

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	
Less Accuracy	Better Accuracy

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.

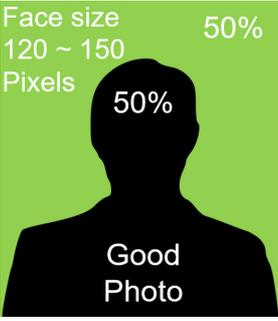
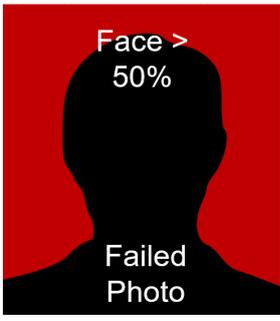


3. What kind of photos are valid for face recognition?

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>Face size 120 ~ 150 Pixels 50%</p> <p>50%</p> <p>Good Photo</p>	 <p>Face > 50%</p> <p>Failed Photo</p>	 <p>Face size < 120 pixels</p> <p>Failed Photo</p>
<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>

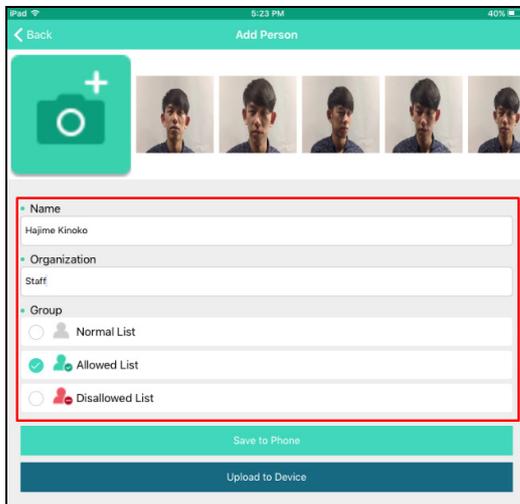


4. How do I enroll face data?

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

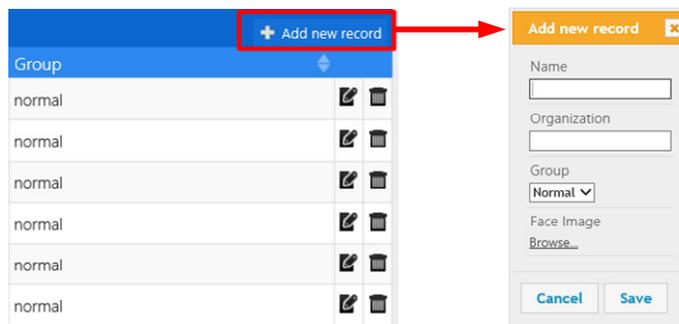
Enroll Face Data with GV-Face Mobile App

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)

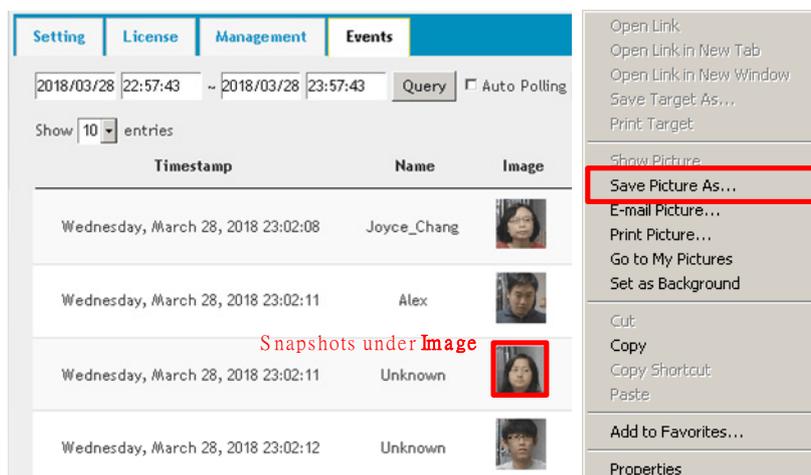
To enroll face data with GV-VMS, go to **Home**  > **Toolbar**  > **Configure**  > **Video Process Video Analysis** > **IPCVA** > select camera from the **Camera List** > **Setting** > select channel from the top drop-down list > **Face Recognition** > the  Button > and select **Face Enroll**. In the 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?

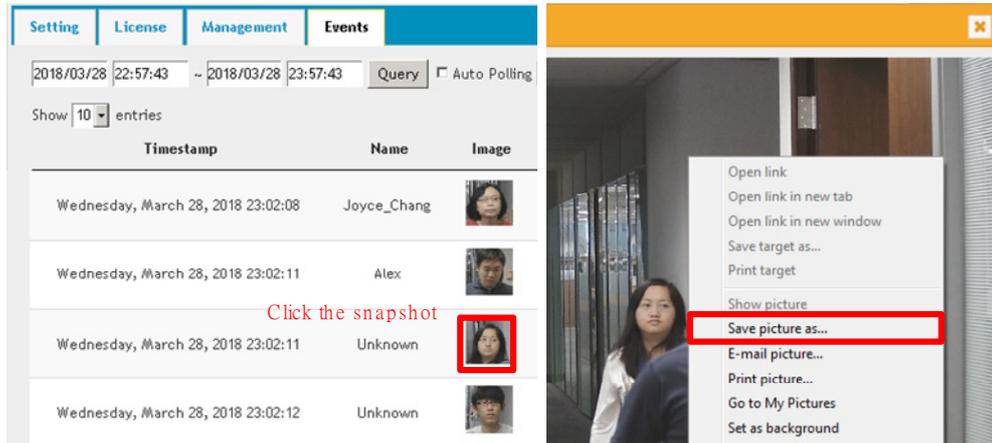
You can use either a cropped or full snapshot of any recognition events as the source for face data enrollment.

- 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.

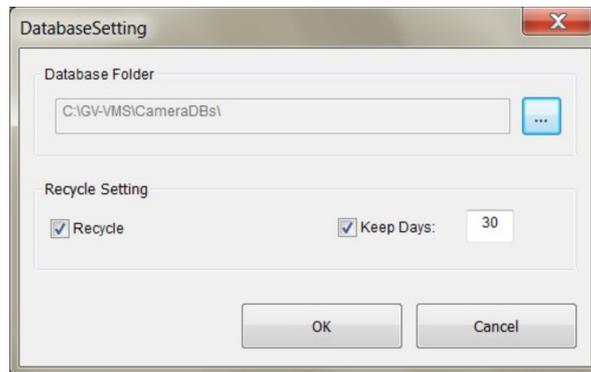
GV-VD8700's Storage Space

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

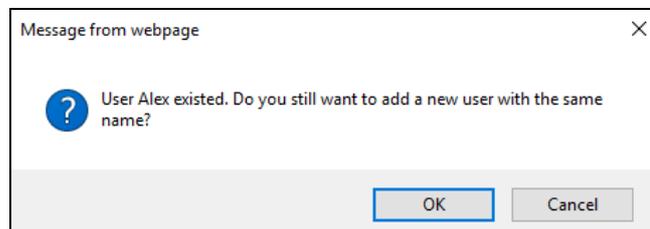
You can store as many recognition events as the storage space permits for as long as the number of days specified, between 1 to 999, in Database Settings. The recordings will be recycled when either the maximum capacity of the storage space or the Keep Days set is reached.



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.

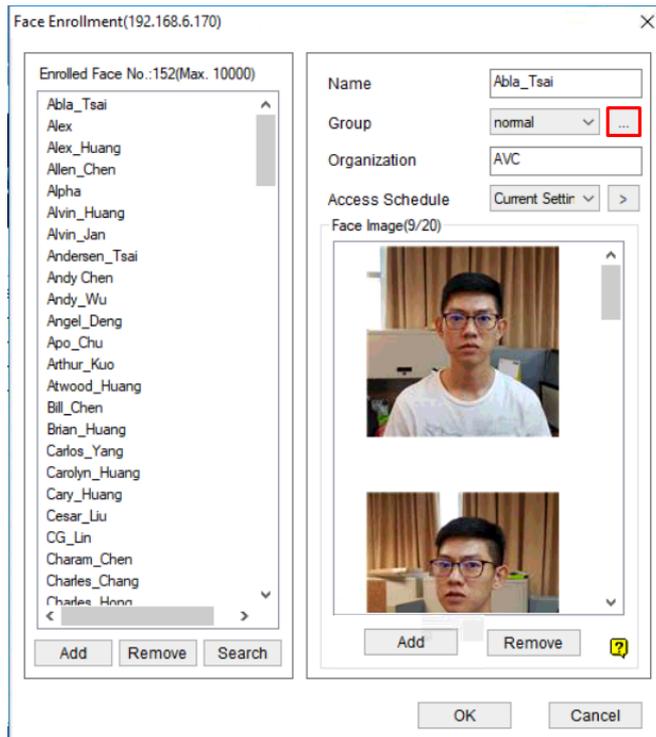
3. How many groups are available for the classification of face data?

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**.



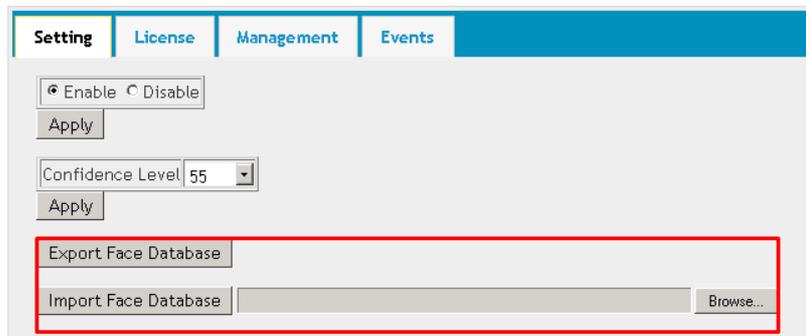


5. How do I import or export the camera's face database to other devices?

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

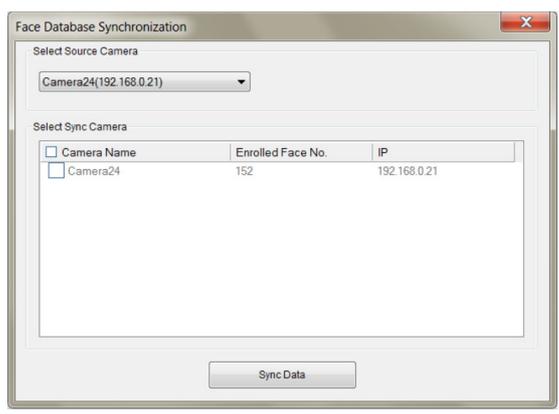
Importing or Exporting Face Database using GV-VD8700's Web Interface

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.