Android Mobile Client. User Guide

Version 2.8.1

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General information about the Android mobile client

The client app for mobile devices running Android (version 4.1.1 and later) is available for free on the Google Play.

The client for iOS devices allows connecting to Axxon Next servers (version 3.0 and later) and Intellect servers (version 4.9.0 and later).

Client features are described in the table.

Client features	Working with Intellect servers	Working with Axxon Next servers
Live Video and Audio Monitoring	+	+*
Playback of recorded video and audio	+	+*
Face search in archive	-	+**
Playback of Android sound on speakers	+	-
Getting titles in the live and archive modes	+***	-
Zoom in (with digital zoom)	+	+
Managing cameras, relays and sensors	+	-
Control of PTZ cameras (including activation of presets)	+	+
View maps	+	-
Working with geomaps	+	+
View the list of events	+	+
Receiving push notifications about events in the system	-	+****
Run macros	+	+

* Audio from Axxon Next Server is available in the rtsp over ffmpeg mode for cameras with h.264 stream only (see Configuring video).

** Face detection is to be configured in order to search faces on the Axxon Next Server (see Face Detection Tools).

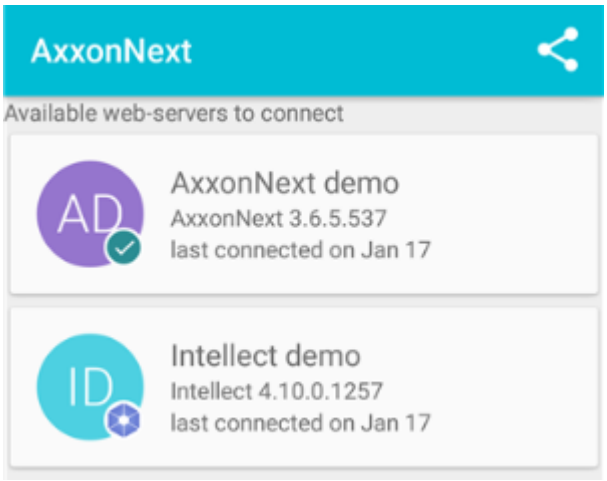
*** Getting titles is available only for the mjpeg playback format.

**** Getting push notifications for the Axxon Next Server is available since version 4.0.2.

Connecting to the server and working with servers in the Android client

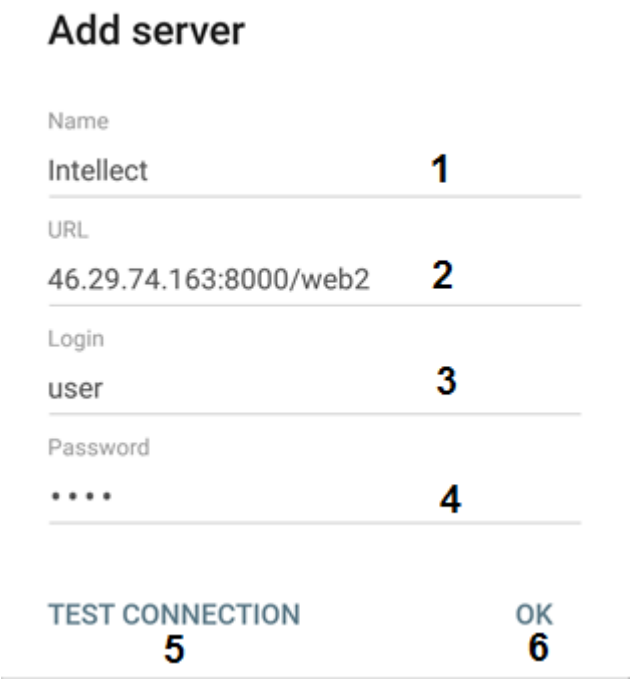
Configure the Web server in the appropriate software package before connecting to the Server (see Configuring the web server, Configuring the server for the clients connection via the Web-server 2.0 module).

When you start the software for the first time you can connect to the *Intellect* and *Axxon Next* demo servers to see your Client's capabilities.



Add a new server as follows:

1. Click the + button.
2. Set Server connection parameters:
   a. Enter the server name (**1**).



   b. Enter the URL server address in the format http://<IP address of Axxon Next server>:<Port>/<Prefix> (**2**).

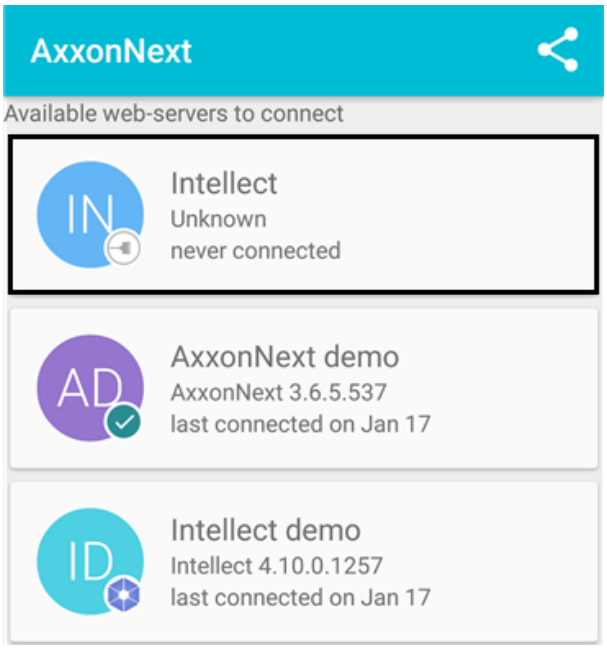
> **Note**
> Example URLs with standard Server settings for Axxon Next and Intellect:
>
> ***Axxon Next***: 192.168.0.10:8000/asip-api
>
> ***Axxon Intellect***: 192.168.0.10:8085/web2

   c. Enter the user name and password for connecting (**3**-**4**).
3. To test the connection, tap the **Test connection** button (**5**). If the server is running, the connection settings are correct, and the device has a stable Internet connection, the message **Connection successful** appears. Otherwise, a message will remind you to verify these conditions.

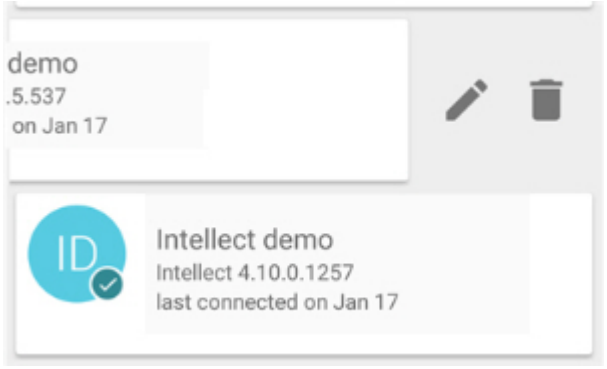
> **Note**
> To perform a basic check of the web server connection and operability, in a browser on your mobile device, go to the Server's URL address (see paragraph 2).

4. To save the server, tap the **OK** button (**6**).

The server is added to the list.

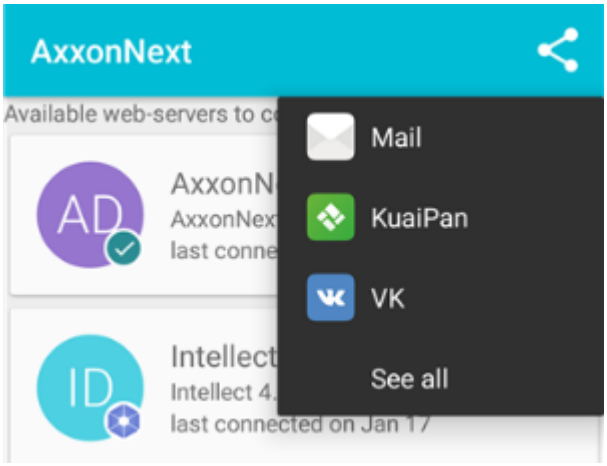


Swipe and then use the button to remove the Server or click the button to go to the Server settings.



Note
To cancel removing, click the **Cancel** button.

You can share the created server settings. For this click the button and select a handy way.

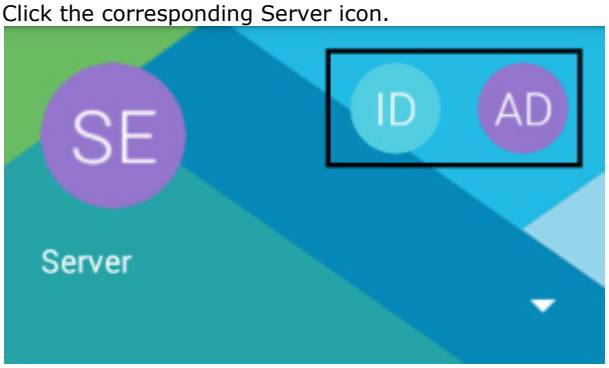


The server that is now connected is marked .

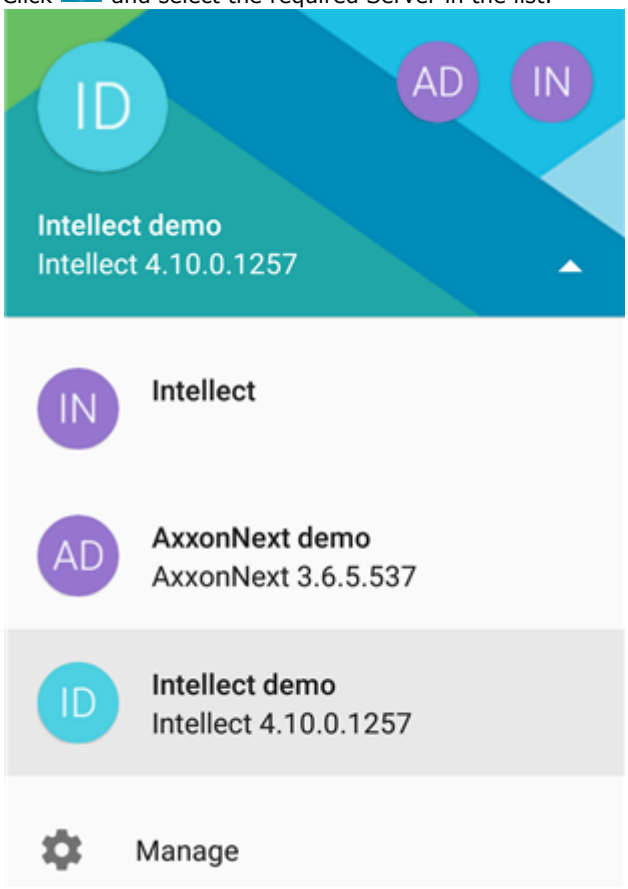
To connect to another server, call the Client context menu by clicking the button in the top left corner.

Select the required server as follows:

1. Click the corresponding Server icon.



2. Click and select the required Server in the list.

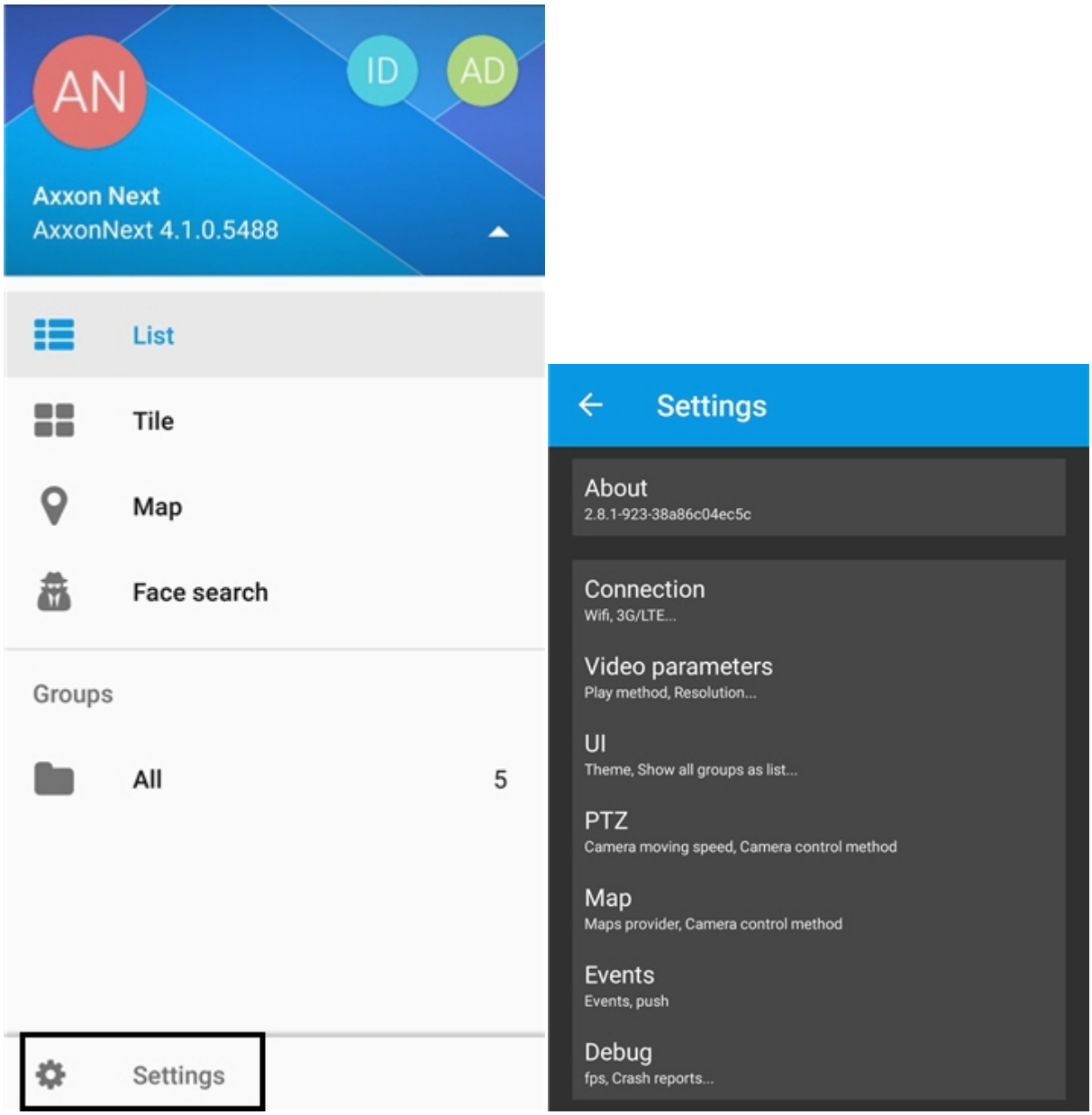


To restore to the Server settings, click **Manage**.

Mobile Android Client settings

To go to the setup menu:

1. Call the main menu by clicking the button in the top left corner.
2. Select the **Settings** item.



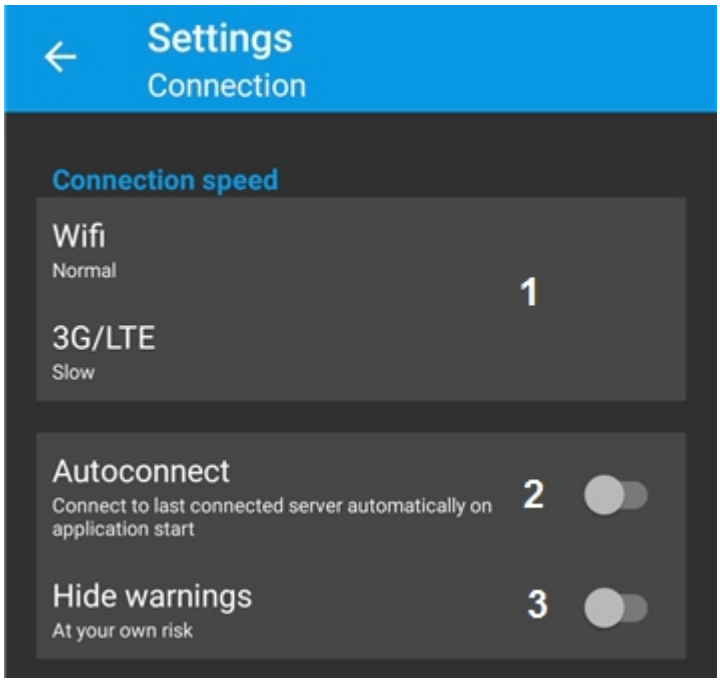
To go to the parameters select the corresponding group of settings.

To view info on the mobile Client click **About** in the **Settings** menu.

Connection configuration

To configure connection:

1. Select max.fps when connecting to Internet via WiFi and 3G: **Maximum**: 9 fps, **Medium**: 6 fps, **Slow**: 3 fps (**1**).



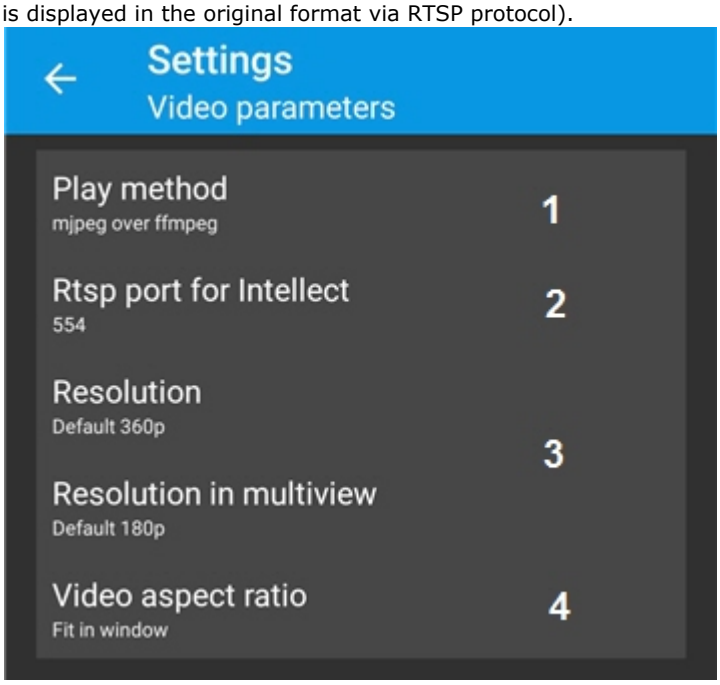
> **Note.**
> These settings are valid only when connection to the *Intellect* software package is established.

2. Enable the **Autoconnect** feature if auto connection to the latest Server is required at the app start (**2**).
3. Enable the **Hide warnings** feature if notifications about connection to the outdated Server are to be disabled (**3**).

Configuring video

Configure video parameters as follows:

1. Select playback format (**1**): mjpeg; mjpeg via ffmpeg (less resource-intensive than mjpeg); rtsp via ffmpeg (video is displayed in the original format via RTSP protocol).



2. Specify RTSP port set in *Intellect* settings (**2**, see Configuring rtsp Server module).
3. Select the video resolution while viewing video from one camera (the **Resolution** setting) and while displaying video from several cameras (**esolutionin multiview** setting, **3**):
   a. **Auto** - when your mobile device has a slow Internet connection, the degradation of image quality algorithm is applied for the image resolution.
   b. **SQCIF** - display video with constant resolution 126 × 96 (for multiview only).
   c. **QCIF** - display video with constant resolution 176 × 144.
   d. **CIF** - display video with constant resolution 352 × 288 (for multiview only).
   e. **4CIF** - display video with constant resolution 704 × 576 (for multiview only).
   f. **Max** - display video with original resolution.

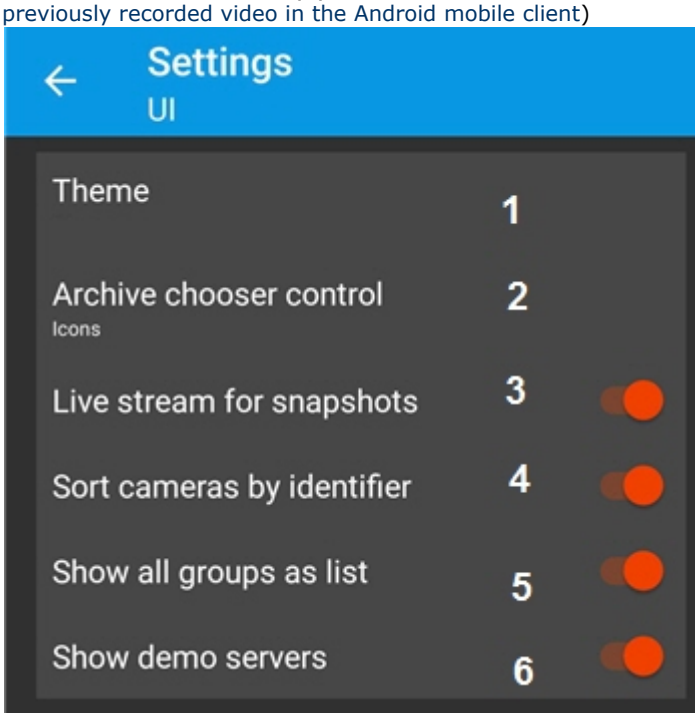
Note.
These restrictions are recommended when your mobile device has a slow Internet connection.

4. Select the video display mode in the tile (**4**, see Displaying and searching for cameras in Android Mobile Client).

Configuring the Android mobile client interface

The Android mobile client interface is configured by setting the following parameters:

1. **Theme** (**1**): select the color skin of the Client interface.
2. **Archive chooser control** (**2**): select how to switch between video surveillance modes (buttons or list, see Viewing previously recorded video in the Android mobile client)

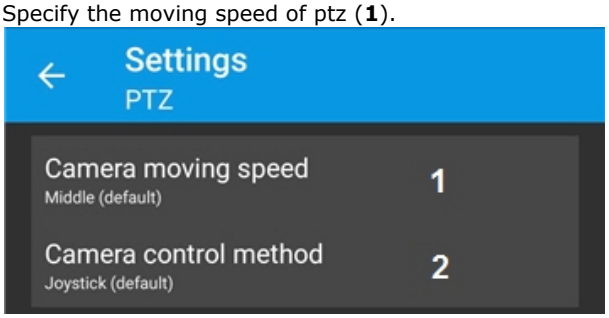


3. **Live stream for shapshots** (**3**): when the parameter is enabled live streams are displayed in the quad, when the parameter is disabled – frames at some update rate.
4. **Sort cameras by identifier** (**4**): when the parameter is enabled cameras are sorted by their ID in quad, when the parameter is disabled – by their names.
5. By default the main group (region) including all cameras is displayed in the list of groups (regions). Disable the corresponding parameter in order not to display the group (region) in the list (**5**).
6. By default demo Servers that cannot be deleted are displayed in the list of Servers. To hide them use the corresponding parameter (**6**).

Configuring PTZ cameras control

Configure control over PTZ cameras as follows:

1. Specify the moving speed of ptz (**1**).

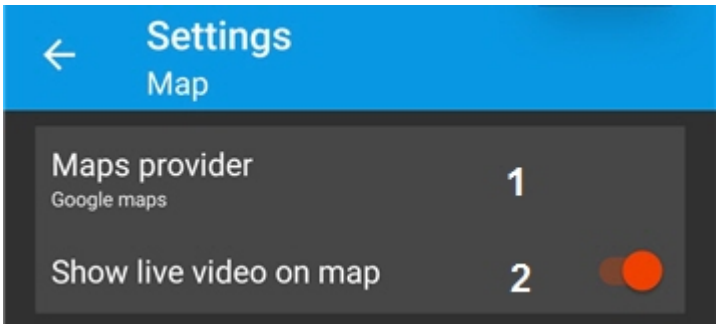


2. Select PTZ camera control mode (**2**, see Controlling PTZ cameras from the Android Mobile Client): step keys or a virtual joystick.

Configuring geomaps

Configure geomaps as follows:

1. Select geomap provider: Google or OpenStreetMap (**1**).

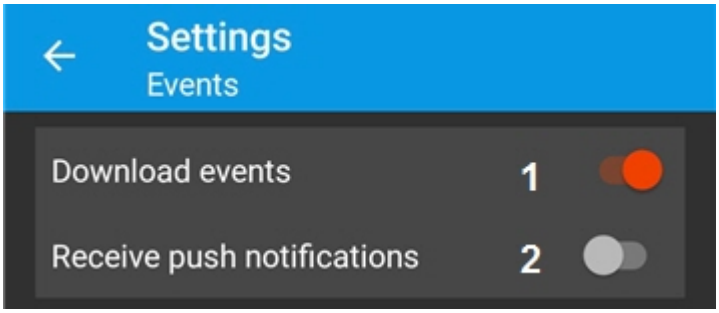


2. By default live video is displayed in the bottom right corner of the screen when selecting a camera. Disable the corresponding parameter in order not to display live video on the map (**2**).

Configuring getting event in Android Mobile Client

By default Android Mobile Client gets events from the Server.

Disable the corresponding parameter in order not to get events (**1**).



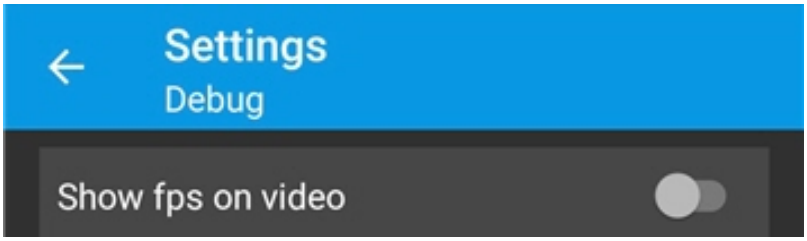
The corresponding parameter is to be activated in order to enable push notifications (**2**).

Attention!
To get push notifications on the *Axxon Next* Server connection to AxxonCloud is to be performed (see Configuring AxxonCloud).

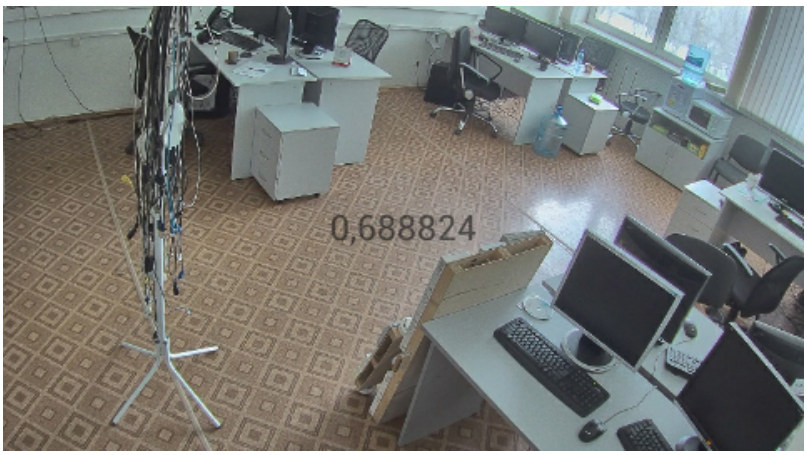
Showing fps on the video

One can show fps on the video in the Android mobile client.

For this enable the **Show fps on video** parameter.



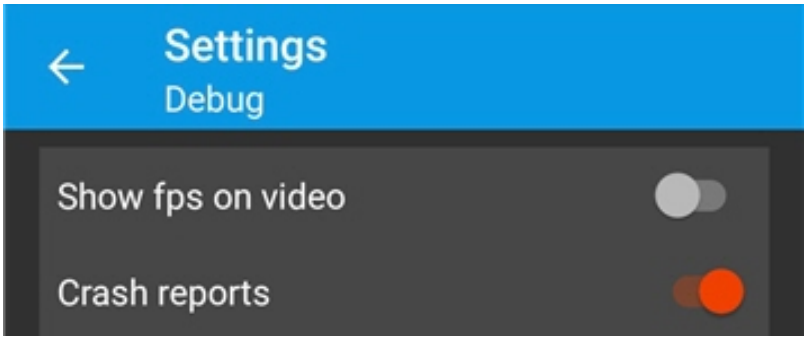
As a result fps is shown on the video.



Configuring crash reports

When the Android mobile client crashes a crash report is created. It is automatically sent to AxxonSoft for analysis.

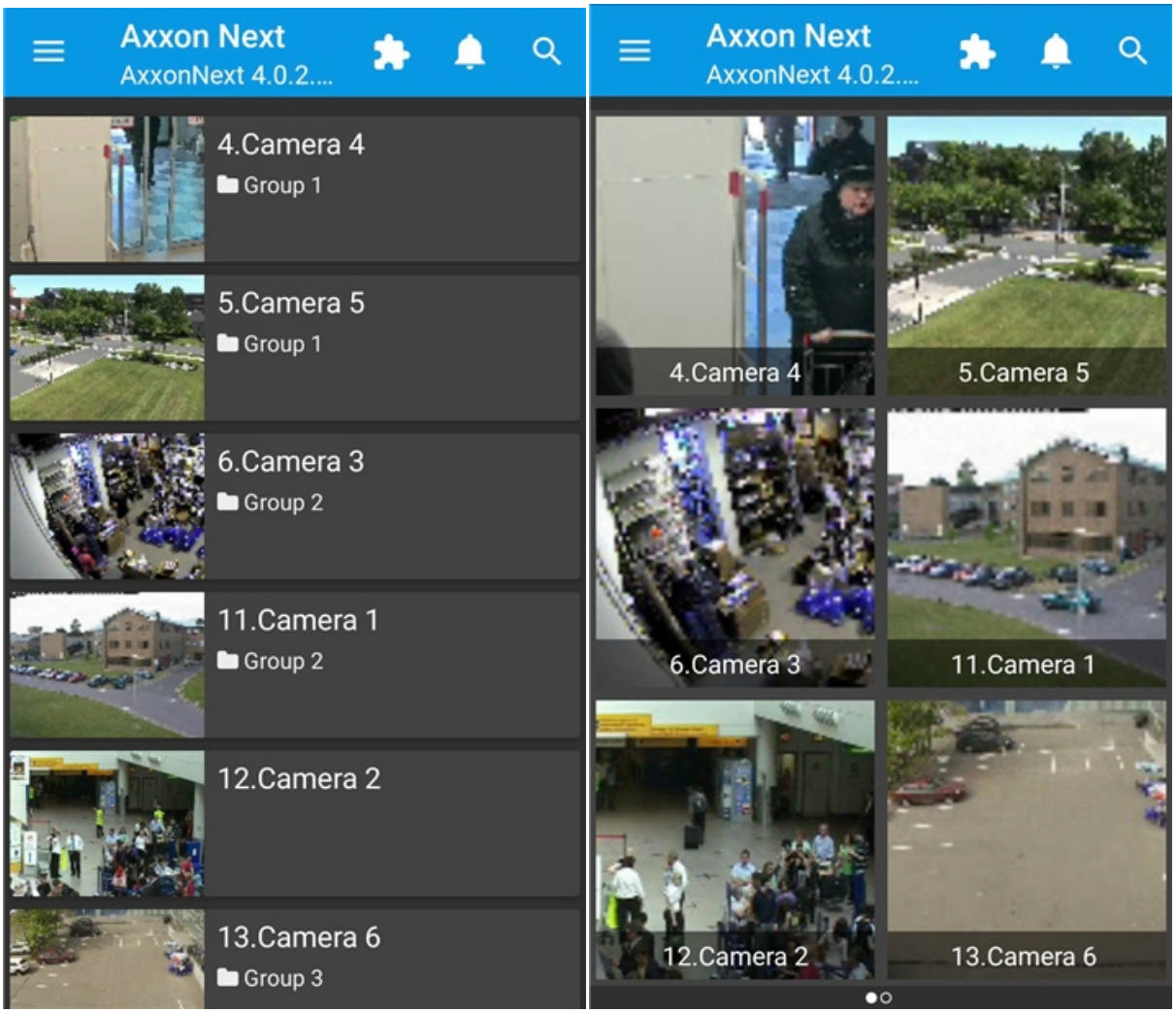
To stop crash reporting disable the **Crash reports** parameter.



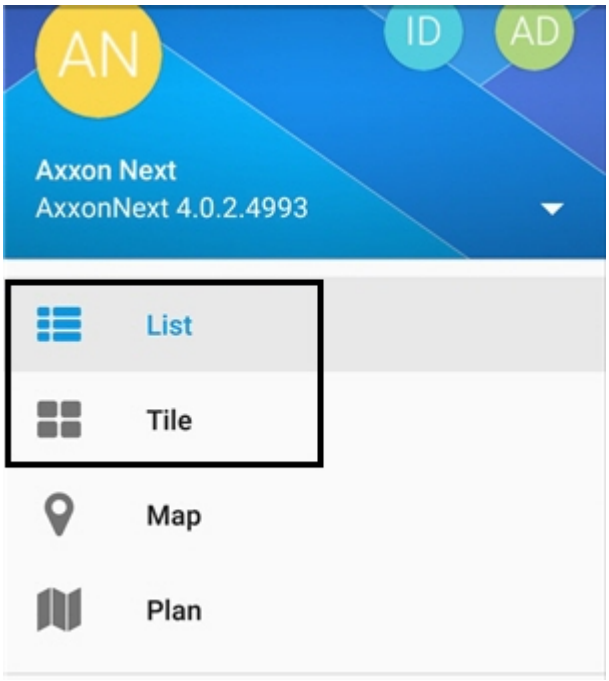
Displaying and searching for cameras in Android Mobile Client

Cameras can be shown as the list or tiles in the Android mobile client.

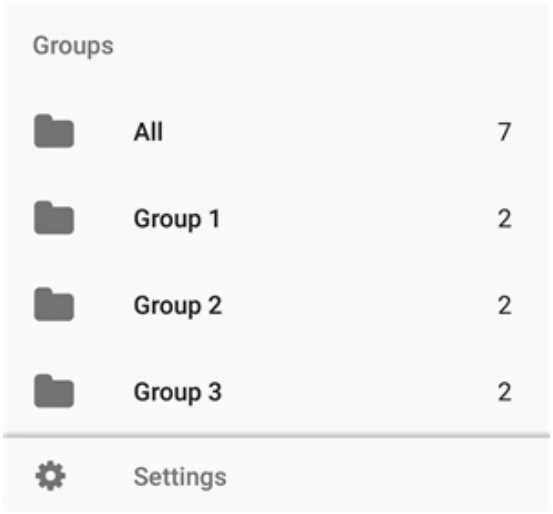
> **Note**
> After you connect to a Server, cameras are shown as a scrolling list.



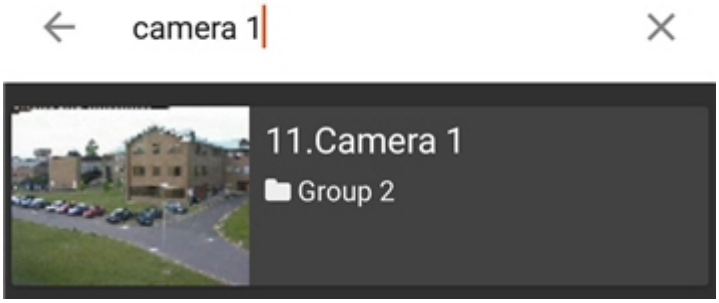
To change the camera display mode go to the menu by clicking the  button and select the required item.



To display video cameras of the specified group (in the *Axxon Next* software, see the Configuring video camera groups sect ion) or region (in the *Intellect* software, see the Examples of using areas and regions section) open the main menu and select the group.



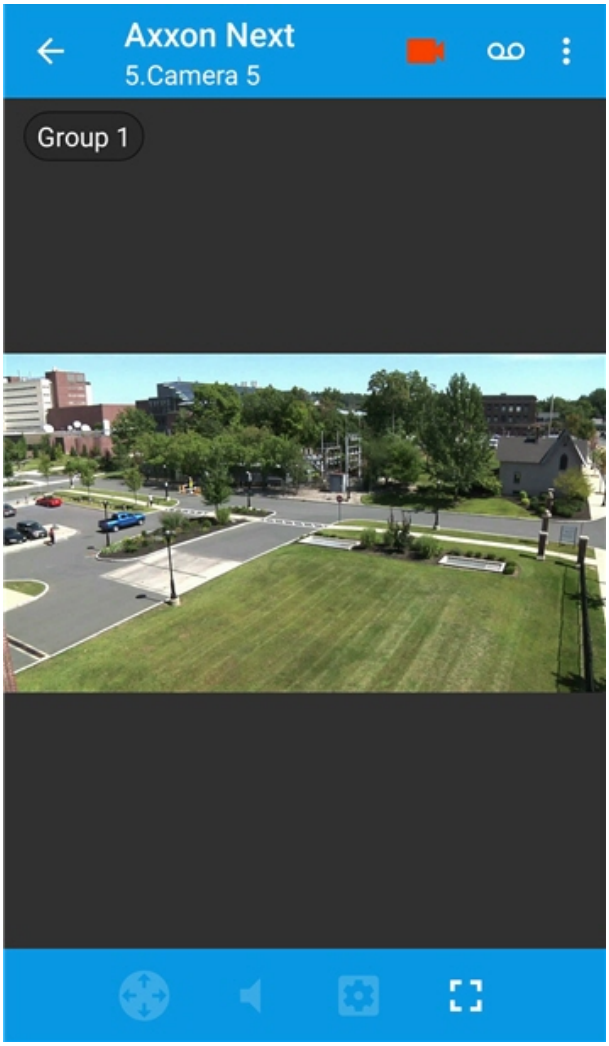
Search for cameras by the name is available. For this click the button and enter a part of the name or the full name of the camera.



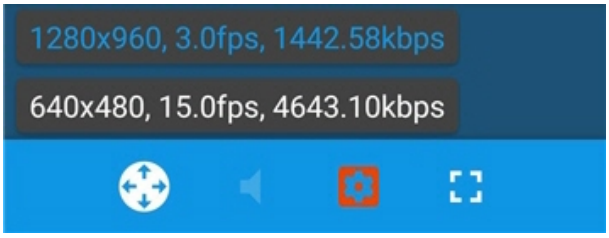
Viewing live video in the Android mobile client

To view live video, select the necessary camera.

This opens a viewing tile for the camera.



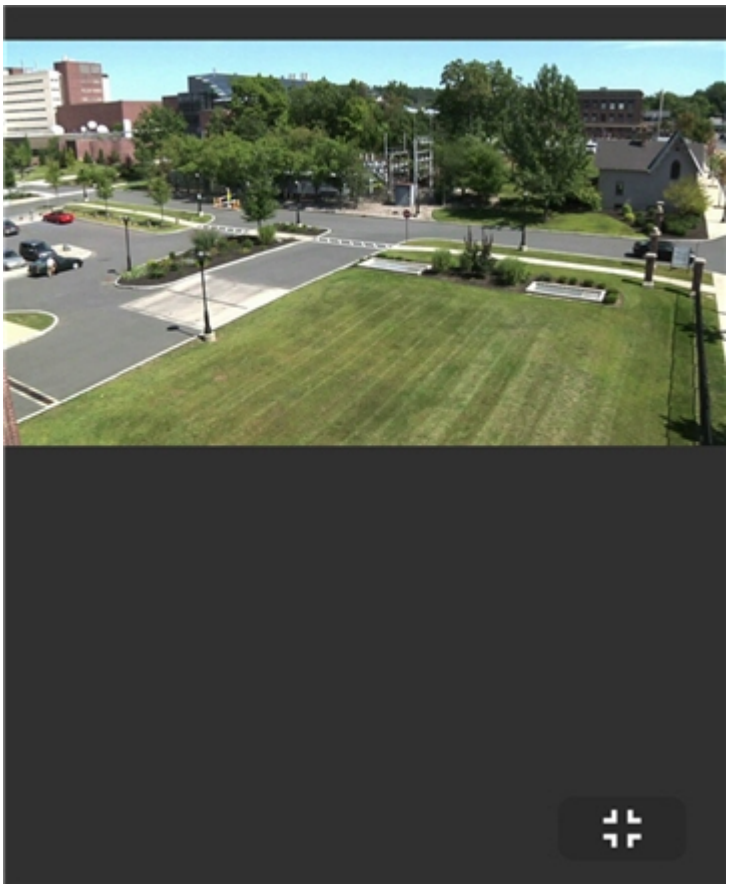
If the camera supports multistreaming, then click the button to select the video stream.



If there is a microphone on the camera and the RTSP playback format is selected in the settings (see Configuring video), then audio from the camera is played back by default. To disable audio click the button, the icon changes to .

Note
Audio playback is available only when working with *Axxon Next Server.*

To open the video in full screen click the button.



To return click the  button.

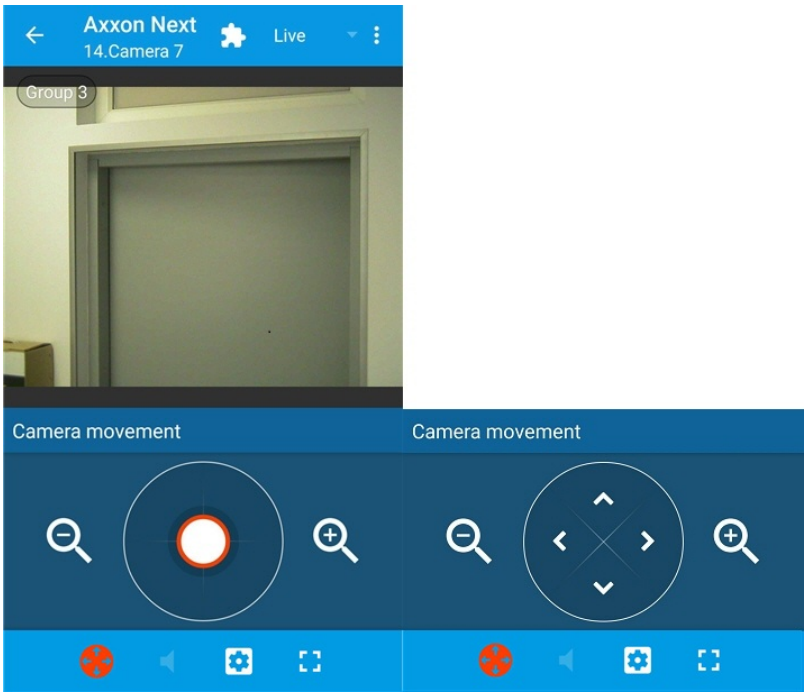
To go to extra actions (macros, events, switch to map, screenshots) click the  button and select the required action.

To return to the list of cameras, tap the **Back** button of the mobile device or app ().

Controlling PTZ cameras from the Android Mobile Client

You can control PTZ cameras. To get started, open a viewing tile for a camera and click the  button on the bottom control panel.

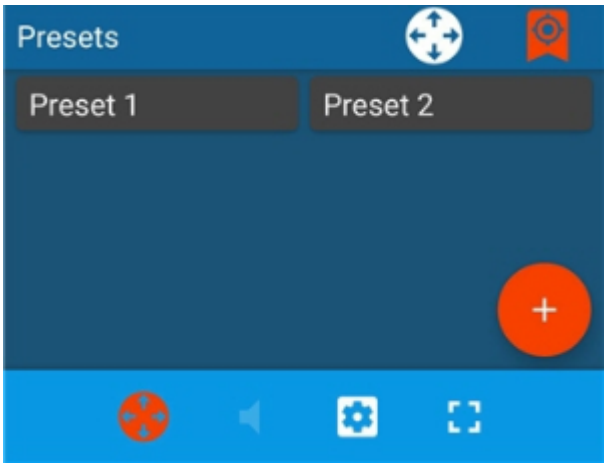
The camera viewing angle is controlled using a virtual joystick or step keys depending on the Client settings (see Configuring PTZ cameras control).



Note.
Rotation on optional angle is not available while connecting to the *Intelect* Server. Joystick can move strictly on vertical or horizontal direction.

To control optical zoom, use the and buttons.

To go to the preset go to the tab and select the required preset in the list.



To add a new preset click the button.

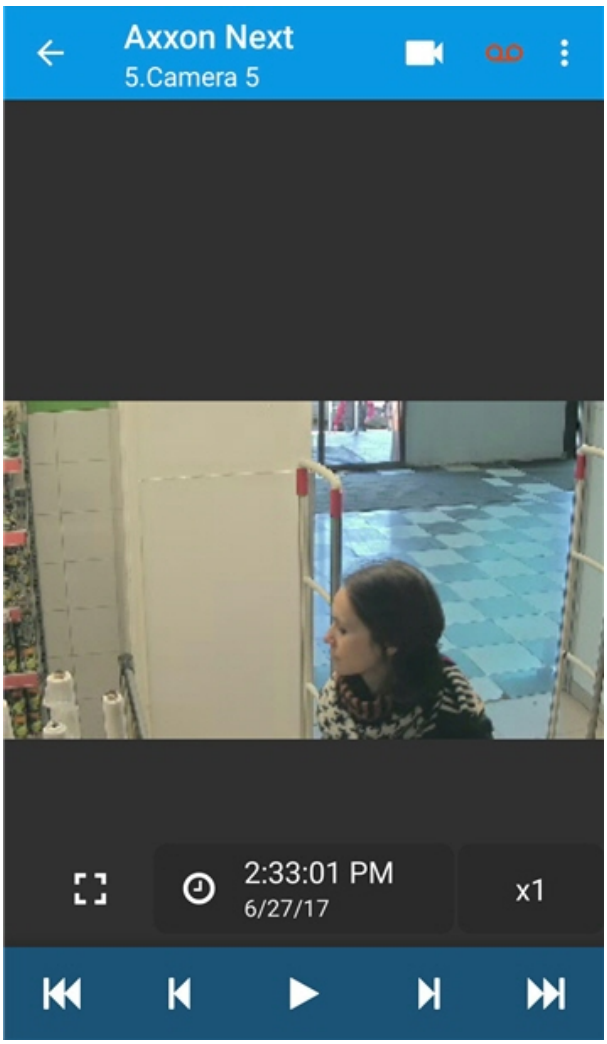
Also it is possiible to focus some area of the video image frame.

To do this hold the finger on the interested area during 1 second and then move the finger to change the size of appeared blue frame. After that the lens orintation will be changed in such way that selected area will display at full window(**Areazoom**).

Viewing previously recorded video in the Android mobile client

To view video archive in the Android mobile client select a required camera in the list and go to the tab or select **Archive** in the corresponding list (depending on the display settings, see Configuring the Android mobile client interface).

Archive view mode.

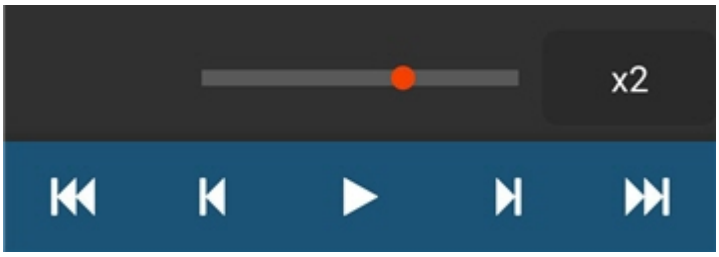


To open the video in full screen click the button. To return click the button.

Video playback is controlled using these buttons:

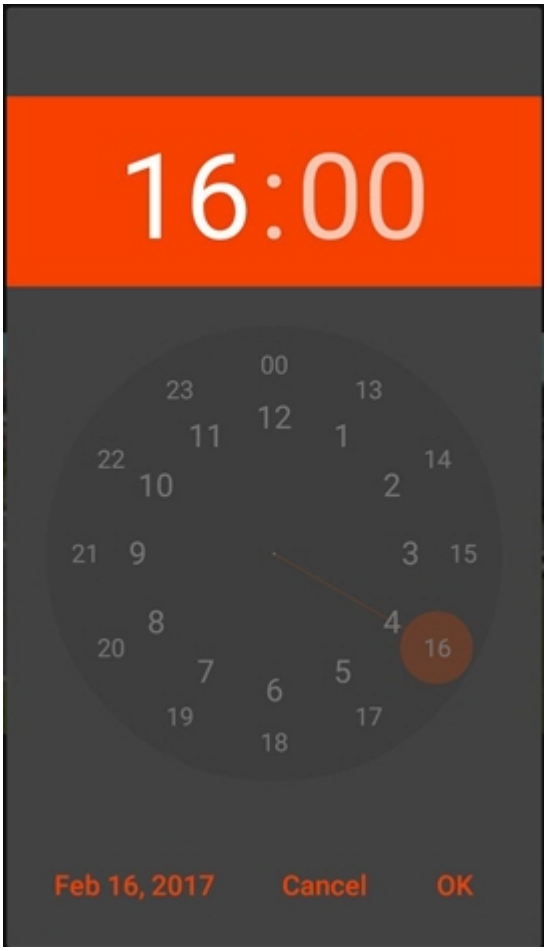
- Play recording: ;
- Pause playback: ;
- Go 10 minutes back ;
- Go 10 minutes forward ;
- Go to the archive beginning - to the first recorded video ;
- Go to the archive ending - to the last recorded video .

Playback can be speeded up, slowed down as well as it can be backward/forward.



To play video backwards put the slider to the left from the initial position (x1). The current playback speed is displayed below the slider on the maps. To play video forwards put **+** before the speed; to play video backwards put **-** before the speed.

To navigate the archive click the time and date form and select the required time.



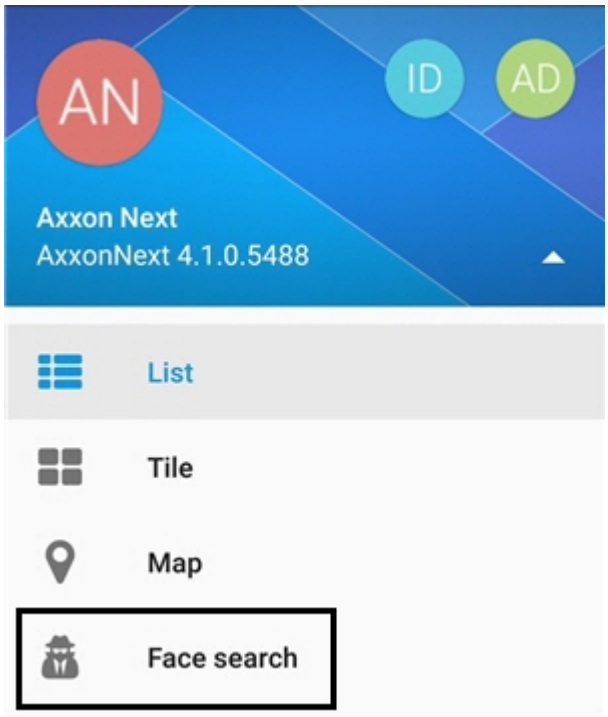
Face search in archive

Face search is available when connecting to Axxon Next Server.

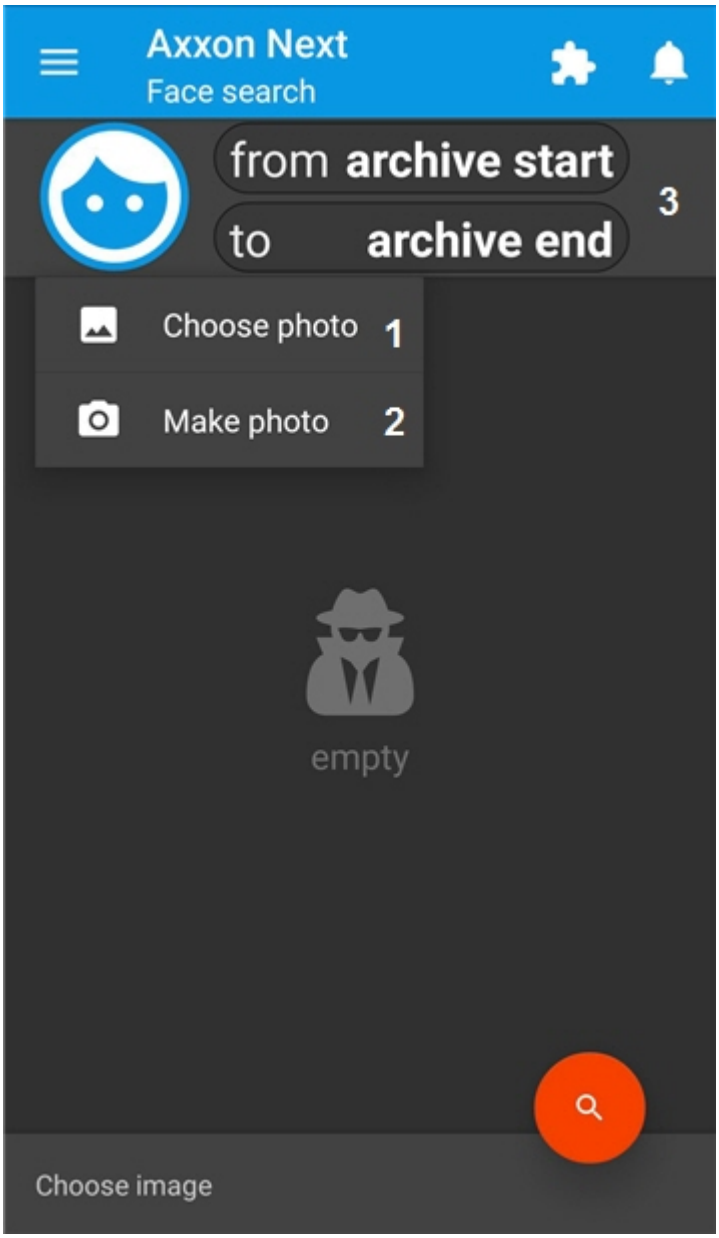
> **Note**
> Face detection is to be configured in order to search faces on the Axxon Next Server (see Face Detection Tools).

To search faces:

1. Call the main menu by clicking the button and select the **Face search** item.



2. Select the face to be found in the archive. There are 3 ways:
    a. Select the photo in the device memory (**1**);

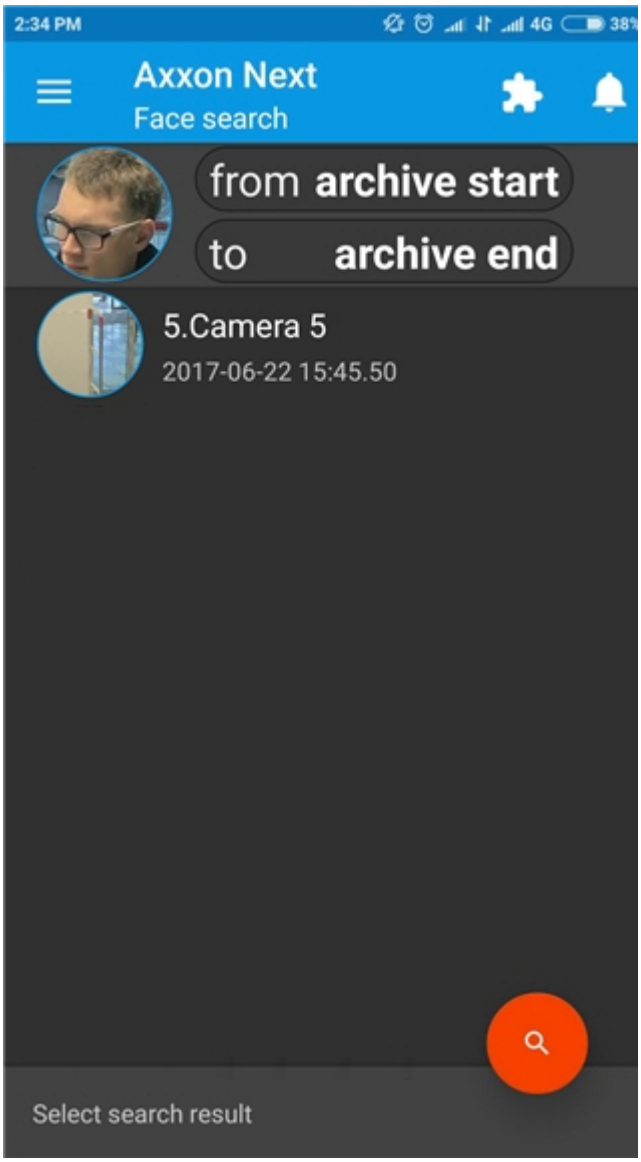


b. take a photo with the device's camera (**2**);
c. select the face in the **Face detection** event (see Viewing a list of system events in the Android mobile client).

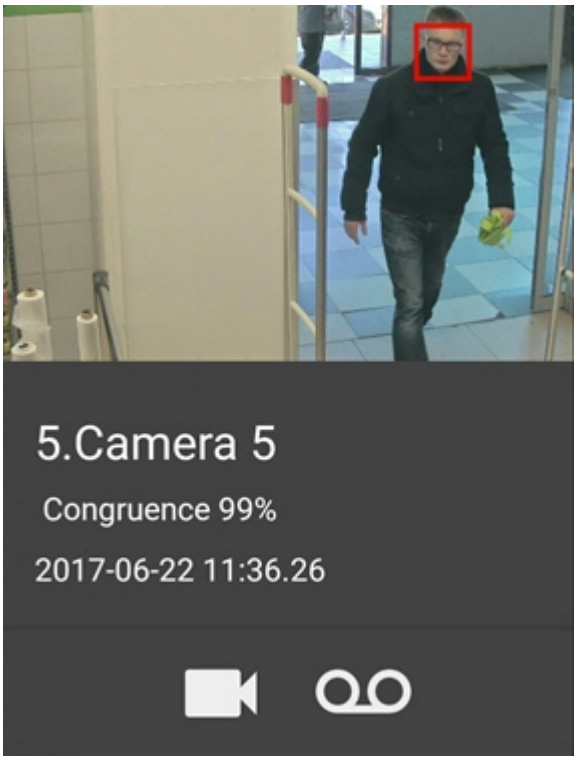
3. Set the search interval using the calendar (**3**).

4. To start searching click the  . button.

Search results will be displayed on the screen.



When selecting the specific search result there will be the frame showing the time of recognition, recognition quality, camera name and buttons used to switch to the real time and archive modes.



Digital zoom in the Android mobile client

Digital zoom can be performed both in live video and archive view modes.

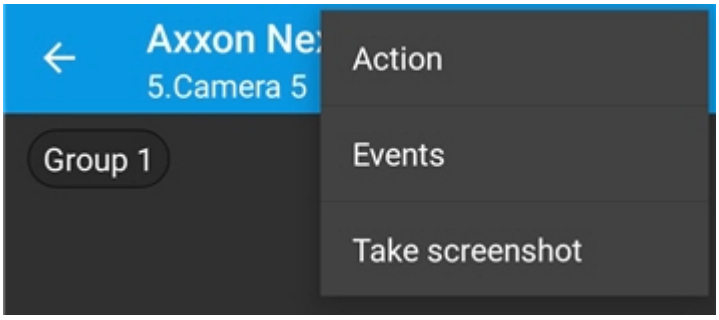
To zoom, pinch the video with two fingers.

Video cannot be made smaller than its original size. 16x is the upper zoom limit.

To select the visible part of the frame when zoom is active, tap and drag the viewing tile.

Making a screenshot

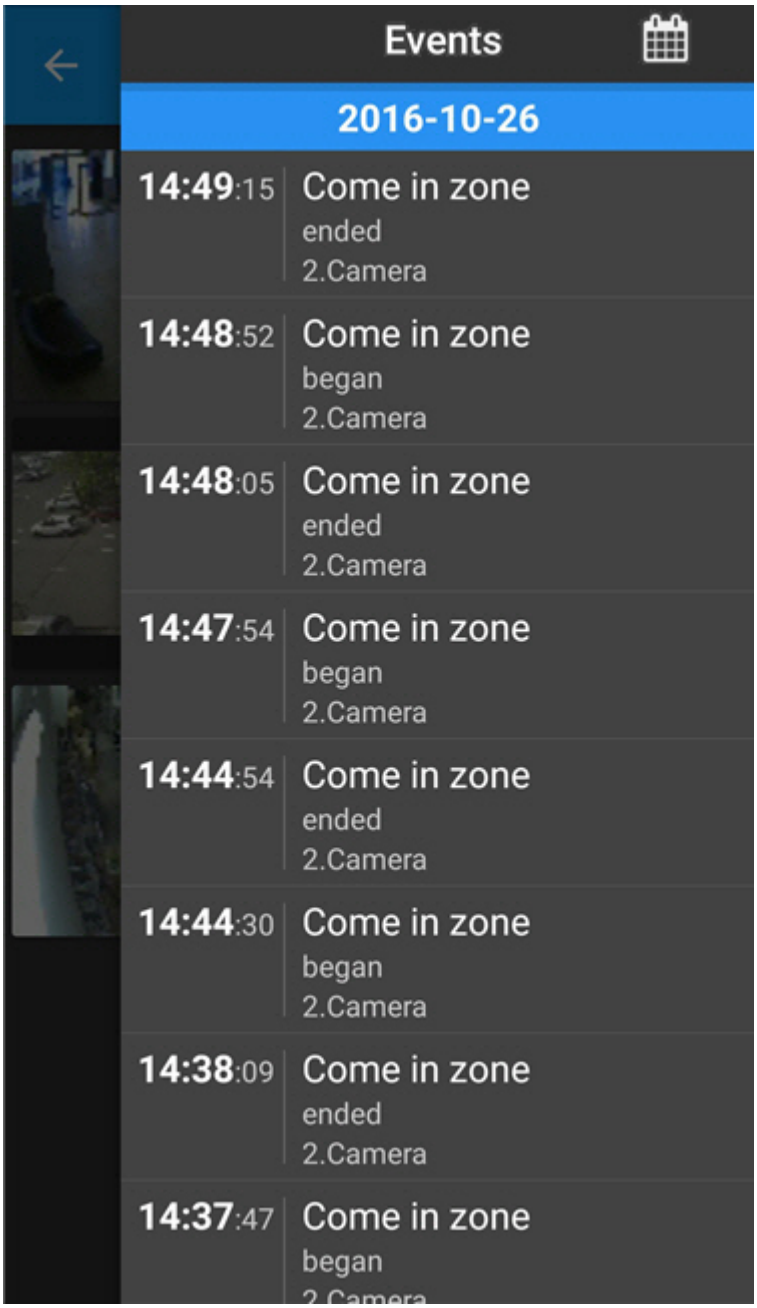
To make a screenshot click the  button and select the **Take screenshot** item.



The date (current or archive), Server name and camera name will be added to the screenshot.

Viewing a list of system events in the Android mobile client

To view the list of system events click the  icon in the top right corner.



Note.
The full name of person will be displayed in the event while face recognition on the Server of the *Intellect* software package, the recognized license plate – while license plate recognition.

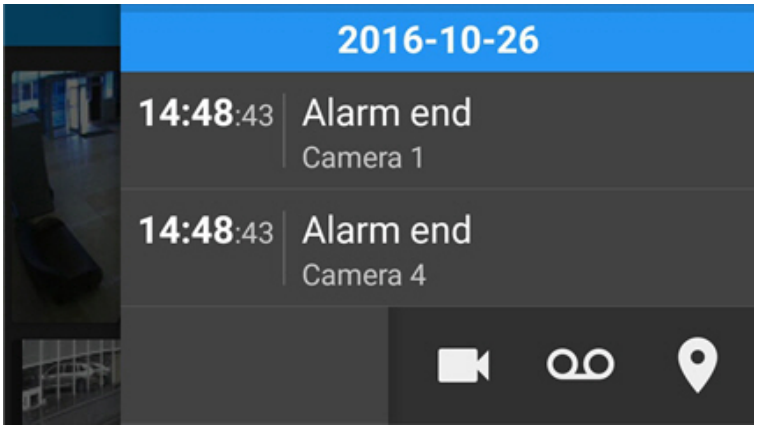
Attention!
While switching to the list of events from the mode of video image viewing for the specified camera, than events only for this camera will be displayed in the list.

By default the latest events are displayed on top. To find events for a specific date and time:

1. Click the button.
2. Set the date and time.

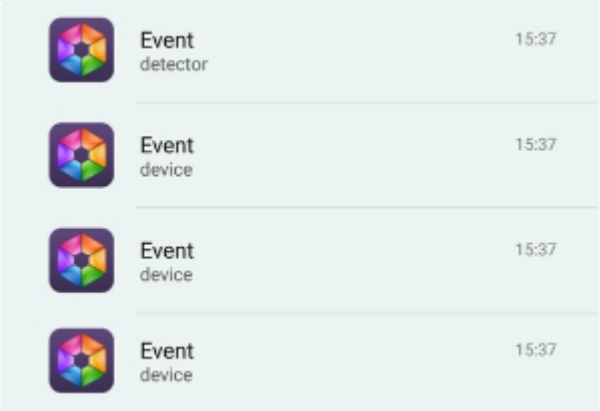
To switch to live video, archive or map from the received event, swipe your finger over the event from right to left and click the corresponding icon (- live video, - an archive, - geomap, *Intellect* map (diagram)).

The switch to the search of detected face in the archive is available for the **Face detection** event - .



When connecting to the Axxon Next Server push notifications can be got during following events:

- Detection triggering (Event detector),
- camera on/off (Event device),
- camera connection lost/restored (Event device).



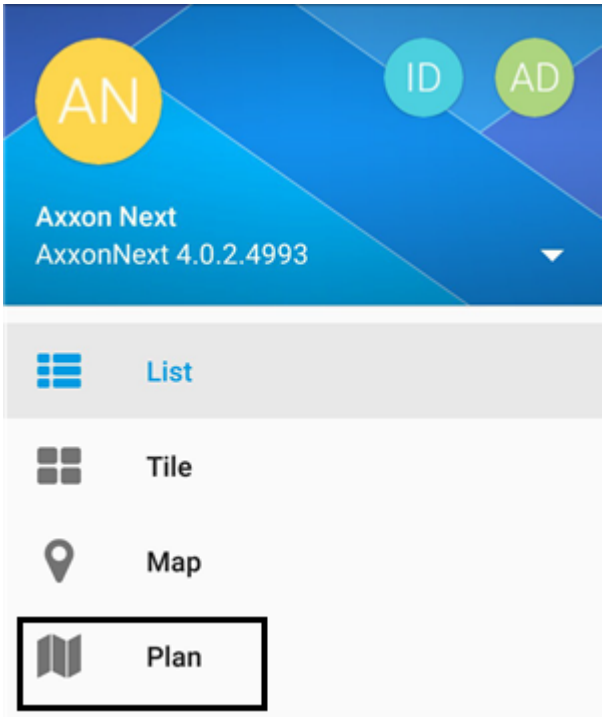
Working with maps in the mobile Android Client

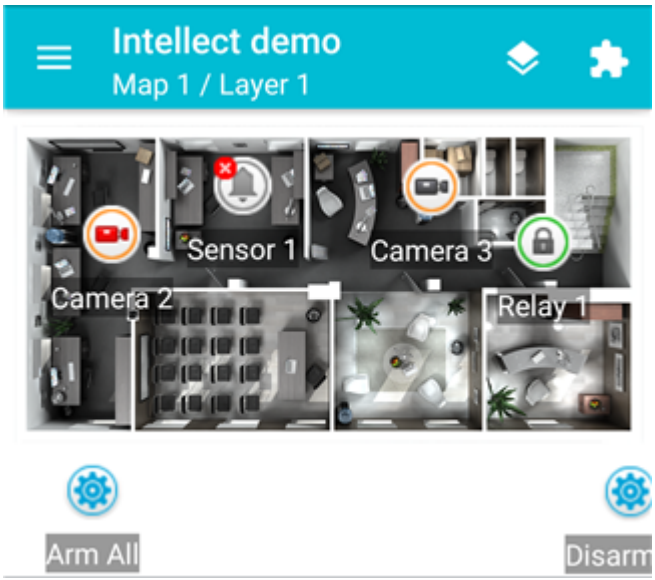
The following maps are available in the Android Mobile Client:

1. *Intellect* maps (see Setup procedure for the interactive map).
2. Google and OpenStreetMap geomaps (see Configuring geomaps).

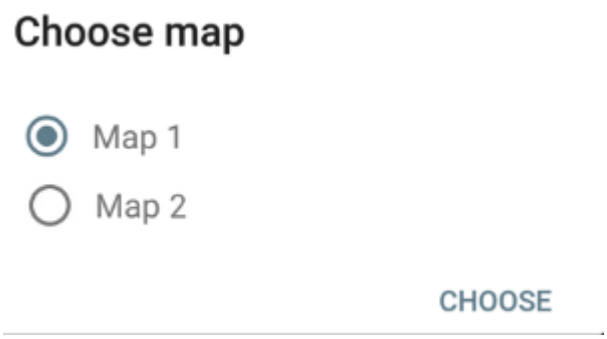
Working with Intellect maps

To view the map, call the main menu by clicking the  button and select the **Plan** item.





To switch the maps, click the button and select the required one.



If there are several layers on the map, then they are listed by right-left scrolling.

Icons for the following devices can be displayed on the map in the mobile Client: cameras, sensors, and relays. In addition, icons for macros can be displayed. Icons indicate the current status of devices and allow controlling them.

You can adjust the scale of the map in the Android Client. Simply pinch your fingers on the screen (to zoom out) or move them apart in a sweeping motion (to zoom in).

Using cameras

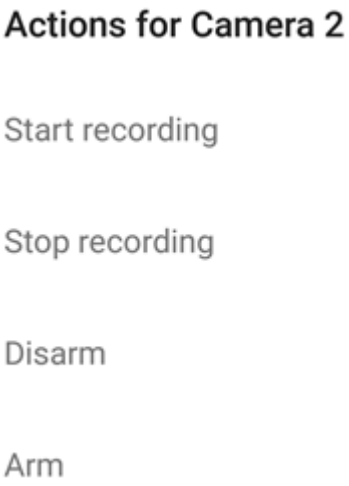
The icon of a camera on the map indicates the current status of the camera:

Icon	Status
	Camera alarm, recording is not active
	Camera alarm, recording is active
	Camera armed, recording is not active
	Camera armed, recording is active
	Camera disarmed, recording is not active
	Camera disarmed, recording is active
	Camera disabled in the System

	Camera connection lost

Live video is displayed when clicking the camera icon.

To control a camera on the map, tap its icon – the context menu will appear:



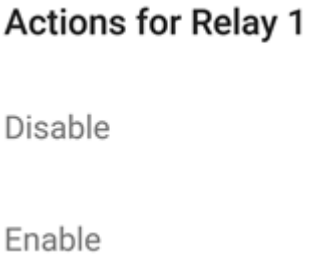
To perform an action select a command. A description of commands is given in the Intellect Operator's Guide.

Using relays

The icon of a relay on a map displays the current status of the relay.

Icon	Status
	Relay disabled in the System
	Relay connection lost
	Relay off
	Relay on

To control a relay from the map, tap its icon to open its context menu:



To perform an action select a command. A description of commands is given in the Intellect Operator's Guide.

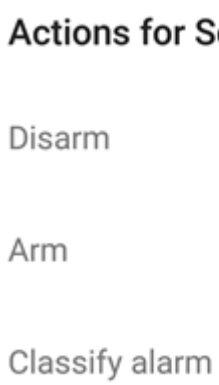
Using sensors

The icon of a sensor on a map displays the current status of the sensor.

Icon	Status
	Sensor armed + alarm event accepted
	Sensor armed + alarm

	Sensor armed
	Sensor disarmed + alarm
	Sensor disarmed
	Sensor disabled in the System
	Sensor connection lost

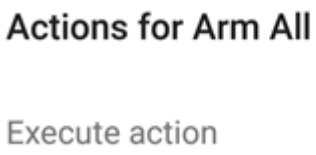
To control a sensor from the map, tap its icon to open its context menu:



To perform an action select a command. A description of commands is given in the Intellect Operator's Guide.

Using macros

To execute the macro on the map, click its icon and then - **Execute action**.



Note
Macros can be executed only when there is connection to *Intellect* Server.

Working with geomaps

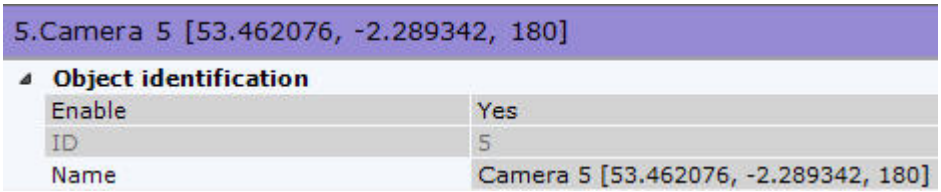
For the camera to be displayed on the geomap the camera name is to contain geographical coordinates in [X, Y, Z] format, where

X - latitude;

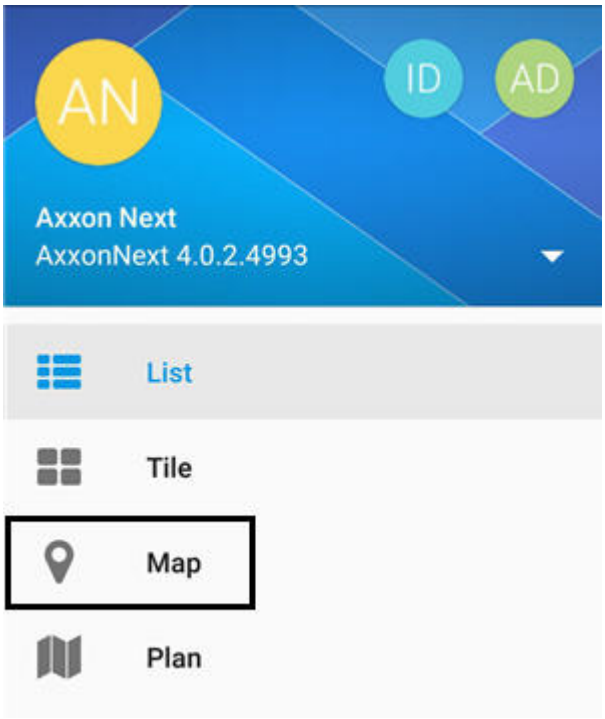
Y - longitude;

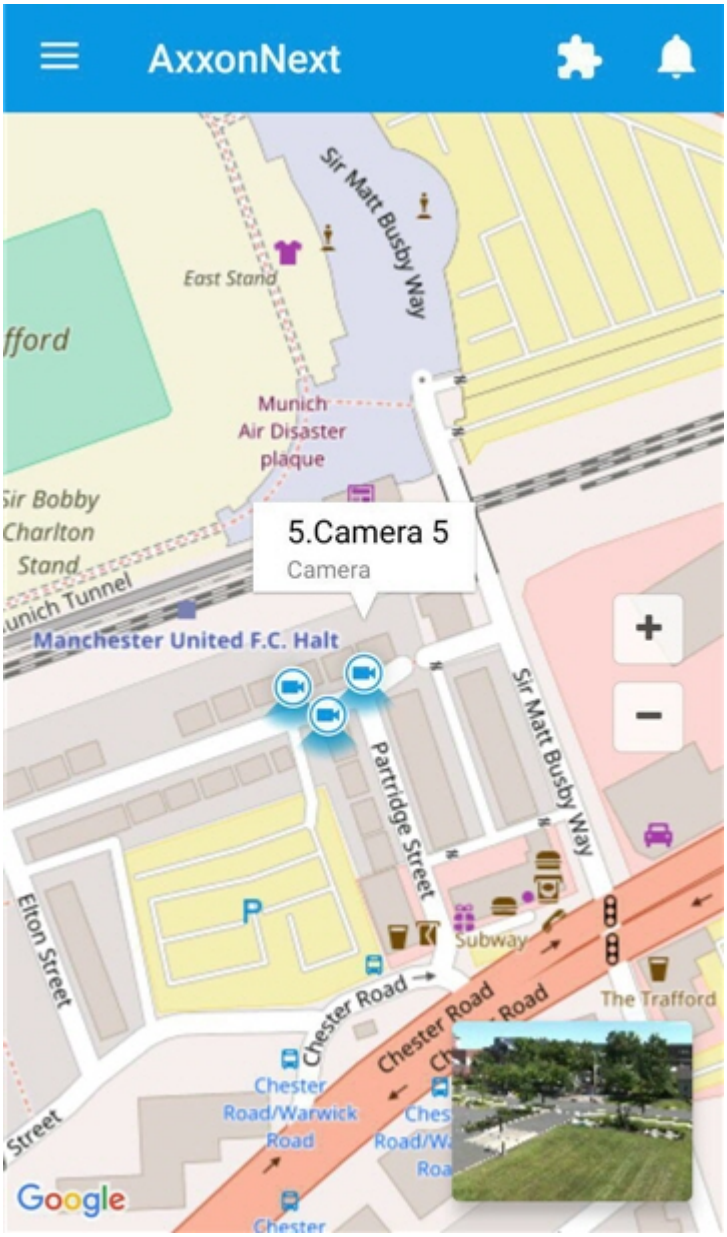
Z – camera rotation angle relative to the vertical axis, optional parameter.

For instance, this camera will be displayed on the map in the point with [53.462076, -2.289342] coordinates.



To view the geomap, call the main menu by clicking the  button and select the **Map** item.


AN
ID
AD
Axxon Next
AxxonNext 4.0.2.4993
List
Tile
Map
Plan


AxxonNext
Sir Matt Busby Way
East Stand
Munich
Air Disaster
plaque
5.Camera 5
Camera
Manchester United F.C. Halt
Partridge Street
Sir Matt Busby Way
Elton Street
Subway
Chester Road
The Trafford
Chester
Road/Warwick
Road
Google

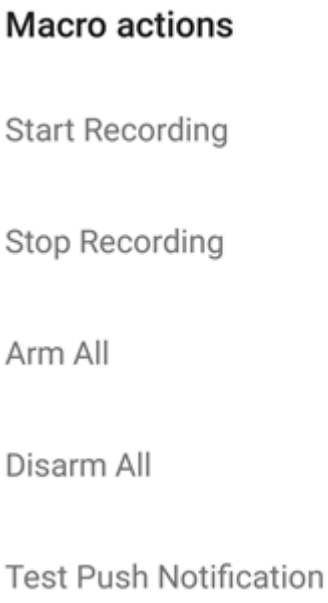
Live video appear in the bottom right corner of the screen when clicking the camera icon on the map (if this option is enabled in settings, see Configuring geomaps).

Video will be played back in a new window when clicking the video or camera name (see Viewing live video in the Android mobile client).

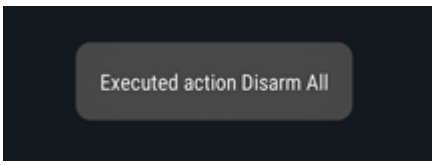
Running macros in the Android mobile client

To run a macro:

1. Call the macro menu by clicking the  button.
2. Select the necessary macro in the list.



The message about successful macro running is displayed from below.



Moreover, the macro can be executed on the map (see Using macros).