



GV-Face Recognition Camera FAQ

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Models of GV-Face Recognition Camera

GV-Face Recognition Camera includes **GV-VD8700** for outdoors and **GV-FD8700-FR** for indoors.

Basic FAQ

1. Can I plug a microphone with 3.5 mm jack into my camera?

No, you can only plug an external microphone with power supply to the camera .

2. Does the camera support two-way audio?

No, speaker interface will be supported in near future.

3. What is the maximum capacity of the micro SD card supported by the camera? Is the 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 camera. It is recommended to use a micro SD card with a storage capacity of no lower than 3 GB — the recycling threshold of the camera. 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 firmware update file of the camera larger than that of a typical GeoVision IP camera? How long does the updating process take?

A firmware update file 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. For details, see Question No. 5 later.

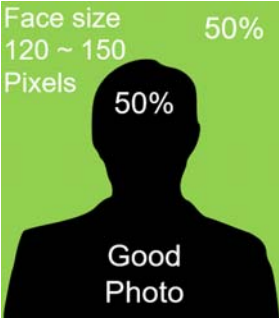

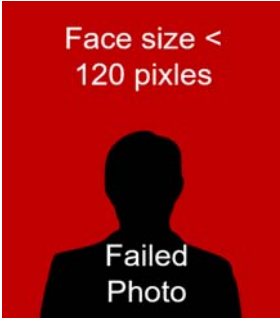


3. What kind of photos are valid for face recognition?

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>

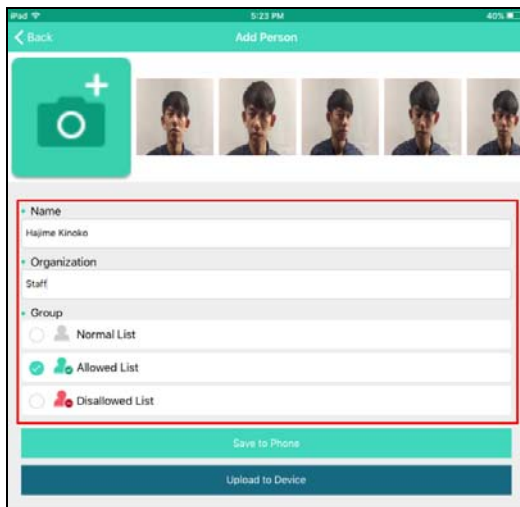


4. How do I enroll face data?

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

Using GV-Face Mobile App

To enroll face data with your mobile phone, install the GV-Face mobile app from App Store or Google Play. For details, see [GV-Face Mobile App Installation Guide](#).



Using Camera's Web Interface





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

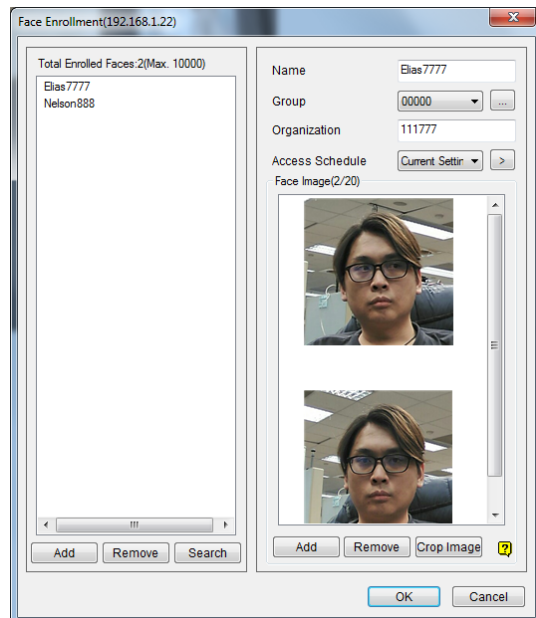


Create a face recognition data by filling out the **Name**, **Organization**, and select a **Group** for the person and click **Browse** to add portrait photos or snapshots. The photos need to meet all the requirements specified in No. 3 of *Face Recognition FAQ*.



Using GV-VMS (V17.1 or later)

To enroll face data with GV-VMS, go to **Home**  > **Toolbar**  > **Configure**  > **Video Process Video Analysis** > **IPCVA** > select a camera from the **Camera List** > **Setting** > select a channel from the top drop-down list > **Face Recognition** > the  Button > **Face Enroll**. For details, see [GV-VMS User's Manual](#).



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

Yes. To save a cropped image from recognition events, follow the steps below.

- A. Go to **Events and Alerts** > the **Events** tab > the **Event Enroll & Sync Database** button.
- B. Specify the Start and End date and time and/or the filtering criteria, such as Name and Confidence range, to locate specific events.
- C. Click **Search** to display the search results.
- D. To enroll a new face, click **ADD RECORD** at the right side of every entry.
- E. On the pop-up dialog box, you can also include the new face into an existing face ID.



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 the camera'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?

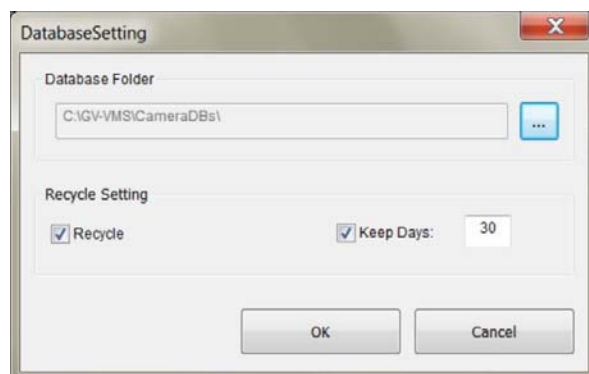
When connected to GV-VMS, the recognition events are stored in both the camera and the GV-VMS host, and each of the storage space has their own recycling threshold.

Camera'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

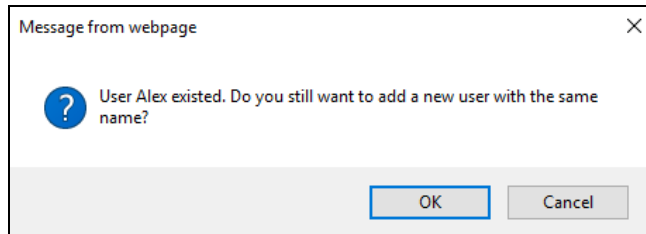
You can store as many recognition events as the storage space permits for as long as the number of days specified, between 1 to 999, in Database Settings. The recordings will be recycled when either the maximum capacity of the storage space or the Keep Days set is reached.





9. 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 the camera recognize simultaneously? And how fast can the camera detect the faces?

The camera 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 **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 or output alarms be triggered by recognition results?

The output alarms of the camera can be triggered either by recognized persons or by unrecognized entities. For details, see 5.6.5 *Trigger Area* in *GV-Face Recognition Camera User's Manual*.

However, the e-mail alerts from the camera is not supported currently. Instead, you can use GV-VMS (V17.1 or later) to send the alerts to up to 34 e-mail addresses.

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

The output alarms of the camera can be triggered by unrecognized entities. However, the e-mail alerts upon unrecognizable entities are not supported currently.

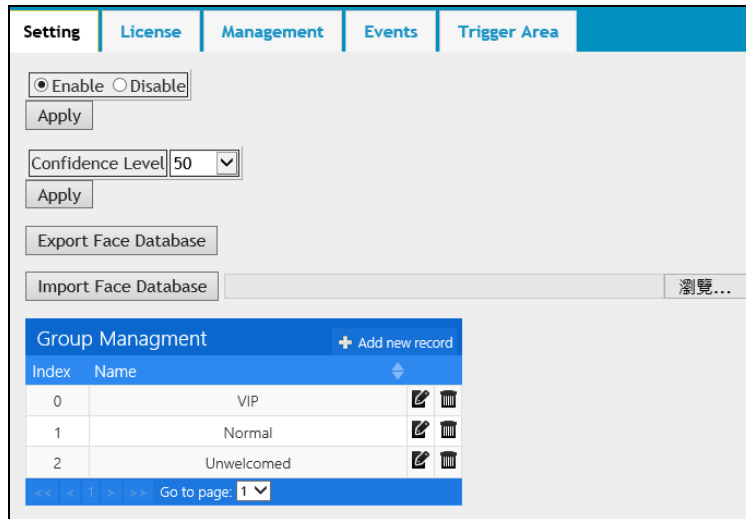
3. How many groups are available for the classification of face data?

You can arrange face data into a maximum of 32 groups, including the default groups **VIP**, **Normal** and **Unwelcome**.



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

Yes, the function is supported by the camera firmware V1.02 or later. Go to **System Settings > Events and Alerts > Face Recognition** > click **+ Add new record** from **Group Management**.



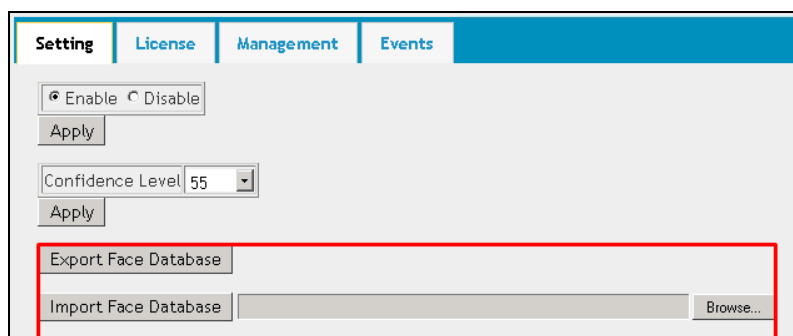
But notice that any changes made to the group name directly from the camera will not be reflected on those of GV-VMS. If your camera is connected to GV-VMS, add or edit the groups on GV-VMS which will synchronize with the camera's database.

5. How do I export and import the camera's face database?

You can export the camera's face database to another camera, or import and apply another face database.

Exporting Face Database to a Single Camera

Go to **System Settings > Events and Alerts > Setting > Export Face Database**. You can also import another face database using this setting page. Make sure Adobe Flash Player is properly installed on your local computer. Otherwise, the imported face database and event log will become inaccessible.





Exporting Face Database to Multiple Cameras

Go to **Events and Alerts** > the **Events** tab > the **Event Enroll & Sync Database** button > **SYNC DATABASE** at the top bar. Then add the cameras you want to transfer the face database to. For details, see [GV-Face Recognition Camera User's Manual](#).

EVENTS		SYNC DATABASE	
<input type="button" value="UPLOAD DATABASE"/>	<input type="button" value="DELETE"/>		<input type="button" value="ADD CAMERA"/>
<input type="checkbox"/>	Device Name	IP Address	Username
<input type="checkbox"/>	GV-VD8700	192.168.6.137:8080	admin

6. What is the format of the camera'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 the camera 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 events?

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