



## **GV-VD8700 Face Recognition Camera FAQ**

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## Basic FAQ

### 1. Can I plug a microphone with 3.5 mm jack into my GV-VD8700?

No, you can only plug an external microphone with power supply to GV-VD8700.

### 2. Does GV-VD8700 support two-way audio?

No, speaker interface will be supported in the near future.

### 3. What is the maximum capacity of the micro SD card supported by my GV-VD8700? Is my camera compatible with micro SD cards of lower capacity?

You can use a micro SD card with a storage capacity of up to 256 GB on your GV-VD8700. It is recommended to use a micro SD card with a storage capacity of no lower than 3 GB — the recycling threshold of GV-VD8700. The data stored cannot be recycled when you use a micro SD card with a storage capacity lower than the recycling threshold.

### 4. Why is a GV-VD8700 firmware update file larger than that of a typical GeoVision IP camera? How long does the updating process take?

A GV-VD8700 firmware update can be as large as approximately 487 MB since the firmware is based on Android. The upgrade process typically takes about 2'48" minutes.



## Face Recognition FAQ

### 1. What is the recommended installation scenario for face recognition?

Install the camera at a height of approximately 2 m (6.56 ft). Make sure there is sufficient lighting and set the camera focus at the telephoto end. The recognition result is at its best when the recognition target is at a distance of approximately 4 m (13.12 ft) and walking straight to the camera.

Less Ideal Installation Scenario	Recommended Installation Scenario
Insufficient lighting	Sufficient lighting
A height of > 2 m or < 2 m	An approximate height of 2 m
A distance of > 4 m or < 4 m	An approximate distance of 4 m
Wide angle end	Telephoto end
> 15° of lateral deviation	< 15° of lateral deviation
Fast moving target	Target moving at a constant speed (1/60 second shutter speed)
Results	
<b>Less Accuracy</b>	<b>Better Accuracy</b>

### 2. Where can I acquire photos for face recognition?

Photos for face recognition can be acquired from one of the three following sources:

- a. Use a portrait photo taken from your mobile phone or a digital camera.
- b. Use a snapshot from live or recorded videos.
- c. Use a cropped image from recognition events.

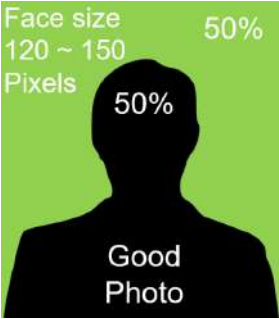
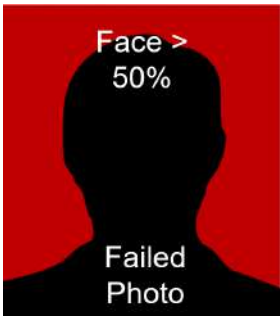



### 3. What kind of photos are valid for face recognition?

For face recognition to work, it is required for the photos to meet the following criteria:

- Each photo should consist of only one face.
- Size of the face in the photo is around 120 ~ 150 pixels.
- The file size of the photo cannot exceed 350 KB.
- Only JPG / JPEG format is supported.
- Make sure the face of the person does not occupy more than 50% of the image.
- Enroll a maximum of 20 photos per Face ID.

See the examples below:



Best Example	Example of Failure - 1	Example of Failure - 2
		
<p>The face occupies 50% of the image. The size of the person's face is around 120 ~150 pixels.</p>	<p>The face occupies more than 50% of the image.</p>	<p>The size of the person's face is less than 120 pixels.</p>

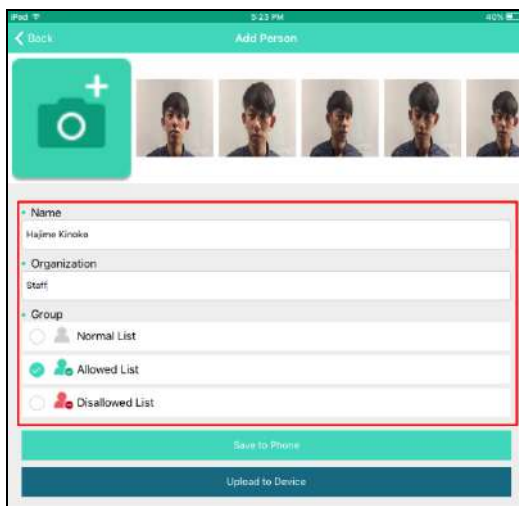


#### 4. How do I enroll face data?

Face data can be enrolled through the GV-Face mobile app, the camera's Web interface, or GV-VMS.

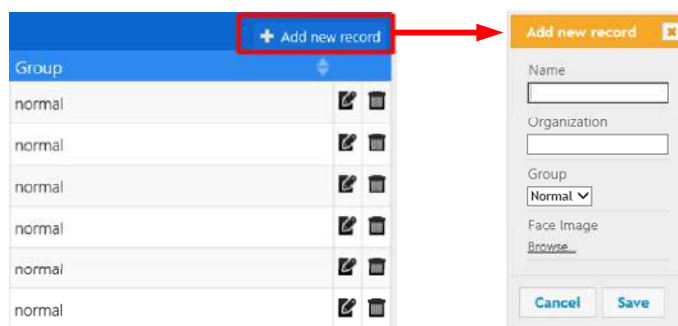
##### Enroll Face Data with GV-Face Mobile App

To enroll face data with your mobile phone, install the GV-Face mobile app from App Store or Google Play and connect to the desired GV-VD8700. Tap **Phone** >  > , take at least 1 portrait photo and tap **Next**. Fill out the **Name**, **Organization**, select a **Group** for the person, and tap **Upload to Device**.



##### Enroll Face Data with GV-VD8700's Web Interface




To enroll face data with the Web interface, go to **System Settings > Event and Alerts > Face Recognition > Management**, and click **Add New Record** on the upper right corner.



Create a face recognition data by filling out the **Name**, **Organization**, and select a **Group** for the person and click **Browse** to add portrait photos or snapshots. The photos need to meet all the requirements specified in No. 3 of *Face Recognition FAQ*.



**Enroll Face Data with GV-VMS (V17.1 or later)**

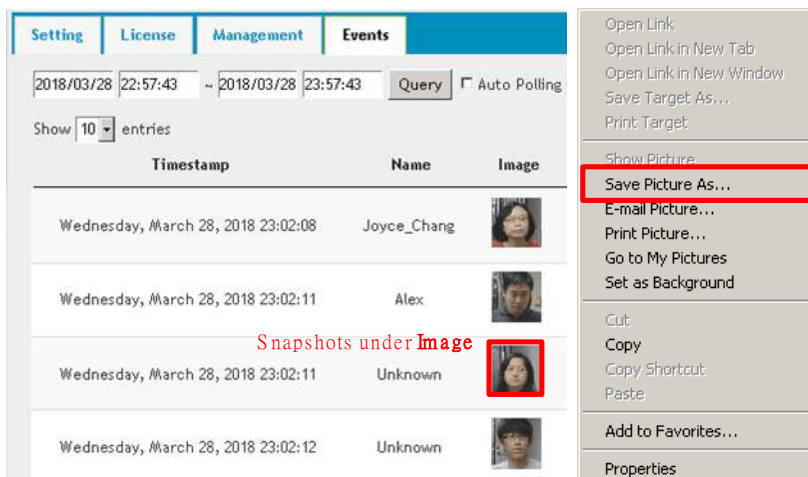
To enroll face data with GV-VMS, go to **Home**  > **Toolbar**  > **Configure**  > **Video Process Video Analysis > IPCVA > select camera from the Camera List > Setting > select channel from the top drop-down list > Face Recognition > the > Button > and select Face Enroll.** In the left column, select or add the person you want to enroll the face data for. Then click **Add** in the right column to add photos from your local PC and select **Crop Image** to resize the facial image(s) added and click **OK**.



**5. Can I use images from recognition events as a source for face data enrollment?**

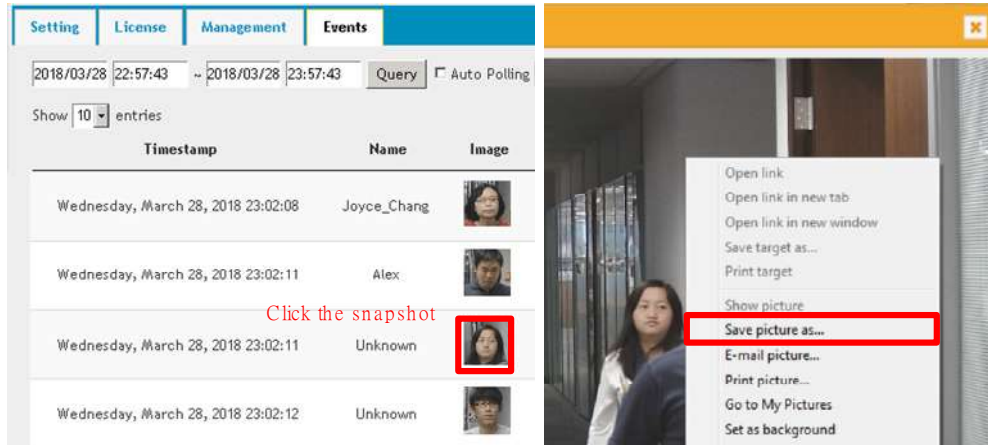
You can use either a cropped or full snapshot of any recognition events as the source for face data enrollment.

- a. To save a cropped image from recognition events, go to **Events and Alerts**, click **Events**, right-click the snapshot under **Image**, and click **Save Picture As...**





- b. To save a full snapshot from recognition events, click the snapshot under **Image**, in the pop-up window containing the full snapshot, right-click the image and select **Save image as...** from the options.



**6. Where are the face data stored? And is there a limit to how much data I can keep?**

A maximum of 10,000 face data entries can be stored in GV-VD8700's storage space.

**7. Will the amount of face data stored affect the accuracy and detection speed of face recognition?**

No, the amount of face data stored does not affect the accuracy or the detection speed of face recognition.

**8. Where are the recognition events stored and how frequent will they be recycled?**

When connected to GV-VMS, the recognition events are stored in both the camera and the GV-VMS host, and each of the storage space has their own recycling threshold.

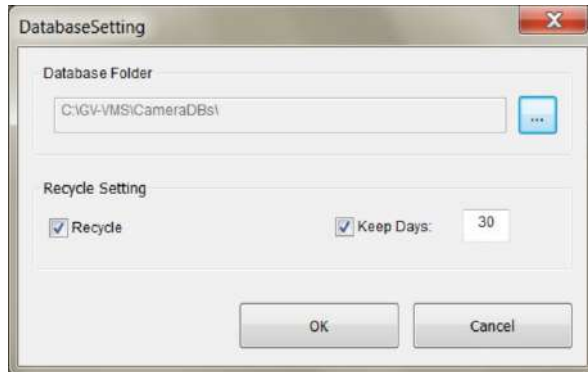
**GV-VD8700's Storage Space**

The recognition events are stored separately as texts and snapshot images in the camera's storage space and the memory card, respectively. The texts will be stored for 7 days while the snapshots will be recycled whenever the total of image stored reaches its 3 GB limit. As a result, some older events may be displayed as text-only events when the snapshots are removed due to the memory card reaching its 3 GB limit while the event texts are still in place.



### GV-VMS Host

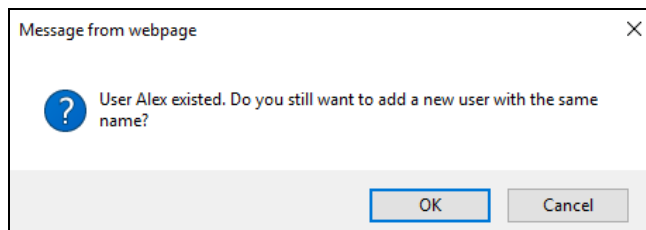
You can store as many recognition events as the storage space permits for as long as the number of days specified, between 1 to 999, in Database Settings. The recordings will be recycled when either the maximum capacity of the storage space or the Keep Days set is reached.



9.

### 9. Can I create face IDs with identical names?

It is possible to create two face IDs with identical names in the database. A pop-up message appears when the new face ID you are trying to save has the same name as an existing face ID. Click **OK**.



### 10. How many faces can GV-VD8700 recognize simultaneously? And how fast can GV-VD8700 detect the faces?

GV-VD8700 can recognize up to 10 faces simultaneously with a recognition response time of less than 2 seconds.

### 11. Can I mark a specific event in the database as an important event to prevent it from being recycled?

No, it is not possible to mark any events in the camera's database as unrecyclable.






**12. How can I improve the recognition performance under special circumstances, such as night time, low illumination or extreme lighting conditions?**

You can enroll additional face data under special lighting conditions, install additional IR LED tubes as lighting aid, or apply both methods simultaneously to improve recognition performance.

**13. What are the limitations to effective face recognition?**

Certain articles or angle of view can cause face recognition to be ineffective. Remove and avoid them:

- Masks
- Helmets
- Hats
- Sun Glasses
- Bangs that Obscure the Forehead or the Eyes
- Lowered Head or Side Face View
- Blurry or Out-Of-Focus View

Helmet	Lowered Head	Side Face View
		

**14. Why do certain snapshots either don't appear, or appear as corrupted snapshots in my face database?**

When a snapshot is not the face of a person, or when the snapshot does not match any existing data in the face database, the snapshot will not appear in the **Conf0**, **Conf1** or **Conf2** column. Other than that, slow saving speed can also lead to corrupted snapshots in rare occasions.



## Surveillance System Related FAQ

### 1. Can e-mail alerts and output alarms be triggered by recognition results?

You can trigger e-mail alerts and output alarms with the Group setting available only in GV-VMS V17.1 or later. The output alarms to be triggered by Group setting need to be configured with a GV-I/O Box connected to the GV-VMS. You can send notifications to approximately 34 e-mail addresses.

### 2. Can e-mail alerts or output alarms be triggered upon the detection of unrecognizable entities?






No, events that contain unrecognizable entities will not be able to trigger e-mail alerts or output alarms. This function will be supported in near future.

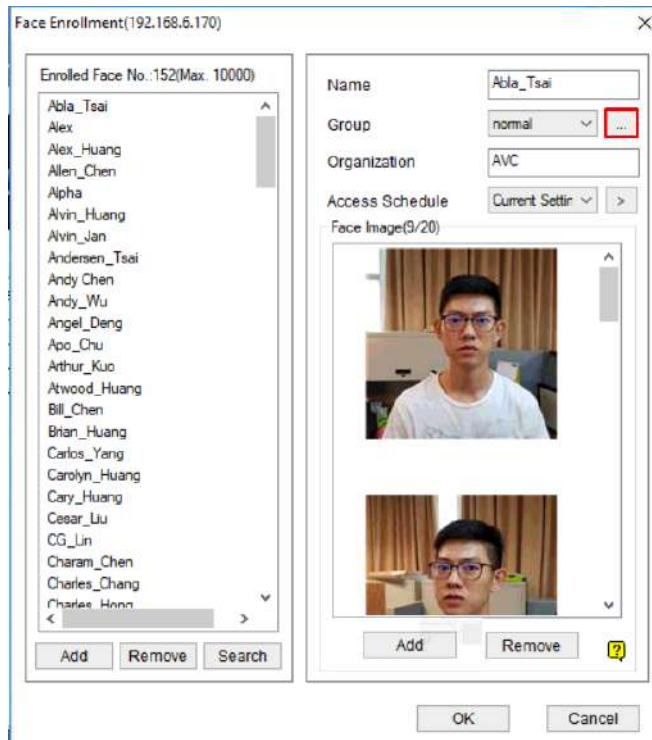
### 3. How many groups are available for the classification of face data?

You can arrange face data into a maximum of 10 groups, which include **Allowed**, **Disallowed**, **Normal** and **Groups 4-10**. However, only **Allowed**, **Disallowed** and **Normal** appear by default, and the rest of the groups are configurable only when the camera is connected to GV-VMS V17.1 or later, and the **Face Recognition** function is activated.



#### 4. Can I modify the group names for face data?

You can only modify the group names through GV-VMS V17.1 or later. To modify a group name, go to **Home**  > **Toolbar**  > **Configure**  > **Video Process** > **Video Analysis** > **IPCVA** > select camera from the **Camera List** > **Setting** > select channel from the top drop-down list > **Face Recognition** > the  Button > **Face Enroll** and click the  button next to **Group**.



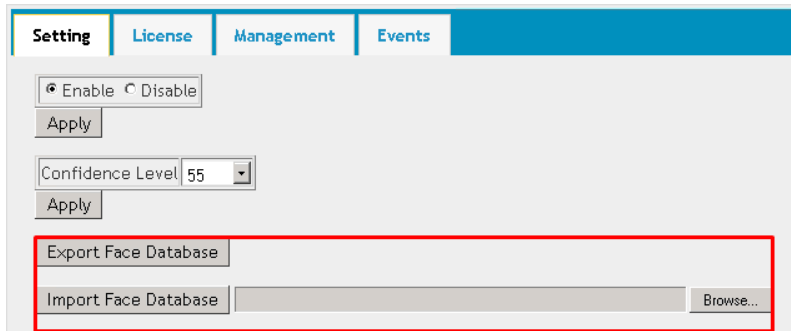


## 5. How do I import or export the camera's face database to other devices?

You can import or export the camera's face database by using the camera's Web interface or through GV-VMS

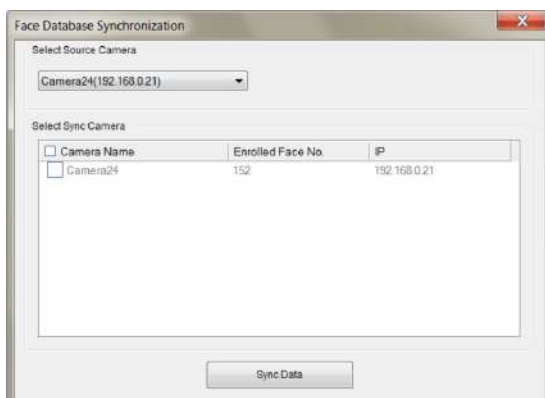
### Importing or Exporting Face Database using GV-VD8700's Web Interface

To import or export the face database, access the camera's Web interface, go to **System Settings > Events and Alerts > Setting** and click **Export Face Database** or **Import Face Database** after locating the face database on your local computer. With the Web interface, you can import or export the face database for one GV-VD8700 at a time. After the new database is imported, make sure Adobe Flash Player is properly installed on your local computer. Otherwise, the face database and event log will become inaccessible.



### Importing Face Database to Multiple GV-VD8700 using GV-VMS

To import Face Database to multiple GV-VD8700, go to **Home** > **Toolbar** > **Configure** > **Video Process > Video Analysis > IPCVA** > select camera from the **Camera List > Setting** > select channel from the top drop-down list > **Face Recognition** > the Button > and select **Face Database Synchronization**. From the drop-down list, select the camera you want to synchronize from and then select the cameras you want to be synchronized from the list below. Click **Sync Data** after selecting the source and the sync cameras.





**6. What is the format of GV-VD8700's face database? Can I access the face database without using GV-VMS or integrate the face database with other systems?**

The face database exported by GV-VD8700 is encoded in a format exclusively developed by GeoVision for backup and/or synchronization purposes. Therefore, it is improbable to access the events or face data with any third-party program. However, you may acquire an authorized API from GeoVision if you wish to integrate the face database into a video management system of your own.

**7. Why can't I add face data or have access to recognition event?**

Make sure Adobe Flash Player is properly installed if you're using the Internet Explorer for Windows 7 or earlier and your GV-VD8700 has the same date and time settings as your PC.