When **Home** is selected: Access live view layouts, E-Map, and lists of cameras, I/O devices, POS systems, IP speakers, and SIP devices. When **ViewLog** is selected: Access playback layouts and the camera list.

No.	Name	Description
2	Event List	Displays monitored general / system events and detected AI / PVD events, including face / people / vehicle attributes. See *2.1 Event List*.
3	Collapse / Expand	Click the < and > buttons on the sides of the Content List and Event List to collapse them.

2.1 Event List

The Event List is designed for real-time monitoring, displaying both general and system events as well as detected AI and PVD events, including face, people, and vehicle attributes. Events appear in a cascaded view upon detection, with event type filters typically applied in advance to support timely monitoring and response.

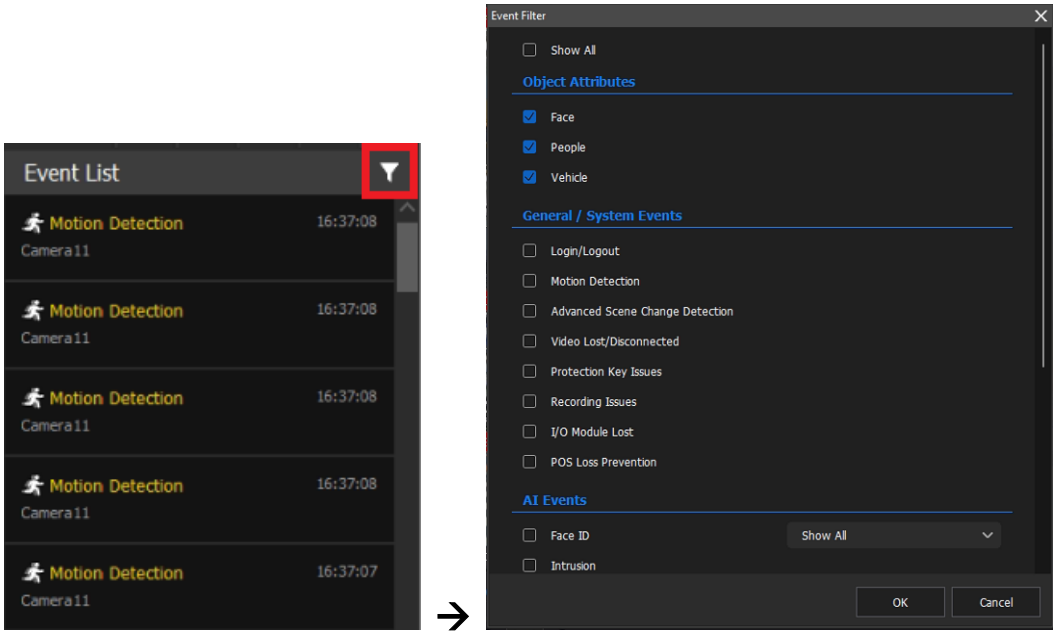
Before you can view people and vehicle attribute events in the Event List, ensure **Video Metadata** is enabled on cameras in advance. For details, see *3.2 Video Metadata*.

Unlike the text-based System Log, which provides a text-based record of general and system events, the Event List offers a visual, filterable display.

Note: By default, no event types are selected.

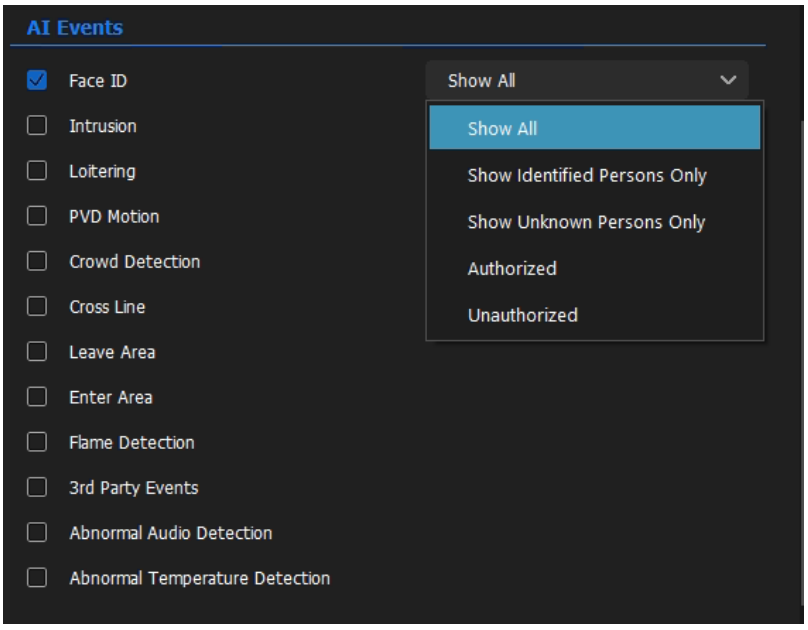
2.1.1 Event Filter

You can use the **Filter**  at the top of the Event List to display specific event types. The **Event Filter** dialog box appears.



To filter the display, select event types in the following categories: *Object Attributes*, *General / System Events*, and *AI Events*.

1. **Face ID:** If you select **Face ID** under AI Events, you can further refine results by choosing *Show All*, *Show Identified Persons Only*, *Show Unknown Persons Only*, or other custom groups. See *3.1 Local Face Recognition* for details.



2.2 Live View and Playback on One UI

In GV-VMS V20, the Home page provides direct access to playback video and the timeline, allowing users to watch live view and playback streams side by side with full playback controls and timeline access.

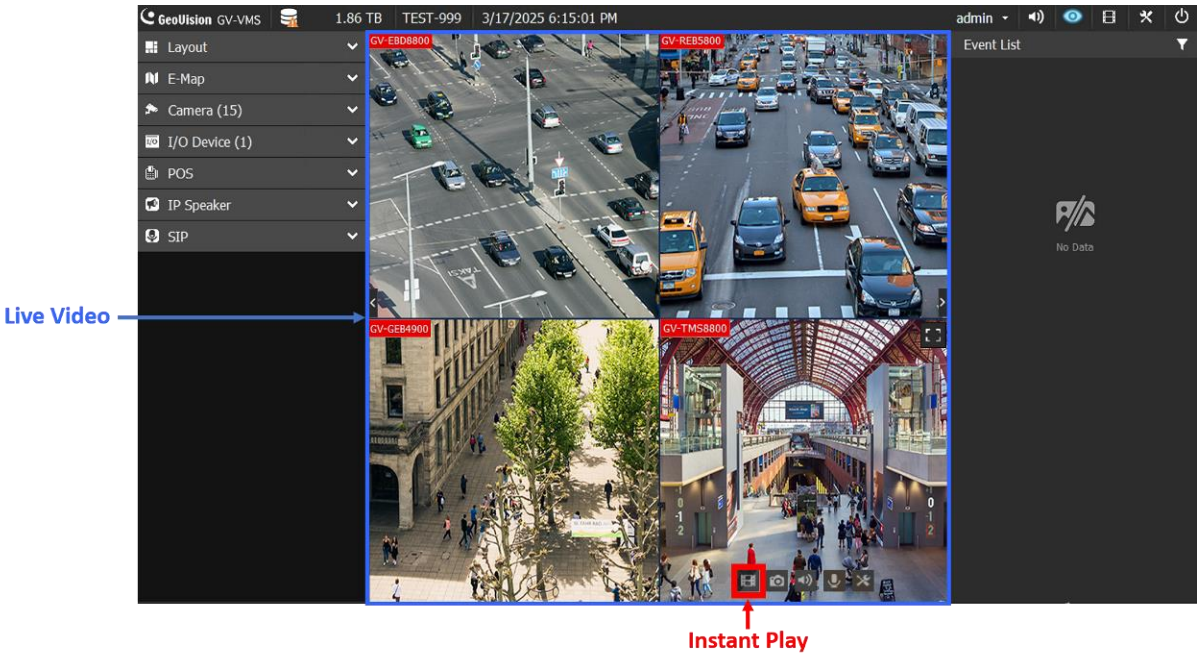
Playback access on the Home page is available through the following methods:

- **Access from Camera Channels:** Clicking **Instant Play** now opens a dedicated playback timeline at the bottom of the Main Screen, replacing the previous control bar with basic playback buttons shown beneath each channel. Users can now view full video playback directly on the Home page for a more thorough review.
- **Access from Event List:** The Event List displays detected events that match the selected filters. Double-clicking an event displays the playback video in the layout and shows the playback timeline at the bottom of the Main Screen. You can then select a time on the playback timeline and click **Play** to view the recording.

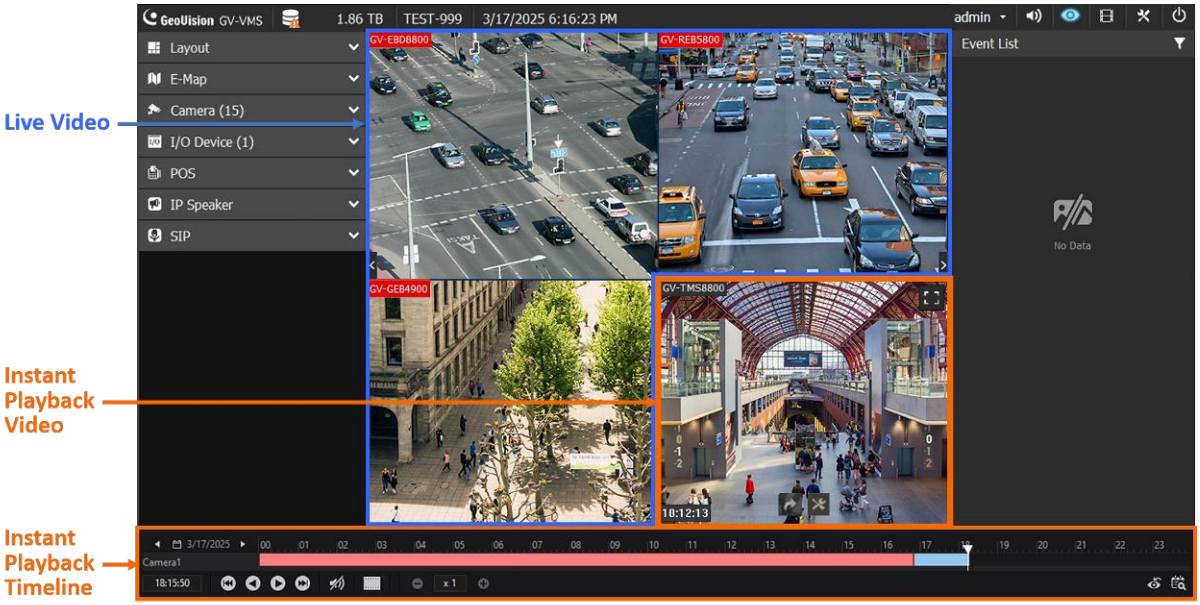
2.2.1 Access from Camera Channels

To access playback from camera channels, follow the steps below.

1. On the Home page, hover your cursor over the live view of the desired camera channel, and click **Instant Play**.



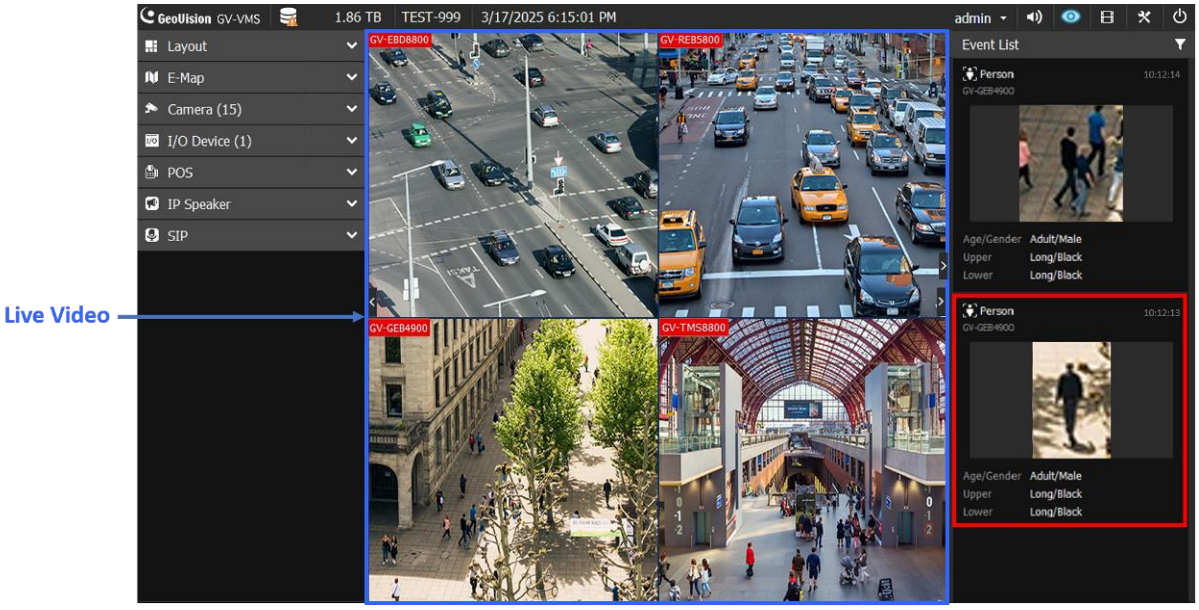
2. The live view switches to playback in the same channel, and the playback timeline appears below. Select a time on the playback timeline and click **Play** to view the recording. You can now view the live and playback streams side by side.



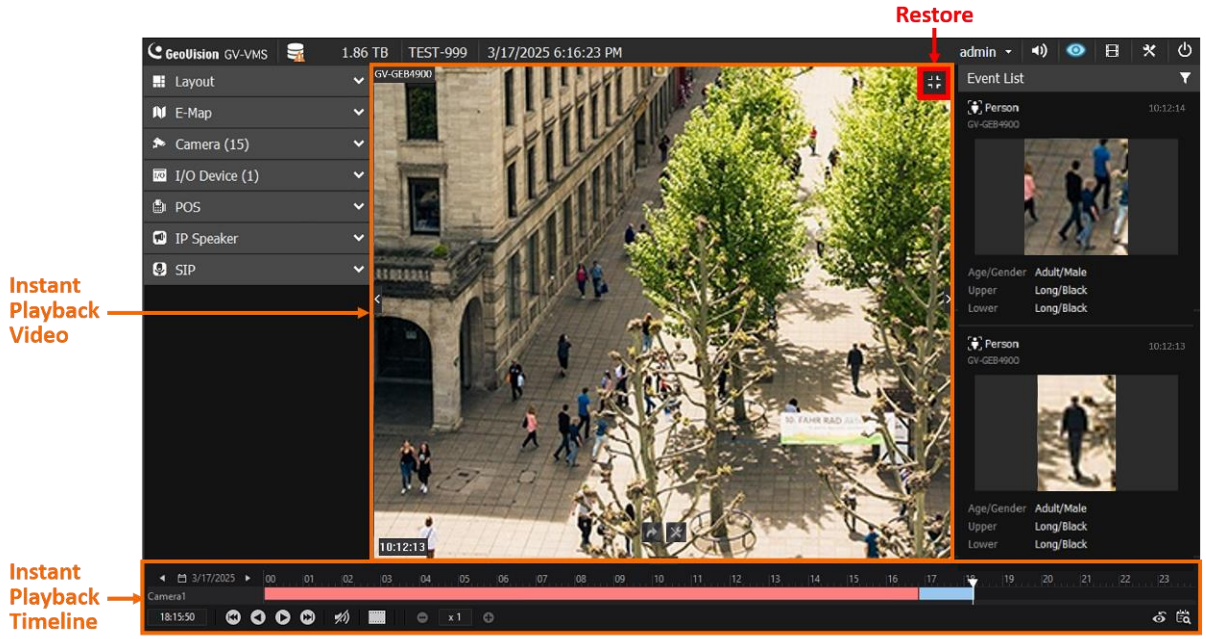
2.2.2 Access from Event List

To access playback from the Event List, follow the steps below.

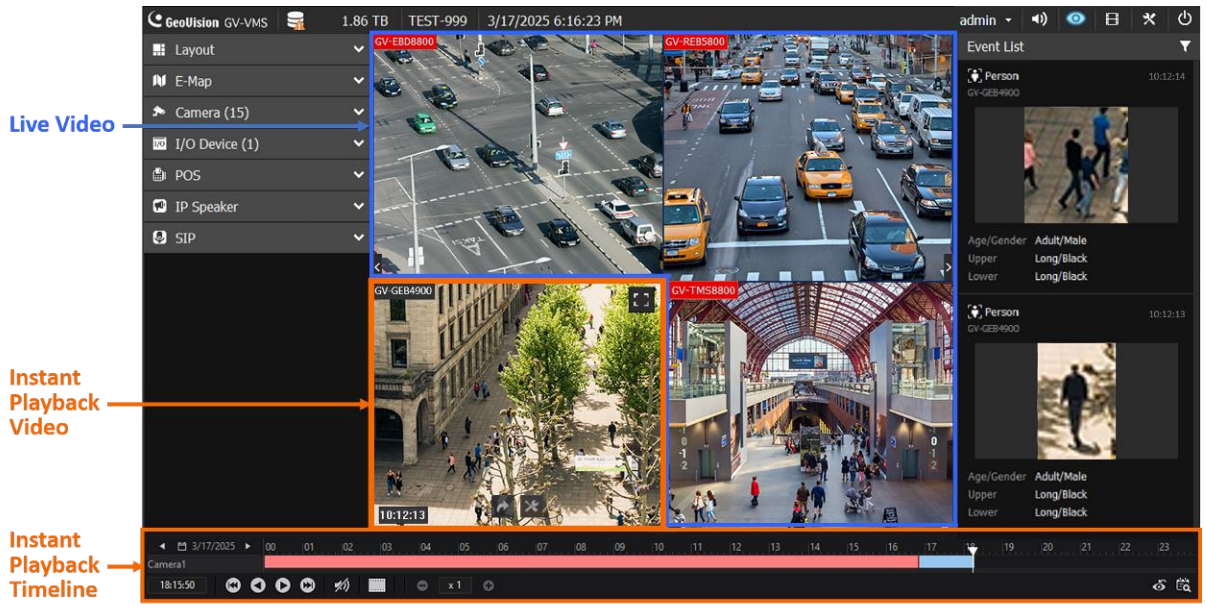
1. On the Home page, double-click the event in the Event List that you want to play back.



2. The event playback is displayed in the layout, zoomed in to a single channel (1x1 view), and the playback timeline appears below. Select a time on the playback timeline and click **Play** to view the recording.



3. To view the live and playback streams side by side, hover your cursor over the channel and click **Restore** at the top right. This displays both streams in the layout simultaneously.



Note: Playback behavior depends on the camera's display status:

(a) **If the camera is already displayed in the layout:** Double-clicking an event displays its playback on the Home page in a 1x1 view. After clicking the **Restore** button, you will see that the live view has been replaced with playback in the same channel on the Home page (see the steps above).

(b) **If the camera is not displayed but there are empty channels in the layout:** Double-clicking an event displays its playback on the Home page in a 1x1 view. After clicking the **Restore** button, you will see that the playback has opened in an empty channel on the Home page.

(c) **If the camera is not displayed and all channels are occupied:** Double-clicking an event displays its playback on the ViewLog page in a 1x1 view. Clicking the **Restore** button closes the playback if the channel was not originally displayed in the ViewLog, and then returns you to the ViewLog page.

Tip: Available Instant Playback video controls in VMS V20 are listed as follows.

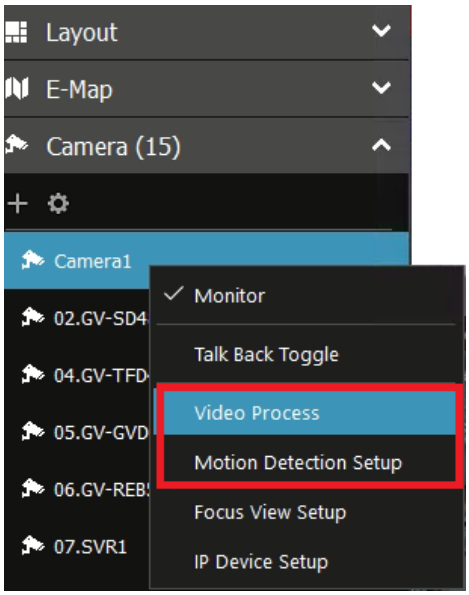
- **Zoom:** In the multi-division view on the Home Page, zoom in on the playback video by double-clicking the channel, or hovering over the channel and clicking **Zoom**  at the top right.
- **Restore:** In the single-division view of the playback on the Home Page, zoom out of the playback video by double-clicking the channel, or hovering over the channel and clicking **Restore**  at the top right.
- **Back to Live View:** To return to Live View for a specific instant playback video, hover over the channel and click **Back to Live View**  at the bottom.
- **Break all Instant Playback to Live:** To return to Live View for all instant playback videos on the Live View layout, click **Break all Instant Playback to Live**  at the bottom right of the Instant Playback Timeline.

2.3 Quick Setup and Screen Control

This section introduces new features that simplify access to PVD and AI settings, enhance screen control, and allow in-app adjustment of camera motion detection.

2.3.1 Access PVD and AI Event Settings

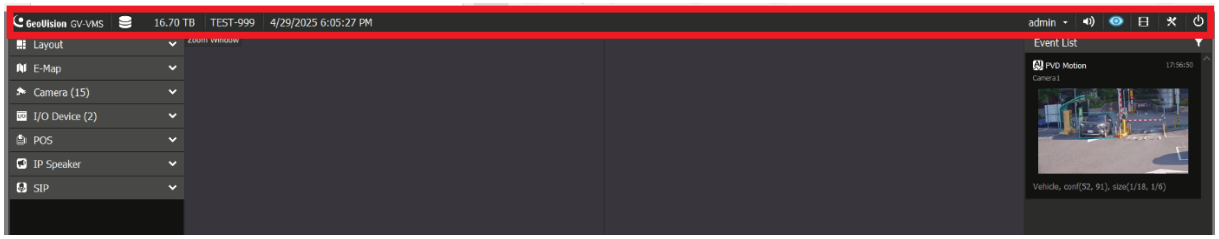
You can now access people and vehicle detection (PVD) and AI event settings more easily by right-clicking a camera in the Content List and selecting **Motion Detection Setup** or **Video Process**.



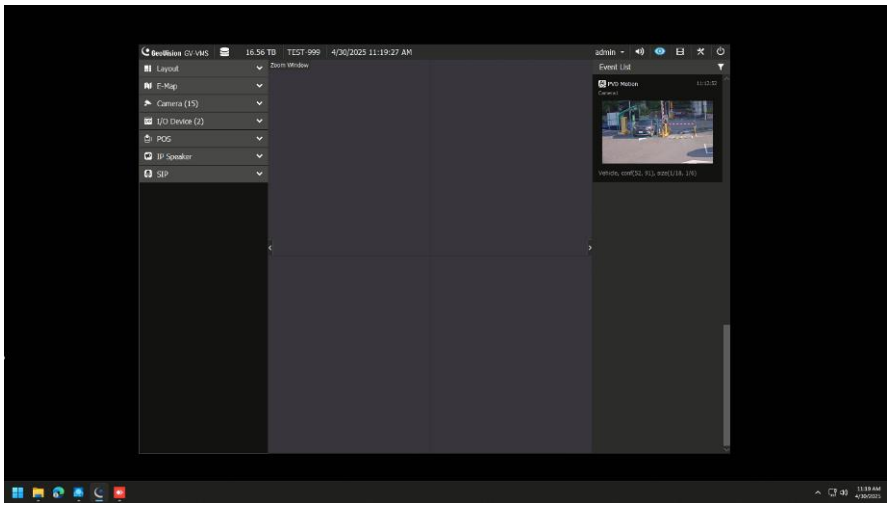
2.3.2 Resize and Move Main Screen

You can now resize and reposition the main screen by first double-clicking the toolbar to minimize the UI, then dragging the screen or adjusting its size using any of its corners or side borders.

[Double-clicking the toolbar of the Main Screen]



➔ [The Main Screen is minimized]



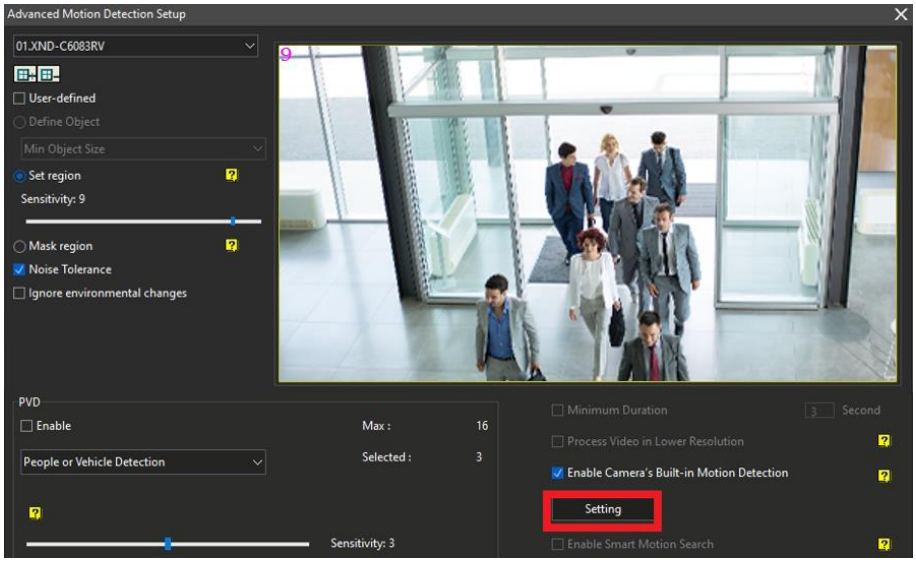
2.3.3 Adjust Camera's Motion Detection

You can now adjust the camera's detection zones and sensitivity directly on GV-VMS – no need to access the camera's Web interface. Changes are applied to the camera immediately once saved.

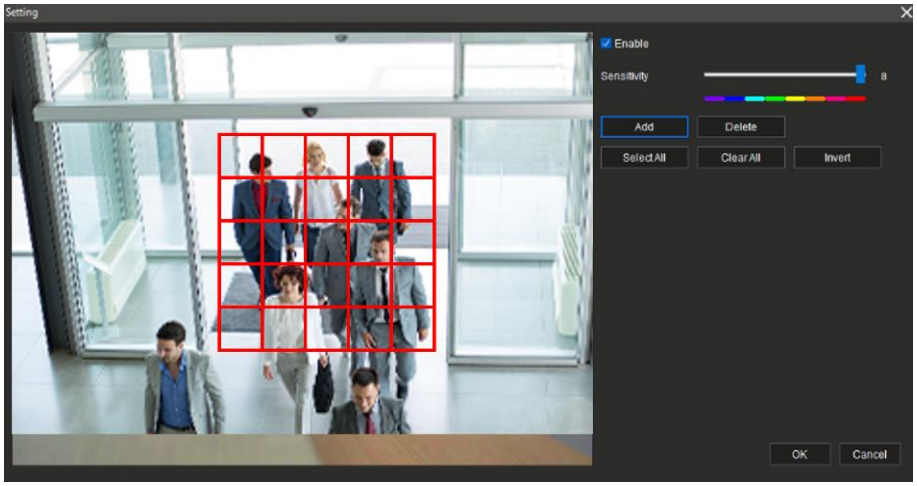
Note: This function is not supported by 3rd-party AI cameras.

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1. Right-click a camera from the Content List > **Motion Detection Setup**.
2. On the Advanced Motion Detection Setup dialog box, click **Setting** under **Enable Camera's Built-in Motion Detection**.



3. Add the detection area and adjust sensitivity. Note that the setting dialog box varies depending on camera models.



Chapter 3 Video Analysis

This chapter introduces the new features and enhancements of Video Analysis.

3.1 Local Face Recognition

In conjunction with the **face detection** function of AI-capable GV-IP cameras, GV-VMS V20 has face recognition capabilities using its built-in face recognition engine and database.

The GV-VMS can process up to **10 face snapshots per second** for recognition, whether from multiple cameras or multiple frames from the same camera. While there's no limit on the number of open channels, excess snapshots are queued and processed at this fixed rate.

Recognition events of a specified group, such as Unauthorized, can be used to trigger alarms, send e-mail notifications, or initiate other alert actions. To learn which AI-capable GV-IP cameras support face detection, see *Camera's AI Events Supported by GV-VMS* in *Camera Features Supported by GV-VMS V20*.

To use the local face recognition feature in GV-VMS, complete the three steps outlined below. To begin, enable the face detection function on the connected camera, and then create a local face database. This will allow GV-VMS to convert the face detection events into face recognition.

Step 1: Enable face detection on the connected camera.

Refer to the camera's user's manual.

Step 2: Create a local face database.

There are two methods to enroll faces.

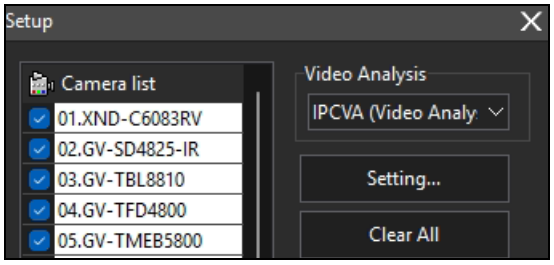
1. Enroll faces by adding portrait photos into the local face database. Click **Home** > **Toolbar** > **Configure** > **Face Manager,** and click **Face Enrollment**. See *3.4.1 Enrolling Face Data* in the *GV-VMS User's Manual V20*.
2. Enroll captured faces from live view or playback video. See the subsection *Enrolling Faces from Live View / ViewLog* in *3.4.1 Enrolling Face Data* in the *GV-VMS User's Manual V20*.

Note:

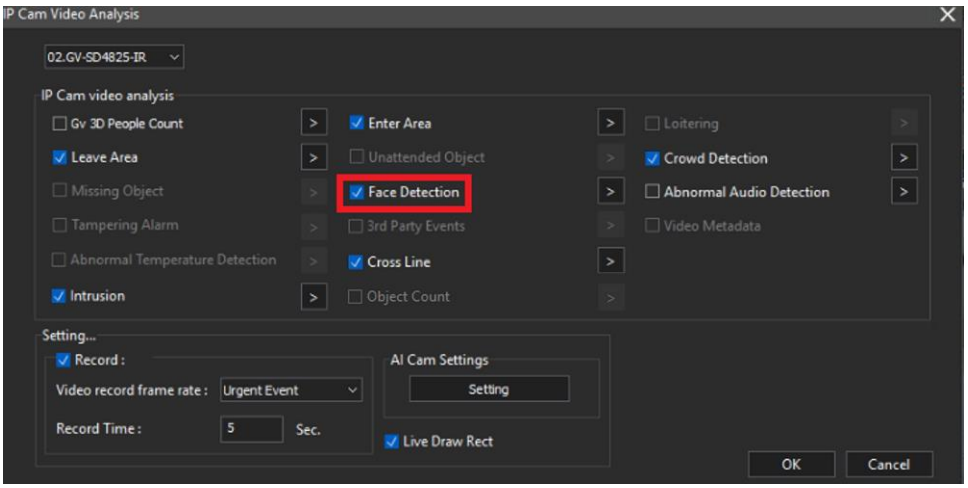
1. The local face database supports up to 100,000 face images in total, with up to 1 face image per face profile.
2. The size of the face within the photo should be greater than 150 pixels. For details on photo requirements, see *3.2.1 Photo requirements* in the *GV-AI FR User's Manual*.

Step 3: Enable face detection & recognition on GV-VMS.

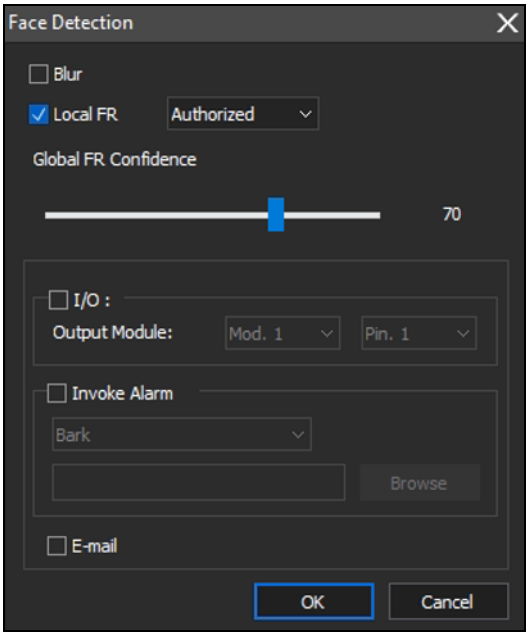
1. Click **Home** > **Toolbar** > **Configure** > **Video Process**.
2. In the Setup dialog box, select **IPCVA**, select the camera which you want to enable face detection and click **Setting**.



3. Select the camera from the dropdown list at the top, and enable **Face Detection**.



4. Click the arrow button > next to **Face Detection** to configure the following settings.



- **Blur:** Enable the option to apply a blur effect to censor all detected faces.
- **Local FR:**

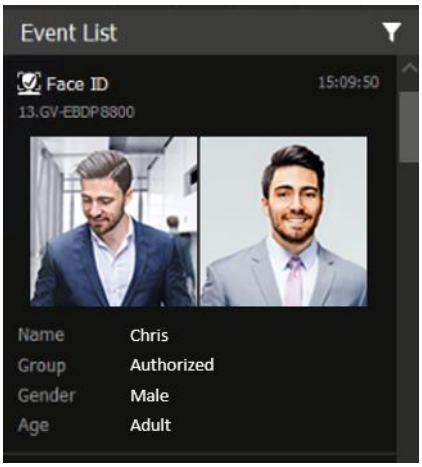
  Enable GV-VMS's local face recognition. Select either Unknown Alert or the face group for which alerts should be triggered. Note that local facial recognition does not support Schedule Alert.

  - **Global FR Confidence:** Adjust the Confidence level, from 0 to 99. The higher the level, the more definitive and stricter the camera is toward distinguishing between similar faces upon face recognition.
- **I/O:** Select an **Output Module** and **Pin** number to be triggered upon face recognition.

- **Invoke Alarm:** Select a computer alarm or click **Browse** to select an audio file from your PC, to be played upon face recognition.
- **E-Mail:** Enable e-mail notifications to be sent upon face recognition.

5. Enable **Record**, set the recording frame rate, and define the recording duration in seconds.
6. To display detection rectangles on the live view, select **Live Draw Rect**.
7. Click **OK**.
8. Start monitoring.

In the Event List, use the **Filter** function to select **Face ID**. When a face recognition event occurs, you can view live recognition details, including the person's captured and enrolled faces side by side, name, face group, gender, age group, camera channel, and the time of recognition. Double-clicking on an event can play back the video.



3.2 Video Metadata

GV-VMS V20 supports receiving video metadata, allowing event searches based on people or vehicle attributes. This allows for rapid and accurate identification of a specific individual or a suspicious vehicle when using the AI Query on the *local GV-VMS* or *GV-Cloud VMS*.

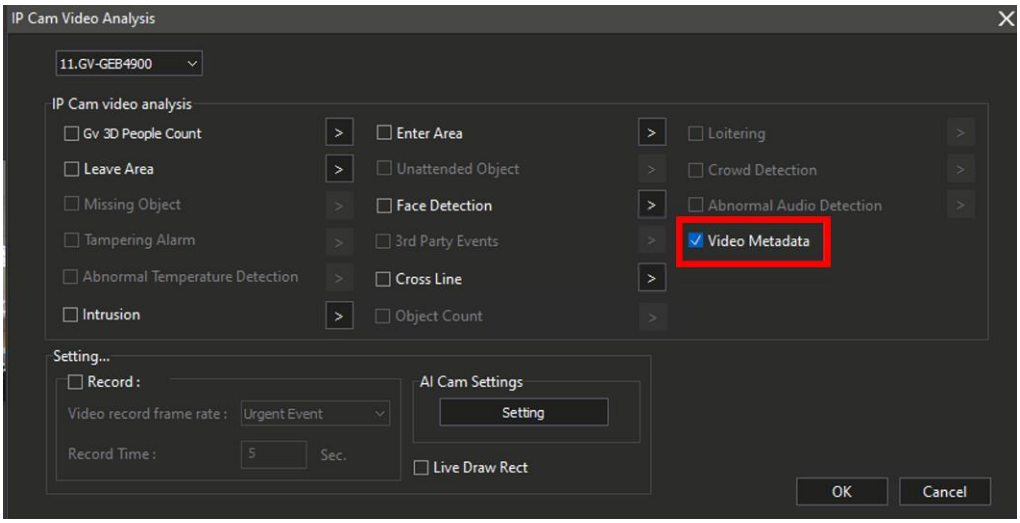
The video metadata includes:

- **People attributes**: Age group, gender, upper/lower clothing, accessories
- **Vehicle attributes**: Vehicle type, color, brand

Note: For the list of GV-IP cameras that support video metadata, see *Camera's Video Metadata Supported by GV-VMS* in *Camera Features Supported by GV-VMS V20*.

To enable metadata transmission:

1. Click **Home** > **Toolbar** > **Configure** > **Video Process**.
2. In the Setup dialog box, select **IPCVA**, select the desired cameras, and click **Setting**.
3. Select a camera from the dropdown list at the top, and enable **Video Metadata**.
4. Click **OK**.



For the intelligent search function, see *4.1 AI Query*.

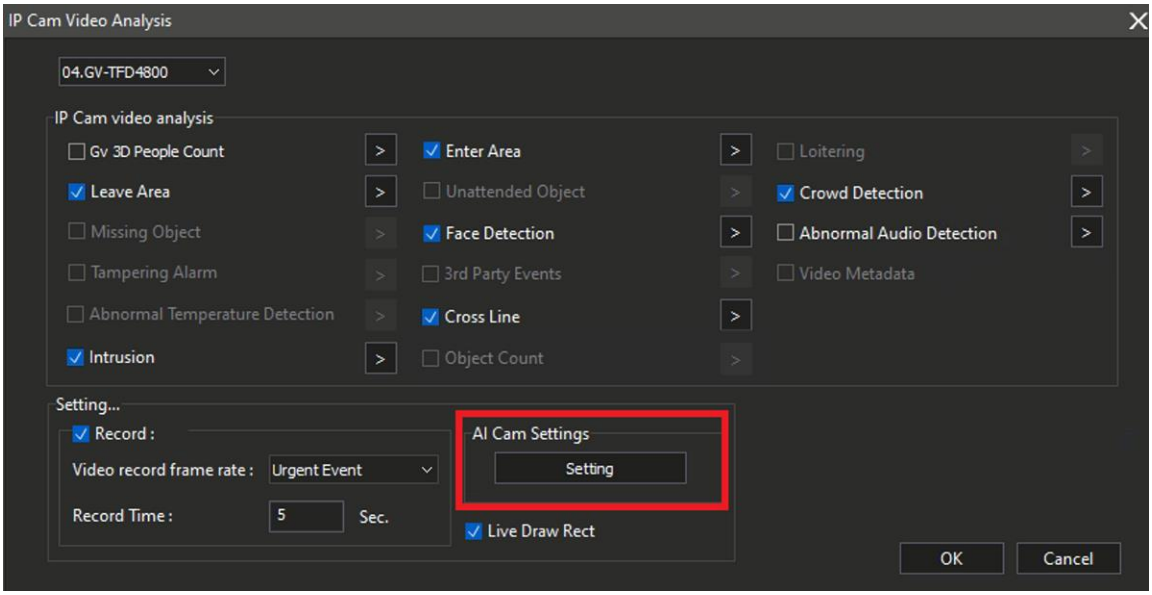
3.3 Easy AI Event Adjustment

GV-VMS V20 streamlines AI event setup by allowing you to directly configure alarm zones and PVD parameters on AI cameras – no need to access the camera's Web interface. Supported AI events include *Cross Line*, *Enter/Leave Area*, *Intrusion*, *Face Detection*, *People Flow Counting*, and *Crowd Density Monitoring*.

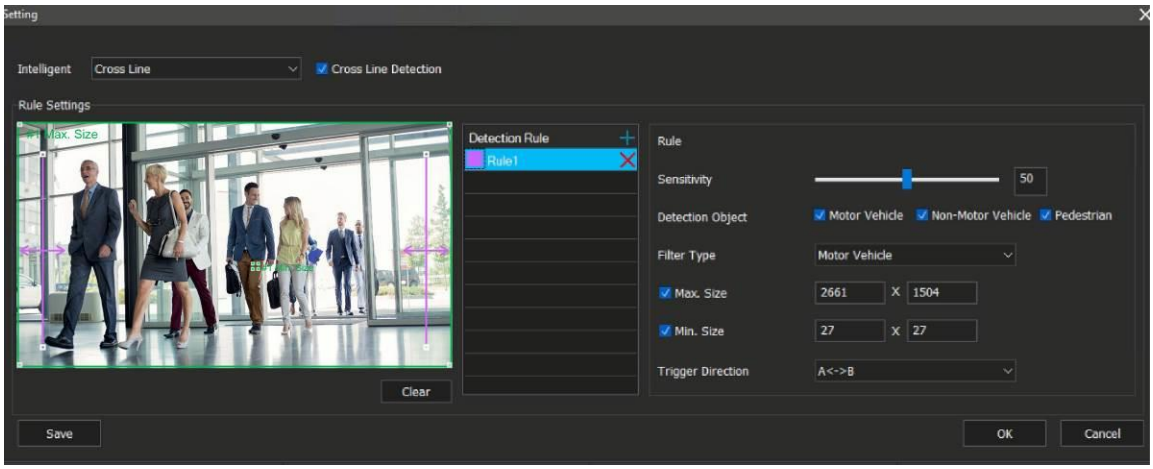
Note: This function is not supported by 3rd-party AI cameras.

To enable the AI event setup:

1. Click **Home** > **Toolbar** > **Configure** > **Video Process**.
2. In the Setup dialog box, select **IPCVA**, select the desired camera, and click **Setting**.
3. Select a camera from the dropdown list at the top, and click **Setting** of **AI Cam Settings**.



4. In the following example of Cross Line, you can configure detection rules, detection objects, sensitivity, size, and more.



5. Click **OK**. The settings are applied to the remote AI camera immediately.

For details on the IPCam Video Analysis settings, see *3.6 Video Analysis by Camera* in the *GV-VMS User's Manual V20*.

3.4 Privacy Masks with Adjustable Blur Intensity

GV-VMS V20 enhances privacy protection by allowing users to adjust the blur intensity of mosaic privacy masks. This feature helps organizations comply with privacy regulations while maintaining effective surveillance.

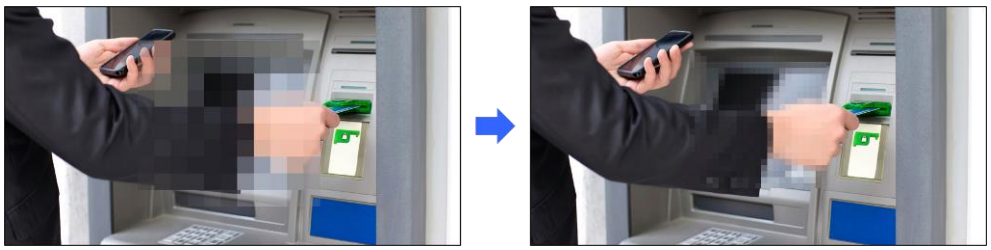
To adjust the blur intensity of mosaic privacy masks:

1. Click **Home** > **Toolbar** > **Configure** > **Video Process**.
2. In the Setup dialog box, select **Privacy Mask Setup** from the Video Analysis dropdown list, select the desired cameras, and then click **Setting**.
3. In the Privacy Mask Setup dialog box, select a camera from the dropdown list.



4. Select **Unrecoverable** or **Recoverable**.
   - **Unrecoverable:** The masked areas cannot be retrieved in the recorded videos.
   - **Recoverable:** The masked areas can be retrieved with password protection.
5. To add a mosaic privacy mask of the selected type (*Unrecoverable* or *Recoverable*), click the **+** button, drag the mask to the desired position on the camera view, and resize the mask area. The Unrecoverable mask is marked in black, while the Recoverable mask is shown in brown.

6. To adjust the blur intensity, select **ROI Apply Mosaic**, and then move the slider. The higher the level, the less the mosaic blur.



7. Click **OK** to apply the settings.

Note: Up to 10 Privacy Mask areas can be configured for a camera channel, and each area can be set as a polygon with up to 50 edges.

Chapter 4 Video Playback

This chapter introduces the new features and enhancements in the ViewLog of GV-VMS V20.

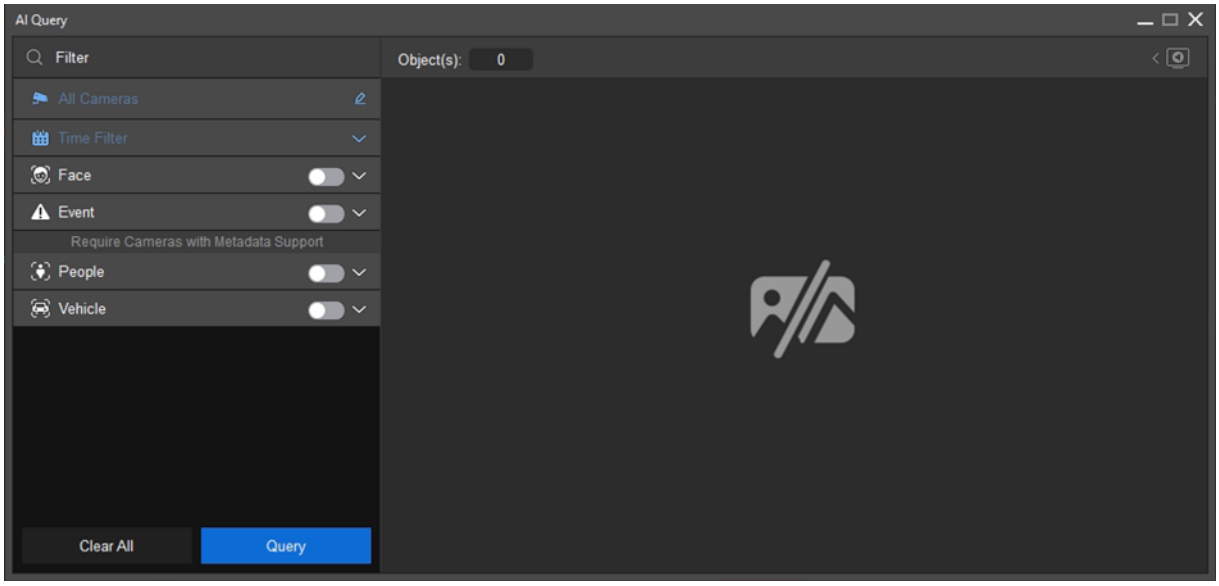
4.1 AI Query

The AI Query function enables post-event review and filtering of AI and PVD events, including face, people, and vehicle attributes, using detailed criteria such as device, time range, event type, and specific attributes.

Before you can filter people and vehicle attributes using the AI Query, ensure **Video Metadata** is enabled on cameras before recording. For details, see *3.2 Video Metadata*.

4.1.1 Using the AI Query Interface

To access the AI Query feature, click **ViewLog** > **Toolbar** > **Tools** > **AI Query**. The AI Query dialog box appears.



Note:

1. By default, no event types are selected.
2. The AI Query function is used to search for detection or recognition results. To enhance detection accuracy, refer to the camera's user manual for various AI event settings. For **face searches**, you can adjust the Confidence parameter in the AI Query filter to refine the similarity of search results.

Search Criteria

The search criteria are as follows:

<table>
<tr>
<td>

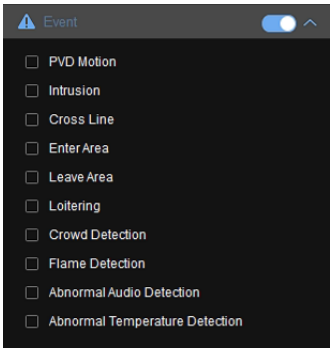
- **Filter:** Use this option to refine results for the Face, Event, People, and Vehicle categories, or make selections in these categories below.
- **Time Filter:** Define a time range.

</td>
<td>

- **Camera Selector:** Click the  icon at the right of the All Cameras field to open the Camera List dialog box. Select one or more cameras to filter the search.

</td>
<td>

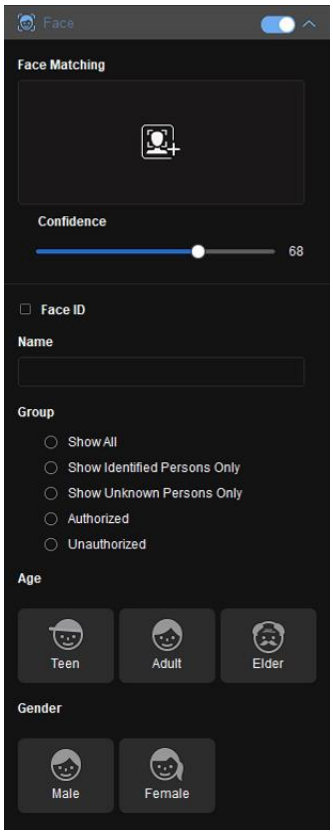
- **Event:** Filter by AI event types.



</td>
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<tr>
<td>

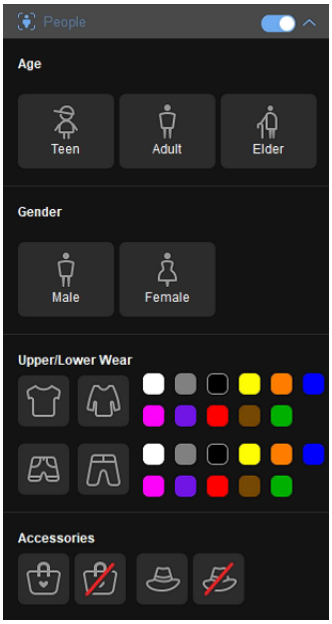
- **Face:** Filter by face attributes, including *Age Group* and *Gender*, or search using *Face Matching* or *Face ID*.

See *4.1.2 Face Search*.



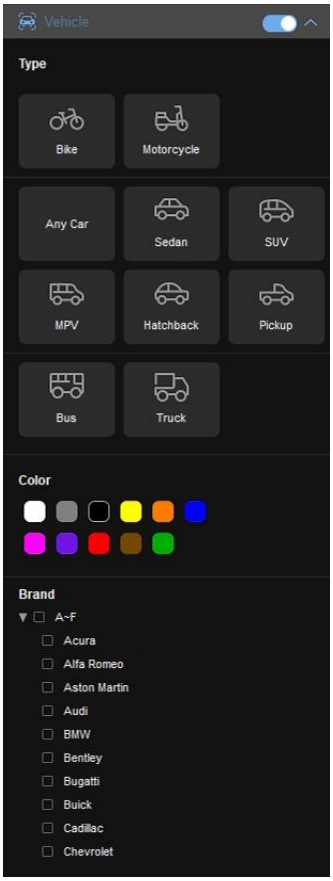
</td>
<td>

- **People:** Filter by people attributes, including *Age Group*, *Gender*, *Upper/Lower Wear*, and *Accessories*.



</td>
<td>

- **Vehicle:** Filter by vehicle attributes, including *Type*, *Color*, and *Brand*.

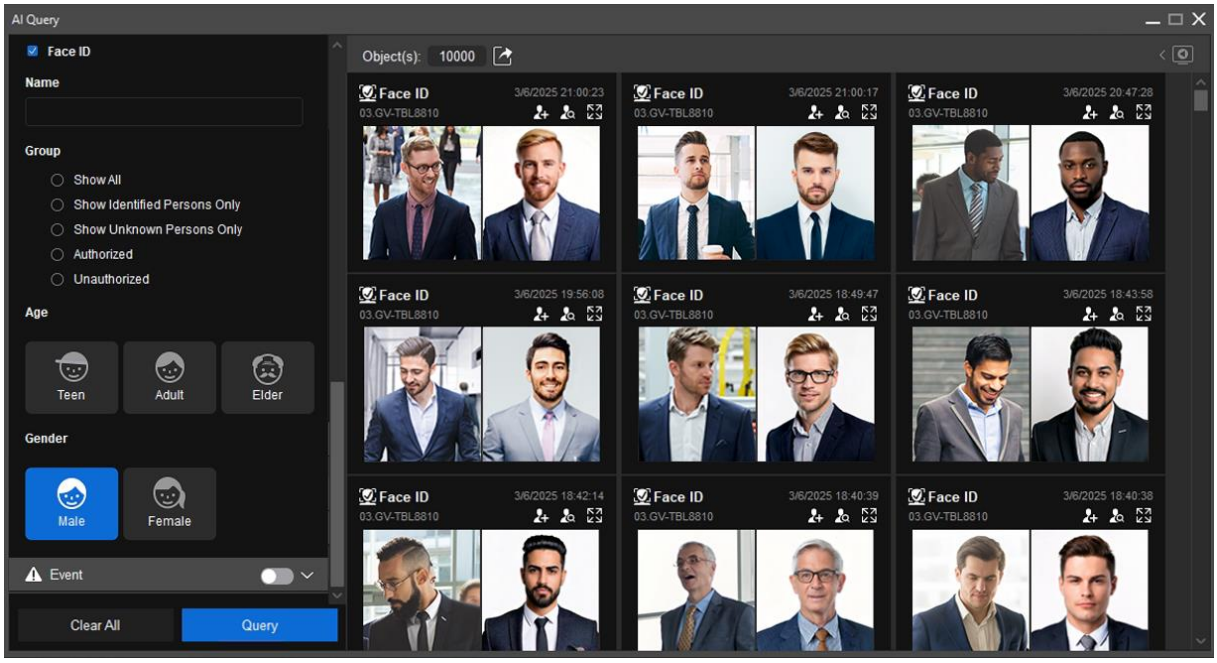


</td>
</tr>
</table>

Query Results: Face Events

After filtering the events, click **Query**. The matching events are displayed.

In the example below, the face events are filtered by the Male gender.



- **Face Enroll:** Click the icon on the snapshot of a desired recognition event to enroll faces. See *Enrolling Faces from Live View / ViewLog* in *3.4.1 Enrolling Face Data* in the *GV-VMS User's Manual V20*.
- **Face Matching:** Click the icon on the snapshot of a recognition event to use it as a reference for searching other similar recognition events. This function allows you to find past occurrences of the same or very similar person based on facial similarity.
- **Zoom In**: Click the icon on the snapshot of a desired recognition event to zoom in on the image.

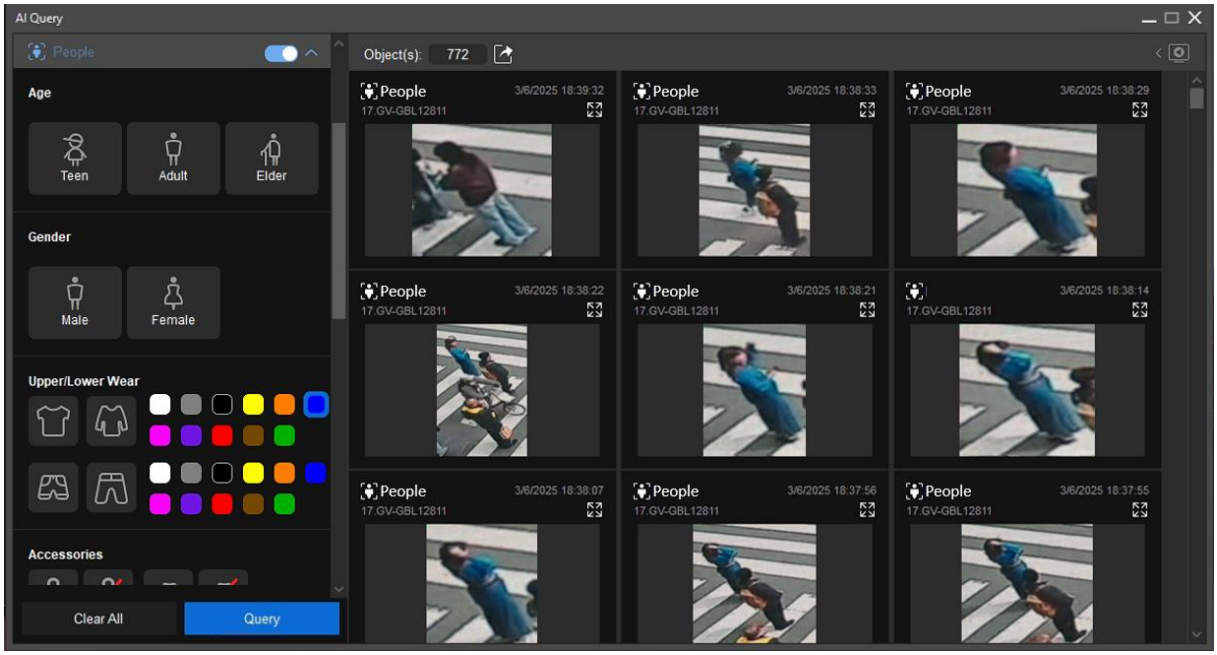
Tip: To export query results, click the icon beside the object count.

- **CSV:** Saves as an Excel file and an image folder.
- **PDF:** Saves as a PDF file.

Query Results: Event / People / Vehicle

After filtering the events, click **Query**. The matching events are displayed.

In the example below, the people attributes are filtered by blue upper wear.



- **Zoom In**: Click the icon on the snapshot of a desired recognition event to zoom in on the image.

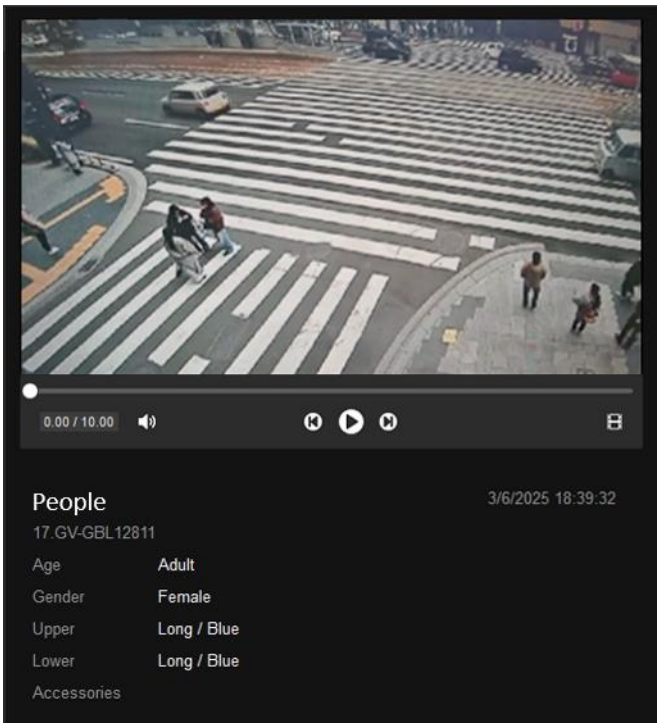
Tip: To export query results, click the icon beside the object count.

- **CSV:** Saves as an Excel file and an image folder.
- **PDF:** Saves as a PDF file.

Note: The maximum number of query results is 10,000.

Playback and Event Details

After clicking **Query** and displaying the matching events, click the snapshot of a desired event to view its playback and event details.



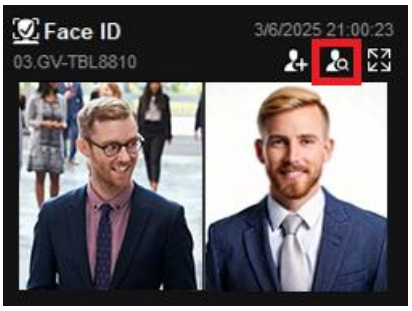
Tip: In the Event Playback panel, click **View by ViewLog** beside the playback controls to view the playback in ViewLog. To return to AI Query, click **Maximize** in the minimized AI Query window at the bottom left of the screen 

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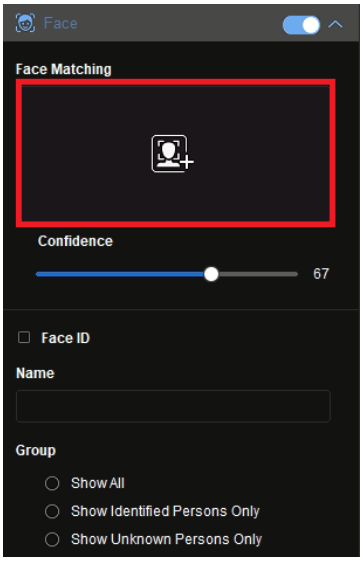
4.1.2 Face Search

GV-VMS V20 offers multiple methods for locating a specific individual. You can search for recognition events using a face image from a recognition event or an uploaded face photo. You can also search by a person's name if they are enrolled in the face database.

1. Click the icon on the snapshot of a recognition event to use it as a reference for searching other similar recognition events.



2. Under the Face Matching section, click the button to upload a face image from your PC and search for related recognition events. Optionally, adjust the **Confidence** parameter to set the minimum similarity level for search results compared to the uploaded face image.



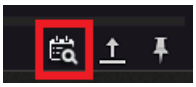
3. To search recognition events by name or group, first enable **Face ID**, then enter a person's *Name* (if enrolled in the face database) or select their *Group*. Available groups include Show All, *Show Identified Persons Only* (those successfully recognized from the face database), *Show Unknown Persons Only*, and other custom groups.

4.2 Customized Event Colors on the Timeline

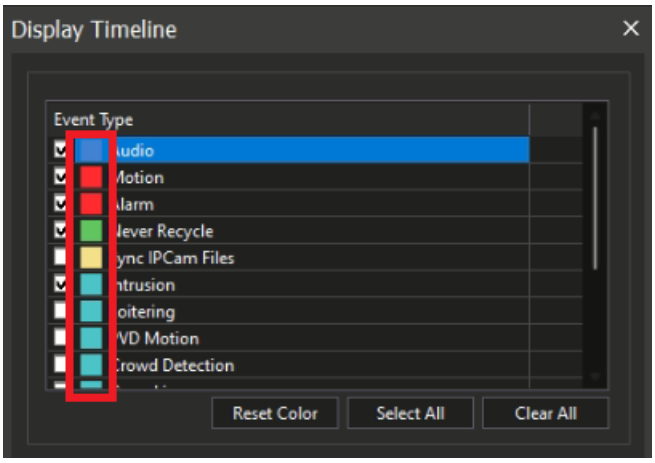
The timeline now allows you to personalize the colors of events.

To customize event colors on the timeline:

1. Click the **Time Filter** button in the bottom right of the ViewLog window.



2. To change the color of an event type, click the color box.



3. Select a color and click **OK**. The selected color is applied to the timeline.
4. To restore default colors, click **Reset Color**.

For details, see *4.1.1 ViewLog Window* in the *GV-VMS User's Manual V20*.

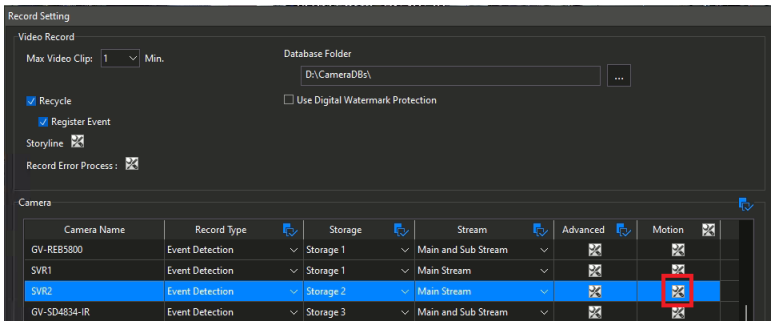
4.3 Smart PVD Motion Search

The Smart Motion Search feature in GV-VMS V20 allows you to search for persons or vehicles in recordings by designating regions of interest. This function is handy if you know something happened in a certain area of the camera's field of view but do not know when it occurred. You can draw a box around the area of interest, and it will search for any clip of people or vehicle activity that occurred when they entered that area.

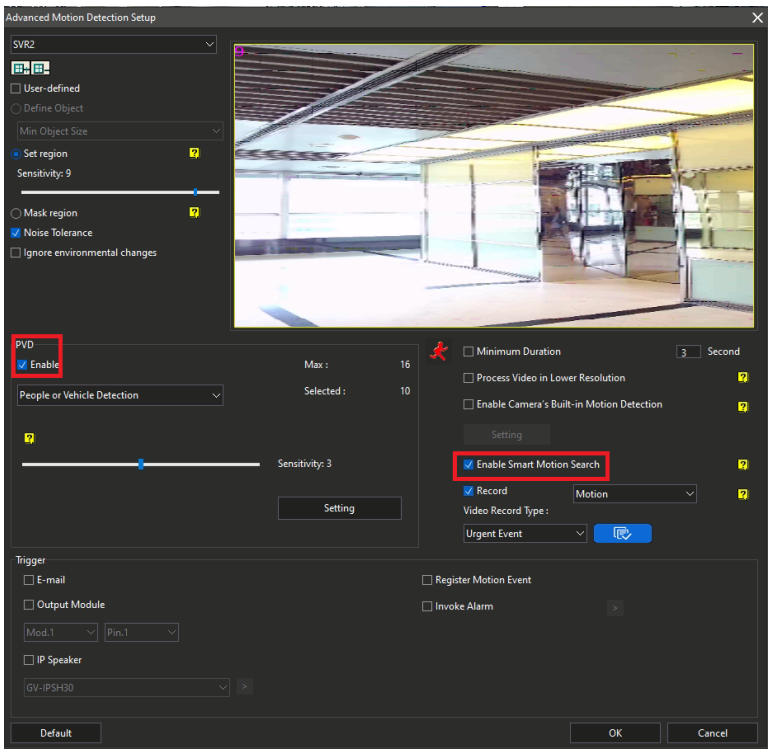
To enable PVD and Smart Motion Search:

1. Click **Home** > **Toolbar** > **Configure** > **System Configure** > **Record Setting**. The Record Setting dialog box appears.

2. Select a camera and click button under **Motion**. The Advanced Motion Detection Setup dialog box appears.

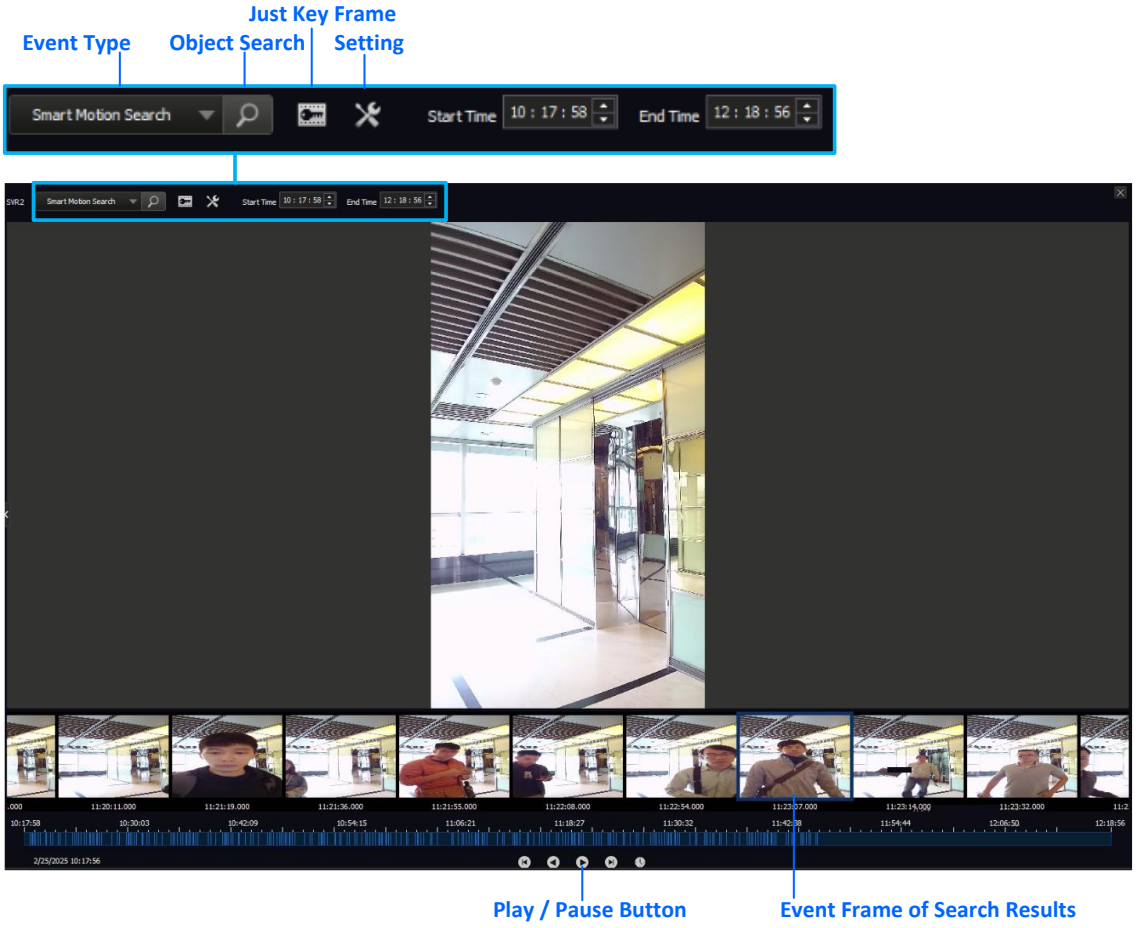


3. Enable **PVD** and **Enable Smart Motion Search**.



To start smart filtering:

4. Select **ViewLog**, select a channel (the channel's recordings must be displayed on the timeline), and select **Toolbar** > **Tools** > **Object Search**. The Object Index window appears.



5. Specify **Start Time** and **End Time** for the search. Click the **Play** button to display images.
6. Select **Smart Motion Search** from the event type dropdown list.
7. Click **Setting**.
8. Draw detection regions on the image. The system will search for any clip of people or vehicle activity that occurred within the defined detection regions.
9. Click **Object Search**. The events found to have people or vehicle activity are highlighted in blue on the timeline.
10. Double-click an event frame or click the **Play** button to view the event.

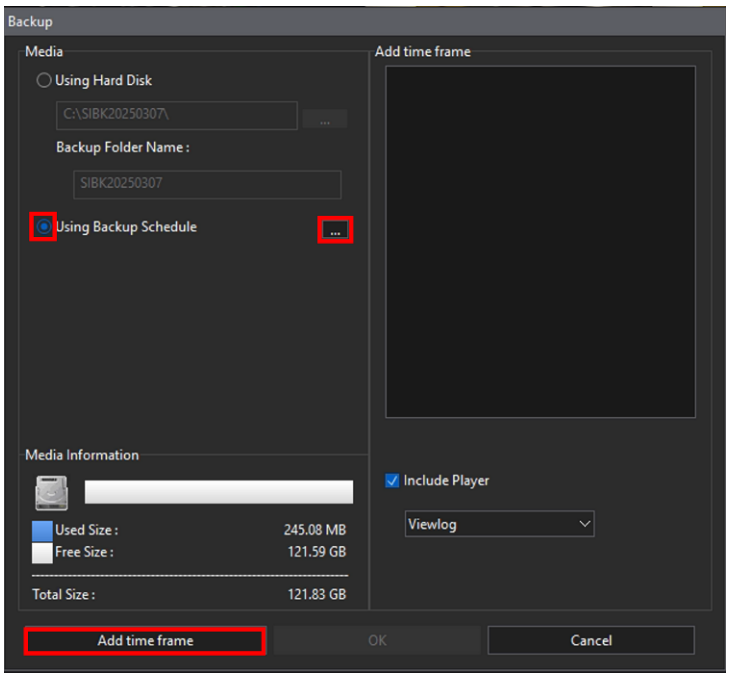
For details, see *4.2 Object Search* in the *GV-VMS User's Manual V20*.

4.4 Backup Schedule

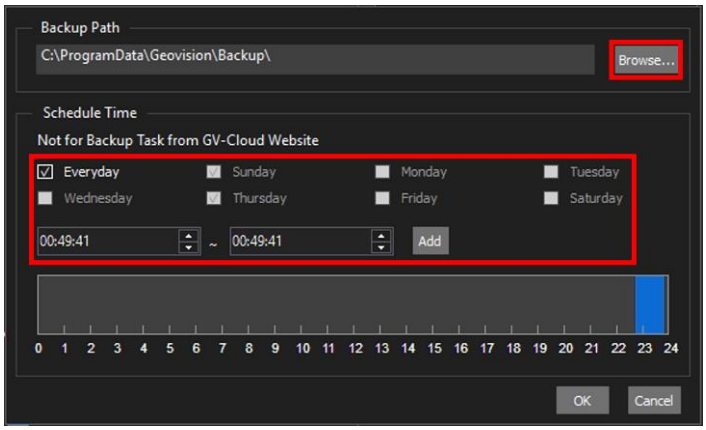
GV-VMS V20 introduces added scheduling support for ViewLog's video backup.

To schedule ViewLog's video backup:

1. Click **ViewLog** > **Toolbar** > **Tools** > **Backup**.
2. In the Backup dialog box, select **Using Backup Schedule** as the destination media for backup. Click the ... button to open the Backup Schedule dialog box.

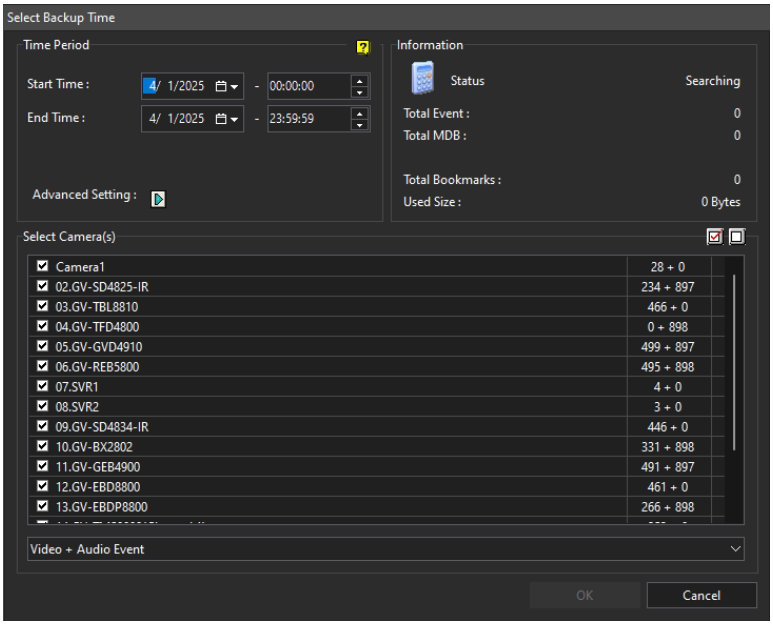


3. In the Backup Schedule dialog box, choose a destination path for storing recorded videos and specify the **Schedule Time**, which determines when the backup should run, including the days and time periods. Click **OK** to apply the schedule.



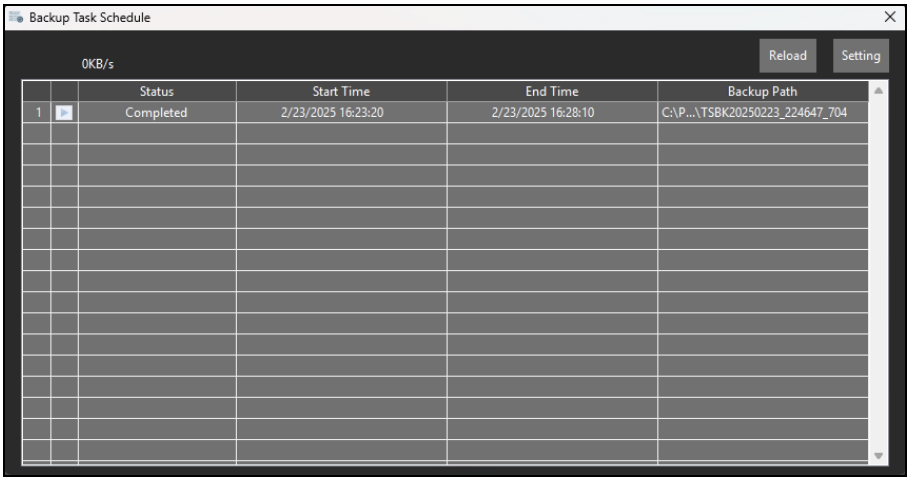
4. Back in the Backup dialog box, click the **Add Time Frame** button to open the Select Backup Time dialog box.

5. In the Select Backup Time dialog box, specify the **Backup Time**, which is the time range of recorded videos to be backed up. Select the cameras and choose whether to back up **Video**, **Audio**, or **Video + Audio Events**. Click **OK** to confirm.



6. Back in the Backup dialog box, click **OK** to finalize the backup settings.

7. To view the backup status, click the **Show Backup Task Schedule** icon  in the Windows system tray.



For details, see *5.2 Backing Up Recorded Files* in the *GV-VMS User's Manual V20*.

Chapter 5 GV-IP Speaker Integration

GV-VMS V20 now seamlessly integrates with GV-IP Speaker, transforming passive surveillance into an active deterrence system through real-time audio alerts. This integration enhances security operations by enabling immediate responses to various events.

This chapter introduces additional feature support for GV-IP Speakers of GV-VMS V20, as listed below.

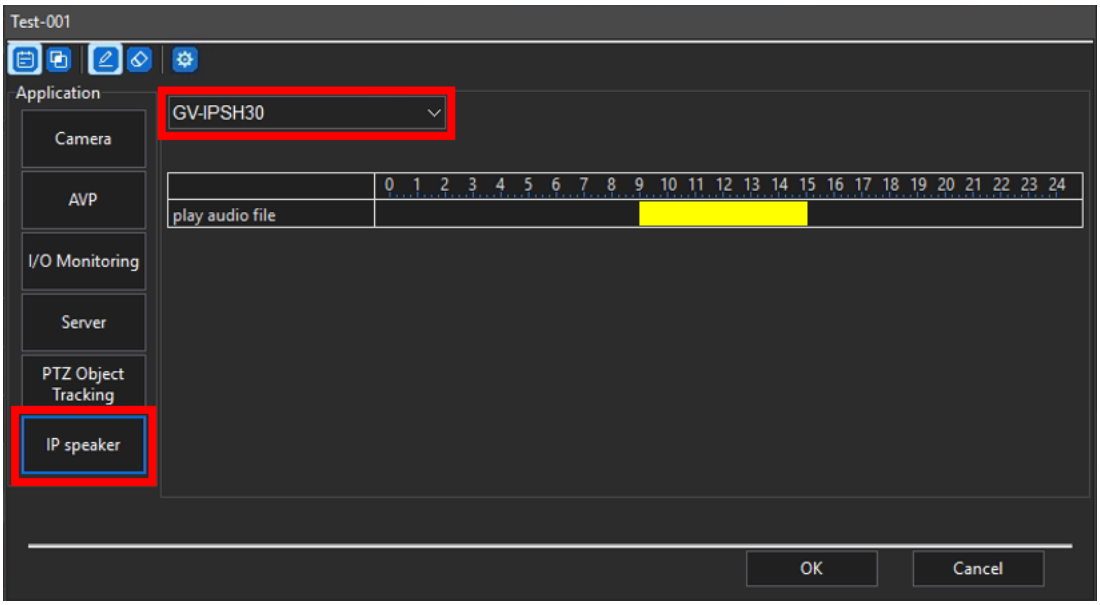
- **Scheduled audio playback:** Play pre-selected audio file at defined schedules. This is helpful for routine announcements, warnings, or operational reminders during designated time frames.
- **AI event-triggered audio playback:** Automatically play specific audio files when AI events are detected, such as Leave Area, Intrusion, Enter Area, Face Detection, Cross Line, Loitering, Crowd Detection, and Abnormal Audio Detection.
- **Motion-triggered audio playback:** Automatically play specific audio files when motion or PVD (People Vehicle Detection) events are triggered.

5.1 Scheduling Support for GV-IP Speaker

In GV-VMS V20, you can schedule GV-IP Speakers to play specific audio files repeatedly within designated time periods.

To schedule GV-IP Speakers:

1. Click **Home** > **Toolbar** > **Configure** > **Schedule Edit**.
2. In the Schedule dialog box, create a new schedule plan or edit an existing one. See *1.8.1 Creating a Schedule with Setup Wizard* and *1.8.2 Creating a Schedule Manually* in the *GV-VMS User's Manual V20*.
3. In the Schedule Plan dialog box, click **IP speaker** under **Application**, select a GV-IP Speaker from the dropdown list, and highlight the time period for the speaker to play audio. The Open File dialog box appears.



4. Choose an audio type (*.wav* or *.mp3*), and then select an audio file. Click **Save** to apply.

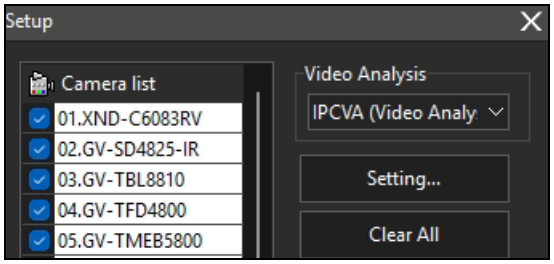
For details, see *1.8 Schedule* in the *GV-VMS User's Manual V20*.

5.2 AI Event-Triggered Audio on GV-IP Speaker

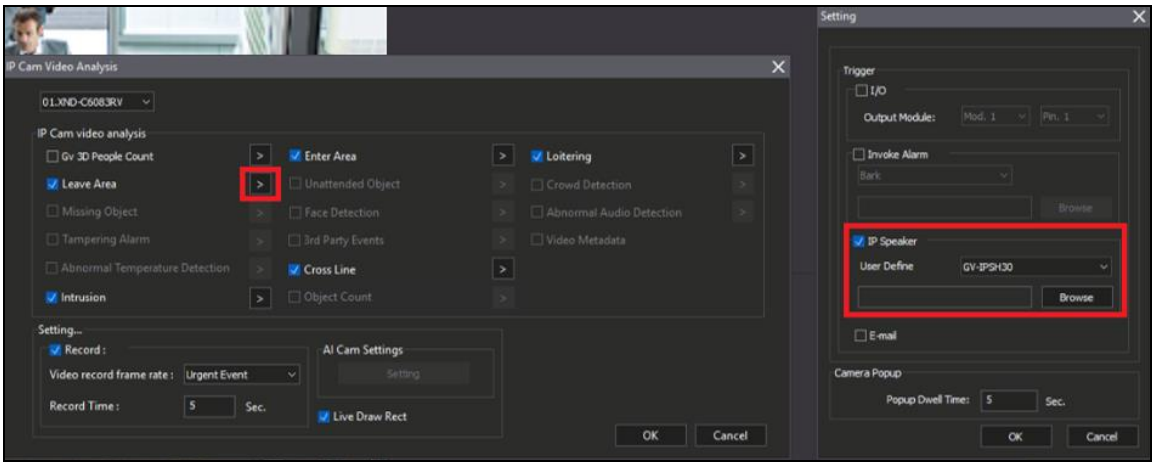
In GV-VMS V20, GV-IP Speakers can be triggered by AI events to play specific audio files automatically.

To enable AI event-triggered audio on GV-IP Speakers:

1. Click **Home** > **Toolbar** > **Configure** > **Video Process**.
2. In the Setup dialog box, select **IPCVA**, select the camera which you want to enable face detection and click **Setting**.



3. Select the desired camera from the dropdown list at the top, enable an AI event (e.g., Leave Area), and click the Arrow button.



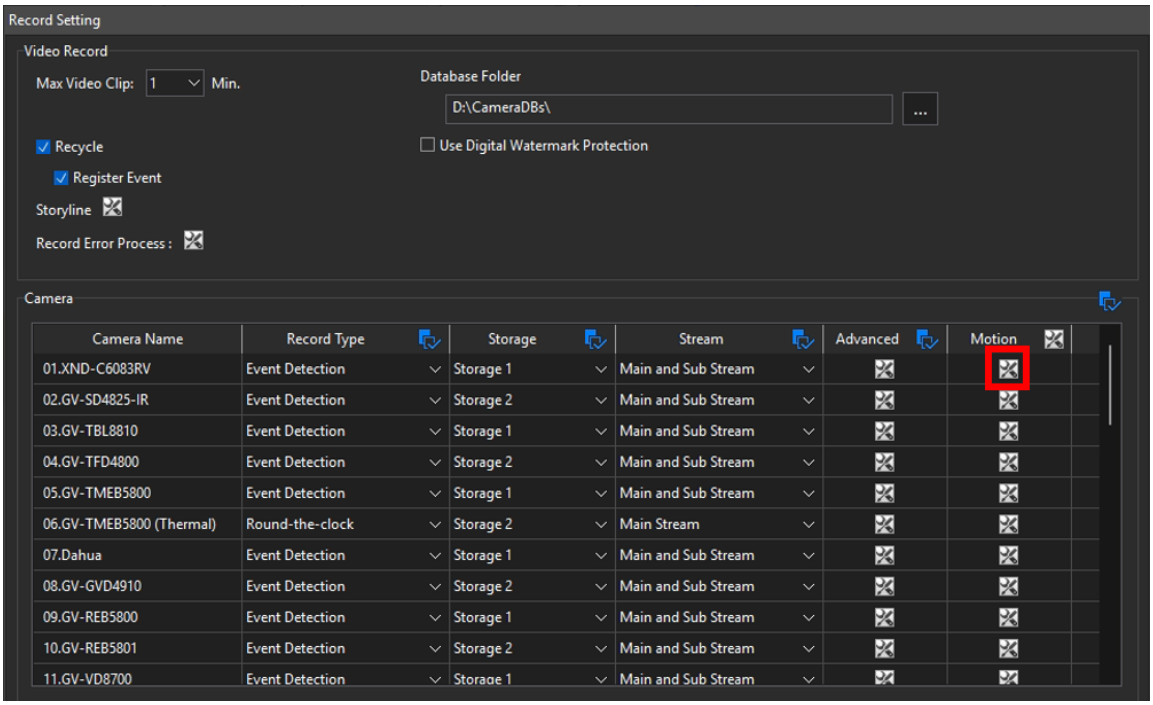
4. In the Setting dialog box, configure the IP speaker settings to trigger sounds when the AI event occurs.

5.3 Motion-Triggered Audio on GV-IP Speaker

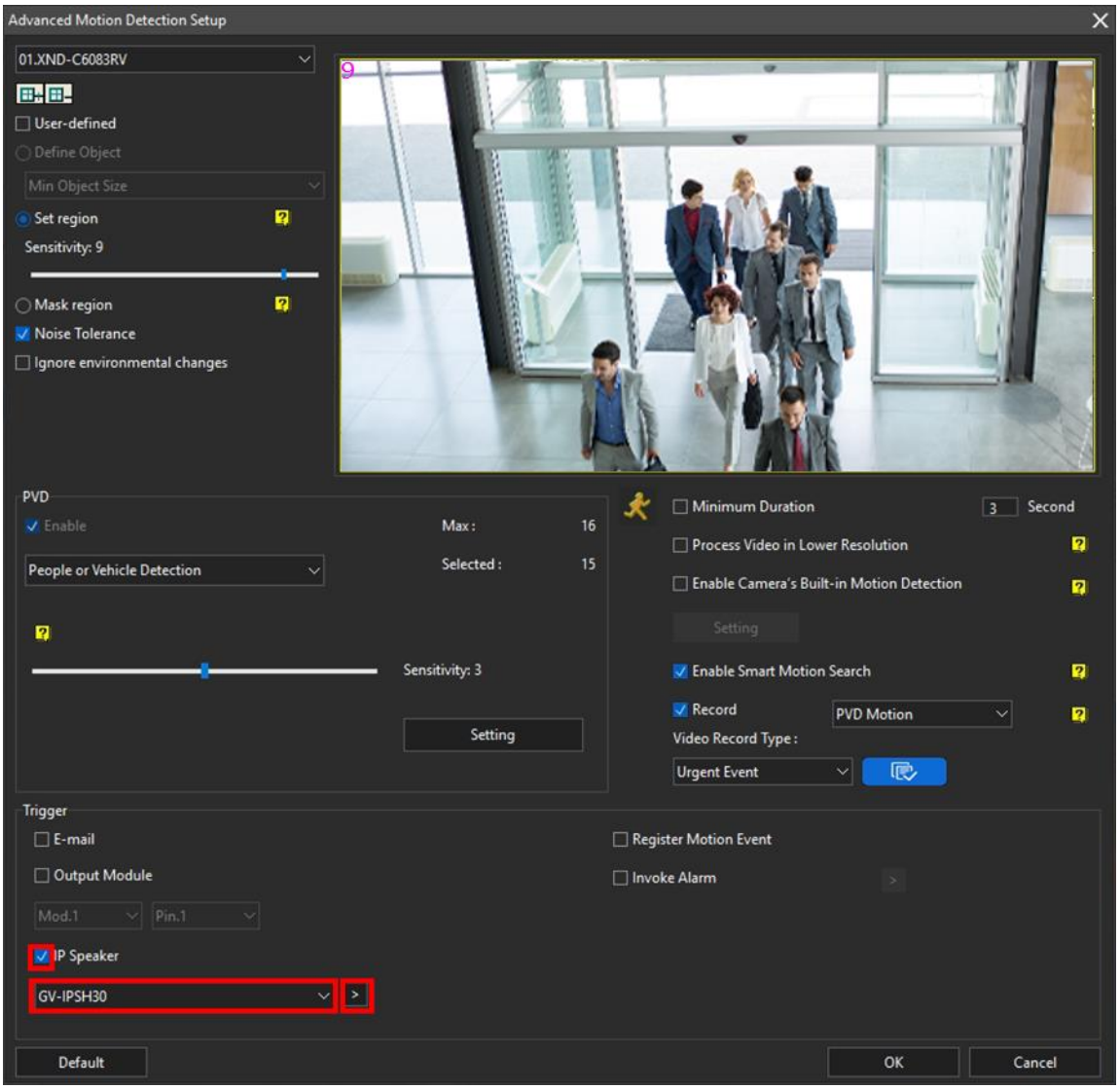
In GV-VMS V20, GV-IP Speakers can be triggered by motion or PVD events to play specific audio files automatically.

To enable motion-triggered audio on GV-IP Speakers:

1. Click **Home** > **Toolbar** > **Configure** > **System Configure** > **Record Setting**.
2. In the Record Setting dialog box, select a camera and click the button under **Motion**.



3. In the Advanced Motion Detection Setup dialog box, select **IP speaker** under **Trigger**, and select a GV-IP Speaker from the dropdown list. To select an audio file, click the > button next to the GV-IP Speaker dropdown list. The Open File dialog box appears.



4. Choose an audio type (*.wav* or *.mp3*), and then select an audio file. Click **Save** to apply.
5. Optionally enable **PVD** (People and Vehicle Detection) above in the dialog box.
   - If PVD is enabled, GV-IP Speakers are triggered by PVD events.
   - If PVD is not enabled, GV-IP Speakers are triggered by general motion events.

For details, see *1.3.4 Setting Up Motion Detection* in the *GV-VMS User's Manual V20*.