



Administrator's Guide

Monitoring PSIM 2.0 (english)

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1 Introduction

On the page:

- [Document purpose](#)
- [Purpose of Monitoring PSIM](#)

1.1 Document purpose

This document, *Monitoring PSIM. Administrator's Guide*, is a reference aid for system administrators, configuration and installation specialists, and users with administrator rights on the *Monitoring PSIM* of technical condition software (hereinafter referred to as *Monitoring PSIM*).

This guide describes the following:

1. Purpose of *Monitoring PSIM*.
2. Hardware and software requirements for *Monitoring PSIM*.
3. Installation procedure for *Monitoring PSIM*.
4. Configuration of *Monitoring PSIM* components.

1.2 Purpose of Monitoring PSIM

Monitoring PSIM is designed to automate the activities of personnel at service companies involved in the operation of *Axxon PSIM*-powered video surveillance systems. The purpose of *Monitoring PSIM* is to improve the quality of operation for such video surveillance systems.

2 Monitoring PSIM general description

2.1 Features of Monitoring PSIM

Monitoring PSIM receives, records, and visualizes messages about the state of security system components, based on the following key parameters:

1. Camera operability.
2. Network functioning.
3. Operability of video subsystem software.
4. Amount of recorded video.
5. Hard disk operability.
6. Operability of fire/security and access control systems.
7. UPS signals.

In addition, *Monitoring PSIM* allows you to control the actions of *Monitoring PSIM* operators: recording is performed of whether an alarm has been accepted, how much time passed before the alarm was accepted, etc. The built-in system of statistical and analytical reports allows you to generate reports on the system operation: reports on alarms, downtime, statistics on security system operation, and more.

 **Note**

If there is no activation key, then *Monitoring PSIM* operates in the demo mode for two months from 8:00 am to 12:00 am.

2.2 Monitoring PSIM restrictions

In the *Monitoring PSIM* software package restrictions are imposed when creating systems of technical condition *Monitoring PSIM*:

1. Maximal number of **Agent Of Control** objects that can be connected to a *Server of Control* is 2000.
2. Maximal number of **Partition Of Control** objects being child objects for an *Agent of Control* is 255.
3. Maximal number of cameras which a *Partition Of Control* can handle is 224.
4. Maximal number of cameras which a *Agent Of Control* can handle is 1120.

2.3 General information about Monitoring PSIM as a service

On the page:

- [General information](#)
- [Features of Windows 10 OS](#)

2.3.1 General information

Monitoring PSIM installed as a service (see [Installing, restoring, removing of Monitoring PSIM software package](#)) is launched before user authorization in Windows OS and before launching Windows applications (including the Explorer that is used to launch interfaces of both Windows OS and various applications installed on the server).

When you change the active account, the following *Monitoring PSIM* modules are restarted:

- On the *Agent of Control*—videosrv.exe.
- On the *Server of Control*—videosrv.exe and loadersstv.exe.
- On the *Central Server of Control*—CentralNetServer.exe.

If *Monitoring PSIM* is installed as a service, and the connection to the database is established using Windows credentials, then to ensure the operation on any user account other than the one who installed *Monitoring PSIM*, the user must have the appropriate rights to SQL server.

2.3.2 Features of Windows 10 OS

To ensure the correct operation in the service mode on a Windows 10 computer, you must disable fast startup, which saves some system data when shutting down, as this can interfere with the service loading correctly.

1. Go to Control Panel → All Control Panel Items → Power Options.
2. In the left menu, select **Choose what the power buttons do**.
3. In the settings window that opens, click **Change settings that are currently unavailable**.
4. Clear the **Turn on fast startup (recommended)** checkbox.
5. Click the **Save changes** button.

3 Hardware and software requirements

On the page:

- [Operating system requirements](#)
- [Hardware requirements](#)

3.1 Operating system requirements

Monitoring PSIM is provided as executable modules that can be run on the operation systems supported by the *Axxon PSIM* software (see [Administrator's Guide: Operating system requirements](#)).

The software is compatible with standard operating system settings. On Windows Vista and later, UAC must be disabled. In Windows 8, 8.1 and 10 it is necessary to configure security policies in order to entirely disable UAC (see [Administrator's Guide: OS settings for correct operation of Remote Admin Workstation or Server](#)).

For the *Server of Control* and the *Central Server of Control* to operate, there must be an available database server. During installation of *Axxon PSIM*, MS SQL Server 2014 Express is installed to a "clean" (fresh) system.

The *Server of Control* and the *Central Server of Control* are compatible with the following servers:

- MS SQL Server 2008 R2,
- MS SQL Server 2012,
- MS SQL Server 2014,
- MS SQL Server 2019.

When installing *Intellect* software on a clean (fresh) PC, MS SQL Server 2019 Express is installed as well.

3.2 Hardware requirements

Monitoring PSIM can run on PCs that meet the following minimum hardware requirements:

- Intel Core i5 750 CPU,
- 2 GB RAM,
- 200 GB HDD,
- NIC,
- Graphics card with overlay support.

4 Installing, restoring, removing of Monitoring PSIM software package

4.1 General description of Monitoring PSIM distribution kit

Monitoring PSIM is supplied as a software installation package (distribution kit). The current version of the distribution kit can be downloaded from the official [AxxonSoft](#) website.

The distribution kit contains all the necessary software components for installing the *Monitoring PSIM* software package on a base computer.

The distribution kit allows you to install, restore and remove the *Monitoring PSIM* software package.

Attention!

- Prior to installing, restoring or removing the *Monitoring PSIM* software package, the *Axxon PSIM* operation should be shut down.
- Administrator rights are required for installing, restoring or removing *Monitoring PSIM*.

4.2 Installation options

Monitoring PSIM can be installed in one of the following configurations:

Installation type	Purpose	License features	Additional components	Base Axxon PSIM installation type
Agent of control	Is to be installed on the object for which receiving, recording, and visualizing messages about the state of security system components is required.	The program key, psim.sec, should contain the Agent Of Control object.	In addition to <i>Agent of Control</i> modules, the VideoSrv communication program is installed. It interacts with similar programs on the <i>Server of Control</i> .	Server/RAW

Server of control	Is to be installed on the object from which the <i>Agents of Control</i> are monitored.	The program key, psim.sec, should contain the Server Of Control object.	In addition to <i>Agent of Control</i> modules the following components are installed: <ol style="list-style-type: none"> 1. VideoSrv communication module. It interacts with similar programs on the <i>Agent of Control</i>. 2. Data loader for <i>Monitoring PSIM</i> to record information collected by VideoSrv into the database.
Additional workplace	This is the <i>Server of Control</i> version which is installed without additional components and connects to the existing database of the main <i>Server of Control</i> while interface objects are created on the local computer.	<i>Axxon PSIM</i> distributed system configuration is not required for the additional workplace operation. The Additional workplace object is to be specified in the psim.sec license key that is located on <i>Server of Control</i> in order to allow using the <i>Additional workplace</i> software.	-

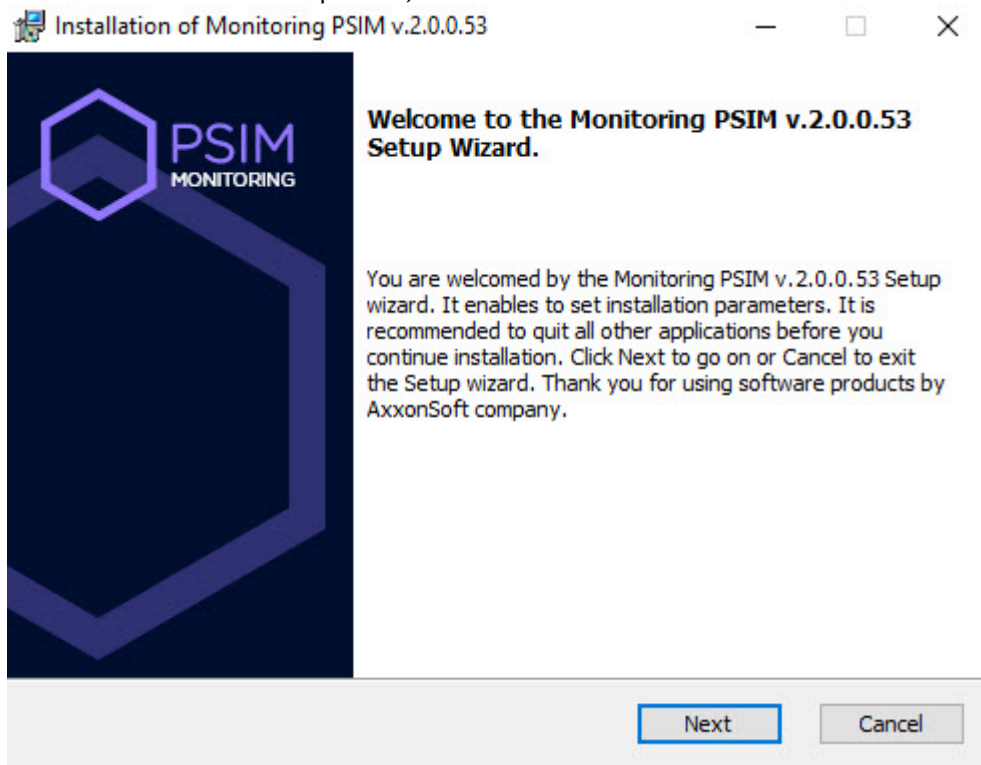
Central server of control	Allows to combine several <i>Servers of Control</i> into a single system.	The program key, psim.sec, should contain the Central Server Of Control object.	In addition to <i>Central Server of Control</i> modules the following components are installed: <ol style="list-style-type: none"> 1. CentralNetServer communication module. It interacts with VideoSrv modules on the <i>Server of Control</i>. 2. Data loader for <i>Central Server of Control</i> which records the information received from CentralNetServer into the database.
Additional workplace of CSC	This is the <i>Central Server of Control</i> version which is installed without additional components and connects to the existing database of the main <i>Central Server of Control</i> while interface objects are created on the local computer.	<i>Axxon PSIM</i> distributed system configuration is not required for the additional workplace operation. The Additional workplace of CSC object is to be specified in the psim.sec license key that is located on <i>Central Server of Control</i> in order to allow using the <i>Additional workplace</i> software.	-

4.3 Installing Agent of control software

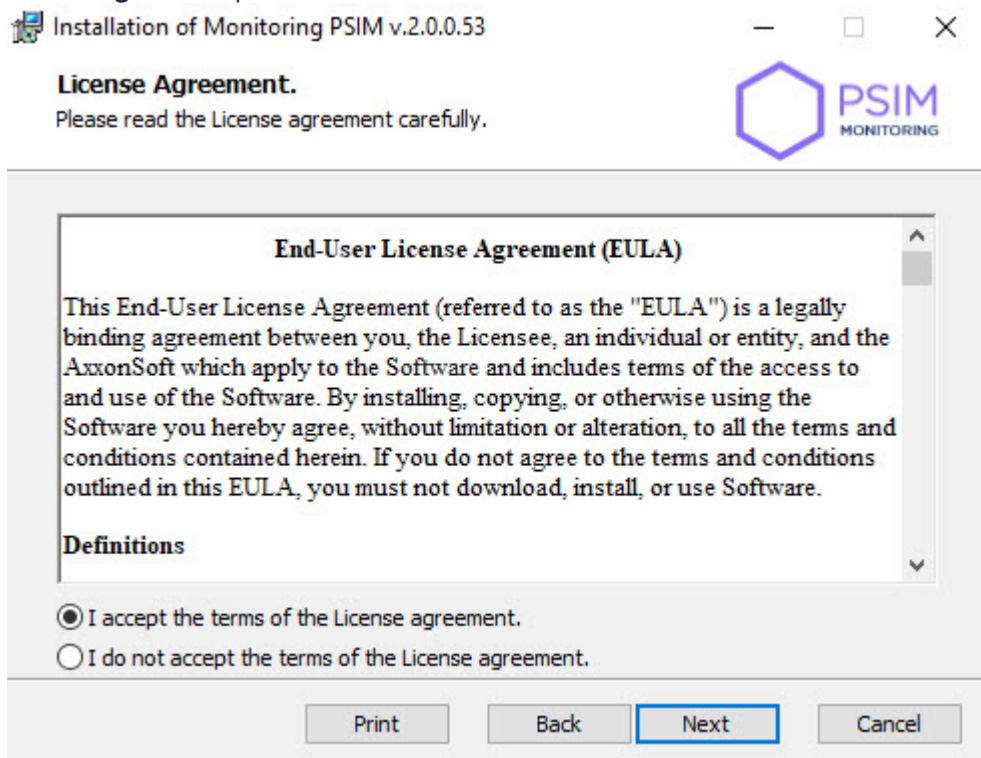
The *Monitoring PSIM* is installed as an extension to the *Axxon PSIM* software. Information about the compatibility of the *Axxon PSIM* software versions and *Monitoring PSIM* is presented in the [General information about product releases and versions compatibility](#) section.

To install *Monitoring PSIM* in the *Agent of control* software configuration, do the following:

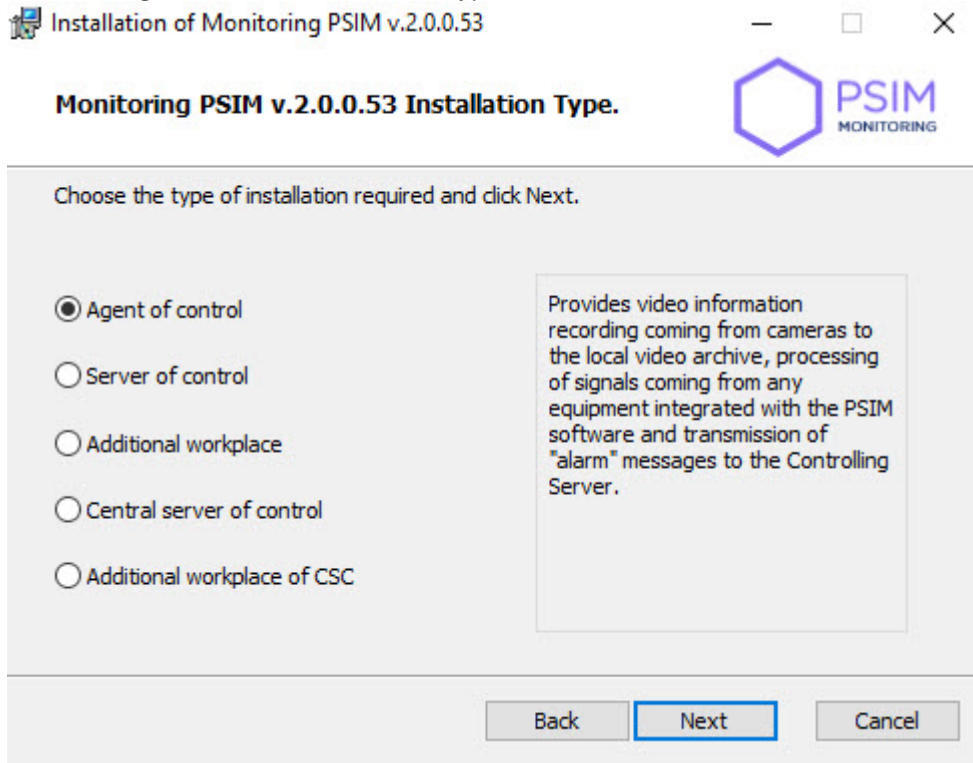
1. In the root directory of the distribution package, run the setup.exe executable file.
2. To continue the installation process, click the **Next** button.



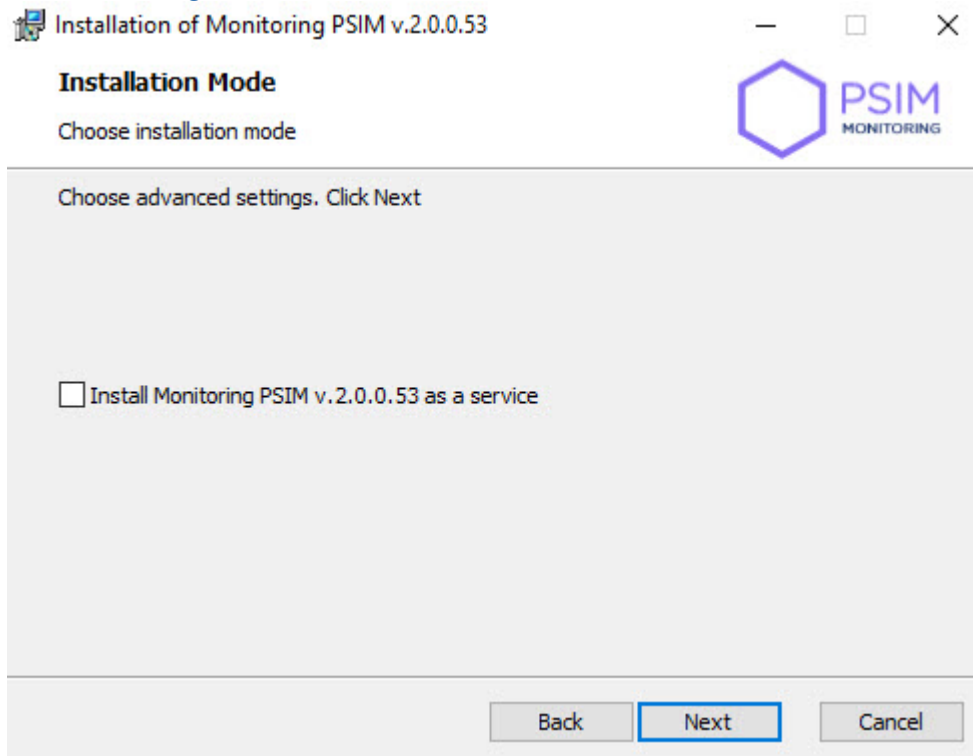
3. Read carefully the terms of the license agreement. Then set the switch to the **I accept the terms of the License agreement** position and click the **Next** button.



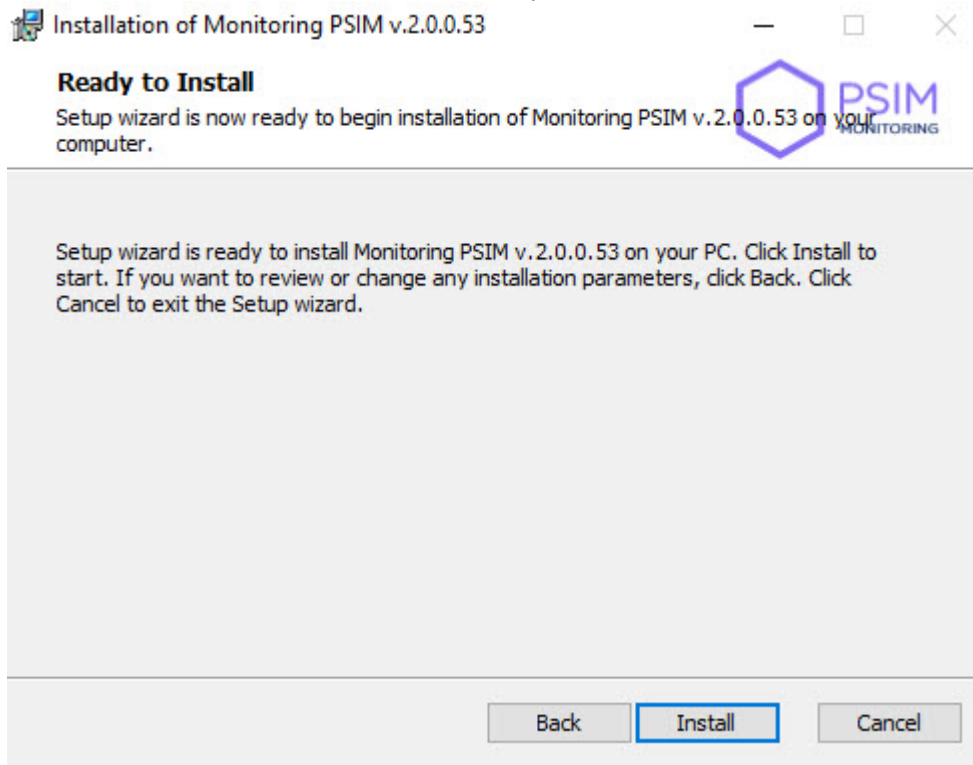
4. Select the **Agent of control** installation type and click the **Next** button.



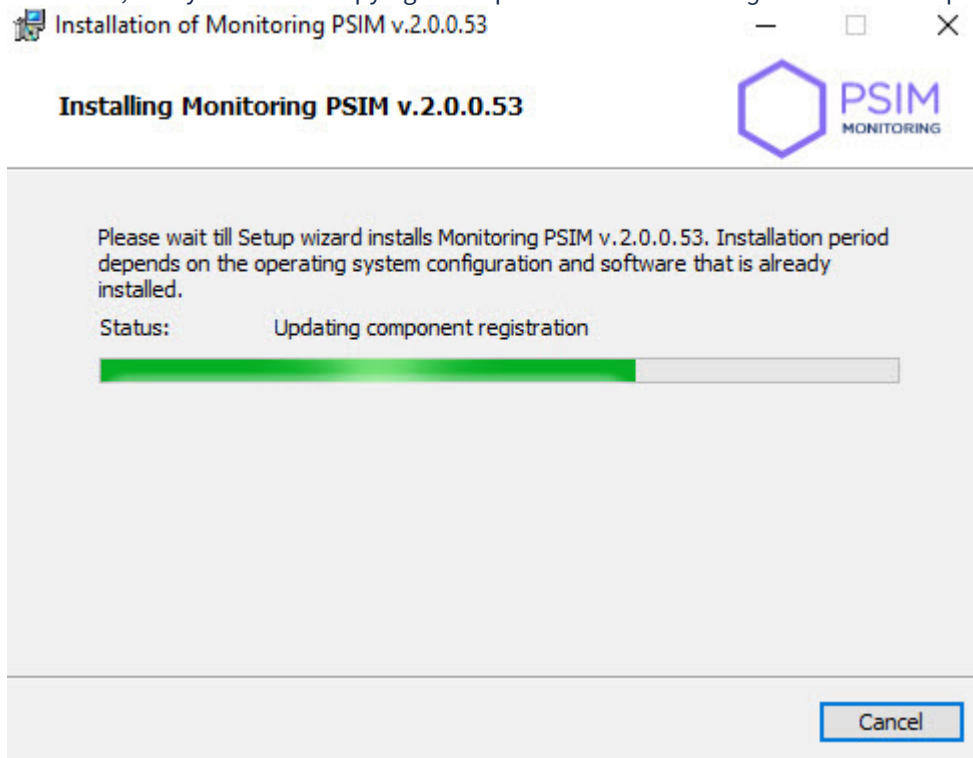
5. If *Axxon PSIM* is installed as a service, and you want to start *Monitoring PSIM* as a service, then set the **Install Monitoring PSIM as a service** checkbox and click the **Next** button (for more details, see [General information about Monitoring PSIM as a service](#)).



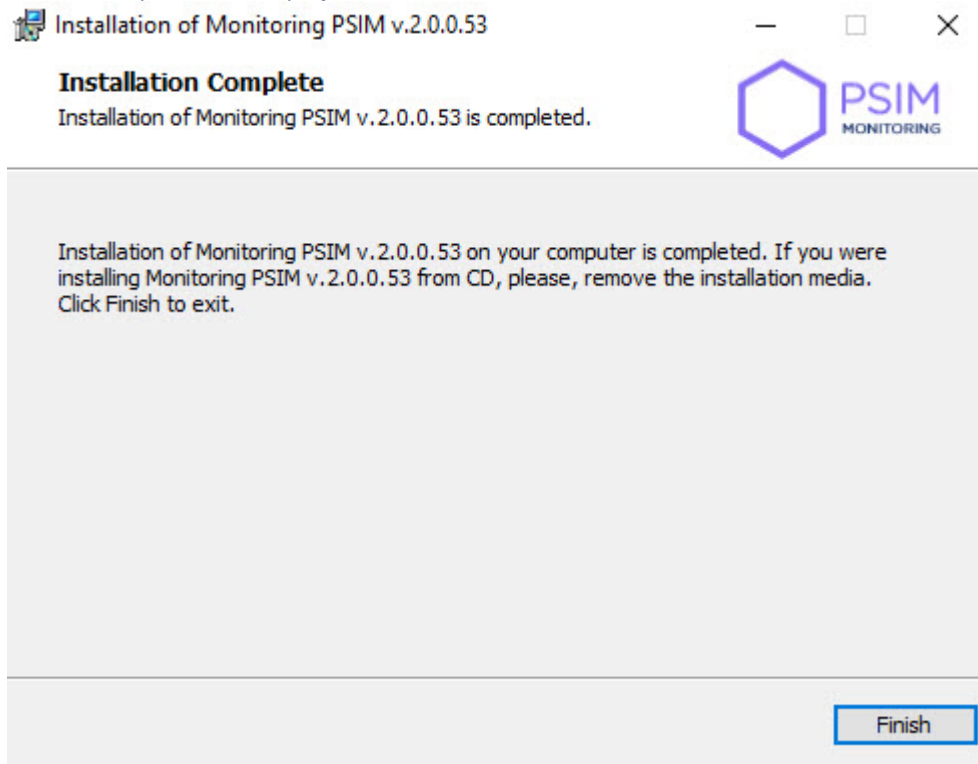
- Click the **Install** button to start the installation process.



As a result, the system starts copying the required files of *Monitoring PSIM* to the computer's hard disk.



7. After the system successfully copies the *Monitoring PSIM* components, the message about completing the installation process is displayed. Next, click the **Finish** button.



Installing the *Agent of control* software is complete.

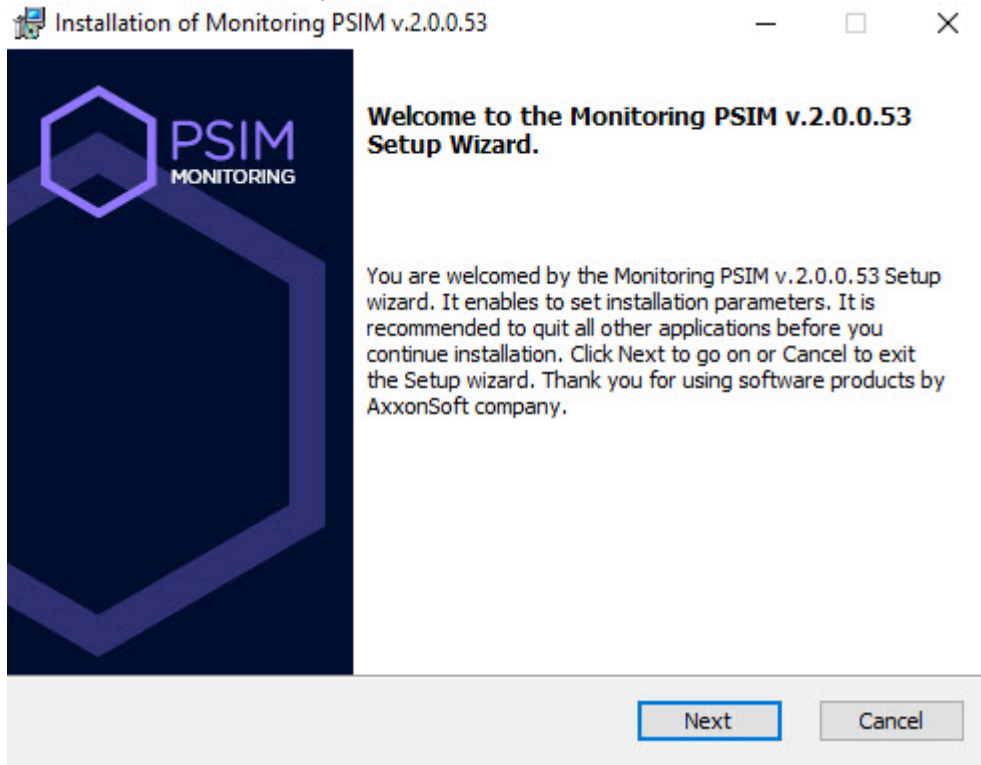
4.4 Installing Server of control software

The *Monitoring PSIM* is installed as an extension to the *Axxon PSIM* software. Information about the compatibility of the *Axxon PSIM* software versions and *Monitoring PSIM* is presented in the [General information about product releases and versions compatibility](#) section.

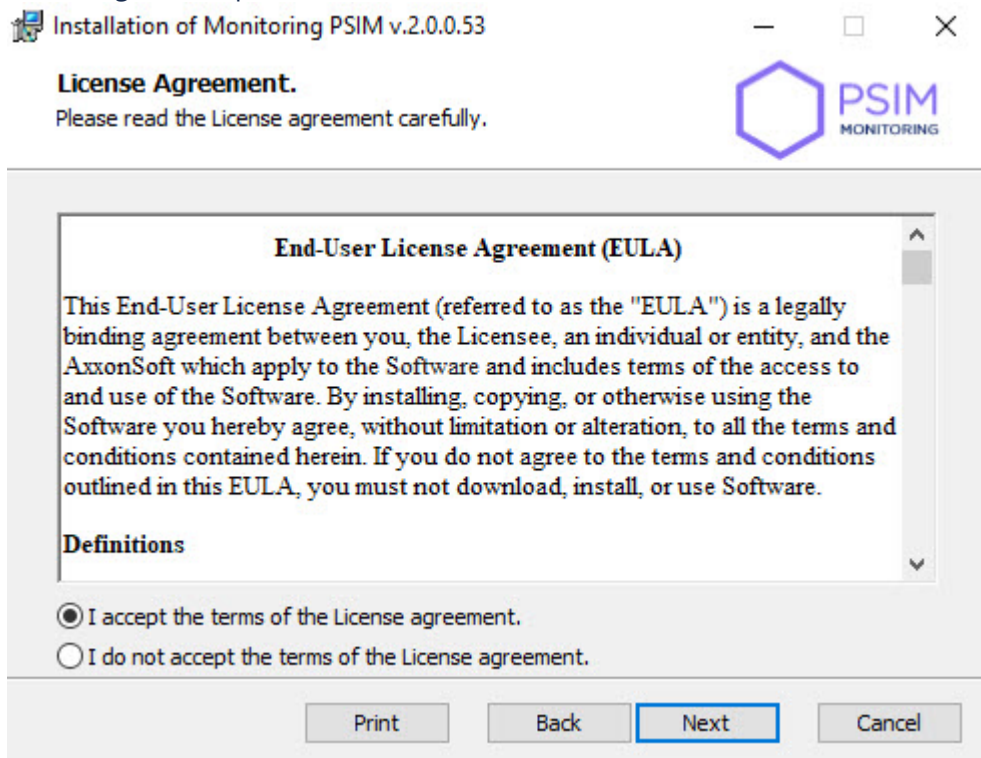
To install *Monitoring PSIM* in the *Server of control* software configuration, do the following:

1. In the root directory of the distribution package, run the setup.exe executable file.

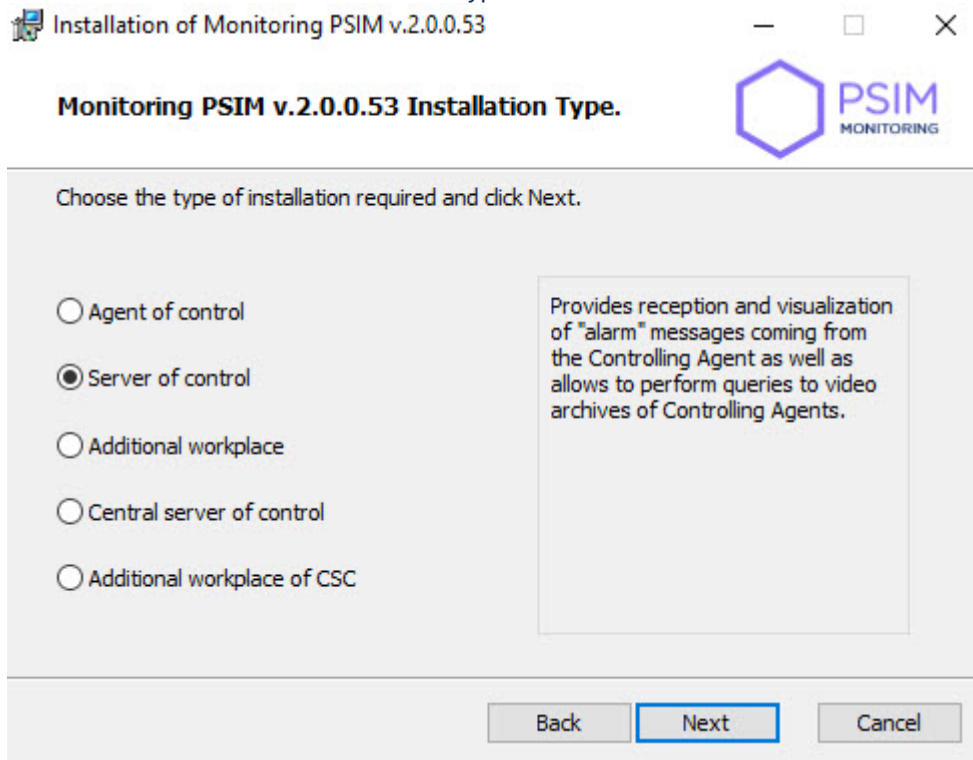
- To continue the installation process, click the **Next** button.



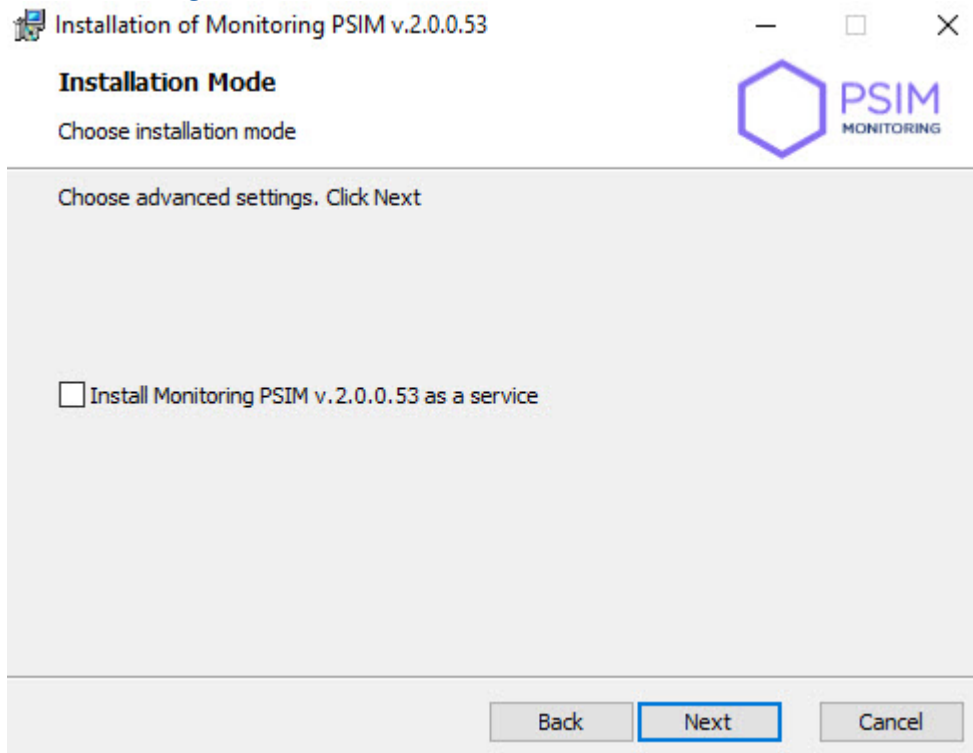
- Read carefully the terms of the license agreement. Then set the switch to the **I accept the terms of the License agreement** position and click the **Next** button.



4. Select the **Server of control** installation type and click the **Next** button.



5. If *Axxon PSIM* is installed as a service, and you want to start *Monitoring PSIM* as a service, then set the **Install Monitoring PSIM as a service** checkbox and click the **Next** button (for more details, see [General information about Monitoring PSIM PSIM as a Service](#)).



6. Select the MS SQL database server and specify the connection parameters. For more details, see [Installation of Axxon PSIM™ as a Server/Remote Administrator's workplace](#). To continue the installation process, click the **Next** button.

Note

In the **Select database Server from the drop-down list** field, you must specify the **127.0.0.1** value of the IP address without using the computer names and local value. Otherwise, the *Server of control* software loses connection with its local database when the network cable is disconnected.

Installation of Monitoring PSIM v.2.0.0.53

Select Database Server

Select database Server and authentication method.

Select database Server from the drop-down list.

127.0.0.1\SQLEXPRESS2014

Choose user identification procedure based on the present user account or SQL Server identity check.

Windows user account

Use the following user name and password:

User name: sa

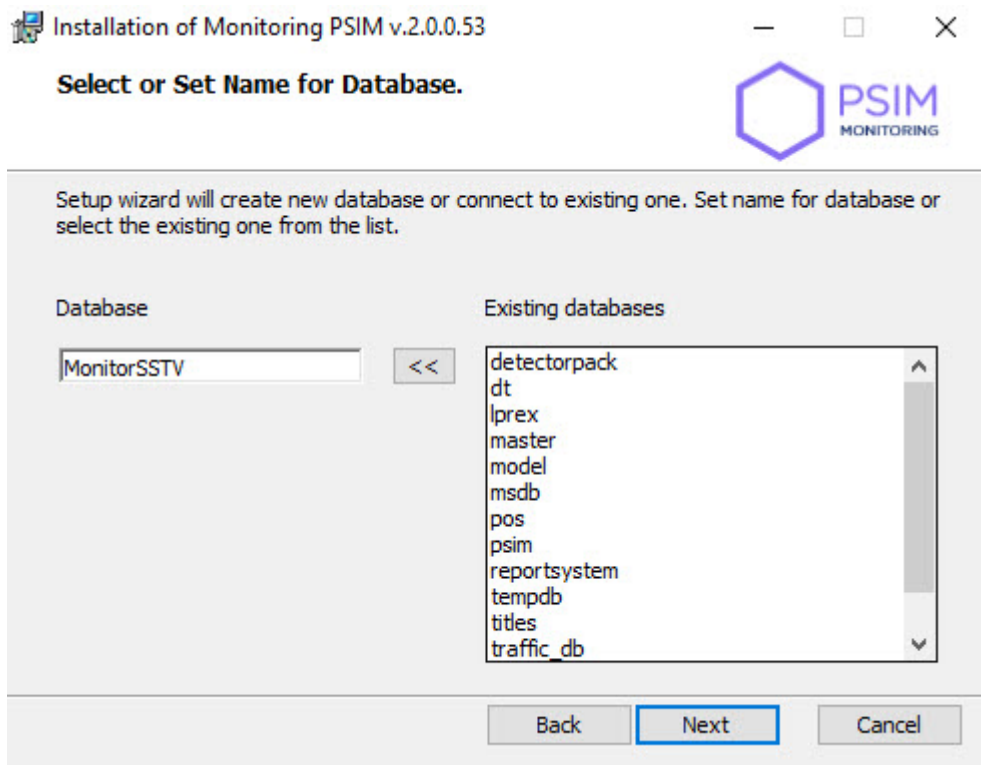
Password: [masked]

Back Next Cancel

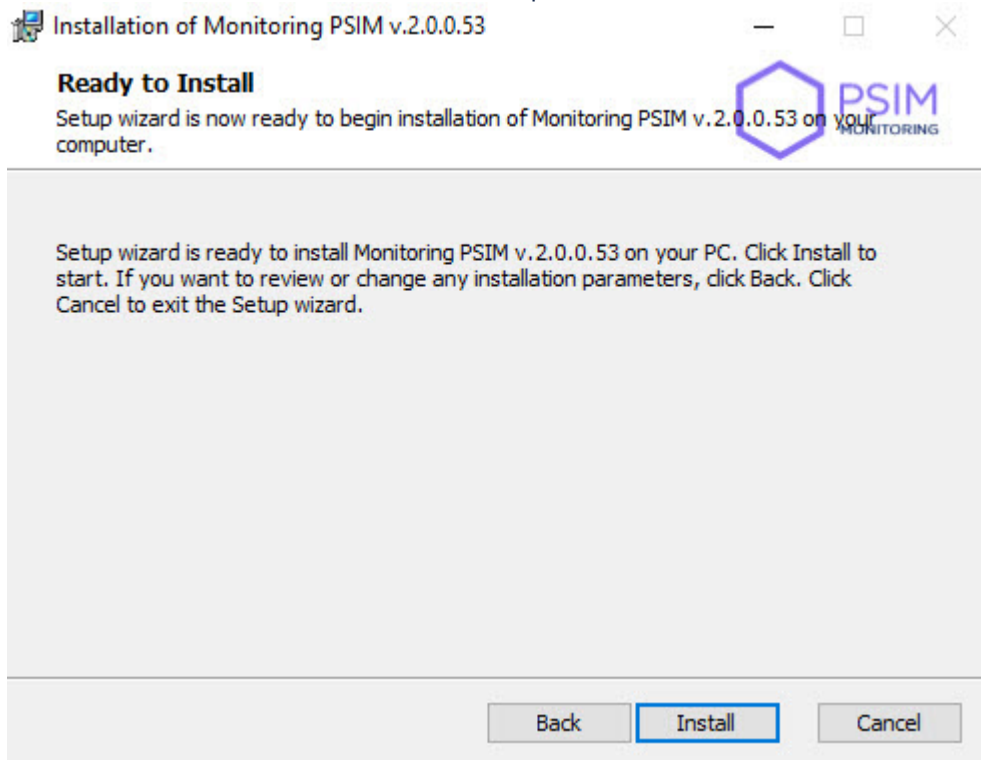
7. In the **Database** field, specify the name of the database or select it in the list of existing databases from the right and click the << button. Click the **Next** button.

Note

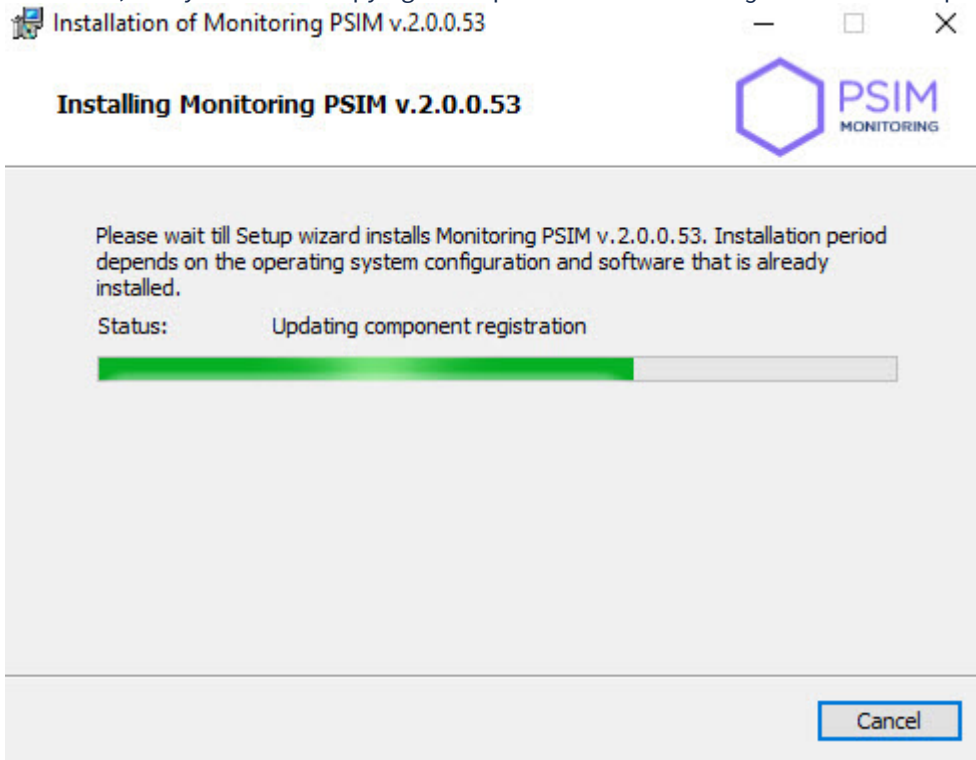
By default, the name of the database is "MonitorSSTV", and its files are stored in the SQL Server folder.



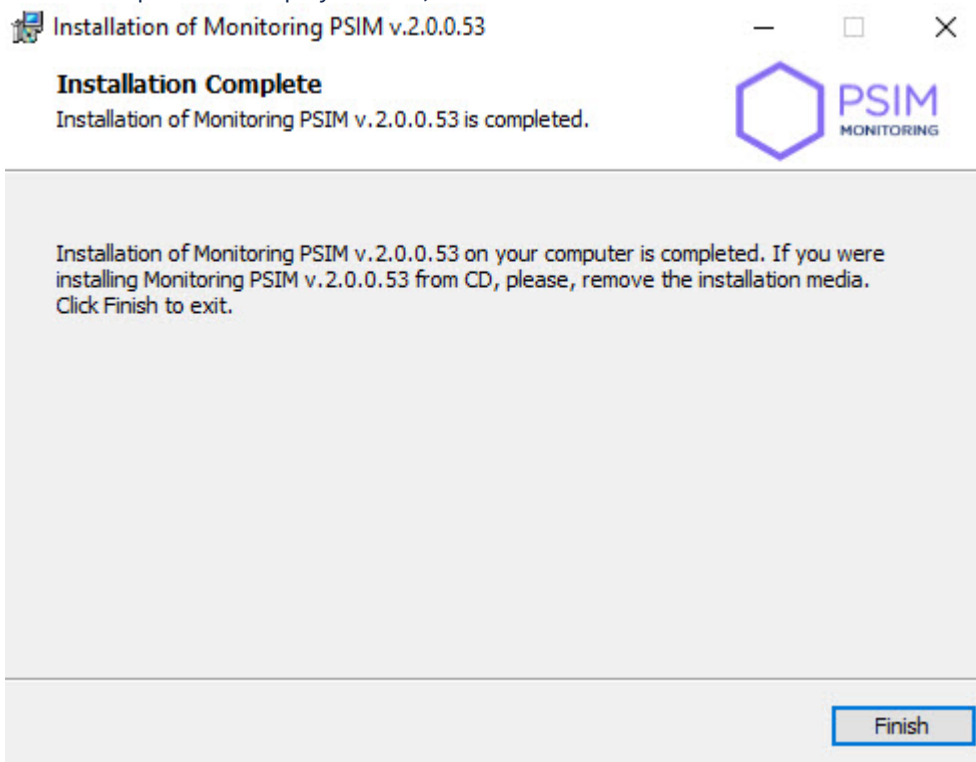
8. Click the **Install** button to start the installation process.



As a result, the system starts copying the required files of *Monitoring PSIM* to the computer's hard disk.



9. After the system successfully copies the *Monitoring PSIM* components, the message about completing the installation process is displayed. Next, click the **Finish** button.



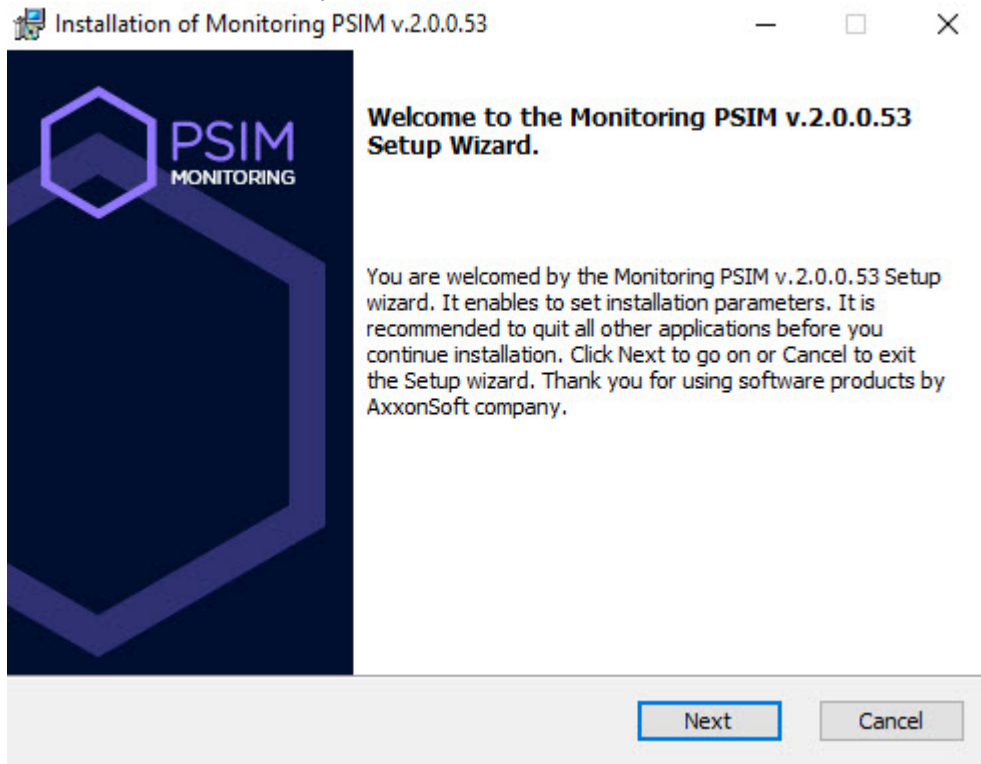
Installing the *Server of control* software is complete.

4.5 Installing Additional workplace software

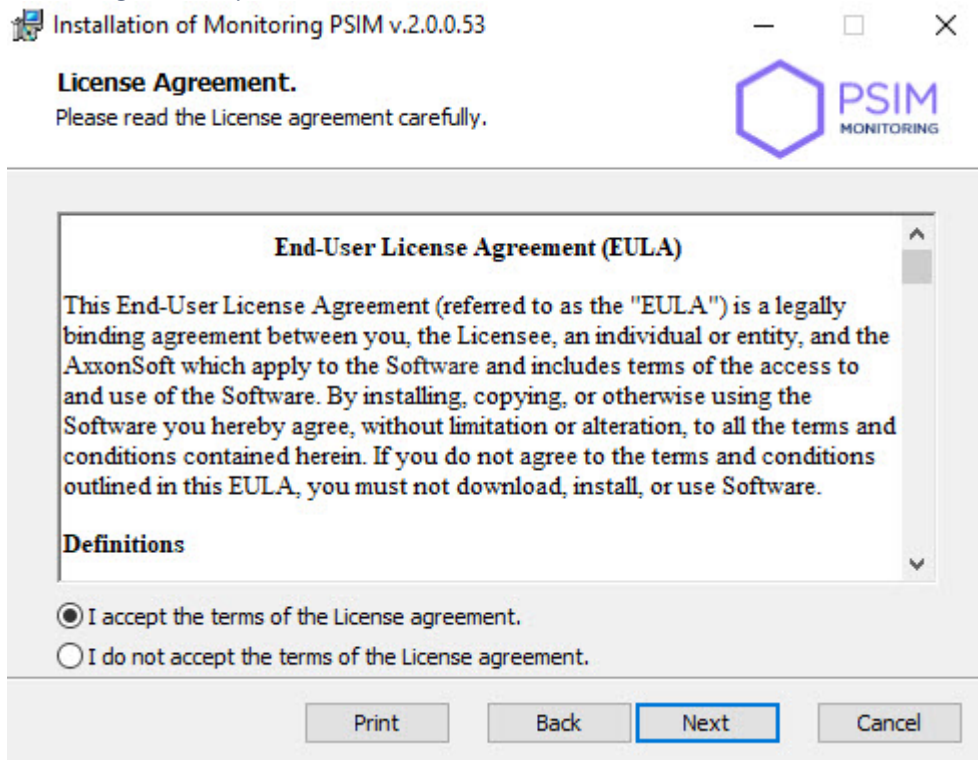
The *Monitoring PSIM* is installed as an extension to the *Axxon PSIM* software. Information about the compatibility of the *Axxon PSIM* software versions and *Monitoring PSIM* is presented in the [General information about product releases and versions compatibility](#) section.

To install *Monitoring PSIM* in the *Additional workplace* software configuration, do the following:

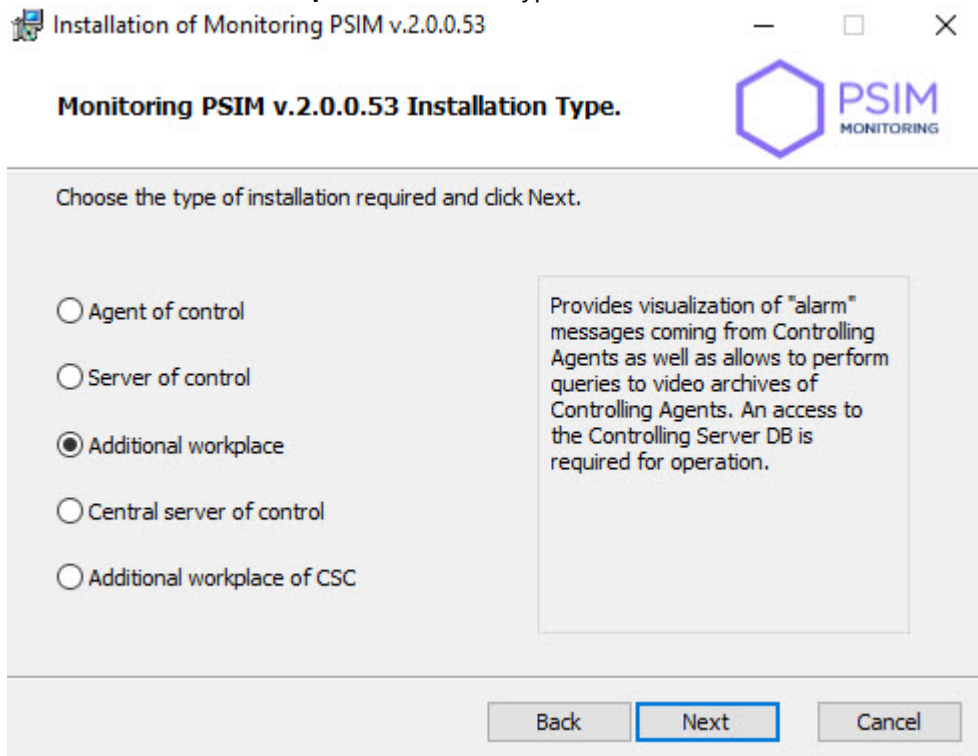
1. In the root directory of the distribution package, run the setup.exe executable file.
2. To continue the installation process, click the **Next** button.



3. Read carefully the terms of the license agreement. Then set the switch to the **I accept the terms of the License agreement** position and click the **Next** button.



4. Select the **Additional workplace** installation type and click the **Next** button.



5. Select the MS SQL database server and specify the connection parameters. For more details, see [Installation of Axxon PSIM as a Server/Remote Administrator's workstation](#). To continue the installation process, click

the **Next** button.

Installation of Monitoring PSIM v.2.0.0.53

Select Database Server

Select database Server and authentication method.

Select database Server from the drop-down list.

192.168.56.1\SQLEXPRESS2014

Choose user identification procedure based on the present user account or SQL Server identity check.

Windows user account

Use the following user name and password:

User name: sa

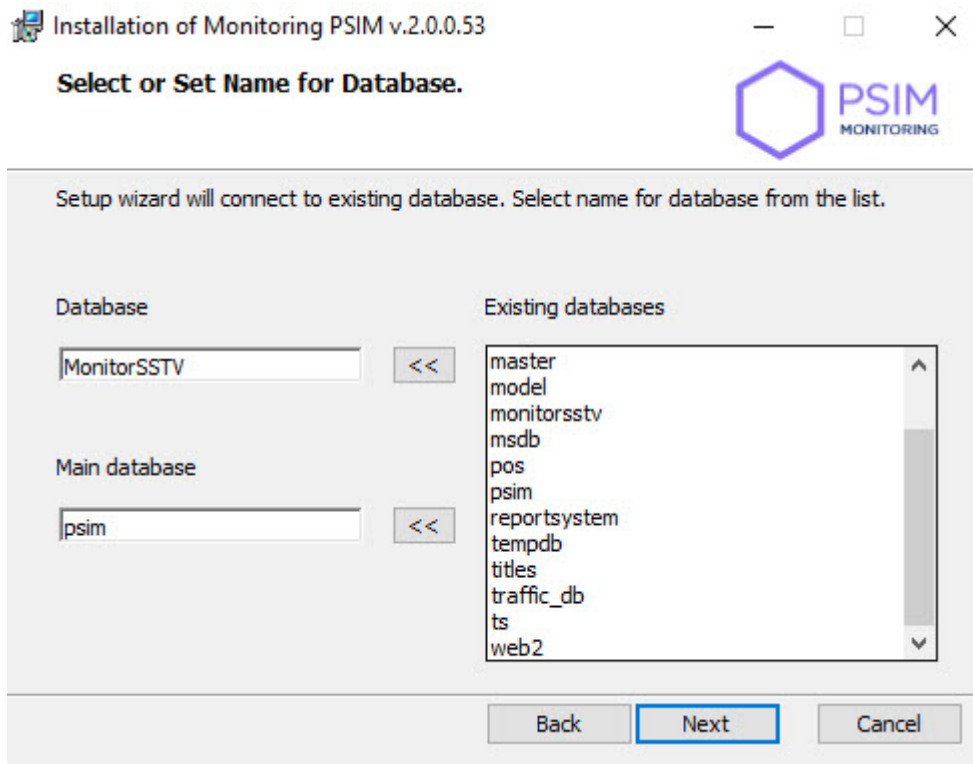
Password: [Masked]

Back Next Cancel

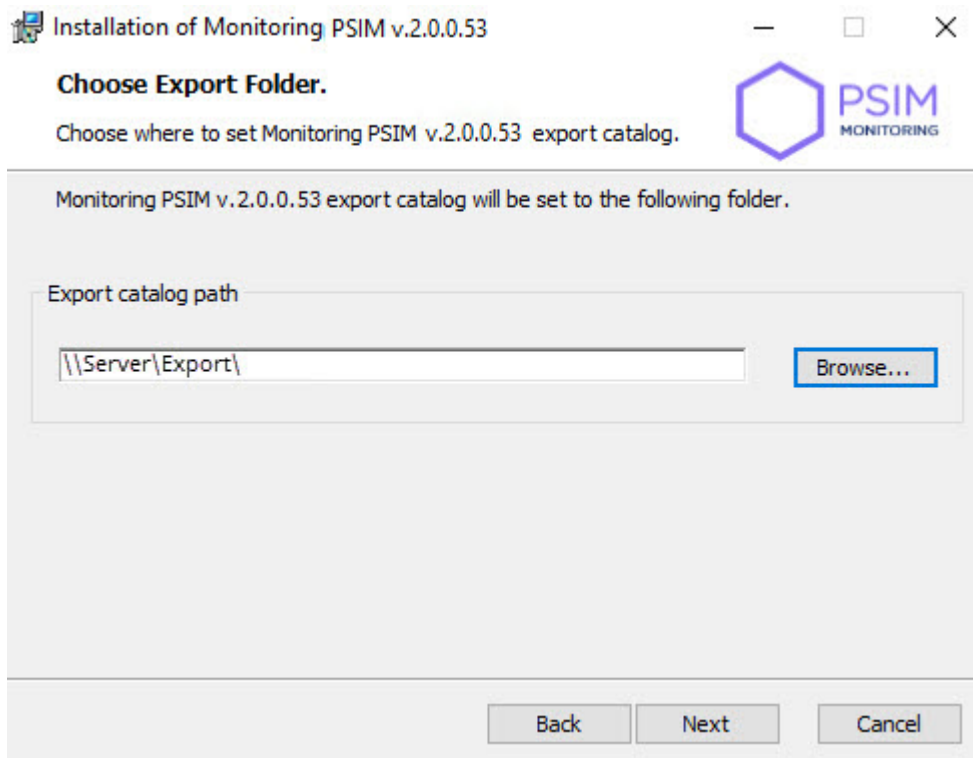
- In the **Database** field, specify the name of the database or select it in the list of existing databases from the right and click the << button. Click the **Next** button.

Note

By default, the name of the database is "MonitorSSTV", and its files are stored in the SQL Server folder.



- Specify the export catalog path. This catalog will contain video data received from *Agent of Control*. Click the **Next** button.



- Specify the IP address and port to connect to the *Server of Control* videosrv communication module. Click the **Next** button.


Note

We highly recommend changing the default values for the **Export catalog path** and **IP address** parameters on steps 7-8. Otherwise, after the installation is completed, you must configure Additional workplace (see [Configuring Additional workplace](#) and [Additional workplace of CSC](#)).

Installation of Monitoring PSIM v.2.0.0.53

Setting up connection to communication module.

Please input ip address and port.



Connection to communication module would be set according to the following values.

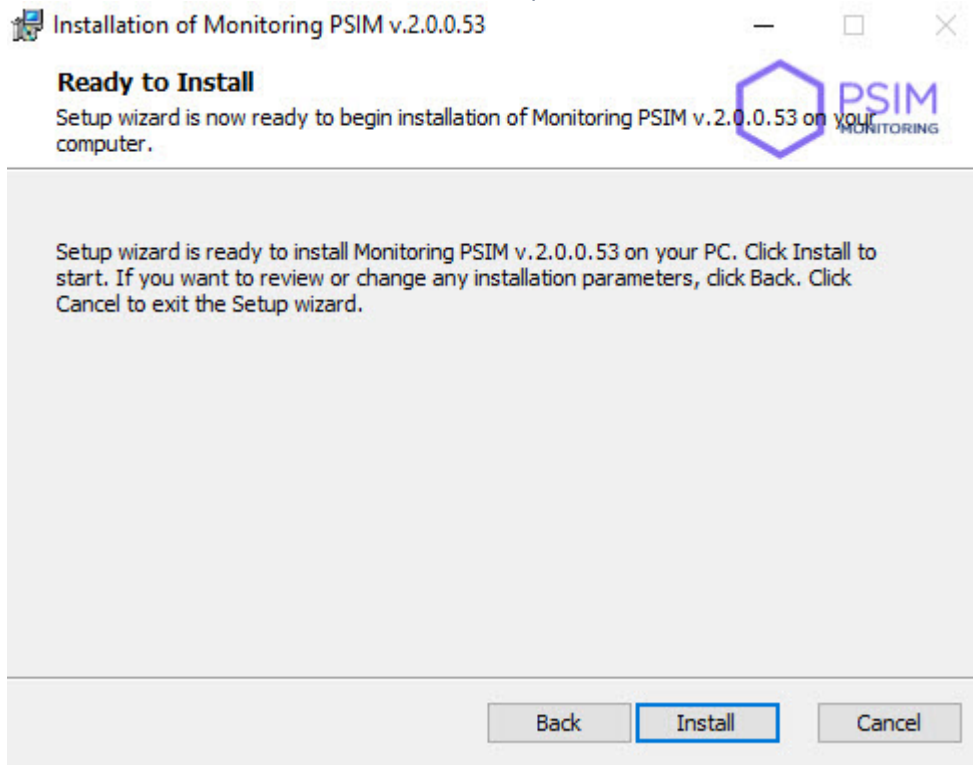
Videosrv settings

IP address

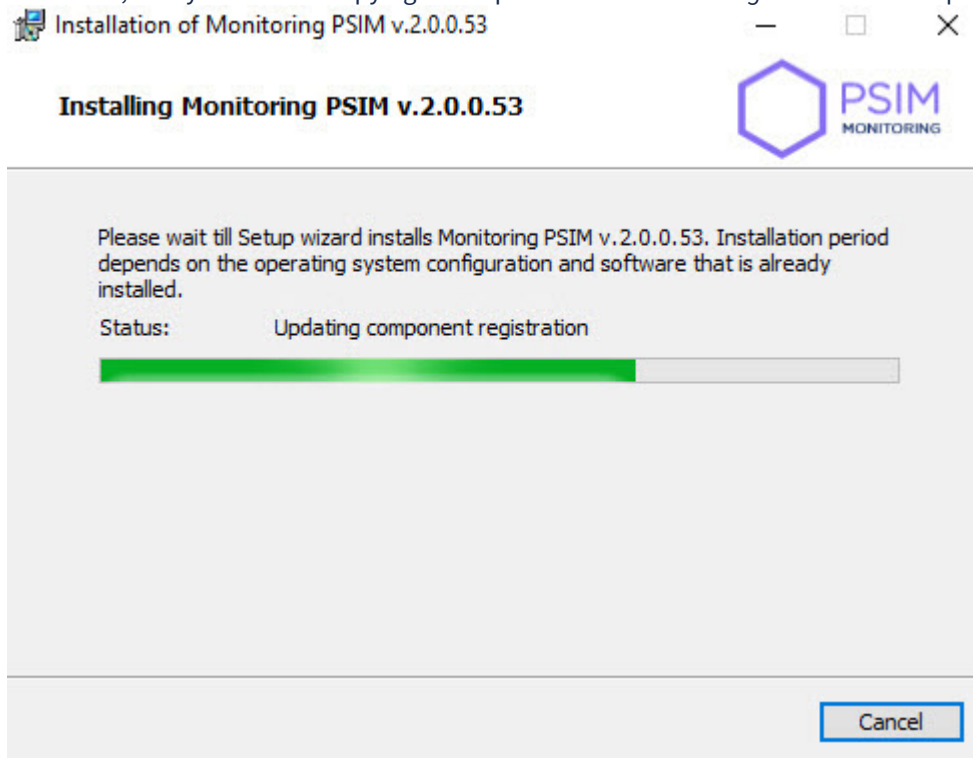
Port

Back Next Cancel

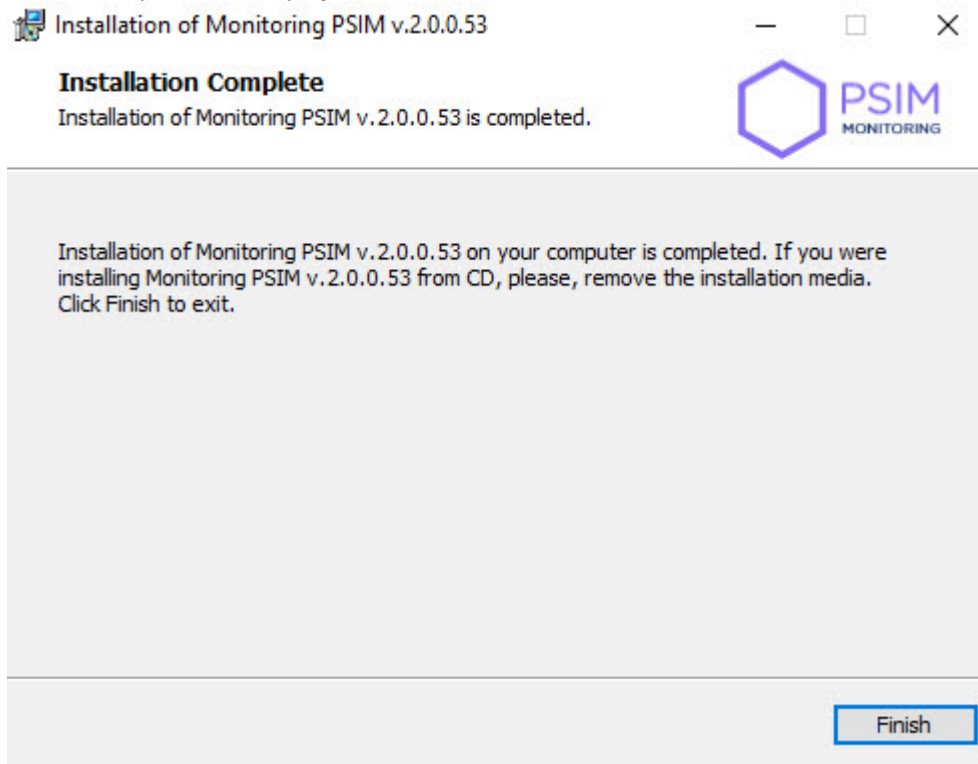
9. Click the **Install** button to start the installation process.



As a result, the system starts copying the required files of *Monitoring PSIM* to the computer's hard disk.



10. After the system successfully copies the *Monitoring PSIM* components, the message about completing the installation process is displayed. Next, click the **Finish** button.



Installing the *Additional workplace* software is complete.

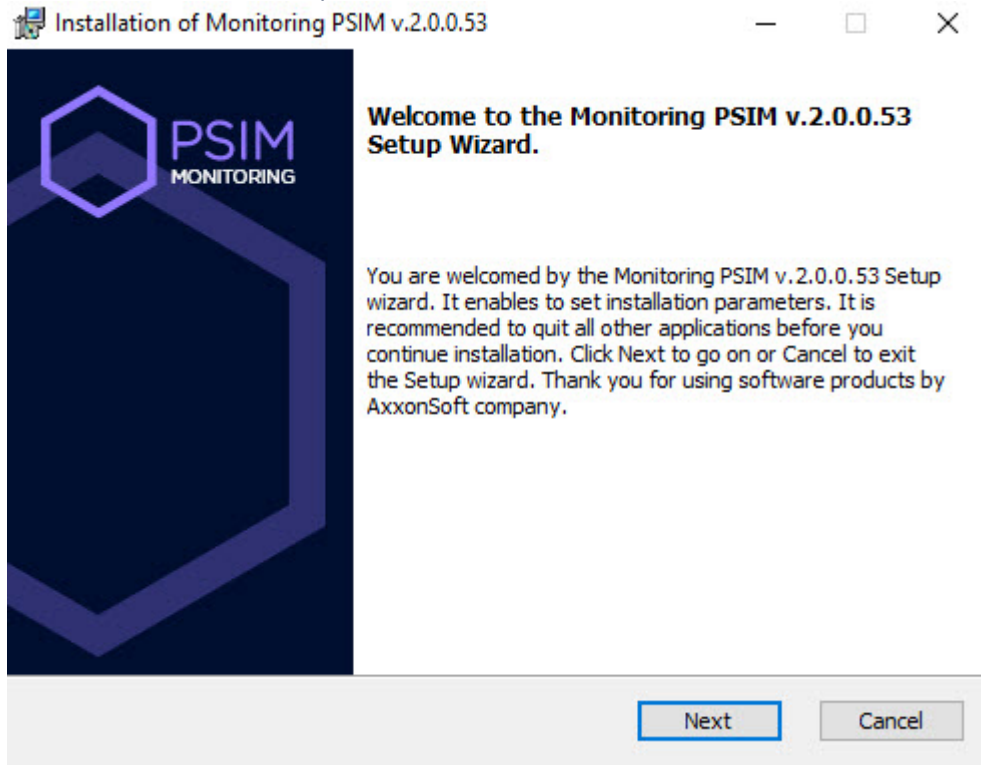
4.6 Installing Central server of control software

The *Monitoring PSIM* is installed as an extension to the *Axxon PSIM* software. Information about the compatibility of the *Axxon PSIM* software versions and *Monitoring PSIM* is presented in the [General information about product releases and versions compatibility](#) section.

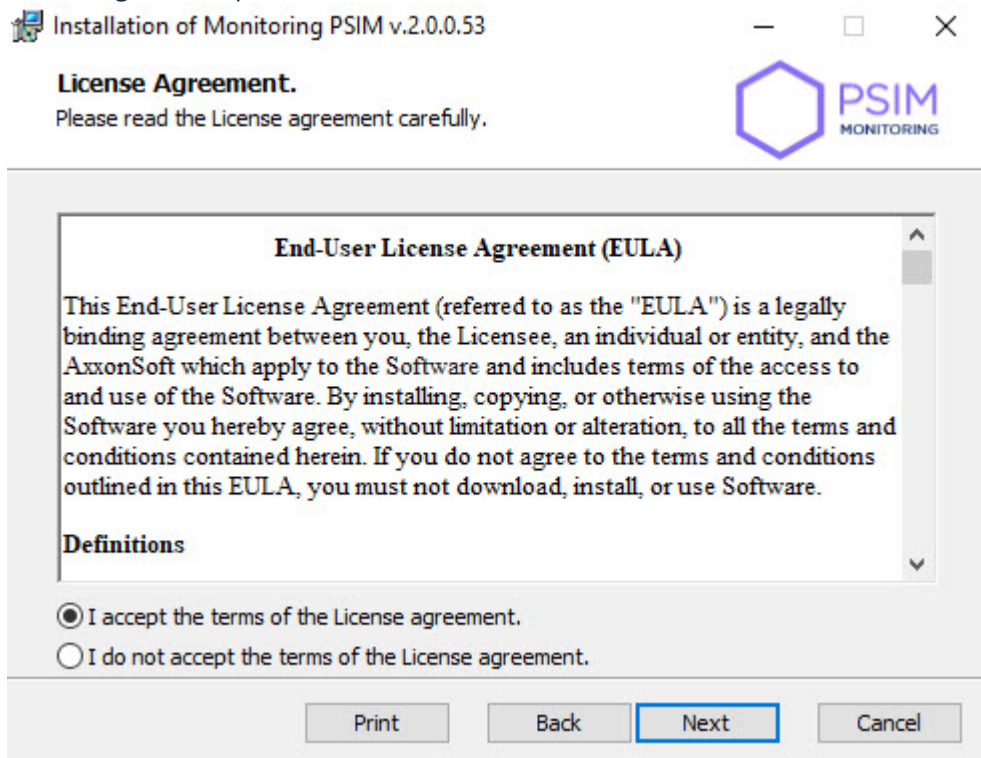
To install *Monitoring PSIM* in the *Central server of control* software configuration, do the following:

1. In the root directory of the distribution package, run the setup.exe executable file.

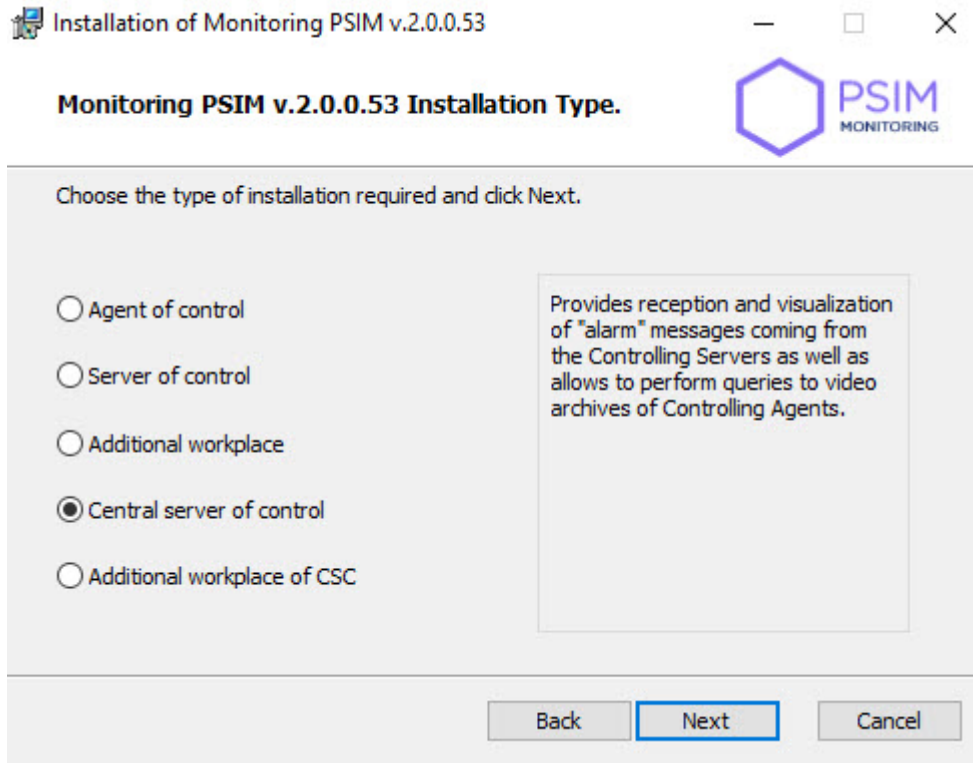
- To continue the installation process, click the **Next** button.



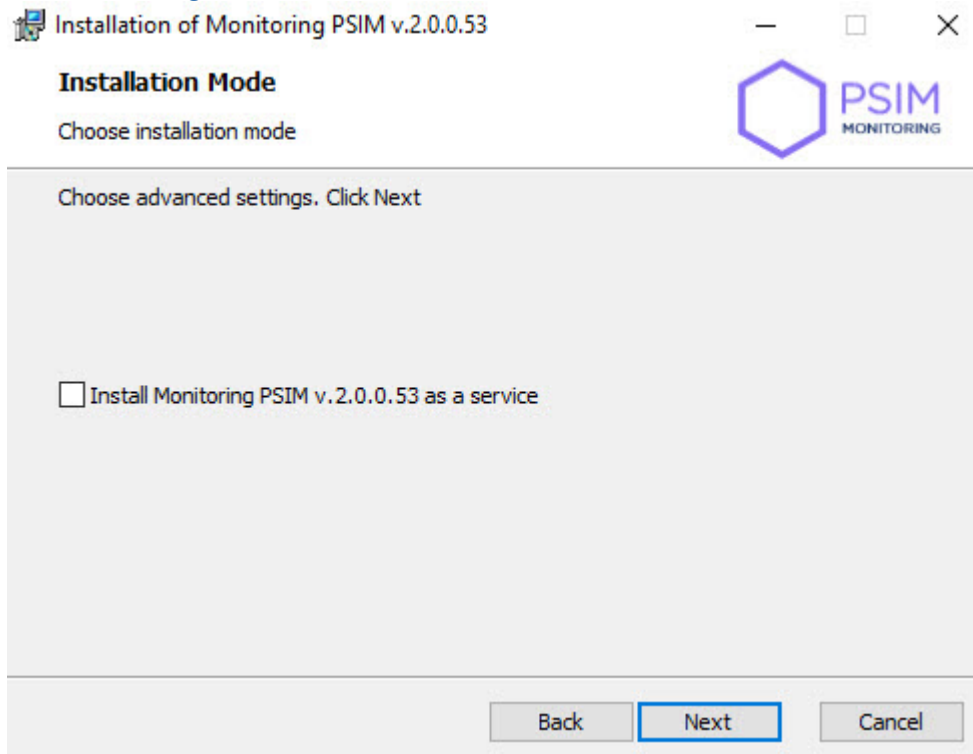
- Read carefully the terms of the license agreement. Then set the switch to the **I accept the terms of the License agreement** position and click the **Next** button.



4. Select the **Central server of control** installation type and click the **Next** button.



5. If *Axxon PSIM* is installed as a service, and you want to start *Monitoring PSIM* as a service, then set the **Install Monitoring PSIM as a service** checkbox and click the **Next** button (for more details, see [General information about Monitoring PSIM as a service](#)).



6. Select the MS SQL database server and specify the connection parameters. For more details, see [Installation of Axson PSIM™ software as a Server/Remote administrator workplace](#). To continue the installation process, click the **Next** button.

Note

In the **Select database Server from the drop-down list** field, you must specify the **127.0.0.1** value of the IP address without using the computer names and local value. Otherwise, the *Central server of control* software loses connection with its local database when the network cable is disconnected.

Installation of Monitoring PSIM v.2.0.0.53

Select Database Server

Select database Server and authentication method.

Select database Server from the drop-down list.

127.0.0.1\SQLEXPRESS2014

Choose user identification procedure based on the present user account or SQL Server identity check.

Windows user account

Use the following user name and password:

User name: sa

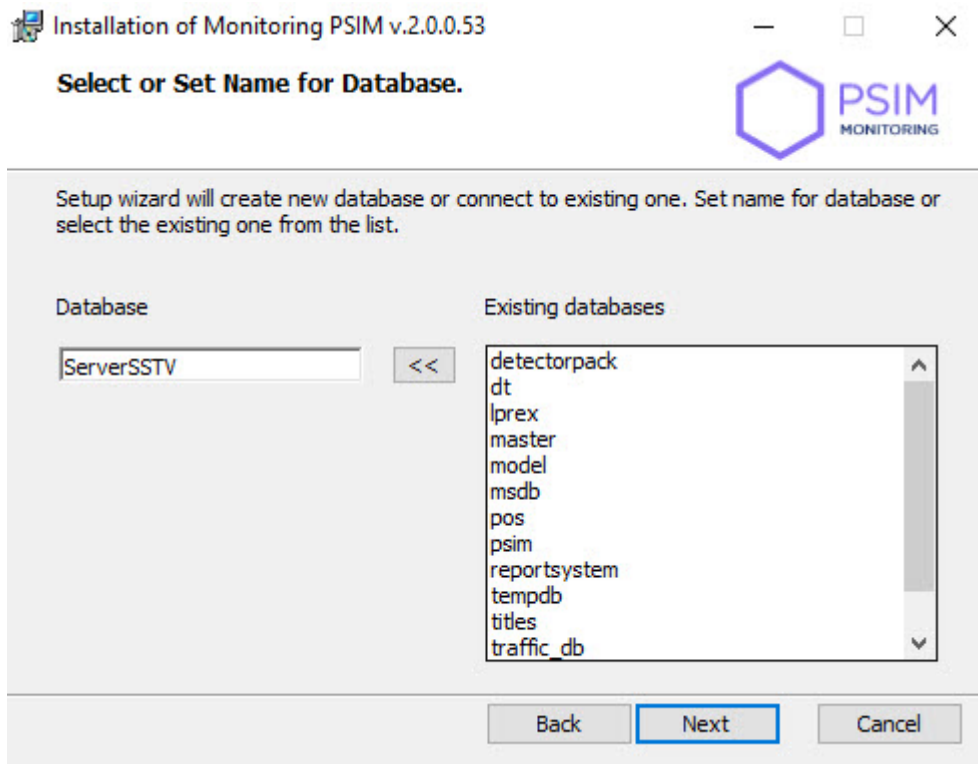
Password: [Masked]

Back Next Cancel

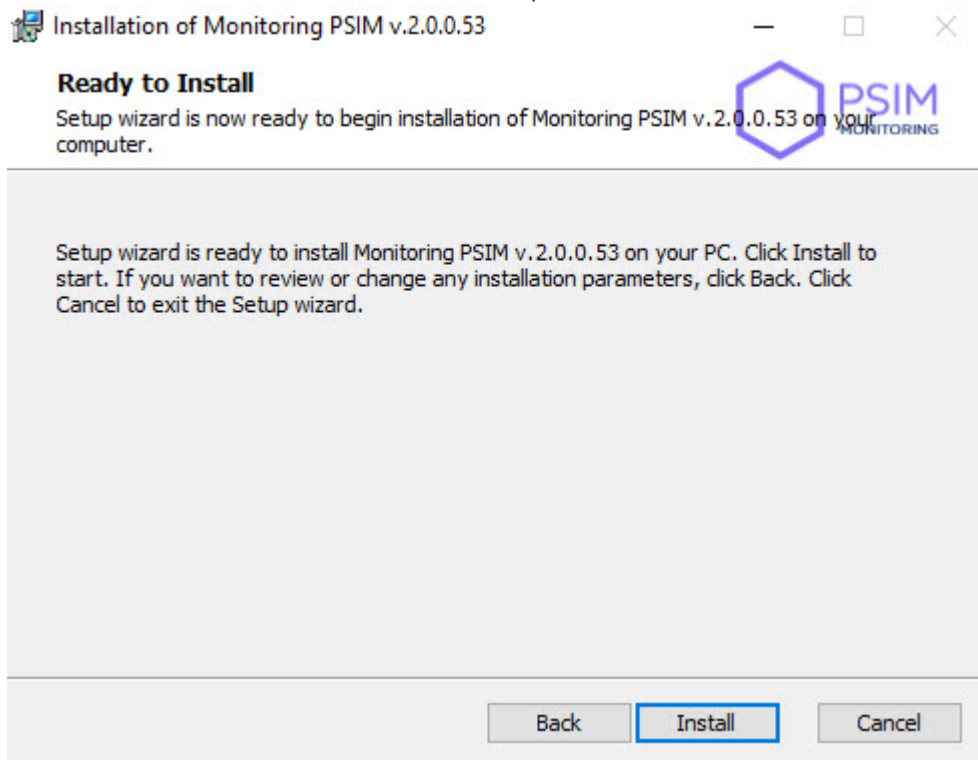
7. In the **Database** field, specify the name of the database or select it in the list of existing databases from the right and click the << button. Click the **Next** button.

Note

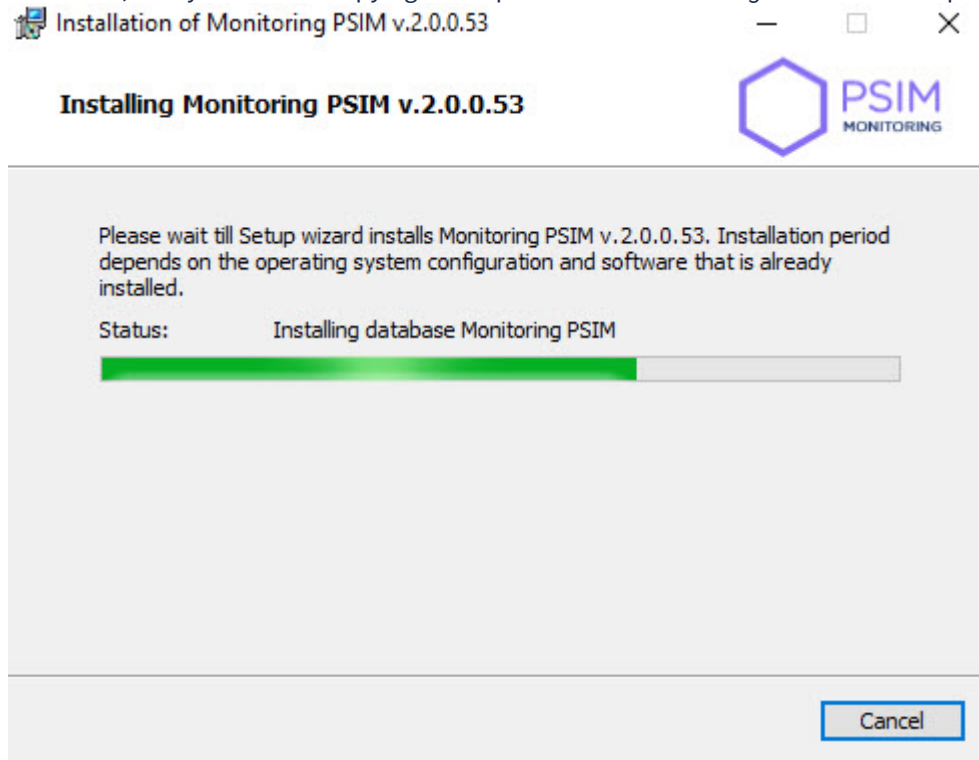
By default, the name of the database is "ServerSSTV" and its files are stored in the SQL Server folder.



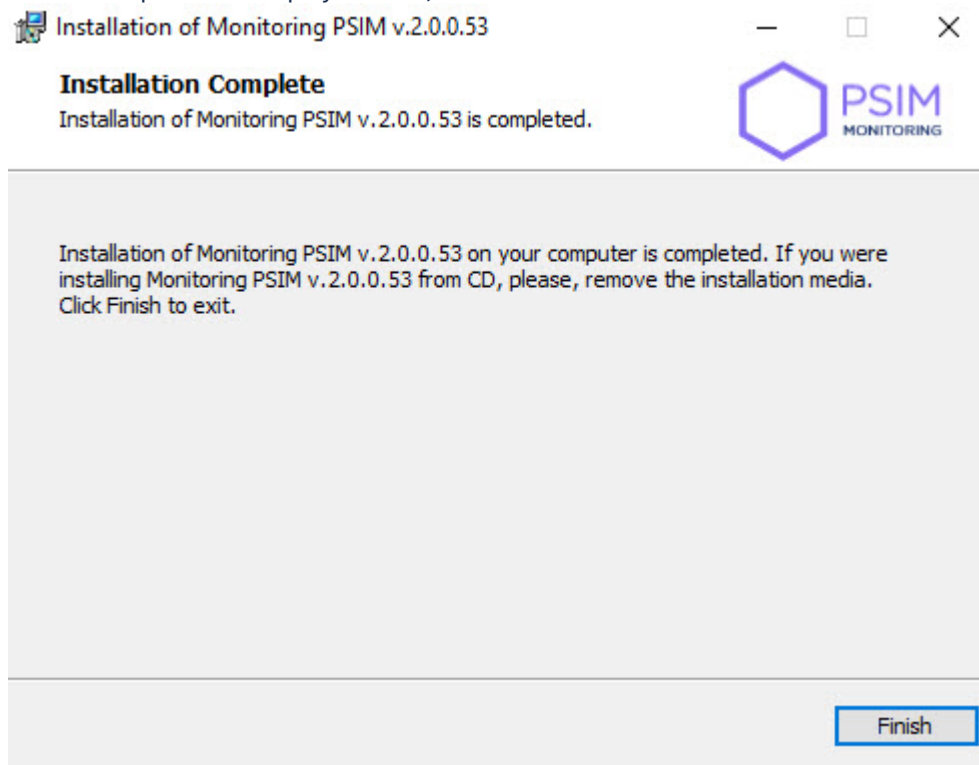
8. Click the **Install** button to start the installation process.



As a result, the system starts copying the required files of *Monitoring PSIM* to the computer's hard disk.



9. After the system successfully copies the *Monitoring PSIM* components, the message about completing the installation process is displayed. Next, click the **Finish** button.



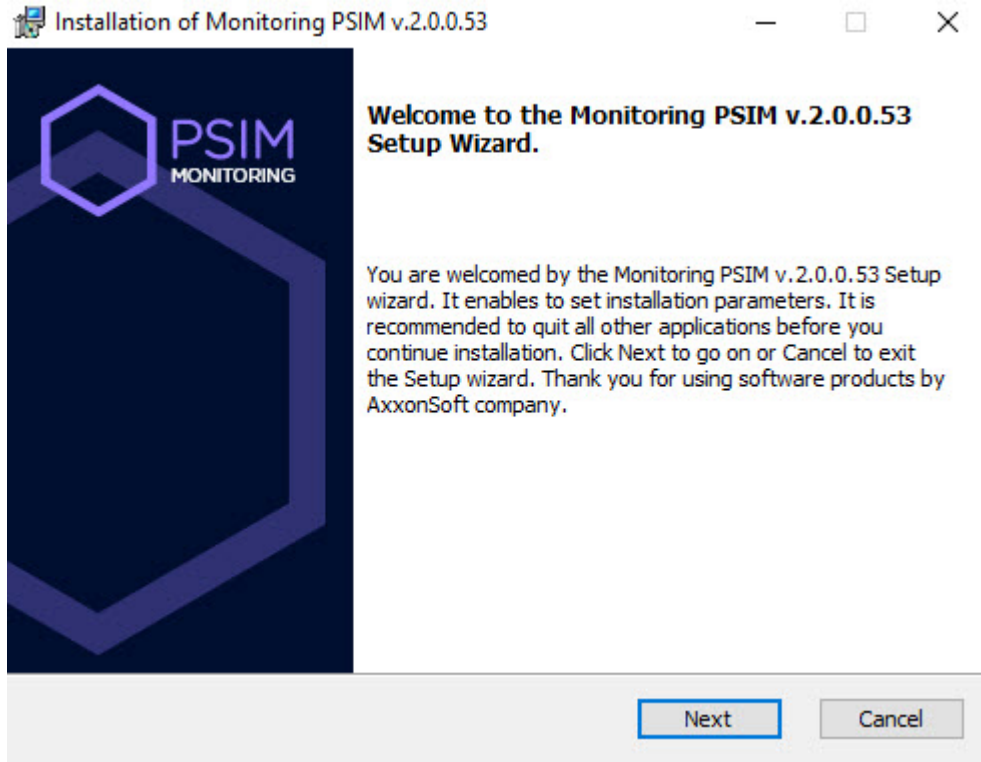
Installing the *Central server of control* software is complete.

4.7 Installing Additional workplace of CSC software

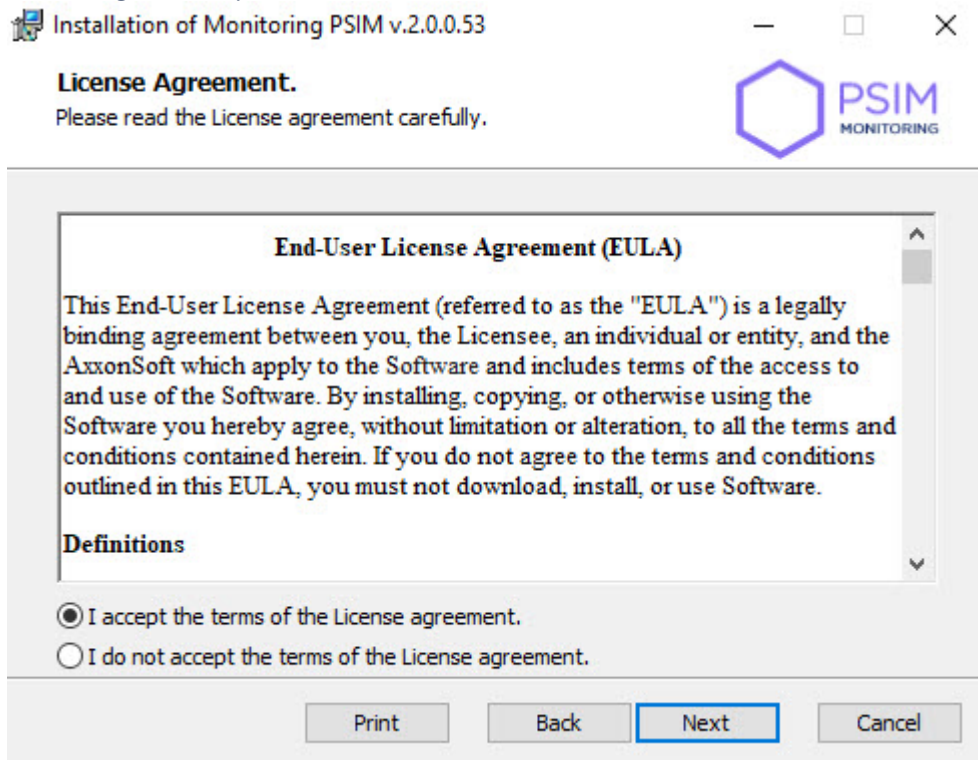
The *Monitoring PSIM* software is installed as a part of the *Axxon PSIM* software. Information about compatibility of the *Axxon PSIM* software versions and *Monitoring PSIM* is presented in the [General information about product releases and versions compatibility](#) section.

To install *Monitoring PSIM* in the *Additional workplace of CSC* software configuration, do the following:

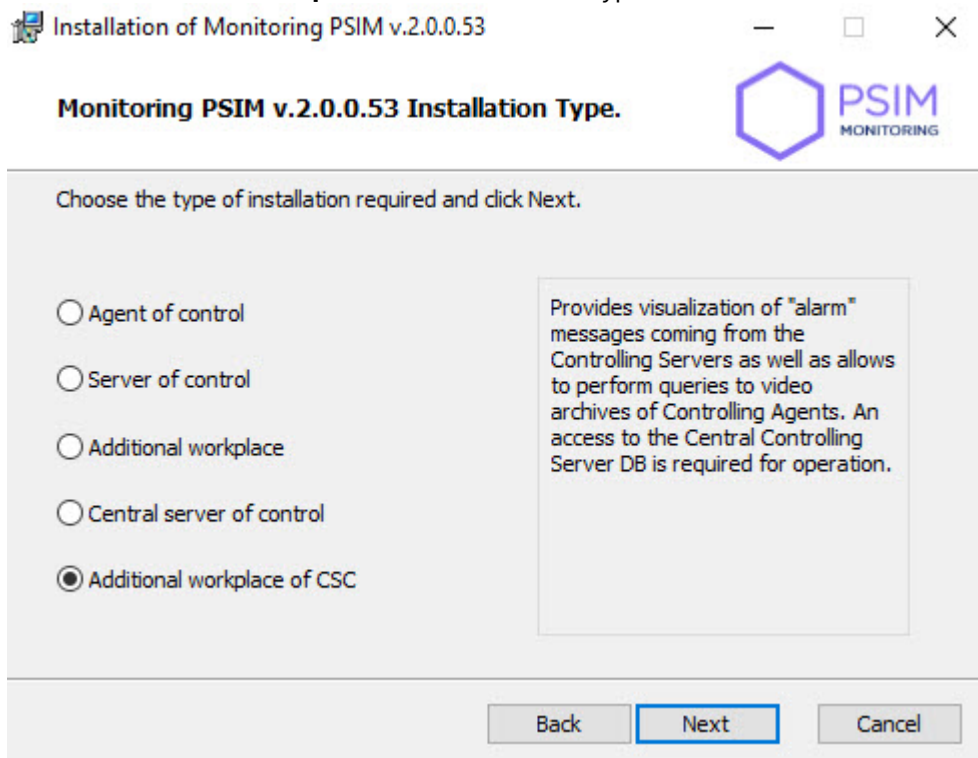
1. In the root directory of the distribution package, run the setup.exe executable file.
2. To continue the installation process, click the **Next** button.



3. Read carefully the terms of the license agreement. Then set the switch to the **I accept the terms of the License agreement** position and click the **Next** button.



4. Select the **Additional workplace of CSC** installation type and click the **Next** button.



5. Select the MS SQL database server and specify the connection parameters. For more details, see [Installation of Axxon PSIM™ software as a Server/Remote administrator workplace](#). To continue the installation process,

click the **Next** button.

Installation of Monitoring PSIM v.2.0.0.53

Select Database Server

Select database Server and authentication method.

Select database Server from the drop-down list.

192.168.56.1\SQLEXPRESS2014

Choose user identification procedure based on the present user account or SQL Server identity check.

Windows user account

Use the following user name and password:

User name: sa

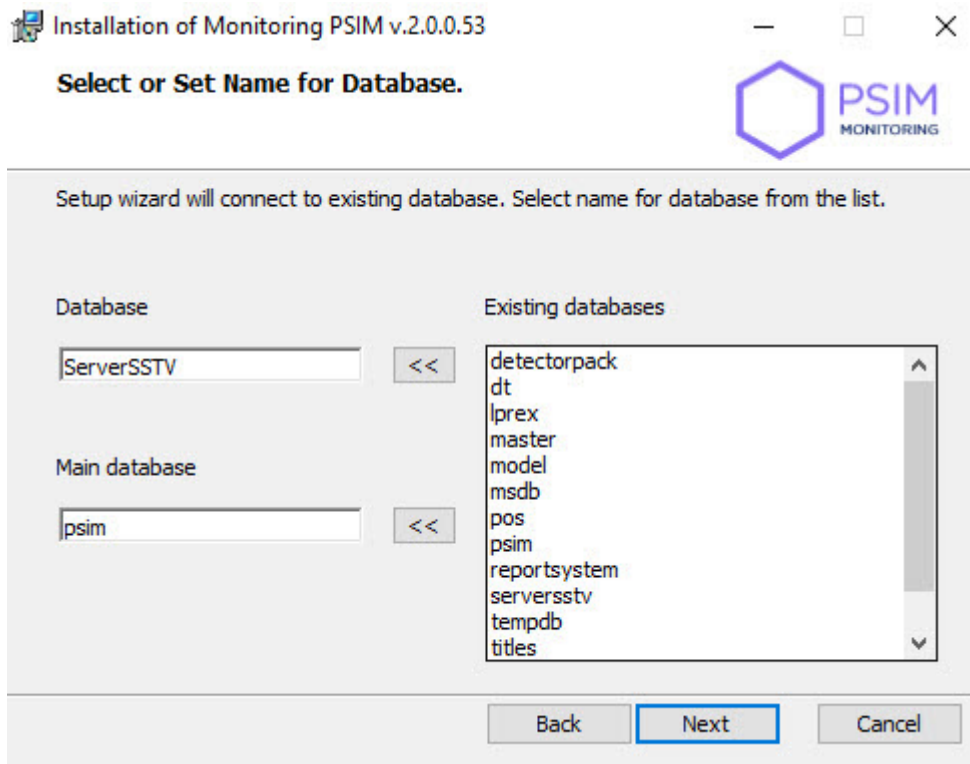
Password: [masked]

Back Next Cancel

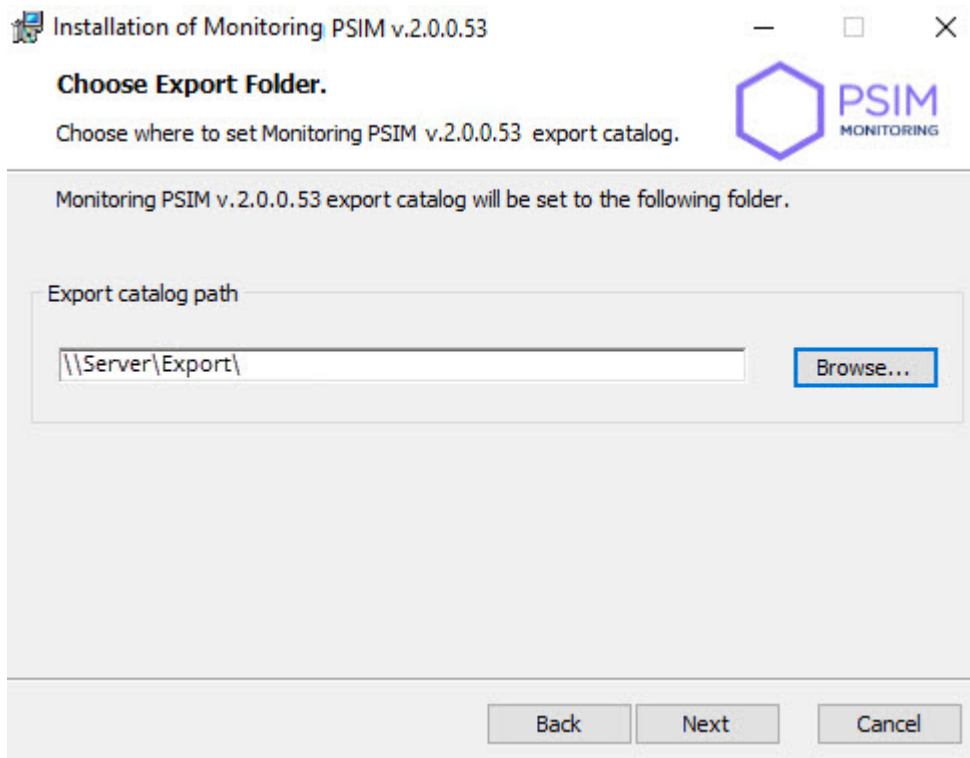
6. In the **Database** field, specify the name of the database or select it in the list of existing databases from the right and click the << button. Click the **Next** button.

Note

By default, the name of the database is "ServerSSTV" and its files are stored in the SQL Server folder.



- Specify the export catalog path. This catalog will contain video data received from *Agent of Control*. Click the **Next** button.



- Specify the IP address and port to connect to the CentralNetServer *Central Server of Control* communication module. Click the **Next** button.


Note

We highly recommend changing the default values for the **Export catalog path** and **IP address** parameters on steps 7-8. Otherwise, after the installation is completed, you must configure *Additional Workplace of CSC* (see [Configuring Additional workplace](#) and [Additional workplace of CSC](#)).

Installation of Monitoring PSIM v.2.0.0.53

Setting up connection to communication module.

Please input ip address and port.



Connection to communication module would be set according to the following values.

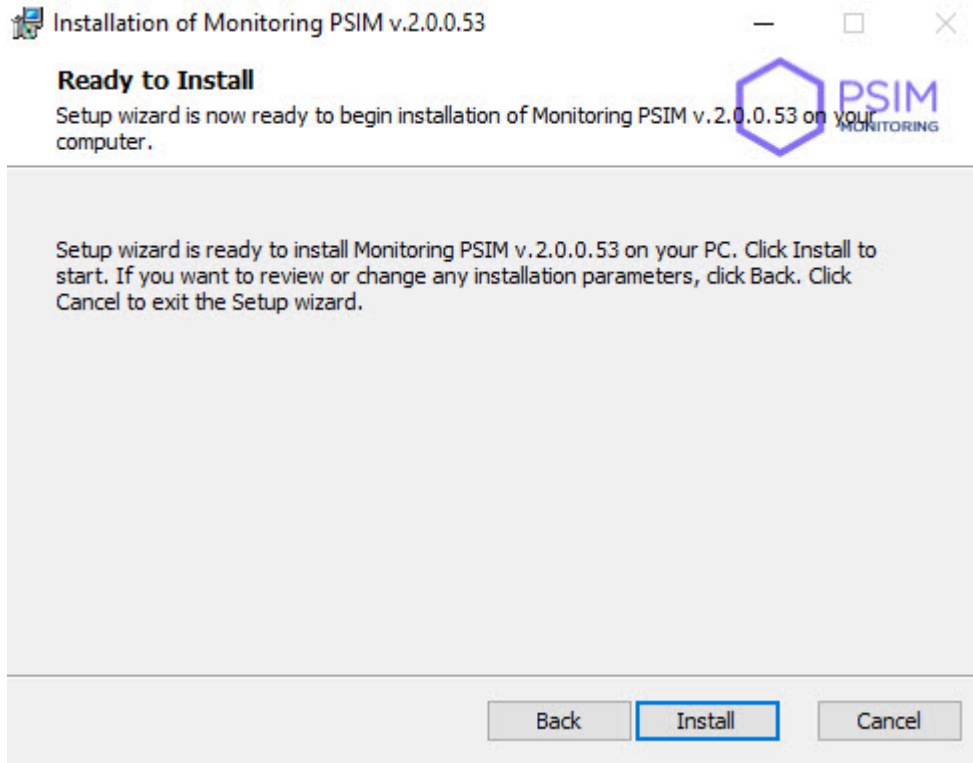
Videosrv settings

IP address

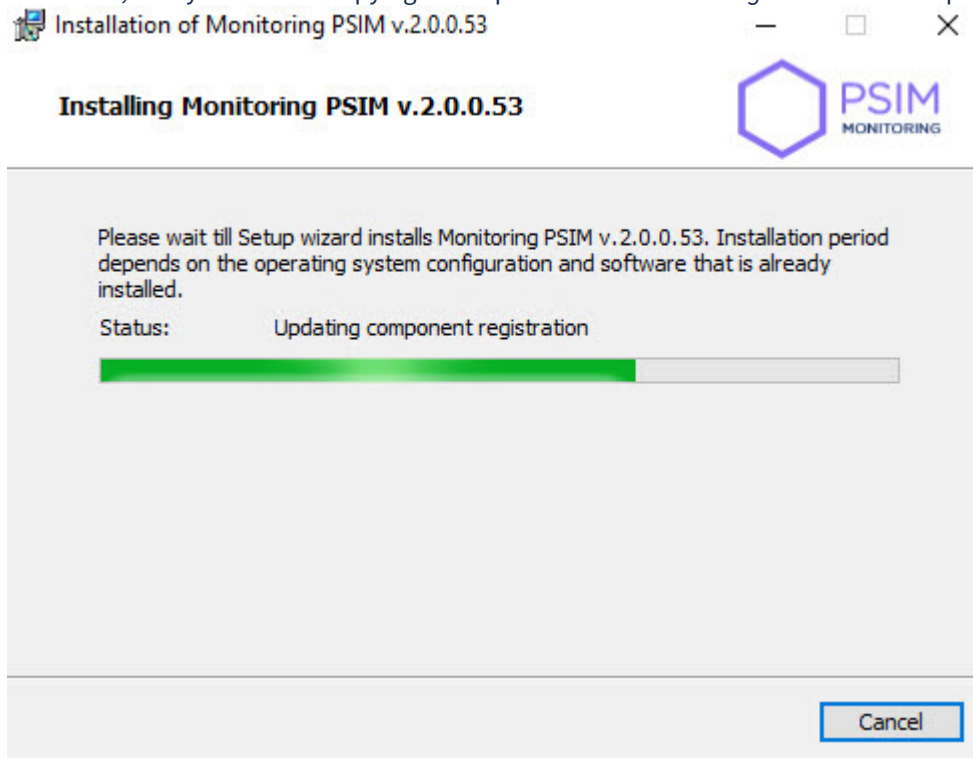
Port

Back Next Cancel

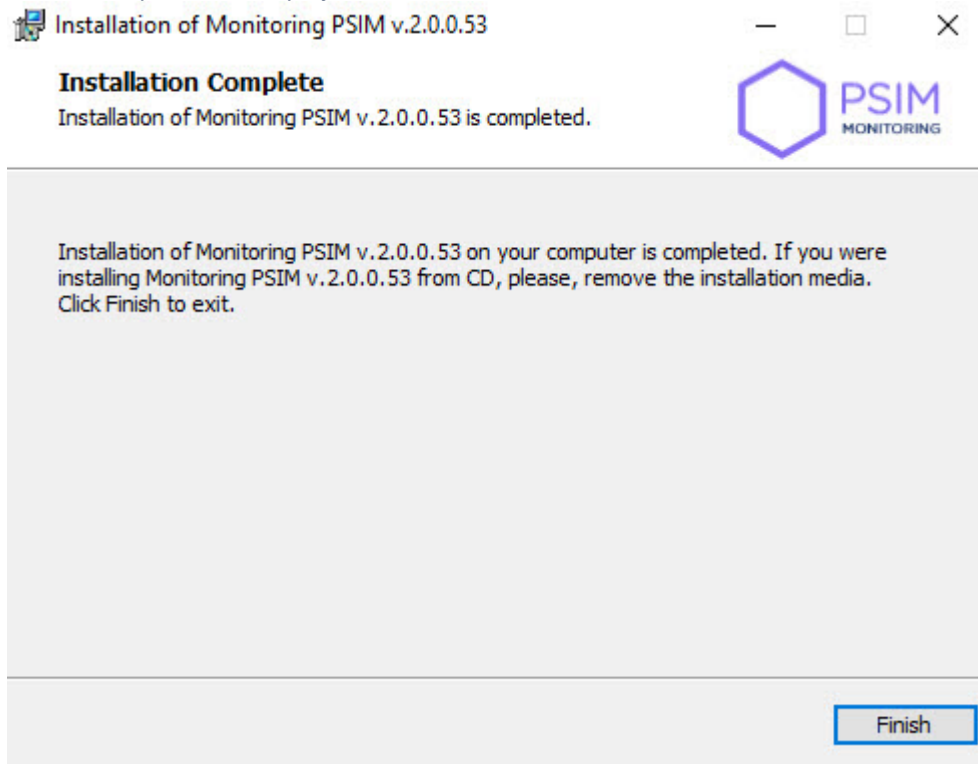
9. Click the **Install** button to start the installation process.



As a result, the system starts copying the required files of *Monitoring PSIM* to the computer's hard disk.



10. After the system successfully copies the *Monitoring PSIM* components, the message about completing the installation process is displayed. Next, click the **Finish** button.



Installing the *Additional workplace of CSC* software is complete.

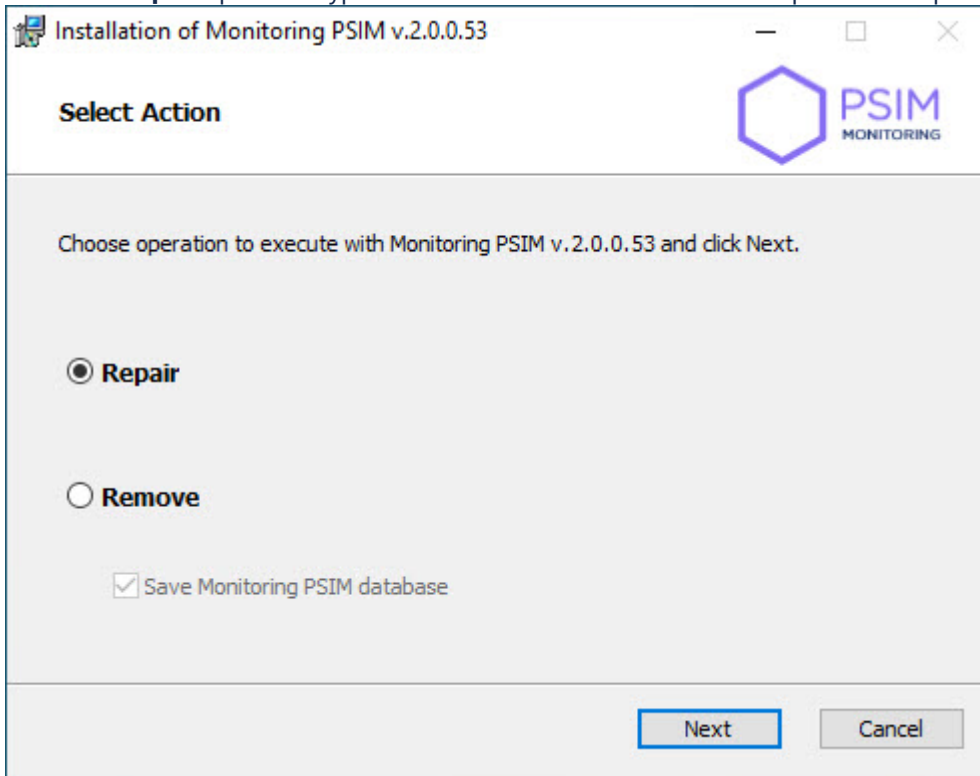
4.8 Repairing Monitoring PSIM

The repair mode is required to reinstall all components of *Monitoring PSIM*.

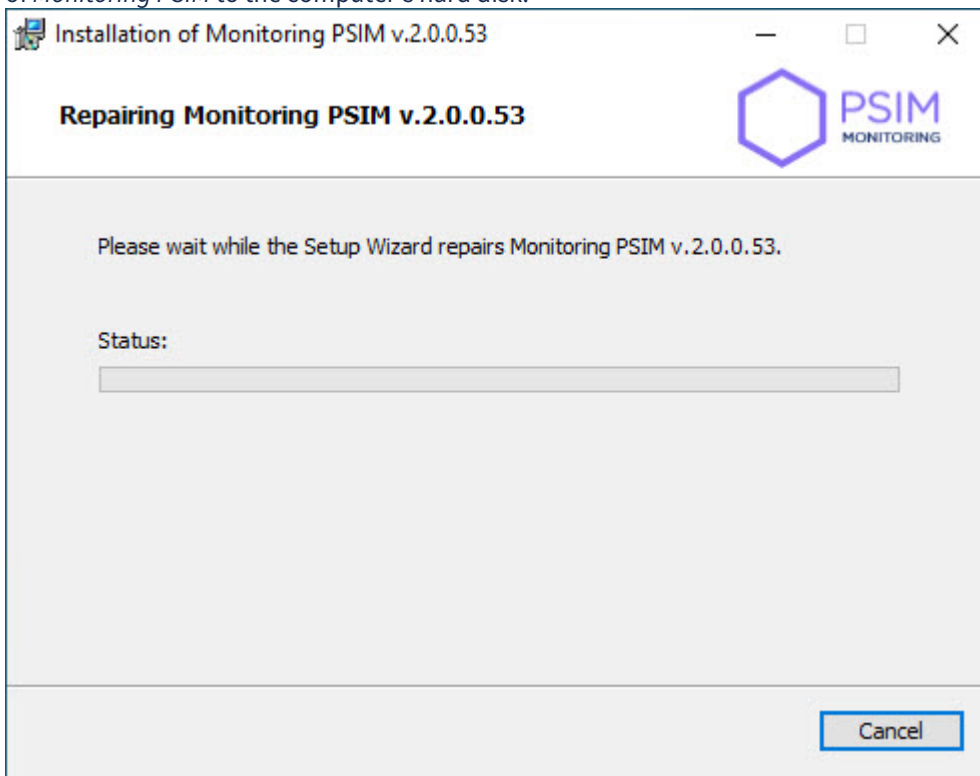
To repair *Monitoring PSIM*, do the following:

1. Run the `setup.exe` executable file in the root distribution directory.

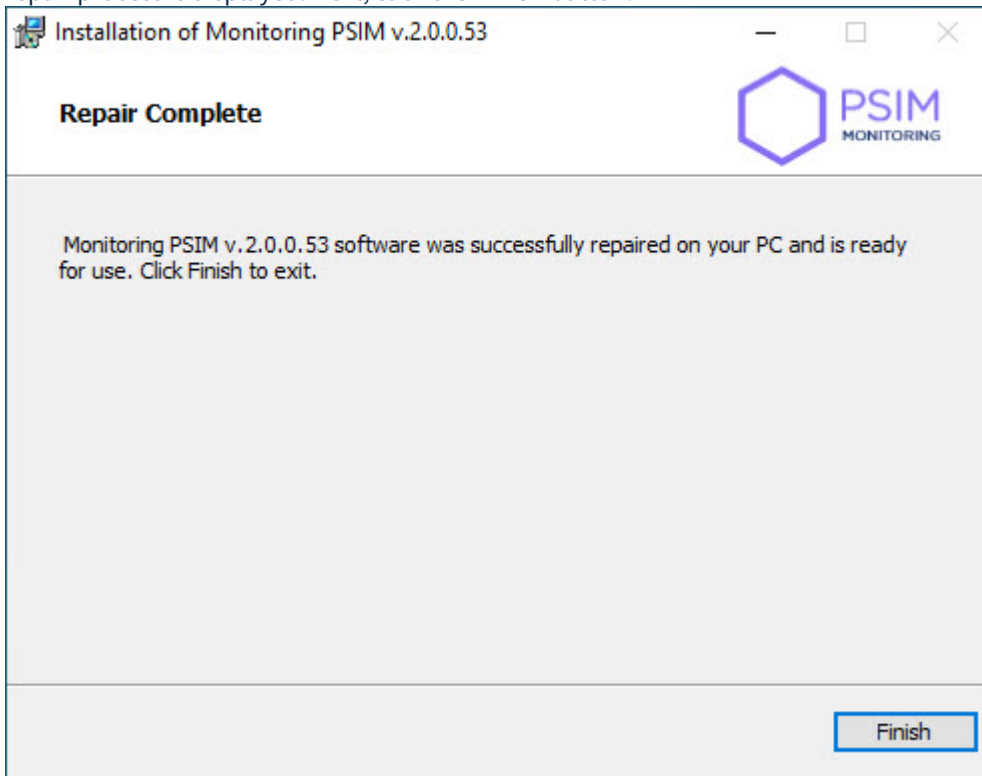
2. Select the **Repair** operation type and click the **Next** button to start the process of repairing.



As a result, the system launches a checkup of the installed components and starts copying the required files of *Monitoring PSIM* to the computer's hard disk.



3. After the system successfully copies the *Monitoring PSIM* components, the message about completing the repair process is displayed. Next, click the **Finish** button.



Repairing *Monitoring PSIM* is complete.

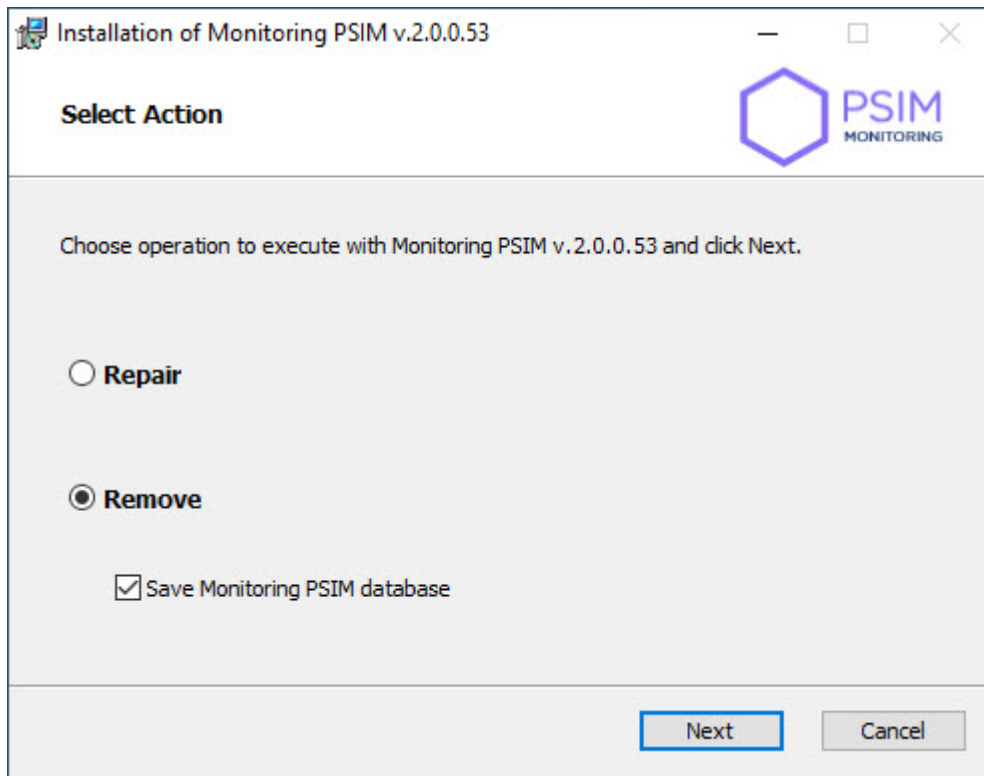
4.9 Removing Monitoring PSIM

To remove *Monitoring PSIM*, do the following:

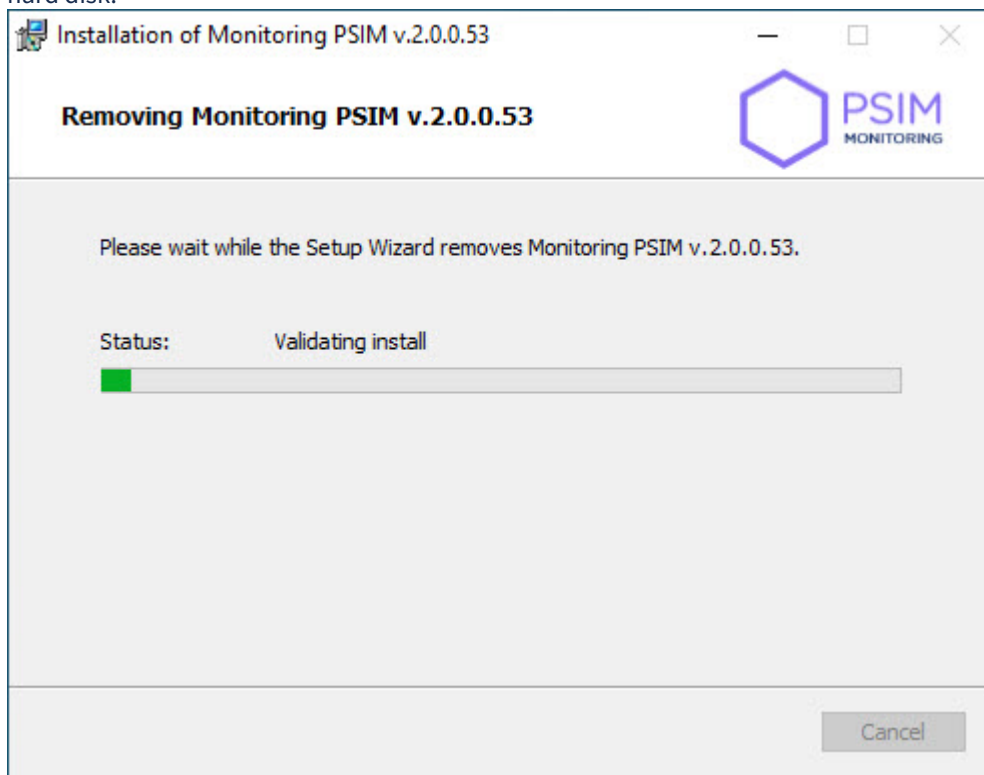
1. Run the `setup.exe` executable file in the root distribution directory.
2. Select the **Remove** operation type and click the **Next** button to start the process of removal.

Note

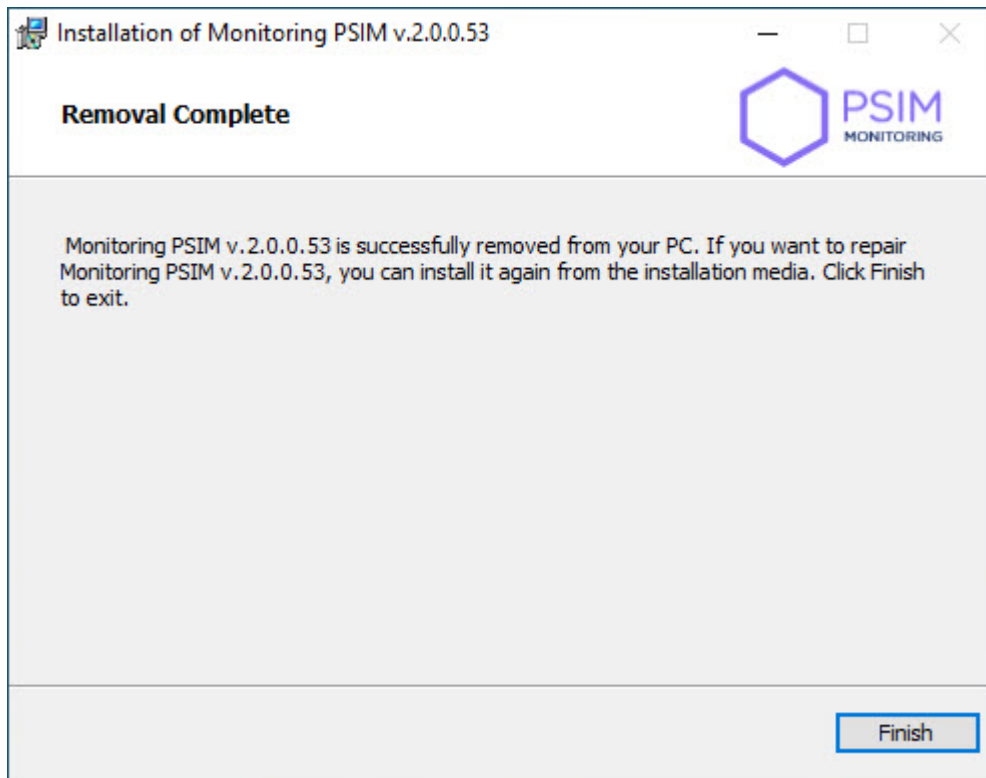
If you want to save the *Monitoring PSIM* database, leave the **Save Monitoring PSIM database** checkbox set.



As a result, the system starts removing the installed components of *Monitoring PSIM* from the computer's hard disk.



3. After the system successfully removes the *Monitoring PSIM* components, the message about completing the removal process is displayed. Next, click the **Finish** button.



Removing *Monitoring PSIM* is complete.

5 Configuring Agent of Control

To configure *Agent of Control*, go to the **System settings** window. Use of this window is described in [Axxon PSIM Software Package: Administrator's Guide](#).

5.1 Creating necessary Agent Of Control objects

⚠ Attention!

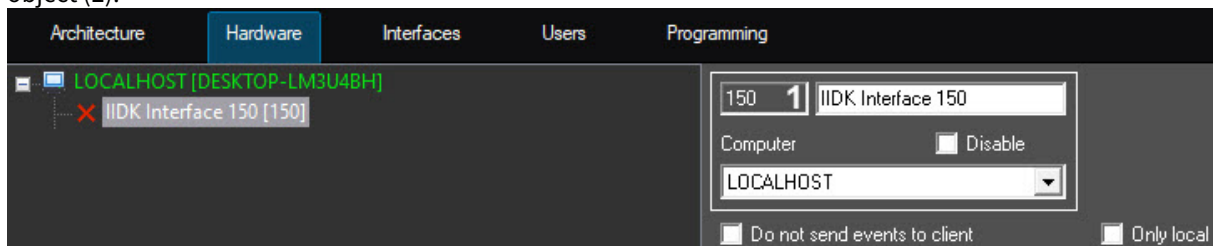
Every time *Agent Of Control* is started, it checks for a **Backup** folder at the root of the disk on which *Axxon PSIM* is installed. If this folder is missing, *Agent Of Control* creates it. It is forbidden to delete this folder.

ℹ Note

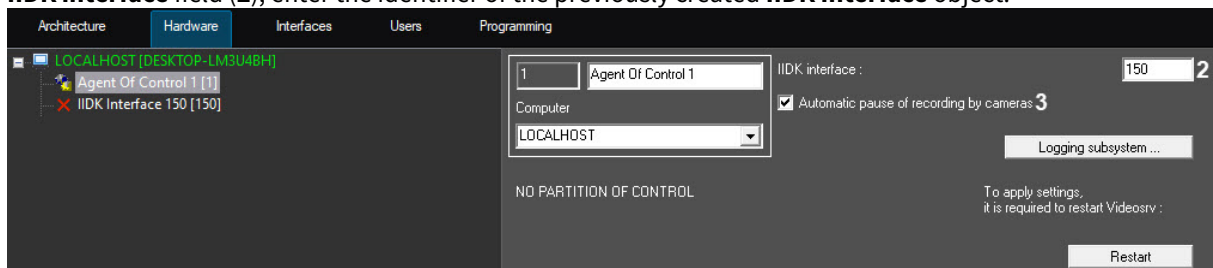
Agent Of Control, like *Server Of Control*, can operate in a distributed configuration, at the same time *Agents Of Control*, *Servers Of Control* and *Central Servers Of Control* can see where each of them is installed and can be configured.

To create necessary *Agent of Control* objects, do the following:

1. In the **System settings** dialog window, go to the **Hardware** tab.
2. Create an **IIDK Interface** object based on the **Computer** object. Set the identifier of the **IIDK Interface** object (1).

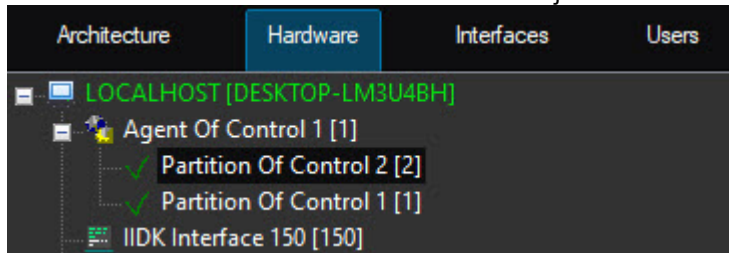


3. Create an **Agent Of Control** object based on the **Computer** object. On the settings panel of this object, in the **IIDK interface** field (2), enter the identifier of the previously created **IIDK Interface** object.



4. The **Automatic pause of recording by cameras** checkbox (3) is set by default, so that the scripts from the code are executed automatically. The **SleepAfterDisarm** and **SleepAfterRecStop** parameters of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key are used for fine-tuning these scripts (for details, see the registry keys reference guide [Vertical solutions](#)). When the checkbox is clear, you can use the scripts described [here](#) to pause recording by cameras.

5. Create one or more **Partition Of Control** child objects based on the **Agent Of Control** object.



Note

The **Partition Of Control** object name cannot contain the following characters: underscore "_", backslash "\", angle brackets ">" and "<", single quote "'".

It is also necessary to create **Video capture device**, **Camera**, and **Sensor** objects in the hardware tree that correspond to the connected hardware. Creation and configuration of these objects is described in [Axxon PSIM Software Package: Installing and configuring security system components guide](#).

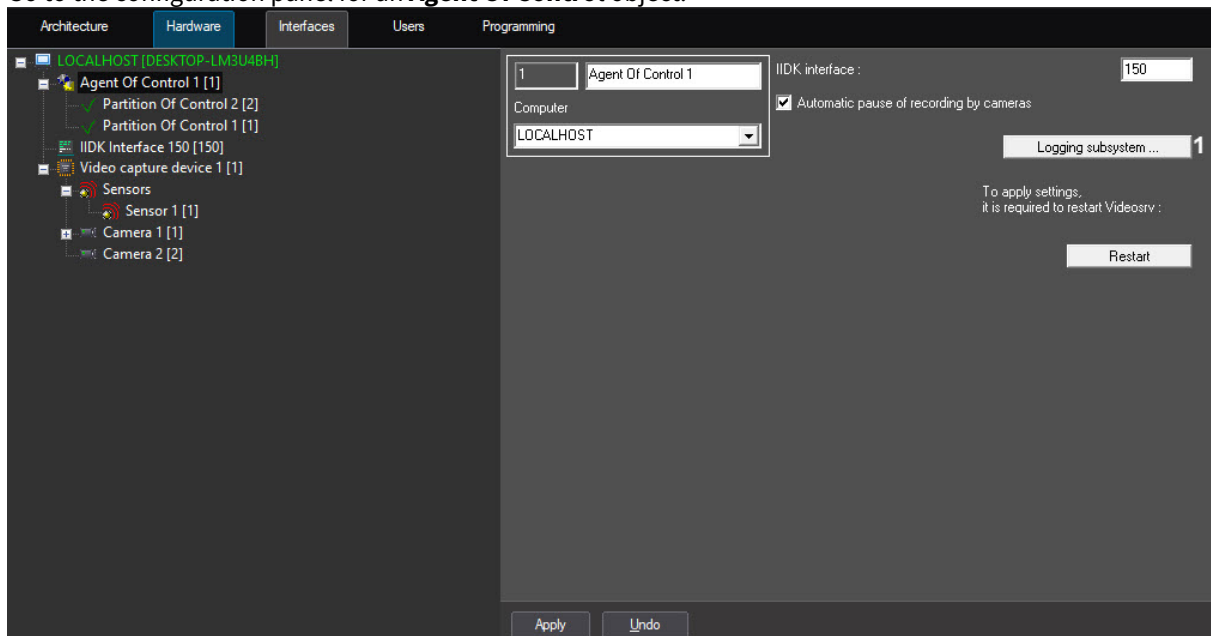
Creation of the necessary objects in the hardware tree is now complete.

5.2 Configuring the logging subsystem

The logging subsystem allows configuring the detail level at which the activity of *Agent of Control* is recorded.

To configure the logging subsystem:

1. Go to the configuration panel for an **Agent Of Control** object.



2. Click the **Logging subsystem...** button (1).

3. In the dialog box that opens, specify the following parameters:

- a. **Auxiliary characters:** to log transport-level auxiliary characters, select this check box.
- b. **Alarm events:** to log alarms (activation of vibration sensor, temperature sensor, or forcible entry sensor), select this check box.
- c. **System status:** to log events related to the system state, select this check box.
- d. **Core messages:** to log messages from *Axxon PSIM*, select this check box. Information is saved in the folder to which the software was installed, in the file `video.log`.
- e. **Archiving period (h):** allows archiving the log file at the specified interval (in hours). Archives are saved in the DATA subfolder, with the following name format: `namelog_yymmddhhmmss.gz`, where
 - i. `namelog` is the name of the log file being archived;
 - ii. `yy` is the year of archive creation;
 - iii. `mm` is the month of archive creation;
 - iv. `dd` is the day of archive creation;
 - v. `hh` is the hour of archive creation;
 - vi. `mm` is the minute of archive creation;
 - vii. `ss` is the second of archive creation.
- f. **File size (MB):** sets the threshold size (in megabytes) for the log file after which the file is archived. This setting overrides the value in the **Archiving period (h)** field.
- g. **Keep archives for (months):** sets the length of time for which to store the log file archive, in months (between 1 and 24). Archives that are older than the specified number of months are deleted.

The main log file is located in the installation folder, in the file `vsrvYYMMDD.log`, where `YY` is the year, `MM` the month, and `DD` the day.

Configuration of the logging subsystem is now complete.

5.3 Configuring the Partition Of Control object

5.3.1 Configuring the Partition Of Control unique ID

To configure the unique ID number for a **Partition Of Control** object:

1. Go to the settings panel of the **Partition Of Control** object.

The screenshot shows the configuration interface for a 'Partition Of Control' object. At the top, there are input fields for 'ID' (value: 1), 'Name' (value: Partition Of Control 1), and 'Agent Of Control' (value: Agent Of Control 1). To the right, there are fields for 'ID' (value: 386) and 'TCP port (UPS)' (value: 8888). Below these are three buttons: 'Transmitting ...', 'Monitoring ...', and 'Video data ...'. A table with columns 'Number' and 'Keep archive for (days)' is empty, with a 'Cameras ...' button to its right. Below the table, it says 'Total cameras: 0'. Another table with columns 'Sensor ID' and 'Sensor type' is also empty, with 'Sensors: 0' below it. To the right of this table is a 'Sensors' panel with 'Add ...', 'Edit ...', and 'Delete' buttons. Further right is a 'Registration' panel with the text 'No connection'. At the bottom, there are 'Apply' and 'Undo' buttons, with a '2' above the 'Apply' button.

2. In the **ID** field (**1**), enter a unique number for the object on which *Agent Of Control* is being installed. The number can be from 1 to 9 characters long.

Note

The ID cannot contain the following characters: space " ", underscore "_", backslash "\" and single quote "'.

3. To save settings, click the **Apply** button (**2**).

Configuration of a unique **Partition Of Control** ID number is now complete.

5.3.2 Configuring a port for incoming UPS messages

To configure a port for accepting messages from an uninterrupted power supply unit, do the following:

1. Go to the settings panel of the **Partition Of Control** object.

The screenshot shows the configuration interface for a Partition Of Control object. Key elements include:

- Top Section:** ID field (386), TCP port (UPS) field (8888), and Agent Of Control dropdown (Agent Of Control 1). Buttons for Transmitting..., Monitoring..., and Video data... are on the right.
- Cameras Section:** A table with columns 'Number' and 'Keep archive for (days)'. A 'Cameras...' button is to the right. Below the table, it says 'Total cameras: 0'.
- Sensors Section:** A table with columns 'Sensor ID' and 'Sensor type'. Below the table, it says 'Sensors: 0'. To the right is a 'Sensors' panel with 'Add...', 'Edit...', and 'Delete' buttons.
- Registration Section:** A 'Registration' panel showing 'No connection'.
- Bottom Section:** 'Apply' and 'Undo' buttons, with a '2' above the 'Apply' button.

2. In the **TCP port (UPS)** field (1), enter the number of the port on which to "listen" for UPS messages.
3. To save the settings, click the **Apply** button (2).

Configuration of a port for accepting messages from a UPS is now complete.

5.3.3 Configuring communication between Agent Of Control and Server Of Control

Note

Before you configure the interaction between the *Agent Of Control* and the *Server Of Control*, it is recommended to make sure that the name and identifier of the **Partition Of Control** object being configured are specified correctly, since upon the successful connection to the *Server Of Control*, if an object with this identifier is absent, the **Partition Of Control** object with the name and identifier of the object being configured will be automatically created on it. If the interaction between the *Agent Of Control* and the *Server Of Control* is configured successfully, the **Registration completed** message will be displayed in the **Registration** area (1). This means that the *Agent Of Control* can transmit alarms and data on the technical state of this *Partition Of Control* to the *Server Of Control*.

If the **Partition Of Control** object could not be created on the *Server Of Control*, the reason will be indicated in the **Registration** area, for example:

- **The base software is not loaded;**
- **Change the object name** (an object with the same name already exists on the *Server Of Control*);
- An object on the *Server Of Control* will also not be created if the user does not have rights to administer the *Server Of Control* object (see [Administrator's Guide: Rights administration](#)).

To configure the communication between the *Agent Of Control* and the *Server Of Control*, do the following:

1. Go to the settings panel of the **Partition Of Control** object.

The screenshot displays the configuration interface for a 'Partition Of Control' object. At the top, there are input fields for 'ID' (386) and 'TCP port (UPS)' (8888). A dropdown menu for 'Agent Of Control' is set to 'Agent Of Control 1'. To the right, there are three buttons: 'Transmitting ...' (with a '2' in the top right), 'Monitoring ...', and 'Video data ...'. Below these is a table for cameras with columns 'Number' and 'Keep archive for (days)'. The table is empty, and a 'Cameras ...' button is to its right. Below the table, it says 'Total cameras: 0'. There is also a table for sensors with columns 'Sensor ID' and 'Sensor type', which is also empty, with 'Sensors: 0' below it. To the right of the sensor table are three buttons: 'Add ...', 'Edit ...', and 'Delete'. Further right is a 'Registration' section with the text 'No connection' and a '1' in the top right corner. At the bottom of the panel are 'Apply' and 'Undo' buttons.

- Click the **Transmitting** button (2). A dialog box opens with settings for configuring the communication method between the *Agent Of Control* and the *Server Of Control*.

- In the **Connection to Control Server** drop-down list, select the **Client mode** as the methods for connecting the *Agent Of Control* to the *Server Of Control* (1).

Note

The **Server mode** is not used.

- From the **Connection** drop-down list, select the value for the transport level. Possible values are **TCP/IP** or **RS232** (2).
- If the **RS232** connection type is selected, then specify the **COM port number**, **COM port speed**, and **COM port format** parameters (3).
- If the **TCP/IP** connection type is selected, then indicate the parameters for connection to the *Server Of Control* in this dialog box:
 - If an IP address is used for connection, make sure that the **Use DNS instead of IP** checkbox is not set (5) and indicate the **IP address** and **TCP port** of the *Server Of Control* (4).

- b. If a domain name is used for connection, set the **Use DNS instead of IP** checkbox (5) and indicate the **DNS name** and **TCP port** of the *Server Of Control*.

The screenshot shows a configuration window titled 'TCP/IP'. It has two text input fields: 'TCP port' with the value '7777' and 'DNS name' with the value 'server.local'. Below these fields is a checkbox labeled 'Use DNS instead of IP' which is checked.

Note

The use of domain name for connection allows you to avoid the *Agent Of Control* resetting in case of *Server Of Control* IP address change.

7. When still frames or video is sent to the *Server Of Control*, the data is transferred in packets. The packet size is specified by the **I/O buffer (bytes)** parameter (6). For maximum data transfer speed, it is recommended to use the value 4096. For poor connections, such as if a GSM modem is used, it is recommended to use the value 800.
8. If **Client mode** is selected, in the **Ping frequency (s)** field (7), enter the time interval at which the *Agent Of Control* will send messages about its technical state to the *Server Of Control*. Minimum possible value is 10 sec. This value does not affect short-term alarms. Messages about short-term alarms are transmitted from the *Agent Of Control* to the *Server Of Control* immediately after corresponding sensors triggering. Some long-term alarms can also be an exception: for more information, see [Appendix 1. Data update periods summary](#).
9. Click the **OK** button (8) to save the connection settings and return to the settings panel of the **Partition Of Control** object.
10. Click the **Apply** button to save the changes.

Configuration of communication between the *Agent Of Control* and the *Server Of Control* is now complete.

5.3.4 Configuring captions

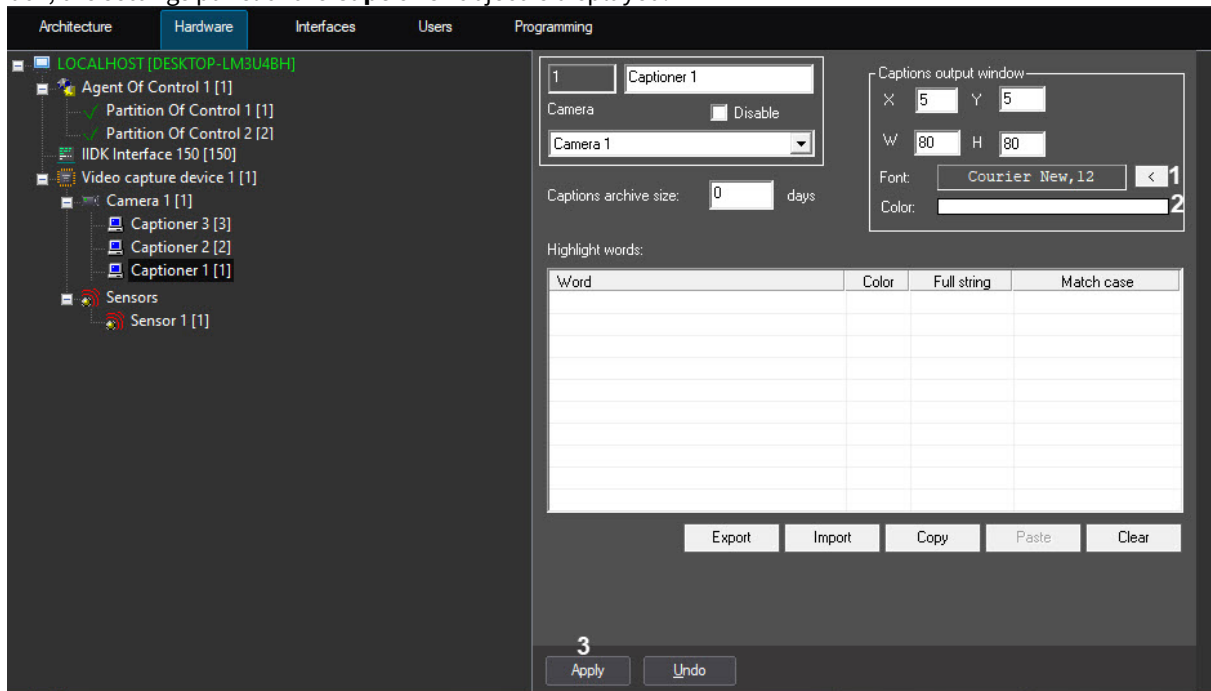
To use and configure captions, for each camera on which you want to use captions, you must create a **Captioner** object.

Attention!

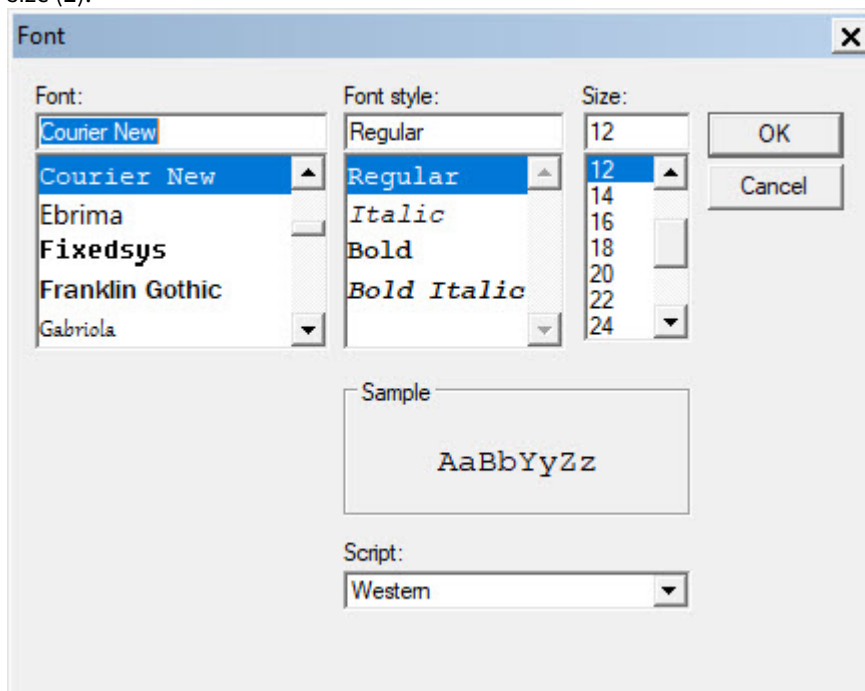
If multiple captioners have been created for a single camera, the *Agent Of Control* uses the captioner with the lowest ID number.

To configure the font and display area used for captions, do the following:

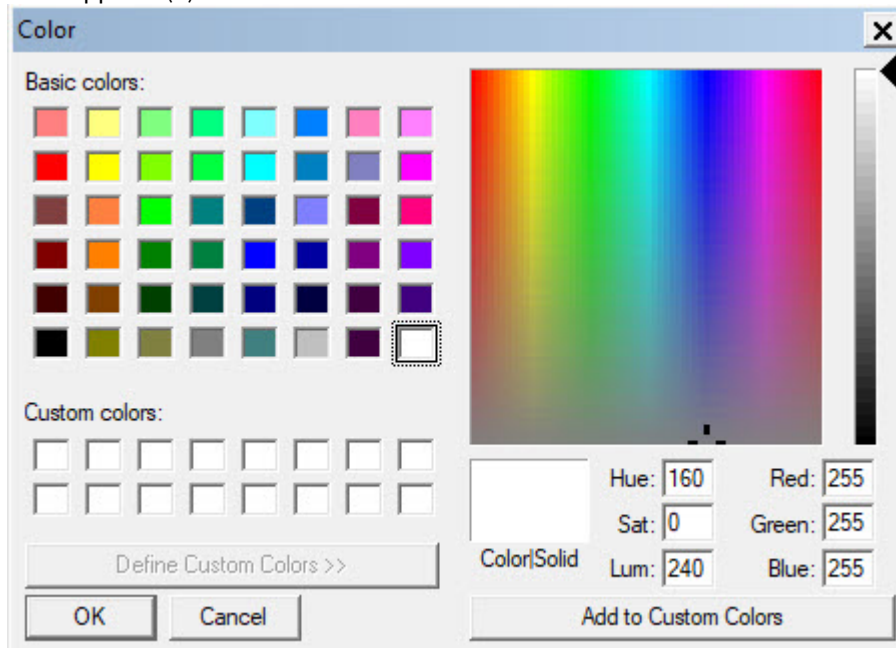
1. In the hardware tree, click the relevant **Captioner** object. On the right side of the **System settings** dialog box, the settings panel of the **Captioner** object is displayed.



2. If you click the button to the right of **Font**, a dialog box appears in which you can configure the font face and size (**1**).



- To configure the color of captions, double-click the area to the right of **Color**. A dialog box for configuring color appears (2).



Configuration of the **Captioner** object is now complete.

5.3.5 Configuring the camera list

The list of cameras specified on the settings panel of the **Partition Of Control** object determines the cameras whose archive and video can be accessed through the *Monitoring PSIM* interface objects (see [Monitoring PSIM Software Package: Operator's Guide](#)). In addition, this list determines the cameras whose state and archives are monitored by *Agent of Control*.

Depending on whether the list of cameras is specified or not, the following situations are possible:

- If you specify cameras in the list, *Agent of Control* works in normal mode, that is, monitors the state of cameras and their archives. *Server of Control* receives the information about the number of cameras, disks, disk volume, and so on.
- If you don't specify cameras in the list, *Agent of Control* checks the presence of the **Backup archive** object in the system and gets the information about disks from this object. In this case, *Server of Control* receives the information only about the disks marked in the **Backup archive** object. Access to the archive from the **Search in archive** interface object isn't performed.
- If you don't specify cameras in the *Agent of Control* settings and the **Backup archive** object is absent in the configuration, the information about disks is taken from the **Computer** object, considering the disks specified for the main archive storage. Access to the archive from the **Search in archive** interface object isn't performed.

In the second and third cases, the monitoring of the system state (availability of connection, restarts, and so on) and disks (their number and free space) is performed. The state of cameras and their archives isn't available for monitoring.

Note

For information on how to create and configure the **Backup archive** object, see [Axxon PSIM Software Package: Administrator's Guide](#).

To configure the list of used cameras, do the following:

1. Go to the settings panel of the **Partition Of Control** object.

The screenshot displays the configuration interface for a 'Partition Of Control' object. At the top, there are input fields for 'ID' (386) and 'TCP port (JPS)' (8888), along with buttons for 'Transmitting ...', 'Monitoring ...', and 'Video data ...'. Below these is a dropdown menu for 'Agent Of Control 1'. A table with columns 'Number' and 'Keep archive for (days)' is shown, with a 'Cameras ... 1' button next to it. Below the table, it says 'Total cameras: 0'. There is a section for 'Sensors' with a table for 'Sensor ID' and 'Sensor type', and buttons for 'Add ...', 'Edit ...', and 'Delete'. To the right of the sensor table is a 'Registration' box containing the text 'No connection'. At the bottom, there are 'Apply' and 'Undo' buttons.

Number	Keep archive for (days)
--------	-------------------------

Total cameras: 0

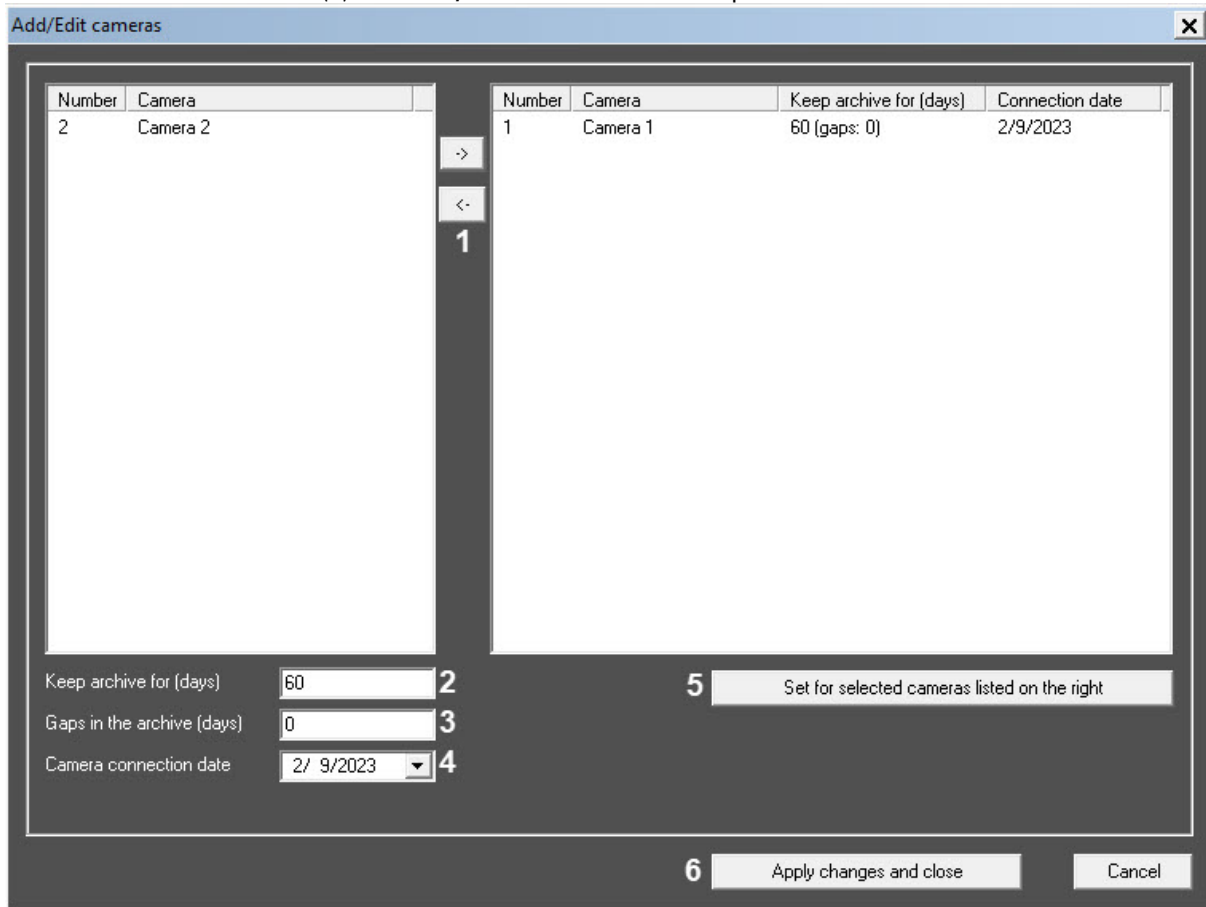
Sensor ID	Sensor type
-----------	-------------



Sensors: 0

Registration: No connection

Buttons: Apply, Undo

- Click the **Cameras...** button (1). The **Add/Edit cameras** window opens.



- Move the required cameras from the left list to the right list by using the  and  buttons (1).
- Select cameras in the list on the right.
- In the **Keep archive for (days)** field (2), specify the storage time of the video archive in days in the range from 0 to 999. If the value of the parameter is 0, the size of the archive isn't monitored.
- In the **Gaps in the archive (days)** field (3), specify the number of days on which the video archive isn't recorded, since non-working days are taken into account in the working schedule.
- In the **Camera connection date** field (4), specify the camera connection date to the system.
- Click the **Set for selected cameras listed on the right** button (5).
- Click the **Apply changes and close** button (6). The selected cameras are added to the list on the settings panel of the **Partition Of Control** object.
- Click the **Apply** button on the settings panel of the **Partition Of Control** object.

Note

The IDs of cameras and captioners must be integers.

Note

Cameras are automatically removed from the list if you remove the **Camera** object and its parent **Video capture device** object from the *Axxon PSIM* hardware list. All camera settings are saved, and the information about camera disconnection is transferred to *Server of Control* if:

- the **Camera** object or its **Video capture device** parent object is set to the **Disabled** mode;
- in the distributed configuration, the **Camera** object is moved to the **Video capture device** object located on another computer;
- in the distributed configuration, the **Video capture device** object, to which the camera belongs, is moved to another computer.

Configuring the camera list is complete.

5.3.6 Configuring sensors

The system supports use of four fixed sensors (vibration sensor, lock sensor, temperature sensor, and additional sensor) as well as 12 expansion sensors.

 **Note.**

Before configuring a list of sensors for a protected site, you must create and configure the necessary **Sensor** objects in *Axxon PSIM* first. Creation and configuration of these objects is described in the document [Axxon PSIM Software Package: Installing and configuring security system components guide](#).

 **Attention!**

Sensor IDs must be whole numbers.

 **Note**

If video data (i.e. clips or snapshots) are attached to the alarms, it is necessary to create a script for stopping recording on camera (see [Sample script for stopping camera recording](#)).

To configure the list of sensors in use:

1. Go to the configuration panel for the **Partition Of Control** object.

1 Partition Of Control 1 ID 386 Transmitting ...

Agent Of Control 1 TCP port (UPS) 8888 Monitoring ...

Video data ...

Number	Keep archive for (days)
--------	-------------------------

Cameras ...

Total cameras: 0

Sensor ID	Sensor type
-----------	-------------

Sensors: 0

Sensors

Add ... 1

Edit ...

Delete

Registration

No connection

Apply Undo

- Click the **Add** button (1). A dialog box for adding a sensor appears.

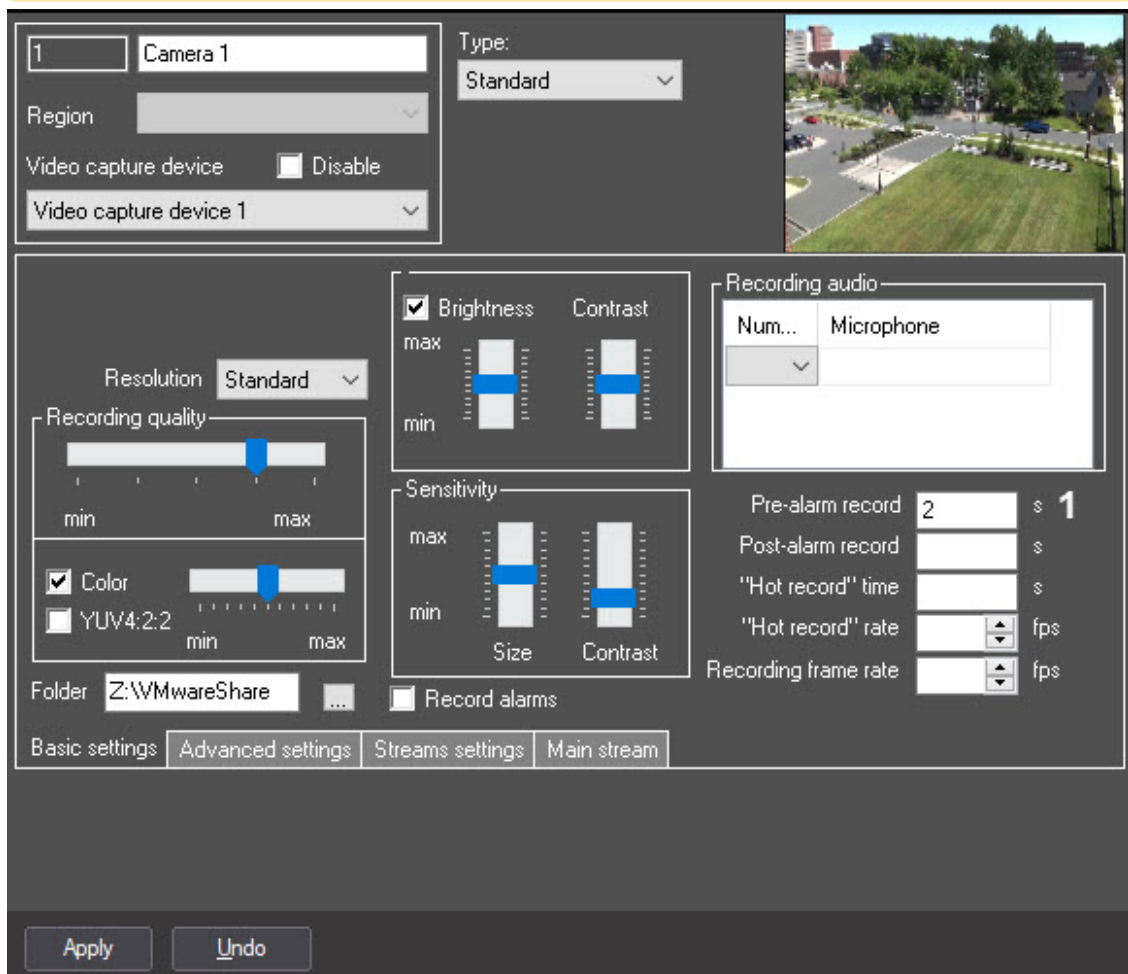
- In the **Type** drop-down list, select the type of sensor from the sixteen types described previously (1).
- In the **Name** field (2), enter the text that will be sent to *Server of Control* together with the alarm message. This text will be overlaid on the video during the captioning process.
- In the **ID** drop-down list, select a **Sensor** object that has been previously created in the *Axxon PSIM* device tree (3).
- In the **Assignment to camera** drop-down list, select a video camera from which the video frames or video clips should be requested (4).
- To enable sending video frames to *Server of Control* when a sensor is activated, select the **Transmit snapshots** check box (5).
- If you want for a video fragment to be sent to *Server of Control* when a sensor is triggered, select the **Transmit video** check box (6).
- In the **Post-alarm time (s)** field, enter the time delay between when a sensor is triggered and the time of access to the video archives, in seconds (7). The default value is 20 seconds. This parameter is necessary for guaranteed recording on camera.
- In the **Pre-alarm time (s)** field, specify the amount of time for which you want to pre-record before sensor triggering, in seconds (8). This allows obtaining video frames depicting not only the very moment at which an alarm occurs, but a short time before.
- If the **Transmit snapshots** check box was selected:
 - In the **Number of frames** drop-down list, select the quantity of video frames to be transferred when a sensor is triggered (9).
 - In the **Interval (s)** field, enter the length of time, in seconds, between video frames if more than one frame is to be sent (10). Thus when an alarm occurs, it is possible to send to *Server of Control* an

entire sequence of frames that represent different points in time, which increases the chance of viewing the most valuable frames.

⚠ Attention!

For snapshots transmitting more, as well as for video clips transmitting, it is necessary to create a script for stopping video recording on camera (see [Sample script for stopping camera recording](#)).

When specifying the **Pre-alarm time (s)**, **Number of frames**, and **Interval (s)** settings, keep an eye on the configuration of the camera from which video frames are to be sent, and particularly on the **Pre-alarm record... (s)** setting. **Pre-alarm record... (s)** time on camera have to be greater or equal to **Pre-alarm time (s)** value in sensor settings.



12. If the **Transmit video** check box (1) was selected:
 - a. In the **Length (s)** field (2), specify the length of the video fragment to send.

⚠ Attention!

If the **Not used** value is selected in the **Export to avi** parameter (3), then the **Length (s)** parameter will be unavailable. In this case, the length will be determined by the size of the video fragment file in the video archive. To limit the length of the video fragment to be sent, use a script to stop recording on the camera (a sample script is found in the [Sample script for stopping camera recording](#)).

- b. In the **Rate (Kbyte/s)** field, enter the transmission rate for the video fragment (3).
- c. The **Export to avi** parameter (4) allows you to select the format and codec of the requested video clip:
 - **Not used** – the video clip will be exported as an archive with a set of directories and files from the VIDEO folder.
 - **Initial format** – the video clip will be exported to an AVI-file without transcoding,
 - **Xvid** – the video clip will be exported to an AVI-file with the Xvid codec,
 - **DivX** – the video clip will be exported to an AVI-file with the DivX codec,
 - **x264** – the video clip will be exported to an AVI-file with the x264 codec.
13. If it is necessary to overlay captions on video when a sensor is triggered, select the **Captioning** check box (11). In the **Assignment to camera** field, specify the camera on whose video you want to overlay captions (4).
14. In the **Show for (s)** drop-down list, select the amount of time for which you want captions to be displayed on video, in seconds (12).
15. Click **OK** (13).

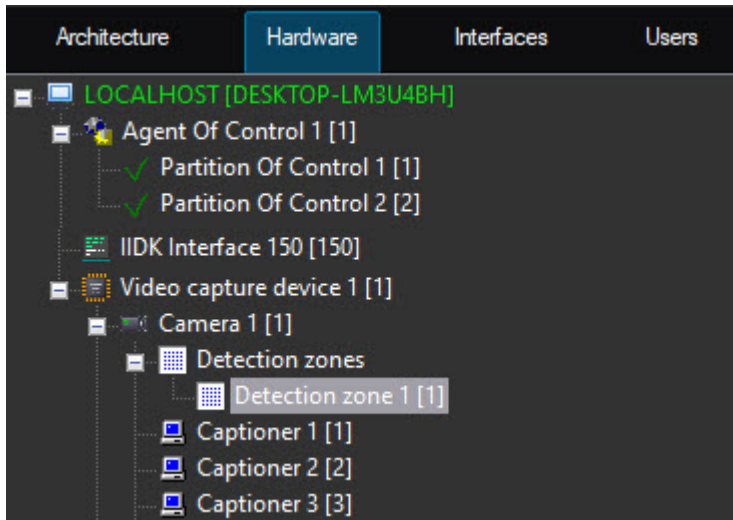
Configuration of the list of used sensors is now complete.

5.3.7 Configuring alarm groups

Configuration for associating events with certain alarm groups

By default, for the **Access Control** and **Detection Tools** alarm groups, no data is sent from *Agent Of Control*. These alarm groups, as well as **Hardware** and **Fire/Security System**, can be used for designating their respective alarm types.

To classify events of an object as belonging to a particular alarm group, create an object (if it does not exist already) in the device tree. For example, if you want for the signal from the **Motion detection tool** to be displayed in *Monitoring PSIM* in the **Detection Tools** alarm group, create a **Detector zone** object and configure it (select the **motion** type, specify the detection area and sensitivity, etc.; for more details, see [Axxon PSIM Software Package: Administrator's Guide](#)).



To associate the events with particular alarm groups, do the following:

1. Go to the configuration panel for the **Partition Of Control** object.

1 Partition Of Control 1 ID 386 Transmitting ...

Agent Of Control 1 TCP port (LPS) 8888 Monitoring ... 1

Video data ...

Number	Keep archive for (days)
1	60/0

Cameras ...

Total cameras: 1

Sensor ID	Sensor type
1	Vibration sensor (frames,captions)

Sensors

Add ...

Edit ...

Delete

Registration

No connection

Sensors: 1

Apply Undo

2. Click the **Monitoring...** button. The **Add/Edit events for Monitoring** window opens.

Add/Edit events for Monitoring

id	Type	Type (id)	Number	Name	Event	Event (id)	Group of alarms	Conf.	Video data	Message	Detail
----	------	-----------	--------	------	-------	------------	-----------------	-------	------------	---------	--------

Add ... Edit Delete

3. To add an event, click the **Add...** button. The event configuration window opens.

4. In the form that appears, from the **Type** drop-down list (1), select the type of device. This list contains the types of all objects created on the **Hardware** tab of the **System settings** window that have recorded events. Example: In the case of the **Motion detection tool**, select the **Detector zone** type.
5. From the **Number** drop-down list (2), select an ID number for the object of the selected type from which you want to get events. If you want to get events from all devices of this type, leave this field blank.
6. From the **Event** drop-down list (3), select the event type. The available event types depend on the selected object type. System type of the event in brackets is used in scripts and programs (see [Axxon PSIM Software Package: Guide for creating scripts \(programming\)](#)). For example, for the **Motion detection tool** triggering event, select **Alarm in the zone (MD_START)**.
7. From the **Group of alarms** drop-down list (4), select an alarm group and indicate in which alarm group you want for *Monitoring PSIM* to display alarms for this event.
8. It is possible to get confirmation of alarm acceptance from the *Server of Control*. To do this, from the **Confirmation** drop-down list (5), select the type of confirmation:
- No** — no confirmation is sent.
 - Simple** — *Agent of Control* sends confirmation when an alarm is confirmed by the operator.
 - Complex** — when accepting an alarm the operator must confirm it in the confirm box and after that the confirmation is sent.

Note

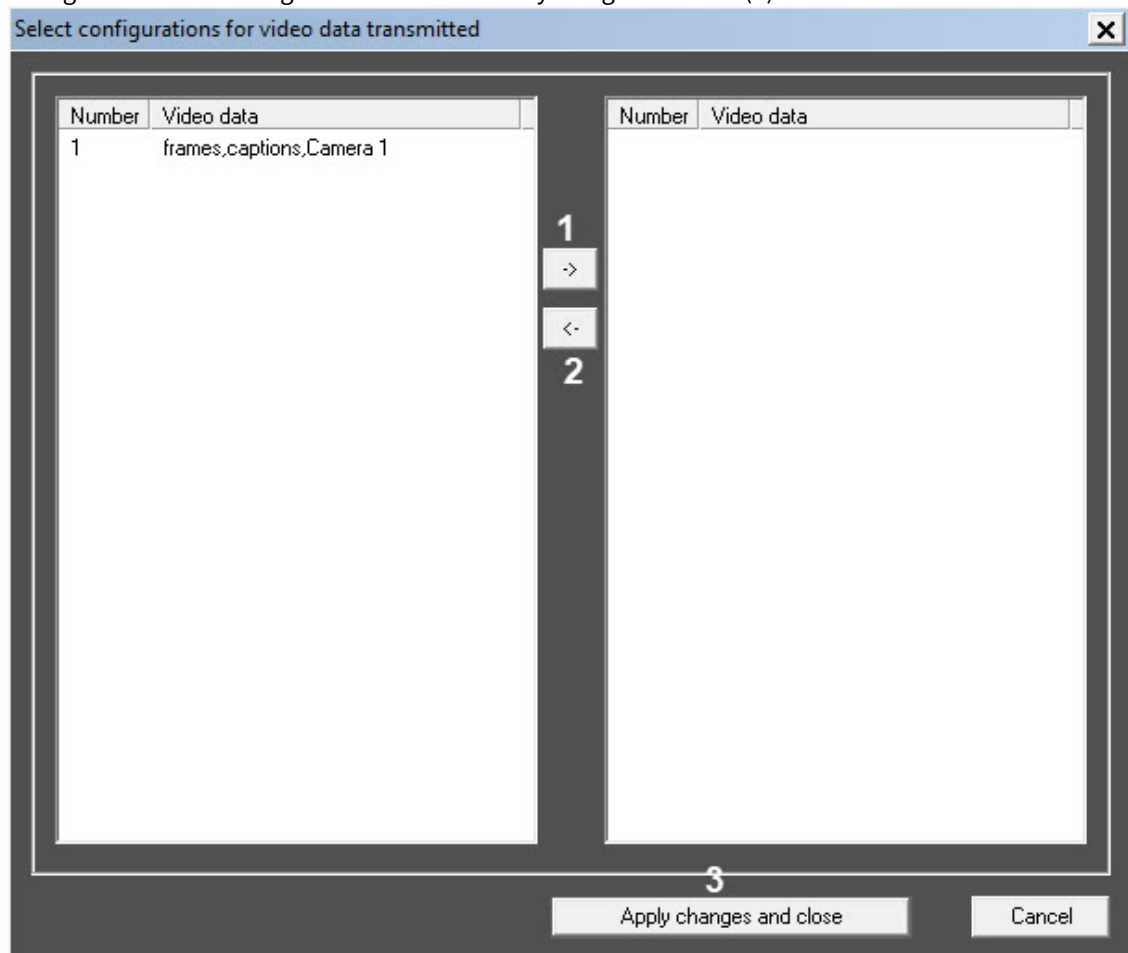
- The *Agent of Control* sends the **Confirmed: Monitoring PSIM event** message to *Axxon PSIM* core when there is the confirmation of alarm acceptance on the *Server of Control*. Scripts that use this event can be created in *Axxon PSIM* — see [Sample scripts for processing alarm confirmations](#).
- Confirmation sending can be disabled on the side of the *Server of Control* — see [Sending confirmations of alarm acceptance](#).

9. If it is necessary to attach video data to alarms, click the **Video data** button (6). As a result, the **Select configurations for video data transmitted** window will open.

Note

Configuration of the transmitted video data is described in [Setting configurations for transferred video data](#).

- a. Move the required configurations using the button (1) from the left list to the right. Remove a configuration from the right list to the left one by using the button (2).

**Attention!**

Multiple configurations cannot be used for the same camera.

- b. Click the **Apply changes and close** button (3). The selected configurations will be listed in the non-editable **Video data** field.
10. To add the possibility of attaching a snapshot not associated with the camera to an event, set the **Get snapshot from external device** checkbox (7). This way you can transmit, for example, a JPG snapshot received from an X-ray apparatus.

Attention!

To enable the **Get snapshot from external device** setting, the imageBase64<> substring with an image encoded in it must be present in the monitored event.

Example of an image received from an external device.



11. In the **Message** field (8), enter the text message, that will appear in the **Device** column of the **Reaction to alarm** dialog form (see [Monitoring PSIM Software Package: Operator's Guide](#)). If the object identifier is not specified, the following variables can be used in the **Message** field to detail the message:
- <id> — identifier of the object from which the event came.
 - <name> — the object name.

⚠ Attention!

<id> and <name> are to be in lower case.

After substitution of variables values the message must not be longer than 120 characters. If the resulting message is longer, extra characters will be dropped.

📘 Example.

When the **Disarmed** event appears at the **Camera 1**, the **Camera 1 disarmed** message is sent.

The screenshot shows a dialog box with the following fields and values:

- Type: Camera
- Number: 1
- Event: Disarmed (DISARM)
- Group of alarms: Detections
- Confirmation: No
- Video data: Configuration [1]
- Get snapshot from external device
- Message: Camera <id> disarmed
- Capture detailed data

12. To search for additional information in messages from a device of this type (for the substring "param0<>"), set the **Capture detailed data** checkbox (9).
13. Click the **OK** button to save the changes (10).

This means that when integrating a new device into *Axxon PSIM*, if a developer wants to be able to send more detailed information to *Monitoring PSIM*, when generating an event from the device, the developer should add detail in the param0<> parameter. For example, if there is a Motherboard Control module that has the Alarm event, the following values could be included in param0<>: "processor cooler", "BIOS battery", etc. If you enter **Motherboard** in the **Message** field and select **Capture detailed data**, the following text may appear in the **Device** column of the **Reaction to alarm** dialog form: **Motherboard (CPU cooler)**.

Similarly, it is possible to monitor messages from other objects created in the *Axxon PSIM* device tree, on the **Hardware** tab.

Configuration for associating events with certain alarm groups is now complete.

Setting configurations for transferred video data

If you set the transmission of user alarms to *Server of control* (see [Configuration for associating events with certain alarm groups](#)), you can attach videos to alarms. In *Monitoring PSIM*, you can create configurations of the data transmission so that you can later assign them to any events when configuring the group of alarms.

To set configurations for the transferred video data, do the following:

1. Go to the settings panel of the **Partition Of Control** object.

1 Partition Of Control 1 ID 386 Transmitting ...

Agent Of Control 1 TCP port (LPS) 8888 Monitoring ...

Video data ... 1

Number	Keep archive for (days)
1	60/0

Cameras ...

Total cameras: 1

Sensor ID	Sensor type
1	Vibration sensor (frames,captions)

Sensors: 1

Sensors: Add ... Edit ... Delete

Registration: No connection

Apply Undo

2. Click the **Video data...** button (1). The **Adding/Removing configurations for transferred video data** window is opened.

Adding/Removing configurations for transferred video data

Number	Camera	Video data	Post-alarm time (s)	Pre-alarm time (s)	Number of frames	Interval (s)	Length (s)	Speed (Kbyte/s)	Export to avi	Captions	Show for (s)
--------	--------	------------	---------------------	--------------------	------------------	--------------	------------	-----------------	---------------	----------	--------------

Add ... Edit Delete

- To add the new configuration for the transferred video data, click the **Add...** button. The configuration settings window is opened.

- From the **Assignment to camera** drop-down list, select the **Camera** object that is used for getting the video data.
- Configure the data transmission parameters. The data transmission parameters are the same as those for the video data transmitted along with sensor alarms (see [Configuring sensors](#), steps 7-15).
- Set the **Get current frame** checkbox to attach the current video frame to the alarm without reaching the video archive. If the video subsystem is overloaded, the received video frame can differ with an alarm according to time. That is why we recommend using it for systems with a small load.

Note

There are two other ways to attach videos to alarms that imply receiving video frames and video clips from the archive. However, it can take a considerable time since the video archive isn't created at the moment when an alarm occurs.

- Without writing scripts: set the **Automatic pause of recording by cameras** checkbox (for more details, see [Creating necessary Agent Of Control objects](#)).
- Create a script to stop recording by a camera (see [Sample script for stopping camera recording](#)). You must clear the **Automatic pause of recording by cameras** checkbox. You can use this way if the automatic pause of recording by cameras doesn't suit a specific situation or the more complex processing mechanism is required.

- Click the **OK** button. The created configuration is added to the list.
- Click the **Apply** button.

Setting configurations for the transferred video data is complete.

Changing the description of short alarms and long alarm Object disarmed

To change the description of a long alarm **Object disarmed** in the **Monitoring** and **Monitoring reports** interface objects, it is necessary to specify the required description for the **CustomisedLongAlarmName** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key on the *Server of Control* and *Central Server of Control* side (for details, see the registry keys reference guide [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#)).

To change the description of short alarms that occur with the **OBJ_ARM** and **OBJ_DISARM** events, do the following:

1. Run the *ddi.exe* utility on the *Agent of Control* side.

Note

For detailed information about working with this utility, see the section [Axxon PSIM Software Package: The ddi.exe utility for editing database templates and external settings files](#).

2. Open the monitoring.ddi file, which is located in the <Axxon PSIM installation directory>\Languages\en.
3. Select the **VIDEOSRV_C** object (1).
4. Go to the **Events** tab (2).

The screenshot shows the DDI & DBI Editor application. The left pane lists various objects, with **VIDEOSRV_C** selected. The main window displays the **Events** tab, showing a table of events. The **OBJ_ARM** event is selected, and its description is being edited to "The object is armed".

Name	Description	Processing messages	Supp. audio	Disable network connectio	Disal loggin	Windows log
OBJ_DISARM	Attention! The service staff works!	ALARM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OBJ_ARM	The object is armed	INFORMATION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*	3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

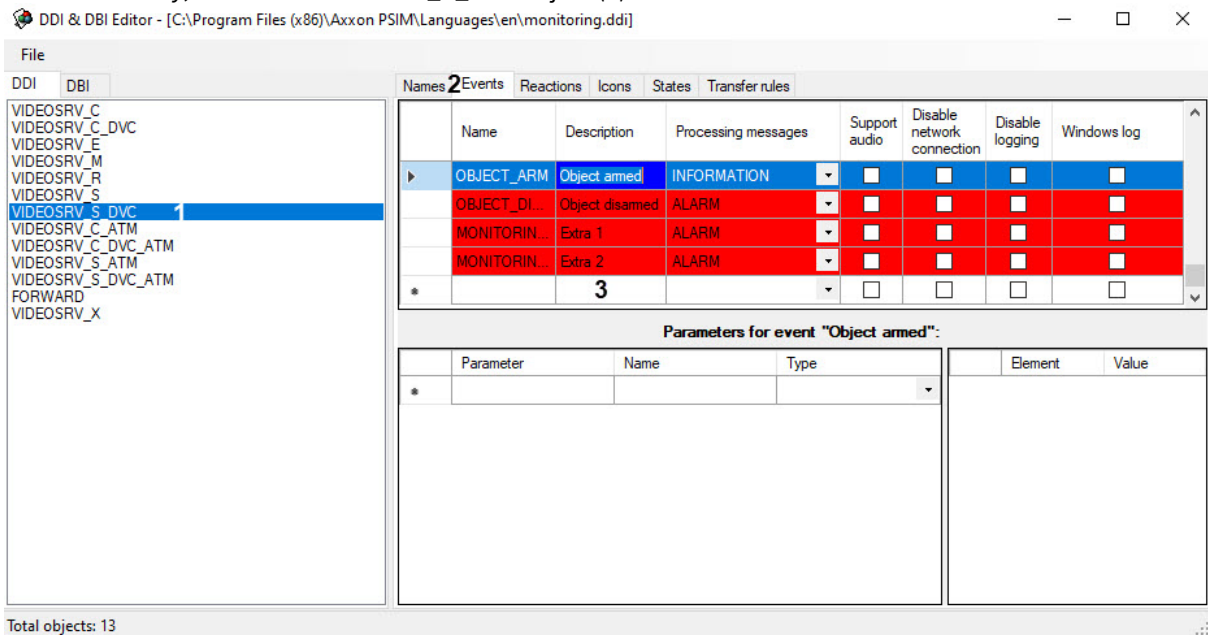
Parameters for event "The object is armed":

Parameter	Name	Type	Element	Value
*				

Total objects: 13

5. In the **Description** column, specify the necessary text for the **OBJ_ARM** and **OBJ_DISARM** events (3).
6. Save the changes to the file and restart the *Monitoring PSIM*.

7. In the same way, select the **VIDEOSRV_S_DVC** object (1) on the *Server of Control* side.



8. Go to the **Events** tab (2).

9. In the **Description** column, specify the necessary text for the **OBJECT_ARM** and **OBJECT_DISARM** events (3).

10. Save the changes to the file and restart the *Monitoring PSIM*.

Changing the description of short alarms and long alarm **Object disarmed** is complete.

Configuring alarms for monitoring the object state on the Agent of Control side

On this page:

- [General information about the alarms for monitoring of the object state on the Agent of Control side](#)
- [Configuring the alarms for monitoring the object state on the Agent of Control side](#)
- [Operating procedure](#)

General information about the alarms for monitoring of the object state on the Agent of Control side

To monitor the object state on the *Agent of Control* side, create an **AccessByCardEnable=1** string parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key (for details, see the registry keys reference guide [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#)).

By default, the following alarms will become available in the **Detection Tools** alarm group:

Alarm group	Event name	Alarm type (default alarm description)	Alarm length
Detection Tools	-	Object disarmed	Long alarm
	OBJ- DISARM	Attention! The service staff works!	Short alarm
	OBJ- ARM	Armed object	Short alarm

These alarms are designed for the special mode of *Monitoring PSIM* operation with *ACFA PSIM* (see [Configuring the special mode of Monitoring operation with ACFA PSIM](#)). However, these alarms can be used to monitor the state of the relay, for example, to generate a short and long alarm when the relay switches from the **Relay on** to the **Relay off** state, and another short alarm when the relay switches from the **Relay off** to the **Relay on** state.

Configuring the alarms for monitoring the object state on the Agent of Control side

You can change the description of alarms for the **OBJ_ARM** and **OBJ_DISARM** events, and the long alarm **Object disarmed** (for details, see [Changing the description of short alarms and long alarm Object disarmed](#)).

To receive the short alarms **Attention! The service staff works!** it is necessary to set up an alarm group as shown below.

Type: Agent Of Control
 Number: 1
 Event: Attention! The service staff works! (OBJ_DISARM)
 Group of alarms: Detections
 Confirmation: Simple
 Video data: No
 Get snapshot from external device
 Message: <obj_disarmed>
 Capture detailed data

OK Cancel

To receive the short alarms **The object is armed**, it is necessary to set up an alarm group as shown below.

Type: Agent Of Control
 Number: 1
 Event: The object is armed (OBJ_ARM)
 Group of alarms: Detections
 Confirmation: Simple
 Video data: No
 Get snapshot from external device
 Message: <obj_armed>
 Capture detailed data

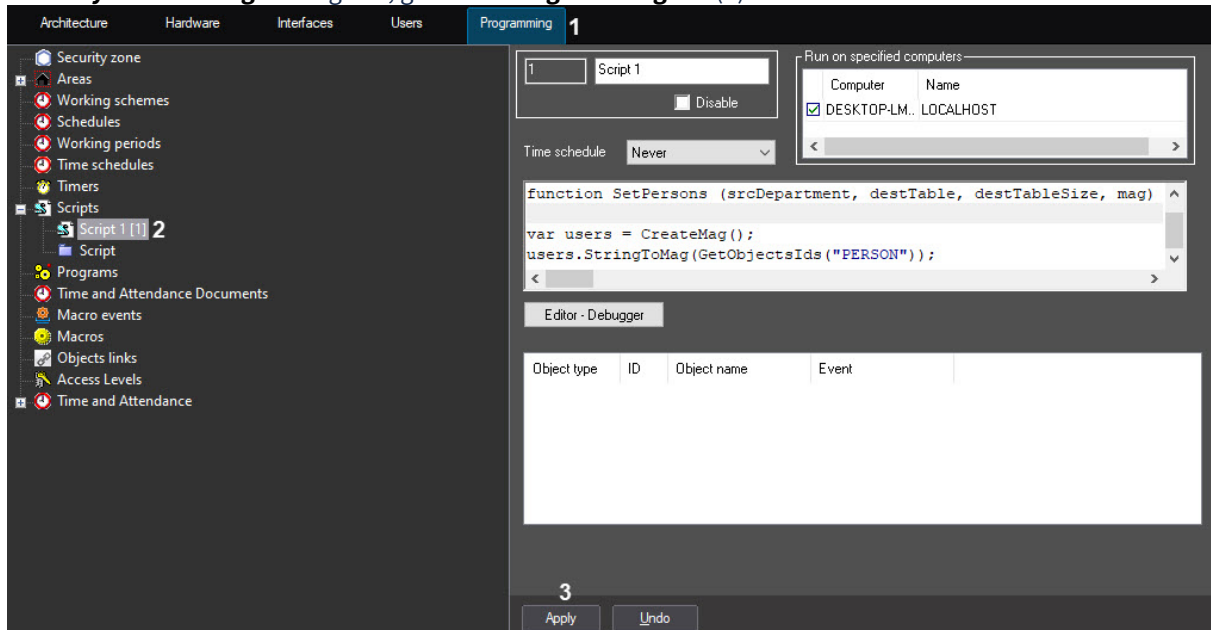
OK Cancel

Note

It is necessary to enter the <obj_disarmed> and <obj_armed> messages in the lower case.

To monitor the object state on the *Agent of Control* side, do the following:

1. In the **System Settings** dialog box, go to the **Programming** tab (1).



2. Create the **Script** object (2) on the basis of the **Scripts** object in the objects tree.
3. If you are configuring the special mode of *Monitoring PSIM* operation with *ACFA PSIM*, it is necessary to copy the contents of a sample script from the page [Sample scripts for determining the current state of the zones of the Apollo object on the Agent of Control side](#).
4. If you are configuring the monitoring of the relay state, it is necessary to copy the contents of a sample script from the page [Sample scripts for determining the current state of the relay on the Agent of Control side](#).
5. Click the **Apply** button (3).

Operating procedure

At startup, and then every 15 minutes, *Agent of Control* sends a **GET_OBJECT_STATE** event to the *Axxon PSIM* core. This event is processed in a script, which then generates an **OBJECT_STATE_INFO** event with the object status in the **state** field and the additional information in the **card** field. When the state of the relay changes, this script generates the **OBJ_ARM** or **OBJ_DISARM** event a long alarm **Object disarmed**.

Configuring alarms for monitoring the object state on the *Agent of Control* side is complete.

5.4 Connecting to uninterrupted power supplies

If your computer has a Smart-UPS uninterrupted power supply unit made by APS, messages from the UPS can be sent to *Server of Control*.

Configuration of a UPS is performed in the following order:

1. Install the StateUPS utility.
2. Configure the PowerChute plus utility.

5.4.1 Configuring StateUPS

StateUPS utility (exe-file and ini-file) is installed with *Agent of Control* and placed to the <*Axxon PSIM* software installation>/Vhost/UPS/.

Note

Files from the <Axxon PSIM software installation>/Vhost/UPS/Ext directory will look for the settings INI-file in the same directory as the StateUPS utility.

Configure the file StateUPS.ini in this directory:

1. Address – address of the machine on which *Agent of Control* is running. The default value of this parameter is **127.0.0.1**. If you install StateUPS on the same computer on which *Agent of Control* is installed, it is not necessary to change this parameter.
2. Port – TCP port to which StateUPS sends messages from the UPS. The value of this parameter must match the corresponding setting of *Agent of Control*, **TCP port (UPS)** (see the section [Configuring a port for incoming UPS messages](#)).

If the StateUPS utility is to be used on another computer, do the following:

1. Create HKLM\SOFTWARE\BitSoft\VHOST\VHostService section in the registry for 32-bit OS (HKLM\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService for 64-bit) on this computer.
2. In this section, create the **FolderLog** parameter. In the **FolderLog** parameter specify the path where the UPS folder will be created containing INI-file. For example, if the folder is **C:\EVUPS**, then **FolderLog = C:\EVUPS**.
3. In the specified folder, for example, **C:\EVUPS**, create the **UPS** sub-folder and copy the StateUPS.ini into it.

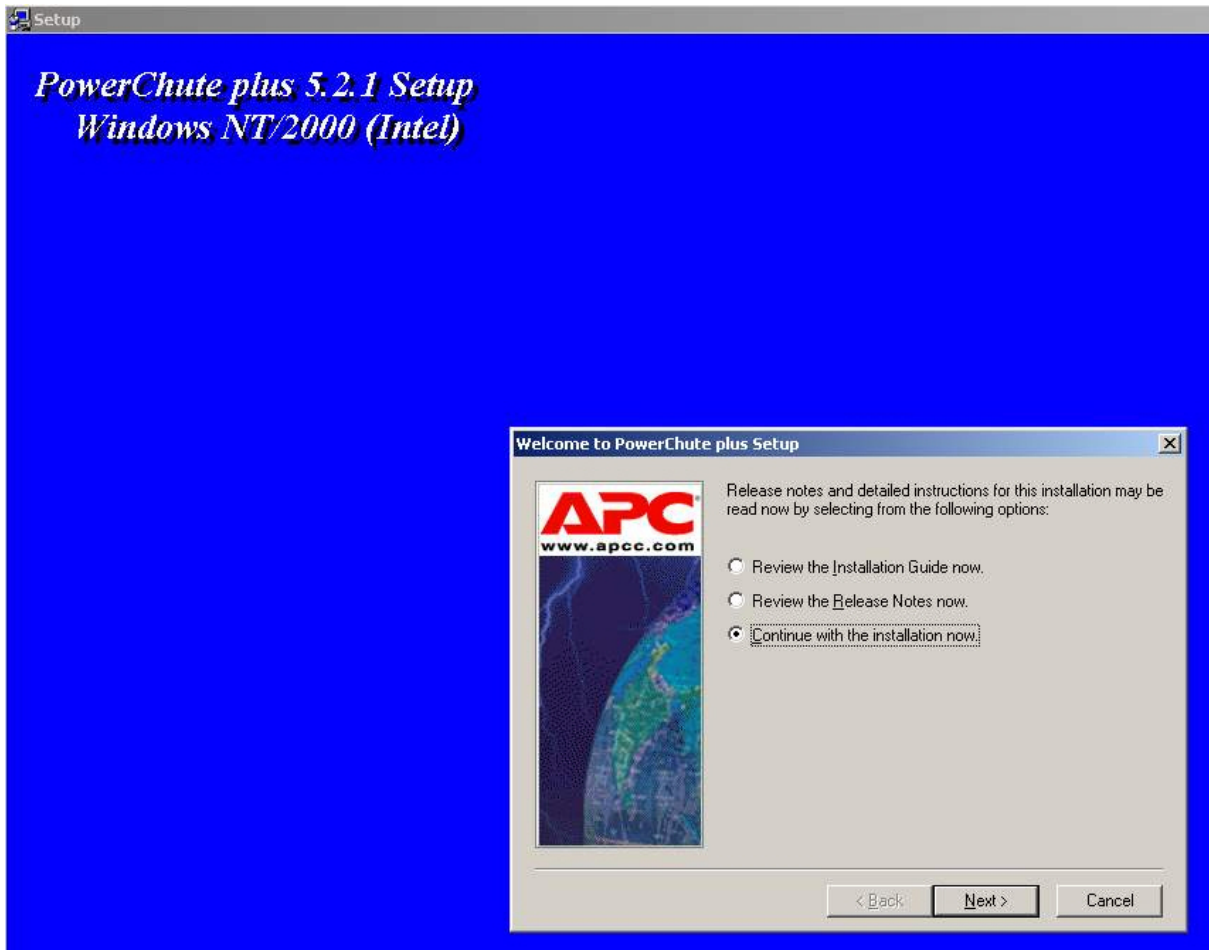
5.4.2 Installing the software from the UPS vendor

After the StateUPS is configured, install the software from the UPS vendor. Before starting installation, make sure that the interface cable is connected to the UPS.

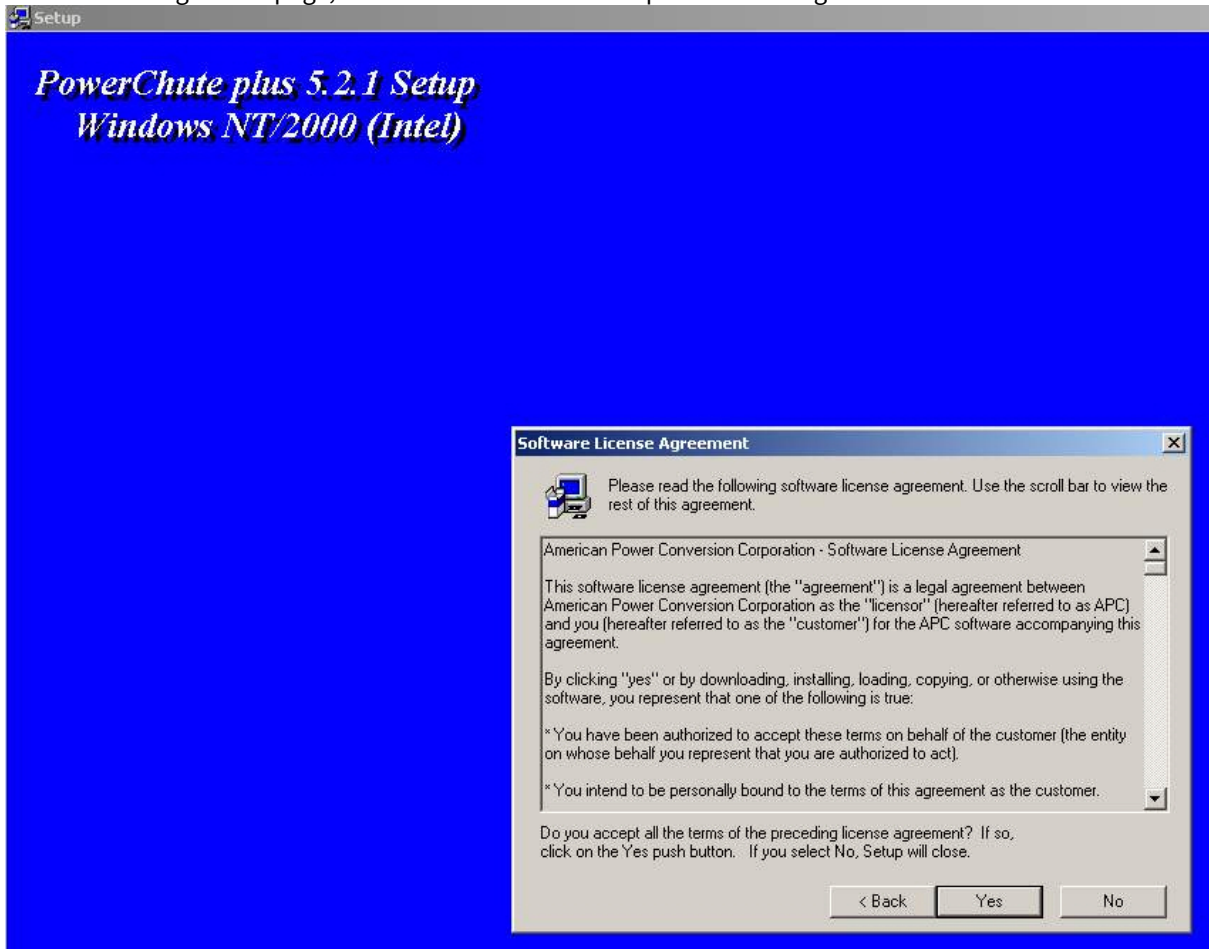
1. To start the installation process, start the executable file pc521.exe in the installation folder UPS\PowerChutePlus. A window opens to inform of the start of installation.



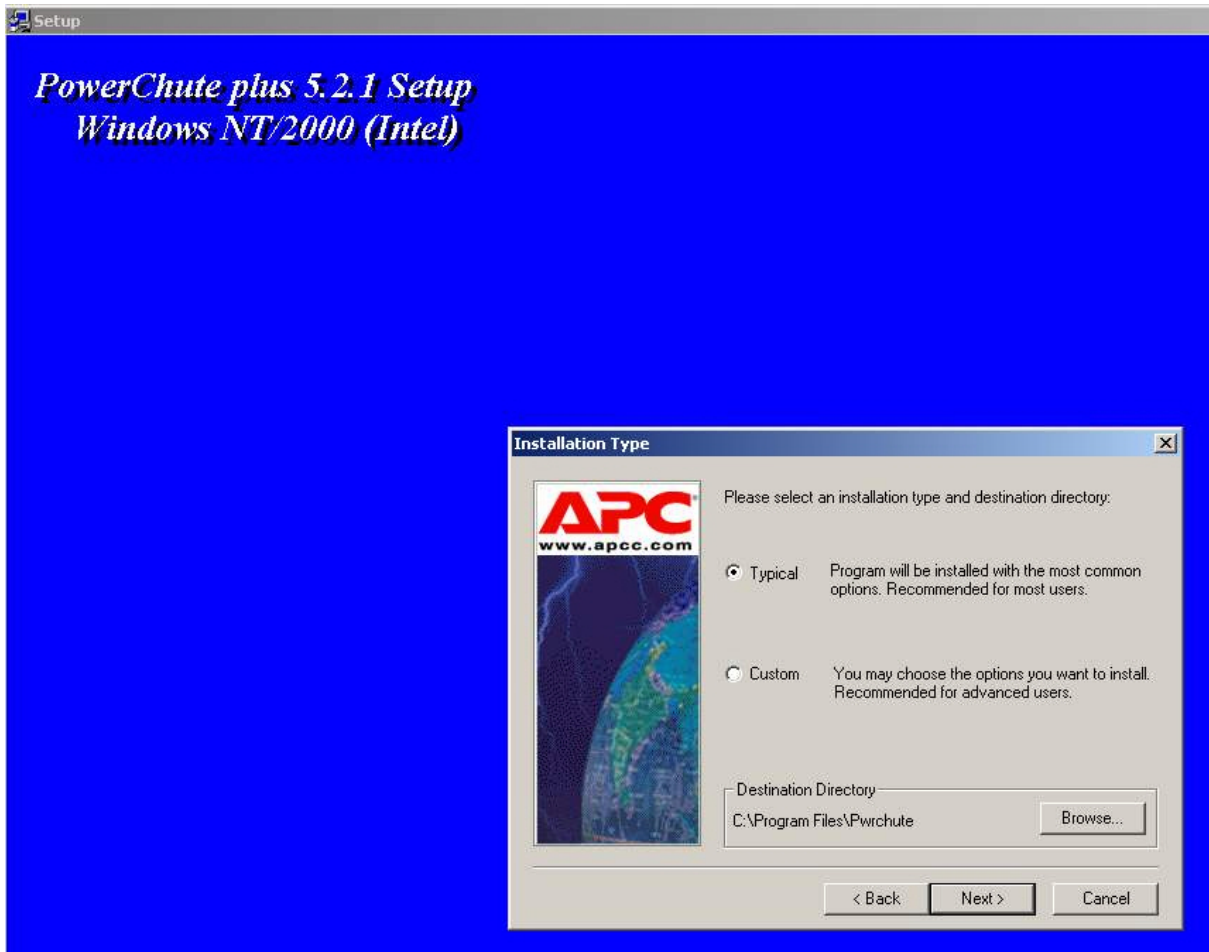
2. On the following wizard page, select the option **Continue with the installation now** and click the **Next** button.



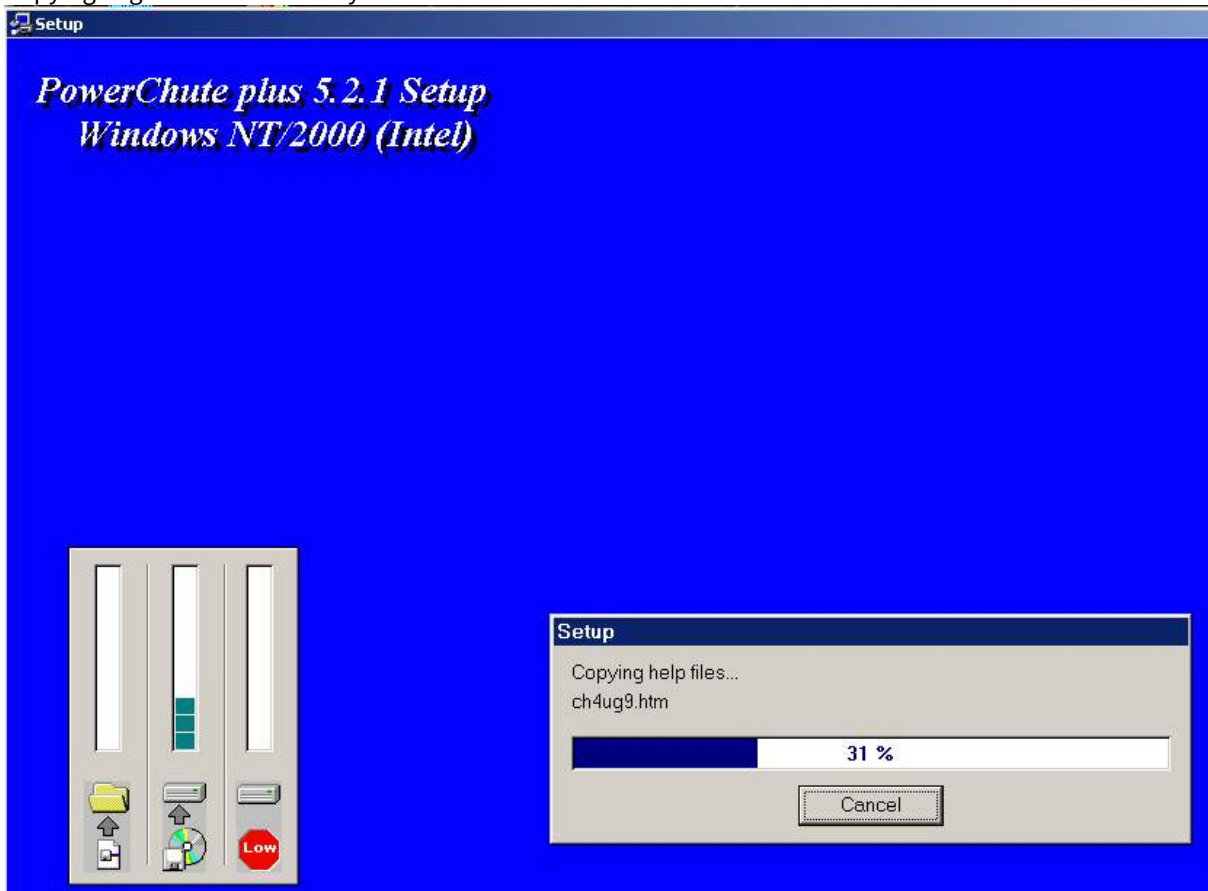
3. On the following wizard page, click the **Yes** button to accept the license agreement.



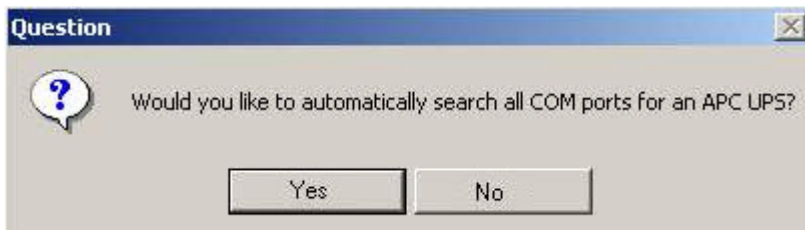
4. On the following wizard page, select the **Typical** installation type and indicate the path at which you want to install the software.



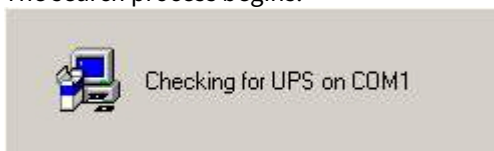
5. Copying begins of the necessary files.



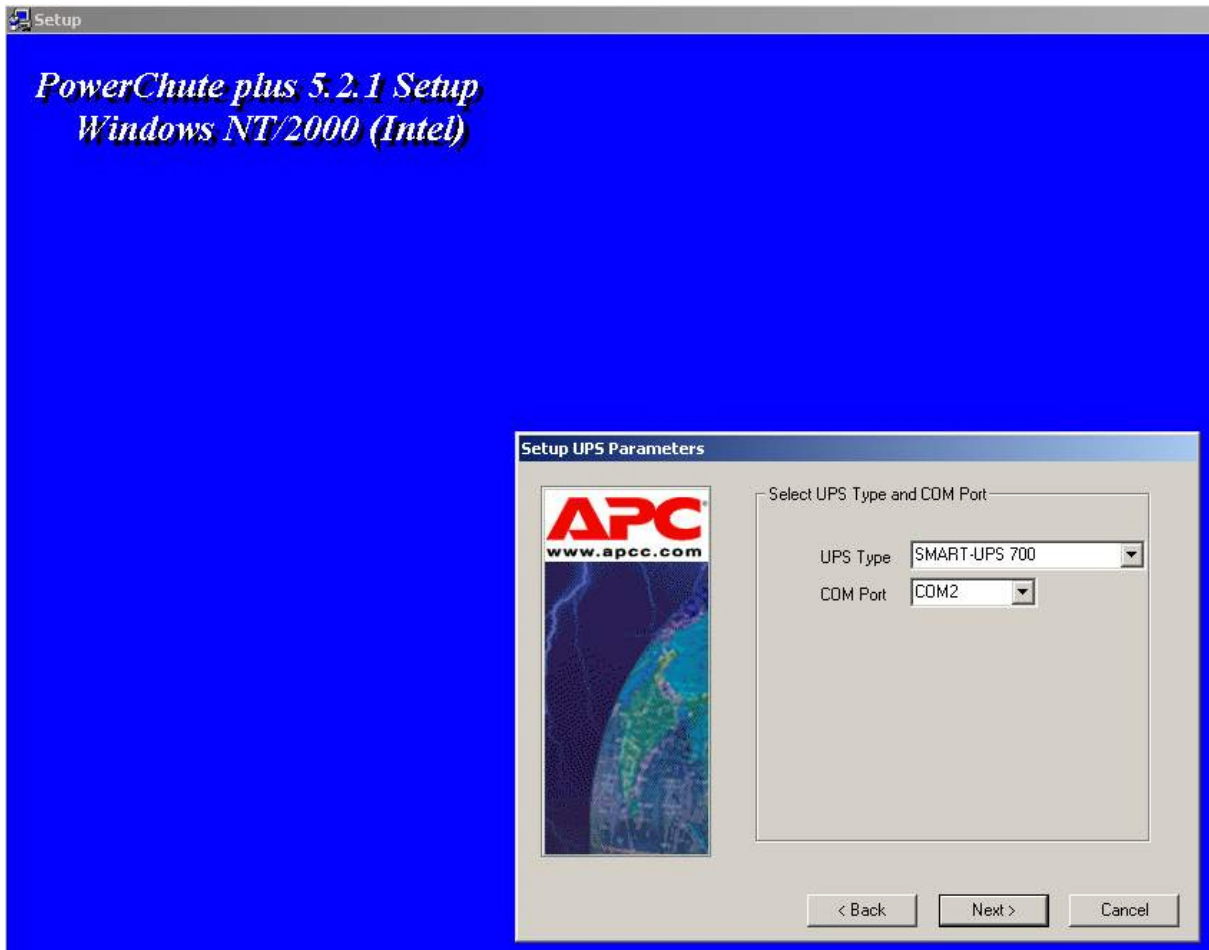
6. When copying is complete, a dialog box appears with a request to automatically determine the COM port on which the UPS is located. Click the **Yes** button.



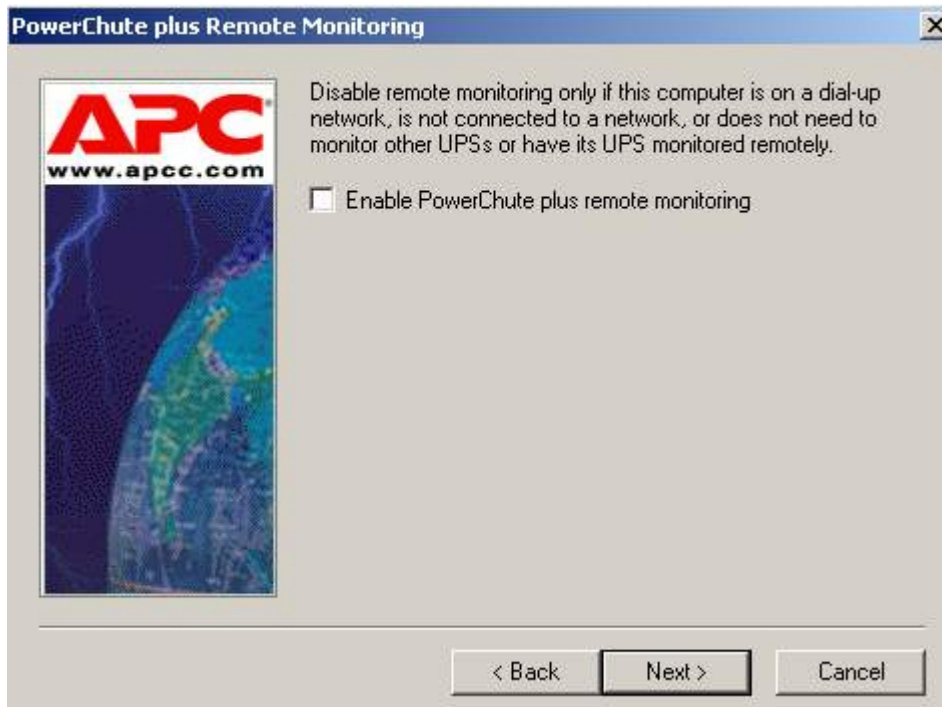
7. The search process begins.



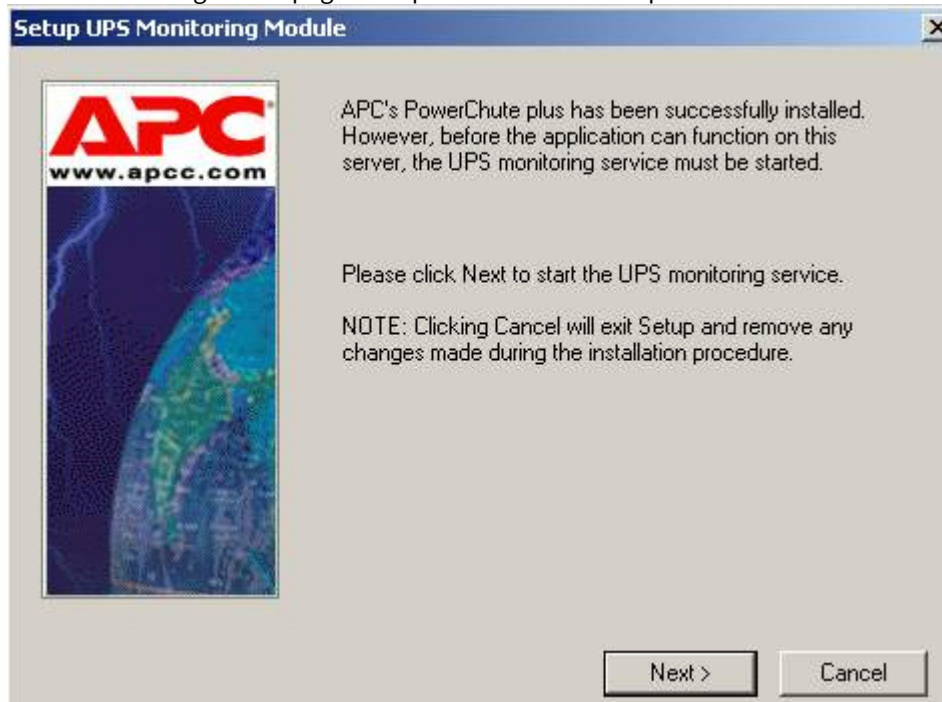
- When the search is complete, the program will show what type of UPS it found and on which COM port. Click the **Next** button.



9. On the next wizard page, clear the **Enable PowerChuteplus remote Monitoring PSIM** check box and click the **Next** button.



10. The two following wizard pages complete the installation process.



Dialog box to confirm installation completion.



Installation of the StateUPS utility is now complete.

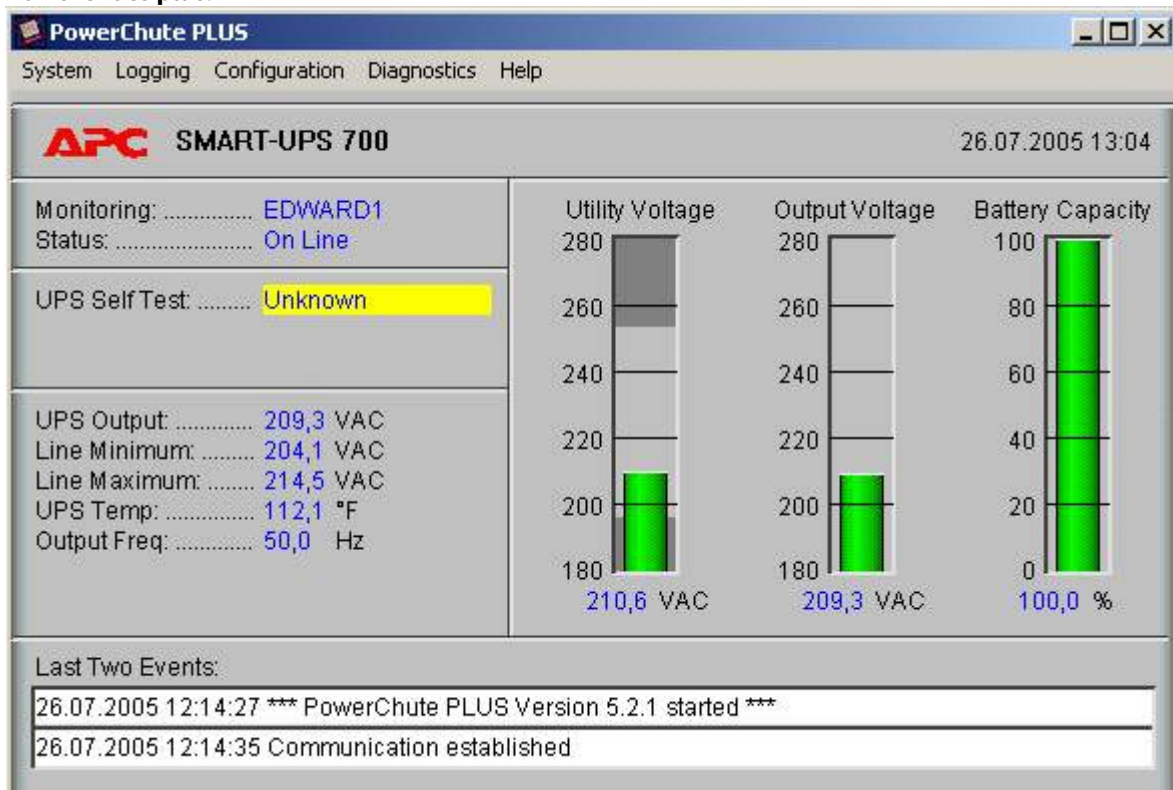
5.4.3 Configuring the PowerChute plus utility

Note.

The PowerChute utility configuring process is given in this document as an example. Alternative software can have different settings. Alternative software must allow binding certain reactions with UPS events.

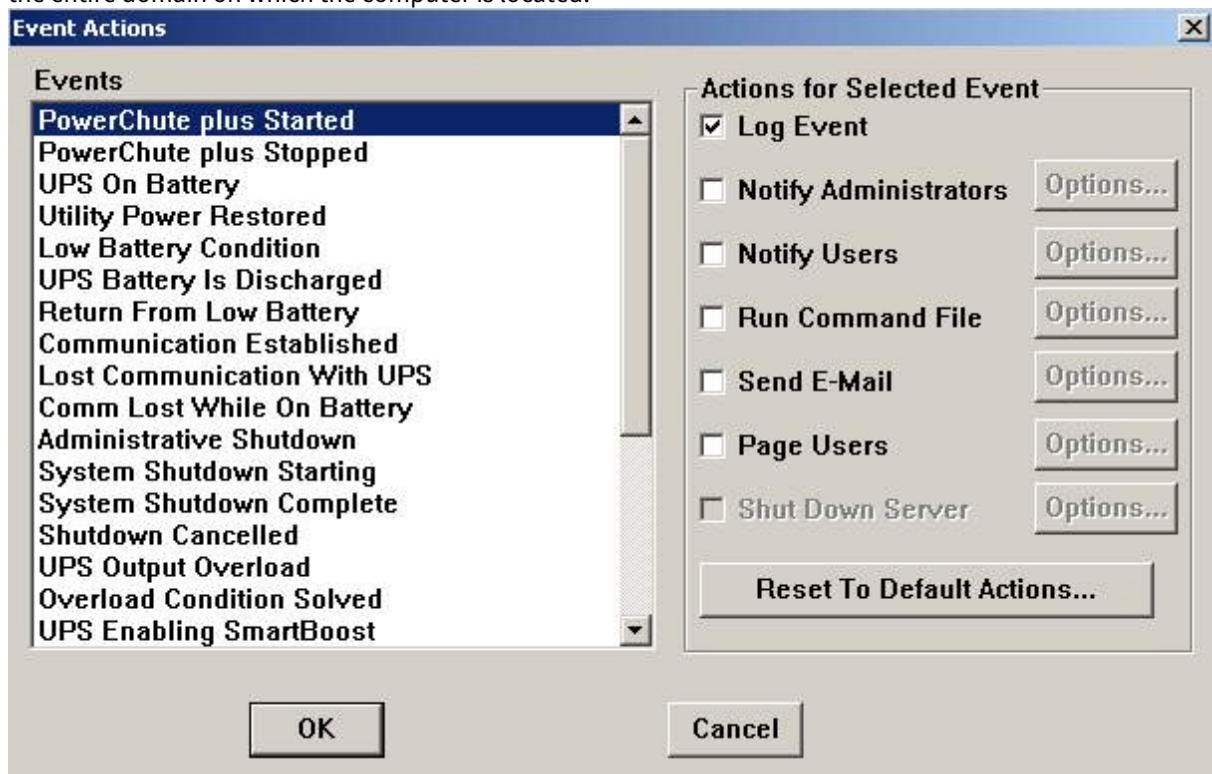
To set up the PowerChute plus utility:

1. Start the PowerChute plus configuration program, by selecting **Start -> Programs -> PowerChute plus -> PowerChute plus.**



2. Select the menu item **Configuration -> Event Actions...** A dialog box appears, in the left part of which there is a list of events for which different reactions can be assigned (right part of the window). It is recommended to clear the checkbox **Notify Users** for all events unless there is a need for it; otherwise, messages are sent to

the entire domain on which the computer is located.



A more detailed list of events is given in the table.

ID Code	Event Name	Description
1000	PowerChute Started	PowerChute service started
1001	PowerChute Stopped	PowerChute service stopped
1002	Communication Established	Communication restored
1003	Utility Power Restored	Electricity restored
1004	UPS Self-Test Passed	Self-Test passed
1005	Administrative Shutdown	Administrative shutdown
1006	Shutdown Cancelled	Shutdown cancelled
1007	Returned From Low Battery	Batthey charged
1009	UPS Battery Replaced	Battery replaced

1013	Overload Condition Solved	Overload is back to normal
1014	Runtime Calibration Started	Runtime Calibration Started
1015	Runtime Calibration Finished	Runtime Calibration Finished
1016	System Shutdown Starting	System is shutting down
1102	UPS Internal Temperature In Bounds	Internal temperature is in bounds
2000	UPS On Battery	Electricity turned off
2001	System Shutdown Complete	System performed shutdown
2002	UPS Enabling SmartBoost	Low-voltage mode
2003	Low Battery Condition	Battery is running low
2004	Runtime Calibration Aborted	Runtime Calibration Aborted
2007	UPS Enabling SmartTrim	High-voltage mode
3000	Lost Communication With UPS	Communication lost
3001	UPS Output Overload	Overload
3002	UPS Self-Test Failed	Self-Test failed
3003	UPS Battery Is Discharged	Battery discharged
3004	Comm Lost While On Battery	Comm Lost While On Battery
3016	Battery Needs Replacing	Must replace battery
3107	Maximum Internal Temperature Exceeded	High internal temperature

PowerChute plus can be configured so that any of the events listed previously can be sent to the *Server of Control*.

Events marked in green are highly recommended for sending to *Server of Control*.

The <Axxon PSIM installation>\Vhost\UPS\Ext\ folder also includes three executables that have been created for specific events:

- PowerOff.exe (electricity is off)

- PowerOn.exe (electricity is restored)
- BatDisch.exe (battery is discharged)

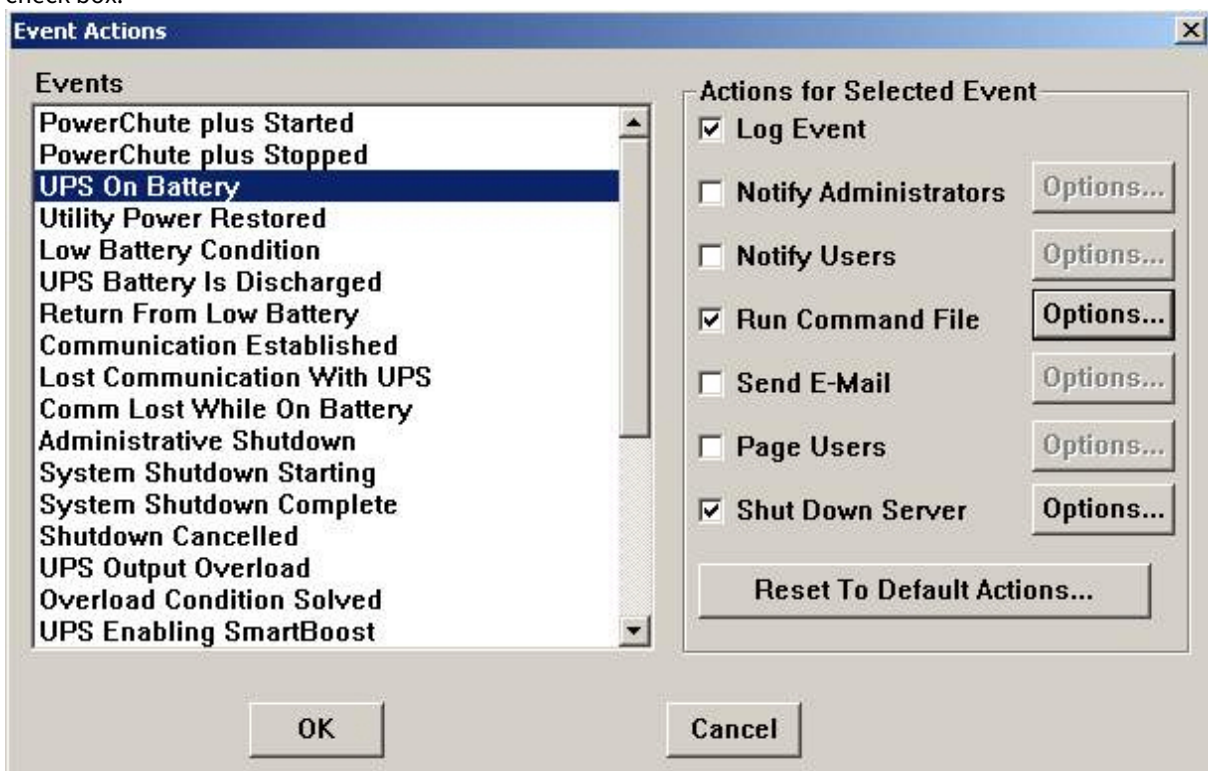
This minimal set can be used with different series of Back-UPS that do not support calling third-party subprograms with the command line.

5.4.4 Example of configuration of event distribution

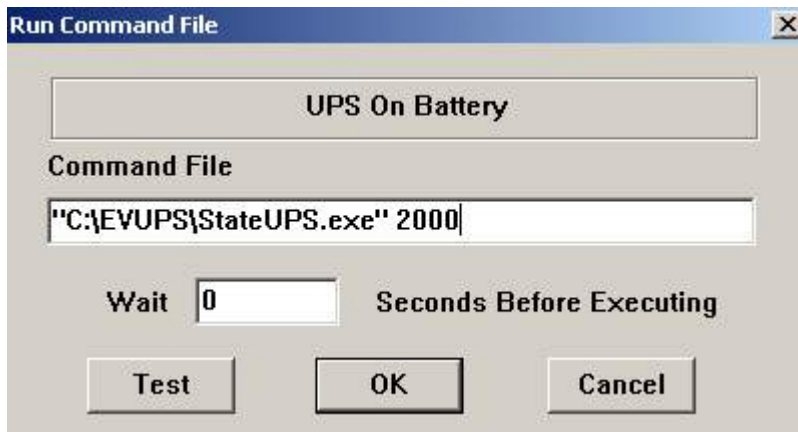
Let us consider the following situation: electricity has turned off and the UPS began to work in battery mode (ID Code = 2000), and after a time electrical supply was restored (ID Code = 1003).

In this case to configure events notifying do the following:

1. In the list of events, select the event **UPS On Battery** and, for this event, select the **Run Command File** check box.

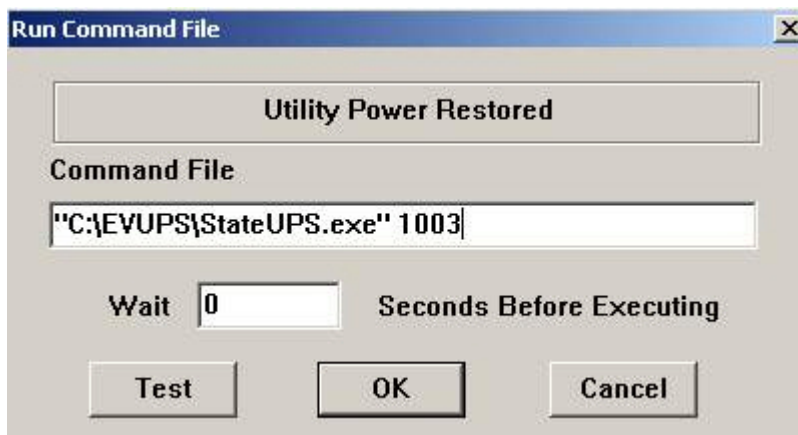
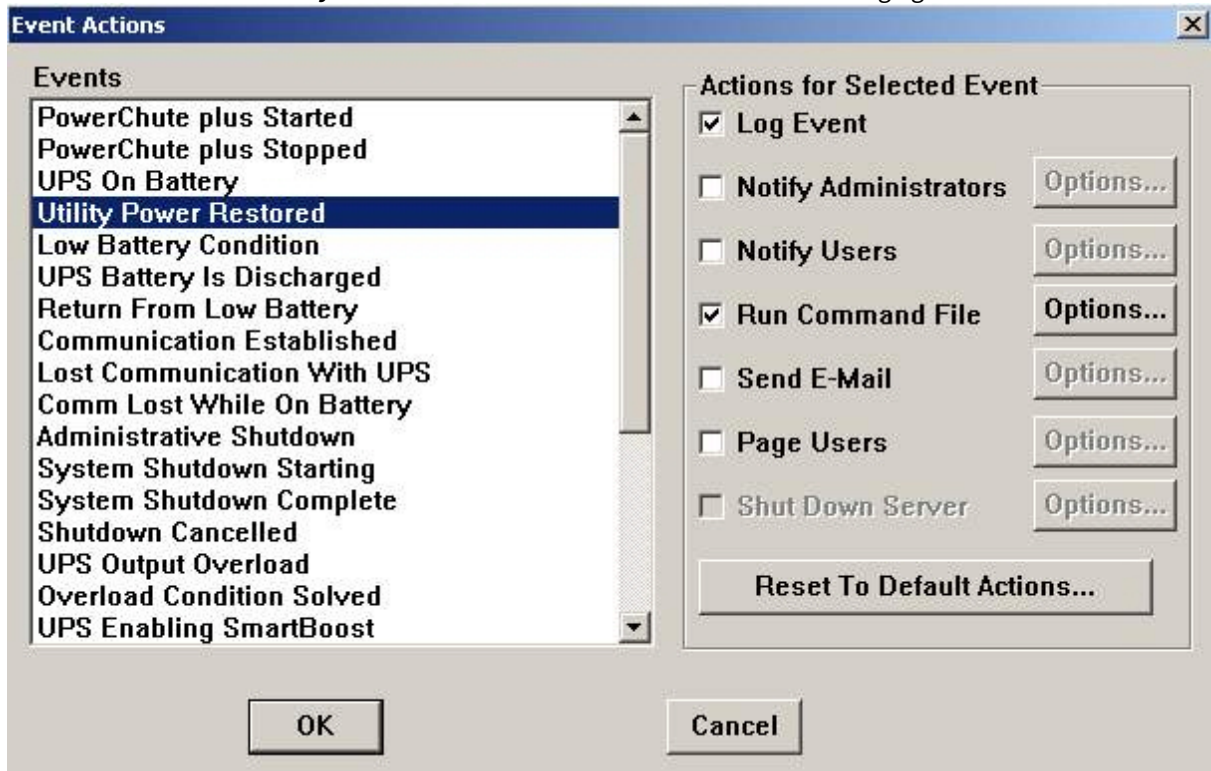


2. To the right of **Run Command File**, click the **Options...** button.
3. In the dialog box that opens, indicate the full path to the StateUPS utility that you want to be started when the event occurs.



This path should be surrounded by double quotation marks (one at the beginning of the path and one at the end). Leave a space and then indicate the ID code; for the **UPS On Battery** event, the ID code is **2000**.

4. Similar actions for the **Utility Power Restored** event are shown in the following figures.



You should also remember that after utility power is restored, the UPS does not always generate the **Utility Power Restored** event; sometimes, it generates the **UPS Enabling SmartBoost** or **UPS Enabling SmartTrim** events. In order to not miss the moment at which utility power is restored, it is advisable to also handle the **UPS Enabling SmartBoost** and **UPS Enabling SmartTrim** events.

Each time the StateUPS utility is called, a log file is created in the <Axxon PSIM installation>\Vhost\UPS folder with a name of the following format:

upslog_<state><date><time>.log.

5.5 Working with Agent of control without Windows administration rights

To allow the user not added to the Administrators group in the Windows operating system to work correctly with *Agent of Control*, make sure the following conditions are fulfilled:

1. The user must have full access to the *Agent of Control* registry section
HKEY_LOCAL_MACHINE\Software\BitSoft for 32-bit system
(HKEY_LOCAL_MACHINE\Software\Wow6432Node\BitSoft for 64-bit).
2. The user must have full rights for the folder <DISK>:\Backup, where <DISK> is the logical disc where *Axxon PSIM* software is installed.

6 Configuring Server of Control

To configure *Server of Control*, go to the **System settings** window. Use of this window is described in [Axxon PSIM Software Package: Administrator's Guide](#).

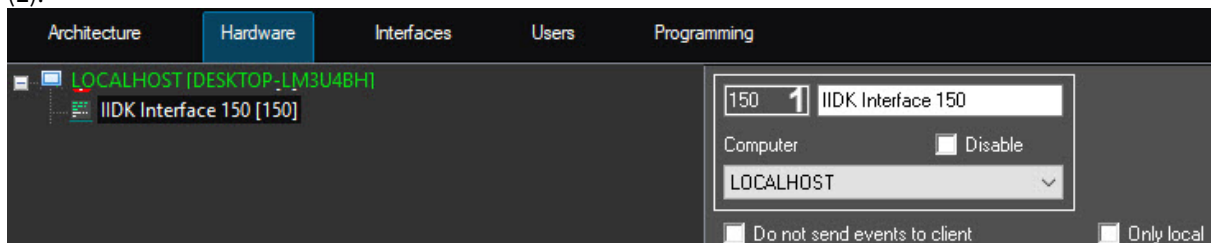
6.1 Creating necessary Server Of Control objects

Note

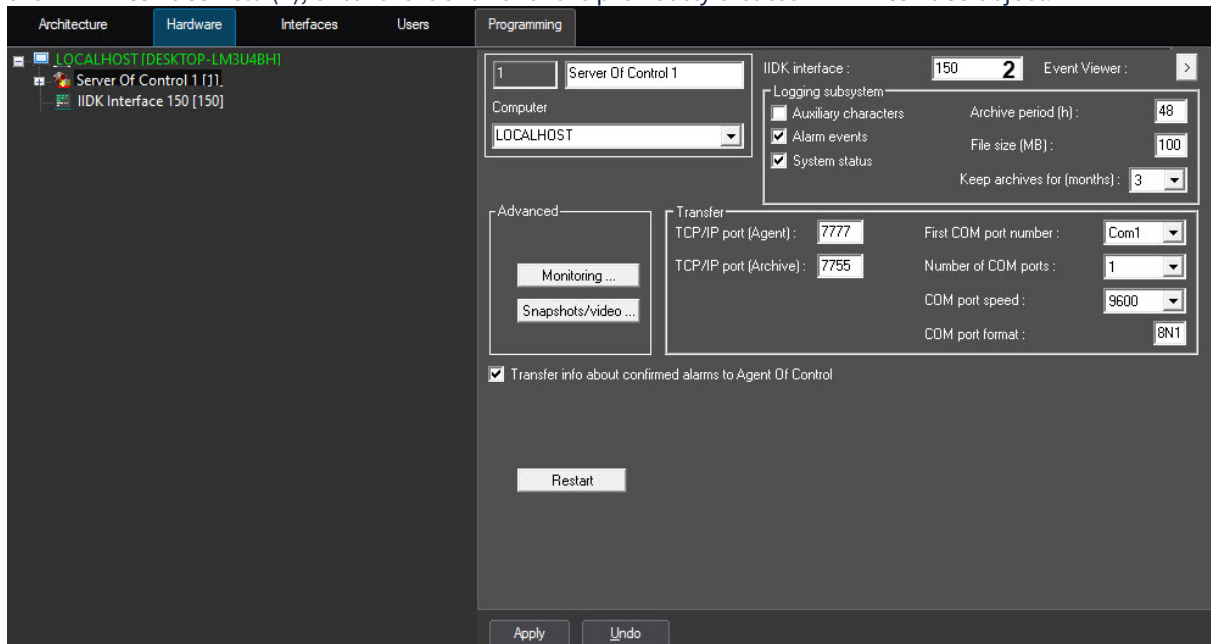
Agent Of Control, like *Server Of Control*, can operate in a distributed configuration, while *Agents Of Control*, *Servers Of Control* and *Central Servers Of Control* can see where each of them is installed and can be configured.

To create necessary *Server Of Control* objects, do the following:

1. Go to **Hardware** tab in the **System settings** dialog box.
2. Create an **IIDK interface** object on the basis of the **Computer** object. Set the **IIDK Interface** object identifier (1).

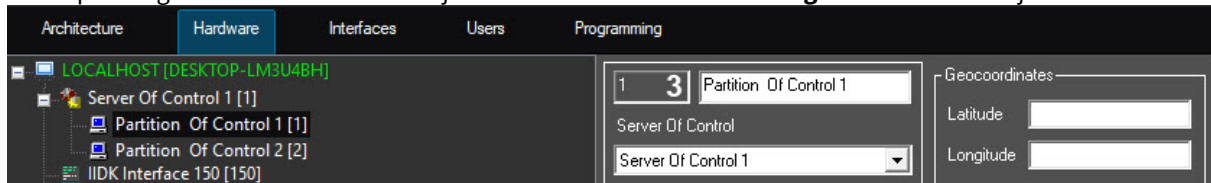


3. Create a **Server Of Control** object on the basis of a **Computer** object. On the settings panel of this object, in the **IIDK interface** field (2), enter the identifier of the previously created **IIDK Interface** object.



4. Create the required number of **Partition Of Control** child objects on the basis of the **Server Of Control** object. When you create these objects, specify the same ID (3) as in the **ID** field on the settings panel of the

corresponding **Partition Of Control** object created on the basis of the **Agent Of Control** object.



Note

It is not necessary to manually create the **Partition Of Control** objects on the basis of the **Server Of Control** object. They will be created automatically upon successful configuration of the communication between the *Agent Of Control* and the *Server Of Control* with the name and identifier specified on the *Agent Of Control* side (see [Configuring communication between Agent Of Control and Server Of Control](#)).

The required objects are now created.

6.2 Configuring a connection

A *Server Of Control* can simultaneously operate with objects over both the TCP/IP and RS232 protocols.

To configure a connection between *Server Of Control* and *Agent Of Control/Archive*, do the following:

1. Go to the settings panel of the **Server Of Control** object.

The screenshot shows the configuration window for a 'Server Of Control' object. At the top, there's a title bar with '1' and 'Server Of Control 1'. Below that, the 'Computer' is set to 'LOCALHOST'. The 'IIDK interface' is '150' and 'Event Viewer' is open. The 'Logging subsystem' is expanded, showing 'Auxiliary characters' (unchecked), 'Alarm events' (checked), and 'System status' (checked). 'Archive period (h)' is 48, 'File size (MB)' is 100, and 'Keep archives for (months)' is 3. The 'Transfer' section has 'TCP/IP port (Agent)' set to 7777 (labeled 1) and 'TCP/IP port (Archive)' set to 7755 (labeled 2). The 'Advanced' section has 'Monitoring ...' and 'Snapshots/video ...' buttons. The 'COM port' section has 'First COM port number' set to Com1, 'Number of COM ports' set to 1, 'COM port speed' set to 9600, and 'COM port format' set to 8N1. A red box highlights this section with a '3' next to it. At the bottom, there's a 'Restart' button and 'Apply' and 'Undo' buttons.

2. In the **TCP/IP port (Agent)** field, enter the port number for TCP/IP communication with remote objects (1).
3. In the **TCP/IP port (Archive)** field, enter the port number for TCP/IP communication with the *Search in archive* module (2).

Note

The default value of the **TCP/IP port (Archive)** is **7755**. After you change the port number, it is necessary to also change the **IPPort** parameter of the `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService` registry key on the *Server of Control* and *Central Server of Control* side (for details, see the registry keys reference guide [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#)).

4. For the RS232 protocol, configure the following parameters: **First COM port number**, **Number of COM ports**, **COM port speed**, and **COM port format** (3).
5. Click the **Apply** button.

Configuring a connection is complete.

6.3 Configuring logging subsystem

The logging subsystem allows configuring the detail level at which *Server of Control* activities are logged.

The main log file is located in the <Axxon PSIM software installation folder>\VHost folder, in the file vsrvYYMMDD.log, where YY is the year, MM the month, and DD the day.

To configure the logging subsystem:

1. Go to the configuration panel for the **Server Of Control** object.

The screenshot shows the configuration panel for the 'Server Of Control' object. The 'Logging subsystem' section is highlighted with numbered callouts 1 through 6. Callout 1 points to the 'Auxiliary characters' checkbox, callout 2 to the 'Alarm events' checkbox, callout 3 to the 'System status' checkbox, callout 4 to the 'Archive period (h)' field, callout 5 to the 'File size (MB)' field, and callout 6 to the 'Keep archives for (months)' field. The 'Transfer' section includes fields for 'TCP/IP port (Agent)' (7777), 'TCP/IP port (Archive)' (7755), 'First COM port number' (Com1), 'Number of COM ports' (1), 'COM port speed' (9600), and 'COM port format' (8N1). A checkbox at the bottom is labeled 'Transfer info about confirmed alarms to Agent Of Control'. At the bottom of the panel are 'Apply' and 'Undo' buttons.

2. To log auxiliary characters at the transport level, select the **Auxiliary characters** checkbox (1).
3. To log alarms (activation of a vibration sensor, temperature sensor, or Door-Forced-Open (DFO) sensor), select the **Alarm events** checkbox (2).
4. To log events related to system status, select the **System status** checkbox (3).
5. In the **Archive period (h)** field, enter the frequency, in hours, at which the log file is to be archived (4). Archives are saved in the DATA subfolder, with the following name format: `namelog_yymmddhhmmss.gz`, where
 - a. `namelog` is the name of the log file being archived;
 - b. `yy` is the year of archive creation;
 - c. `mm` is the month of archive creation;
 - d. `dd` is the day of archive creation;
 - e. `hh` is the hour of archive creation;
 - f. `mm` is the minute of archive creation;
 - g. `ss` is the second of archive creation.
6. In the **File size (MB)** field, enter the file size threshold, in megabytes, upon which the log file is archived (5). This setting overrides the value in the **Archive period (h)** field.

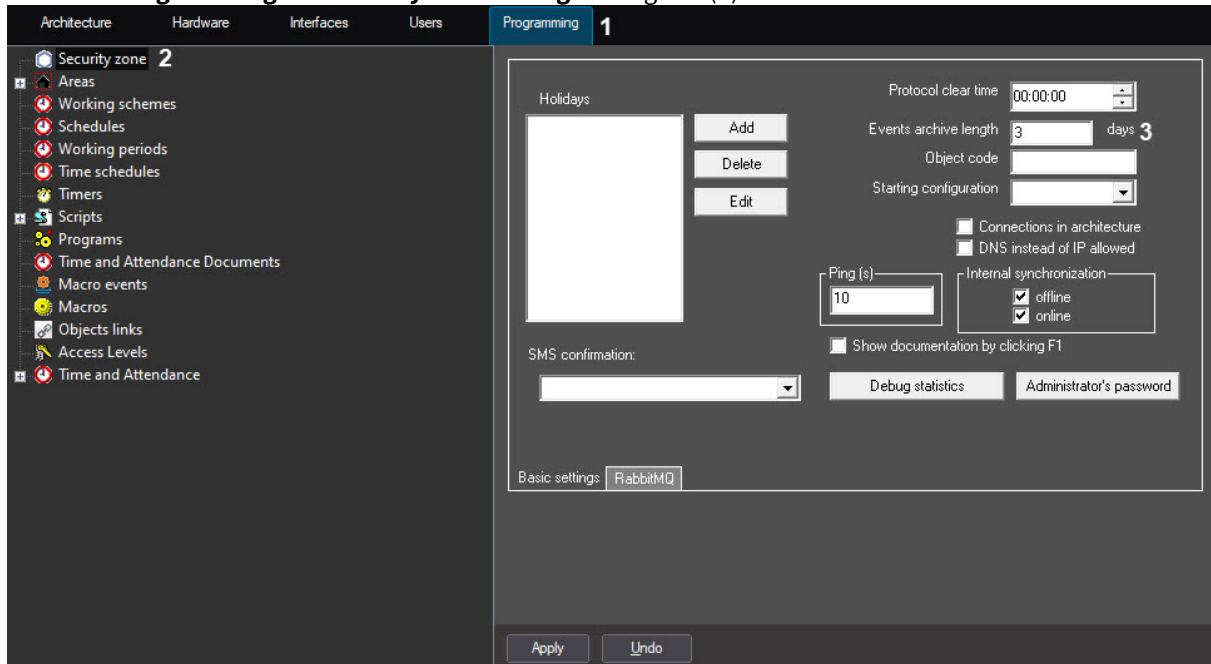
7. In the **Keep archives for (months)** drop-down list, select the length of time, in months, for which you want to store archived log files. This value must be between 1 and 24 **(6)**. Archives that are older than the specified number of months are deleted.

To save settings, click the **Apply** button.

6.3.1 Specifying storage time for event log

To specify the term of keeping the event log in the database do the following:

1. Go to the **Programming** tab of the **System settings** dialog box **(1)**.



2. Go to the **Security zone** object setting panel **(2)**.
3. Specify the term of keeping the event log in the **Event archive length...days** parameter **(3)**.
4. Press **Apply**.

Specifying the term of keeping the event log is completed.

6.3.2 The Event Viewer utility

The disadvantage of viewing information via the *Event Viewer* is clearing the screen on each *Axxon PSIM* restart. It is impossible to see what was on before the system restart. The additional *Event Viewer* utility is required in such cases. This utility operates the database directly and allows to view information from the whole length of time used to keep the event log in the database.

To start the *Event Viewer* utility, click the **Event Viewer** button **(1)** on the **Server Of Control** settings panel.

1 Server Of Control 1 IIDK interface : 150 Event Viewer : > 1

Computer
LOCALHOST

Logging subsystem

Auxiliary characters Archive period (h) : 48

Alarm events File size (MB) : 100

System status Keep archives for (months) : 3

Advanced

Monitoring ...

Snapshots/video ...

Transfer

TCP/IP port (Agent) : 7777 First COM port number : Com1

TCP/IP port (Archive) : 7755 Number of COM ports : 1

COM port speed : 9600

COM port format : 8N1

Transfer info about confirmed alarms to Agent Of Control

Restart

Apply Undo

The *Event Viewer* utility allows to sort and filter data.

Event Viewer

Source	Event	Additional information	Date	Time
47 John Reed str.	Communication channel : failure		3/9/2023 1:43:01 PM	3/9/2023 1:43:02 PM
10 Green spruce dr.	Communication channel : failure		3/9/2023 1:43:01 PM	3/9/2023 1:43:02 PM
18 Alexanderplatz	Communication channel : failure		3/9/2023 1:43:01 PM	3/9/2023 1:43:02 PM
10 Green spruce dr.	Communication channel : failure		3/9/2023 11:53:53 AM	3/9/2023 11:53:53 AM
18 Alexanderplatz	Communication channel : failure		3/9/2023 11:53:53 AM	3/9/2023 11:53:53 AM
47 John Reed str.	Communication channel : failure		3/9/2023 11:53:53 AM	3/9/2023 11:53:53 AM
47 John Reed str.	Communication channel : failure		3/9/2023 11:36:03 AM	3/9/2023 11:36:03 AM

Records: 7

View records beginning with : 3/9/2023 Object : All objects

6.4 Configuring reaction to snapshots and videos

To configure the visualization of video frames and video fragments that are received with alarms (see [Viewing video data on alarms](#)), it is necessary to do the following:

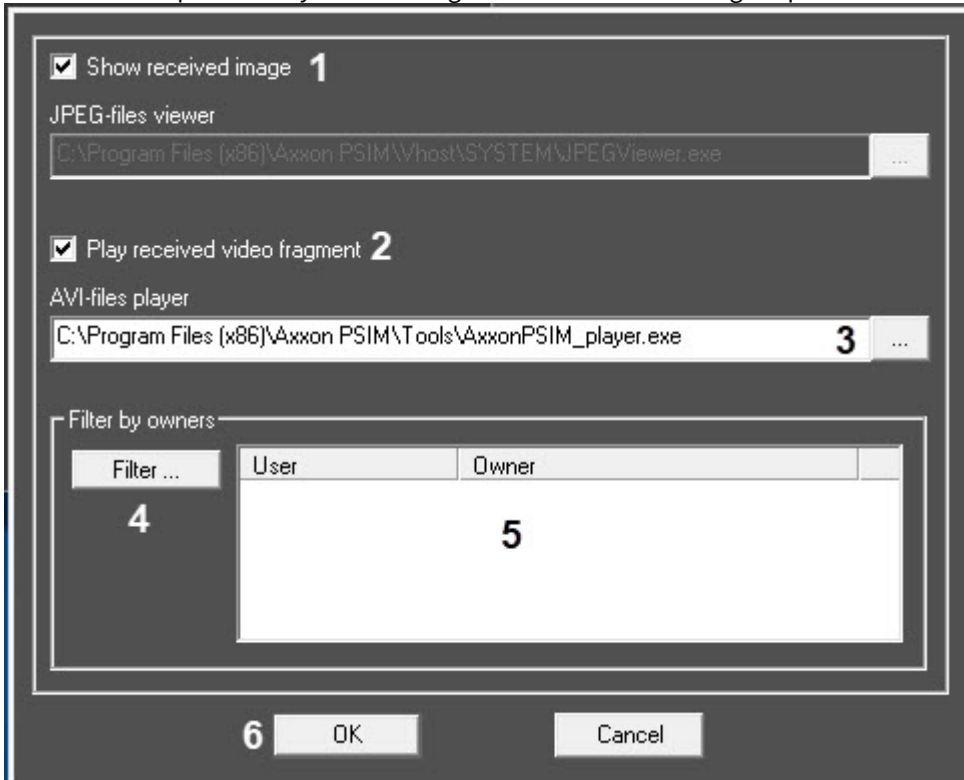
Note.

This setting doesn't affect the acquisition of video data by the **Search in archive** interface object, except for the **AVI-files player** parameter (see [Requesting video clips from objects](#)).

1. Go to the settings panel of the **Server Of Control** object and click the **Snapshot/video...** button (1).

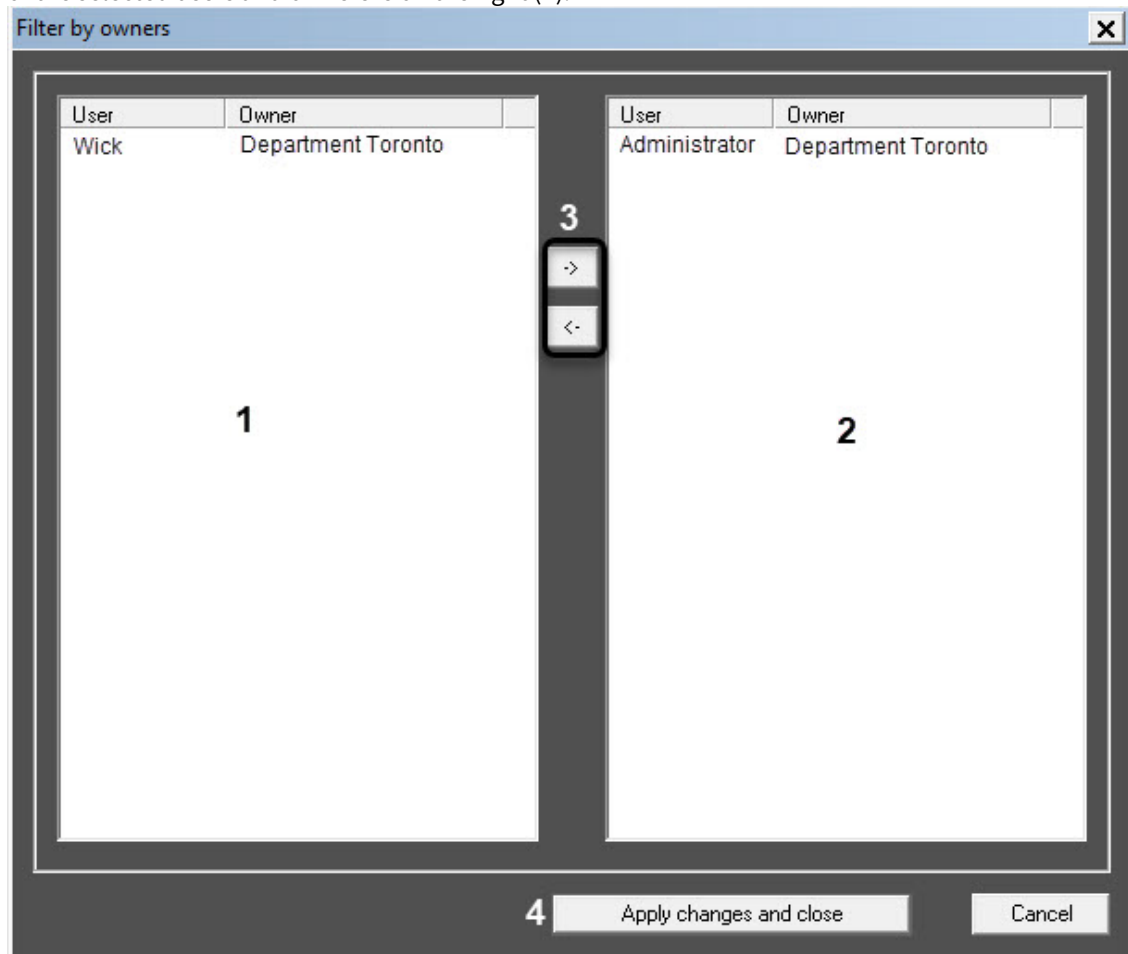
The screenshot shows the configuration interface for the 'Server Of Control' object. The 'Advanced' section contains two buttons: 'Monitoring ...' and 'Snapshots/video ... 1', where the latter is highlighted with a red box and the number 1. The 'Transfer' section includes fields for 'IIDK interface' (150), 'Event Viewer' (>), 'Logging subsystem' (Auxiliary characters, Alarm events, System status), 'Archive period (h)' (48), 'File size (MB)' (100), 'Keep archives for (months)' (3), 'TCP/IP port (Agent)' (7777), 'First COM port number' (Com1), 'TCP/IP port (Archive)' (7755), 'Number of COM ports' (1), 'COM port speed' (9600), and 'COM port format' (8N1). A checkbox 'Transfer info about confirmed alarms to Agent Of Control' is checked. A 'Restart' button is located below the checkbox. At the bottom, there are 'Apply' and 'Undo' buttons.

A window will open where you can configure reactions to receiving snapshots and video.



2. If you want to open the received image:
 - a. Set the **Show received image** checkbox (1).
3. If you want to playback the received video fragment:
 - a. Set the **Playback received video fragment** checkbox (2).
 - b. In the **AVI-files player** field, specify the path to the program used to playback the AVI files (3).
4. If you want certain users to have access only to snapshots and video fragments received from the objects belonging to specific owners, set a filter by owners:
 - a. Click the **Filter** button (4).

- b. The **Filter by owners** window will open. The list of available user-owner pairs is on the left (1), the list of the selected users and owners is on the right (2).



Note

The list of owners is set on the **Control panel** (see [Regulatory and reference information](#)). Users and their rights are configured in the **Users** tab of the **System settings** dialog box (see [Axxon PSIM Software Package: Administrator's Guide](#)).

- c. Move the pairs between the lists using the -> and <- buttons (3).
- d. When the list of users and owners is formed, click the **Apply changes and close** button (4).
5. Selected pairs of users and owners will be displayed in the table (5).
6. Click the **OK** button (6) to return to the settings panel of the **Server Of Control** object.
7. Click the **Apply** button.

Configuring reactions to receiving snapshots and video fragments is now complete.

6.5 List of Additional workplaces

For the *Additional workplaces* software operation, it is necessary to configure the list of additional workplaces on the *Server of Control*, and specify the computer name and the client code for each of them.

The client code is bound to the computer hardware. You can find it out as follows:

1. On the computer with installed *Monitoring PSIM*, open the **Search in archive** interface in the Additional workplace configuration.

ID	Camera	Date and time	Text
550016	Camera 1 [1]	3/7/2023 2:44:39 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:44:35 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:44:20 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:44:16 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:44:04 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:44:02 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:43:11 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:43:07 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:42:36 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:42:32 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:42:25 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:42:13 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:41:14 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:40:59 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:40:35 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:40:32 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:40:24 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:38:16 PM	Record on disk stopped
550016	Camera 1 [1]	3/7/2023 2:38:14 PM	Harddisk rec
550016	Camera 1 [1]	3/7/2023 2:38:07 PM	Record on disk stopped

2. Click the **Settings** button in the bottom left corner.
3. The client code is specified in the opened **Settings** box.

The list of Additional workplaces that can be connected to the *Server of Control* is configured as follows:

1. Go to the settings panel of the **Server Of Control** object and click the **Monitoring** button (1).

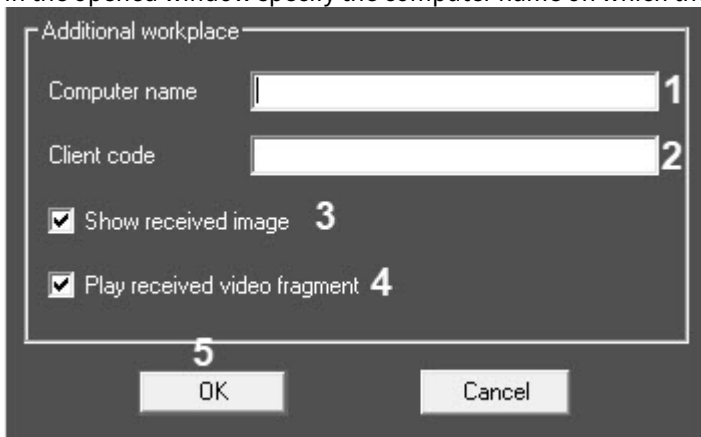
The screenshot shows the configuration window for 'Server Of Control 1'. The 'Computer' field is set to 'LOCALHOST'. The 'IIDK interface' is '150' and the 'Event Viewer' is expanded. Under 'Logging subsystem', 'Alarm events' and 'System status' are checked, while 'Auxiliary characters' is unchecked. The 'Archive period (h)' is 48, 'File size (MB)' is 100, and 'Keep archives for (months)' is 3. In the 'Advanced' section, the 'Monitoring ...' button is highlighted with a red circle and the number 1. The 'Transfer' section has 'TCP/IP port (Agent)' set to 7777, 'TCP/IP port (Archive)' to 7755, 'First COM port number' to Com1, 'Number of COM ports' to 1, 'COM port speed' to 9600, and 'COM port format' to 8N1. A checkbox 'Transfer info about confirmed alarms to Agent Of Control' is checked. A 'Restart' button is at the bottom. At the very bottom are 'Apply' and 'Undo' buttons.

As a result, the window for configuring the list of Additional workplaces will open.

- To add an Additional workplace to the list, click the **Add** button (2).



- In the opened window specify the computer name on which the Additional workplace is installed (1).



- In the **Client code** field (2), enter the client code.
To configure the visualization of video frames and video fragments that are received with alarms (see [Viewing video data on alarms](#)), it is necessary to do the following:

Note

This setting doesn't affect the acquisition of video data by the **Search in archive** interface object (see [Requesting video clips from objects](#)).

- Set the **Show received image** checkbox (3) if you want to open the received video frames. The **Filter by owners** setting is taken into account (see [Configuring reaction to snapshots and videos](#)).

6. Set the **Play received video fragment** checkbox (4) if you want to playback the received video fragments. The **Filter by owners** setting is taken into account (see [Configuring reaction to snapshots and videos](#)).
7. Click the **OK** button (5) to save changes and return to the window for configuring the list of Additional workplaces.
8. Repeat steps 3-8 for all Additional workplaces that will be connected to this *Server of Control*.

 **Note**

To edit the specified settings, select the Additional workplace in the list and click the **Edit** button.
To delete the Additional workplace in the list, select it in the list and click the **Delete** button.

9. Click the **OK** button to save changes and return to the settings panel of the **Server Of Control** object.
10. Click the **Apply** button.

The list of Additional workplaces is now configured.

6.6 Sending confirmations of alarm acceptance

In general, the *Agent Of Control* is considered not to have the same core as the *Server Of Control*.

It is possible to configure sending messages to *Agent Of Control* when the operator confirms an alarm on the *Server Of Control*. The *Agent Of Control* then sends these messages to *Axxon PSIM* core. Two types of confirmation are available: simple and complex. The confirmation type is selected when configuring alarm transmission to the *Server Of Control* (see [Configuration for associating events with certain alarm groups](#)).

When the confirmation is sent, the *Server Of Control* waits for the confirmation from the *Agent Of Control* that the message has been sent to *Axxon PSIM* core. If this message is not received, then confirmation packets are sent every 5 minutes.

 **Note**

See also [Sample scripts for processing alarm confirmations](#).

Disable sending confirmations of alarm acceptance as follows:

1. Go to the settings panel of the **Server Of Control** object.

2. Clear the **Transfer info about confirmed alarms to Agent Of Control** checkbox (1).

The screenshot shows the configuration interface for the Server of Control. At the top, there are fields for 'IIDK interface' (150) and 'Event Viewer'. Below this is the 'Logging subsystem' section with checkboxes for 'Auxiliary characters', 'Alarm events', and 'System status', along with fields for 'Archive period (h)' (48), 'File size (MB)' (100), and 'Keep archives for (months)' (3). The 'Transfer' section includes fields for 'TCP/IP port (Agent)' (7777), 'TCP/IP port (Archive)' (7755), 'First COM port number' (Com1), 'Number of COM ports' (1), 'COM port speed' (9600), and 'COM port format' (8N1). The 'Advanced' section contains buttons for 'Monitoring ...' and 'Snapshots/video ...'. The checkbox 'Transfer info about confirmed alarms to Agent Of Control' is checked and marked with a red circle and the number 1. A 'Restart' button is located below the checkbox. At the bottom, the 'Apply' button is marked with a red circle and the number 2, and the 'Undo' button is also visible.

3. Click the **Apply** button (2).

The **Transfer info about confirmed alarms to Agent Of Control** function is now disabled.

6.7 Working with Server of Control without Windows administration rights

To allow the user not added to the Administrators group in the Windows operating system to work correctly with *Server of Control*, make sure the following conditions are fulfilled:

1. The user must be given full access to the registry key:
 - For a 32-bit system: HKEY_LOCAL_MACHINE\Software\BitSoft
 - For a 64-bit system: HKEY_LOCAL_MACHINE\Software\Wow6432Node\BitSoft
2. The user must be granted full rights to the export directory (see [Specifying the export directory](#)).

6.8 Configuring sound notification at Server of Control

6.8.1 Configuring sound notification at Servers Of Control in a general way

Monitoring PSIM allows configuring audio signal that accompanies alarm messages received from *Agents Of Control*. For this, do the following:

Note

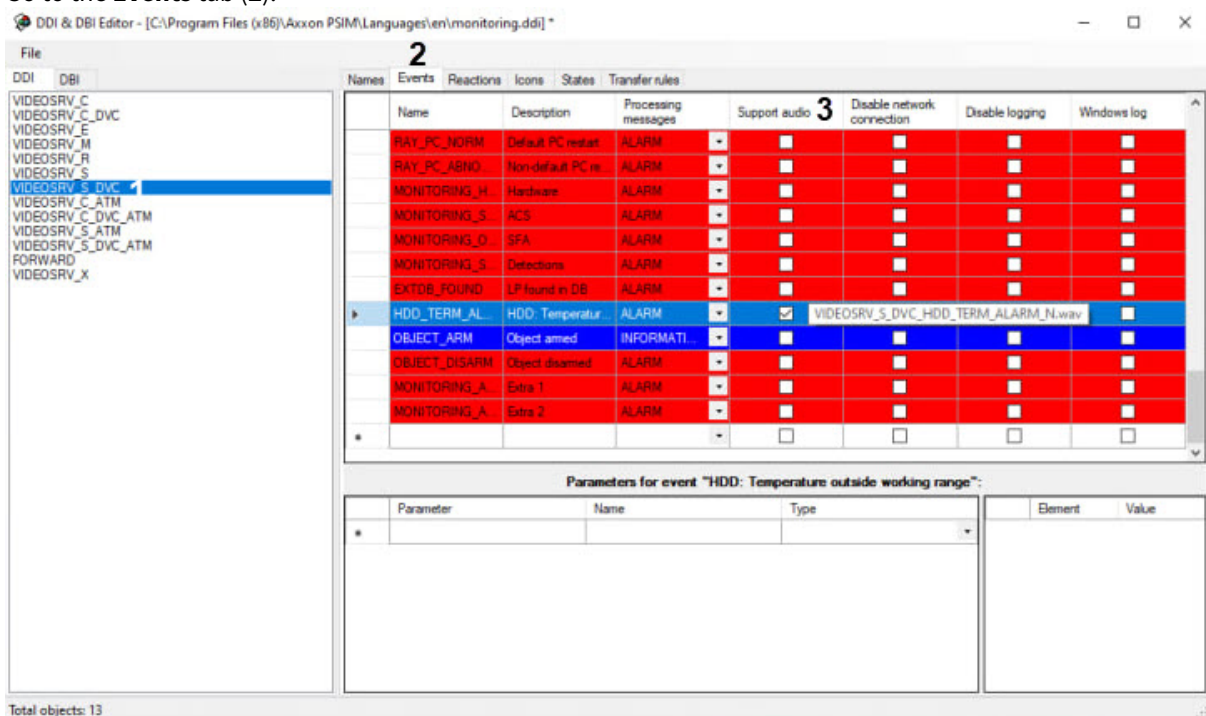
This function is not supported for the *Additional Workstation* in non-distributed configuration.

1. Create a **Display** object in the **Interfaces** tab.
2. Create an **Audio player** object on the basis of the **Display** object.
3. Run the *System configuration* utility (ddi.exe).

Note

Detailed information on using this utility is given in the [Additional utilities for the Axxon PSIM software: The ddi.exe utility for editing database templates and external settings files](#) section.

4. Open the monitoring.ddi file.
5. Select the VIDEOSRV_S_DVC (**Partition Of Control**) object (1).
6. Go to the **Events** tab (2).



7. In the **Support audio** column, set the checkboxes next to all events that have to be accompanied by an audio signal (3).
A tooltip shows the required name of the WAV file.
N is an ID of the VIDEOSRV_S_DVC object.
8. Create corresponding files and place them into the <Axxon PSIM installation>\Wav folder.

Configuration of sound notification at *Server Of Control* is completed.

6.8.2 Configuring sound notification at Server Of Control for various alarm groups

There are four alarm groups in *Monitoring PSIM*. Several different events can be assigned to them at the *Agent Of Control*. These groups are: **Hardware, ACS, SFA, Detections** (see [Configuration for associating events with certain alarm groups](#)).

In order to configure sound notification for alarm groups, do the following:

Note

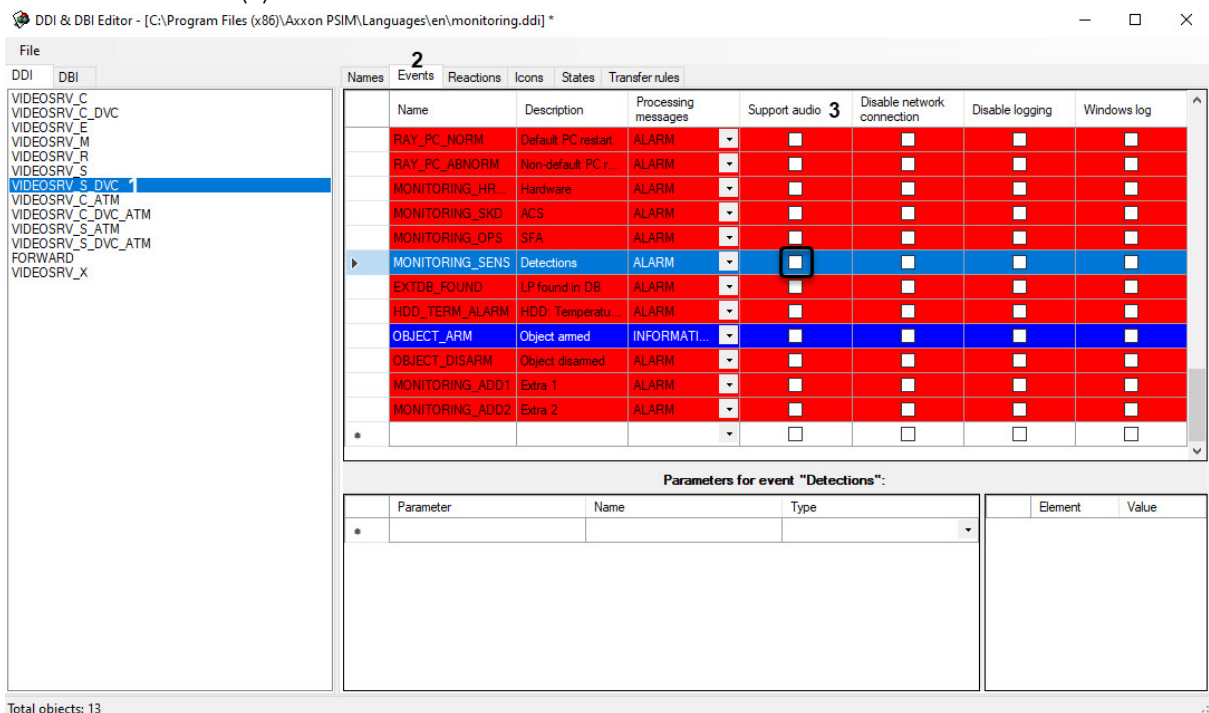
This function is not supported for the *Additional Workstation* in non-distributed configuration.

1. Create and configure the **Display** and **Audio player** objects in the **Interfaces** tab of the **System settings** dialog box.
2. Run the *System configuration utility* (ddi.exe).

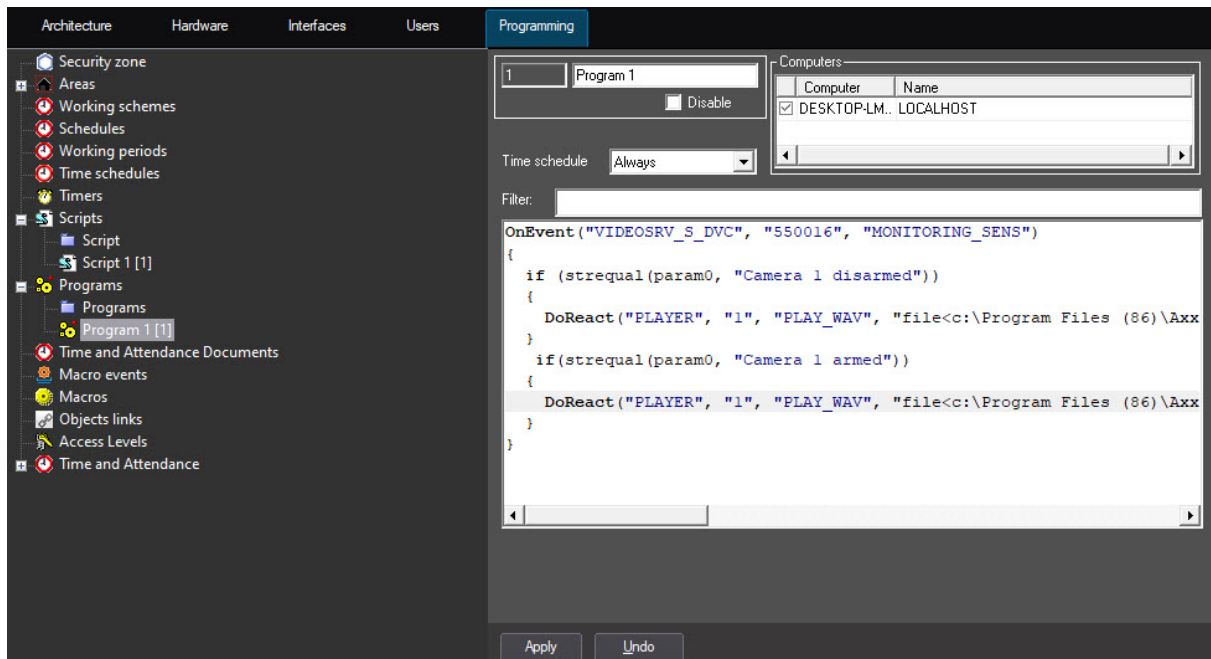
Note

Detailed information on using this utility is given in the [Additional utilities for the Axxon PSIM software: The ddi.exe utility for editing database templates and external settings files](#) section.

3. Open the monitoring.ddi file, select the VIDEOSRV_S_DVC (**Partition Of Control**) object (1).
4. Go to the **Events** tab (2).



5. Make sure that the **Support audio** is not (3) set for the **Detections** event.
6. Close the *System configuration utility*.
7. Create and configure the **Program** object in the **Programming** tab of the **System settings** dialog box.



Example of a program for alarm groups is shown in the figure:

id	Type	Type (id)	Number	Name	Event	Event (id)	Group of alarms	Conf.	Video data	Message	Detail
1	Camera	CAM	1	Camera 1	Disarmed	DISARM	Detections	No	No	<name> disarmed	
2	Camera	CAM	1	Camera 1	Armed	ARM	Detections	No	No	<name> armed	


```
OnEvent("VIDEOSRV_S_DVC","550016","Monitoring_SENS")
{
  if (strequal(param0, "Camera 1 disarmed"))
  {
    DoReact("PLAYER","1","PLAY_WAV","file<c:\Program Files (x86)\Axxon
PSIM\Wav\cam_disarm.wav>");
  }
  if (strequal(param0, "Camera 1 armed"))
  {
    DoReact("PLAYER","1","PLAY_WAV","file<c:\Program Files (x86)\Axxon
PSIM\Wav\cam_arm.wav>");
  }
}
```

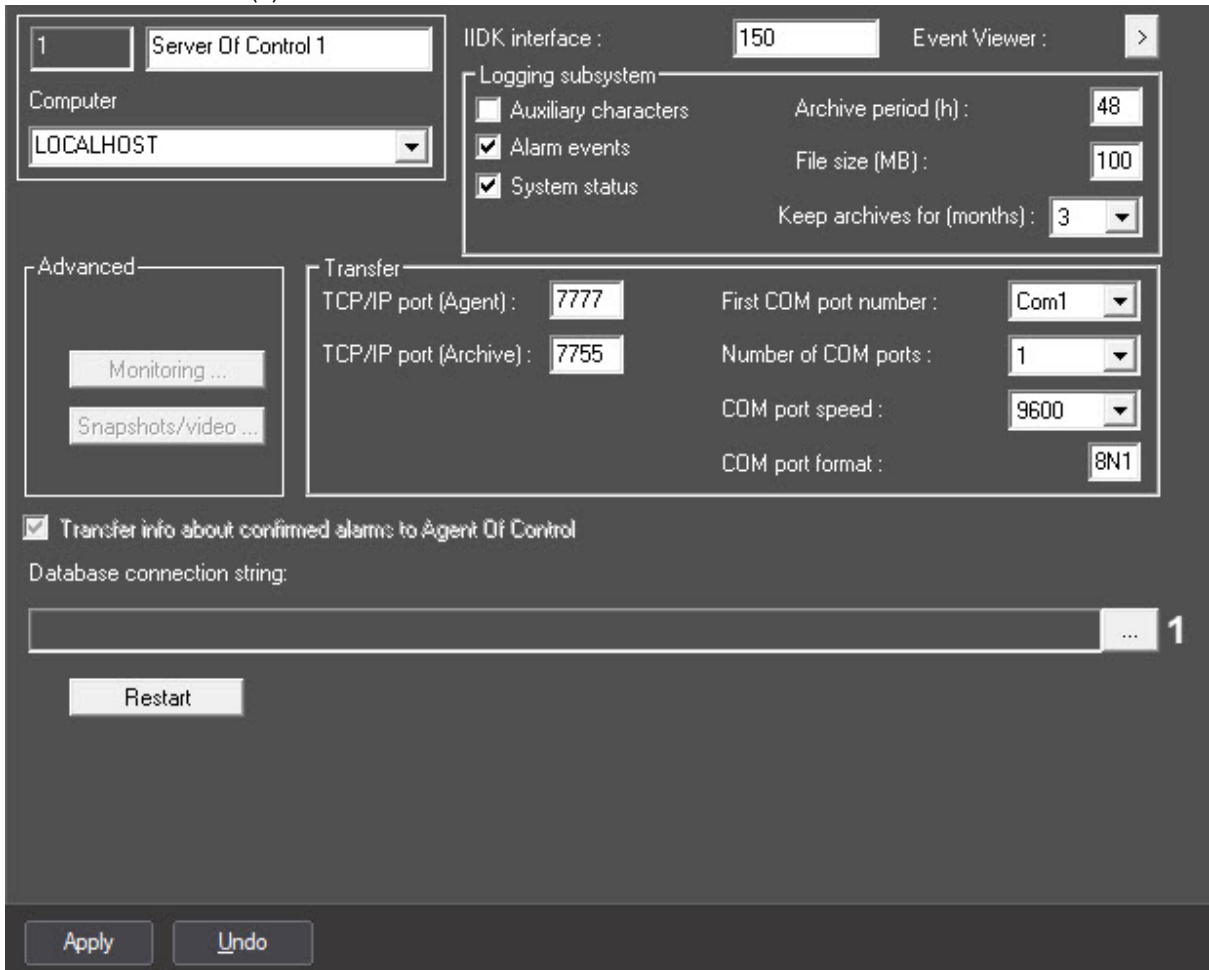
8. Create the corresponding files and place them into the <Axxon PSIM installation>\Wav folder.

Configuration of sound notification at *Server Of Control* for various alarm groups is completed.

6.9 Configuring the Server of Control from another server in a distributed configuration

To configure the *Server of Control* from another server in a distributed configuration, do the following:

1. Go to the settings panel of the **Server Of Control** object.
2. Click the  button (1).



1 Server Of Control 1

Computer
LOCALHOST

IIDK interface : 150 Event Viewer : >

Logging subsystem

Auxiliary characters Archive period (h) : 48

Alarm events File size (MB) : 100

System status Keep archives for (months) : 3

Advanced

Monitoring ...

Snapshots/video ...

Transfer

TCP/IP port (Agent) : 7777 First COM port number : Com1

TCP/IP port (Archive) : 7755 Number of COM ports : 1

COM port speed : 9600

COM port format : 8N1

Transfer info about confirmed alarms to Agent Of Control

Database connection string:

...

Restart

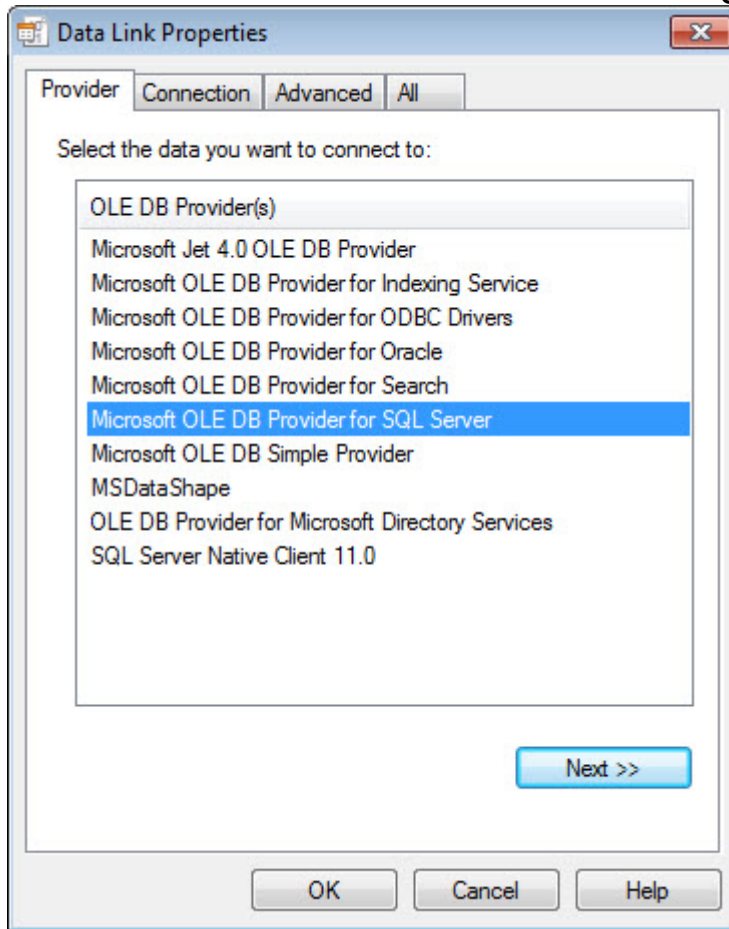
Apply Undo

3. The **Data Link Properties** window opens. Configure the connection to the remote *Server of Control* database as follows:

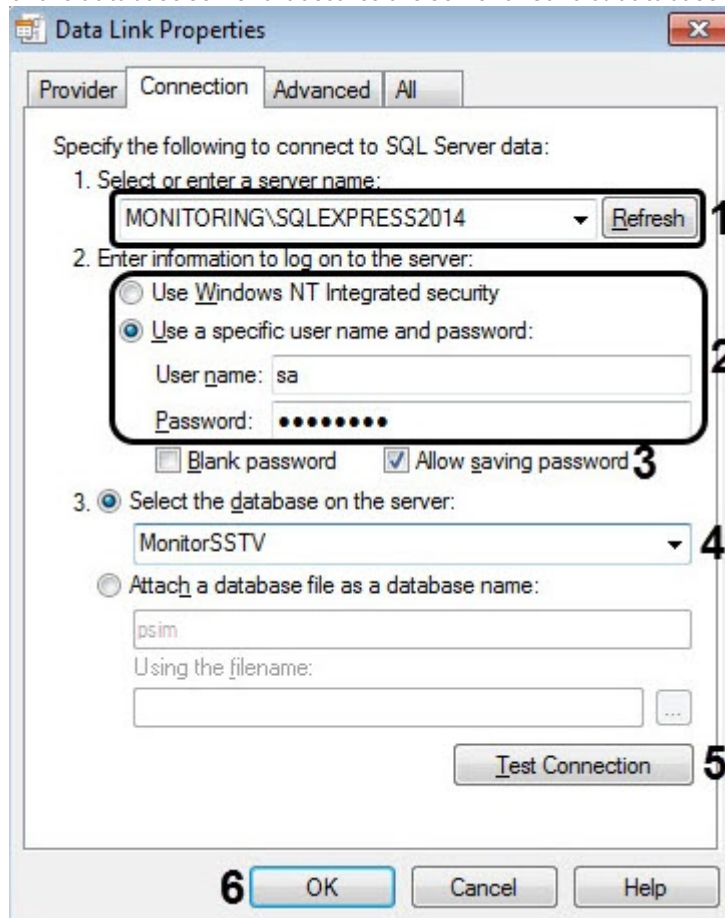
 **Note**

The **Database connection string** parameter is displayed only if the *Server of Control* is configured from another server in a distributed configuration.

- a. Go to the **Provider** tab. Select **Microsoft OLE DB Provider for SQL Server**.



- b. Go to the **Connection** tab. From the **Select or enter a server name** drop-down list, select the name of the database server that stores the *Server of Control* database (1).



- c. Set the **Enter information to log on to the server** switch to the **Use a specific user name and password** position and enter the name and password to connect to the MS SQL Server (2).
- d. Set the **Allow saving password** checkbox (3).
- e. From the **Select the database on the server** drop-down list, select the name of the *Server of Control* database (**MonitorSSTV** by default) (4).
- f. Click the **Test Connection** button (5). If the connection data is correct, a window with the message "Connection check completed" will be displayed.
- g. Click **OK** (6).

4. The configured string of connection to the *Server of Control* database will be displayed in the text field.

5. As a result, you can start configuring the *Server of Control* (see [Configuring Server of Control](#)).

Configuring the *Server of Control* from another server in a distributed configuration is now complete.

6.10 Sending alarm events via Telegram bot

Configure the sending of alarm events via **Telegram bot** as follows:

1. Go to the settings panel of the **Server Of Control** object created on the basis of the **Computer** object on the **Hardware** tab of the **System settings** dialog box.

2. Click the **Monitoring** button (1).

The screenshot shows the configuration window for 'Server Of Control 1'. The 'Computer' dropdown is set to 'LOCALHOST'. The 'IIDK interface' is set to '150'. The 'Event Viewer' has a right-pointing arrow. The 'Logging subsystem' section includes checkboxes for 'Auxiliary characters' (unchecked), 'Alarm events' (checked), and 'System status' (checked). The 'Archive period (h)' is set to '48', 'File size (MB)' is '100', and 'Keep archives for (months)' is '3'. The 'Advanced' section contains two buttons: 'Monitoring ...' (labeled '1') and 'Snapshots/video ...'. The 'Transfer' section includes 'TCP/IP port (Agent): 7777', 'TCP/IP port (Archive): 7755', 'First COM port number: Com1', 'Number of COM ports: 1', 'COM port speed: 9600', and 'COM port format: 8N1'. A checkbox 'Transfer info about confirmed alarms to Agent Of Control' is checked. A 'Restart' button is located below the checkbox. At the bottom, there are 'Apply' and 'Undo' buttons, with a red box labeled '2' highlighting the 'Apply' button.

As a result, the **Monitoring** settings dialog box will open:

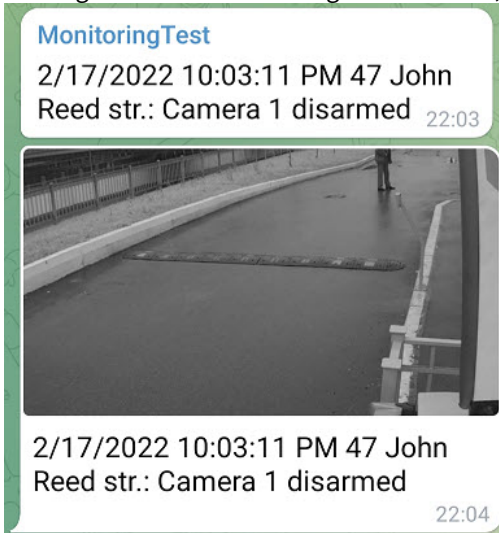
3. On the **Events relaying** tab (1), click the **Add** button (2). As a result, the **Event relaying** form will open:

4. From the **Object** drop-down list (1), select the object which events should be sent via **Telegram bot**. The field is empty by default; if you leave it blank, events from all objects will be relayed.
5. From the **Event** drop-down list (2), select an event to send via **Telegram bot**. The field is empty by default; if you leave it blank, all events of the selected object will be relayed.
6. If necessary, fill in the **Filter** field (3). Example: at the **Agent Of Control** object, when describing Monitoring events, two events are assigned to the **Detection tools** button: **Camera disarmed** and **Camera armed**. If you enter **disarmed** in the **Filter** field, then only the **Camera disarmed** event will be relayed to the **Telegram bot**.
7. From the **Telegram bot** drop-down list (4), select the bot via which the events will be relayed.

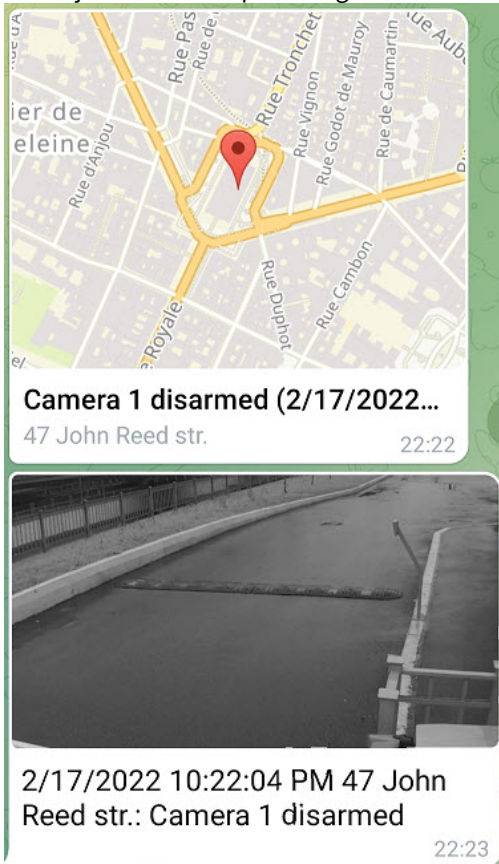
Note

The **Telegram bot** object should be created and configured beforehand (see [Sending messages via Telegram bot](#)).

- Set the **Frames** checkbox (5) to relay the JPEG frame linked to the event. When the checkbox is set, two messages will be sent to Telegram: an alarm, and then a frame:

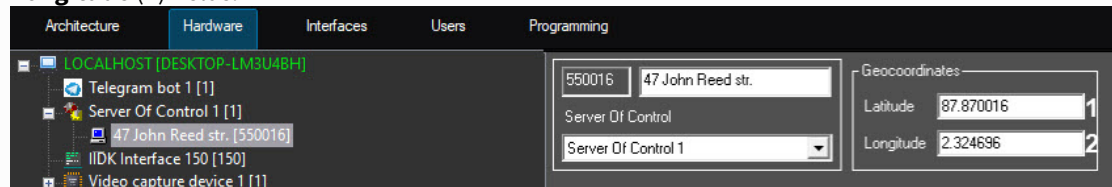


For objects with the specified geocoordinates, a geo-link will be sent in the message:

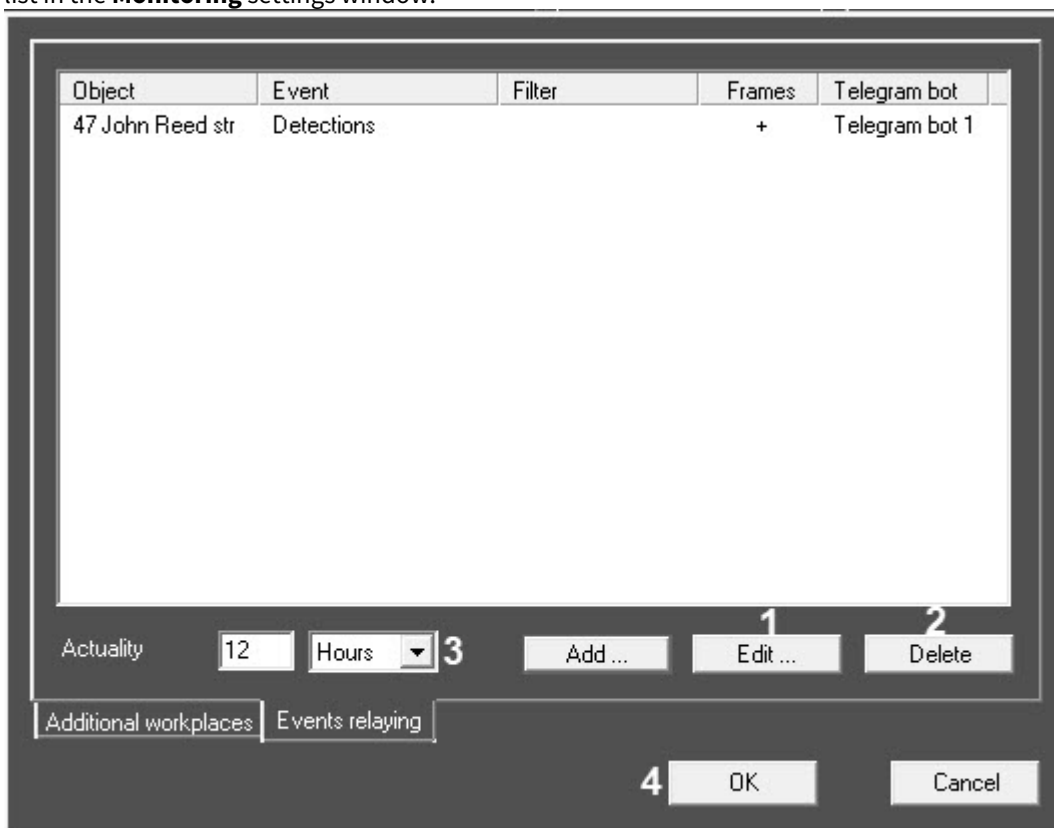


Note

To specify the **Geocoordinates**, go to the settings panel of the **Partition Of Control** object (see [Creating necessary Server Of Control objects](#)) and enter the values in the **Latitude (1)** and **Longitude (2)** fields:



9. Click the **OK** button (6). As a result, the **Event relaying** form will be closed and a new entry will appear in the list in the **Monitoring** settings window:



10. In the **Monitoring** settings window, click the **Edit** button (1) to change an existing entry, or the **Delete** button (2) to remove an entry from the list.
11. Fill in the **Actuality** field. To do this, enter a value in the numeric field and select **Hours** or **Minutes** from the drop-down list of measurement units (3). The default value is 12 hours. This setting is used to filter out non-relevant alarms. For example, **Agent Of Control** was disconnected for several days. After the connection is established, the old alarms that occurred during this time will be sent. To prevent old alarms from being relayed to Telegram, you can set their actuality in hours or minutes.
12. Click the **OK** button (4). As a result, the **Monitoring** settings window will be closed and you will return to the settings panel of the **Server Of Control** object.
13. To save the changes, click the **Apply** button (2) on the settings panel of the **Server Of Control** object.

Configuring the sending of alarm messages via the **Telegram bot** is now complete.

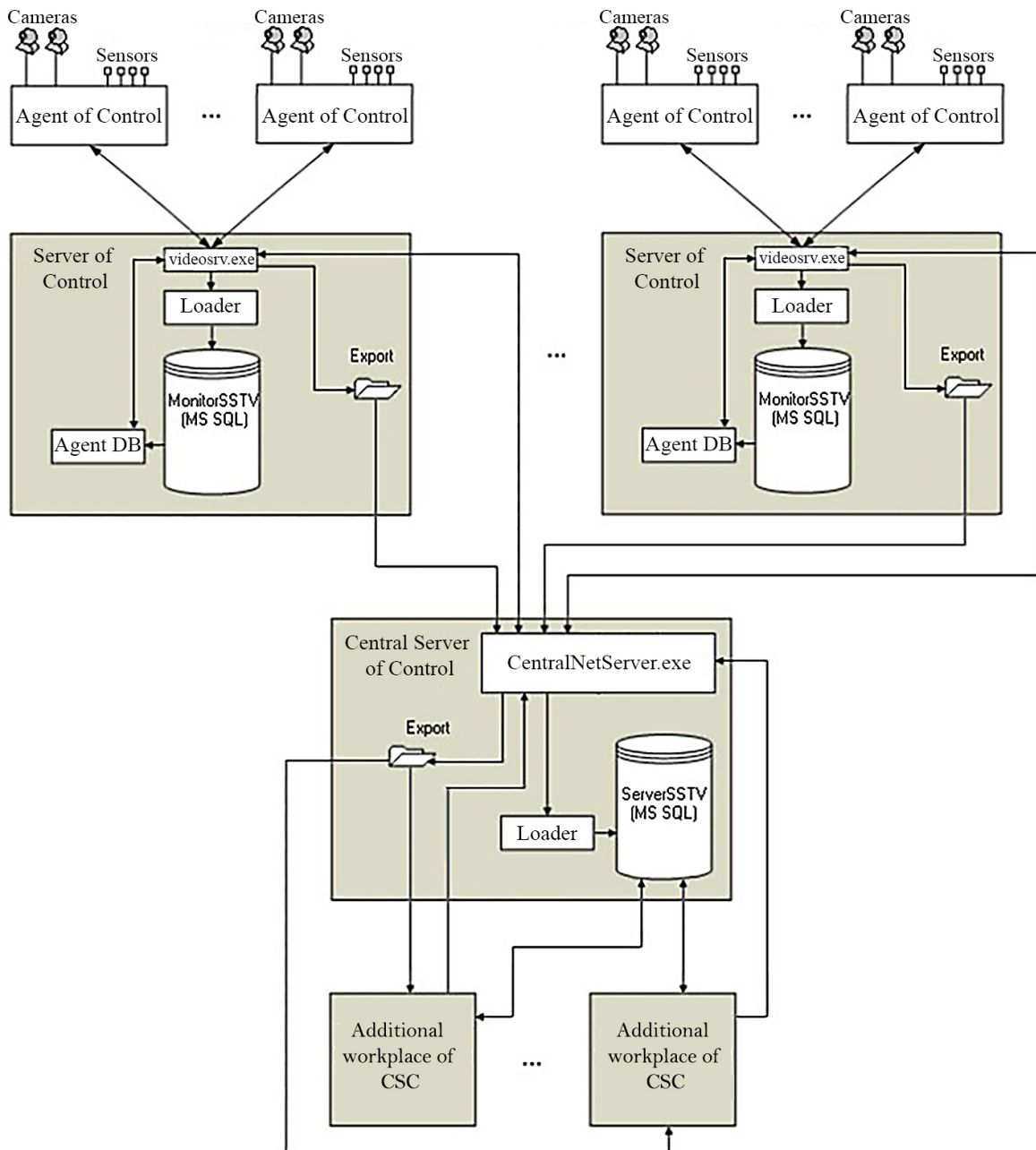
7 Configuring Central Server of Control

7.1 General principles of the Central Server of Control software

The CentralNetServer.exe communication module of the *Central Server of Control* (hereinafter referred to as CSC) polls the *Servers of Control* at specified intervals, sending the requests for information about changes in the **MonitorSSTV** database. Each *Server of Control* is requested in parallel in a separate thread. When the *Server of Control* receives such a request, it unloads the latest changes from the **MonitorSSTV** database with the help of the *Agent DB* (MonitorSSTVClient.exe). The CentralNetServer.exe communication module of the CSC receives this data and sends it to the Loader (MonitorSSTVAgent.exe), which then loads this data into the **ServerSSTV** database.

The data between the CSC and the *Servers of Control* is exchanged via FTP protocol, therefore it is necessary to configure the FTP server (see [Configuring the FTP server for the Central Server of Control operation](#)) on the *Server of Control* side.

The general scheme of the *Central Server of Control* software operation is shown in the figure below.



The *Central Server of Control* software provides the same functionality as the *Server of Control* software, but with some restrictions that are listed below.

The main functionality of the *Central Server of Control* software:

- Monitoring of all objects of the video surveillance system, as well as viewing live video and providing the ability to use the **Data gateway** object for this (you can do it in the **Monitoring** interface object).
- Searching for titles and video fragments and, based on the search results, downloading the frames and videos (you can do it in the **Search in archive** interface object).
- Generating the reports on the whole system (you can do it in the **Monitoring reports** interface object).

Restrictions of the *Central Server of Control* software:

- Demo mode is not supported.
- Alarms and errors received from the *Servers of Control* do not appear immediately on the CSC, but with the specified polling frequency of the Servers (see the **PeriodRequestOfStatistic** registry key in [Advanced settings of the Central Server of Control](#)).
- The CSC operator cannot confirm alarms in the **Monitoring** interface object. There are no **Confirm selected**, **Confirm**, and **Confirm all** buttons in the **Reaction to alarm** window.
- The toolbar of the **Monitoring** interface object has no **Force error closing** and **Show closed errors** buttons.
- The **Owner** directory cannot be edited. This directory is automatically filled with the *Servers of Control* names with which the CSC works. The filtering by the *Servers of Control* is supported. Also, the information from the **Owner** directory filled out on the *Server of Control* side is not transmitted to the CSC.
- The special operation mode joint with *Auto PSIM* is not supported (see [Configuring special operation mode joint with Auto PSIM](#)). If this mode is used in the *Server of Control*, then the information from the corresponding tables is not transmitted to the CSC.
- The special operation mode joint with *ACFA PSIM* is not supported (see [Configuring the special mode of Monitoring operation with ACFA PSIM](#)).
- The commands for *Agents of Control* are not supported (see [Sample script for processing Server of Control command on Agent of Control](#)).
- The video data received with the alarm is not displayed. In the **Monitoring** interface object, when right-clicking on an object, the **Video data** item is missing in the context menu.
- The **Search in archive** interface object does not support the automation of downloading videos using the XML files.

7.2 Configuring the FTP server for the Central Server of Control operation

By default, the *Central Server of Control* module works via the FTP protocol in the passive mode, and this requires adding the range of ports to which the *Central Server of Control* module connects in the FTP server settings. You can switch to the active mode. For this, you must set the **PassiveModeForFTP=0** parameter value for the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key (for details, see the registry keys reference guide [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#)).

You must configure the FTP server for the *Central Server of Control* module operation on the side of each *Server of Control* module in the following way:

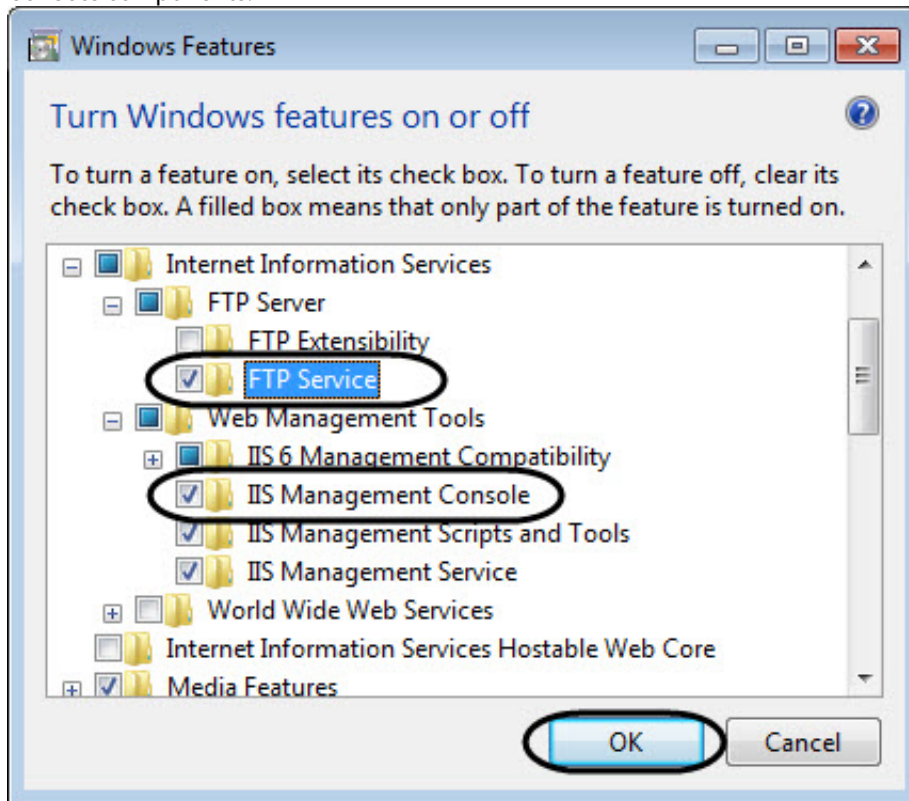
1. Create a user with administrator rights in the system.

 **Note**

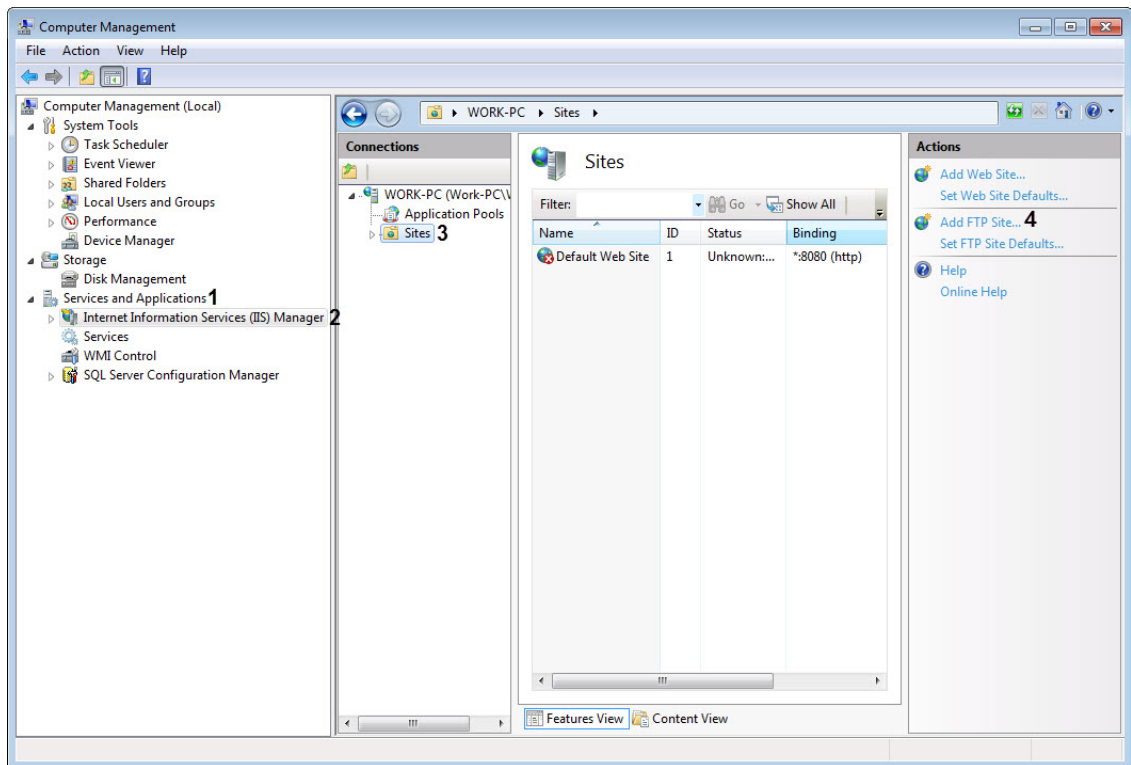
The password validity period for this user must not be limited in time.

2. If IIS isn't installed, install it:
 - a. Open **Control Panel** → **Programs and Features** → **Turn Windows Features on or off**.

- b. In the **IIS Services** section, select the checkboxes next to the **FTP Service** and **IIS Management Console** components.



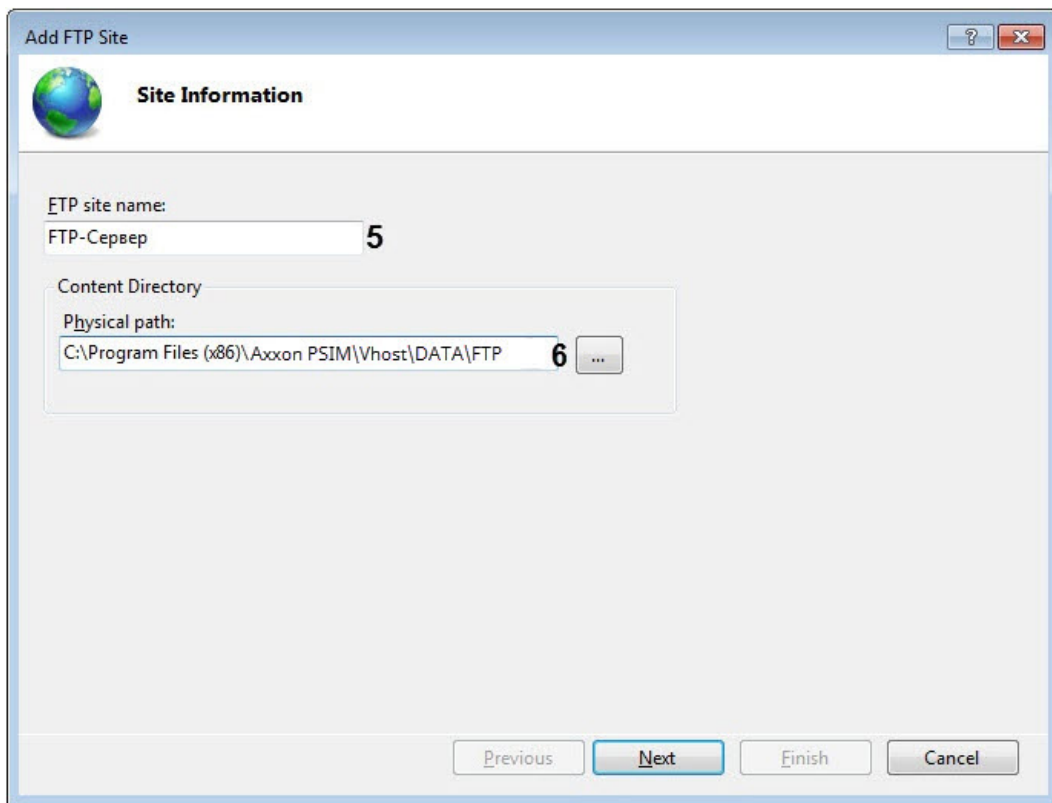
- c. Click the **OK** button.
3. Open **Computer Management**, and in the **Services and Applications** section (1), select **IIS Manager** (2).
 - a. In the **Connections** area, select the **Sites** folder (3), and then in the **Actions** area, click the **Add FTP Site...** link (4). As a result, the **Add FTP Site** window appears.



- b. In the **FTP site name** field (5), enter the name of the FTP site.
- c. In the **Physical path** field (6), or using the button, specify the path to the FTP directory. By default, the FTP directory is located at `<Axxon PSIM installation directory>\Vhost\DATA\FTP\`. You can change this directory using the **FtpPath** parameter of the `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService` registry key (for details, see the registry keys reference guide [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#)).

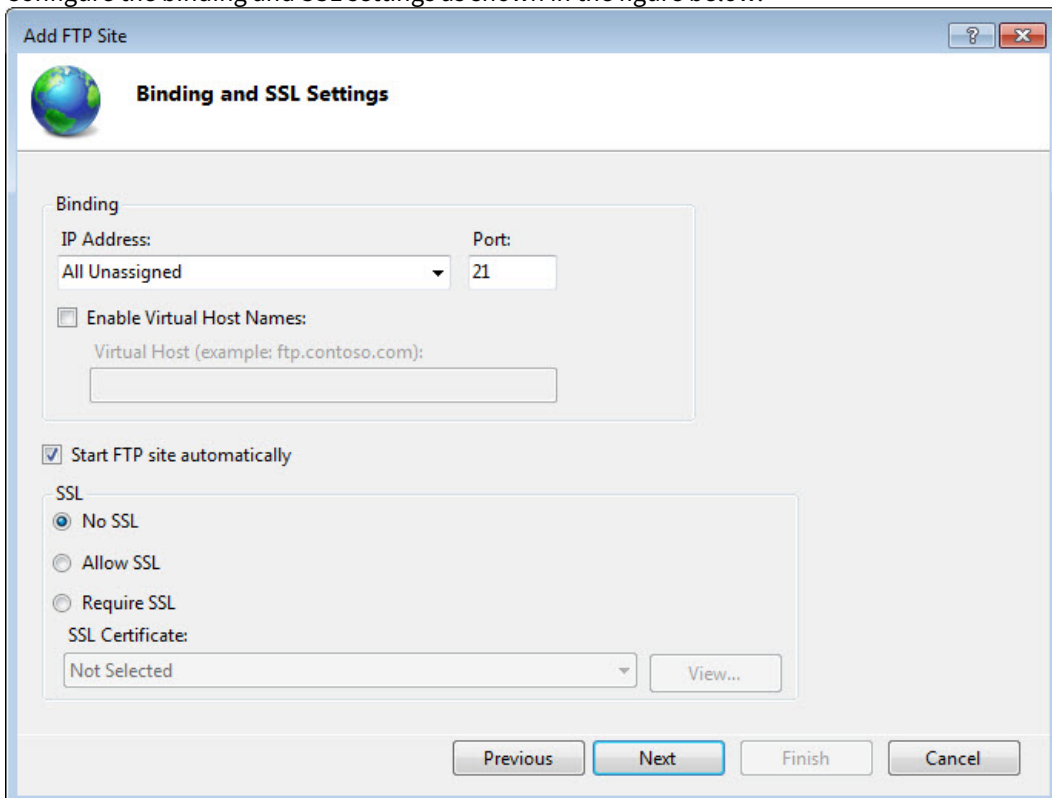
Note

To increase the performance of data exchange, we recommend placing the export directory (see [Specifying the export directory](#)) and the FTP directory on the same disk.



The screenshot shows the 'Add FTP Site' wizard in the 'Site Information' step. The window title is 'Add FTP Site'. The main heading is 'Site Information'. There is a globe icon on the left. The 'FTP site name' field contains 'FTP-Сервер' and has a '5' next to it. The 'Content Directory' section has a 'Physical path' field containing 'C:\Program Files (x86)\Axxon PSIM\Vhost\DATA\FTP' and has a '6' next to it. At the bottom, there are four buttons: 'Previous', 'Next', 'Finish', and 'Cancel'. The 'Next' button is highlighted.

- d. Click the **Next** button.
- e. Configure the binding and SSL settings as shown in the figure below.



The screenshot shows the 'Add FTP Site' wizard in the 'Binding and SSL Settings' step. The window title is 'Add FTP Site'. The main heading is 'Binding and SSL Settings'. There is a globe icon on the left. The 'Binding' section has an 'IP Address' dropdown set to 'All Unassigned' and a 'Port' field set to '21'. There is a checkbox for 'Enable Virtual Host Names' which is unchecked, and a 'Virtual Host (example: ftp.contoso.com):' field below it. The 'Start FTP site automatically' checkbox is checked. The 'SSL' section has three radio buttons: 'No SSL' (selected), 'Allow SSL', and 'Require SSL'. Below the radio buttons is an 'SSL Certificate:' dropdown set to 'Not Selected' and a 'View...' button. At the bottom, there are four buttons: 'Previous', 'Next', 'Finish', and 'Cancel'. The 'Next' button is highlighted.

- f. Click the **Next** button.

- g. Configure the authentication and authorization as shown in the figure below. You must specify the user created in step 1 as the authorized user.

The screenshot shows the 'Add FTP Site' dialog box with the 'Authentication and Authorization Information' tab selected. The 'Authentication' section has two checked options: 'Anonymous' and 'Basic'. The 'Authorization' section has 'Allow access to:' set to 'Specified users' in a dropdown menu, and 'AdminFTP' entered in the text box below it. The 'Permissions' section has two checked options: 'Read' and 'Write'. At the bottom of the dialog are four buttons: 'Previous', 'Next', 'Finish', and 'Cancel'. The 'Finish' button is highlighted in blue.

- h. Click the **Finish** button.

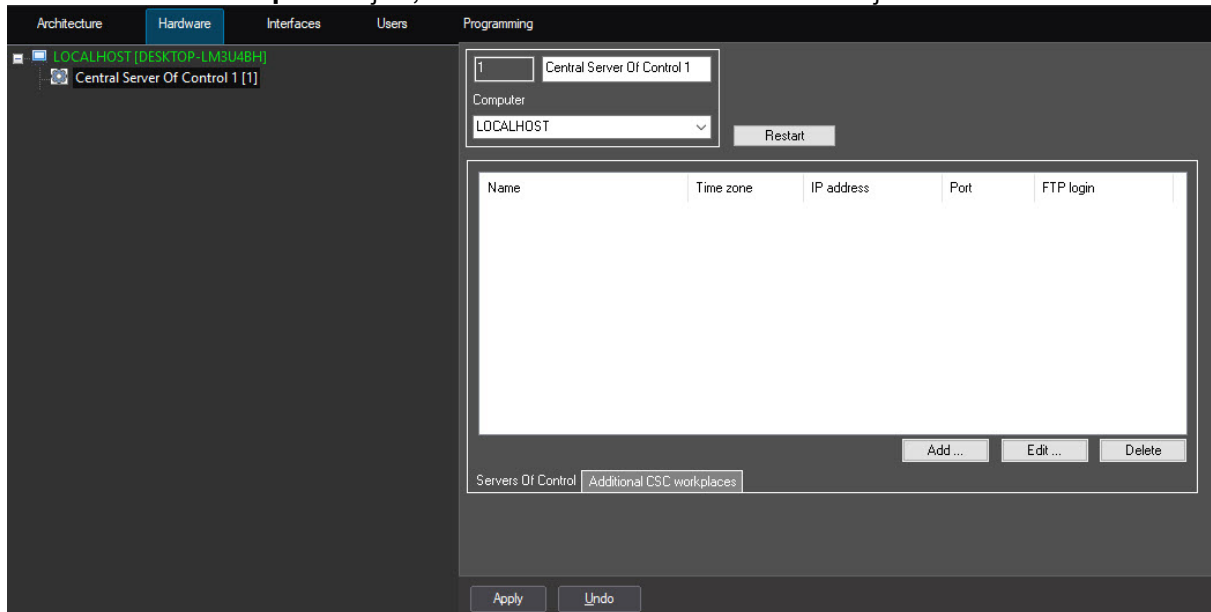
Configuring the FTP server for the *Central Server of Control* module operation is complete.

7.3 Creating the Central Server Of Control object

Create the **Central Server Of Control** object in the hardware tree as follows:

1. Go to the **Hardware** tab of the **System settings** dialog box.

- On the basis of the **Computer** object, create the **Central Server Of Control** object.



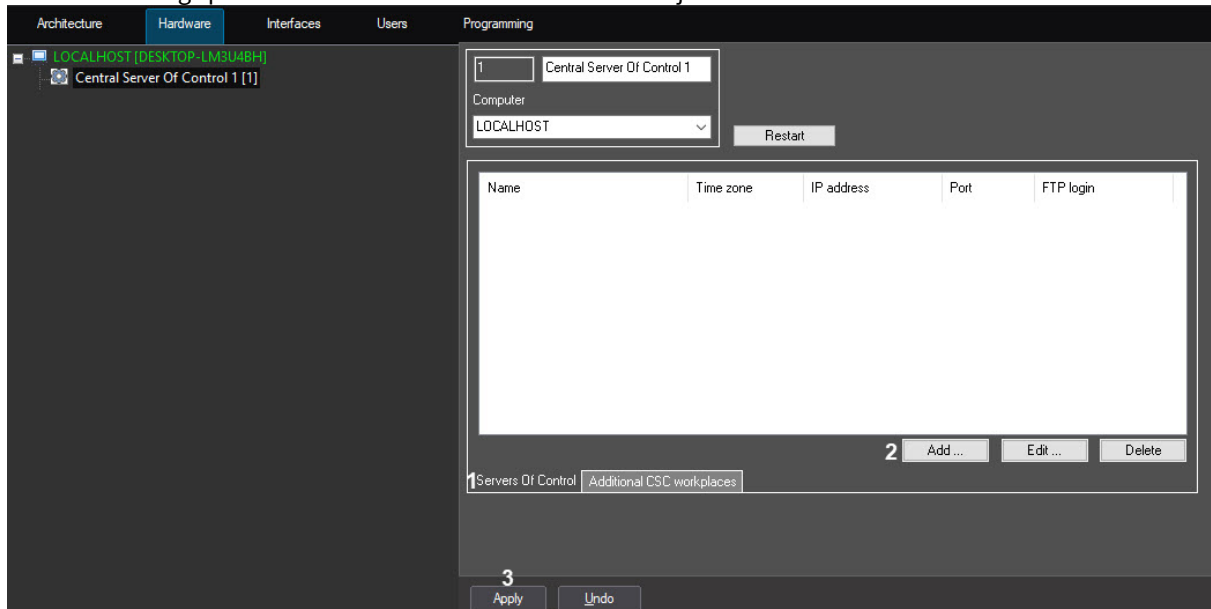
Creation of the **Central Server Of Control** object is completed.

7.4 Configuring the Servers of Control tracking

7.4.1 Adding the Server Of Control

To add the *Server Of Control*, do the following:

- Go to the settings panel of the **Central Server Of Control** object.



- On the **Servers Of Control** tab (1), click the **Add** button (2).
- In the **Server Of Control** window that appears, do the following:

- a. In the **Name** field (1), enter the name of the *Server Of Control*.

The screenshot shows a configuration window titled "Server Of Control". It contains the following fields and controls:

- Name** (1): A text box containing "Server Of Control 1".
- Time zone** (2): A drop-down menu showing "0".
- IP address** (3): A text box containing "101 . 101 . 10 . 10".
- Port** (4): A text box containing "7755".
- FTP login** (5): A text box containing "ftlogin".
- FTP password** (6): A text box with 10 dots representing a masked password.
- Confirmation of FTP password** (7): A text box with 10 dots representing a masked password.
- OK** (8) and **Cancel**: Buttons at the bottom of the dialog.

- b. From the **Time zone** drop-down list (2), select the value corresponding to the time zone difference between the Server that should be tracked and the Server on which the *Central Server Of Control* is installed.

Note

For example, if the *Central Server Of Control* is installed on the Server in Oslo, and the Server that should be tracked is located in London, then it is necessary to select the time zone **-1**.

- c. In the **IP address** field (3), specify the IP address of the *Server Of Control*.
- d. In the **Port** field (4), specify the connection port of the *Server Of Control*.
- e. In the **FTP login** field (5), enter the username with administrator rights to connect to the FTP Server. This server will be used for exchanging the data between the *Central Server Of Control* and the *Server Of Control* (see [Configuring the FTP server for the Central Server of Control operation](#)).
- f. In the **FTP password** field (6), enter the password of the user with administrator rights to connect to the FTP server.
- g. In the **Confirmation of FTP password** field (7), re-enter the password for connecting to the FTP Server.
- h. Click the **OK** button (8).

- As a result, the specified *Server Of Control* will be added to the list, and the *Central Server Of Control* will restart automatically.

Name	Time zone	IP address	Port	FTP login
Server Of Control 1	0	101.101.10.10	7755	ftlogin

Buttons: Add ... Edit ... Delete

Buttons: Apply Undo

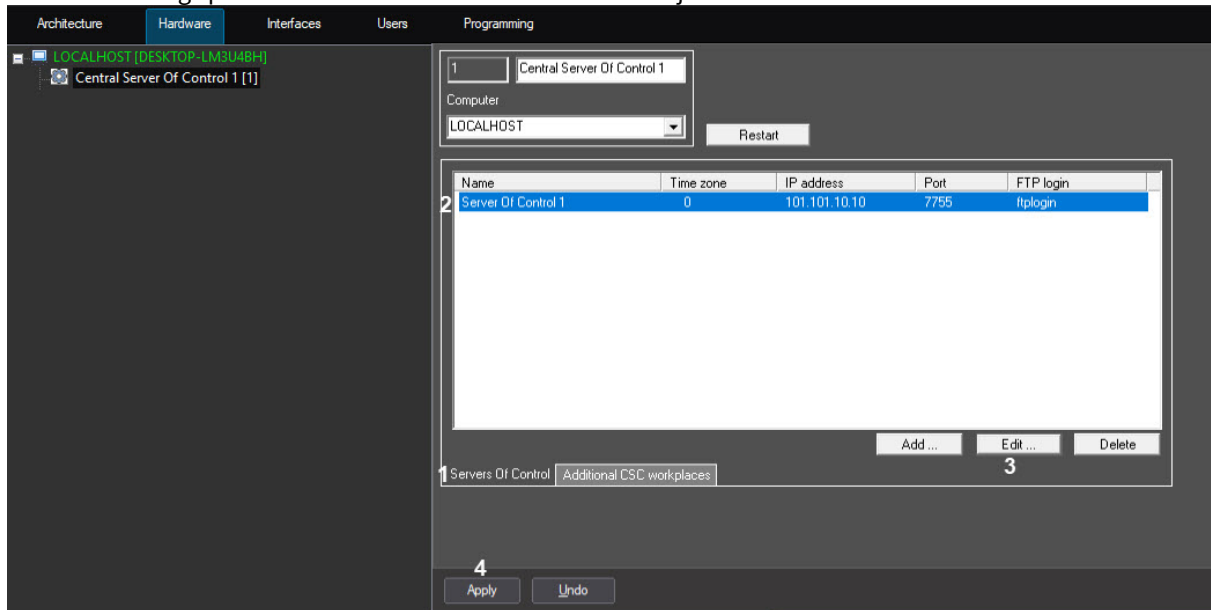
- To add other *Servers Of Control*, repeat steps 2-3.
- Click the **Apply** button (3).

The *Server Of Control* is added.

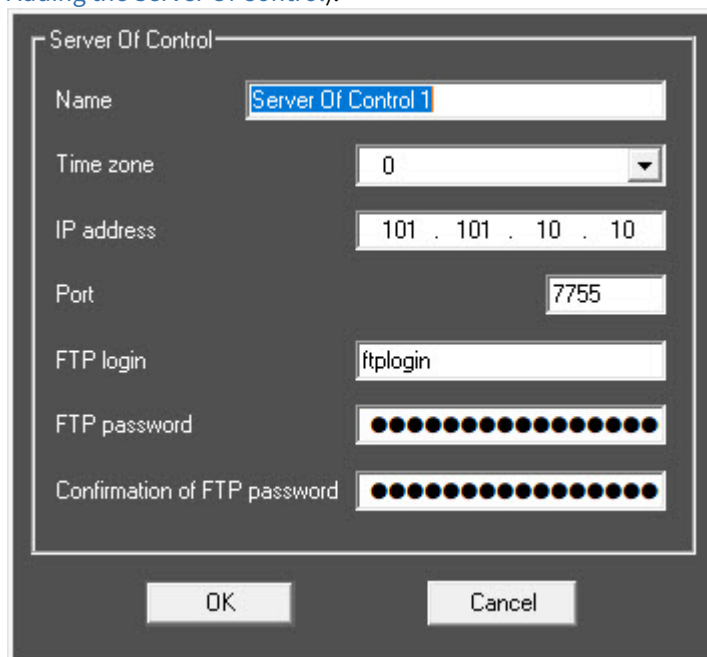
7.4.2 Editing the Server Of Control

To edit the *Server Of Control*, do the following:

1. Go to the settings panel of the **Central Server Of Control** object.



2. On the **Servers Of Control** tab (1), select the *Server Of Control* that should be edited (2), and click the **Edit** button (3).
3. As a result, the **Server Of Control** window will be displayed. Make the necessary changes (for details, see [Adding the Server Of Control](#)).



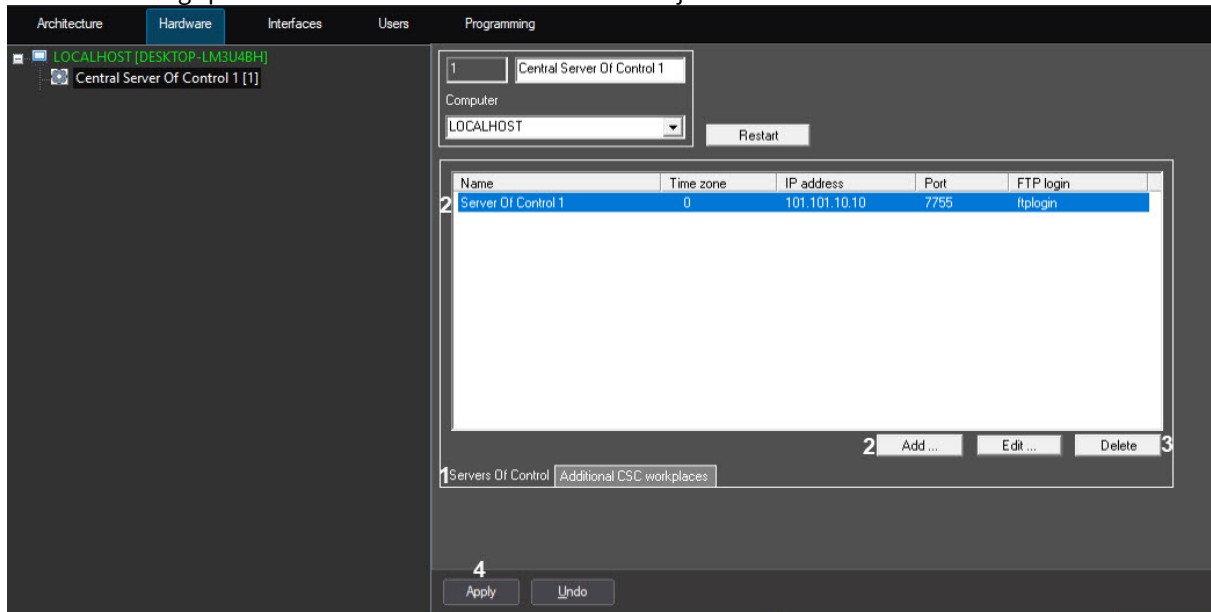
4. Click the **OK** button.
5. Click the **Apply** button (4).

The *Server Of Control* is edited.

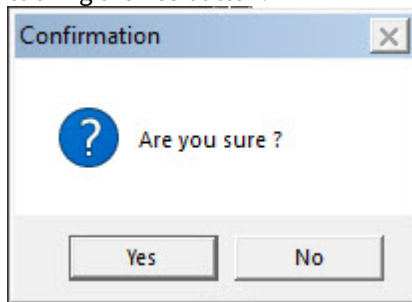
7.4.3 Deleting the Server Of Control

To delete the *Server Of Control*, do the following:

1. Go to the settings panel of the **Central Server Of Control** object.



2. On the **Servers Of Control** tab (1), select the *Server Of Control* that should be deleted (2), and click the **Delete** button (3).
3. As a result, a confirmation window will open. Confirm the deletion of the selected *Server Of Control* by clicking the **Yes** button.



4. Click the **Apply** button (4).

The *Server Of Control* is deleted.

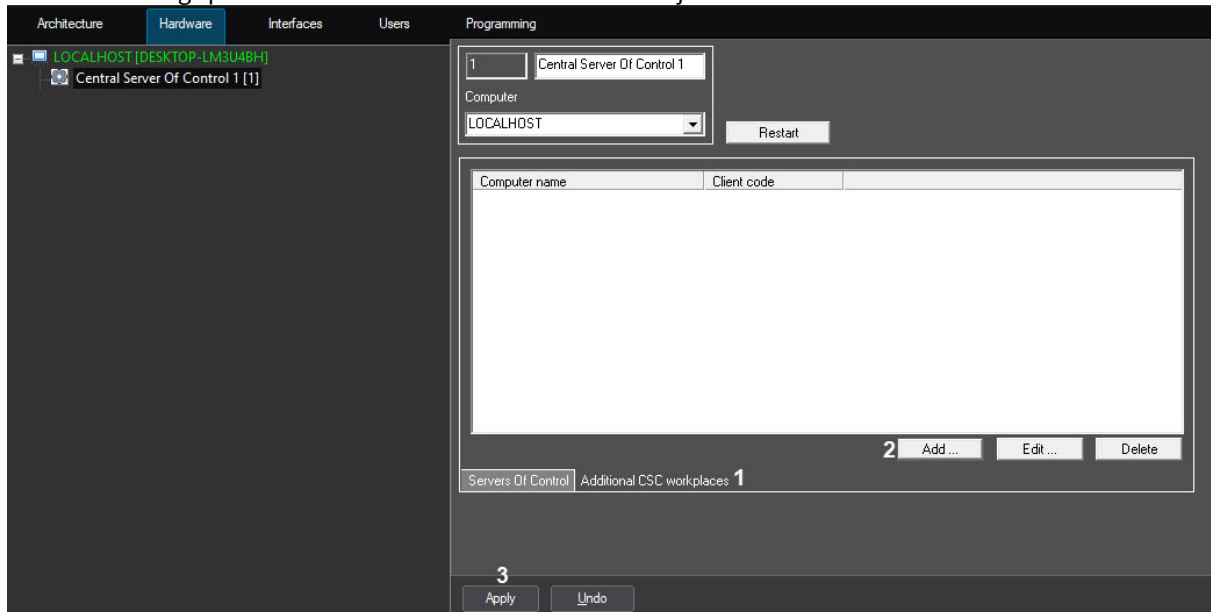
7.5 Configuring the Additional workplace of CSC connection rights to the Central Server of Control

7.5.1 Adding the Additional workplace of CSC

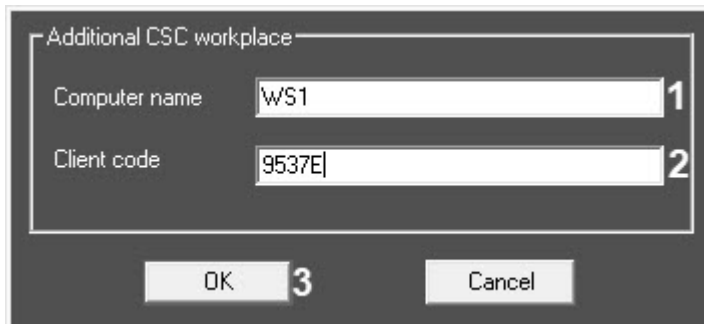
For the *Additional workplace of CSC* software to work, it is necessary to add the *Additional workplaces of CSC* to the *Central Server Of Control*, and specify the computer name and the client code for each of them.

To add the *Additional workplace of CSC*, do the following:

1. Go to the settings panel of the **Central Server Of Control** object.



2. On the **Additional CSC workplaces** tab (1), click the **Add** button (2).
3. In the **Additional CSC workplace** window that appears, do the following:
 - a. In the **Computer name** field (1), enter the computer name on which the *Additional workplace of CSC* software is installed.



- b. In the **Client code** field (2), specify the Client code that is linked with the computer hardware (for details, see [List of Additional workplaces](#)).
- c. Click the **OK** button (3).

- As a result, the specified *Additional workplace of CSC* will be added to the list, and the *Central Server Of Control* will restart automatically.

1 Central Server Of Control 1

Computer
LOCALHOST

Restart

Computer name	Client code
WS1	9537E

Add ... Edit ... Delete

Servers Of Control Additional CSC workplaces

Apply Undo

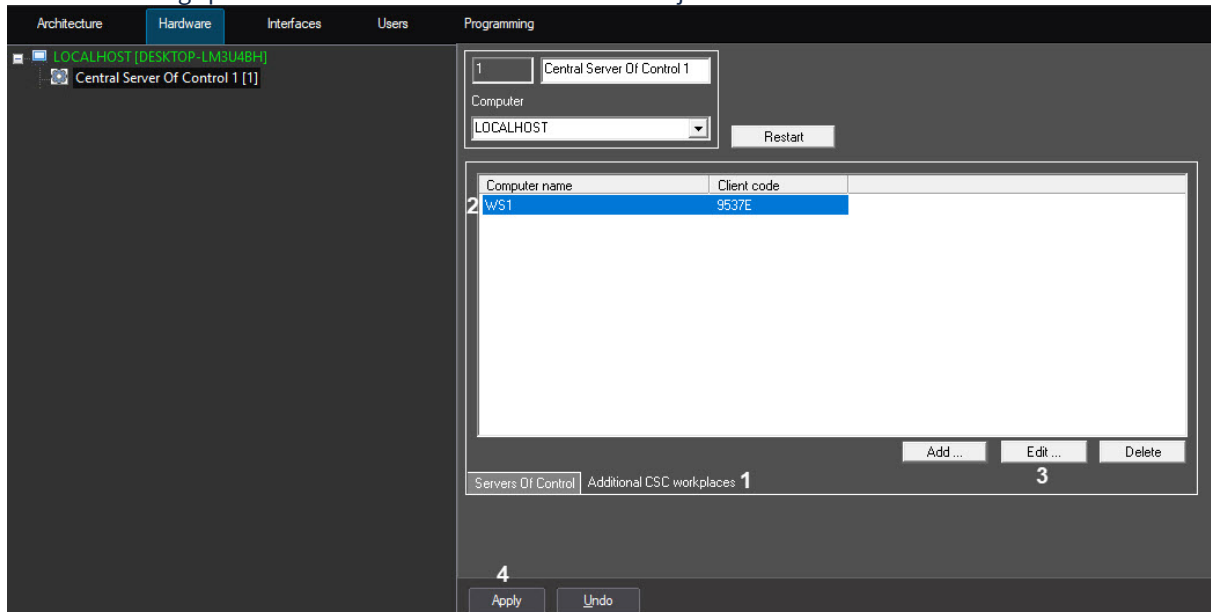
- To add other *Additional workplaces of CSC*, repeat steps 2-3.
- Click the **Apply** button (3).

The *Additional workplace of CSC* is added.

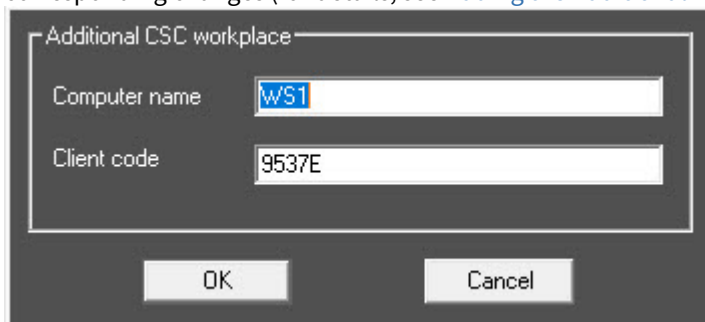
7.5.2 Editing the Additional workplace of CSC

To edit the *Additional workplace of CSC*, do the following:

1. Go to the settings panel of the **Central Server Of Control** object.



2. On the **Additional CSC workplaces** tab (1), select the *Additional workplace of CSC* which should be edited (2), and click the **Edit** button (3).
3. As a result, the **Additional CSC workplace** window will be displayed where it is necessary to make the corresponding changes (for details, see [Adding the Additional workplace of CSC](#)).



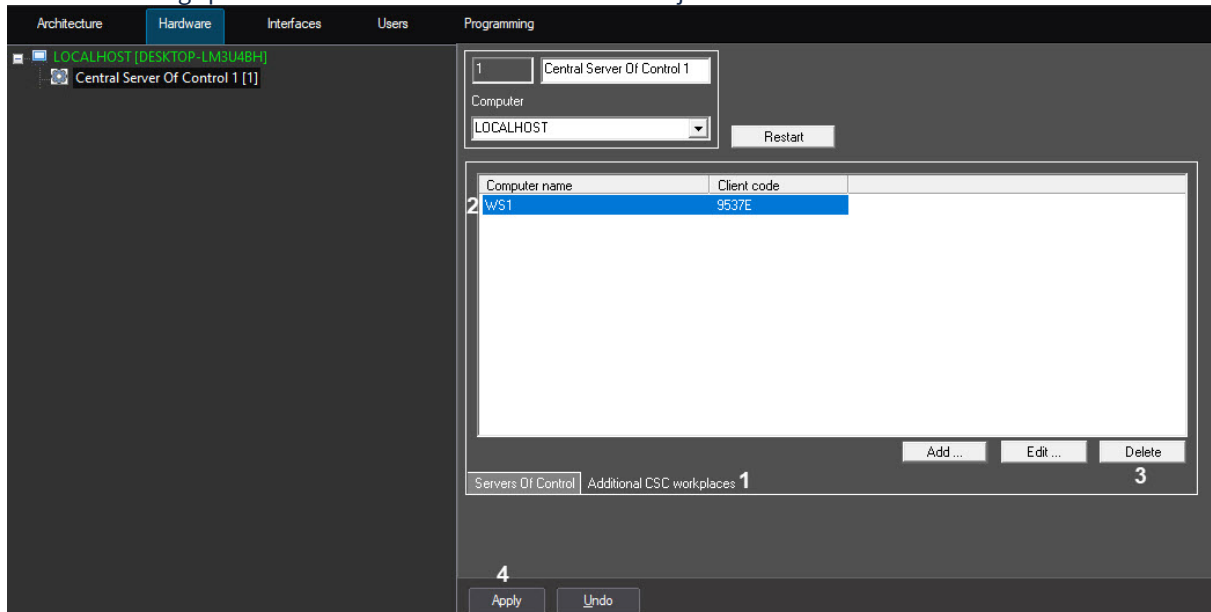
4. Click the **Apply** (4) button.

The *Additional workplace of CSC* is edited.

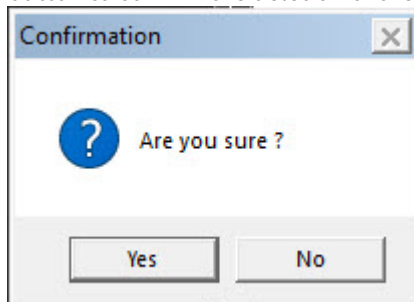
7.5.3 Deleting the Additional workplace of CSC

To delete the *Additional workplace of CSC*, do the following:

1. Go to the settings panel of the **Central Server Of Control** object.



2. On the **Additional CSC workplaces** tab (1), select the *Additional workplace of CSC* which should be deleted (2), and click the **Delete** button (3).
3. As a result, the **Additional CSC workplace** window will be displayed where it is necessary to click the **Yes** button to confirm the deletion of the selected *Additional workplace of CSC*.



4. Click the **Apply** (4) button.

The *Additional workplace of CSC* is deleted.

7.6 Advanced settings of the Central Server of Control module

Note

The registry keys reference guide can be found in the [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#).

You can apply the advanced settings of the *Central Server of Control* module using the following registry key parameters:

1. To change the statistics requesting period of the *Servers of Control* modules, you must specify the corresponding value in minutes for the **PeriodRequestOfStatistic** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key.
2. To change the archive period of the CentralNetServer.log log file, which belongs to the CentralNetServer.exe communication module, you must specify the corresponding value in hours for the **LogArchPeriod**

parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key.

3. To change the maximum size of the CentralNetServer.log log file, which belongs to the CentralNetServer.exe communication module, upon reaching which it is archived, ignoring the **LogArchPeriod** parameter, you must specify the corresponding value in megabytes for the **LogMaxSize** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key.
4. To change the archive storage period of the CentralNetServer.log log files, which belong to the CentralNetServer.exe communication module, you must specify the corresponding value in months for the **LogArchDelPeriod** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key. If you exceed the storage period, archives are removed.
5. To change the data storage period for closed errors and alarms in the ServerSSTV DB, you must specify the corresponding value in months for the **KeepDB** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key. If you exceed the storage period, the data is removed.
6. By default, the *Central Server of Control* module requests a complete package of statistics from all *Servers of Control* modules only once, when you first connect to them.
 - To execute a request for a complete statistics package from a specific *Server of Control* module once, you must activate the **RequestFullStatistic[N]** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key, where N is the internal identifier of the **Server of Control** object. The request is executed when you start the CentralNetServer.exe communication module, and the value of this key is automatically changed to **0**;
 - To request a complete statistics package from all *Servers of Control* modules each time when you start the CentralNetServer.exe communication module, you must activate the **RequestFullStatisticOnStartup** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key.

 **Attention!**

Requesting a complete statistics package is the resource-intensive operation. You must activate keys to request a complete statistics package only at extreme necessity.

Configuring the advanced settings of the *Central Server of Control* module is complete.

7.7 Working with Central Server Of Control without Windows administration rights

To allow the user not added to the Administrators group in the Windows operating system to work correctly with *Central Server Of Control*, make sure the following conditions are fulfilled:


1. The user must be given full access to the registry key:
 - For a 32-bit system: HKEY_LOCAL_MACHINE\Software\BitSoft
 - For a 64-bit system: HKEY_LOCAL_MACHINE\Software\Wow6432Node\BitSoft
2. The user must be granted full rights to the export directory (see [Specifying the export directory](#)).

7.8 Configuring the Central Server Of Control from another server in a distributed configuration

To configure the *Central Server Of Control* from another server in a distributed configuration, do the following:

1. Go to the settings panel of the **Central Server Of Control** object.

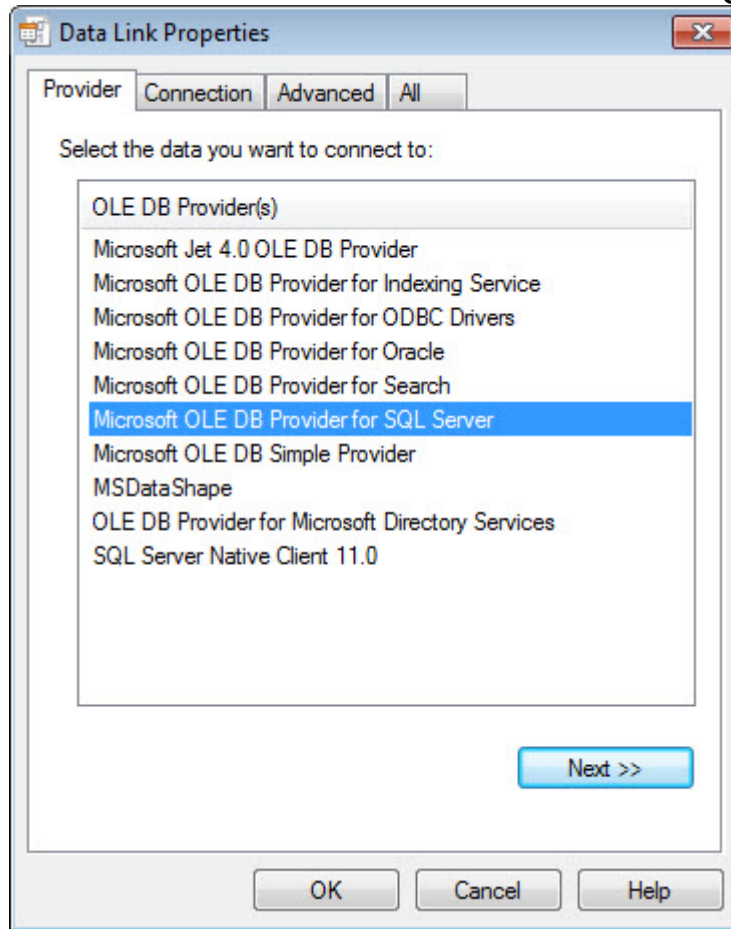
The screenshot shows the configuration interface for the 'Central Server Of Control' object. It includes a 'Computer' dropdown menu currently set to 'VSERVER', a 'Database connection string' text input field, and a 'Restart' button. Below these elements is a table with the following columns: Name, Time zone, IP address, Port, and FTP login. At the bottom of the table are three buttons: 'Add ...', 'Edit ...', and 'Delete'. The 'Servers Of Control' tab is active, and 'Additional CSC workplaces' is also visible. At the bottom of the interface are 'Apply' and 'Undo' buttons.

2. Click the  button (1). The **Data Link Properties** window opens. Configure the connection to the remote *Central Server Of Control* database as follows:

 **Note**

The **Database connection string** parameter is displayed only if the *Central Server Of Control* is configured from another server in a distributed configuration.

- a. Go to the **Provider** tab. Select **Microsoft OLE DB Provider for SQL Server**.



- b. Go to the **Connection** tab. From the **Select or enter a server name** drop-down list, select the name of the database server that stores the *Central Server Of Control* database (1).

- c. Set the **Enter information to log on to the server** switch to the **Use a specific user name and password** position and enter the name and password to connect to the MS SQL Server (2).
- d. Set the **Allow saving password** checkbox (3).
- e. From the **Select the database on the server** drop-down list, select the name of the *Central Server Of Control* database (ServerSSTV by default) (4).
- f. Click the **Test Connection** button (5). If the connection data is correct, a window with the message "Connection check completed" will be displayed.
- g. Click the **OK** button (6).

3. The configured string of connection to the *Central Server Of Control* database will be displayed in the text field (2).

The screenshot shows a configuration window for the Central Server Of Control. At the top left, there is a text field containing '1' and a label 'Central Server Of Control 1'. Below this is a 'Computer' dropdown menu currently showing 'VSERVER'. To the right, the 'Database connection string' is displayed in a text field, which is highlighted with a red box and labeled '2'. The string is 'Provider=SQLOLEDB.1;Password=***;Persist Security Info=True;User ID=...'. A 'Restart' button is located below the connection string field. Below these fields is a table with the following columns: Name, Time zone, IP address, Port, and FTP login. The table is currently empty. Below the table are three buttons: 'Add ...', 'Edit ...', and 'Delete'. At the bottom of the window, there are two buttons: 'Apply' and 'Undo'.

4. As a result, you can start configuring the *Central Server Of Control* (see [Configuring Central Server of Control](#)).
Configuring the *Central Server Of Control* from another server in a distributed configuration is now complete.

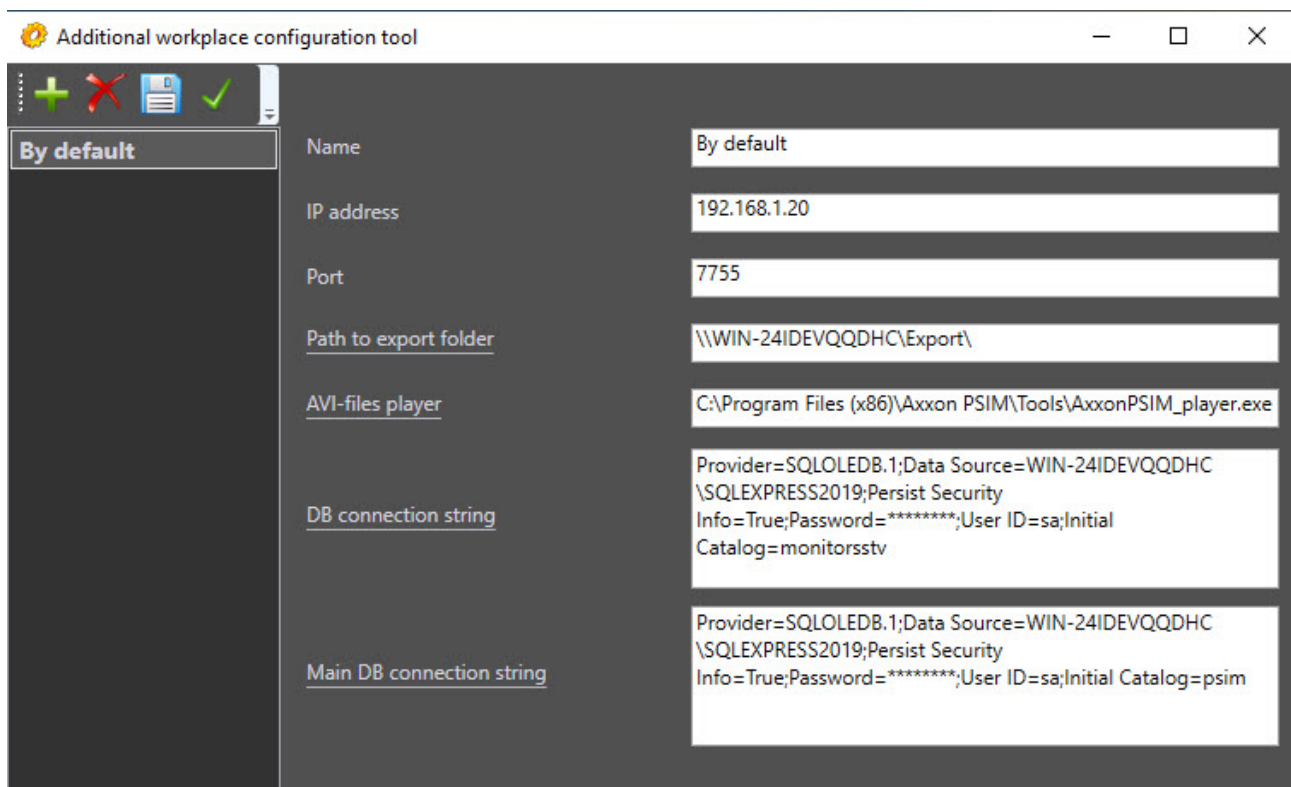
8 Configuring Additional workplace and Additional workplace of CSC

8.1 List of Servers of Control/CSC

Additional workplace/Additional workplace of CSC can operate with only one *Server of Control/Central Server of Control* (further named *Server*) at a time. However, the list of Servers can be configured and the active Server can be selected. For this use the *Additional workplace configuration tool*. The tool can be run in one of the following ways:

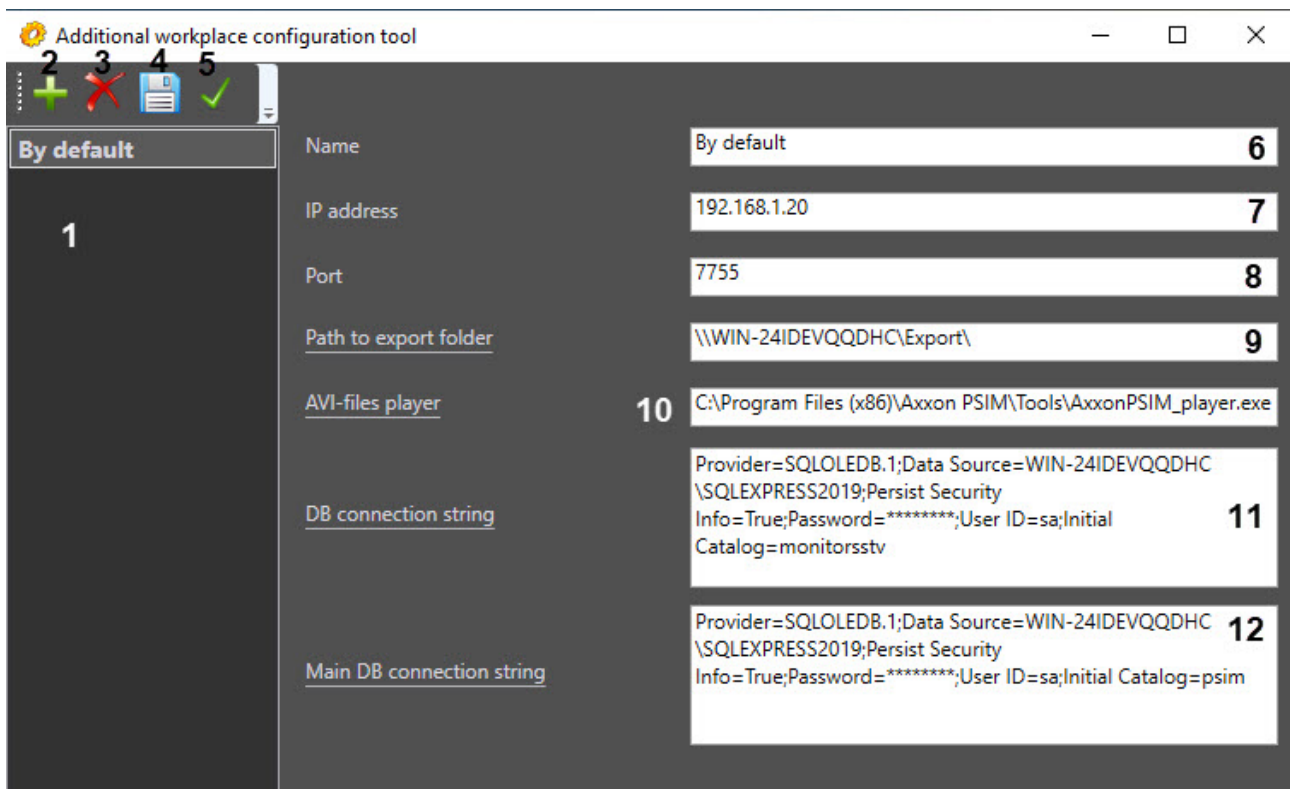
1. Click **Start -> All Programs -> Axxon PSIM -> Monitoring PSIM -> Additional workplace configuration tool**.
2. Use the *ARMSelector.exe* executable file, located in the <Axxon PSIM installation directory>\Vhost\SYSTEM\ folder.

The tool is shown in the figure.



8.1.1 Interface of Additional workplace configuration tool

Interface elements of the *Additional workplace configuration tool* are described in the table.



#	Name	Method of setting the parameter value	Default value	Description
1	List of servers	The Add , Remove and Set as active buttons	By default there is the server in the list. It is named By default and is created during installation	Displays the list of existing servers. An active server is highlighted in bold
2	The Add button	Click the button	NA	Adding a new server to the list
3	The Delete button	Click the button	NA	Deleting a selected server from the list
4	The Save button	Click the button	NA	Saving the changes
5	The Set as active button	Click the button	NA	Setting a selected server as an active one
6	The Name field	Enter a value in the field	See #1. When a new server is added to the list, it is named New by default	Setting a name for the server. This name is used only in this tool

7	The IP address field	Enter a value in the field	127.0.0.1 Important! The value of this parameter is to be changed according to the IP address of the server	Setting the IP address to connect to the VideoSrv.exe module (if the <i>Server of Control</i> is added) or CentralNetServer.exe (if the <i>Central Server of Control</i> is added)
8	The Port field	Enter a value in the field	7755	<p>Setting a port to connect to the corresponding communication module VideoSrv.exe/ CentralNetServer.exe.</p> <p>To connect to the VideoSrv.exe module, it is necessary to specify the port that is selected in the TCP/ IP port (Archive) field on the settings panel (see Configuring a connection).</p> <p>To connect to the CentralNetServer.exe module, you must specify the port that is selected in the IPPort parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key (for details, see the registry keys reference guide Vertical solutions, for more information about working with the registry, see Working with Windows OS registry)</p>
9	The Path to export folder field	The Path to export folder link or enter a value in the field	NA	Setting a path to the network folder on the server where there are archive files requested from the <i>Agents of Control</i>

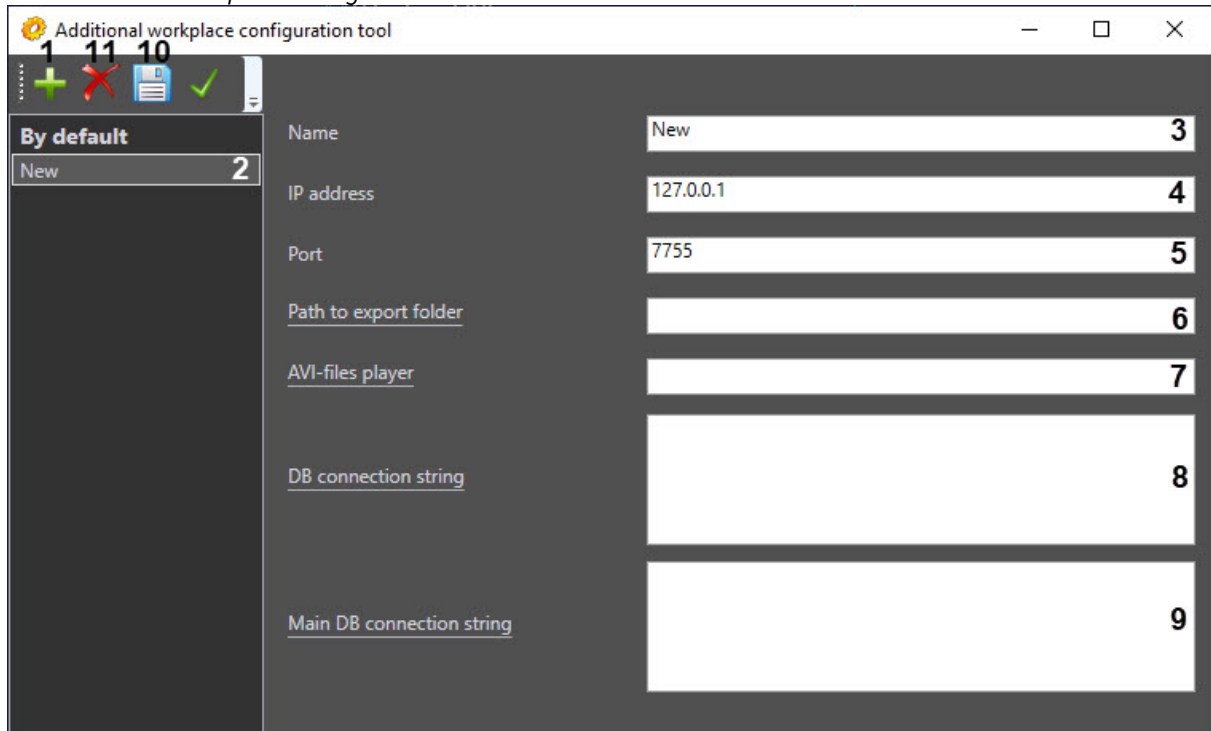
1 0	The AVI-files player field	The Path to executable file link or enter a value in the field	NA	Setting the path to the executable file of the video player on the <i>Additional workplace/Additional workplace of CSC</i> used to play back video clips requested from the <i>Agents of Control</i> (see Requesting video clips from objects)
1 1	The DB connection string field	The DB connection string link	NA	Setting the Server DB connection string. The Data Link Properties box appears when clicking the DB connection string link
1 2	The Main DB connection string field	The Main DB connection string link	NA	Setting the connection string to the base <i>Axxon PSIM</i> DB on the server. The Data Link Properties box appears when clicking the Main DB connection string link


8.1.2 Adding Server of Control to the list

By default the Server (named “By default”) is added to Additional workplace configuration right after installation of *Monitoring PSIM* software package. Its settings are the same as those specified during installation (see [Installing Additional workplace software](#) section).

Add a new Server to the list as follows:

1. Run *Additional workplace configuration tool*.



2. Click the  button (1).
3. A new Server named **New** is added to the list (2).
4. Rename the Server if necessary (3).

 **Note.**

This name is used in the Additional workplace configuration tool only.

5. Specify the IP address of computer where the corresponding communication module is run: VideoSrv.exe module (if the *Server of Control* is added) or CentralNetServer.exe (if the *Central Server of Control* is added) (4).
6. Specify the connection port to the VideoSrv.exe/CentralNetServer.exe module (5).

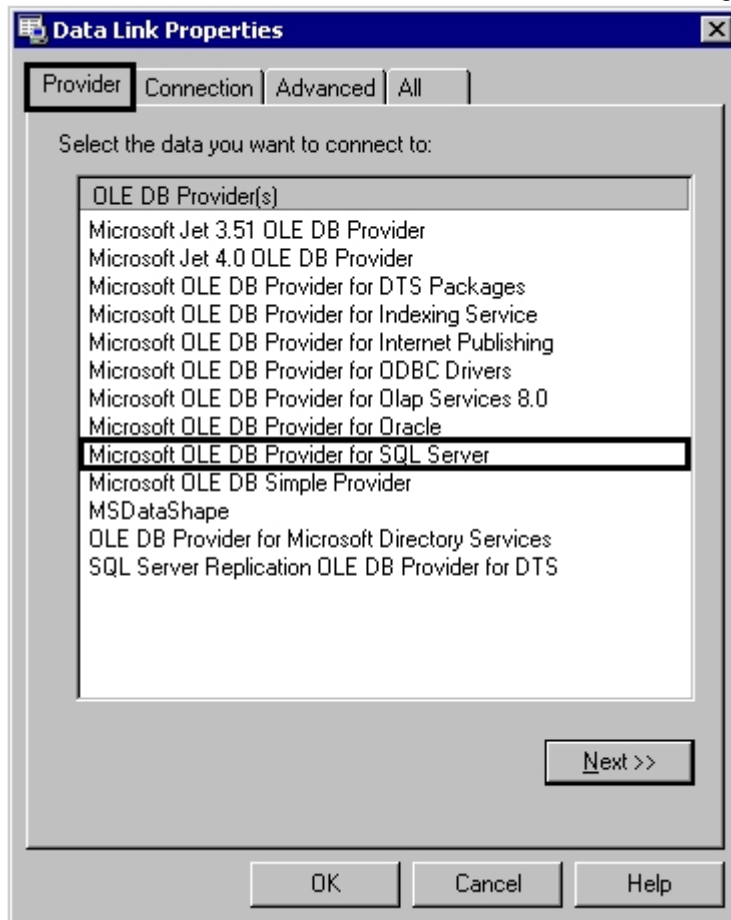
 **Note.**

To connect to the VideoSrv.exe module, it is necessary to specify the port that is selected in the **TCP/IP port (Archive)** field on the settings panel (see [Configuring a connection](#)).

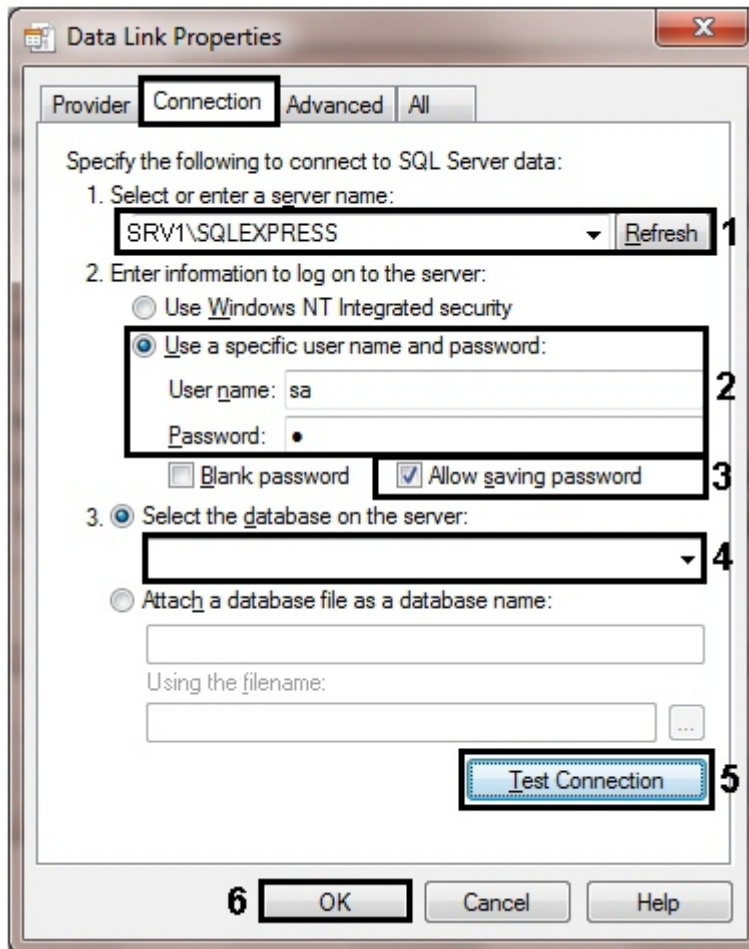
To connect to the CentralNetServer.exe module, it is necessary to specify the port that is selected in the **IPPort** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key (for details, see the registry keys reference guide [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#)).

7. Specify the path to network folder on the Server where there are archive files requested from the *Agent of Control* (6) (see [Specifying the export directory](#)). A standard **Browse for Folder** dialog box appears when clicking the **Path to export folder** link. Select a required folder.
8. Specify the path to the executable file of the video player on the *Additional workplace/Additional workplace of CSC* used to playback the video clips requested from the *Agents of Control* (see [Requesting video clips from objects](#)) (7).

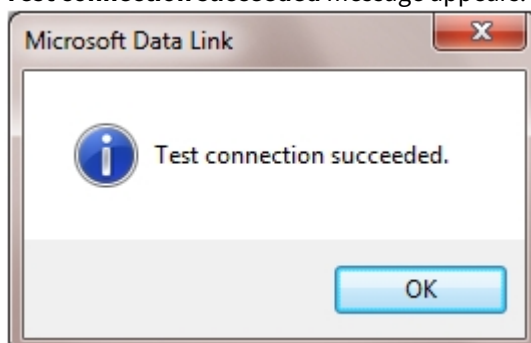
9. Click the **DB connection string** link (8). The **Data Link Properties** box appears. Configure DB connection to remote *Server* as follows:
 - a. Go to the **Provider** tab. Select **Microsoft OLE DB Provider for SQL Server**.



- b. Go to the **Connection** tab.




- c. In the **1. Select or enter a server name:** dropdown list select a name of DB server where the Server DB is stored (1).
- d. Set the **2. Enter information to log on to the sever:** to the **Use a specific user name and password:** position and specify the user name and password to connect to MS SQL Server (2).
- e. Select the **Allow saving password** check box (3).
- f. In the **Select the database on the server:** dropdown list select the name of the Server DB (4).
- g. Click the **Test Connection** button (5). If connection data is specified correctly, then the box with the **Test connection succeeded** message appears.




Note.

If there is the **Connection failed** message, then check if there is connection to the Server computer and if the server DB is configured correctly and then repeat steps 9.a-9.g.

- h. Click the **OK** button (6).
10. The configured connection string is displayed in the text field (8).
11. Click the **Main DB connection string** link (9). The **Data Link Properties** box appears. Configure DB connection to the base *Axxon PSIM* DB similarly to the Server (see steps 9.a-9.h). The configured connection string is displayed in the text field.
12. Click the  button to save the changes (10).

Note.

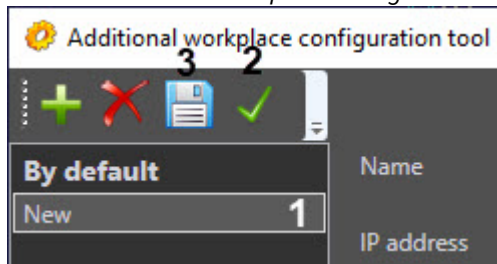
To remove the Server from the list, select it and click the  button (11).



Server is now added to the list.

8.1.3 Selecting active Server of Control

Select an active Server used by the *Additional workplace/Additional workplace of CSC* as follows:

1. Run the *Additional workplace configuration tool*.



2. Select the required Server in the list (1).
3. Click the  button (2).
4. Click the  button (3).

Active Server is now selected.

8.2 Working with Additional workplace/Additional workplace of CSC without Windows administration rights

To allow the user not added to the Administrators group in the Windows operating system to work correctly with *Additional workplace/Additional workplace of CSC*, make sure the user has the full access to the following registry section:

- for a 32-bit system: HKEY_LOCAL_MACHINE\Software\BitSoft\;
- for a 64-bit system: HKEY_LOCAL_MACHINE\Software\Wow6432Node\BitSoft\.

8.3 Creating and configuring Data Gateway

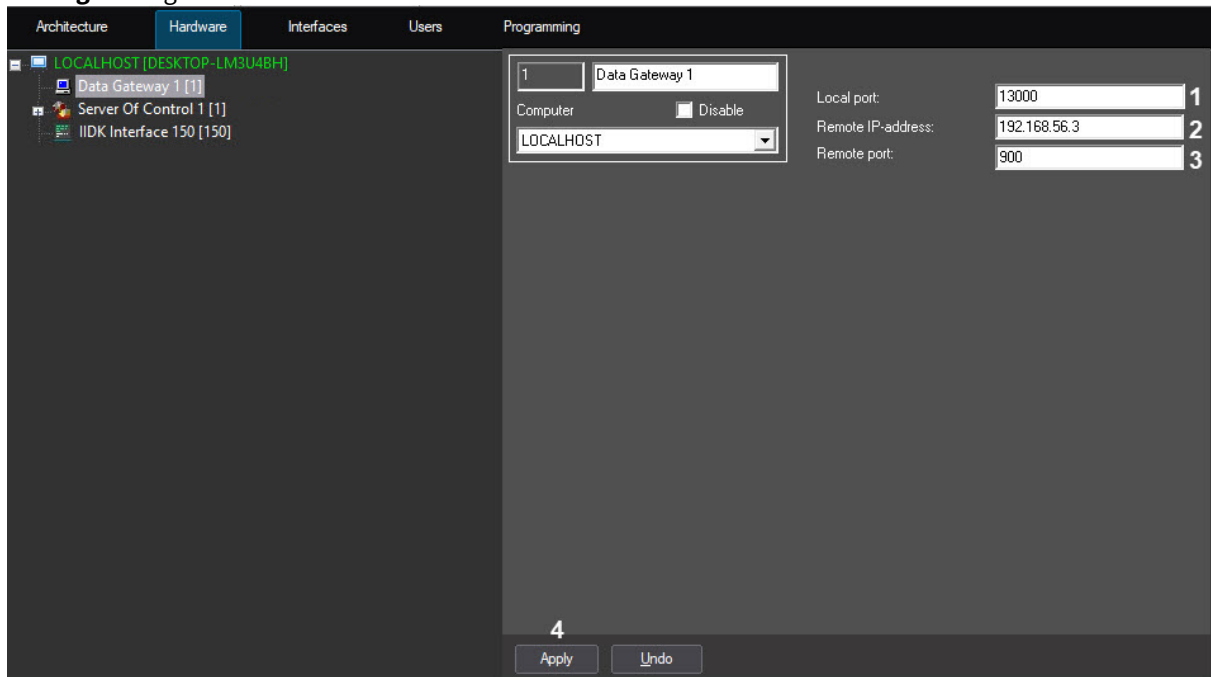
Data gateway is needed when live video is transmitted from *Agents of Control* to *Additional workplaces/Additional workplaces of CSC* in another subnet and *Monitoring PSIM* software components are not united in the distributed video surveillance system, as so as in this case **Video gate** object cannot be used.

The **Data Gateway** objects are created on the computers with *Server of Control/CSC* installed. The number of the **Data gateway** objects must be equal to the number of *Agent of Control* to receive live video from. For example, if there are 10 **Agents Of Control**, then create 10 **Data Gateways** with **Local port** and **Remote IP-address** corresponding to those *Agents of Control*.

In this section, the description of **Data Gateway** configuration is given. By default, this module is not enabled for live video transmitting to *Additional workplaces/Additional workplaces of CSC*. In order to enable Data gateway, set the **Viewing live video through gateway** in the **Monitoring** interface object settings panel – see [Configuring the Monitoring interface object](#).

Data Gateway object configuration is performed as follows:

1. Create the **Data Gateway** object based on the **Computer** object on the **Hardware** tab of the **System settings** dialog box.



2. In the **Local port** field enter the number of the port in the system for connection of *Additional workplace/Additional workplace of CSC* (1).
3. In the **Remote IP-address** field enter IP-address of the *Agent of Control* (2).
4. In the **Remote port** field enter the standard port of the *Agent of Control* intended to transmit live video (3). Do not change the default value in most cases. It is to be changed only if by some reason the system uses intermediate server with port forwarding.
5. Click **Apply** (4).

Data Gateway configuration is completed.

9 Configuring the Monitoring PSIM fault tolerance

To configure the *Monitoring PSIM* fault tolerance, do the following:

1. Configure the main *Server of Control* (see [Configuring Server of Control](#)).
2. Configure the *Agent of Control* (see [Configuring Agent of Control](#)) and set the connection parameters to the main *Server of Control* for the **Partition Of Control** object (see [Configuring communication between Agent Of Control and Server Of Control](#)).
3. Create the second **Partition Of Control** object, configure it in the same way, but with a different **Partition Of Control** ID from the first one (see [Configuring the Partition Of Control unique ID](#)).
4. Configure the backup *Server of Control* (see [Configuring Server of Control](#)).
5. When you configure the second **Partition Of Control** object, set the connection parameters to the backup *Server of Control* (see [Configuring communication between Agent Of Control and Server Of Control](#)).

Attention!

If you add the list of cameras for tracking during the configuration of the first **Partition of Control** object (see [Configuring the camera list](#)), then to add the same cameras to the second **Partition Of Control** object, you must set the **MonitoringReserving=1** parameter value of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key in the Windows OS registry (for details, see [Vertical solutions](#); for more information about working with the registry, see [Working with Windows OS registry](#)).

Configuring the *Monitoring PSIM* fault tolerance is complete.

10 Configuring the special mode of Monitoring operation with ACFA PSIM

On this page:

- General information about special mode of Monitoring PSIM operation with ACFA PSIM
- Configuring the special mode of Monitoring PSIM operation with ACFA PSIM on the Server of Control side
- Configuring the special mode of Monitoring PSIM operation with ACFA PSIM on the Agent of Control side
- Operating procedure

10.1 General information about special mode of *Monitoring PSIM* operation with *ACFA PSIM*

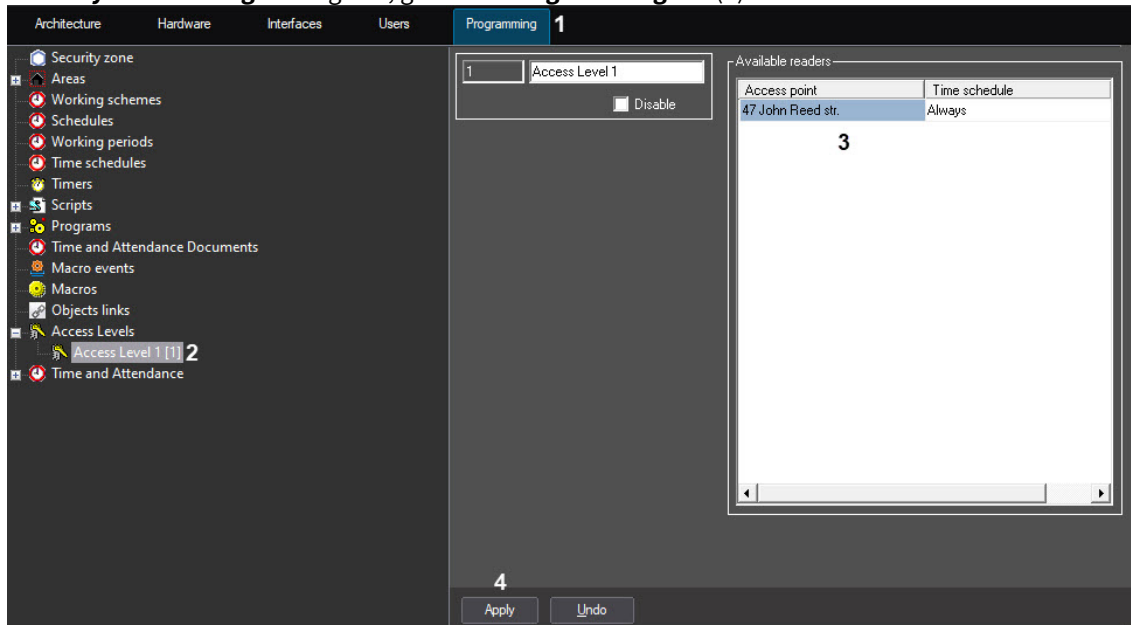
The special mode of *Monitoring PSIM* operation with *ACFA PSIM* allows to provide access to the object with the installed *Agent of Control* using the user's access card, and to monitor the object status on the *Server Of Control*. This operating mode is relevant if the *Monitoring PSIM* and *ACFA PSIM* are not combined into a single system with a distributed architecture.

10.2 Configuring the special mode of *Monitoring PSIM* operation with *ACFA PSIM* on the *Server of Control* side

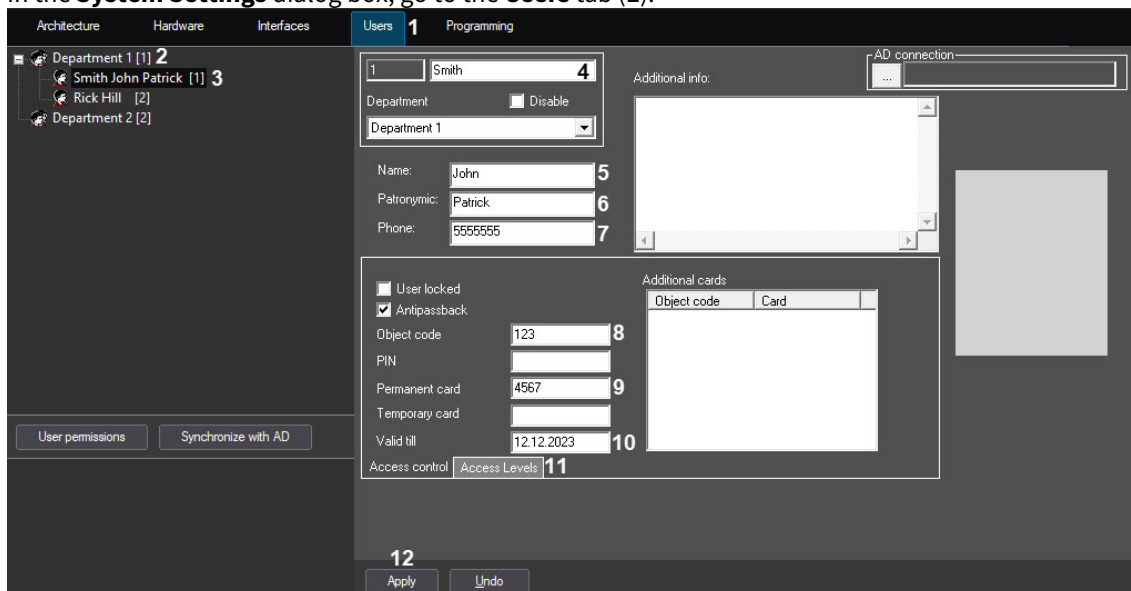
The special mode of *Monitoring PSIM* operation with *ACFA PSIM* is configured on the *Server of Control* side as follows:

1. Create an **AccessByCardEnable** string registry key and set **1** as its value (for details, see the registry keys reference guide [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#)).
2. Create the necessary number of access levels, which include one or more *Partitions of Control* of the corresponding *Agent of Control* objects, the access to which should be obtained. Do it as follows:

- a. In the **System Settings** dialog box, go to the **Programming** tab (1).



- b. In the object tree, create an **Access Level** object (2) on the basis of the **Access Levels** object.
 c. On the settings panel of this object, specify one or more access points to which the *Partitions of Control on Server of Control* correspond (3).
 d. Click **Apply** (4).
3. Create the necessary number of users who will be able to access objects, and assign an access card and access level to each user. Do it as follows:
- a. In the **System Settings** dialog box, go to the **Users** tab (1).



- b. In the object tree, create a **Department** object (2), and then create a **User** object (3) on its basis.
 c. On the settings panel of the **User** object, specify the following parameters:
- In the field (4) enter the last name of the user.
 - In the **Name** field (5), enter the first name of the user.
 - In the **Patronymic** field (6), enter the middle name of the user.
 - In the **Phone** field (7), enter the phone number of the user.
 - In the **Object code** field (8), enter the room code.

- f. In the **Permanent card** field (9) enter the card number.

Attention!

Both **Object code** and **Permanent card** fields should be filled in.

- g. If necessary, in the **Valid till** field (10), specify the date upon which access to the object will be restricted.
- h. Go to the **Access Levels** tab (11) and assign a previously created access level to the user (see step 2).

Access type: Group

A.L.	Date1	Time1	Date2	Time2
Access Level 1				

Access control | Access Levels

Apply Undo

- i. Click **Apply** (12).

Note

Similar actions can also be performed using the *Access Manager* module, which is part of the *ACFA PSIM* software package (see [Working with the Access Manager software module](#)).

Configuring the special mode of *Monitoring PSIM* operation with *ACFA PSIM* on the *Server of Control* side is complete.

10.3 Configuring the special mode of *Monitoring PSIM* operation with *ACFA PSIM* on the *Agent of Control* side

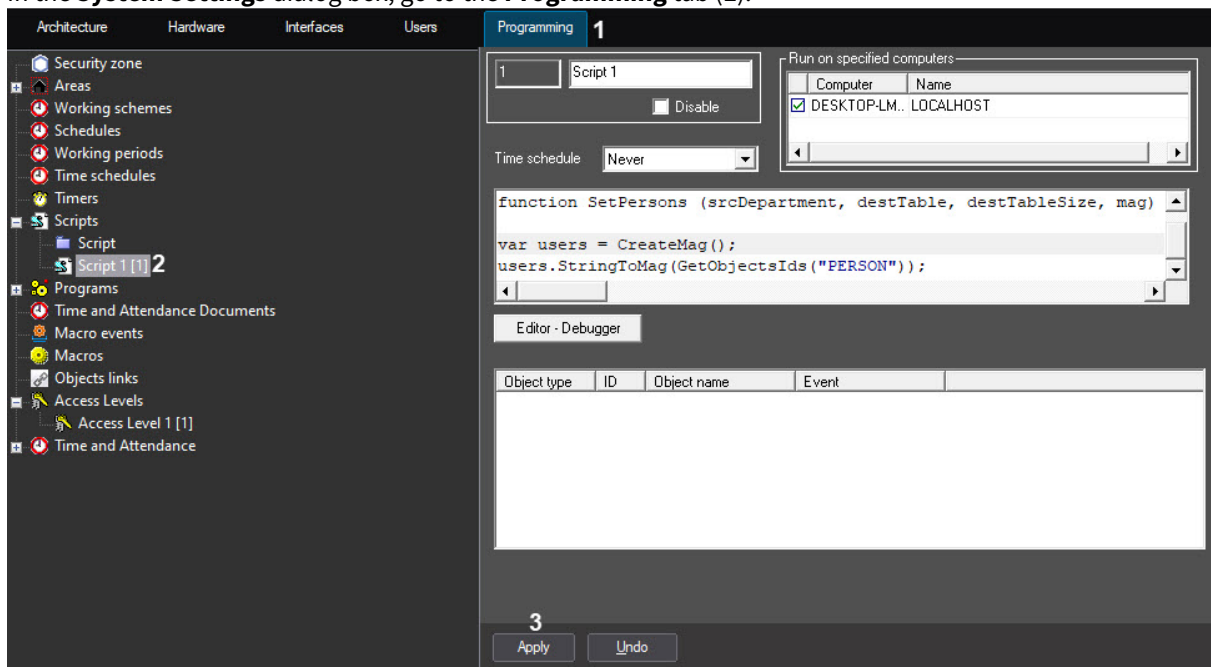
The special mode of *Monitoring PSIM* operation with *ACFA PSIM* is configured on the *Agent of Control* side as follows:

1. Create an **AccessByCardEnable=1** string parameter value for the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key (for details, see the registry keys reference guide [Vertical solutions](#), for more information about working with the registry, see [Working with Windows OS registry](#)).
2. Install *ACFA PSIM* (see [ACFA PSIM Installation Guide](#)).

Attention!

The following is an example of configuring the interaction between the *Monitoring PSIM* and the *Apollo* integration module, which is part of the *ACFA PSIM* software package. The configuration guide for the *Apollo* integration module is available in the documentation for *ACFA PSIM*. Instead of the *Apollo* integration module, you can use any other integration module that supports user entry into the controller.

- Configure the *Apollo* integration module.
- In the **System Settings** dialog box, go to the **Programming** tab (1).



- To transfer the user data from the *Server of Control* side to the *Agent of Control* side, it is necessary to create script №1 in the object tree on the basis of the **Scripts** object (2) by copying the contents of an example of this script (see [Sample script for configuring the interaction between the Monitoring PSIM and the Apollo integration module](#)).
- To monitor the object status on the *Server Of Control* side, it is necessary to configure the alarm group (see [Configuring alarms for Monitoring PSIM the object state on the Agent of Control side](#)). As a result of this configuration, the script №2 will be created.

⚠ Attention!

If an integration module other than *Apollo* is used, it is necessary to modify the script examples for the corresponding integration module.

ℹ Note

For more information on creating scripts, see [The Script object. Programming using the JScript language](#).

- Click **Apply** (3).

Configuring the special mode of *Monitoring PSIM* operation with *ACFA PSIM* on the *Agent of Control* side is complete.

10.4 Operating procedure

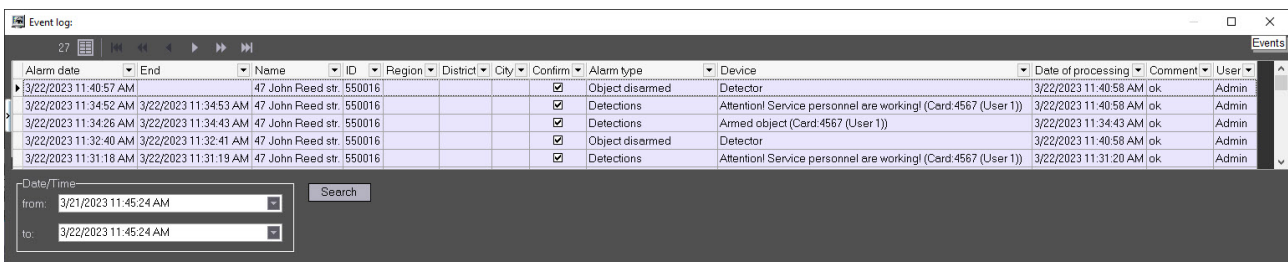
At startup, and then every 15 minutes, *Agent of Control* sends the hash of existing users to *Server of Control*. Initially, there are no such users. At startup, *Server of Control* receives the hash of all objects including users from the *Axxon PSIM* core, and puts them in a list that is updated if objects are edited or deleted. *Server of Control* compares the user hash received from *Agent of Control* with the value from the list and, if there is a mismatch, requests new data, and then transfers it to *Agent of Control*. *Agent of Control*, upon receiving this data (hash + configuration), updates the information about the users and generates the **SPR_DATA_UPDATED** event, which is processed in script №1. As a result, the users with the right to access the corresponding *Agent of Control* will be loaded into the memory of the *Apollo* controller and will be able to access the object upon presenting of their access card.

Also at startup, and then every 15 minutes, *Agent of Control* sends a **GET_OBJECT_STATE** event to the *Axxon PSIM* core. This event is processed in script №2, which generates an **OBJECT_STATE_INFO** event with the object status in the **state** field and the user's access card number used when arming/disarming the object in the **card** field. When arming an object using the user's access card, this script generates an **OBJ_ARM** event (alarm type: **Armed object**). When disarming an object using the user's access card, the same script generates the **OBJ_DISARM** event (alarm type: **Attention! Service personnel are working!**) and activates a long alarm **Object disarmed**.

Note

Only the user access card numbers are stored on the *Agent of Control* side, the users' full names are not available. Therefore, in order to obtain the users' full names by the access card numbers, *Server of Control* queries the *Axxon PSIM* database on the *Server of Control* side.

As a result, when the access to an object is received, the access card number and the full name of the user who gained the access is displayed in the **Event log** as an additional information (see [Event log](#)).



Alarm date	End	Name	ID	Region	District	City	Confirm	Alarm type	Device	Date of processing	Comment	User
3/22/2023 11:40:57 AM		47 John Reed str.	550016				<input checked="" type="checkbox"/>	Object disarmed	Detector	3/22/2023 11:40:58 AM	ok	Admin
3/22/2023 11:34:52 AM	3/22/2023 11:34:53 AM	47 John Reed str.	550016				<input checked="" type="checkbox"/>	Detections	Attention! Service personnel are working! (Card:4567 (User 1))	3/22/2023 11:40:58 AM	ok	Admin
3/22/2023 11:34:26 AM	3/22/2023 11:34:43 AM	47 John Reed str.	550016				<input checked="" type="checkbox"/>	Detections	Armed object (Card:4567 (User 1))	3/22/2023 11:34:43 AM	ok	Admin
3/22/2023 11:32:40 AM	3/22/2023 11:32:41 AM	47 John Reed str.	550016				<input checked="" type="checkbox"/>	Object disarmed	Detector	3/22/2023 11:40:58 AM	ok	Admin
3/22/2023 11:31:18 AM	3/22/2023 11:31:19 AM	47 John Reed str.	550016				<input checked="" type="checkbox"/>	Detections	Attention! Service personnel are working! (Card:4567 (User 1))	3/22/2023 11:31:20 AM	ok	Admin

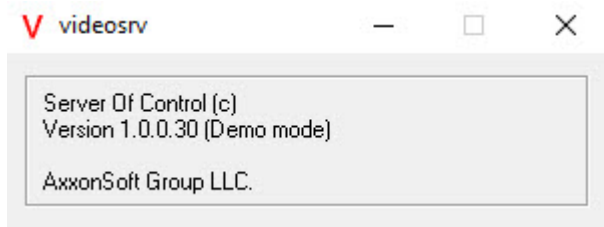
11 Data loader for Monitoring

11.1 Server of Control communication module

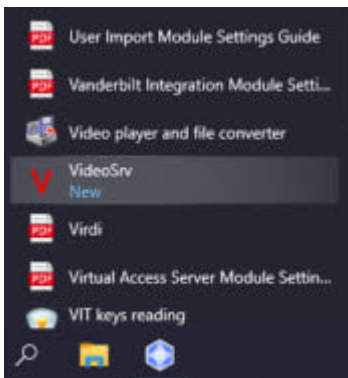
Server of Control is a communication module that is responsible for receiving information from objects. The icon of the module (a red "V" symbol) is shown in the toolbar, in the lower-right corner of the screen.



If you double click on the icon, the window shown in the following figure opens.

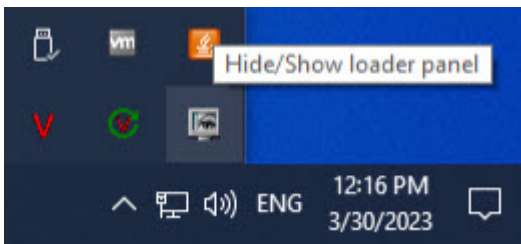


Server of Control starts automatically. If *Server of Control* has been stopped by mistake or any other reason, it can be restarted from **Start – All programs – Axxon PSIM – Monitoring PSIM – VideoSrv** menu.

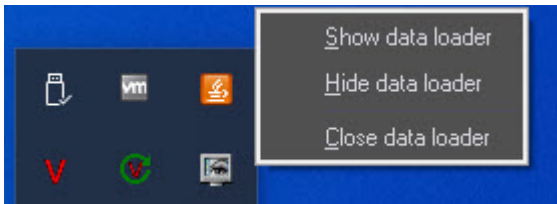


11.2 Data loader

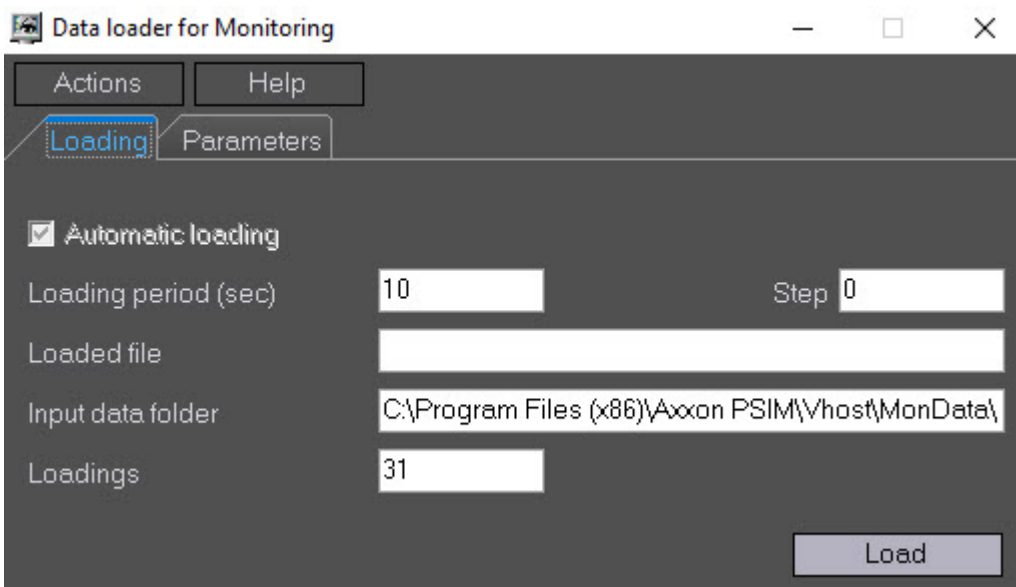
Server of Control creates files that contain object status information and puts them in the exchange folder. The files are then loaded from the folder to the database by the *Data loader for Monitoring* module. The icon of the module (a "monitor" symbol) is shown in the toolbar, in the lower-right corner of the screen.



If you right-click on this icon, a context menu opens.



If you select the **Show data loader** menu item, the **Data loader for Monitoring** window opens.

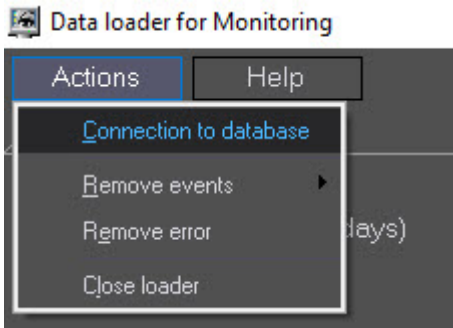


This window contains the following parameters:

1. **Input data folder:** the path to the folder that contains incoming files from *Server of Control*.
2. **Loading period (sec):** the time in seconds between two consecutive loads of incoming files from *Server of Control* into the database. This parameter applies to non-alarm messages. Alarm messages are recorded to the database immediately. Each time after data is loaded into the database, the system sends to the **Log panel** interface component a data update request. The **Log panel** refreshes the information from the database every minute.
3. **Automatic loading:** if you select this check box, data is loaded automatically. Otherwise, the load starts only when you click **Load**.
4. **Loaded file:** this field shows the name of the file being processed, or an error message if an error occurred while loading the data.
5. Message files received from *Server of Control* are processed in several steps. The current step is shown in the **Step** field.

11.3 Connecting to the database

To configure the database connection, select the **Connection to database** item in the **Actions** menu.

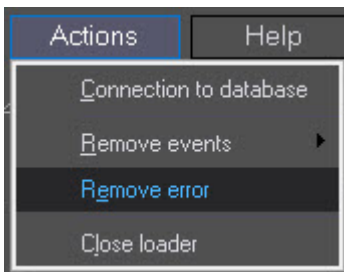


⚠ Attention!

If the location of the **MonitorSSTV** database changes from local to remote, you must set the **UseBulkInsert=0** parameter value of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key; if it changes from remote to local, then set the **1** value (for details, see [Vertical solutions](#); for more information about working with the registry, see [Working with Windows OS registry](#)).

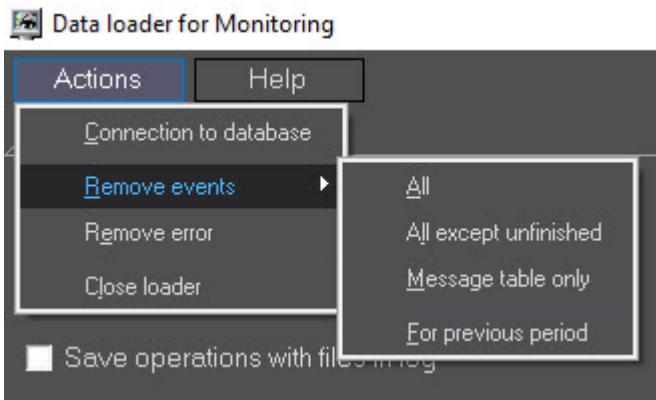
11.4 Removing errors

If there was a failure while loading data, you cannot close the program in a usual way, because the loading process cannot be interrupted. To close the program, use the **Remove error** menu item.



11.5 Removing events from the database

The **Remove events** menu item allows you to clear database. You can use the following modes:

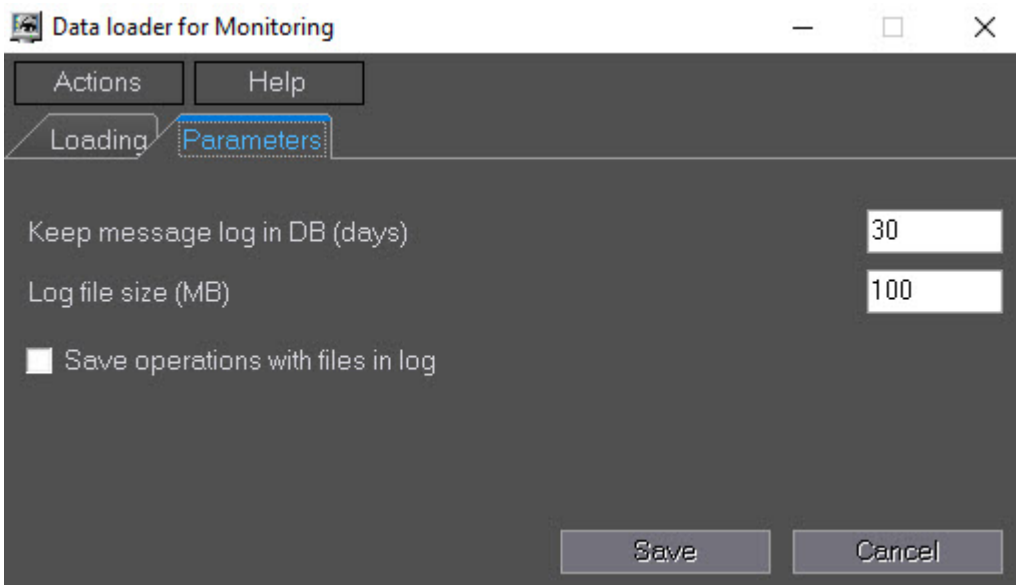


1. **All** – clears the database from alarms completely.
2. **All except unfinished** – clears the database from alarms completely, but leaves the information on the start of the alarm for those alarms that did not yet end (long-term alarms).
3. **Message table only** – clears the message log. This allows you to decrease the size of the database. In **Settings** tab, you can specify how long messages are kept in the log (see [Setting the log storage period](#)).
4. **For previous period** – clears the data for a specified period.

11.6 Setting the log storage period

If you want to specify how long the *Data loader* messages are kept in the log (event log), go to the **Data loader for Monitoring** window and then to the **Parameters** tab.

The data loader's event log is stored in the <Axxon PSIM software installation folder>\VHost\MONITOR\LOADER\LoaderSSTV_L_M.log, where M is a month.



1. **Keep message log in DB (days)**: you can specify for how long will the data be kept in the **MonitorSSTV** database tables.
2. **Log file size (MB)**: you can specify the file size for the data loader's event log (in megabytes). After this limit is reached, the log file is archived.
3. **Save operations with files in log**: this allows you to save details for the data loader's file operations in the data loader's event log.

11.7 Configuring automatic video clips loading

To enable the automatic video clips loading, set the **FileQueryEnable=1** parameter value of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key and for the **FileQueryPath** parameter, specify the exchange directory with the external system (see [Vertical solutions](#); for more details on working with the registry, see [Working with Windows OS registry](#)). Restart the computer to ensure the changes are applied.

Note

By default, the **C:\Query** directory is specified in the **FileQueryPath** parameter.

Attention!

If you enable the automatic video clips loading simultaneously on the side of the *Server of Control* and on the *Additional workplace*, then you must specify the **FileQueryPath** parameter that is within them in a way so that it indicates different directories.

Note

When you start the *videosrv.exe* communication module at the *Server of Control* side, the directory specified in the **FileQueryPath** parameter is automatically created with the following subdirectories:

In—the directory for request files;

In\Work—the valid directory for request files;

OutSuccess—the directory in which the request file is placed if a video is successfully loaded;

OutError—the directory in which the request file is placed if this file is incorrect or not all required parameters are specified;

OutFail—the directory in which the request file is placed if this file is correct but you failed to load a video for an unknown reason.

Attention!

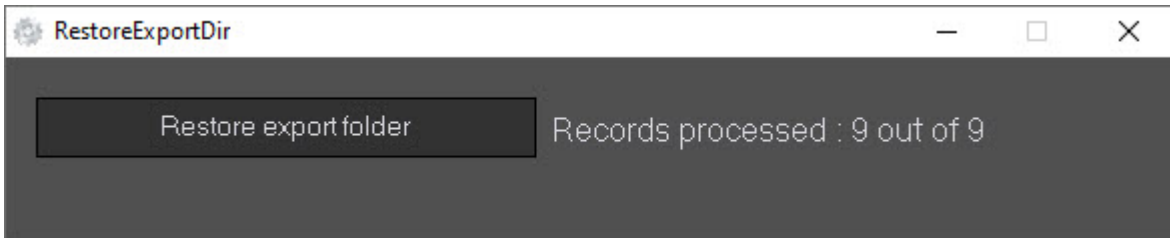
You must manually create the exchange directory with the external system specified in the **FileQueryPath** parameter along with all subdirectories mentioned above on the *Additional workplace*.

11.8 Specifying the export directory

The export directory is automatically created on the *Server of Control* and on the *Central Server of Control* to save all requested frames and video fragments. By default, the export directory is located at *DISK:\Export* path, where DISK is the drive on which the operating system is installed. You can change the path to this directory using the **ExportPath** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key (see [Vertical solutions](#); for more information on working with the registry, see [Working with Windows OS registry](#)). Then the *Monitoring reports* and *Search in archive* modules can work with this data storage.

If necessary, you can configure saving frames and video fragments in the Monitoring PSIM database on the *Server of Control* (**MonitorSSTV**) and the *Central Server of Control* (**ServerSSTV**) instead of the export directory. For this, you must set the **KeepVideoDataInBase** parameter of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key equal to the number of days of storage in the database (see [Vertical solutions](#); for more information on working with the registry, see [Working with Windows OS registry](#)). The data is stored in the **video_data** table.

To restore data from the Monitoring PSIM database to the export directory, use the RestoreExportDir.exe utility that is installed on the *Server of Control* and on the *Central Server of Control* at the <Axxon PSIM installation directory>\Vhost\SYSTEM path. To start restoring data, click the **Restore export folder** button.



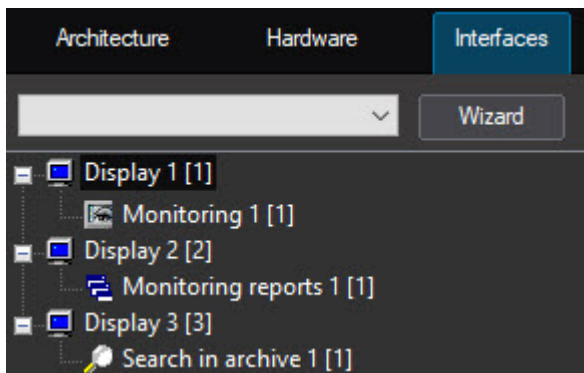
12 Configuration of the Monitoring PSIM interface

12.1 General information about the Monitoring PSIM interface

The *Monitoring PSIM* interface is accessible through the following interface elements

1. **Monitoring.**
2. **Monitoring reports.**
3. **Search in archive.**

These objects are created based on the **Display** object, in the **Interfaces** tab of the **System settings** dialog box. It is recommended to create these objects on the basis of different **Display** objects.



Interface objects are available at the following *Monitoring PSIM* installation types: *Server of control*, *Additional workplace*.

Note.

Operations with interface objects are described in the [Monitoring PSIM: Operator's Guide](#) document.

12.2 Configuring the Monitoring interface object

Attention!

Before you create the **Monitoring** interface object, you must create and configure the **Server Of Control** object (see [Creating necessary Server Of Control objects](#)).

To configure the **Monitoring** object, do the following:

1. Go to the settings panel of the **Monitoring** object.

The screenshot shows the configuration interface for a Monitoring object. It includes sections for alarm groups, panel visibility (Owners, Control, Log), panel positioning (X, Y, W, H, Monitor), and a filter by owners table. The 'Control panel' and 'Log panel' are currently checked and set to 100% scaling. The 'Filter by owners' table is empty.

2. Set the checkboxes next to the alarm groups that must be visualized. You can rename the **Extra 1** and **Extra 2** groups of alarms.
3. If you want to display the **Owners panel** component on the screen, set the **Owners panel** checkbox and specify the component coordinates on the monitor screen. From the **Monitor** drop-down list, select the number of the physical monitor the coordinates of which must be specified. You can also set the scaling of objects from 100% to 500%.

Note

If the scaling parameter exceeds 110%, then the high-resolution icons are displayed on the object, and the **Courier New** font is used for the text in the object title; otherwise, **MS Sans Serif** is used.

4. If you want to display the **Control panel** component on the screen, set the **Control panel** checkbox and specify the component coordinates on the monitor screen. From the **Monitor** drop-down list, select the number of the physical monitor the coordinates of which must be specified. You can also set the scaling of objects from 100% to 500%.

Note

If the scaling parameter exceeds 110%, then the high-resolution icons are displayed on the object, and the **Courier New** font is used for the text in the object title; otherwise, **MS Sans Serif** is used.

5. If you want to display the **Log panel** component on the screen, set the **Log panel** checkbox and specify the component coordinates on the monitor screen. From the **Monitor** drop-down list, select the number of the physical monitor the coordinates of which must be specified.
6. Set the **Non-empty Comment field** checkbox so that the operator comments on an alarm and/or its actions when accepting this alarm. You can view this comment later in the event log, where the operator who received an alarm is also indicated.
7. By default, you can filter objects by the **Alarm** and **Failure** events as well as by the **Connected** and **Disconnected** states. To disable this option, clear the **Use filter by events** checkbox. As a result, the drop-down list for selecting events becomes unavailable.
8. If you want to display the warning indicating that the video stream transmission can create the critical load on the channel when viewing the live video, you must set the **Warning when watching live video** checkbox.
9. If the *Agents Of Control* and *Additional workplaces* modules are in different subnetworks, the *Monitoring PSIM* components aren't combined into the common distributed system in the *Axon PSIM* object tree, and **Data gateway** is used to transmit the live video to *Additional workplaces*, set the **Viewing live video through gateway** checkbox.

 **Note**

For information on how to create and configure the **Data gateway** object, see [Creating and configuring Data Gateway](#).

10. To add the **All cameras of partition of control** item to the **Video image playback** item that allows displaying all the cameras of the selected control partition, set the **Viewing live video from all cameras (add.)** checkbox.
11. In the **Video stream speed** field, enter the number of the video frame rate when viewing the live video or a video from the archive. This parameter is used to limit the data flow between the *Server Of Control* and the *Agent Of Control* (for example, in case the communication channel has low bandwidth).

 **Note**

The **Video stream speed** setting works for the archive video only when you use CamMonitor.ocx of version 4.11.0.1766 and higher.

If the archive is recorded with the H.264 codec and the video stream speed is set to more than **0** frames per second, the archive video is played back only by reference frames.

If the value of the video stream speed is **0**, the live and archive video aren't decimated.

12. From the **Compression** drop-down list, select the required compression rate for the live video.
13. If you want to set the cameras that the user must not see when viewing the live video, do the following:
 - a. Click the **Cameras...** button.

b. The settings window opens:

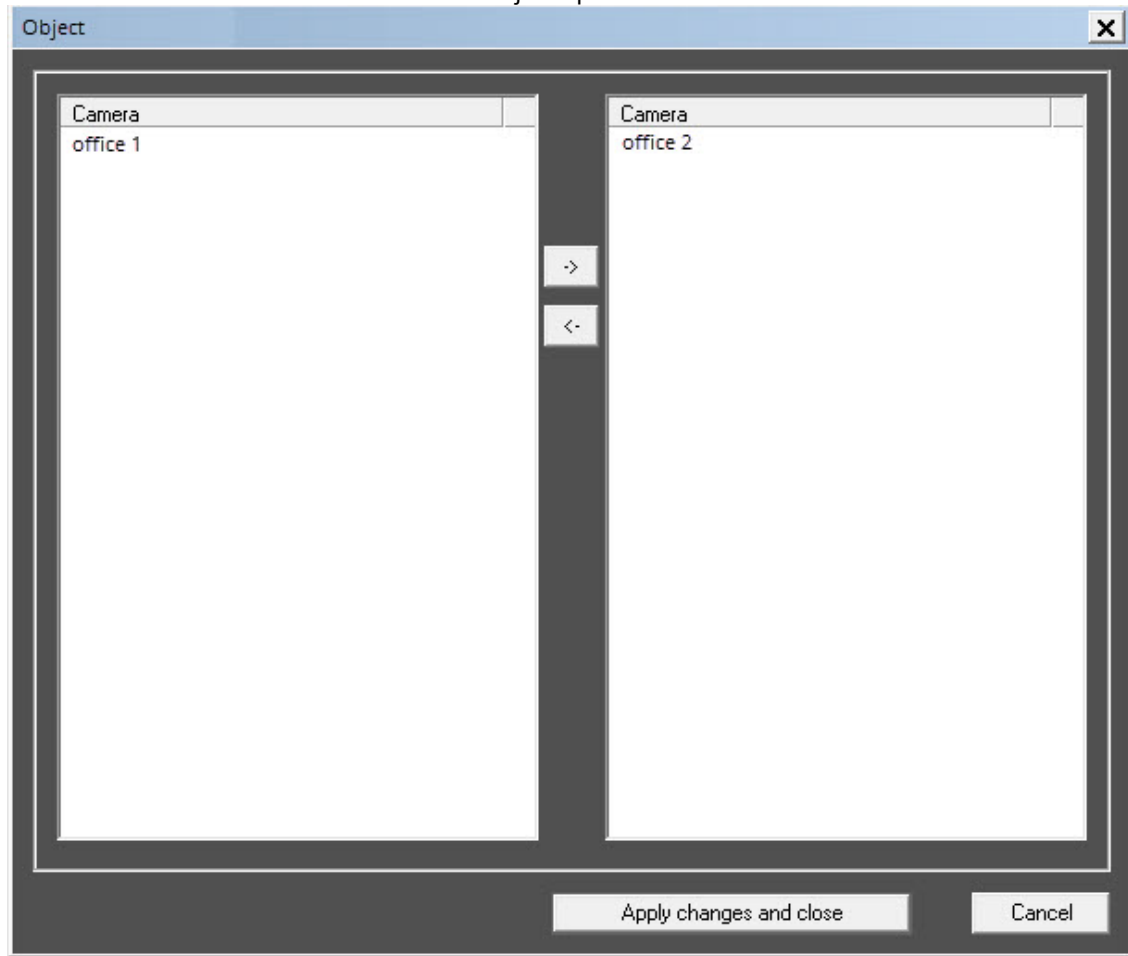
Object	Camera
--------	--------


- c. In the **User** drop-down list, select the user to whom you want to set the restriction.
- d. The **List of cameras prohibited for viewing** field displays the cameras prohibited from viewing for the selected user. To add a camera to the list, select the required object from the **Object** drop-down list and click the **...** button.

Note


The **Object** list contains only those objects that have cameras.

- e. The window with the list of cameras of this object opens:



- f. In the left part of the window, select the cameras that must be prohibited from viewing, and move them to the right part of the window using the  button. Then click the **Apply changes and close** button.

Note

To cancel the prohibition, select the camera in the right part of the window and click the  button.

- g. Click the **OK** button.

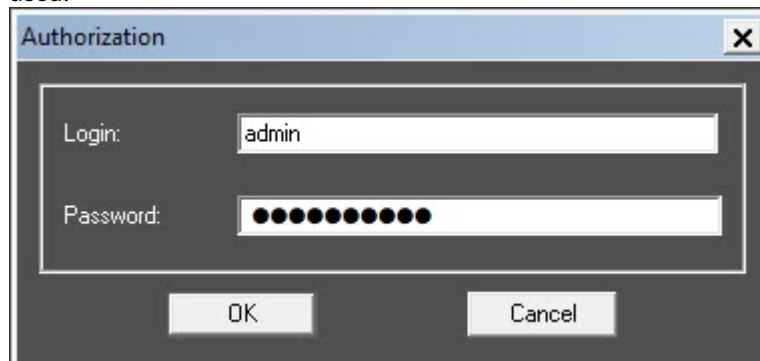
Note

If you use the filter by owners for the **Monitoring** interface object, then its value is taken into account when you configure prohibited cameras.
If the user selects the camera that isn't prohibited from viewing the live video in the **Monitoring** window, they can enter the camera's functional menu and select the camera prohibited from viewing using the **Camera** menu item. To prevent this from happening, you must hide the **Camera** menu item using the MENU_CAMS_DISABLE_OPTION parameter of

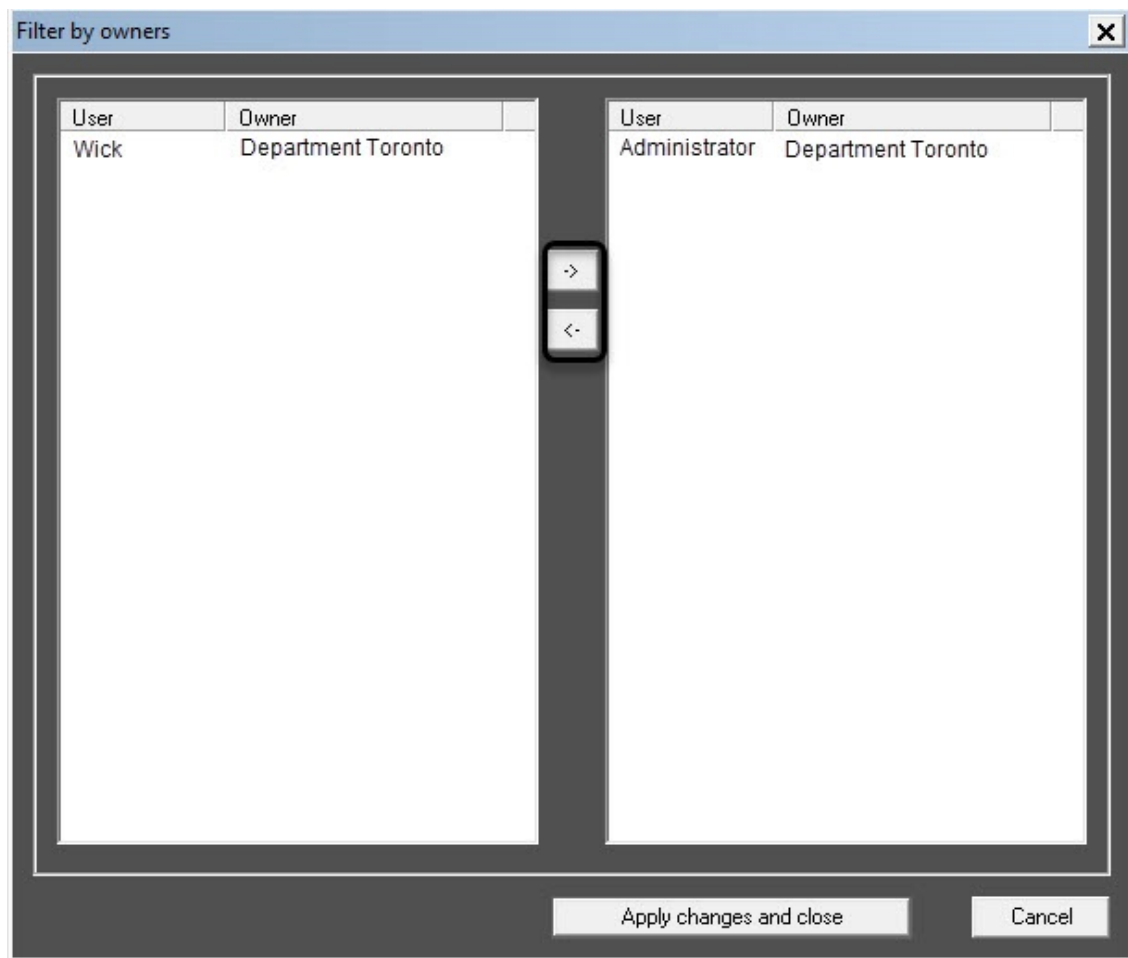
the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\CamMonitor registry key (for more details, see the [Vertical solutions](#) registry key, for information on how to work with the registry, see [Working with Windows OS registry](#)).

When you add a camera to the list of cameras prohibited from viewing, a camera isn't automatically removed from the previously created screens to which it is added.

14. To configure the authorization parameters for getting access to video, you must:
 - a. Click the **Authorization...** button.
 - b. In the **Authorization** window that opens, specify the login and password for viewing the live video and a video from the archive in the **Login** and **Password** fields, respectively. If you don't specify the authorization parameters, then the user rights of the server to which the connection is performed are used.





15. If you want specific owners to be available for specific users on the owners panel, set the filter by owners:
 - a. Click the **Filter...** button.
 - b. The **Filter by owners** window opens. The list of available user-owner pairs is on the left side of the window, the list of selected pairs is on the right one.



Note

The list of owners is set on the control panel, for details, see the section [Operator's Guide: Regulatory and reference information](#). You can configure users and their rights on the **Users** tab of the **System settings** window, for details, see the section [Axxon PSIM Software Package: Configuration of users and permissions](#).

- c. Move the pairs between the lists using the  and  buttons.
- d. When you complete forming the list of user-owner pairs, click the **Apply changes and close** button.
16. Selected pairs of users and owners are displayed in the table.
17. Click the **Apply** button.

Configuring the **Monitoring** interface object is complete.

When you select the screen in *Axxon PSIM* based on which the **Monitoring** object is created, the **Monitoring** interface window is displayed.

12.3 Configuring the Search in archive object

The **Search in archive** interface object is configured as follows:

1. Select the **Search in archive** object in the objects tree. In the right part of the **System settings** dialog box, the settings panel for this object will be displayed:

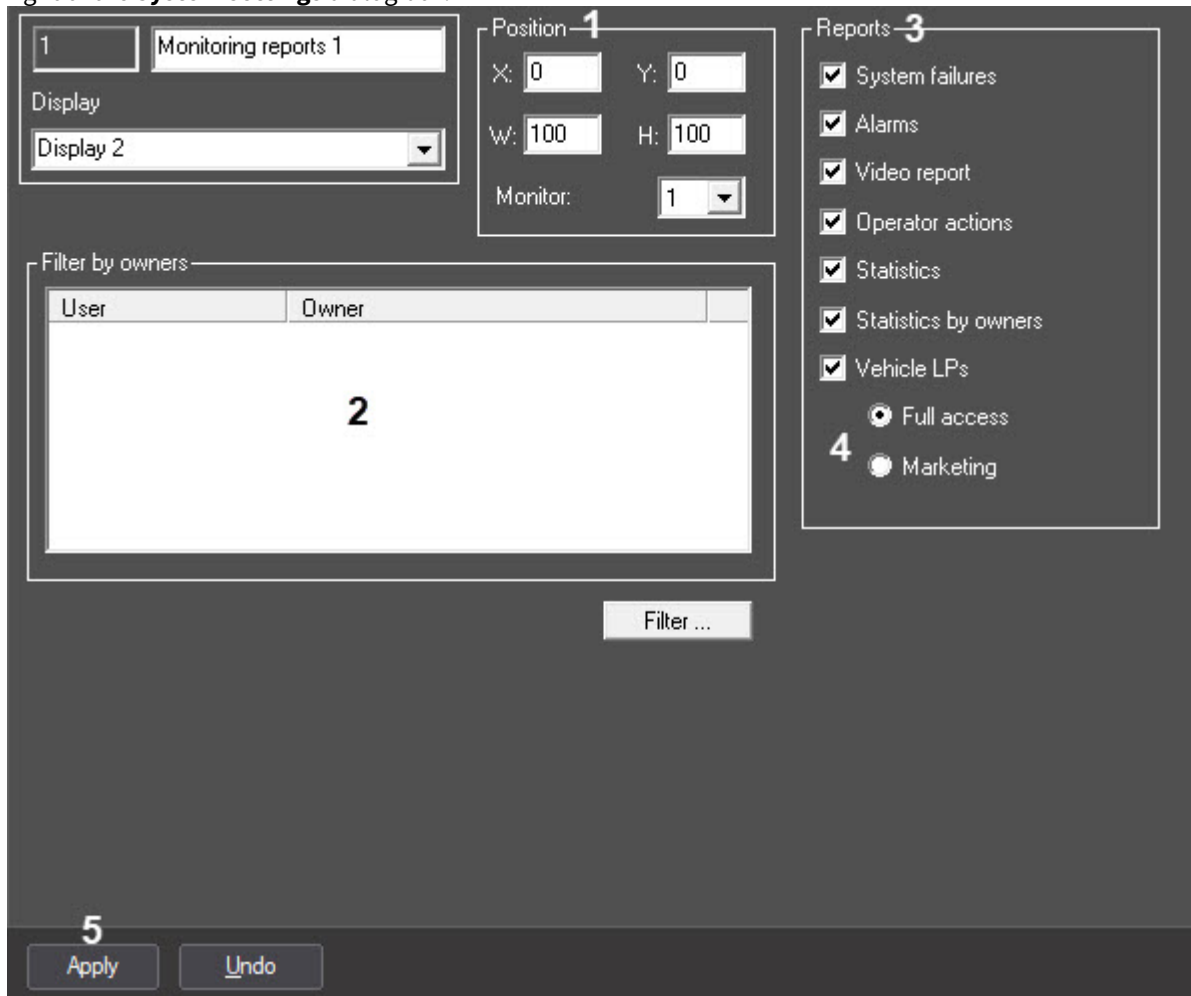
2. From the **Monitor** drop-down list, select the number of the physical monitor, which coordinates should be specified. Specify the **Search in archive** window position coordinates on the screen of the selected monitor (1).
3. Set up a filter by owners (2) by analogy with the **Monitoring** interface object—see [Configuring the Monitoring interface object](#).
4. Click the **Apply** button (3).

When you select the **Display** object on the basis of which the **Search in archive** object was created in *Axxon PSIM*, the **Search in archive** interface window will be visualized (see [Search in archive](#)).

12.4 Configuration of the Monitoring reports object

To configure the **Monitoring reports** object, do the following:

1. Select the **Monitoring reports** object in the objects tree. The settings panel of the object is displayed to the right of the **System settings** dialog box.



2. From the **Monitor** drop-down list, select the number of the physical monitor, which coordinates should be specified. Specify the **Monitoring reports** window position coordinates on the screen of the selected monitor (1).
3. Set the filter by owners similar to the one for the **Monitoring** object (2), see [Configuring the Monitoring interface object](#).
4. By default, all reports are available for the operator. To hide some of the reports, clear the checkboxes next to them in the **Reports** group (3).
5. Select the type of access to the Vehicle LPs reports (4):
 - a. **Full access**: all Vehicle LPs report types are available.
 - b. **Marketing**: only the average time span at the gas station and number of vehicles reports are available, and the Vehicle LP field is restricted to three letters and a % character.
6. Click the **Apply** button (5).

Configuration of the **Monitoring reports** object is completed.

13 Configuring audio calls from the Monitoring interface

13.1 General information

Audio calls are supported between operators in a distributed configuration on the *Server Of Control/Agent Of Control* side. Audio calls are made using the **SIP-terminal** object. Physical SIP devices are not required.

13.2 Configuring audio calls from the Monitoring interface

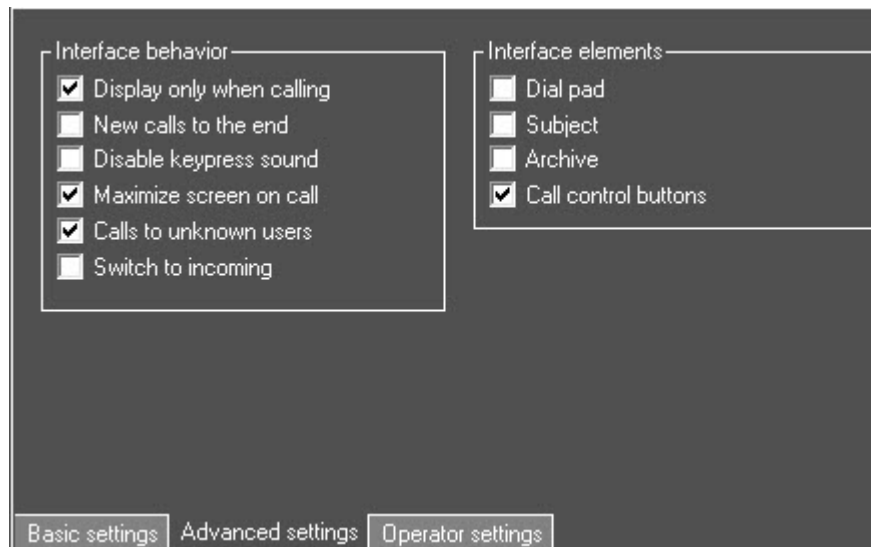
Configure audio calls from the **Monitoring** interface as follows:

1. At the *Server Of Control* and *Agent Of Control* side:
 - a. Create the **Audio card** object with the **Microphone** child object (see [Audio subsystem configuration](#)).
 - b. Create the **Audio playback card** object with the **Speaker** child object (see [Configuring audio playback](#)).
2. At the *Server Of Control* side:
 - a. Create the **SIP-terminal** object as a SIP-server in *Axxon PSIM* (see [Configuring SIP-terminal](#)).
 - b. On the basis of the **SIP-terminal** object, create two **SIP-operator** child objects and for each of them specify the corresponding operator identification number ([Configuring SIP-operators on the SIP server of Axxon PSIM](#)).
 - c. On the basis of the **SIP-terminal** object, create the **Address book** object and select the previously created SIP-operators (see [Configuring address book of SIP-terminal](#)).
 - d. On the settings panel of each **SIP-operator**, select a previously created address book (see [Configuring SIP-operators on the SIP server of Axxon PSIM](#)).
 - e. Create the **SIP-panel 1** interface object on the same **Display 1** object on which the **Monitoring** interface object was created (see [Configuring the SIP-panel interface object](#)).

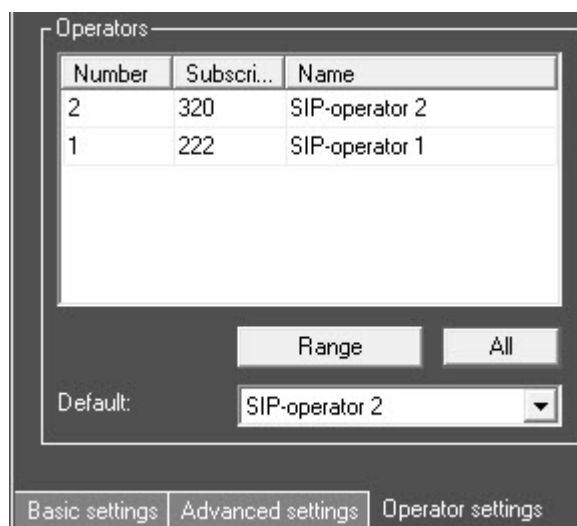
Note

Recommended coordinates of the SIP-panel: X = 40, Y = 40, W = 20, H = 21.

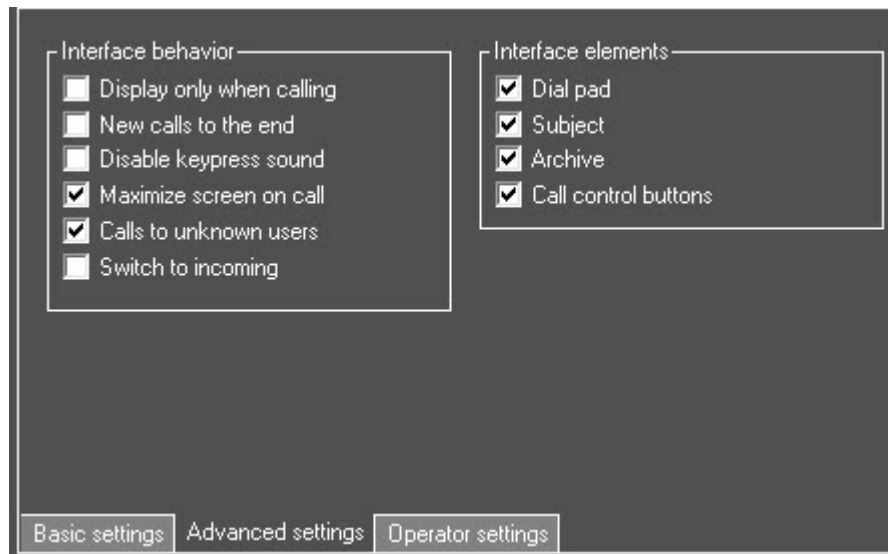
- i. On the **Basic settings** tab of the **SIP-panel 1** object, select the **SIP-terminal** as the terminal (see [Basic settings of the SIP-panel interface object](#)).
- ii. On the **Advanced settings** tab of the **SIP-panel 1** object, set the checkboxes as shown in the figure below (see [Advanced settings of the SIP-panel interface object](#)).



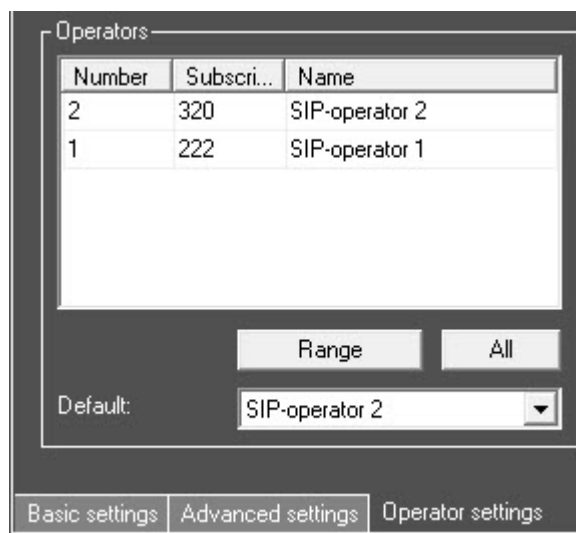
- iii. On the **Operator settings** tab of the **SIP-panel 1** object, configure the list of SIP-operators as shown in the figure below (see [Operator settings of the SIP-panel interface object](#)).



- f. Create the **Display 2** object, which will be displayed only on the *Agent Of Control* side (see [Assigning the displays to the operator workstations](#)).
- g. Create the **SIP-panel 2** child interface object.
- On the **Basic settings** tab of the **SIP-panel 2** object, select the **SIP-terminal** as the terminal (see [Basic settings of the SIP-panel interface object](#)).
 - On the **Advanced settings** tab of the **SIP-panel 2** object, set the checkboxes as shown in the figure below (see [Advanced settings of the SIP-panel interface object](#)).



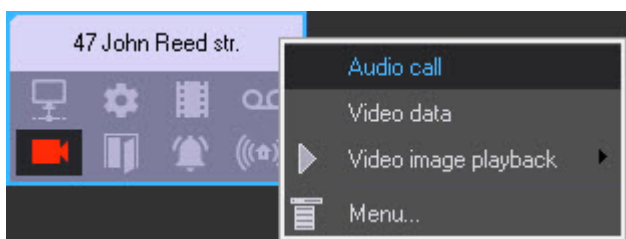
- iii. On the **Operator settings** tab of the **SIP-panel 2** object, configure the list of SIP-operators as shown in the figure below (see [Operator settings of the SIP-panel interface object](#)).



- h. On the settings panel of the **Computer** object, select the speaker and microphone of the SIP-operator (see [Selecting speaker, microphone and camera for SIP-operator](#)).

Configuring audio calls from the **Monitoring** interface is now complete.

As a result, the **Audio call** item will appear in the context menu of the object in the **Monitoring** interface. When you select this menu item, an audio call will be made to the operator who is on the computer with the corresponding object.

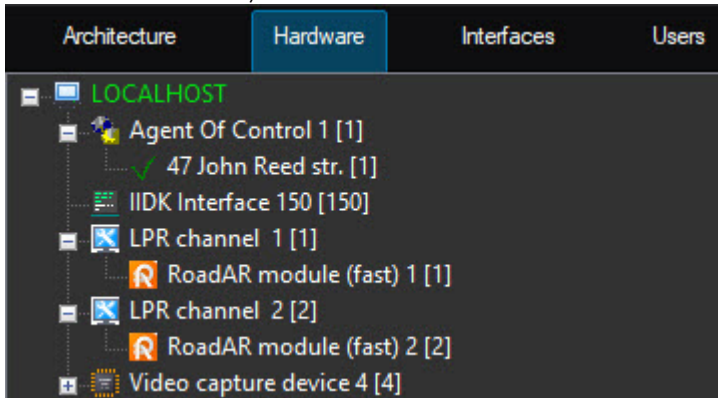


14 Configuring special operation mode joint with Auto PSIM

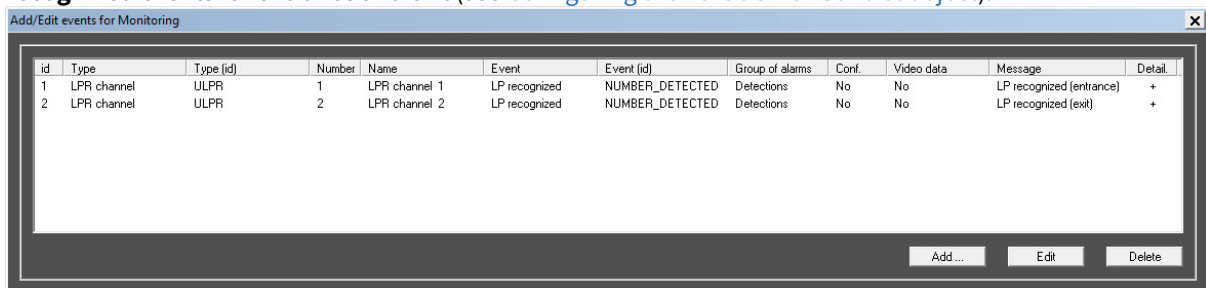
14.1 Configuration on the Agent Of Control side

Configure special operation mode on *Agent Of Control* as follows:

1. Create and configure the **Agent Of Control** object on the **Hardware** tab (see [Configuring Agent of Control](#)).
2. Create and configure the **LPR channel** object on the **Hardware** tab (see [Auto PSIM Software Package: Administrator's Guide](#)).



3. Create the **Partition Of Control** object on the basis of the **Agent Of Control** object, then add to it the **LP recognized** events for entrance and exit (see [Configuring the Partition Of Control object](#)).



4. Create the **ULPR** section in the Windows registry if it is not created yet (see [Vertical solutions](#). For more details on how to operate the registry, see [Working with Windows OS registry](#)).
5. In the **ULPR** section of the Windows registry, create the **ULPRspecialProcessing** string parameter and set its value to **1** (see [Vertical solutions](#). For more details on how to operate the registry, see [Working with Windows OS registry](#)).
6. In the **ULPR** section of the Windows registry create the **PlaceOfRecognitionN** string parameter, where **N** is the ID of the **LPR channel** object.
This parameter corresponds to the point of recognition. Value **1** corresponds to entrance. Value **2** corresponds to exit (see [Vertical solutions](#). For more details on how to operate the registry, see [Working with Windows OS registry](#)).



7. In the **ULPR** section of the Windows registry (see step 4) create the **CamOfRecognitionN** string parameter, where **N** is the ID of the **LPR channel** object. The value in this key should correspond to the ID of the **Camera** object specified in the **LPR channel** object settings (see [Vertical solutions](#). For more details on how to

operate the registry, see [Working with Windows OS registry](#)).



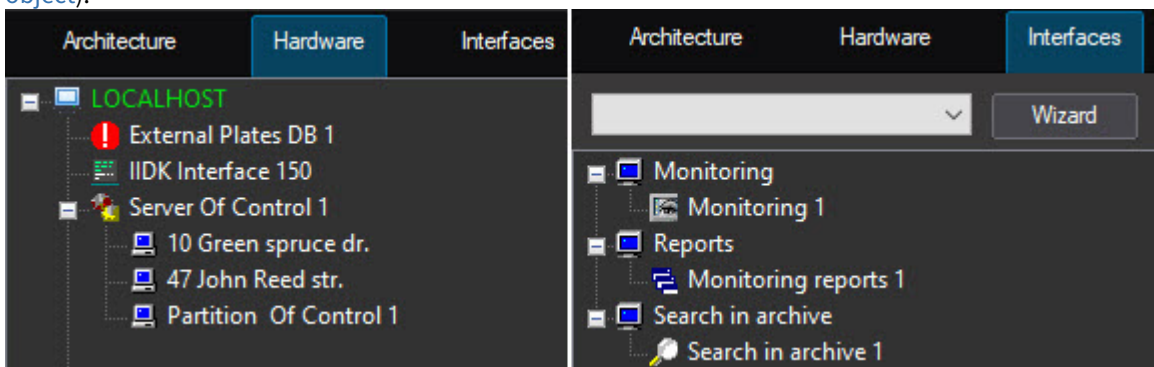
- Restart the computer to apply the changes.

Configuring the special operation mode on the *Agent Of Control* side is now completed.

14.2 Configuration on the Server Of Control side

Configure the special operation mode on the *Server Of Control* side as follows:

- Create and configure the **Server Of Control** object on the **Hardware** tab (see [Configuring Server of Control](#)).
- Create and configure one or several **External Plates DB** objects on the **Hardware** tab (see [Connecting and setting up of the external LP number database](#)).
- Create and configure the **Monitoring** object on the **Interfaces** tab (see [Configuring the Monitoring interface object](#)).



- Create the **ULPR** section in the Windows registry if it is not created yet (see [Vertical solutions](#). For more details on how to operate the registry, see [Working with Windows OS registry](#)).
- In the **ULPR** section of the Windows registry, create the **ULPRspecialProcessing** string parameter and set its value to **1** (see [Вертикальные решения](#). For more details on how to operate the registry, see [Working with Windows OS registry](#)).
- Restart the computer to apply the changes.

As a result, the **Info on vehicle license plates** button becomes available in the **Log panel** and **Details** window of the **Monitoring** interface. The **License plate search** window opens when you click this button (see [Viewing recognized LPs](#)).

ID	Name	Cameras	Disk_GB	Info on vehicle license plates	First record	Disks temp.	Memory_MB	Work duration	Software version	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM
550016	47 John Reed str.	4	474	1 192.168.1.2	2/10/2023	35 °C	11359	0 01:01	1.0.56	-	-	-	-	-
550017	10 Green spruce dr.	1	474	1 192.168.1.2	3/16/2023	35 °C	11359	0 01:01	1.0.56	-	-	-	-	-
550018	Partition Of Control 1													

Object code	ID	Name	Cameras	Disk_GB	Disks	Info on vehicle license plates	brd	Disks temp.	CPU usage, %	Memory_MB	Total memory_MB	Work duration	Software version	Core version
1	550016	47 John Reed str.	4	474	1	192.168.1.2	2/10/2023	35 °C	18	11359	16328	0 01:01	1.0.56	1.0.0.488
2	550017	10 Green spruce dr.	1	474	1	192.168.1.2	3/16/2023	35 °C	18	11359	16328	0 01:01	1.0.56	1.0.0.488
3	550018	Partition Of Control 1												

 **Note**

By default, the **LP found in the database** alarm is generated for the **Entrance** recognition point only. In order to generate alarm both on **Entrance** and **Exit** points, in the **ULPR** section of the Windows registry, create the **AlarmMsgOne** string parameter and set its value to **0** (see [Vertical solutions](#). For more details on how to operate the registry, see [Working with Windows OS registry](#)).

Configuring the special operation mode on the *Server Of Control* side is now completed.

15 The Agent of Control program module for Axxon One

15.1 General description of the Agent of Control program module

Agent of Control is the program module that allows *Monitoring PSIM* to work with *Axxon One*.

Agent of Control of the 1.0.169 version is compatible with *Axxon One* of the version 2.0.12 and higher. On the side of the monitoring center, you must install *Axxon PSIM* of the 1.0.1.1342 version and higher as well as the *Server of Control* module of the 2.0.60 version and higher.

15.2 Installing, repairing, and removing the Agent of Control program module

15.2.1 Description of the Agent of Control distribution package

The *Agent of Control* program module represents the software installation package (distribution package). You can download the latest version of the distribution package on the [AxxonSoft](#) official website.

There are two versions of the distribution package:

1. The standard Windows OS installer, where the user runs the `setup.exe` executable file.
2. The archive with folders for Linux OS which the user must unpack to the target folder.

The distribution package contains all required software components to install the *Agent of Control* program module on the basic computer and allows installing, repairing, and removing the *Agent of Control* program module.

Attention!

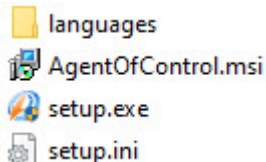
To install, repair, and remove the *Agent of Control* program module, you must have the administrator rights.

15.2.2 Features of installing, repairing and removing the Agent of Control program module for Windows OS

Installing the Agent of Control program module on Windows OS

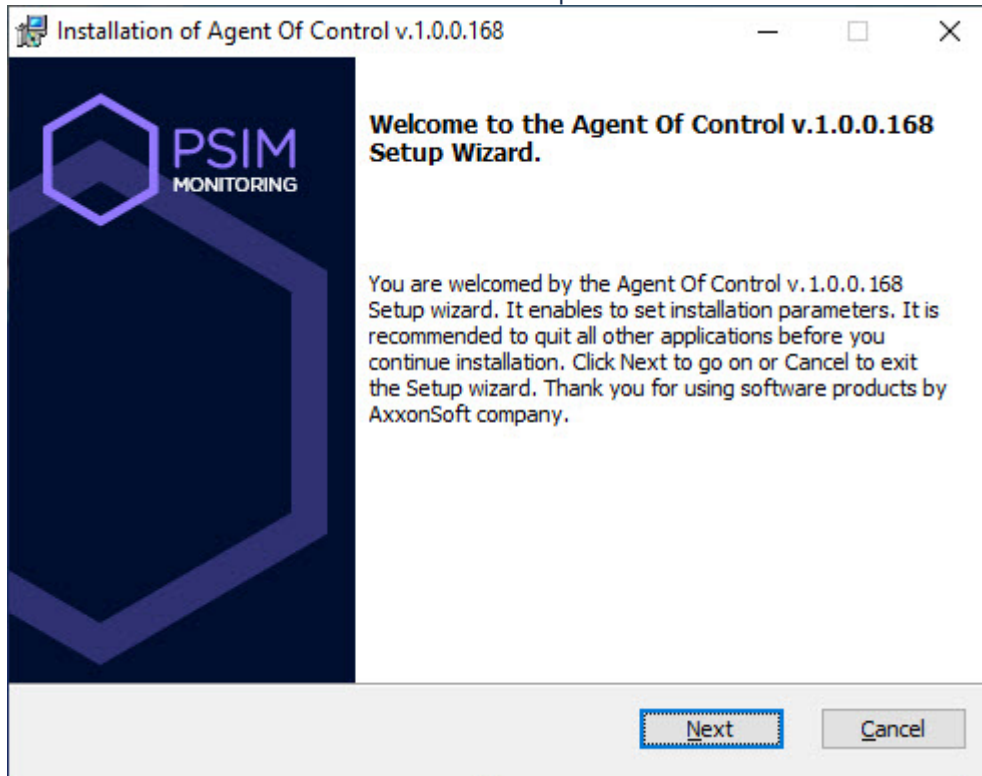
To install the *Agent of Control* program module, do the following:

1. Download and unpack the archive containing the version of the distribution package with installation on Windows OS.

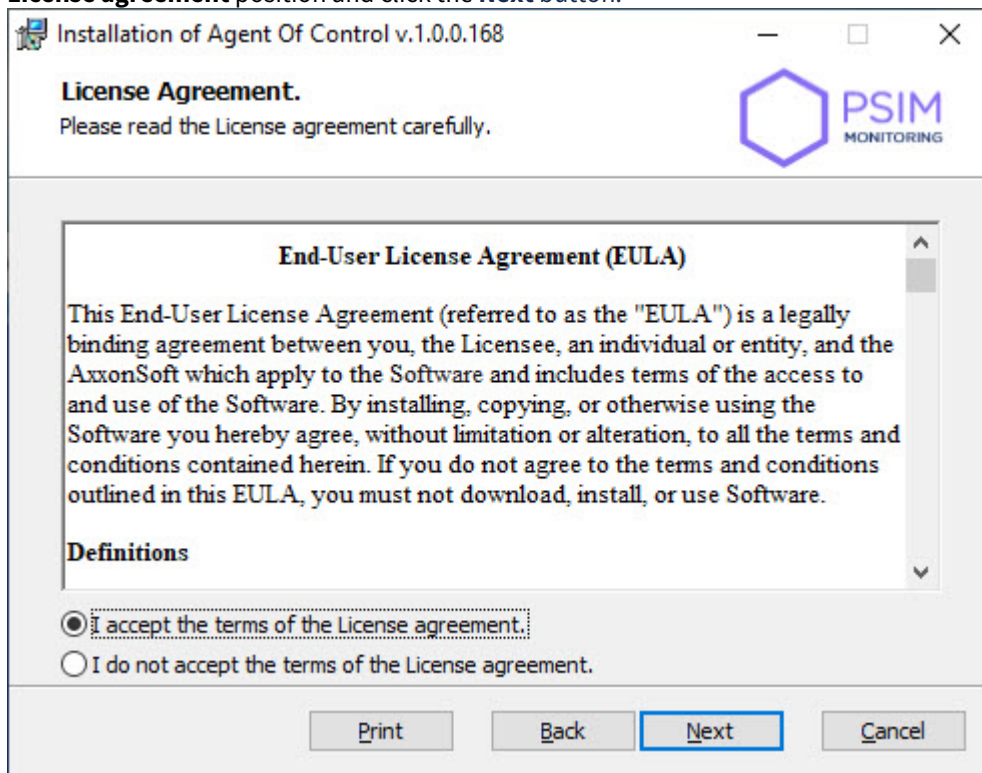


2. Run the `setup.exe` executable file in the root folder of the distribution package.

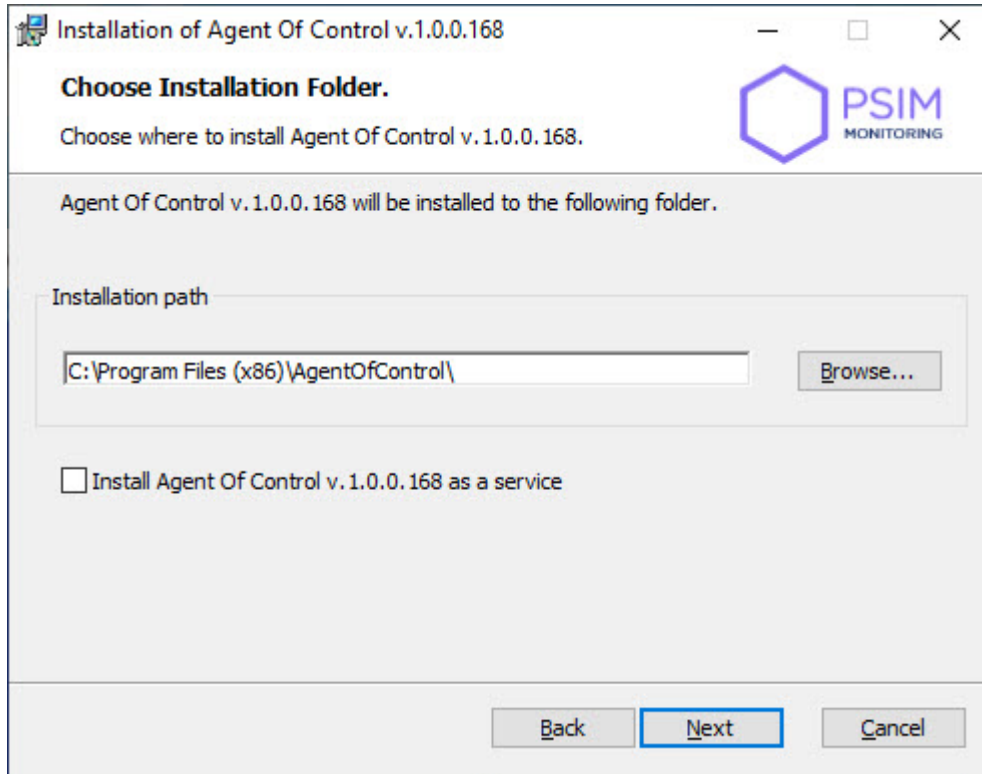
3. Click the **Next** button to continue the installation process.



4. Read carefully the terms of the license agreement, then set the switch to the **I accept the terms of the License agreement** position and click the **Next** button.



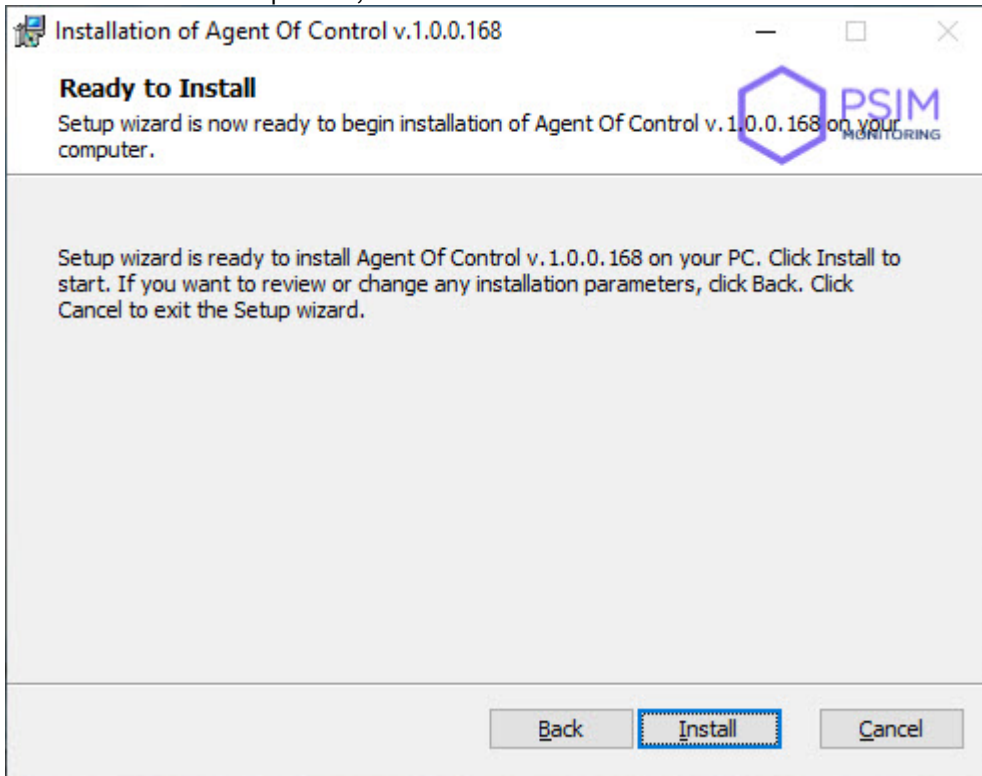
5. The window for selecting the installation path of the *Agent of Control* program module opens. By default, the *Agent of Control* program module is installed to C:\Program Files (x86)\AgentOfControl. To change the installation path, click **Browse...**, and in the window that opens, select or create another folder and click the **OK** button.



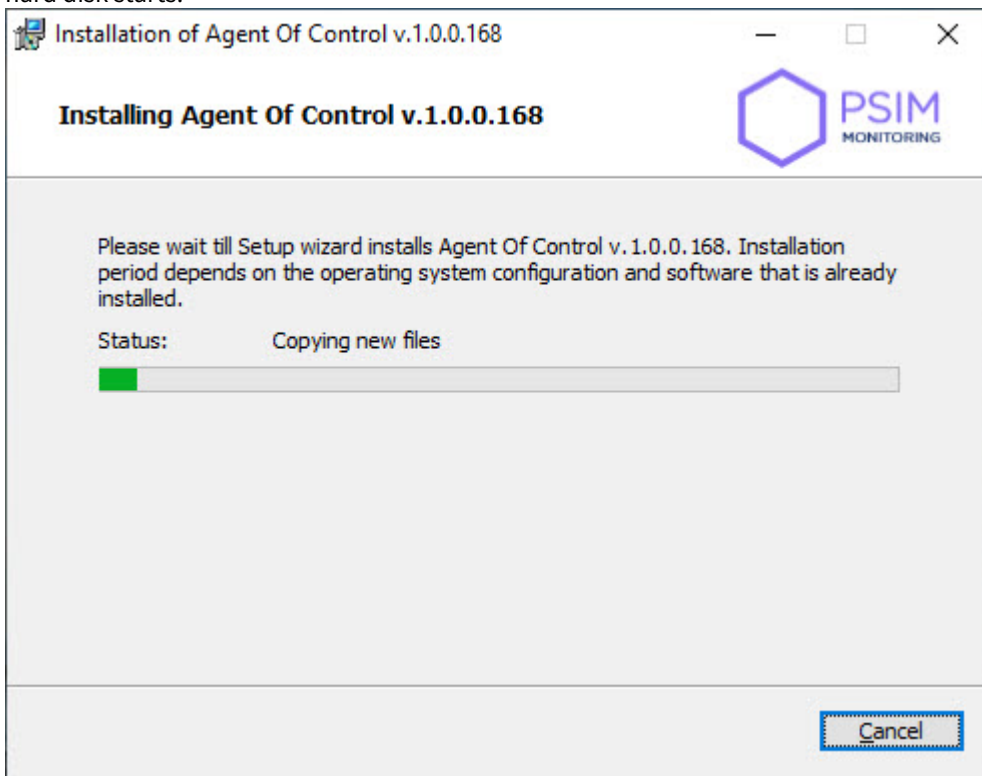
If you want to start the *Agent of Control* program module as a service, set the **Install Agent Of Control as a service** checkbox. The system creates the service with the **AxxonSoft Monitoring VHostRecover** name.

6. After that, click the **Next** button.

7. To start the installation process, click the **Install** button.

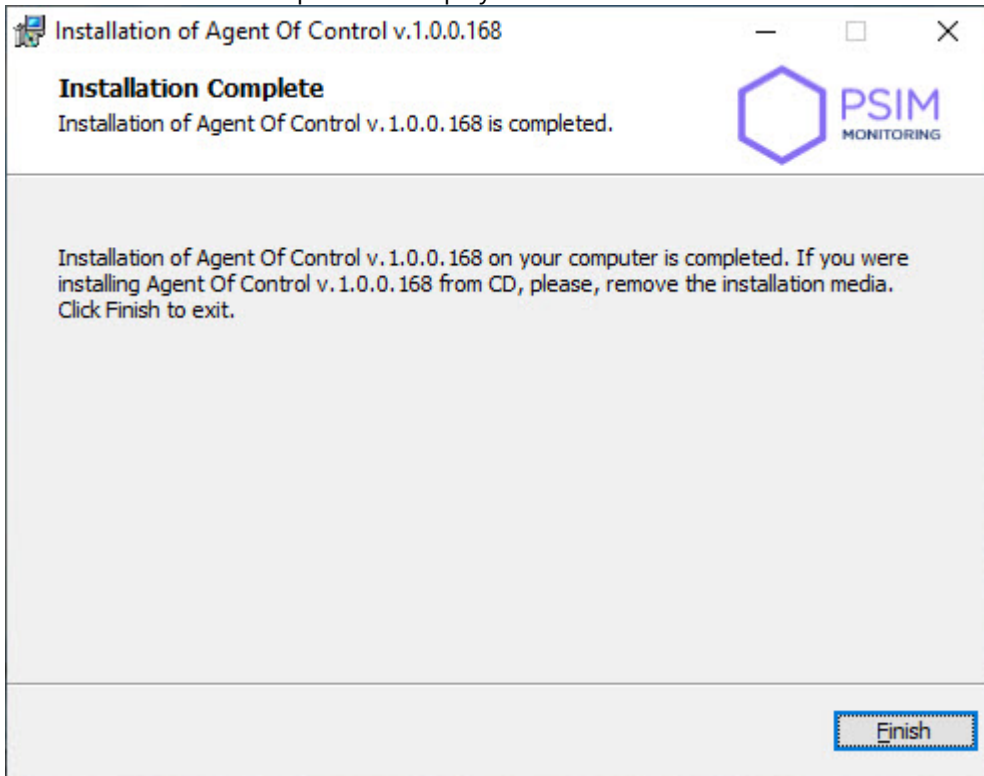


As a result, the process of copying the required components of the *Agent of Control* program module to the hard disk starts.



After you successfully copy the components of the *Agent of Control* program module, the message indicating

the end of the installation process is displayed. Click the **Finish** button.



⚠ Attention!

For proper operation, copy the license.key license file to the AgentOfControl folder.

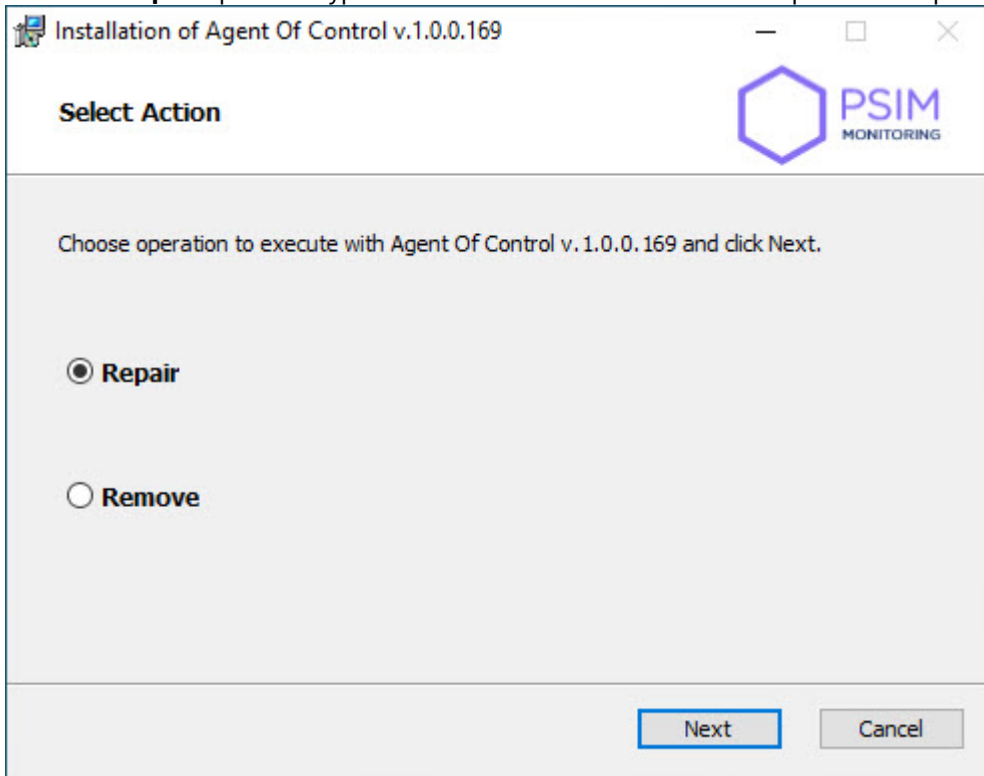
Installing the *Agent of Control* program module on Windows OS is complete.

Repairing the Agent of Control program module

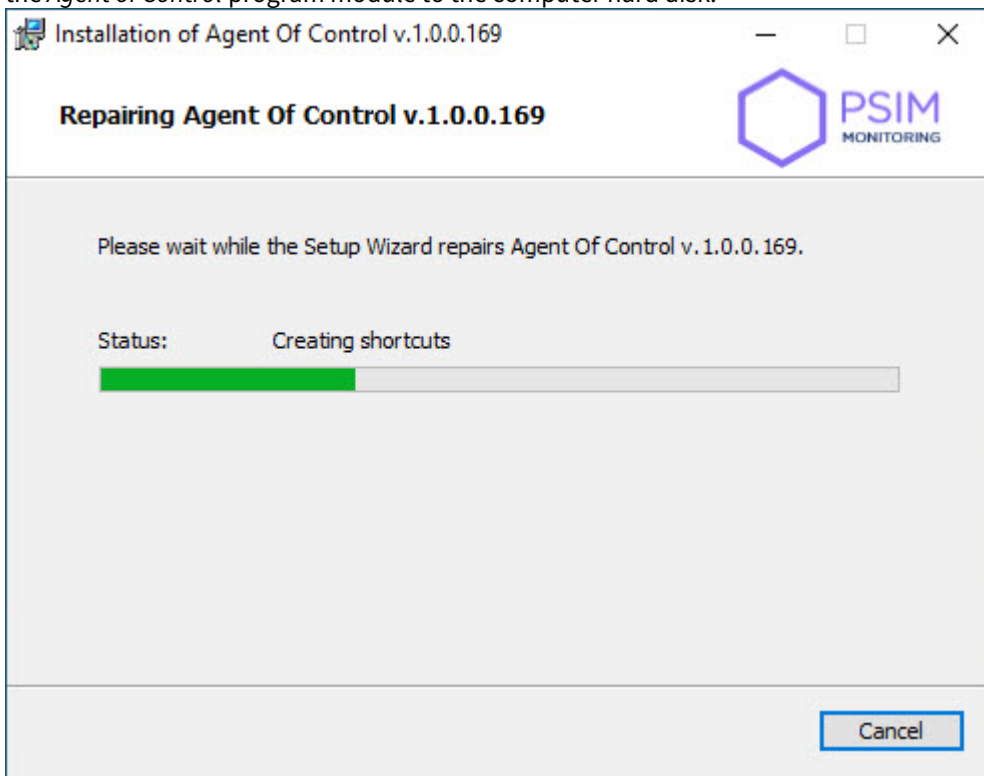
To repair the *Agent of Control* program module, do the following:

1. Run the setup.exe executable file in the root folder of the distribution package.

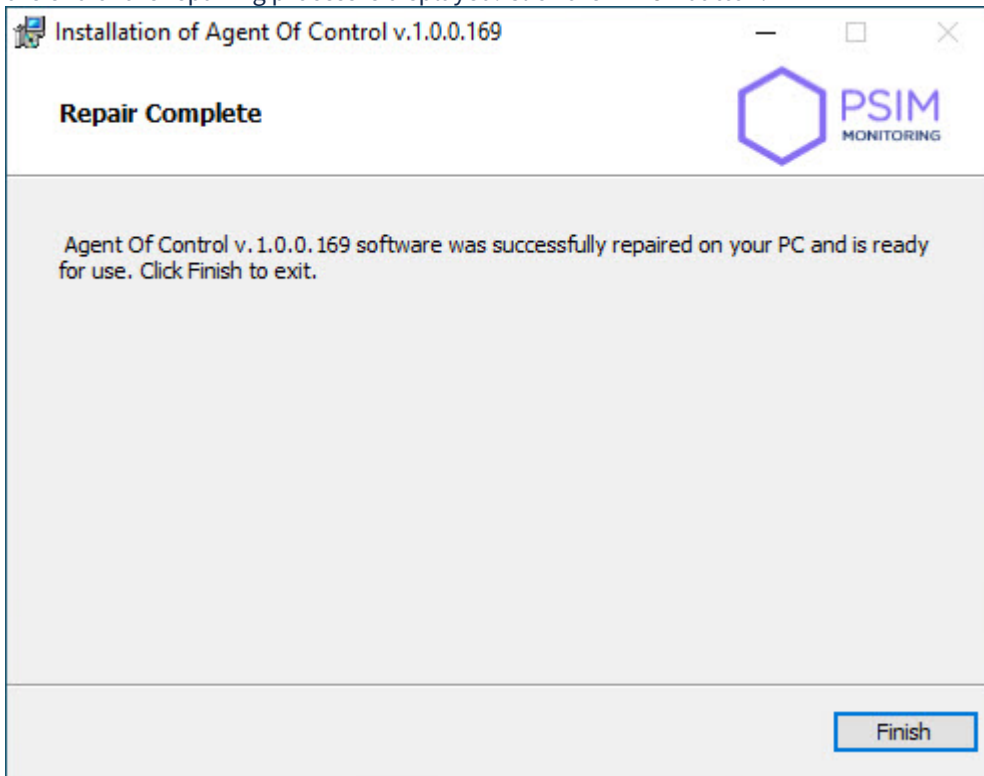
2. Select the **Repair** operation type and click the **Next** button to start the process of repairing.



As a result, the system runs the check of the installed components and starts copying the required files of the *Agent of Control* program module to the computer hard disk.



3. After you successfully copy the components of the *Agent of Control* program module, the message indicating the end of the repairing process is displayed. Click the **Finish** button.



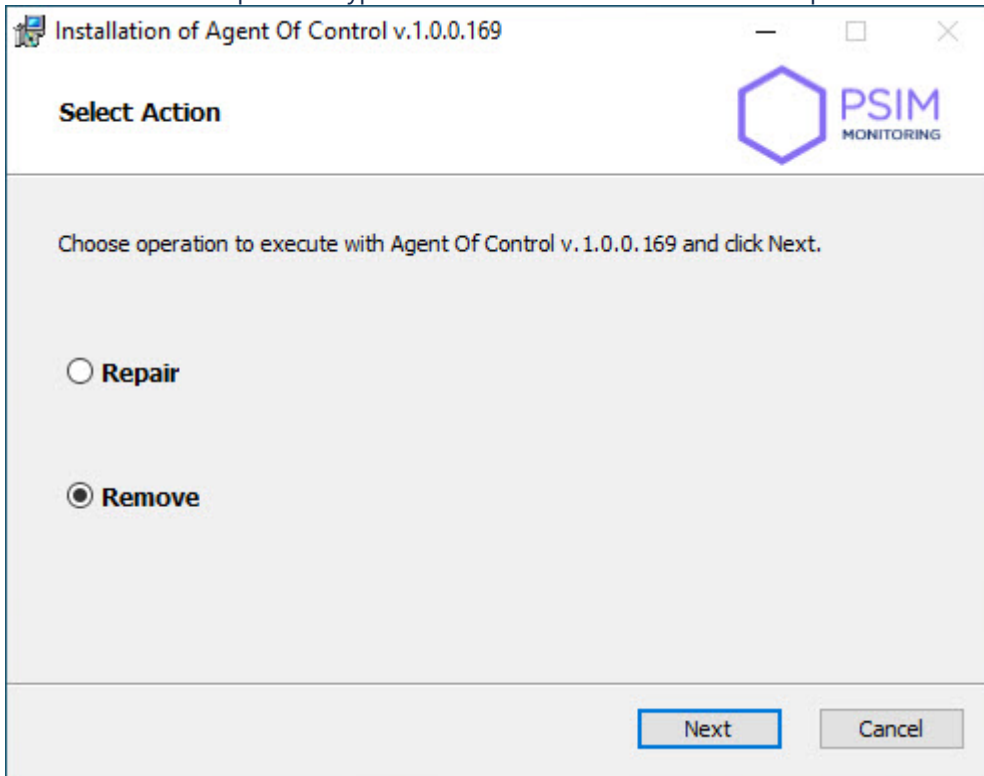
Repairing the *Agent of Control* program module is complete.

Removing the Agent of Control program module

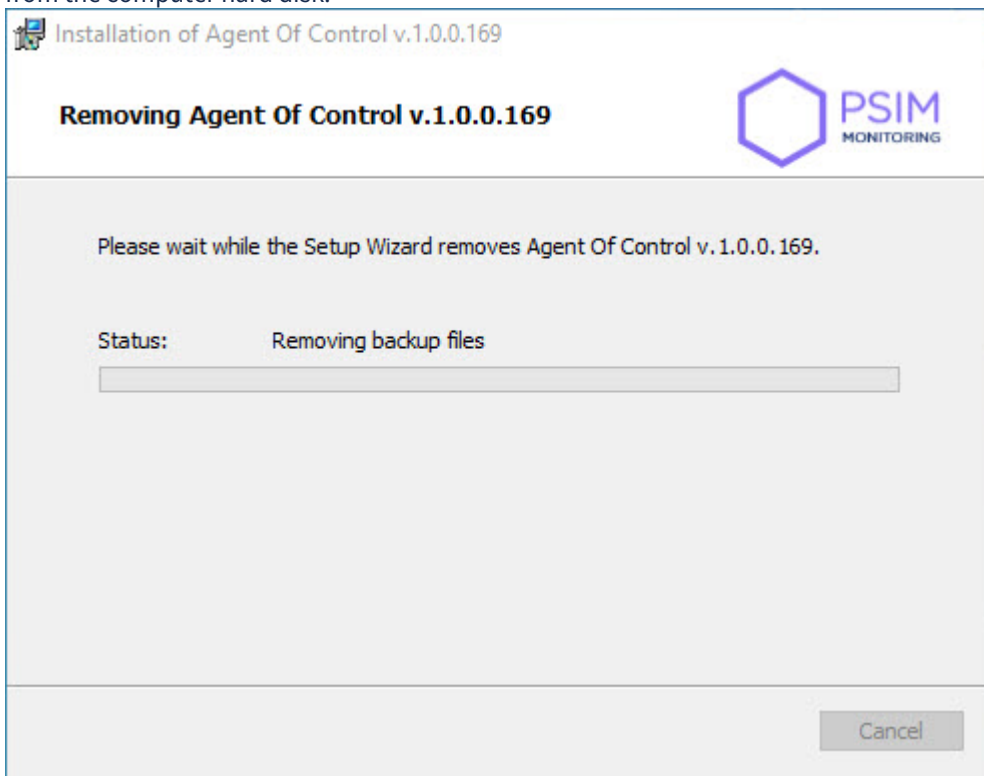
To remove the *Agent of Control* program module, do the following:

1. Run the setup.exe executable file in the root folder of the distribution package.

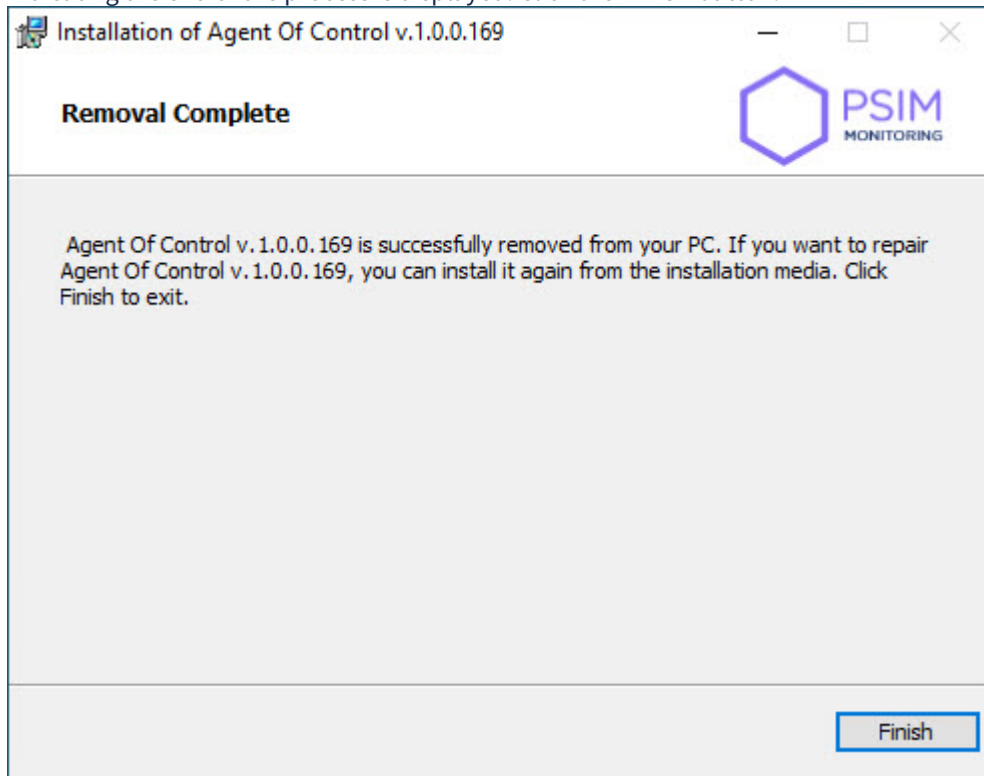
2. Select the **Remove** operation type and click the **Next** button to start the process of removing.



As a result, the system starts removing the installed components of the *Agent of Control* program module from the computer hard disk.



3. After you successfully removing the components of the *Agent of Control* program module, the message indicating the end of the process is displayed. Click the **Finish** button.

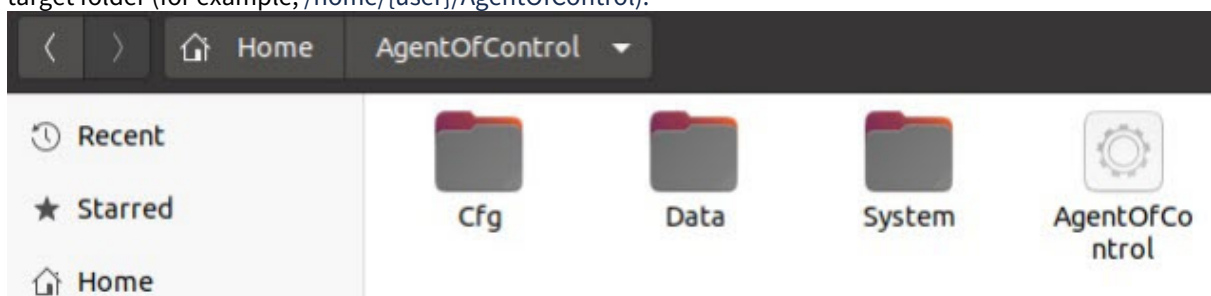


Removing the *Agent of Control* program module is complete.

15.2.3 Features of installing the Agent of Control program module on Linux OS

To install the *Agent of Control* program module, do the following:

1. Download and unpack the archive containing the version of the distribution package for Linux OS to the target folder (for example, /home/{user}/AgentOfControl).



2. Copy the license.key license file to the AgentOfControl folder.

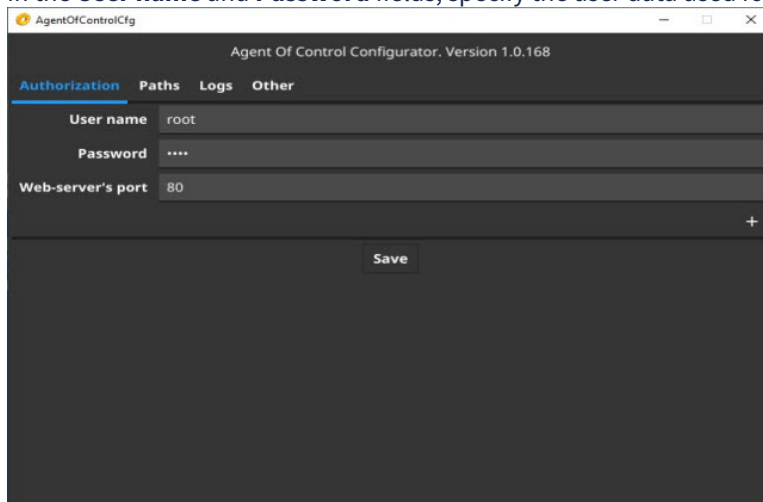
Installing the *Agent of Control* program module on Linux OS is complete.

15.3 Configuring the Agent of Control program module

15.3.1 Configuring the Agent of Control program module on Windows OS using the configurator

You can configure the *Agent of Control* program module using the configurator:

1. Run the configurator located in the `AgentOfControl/Cfg/AgentOfControlCfg` path.
2. In the **User name** and **Password** fields, specify the user data used for its authorization in *Axxon One*.



3. Click the **Save** button.
4. To create the new section of control, click the plus in the lower right part of the screen.
5. In the displayed **Identificator** and **Name** fields, specify the ID and name of the control section to register on the *Server of Control* module at the first connection, respectively.

Agent Of Control Configurator. Version 1.0.168

Authorization Paths Logs Other

User name root

Password ****

Web-server's port 80

47 John Reed str. + ...

Main settings Communication Cameras

Identificator 550016

Name 47 John Reed str.

Save

- Go to the **Communication** tab, and in the **TCP port** and **IP address**, specify the number of the TCP port and the IP address of the *Server of Control* module.

Agent Of Control Configurator. Version 1.0.168

Authorization Paths Logs Other

User name root

Password ****

Web-server's port 80

47 John Reed str. + ...

Main settings **Communication** Cameras

TCP port 7777

IP address 192.168.1.20

DNS name

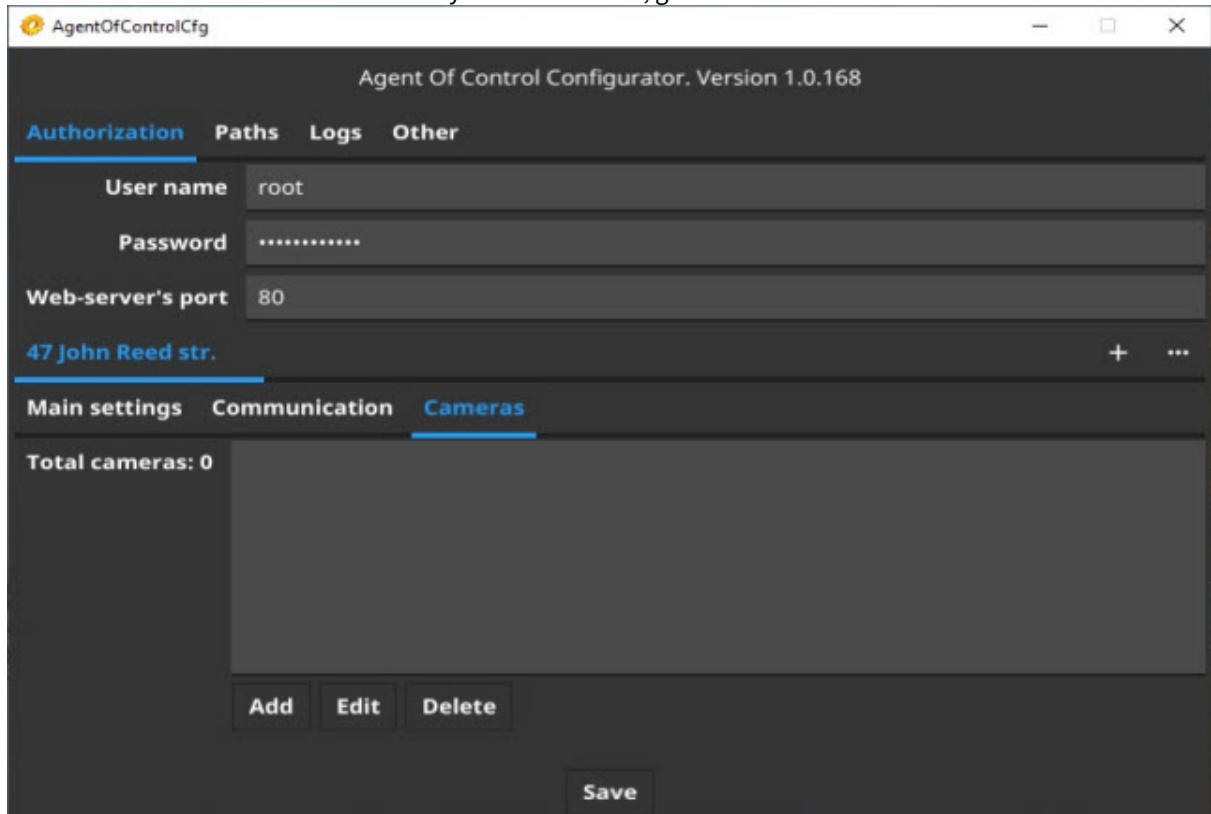
Use DNS instead of IP

Ping frequency (sec) 120

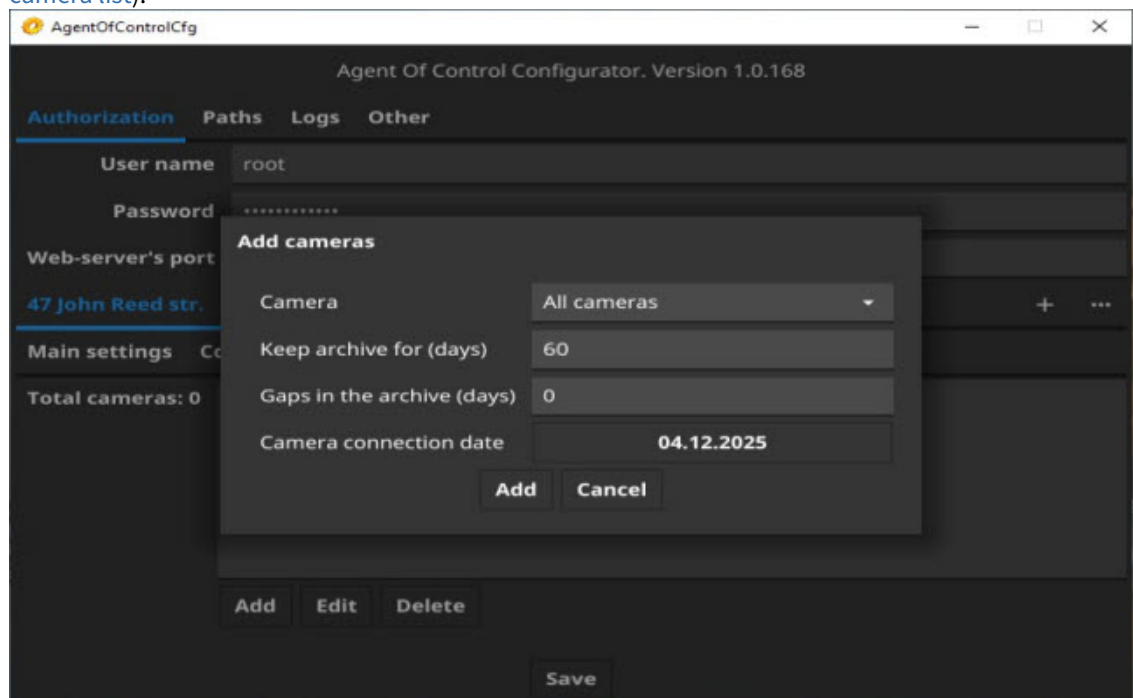
TCP port (UPS) 8889

Save

7. To add cameras whose technical status you want to track, go to the **Cameras** tab.

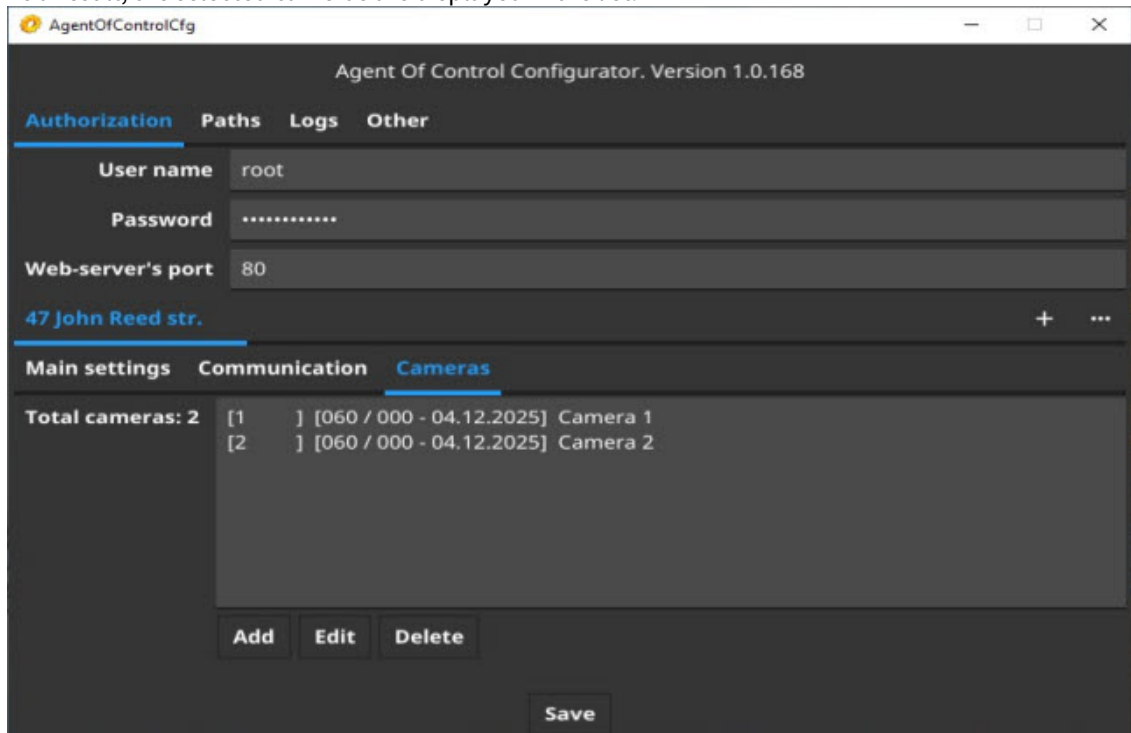


- a. If you specify the correct user name and password, the **Add cameras** window appears, where you can select all server cameras or certain ones from the list right away. The **Keep archive for (days)**, **Gaps in the archive (days)**, and **Camera connection date** fields are similar to the corresponding fields of the *Agent of Control* module, which operates with *Axxon PSIM* (for more details, see [Configuring the camera list](#)).



b. Click the **Add** button.

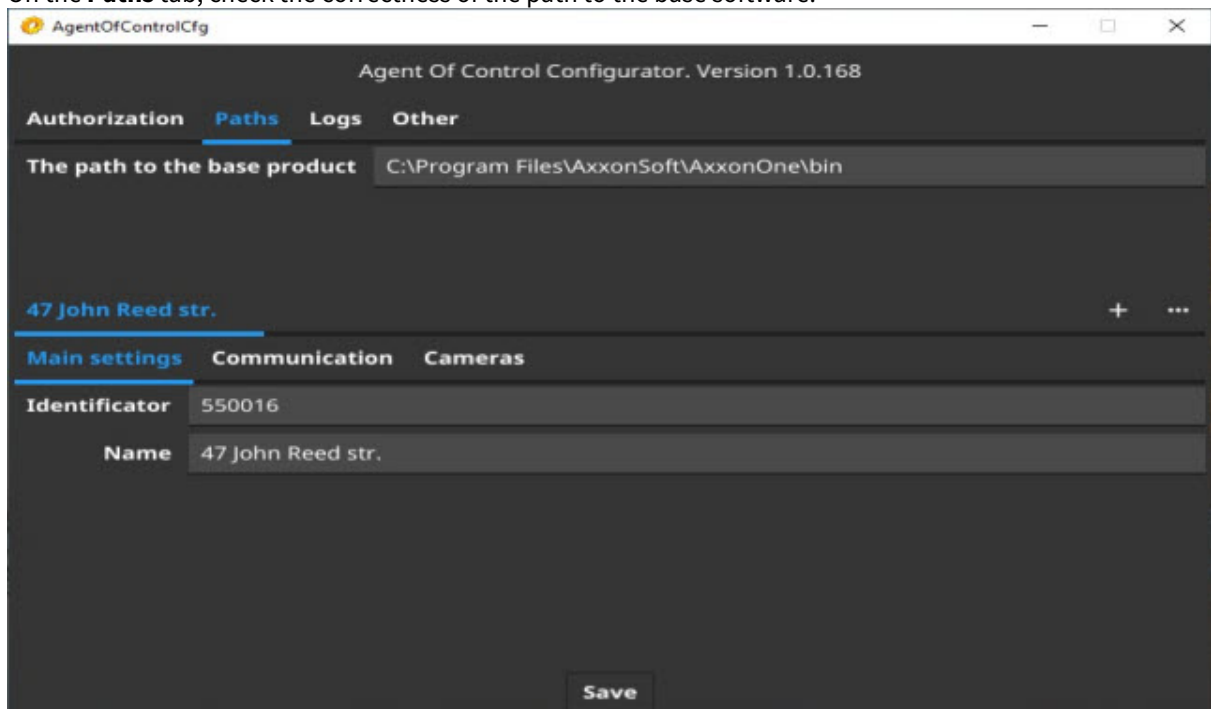
As a result, the selected cameras are displayed in the list.



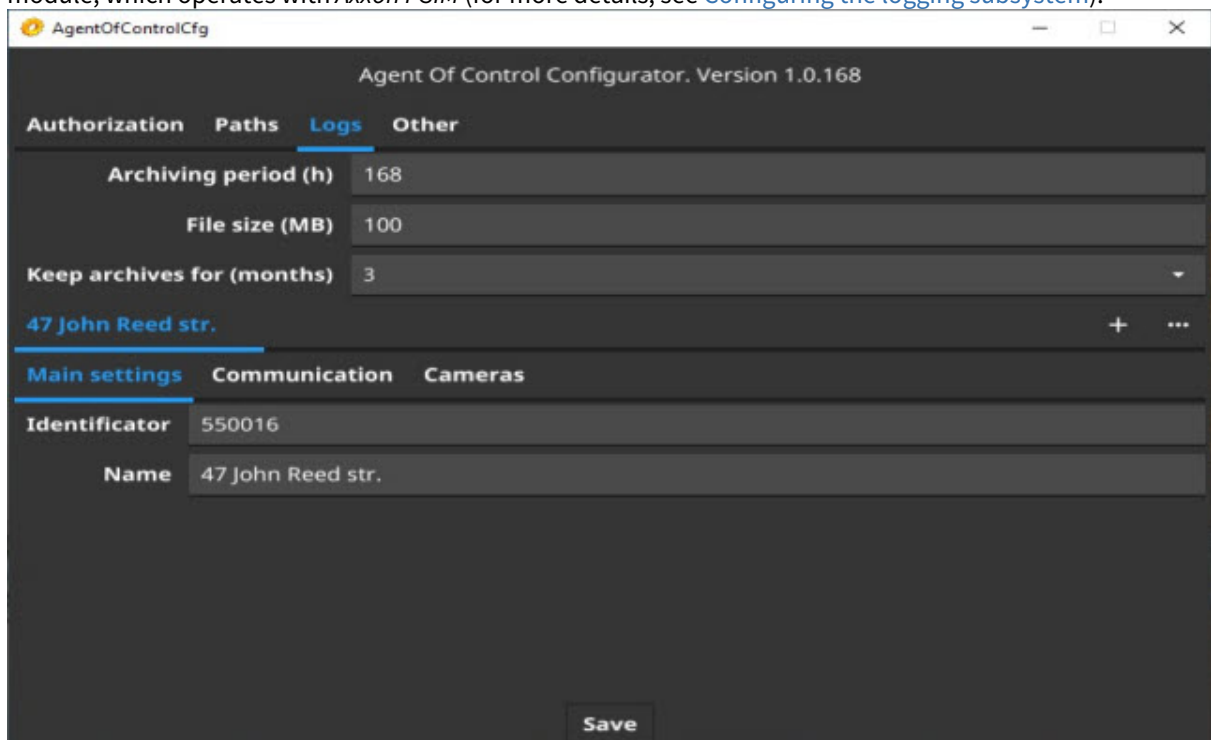
Note

If you use several sections of control, you can add a camera to only one of them, except for reserving the server of control when the main and reserve sections of control must contain similar cameras. For this, you must set the **Reserving** checkbox on the **Other** tab (see step 10).

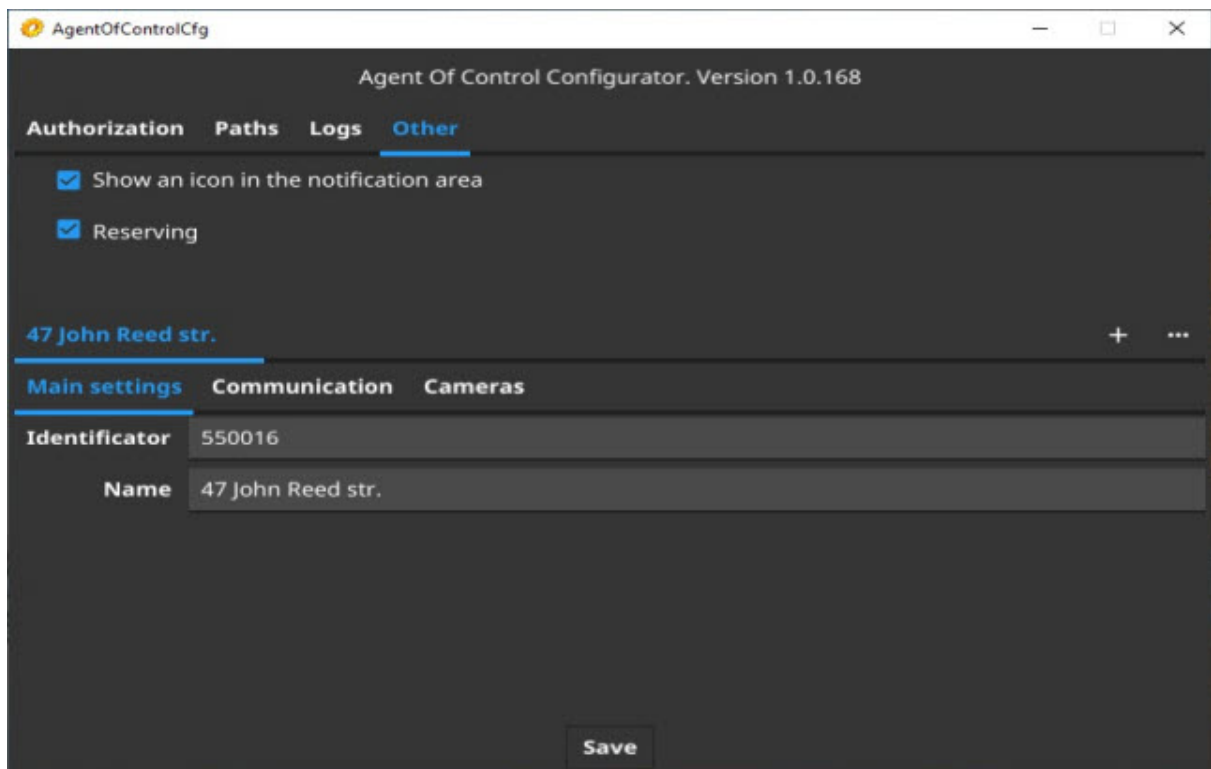
8. On the **Paths** tab, check the correctness of the path to the base software.



9. On the **Logs** tab, if necessary, you can configure the operation with log files. The **Archiving period (h)**, **File size (MB)**, and **Keep archives for (months)** are similar to the corresponding fields of the *Agent of Control* module, which operates with *Axxon PSIM* (for more details, see [Configuring the logging subsystem](#)).

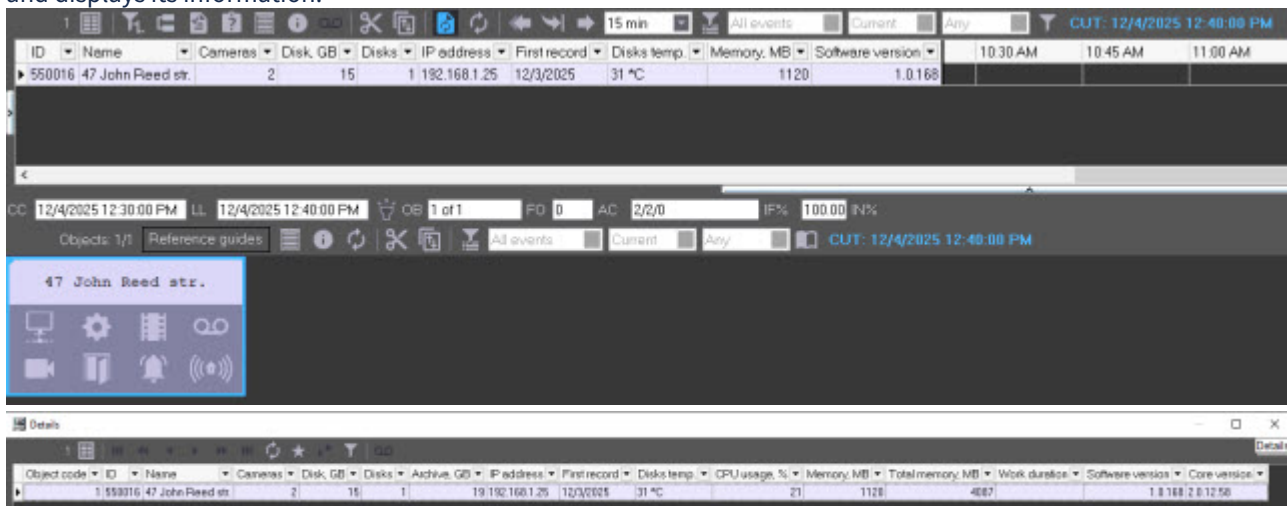


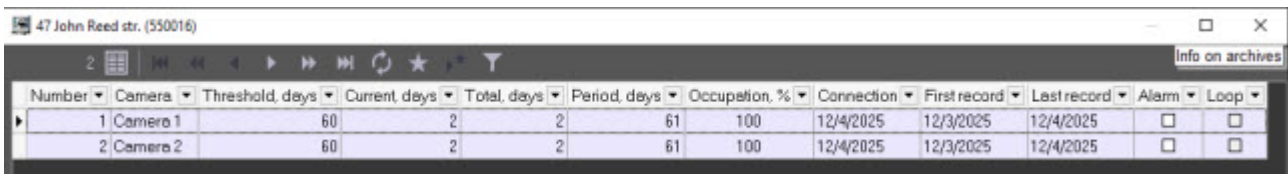
10. To perform reserving when different sections of control work with different servers of control, you must first enable this ability on the **Other** tab by setting the **Reserving** checkbox.



11. On the **Other** tab, if necessary, you can disable the display of an icon in the notification area by clearing the **Show an icon in the notification area** checkbox. By default, the checkbox is set, and when you start the *Agent of Control* module, an icon with a red tick appears in the notification area, which you can click to open the module display menu. If you clear the checkbox, the icon is absent and the module is displayed instantly.
12. Click the **Save** button.

Configuring the *Agent of Control* program module on Windows OS using the configurator is complete. When you start the computer, the *AgentOfControl.exe* and *VHostRecover.exe* processes are started automatically. After you connect the *Agent of Control* module to the *Server of Control* module, the system automatically registers it and displays its information.





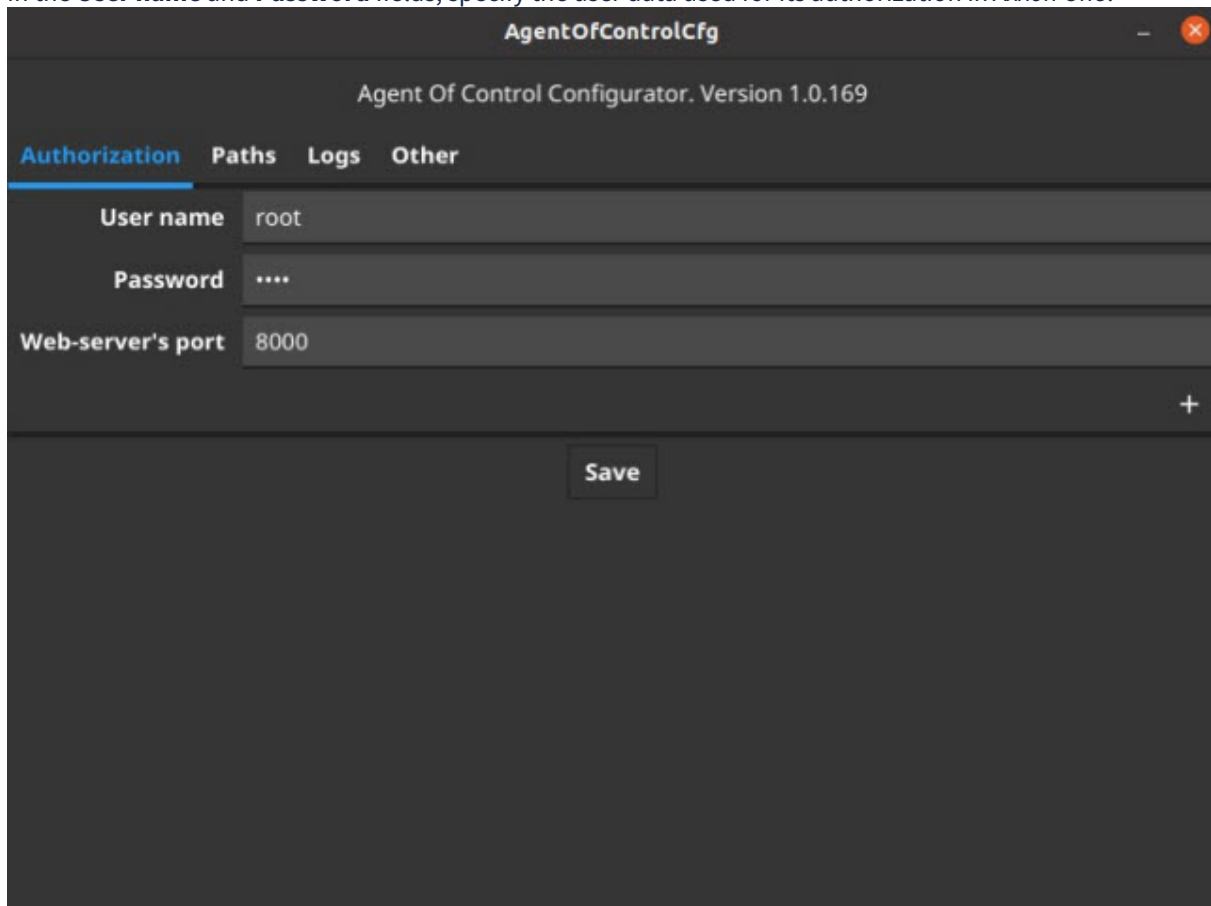
Number	Camera	Threshold, days	Current, days	Total, days	Period, days	Occupation, %	Connection	First record	Last record	Alarm	Loop
1	Camera 1	60	2	2	61	100	12/4/2025	12/3/2025	12/4/2025	<input type="checkbox"/>	<input type="checkbox"/>
2	Camera 2	60	2	2	61	100	12/4/2025	12/3/2025	12/4/2025	<input type="checkbox"/>	<input type="checkbox"/>

15.3.2 Features of configuring the Agent of Control program module for Linux OS

Configuring the Agent of Control program module on Linux OS using the configurator

You can configure the *Agent of Control* program module using the configurator:

1. Run the configurator located in the AgentOfControl/Cfg/AgentOfControlCfg path.
2. In the **User name** and **Password** fields, specify the user data used for its authorization in *Axxon One*.



AgentOfControlCfg

Agent Of Control Configurator. Version 1.0.169

Authorization Paths Logs Other

User name root

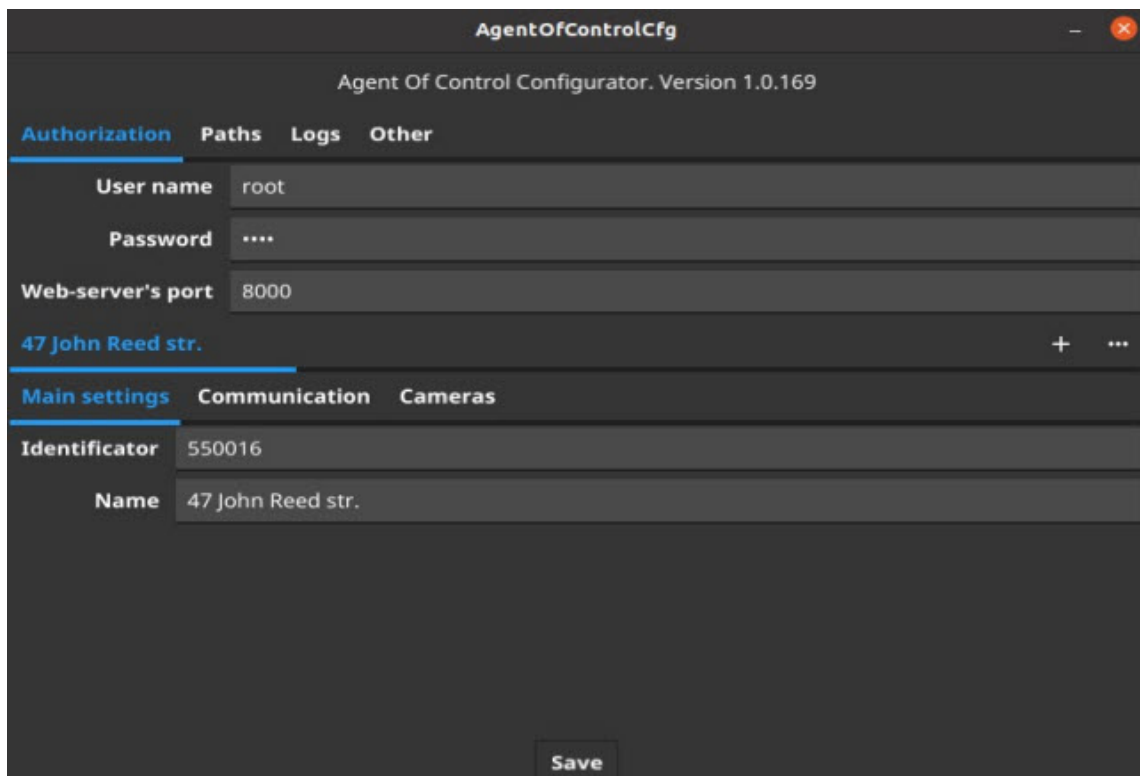
Password ****

Web-server's port 8000

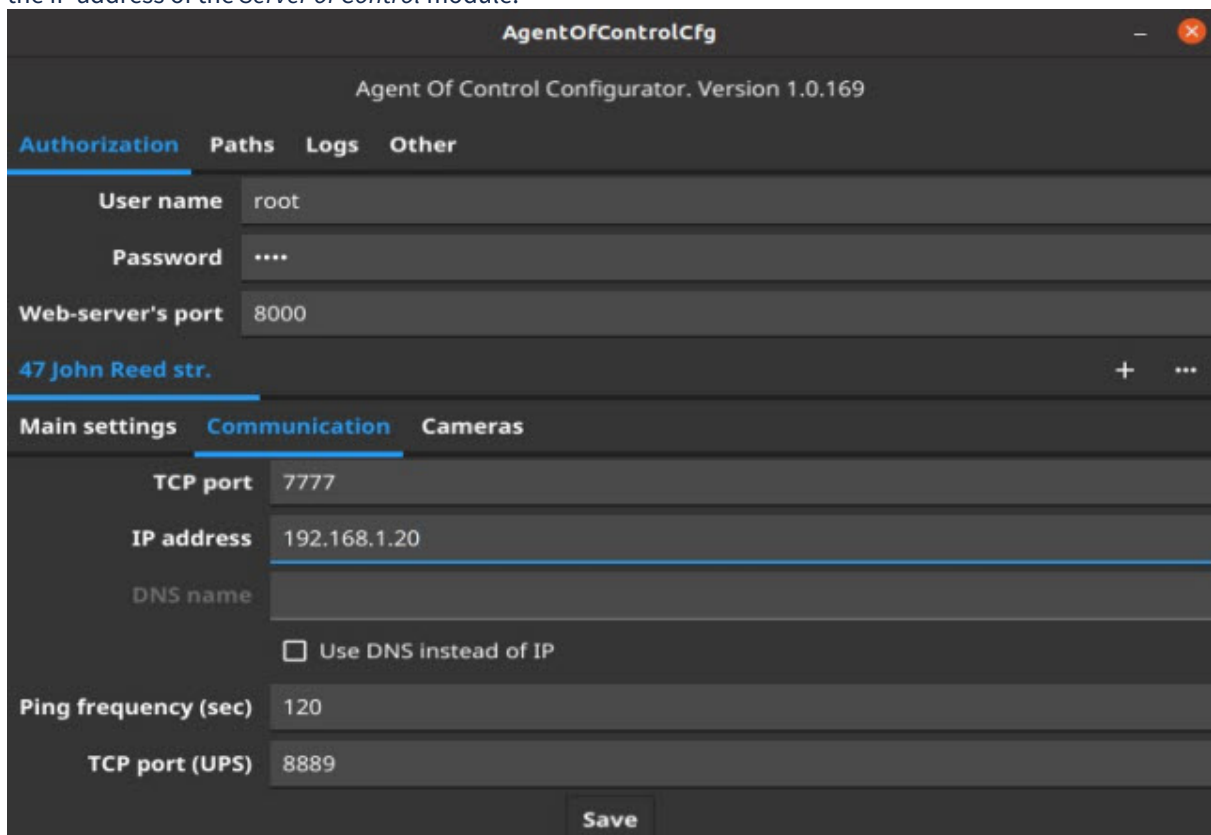
+

Save

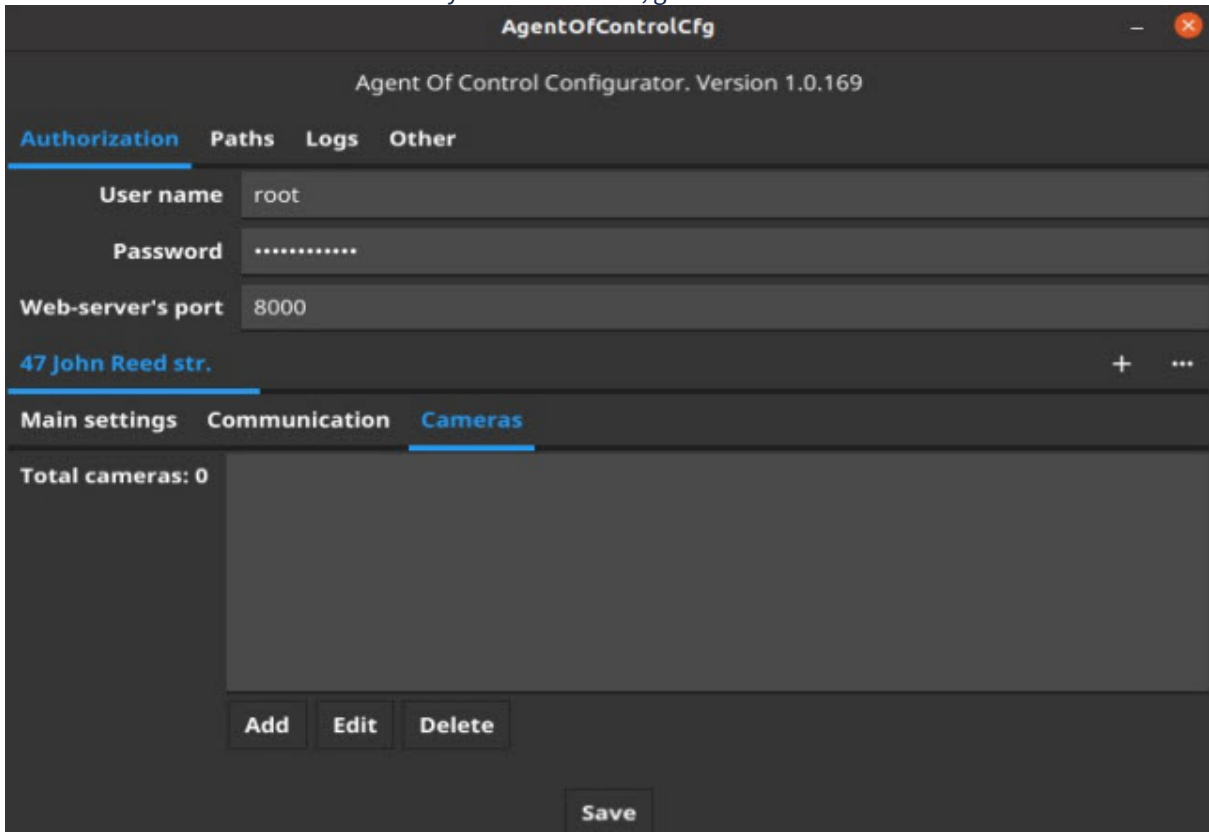
3. Click the **Save** button.
4. To create the new section of control, click the plus in the lower right part of the screen.
5. In the displayed **Identificator** and **Name** fields, specify the ID and name of the control section to register on the *Server of Control* module at the first connection, respectively.



- Go to the **Communication** tab, and in the **TCP port** and **IP address**, specify the number of the TCP port and the IP address of the *Server of Control* module.

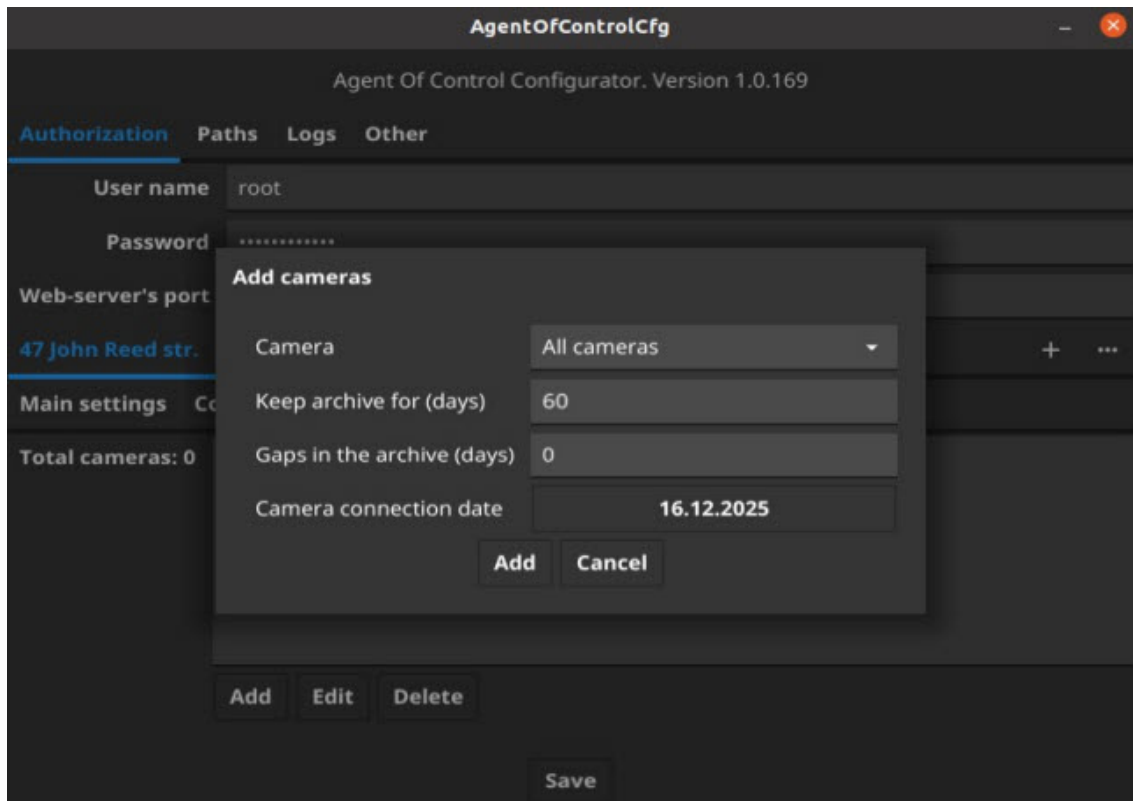


7. To add cameras whose technical status you want to track, go to the **Cameras** tab.

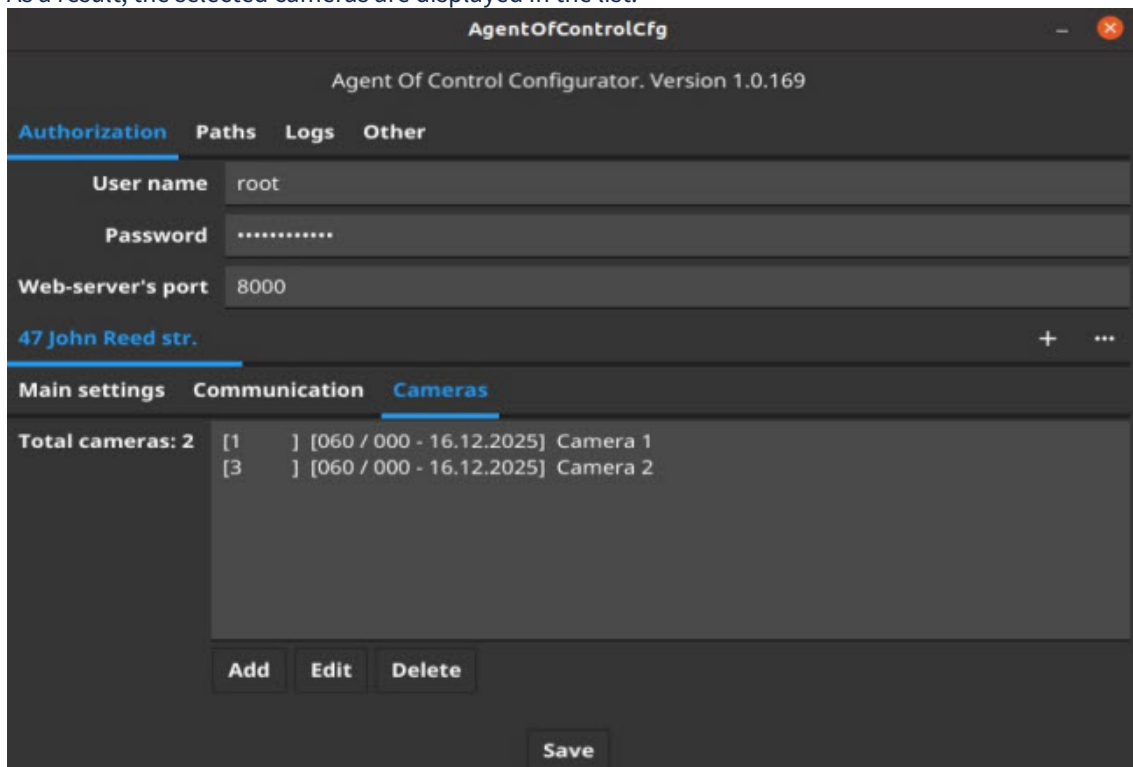


The screenshot shows the 'AgentOfControlCfg' application window. The title bar reads 'Agent Of Control Configurator. Version 1.0.169'. The interface has a dark theme. At the top, there are four tabs: 'Authorization' (selected), 'Paths', 'Logs', and 'Other'. Below these tabs are three input fields: 'User name' with the value 'root', 'Password' with a masked value '.....', and 'Web-server's port' with the value '8000'. Below the input fields is a blue link '47 John Reed str.' with a '+' icon and a '...' menu icon to its right. Below this is another set of tabs: 'Main settings', 'Communication', and 'Cameras' (selected). Under the 'Cameras' tab, there is a section labeled 'Total cameras: 0' followed by a large empty rectangular area. At the bottom of this area are three buttons: 'Add', 'Edit', and 'Delete'. At the very bottom of the window is a 'Save' button.

- a. If you specify the correct user name and password, the **Add cameras** window appears, where you can select all server cameras or certain ones from the list right away. The **Keep archive for (days)**, **Gaps in the archive (days)**, and **Camera connection date** fields are similar to the corresponding fields of the *Agent of Control* module, which operates with *Axxon PSIM* (for more details, see [Configuring the camera list](#)).



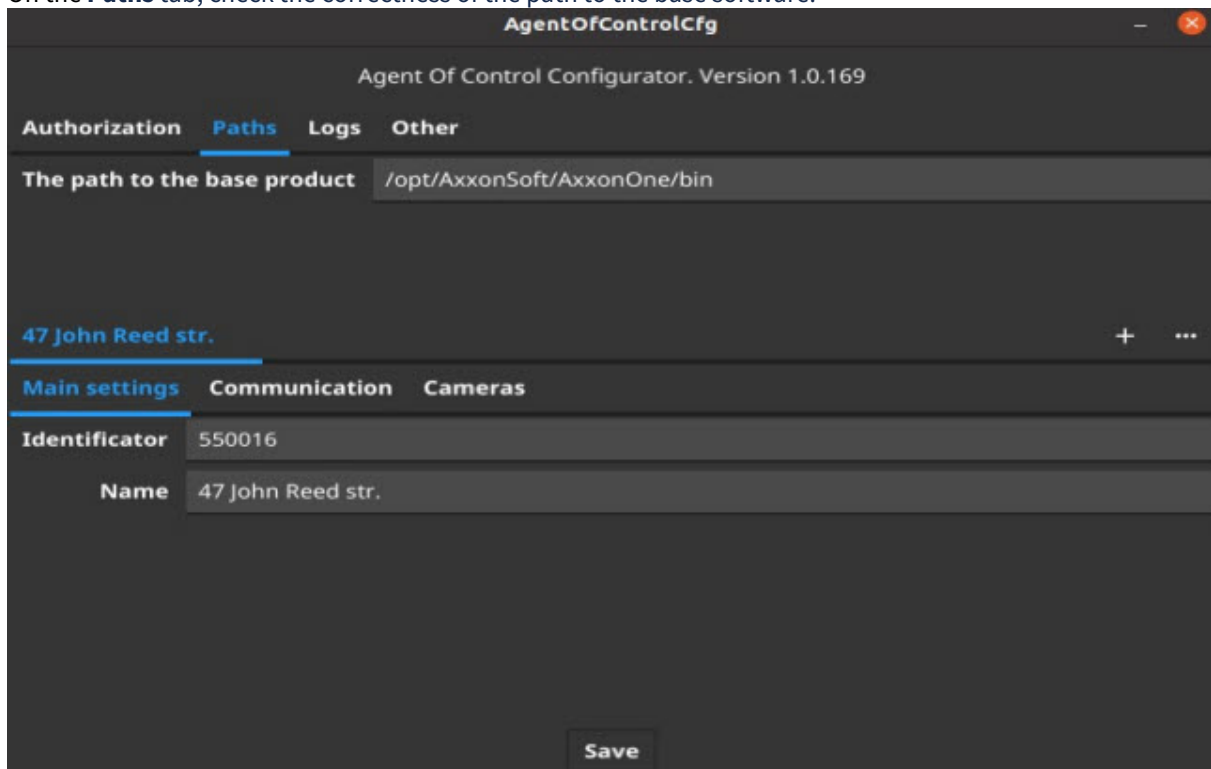
- b. Click the **Add** button.
As a result, the selected cameras are displayed in the list.



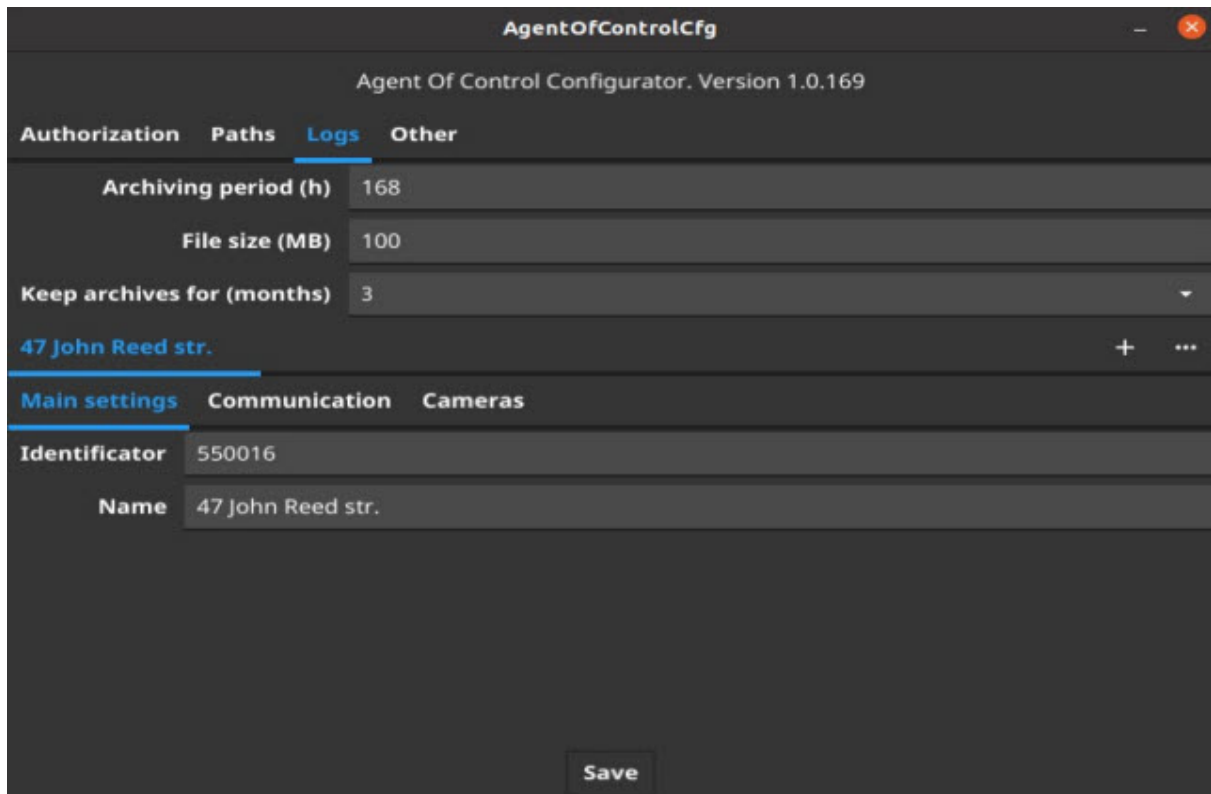
Note

If you use several sections of control, you can add a camera to only one of them, except for reserving the server of control when the main and reserve sections of control must contain similar cameras. For this, you must set the **Reserving** checkbox on the **Other** tab (see step 10).

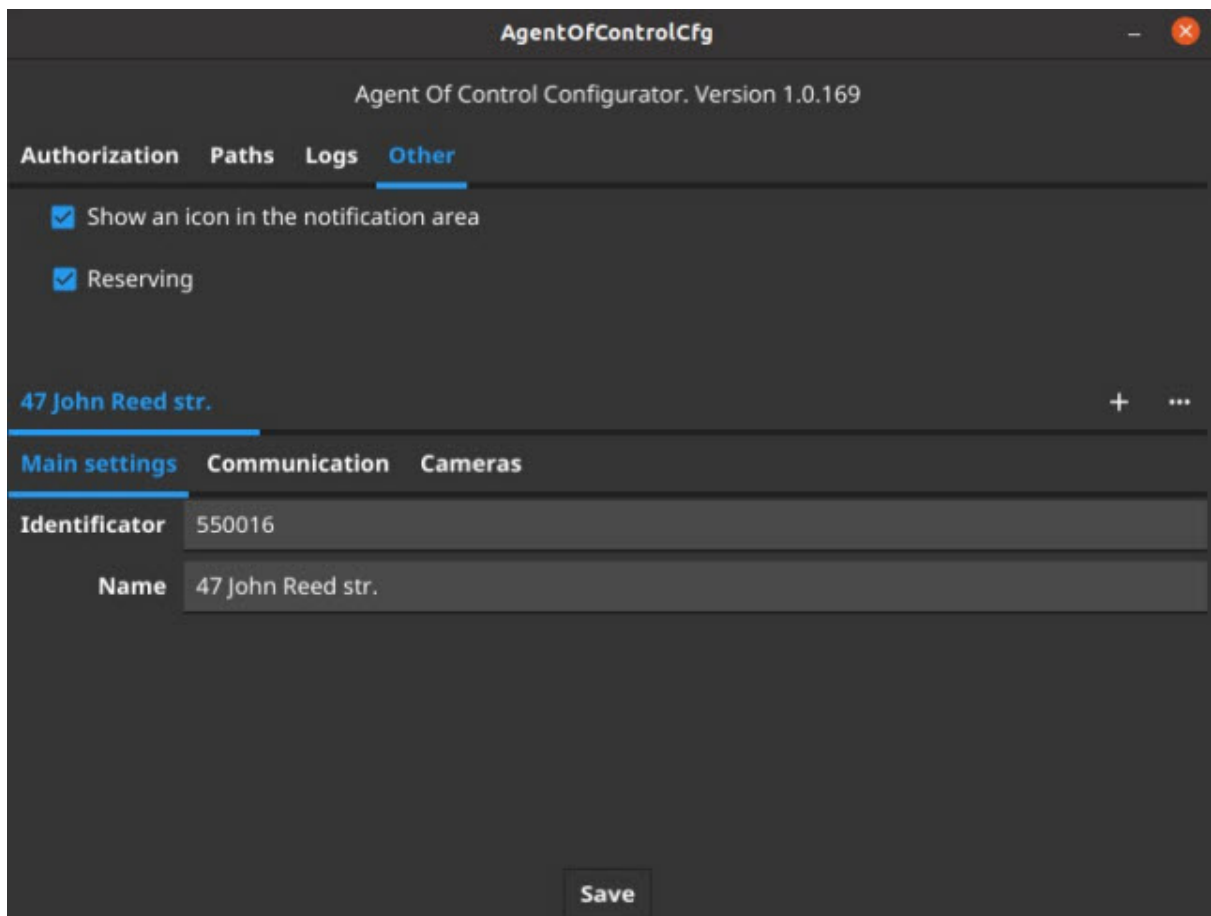
8. On the **Paths** tab, check the correctness of the path to the base software.



9. On the **Logs** tab, if necessary, you can configure the operation with log files. The **Archiving period (h)**, **File size (MB)**, and **Keep archives for (months)** are similar to the corresponding fields of the *Agent of Control* module, which operates with *Axxon PSIM* (for more details, see [Configuring the logging subsystem](#)).

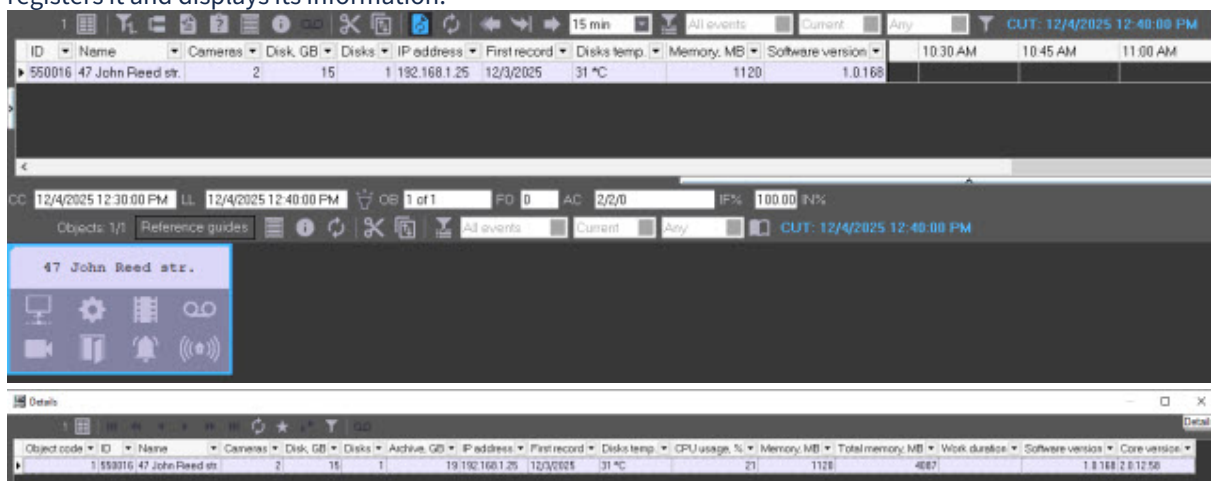


10. To perform reserving when different sections of control work with different servers of control, you must first enable this ability on the **Other** tab by setting the **Reserving** checkbox.



11. On the **Other** tab, if necessary, you can disable the display of an icon in the notification area by clearing the **Show an icon in the notification area** checkbox. By default, the checkbox is set, and when you start the *Agent of Control* module, an icon with a red tick appears in the notification area, which you can click to open the module display menu. If you clear the checkbox, the icon is absent and the module is displayed instantly.
12. Click the **Save** button.

Configuring the *Agent of Control* program module on Linux OS using the configurator is complete. After you connect the *Agent of Control* module to the *Server of Control* module, the system automatically registers it and displays its information.



Number	Camera	Threshold, days	Current, days	Total, days	Period, days	Occupation, %	Connection	First record	Last record	Alarm	Loop
1	Camera 1	60	2	2	61	100	12/4/2025	12/3/2025	12/4/2025	<input type="checkbox"/>	<input type="checkbox"/>
2	Camera 2	60	2	2	61	100	12/4/2025	12/3/2025	12/4/2025	<input type="checkbox"/>	<input type="checkbox"/>

Configuring the automatic startup of the Agent of Control program module

On the page:

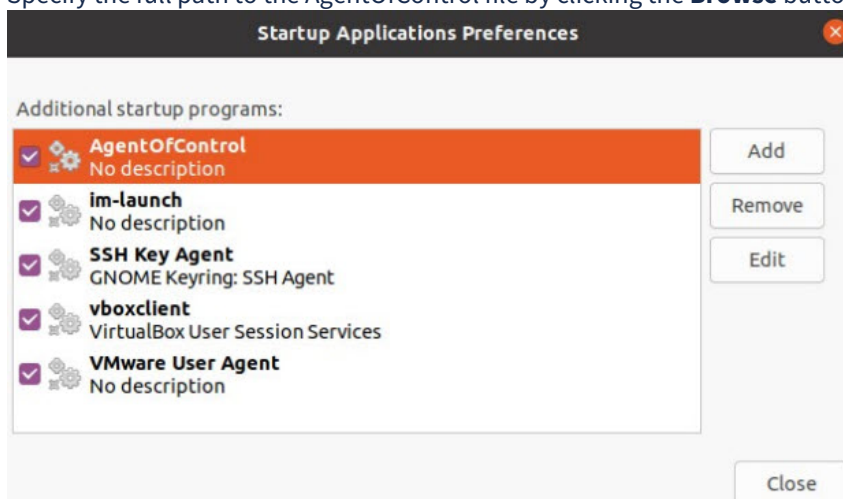
- The first way: login isn't required
- The second way: login is required
- Commands to control the Agent of Control in the service mode

To configure the automatic startup of the *Agent of Control* program module along with the computer, add it to the autoloading. You can do that in two ways, depending on whether the user authorization is required or not.

The first way: login isn't required

If you don't need to log in to the system at the computer start, the automatic loading is configured in the following way (on the example of Ubuntu OS 20.04):

1. Open the window of the command prompt using the Alt+F2 key combination.
2. In the window that opens, enter the **gnome-session-properties** command.
3. In the **Startup Applications Preferences** window that opens, click the **Add** button.
4. Specify the full path to the AgentOfControl file by clicking the **Browse** button.



5. When you click the **Close** button or the cross in the upper corner of the window, it closes.

The second way: login is required

If you need to log in to the system at the computer start, then configure the startup of the *Agent of Control* program module as a service in the following way:

1. Open the `AgentOfControl.service` file located by default in the `/home/{user}/AgentOfControl/System/` path.
2. In the **User** and **Group** parameters, specify the username and group under which the service operates.

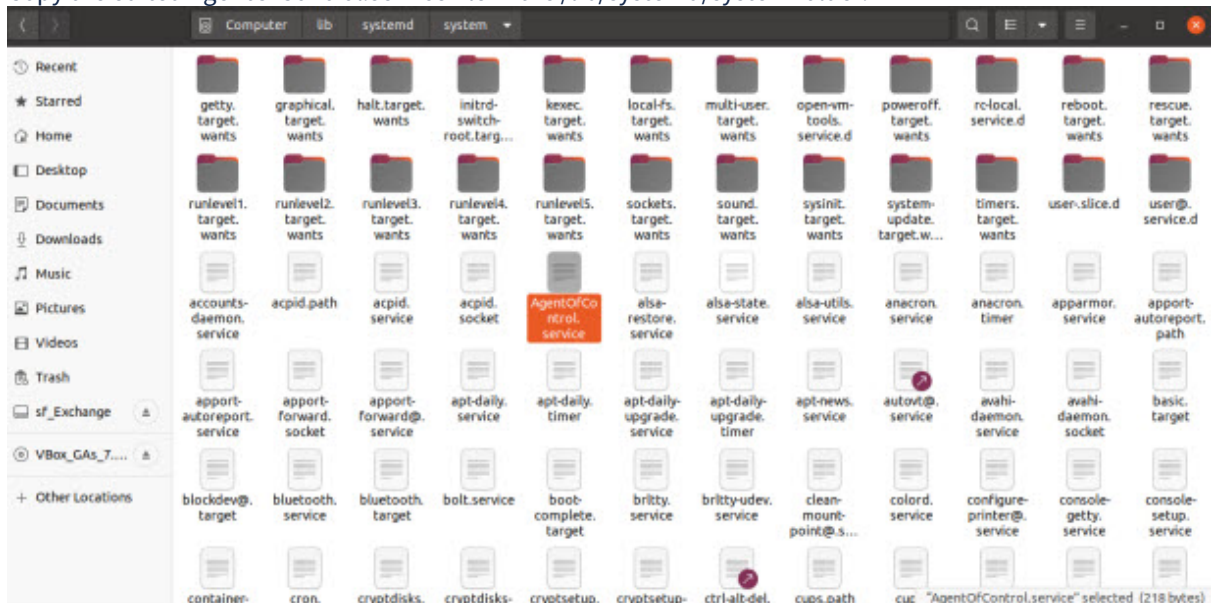


```

1 [Unit]
2 Description=AgentOfControl Instance
3
4 [Service]
5 Type=simple
6 User=user
7 Group=user
8 ExecStart=/home/user/AgentOfControl/AgentOfControl service
9 Restart=always
10 KillSignal=SIGABRT
11
12 [Install]
13 WantedBy=multi-user.target

```

3. In the **ExecStart** parameter, specify the full path to the executable file of the *Agent of Control* module with the **service** mandatory parameter by specifying the real user instead of the **user** parameter.
4. Save the changes in the `AgentOfControl.service` file.
5. Copy the edited `AgentOfControl.service` file in the `/lib/systemd/system` folder.



6. Configure the service using the **sudo systemctl enable AgentOfControl.service** command.
7. Run the service using the **sudo systemctl start AgentOfControl.service** command.

Note

You can view the service status using the **sudo systemctl status AgentOfControl.service** command.

The **enabled** status means that the **sudo systemctl enable AgentOfControl.service** command is executed, and the service now starts automatically when the system starts.

```

edward@WORK2023:~$ sudo systemctl status AgentOfControl.service
● AgentOfControl.service - AgentOfControl Instance
   Loaded: loaded (/lib/systemd/system/AgentOfControl.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2025-07-04 10:23:52 MSK; 5min ago
     Main PID: 751 (AgentOfControl)
        Tasks: 14 (limit: 19024)
       Memory: 34.0M
      CGroup: /system.slice/AgentOfControl.service
              └─751 /home/edward/AgentOfControl/AgentOfControl service

июл 04 10:23:52 WORK2023 systemd[1]: Started AgentOfControl Instance.

```

The log file of the *Agent of Control* module displays the additional string indicating that this module works in the service mode.

```

AgentOfControl.log
~/.AgentOfControl
1 2025/12/16 15:48:48.869674 INF: "Agent Of Control" Version: 1.0.169 (PC:Server OS:linux ARCH:amd64 USER:edward).
2 2025/12/16 15:48:48.869710 INF: "Agent Of Control" works as service.
3 2025/12/16 15:48:48.939771 INF: Settings (load): WebPort=8000 Reserving=off ArchPeriod=168 ArchSize=100 ArchDel=3
4 2025/12/16 15:48:48.939781 INF: Settings (load): CorePath=/opt/AxxonSoft/AxxonOne/bin

```

⚠ Attention!

In the service mode, the *Agent of Control* module operates without the user interface. The control is performed using the commands described below.

Commands to control the Agent of Control in the service mode

- sudo systemctl enable AgentOfControl.service**—enable the automatic service startup when the system starts;
- sudo systemctl disable AgentOfControl.service**—disable the automatic service startup when the system starts;
- sudo systemctl start AgentOfControl.service**—start a service;
- sudo systemctl stop AgentOfControl.service**—stop a service;
- sudo systemctl restart AgentOfControl.service**—restart a service;
- sudo systemctl status AgentOfControl.service**—view the service status;
- sudo systemctl daemon-reload**—execute when you change the contents of the AgentOfControl.service file.

Configuring the automatic startup of the *Agent of Control* program module is complete.

15.4 Working with the Agent of Control program module

15.4.1 Tracking alarms using macros

On the page:

- Example of a macro for the Disarm action
- Creating the additional reaction to the Camera : Start recording alarm
- Macro generates an event



Example of a macro for the Disarm action

If you want to track the **Disarmed** event for all server cameras, do the following:

1. Select **Settings**.
2. On the **Programming** tab, create the macro in which the **Disarmed** event must be specified as the start condition.

The screenshot shows the configuration for a macro named 'Macrocommand1'. The 'Working mode' is set to 'Always'. Under the 'Start conditions' section, the default is 'Disarmed', and the selected start condition is also 'Default: Disarmed'. There is an 'Add event filter' button below the start condition dropdown.

3. Create the **Run external application on server** reaction to this event.

The screenshot shows the configuration for the 'Run external application on server' reaction. The 'Launch external program on server' is set to 'DESKTOP-CL7GVQF'. The 'Executable files' field is set to 'AgentHelper'. The 'Launch parameters' field contains the text '8889 1 1 "2555 2556" Disarmed'.

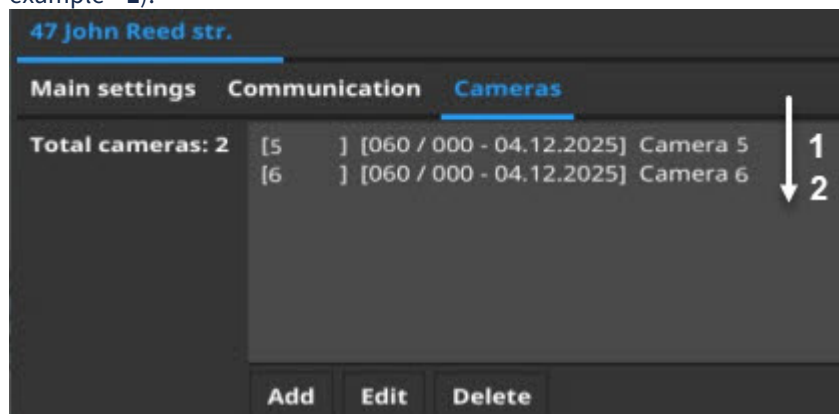
- a. Select the **AgentHelper** file as the executable one.

Note

On Linux OS, you must first copy the AgentHelper.sh file from the AgentOfControl/System folder to the corresponding *Axxon One* /opt/AxxonSoft/Axxon One/UserScripts folder manually. When you use Windows OS, the file is copied automatically.

- b. In the **Launch parameters** field, specify:
 - i. The number of the TCP port on which the *Agent of Control* module awaits the data from the AgentHelper executable file. The allowable values are in the range 8889–9900 (in the current example—**8889**). The number of the used port is specified in the **TCP port (UPS)** field on the **Communication** tab of the *Agent of Control* module settings.

- ii. The number of alarm groups on the *Server of Control* module to which the given alarm gets. The allowable values are in the range 1–6 (in the current example—**1**), where:
 - 1—Hardware,
 - 2—ACS,
 - 3—SFA,
 - 4—Detections,
 - 5—Extra 1,
 - 6—Extra 2.
- iii. The attached video data to alarms. The allowable values are ≥ 0 . If you set the **0** value, the video data isn't transferred. When you transfer JPG frames or videos, specify the serial camera number in the list on the **Cameras** tab from which an image is received (in the current example—**1**).



- iv. The type of the transferred video data. The allowable values are **jpg** and **avi** (in the current example—**jpg**). When you select **jpg**, one or several JPG frames are transferred, **avi**—small video.
- v. The first setting parameter for the video data. For the **jpg** type, that is the number of the transferred frames in the range from 1 to 10 (in the current example—**1**), for **avi**, it is the length of the video fragment in seconds in the range from 5 to 10.
- vi. The second setting parameter for the video data. For the **jpg** type, that is the interval between frames in seconds in the range from 1 to 99 (in the current example—**1**), for **avi**, it is the bit rate in Kbit/s (**0**—without rate limitation).
- vii. The list of ports to connect to the **Event source** objects that are used for overlaying captions separated by a space. If you don't want the captions overlay, then specify the double empty quotation marks "", if you want it, specify the ports of all **Event source** objects within the double empty quotation marks separated by a space (in the current example—"**2555 2556**").

Note

First, you must create one or several **Event source** objects where, from the **Vendor** drop-down list, you must select **PosXml**, and, in the **Template file** field, specify the file that is located in the `/home/{user}/AgentOfControl/System/xml_titles.txt` (Linux) or `C:\Program Files (x86)\AgentOfControl\System\xml_titles.txt` (Windows) default path.

Example of configuring the **Event source** object:

3.Event source	
Object identification	
Short name	3
Name	Event source
ID	3
Geolocation	
Geo location azimuth	0
Geo location latitude	0
Geo location longitude	0
Object features	
Use device settings	Yes
Address	0.0.0.0
Manufacturer	PosXml
Model	PosXml Device
Firmware	auto
Break unused connection	No
Device serial number	
Authentication	
Default	Yes
Password	
Username	
Other	
enabled	Yes
Port	2555
Background color	0, 0, 0
Beginning words	
Display duration	10
End words	
Erase upon completion	No
Font	Courier New, 12pt, color=25
Ignore Case	Yes
messagesBase64Encodec	Yes
Retalix POS-terminal	No
Sample timestamp offset	0
sseReadTimeout	10
Template file	C:/Program Files (x86)/Ager
terminalId	
Timeout	100

- viii. The alarm message as a string with 1–120 characters. If there are spaces, you must put a message in the quotation marks (in the current example—"Disarmed").
- ix. The additional information as a string with 1–30 characters. This is the optional parameter (absent in the current example) that is used if you want to receive the additional information about the alarm using the text templates ([Text templates in the action settings](#)).

Creating the additional reaction to the Camera : Start recording alarm

If a camera isn't in the continuous recording mode, then to attach the JPG frame from it, you must ensure recording at the alarm situation by creating the additional reaction to the **Camera: Start recording** alarm.

Name: Working mode:

Add to menu

Start conditions

Manual start

Start conditions:

General: Run external application on server

DESKTOP-CL7GVQF

Launch external program on server:

Executable files:

Launch parameters:

Camera: Start recording

Default: 1.Camera 1 | Archive AliceBlue

Camera:

Record to:

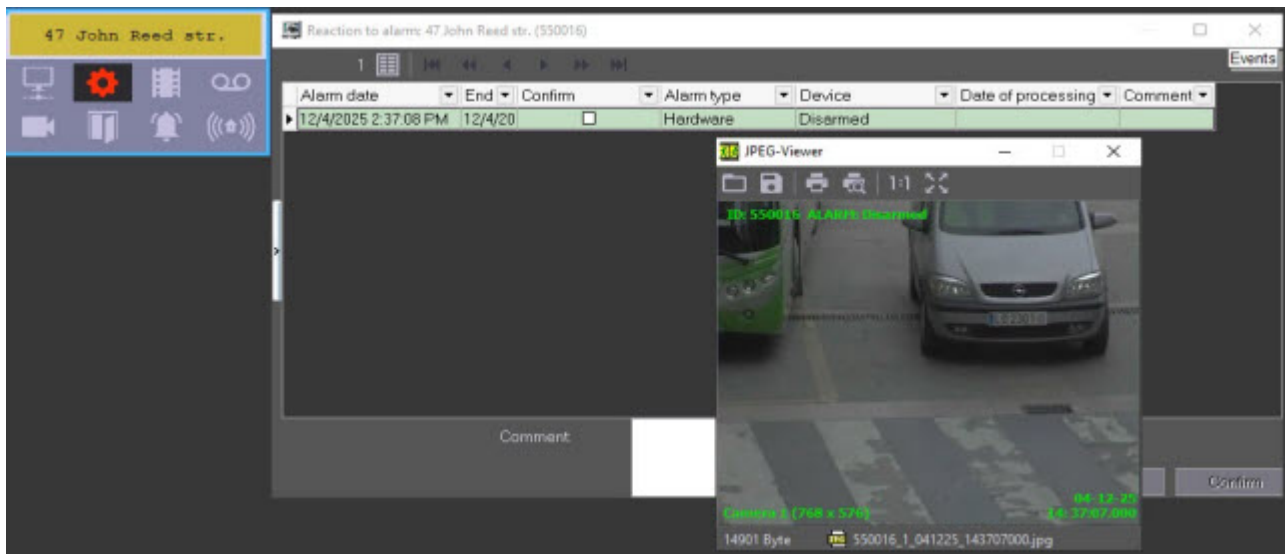
Finish after:

Prerecord, sec:

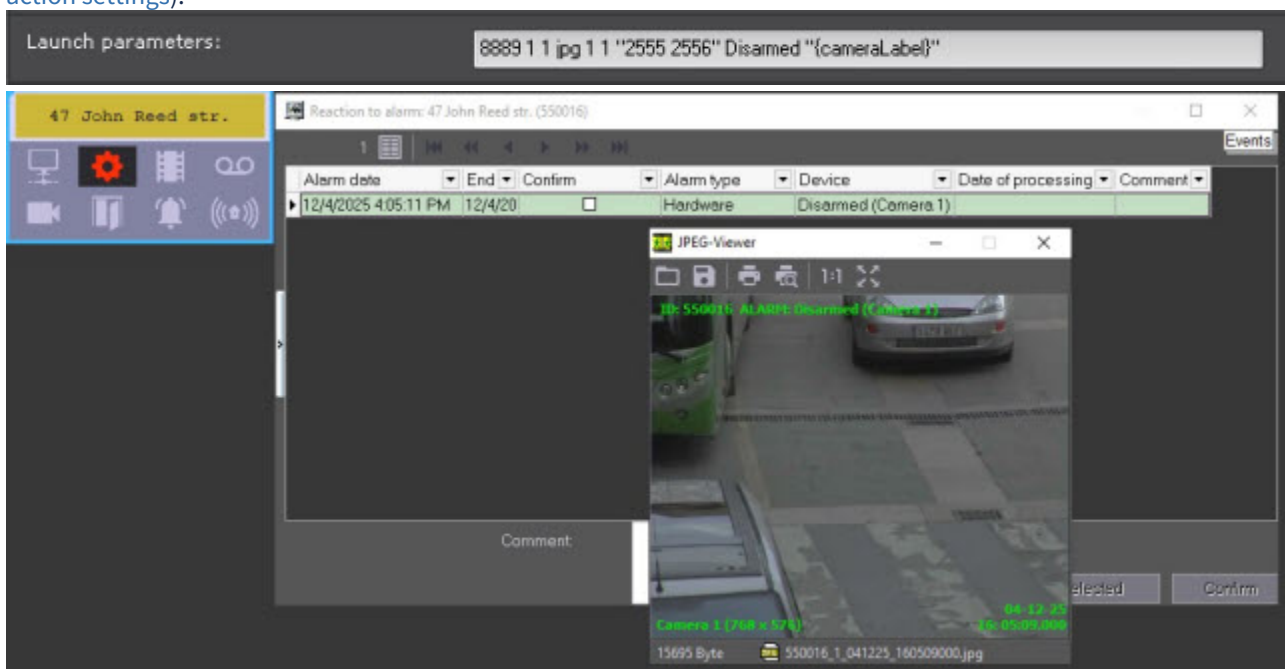
Recording frame rate:

Macro generates an event

When you disarm any camera, the reaction on the *Server of Control* module includes the **Disarmed** alarm message and the attached JPG frame from the camera with the overlaid captions.



If you specify the {cameraLabel} text template as additional information to the launch parameter, the **Camera 1** camera name is added to the alarm name as additional information (for more details, see [Text templates in the action settings](#)).



This version supports the transmission of the deferred alarms. That is, if there is no connection with the **Server of Control** module at the moment when an alarm occurs, this alarm is saved in the AgentOfControl/Cfg/deferred.sys file. When you restore the connection, the deferred alarms are transferred to the *Server of Control* module.

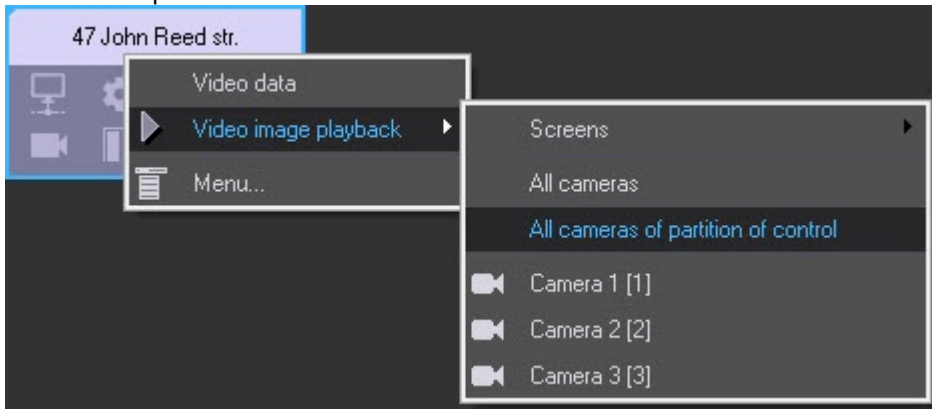
Tracking alarms using macros is complete.

15.4.2 Viewing live video

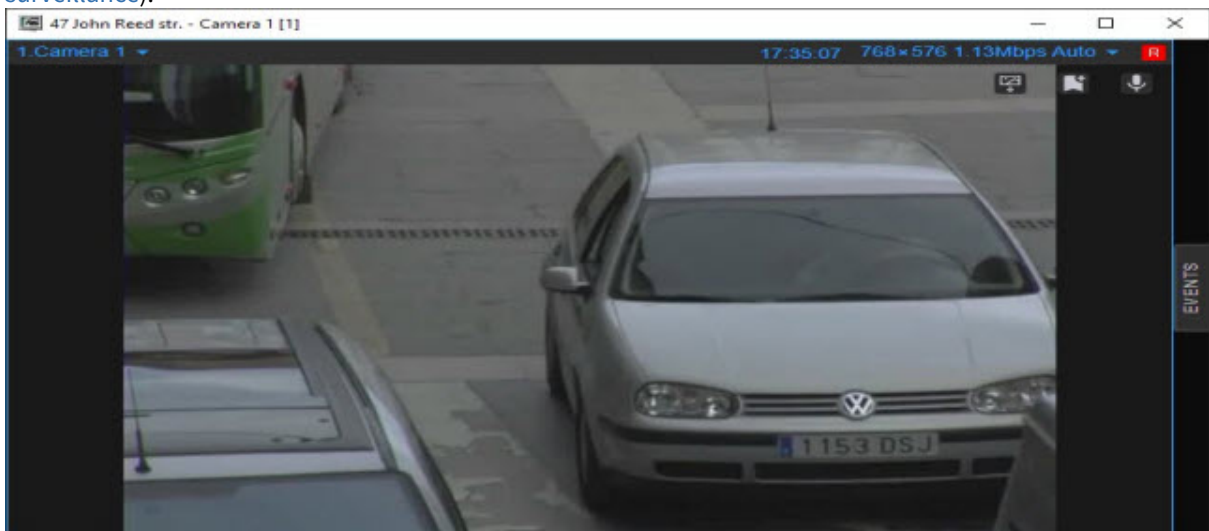
To view the live video, do the following:

1. In the object context menu, select the **Video image playback** item.

2. Select the required camera from the camera list.



As a result, the surveillance window in the live mode is displayed (for more details, see [Live video surveillance](#)).



Note

To view the live video, you must enable the video stream recording (the **Enable Recode Video Stream** parameter) in the settings of the *Web-server* module in *Axxon One* (for more details, see [Configuring the Web-Server](#)).

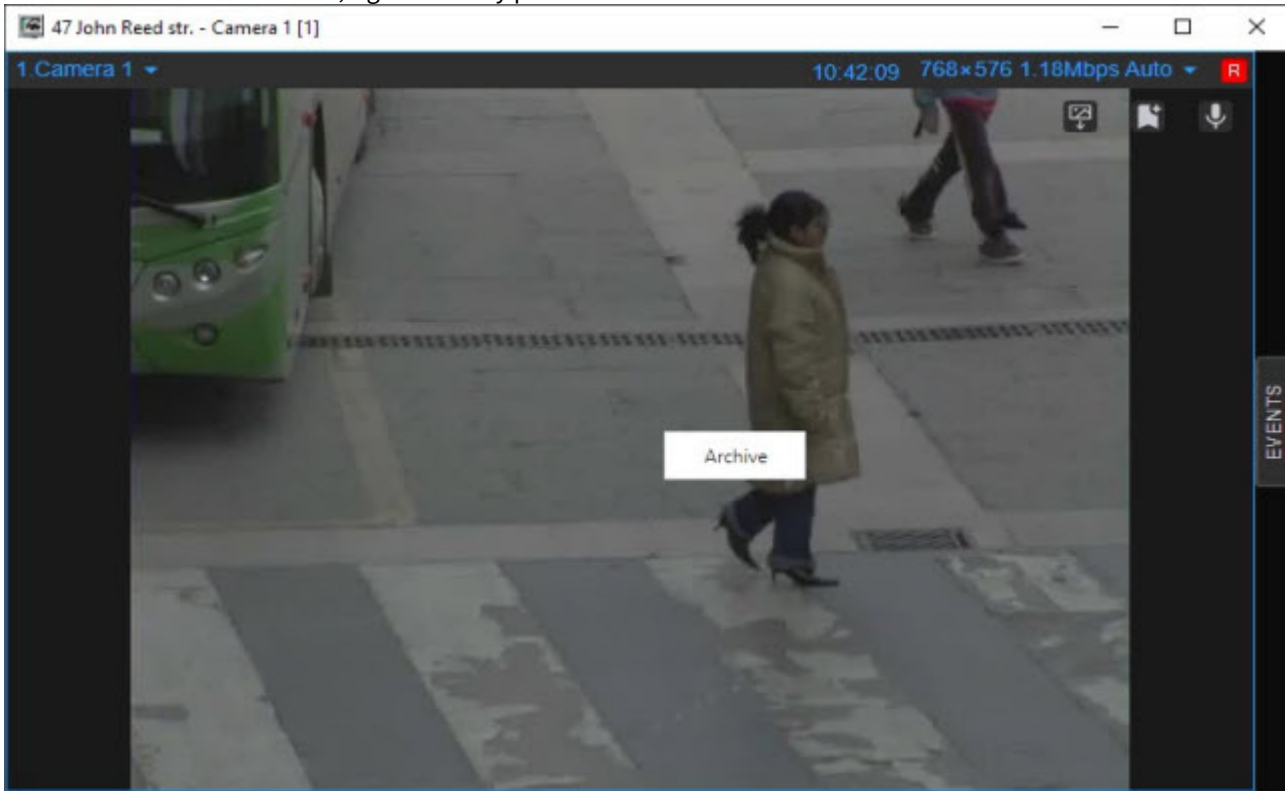
In this version, you can work only with separate cameras. When you select the menu items linked with screens (**Video image playback** → **Screens**), as well as the **All cameras** and **All cameras of partition of control** menu items, the corresponding warning is displayed:



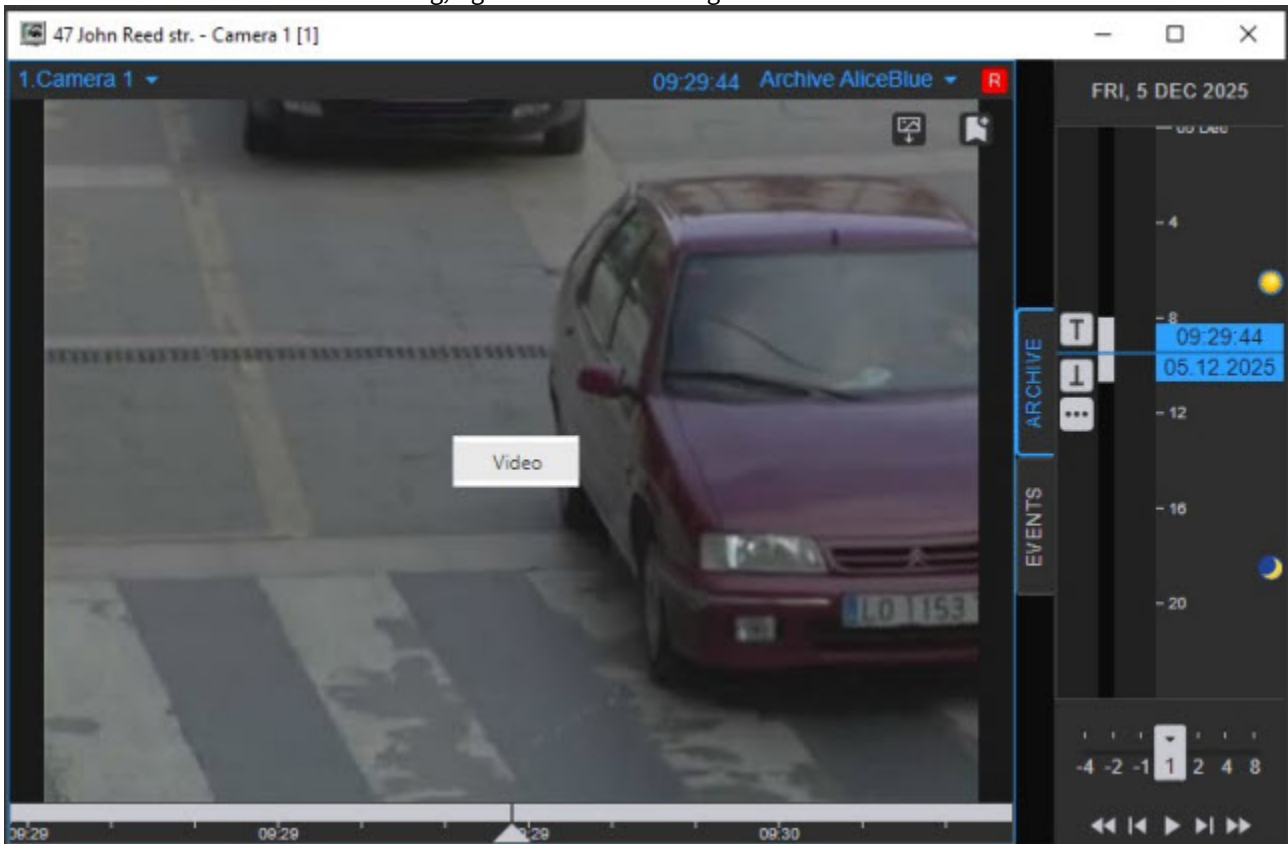
Viewing the live video is complete.

15.4.3 Viewing video in the archive mode

To switch to the archive mode, right-click any part of the screen and select the **Archive** menu item.



To switch back to the live video viewing, right-click the screen again and select the **Video** menu item.



15.4.4 Operation features of the Agent of Control program module with the Search in archive module

The *Search in archive* module (for more details, see [Search in archive](#)) is used when you work with the *Agent of Control* program module and allows solving the following tasks:

1. Requesting video frames from objects.
2. Requesting video clips from objects.

The search by video clips looks in the following way:

The screenshot shows the search interface with the following settings:

- Search in archive: Loads
- Object name: [550016] 47 John Reed str.
- Search:
 - Period from: 12/ 4/2025 12:00:00 AM
 - to: 12/ 4/2025 6:54:45 PM
 - By captions: (empty)
 - By video clips of all cameras: (unselected)
 - By video clips of camera: Camera 1 [1] (selected)
 - Data receive timeout (min.): 3
- Buttons: Search, Cancel, Video, Frames

The resulting table shows the following data:

ID	Camera	Date and time	Text
550016	Camera 1 [1]	12/4/2025 3:03:53 PM	Hard disk rec
550016	Camera 1 [1]	12/4/2025 5:41:30 PM	Record on disk stopped
550016	Camera 1 [1]	12/4/2025 12:22:19 PM	Hard disk rec
550016	Camera 1 [1]	12/4/2025 3:01:53 PM	Record on disk stopped
550016	Camera 1 [1]	12/4/2025 12:00:00 AM	Hard disk rec
550016	Camera 1 [1]	12/4/2025 8:50:42 AM	Record on disk stopped

The search by captions looks in the following way:

The screenshot shows the search interface with the following settings:

- Search in archive: Loads
- Object name: [550016] 47 John Reed str.
- Search:
 - Period from: 12/ 4/2025 12:00:00 AM
 - to: 12/ 4/2025 3:54:45 PM
 - By captions: (empty)
 - By video clips of all cameras: (unselected)
 - By video clips of camera: Camera 1 [1] (unselected)
 - Data receive timeout (min.): 3
- Buttons: Search, Cancel, Video, Frames

The resulting table shows the following data:

ID	Camera	Date and time	Text
550016	Camera 1 [1]	12/4/2025 3:54:03 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 3:54:03 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 3:52:57 PM	ID: 550016 ALARM: Disarmed
550016	Camera 1 [1]	12/4/2025 3:52:57 PM	ID: 550016 ALARM: Disarmed
550016	Camera 1 [1]	12/4/2025 3:49:02 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 3:49:02 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 3:47:23 PM	ID: 550016 ALARM: Disarmed
550016	Camera 1 [1]	12/4/2025 3:47:23 PM	ID: 550016 ALARM: Disarmed
550016	Camera 1 [1]	12/4/2025 3:35:38 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 3:35:38 PM	ID: 550016 ALARM: Disarmed
550016	Camera 1 [1]	12/4/2025 3:12:50 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 3:12:50 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 3:03:57 PM	ID: 550016 ALARM: Disarmed
550016	Camera 1 [1]	12/4/2025 3:03:57 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 3:00:23 PM	ID: 550016 ALARM: Disarmed
550016	Camera 1 [1]	12/4/2025 3:00:23 PM	ID: 550016 ALARM: Disarmed
550016	Camera 2 [2]	12/4/2025 2:37:07 PM	ID: 550016 ALARM: Disarmed
550016	Camera 1 [1]	12/4/2025 2:37:07 PM	ID: 550016 ALARM: Disarmed

Further, on the basis of the video clips or captions search, you can load video frames and video clips.

Frame query looks in the following way:

Frame query
✕

Date and time msec

Camera

Number of frames

Interval between frames msec

Start

Immediately

Schedule

Data receive timeout, sec.

Open immediately

Search in archive
Loads

Type	Status	Loaded, %	Requested length, sec.	Date and time of planned start	Size, KB	Speed, #/ps	Received, #	Xini	Comment
Frames	Ready	100%		12/4/2025 5:52:45 PM	14	0	14		
Frames	Ready	100%		12/4/2025 5:52:45 PM	10	0	10		
Frames	Ready	100%		12/4/2025 5:52:45 PM	19	0	19		

Video query looks in the following way:

Video query ✕

Date and time: 📅

Camera:

Length (sec):

Bandwidth: Kbps

Export to avi:

Start:

Immediately

Schedule: 📅

Data receive timeout, sec.:

Open immediately

Search in archive Loads

▶ ⏪ ⏩ ⏹ Delete

ID	Object name	Camera	Date and time of requested video clip	Type	Status	Loaded, %	Requested length, sec.	Date and time of planned start	Size, KB	Speed, Kbps	Received, KB	Url	Comment
550016	47 John Reed str.	Camera 1 [1]	12/4/2025 3:03:53 000 PM	Video	Ready	100%	10	12/4/2025 5:54:22 PM	1874	0	1874		
550016	47 John Reed str.	Camera 1 [1]											
550016	47 John Reed str.	Camera 1 [1]											
550016	47 John Reed str.	Camera 1 [1]											

AxxonPSIM Player

ID: 550016 ALARM: Disarmed

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3:03:58 PM 12/4/2025

1. Device1001

3:03:58 PM 12/04/2025

00:00:04 03:03:58 PM 12/04/2025 00:00:04

When you select any option from the **Export to avi** list in the video query, the file in the AVI format is loaded in *Axxon One* since, in contrast to *Axxon PSIM*, it doesn't have its own video format.

Video query [X]

Date and time: 12/ 4/2025 3:03:53 PM

Camera: Camera 1 [1]

Length (sec): 10

Bandwidth: Without limitations KBps

Export to avi: Not used

Start:

- Immediately
- Schedule

Data receive timeout, sec.: 600

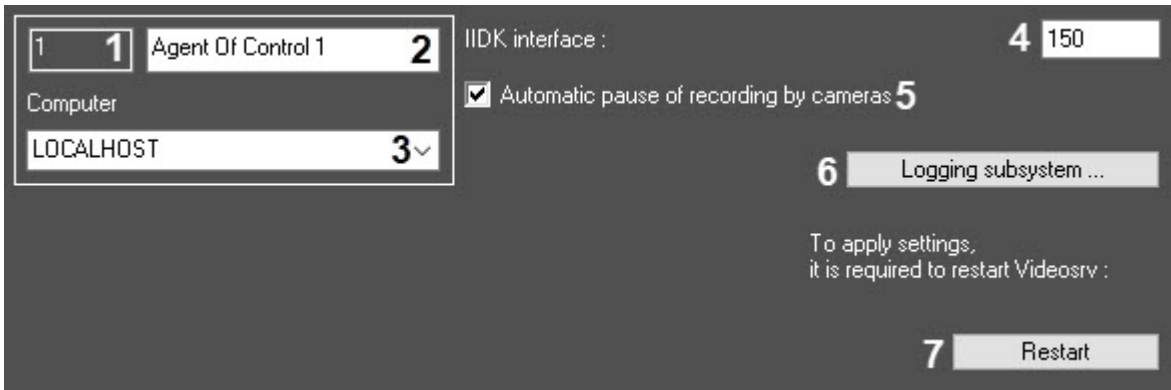
Open immediately

New Cancel

16 Appendix 1. Interfaces

16.1 The settings panel of the Agent Of Control object

The settings panel of the **Agent Of Control** object is given in the figure.



The description of the **Agent Of Control** object settings panel elements is given in the table.

No	Parameter	Method for setting the parameter value	Description	Type	Default value	Value range
1	The Identifier field*	Automaticall y	Displays the identification number of the Agent Of Control object in the system	Sequence of numbers	NA	>=0
2	The Name field*	Enter the value in the field	Sets the name of the Agent Of Control object in the system	Latin alphabet, Cyrillic, and service characters	Agent Of Control	A line containing a sequence of any characters (letters, digits, service characters except > and < characters), case-insensitive. Number of characters—from 1 to 60

No	Parameter	Method for setting the parameter value	Description	Type	Default value	Value range
3	The Computer drop-down list	Select the value from the list	Sets the name of the Computer parent object for the given Agent Of Control object	Name of the Computer objects registered in the system	Name of the Computer parent object	Depends on the number of the Computer objects in the system
4	The IIDK interface field	Enter the value in the field	Sets the number of the IIDK interface object used by the Agent Of Control	Sequence of numbers	150	>=0
5	The Automatic pause of recording by cameras checkbox	Set the checkbox	Specifies the mode of script execution to receive video frames and video clips from the archive. With the set checkbox, the code scripts are executed automatically. To configure them, use the SleepAfterDisarm and SleepAfterRecStop parameters of the HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\BitSoft\VHOST\VHostService registry key (see Vertical solutions). If you clear the checkbox, the code scripts aren't executed automatically. In this case, you can use scripts described here	Boolean type	Set	Set—code scripts are executed automatically Clear—code scripts aren't executed automatically For more details, refer to the Setting configurations for transferred video data page

No	Parameter	Method for setting the parameter value	Description	Type	Default value	Value range
6	The Logging subsystem.. . button	Click the button	Opens the file log parameters settings window	NA	NA	NA
7	The Restart button	Click the button	Restarts the VideoSrv communication module	NA	NA	NA

*Name of the element isn't displayed in the settings panel of the given object

16.2 Settings panel of the Partition Of Control object

Settings panel of the **Partition Of Control** object is given on figure.

The screenshot shows the settings panel for the 'Partition Of Control' object. The interface is dark-themed with white text and controls. Numbered callouts (1-14) point to various elements:

- 1**: ID input field (value: 386)
- 2**: Partition Of Control 1 (text label)
- 3**: Agent Of Control 1 (dropdown menu)
- 4**: ID input field (value: 386)
- 5**: TCP port (UPS) input field (value: 8888)
- 6**: Transmitting ... button
- 7**: Monitoring ... button
- 8**: Video data ... button
- 9**: Cameras table with columns 'Number' and 'Keep archive for (days)'. Row 1: 1, 60/0.
- 10**: Cameras ... button
- 11**: Sensors table with columns 'Sensor ID' and 'Sensor type'. Row 1: 1, Vibration sensor (frames,captions).
- 12**: Add ... button
- 13**: Edit ... button
- 14**: Delete button

Additional UI elements include 'Apply' and 'Undo' buttons at the bottom, and a 'Registration' panel showing 'No connection'.

Description of the **Partition Of Control** object settings panel elements is given in table.

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
1	Identifier	Enter the value in the field	Shows the identification number of the Partition Of Control object in the system	Latin letters and service characters	NA	NA
2	Name	Enter the value in the field	Shows the name of the Partition Of Control object in the system	Latin letters and service characters	Partition Of Control	A line representing a sequence of any symbols (letters, digits, service characters excluding characters: underscore "_", backslash "\", angle brackets ">" and "<", single quote "'"). Number of symbols – from 1 to 60
3	Agent Of Control	Is selected in the list	Assigns the parent Agent Of Control object for the Partition Of Control object	Names of Agent Of Control objects registered in the system	Name of the parent Agent Of Control object	Depends on the number of the Agent Of Control objects in the system
4	ID	Enter the value in the field	Sets the unique ID number for the object where <i>Agent of Control</i> is installed	Latin letters and some characters	386	A line representing a sequence of any symbols (letters, digits, service characters excluding characters: space " ", underscore "_", backslash "\" and single quote "'"), not case-sensitive. Number of symbols – from 1 to 9

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
5	TCP port (UPS)	Enter the value in the field	Sets the port on which to "listen" for UPS messages	Nonnegative integer	8888	from 1 to 60000
6	Transmitting...	Click the button	Opens a dialog box with settings for configuring the communication method between <i>Agent of control</i> and <i>Server of control</i>	NA	NA	NA
7	Monitoring...	Click the button	Opens a dialog box for configuring alarm groups	NA	NA	NA
8	Video data...	Click the button	Opens a dialog box for setting video data transferring configurations	NA	NA	NA
9	Cameras	Using the Cameras... button	Displays the list of cameras whose state and archives are monitored by <i>Agent of Control</i> and operating with which shall be available from <i>Monitoring PSIM</i> software interface	NA	NA	NA
10	Cameras..	Click the button	Opens a dialog box for adding cameras for <i>Monitoring PSIM</i>	NA	NA	NA

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
1 1	Sensors	Using the Add , Edit and Delete buttons	Displays IDs and types of sensors whose state is monitored by <i>Agent of Control</i> and on whose triggering video data are sent to the Server of Control	NA	NA	NA
1 2	Add...	Click the button	Opens a dialog box for adding a sensor. In this dialog box one can also setup video data sending on the sensor triggering	NA	NA	NA
1 3	Edit...	Click the button	Opens a dialog box for editing the sensor. This dialog box is similar to the one for adding a sensor	NA	NA	NA
1 4	Delete	Click the button	Deletes sensor from the list	NA	NA	NA

16.3 Settings panel of the Server Of Control object

Settings panel of the **Server Of Control** object is given on figure.

The screenshot shows the 'Server Of Control' settings panel. It is divided into several sections:

- Top Section:**
 - Field 1: Identifier (value: 1)
 - Field 2: Server Of Control name (value: Server Of Control 1)
 - Field 3: Computer (value: LOCALHOST)
 - Field 4: IIDK interface (value: 150)
 - Field 5: Event Viewer (value: >)
- Logging subsystem:**
 - Field 8: Auxiliary characters
 - Field 9: Alarm events
 - Field 10: System status
 - Field 11: Archive period (h) (value: 48)
 - Field 12: File size (MB) (value: 100)
 - Field 13: Keep archives for (months) (value: 3)
- Advanced:**
 - Field 6: Monitoring ... button
 - Field 7: Snapshots/video ... button
- Transfer:**
 - Field 14: TCP/IP port (Agent) (value: 7777)
 - Field 15: TCP/IP port (Archive) (value: 7755)
 - Field 16: First COM port number (value: Com1)
 - Field 17: Number of COM ports (value: 1)
 - Field 18: COM port speed (value: 9600)
 - Field 19: COM port format (value: 8N1)
- Bottom Section:**
 - Field 20: Transfer info about confirmed alarms to Agent Of Control
 - Field 21: Restart button

At the bottom of the panel are 'Apply' and 'Undo' buttons.

Description of the **Server Of Control** object settings panel elements is given in table.

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
1	Identifier	Automatically	Shows the identification number of the Server Of Control object in the system	Nonnegative integer	NA	≥ 0

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
2	Name	Enter the value in the field	Shows the name of the Server Of Control object in the system	Latin letters and service characters	Server Of Control	A line representing a sequence of any symbols (letters, digits, service characters apart from > and < symbols), not case-sensitive. Number of symbols – from 1 to 60
3	Computer	Is selected in the list	Assigns the parent Computer object for the Server Of Control object	Name of the Computer objects registered in the system.	Name of the parent Computer object	Depends on the number of the Computer objects in the system
4	IIDK interface	Enter a value in the field	Sets the ID of the IIDK interface object used by the <i>Server of Control</i>	Nonnegative integer	150	>=0
5	Event Viewer	Click the button	Opens the Event Viewer tool	NA	NA	NA
Advanced group						
6	Monitoring ...	Click the button	Opens the box of setting the list of additional workplaces	NA	NA	NA
7	Snapshots/ video...	Click the button	Opens a dialog box for configuring reaction to snapshots and videos receiving on sensors alarms at the <i>Agent of Control</i>	NA	NA	NA

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
Logging subsystem group						
8	Auxiliary characters	Is set in a checkbox	Enables logging of auxiliary characters at the transport level into the event log	Boolean type	False	True – logging of auxiliary characters is enabled False – logging of auxiliary characters is not performed
9	Alarm events	Is set in a checkbox	Enables logging alarms into the event log	Boolean type	True	True – logging of alarms is enabled False – logging of alarms is not performed
10	System status	Is set in a checkbox	Enables logging of events related to system status	Boolean type	True	True – logging of events related to system status is enabled False – logging of events related to system status is not performed
11	Archive period (h)	Enter the value in the field	Sets the frequency at which the log file is to be archived	Hours	48	>0
12	File size (MB)	Enter the value in the field	Sets the file size threshold upon which the log file is archived. This setting overrides the value in the Archive period (h) field	Megabytes	100	>0
13	Keep archives for (months)	Enter the value in the field	Sets the length of time for which you want to store archived log files	Months	3	from 1 to 24
Transfer group						

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
14	TCP/IP port (Agent)	Enter the value in the field	Sets the port number for TCP/IP communication with remote objects of Agent Of Control	Nonnegative integer	7777	from 1 to 60000
15	TCP/IP port (Archive)	Enter the value in the field	Sets the port number for TCP/IP communication with remote <i>Search in archive</i> module	Nonnegative integer	7755	from 1 to 60000
16	First COM port number	Is selected in the list	Sets the first COM port number	COM-ports names	Com1	from Com1 to Com 256
17	Number of COM ports	Is selected in the list	Sets number of COM ports used	Nonnegative integer	1	from 1 to 256
18	COM port speed	Is selected in the list	Sets the COM port speed	Baud	9600	110 300 1200 2400 4800 9600 19200 38400 57600

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
19	COM port format	Enter the value in the field	Sets the COM port format	COM port format	8N1	<ul style="list-style-type: none"> • first digit: from 5 to 9 data bits • second letter: N (No parity) – no parity bit, E (Even parity) - even parity bit, O (Odd parity) – odd parity bit • third digit: 1 or 2 stop bits
Outside the groups						
20	Transfer info about confirmed alarms to Agent Of Control	Set the checkbox	Enables sending confirmations of alarm acceptance by the operator on the <i>Server of Control</i> to the <i>Agent of Control</i>	Boolean type	Yes	<p>True – confirmations of alarm acceptance are sent</p> <p>False – confirmations of alarm acceptance are not sent</p>
21	Restart	Click the button	<i>VideoSrv</i> communication module restarting	NA	NA	NA

16.4 The settings panel of the Monitoring interface object

The settings panel of the **Monitoring** interface object is given on the figure.



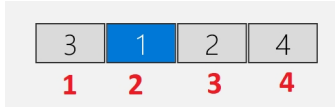
Description of the **Monitoring** object settings panel elements is given in table.

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
1	The Identifier field*	Automatically	Displays the identification number of the Monitoring object in the system	Sequence of numbers	NA	>=0

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
2	The Name field*	Enter the value in the field	Sets the name of the Monitoring object in the system	Latin alphabet, Cyrillic, and service characters	Monitoring	A line containing a sequence of any characters (letters, digits, service characters except > and < characters), case-insensitive. Number of characters— from 1 to 60
3	The Display drop-down list	Select the value from the field	Sets the name of the Display parent object for the given Monitoring object	Names of the Display objects registered in the system	Name of the Display parent object	Depends on the number of the Display objects registered in the system
4	The Groups of alarms group	Set the checkbox	Sets the groups of alarms that must be displayed on the control panel	Boolean type	All checkboxes except for Extra 1 and Extra 2 are set	If you set the checkbox next to the group of alarms, then if an alarm from the corresponding group occurs, it is displayed on the control panel
5	The Owners panel group					
	The Owners panel checkbox	Set the checkbox	Displays the owners panel	Boolean type	Set	Set—the owners panel is displayed Clear—the owners panel is hidden

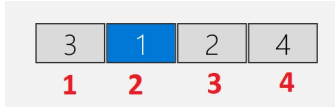
#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
	The X field	Enter the value in the field	Sets the coordinate of the upper left angle of the owners panel on the X axis	% of the screen width	0	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The Y field	Enter the value in the field	Sets the coordinate of the upper left angle of the owners panel on the Y axis	% of the screen height	50	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The W field	Enter the value in the field	Sets the horizontal size of the owners panel	% of the screen width	100	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
	The H field	Enter the value in the field	Sets the vertical size of the owners panel	% of the screen height	50	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The % field	Enter the value in the field	Sets the scaling of objects on the owners panel	Percent	100	From 100% to 500%. If the scaling parameter exceeds 110%, then the high-resolution icons are displayed on the object, and the Courier New font is used for the text in the object title; otherwise, MS Sans Serif

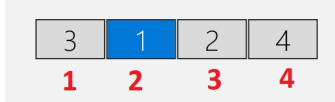
#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
	The Monitor drop-down list	Select the value from the list	<p>Sets the number of the physical monitor for which coordinates are specified. Monitors are numbered in physical order from left to right, from top to bottom. Thus, number 1 corresponds to the top-left monitor, regardless of which monitor is the primary or first in the OS numbering.</p> <p>In the figure, the monitor numbers in the OS are highlighted in gray, and the monitor numbers in Axxon PSIM are highlighted in red:</p>  <p>Attention! We recommend using the same resolution for all monitors in the system. Different resolutions are allowed only if each row of logical monitors is aligned to some sort of boundary (for example, to the top)</p>	Sequence of numbers	1	From 1 to 16
6	The Control panel group					
	The Control panel checkbox	Set the checkbox	Displays the control panel	Boolean type	Set	Set—the control panel is displayed Clear—the control panel is hidden

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
	The X field	Enter the value in the field	Sets the coordinate of the upper left angle of the control panel on the X axis	% of the screen width	0	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The Y field	Enter the value in the field	Sets the coordinate of the upper left angle of the control panel on the Y axis	% of the screen height	50	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The W field	Enter the value in the field	Sets the horizontal size of the control panel	% of the screen width	100	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
	The H field	Enter the value in the field	Sets the vertical size of the control panel	% of the screen height	50	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The % field	Enter the value in the field	Sets the scaling of objects on the control panel	Percent	100	From 100% to 500%. If the scaling parameter exceeds 110%, then the high-resolution icons are displayed on the object, and the Courier New font is used for the text in the object title; otherwise, MS Sans Serif

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
	The Monitor drop-down list	Select the value from the list	<p>Sets the number of the physical monitor for which coordinates are specified. Monitors are numbered in physical order from left to right, from top to bottom. Thus, number 1 corresponds to the top-left monitor, regardless of which monitor is the primary or first in the OS numbering.</p> <p>In the figure, the monitor numbers in the OS are highlighted in gray, and the monitor numbers in Axxon PSIM are highlighted in red:</p>  <p>Attention! We recommend using the same resolution for all monitors in the system. Different resolutions are allowed only if each row of logical monitors is aligned to some sort of boundary (for example, to the top)</p>	Sequence of numbers	1	From 1 to 16
7	The Log panel group					
	The Log panel checkbox	Set the checkbox	Displays the log panel	Boolean type	Set	Set—the log panel is displayed Clear—the log panel is hidden

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
	The X field	Enter the value in the field	Sets the coordinate of the upper left angle of the log panel on the X axis	% of the screen width	0	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The Y field	Enter the value in the field	Sets the coordinate of the upper left angle of the log panel on the Y axis	% of the screen height	0	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The W field	Enter the value in the field	Sets the horizontal size of the log panel	% of the screen width	100	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
	The H field	Enter the value in the field	Sets the vertical size of the control panel	% of the screen width	50	From 0 to 100. If there is more than one monitor in the system, you can use coordinates outside this range, but we don't recommend using coordinates less than -200
	The Monitor drop-down list	Select the value from the list	<p>Sets the number of the physical monitor for which coordinates are specified. Monitors are numbered in physical order from left to right, from top to bottom. Thus, number 1 corresponds to the top-left monitor, regardless of which monitor is the primary or first in the OS numbering.</p> <p>In the figure, the monitor numbers in the OS are highlighted in gray, and the monitor numbers in Axxon PSIM are highlighted in red:</p>  <p>Attention! We recommend using the same resolution for all monitors in the system. Different resolutions are allowed only if each row of logical monitors is aligned to some sort of boundary (for example, to the top)</p>	Sequence of numbers	1	From 1 to 16

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
8	The Non-empty Comment field checkbox	Set the checkbox	Sets if you want the operator to comment on an alarm or its actions when accepting this alarm	Boolean type	Set	Set—you must fill in the Comment field when accepting an alarm Clear—you can accept an alarm without a comment from the operator
9	The Use filter by events checkbox	Set the checkbox	Sets if you want to filter objects by the Alarm and Failure events as well as by the Connected and Disconnected states	Boolean type	Set	Set—filter is enabled Clear—filter is disabled
10	The Warning when watching live video checkbox	Set the checkbox	Sets if you want to display the warning about the possible critical load on the data transmission channel when viewing live video	Boolean type	Set	Set—if you try to view live video, the warning is displayed Clear—if you try to view live video, the requested video is displayed right away
11	The Viewing live video through gateway checkbox	Set the checkbox	Sets if the <i>Agents of Control</i> and <i>Additional workplaces</i> modules are in different subnetworks, the <i>Monitoring PSIM</i> components aren't combined into the common distributed system in the <i>Axxon PSIM</i> object tree, and the Data gateway object is used for the live video transmission to the <i>Additional workplaces</i> modules	Boolean type	Clear	Set—live video is transmitted via the data gateway Clear—live video is transmitted directly from the <i>Agent of control</i> module

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
1 2	The Viewing live video from all cameras (add.) checkbox	Set the checkbox	Sets if you want to add the All cameras of Partition of Control item to the Video image playback menu item, which allows displaying all cameras of the selected partition of control	Boolean type	Clear	Set—the All cameras of Partition of Control item is displayed in the Video image playback menu item Clear—the All cameras of Partition of Control item is hidden
1 3	The Video stream speed field	Enter the value in the field	<p>Sets the number of frames per second of the video image when you view live video or video from the archive.</p> <ul style="list-style-type: none"> • <i>Note 1. The Video stream speed setting is active for the archive video only when you use CamMonitor.ocx of version 4.11.0.1766 and higher.</i> • <i>Note 2. If the archive is recorded with the h264 codec and the video stream speed is set to more than 0 frames per second, then the archive video is played back only by reference frames.</i> • <i>Note 3. If the value of the video stream speed is 0, then the live and archive video aren't decimated</i> 	Frames per second	25	Depends on the camera features

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
14	The Compression drop-down list	Select the value from the list	Sets the live video compression level	Possible compression levels	No	0-5
15	The Cameras... button	Click the button	Opens a window for configuring cameras prohibited for viewing by users	NA	NA	NA
16	The Authorization... button	Click the button	Opens a window for configuring the username and password to view live video and video from the archive	NA	NA	NA
17	The Filter by owners table	Using the Filter... button	Displays the selected pairs of users and owners	NA	NA	NA
18	The Filter... button	Click the button	Opens a window for configuring the correspondence of owners to users	NA	NA	NA

*Name of the element isn't displayed in the settings panel of the given object

16.5 Settings panel of the Monitoring reports interface object

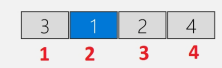
Settings panel of the **Monitoring reports** interface object is given on figure.

Description of the **Monitoring reports** object settings panel elements is given in table.

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
1	Identifier	Automatically	Shows the identification number of the Monitoring reports object in the system	Nonnegative integer	NA	≥ 0

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
2	Name	Enter the value in the field	Shows the identification number of the Monitoring reports object in the system	Latin letters and service characters	Monitoring reports	A line representing a sequence of any symbols (letters, digits, service characters apart from > and < symbols), not case-sensitive. Number of symbols – from 1 to 60
3	Display	Is selected in the list	Assigns the parent Display object for the Monitoring reports object	Names of Display objects registered in the system	Name of the parent Display object	Depends on the number of the Display objects in the system
4	X:	Enter the value in the field	Set the X coordinate in the horizontal axis for the upper-left corner of the Monitoring reports interface window	% of the screen width	0	From 0 to 100. When more than one monitor is connected to the computer it is possible to use coordinates outside this range, but it is not recommended to use coordinates less than -200
5	Y:	Enter the value in the field	Set the Y coordinate in the vertical axis for the upper-left corner of the Monitoring reports interface window	% of the screen height	50	From 0 to 100. When more than one monitor is connected to the computer it is possible to use coordinates outside this range, but it is not recommended to use coordinates less than -200

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
6	W:	Enter the value in the field	Sets width of the Monitoring reports interface window	% of the screen width	100	From 0 to 100. When more than one monitor is connected to the computer it is possible to use coordinates outside this range, but it is not recommended to use coordinates less than -200
7	H:	Enter the value in the field	Sets height of the Monitoring reports interface window	% of the screen height	50	From 0 to 100. When more than one monitor is connected to the computer it is possible to use coordinates outside this range, but it is not recommended to use coordinates less than -200

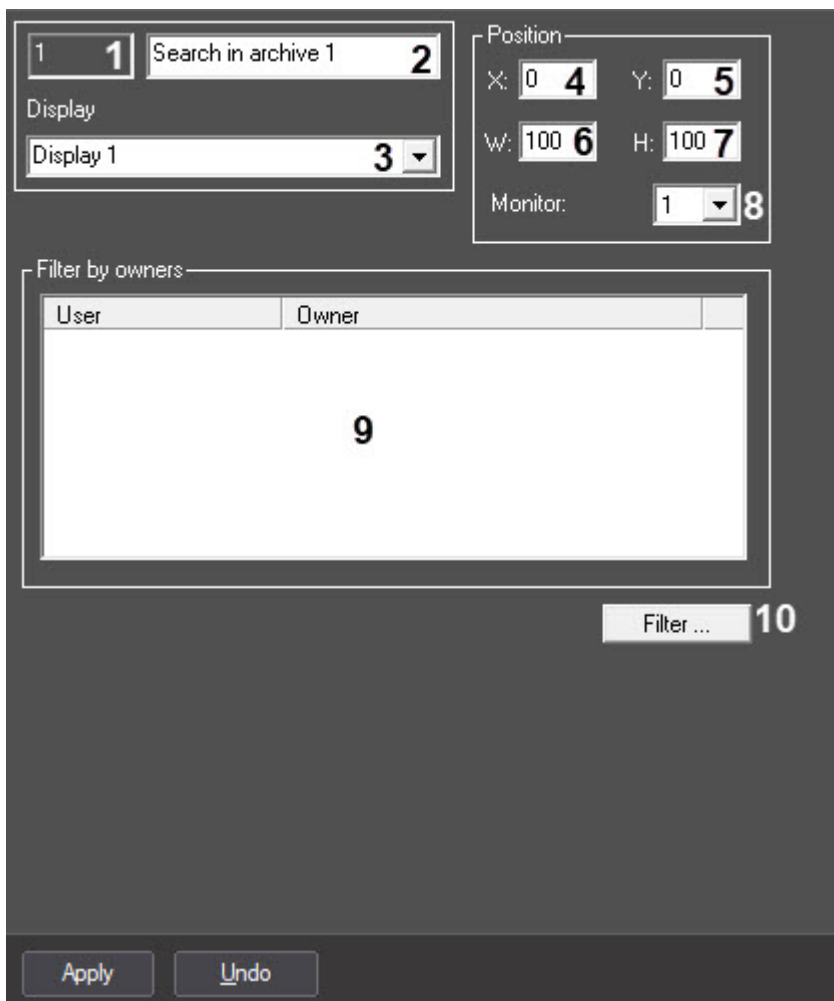
#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
8	Monitor	Select from the list	<p>Sets the number of the physical monitor which coordinates are specified. Monitors are numbered in physical order from left to right, top to bottom. Thus, number 1 corresponds to the top-left monitor, regardless of which monitor is the primary or first in the OS numbering.</p> <p>In the figure, the monitor numbers in the OS are highlighted in gray, and monitor numbers in <i>Axxon PSIM</i> are highlighted in red:</p> 	Nonnegative integer	1	From 1 to 16

Attention! It is recommended to use the same resolution for all monitors in the system. Different resolutions are allowed only if each row of logical monitors is aligned to some sort of boundary (for example, to the top)

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
9	Filter by owners	Via the Filter... button	Displays selected pairs of users and owners	NA	NA	NA
10	Filter...	Click the button	Opens a dialog box to match owners to users	NA	NA	NA
11	Reports	Set the check box	Select reports available in the interface window	Boolean type	All check boxes are set, full access to the Vehicle PLs report is set	Yes – the report button is displayed in the Monitoring reports interface window No – the report button is not displayed in the Monitoring reports interface window

16.6 Settings panel of the Search in archive interface object

Settings panel of the **Search in archive** interface object is given on figure.

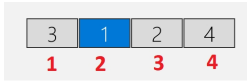


Description of the **Search in archive** object settings panel elements is given in table

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
1	Identifier	Automatically	Shows the identification number of the Search in archive object in the system	Nonnegative integer	NA	≥ 0

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
2	Name	Enter the value in the field	Shows the name of the Search in archive object in the system	Latin letters and service characters	Search in archive	A line representing a sequence of any symbols (letters, digits, service characters apart from > and < symbols), not case-sensitive. Number of symbols – from 1 to 60
3	Display	Is selected in the list	Assigns the parent Display object for the Search in archive object	Names of Display objects registered in the system	Name of the parent Display object	Depends on the number of the Display objects in the system
4	X:	Enter the value in the field	Set the X coordinate in the horizontal axis for the upper-left corner of the Search in archive interface box	% of the screen width	0	From 0 to 100. When more than one monitor is connected to the computer it is possible to use coordinates outside this range, but it is not recommended to use coordinates less than -200
5	Y:	Enter the value in the field	Set the Y coordinate in the vertical axis for the upper-left corner of the Search in archive interface box	% of the screen height	50	From 0 to 100. When more than one monitor is connected to the computer it is possible to use coordinates outside this range, but it is not recommended to use coordinates less than -200

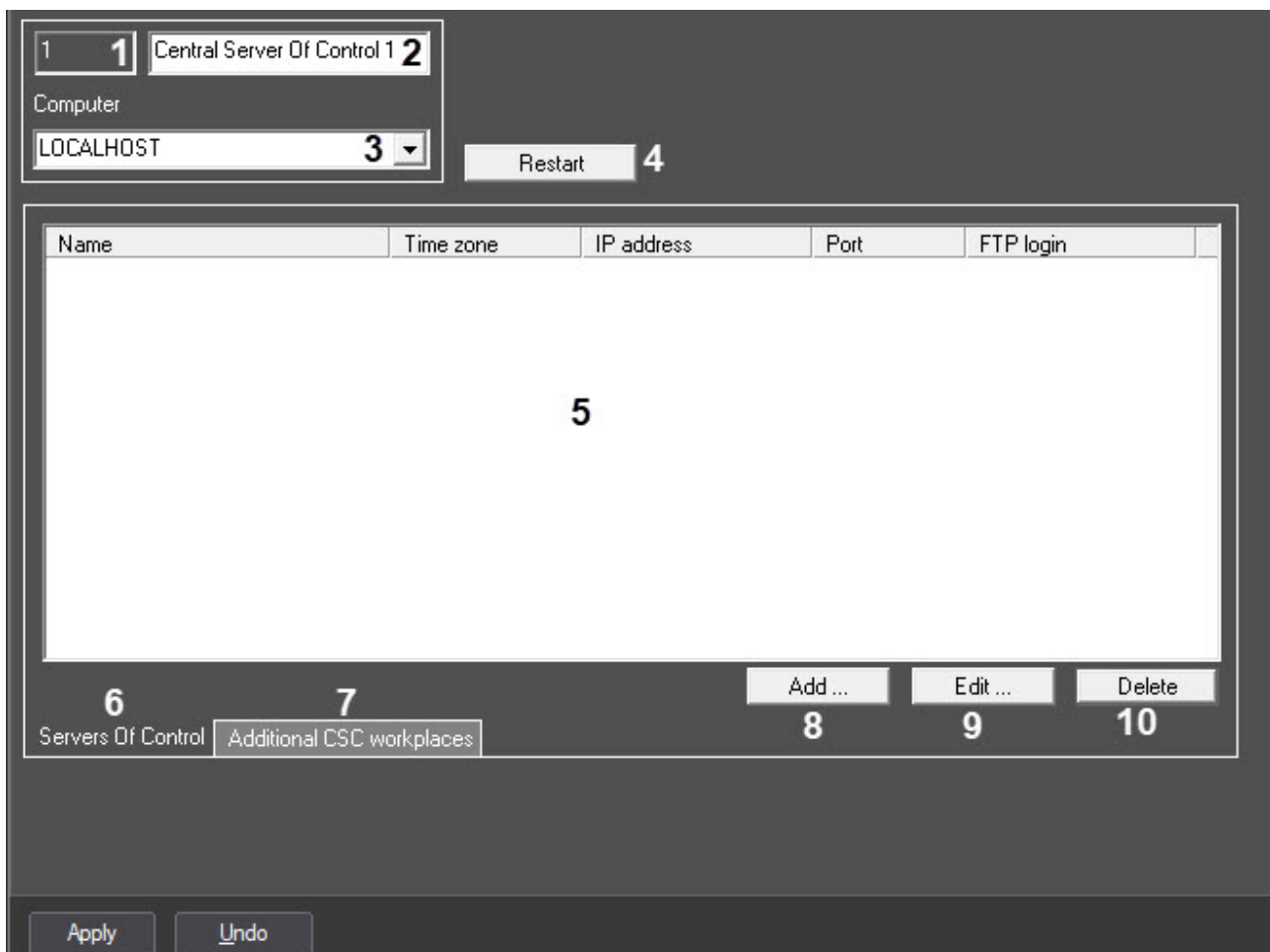
#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
6	W:	Enter the value in the field	Sets width of the Search in archive interface box	% of the screen width	100	From 0 to 100. When more than one monitor is connected to the computer it is possible to use coordinates outside this range, but it is not recommended to use coordinates less than -200
7	H:	Enter the value in the field	Sets height of the Search in archive interface box	% of the screen height	50	From 0 to 100. When more than one monitor is connected to the computer it is possible to use coordinates outside this range, but it is not recommended to use coordinates less than -200

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
8	Monitor	Select from the list	<p>Sets the number of the physical monitor which coordinates are specified. Monitors are numbered in physical order from left to right, top to bottom. Thus, number 1 corresponds to the top-left monitor, regardless of which monitor is the primary or first in the OS numbering.</p> <p>In the figure, the monitor numbers in the OS are highlighted in gray, and monitor numbers in <i>Axxon PSIM</i> are highlighted in red:</p>  <p>Attention! It is recommended to use the same resolution for all monitors in the system. Different resolutions are allowed only if each row of logical monitors is aligned to some sort of boundary (for example, to the top)</p>	Nonnegative integer	1	From 1 to 16
9	Filter by owners	Via the Filter... button	Displays selected pairs of users and owners	NA	NA	NA

#	Name	Method for setting the parameter value	Description	Type	Default value	Value range
10	Filter...	Click the button	Opens a window for configuring the correspondence of owners to users	NA	NA	NA

16.7 Settings panel of the Central Server Of Control object

Settings panel of the **Central Server Of Control** object is given on figure.



Description of the **Central Server Of Control** object settings panel elements is given in table.

No	Name	Method for setting the parameter value	Description	Type	Default value	Value range
1	Identifier	Automatically	Shows the identification number of the Central Server Of Control object in the system	Nonnegative integer	NA	>=0
2	Name	Enter the value in the field	Shows the name of the Central Server Of Control object in the system	Latin letters and service characters	Central Server Of Control	A line representing a sequence of any symbols (letters, digits, service characters apart from > and < symbols), not case-sensitive. Number of symbols – from 1 to 60
3	Computer	Select from the list	Assigns the parent Computer object for the Central Server Of Control object	Name of the Computer objects registered in the system	Name of the parent Computer object	Depends on the number of the Computer objects in the system
4	Restart	Click the button	Restart of the CentralNetServer communication module	NA	NA	NA
5	The table containing the monitored <i>Servers of Control</i> or added <i>Additional workplaces of CSC</i>	Automatically	The table containing the monitored <i>Servers of Control</i> or added <i>Additional workplaces of CSC</i>	NA	NA	NA
6	Servers Of Control	Click the tab	The tab for configuring and displaying the monitored <i>Servers of Control</i>	NA	NA	NA

№	Name	Method for setting the parameter value	Description	Type	Default value	Value range
7	Additional CSC workplaces	Click the tab	The tab for configuring and displaying the <i>Additional workplaces of CSC</i> which have the permission to be connected to the <i>Central Server of Control</i>	NA	NA	NA
8	Add...	Click the button	The settings window for adding the <i>Server of Control/Additional workplace of CSC</i>	NA	NA	NA
9	Edit...	Click the button	The settings window for editing the parameters of added <i>Servers of Control/Additional workplaces of CSC</i>	NA	NA	NA
10	Delete	Click the button	Deletes the selected <i>Server of Control/Additional workplace of CSC</i>	NA	NA	NA

17 Appendix 2. Sample scripts

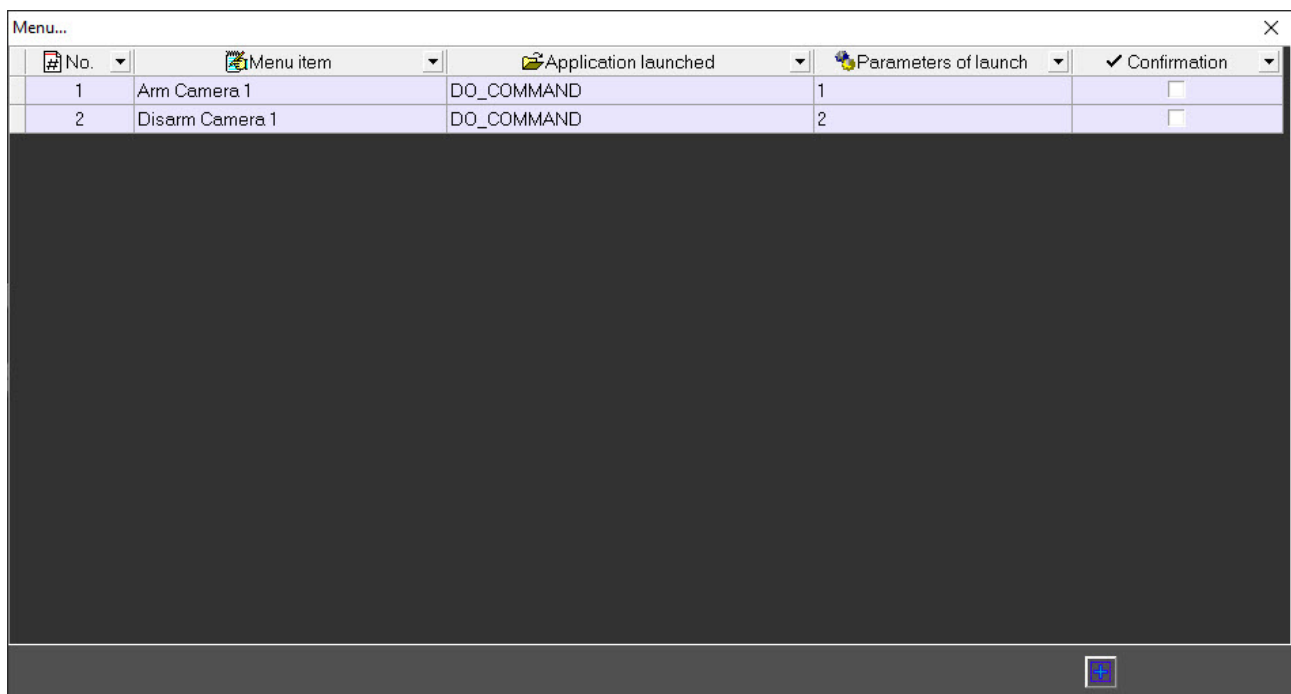
17.1 Sample script for processing Server of Control command on Agent of Control

In the *Monitoring PSIM* software package one can configure ad hoc command sending by the Operator of the *Server of Control* to the *Agent of Control*.

Information on how to configure commands on the *Server of Control* can be found in the section [Operator's Guide: Executing ad hoc command on the Agent of Control by the operator of Server of Control](#).

A script for processing incoming commands is to be created on the *Agent of Control*.

Extra menu items are created on the *Server of Control*: **Arm Camera 1** and **Disarm Camera 1**. They send a command with parameter 1 or 2 correspondently.



The sample of program in *Axxon PSIM* embedded language for processing the incoming command is shown below:

```
OnEvent("VIDEOSRV_C_DVC", "1", "DO_COMMAND")
{
  if (strequal(param0, "1"))
  {
    DoReact("CAM", "1", "ARM");
  }
  if (strequal(param0, "2"))
  {
    DoReact("CAM", "1", "DISARM");
  }
}
```

17.2 Sample script for setting custom filter in the Log panel

Custom filter on the **Log panel** can be changed with a script or macro. For more details on the filter and its configuration in the user interface, see [Custom filter in the Log panel](#).

Use APPLY_FILTER reaction of the VIDEOSRV_M object to create or change the custom filter in the **Log panel**:

```
DoReact("VIDEOSRV_M", "", "APPLY_FILTER", "computer<>, query<>");
```

Parameters:

computer<> – NetBIOS name of the computer to execute the command on.

query<> – filter condition.

The query<>parameter syntax:

query<TotalExpressions;BoolOperatorKind;Expression[;Expression]>

- **TotalExpressions** — number of expressions in the condition

Example:

TotalExpressions = 1 for condition (Cameras equal 2)

TotalExpressions = 3 for condition (Cameras equal 2) and ((Disks equal 1) or (Disks equal 2))

- **BoolOperatorKind** — boolean operator for main expression. Possible values:

– and

– or

Example:

BoolOperatorKind = and for condition (Cameras equal 2)

BoolOperatorKind = and for condition (Cameras equal 2) and ((Disks equal 1) or (Disks equal 2))

BoolOperatorKind = or for condition (Cameras equal 1) or (Cameras equal 2)

- **Expression** — one or several expressions

Format: Field;Expressions;LocalBoolOperator;OperatorKind;Value

- *Field* — name of the field in the DB table.

Possible values:

– ID

– Name

– Region

– Province

– City

– CamCnt

– ArcMax

– HddCnt

– IpAddress

– FirstRecord

– TemperHdd

– AvailMemory

– WorkingTime

– VerSoft

- *Expressions* — number of expressions in a subcondition.

Example:

Expressions = 1 for condition (Cameras equal 2) and ((Disks equal 1) or (Disks equal 2))

Expressions = 2 for condition (Cameras equal 2) and ((Disks equal 1) or (Disks equal 2))

- *LocalBoolOperator* — boolean operator for subconditions. Possible values:

– and

– or

Example:

LocalBoolOperator = and for condition (Cameras equal 2)
 LocalBoolOperator = or for condition (Cameras equal 2) and ((Disks equal 1) or (Disks equal 2))

- *OperatorKind* – operator type.
 Possible values:
 - Equal
 - NotEqual
 - Less
 - LessOrEqual
 - Greater
 - GreaterOrEqual
 - Like
 - NotLike
- *Value* – value to compare with.

Examples:

(Cameras equal 2) ▼

query<1;and;CamCnt;1;and;Equal;2>

With main expressions:

(Cameras less 5) AND (Cameras greater 3) ▼

query<2;and;CamCnt;1;and;Less;5;CamCnt;1;and;Greater;3>

With subquery:

((Cameras less 5) AND (Cameras greater 3)) ▼

query<2;and;CamCnt;2;and;Less;5;CamCnt;2;and;Greater;3>

((Cameras greater 1) AND (Cameras less 5) AND (Disks greater 0)) ▼

query<3;and;CamCnt;2;and;Greater;1;CamCnt;2;and;Less;5;HddCnt;1;and;Greater;0>

(Name ending with 47) ▼

query<1;and;Name;1;and;Like;%47>

17.3 Sample script for stopping camera recording

If you want for a JPEG still frame to be attached to an alarm message or video fragment when a sensor is activated (**Sensor** object), remember that this is possible only after the current archive file has been written to disk. To reduce the waiting time (the **Delay (sec.)** parameter, see the section [Configuring sensors](#)) and be assured of camera recording, you can create a **Program** object on the **Programming** tab of *Axxon PSIM* software package.

These programs are written for a camera with an ID of 1 and for a **Sensor** object whose ID is also equal to 1. Thanks to these programs, the value of the **Delay** parameter can be set equal to 7 seconds.

⚠ Attention!

To get several video fragments, you can specify several repeated commands "REC" and "REC_STOP" in the script. If "rollback" is used, and the prerecording time in the settings of the **Camera** object is greater than or equal to the time between subsequent "REC_STOP" and "REC" commands, then this video fragment will be combined with the next video fragment.

Option 1. The camera is disarmed:

```
OnEvent("GRAY","1","ALARM")
{
[
  if( !CheckState("CAM","1","DETACHED") )
  {
    DoReact("CAM","1","REC","rollback<1>");
    Wait(5);
    DoReact("CAM","1","REC_STOP","priority<2>");
  }
]
}

```

```
OnEvent("GRAY","1","ALARM")
{
[
  Wait(2);
  DoReact("GRAY","1","CONFIRM");
  Wait(2);
  DoReact("GRAY","1","ARM");
]
}

```

Option 2. Camera is armed:

```
OnEvent("GRAY","1","ALARM")
{
[
  if( !CheckState("CAM","1","DETACHED") )
  {
    DoReact("CAM","1","DISARM");
    Sleep(50);
    DoReact("CAM","1","REC","rollback<1>");
    Wait(5);
    DoReact("CAM","1","REC_STOP","priority<2>");
    Sleep(2050); // Prerecording time in the Camera settings = 2 sec.
    DoReact("CAM","1","ARM");
  }
]
}

```

```
OnEvent("GRAY","1","ALARM")
{

```

```
[
  Wait(2);
  DoReact("GRAY","1","CONFIRM");
  Wait(2);
  DoReact("GRAY","1","ARM");
]
```

Option 3. Continuous recording:

```
OnEvent("GRAY","1","ALARM")
{
  [
    if( !CheckState("CAM","1","DETACHED") )
    {
      Wait(5); // Specifies the time after which the recording should be stopped in
order to get the required video fragment or number of frames
      DoReact("CAM","1","REC_STOP","priority<2>");
      Sleep(2050); // Prerecording time in the Camera settings = 2 sec.
      DoReact("CAM","1","REC","rollback<1>"); // Start recording with 2 sec
rollback (during prerecording). Thus, data in the archive is not lost.
    }
  ]
}

OnEvent("GRAY","1","ALARM")
{
  [
    Wait(2);
    DoReact("GRAY","1","CONFIRM");
    Wait(2);
    DoReact("GRAY","1","ARM");
  ]
}
```

17.4 Sample scripts for processing alarm confirmations

The **Partition Of Control** object (VIDEOSRV_C_DVC) sends the «Confirm: Event of monitoring» (CONF_MON) message to *Axxon PSIM* core when an alarm is confirmed.

When the confirmation type is **Simple**, then param0<> has the same value as the ID of event that is confirmed (see [Configuration for associating events with certain alarm groups](#) section). When **param1<>** is **0**, it means that a Simple confirmation is used.

Below you will find a sample program that can be written on the *Agent Of Control* in order to process a received simple confirmation. As a result a camera is armed.

```
OnEvent("VIDEOSRV_C_DVC","1","CONF_MON")
{
  if (strequal(param0,"1"))
  {
```

```
DoReact("CAM","1","ARM");
}
}
```

When the confirmation type is **Complex**, then param0<> has the value of the ID of event that is confirmed (see [Configuration for associating events with certain alarm groups](#) section). If param1<> is **1**, it means that the operator has clicked the **OK** button in the confirm box. If the operator clicked the **Cancel** button, then param1<> would be **2**.

Below you will find a sample program that can be written on the *Agent of Control* in order to process a received complex confirmation. As a result a camera is armed only when the operator clicks the **OK** button in the confirm box.

```
OnEvent("VIDEOSRV_C_DVC","1","CONF_MON")
{
  if (strequal(param0,"1")&&strequal(param1,"1"))
  {
    DoReact("CAM","1","ARM");
  }
}
```

17.5 Sample script to export filtered data from the Log panel to .xls

Before executing this command, apply filter in the **Log panel**. It can be done from the user interface (see [Custom filter in the Log panel](#)) or by a script (see [Sample script for setting custom filter in the Log panel](#)).

Export filtered **Log panel** data to the test.xls file on disk C:

```
DoReact("VIDEOSRV_M","", "EXPORT_EXCEL", "computer<NamePC>, file<c:\test.xls>");
```

17.6 Sample script to show and hide Search license plates window

Show **Search license plates** window with 70% screen width and 50% screen height in the upper left of the display:

```
DoReact("VIDEOSRV_M","", "SHOW_AUTO", "computer<NamePC>, x<0>, y<0>, w<70>, h<50>");
```

Hide **Search license plates** window:

```
DoReact("VIDEOSRV_M","", "HIDE_AUTO", "computer<NamePC>");
```

Parameters:

computer<> – name of the computer to execute command on.

x<> – X-axis coordinate of upper left corner the window.

y<> – Y-axis coordinate of upper left corner the window.

w<> – window width as a percentage of the screen width.

h<> – window height as a percentage of the screen height.

17.7 Sample scripts for the special mode of Monitoring PSIM operation with ACFA PSIM

17.7.1 Sample script for configuring the interaction between the Monitoring PSIM and the Apollo integration module

This script records the users from the *Server of Control* side into the *Apollo* integration module, which is installed on the *Agent of Control* side.

Attention!

The configuration guide for the *Apollo* integration module is available in the documentation for *ACFA PSIM*. This script can be modified for any other integration module that supports user entry into the controller.

Note

For details, see [Configuring the special mode of Monitoring PSIM operation with ACFA PSIM](#).

```
function SetPersons(srcDepartment, destTable, destTableSize, msg)
{
    var users = CreateMsg();
    users.StringToMsg(GetObjectIds("PERSON"));
    var userCount = users.GetParam("id.count");
    var i;
    var index;
    for(i = 0, index = 1; (index <= destTableSize) && (i < userCount); ++i)
    {
        var user = users.GetParam("id." + i);
        if(GetObjectParentId("PERSON", user, "DEPARTMENT") == srcDepartment)
        {
            msg.SetParam("USERS.user_id." + Itv_var("counter"), user);
            msg.SetParam("USERS.number." + Itv_var("counter"), index);
            msg.SetParam("USERS.key_type." + Itv_var("counter"), destTable);
            index++;
            Lock();
            Itv_var("counter")++;
            Unlock();
        }
    }
}

if(Event.SourceType == "VIDEOSRV_C" && Event.Action == "SPR_DATA_UPDATED")
{
    var APOLLO_TYPE = "APOLLO_DEVICE";
    var APOLLO_ID = "1.1";
    var WRITE_CONFIG_REACT = "WRITE_CONFIG";
    Itv_var("counter") = 0;
    var msg = CreateMsg();
    msg.SourceType = "CORE";
    msg.SourceId = "";
```

```

msg.Action = "UPDATE_OBJECT";
msg.SetParam("objtype", APOLLO_TYPE);
msg.SetParam("objid", APOLLO_ID);
var type = GetObjectParam(APOLLO_TYPE, APOLLO_ID, "type");
if(type == "A6")
{
    SetPersons("1", "USER", 79, msg);
}
else
{
    SetPersons("1", "USER", 255, msg);
}
SetPersons("2", "POLICE", 15, msg);
SetPersons("3", "ELECTRIC", 15, msg);

msg.SetParam("USERS.user_id.count", Itv_var("counter"));
msg.SetParam("USERS.number.count", Itv_var("counter"));
msg.SetParam("USERS.key_type.count", Itv_var("counter"));
NotifyEvent(msg);
NotifyEventStr(APOLLO_TYPE, APOLLO_ID, WRITE_CONFIG_REACT, "");
}

```

17.7.2 Sample scripts for determining the current state of the zones of the Apollo object on the Agent of Control side

This script determines the current state of the zones on the *Agent of Control* side with the configured *Apollo* integration module. Also, when the **GET_OBJECT_STATE** event is received, this script generates the **OBJECT_STATE_INFO** event. The zones are configured and assigned to the corresponding loops when configuring the *Apollo* integration module.

Attention!

The configuration guide for the *Apollo* integration module is available only in the documentation for *ACFA PSIM*. This script can be modified for any other integration module that supports user entry into the controller.

Note

For details, see [Configuring the special mode of Monitoring PSIM operation with ACFA PSIM](#).

```

function GetStateByCounts(armedCount, disarmedCount)
{
    /* If there are both armed and disarmed zones, then we consider that arming is
    partially completed */
    if(armedCount > 0 && disarmedCount > 0)
    {
        return "PART_ARMED";
    }
    /* If there are only armed zones, then we consider that the controller is armed
    */
}

```

```

else if(armedCount > 0)
{
    return "ARMED";
}
/* We consider that the controller is disarmed */
return "DISARMED"
}
function ZoneIsUsed(params, id)
{
    var count = params.GetParam("TABLE.zone.count");
    var number = GetObjectParam("APOLLO_ZONE", id, "number");
    var i;
    for(i=0; i < count; ++i)
    {
        if(params.GetParam("TABLE.zone." + i) == number)
        {
            return "true";
        }
    }
    return "false";
}
function GetControllerState(id, zones)
{
    /* Get the controller configuration*/
    var params = CreateMsg();
    params.StringToMsg(GetObjectParams("APOLLO_DEVICE", id));
    /* Get the number of zones used by the controller */
    var count = params.GetParam("TABLE.zone.count");
    /* If the controller uses the zones */
    if(count > 0)
    {
        /* The number of armed and disarmed zones */
        var armedCount = 0;
        var disarmedCount = 0;
        var zoneCount = zones.GetParam("id.count");
        var j;
        for(j = 0; j < zoneCount; ++j)
        {
            /* Determine if the zone belongs to the current controller
            and determine whether this zone is used by the current controller */
            var zone = zones.GetParam("id."+j);
            if(GetObjectParentId("APOLLO_ZONE", zone, "APOLLO_DEVICE") == id &&
ZoneIsUsed(params, zone) == "true")
            {
                /* Check the state of the zone */
                var state = GetObjectState("APOLLO_ZONE", zone);
                switch(state)
                {
                    case "ARMED":
                    case "ALARM_ARMED":
                    case "TROUBLE_ARMED":
                        armedCount++;
                        break;

```

```

        case "DISARMED":
        case "TROUBLE_DISARMED":
            disarmedCount++;
            break;
        }
    }
}

/* Check the state of the object */
return GetStateByCounts(armedCount, disarmedCount, msg);
}
function GetSkdStateMsg(type, id, action)
{
    var devices = CreateMsg();
    devices.StringToMsg(GetObjectIds("APOLLO_DEVICE"));
    var count = devices.GetParam("id.count");
    var zones = CreateMsg();
    zones.StringToMsg(GetObjectIds("APOLLO_ZONE"));
    /* The number of armed and disarmed zones */
    var armedCount = 0;
    var disarmedCount = 0;
    var i;
    for(i = 0; i < count; ++i)
    {
        var device = devices.GetParam("id."+i);
        var state = GetControllerState(device, zones);
        switch(state)
        {
            case "PART_ARMED":
                disarmedCount++;
            case "ARMED":
                armedCount++;
                break;
            case "DISARMED":
                disarmedCount++;
                break;
        }
    }
    var msg = CreateMsg();
    msg.SourceType = type;
    msg.SourceId = id;
    msg.Action = action;

    msg.SetParam("state", GetStateByCounts(armedCount, disarmedCount));
    msg.SetParam("card", "");
    return msg;
}
if(Event.SourceType == "VIDEOSRV_C" && Event.Action == "GET_OBJECT_STATE")
{
    NotifyEvent(GetSkdStateMsg(Event.SourceType, Event.SourceId, "OBJECT_STATE_INFO")
);
}

```

```

else if(Event.SourceType == "APOLLO_DEVICE" &&
(Event.Action == "A06_CLOSE" ||
Event.Action == "A16_CLOSE" ||
Event.Action == "A06_OPEN" ||
Event.Action == "A16_OPEN" ||
Event.Action == "A06_POLICE" ||
Event.Action == "A16_POLICE" ||
Event.Action == "A06_ELECTRIC" ||
Event.Action == "A16_ELECTRIC" ||
Event.Action == "A06_ENTRY" ||
Event.Action == "A16_ENTRY"))
{
    var card = Event.GetParam("key_code");
    var msg = GetSkdStateMsg("VIDEOSRV_C", "1", "OBJECT_STATE_INFO");
    msg.SetParam("card", card);
    NotifyEvent(msg);
}

```

17.8 Sample scripts for determining the current state of the relay on the Agent of Control side

This script determines the current state of the relay on the *Agent of Control* side. Also, when the **GET_OBJECT_STATE** event is received, this script generates the **OBJECT_STATE_INFO** event (for details, see [Configuring alarms for monitoring object's state on the Agent of Control side](#)). Using the **card** parameter from the *Agent of Control*, it is possible to transfer any additional information to the *Server of Control*. This information will be displayed in the **Event log** (see [Event log](#)).

```

function GetReleStateMsg(type, id, action, card)
{
    var state = GetObjectState("GRELE","1");
    var msg = CreateMsg();
    msg.SourceType = type;
    msg.SourceId = id;
    msg.Action = action;
    msg.SetParam("state", (state=="OFF")?"DISARMED":"ARMED");
    msg.SetParam("card", card);
    return msg;
}

if(Event.SourceType=="VIDEOSRV_C" && Event.SourceId=="1" && Event.Action=="GET_OBJECT_STATE")
{
    NotifyEvent(GetReleStateMsg(Event.SourceType, Event.SourceId, "OBJECT_STATE_INFO", ""));
}
else if(Event.SourceType=="GRELE" && (Event.Action=="ON" || Event.Action=="OFF"))
{
    NotifyEvent(GetReleStateMsg("VIDEOSRV_C", "1", "OBJECT_STATE_INFO", ""));
}

```

17.9 Example of script for creating report on system failures

Note

You must create and configure the **Timer** object beforehand.

You can automatically generate **Report on system failures** (see [Report on system failures](#)) using the script that uses the REPORT_FAILURES reaction of the VIDEOSRV_R object:

```
DoReact("VIDEOSRV_R", "", "REPORT_FAILURES", "computer<>,file<>,export<>,object<>,region<>,district<>,city<>,type<>,fromTime<>,toTime<>,sorting<>,comment<>");
```

The parameters description is given in the table below:

Parameter	Description
computer<>	Specifies the NetBIOS name of the computer on which the report must be created. Mandatory parameter
file<>	The full path to the file where the report is saved. Mandatory parameter
export<>	Format of the export file. 0—Excel, 1—HTML, 2—RTF, 3—CSV. Optional parameter. If this parameter is absent, the file is exported in the Excel format
object<>	The object by which a report is created. In this parameter, you must specify the Object code parameter that you can see on the log panel of the Monitoring interface object (see Information about an object). If there are several objects for the report, the object codes are specified, separated by a comma. Optional parameter. If this parameter is absent, a report is created for all objects
region<>	Filter by region. You must specify the serial numbers of the required objects separated by commas in the Region drop-down list. For example, region<1,3> (see Report on system failures). Optional parameter. If this parameter is absent, a report is created for all regions

Parameter	Description
district<>	<p>Filter by district. You must specify the serial numbers of the required objects separated by commas in the District drop-down list. For example, district<2,3,5> (see Report on system failures).</p> <p>Optional parameter. If this parameter is absent, a report is created for all districts</p>
city<>	<p>Filter by city. You must specify the serial numbers of the required objects separated by commas in the City drop-down list. For example, city<1,2> (see Report on system failures).</p> <p>Optional parameter. If this parameter is absent, a report is created for all cities</p>
type<>	<p>Filter by the failure type. You must specify the serial numbers of the required objects separated by commas in the Failure type drop-down list. For example, type<1,3,5> (see Report on system failures).</p> <p>Optional parameter. If this parameter is absent, a report is created for all failure types</p>
fromTime<>	<p>The date and time of the report beginning in the "DD-MM-YY HH:MM:SS" format.</p> <p>Mandatory parameter</p>
toTime<>	<p>The date and time of the report ending in the "DD-MM-YY HH:MM:SS" format.</p> <p>Mandatory parameter</p>
sorting<>	<p>Sorting mode. 0—by event, 1—by time.</p> <p>Optional parameter. If this parameter is absent, sorting by event is used</p>
comment<>	<p>Show comment. 0—don't show, 1—show.</p> <p>Optional parameter. If this parameter is absent, comments aren't shown</p>
duration <>	<p>Filter by the failures' duration. The duration of failures in a report must be greater than the specified value in seconds. Optional parameter. If this parameter is absent, a report is created for all failures of any duration</p>

Parameter	Description
owners <>	<p>Filter by owners. In the mode when the filter isn't used in the settings of the Monitoring reports interface object, specify the serial numbers of the required objects separated by commas in the Owner drop-down list. For example, owners<1,3> (see Report on system failures).</p> <p>Optional parameter. If this parameter is absent, a report is created for all owners</p>

The example of a script that automatically creates **Report on system failures** every day at 20:00 and saves it to the C:\report.html file:

Click here to expand

```

if (Event.SourceType=="TIMER" && Event.SourceId=="1" && Event.Action=="TRIGGER")
{
    var currentDate = new Date();
    var strCurDate = getDay(currentDate) + "-" + getMonth(currentDate) + "-" +
getYear(currentDate);
    DoReactStr("VIDEOSRV_R","", "REPORT_FAILURES", "computer<MONITORING>,file<c:\
\report.html>,export<1>,fromTime<" + strCurDate + " 00:00:00>,toTime<" +
strCurDate + " " + getTime(currentDate) + ">");
}

function getMonth(d)
{
    var month = (d.getMonth() + 1).toString();
    if (month.length == 1)
    {
        month = "0" + month;
    }
    return month;
}

function getDay(d)
{
    var day = d.getDate().toString();
    if (day.length == 1)
    {
        day = "0" + day;
    }
    return day;
}

function getYear(d)
{
    var year = d.getFullYear().toString().substr(2, 2);
    return year;
}

function getTime(d)
{

```

```

var time = d.getHours() + ":" + d.getMinutes() + ":" + d.getSeconds();
return time;
}

```

17.10 Example of script for creating report on alarm events

Note

You must create and configure the **Timer** object beforehand.

You can automatically generate **Report on alarm events** (see [Report on alarm events](#)) using the script that uses the REPORT_ALARMS reaction of the VIDEOSRV_R object:

```

DoReact("VIDEOSRV_R", "", "REPORT_ALARMS", "computer<>, file<>, export<>, object<>, region<>, district<>, city<>, type<>, fromTime<>, toTime<>, sorting<>, comment<>, filter<>");

```

The parameters description is given in the table below:

Parameter	Description
computer<>	Specifies the NetBIOS name of the computer on which the report must be created. Mandatory parameter
file<>	The full path to the file where the report is saved. Mandatory parameter
export<>	Format of the export file. 0—Excel, 1—HTML, 2—RTF, 3—CSV. Optional parameter. If this parameter is absent, the file is exported in the Excel format
object<>	The object by which a report is created. In this parameter, you must specify the Object code parameter that you can see on the log panel of the Monitoring interface object (see Information about an object). If there are several objects for the report, the object codes are specified, separated by a comma. Optional parameter. If this parameter is absent, a report is created for all objects
region<>	Filter by region. You must specify the serial numbers of the required objects separated by commas in the Region drop-down list. For example, region<1,3> (see Report on alarm events). Optional parameter. If this parameter is absent, a report is created for all regions

Parameter	Description
district<>	<p>Filter by district. You must specify the serial numbers of the required objects separated by commas in the District drop-down list. For example, district<2,3,5> (see Report on alarm events).</p> <p>Optional parameter. If this parameter is absent, a report is created for all districts</p>
city<>	<p>Filter by city. You must specify the serial numbers of the required objects separated by commas in the City drop-down list. For example, city<1,2> (see Report on alarm events).</p> <p>Optional parameter. If this parameter is absent, a report is created for all cities</p>
type<>	<p>Filter by the alarm event. You must specify the serial numbers of the required objects separated by commas in the Alarm event drop-down list. For example, type<1,3,5> (see Report on alarm events).</p> <p>Optional parameter. If this parameter is absent, a report is created for all alarms</p>
fromTime<>	<p>The date and time of the report beginning in the "DD-MM-YY HH:MM:SS" format.</p> <p>Mandatory parameter</p>
toTime<>	<p>The date and time of the report ending in the "DD-MM-YY HH:MM:SS" format.</p> <p>Mandatory parameter</p>
sorting<>	<p>Sorting mode. 0—by event, 1—by time.</p> <p>Optional parameter. If this parameter is absent, sorting by event is used</p>
comment<>	<p>Show comment. 0—don't show, 1—show.</p> <p>Optional parameter. If this parameter is absent, comments aren't shown</p>
filter<>	<p>Text filter by messages of monitored alarms (see Configuring alarm groups).</p> <p>Optional parameter</p>

Parameter	Description
owners <>	Filter by owners. In the mode when the filter isn't used in the settings of the Monitoring reports interface object, specify the serial numbers of the required objects separated by commas in the Owner drop-down list. For example, owners<1,3> (see Report on alarm events). Optional parameter. If this parameter is absent, a report is created for all owners
countalr<>	Filter by alarms duplicate. The countalr<> value contains the Duplicate filter setting and is specified in seconds (see Report on alarm events). Optional parameter. If this parameter is absent, a report is created for all alarm events

The example of a script that automatically creates **Report on alarm events** every day at 20:00 and saves it to the C:\report.html file:

Click here to expand

```

if (Event.SourceType=="TIMER" && Event.SourceId=="1" && Event.Action=="TRIGGER")
{
    var currentDate = new Date();
    var strCurDate = getDay(currentDate) + "-" + getMonth(currentDate) + "-" +
getYear(currentDate);
    DoReactStr("VIDEOSRV_R","", "REPORT_ALARMS", "computer<MONITORING>,file<c:\
\report.html>,export<1>,fromTime<" + strCurDate + " 00:00:00>,toTime<" +
strCurDate + " " + getTime(currentDate) + ">");
}

function getMonth(d)
{
    var month = (d.getMonth() + 1).toString();
    if (month.length == 1)
    {
        month = "0" + month;
    }
    return month;
}

function getDay(d)
{
    var day = d.getDate().toString();
    if (day.length == 1)
    {
        day = "0" + day;
    }
    return day;
}

function getYear(d)
{

```

```
    var year = d.getFullYear().toString().substr(2, 2);  
    return year;  
}  
  
function getTime(d)  
{  
    var time = d.getHours() + ":" + d.getMinutes() + ":" + d.getSeconds();  
    return time;  
}
```