GV-Face Manager

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1. Introduction

GV-Face Manager is a powerful utility designed to manage the face database for GeoVision's face-recognition-based cameras, software, and readers. It provides advanced functions such as enrolling face data, pairing Face IDs with access cards, and more.

1.1 System Requirements

OS	Windows 11 / 10 / 8.1 / 8 / 7
CPU	Intel Core i3, 3.4 GHz (dual core, 2 threads)
Memory	4 GB RAM
Hard Disk	500 GB

1.2 Compatible Products

GV-Face Manager is compatible with the following GeoVision face-recognition-based products:

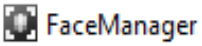
- **Camera:** GV-FD8700-FR, GV-VD8700
- **Server/Software:** GV-AI FR (for face recognition), GV-AI Server (for video analytics)
- **Reader:** GV-FR Panel V1, GV-FR Panel V2, GV-Mini FR

Note:

1. **GV-AI Server** and **GV-FR Panel** are only supported by GV-Face Manager V1.3.0 or later.
2. **GV-Mini FR** is only supported by GV-Face Manager V1.4.0 or later.

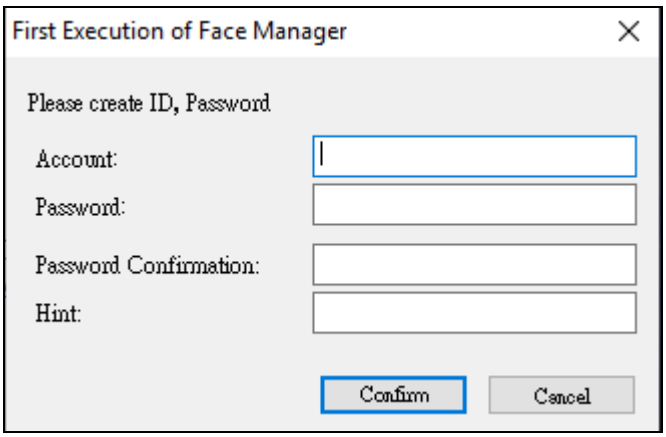
1.3 Starting GV-Face Manager

You can download GV-Face Manager from the GeoVision's website.

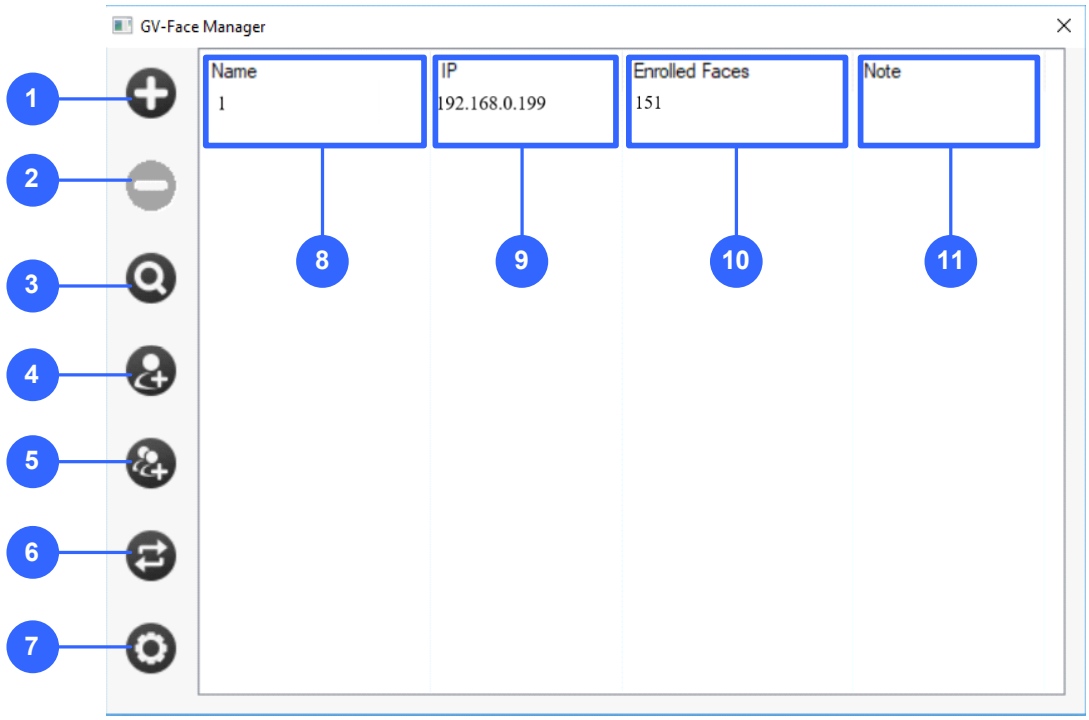
Once downloaded and installed, double-click the **Face Manager** program 

to start.

Upon first startup, you are prompted to set login credentials for GV-Face Manager, including an **Account**, **Password** and a **Password Hint**. After the Account and Password are set, the Main Window will be displayed.



2. Main Window



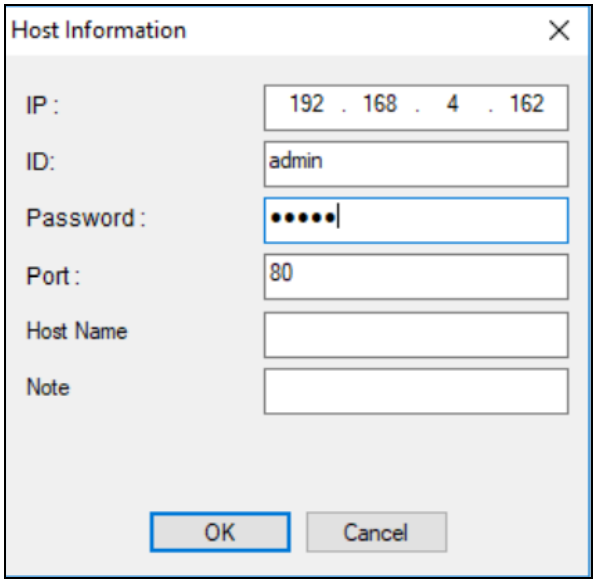
No.	Name	Function
1.	Add Host	Adds a host to be connected for face data management.
2.	Remove Selected Host	Removes a host.
3.	Search Host	Scans for and add hosts within the LAN using the host login credentials set in **Network Settings**. To use this function, make sure the camera login credentials are set, see *3.1 Configuring Network Settings*.
4.	Face Enrollment	Adds and/or edits the Face IDs of added hosts.
5.	Group Setup	Manages the face groups of the added hosts.
6.	Face Database Synchronization	Syncs the face databases of added hosts.
7.	Settings	Accesses additional settings, including **Network**, **Change ID and Password**, **Export** / **Import Face Data**, and **Version**
8.~11		Displays the **Name**, **IP Address**, **Number of Enrolled Faces** and **Notes** of the added hosts.

2.1 Adding Hosts

You can manage the **face database** of a host by adding it to the program. To do so, follow the steps below.

Note: The host to be connected must be under the same LAN as the GV-Face Manager.

1. Click the **Add Host** button (No. 1, *2. Main Window*) and type the host's **IP Address**, **ID Account**, **Password**, and **Port Number.** Optionally, enter the **Host Name** and a **Note.**



2. Click **OK**. The host is added to the main window.

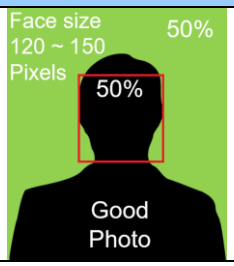
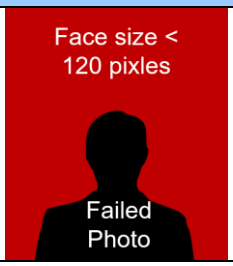
2.2 Adding / Editing Face IDs

To add new or edit existing Face IDs for a host, follow the steps below.

Prepare a Face Photo

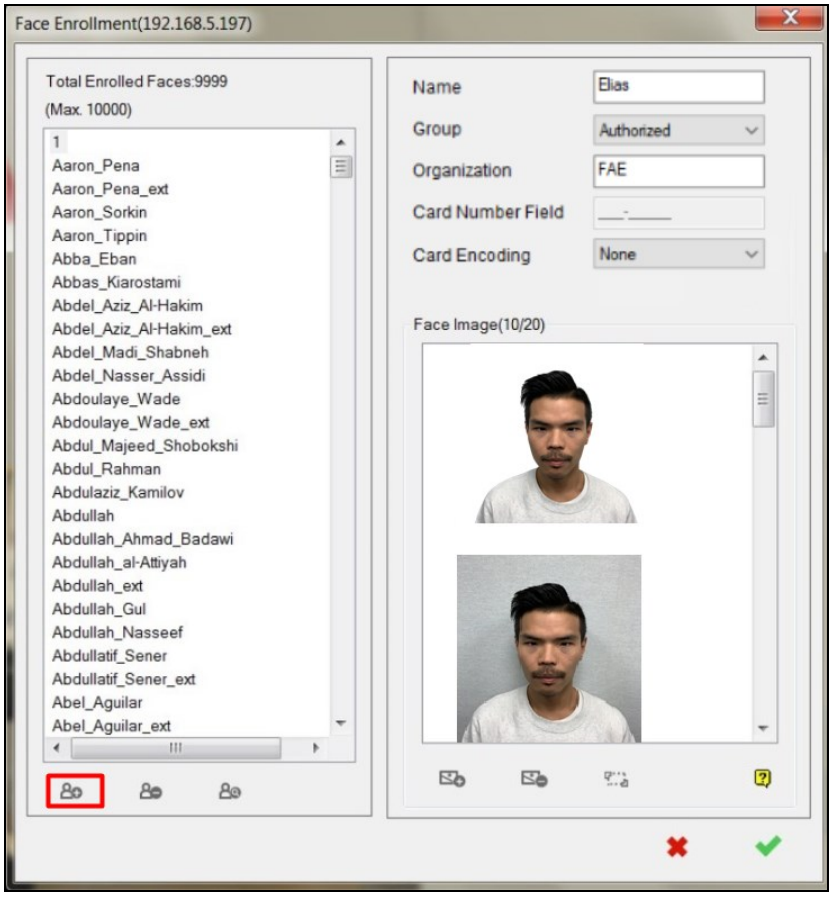
Before creating a face ID or profile, ensure the photo meets the following face enrollment requirements:

- Each photo must contain only one face.
- The face size within the photo should be 120 ~ 150 pixels.
- The photo size should not exceed 350 KB.
- Only JPEG format is supported.
- The face should not occupy more than 50% of the image area.

Ideal	Failed to enroll – 1	Failed to enroll – 2
		
The face occupies 50% of the image. The face size is between 120 ~150 pixels.	The face occupies more than 50% of the image.	The face size is less than 120 pixels.

Create a Face ID

1. Select a connected host in the main window and click the **Enroll Face** button (No. 4, *2. Main Window*).
2. Click **Add** to define a new Face ID. Alternatively, select or **Search** for an existing ID from the **Enrolled Face** list.



3. Click **Add** to add photos and/or snapshots for the Face ID selected from your local PC. Optionally crop the image added by selecting it and click **Crop Image**.
4. You can also configure the following options for the Face ID selected:
   - **Name:** Type a desired name for the Face ID.
   - **Group:** Select from a list of groups in which the Face ID shall be categorized under. To add new groups and/or edit exiting groups, see *2.3 Editing Face Groups*.
   - **Organization:** Type a desired organization name for the Face ID.
   - **Card Number Field** & **Card Encoding**: Type a card number to be paired with the Face ID to be used for controller-based access control.
   - **Note 1 & Note 2:** Type the note for the Face ID.
5. click the button to apply the settings.

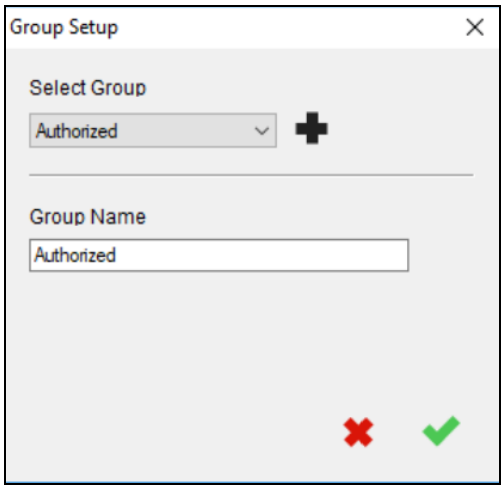
IMPORTANT: GV-Face Manager directly accesses and manages the face database of the host connected, thus all changes made are done directly to the host's database.

Note:

1. The configuration options for Face IDs vary according to the host selected for editing.
2. The Group and Organization options are not available for GV-FR Panel.
3. Up to 20 face photos can be enrolled for each Face ID.

2.3 Adding Face Groups

Select a host in the main window and click the **Group Setup** button (No. 4, *2. Main Window*). This dialog box appears.



To add a face group, click the **Add** button .

To edit the name of a face group, select the group from the **Select Group** dropdown list and edit its name under **Group Name**.

Once finished, click the button to save.

Note: GV-FR Panel does not support the Group function.

2.4 Batch Enrolling Faces and Access Cards

The batch enrolling feature of GV-Face Manager allows users to import large quantities of face photos and access card data to a connected host all at once.

- To batch enroll **faces only** (without access card data), follow the procedures outlined in *2.4.1 Batch Enrolling Faces Only*.
- To batch enroll **both faces and access card data** from the GV-ASManager access control system, follow the procedures outlined in 2*.4.2 Batch Enrolling Faces + Cards from GV-ASManager*.

2.4.1 Batch Enrolling Faces Only

To enroll multiple face photos, save all face photos to the same folder on your PC and rename them as exemplified below:

- Only Face ID, Group No, and Images

[N]<Face ID Name>[G]<Group No. – 1>[P]<Image No. – 1>.jpg

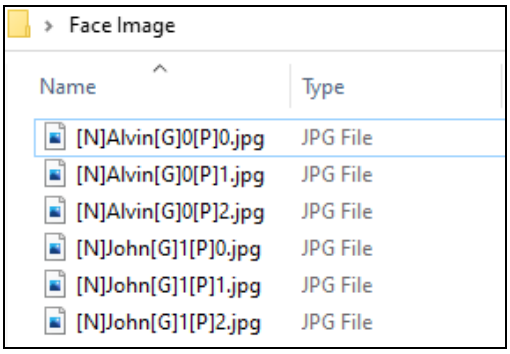
For example,

[N]Alvin[G]0[P]0.jpg

[N] Alvin[G]0[P]1.jpg

[N] Alvin[G]0[P]2.jpg

The above image files will be added to Face ID Alvin, as the first, second and third images, with the ID being categorized under Group 1.



- More information included

[N] <Face ID Name>[G]<Group No. – 1>[P]<Image No. – 1>[CT]<Card Type>[CN]<Card Number>[ID1]<Note1>[ID2]<Note2>.jpg

For example,

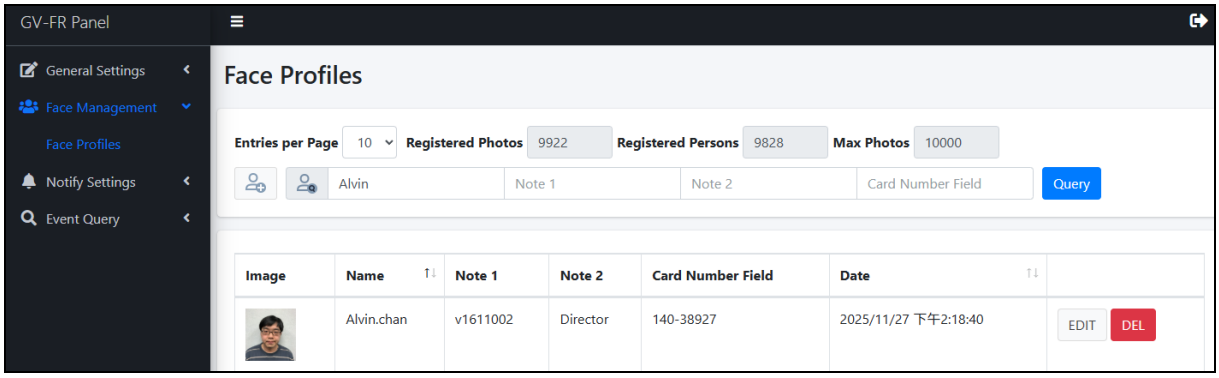
[N]Alvin.chan[G]0[P]0[CT]Wiegand26[CN]140-38927[ID1]v1611002[ID2]Director.jpg

[N]Alvin.chan[G]0[P]1[CT]Wiegand26[CN]140-38927[ID1]v1611002[ID2]Director.jpg

[N]Alvin.chan[G]0[P]2[CT]Wiegand26[CN]140-38927[ID1]v1611002[ID2]Director.jpg

The above image files will be added to Face ID Alvin.chan, as the first, second and third images, the ID being categorized under Group 1, the card type being Wiegand, the card number being 140-38927, with the Note 1 being v1611002 and the Note 2 being Director.

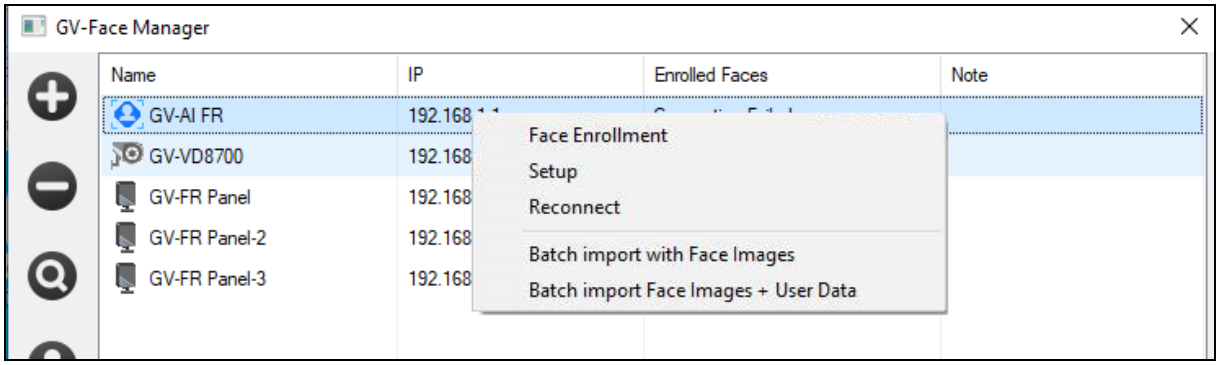
The following example illustrates how the data is displayed on the Web interface of **GV-FR Panel**:



Note:

1. <Group No. – 1> indicates the desired group number minus one.
2. <Image No. – 1> indicates the order of the images minus one.
3. All photos used for face enrollment must meet the criteria as specified in *Prepare a Face Photo* in *2.2 Adding / Edigint Face IDs*.
4. GV-FR Panel does not support the Group function.

Once all face photos are properly named and saved in the same folder, right-click the target host in GV-Face Manager and click **Batch import with Face Images** to locate and choose the folder.



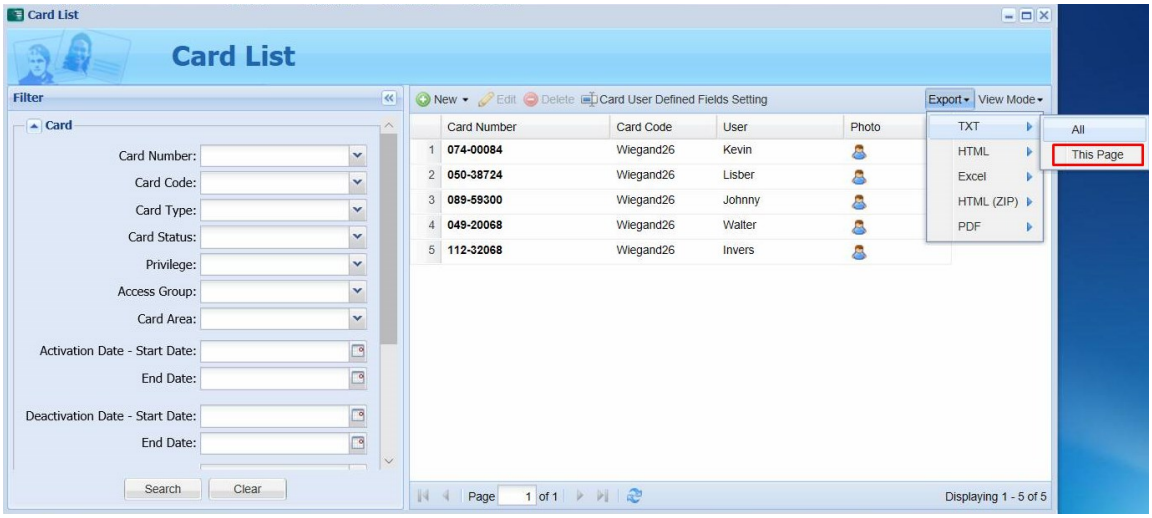
2.4.2 Batch Enrolling Faces + Cards from GV-ASManager

To enroll access card data along with multiple face photos, from GV-ASManagaer, to a connected host, follow the steps below:

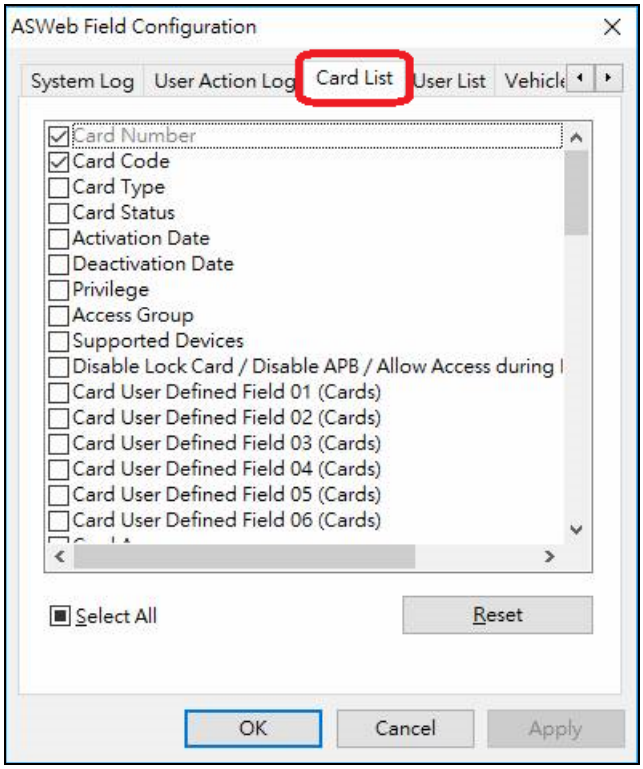
Note: The **Display Names** of users on GV-ASManager, which are used as **Face ID names**, must not contain any spaces.

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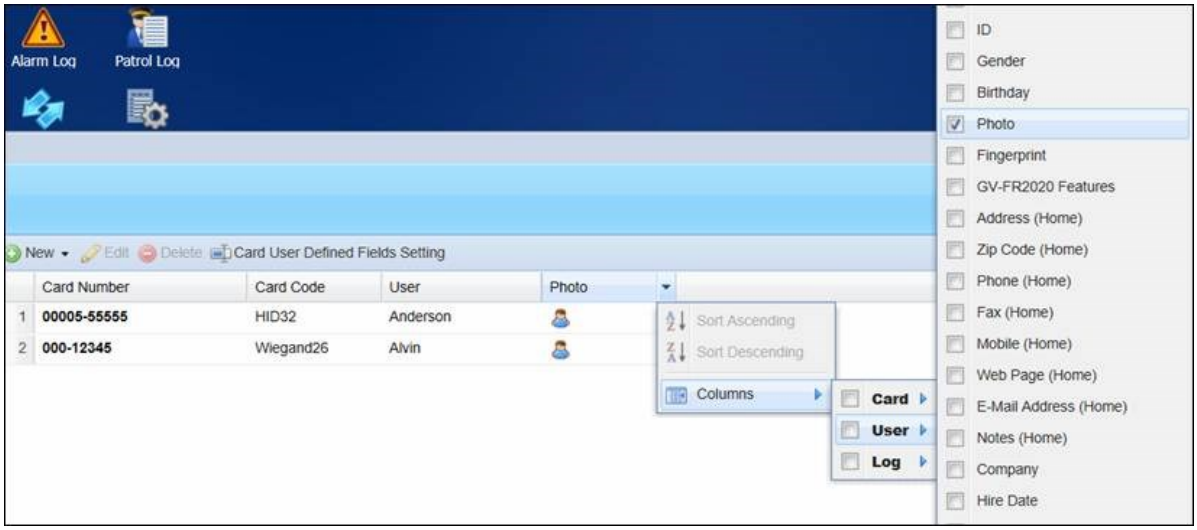
1. From the **Card List**  of GV-ASWeb, ensure the required card data are presented—**Card Number**, **Card Code**, **User**, and **Photo**. Then, click **Export** and select **TXT** > **This Page**.



A. For the Card List to contain the required data, open **ASWeb Field Configuration** (under **Tools** in GV-ASManager), click the **Card List** tab and select **Card Number**, **Card Code**, **User**, and **Photo**.



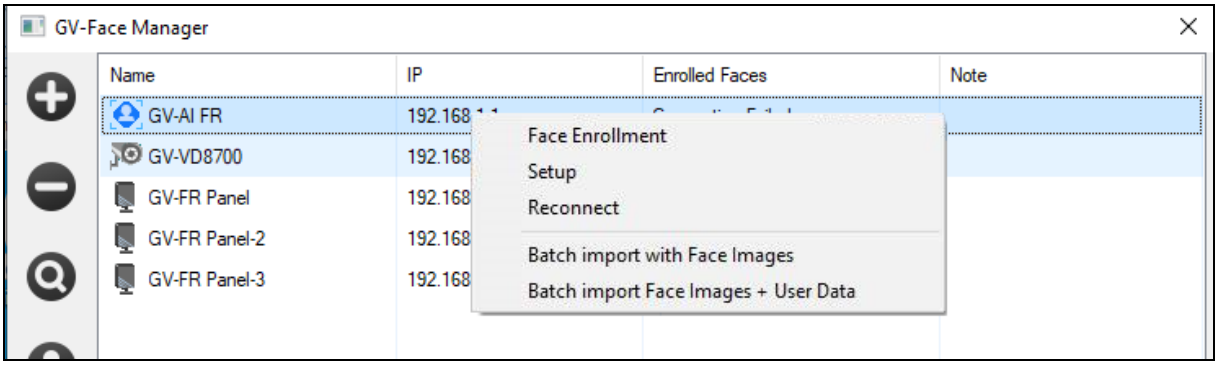
B. In the **Card List**, configure the display to show the fields **Card Number**, **Card Code**, **User**, and **Photo**. To do this, click a column's arrow button and deselect all other fields.



2. Save the exported TXT file (as exemplified below) in a specific folder.

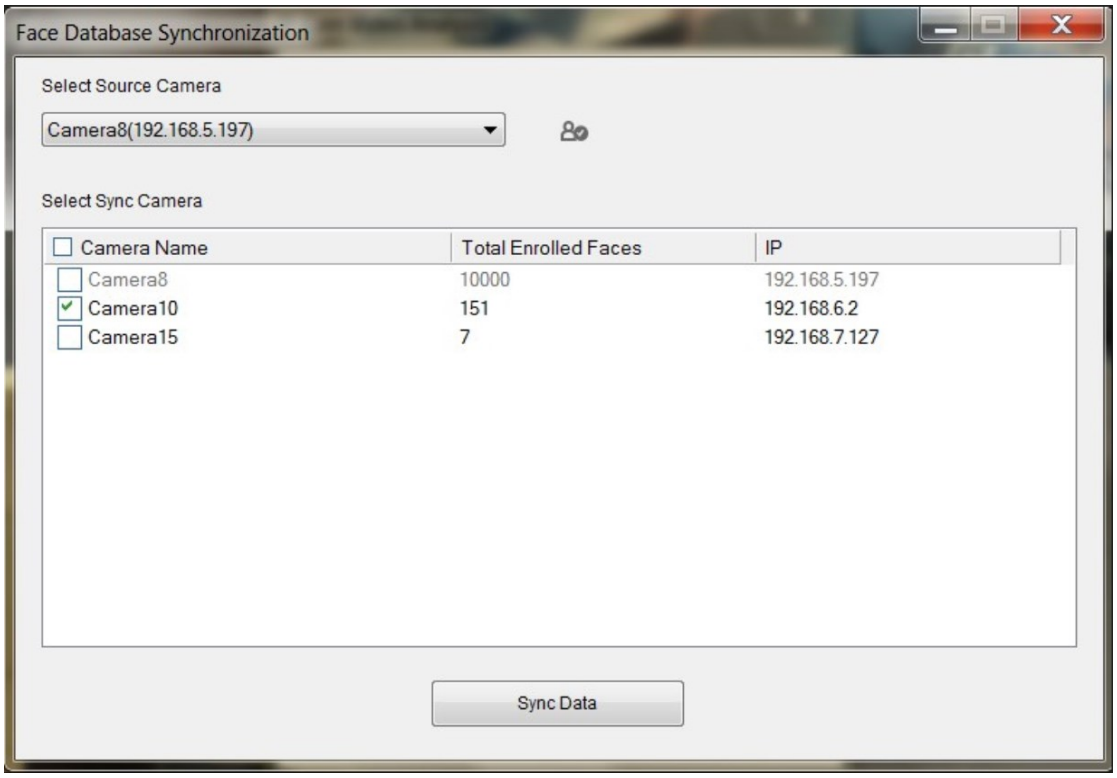
```
File  Edit  Format  View  Help
"074-00084", "Wiegand26", "Kevin", "00015_Kevin.jpg"
"050-38724", "Wiegand26", "Lisber", "00018_Lisber.jpg"
"089-59300", "Wiegand26", "Johnny", "00020_Johnny.jpg"
"049-20068", "Wiegand26", "Walter", "00023_Walter.jpg"
"112-32068", "Wiegand26", "Invers", "00024_Invers.jpg"
```

3. Copy the user photos to be enrolled from the **GV-ASManager directory** (default:\\ASManager\Photo), and save them in the same folder as the TXT file.
4. Once all face photos are saved in the same folder as the TXT file, right-click the target host in GV-Face Manager, and click **Batch import Face Images + User Data** to locate and choose the folder.

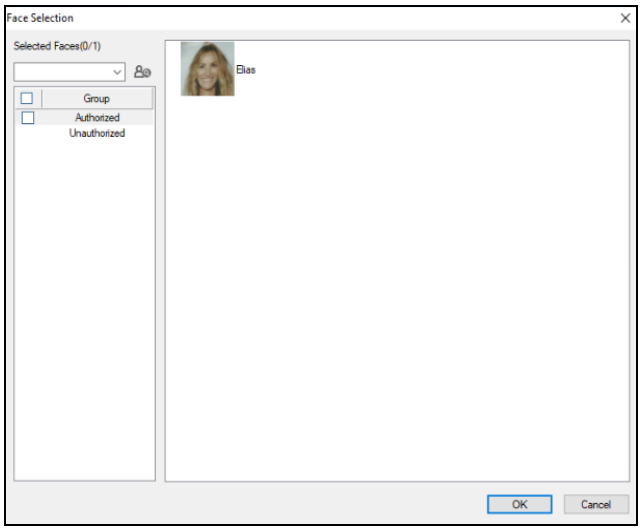


2.5 Synchronizing Databases

To synchronize the databases of two or more hosts, click the **Sync Database** button (No. 6, *2. Main Window*). This dialog box appears.



- **Select Source Camera / Host:** Select the camera / host you want to synchronize from.
- **Select Sync Faces** : Click and select the Face IDs that you want to use for synchronizing from the source camera / host.



- **Select Sync Camera / Host:** Select the cameras that you want to be synchronized**.**

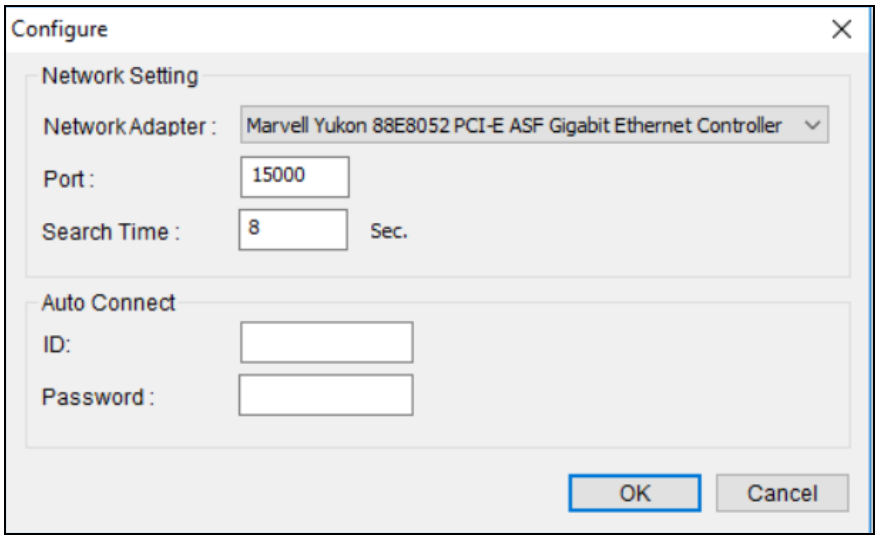
Click **Sync Data** to start synchronizing.

3. Other Settings

3.1 Configuring Network Settings

In the Network Settings, users can select the Network Adapter (card) currently being used, modify the command port of GV-Face Manager, and change the host login credentials.

To access, click the **Settings** button (No. 7, *2. Main Window*) > **Network Settings**.



3.2 Changing Account and Password

To change the account and password of the GV-Face Manager, click the **Settings** button (No. 7, *2. Main Window*) > **Change ID and Password**.

3.3 Face Database Backup

You can back up the face database of a host onto your local PC. To do this, follow the steps below.

1. On the main window, click the **Settings** button (No. 7, *2. Main Window*), select **Export Backup Data From…** and select a host by its IP address.
2. Save the face database as an *.fdb file.
3. To import a face database into a host, click the **Settings** button (No. 7, *2. Main Window*), select **Import Backup Data To…** and select a host by its IP address.

IMPORTANT:

1. When a face database is imported into a host, it replaces all existing face data stored on that host.
2. Starting from **GV-AI Server** V1.1.0 or **GV-AI FR** V1.2, the database can only be imported to the same version of GV-AI Server or GV-AI FR.
