

Two light gray L-shaped brackets, one on the left and one on the right, framing the word "VEZHA".

VEZHA

User Guide for Face Recognition plugin

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Description of VEZHA Face Recognition Plugin

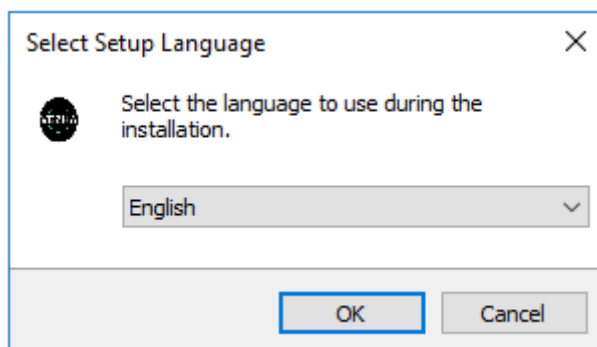
VEZHA Face Recognition Plugin is developed to analyze data from cameras and instantly select and save frames with people's faces.

Main advantages:

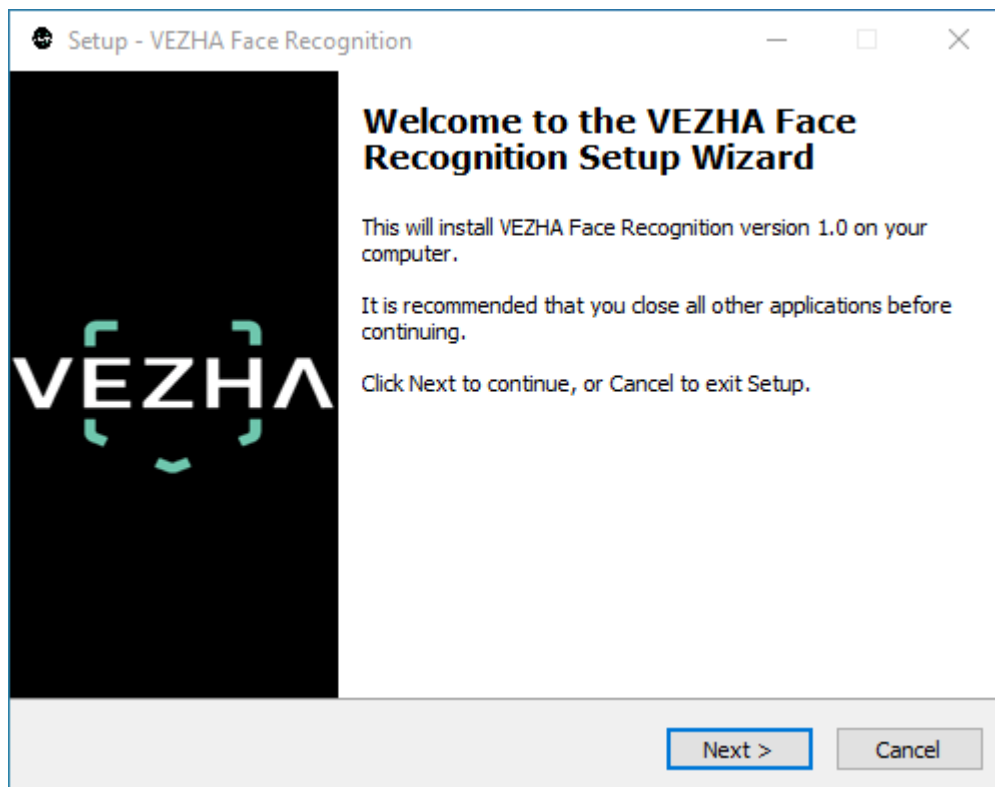
- 1) Detecting people from the video stream.
- 2) Verification and identification of persons.
- 3) Determination of additional characteristics (gender, age, emotions, beard, glasses).
- 4) Work with lists - the ability to create white / black lists. To identify new customers, VIP customers, criminals.

1. Installation

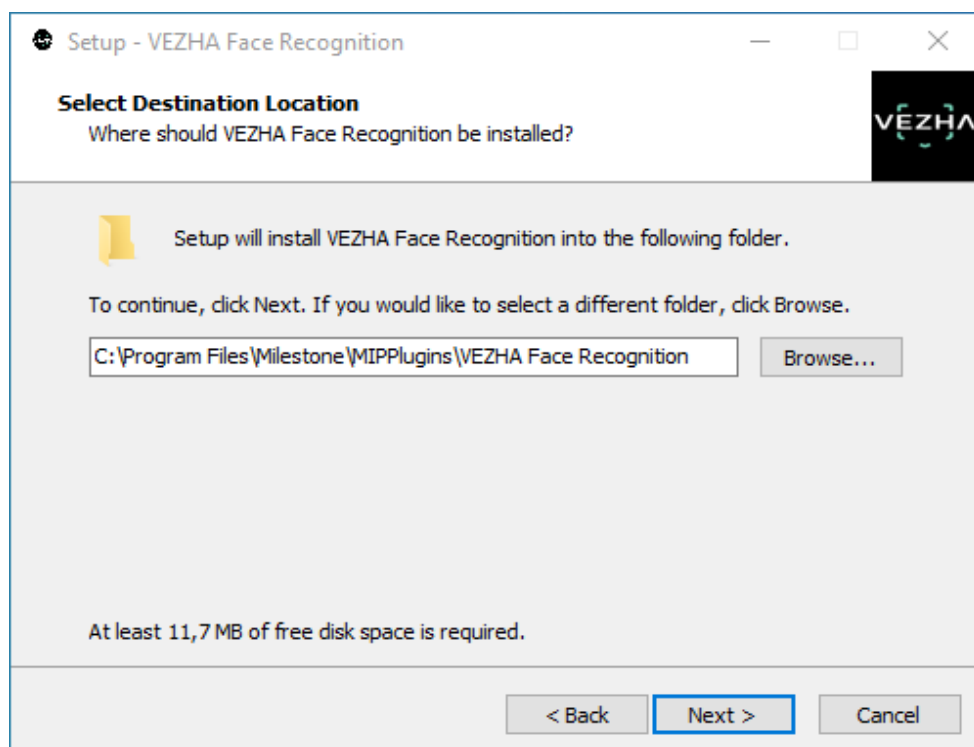
- 1) Launch the installer by double-clicking on the downloaded FACE_REC_Setup
- 2) In the window that opens, select the language for the installation process. To go further, click "OK." To abort installation, click "Cancel".



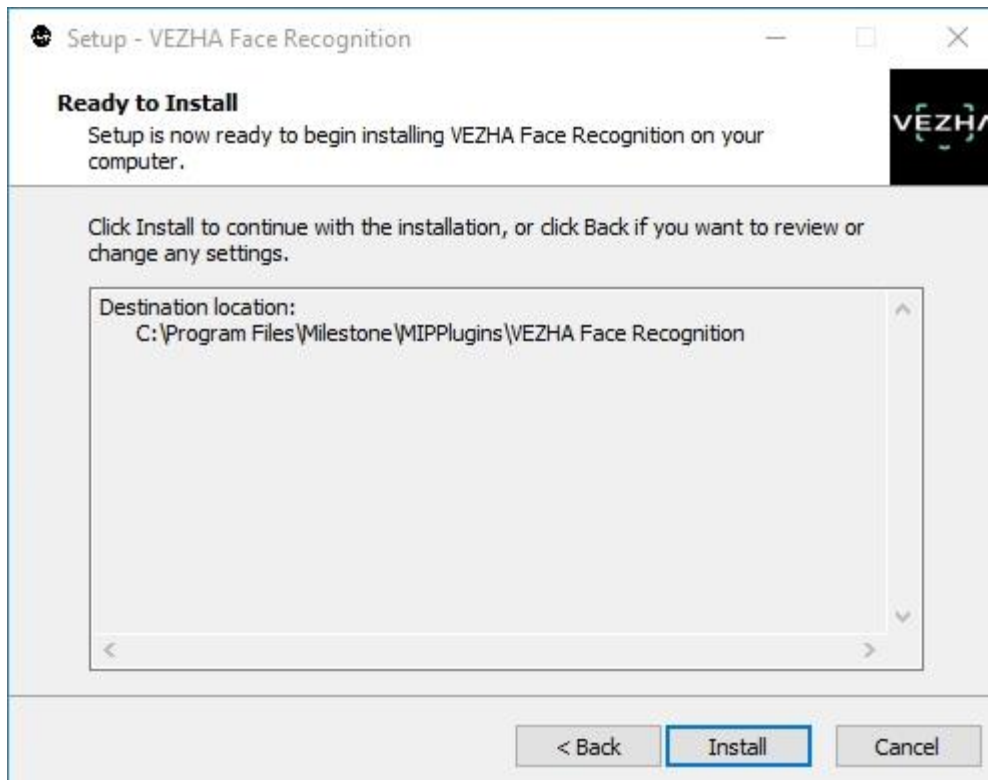
- 3) Read the installation recommendations in a new window and click the "Next" button to continue the installation, or the "Cancel" button to abort the installation.



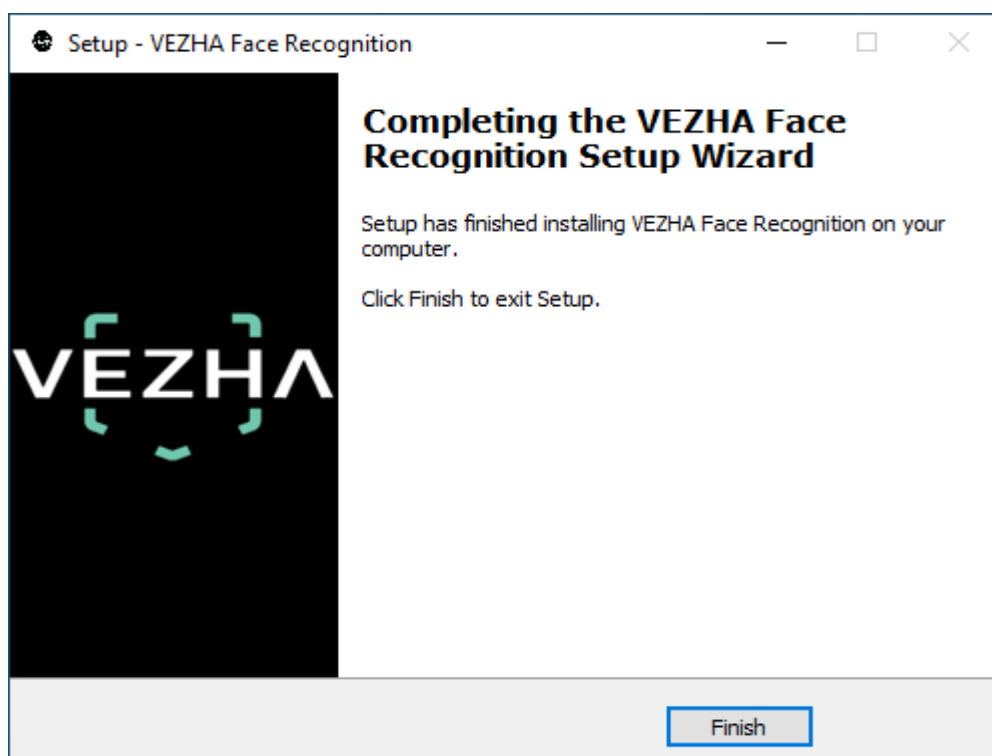
4) In the window "Select installation folder" using the "Browse" button, specify the place where you want to install the plugin. The plugin must be installed in the "Milestone" folder for other plugins. After selecting the desired folder, click "Next" to continue the installation or "Cancel" to abort the installation.



5) Click “Install” to start the installation.

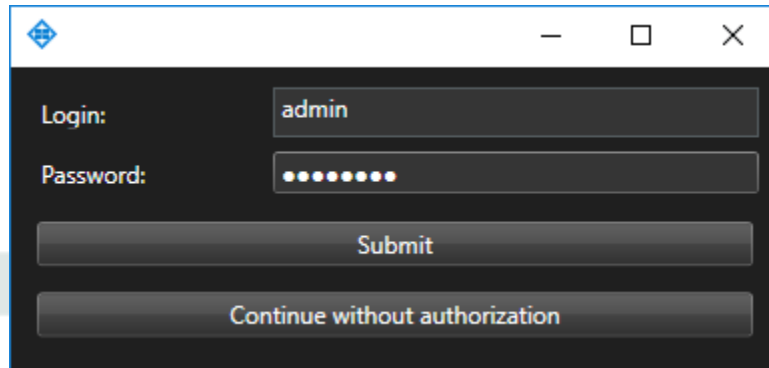


6) After the installation is completed, click “Finish”.




2 Log In

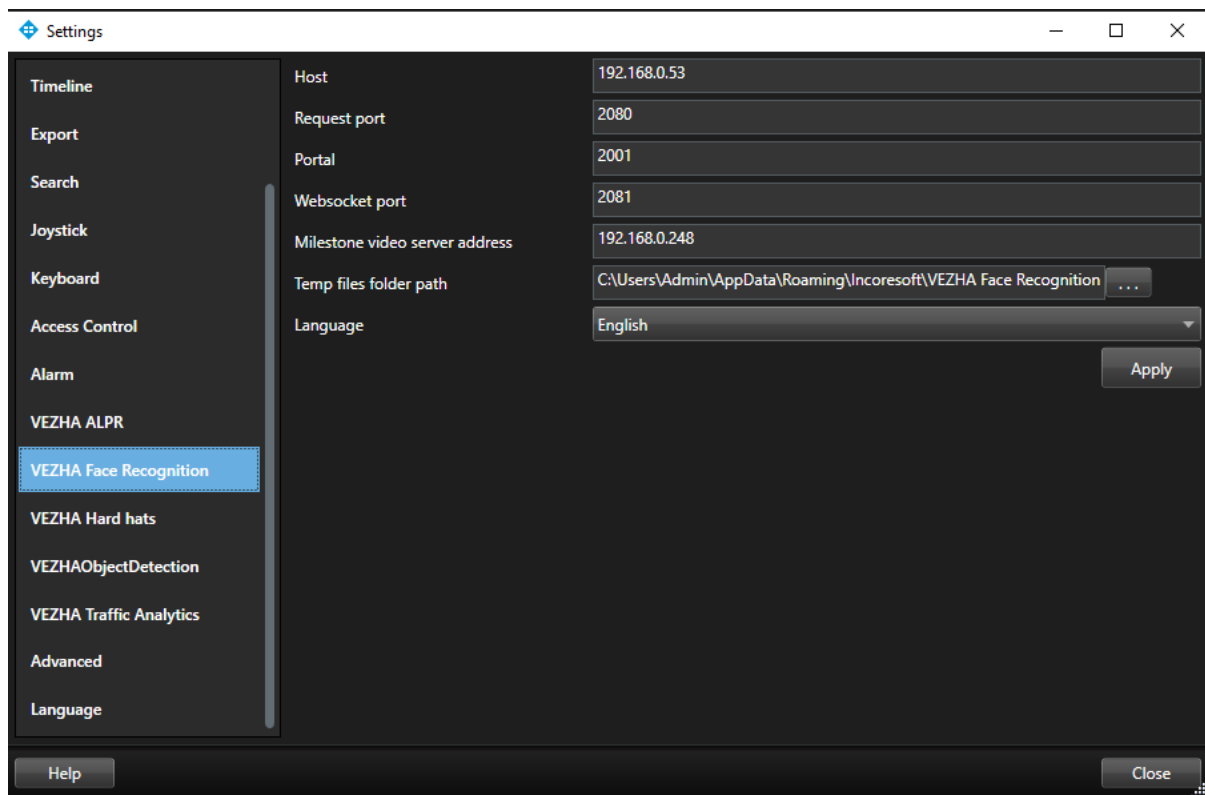
To log in, you need to enter a Username and Password and click the Connect button. If you do not need to login to Face Recognition Plugin, click Continue without authorization.

A login window with a dark background. It contains two input fields: 'Login:' with the text 'admin' and 'Password:' with masked characters. Below the fields are two buttons: 'Submit' and 'Continue without authorization'.

Login:	admin
Password:	••••••••
Submit	
Continue without authorization	

3. Settings

To find Face Recognition Plugin's settings, click the icon  in the upper right corner of the screen. Select and click Settings. In the window that opens, select the Face Recognition Plugin tab.

A settings window titled 'Settings' with a dark background. On the left is a sidebar with various tabs, including 'VEZHA Face Recognition' which is highlighted. The main area displays settings for the selected tab, including Host, Request port, Portal, Websocket port, Milestone video server address, Temp files folder path, and Language. An 'Apply' button is at the bottom right.

Settings	Value
Host	192.168.0.53
Request port	2080
Portal	2001
Websocket port	2081
Milestone video server address	192.168.0.248
Temp files folder path	C:\Users\Admin\AppData\Roaming\Incoresoft\VEZHA Face Recognition ...
Language	English

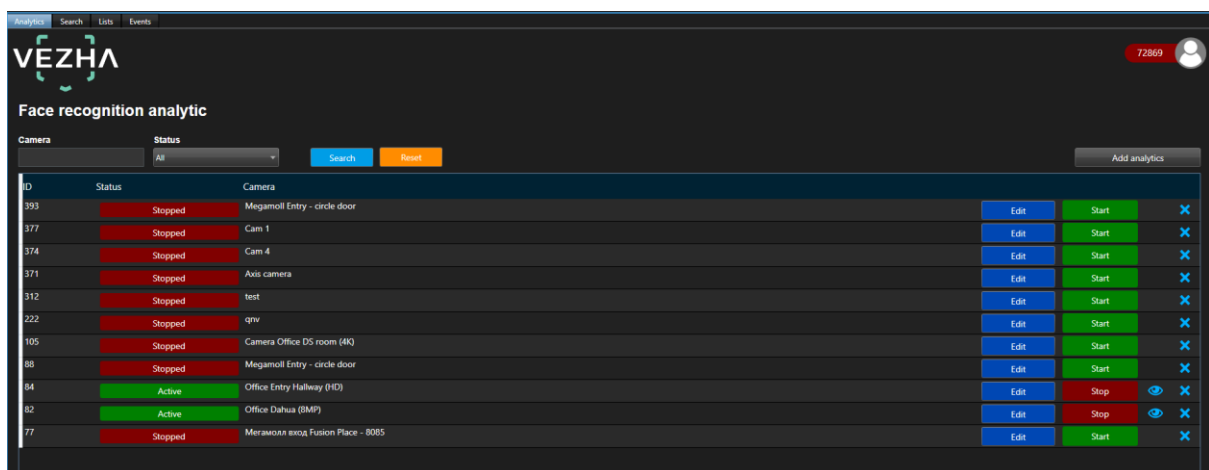
The **Face Recognition Plugin** tab has the following fields: **Host**, **Request Port**, **Storage Path**, **Websocket port**, **Server**, **Temporary Files Path**, **Language**.

To change the server settings, you can edit the fields: **Host**, **Request Port**, **Storage Path**, **Websocket port**, **Server**, **Temporary Files Path**.

To change the language, use the **Language** field and select from the list the most convenient for you.

4. Face Recognition Analytics

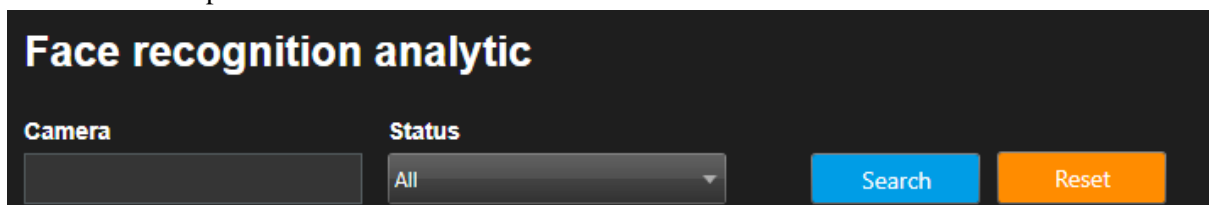
This tab is intended for adding, editing, viewing, deleting and changing the status of analytics.



ID	Status	Camera	Edit	Start	Stop
393	Stopped	Megamoli Entry - circle door	Edit	Start	×
377	Stopped	Cam 1	Edit	Start	×
374	Stopped	Cam 4	Edit	Start	×
371	Stopped	Axis camera	Edit	Start	×
312	Stopped	test	Edit	Start	×
222	Stopped	qnv	Edit	Start	×
105	Stopped	Camera Office DS room (4K)	Edit	Start	×
88	Stopped	Megamoli Entry - circle door	Edit	Start	×
84	Active	Office Entry Hallway (HD)	Edit	Stop	×
82	Active	Office Dahua (BMP)	Edit	Stop	×
77	Stopped	Мегамолл вход Fusion Place - B085	Edit	Start	×

4.1 Analytics Search

At the top of the screen is a search field



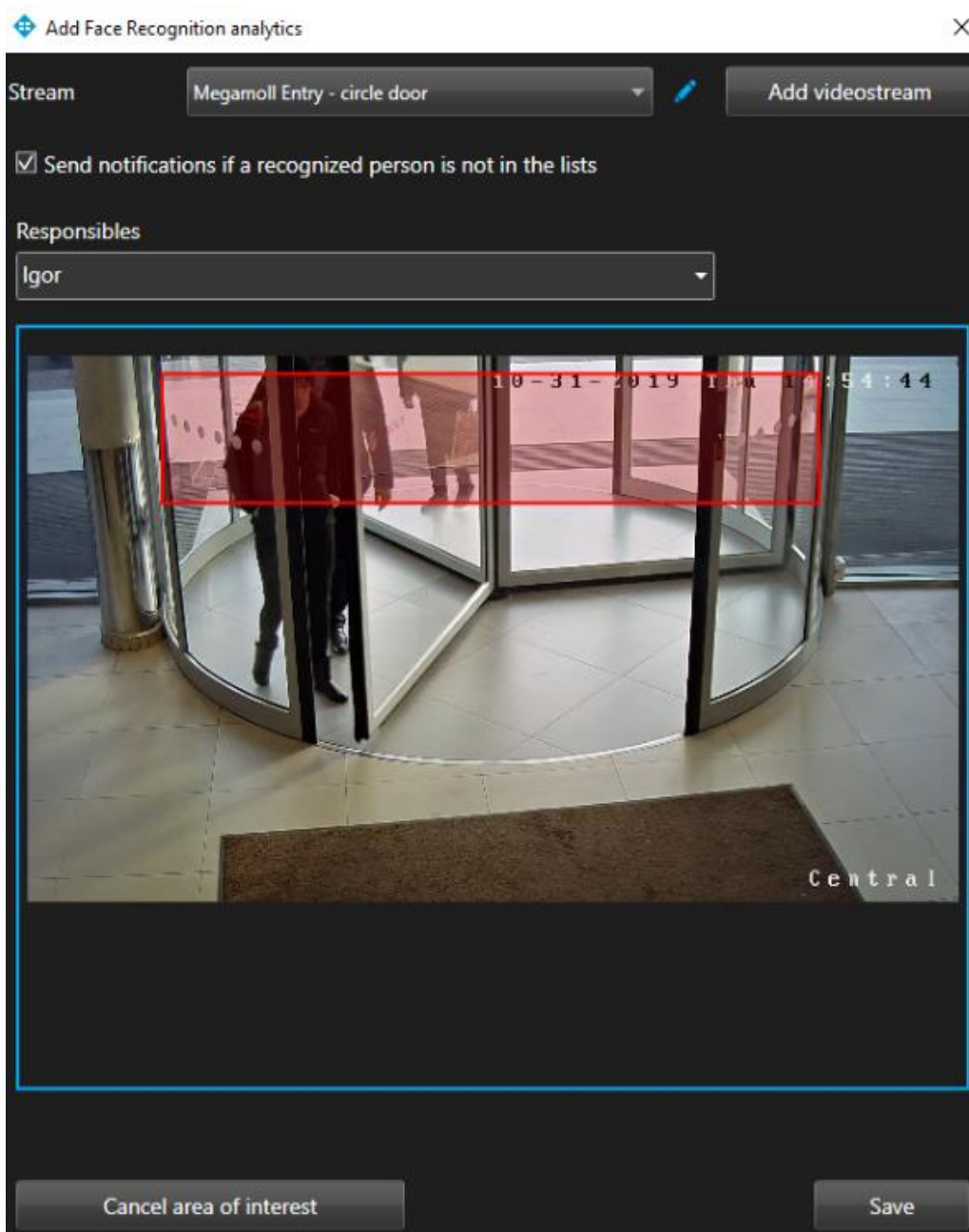
Face recognition analytic

Camera Status All Search Reset

To find the analytics you need, enter the name or status of the analytics.
To start the search, click the **Search** button.

4.2 Adding Analytics

To add new analytics of faces, click Add analytics in the upper right corner of the screen.
In the window that opens, fill in the fields:




1) Stream

Click on the field and select a camera name from the drop-down list. This video stream will be used to create analytics.

2) Responsibles

To send notifications about found people to external resources (Telegram, Email, etc.), check the box. After that, a field will appear where you need to select the person responsible (the person to whom the notifications will come) from the drop-down list.



To edit the video stream, click  to the right of the name of the videostream.

To create a new video stream, click Add videostream.

Name: TEST 1423

Login:

Password:

Camera:

Camera address: Запорожский район, Запорожская область, Украина

Coordinates: 47,8921246618363, 34,9805523486233

Camera direction: [Slider]

Map: Карта, Спутник, H08, Каширское шоссе, Google, Дани карт ©2019 Google, Умови використання

Apply

In the window that opens, fill in the following fields:

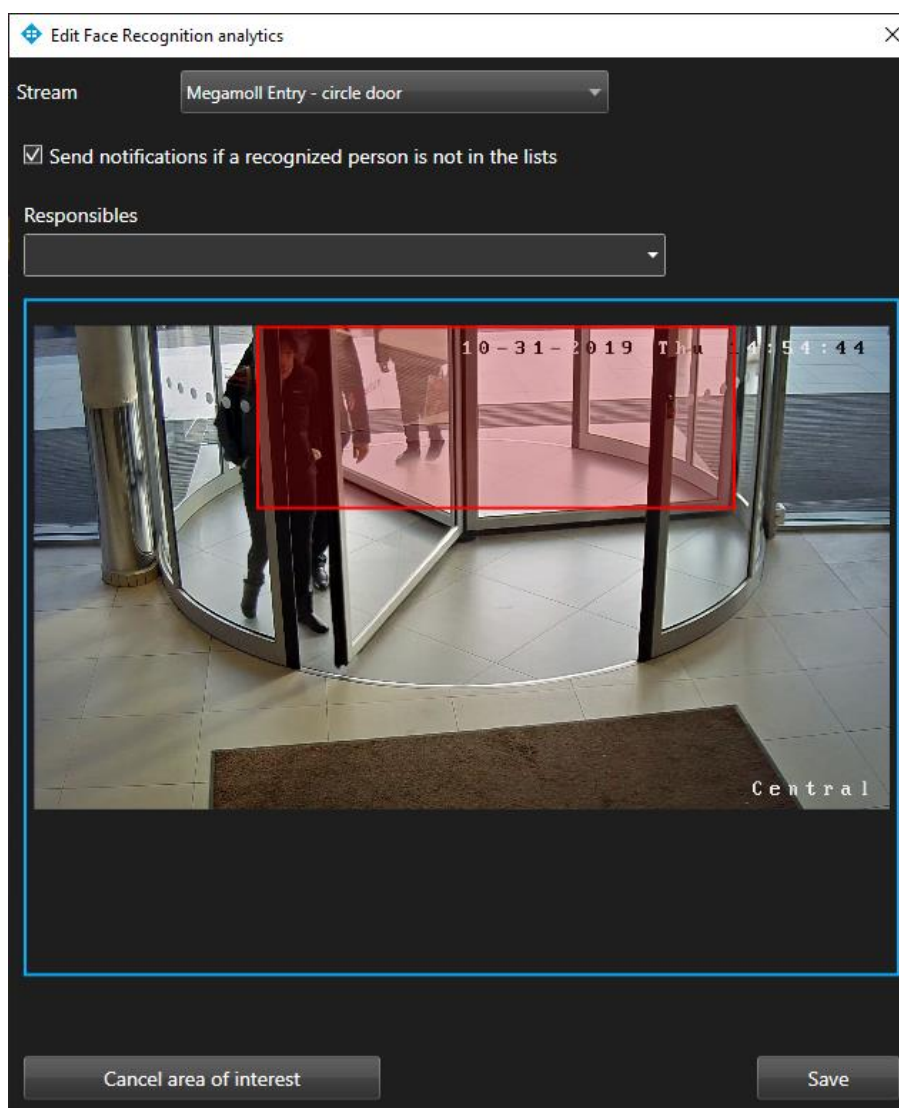
- Name** - enter the name of the video stream. This field will be displayed in all components of the program that use video streams.
 - Login** - enter the name of the current user in the field.
 - Password** - enter password.
 - Camera** - select a camera from the drop-down list.
 - Camera address** - enter the address in the field, or select on the map below the location of the camera. The system will automatically determine the location coordinates.
 - Camera direction** - To change the direction of the camera, move the slider. Indication of camera rotation helps in determining the direction of person.
- To save the changes, click **Apply**.

Adding an area of interest:

1. Add a camera to the **Video Stream** field.
2. A video from the added camera will appear below the **Video Stream** field.
3. Add a zone of interest.
Click in the area where the video from the camera is located and set the area of interest.
Face recognition will take place in the exposed area.
To cancel the area of interest, click **Cancel area of interest**.
To create the analytic, click **Save**.

4.3 Editing, changing status, viewing and deleting a video stream

To edit the video stream, click the **Edit** button on the right side of the recording.
In the window that opens, fill in the fields:



Edit Face Recognition analytics

Stream: Megamoll Entry - circle door

☒ Send notifications if a recognized person is not in the lists

Responsibles

10-31-2019 Thu 14:54:44

Central

Cancel area of interest Save

1) Stream

Click on the field and select a camera name from the drop-down list. The video stream will be used to create analytics.

2) Responsibles

To send notifications about found people to external resources (Telegram, Email, etc.), check the box. After that, a field will appear where you need to select the person responsible (the person to whom the notifications will come) from the drop-down list.

Adding an area of interest:

1. Add a camera to the **Video Stream field**.

2. A video from the added camera will appear below the **Video Stream field**.

3. Add a zone of interest.

Click in the area where the video from the camera is located and set the area of interest.

Face recognition will take place in the exposed area.

To cancel the area of interest, click **Cancel area of interest**.

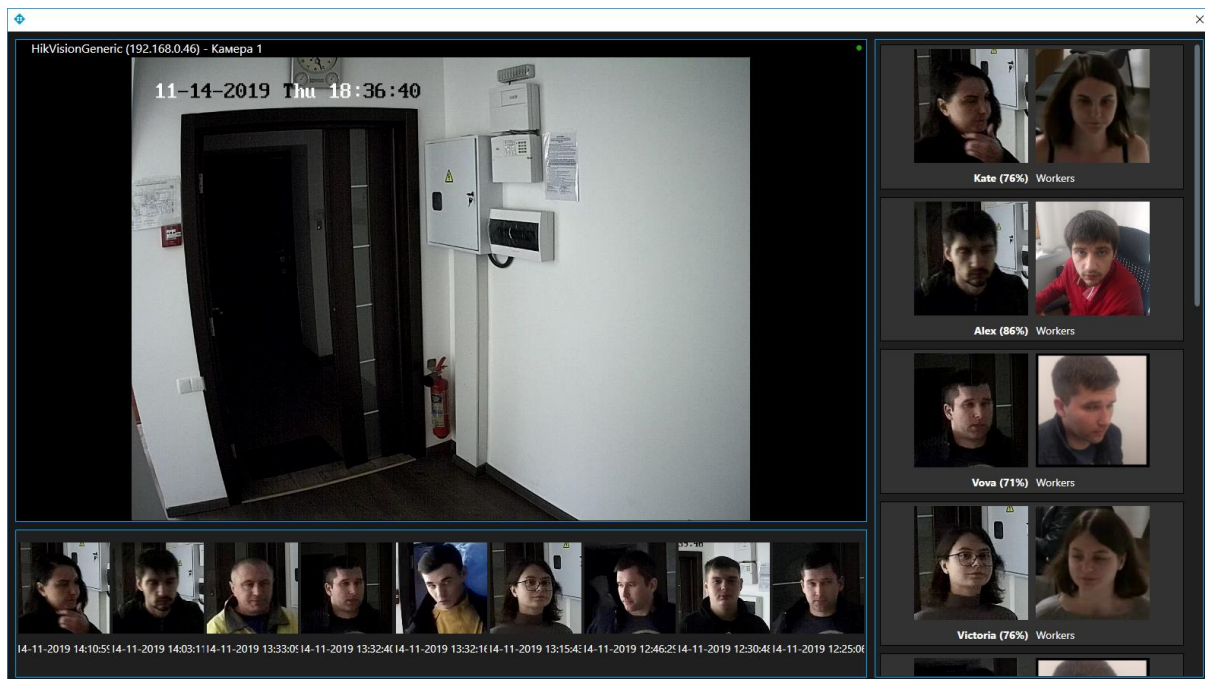
To create the analytic, click **Save**.

To start / stop the video stream, press the **Start / Stop** button.

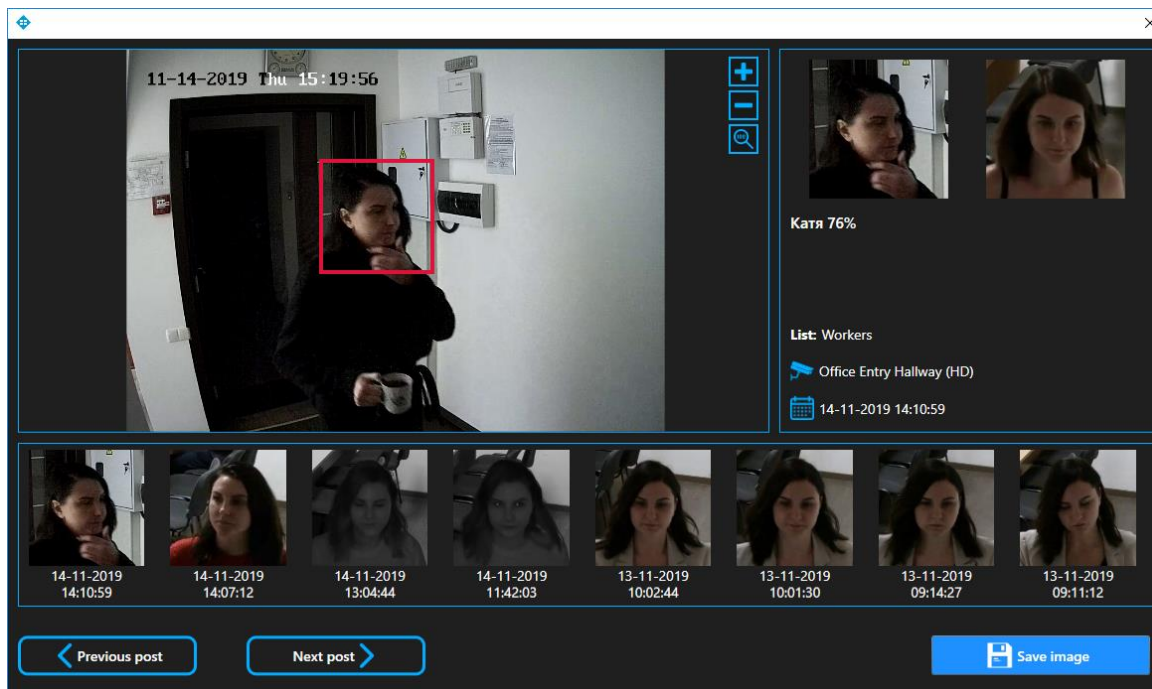
To delete a video stream, click



To view the video stream, click



In the analytics form, click on the image of the person to view the extended frame from the camera and information about the person.

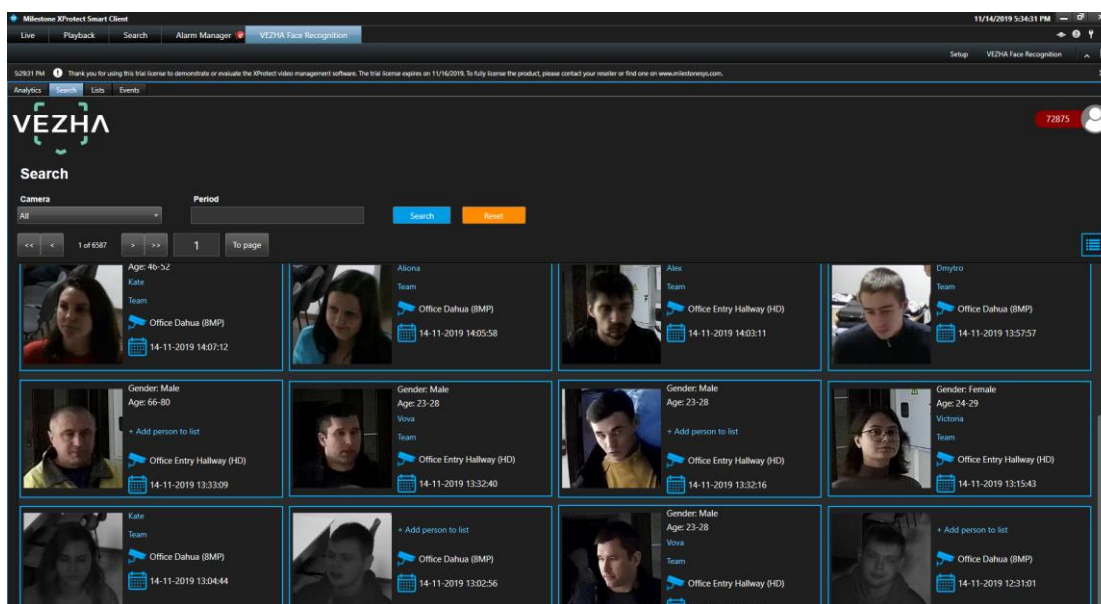


Click “**Save Image**” to download the image to your computer.

Click the “**Previous Record**” button to view the last captured frame from the camera.

Click the “**Next Record**” button to view the next captured frame from the camera

5. Search



In order to find the right person, fill in the fields:

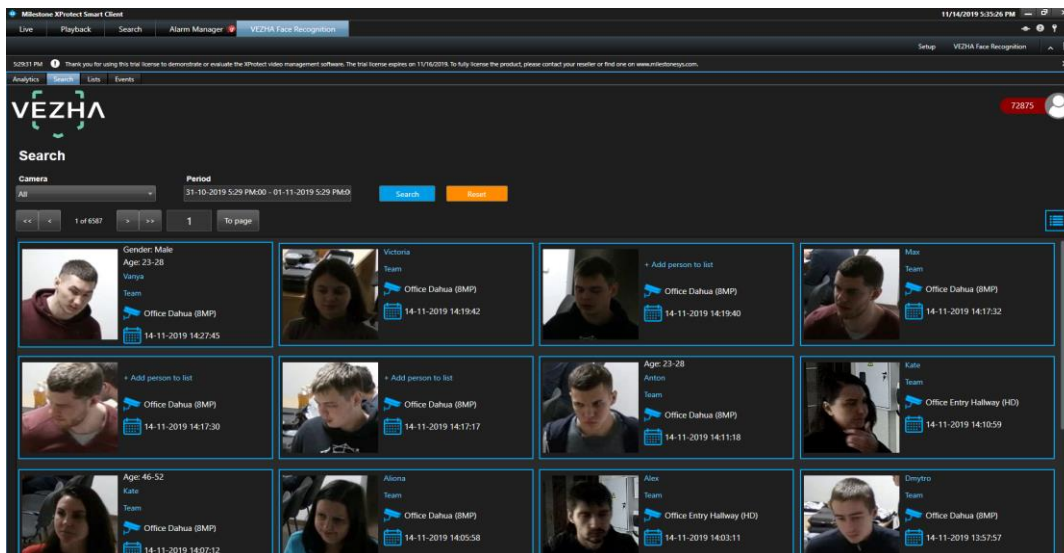
1) Period

Click on the field and select a period.

2) Camera

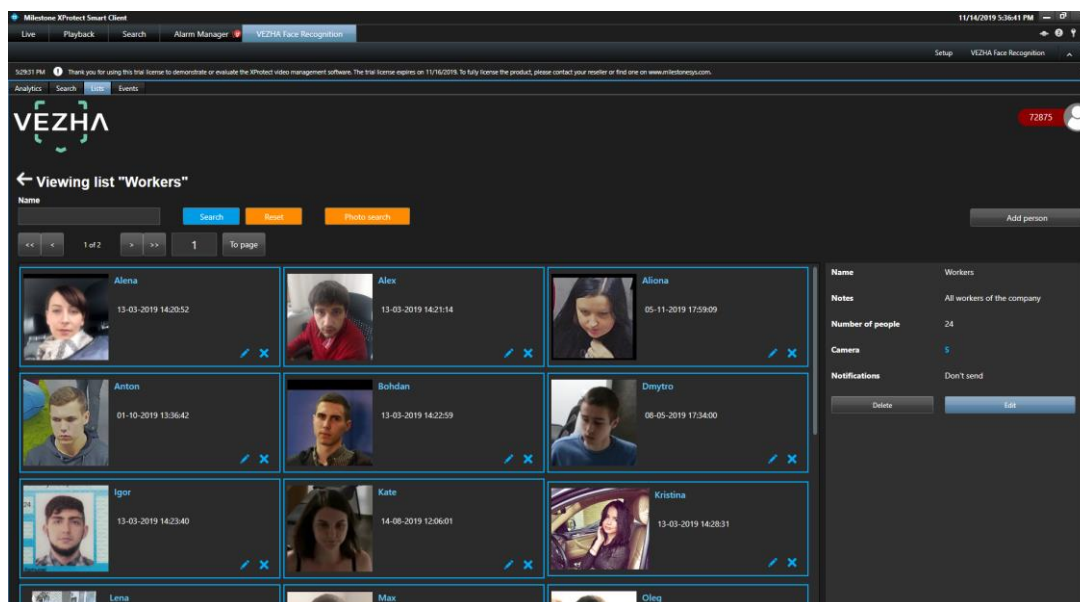
Click on the field and select a camera.

Click **Search** to display the search results. Click **Reset** to clear the input fields.
Search results are shown in the table below:

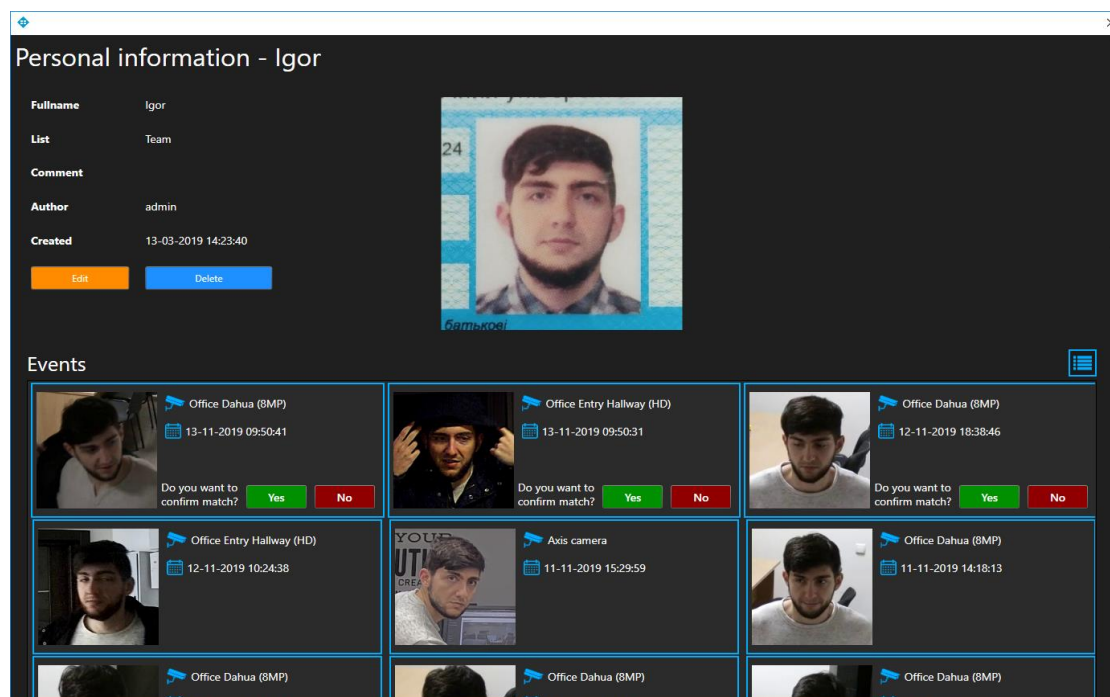



5.1 Work with face recognition records


The list of face recognition records consists of fields: face, gender, age, lists, name, video, camera, date.
By clicking on the list names, a list view window will appear.

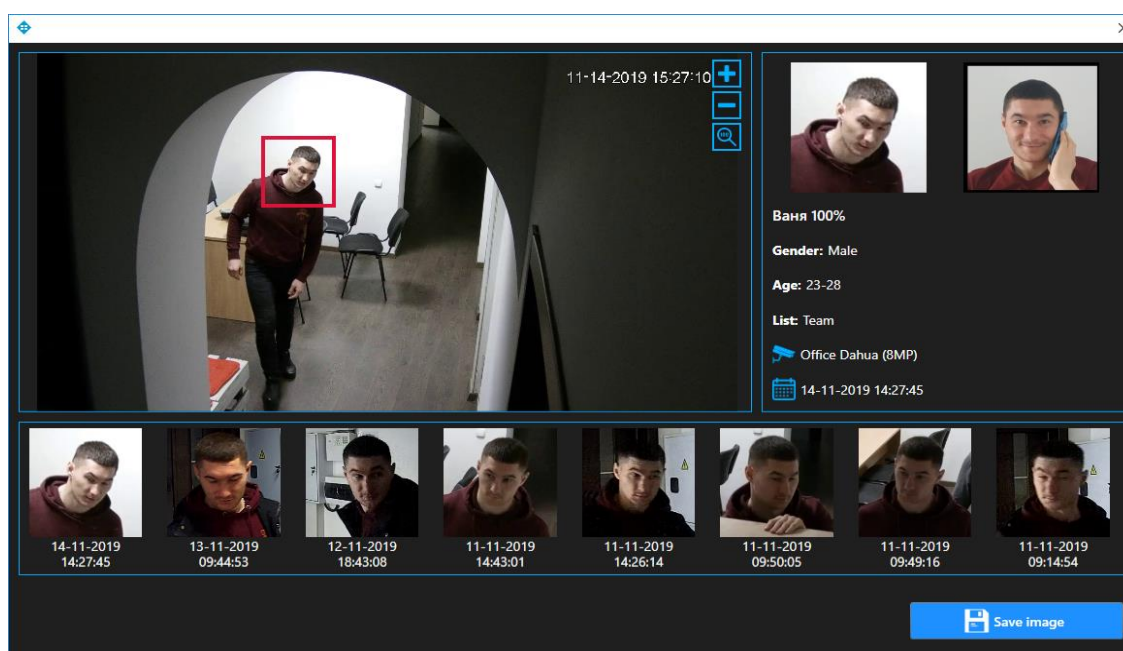


When you click on the name of the person, the window “Personal data of the person” opens.




Clicking on button  you can view the video stream in real time.

Click on the button  on the image to the right of the entry to view detailed information about the person in a new window.





To change the format of entries, click on .

6. Lists

This section is intended to create a database of persons and to divide them into categories.

The screenshot shows the 'List of persons' section in the VEZHA XProtect Smart Client. The interface includes a search bar with 'Search' and 'Reset' buttons, and a 'To page' dropdown. The table below lists various person categories and their associated data.

Name	Number of people	Camera	Notifications	Responsibles	Date
Buh	4	1	<input checked="" type="checkbox"/>		07-10-2019 11:13:21
IT	11	1	<input checked="" type="checkbox"/>		03-10-2019 14:29:24
Team	24	5	<input checked="" type="checkbox"/>	Riva	12-06-2019 11:36:55
new1	0	1	<input checked="" type="checkbox"/>	Riva	01-11-2019 13:54:25
sale	8	1	<input checked="" type="checkbox"/>		03-10-2019 16:29:04
sdrgfs	0	All	<input checked="" type="checkbox"/>		13-11-2019 11:21:21
test	5	1	<input checked="" type="checkbox"/>		09-09-2019 17:35:31
test list 2	2	1	<input checked="" type="checkbox"/>		04-11-2019 11:28:56
test1	1	All	<input checked="" type="checkbox"/>		12-11-2019 10:48:27
tyty	0	All	<input checked="" type="checkbox"/>		14-11-2019 15:25:32

6.1 Search Lists

At the top of the screen is a search box.

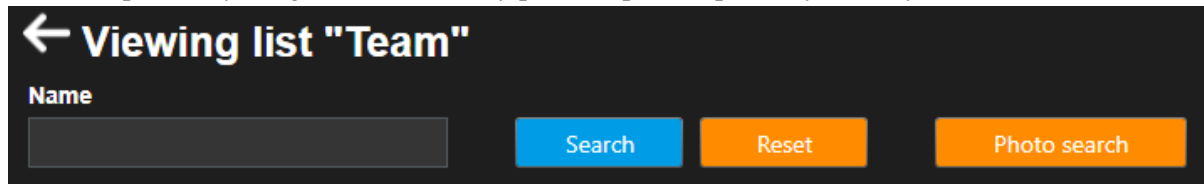
The screenshot shows the 'List of persons' search interface. It includes a search bar with 'Search' and 'Reset' buttons, and a 'To page' dropdown.

In order to find the desired list of the Lists section, enter its name in the search field.

Click **Search** to display the results.

Click **Reset** to clear the input fields.

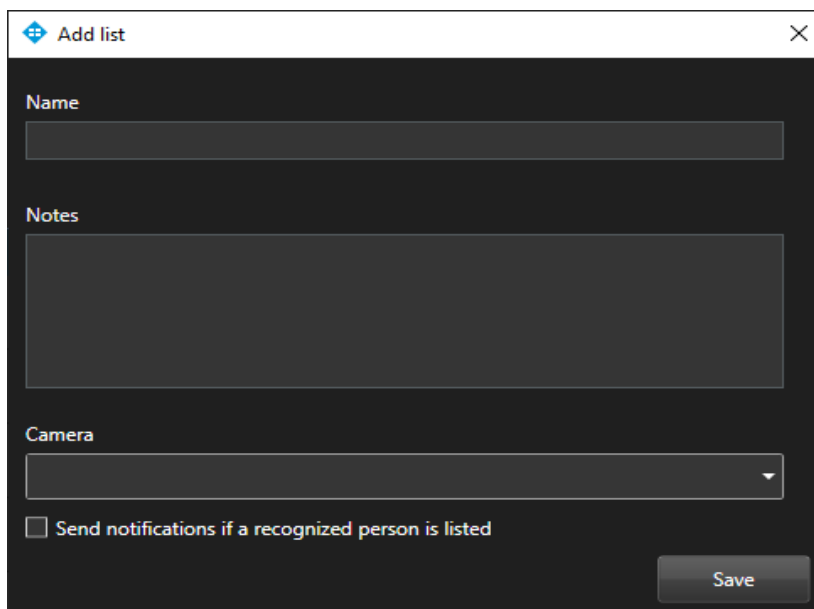
To find a person by image, click Search by photo. Upload a photo by which you want to search.



6.2 Adding and Editing Lists

To add a new entry, click **Add List** in the upper right corner of the screen.

In the window that opens, fill in the fields:



1) Name

Enter a list name in the box. This field will be displayed in all components of the program that use this list.

2) Notes

This field is intended to describe the purpose of the created record. Enter a description for the list in the Note box.

3) Camera

Click on the field and select cameras from the drop-down list. The selected cameras will search for people's faces.

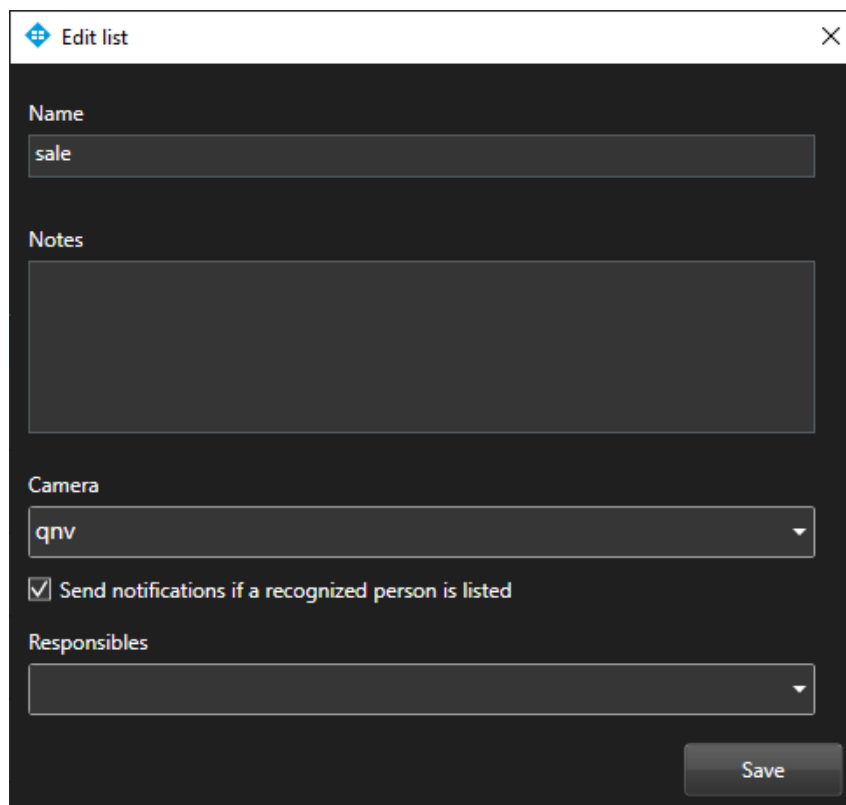
4) Responsible

To send notifications of found persons to external resources (Telegram, Email, etc.), check the box. After that, a field will appear where you need to select the person responsible (the person to whom the notifications will come) from the drop-down list.

In order for the record to be created, click **Save**.

To edit the record, click to the right of the entry name.

In the window that opens, fill in the fields:

**1)Name**

Enter a name to the field. This field will be displayed in all components of the program that use this field.

2) Notes

This field is intended to describe the purpose of the created record. Enter a description for the entry in the Notes box.

3)Camera

Click on the field and select cameras from the drop-down list. The selected cameras will search for the vehicle with the specified number.

4) Responsible

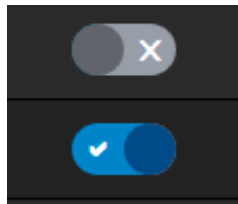
To send notifications of found persons to external resources (Telegram, Email, etc.), check the box. After that, a field will appear where you need to select the person responsible (the person to whom the notifications will come) from the drop-down list.

In order for the changes to be accepted, click Save.



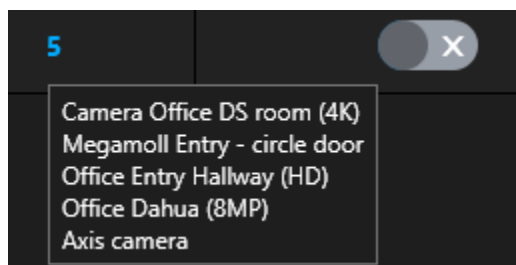
To delete a record, click on the right side of the screen.

To stop or activate a notification, put the status slider in the appropriate position:



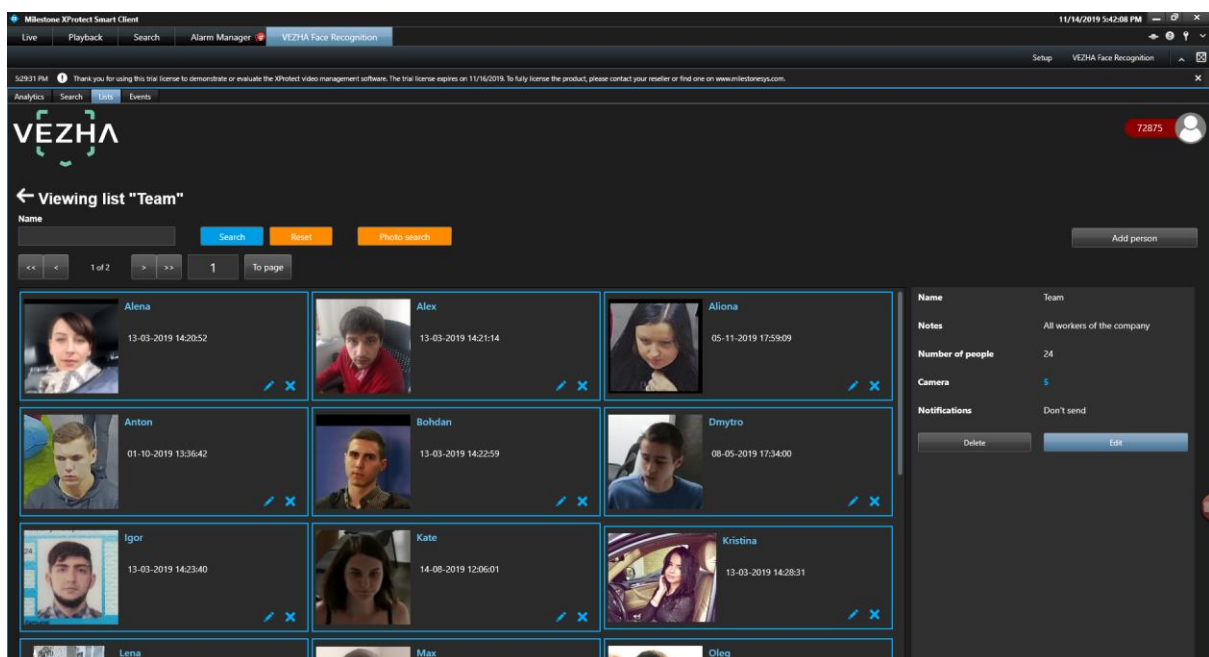
6.3 Viewing Lists

To view information about the cameras that are being monitored in the list, hover over the number of cameras in the list entry.

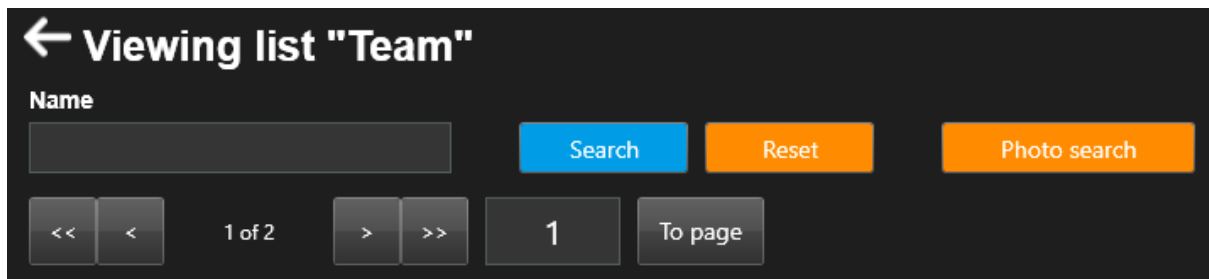


To view information about the list, click on its name. When clicked, you will go to the list view tab. In

order to go back click  to the left of the tab name.



6.3.1 Adding and editing a person information

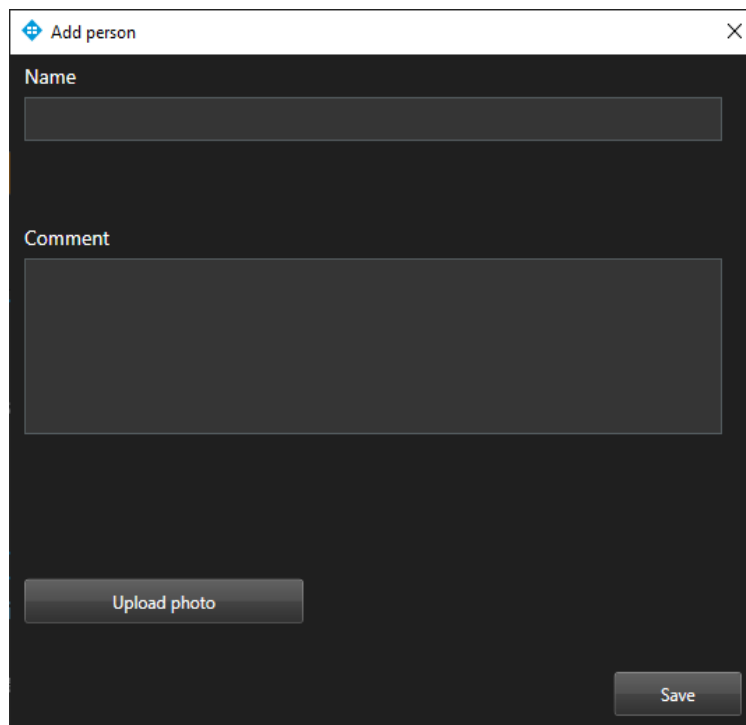


In order to find a person, enter her name in the search field.

Click **Search** to display the results. Click **Reset** to clear the input fields.

To find a person by image, click **Search** by photo. **Upload a photo** by which you want to search.

To add a new person to the list, click **Add Person** in the upper right corner of the screen.
In the window that opens, fill in the fields:



1) Name

Enter the name of the person you want to find in the field. The search will take place on the cameras that were selected when creating the list.

2) Comment

This field is intended to describe the purpose of the created record. Enter a description for the person in the comment field.

3) Upload a photo

Upload a photo of the person. This photo will be used to recognize the person.
In order for the record to be created, click **Save**.

Personal information - Max

Fullname

Max

List

Team

Comment

Author


admin

Created

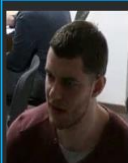
13-03-2019 14:28:59

Edit

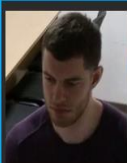
Delete



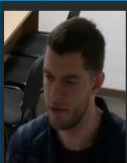
Events



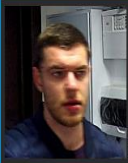
Office Dahua (8MP)
14-11-2019 14:17:32




Office Dahua (8MP)
13-11-2019 11:58:36




Office Dahua (8MP)
13-11-2019 10:26:40
Do you want to confirm match? Yes No




Office Entry Hallway (HD)
13-11-2019 10:26:29
Do you want to confirm match? Yes No



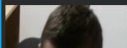
Office Entry Hallway (HD)
12-11-2019 10:50:54



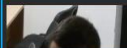
Office Entry Hallway (HD)
12-11-2019 09:42:23



Office Dahua (8MP)
14-11-2019 14:17:32



Office Dahua (8MP)
14-11-2019 14:17:32



Office Dahua (8MP)
14-11-2019 14:17:32

To edit a record, click  to the right of the post title.

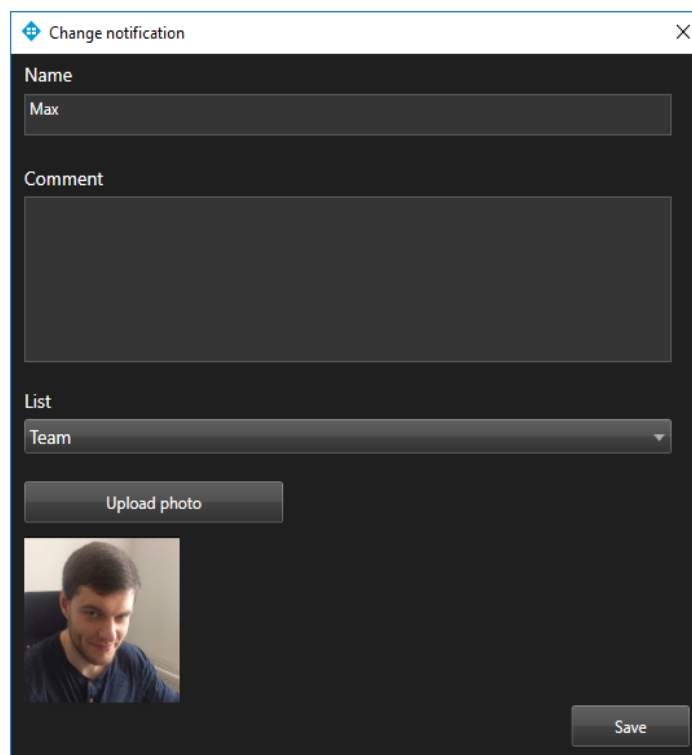


Max

13-03-2019 14:28:59

In the window that opens, fill in the fields:

**1)Name**

Enter the name of the person you want to find in the field. The search will take place on the cameras that were selected when creating the list.

2)Comment

Enter the text of the notification that will come when a person is detected in the frame.

3)Upload a photo

Upload a photo of the person. This photo will be used to recognize the person.

In order for the changes to be accepted, click **Save**.

To delete the list, click **Delete**.



To delete a record, click on the right side of the screen.



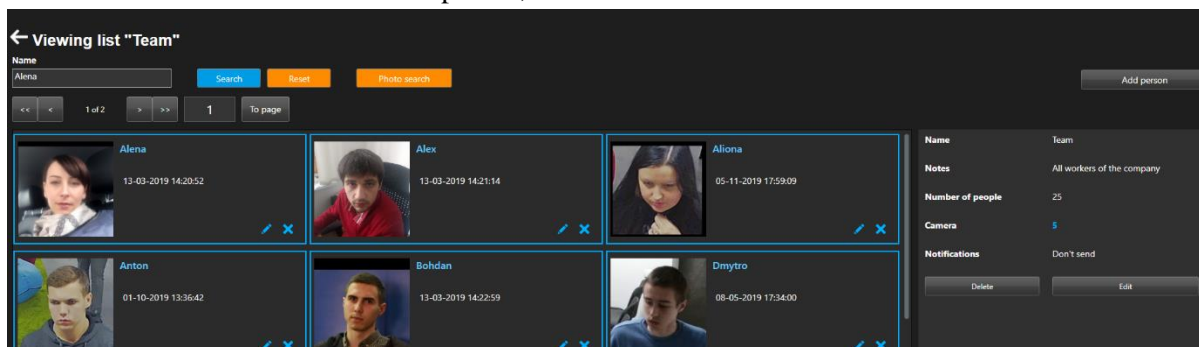
To go to the Lists page, click

To delete the list on the list view page, click Delete.

To edit the list on the list view page, click Edit.

6.3.2 View Person Records

In order to view information about a person, click on her name in the list name field.



Click **Edit** to change your personal data.

In the window that opens, you can change the following fields:

The screenshot shows a 'Change notification' dialog box. It has a title bar with a close button. The form contains the following fields: 'Name' (text input with 'Bohdan'), 'Comment' (text area), 'List' (dropdown menu with 'Team' selected), and an 'Upload photo' button. Below the button is a photo of a man. At the bottom right is a 'Save' button.

1)Name

Enter the name of the person you want to find in the field. The search will take place on the cameras that were selected when creating the list.

2)Comment

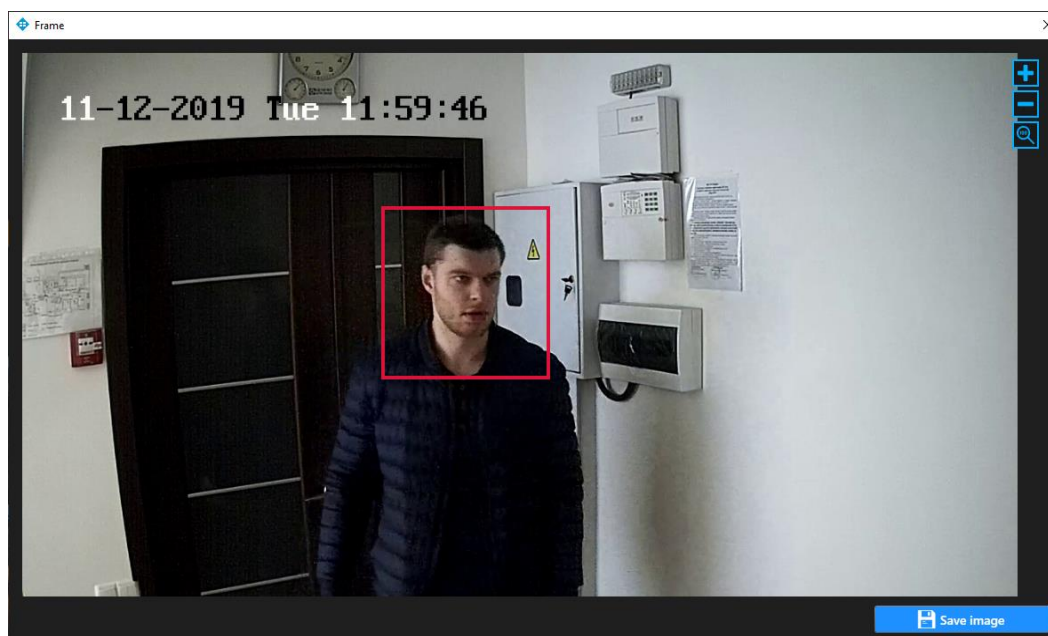
Enter the text of the notification that will come when a person is found.

3)Upload a photo

Upload a photo of the person. This photo will be used to recognize the person.
In order for the changes to be accepted, click Save.



To view a frame from a recording, click on the Frame on the right side of the photo.



Click **Save Image** to download the person image.



To change the format of entries in the Personal Data window, click

To accept the notification, click Accept on the right side of the entry.

7.Events

This section is intended for viewing the history of notifications about persons.

7.1 Notifications Search

At the top of the screen is a search field

Events			
Fullname	Period	List	Camera
<input type="text"/>	<input type="text"/>	All	Axis camera
			<input type="button" value="Search"/> <input type="button" value="Reset"/>

In order to find the necessary notifications, you can use the following fields:

1)Name

Enter the name of the person in the field.

2)Period

Click on the field and select the desired time period.

3)List

Click on the field and select the desired list.

4)Camera

Click on the field and select the desired camera.

Click **Search** to display the search results. Click **Reset** to clear the input fields.

7.2 Working with face recognition notifications



To change the format of the entries, click

The list of notification entries consists of the fields: name, object, message, list, camera, date, video, frame, received.

Events

Fullname

Period

List

Camera

Team

All

Search

Reset

<<

<







1 of 54

>

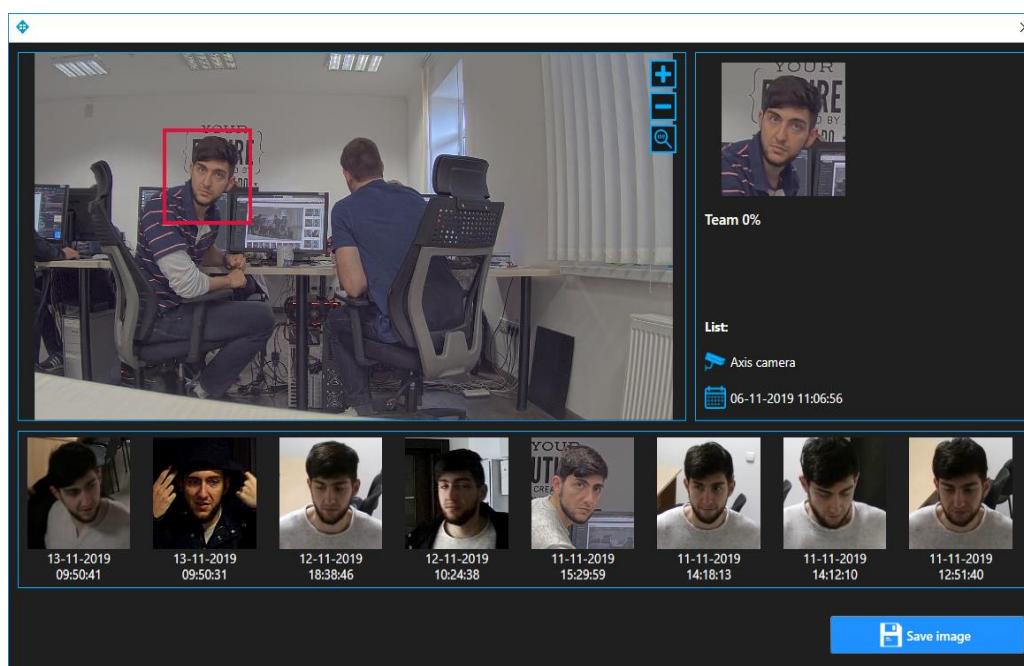
>>

1

To page

Name	Object	Comment	List	Camera	Date	Video	Frame	Accepted by
Sika 83%			Team	 Office Dahua (BMP)	13-11-2019 09:52:38		<div>Frame</div>	<div>Do you want to confirm match?</div> <div>YesNo</div>
Igor 87%			Team	 Office Dahua (BMP)	13-11-2019 09:50:41		<div>Frame</div>	<div>Do you want to confirm match?</div> <div>YesNo</div>

When you click Frame, a window opens with a picture of the person.



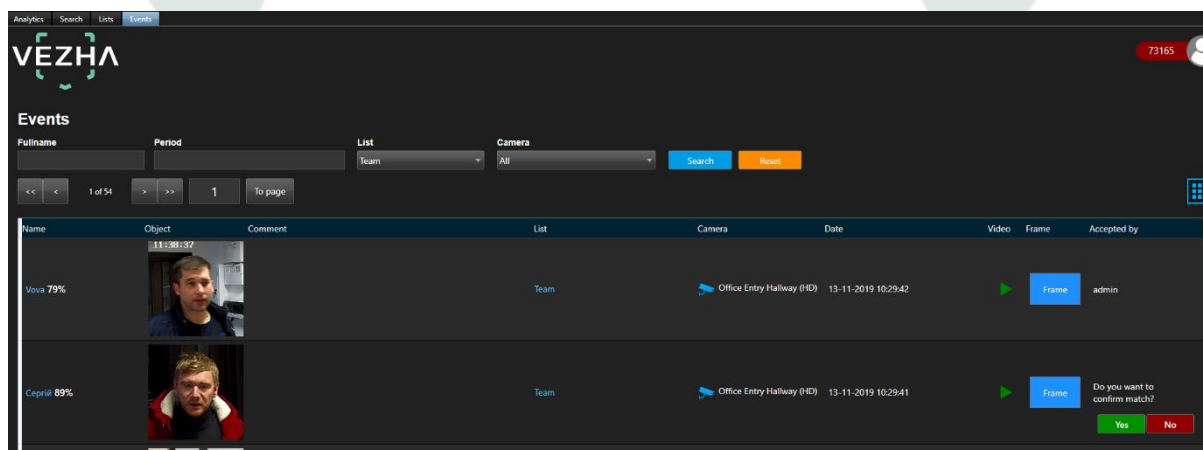


Click on the icon to view the video with the person found.



Click the play icon to start the video.

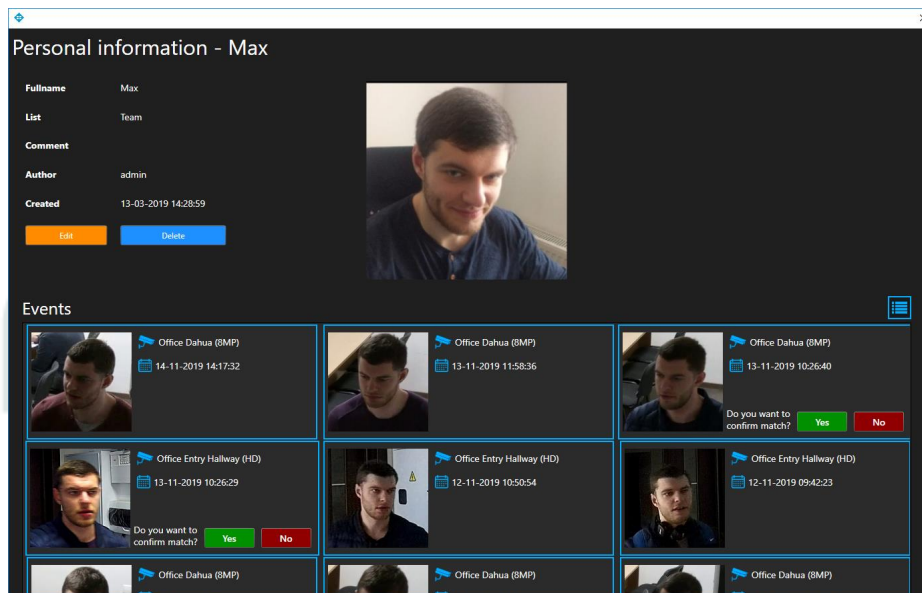
By clicking on the list name, a window with list entries will open.



To accept the notification, click Accept or Yes, No - depending on whether the person is on the list or not.

7.2.1 View Person Records

In order to view information about a person, click on her name in the list entry.



Click on Edit to change personal data.

In the window that opens, you can change the following fields:

The screenshot shows a "Change notification" window. It has a "Name" field with "Max" entered, a "Comment" text area, a "List" dropdown menu set to "Team", and an "Upload photo" button. Below the button is a photo of the person. A "Save" button is at the bottom right.

1) Name

Enter the name of the person you want to find in the field. The search will take place on the cameras that were selected when creating the list.

2)Comment

Enter the text of the notification that will come when a person is found.

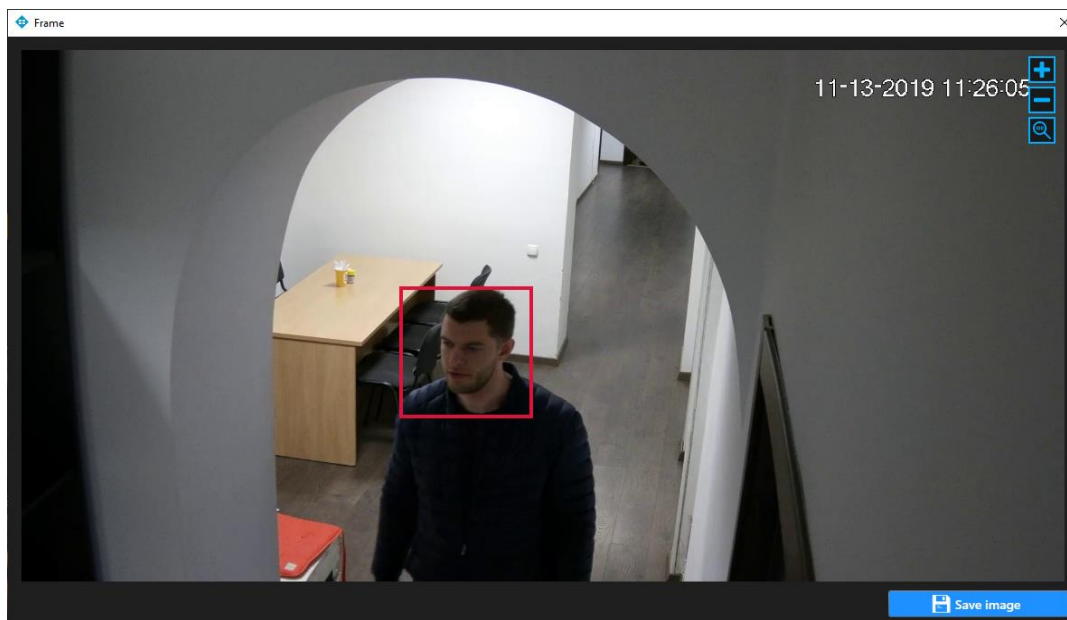
3)Upload a photo

Upload a photo of the person. This photo will be used to recognize the person.

In order for the changes to be accepted, click Save.

To view a frame from a recording, click on the Frame on the right side of the recording or on

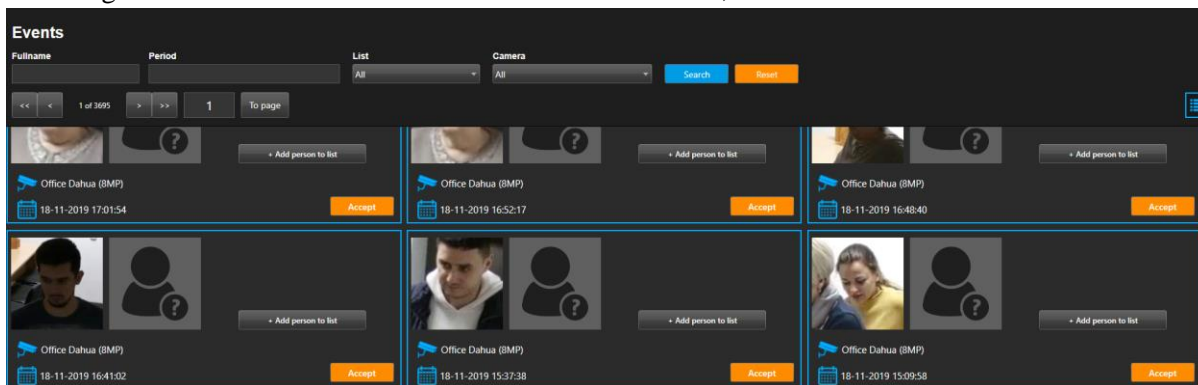
the icon  in the photo.



Click **Save Image** to download the person image.



To change the format of entries in the Personal Data window, click



To accept the notification, click **Accept** on the right side of the entry.