Quick start Guide

09/03/2024

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3.1 Document purpose

The Quick start Guide(see page 3) is intended to be used as a guide for installing and starting *Axxon One,* as well as for configuring and using its main functions. For more information about *Axxon One*, see User Guide[1].

3.2 Purpose of Axxon One

Axxon One is a next-generation open-platform video management software (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 systems based on *Axxon One* can scale infinitely: there are no restrictions on the number of video servers, operator workstations, and video cameras.

Axxon One supports over 6000 models of IP devices, including more than 1500 models of network devices integrated using the proprietary protocol and about 4500 ONVIF compliant devices. *Axxon One* allows you to work remotely using mobile devices and a web interface, as well as efficiently use 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/display/one20en/User+Guide

4 Installing the software package

To install the *Axxon One* VMS, run the Setup.exe executable file as Windows administrator.

The following three types of installations are available:

1. **Client** installs the Client only. It allows any user to connect to any Server and perform administration/management/monitoring of a protected facility based on the permissions granted by the administrator.
2. **Server and Client** installs the Client and the Server services. The *Axxon One* Server:
    a. Interacts with devices (cameras, microphones, sensors, relays, etc.) that build a security system.
    b. Stores the archive data on its own disk space, interacts with archives on NAS.
    c. Stores VMDA database.
    d. Analyzes video image using the detection tools.
    e. Keeps the configurations of the security system, user settings, custom layouts, macros, etc.
3. **Failover Server and Client** installs the Client and the Server services enhanced with the FailOver capability. In emergencies (power outage, network problems), the FailOver technology restores the Server configuration on another Server.

When you install the Server, the following software is installed among the prerequisites:

1. PostgreSQL database Server. A new log database will be automatically created with the name—ngp, the username—ngp, and the password—ngp.
2. *.NET Framework 2.0*, *.NET Framework 3.5 SP1* and *.NET Framework 4.0*.
3. Acrobat Reader that is necessary for exporting frames in the PDF format and their printing (see Frame export[2]).

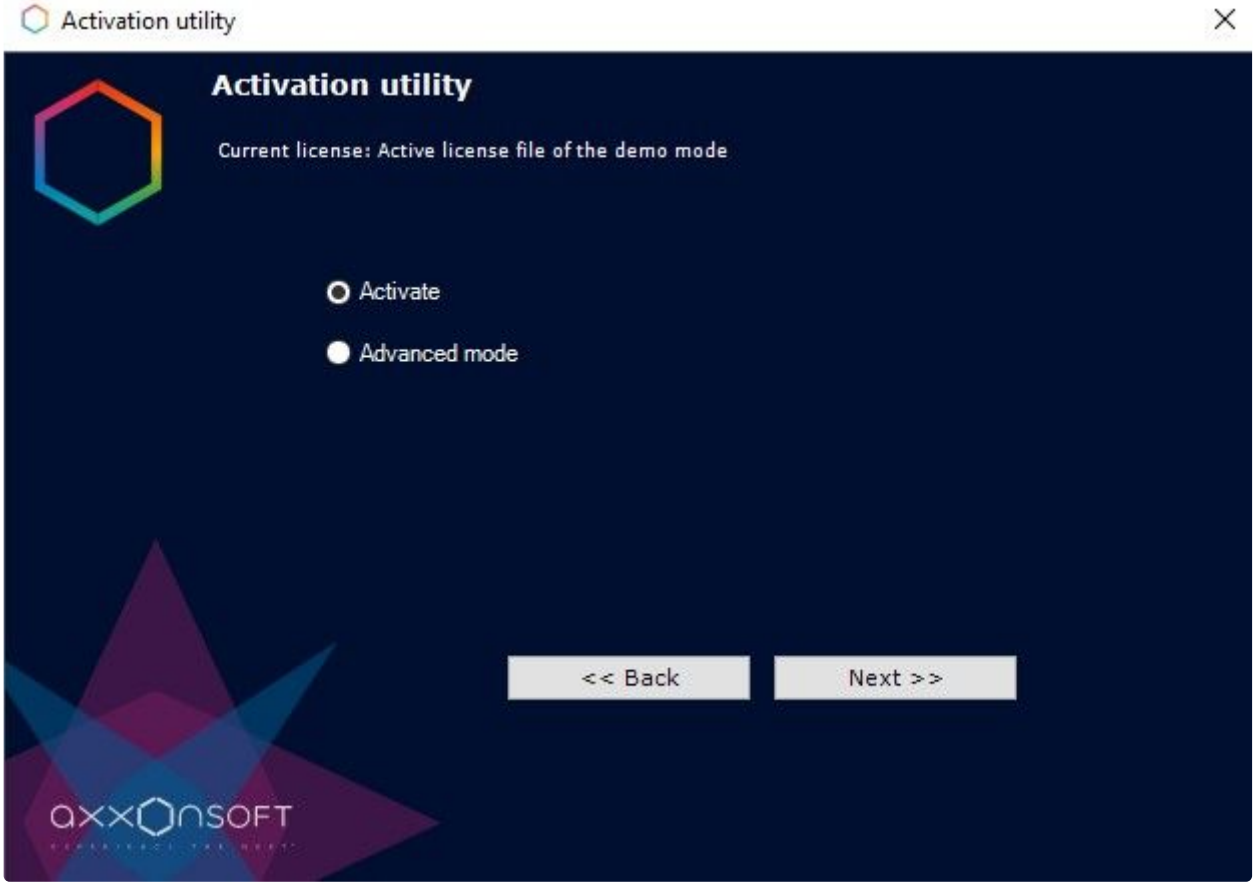
2 https://docs.axxonsoft.com/confluence/display/one20en/Frame+export

5 Licensing the software package

There are 6 types of *Axxon One* license: **Axxon One Demo**, **Axxon One Free, Axxon One Start**, **Axxon One Professional**, **Axxon One Enterprise** and **Axxon One Unified**. After installation, the software will be launched in *Axxon One* Demo mode. The operation time of the system in the demo mode is from 8 AM to 6 PM.

You should activate *Axxon One* VMS to utilize the full feature set of the security software package. You can activate the software by distributing an activation key in the system.

You can activate the *Axxon One* license using a special utility.



It is recommended that you read Activation guide[3]. This guide contains step-by-step manuals for activating all types of licenses and their update.

3 https://docs.axxonsoft.com/confluence/display/one20en/Activation+Guide

6 Starting and closing Axxon One

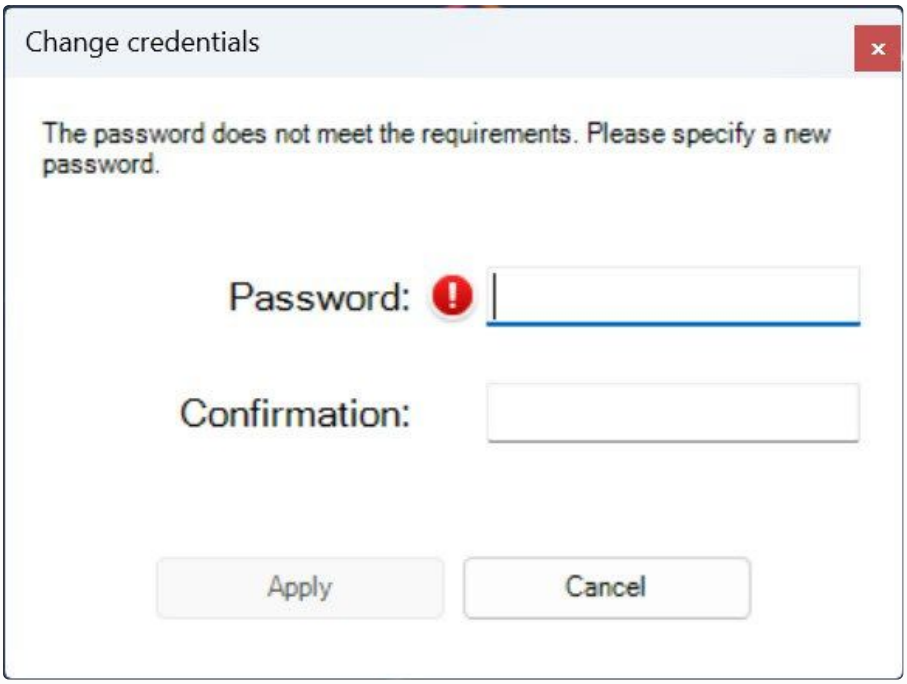
Before you start *Axxon One*, check the readiness for operation of the entire communication environment, cameras, microphones, and other system components.

To start working with the software, do the following:

1. Go to **Start** → **All Programs** → **Axxon One** → **Axxon One**.
   Axxon One will start and an authorization window will open.

2. Enter your username and password and click the **Connect** button.

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



When you hover the cursor over the icon, a tooltip will appear in which you can see the requirements for the new password (see Configuring the user security policy[4]). Click the **Apply** button to save the new password.
The administrator then needs to configure the system for multi-user access.

If authorization is successful, a video surveillance monitor will be displayed on the screen.

Before closing *Axxon One*, you need to exit the user interfaces. To do this, you need to do one of the following:

1. Click the 

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

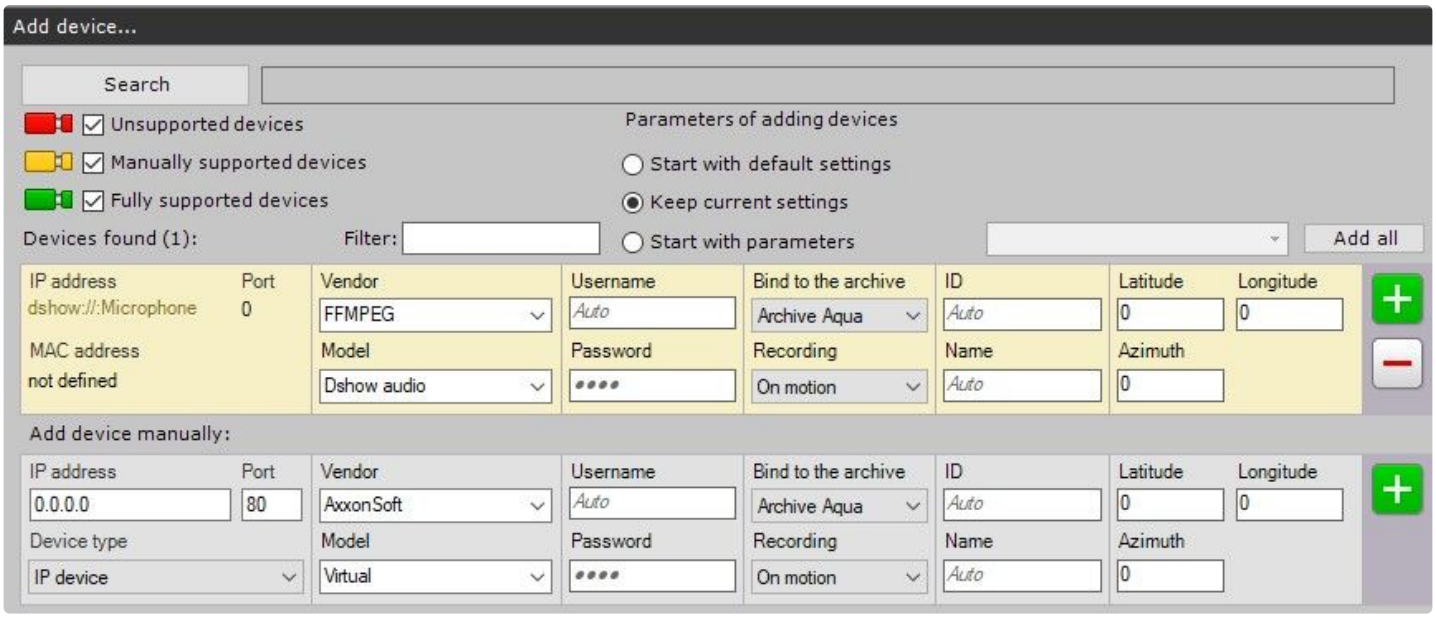
When you perform one of these actions, the authorization window will open. To close *Axxon One* (completely exit the Client), click the **Close** button.

4 https://docs.axxonsoft.com/confluence/display/one20en/Configuring+the+user+security+policy

7 Configuring Axxon One

7.1 Creating cameras

You can add video cameras and IP servers to the system by using the IP Device Discovery Wizard.



The IP devices are color-coded based on their status.

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

When adding a device, you can immediately set several configuration parameters, such as:

1. Firmware version.
2. Username and password.
3. Archive and recording (non-stop or based on a time schedule).
4. Object ID and name.

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

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 contact has been temporarily lost), you can add it manually. To do so, 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 the manufacturer and a model.

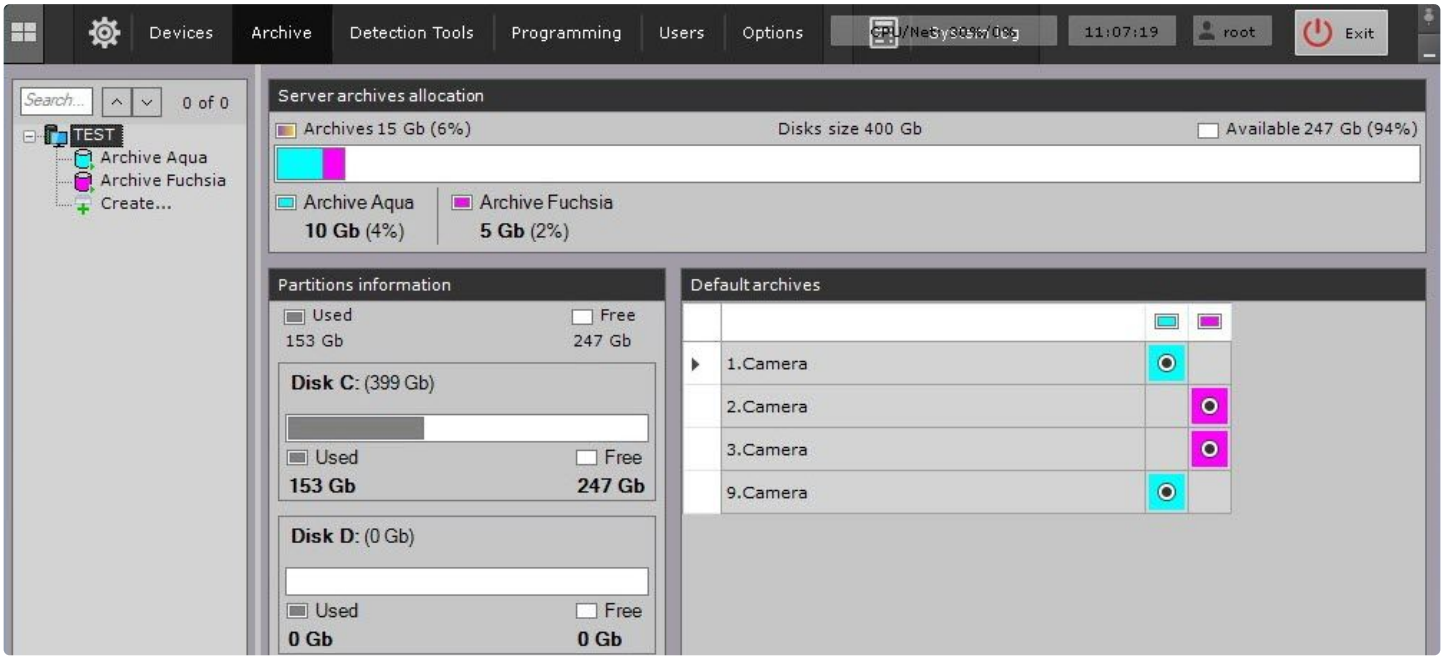
7.2 Creating archive

You can create an unlimited number of archives on the basis of one Server. An archive can be placed on local disks or on remote disks.

You can locate a single archive volume on each local disk. An archive volume is a file of a certain size or an entire logical disk (with the SolidStore file system).

You can locate an archive volume only in the form of a file on a remote disk.

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, click the **Apply** button.

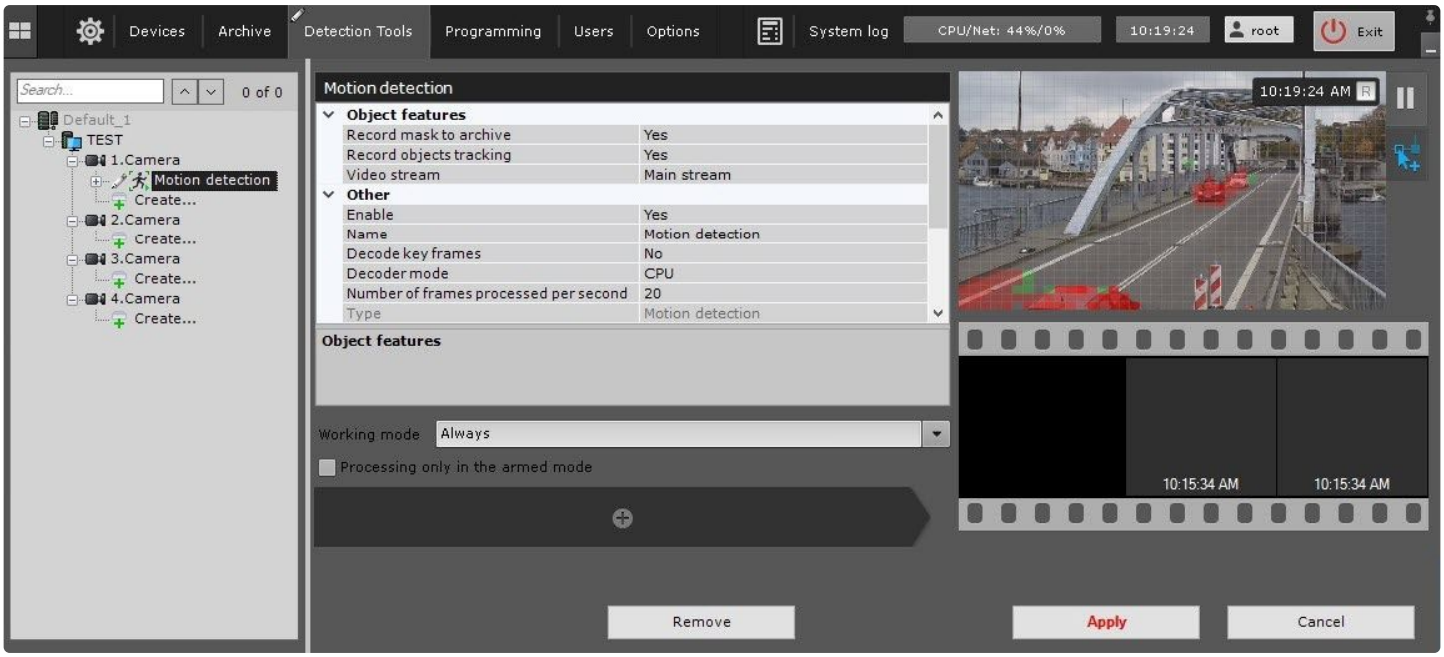
Configure the cameras recording to the archive as follows: select the cameras, configure the recording settings.

7.3 Creating and configuring detection tools

In *Axxon One*, the following detection tools process incoming data:

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

You can create and configure detection tools on the **Detection Tools** tab.



Configuring detection tools[5]

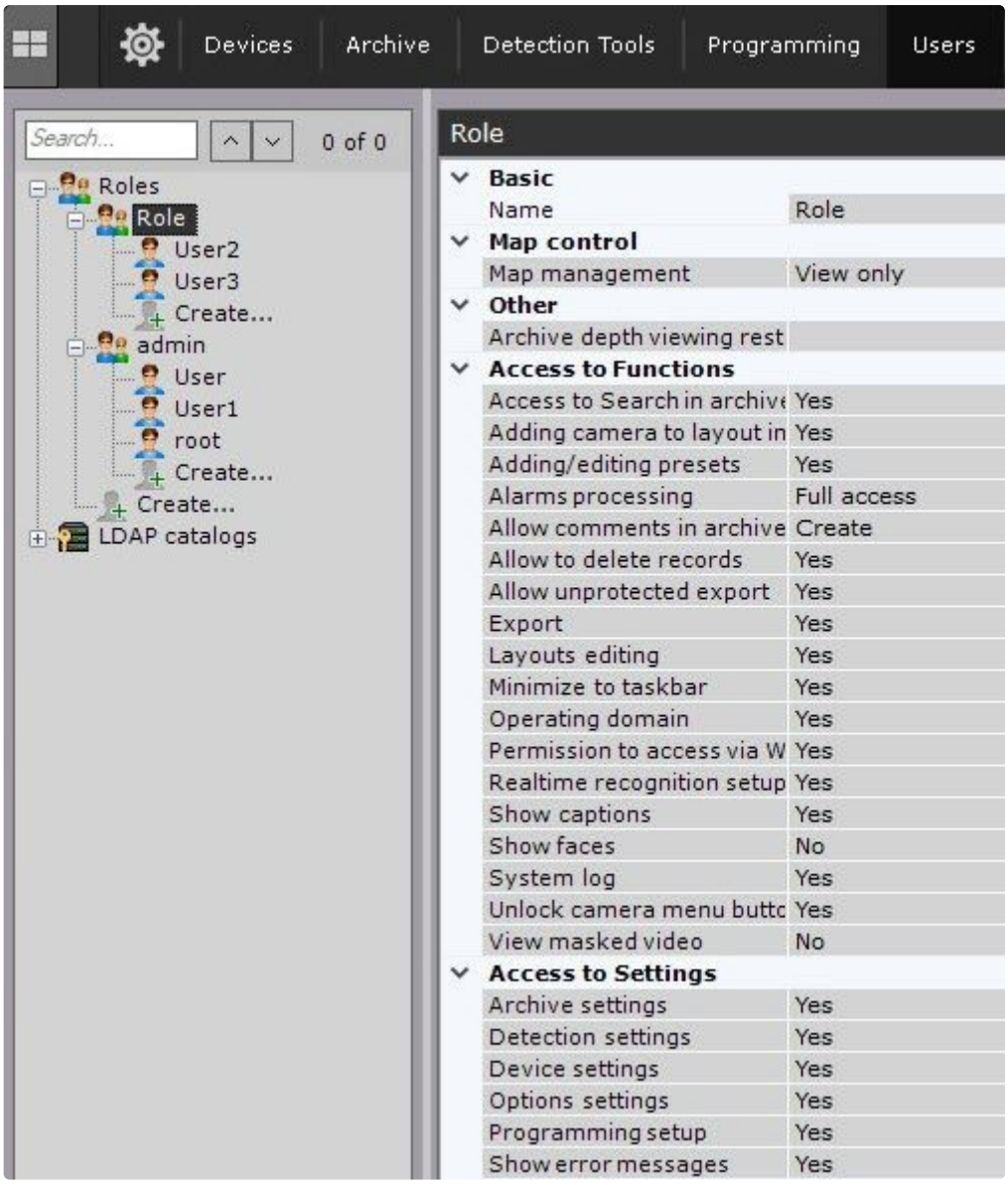
7.4 Configuring users and their roles

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 need to create a new role with the necessary permissions and a new user account.

Roles and users can be registered and configured on the **Users** tab.

5 https://docs.axxonsoft.com/confluence/display/one20en/Configuring+detection+tools



There are two types of users: local (stored in the Server database) and LDAP[6].

Role configuration involves setting access levels for users belonging to this role to various system settings, features and hardware.

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

7.5 Creating and configuring layouts

You can create and configure custom layouts for any user. Log into 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.

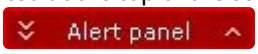
6 https://en.wikipedia.org/wiki/Lightweight_Directory_Access_Protocol

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

8 Operating Axxon One

8.1 Working with alarm events

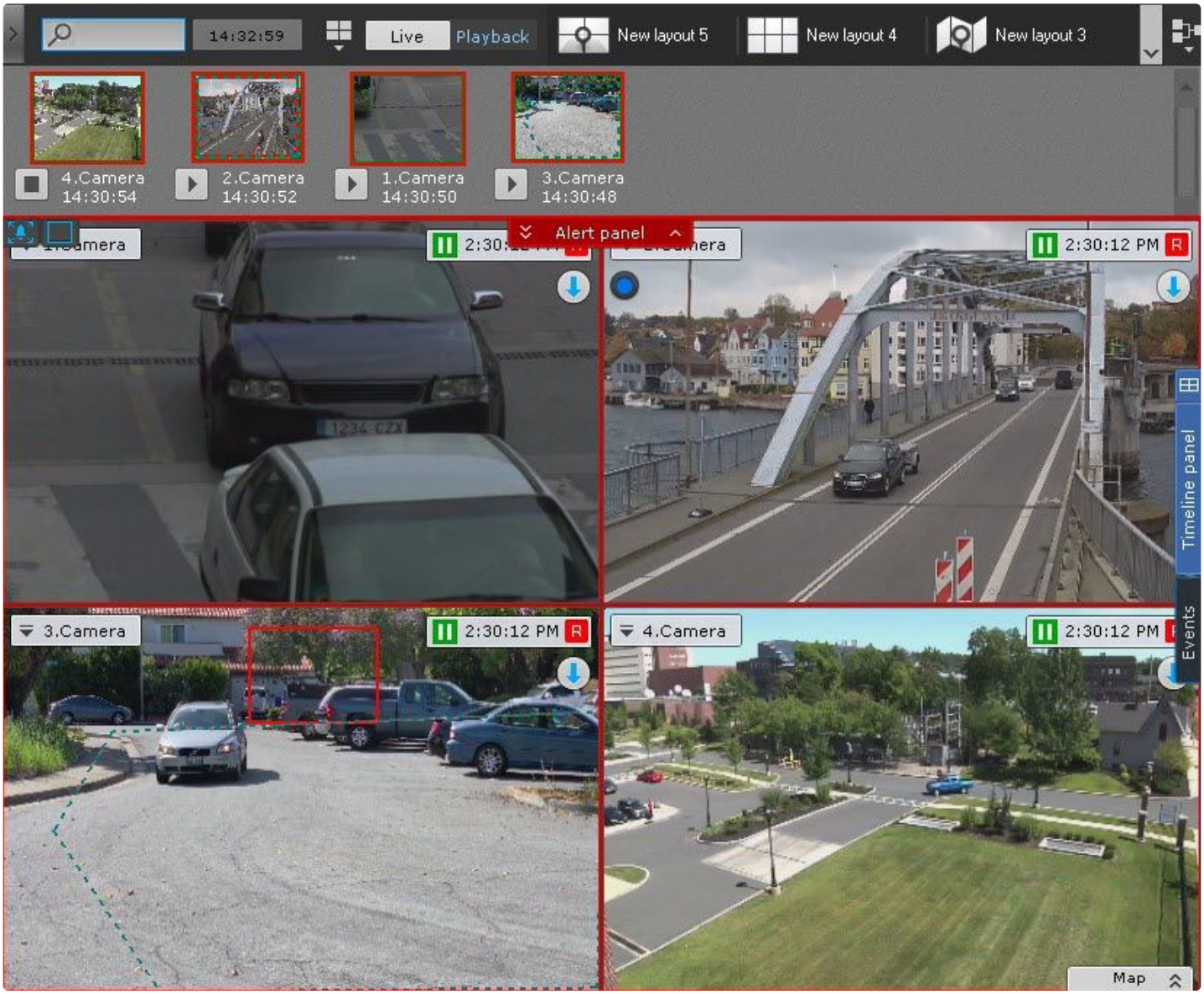
All alarm events are displayed on the **Alert panel**.

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 missed), a flag is added to the alarm recoding on the timeline. A flag is added to the point on the timeline when the alarm started.

8.2 Searching for information in the archive

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

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.

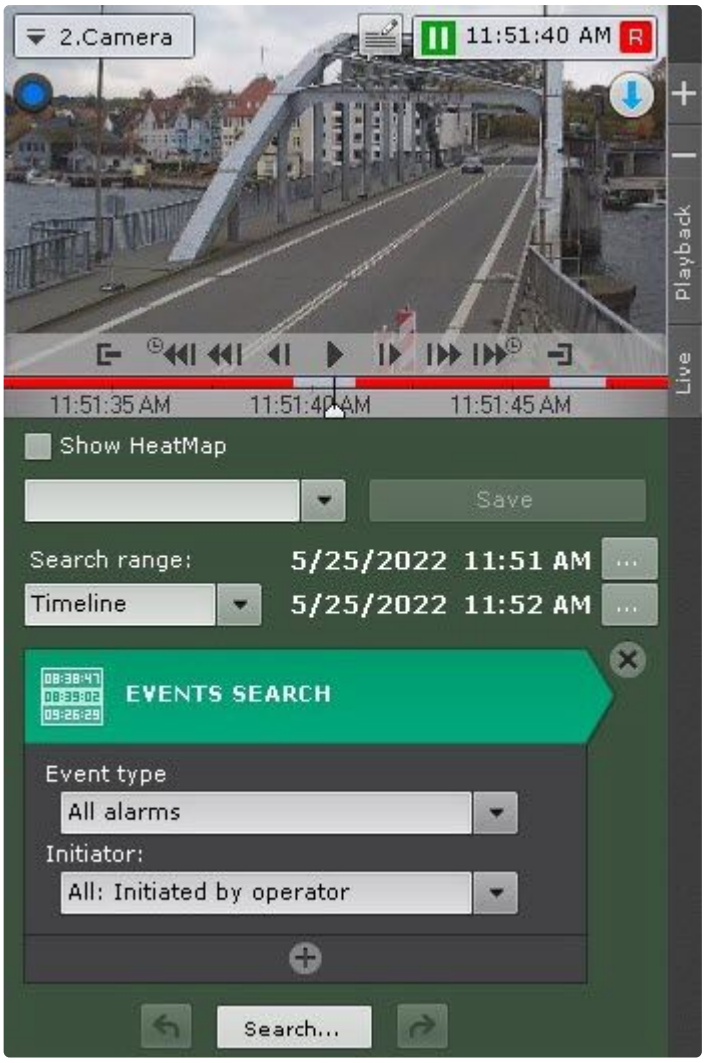
To navigate in the archive, left-click and drag the pointer to the necessary point in time.

In the archive analysis 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. Events search.
2. Time search.
3. Titles search.
4. ANPR search.
5. Face search.
6. Forensic search.
7. Comments search.

MomentQuest forensic search allows you to search for video fragments in the archive by the following criteria:

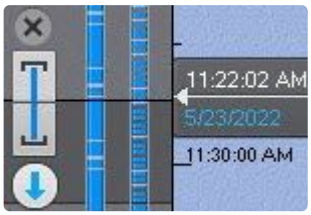
1. Motion in Area.
2. Loitering of an object in a specific area.
3. Simultaneous presence of a large number of objects in a specific area.
4. Line crossing.
5. Motion from one area to another.



8.3 Exporting frames and video

You can export in two ways: you can set the export range in the archive or click the button in the surveillance window.

You can select the export range on any timeline with the right-click or set 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.

8.4 Working with the Map

The interactive map is used to visualize the location of video 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.

Note

To work with OpenStreetMap maps in *Axxon One* you need to purchase an OpenStreetMap[7] license.

The map can contain icons for cameras, relays, and sensors. The camera field of view 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 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, in which both the map and the layout are available.
2. 2D mode, in which only the map is available.
3. Immersion mode, in which video is overlaid on the map.

7 https://www.openstreetmap.org/copyright/en

8.5 ANPR and search in the archive

Automatic number plate recognition is performed by a corresponding detection tool. An event is generated during recognition. This event contains the number of the vehicle that gets into the database.

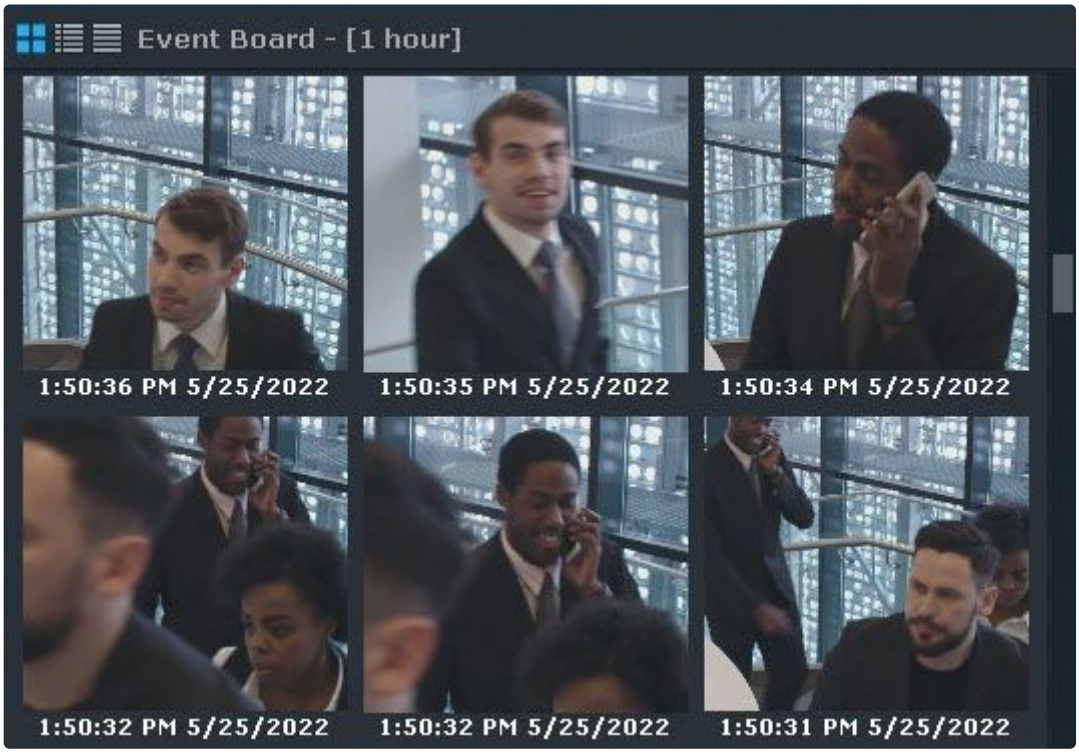
These events can be displayed on a layout on the Event Board or Dialog Board.

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

8.6 Face recognition and search in the archive

Face recognition is performed by a corresponding detection tool. The recognition generates an event that is written to a database.

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

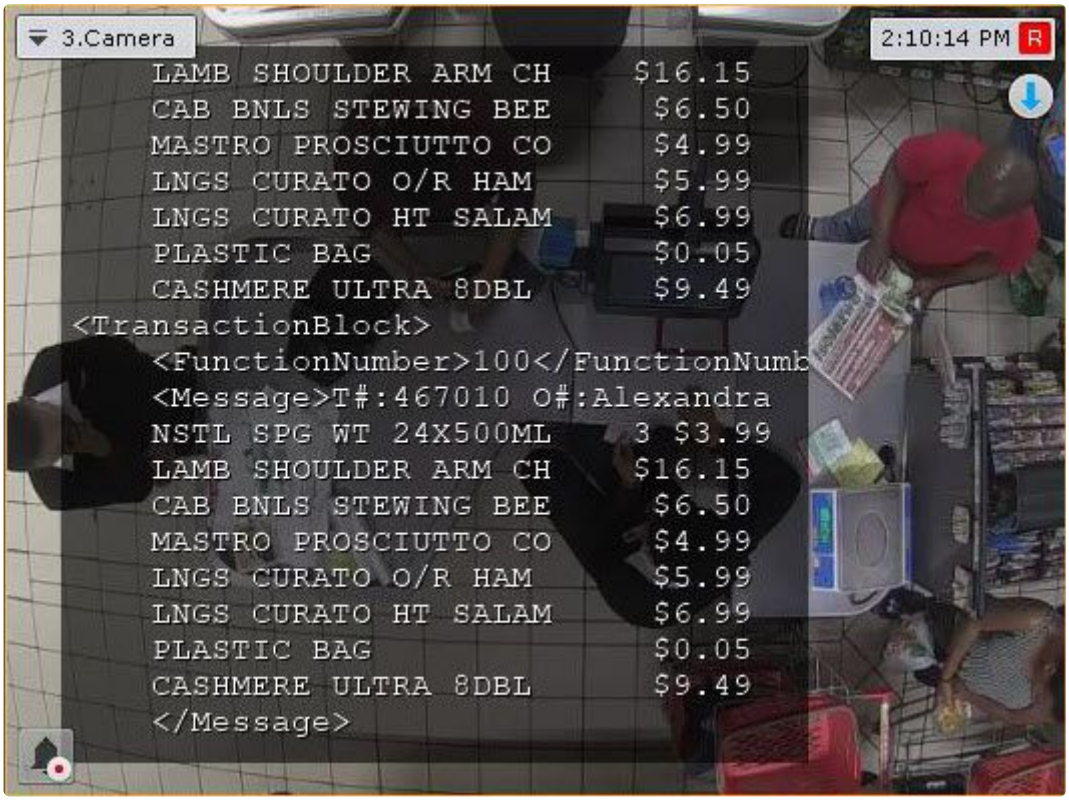


You can search for similar faces in the archive of one video camera or in the archive of several video cameras simultaneously.

8.7 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 configured the video camera accordingly. Titles from several POS devices can be displayed in the same window.



In the archive analysis mode, the title search allows you to find videos with the titles containing the text from the search query.