



Quick start guide

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8 Quick start guide. Introduction

8.1 Document purpose

The *Quick start guide* contains information necessary to install and start *Axxon One*, as well as to configure and use the main functions of the software package. For more information about *Axxon One*, see [User guide](#)¹.

8.2 Purpose of Axxon One

Axxon One is a next-generation open-platform video management system (VMS) with a user-friendly interface. Thanks to exciting innovations from AxxonSoft, the *Axxon One* platform has reached a whole new level of performance, reliability, efficiency, functionality, and accessibility.

Video surveillance system based on *Axxon One* is easily scalable and can include an unlimited number of video servers, operator workstations, and cameras.

Axxon One supports over 10,000 models of IP devices, including more than 1,500 models of network devices integrated using the proprietary protocol and about 4,500 ONVIF-compliant devices. *Axxon One* allows you to work remotely using mobile devices and a web interface, as well as efficiently use the computing resources of the hardware and communication networks.

Security needs of all sizes—from those of large-scale distributed facilities to the smallest sites—can be efficiently met with *Axxon One* video management software. Every license includes full, unrestricted VMS functionality, even on the systems with just one camera.

¹ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484086/User+guide>

9 Documentation for the software package

For the up-to-date documentation for *Axxon One*, see:



- [Full set of Axxon One documentation](#)²
- [FAQ](#)³
- [User guide](#)⁴
- [Linux OS Administrator's guide](#)⁵
- [Activation guide](#)⁶
- [Quick start guide](#)(see page 3)
- [Integration SDK](#)⁷
- [Release Notes](#)⁸

² <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484043/Documentation>

³ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484059/FAQ>

⁴ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484086/User+guide>

⁵ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/260926669/Linux+OS+Administrator+s+guide>

⁶ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486816/Activation+guide>

⁷ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486976/Integration+SDK>

⁸ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246487109/Release+Notes>

10 Installing the software package

✓ Installation⁹ Installing Axxon One in Linux OS¹⁰

To install *Axxon One*, run the **Setup.exe** executable file from the product distribution package as a Windows administrator.

The following three types of installations are available:

1. **Server and client**—installation of the client and server services. We recommend selecting this type of installation if you use no more than five servers in one place that must work within the same domain.
Axxon One server:
 - a. Interacts with devices (cameras, microphones, inputs, outputs, and so on) that constitute a security system.
 - b. Stores archived data on its own disk spaces and interacts with archives located in network storage.
 - c. Stores databases of events and databases of object motion metadata.
 - d. Analyzes the incoming video using detectors.
 - e. Keeps configurations of the security system, user settings, custom layouts, macros, and so on.
2. **Failover server and client**—installation of the client and server services enhanced with the FailOver capability. In emergency (power outage, network problems), the FailOver technology restores the server configuration on another server (see [Configuring Failover VMS](#)¹¹). We recommend selecting this type of installation if you use from 5 to 30 (minimum 3) servers in one place that must work within the same domain.
3. **Client**—installation of only the client that allows the user to connect to any server and perform administration/management/monitoring operations with the protected facility based on the permissions granted by the administrator.

Note

The following software is installed among the prerequisites:

1. PostgreSQL 10.8.0 server database. A new log database is automatically created (name: ngp, username: ngp, password: ngp). By default, PostgreSQL is installed on the system disk. You can change the path using the command line options of the installation file (see [Silent installation \(Quiet Mode\)](#)¹²).
2. *NET Framework 2.0*, *.NET Framework 3.5 SP1* and *.NET Framework 4.0*.
3. Acrobat Reader that is necessary for viewing the exported frames in PDF format and printing them (see [Frame export](#)¹³).

⁹ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484136/Installation>

¹⁰ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486750/Installing+Axxon+One+in+Linux+OS>

¹¹ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246485569/Configuring+Failover+VMS>

¹² <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484166/Silent+installation+Quiet+Mode>

¹³ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486423/Frame+export>

11 Licensing of the software package

There are six types of *Axxon One* licenses:

1. **Axxon One Demo**. After installation, *Axxon One* runs in demo mode. The operation time of the system is from 8 AM to 6 PM. There are some functionality limitations.
2. **Axxon One Free**. One server, four video channels. There are strict functionality limitations.
3. **Axxon One Start**. Maximum number of video channels is 64. Maximum number of servers is one. There are functionality limitations.
4. **Axxon One Professional**. Unlimited number of video channels. Maximum number of servers is 30. There are some functionality limitations.
5. **Axxon One Enterprise**. Unlimited number of video channels. Maximum number of servers is 30. There are some functionality limitations.
6. **Axxon One Unified**. Unlimited number of video channels. Unlimited number of servers. Full functionality.

✔ Functional differences of the system depending on the license type that you use are described in [Types of licenses](#)¹⁴.

After installation, *Axxon One* runs in demo mode. For full-featured operation of the security system, you must activate *Axxon One* using the [Activation utility](#)¹⁵.

✔ For the step-by-step manuals for activating all types of licenses and updating them, see [Activation guide](#)¹⁶.

¹⁴ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486819/Types+of+licenses>

¹⁵ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486821/Activation+utility>

¹⁶ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486816/Activation+guide>

12 Starting and stopping Axxon One

Before you start *Axxon One*, check the readiness for operation of the entire communication environment, cameras, microphones, and other system components.

The *Axxon One* server starts automatically when the operating system starts (see [Starting the server](#)¹⁷).

To start the *Axxon One* client, do the following:

1. Start the *Axxon One* client from:
 - **Axxon One** shortcut on the desktop.
 - **Start** menu → **All Programs** → **Axxon One** → **Axxon One**.
 - notification area **Run AxxonOne** (see [Tray Tool utility](#)¹⁸).
 - command line by specifying the **login**, **password**, and **server** parameters. All parameters are optional. For example, **C:\Program Files\AxxonSoft\Axxon One\bin>AxxonOne.exe --login=root --password=root --server=127.0.0.1**. To connect to multiple servers (see [Cross-System client](#)¹⁹), you must list the servers separated by commas. For example, **C:\Program Files\AxxonSoft\Axxon One\bin>AxxonOne.exe --login=root --password=root --server=10.0.11.30, 10.0.11.34**.
2. Go to **Start** menu → **All Programs** → **Axxon One** → **Axxon One**. The *Axxon One* client starts, and an authorization window opens.
3. In the **Server name or IP address** field, select the server to which you want to connect.
4. In the **Username** field, enter the username of the *Axxon One* user.
5. In the **Password** field, enter the password of the current *Axxon One* user.
6. Click the **Connect** button.

 **Attention!**

¹⁷ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484186/Starting+the+server>

¹⁸ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486655/Tray+Tool+utility>

¹⁹ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484207/Cross-System+client>

When you log into the system for the first time, use the username **root** that has administrator permissions. Enter **root** into the **Username** and **Password** fields. A window opens in which you must enter a new password twice.

When you hover the cursor over the  icon, a help window appears in which you can see the requirements for the new password (see [Security policy](#)²⁰). Click the **Apply** button to save the new password. You must save the new password securely (see [How to recover the password of the root user \(superuser\)?](#)²¹). The administrator then needs to configure the system for multi-user access (see [Users](#)²²).

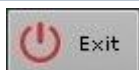
When the authorization process is complete, the physical monitor displays the video surveillance monitor.

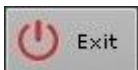
To stop the *Axxon One* client, you must exit user interfaces. To do this, do one of the following:

1. Click the  button in the upper right corner of the *Axxon One* window.

Note

If the client is displayed in full screen mode (enabled by default, see [Configuring the Client screen mode \(full screen or window\)](#)²³), the  button isn't displayed.



2. Click the  button located on the **Settings** tab.
3. In the Windows OS taskbar, in the context menu of the *Axxon One* icon, select **Close window**.

When you perform one of these actions, the authorization window opens. To stop *Axxon One* (completely exit the client), click the **Close** button.

To stop the *Axxon One* server, do one of the following:

²⁰ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246485169/Security+policy>

²¹ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/281551639/How+to+recover+the+password+of+the+root+user+superuser>

²² <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/314513336/Users>

²³ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246485495/Configuring+the+Client+screen+mode+full+screen+or+window>

- Stop the *Axxon One* server from the notification area **Stop server** (see [Tray Tool utility](#)²⁴).
- Stop the **NGP Host Service**.

✓ Starting and stopping Axxon One software²⁵

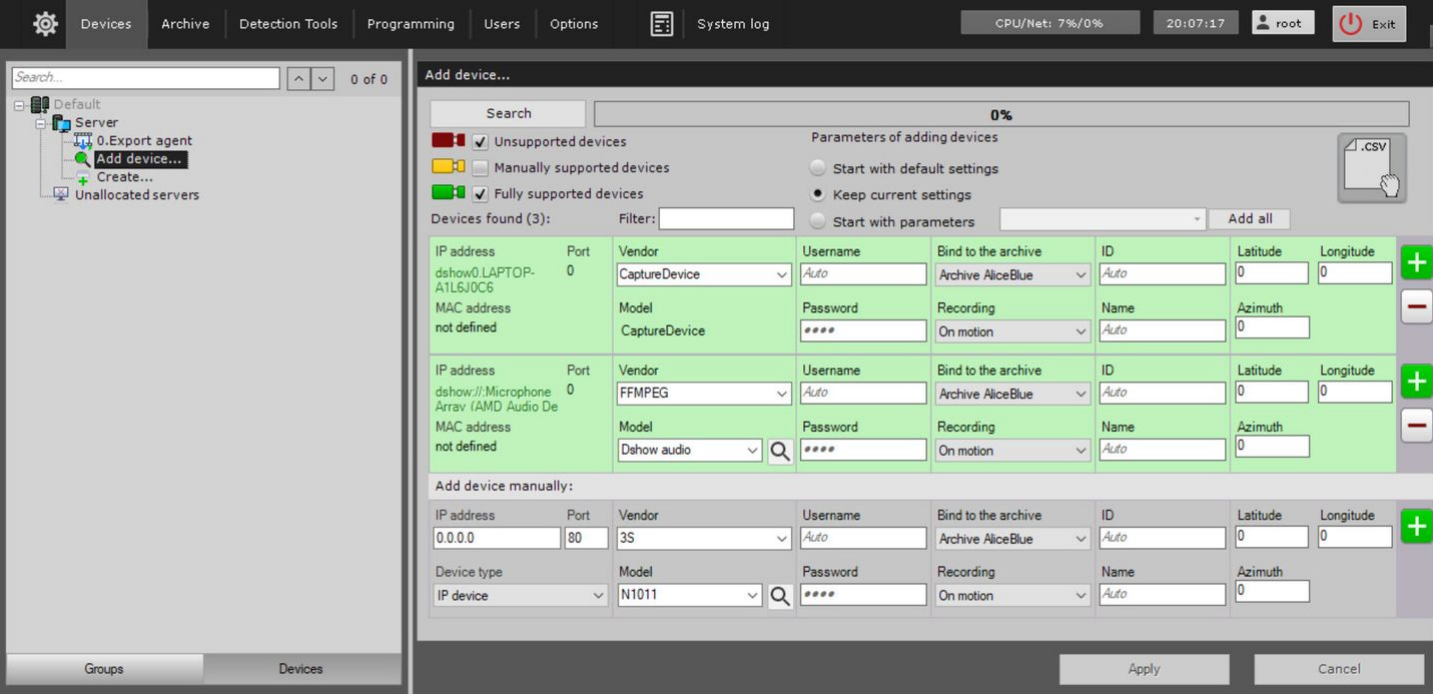
²⁴ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486655/Tray+Tool+utility>

²⁵ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484184/Starting+and+stopping+Axxon+One+software>

13 Configuring Axxon One

13.1 Creating cameras

You can add cameras and IP servers to the system by using the IP Device Discovery Wizard on the **Devices** tab.



The found devices are color-coded based on their status:

Color of a camera icon	Description
	Fully supported device
	Manual configuration required
	Axxon One compatibility not guaranteed

When you add a device to the configuration, you can specify several parameters, such as firmware version, username and password, object ID and name, and select an archive to record to (always or within a time schedule).

In addition, three modes are available for adding a device to the configuration: with the default settings, with the current settings, or with custom settings.

 Functional differences between the modes are described in [Searching, adding, configuring, and removing IP devices](#)²⁶.

To add one device, click the  button. To add all devices, click the **Add all** button.

If an IP device isn't displayed in the search results (because it is located on another subnet or connection with it is temporarily lost), you can add it manually. To do this, in the neutral-colored area above the search results, select the type of IP device that you want to add (with or without internal storage), specify an IP address and a port, and select a vendor and a model.

²⁶ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484249/Searching+adding+configuring+and+removing+IP+devices>

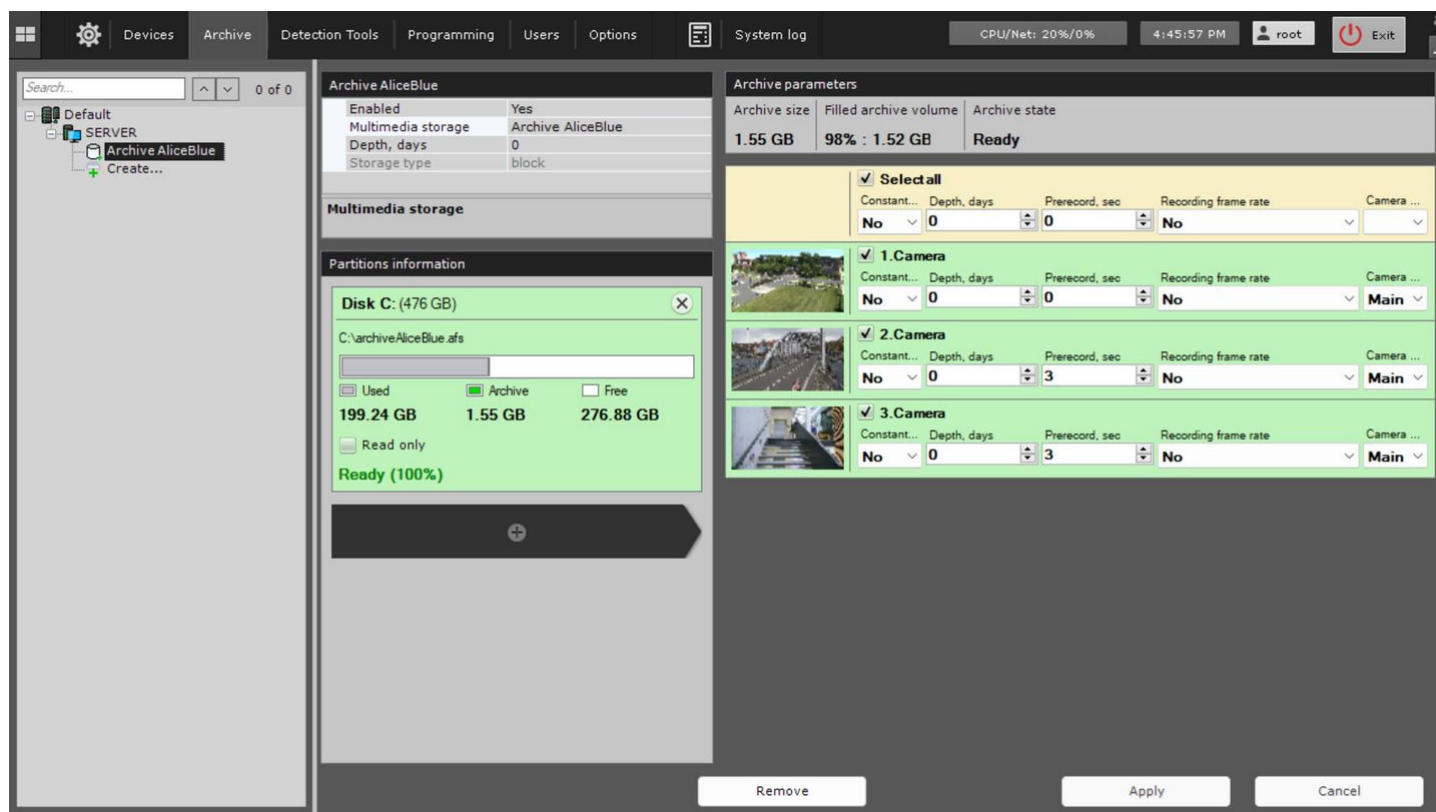
13.2 Creating an archive

You can create an unlimited number of archives on the basis of one server. You can place an archive either on local disks or on remote disks.

You can place one archive volume on each local disk of the system. An archive volume is a file of a certain size or an entire logical disk (with its own SolidStore file system). You can place an archive volume only in the form of a file on a remote disk.

✓ Types of archives and their features are described in (see [General information about server archives²⁷](#)).

To create an archive, go to the **Archive** tab and click the **Create** link.



Configure the archive as follows: select the archive type, configure the archive volumes, and click the **Apply**



button.

Configure the cameras recording to the archive. Select the cameras and configure the recording parameters (see [Configuring recording to an archive²⁸](#)).

13.3 Creating and configuring detectors

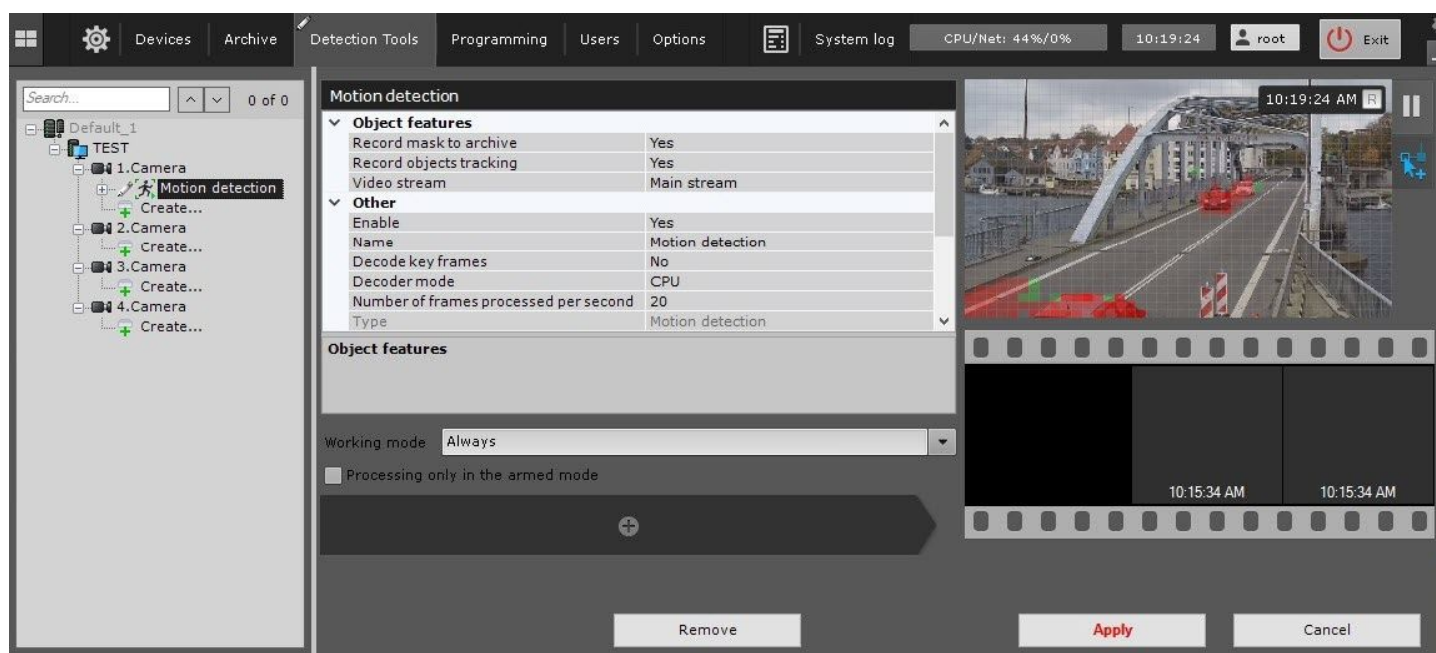
In *Axon One*, the following detectors process incoming data:

- face detectors,
- license plate recognition detectors,
- audio and video analytics detectors,
- human pose detectors,
- object detection and counting detectors,
- embedded camera detectors.

You can create and configure detectors on the **Detectors** tab.

²⁷ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484556/General+information+about+server+archives>

²⁸ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484575/Configuring+recording+to+an+archive>



✓ The features of creating, configuring, and operating detectors and their sub-detectors are described in [Detectors](https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484616/Detectors)²⁹.

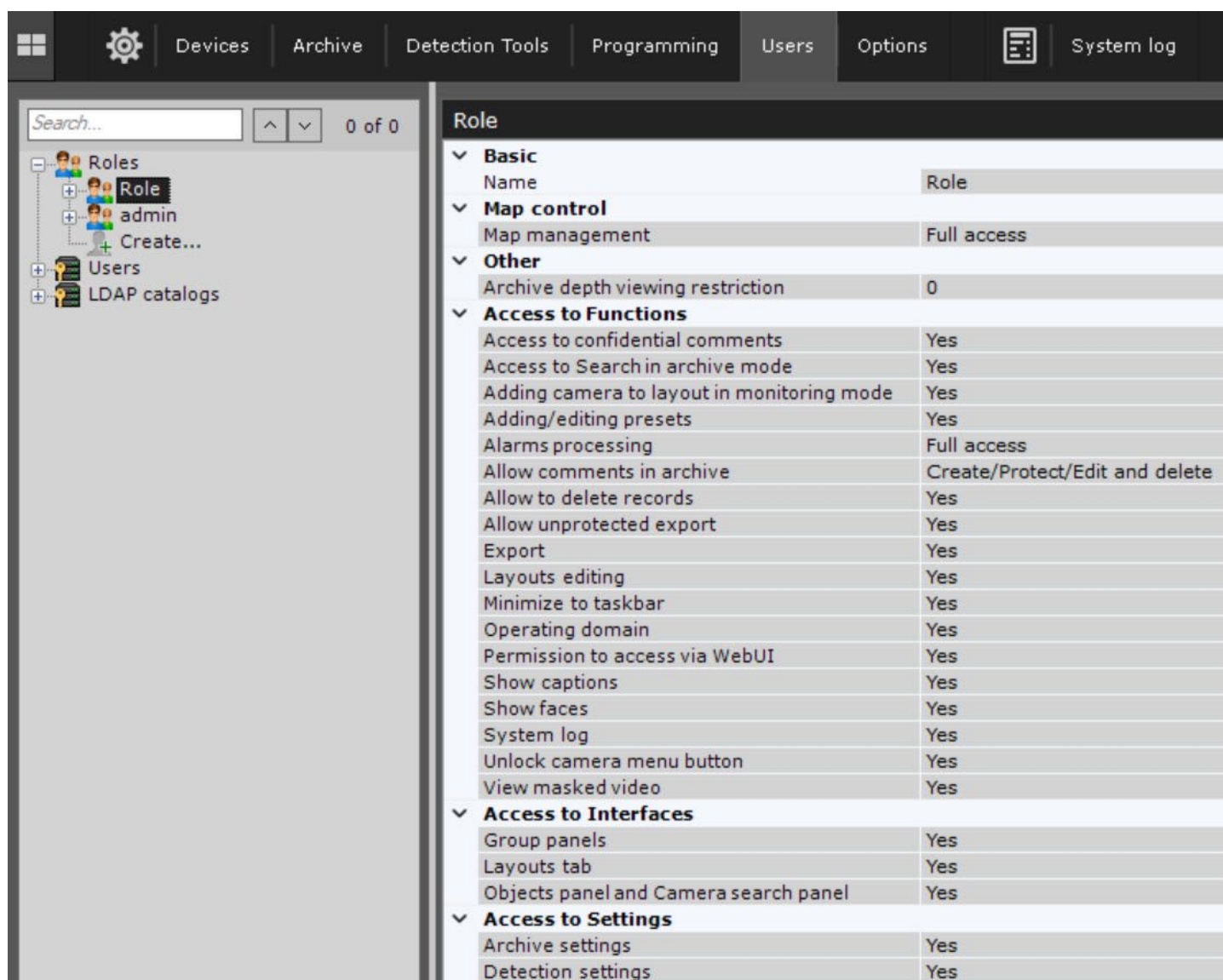
13.4 Configuring users and their roles

In *Axxon One*, every user has permissions based on their role.

By default, there is one role registered—**admin** and one user—**root**. The **root** user belongs to the **admin** role and has permissions to configure all components of the video surveillance system. To register a user with individual permissions, you must create a new role with the necessary permissions and a new user account.

You can register and configure roles and users on the **Users** tab.

²⁹ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484616/Detectors>



There are two types of users: local (stored in the server database) and [LDAP](https://en.wikipedia.org/wiki/Lightweight_Directory_Access_Protocol)³⁰.

A role is used to assign individual permissions to a group of users to administer, manage, and/or monitor individual components of *Axxon One*.

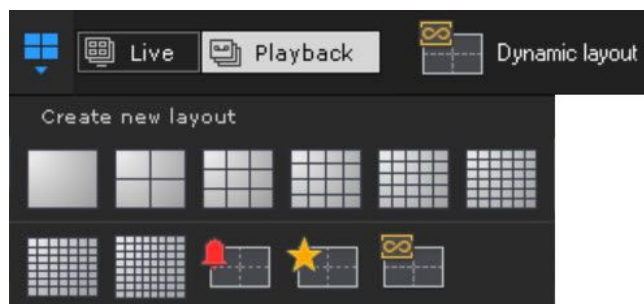
You can assign a password to a user and select a role that determines user permissions in the system.

13.5 Creating and configuring layouts

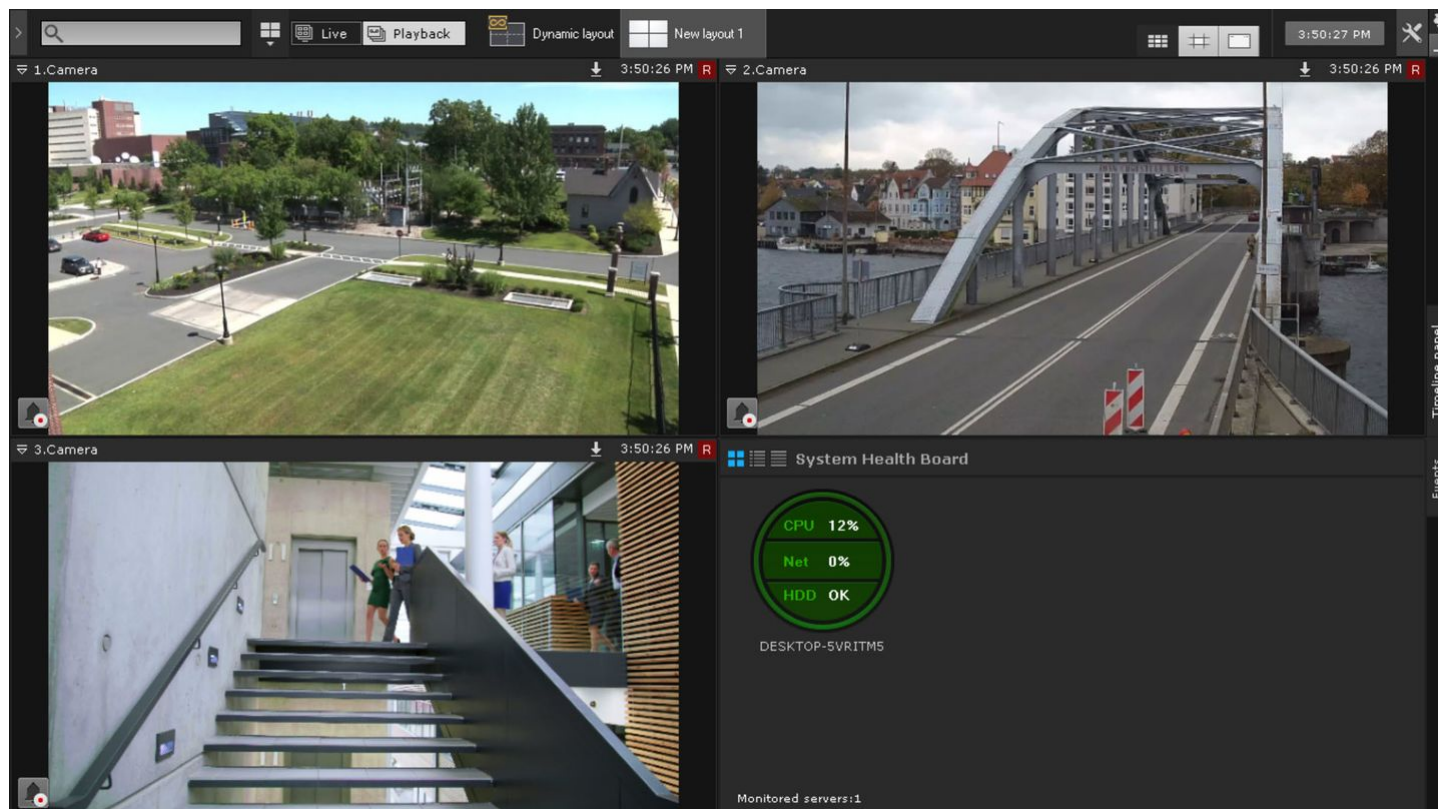
You can create and configure custom layouts for each user. To do this, connect to the server under the appropriate username and configure the layouts for that user.

You can create a new layout on the basis of the standard types of layouts in the layouts menu.

³⁰ https://en.wikipedia.org/wiki/Lightweight_Directory_Access_Protocol



You can add cameras and information boards to a layout. You can also attach a map that will be automatically displayed when you switch to this layout.



- ✓ Creating and deleting layouts³¹
- Configuring special layouts³²

³¹ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246485173/Creating+and+deleting+layouts>

³² <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246485305/Configuring+special+layouts>

14 Working with Axxon One software

14.1 Working with alarm events

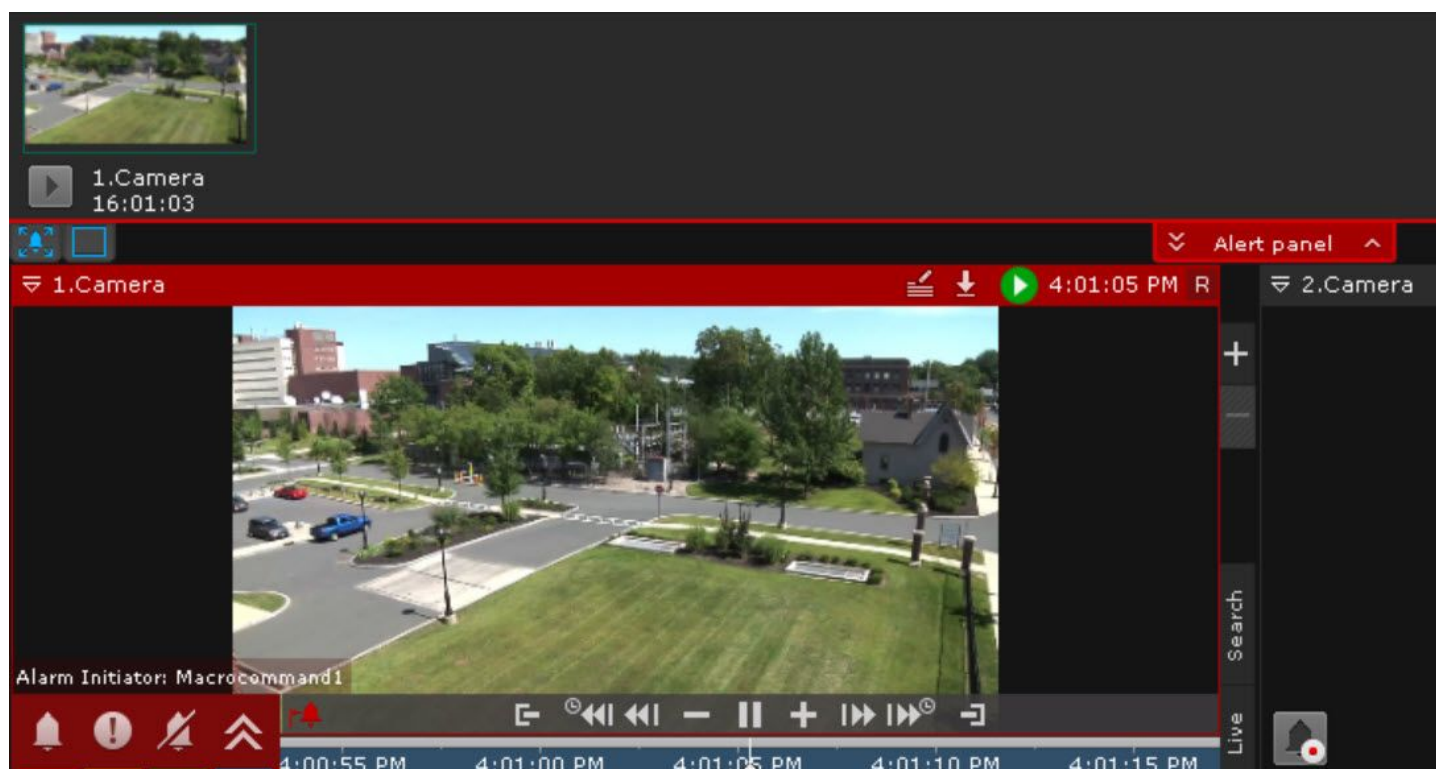
All alarm events of the system are displayed on the **Alert panel**.

The **Alert panel** is located at the top of the screen, and you can see it only if there are active alarms in the system. To open the

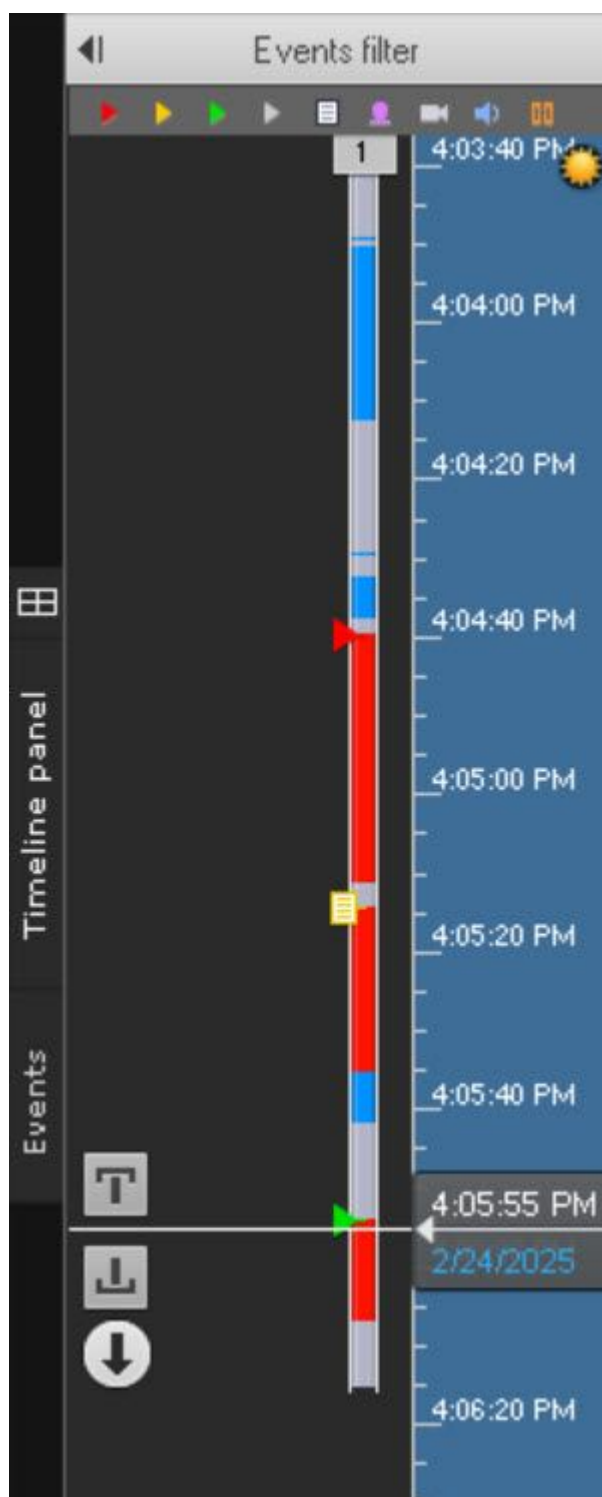
Alert panel, click the  button.

When you select an alarm on the panel, the alarm is assessed. The assessment of the alarm event is made on a three-point color scale:

- red—critical alarm;
- yellow—non-critical alarm;
- green—false alarm.



When an alarm is assessed (critical, non-critical, false, or skipped), a flag is added to an alarm recording on the timeline. A flag is added to the point on the timeline when an alarm started.



✓ Assessing an alarm event³³

14.2 Searching for information in the archive

You can work with the archive in two modes: the Archive mode and the Archive Search mode.

³³ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486131/Assessing+an+alarm+event>

In the Archive mode (the **Playback** tab in the Surveillance window), you can manually search for the necessary moment in the archive using one of the two timelines. To navigate in the archive, left-click and drag the pointer to the necessary point in time.

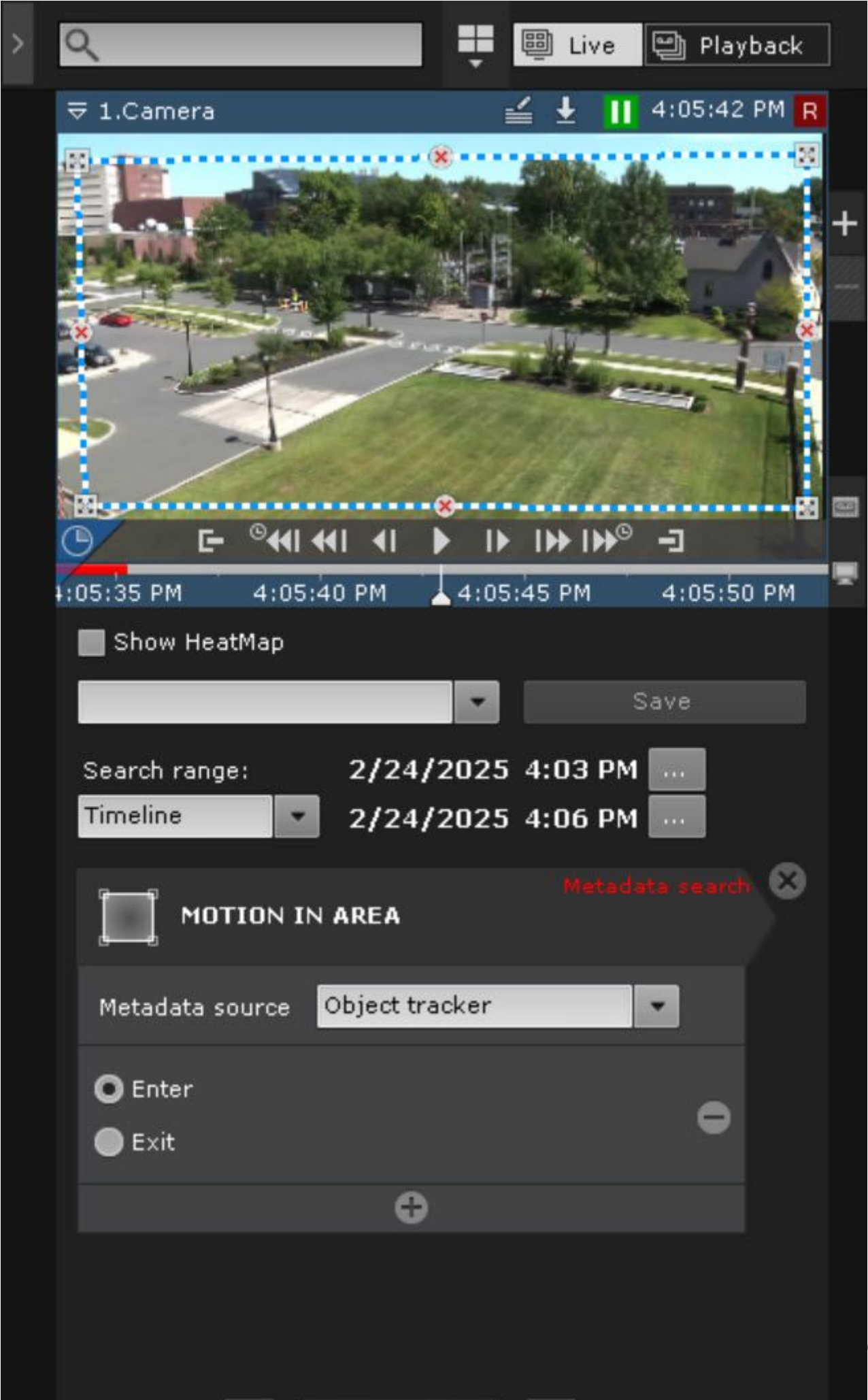
In the Archive Search mode (the **Search** tab), you can search for the necessary moment in the archive by the specified criteria. The following search types are available:

1. Thumbnail search.
2. Events search.
3. Comments search.
4. Search by titles.
5. Search by temperature.
6. Search by LP.
7. Vehicle search.
8. Face search.
9. Face contacts search.
10. Image search.
11. Search by barcode.

[Search in archive](#)³⁴ allows you to search for video fragments in the archive by the following criteria:

1. Line crossing.
2. Motion in area.
3. Loitering.
4. Multiple objects.
5. Move from area to area.

³⁴ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486171/Search+in+archive>



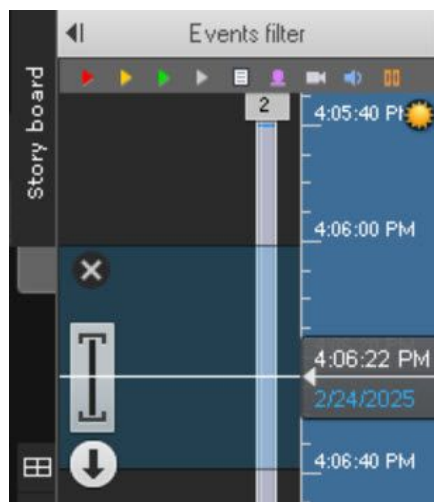
14.3 Exporting frames and videos

Export of frames and videos is available for users with appropriate access level settings (see [General information about users](#)³⁵).

You can export in two ways. The standard method means that you select the required range in the archive. The quick method

means that you can start exporting at any time by clicking the  button in the Surveillance window.

You can select the export range on any timeline with the right-click or select it using the  buttons.



Frames can be exported to JPG and PDF formats. Video can be exported to AVI, MKV, and EXE formats. Exported frames and videos are digitally watermarked to prove that the exported file wasn't changed.

- ✓ [Frame export](#)³⁶
- [Exporting Video Recordings](#)³⁷

14.4 Working with the map

The interactive map is used to visualize the location of cameras on the territory of the protected facility and to control them.

The interactive map in *Axxon One* represents either an image of the protected facility or geodata from the OpenStreetMap provider.

⚠ Attention!

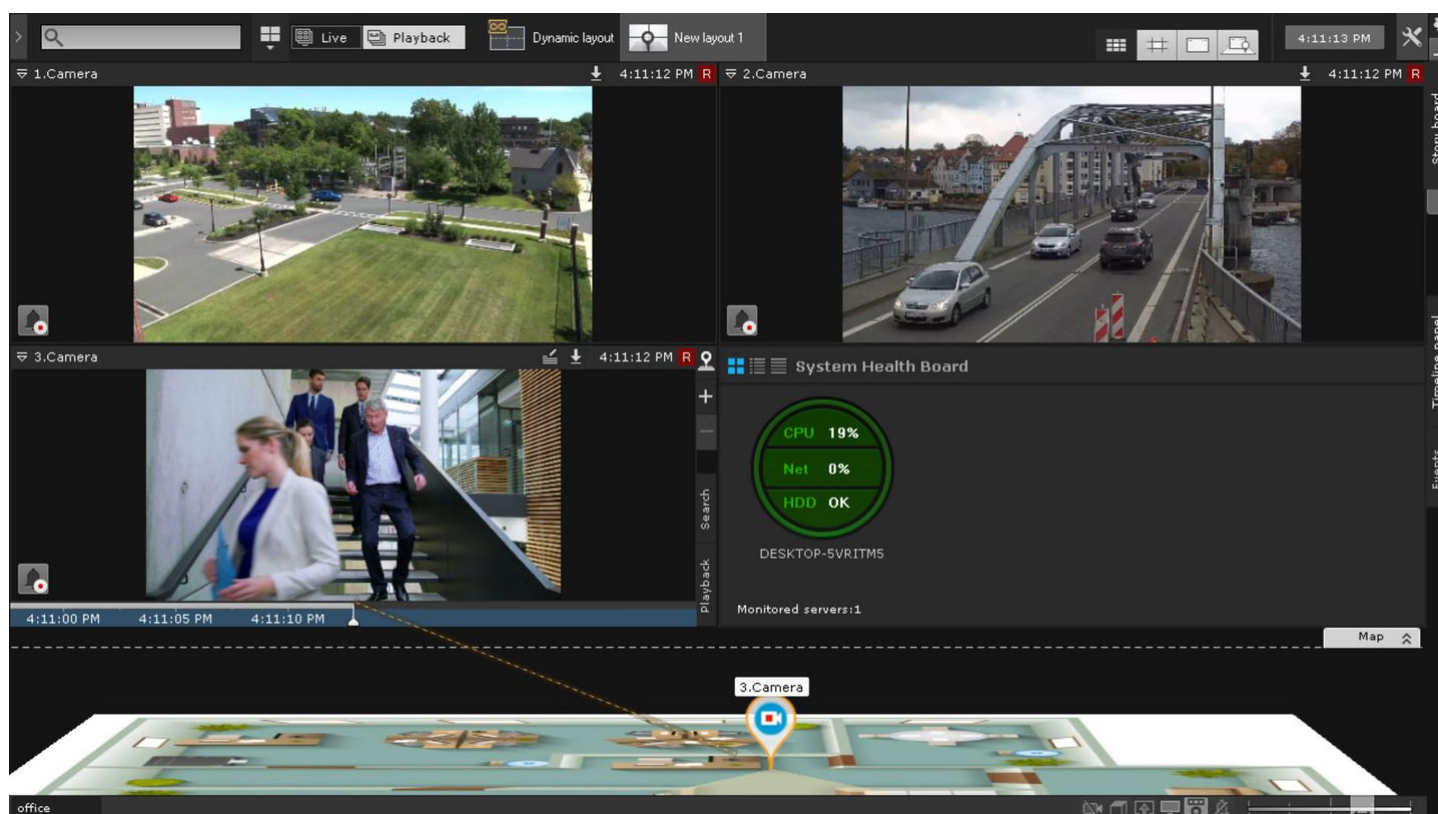
To work with OpenStreetMap maps in *Axxon One*, you must purchase an [OpenStreetMap](#)³⁸ license.

³⁵ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246485139/General+information+about+users>

³⁶ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486423/Frame+export>

³⁷ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486426/Exporting+Video+Recordings>

³⁸ <https://www.openstreetmap.org/copyright/en>



The map can contain icons of cameras, relays, and sensors. The camera FOV and the live video area are displayed for each camera. The interactive map allows you to control the system objects from the context menus of the device icons on the map that display the state of the corresponding system objects.

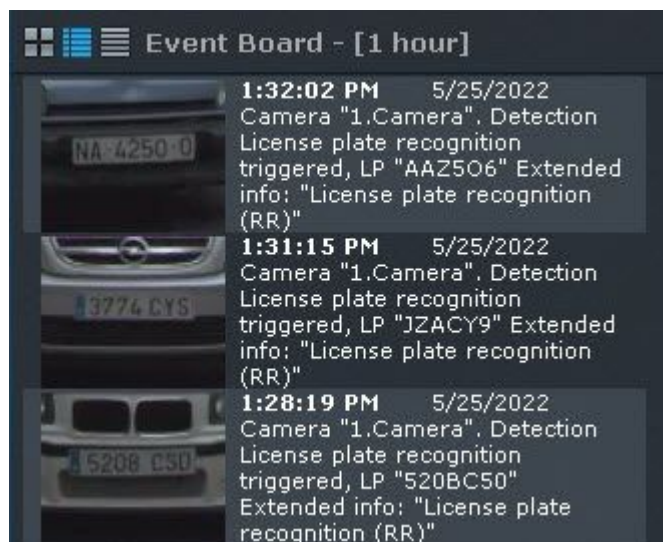
You can work with the interactive map in three modes:

1. 3D mode—map and layout are available.
2. 2D mode—only map is available.
3. Immersion mode—video is overlaid on the map.

14.5 License plate recognition and search in the archive

License plate recognition is performed by means of a corresponding detector. Upon recognition, an event is generated. This event contains a license plate of a vehicle that is written into the database.

These events can be displayed on a layout on the Event Board or Dialog Board.



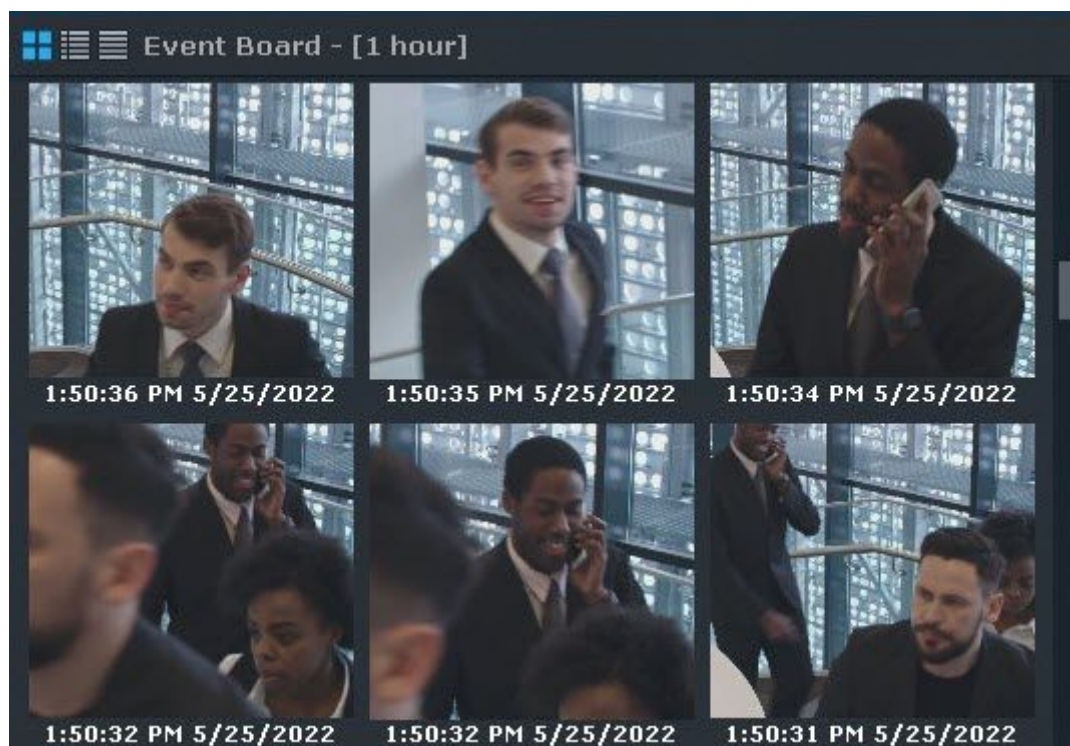
You can search for vehicles in the archive of one camera or in the archive of several cameras simultaneously.

✓ Search by LPs³⁹

14.6 Face recognition and search in the archive

Face recognition is performed by means of a corresponding detector. Upon recognition, an event is generated that is written into the database.

These events can be displayed on a layout on the Event Board or Dialog Board.



You can search for similar faces in the archive of one camera or in the archive of several cameras simultaneously.

³⁹ <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486206/Search+by+LPs>

- ✓ Face search⁴⁰
- Similitude search⁴¹

14.7 Receiving data from POS devices

You can configure *Axxon One* to receive data from POS devices. Titles are automatically displayed in the Surveillance window if you configure the camera accordingly. Titles from several POS devices can be displayed in the same window.



In the Archive Search mode, the search by titles allows you to find videos with the titles containing the text from the search query.

- ✓ Configuring POS devices⁴²
- Search by titles⁴³

40 <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486209/Face+search>

41 <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/248414730/Similitude+search>

42 <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246484502/Configuring+POS+devices>

43 <https://docs.axxonsoft.com/confluence/spaces/one20en/pages/246486204/Search+by+titles>