User Guide

Corvo Identify - Milestone XProtect Integration

Version: 1.0

Date: December 09, 2019

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nevalabs

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1. Overview

1.1 Components

The Nevalabs® Corvo Identify® and Milestone XProtect® integration mainly includes face recognition and video management software.

Main Components of Corvo Identify - XProtect Integration
- Nevalabs Corvo Identify - Ubuntu 16.04 (English)
- Milestone XProtect VMS - Windows 10

1.2 Architecture

The Corvo Identify integration has been made using the *XProtect Protocol Integration* and *Plug-in Integration* architectures.
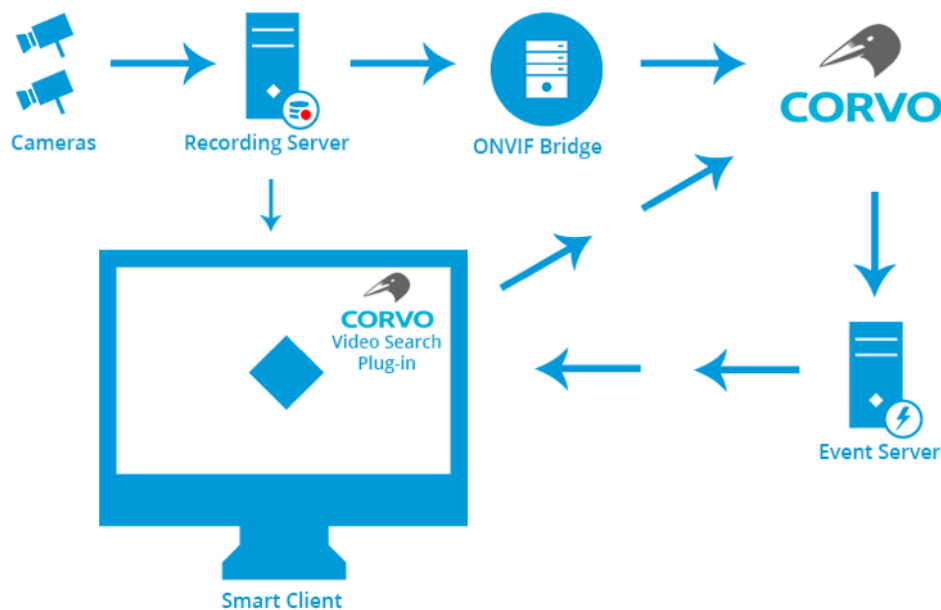

Figure 1: Corvo Identify - XProtect integration scheme

1.3 Corvo Identify

Corvo Identify, that is integrated with XProtect VMS, is a deep learning-based centralized face recognition and alarm management software developed by Nevalabs. Corvo Identify includes functions such as subject card creation, bulk import operations, suspect investigation through

photos and archived videos, real-time alarm generation from cameras, and search from face detections, etc.

Corvo Identify Product Features:

- Easy to use and maintain web-based thin client
- Responsive and intuitive design
- Central management
- Monitoring operations from the dashboard
- Creating an album involving multiple photos of a subject (person)
- Bulk import operations
- Searching persons of interest from watch lists
- Searching for suspects from the face detection history
- Suspect investigation from still images and archived videos
- Smart alarm dispatch
- Real-time on screen alerts via cameras
- Easy alarm verification and instant notifications
- Camera and server management
- ONVIF Profile S compatibility
- Automatic camera discovery
- ATM (At The Moment) error notifications
- Automatic disk cleanup
- Audit logs
- Reporting
- User, role and group-based authorization
- LDAP integration
- Load balancing and failover

2. Alarm Integration

Corvo Identify - XProtect alarm integration enables monitoring of real-time face recognition alarms from cameras via XProtect.
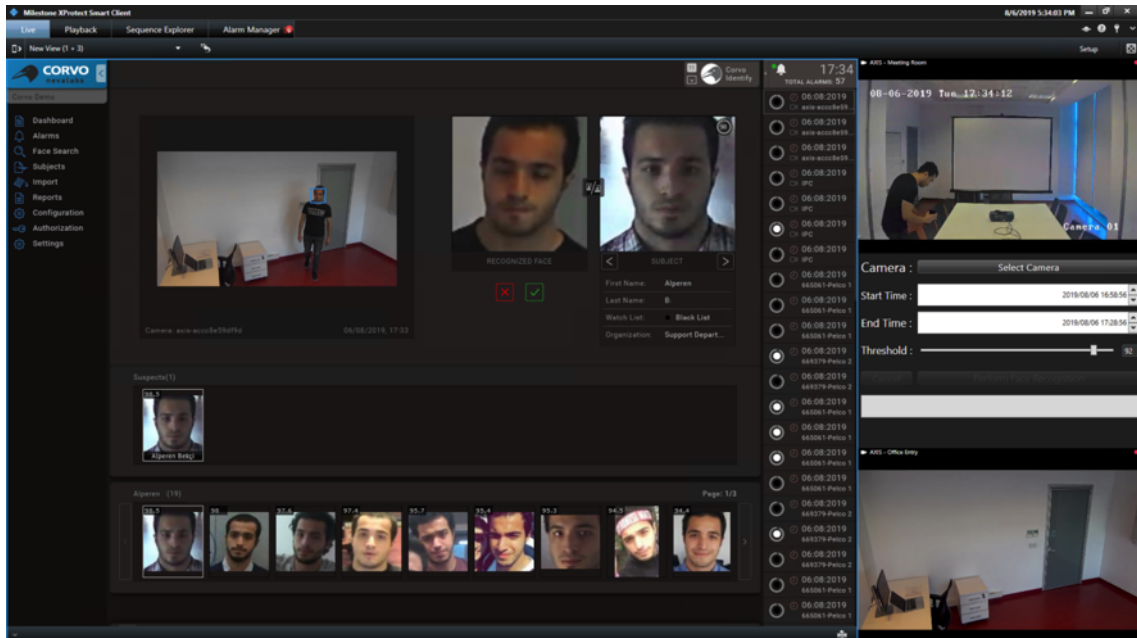

Figure 2: Corvo Identify alarm screen

2.1 Viewing Alarms

The face recognition alarms that occur as a result of the Corvo Identify Alarm Integration are listed with the 'Corvo Alert' message in 'Alarm Manager' menu in the 'XProtect Smart Client' software.

Figure 3: Listing the Corvo Identify alarms via XProtect

Clicking an alarm from the alarm list displays the face of the person for whom an alarm is generated, the snapshot of the alarm, and the subject photo. In addition, the person for whom an alarm is generated is marked with a frame on the alarm video.
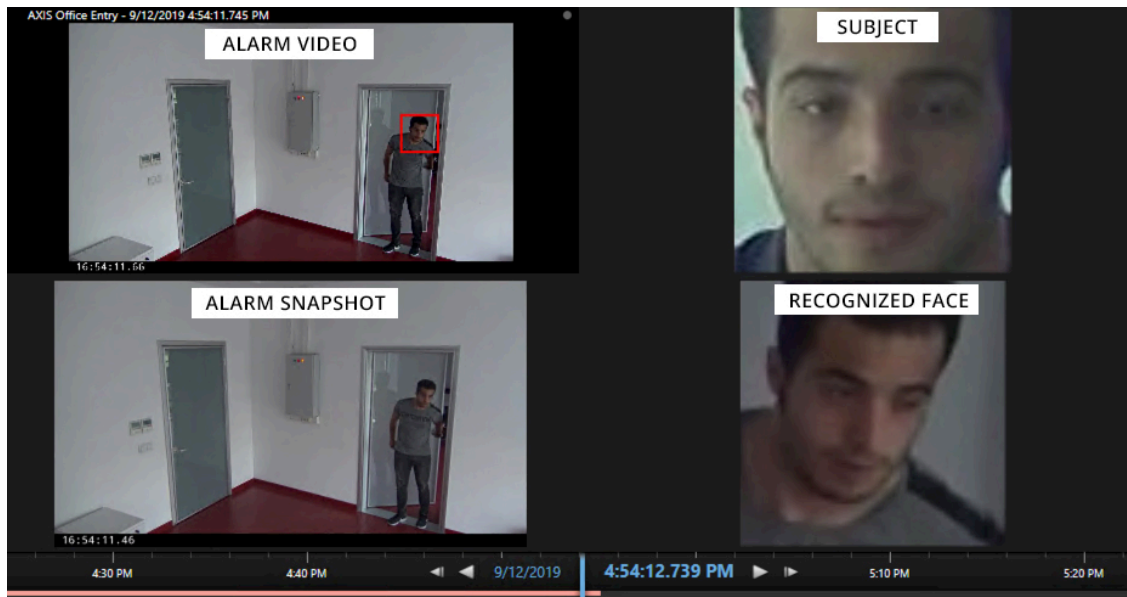
Figure 4: The alarm video, snapshot, and subject photos

Double-clicking the alarms in the alarm list opens the alarm detail. The snapshot of the alarm and the face image of the recognized person are displayed in the opened alarm detail. The person for whom an alarm is generated is marked with a frame on the alarm video.

The alarm detail includes the name of the subject, the watch list, the organization, the matching score and the Corvo Alarm ID. The Corvo Identify plug-in is used to get more detailed information about the alarm, to verify the alarm, to update the subject card information of the matching person, to add photos to the subject card etc. Any alarm can be accessed by filtering from the alarm list with the 'Alarm ID' information.

*Figure 5: XProtect - Corvo Identify alarm detail*

3. XProtect - Corvo Identify Plug-in

With the Corvo Identify plug-in, it has been ensured that all the features of Corvo Identify can be used in the XProtect Smart Client.
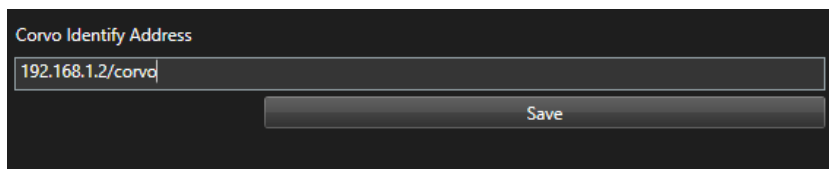
3.1 Configuring the Plug-in

The steps to configure the Corvo Identify plug-in are listed as follows:

- Open the 'XProtect Smart Client' software.
- Open the 'Settings' window from the 'Live' tab.
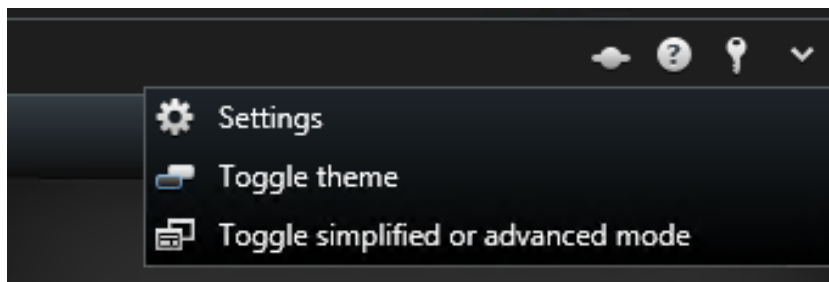
- Click the 'Corvo Identify' option from the left-hand menu and open the Corvo Identify plug-in configuration menu.
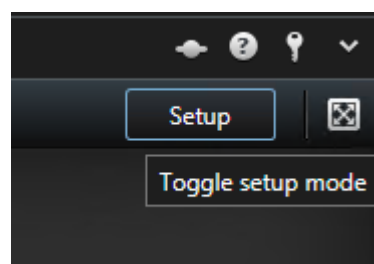

- Enter the Corvo Identify address and click the 'Save' button.
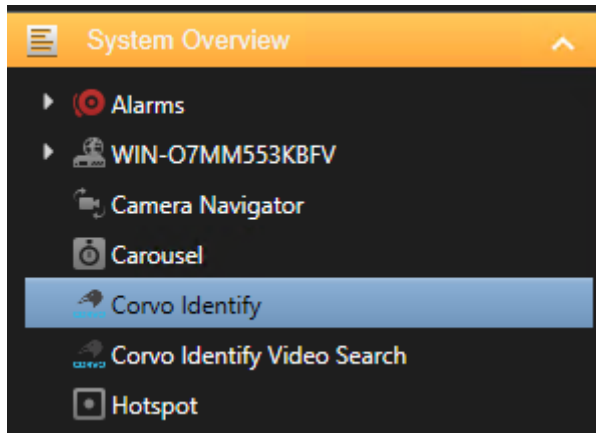
3.2 Running the Plug-in

The steps to run the Corvo Identify plug-in are listed as follows:

- Open the 'XProtect Smart Client' software.
- Click the 'Setup' button on the 'Live' tab.

- Select the Corvo Identify plug-in from the 'System Overview' menu and drag it to the window you want to run.

- Close the configuration view by clicking the 'Setup' button again.
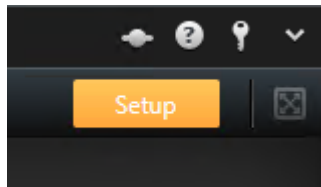
- When Corvo Identify is started, the user login screen will be opened and you will be prompted to login with your username and password. You can contact your system administrator in order to connect to the Corvo Identify system.

Figure 6: Corvo Identify login screen

3.3 Use of the Plug-in
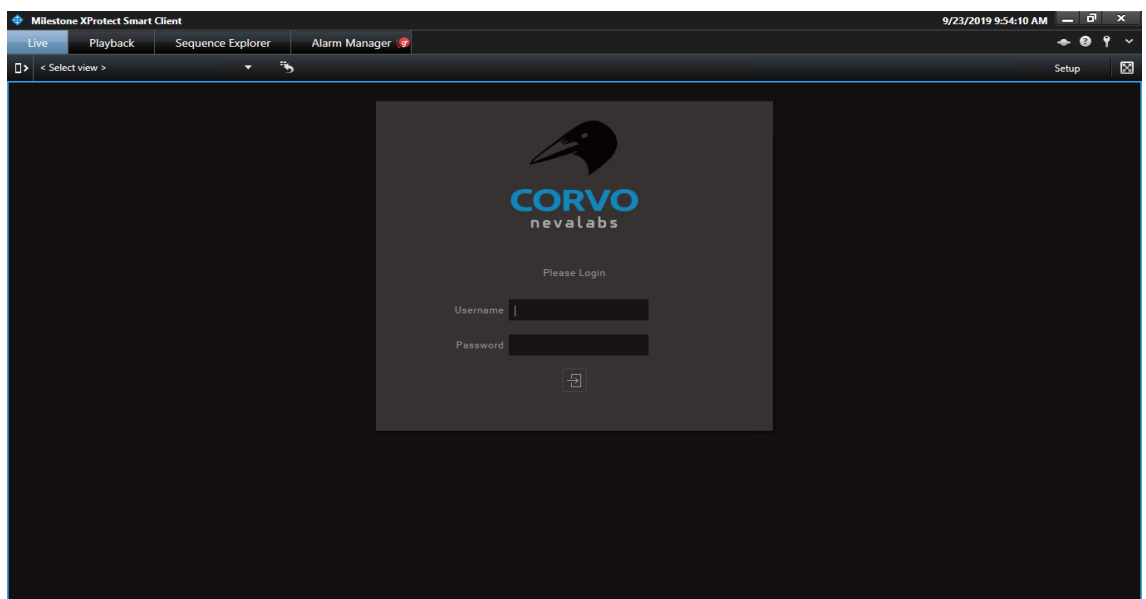
This section briefly describes the use of the main features of Corvo Identify. Please refer to the Corvo Identify User Guide for detailed information.

3.3.1 Accessing Camera Alarms

The Alarm List screen can be accessed through the software by clicking the 'Alarms > List' menu. The Alarm List screen includes information such as captured photo of the recognized person, enrollment photo of the subject, approval-rejection information for the alarm, subject name, matching score, watch list, organization. Furthermore, the name of the camera where the alarm occurred, the date of the alarm, the operator to which the alarm was assigned and the information of the user performing the authentication are listed as well. The information shown on this screen may vary according to the user's authority.
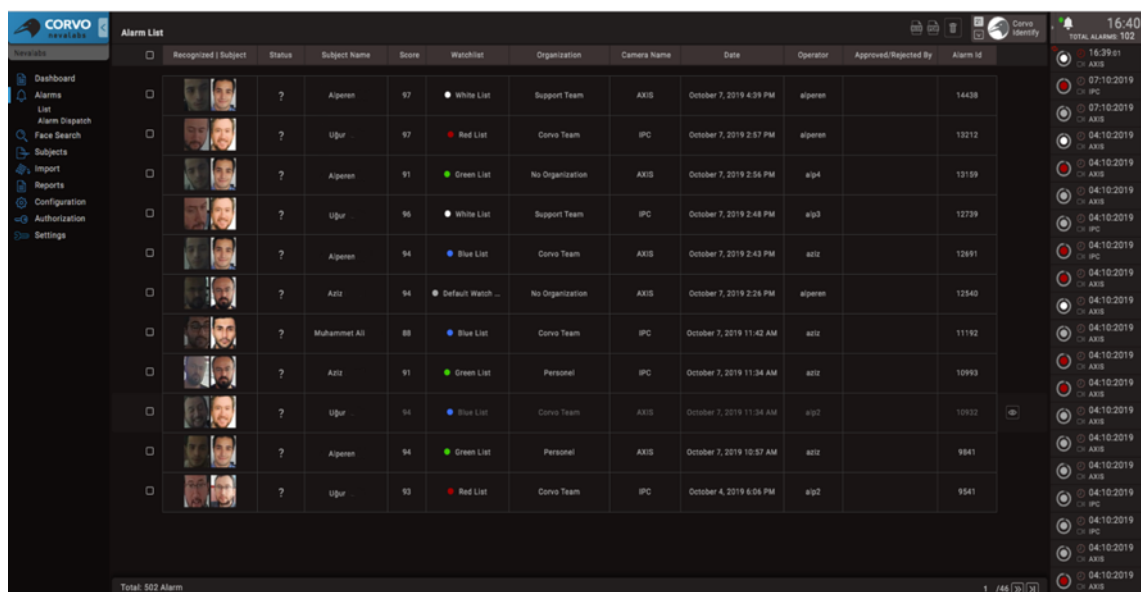

Figure 7: Alarm list screen

When any alarm is hovered in the list, the (review) icon will appear. When this icon is clicked, the detail screen of the corresponding alarm is accessed.

In the alarm detail screen, the snapshot of the camera from which the alarm was received, the image of the recognized face, the face photos of the subject registered in the system, the alarm approval and rejection icons are showed.

When clicking the ✅ (approval) icon on the alarm detail screen, the message "Are you sure you want to confirm the alarm?" will appear. Clicking the approval icon again completes the alarm verification. After this stage, if there are any other alarms assigned to the user, the detail screen of the next alarm will be shown. If there is no other alarm assigned to the user, then it will be directed to the Alarm List screen.

When clicking the ❌ (reject) icon, the detail screen of the next alarm will be displayed if there are any other alarms assigned to the user. If no other alarms are assigned to the user, they will be directed to the Alarm List screen.
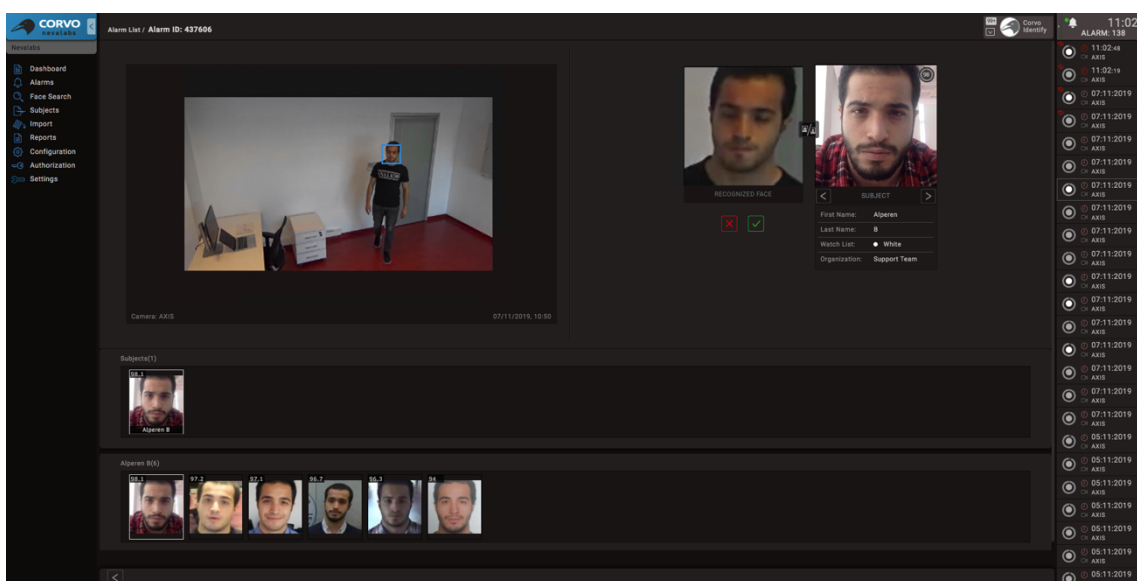

Figure 8: Alarm detail screen

With the XProtect - Corvo Identify Alarm Integration, you can search the alarm list with Alarm ID information to find an alarm sent to XProtect.

- In the alarm list, click the column heading 'Alarm ID'.
- Type the ID of the alarm you want to reach in the text field of the window that will be opened.
- Click the 🔽 (filtering) icon. The corresponding alarm will be listed.
- Click the 👁 icon on the right of the corresponding alarm line to open the alarm detail.
- Corvo Identify alarm detail includes the snapshot of the alarm, the captured photo of the recognized person, enrollment photo of the subject, and the subject information.

- If you confirm that the person for whom an alarm is generated is the matching person, click the approval ✅ button below the matching person's photo.
- Click the reject ❌ button below the matching person's photo to reject the alarm.

3.3.2 Accessing the Video Search List

The Video Search screen can be accessed through the software by clicking the 'Face Search > Videos' menu. The Video Search List screen lists video queries created with the Corvo Identify and XProtect - Corvo Identify Video Search Integration.

A video search can contain multiple videos. When any video search is hovered in the list, the 👁 icon will appear next to the corresponding video search. Clicking this icon will access the list of videos in the corresponding video search.

When any video is hovered in the list, the 👁 icon will appear next to the corresponding video line. Clicking this icon will access the alarms generated from the corresponding video.

In the video alarm detail screen, the snapshot of the video from which the alarm was received, the image of the recognized face, the face photos of the subject registered in the system, the alarm approval and rejection icons are showed.

The Alarm Detail screen includes the ✅ and ❌ icons. When the approval icon is clicked, the message "Are you sure you want to confirm the alarm?" will appear. Clicking the approval icon again completes the alarm verification. After this stage, if there is another alarm generated from the same video, then the detail screen of the next alarm will be displayed; if there are no other alarms, then it will be directed to the list of alarms generated from the related video.

You can search by Video Search ID, Video ID and Alarm ID to find the video search created by using the XProtect - Corvo Identify Video Search Integration and a video alarm sent to XProtect.
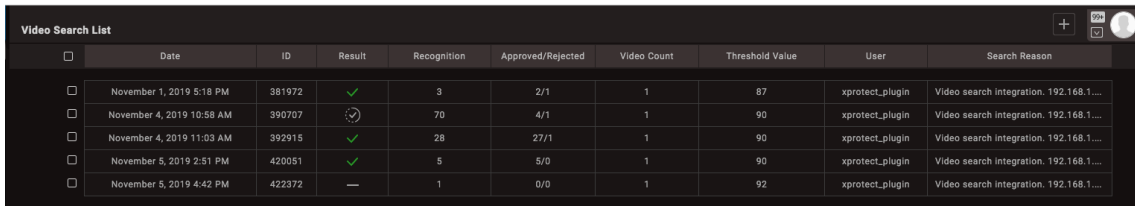
- In the video search list, click the 'Search No' column heading.
- Type the ID of the video search you want to reach in the text field of the window that will be opened.
- Click the 🔽 icon. The query found will be listed.

- Click the 👁 icon on the right of the corresponding video search line to open the video list.
- In the video list, click the 'Video No' column heading.
- Type the ID of the video you want to reach in the text field of the window that will be opened.
- Click the ▽ icon. The video found will be listed.
- Click the 👁 icon on the right of the corresponding video line and open the video alarm list.
- The Corvo Identify alarm detail includes the subject photos, the alarm snapshot, and the subject's information.
- If you confirm that the person for whom an alarm is generated is the matching person, click the ✅ icon below the matching person's photo.
- Click the ❌ icon below the matching person's photo to reject the alarm.

	Date	ID	Result	Recognition	Approved/Rejected	Video Count	Threshold Value	User	Search Reason
☐	November 1, 2019 5:18 PM	381972	✓	3	2/1	1	87	xprotect_plugin	Video search integration. 192.168.1....
☐	November 4, 2019 10:58 AM	390707	◔	70	4/1	1	90	xprotect_plugin	Video search integration. 192.168.1....
☐	November 4, 2019 11:03 AM	392915	✓	28	27/1	1	90	xprotect_plugin	Video search integration. 192.168.1....
☐	November 5, 2019 2:51 PM	420051	✓	5	5/0	1	90	xprotect_plugin	Video search integration. 192.168.1....
☐	November 5, 2019 4:42 PM	422372	—	1	0/0	1	92	xprotect_plugin	Video search integration. 192.168.1....

Figure 9: Corvo Identify video search list

3.3.3 User Management

The Users screen can be accessed by clicking the 'Authorization > Users' menu.

	Status	User Name	Role	First Name	Last Name	Organization	E-Mail	Last login date
☐	🟩	alperen	ADMIN	Alperen		Nevalabs		October 10, 2019 10:11 AM
☐	🟥	aiz	ADMIN	Aziz		Nevalabs		
☐	🟥	mustafa	ADMIN	Mücahit Mustafa		Nevalabs		
☐	🟥	ismet.	ADMIN	İsmet		Nevalabs		
☐	🟥	deniz	ADMIN	Deniz		Nevalabs		

Figure 10: Corvo Identify users screen

The Users screen lists all users added to the system in a table. Users who are online in the system are displayed in green in the 'Status' column, while users who are offline are displayed in red.

From the Users section, users can be added, deleted, user information can be updated, and the user role can be changed.

Users can be filtered and searched on a single or multiple basis by user status, user name, role, name, last name, email or last login date.

3.3.3.1 Adding Users

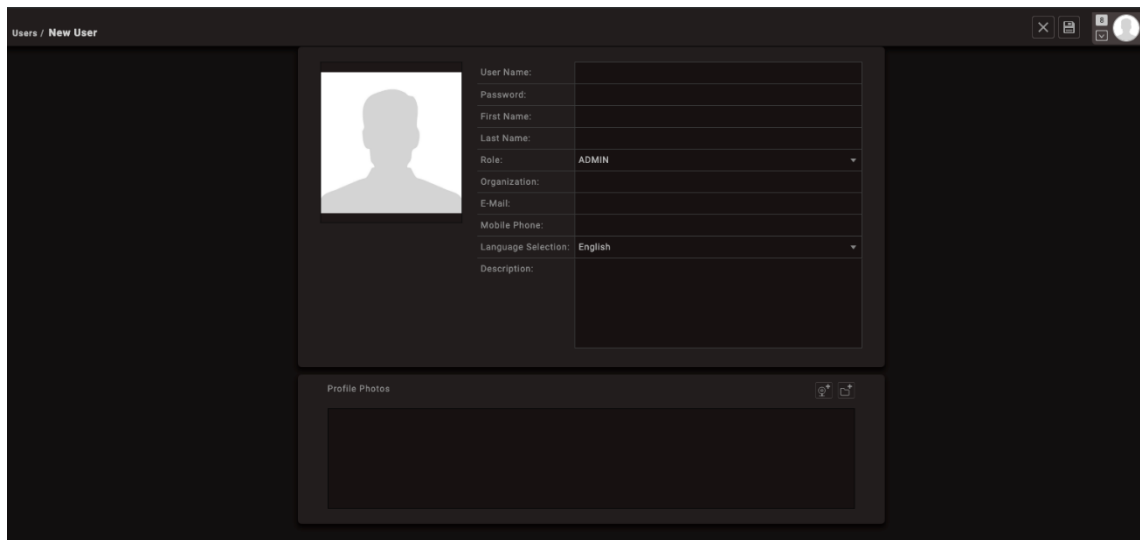On the Users screen, you may click the ⊞ (add) icon, so you can add users.

Figure 11: Adding a new user

After entering detailed information about the user, you may click the 🖫 (save) icon, so you may save and finish the user creation process. If you want to cancel the changes without saving, you may cancel the operation by clicking the ✕ (cancel) icon.

To add a Profile Photo, you may use the 🖼 🖼 (adding from the webcam and photos) icons. Added profile photos will be displayed in the 'Profile Photos' section. If more than one profile photos are added, then "Select a Profile Photo" will appear in the corresponding section. By clicking this button, you can switch between profile photos.


Figure 12: User photos

The selected profile photo will appear on the user card. If the 🖫 icon is clicked, it will also be displayed as a profile photo at the top right of the screen.

3.3.3.2 Deleting Users

The user deletion is used to completely remove a user from the system. The user deletion should be performed with caution as a deleted user will no longer be able to access the Corvo Identify system.

When clicking the 🗑 (delete all) icon at the top right of the Users screen, then a warning message will appear as follows;

Are you sure to delete all users?
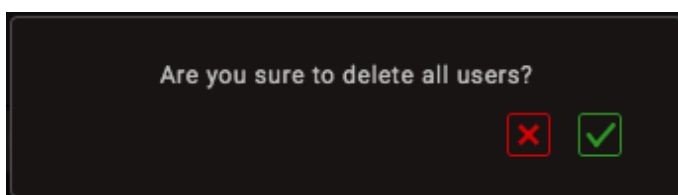
When clicking the ❌ icon in this message, it will be returned to the Users screen. If the ✅ icon is clicked, all users in the system will be deleted. Therefore, the users should pay attention to the 🗑 icon and make sure the process to be carried out.

When one or more users are requested to be deleted from the system, the ⬛ (select) icon should be clicked on the left-hand side of the corresponding users. In this case, the 🗑 (delete) icon will appear on the top left side of the screen. When the delete icon is clicked, the following warning message appears on the screen.

Are you sure to delete these users?
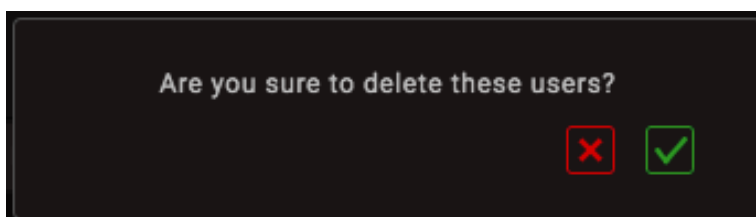
When clicking the ❌ icon in the warning message, it will be returned to the Users screen. If the ✅ icon is clicked, then deletion of the selected users will be performed.

If all the users on the current page want to be deleted, then the ⬛ icon should be clicked at the top left side of the Status column. In this case, all users on the relevant page will be selected and the 🗑 icon will appear at the top left of the screen. When the delete icon is clicked, the following warning message appears on the screen.
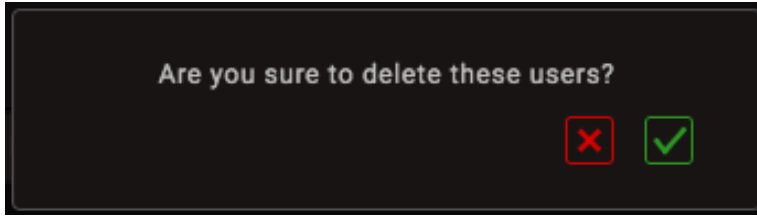
If the ❌ icon is clicked in the warning message, it will be returned to the Users screen. If the ✅ icon is clicked, then a deletion will be performed for all users on the current page.

Since deleted users will not be able to access the Corvo Identify system, the deletion must be done carefully. If deleted users need to be included again in the Corvo Identify system, then the system administrator should be consulted.

3.3.4 Camera Management

The Cameras screen can be accessed by clicking the 'System Management > Cameras' menu. When the Cameras screen is accessed, the camera list is shown in the Figure 3.

	Status	Camera	Brand	Model	IP Address	Server ID	Location
		AXIS	AXIS	AXIS Q6128-E	192.168.1.91	16897e5e-f64a-5d0e-9489-e84807f25e47	
		IPC	Dahua	IPC-HDBW5231R-Z	192.168.1.204	16897e5e-f64a-5d0e-9489-e84807f25e47	

Figure 13: Camera list

3.3.4.1 Camera List

The camera list shows the names, IP addresses, statuses, brands and models, locations and servers of the cameras defined in the system.

When hovering over an online camera in the list, click the 🟢 (online) button appeared, so the status of the camera can be made offline.

If an offline camera is hovered, click the 🔴 (offline) button appeared, so the status of the camera can be made online.

	Status	Camera	Brand	Model	IP Address	Server ID	Location
		AXIS	AXIS	AXIS Q6128-E	192.168.1.91	16897e5e-f64a-5d0e-9489-e84807f25e47	
		IPC	Dahua	IPC-HDBW5231R-Z	192.168.1.204	16897e5e-f64a-5d0e-9489-e84807f25e47	

Figure 14: Online/offline status of the camera

3.3.4.2 Camera Status

The status of the cameras in the system is indicated by the following symbols.

: Indicates that the camera is online and can generate alarms in the system.

: In case of any configuration changes made in connection with the server in the camera, the camera is indicated by this symbol until the update and communication with the server is completed.

: Indicates that the camera is offline and unable to generate alarms in the system. While the camera can be switched by the user to this status, it is also indicated by this symbol if the connection address is typed incorrectly.

: In case of missing or incorrect camera information (such as wrong user name or password), the camera is not assigned to any server, or the camera is disconnected, the camera is indicated by this symbol.

: If the connection address of the camera cannot be retrieved, the status of the camera will be indicated by this symbol.

: When a change in the camera information (such as user name and password) is made via the interface, the status of the camera in the system is indicated by this icon, if the camera still allows to receive streams. Even if some information of the camera is incorrect and needs to be updated, it can still generate alarms.

- : The cameras supporting the PTZ operations are indicated by these symbols.

3.3.4.3 Adding a Camera Manually

Clicking the ➕ icon in the Cameras screen will add cameras manually.

Figure 15: Manually camera addition screen

On this screen, it is necessary to fill in the fields 'Camera Name', 'IP Address', 'User Name' and 'Password'. After the required fields are filled, you can send a request to add a camera through the ☑ icon or cancel the process using the ✕ icon.

Information of the added camera is received via the ONVIF Profile S protocol.

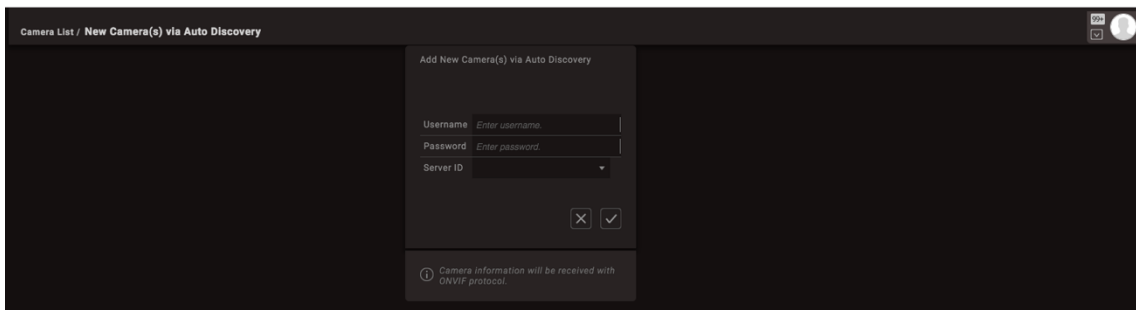### 3.3.4.4 Automatic Camera Discovery

By clicking the ⬚ (automatic camera discovery) icon on the Cameras screen, cameras can be added to the system easily from the discovered cameras on the network. This screen can also be accessed by clicking the same icon at the top right of the manually camera addition screen.

Figure 16: Cameras on the network screen

The cameras on the network are listed on this screen with the camera name, brand, model, IP address, and usage status information. The required cameras are selected and the top left ⬚ (add camera) icon is clicked. The ⬚ (refresh) icon at the top right is used to list the cameras on the network by checking the network again in case the cameras are disconnected or new cameras are available.

Figure 17: New camera(s) via auto discovery screen

On the New Camera(s) via Auto Discovery screen, enter the user name and password information of the cameras to be added. Select the server to which the cameras will be assigned and click the ⬚ icon. If more than one cameras are selected, it is important to note that the user name and password are the same. Cameras with incompatible user names or passwords will be displayed with faulty status by using the ⬚❗ (inaccessible camera) icon. The user name and password will need to be updated in order to connect with these cameras.

3.3.4.5 Viewing Camera Detail Information

When the Camera List screen is hovered on the camera line for editing, click the ⬤ icon to access the camera detail information.
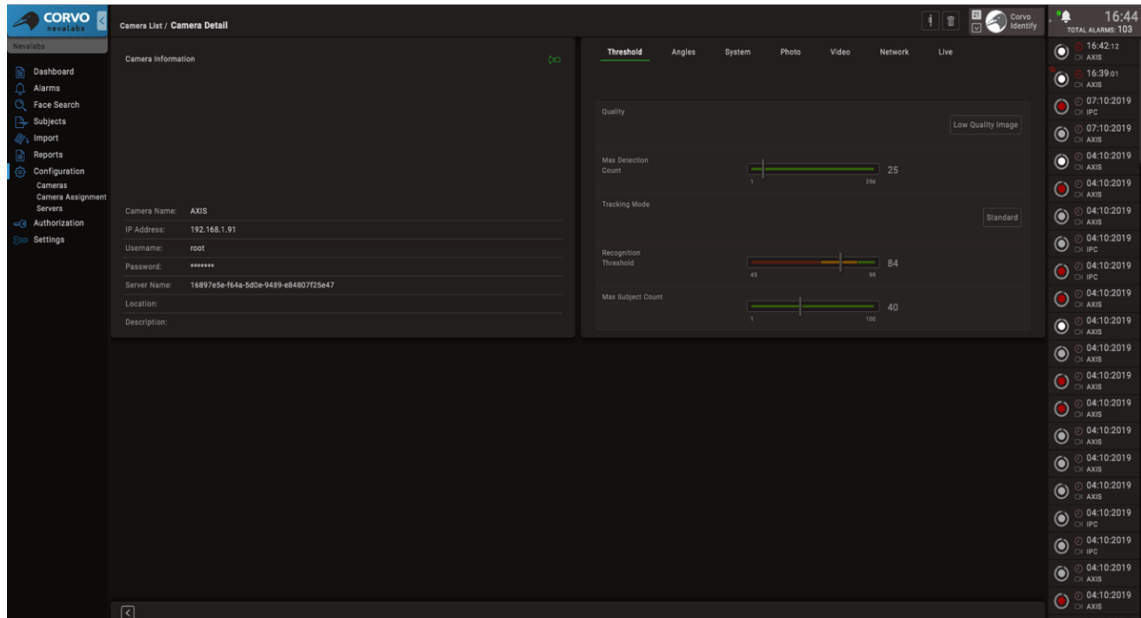
Figure 18: Camera detail screen

The 'System' tab shows the camera's features such as brand and model.

The 'Photo' and 'Video' tabs have the camera settings related to the photo and video. The 🔄 icon available on these tabs is used to retrieve ONVIF values if ONVIF values could not be retrieved or in case of other possibilities.

The 'Network Name', 'Mac Address', 'MTU', and 'Automatic IP' status appear on the 'Network' tab.

The 'Live' tab provides access to the live view of the camera. Some cameras are requested to have authorization for receiving streams. In

such cases, the user name and password should be entered in the pop-up window.

Figure 19: Entering user name and password in camera detail screen

3.3.4.6 Updating Camera Settings

Clicking the ▨ (edit) icon in the Camera Detail screen may update the camera settings. The camera name, location information, server name, threshold values, photo and video settings are updateable fields.

In the 'Photo' and 'Video' tabs, features that are not supported by the current camera are empty; it cannot be changed or 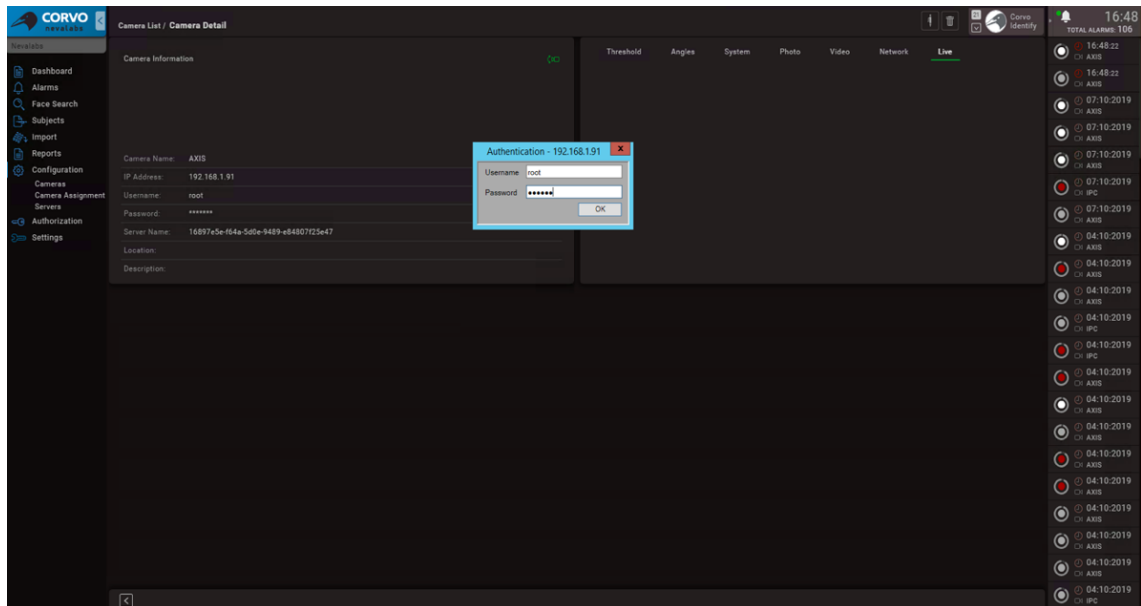a value cannot be written. With these tabs, the photo and video settings can be updated without having to use the camera's own interface.

After making the necessary changes, click the ▤ icon and send an update request. If an update has been made while the camera is online and the information needed to be known by the server has been updated, then the camera would switch to the ▨ (processing) status during this communication. The camera would be back online after the changes have been applied.

For PTZ cameras, the angle of the camera can be changed and the zoom-in /zoom-out can be set from the 'Live' tab while on the update screen.

3.3.4.7 Camera Deletion

The cameras that are to be deleted while on the Camera List screen are marked with the check boxes to the left of the camera lines. The 🗑 icon appeared on the top left of the table is clicked. When clicking the ✅ icon in the message appeared, the cameras will be deleted successfully. If the ❌ icon is clicked, the deletion is canceled.
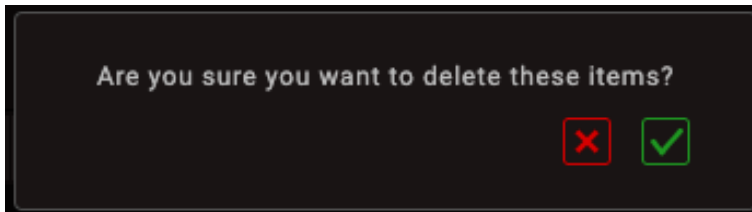
The deletion process is also performed by clicking the 🗑 icon at the top right of the detail screen of the camera to be deleted.

3.3.5 Subject Card Management

You can have an access to the Enrollment List screen by clicking the 'Subjects > Enrollment' menu via the user interface. A subject is a person who is enrolled to the system. The Enrollment List screen lists the subjects added by means of bulk import, photo search, or adding a new subject card. By clicking the relevant column headings in the list, filtering and/or sorting operation can be performed.

With the 🗎XLSX 🗎PDF icons at the top right of the Enrollment List screen, you may create reports in Excel and PDF formats.
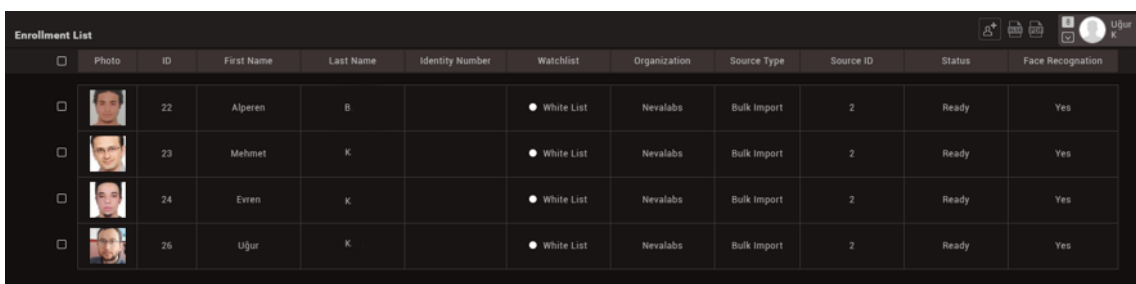
Figure 20: Enrollment list screen

To access the subject card detail screen, you should hover over the line where the person is located and click the 👁 icon appeared on the right of the subject information.

The Enrollment List screen includes 'Ready' or 'Waiting for Action' phrases displayed in the 'Status' column of the relevant subject card line. The Ready term indicates that the subject card is ready and that the review

and update operations can be performed. The Waiting for Action term means that in one or more photos on the subject card, multiple faces have been recognized and a selection should be made on the faces in the photo.

It is recommended that subjects in the enrollment list should not be left with the status 'Waiting for Action' and that the subject card status should be made ready by the necessary choices.
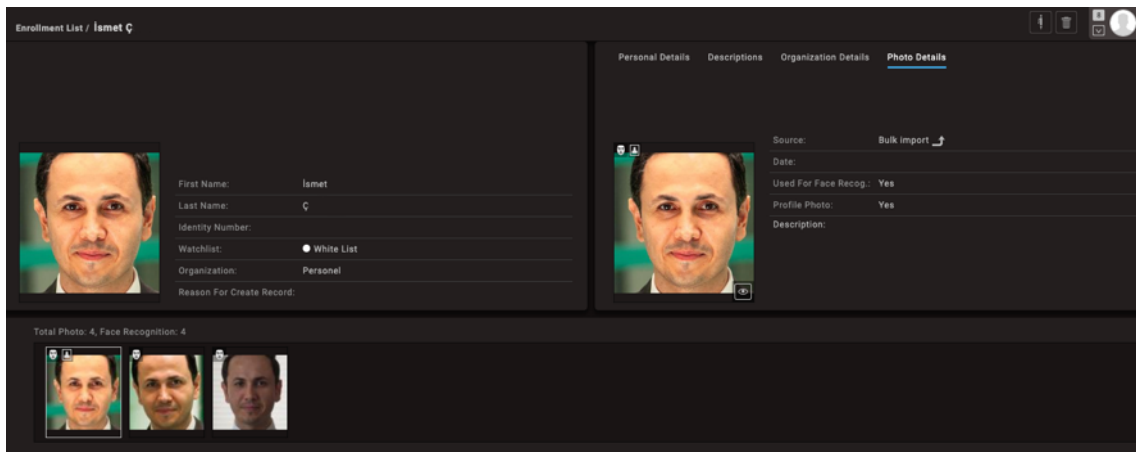
Figure 21 Subject card detail screen

The subject card detail screen displays the photos of the person and information about the person. If a person is included in a watch list or organization, the watch list or organization in which he or she is involved is also displayed here.

There are photos of the person at the bottom of the screen. The small face icon on the top left of the photos indicates that the photos are being used for face recognition process. Photos without this icon mean that they are not used for the face recognition.

By clicking the 🖊 icon at the top right of the screen, you can update the subject card information or delete the subject card by clicking the 🗑 icon. If an update has been made, then the updates can be saved with the 💾 icon, or can be canceled with the ✖ icon at the top right section.

If you want to add a photo to the subject card, then proceed to the update process by clicking the 🖊 icon at the top right of the screen. After that, the 🗀⁺ (adding from the photos) icon or 📷⁺ (adding from the webcam) icons is clicked. The photo(s) requested to be added are selected and it is seen that the photo(s) has/have been added to the subject album at the bottom of the subject card detail screen. By clicking the 💾 icon at the top right of the screen, the subject card update process is saved.

If you want to delete the photo(s) from the subject card, click the ✏ icon to proceed to the update stage. Click the 🗑 icon at the bottom right of the photo(s) you want to delete and see that the photo is deleted. Then you can save the process by clicking the 💾 icon at the top right of the screen.

On the right side of the subject card screen, there are the 'Personal Details', 'Descriptions', and 'Photo Details' sections. Each section can be accessed by clicking the related tab. In the 'Personal Details' section, the identity and some personal information of the relevant person is displayed, while in the 'Descriptions' section, the physical characteristics and facial features are displayed, and in the 'Photo Details' section, the information about the photos that have been added is displayed. The information contained in these sections can be updated by clicking the ✏ icon.

3.3.6 Photo Search

The Photo Search screen can be accessed from the software by clicking the 'Face Search > Photos' menu. On the Photo Search screen, the similarity of the person of interest with the subjects from the watch lists will be queried.

Clicking the ➕ icon at the top right of the screen will go to the New Search screen in order to search new photos. The reason for searching, the recognition threshold value and the maximum subject count are determined. The Search Reason field is mandatory. When clicking the ➕ icon in the center of the screen, the photo to be queried will be selected. If desired, consecutive photos can be selected and the search for multiple photos can be performed at one time. By clicking the 🗑 (delete) icon after selecting photos if necessary, the photo to be queried can be removed from the search list. After the photo selection is complete, the 🔍 (search) icon at the top right of the screen is clicked and the search operation is started.
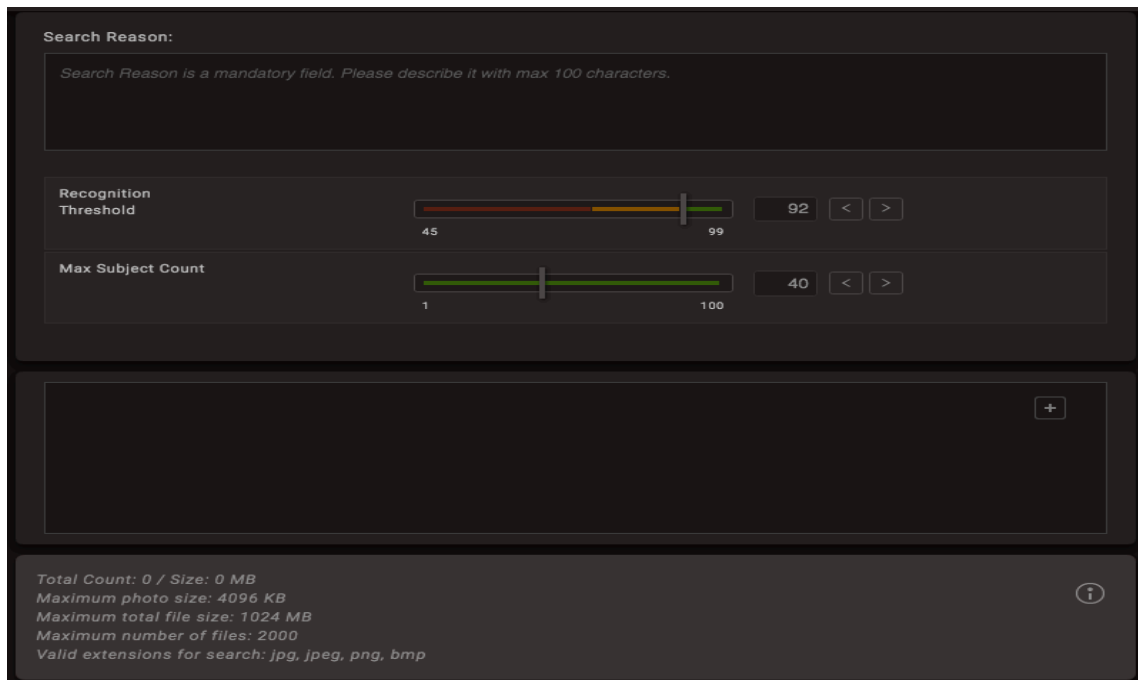
Figure 22: Photo search screen

Completing the photo search is indicated by the progress bar in the Search Status column which turns from gray to green.

The photo search detail list screen displays a list of photos that have been queried. When the related search line is hovered, the 👁 icon on the right and the 👥 (preview) icon on the left are displayed.

When clicking the 👁 icon on the right, the detail screen related to the queried photo is displayed. You can return to the photo search detail list screen by making necessary operations.

When clicking the 👥 icon on the left, the thumbnail of the queried photo is displayed. Through this preview, you can see which photo is used for searching without having to go to the photo search detail screen.

The photo search detail screen displays subjects from the watch lists who match with the queried photo according to the predefined threshold. If the queried face has been recognized, then it is possible to add the photo to the subject card by approving (✅), to determine if the person of interest does not match any of the subjects by rejecting (❌) or to create a new subject card (👤⁺).
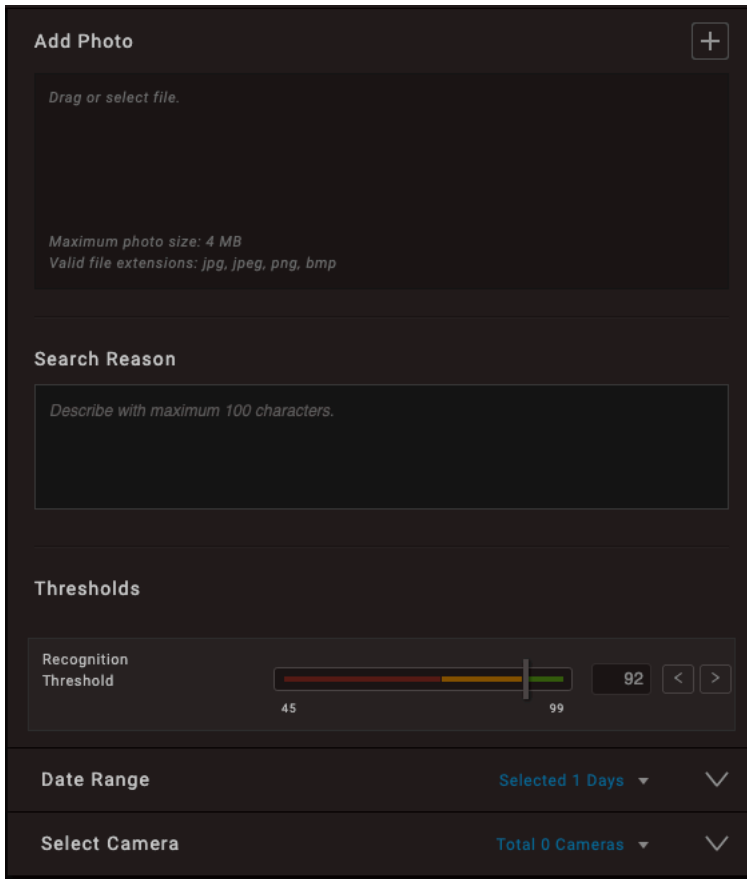
3.3.7 Detection Search

The Detection Search screen can be accessed by clicking the 'Face Search > Detections' menu. Thanks to the detection search feature, it is possible to

see whether a person of interest in the photo was detected on the selected cameras within the specified date-time interval.

The Detection Search List screen lists the previously-made detection queries. The detail of a search that has been performed may be accessed by clicking the 👁 icon appeared in the relevant line.

If a new detection search is to be made, clicking the ➕ icon at the top right of the screen goes to the New Search screen.

When clicking the ➕ icon on the New Search screen, you are expected to select a photo to be queried. After double-clicking the photo, the photo you want to search will be displayed on the screen. After completing the determination of the reason for searching, the recognition threshold to be used for searching, the date-time interval for the search and the cameras, when the 🖼 icon is clicked, detection search operation will be performed. If there is a match with the photo, the detection search detail screen will be displayed.

The detection search detail screen shows the searched face and matching subjects. In the Subjects section, face photos detected via the cameras, which are matched with the searched face, are shown. When the detected

faces are hovered, the relevant camera name and date-time information is displayed.

The detected faces can be sorted 'by Score' or 'by Date' using the filter on the right side of the screen.

The matching persons can be compared in detail as described in the Alarm Detail and Photo Search screens by clicking the ▦ (comparison) icon between the two photos on the right side of the screen.

The face selected in the Detections section is shown as 'Subject' in the white frame and on the right side of the screen. The matching person's photo can be replaced by the arrows on either side of the 'SUBJECT' label.

If the matching persons are approved by clicking the ✔ icon, the screen for adding a subject card from the detection search will appear. On this screen, the photo shown in the matching person field is the one with the green frame among the photos shown in the 'Subjects' section.

When you scroll through the photos in the 'Subjects' section, the blue Add to Subject Card icon and the information of the camera from which the photo was created will be displayed. If a new subject card is to be created, click the blue 'Add to Subject Card' icons that appear when the photos are hovered and the photos to be included in the subject card will be determined. Photos included in the subject card are marked with a blue frame.

If an incorrect photo is selected, then the 'Delete' icon will appear again when the photo is hovered. After selecting photos to add to the subject card, clicking the �️⁺ icon goes to the subject card addition screen. On this screen, a subject card is created by adding a Subject Card. If the creation of a subject card is aborted in the course of these operations, the operations can be terminated by clicking the ↩ (undo) icon.

If the detection search has already been made and the subject card has been created from this search, the subject card detail screen of the respective person can be accessed by clicking the 'Go to Subject Card' icon on the right side of the screen when the relevant detection search detail is entered from the Detection Search List screen.

4. Video Search Integration

Thanks to the XProtect - Corvo Identify Video Search Integration, face recognition can be made from the archived videos and the generated alarms can be displayed via XProtect.

4.1 Configuring the Plug-in

The steps to be followed for the configuration of the XProtect - Corvo Identify Video Search plug-in are listed as follows:

- Open the 'XProtect Smart Client' software.
- Open the 'Settings' window from the 'Live' tab.
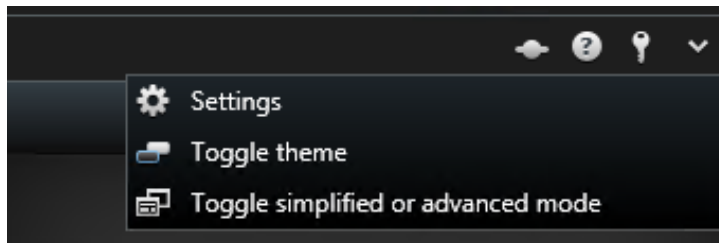
- Click on 'Corvo Identify Video Search' option from the left-hand menu and open the Corvo Identify Video Search plug-in configuration menu.
- Type the Corvo Identify address and select the location where the archived videos will be exported.
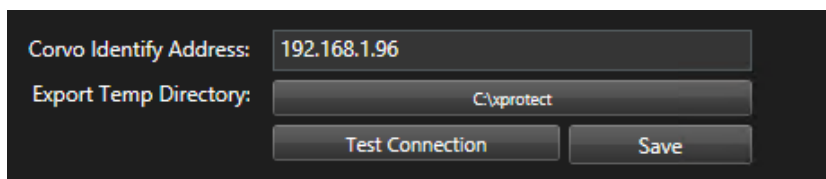
- Click the 'Save' button.

4.2 Running the Plug-in

- Open the 'XProtect Smart Client' software.
- Click the 'Setup' button on the 'Live' tab.
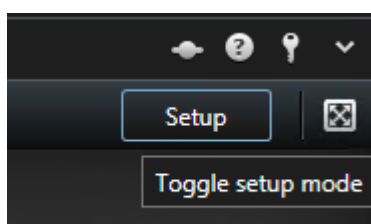
- Select the Corvo Identify Video Search plug-in through the 'System Overview' menu on the left and drag the plug-in to the window where you want to run it.
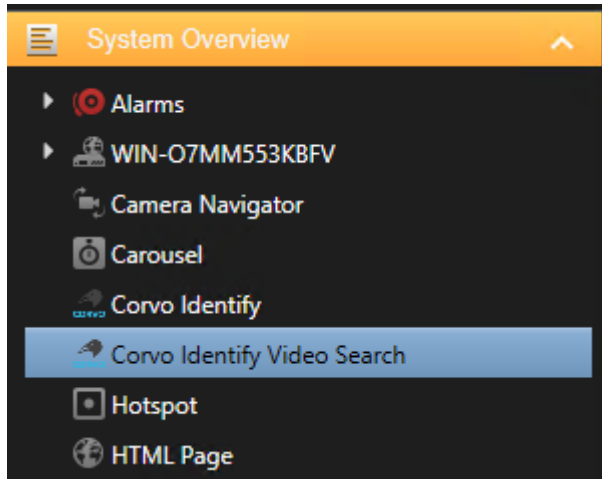
- Close the configuration view by clicking the 'Setup' button again.
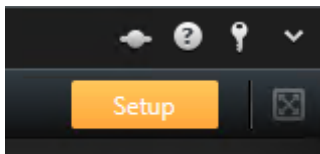
4.3 Use of the Plug-in

- Using the 'Select Camera' button, select the camera you want to perform face recognition from the archived videos.
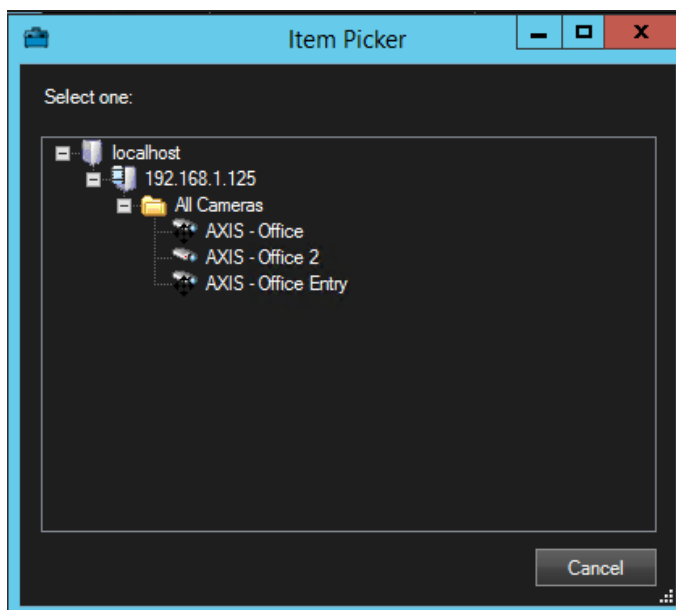
- Select the desired time interval in order to perform face recognition from the archived video records of the camera you have selected.

Start Time :	2019/10/07 10:06:28
End Time :	2019/10/07 10:36:28

- Set the threshold of the matching score for which you want to generate an alarm.

Threshold :   92

- Click the 'Perform Face Recognition' button to initiate a face recognition query for the selected camera's video recording at the selected time interval.

Perform Face Recognition

- Wait until the progress bar showing the process status is full.

- Open the 'Alarm Manager' tab to display the face recognition alarms generated from the selected time interval.
- Face recognition alarms that result from the Corvo Identify Video Search Integration are listed in the 'Alarm Manager' tab with the message 'Corvo Video Search Alert'.

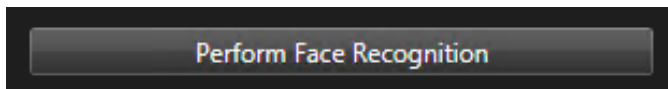|	Time	Priority Level	State Level	State Name	Message	Source	ID	Vendor
	12:04:41 PM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9327	Nevalabs
	12:04:37 PM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9326	Nevalabs
	10:57:34 AM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9237	Nevalabs
	10:57:34 AM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9236	Nevalabs
	10:57:34 AM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9235	Nevalabs
	10:57:34 AM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9234	Nevalabs
	10:57:34 AM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9233	Nevalabs
	10:57:34 AM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9201	Nevalabs
	10:57:34 AM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9198	Nevalabs
	10:57:34 AM 10/3/2019	1	1	New	Corvo Video Search Alert	AXIS - Office	9192	Nevalabs

- Clicking an alarm from the alarm list displays the face of the person for whom an alarm is generated, the snapshot of the alarm, and the

subject photo. The person for whom an alarm is generated is marked with a frame on the alarm video.
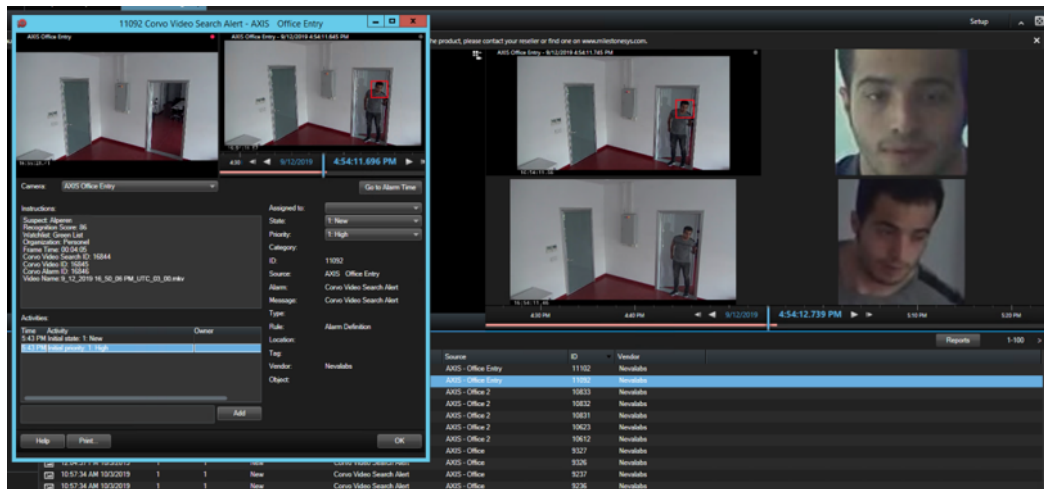
- Double-clicking the alarms in the alarm list opens the alarm detail.
  - In the alarm detail, the snapshot of the alarm is displayed and the person for whom an alarm is generated is marked with a frame on the alarm video.
  - The alarm detail includes the name of the subject, watch list, organization, matching score, Corvo Video ID, Corvo Video Search ID, Corvo Alarm ID and the file name of the video. The Corvo Identify plug-in is used to get more detailed information about the alarm, to verify the alarm, to update the subject card information of the matching person, to add photos to the subject card etc. Any alarm can be accessed with 'Video Search ID', 'Video ID' and 'Alarm ID'.

11092 Corvo Video Search Alert - AXIS   Office Entry

AXIS Office Entry

AXIS Office Entry - 9/12/2019 4:54:11.645 PM

16:55:28.71

4:30 | 9/12/2019 | 4:54:11.696 PM

Camera: AXIS Office Entry

Go to Alarm Time

Instructions:

Suspect: Alperen B
Recognition Score: 86
Watchlist: Green List
Organization: Personel
Frame Time: 00:04:05
Corvo Video Search ID: 16844
Corvo Video ID: 16845
Corvo Alarm ID: 16846
Video Name: 9_12_2019 16_50_06 PM_UTC_03_00.mkv

Assigned to:
State: 1: New
Priority: 1: High
Category:
ID: 11092
Source: AXIS   Office Entry
Alarm: Corvo Video Search Alert
Message: Corvo Video Search Alert
Type:
Rule: Alarm Definition
Location:
Tag:
Vendor: Nevalabs
Object:

Activities:

Time	Activity	Owner
5:43 PM	Initial state: 1: New	
5:43 PM	Initial priority: 1: High	

Add

Help   Print...   OK