WEB Report System PSIM. User Guide

WEB Report System PSIM 1.0.1 (english)

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1 Introduction

1.1 The purpose of the document

WEB Report System PSIM. User Guide document contains information that is necessary for setting and further operation of *Axxon PSIM* software package report system and its vertical solutions. In the system working with reports is made through Web interface.

The structure of the document allows the user to skim over the provided information about *WEB Report System PSIM* and select, according to degree of training, interesting parts for detailed study. Chapters in the guide are of information or reference content. They have their own internal structure.

The Introduction chapter is for general examination of the user with *WEB Report System PSIM* functionality and implementation features.

Recommendations that are necessary to user-administrator for *WEB Report System PSIM* installation are given in details in the Requirements for WEB Report System PSIM implementation and WEB Report System PSIM installation and removal chapters of this guide.

Description of startup and shutdown of *WEB Report System PSIM* system is given in WEB Report System PSIM startup and shutdown chapter.

A brief excursus into system interface is given in Web Report System PSIM interface chapter.

Further in the WEB Report System PSIM administration chapter there are step-by-step instructions for setting user private parameters and activation of required functionality. This information is useful both for system administrator and for operator who has rights to administrate system settings.

Information about using *WEB Report System PSIM* functionality is given in the Working with WEB Report System PSIM chapter.

1.2 Purpose of WEB Report System PSIM

WEB Report System PSIM is a site that is located in the local network or Internet according to the requirements of the security system that is performed on the basis of *Axxon PSIM*. Administration and working with this system is performed entirely through the Web interface.

Web interface of *WEB Report System PSIM* allows accomplishing the following tasks:

1. Creating and exporting reports of *Access Manager* module (Access Manager reports). ACFA PSIM is required for working.
2. Creating and exporting general and detailed reports by work time accounting (Time and Attendance reports). ACFA PSIM is required for working.
3. Creating and exporting reports by performed changes, by event log and viewing video archive from registration time of the selected event in the report (General reports). The base Axxon PSIM is required for working.
4. Creating and exporting reports of *Auto PSIM* module (AUTO reports). Auto PSIM is required for working.
5. Creating and exporting general and detailed reports by count of people in the monitored object (Visitors counting detectors). The DetectorPack PSIM, Face PSIM and POS PSIM are required for working.
6. Creating and exporting reports by queue length (Queue length detectors). The DetectorPack PSIM is required for working.
7. Creating and exporting general and detailed reports by POS-events (POS reports). POS PSIM and DetectorPack PSIM are required for working.
8. Creating and exporting visitors behavior reports (Visitors behavior analysis). The DetectorPack PSIM is required for working.

9. Creating and exporting incident manager reports (Incident manager service reports). The base Axxon PSIM is required for working.
10. Setting up the varied user access to all reports.
11. Setting up *WEB Report System PSIM* operation in the auto mode.

> **Note**
>
> In *WEB Report System PSIM* you can generate reports automatically on the schedule with subsequent saving report files on the local computer and/or sending them by e-mail.

1.3 Components of the WEB Report System PSIM

The following components perform *WEB Report System PSIM* realization:

1. Web-Server – computer that is supposed to be used for location of system site.
2. Clients – computers that are supposed to display Web interface of system.

In particular case Client and Web-Server of *WEB Report System PSIM* can coincide. In other cases Web-Server should be available for Clients through network.

Installation of *WEB Report System PSIM* is performed only on computer that is supposed to be used as Web-Server (see WEB Report System PSIM installation and removal chapter).

Requirements for realization of Web-Server and Client are given in details in Requirements for WEB Report System PSIM implementation chapter.

2 Requirements for WEB Report System PSIM implementation

2.1 The Web-Server of WEB Report System PSIM

The Web-Server of *WEB Report System PSIM* is installed automatically when installing the *WEB Report System PSIM* distribution kit.

> **Attention!**
>
> It is strongly recommended to install the Web-Server of *WEB Report System PSIM* on Windows OS server platforms. This requirement is due to the limitation of the Microsoft Internet Information Services (IIS) servers set to 10 simultaneous connections on any other Windows OS platforms.
> In general, *WEB Report System PSIM* is compatible with the same operating system versions as *Axxon PSIM.*

Before *WEB Report System PSIM* installation, it is necessary to make sure that the following components are installed on computer:

1. Microsoft.NET Framework 4 platform;

   > **Note**
   >
   > Microsoft.NET Framework 4 platform is available for download at http://www.microsoft.com/.

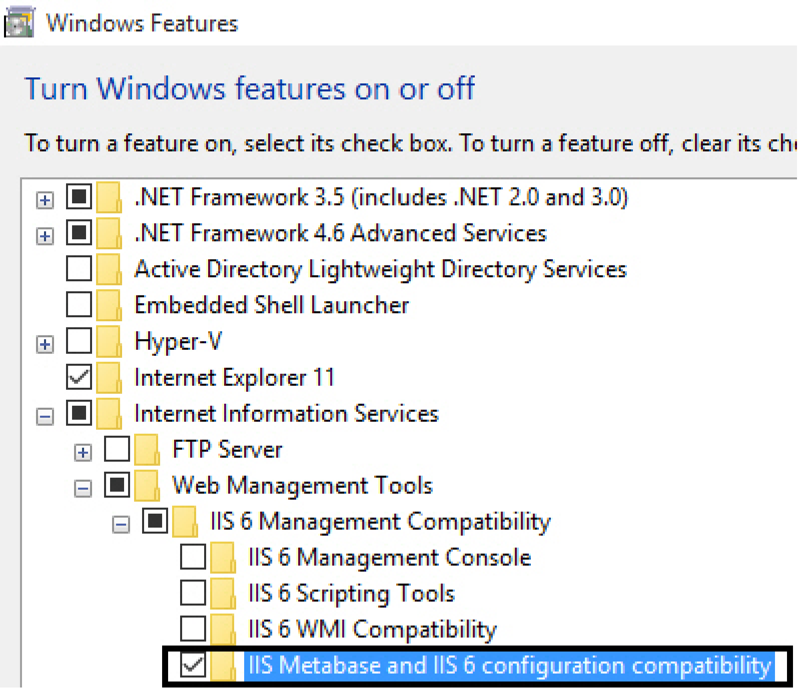
2. Set of Microsoft Internet Information Services (IIS) servers;

   > **Note**
   >
   > A set of IIS servers is distributed along with the operating systems of the Windows family, being their optional component. The set of IIS servers is installed according to the manufacturer's instructions.
   > If the set of Microsoft Internet Information Services (IIS) servers is installed but disabled, then during the installation of the *WEB Report System PSIM* distribution kit it will be enabled automatically.

3. ASP.NET 4.5 module.

   > **Note**
   >
   > Installation of ASP.NET 4.5 module which is a submodule to the IIS servers set, is performed in accordance with the following vendor website.
   > ASP.NET 4.5 module is to be enabled in the following places for Windows 8/8.1 OS:
   > - .NET Framework 4.5 add-on services;
   > - IIS services -> Internet Services -> Application development components.

The IIS Metabase and IIS 6 configuration compatibility component is to be enabled for Windows 10 OS.



For correct creation of reports in *WEB Report System PSIM,* the Web-Server should be connected via the network with all the database servers used in its operation. At the moment this is mandatory for SQL servers that store the database of *Axxon PSIM* configuration and the subsystem itself, and optionally for SQL servers that host the *Time and Attendance* and/or receipts databases. In special cases both Web-Server and SQL server can be located on the same computer.

The internal database of the server has the MS SQL format. A list of versions MS SQL Server, supported in *WEB Report System PSIM* subsystem is identical with the list of versions for *Axxon PSIM* (see the Internal video Server database).

Corresponding *Axxon PSIM* video servers (registered in the database of the *Axxon PSIM* configuration connected while installation) must be started in order to display the event video archive in detailed reports.

If the Clients connection to the Web-Server is supposed to be via network it is necessary to make sure that the Web-Server has the static IP address. Moreover it must be available on the Internet if it is specified in the security system project.

2.2 The Client of the WEB Report System PSIM

2.2.1 General requirements

The following is required to ensure the ability to view the video archive of events in the Internet Explorer browser:

1. Internet Explorer browser of 8.0 version and later.

> **Attention!**
>
> When working with *WEB Report System PSIM* in the 64-bit operating system, it is recommended to use the Internet Explorer 32-bit browser.

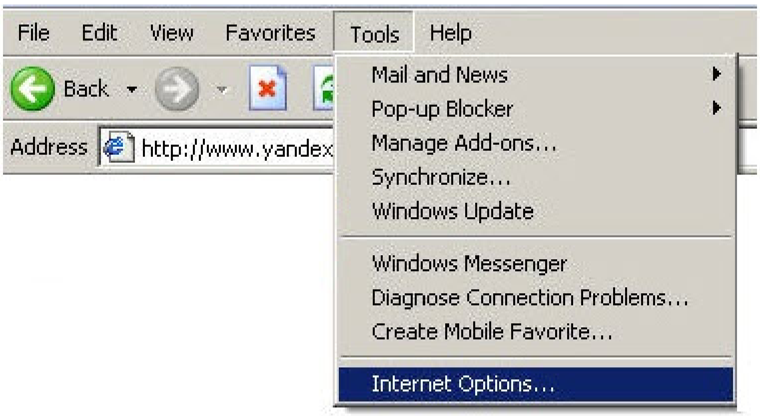
2. The use of ActiveX components in the browser should be permitted.
3. The ActiveX CamMonitor component should be installed.

> **Note**
>
> The CamMonitor component is installed automatically with *Axxon PSIM* software package. If *Axxon PSIM* software package is not installed on the Client, it is necessary to install the CamMonitor component separately.

To be able to view the video archive of events in browsers based on the Blink and Gecko browser engines (Google Chrome, Yandex Browser, Firefox, Opera, etc.), it is necessary to configure the video player (see Video Player Settings).

> **Note**
>
> Currently the video player is implemented only for the **General reports** and **AUTO reports**.

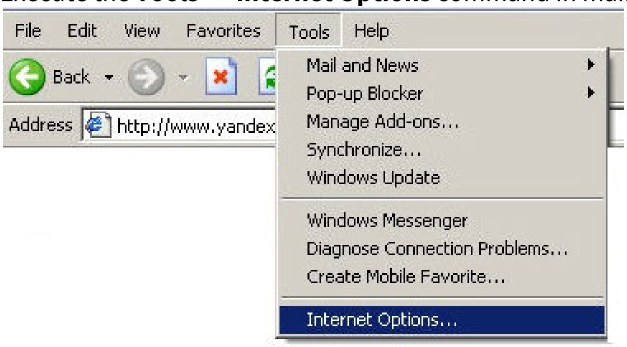
2.2.2 Setting up security parameters in Internet Explorer



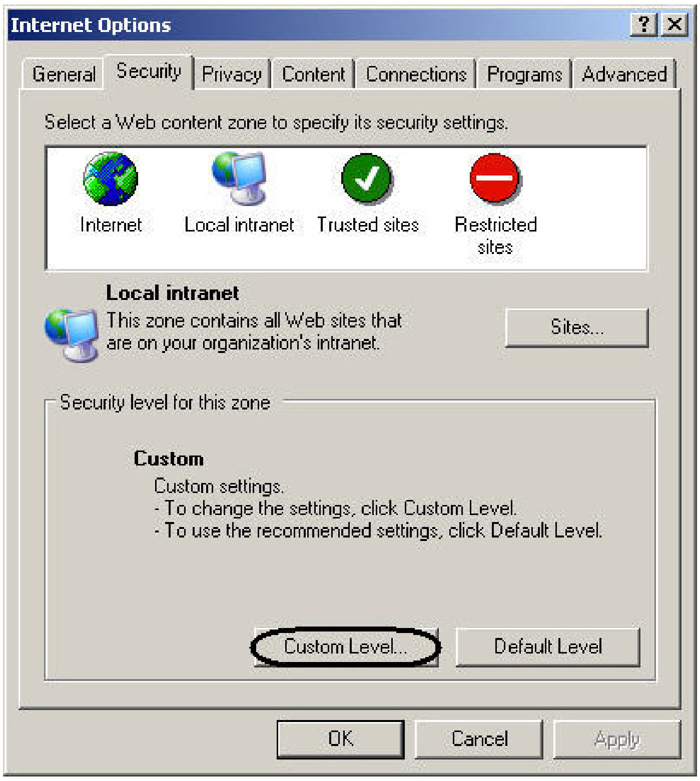
By default the use of ActiveX components is forbidden in Internet Explorer, that is why it's necessary to set extra security parameters.

For this do the following:

1. Execute the **Tools** –> **Internet Options** command in main menu of Internet Explorer browser.

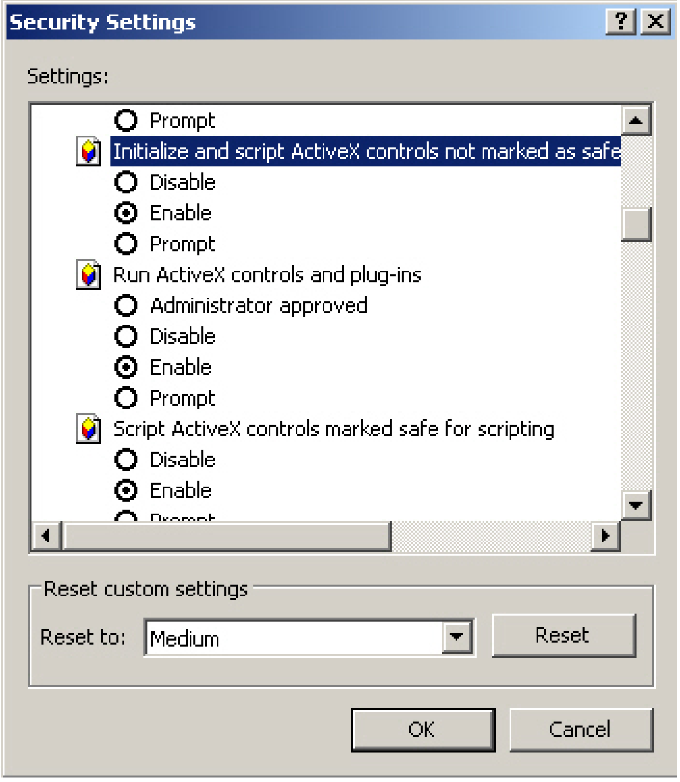


2. In the **Internet Options** dialog box go to the **Security** tab.



3. In selected zone of dialog box (selected on default) click **Custom Level**.
4. In the **Security Settings** dialog box execute the following settings:
   4.1 Set the **Script ActiveX controls marked safe for scripting** checkbox to the **Enable** position.

4.2 Set the **Initialize and script ActiveX controls not marked as safe** checkbox to the **Enable** position.



5. Click **OK** in **Security Settings**, and then in **Internet Options.**
6. Restart browser.

Setting security parameters in Internet Explorer browser is completed.

3 WEB Report System PSIM installation and removal

3.1 General description of Web Report System PSIM distribution kit

WEB Report System 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 *WEB Report System PSIM* software package on a base computer.

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

Attention!

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

3.2 Installation

WEB Report System PSIM is installed as a part of *Axxon PSIM*.

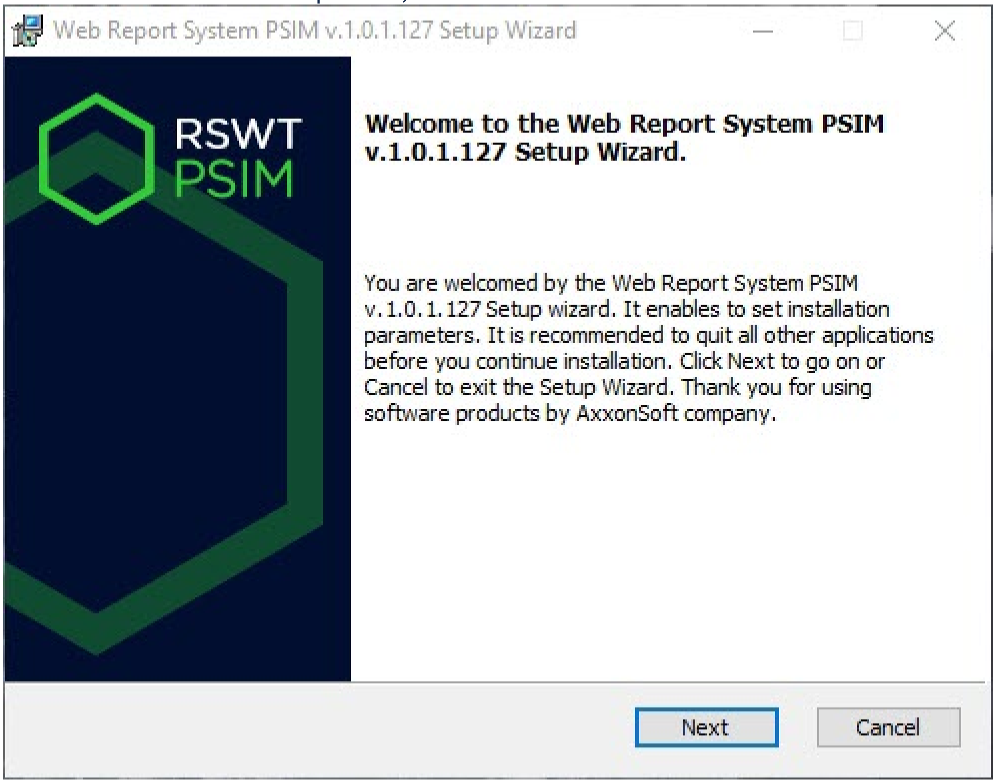
Attention!

WEB Report System PSIM should be installed only on **Server/Administrator's workplace** (for details, see Axxon PSIM software. Administrator's Guide).

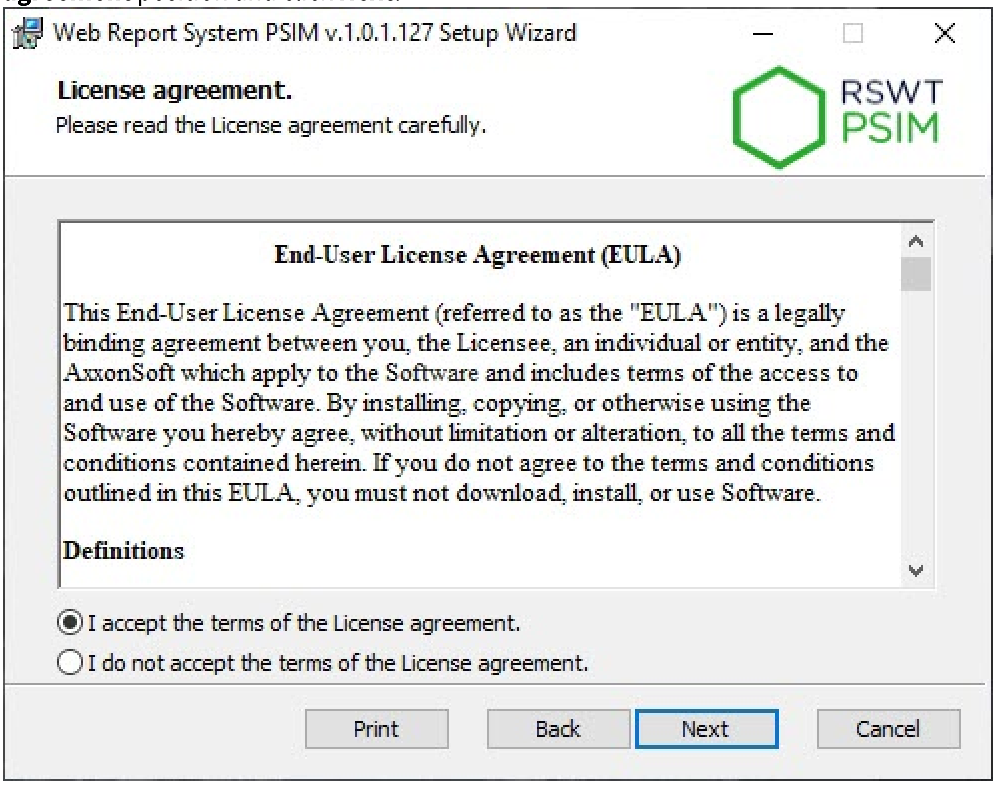
To install *WEB Report System PSIM,* do the following:

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

2. To continue the installation process, click **Next.**

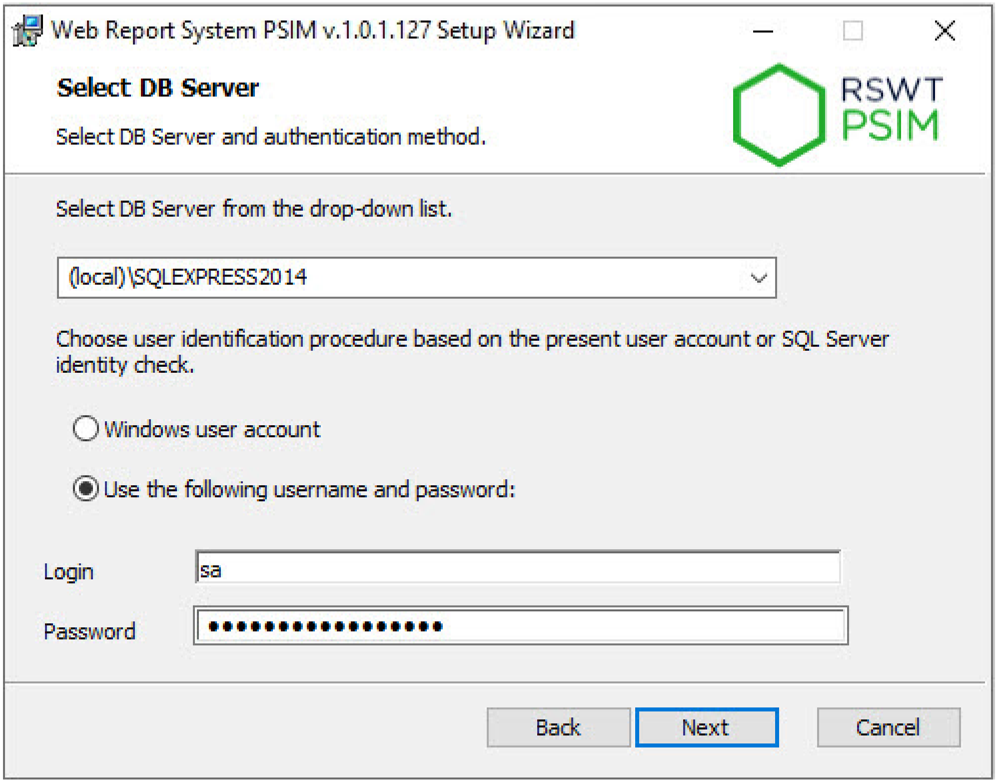


3. Read the terms of the license agreement carefully. Then set the switch to **I accept the terms of the License agreement** position and click **Next.**

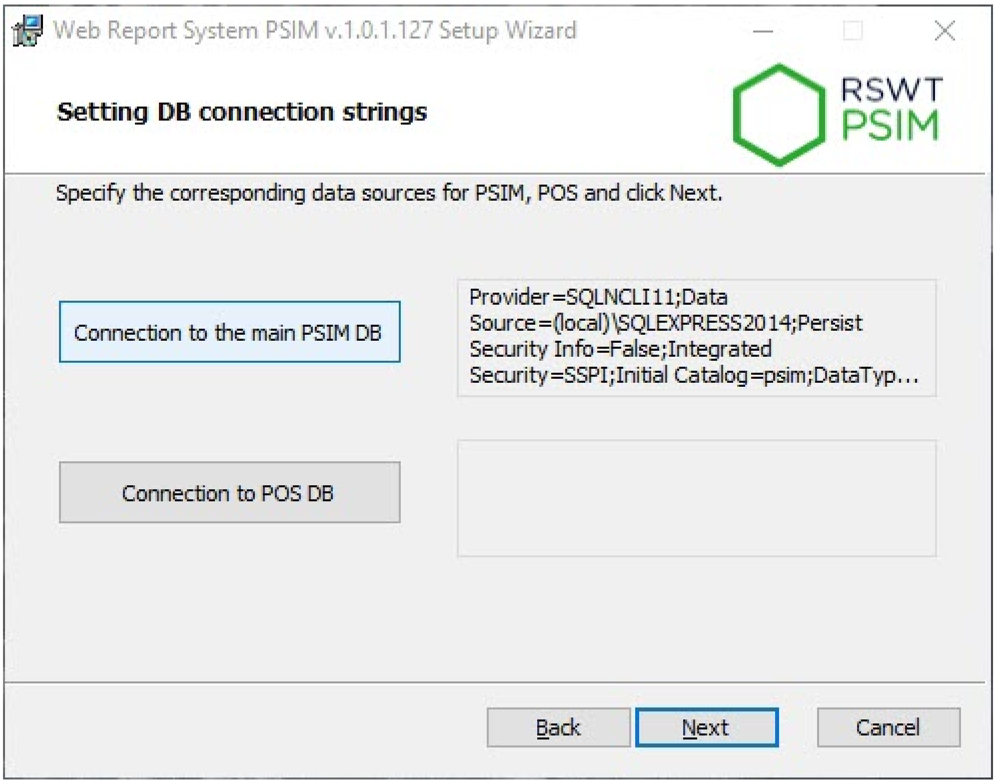


4. Select MS SQL Server DB server and set the connection parameters (for details, see Installation of Axxon PSIM as a Server/Remote Administrator's workstation). To continue the installation process, click **Next.**

> **Note**
>
> The *WEB Report System PSIM* database will be created on the selected SQL server.
> Later it's possible to move the database of *WEB Report System PSIM* to another SQL server. After that, it is necessary to make changes to the <*Axxon PSIM* installation directory>\Modules\Wt2\Web.config file by correcting the ReportSystemConnectionString connection string:
>
> - <add name="ReportSystemConnectionString" connectionString="Integrated Security=SSPI;Persist Security Info=False;Initial Catalog=ReportSystem;Data Source=(local)\SQLEXPRESS2014;" providerName="System.Data.SqlClient"/>

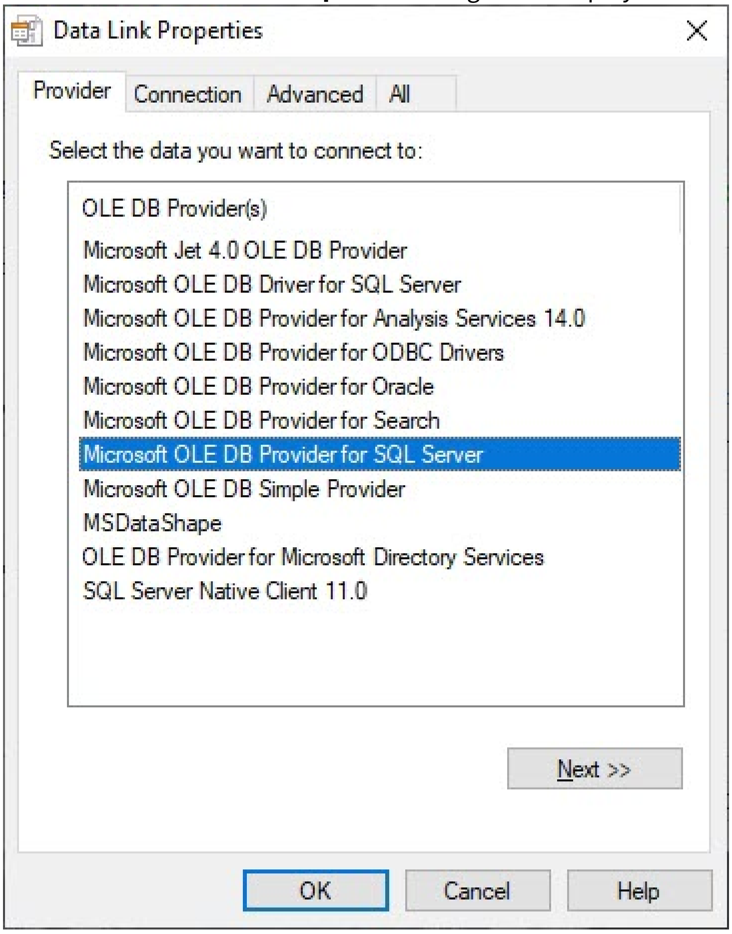


5. Specify the connection strings to the main *Axxon PSIM* database and the *POS PSIM* receipts database. The connected databases will serve as a data source when creating reports.



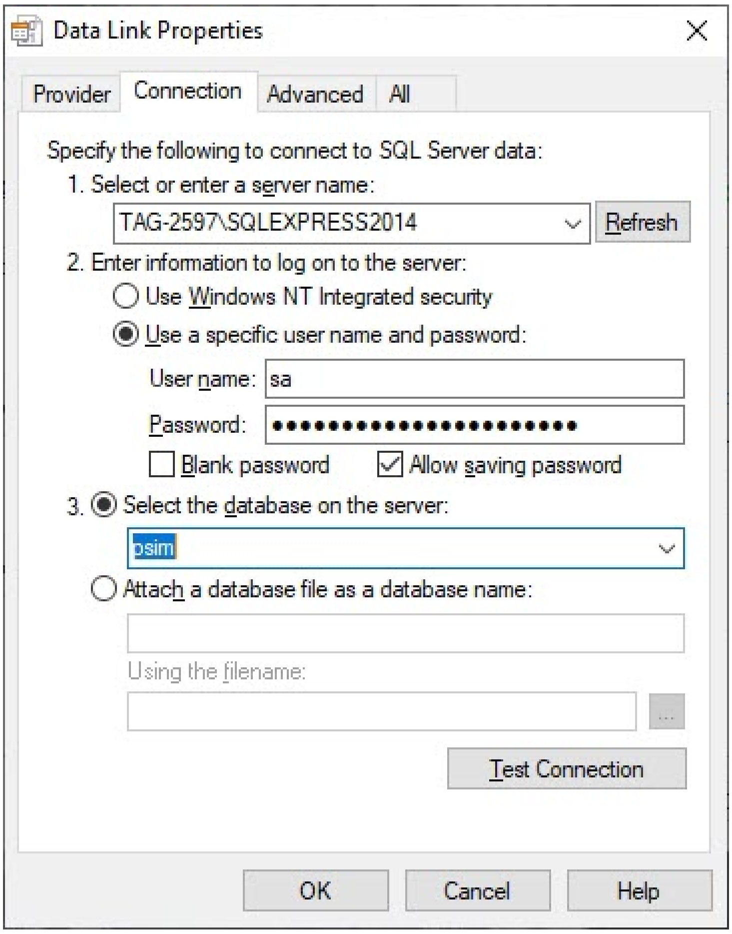
6. To set connection string to the main *Axxon PSIM* database, do the following:
    a. Click **Connection to the main PSIM DB**.

b. As a result the **Data Link Properties** dialog box is displayed.



c. In the **Provider** tab select **Microsoft OLE DB Provider for SQL Server**. Click **Next**.

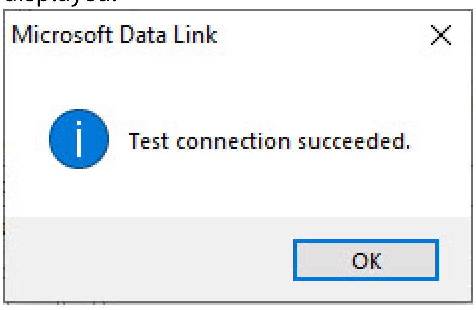
d. As a result there will be an automatic switch to **Connection**.



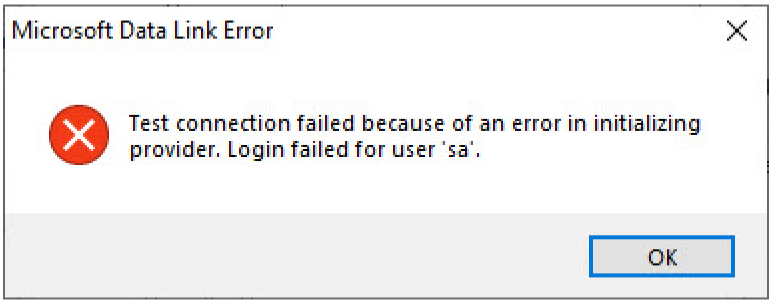
e. In **1. Select or enter a server name** line select from the list or enter manually the name of SQL server where the main *Axxon PSIM* database is stored.

f. To log on SQL server it is necessary to set authentication parameters. For this set switch into **Use a specific user name and password** position. In the **User name** and **Password** fields enter username (login) and password in order to connect to SQL server. Set the **Allow saving password** checkbox.

g. To check connection to SQL server, click **Test Connection**.
In case of successful connection, the window with the **Test connection succeeded** message will be displayed.



It's necessary to click **OK** in the window of message and as a result the window will be shut down automatically.
If the name of SQL server and/or authentication parameters that are used in order to connect to it were set wrong then the corresponding message is displayed.



To shut down the window with the message, click **OK**. Then correct the data and check connection to SQL server once again.

h. If check of connection to SQL server is successful, select from the **Select database on server** list the name of connected database.
i. Click **OK** in the **Data Link Properties** dialog box. As a result of this operation the dialog box will shut down.
Setting connection string to the main *Axxon PSIM* database is completed.

7. In the same way, set the connection string to the *POS PSIM* database of receipts (the default database name is *pos).*
8. Click the **Next** button to proceed to setting up the connection to the *Auto PSIM* databases.
9. In the same way, set the connection string to the Traffic Detection database (the default database name is *traffic_db*).
10. In the same way, set the connection string to the License Plate Recognizer database (the default database name is *lprex).*
11. Click **Next** to proceed to configuring the connection to the *DetectorPack PSIM* databases.
12. In the same way, set the connection string to the *DetectorPack PSIM* database (the default database name is *detectorpack).*

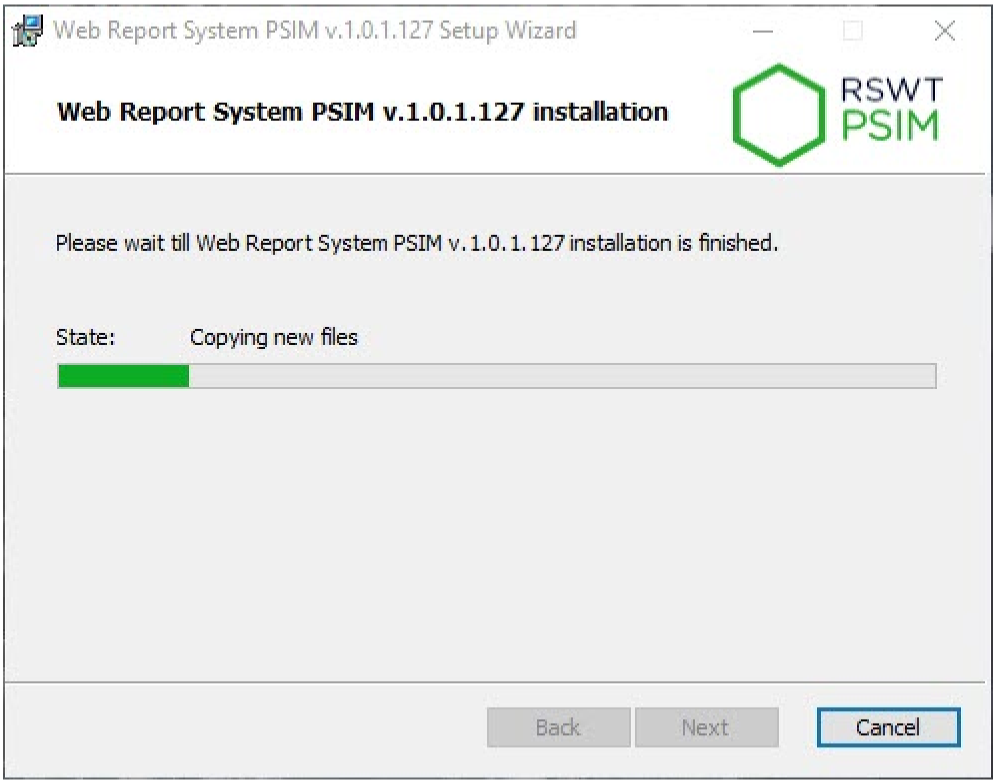
Note

If you install *POS PSIM*, *Auto PSIM* and *DetectorPack PSIM* after the *WEB Report System PSIM*, it is necessary to connect the *WEB Report System PSIM* database to the corresponding modules. To do this, start the repairing mode of the reporting subsystem and specify the appropriate connection strings (see Repairing).
You can also set the connection strings to all databases through the <*Axxon PSIM* installation directory>\Modules\Wt2\Web.config file. Examples of connection strings are given below:

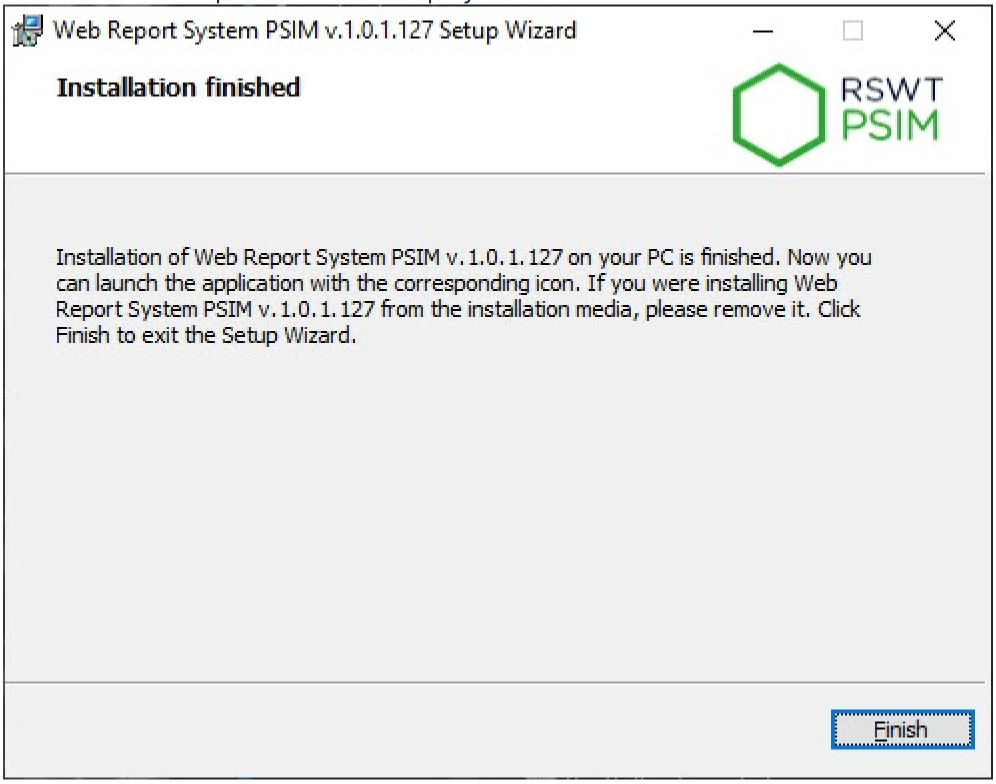
- <add name="PSIMDB" connectionString="Provider=SQLOLEDB.1;Integrated Security=SSPI;Persist Security Info=False;Initial Catalog=Axxon PSIM;Data Source=(local)\SQLEXPRESS2014" />
- <add name="PosDB" connectionString="Data Source=(local)\SQLEXPRESS2014;Persist Security Info=False;Integrated Security=SSPI;Initial Catalog=pos;Provider=SQLOLEDB.1" providerName="System.Data.SqlClient" />
- <add name="TrafficDB" connectionString="Provider=SQLOLEDB.1;Data Source=(local)\SQLEXPRESS2014;Persist Security Info=False;Integrated Security=SSPI;Initial Catalog=traffic_db" />
- <add name="DtDB" connectionString="Provider=SQLOLEDB.1;Data Source=(local)\SQLEXPRESS2014;Persist Security Info=False;Integrated Security=SSPI;Initial Catalog=dt" />
- <add name="ReportSystemConnectionString" connectionString="Integrated Security=SSPI;Persist Security Info=False;Initial Catalog=ReportSystem;Data Source=(local)\SQLEXPRESS2014;" providerName="System.Data.SqlClient" />

- <add name="Analytics" connectionString="Server=localhost;Port=15432;User id=postgres;Password=Analytics_default_DB_4;Database=analytics;CommandTimeout=600;" providerName="Npgsql" />
- <add name="lprex" connectionString="Provider=SQLOLEDB.1;Data Source=(local)\SQLEXPRESS2014;Persist Security Info=False;Integrated Security=SSPI;Initial Catalog=lprex" />
- <add name="detectorpack" connectionString="Provider=SQLOLEDB.1;Data Source=(local)\SQLEXPRESS2014;Integrated Security=SSPI;Persist Security Info=False;Initial Catalog=detectorpack;"/>

13. To continue the installation process, click **Next**. As a result, the copying of the necessary *WEB Report System PSIM* files to the hard disk will start.



14. After successful copying of the *WEB Report System PSIM* components, a message about the completion of the installation process will be displayed. Then click **Finish.**.



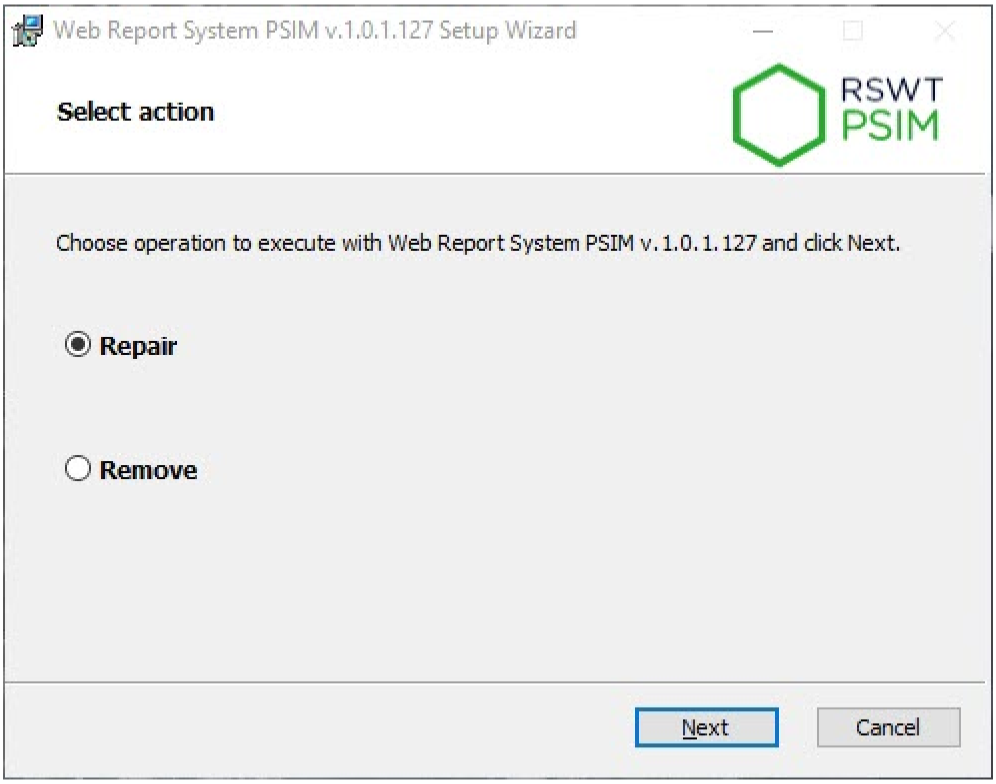
The installation of *WEB Report System PSIM* is completed.

3.3 Repairing

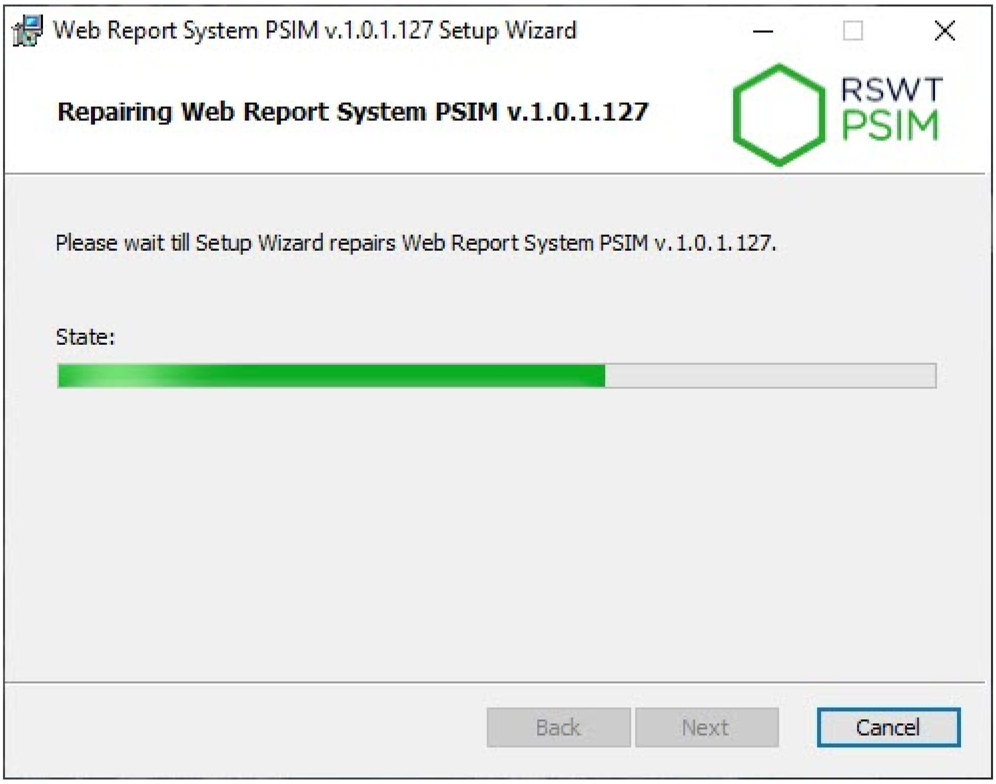
Repairing mode is designed for reinstallation of all components of *WEB Report System PSIM*.

To repair *WEB Report System PSIM,* do the following:

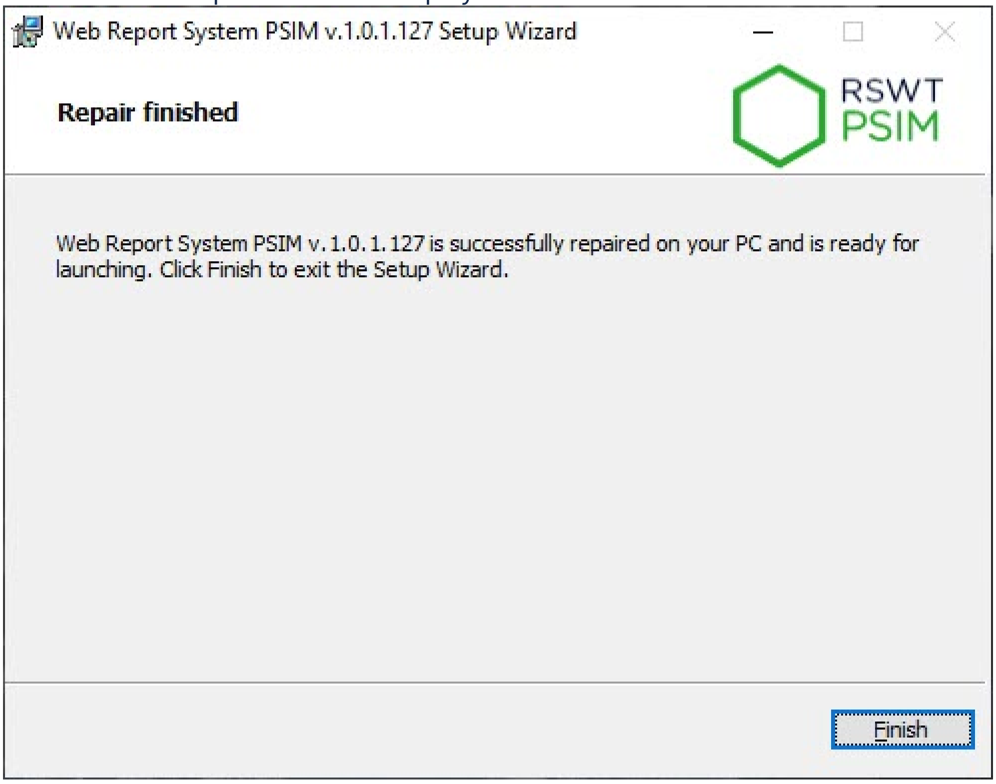
1. Launch the *WEB Report System PSIM* repairing process in one of the following ways:
   - Run: **Start** → **Axxon PSIM** → **Uninstall Report System**.
   - Run the setup.exe executable file in the distribution root directory. The version of the distribution kit and the version of currently installed *WEB Report System PSIM* should match.
2. As a result of one of these actions the dialog box of action selection is displayed. Select the **Repair** operation and click **Next**.



3. The **Select DB Server** box is displayed. In this and following boxes repeat 4-13 steps of Installation guide.
4. As a result, the check of the installed components and the copying of the necessary *WEB Report System PSIM* files to the hard disk will start.



5. After successful copying of the *WEB Report System PSIM* components, a message about the completion of the restoration process will be displayed. Then click **Finish.**

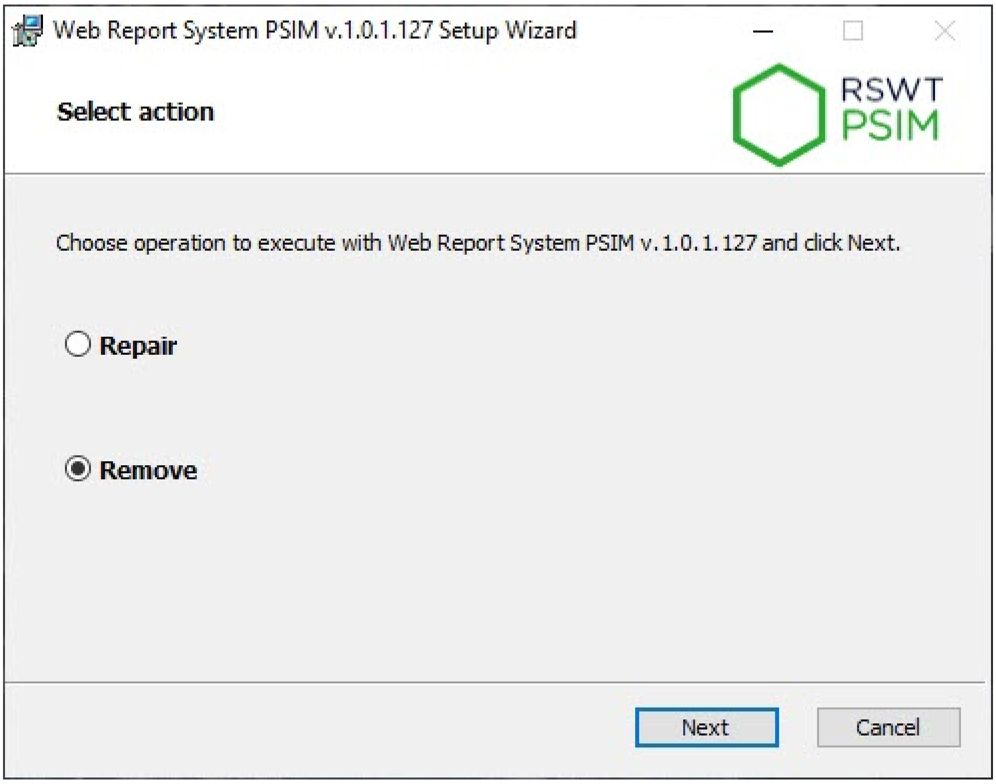


The repairing of *WEB Report System PSIM* is completed.

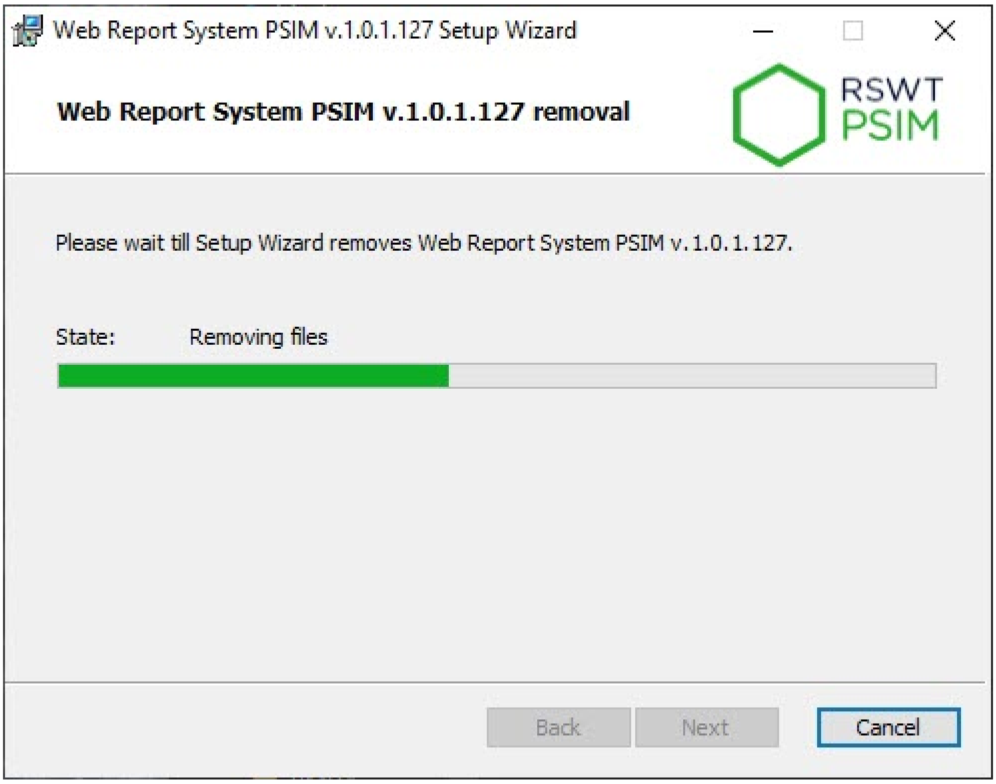
3.4 Removal

To remove the *WEB Report System PSIM*, do the following:

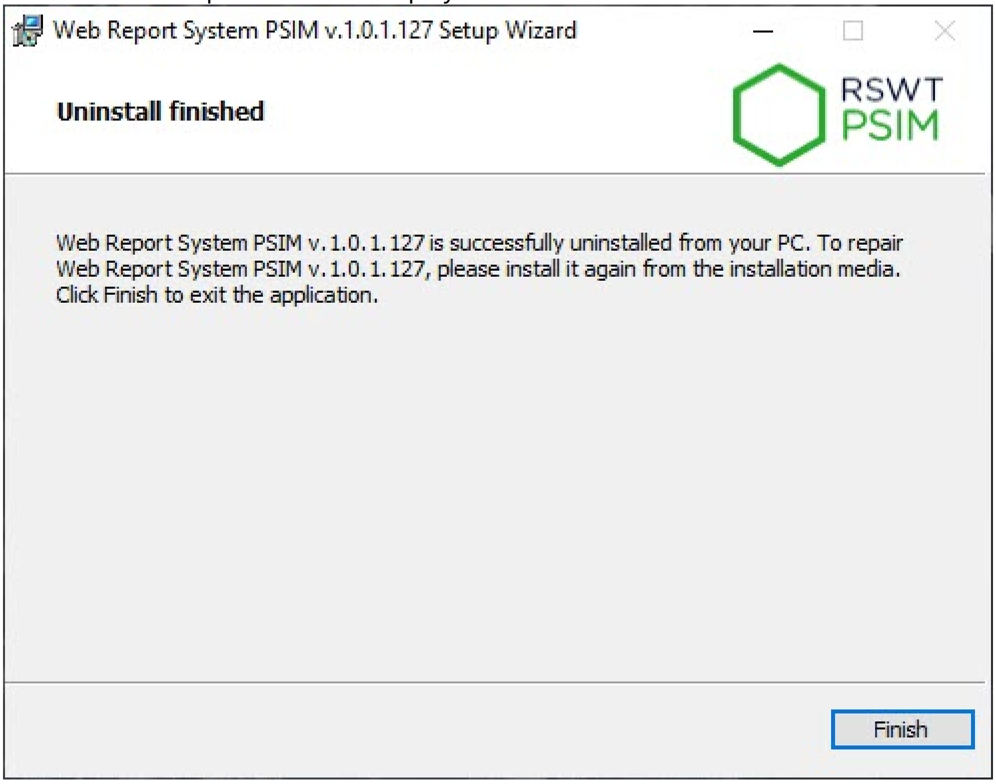
1. Launch the *WEB Report System PSIM* removal process in one of the following ways:
   - Run: **Start** → **Axxon PSIM** → **Uninstall Report System**.
   - Run the setup.exe executable file in the distribution root directory. The version of the distribution kit and the version of currently installed *WEB Report System PSIM* should match.
2. As a result of one of these actions the dialog box of action selection is displayed. Select the **Remove** operation and click **Next**.



As a result, the process of removing the installed *WEB Report System PSIM* components from the computer hard disk will start.



3. After successful removal of the *WEB Report System PSIM* components, a message about the completion of the uninstallation process will be displayed. Then click **Finish.**



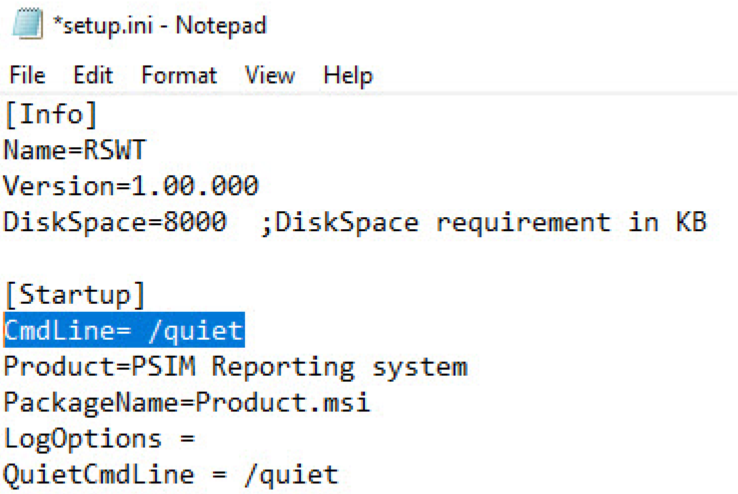
The removal of *WEB Report System PSIM* is completed.

3.5 Installation in silent mode

It is possible to install *WEB Report System PSIM* in silent mode. To do this, select one of the following options:

1. In the **setup.ini** file, located in the directory with the *WEB Report System PSIM* distribution kit, specify the following:

```
CmdLine= /quiet
```



```
*setup.ini - Notepad
File  Edit  Format  View  Help
[Info]
Name=RSWT
Version=1.00.000
DiskSpace=8000  ;DiskSpace requirement in KB

[Startup]
CmdLine= /quiet
Product=PSIM Reporting system
PackageName=Product.msi
LogOptions =
QuietCmdLine = /quiet
```

When you run the **setup.exe** file, the *WEB Report System PSIM* installation in silent mode will begin.

2. Go to the directory with the *WEB Report System PSIM* distribution kit, and enter the following command at the Windows command prompt:

```
setup.exe /quiet
```

Immediately after running this command, the *WEB Report System PSIM* installation in silent mode will begin.

3.6 Remote installation and deinstallation of WEB Report System PSIM

You can remotely install, deinstall and update *WEB Report System PSIM* using the wmic.exe command line utility. This utility is a part of Windows OS. To run the utility, enter "wmic" without quotation marks in Windows command line.

Detailed information about this utility can be found on Microsoft technical documentation page https://docs.microsoft.com/en-us/. At the moment of creating this section, the description of the utility is available at https://docs.microsoft.com/en-us/windows/win32/wmisdk/wmic.

> **Note**
>
> The wmic.exe utility does not work correctly with VMware virtual machines. It is not guaranteed to work with other virtual machines.

To run wmic on a remote computer, you should disable UAC (for instructions on how to do this, see OS settings for correct operation of Remote Admin Workstation or Server).

The installation, deinstallation, and upgrade methods described in this section apply to domain and extra-domain computers.

It is necessary to copy *WEB Report System PSIM* distribution kit to the computer local disks where the installation will be performed in advance.

To do this, you can use the following command line script:

```
xcopy %Path_to_folder_with_distribution_kit% %Network_folder_on_the_target_PC% /e
```

where:

- *%Path_to_folder_with_distribution_kit%* is the path to the folder with the distribution kit on the local computer.
- *%Network_folder_on_the_target_PC%* is the path to the folder on the computer where you want to install the software. You should have the write access to it.
- The */e* attribute copies all subdirectories and their contents, including empty directories.

> **Note**
>
> The UNC path is in the format \\<server IP address>\<Shared folder on this server>\... . The ellipses here represent the path from the shared folder to the folder with the distribution kit. If you are installing on the computers in the domain, specify the address of the server that contains the distribution kit folder available to all computers.

Detailed information about the xcopy utility can be found on Microsoft technical documentation page. At the moment of creating this section, the description of the utility is available at https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-xp/bb491035(v=technet.10).

Note that the installation method described in this section allows you to install or upgrade only the core product without any add-ons.

3.6.1 Remote installation of WEB Report System PSIM

In order to install *WEB Report System PSIM* on a remote computer, run the following command with the wmic.exe utility:

```
/NODE:"Computer_name" /USER:"User_name" /PASSWORD:"Password" product call
install true, "%installer parameters%", "%Path_to_folder_with_distribution_kit%
\Product.msi"
```

Here:

- /NODE - the name of the target computer on which *WEB Report System PSIM* is being installed.

> **Note**
>
> The NODE list can be a text file that specifies the names of the target computers in column.

- /USER and /PASSWORD - login and password of the user who has the rights to install the software on the remote computer.
- "%Path_to_folder_with_distribution_kit%\Product.msi" - path to the Product.msi installer file you need to run. It is the local path to the folder to which you copied the distribution kit.
- %installer parameters% – installer options. The following parameters can be applied to Product.msi:
  a. The parameters that can be applied to any msi file (for reference, run the msiexec.exe /? command in the command line from <WINDOWS>\system32\ directory).
  b. The parameters described in the setup.exe help article in the /CMD="[commands]" section (for reference, run the setup.exe /? command in the command line from the installer folder. These commands are also described in Installing Axxon PSIM™ software in a silent mode section).
  c. The parameters that are set in setup.exe during installation:
     - CMD_INSTALLTYPE – Client, Server, Admin.
     - REMOVEALL (0, 1) – removal with/without saving the configuration.
     - NOOSCHECK=1 – disable the OS compatibility check.

> **Note**
>
> The operation of these parameters is not guaranteed if there is a branch in the registry:

- For x86 system: HKEY_LOCAL_MACHINE\SOFTWARE\AxxonSoft\PSIM\InstallPropertyInfo
- For x64 system: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\AxxonSoft\PSIM\InstallPropertyInfo

The branch has the parameters of the previous installation.

Example

Example of an installer parameter string:
REBOOT=ReallySuppress LANGUAGE="es" TRANSFORMS="%Path_to_folder_with_distribution_kit%\languages\Setup\es\es.mst" CMD_INSTALLTYPE="Server"
In the example above:
REBOOT=ReallySuppress cancels computer reset at the end of installation.
LANGUAGE="es" selects the product language. The default product language is English.
TRANSFORMS="%Path_to_folder_with_distribution_kit%\languages\Setup\es\es.mst" specifies the path to the installer language mst-patch (specifies the installer language).
CMD_INSTALLTYPE="Server" specifies *Axxon PSIM* installation type – Server. It can also take the Admin value (if Remote Administrator's workplace installation type is required) and Client (if Remote Client installation type is required).

3.6.2 Remote deinstallation of WEB Report System PSIM

In order to deinstall *WEB Report System PSIM*, run the following command in the wmic.exe utility:

```
/NODE:"Computer_name" /USER:"User_name" /PASSWORD:"Password" product where
name="Product_name" call uninstall
```

Here Product_name is the name under which *WEB Report System PSIM* is installed. In the English version, it is usually "Web Report System PSIM v.Build_number". The name can be found in the base *Axxon PSIM* (see Information about program), in the **About program...** submenu of the main control panel drop-down menu, or in the registry in the HKEY_LOCAL_ MACHINE\Software\Microsoft \Windows\CurrentVersion\Uninstall section.

4 WEB Report System PSIM licensing

4.1 Activation key

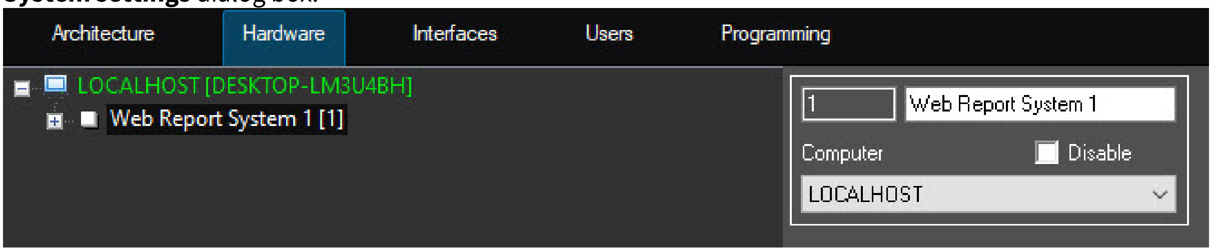
WEB Report System PSIM functionality is restricted by the activation key that is bundled with the *Axxon PSIM* installation kit.

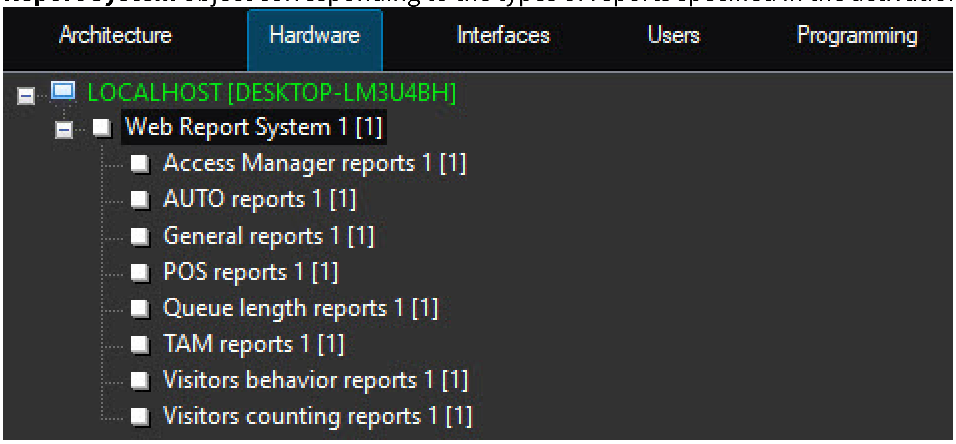
If the *WEB Report System PSIM* is extended (for example if it is necessary to add some types of reports) then it is necessary to replace the previous activation key with a new one that will restrict the updated system functionality.

4.2 Activation of Web Report System PSIM functionality

> **Attention!**
>
> The activation of *WEB Report System PSIM* functionality is possible only if there is the corresponding activation key.

To activate *WEB Report System PSIM* functionality do the following:

1. Start *Axxon PSIM*.
2. Create the **Web Report System** object on the basis of the **Computer** object on the **Hardware** tab of the **System settings** dialog box.


3. Create the objects (**Access Manager reports**, **AUTO reports**, **General reports**, **POS reports**, **Queue length reports**, **TAM reports**, **Visitors behavior reports**, **Visitors counting reports**) on the basis of the **Web Report System** object corresponding to the types of reports specified in the activation key.


Activation of *WEB Report System PSIM* functionality is completed.

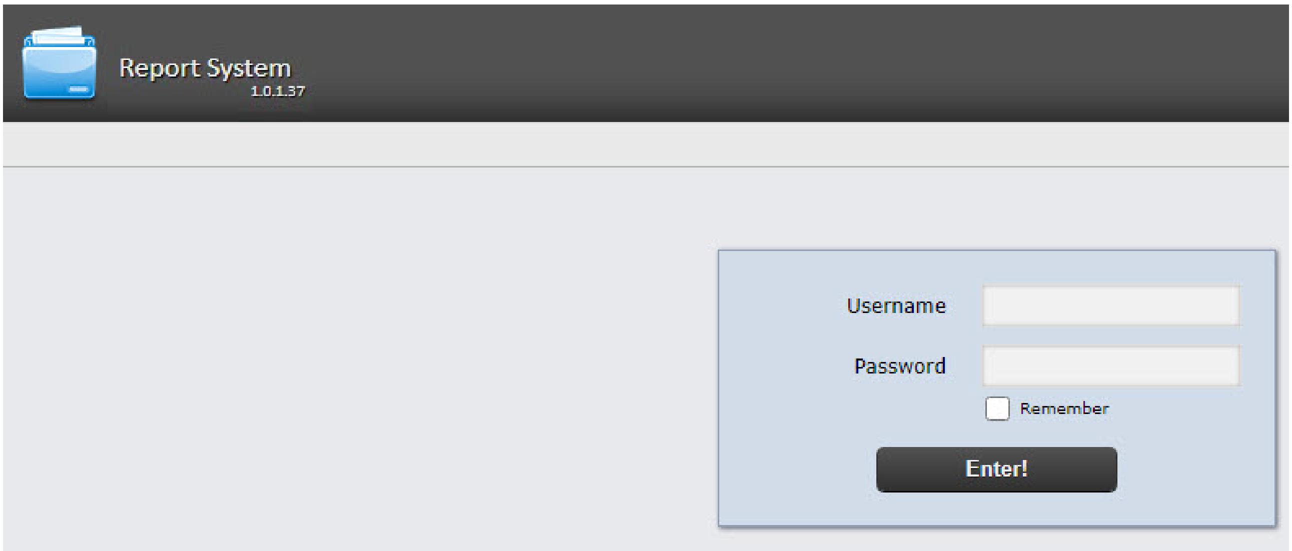
5 WEB Report System PSIM startup and shutdown

5.1 Ways of starting

You can start *WEB Report System PSIM* in one of the following ways:

1. If the Client coincides with the Web-Server—through the Start menu of Windows OS: Start → All Programs → Axxon PSIM → AxxonPSIM_RSWT;
2. On any Client—through the connection string of the browser: http://< Web server IP address>:8081/Reports.

As a result of one of these actions, the *WEB Report System PSIM* authorization page is displayed.



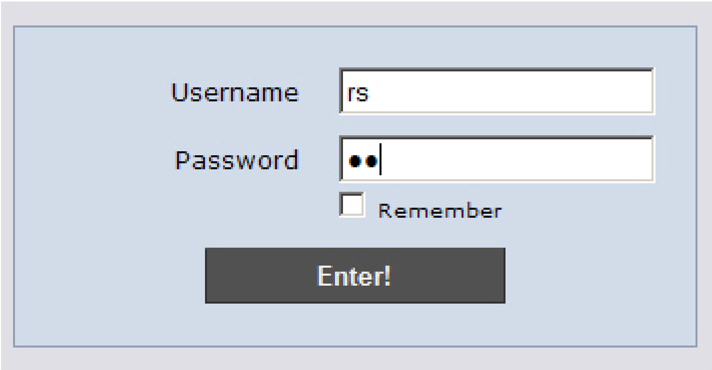
5.2 Authorization

> **Note**
>
> The authorization page is displayed in the language selected in the browser by default or specified in **Web.config** file (see details in Change the Web Report System PSIM interface language).

For *WEB Report System PSIM* authorization do the following:

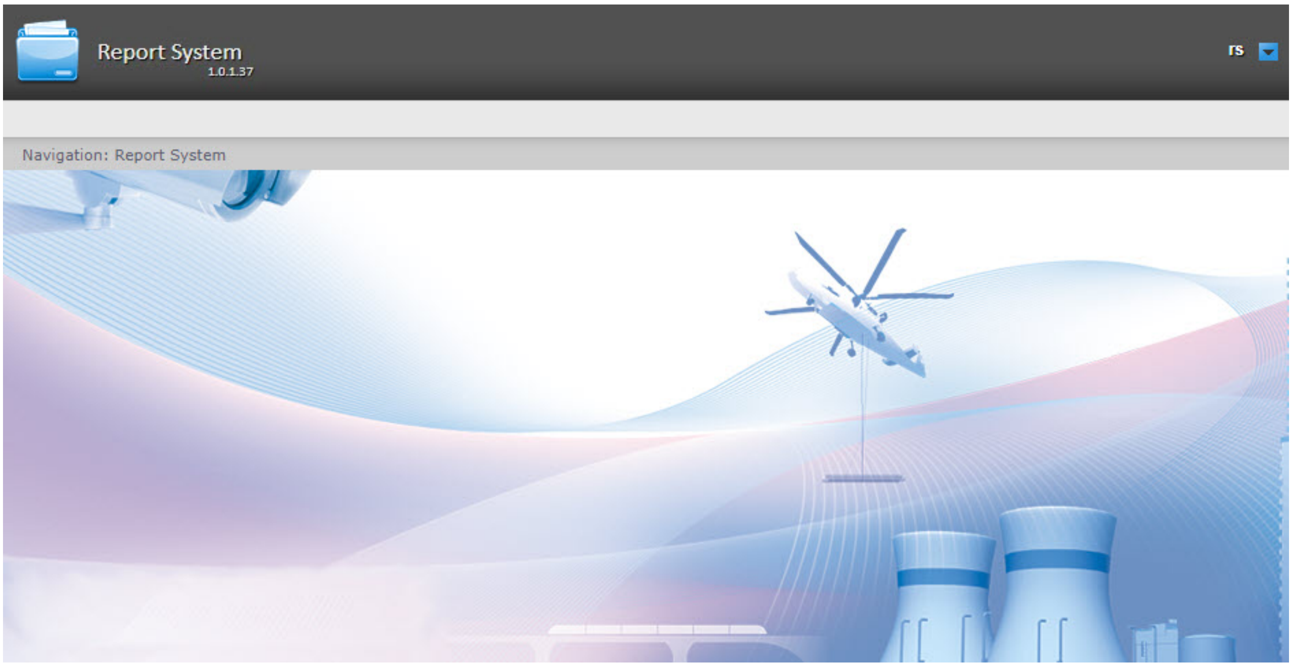
1. Start *WEB Report System PSIM* in one of the available ways (see Ways of starting).
2. Type the username, password.

> **Note**
>
> Initial entry to *WEB Report System PSIM* is under **rs** user who has administrative rights. In the **Username** and **Password** fields one should type **rs**. Further the administrator has to set the system for a multiuser mode (for more details see Set up the roles and users section).



3. Set the **Remember** checkbox if the automatic authorization in WEB Report System (with parameters specified in the step 2) is required.
4. Click **Enter!**

As a result one goes on the *WEB Report System PSIM* document page.



Note

The interface of the document page is described in Web Report System PSIM interface chapter.

Attention!

The user session will be ended automatically if the user's credentials have changed. To continue working, log in with new credentials.

5.3 Shutdown

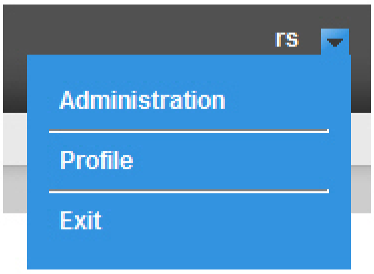
To shutdown *WEB Report System PSIM* close the window in the browser.

5.4 User switching

One can quickly switch between user accounts of the *WEB Report System PSIM*.

For this do the following:

1. In the right upper corner of the Web interface hover cursor over the current username or over  icon.



2. In the context menu select the **Exit** item.
3. *WEB Report System PSIM* authorization box is displayed. Type the username under which one should enter the system, password and click **Enter** (see the Authorization chapter).

User switching is completed.

6 Web Report System PSIM interface

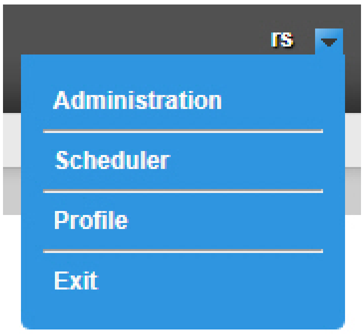
WEB Report System PSIM interface consists of the following elements:

1. Context menu.
2. Reports page.
3. Administration page.
4. Scheduler page.
5. User profile page.

6.1 Context menu

WEB Report System PSIM context menu is available both on the page of documents and on the administration page.

In order to display the context menu hover cursor over the current username in the right upper corner or over  icon.



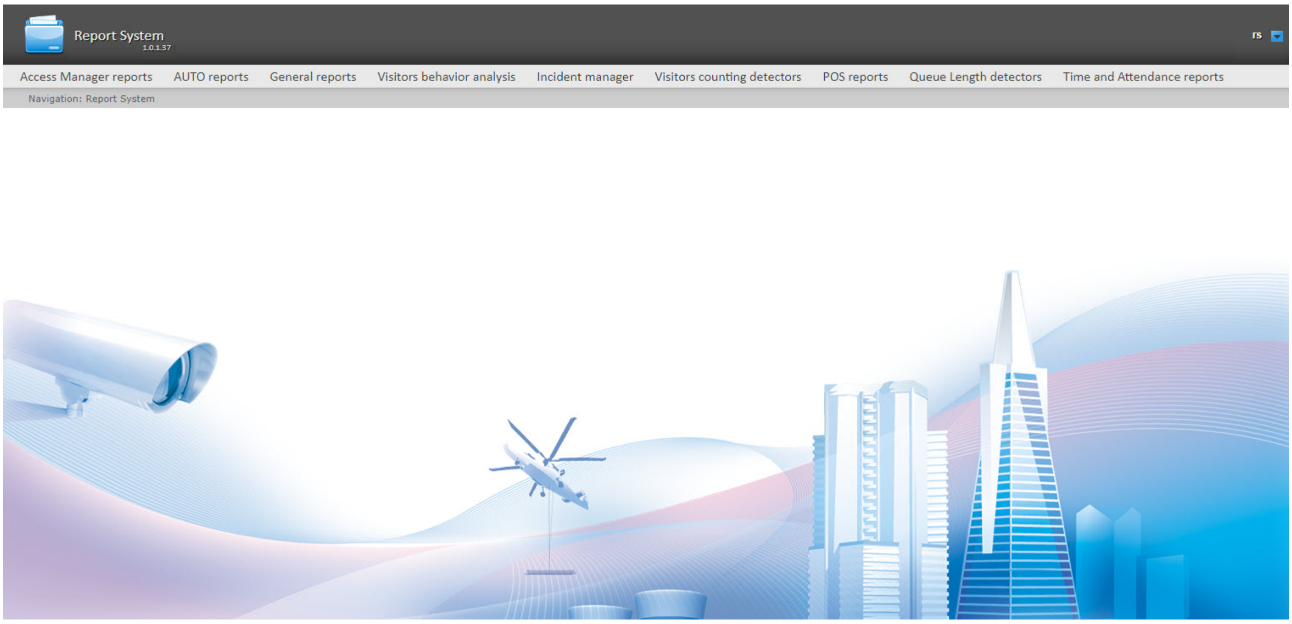
The following operations are available from the context menu:

1. Switch to the administration page – the **Administration** item is used;
2. Switch to the user scheduler page – the **Scheduler** item is used;
3. Switch to the user profile page – the **Profile** item is used;
4. Switch to the authorization page – the **Exit** item is used.

6.2 Reports page

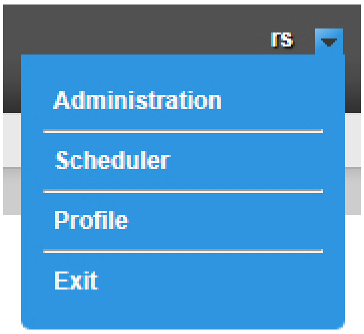
Reports page is displayed automatically after the authorization in *WEB Report System PSIM*.

Besides the context menu the reports menu is also displayed on the reports page.



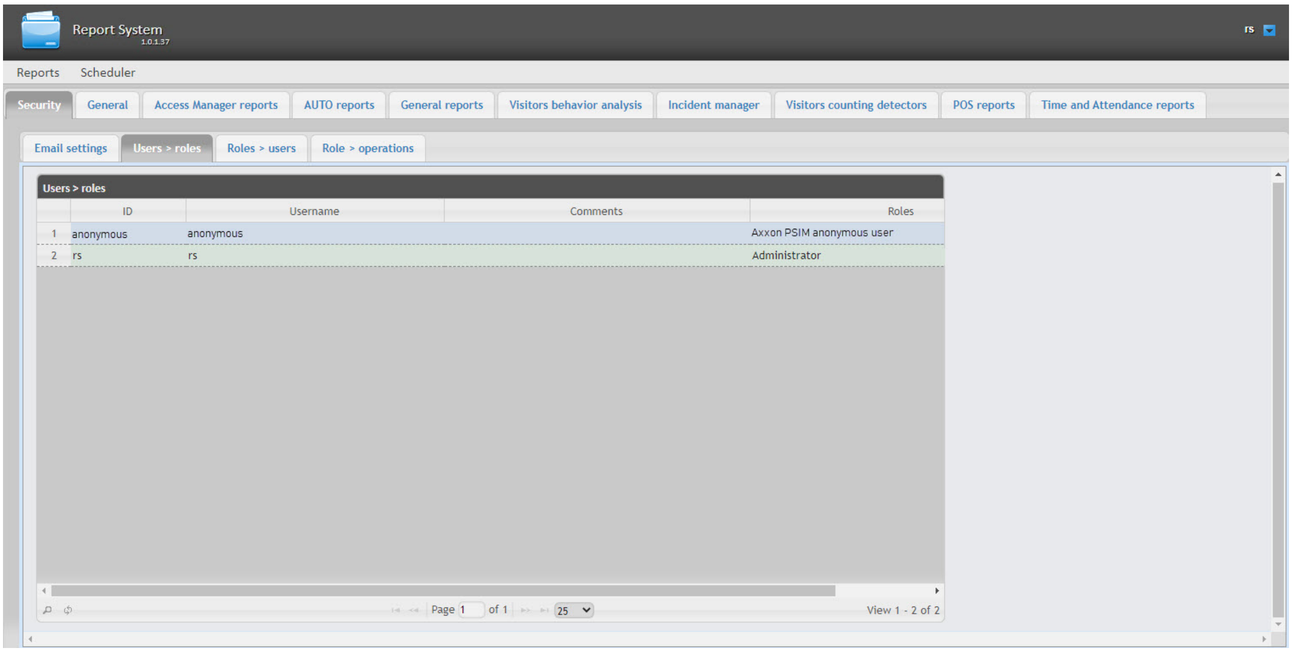
6.3 Administration page

Switch to the *WEB Report System PSIM* administration page is carried out through the context menu by selecting the **Administration** item.



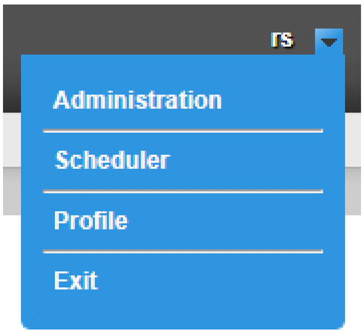
Note.

For some users this item can not be displayed (it depends on the availability of the administration rights).



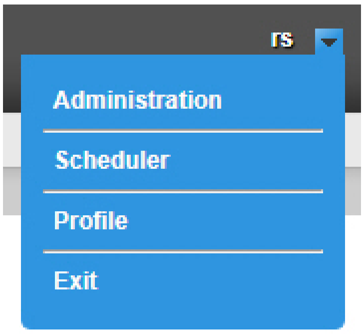
6.4 Scheduler page

Switch to the *WEB Report System PSIM* scheduler page is carried out through the context menu by selecting the **Scheduler** item.

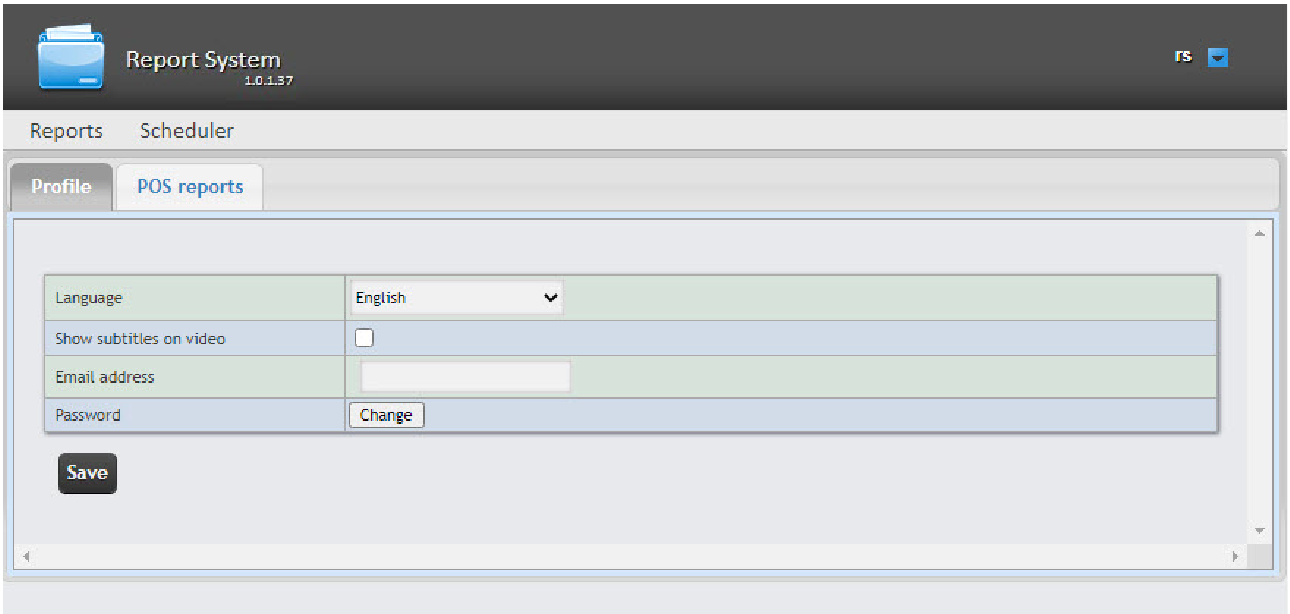


6.5 User profile page

Switch to the *WEB Report System PSIM* user profile page is carried out through the context menu by selecting the **Profile** item.



Changing the interface language of *WEB Report System PSIM* and others settings is performed in the user profile page.



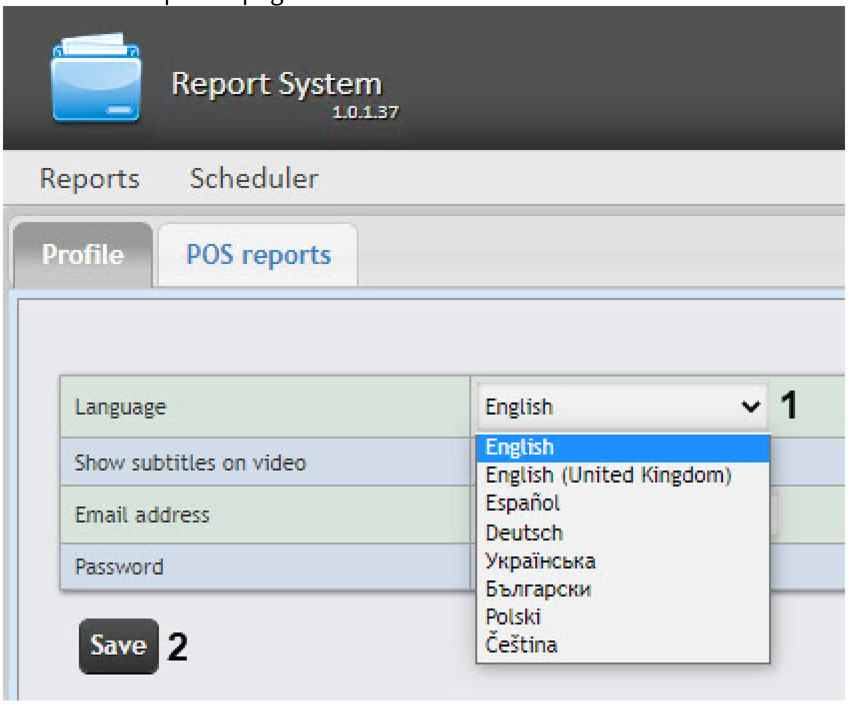
6.6 Change the Web Report System PSIM interface language

Important!

When changing the language of *WEB Report System PSIM* interface, the language of interface of the authorized user is changed too. The authorization page (see Authorization) is displayed in the language selected in the browser by default. The language of the authorization page can also be changed in **Web.config** file located in <*Axxon PSIM* installation folder>\Modules\Wt2. For this specify the required value of available languages (en, en-GB, es, de, uk, bg, pl, cs) instead of "auto" value in the <globalization culture="auto" uiCulture="auto"/> line.

To change the interface language, do the following:

1. Go to the user profile page.



2. In the **Language** dropdown list select the required interface language (**1**).
3. Click **Save** (**2**).

Changing the interface language is completed.

Note

The selected interface language affects regional standards, specifically, in date and time formats which are used for report generation.
The table below lists the date and time formats for all languages available in the subsystem.

Local	**Data format**	**Time format**
English	mm/dd/yyyy	12-hour
English (United Kingdom)	mm/dd/yyyy	24-hour
Español	dd/mm/yyyy	24-hour
Deutsch	dd.mm.yyyy	24-hour
Українська	dd.mm.yyyy	24-hour
Български	dd.mm.yyyy	24-hour

Local	Data format	Time format
Polski	dd.mm.yyyy	24-hour
Čeština	dd.mm.yyyy	24-hour

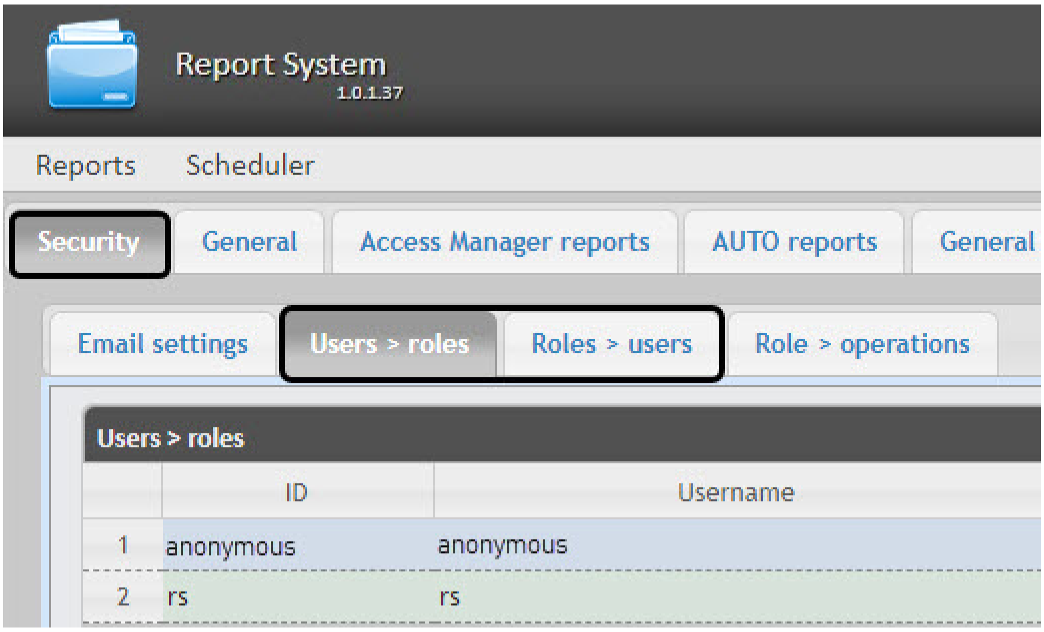
7 WEB Report System PSIM administration

7.1 Set up the roles and users

Setting up the roles and users is carried out in the **Security** tab on the administration page.

7.1.1 Adding new users

The list of users of the *WEB Report System PSIM* is available on the **Users > roles** and **Roles > users** of the **Security** tab**.**



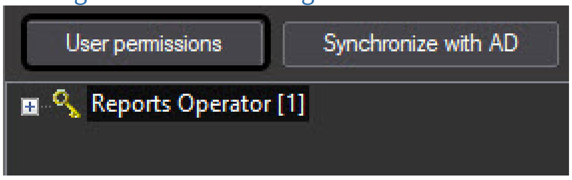
By default the *WEB Report System PSIM* contains two users, **rs** and **anonymous**, none of which can be deleted.

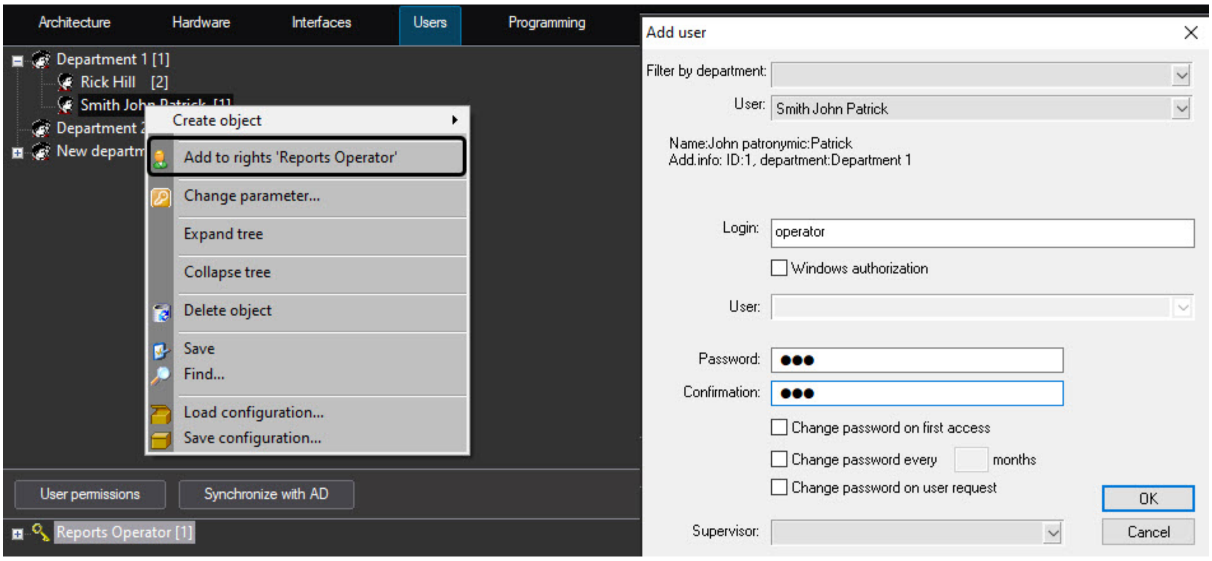
The **rs** user in *WEB Report System PSIM* performs the administrator functions, while **anonymous** is a dummy operator account.

New users can be added to *WEB Report System PSIM* by means of *Axxon PSIM* system settings only.

Adding a new user to *WEB Report System PSIM* is performed in the following way:

1. Registration of an new user in *Axxon PSIM.* This procedure is described in detail in the User registration and removal section of the *Axxon PSIM* Administrator's Guide.

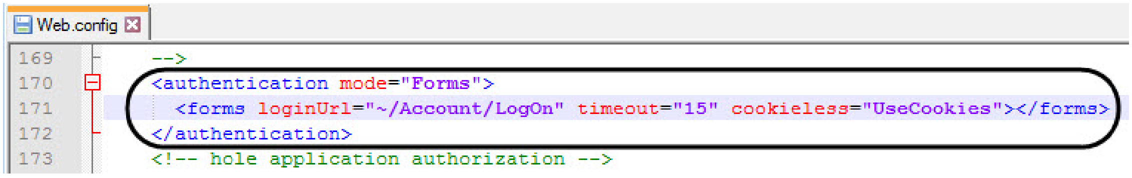
2. Registration of the right to use *WEB Report System PSIM.* This procedure is described in detail in the Registration of users' rights section of the *Axxon PSIM* Administrator's Guide.


3. Assigning the right to to use *WEB Report System PSIM* to the new user. This procedure is described in detail in the Assigning the rights and password to operators for authorization in Axxon PSIM section of the *Axxon PSIM* Administrator's Guide.


> **Note**
>
> It is recommended to take into account the following specifics while adding a new *WEB Report System PSIM* user by means of *Axxon PSIM:*
>
> a. The **anonymous** user is a dummy operator account. Once the first operator will be created with *Axxon PSIM,* the dummy will be replaced with the account data of the first added user.
> b. The user login in *WEB Report System PSIM* is similar to the login assigned to the user when he is granted the right in *Axxon PSIM*.
> c. The username and login are subject to the same rules as the Windows login.

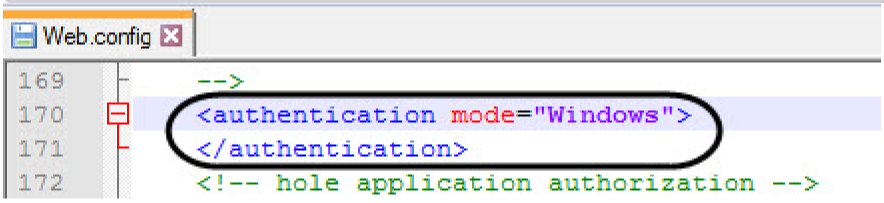
4. If the **Windows Authorization** method was selected, then do the following:
   a. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2 and open the Web.config file for editing.
   b. Replace the following strings:

```
<authentication mode="Forms">
<forms loginUrl="~/Account/LogOn" timeout="15" cookieless="UseCookies"></
forms>
</authentication>
```

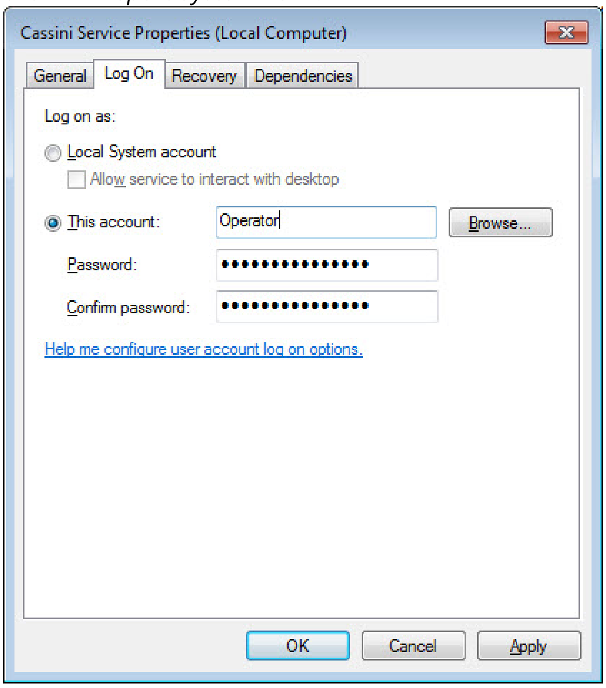


with the following strings:

```
<authentication mode="Windows">
</authentication>
```



c. Save the changes in the Web.config file.
d. Log in to Windows with the user account under which you are planning to work with the *WEB Report System PSIM*.
e. Restart the Cassini Service utility with the user account under which you are planning to work with the *WEB Report System PSIM*.



Note

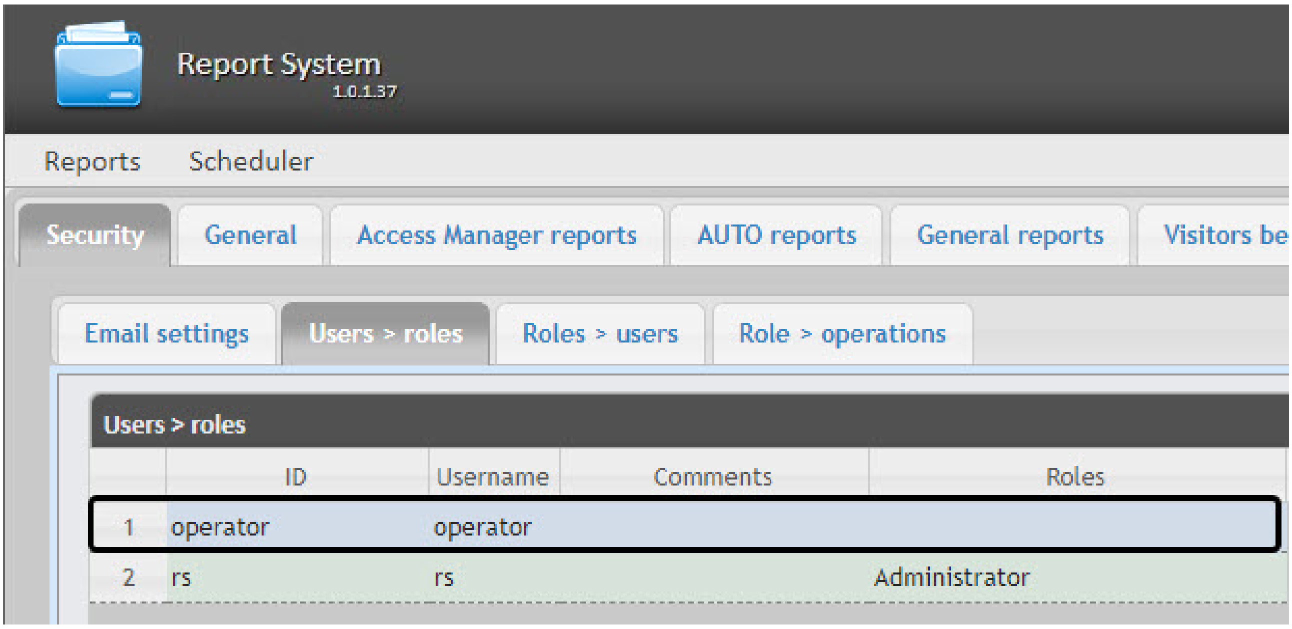
If it is planned to work with the *WEB Report System PSIM* by several users, then after each authorization in Windows of another user, it is necessary to restart the Cassini Service with the required user account.

f. As a result, when you open the *WEB Report System PSIM* in the browser, you will be automatically logged in under the specified Windows user account.

Note

- If no user is added to the *Axxon PSIM* user rights, then by default this user is assigned the **Administrator** role.
- If there is at least one user in *Axxon PSIM*, and this user is not the one which was used in Windows authorization, then this user will not have access to the **Administration** panel.
- If there is a user in *Axxon PSIM* who is logged using Windows authorization, but not given access to the *WEB Report System PSIM*, then this user will not have access to the **Administration** panel.

Any required number of users may be added to *WEB Report System PSIM* in this manner.



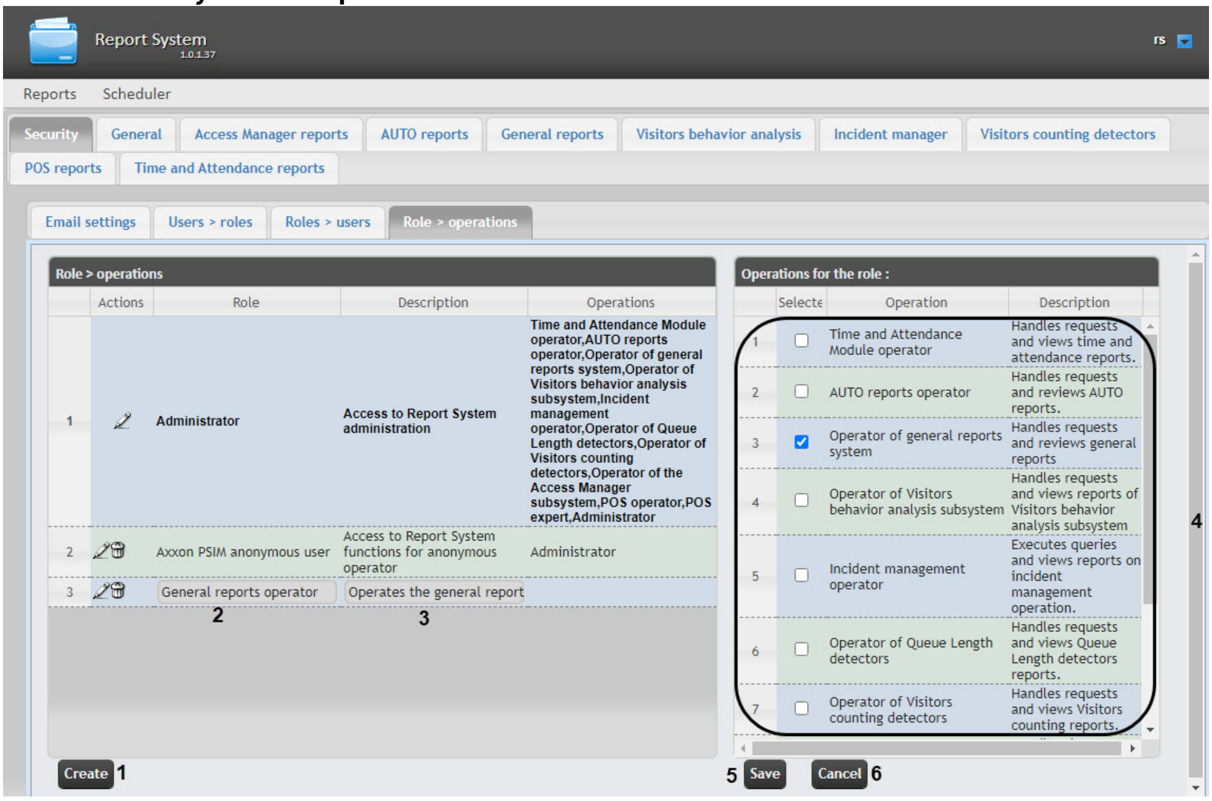
7.1.2 Set up the roles

Setting up the roles is carried out in the **Roles > operations** nested tab of the **Security** tab.

Role registration

In order to register a new role in *WEB Report System PSIM* do the following:

1. Go to the **Security** → **Role > operations** tab.



2. Click **Create** (**1**).
3. As a result a new line will be added to the **Role > operations** table. Fill in its fields:
   a. In the **Description** field type a brief description of the operations that will be available to the users with a new role (**3**).

   > **Note.**
   >
   > This field is optional for filling in.

   b. In the **Role** field type the name of a new role (**2**).
4. In the **Operations for the role** table (**4**) in the **Selected** column set checkboxes for those operations that should be solved by users with a new role.

   > **Note.**
   >
   > It is recommended to study the description of operations beforehand in the **Description** column of the same table.

5. In order to register a role click **Save** (**5**).

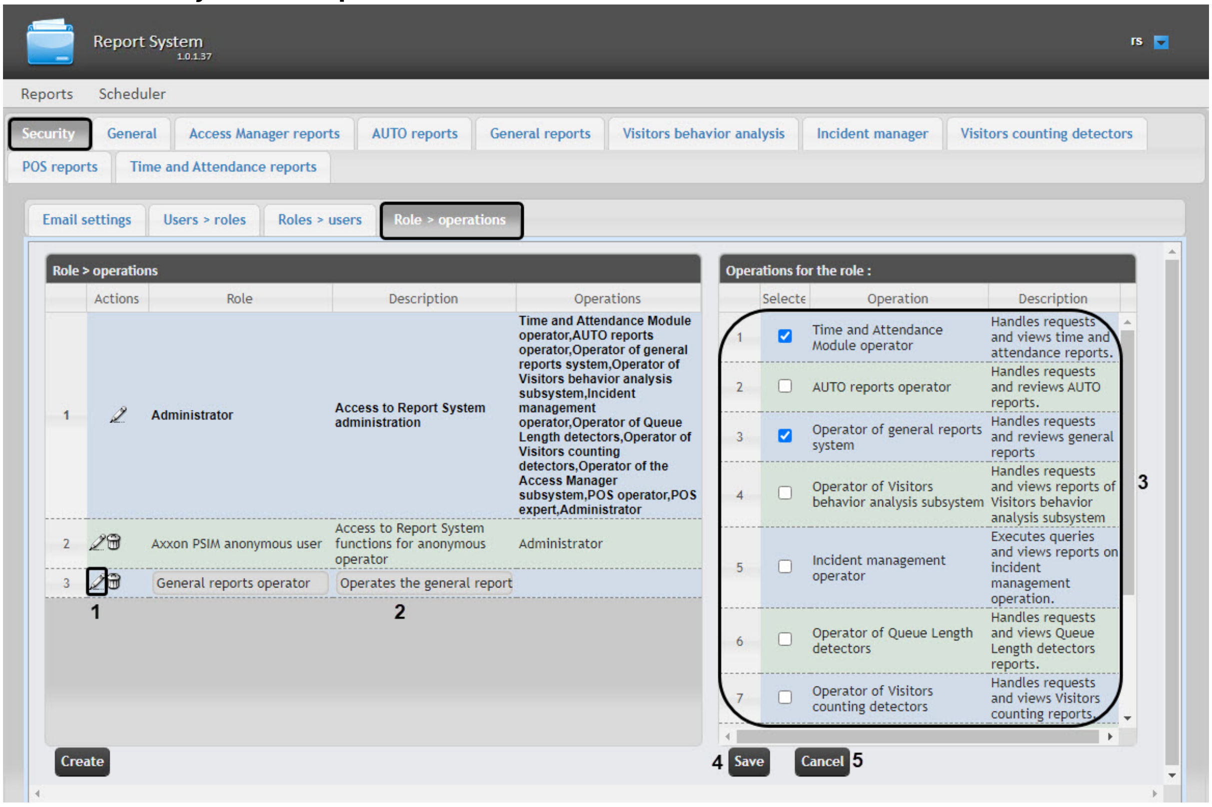
> **Note.**
>
> In order to cancel the registration of a new role click **Cancel** (**6**).

Role registration in *WEB Report System PSIM* is completed.

Role editing

In order to edit a role do the following:

1. Go to the **Security** → **Role > operations** tab.



2. For the required role click  button in the **Actions** column of the **Role > operations** table (**1**).
3. As a result you will be able to edit some role parameters. For example:
   a. In the **Description** field one can edit a brief description of operations that will be available for users with this role (**2**).
   b. In the **Operations for the role** table (**3**) in the **Selected** column one can edit the list of operations that should be solved by users with this role by setting or deselecting the corresponding checkboxes.
   c. In order to save the changes in role parameters click **Save** (**4**).

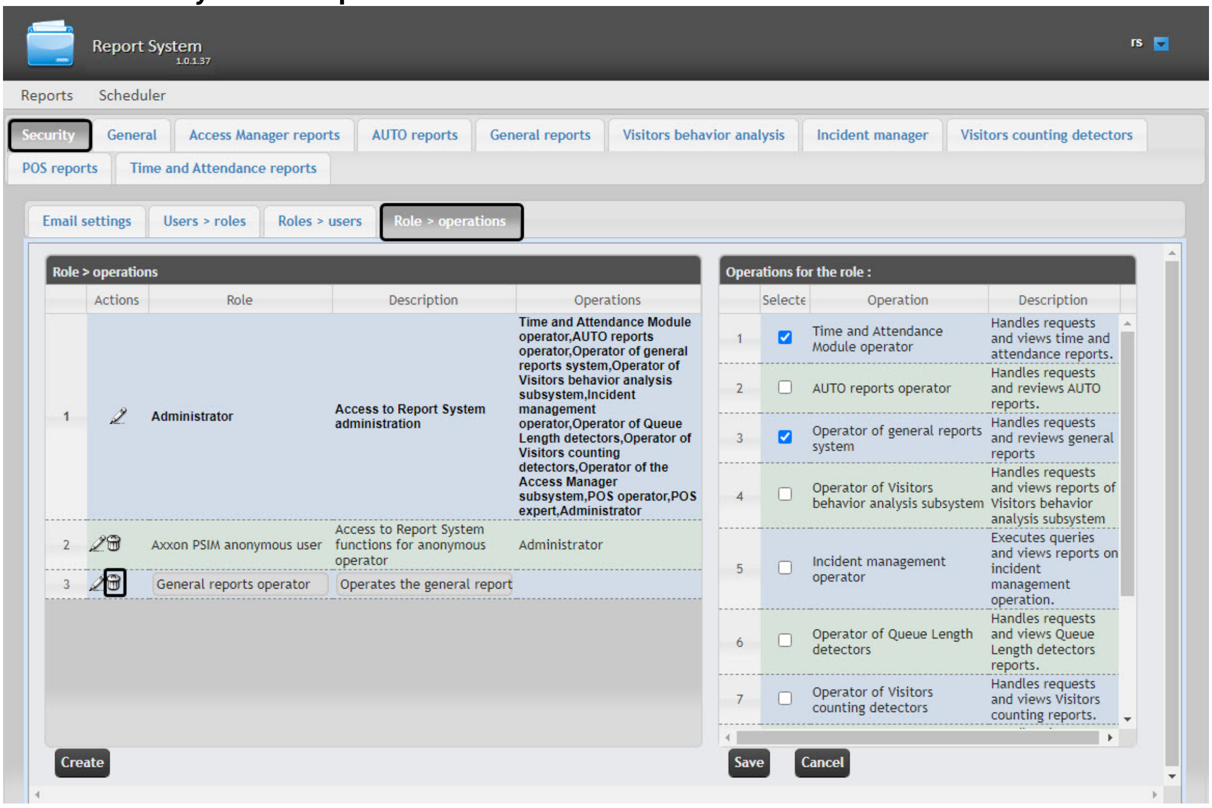
> **Note**
>
> In order to cancel the changes in the role click **Cancel** (**5**).

Role editing is completed.

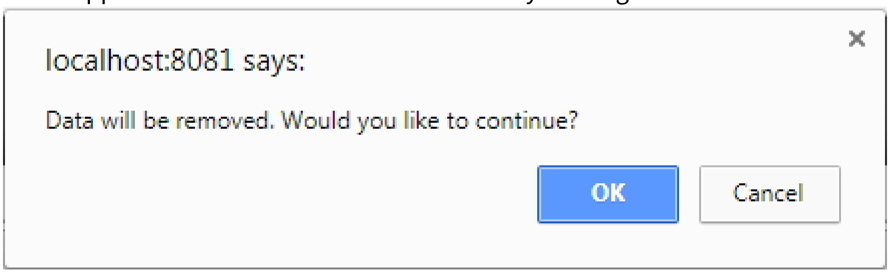
Role removal

In order to remove the role, do the following:

1. Go to the **Security** → **Role > operations** tab.



2. For the required role click the  button in the **Actions** column of the **Role > operations** table.
3. In the appeared box confirm the role removal by clicking **OK**.



Role removal is completed.

7.1.3 Configure roles and users compliance

Roles and users compliance is confugured on the **Security** tab of the administration page. It can be carried out in two ways:

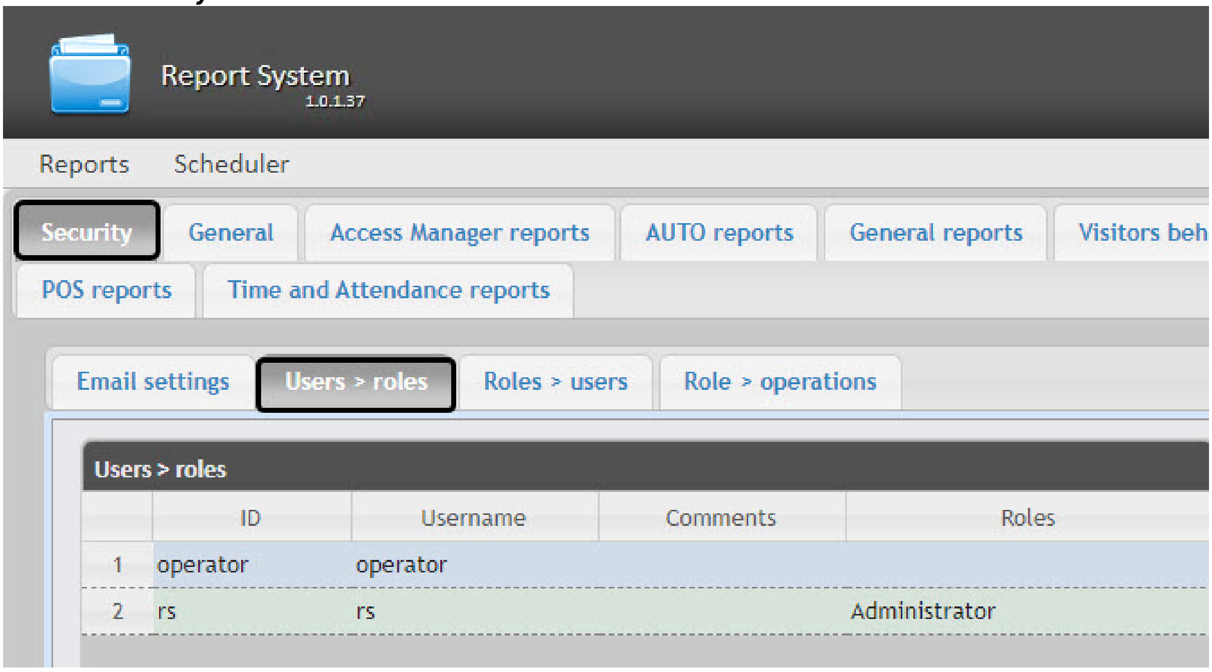
1. If the roles are assigned to a user, then the **Users > roles** tab is used.
2. If the users are added to a role, then the **Roles > users** tab is used.

The choice of method is due to the convenience of administration.

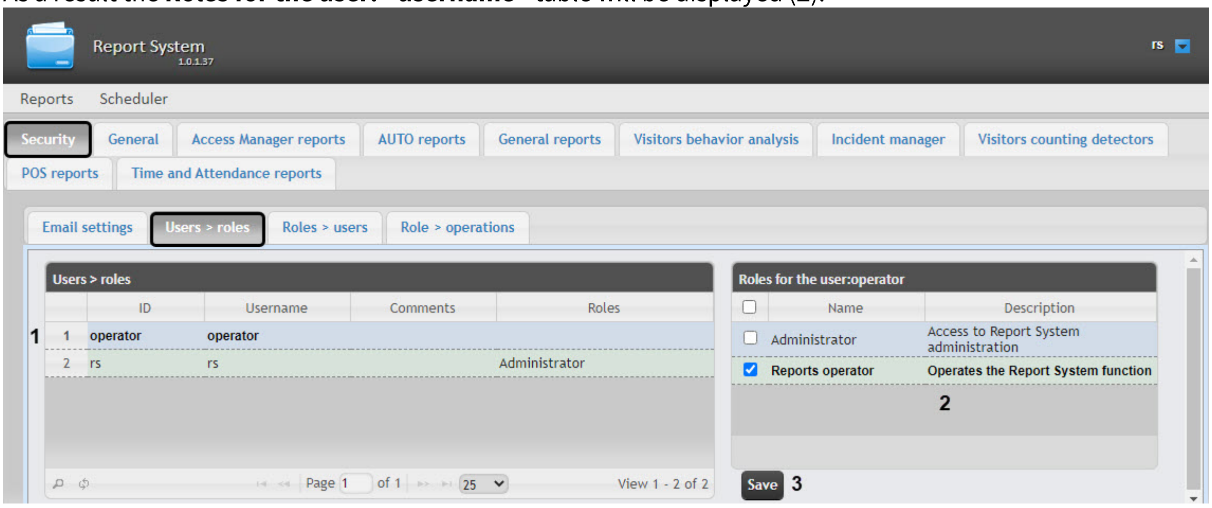
Assigning the roles to the user

In order to assign the roles to the user do the following:

1. Go to the **Security** → **Users > roles** tab.



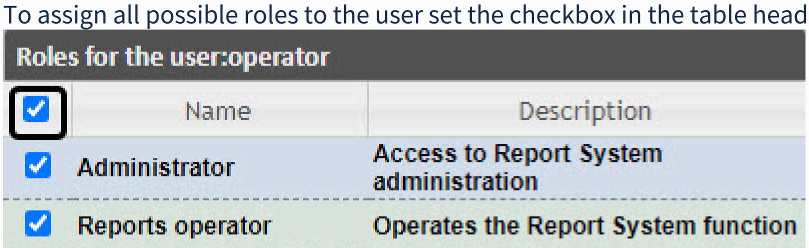
2. Left-click the required user (**1**).
3. As a result the **Roles for the user: <username>** table will be displayed (**2**).



4. Check or uncheck the required roles in the list to assign them to the selected user.

Note.

To assign all possible roles to the user set the checkbox in the table head at the **Name** field.



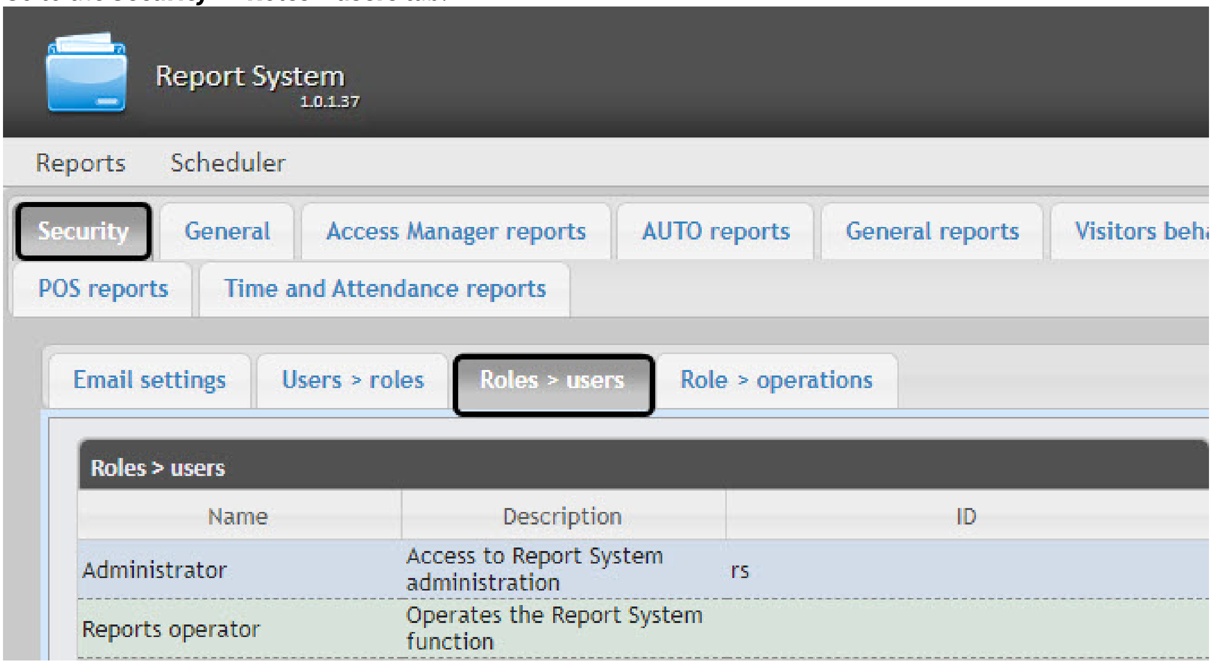
5. Click **Save** to save the changes (**3**).

Assigning the roles to the user is completed.

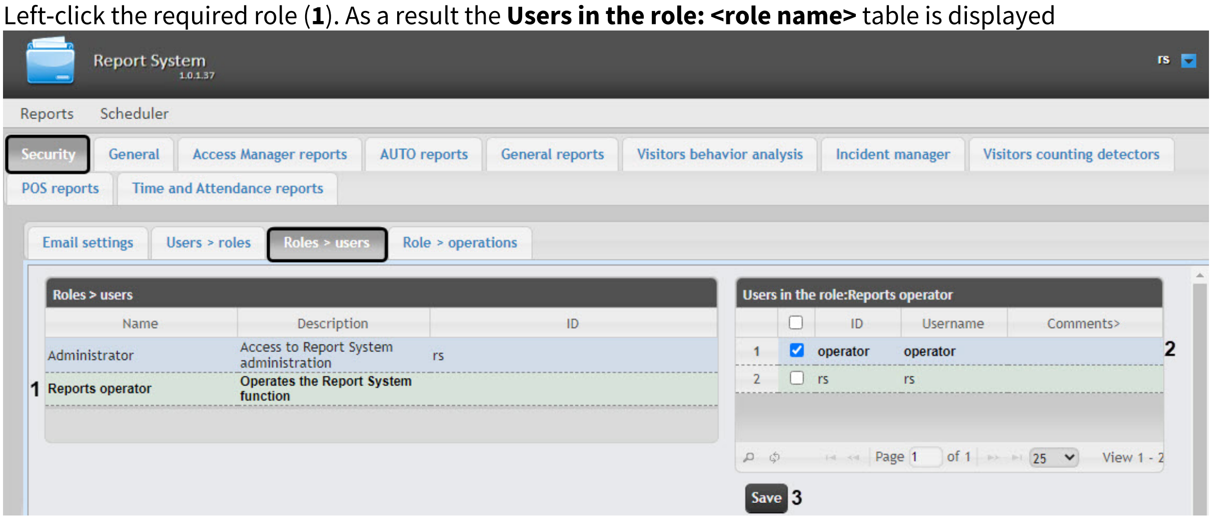
Adding the users to the role

In order to add the users to the role do the following:

1. Go to the **Security** → **Roles > users** tab.

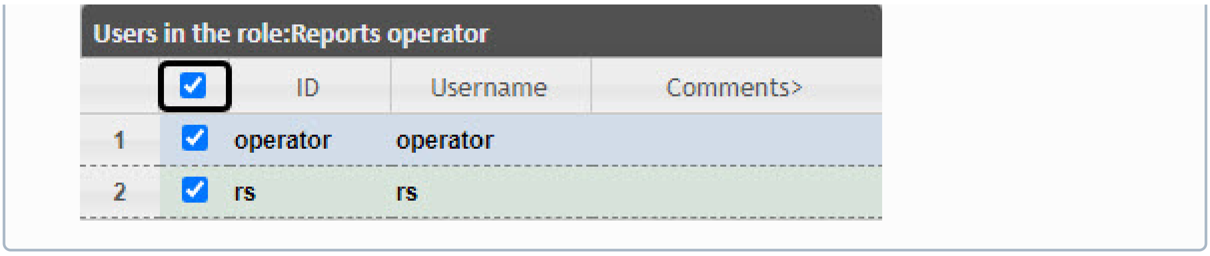


2. Left-click the required role (**1**). As a result the **Users in the role: <role name>** table is displayed



3. Change the list of users added to the role by setting or deselecting the corresponding checkboxes (**2**).

> **Note.**
>
> To add all possible users to the role set the checkbox in the table head at the ID field.



4. Click **Save** (**3**).

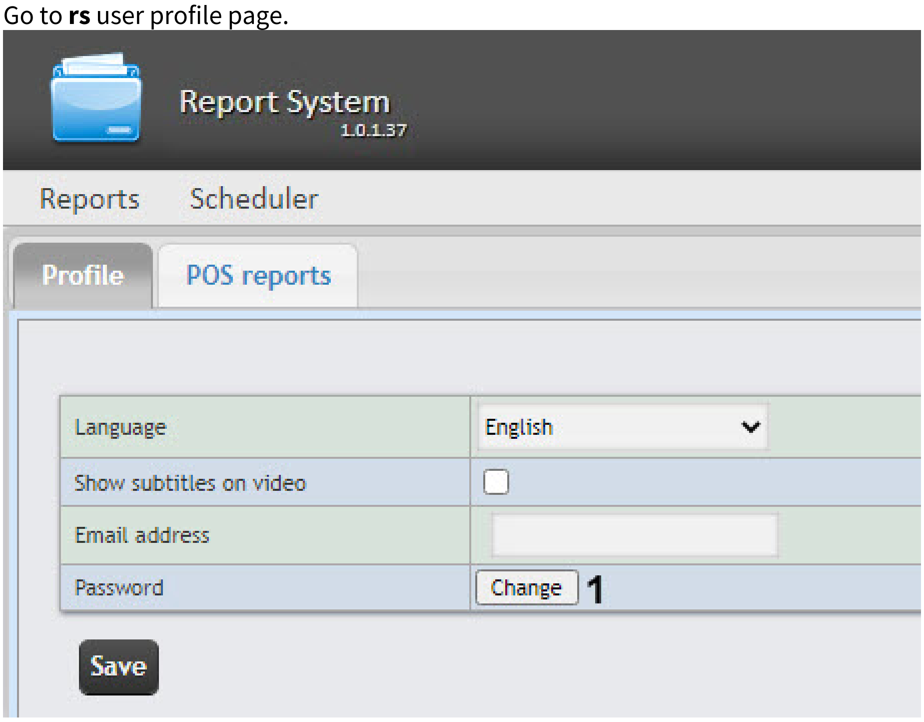
Adding the users to the role is completed.

7.1.4 Change the administrator password

The password can be changed in the **Profile** page only for the **rs** user, which is the overall administrator of the subsytem. Password changing for other users is performed only on the **Users** tab of the *Axxon PSIM* software.

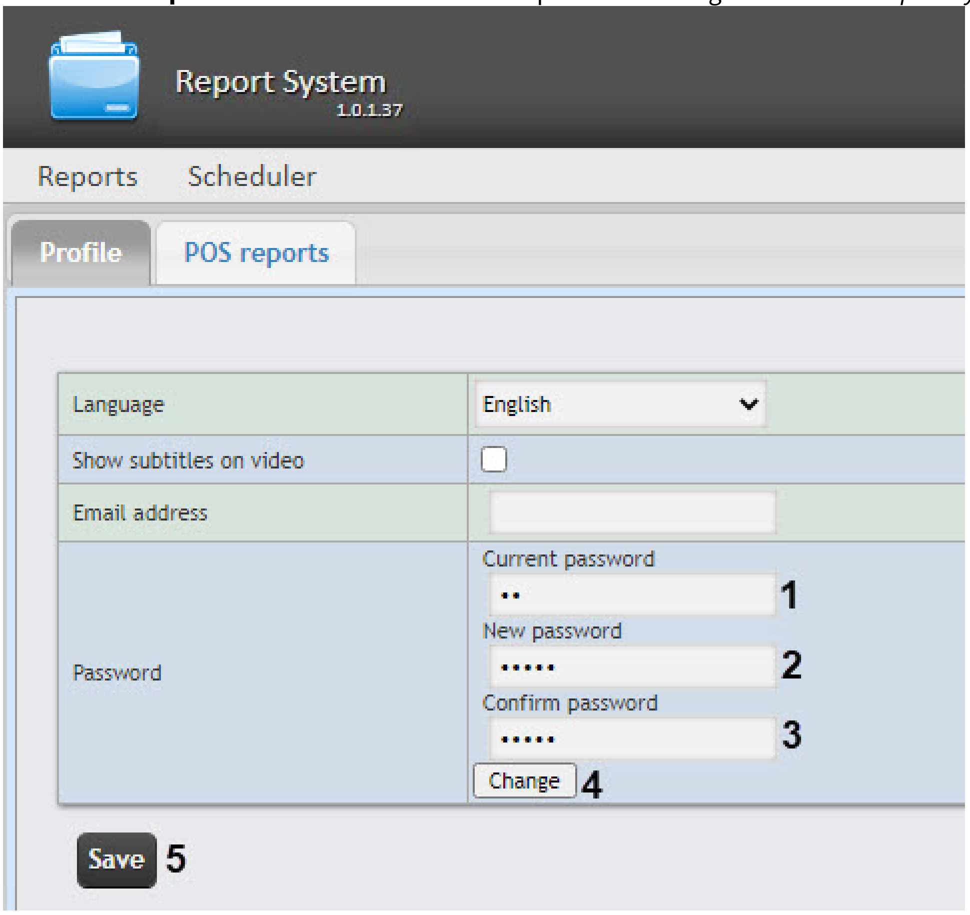
To change the password for **rs** user login to the *WEB Report System PSIM* subsystem, do the following:

1. Go to **rs** user profile page.



2. In the **Password** field click the **Change** button (**1**).

3. In the **Current password** field enter the current password for login to the *WEB Report System PSIM* (**1**).



4. In the **New password** field enter the new password for login to the *WEB Report System PSIM* (**2**).
5. In the **Confirm password** field enter again the new password (**3**).

> **Attention!**
>
> The new password should contain at least 6 symbols.

6. Click the **Change** button (**4**).
7. Click the **Save** button to save changes (**5**). For the changes to take effect, it is necesary to manually end the current *WEB Report System PSIM* session and log in with a new password.

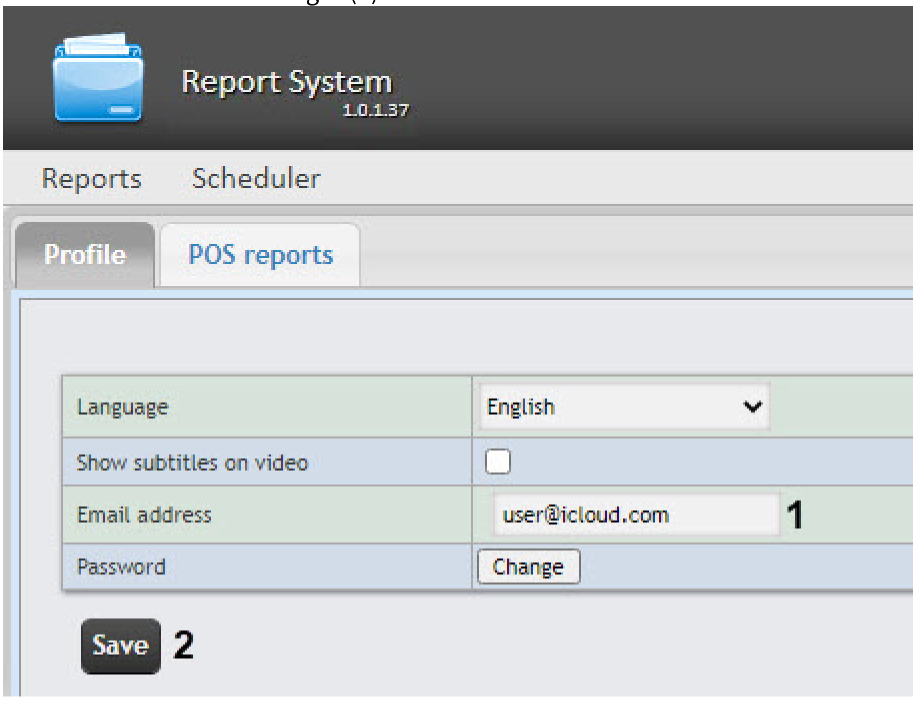
Changing the password for **rs** user is completed.

7.1.5 Setting up the user email

To set up the user email address in the *WEB Report System PSIM*, do the following:

1. Switch to the user profile page.
2. Enter the email address of the current user in the **Email address** field (**1**).

3. Click **Save** to save the changes (**2**).



User email setup is complete.

7.2 Selecting the camera stream in live video reports

To select the camera stream in live video reports, do the following:

1. Go to <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the Web.config configuration file for editing.
3. For the **PSIMVideoStreamNumber** key specify the required camera stream number from **1** to **4**. By default, the value is **0** (the first camera stream).
4. Save the changes in the Web.config file.

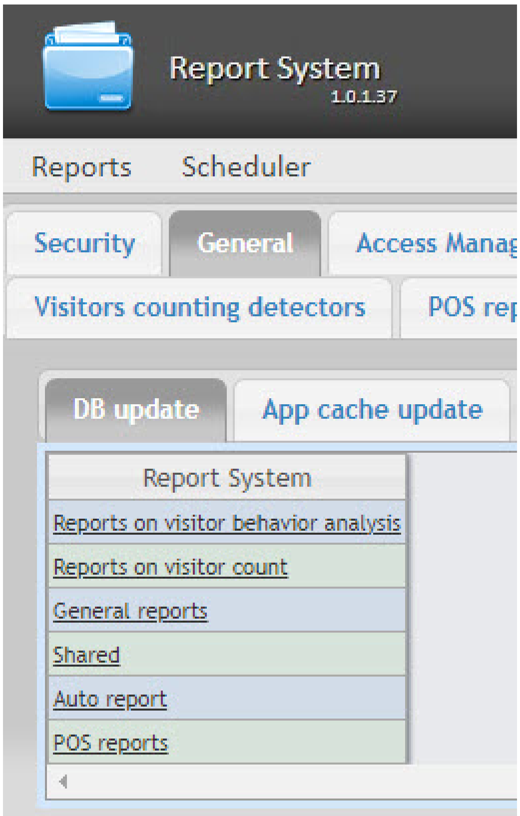
Important!

This configuration must be performed on the computer where it is planned to work with reports and where the live video is available for viewing.
After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

The parameters of the **Web.config** file are described on the page XML-file parameters reference guide.

7.3 Updating the report database

Stored procedures for *WEB Report System PSIM* reports are updated in the database on the **General** tab of the administration page.



In order to update the stored procedures in the database for a specific type of reports, click the corresponding link in the **DB update** table.

The stored procedures for *Time and Attendance reports* and *Access Manager reports* are stored in a single database. If any of the two modules is absent, it will not hamper the update procedure: the stored procedure for the absent module will not be loaded in the database.

Warning!

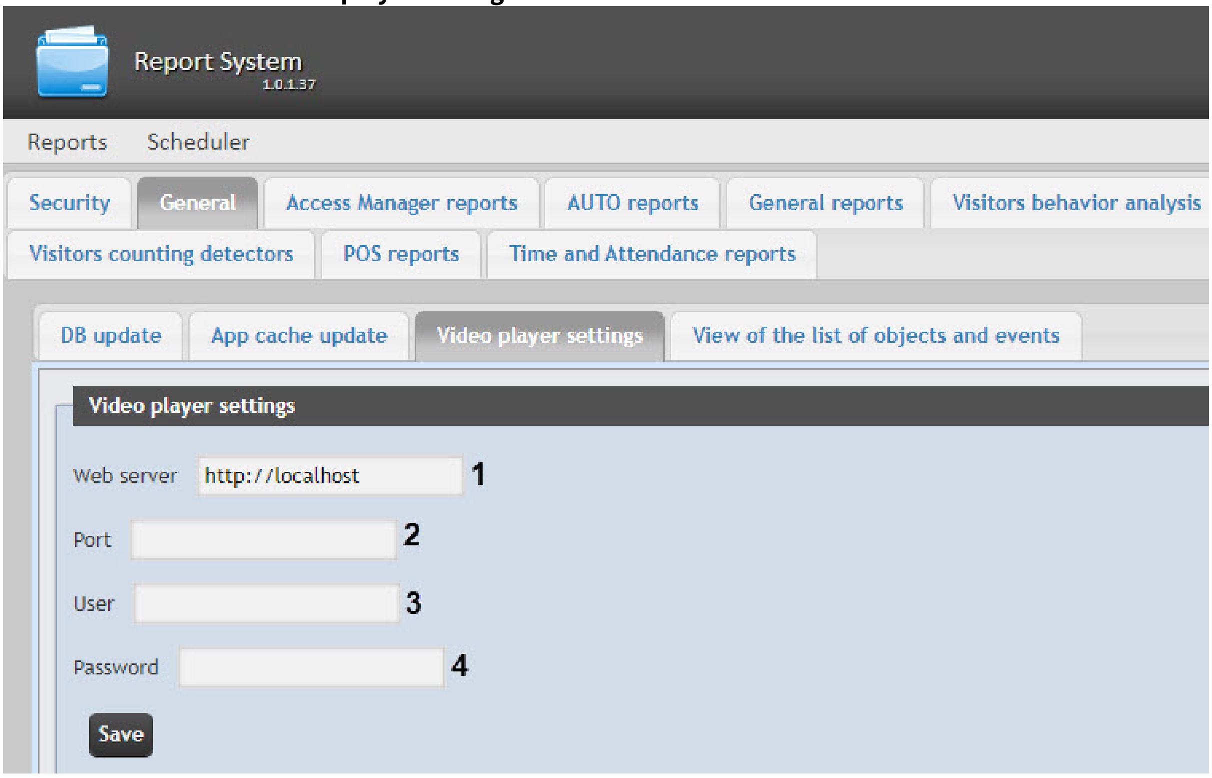
The **General reports** database must be updated after each new installation of the *WEB Report System PSIM* or re-installation with configuration update.

7.4 Video Player Settings

Setting up the Video Player is necessary in the following cases:

- To be able to view the video archive of events in browsers based on the Blink and Gecko browser engines (Google Chrome, Yandex Browser, Firefox, Opera, etc.).
- To display frames from cameras in the built general **Report by camera**.

The Video Player is configured as follows:

1. Go to the **General** tab > **Video player settings**.


2. In the **Web server** field (**1**), enter the IP address of the Server on which the *Web-server* module is configured (for details, see Configuring the Web-server module). Default: **http://localhost**.
3. In the **Port** field (**2**), enter the port number for connecting to the HTTP server, which is specified on the settings panel of the **Web-server** object (see Parameters of connecting Clients to the Web-server).

> **Note**
>
> If the *Web-server* module is configured on the same Server where the *WEB Report System PSIM* is installed, then the **Port** value is filled in automatically after restarting the Cassini Service.

4. In the **User** (**3**) and **Password** (**4**) fields, enter the username and password for the *Axxon PSIM* user, who has the rights to perform video surveillance from a Web-browser. If you log into *Axxon PSIM* without authorization, leave the field blank.
5. Click **Save** to apply the changes.

The video player is configured.

7.5 Setting up WEB Report System PSIM operation in the automatic mode

7.5.1 WEB Report System PSIM setting up procedure in the automatic mode

Setting up the *WEB Report System PSIM* operation in the automatic mode is carried out in the **Scheduler** tab on the administration page.

The following succession is recommended while setting up:

1. On the **Security** > **Email settings** tab setup the SMTP Server used for sending the auto-generated reports.

> **Note.**
>
> This step can be missed if there is no need to send the reports by e-mail in the automatic mode.

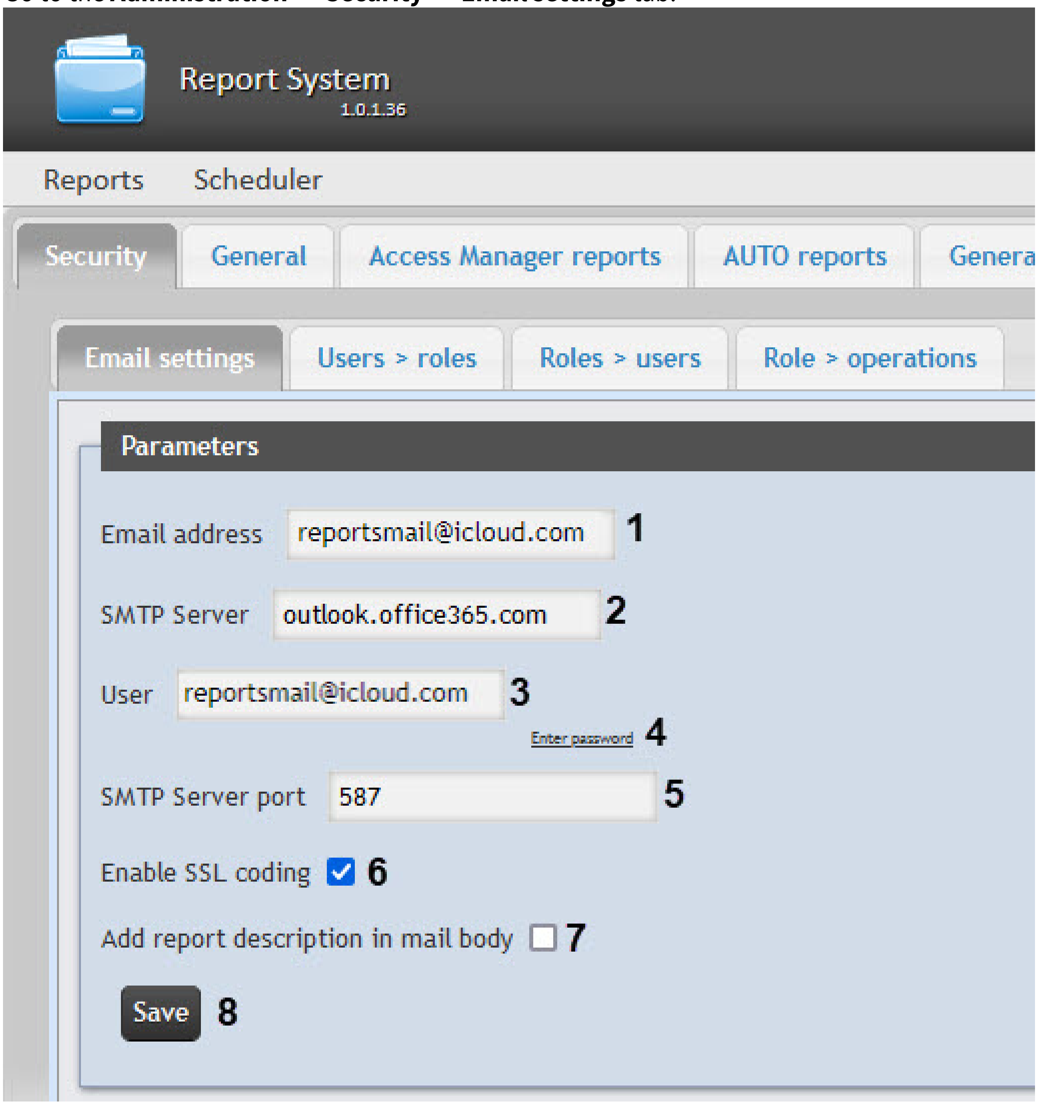
2. On the **Reports** tab create the list of auto-generated reports.
3. On the **Schedules** tab setup the schedule of *WEB Report System PSIM* operation in the automatic mode.
4. On the **Tasks** tab create the tasks for auto-generating the reports. Start their execution.

7.5.2 Configuring the SMTP Server

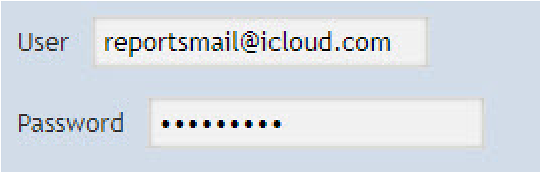
You can configure the SMTP Server for sending the auto-generated reports via email in the **Administration** → **Security** section.

To configure the SMTP Server, do the following:

1. Go to the **Administration** → **Security** → **Email settings** tab.



2. In the **Email address** field (**1**), enter the email address from which the auto-generated reports will be sent.
3. In the **SMTP Server** field (**2**), enter the name of the SMTP Server.
4. In the **User** field (**3**), enter the name of the account used for sending the messages to the SMTP Server.

5. Specify the password of the account used for sending the messages to the SMTP Server. For this, click the **Enter password** link (**4**). In the **Password** field that appears, enter the account password.


6. In the **SMTP Server port** field (**5**), enter the port number used by the SMTP Server.
7. To use an encoded SSL connection when connecting to the SMTP Server, set the **Enable SSL coding** checkbox (**6**).
8. If necessary, set the **Add report description in mail body** checkbox (**7**) to add the information about the report to the mail body. By default, the setting is disabled.
9. Click the **Save** button (**8**).

> **Note**
>
> You can also configure the SMTP Server directly using the **web.config** configuration file which is located at <*Axxon PSIM* installation directory>\Modules\Wt2\App_Data\Mail\ directory (see XML-file parameters reference guide).

Configuring the SMTP Server for sending the auto-generated reports via email is complete.

7.5.3 Auto-generated reports setup

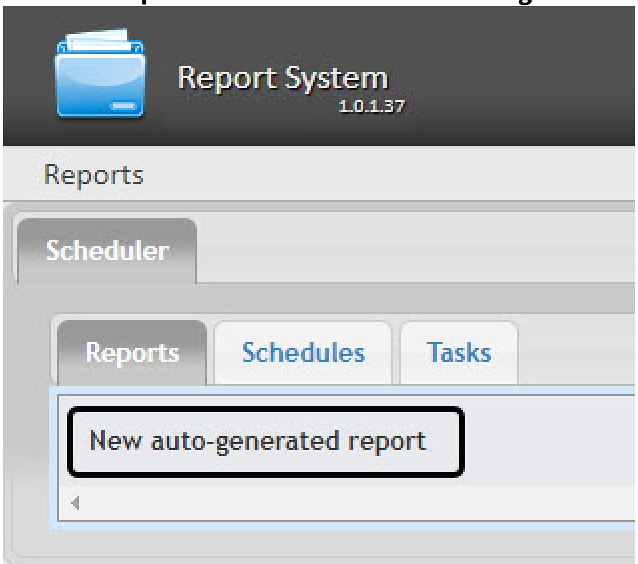
One can assign and setup the reports that will be auto-generated on the schedule.

> **Note.**
>
> Schedule setup is given in details in Setting up the schedule of operation in the automatic mode. The connection between the report and the schedule element is setup at the final stage when the task is created (see the Setting up the automatically executed tasks chapter).
>
> Auto-generated scheduled reports may be created by the adminisrator of the system (the **rs** user), as well as by ordinary users, given that they have the roles with the required operations.

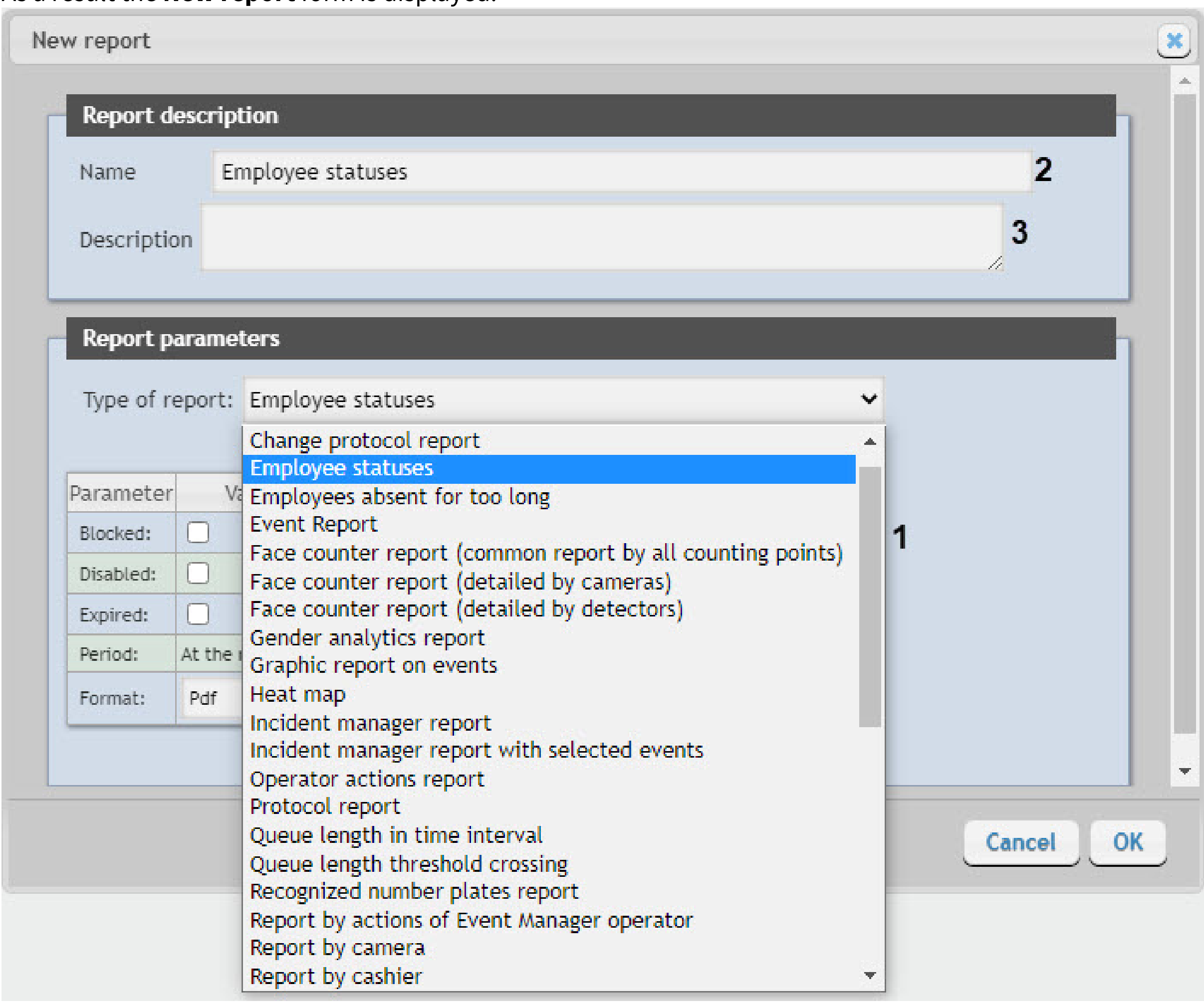
Creating the report

Make an auto-generated report as follows:

1. Go to the **Reports** tab and click the **New auto-generated report** link.



2. As a result the **New report** form is displayed.

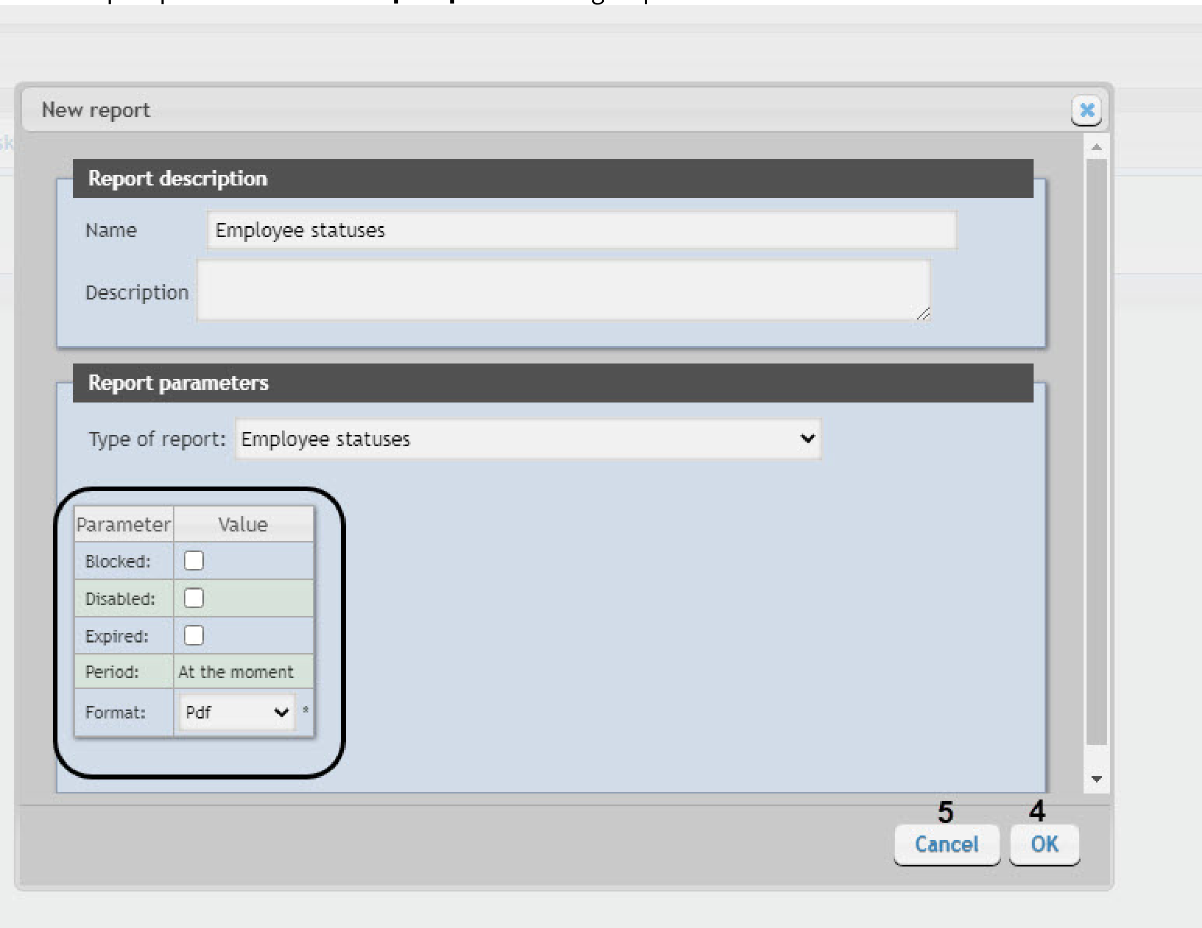


3. In the **Report parameters** group select the required type of report from the **Type of report** list (**1**).

4. In the **Name** field (**2**) of the **Report description** group the prior report name is displayed automatically. It can be edited if necessary.
5. In the **Description** field (**3**) of the **Report description** group specify the description of the report contents.

> **Note**
>
> This field is optional.

6. Set the report parameters in the **Report parameters** group.



> **Note**
>
> The list of parameters is individual for every type of report and the same as the list of parameters of the corresponding report when working with reports (see Working with WEB Report System PSIM) with one exception: the **Format** drop-down list is available, in which you can select the required export format for this report. The list of available formats may differ depending on the generated report type:
> - PDF:
> - CSV:
> - Excel.
>
> Images are only supported in PDF format. If you export the report in a format other than PDF, only the text will be saved.

7. In order to save the description and new report parameters click **OK** (**4**).

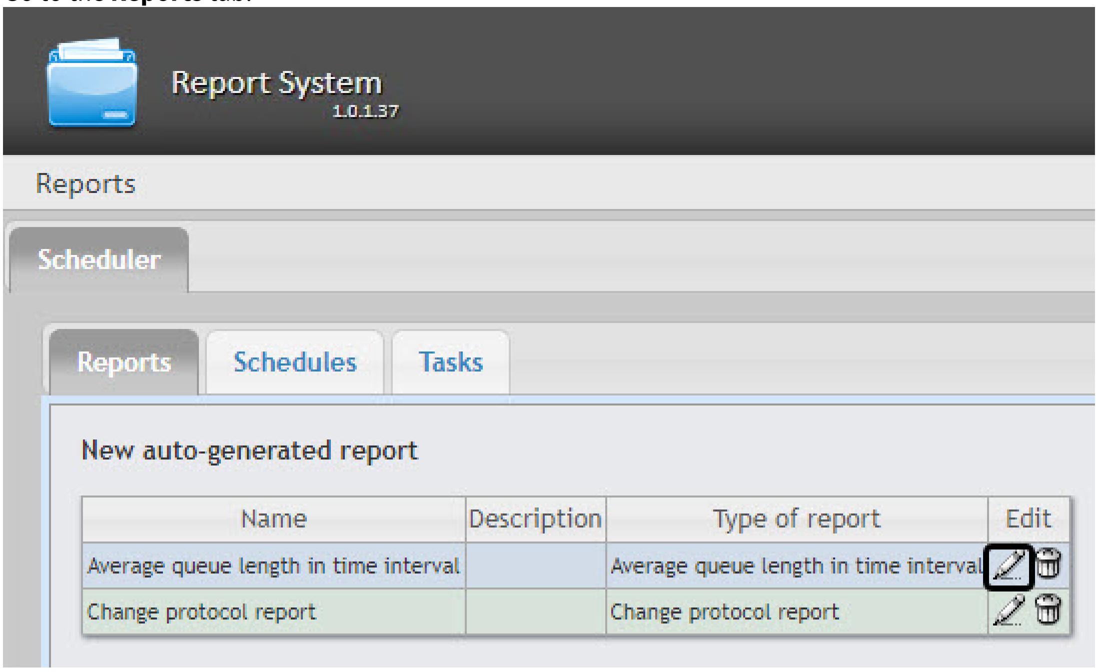
> **Note**
>
> In order to cancel making the report click **Cancel** (**5**).

Making the auto-generated report is completed.

Editing the report

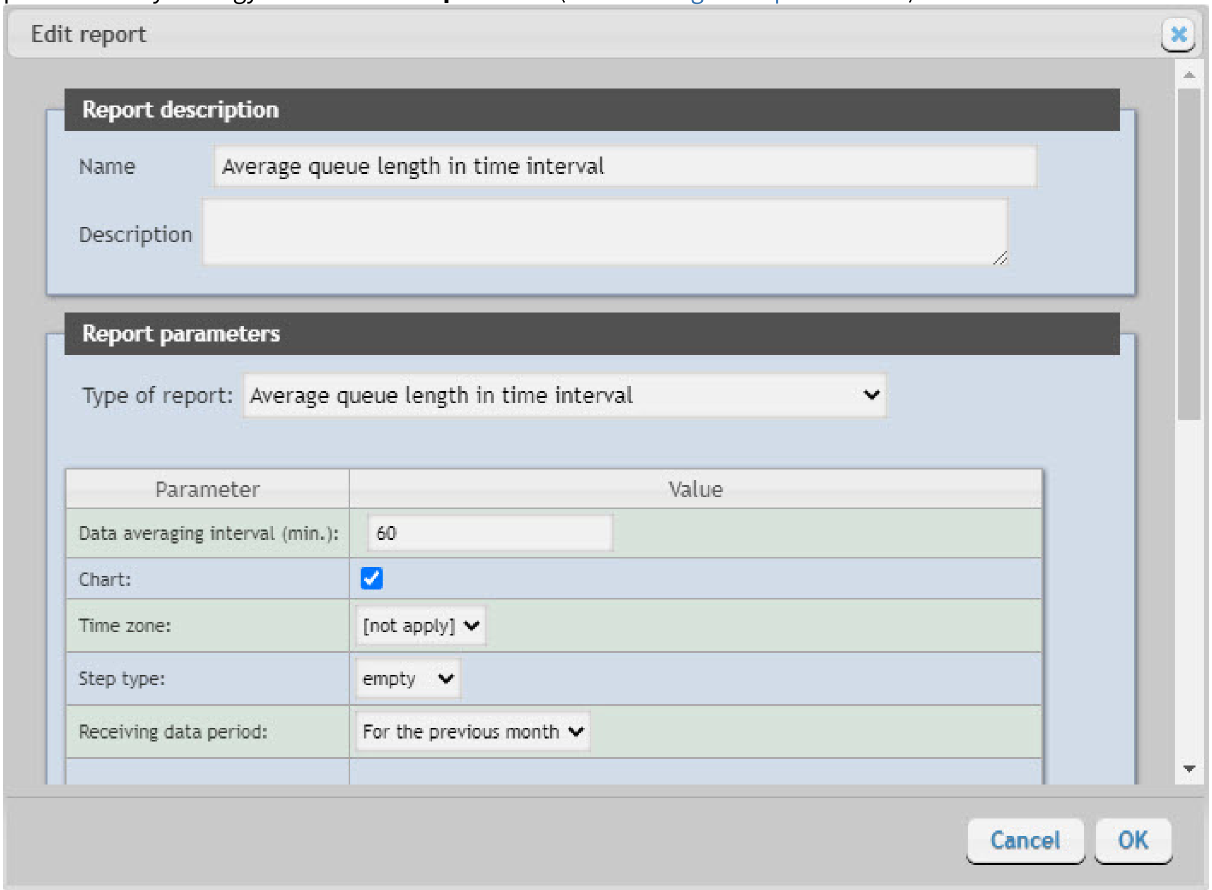
In order to edit the auto-generated report do the following:

1. Go to the **Reports** tab.



2. Click for the required report in the **Edit** column**.**

3. As a result the **Edit report** form is displayed**.** In this form one should edit the description and report parameters by analogy with the **New report** form (see Creating the report section).



4. In order to save the report changes click **OK**.

Note.

In order to cancel the report changes click **Cancel**.

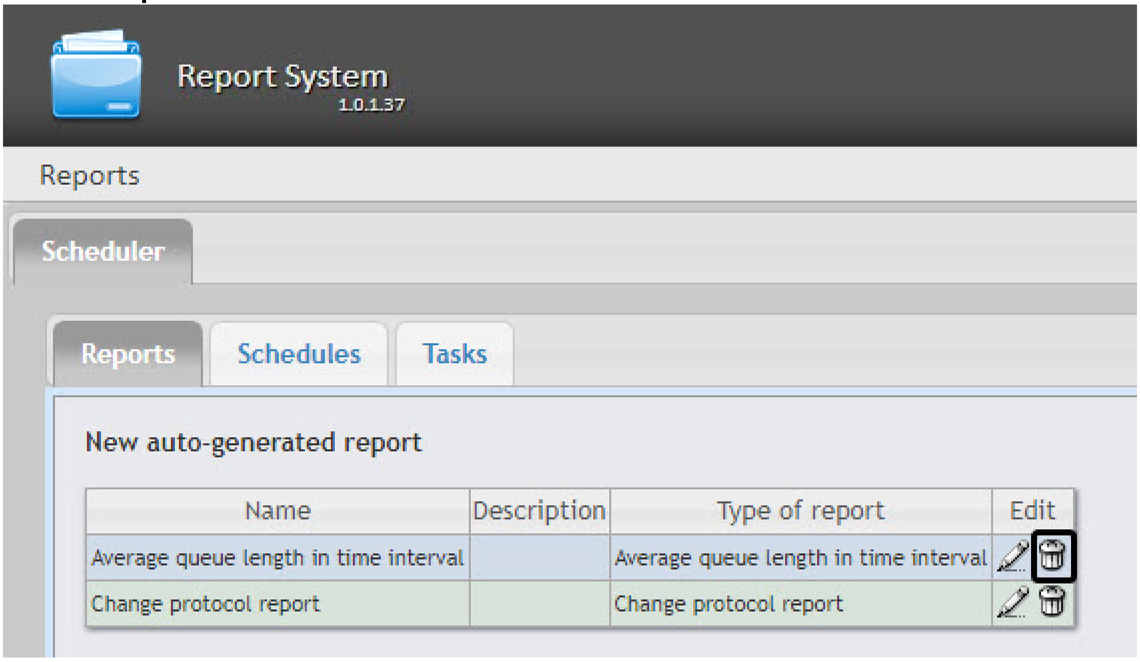
In order to change the language of the auto-generated report select the corresponding language in the profile page of the *rs* user (see User profile page section).

Editing the auto-generated report is completed.

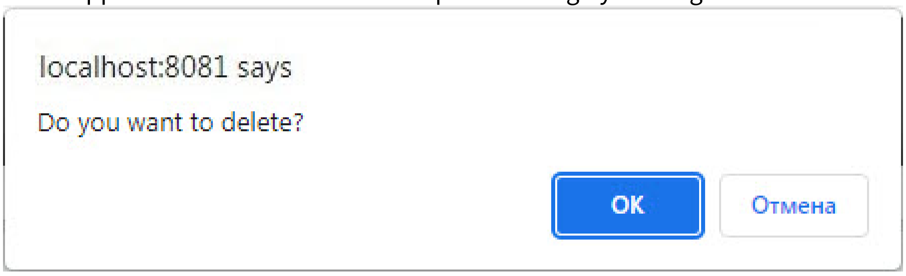
Deleting the report

In order to delete the auto-generated report do the following:

1. Go to the **Reports** tab.



2. Click  for the required report in the **Edit** column.
3. In the appeared window confirm the report deleting by clicking **OK.**



Deleting the auto-generated report is completed.

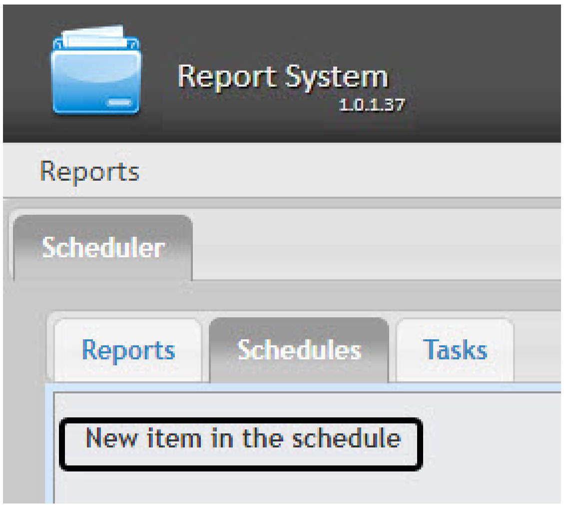
7.5.4 Setting up the schedule of operation in the automatic mode

Setting up the schedule of *WEB Report System PSIM* operation in the automatic mode is performed by creating the schedule items. Later on any of created items in the schedule can be used while creating the task that should be executed in the automatic mode (see Setting up the automatically executed tasks section).

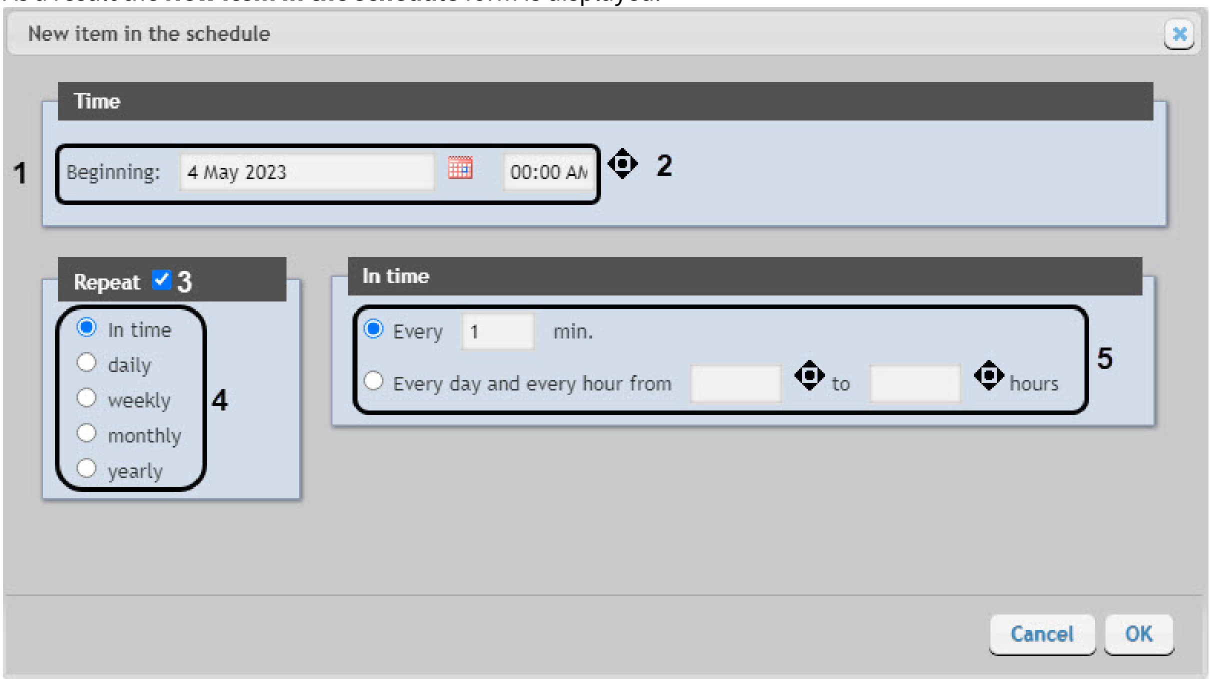
Creating the schedule item

In order to create the schedule item do the following:

1. Go to the **Schedules** tab and click the **New item in the schedule** link.



As a result the **New item in the schedule** form is displayed.



> **Note**
>
> - The selection of required reports will be performed when the tasks are created (see Setting up the automatically executed tasks section).
> - In order to set current time it is convenient to use button (**2**).

2. In the **Time** group (**1**) enter the instant approaching which the required reports will be generated automatically.
3. If reports should be generated regularly with a certain repetition period, set the **Repeat** checkbox (**3**) and select the required repetition period (**4**).
4. As a result, a form for tweaking the repetition period will be displayed (**5**). The parameters of this form depend on the selected period and are set intuitively.
5. In order to save the schedule item click **OK.**

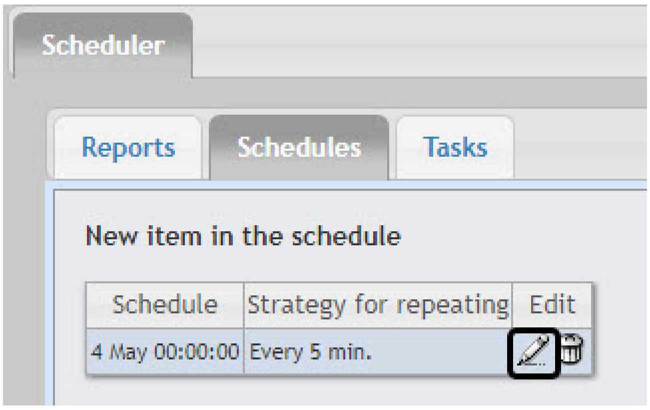
Note.

In order to cancel creating of the schedule item click **Cancel**.

Creating the schedule item is completed.

Editing the schedule item

In order to edit the auto-generated report do the following:

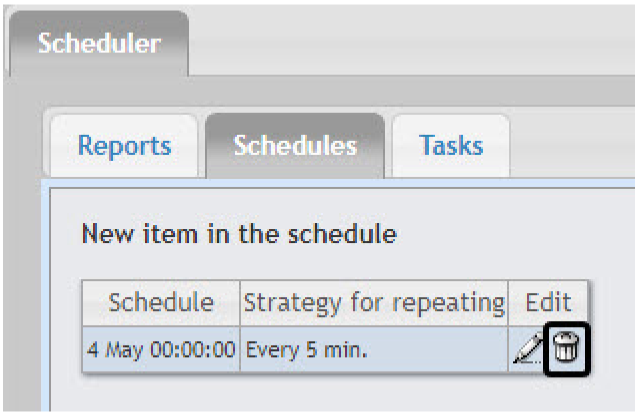
1. Go to the **Schedules** tab.


2. Click  for the required schedule item in the **Edit** column**.**
3. As a result the **Edit the schedule item** form is displayed**.** Editing a schedule item is similar to creating a schedule item (see Creating the schedule item).

Editing the schedule item is completed.

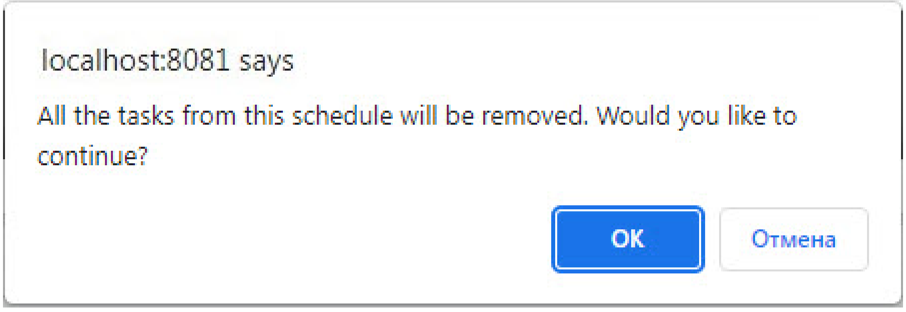
Deleting the schedule item

In order to delete the schedule item do the following:

1. Go to the **Schedules** tab.


2. Click  for the required schedule item in the **Edit** column.

3. In the appeared window confirm the schedule item deleting by clicking **OK.**



Deleting the schedule item is completed.

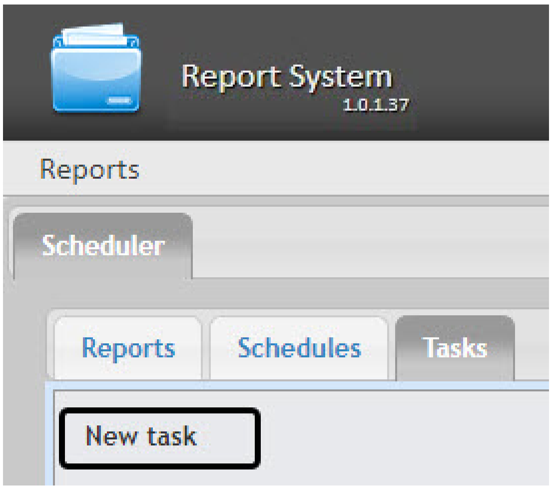
7.5.5 Setting up the automatically executed tasks

If the required reports should be auto-generated according to the specified schedule then it is necessary to create, set up and run a task.

Creating the task

In order to create the auto-executed task do the following:

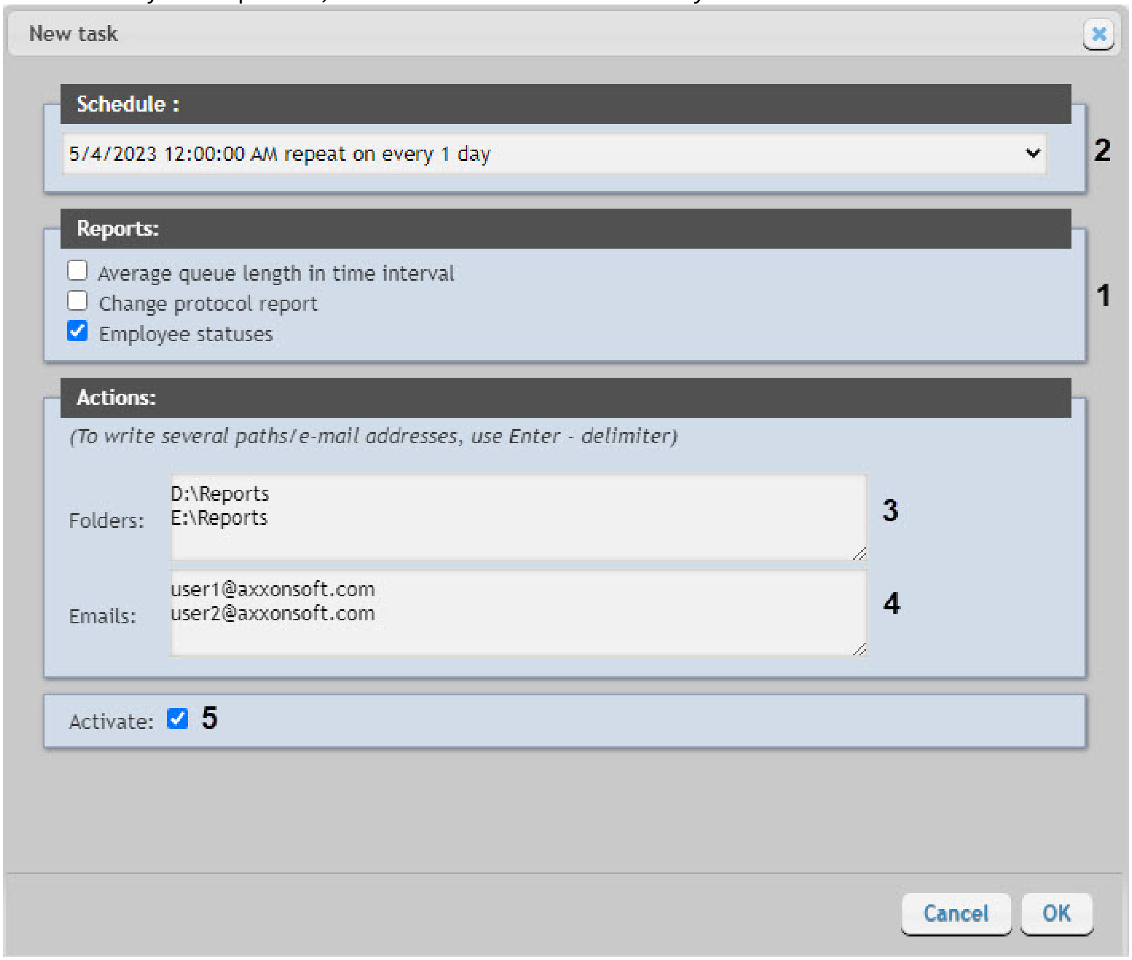
1. Go to the **Tasks** tab.



2. Click the **New task** link.
3. As a result the **New task** form is displayed.
4. In the **Reports** group (**1**) select the reports that should be auto-generated by setting the checkboxes.
5. From the **Schedule** list (**2**) select the schedule according to which the selected reports should be generated.
6. In the **Actions** group, set up at least one action with the reports:
   a. In the **Folders** field (**3**) enter the path for the folders where the generated reports should be stored. Use **Enter** key as a separator, i.e. there is a certain line for every folder.

> **Attention!**
>
> If a network folder is selected, then it is necessary to launch the Cassini Service utility on behalf of a user who has access to this network folder, because by default, this utility is launched on behalf of a system user who does not have access to network folders.

b. In the **Emails** field (**4**) enter the email addresses to which the generated reports should be sent. Use **Enter** key as a separator, i.e. there is a certain line for every email address.



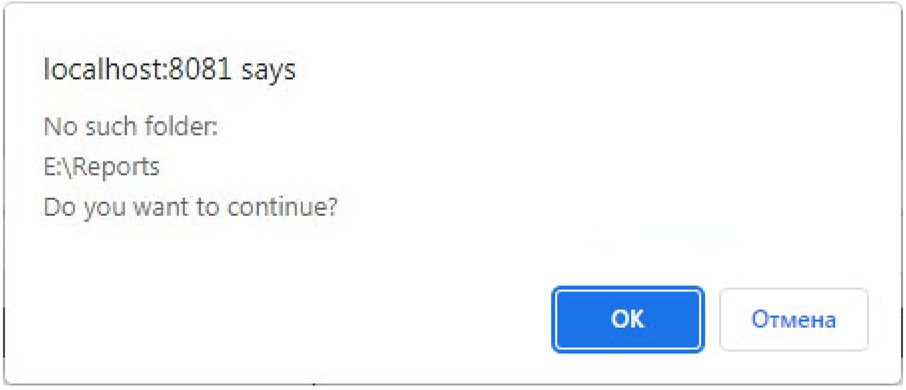
> **Note**
>
> Generated reports that are sent to emails are PDF and XLS files.

7. In order to run the task execution right after its creation set the **Activate** checkbox (**5**).

> **Note.**
>
> Later one can run the task execution at any moment (see the Running and stopping the task execution section).

8. In order to save the task parameters click **OK**, to cancel the task creation click **Cancel**.

> **Note**
>
> If there are no folders that are set at 6.a step then the following message is displayed when the task parameters are saved. In order to auto create folders click **OK**.

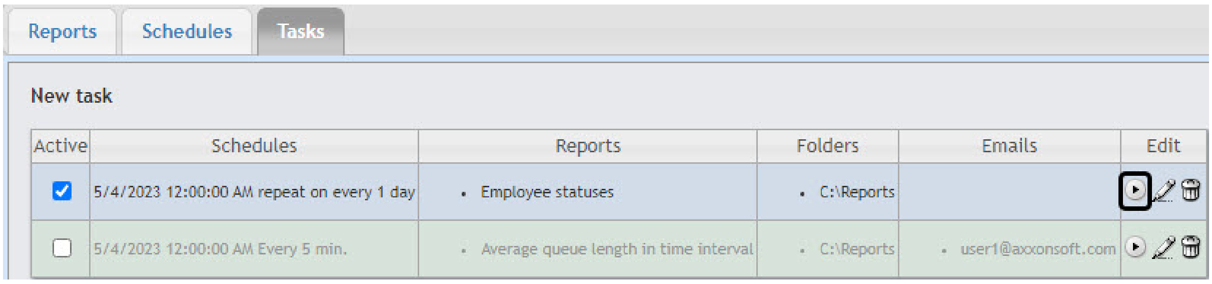


Creating the automatically executed task is completed.

Checking the task execution

One can check the task execution at any time without taking into account the selected schedule. For this do the following:

1. Go to the **Tasks** tab.



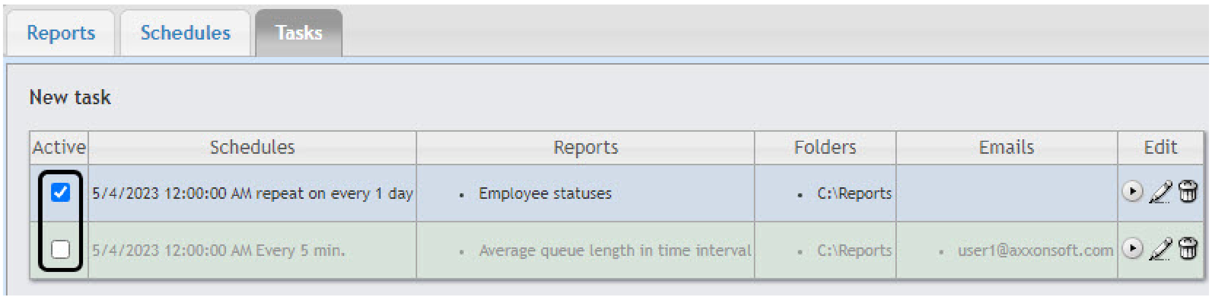
2. For the required task click in the **Edit** column.
3. Reports specified in the task will be generated and saved in the folders and/or sent to the email addresses. If it is not happening one should check whether the actions with reports are set up correctly (see Creating the task section).

Checking the task execution is completed.

Running and stopping the task execution

One can run and stop the task execution without editing them. For this do the following:

1. Go to the **Tasks** tab.



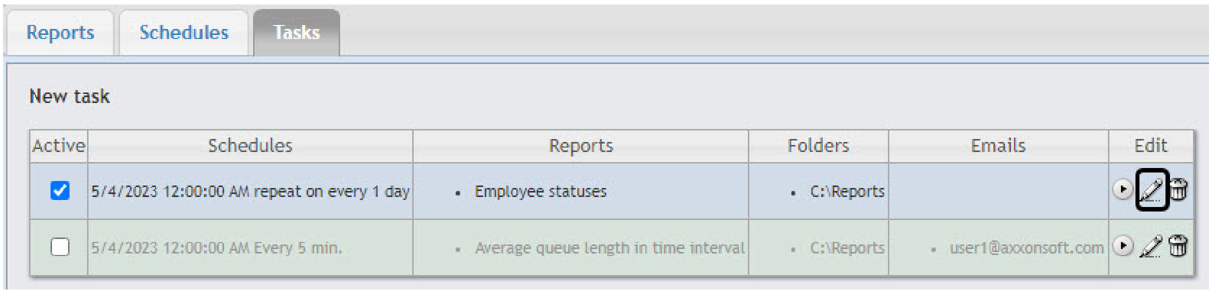
2. In the **Active** column set the checkboxes checked for the tasks that should be run and unchecked for the tasks that should be stopped.

Running or/and stopping the task execution are completed.

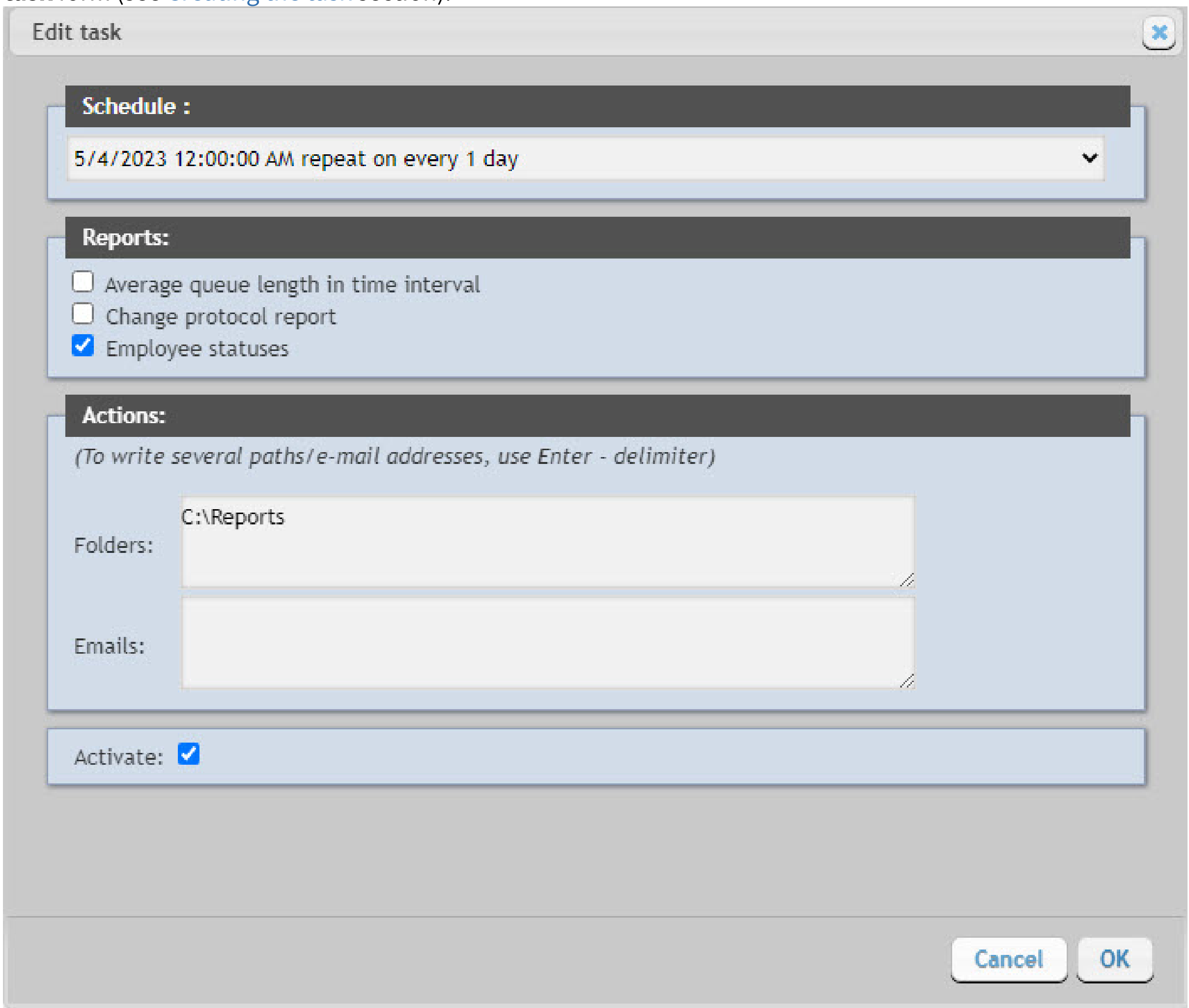
Editing the task

In order to edit the auto-executed task do the following:

1. Go to the **Tasks** tab.



2. For the required task click  in the **Edit** column**.**
3. As a result the **Edit task** form is displayed**.** The task parameters should be changed by analogy with the **New task** form (see Creating the task section).



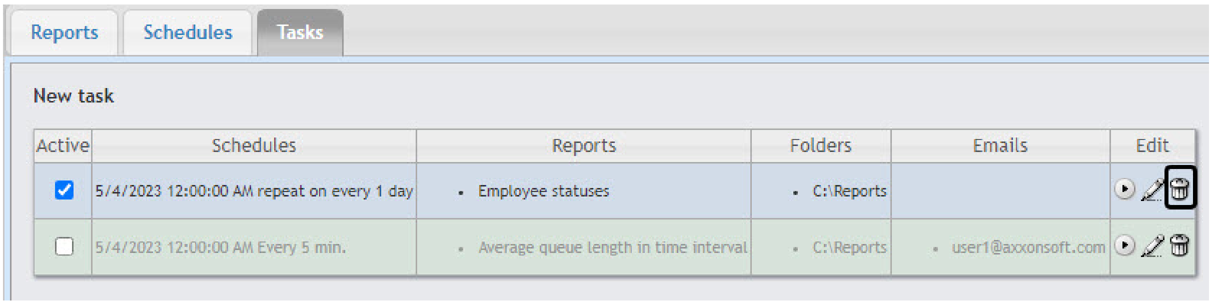
4. In order to save the changes click **OK**, to cancel the task creation click **Cancel**.

Editing the auto-executed task is completed.

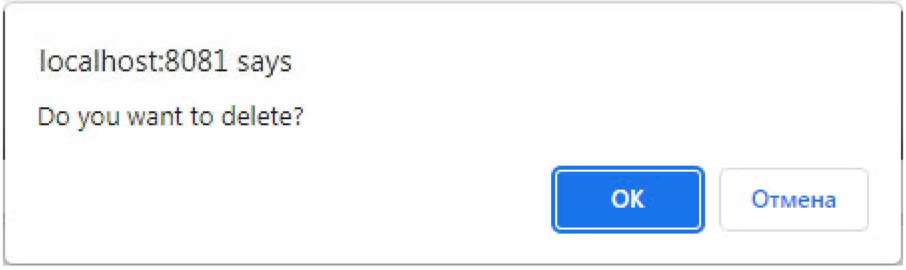
Deleting the task

In order to delete the task do the following:

1. Go to the **Tasks** tab.



2. For the required task click  in the **Edit** column.
3. In the appeared box confirm the task deleting by clicking **OK.**



Deleting the task is completed.

7.6 Setting up the Access Manager reports

Attention!

Prior to setting up the Access Manager reports, it is necessary to update the report database as described in Updating the report database section.

Setting up the Access Manager reports is performed in the **Access Manager reports** tab on the administration page.

Access Manager reports setup is performed in the following sequence:

1. Setting up user access to departments.
2. Setting up user access to Access Manager reports.

Note

To perform the configuration, the *Access Manager* interface object must be created and configured on the Server, see Configuration of the Access Manager module.

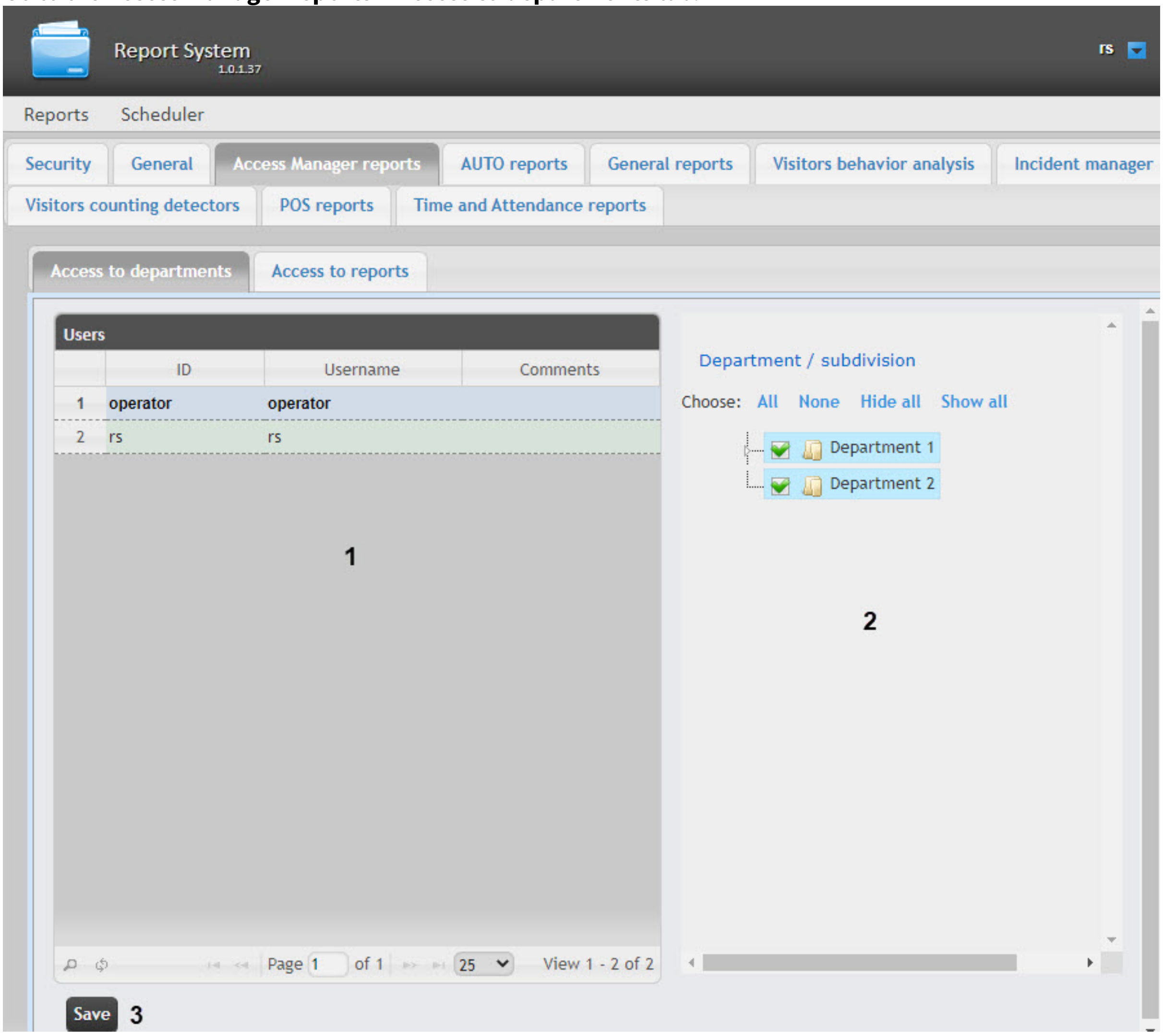
Note

In order to be able to work with Access Manager reports, the role with the right to perform the **Operator of the Access Manager subsystem** operations should be created and assigned to users, as described in Set up the roles.

7.6.1 Setting up user access to departments

To configure user access to departments do the following:

1. Go to the **Access Manager reports > Access to departments** tab.



2. In the **Users** table select user for which access is to be configured (**1**).

> **Note**
>
> The user must have a role with the right to perform the **Operator of the Access Manager subsystem** operations. For details on role configuration, see Set up the roles.

3. The list of available departments for the selected user is displayed in the **Access to departments** table (**2**).
4. Set the checkboxes close to departments to which access will be allowed for the selected user.
5. Click the **Save** button (**3**).
6. Repeat steps 2-5 for all users.

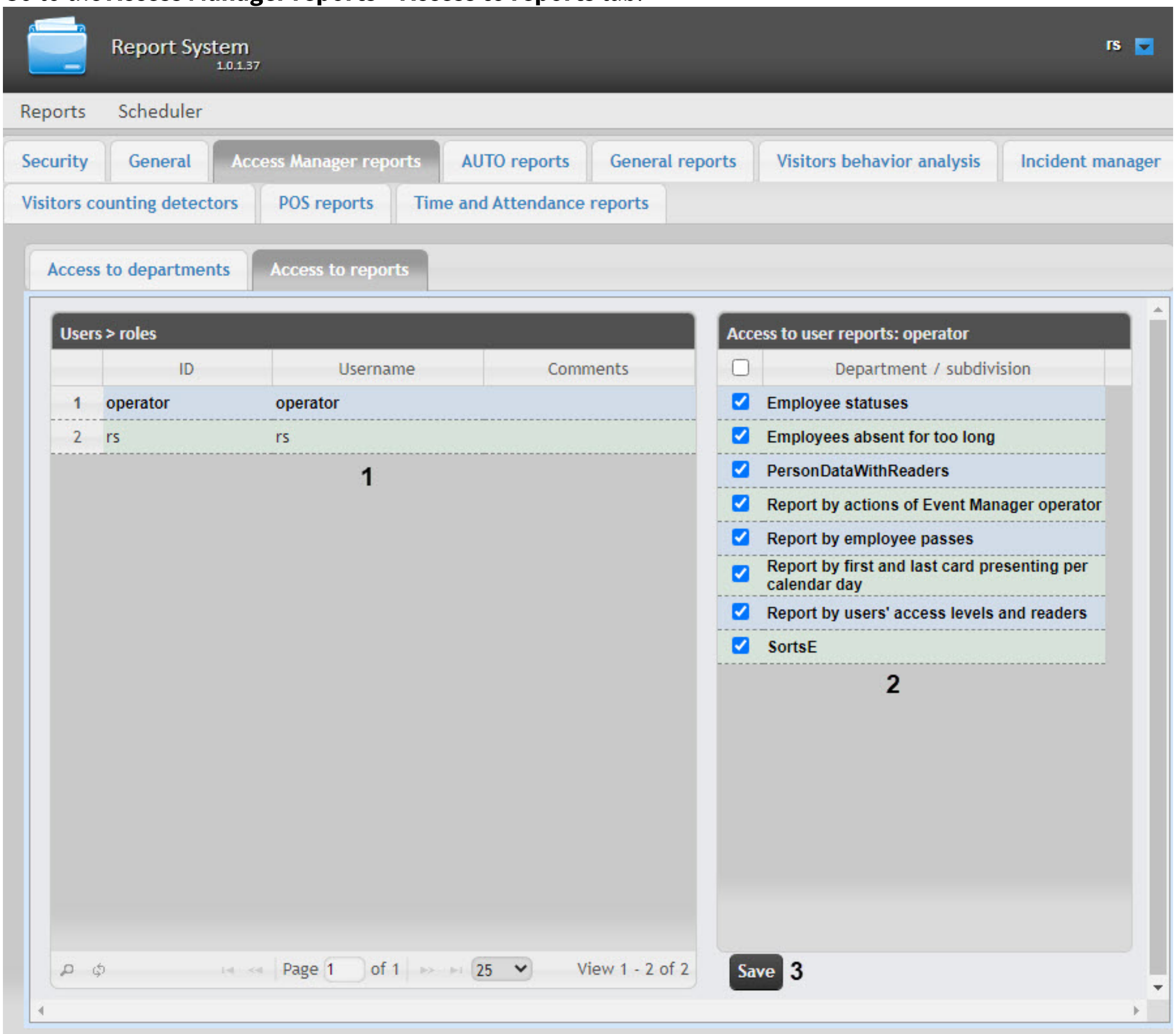
> **Note**
>
> The **rs** user has access to all departments by default.

Configuring user access to departments is completed.

7.6.2 Setting up user access to Access Manager reports

To configure user access to *Access Manager reports* do the following:

1. Go to the **Access Manager reports > Access to reports** tab.



2. In the **Users>roles** table select user for which the access is configured (**1**).

> **Note**
>
> The user must have a role with the right to perform the **Operator of the Access Manager subsystem** operations. For details on role configuration, see Set up the roles.

3. The list of available reports for the selected user is displayed in the **Access to user reports** table (**2**).
4. Set the checkboxes next to reports which will be enabled for the selected user.
5. Click the **Save** button (**3**).

Setting up user access to *Access Manager reports* is complete.

7.6.3 Setting up the Issued pass cards report

On the page:

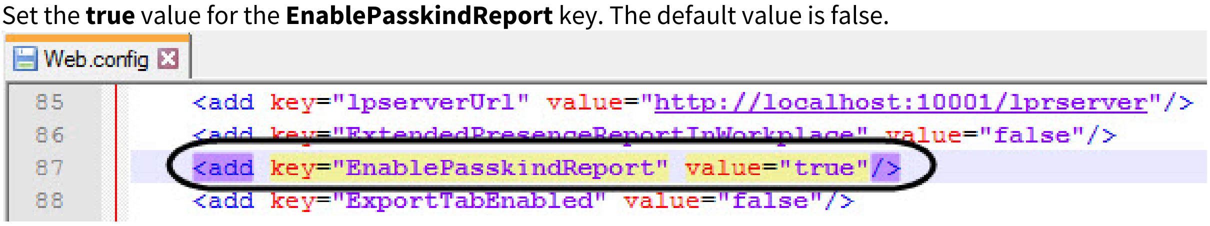
- Activating the Issued pass cards report
- Adding fields to the user database templates file
- Editing a registry key

Activating the Issued pass cards report

Attention!

The **Issued pass cards report** should be set up on the same computer on which this report will be operated.
After making any changes to the **Web.config** configuration file, it is necessary to restart the **Cassini Service**.

To activate the **Issued pass cards report**, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2 path.
2. Open the **Web.config** file for editing.
3. Set the **true** value for the **EnablePasskindReport** key. The default value is false.


4. Save the changes to the edited **Web.config** file.

Adding fields to the user database templates file

To ensure the correct operation of the **Issued pass cards report**, do the following:

1. In the root directory of the *Axxon PSIM* installation C:\Program Files (x86)\Axxon PSIM\ create a text document with the dbi extension and a name beginning with the word "psim", for example, psim.reports.dbi. Otherwise, the file will not be recognized by the idb.exe utility.

   Note

   The following indicated below can be added to the **psim.ext.dbi** file, which is specially designed for custom tables and fields (see The ddi.exe utility for editing database templates and external settings files).

2. Open this .dbi file in a text editor.

> **Attention!**
>
> Before you start entering data, make sure that the text encoding of Windows-1251 is selected. Otherwise, when adding additional fields to the database, the text will be recognized incorrectly.

3. Copy the following code block into a .dbi file:

```
[OBJ_PERSON]
passkind, CHAR, 255 // Pass card type{C%Visitor single entry|Car single entry|
Truck single entry|Temp. with photo|Temp. without photo|Temp. bicycle|Temp.
car|Temp. truck up to 10 tons|Temp. truck above 10 tons|Temp. NSP|Perm. car|
Perm. bicycle|Duplicate}

[UPDATE_PERSON_LOG]
passkind, CHAR, 255
```

4. After all necessary additional fields are created, save the changes.

> **Attention!**
>
> After you save the .dbi file, it is necessary to update the main database. To do this, use the idb.exe utility (see The idb.exe utility for converting databases, selecting database templates and making backup copies of databases).

Editing a registry key

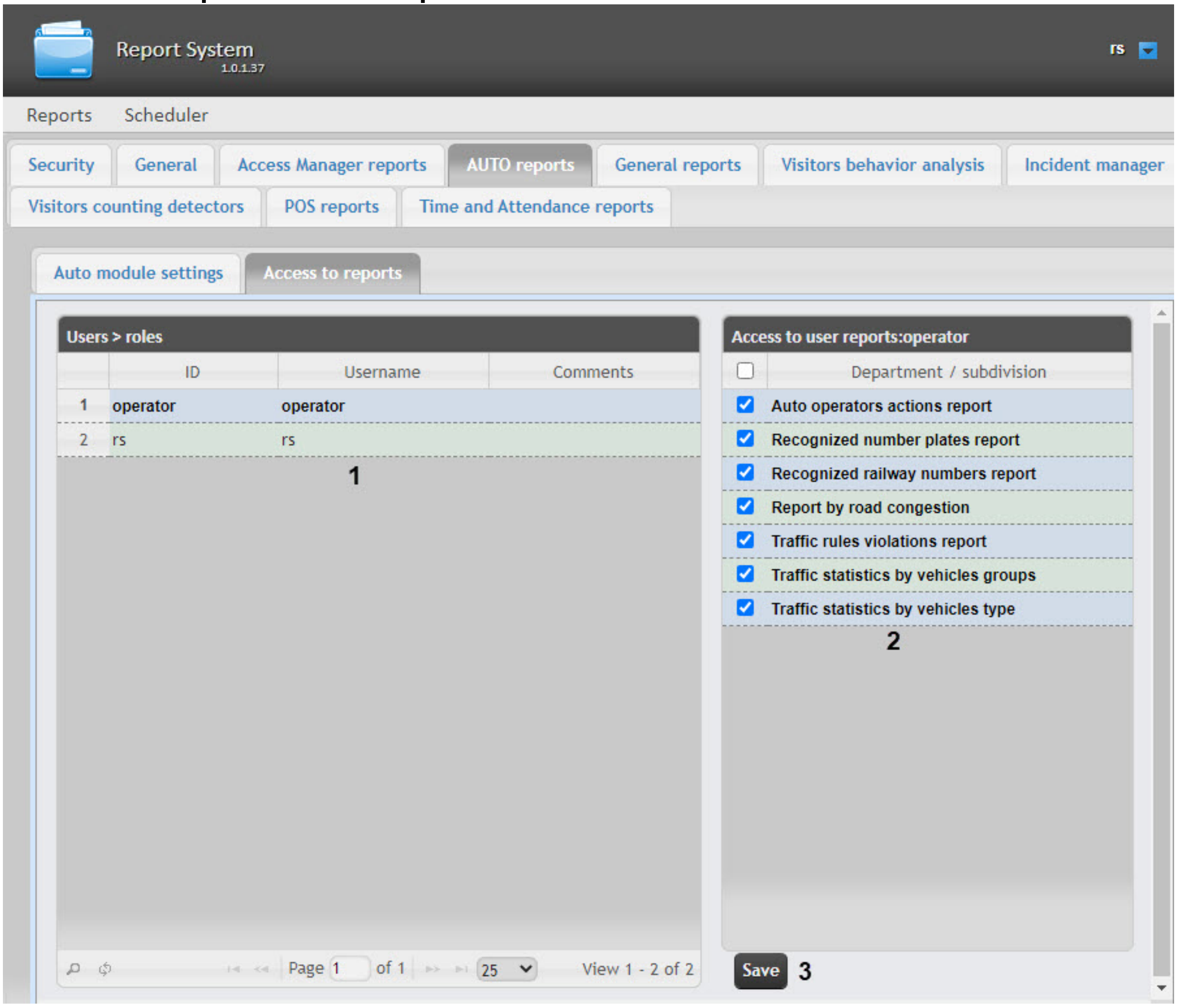
To ensure the correct operation of the **Issued pass cards report**, it is necessary to change the value of the **LogingPersonChangesRequired** key to **1** (for more details, see Registry keys reference guide, for more information about working with the registry, see Working with Windows OS registry).

7.7 Setting up the AUTO reports

7.7.1 Setting up user access to AUTO reports

To configure user access to *AUTO reports* do the following:

1. Go to the **AUTO reports > Access to reports** tab.



2. In the **Users>roles** table select user for which the access is configured (**1**).

> **Note**
>
> The user must have a role with the right to perform the **AUTO reports operator** operations. For details on role configuration, see Set up the roles.

3. The list of available reports for the selected user is displayed in the **Access to user reports** table (**2**).
4. Set the checkboxes next to reports which will be enabled for the selected user.
5. Click the **Save** button (**3**).

Setting up user access to *AUTO reports* is complete.

7.7.2 Configuring the storage source for Recognized number plates report and Recognized railway numbers report

> **Attention!**

This setting should be configured on the computer where it is planned to work with the **Recognized number plates report** and/or **Recognized railway numbers report**.

If the recognized railway number images and frames are stored in a folder on a disk (see Configuring the storage of recognized LP images and vehicle images on disk), then for the correct operation of the **Recognized number plates report** and **Recognized railway numbers report**, it is necessary to do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. For the **lpServerUrl** key specify the server address where the recognized railway number images and frames are stored. The default key value is **http://localhost:10001/lprserver**.

```
Web.config

        <add key="LogRequests" value="1"/>
        <add key="IntellectCoreUrl" value="http://localhost:10112/intellect_core"/>
        <add key="lpserverUrl" value="http://localhost:10001/lprserver"/>
    </appSettings>
    <connectionStrings>
```

4. Save the changes in the **Web.config** file.

7.7.3 Configuring the Recognized railway numbers report

Attention!

The **Recognized railway numbers report** should be configured on the same computer on which you will work with this report.
After making any changes to the **Web.config** configuration file, it is necessary to restart the Cassini Service.

To activate the **Recognized railway numbers report**, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2 path.
2. Open the **Web.config** file for editing.
3. Set the **true** value for the **EnableRailwayPlugin** key. The default value is **false**.

```
Web.config

    <add key="EnableCustomerBehaviourPlugin" value="true" />
    <add key="EnableRailwayPlugin" value="true" />
    <add key="EnableUpdateDatabase" value="true" />
```

4. Save the changes to the edited **Web.config** file.

The parameters of the **Web.config** file are described on the page XML-file parameters reference guide.

7.7.4 Configuring numbers filtering for Recognized number plates report and Recognized railway numbers report

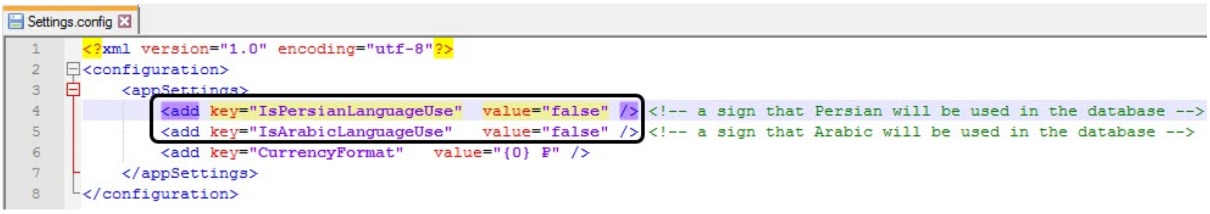
Attention!

This setting should be configured on the computer where it is planned to work with the **Recognized number plates report** and **Recognized railway numbers report**.
After making any changes to the **Settings.config** file, it is necessary to restart the Cassini Service.

Configure numbers filtering for the **Recognized number plates report** and **Recognized railway numbers report** as follows:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2\App_Data\Settings.
2. Open the **Settings.config** file for editing.
3. If it is necessary to use the Arabic alphabet and numbers to filter numbers, set the **IsArabicLanguageUse** key to true. The default is **false.**
4. If it is necessary to use the Persian alphabet and numbers to filter numbers, set the **IsPersianLanguageUse** key to true. The default is **false.**

> **Attention!**
>
> The simultaneous use of Arabic and Persian alphabets and numbers is not allowed.



5. Save changes to **Settings.config** file.
6. Update the *AUTO reports* database (see Updating the report database).

Configuring numbers filtering for the **Recognized number plates report** and **Recognized railway numbers report** is complete.

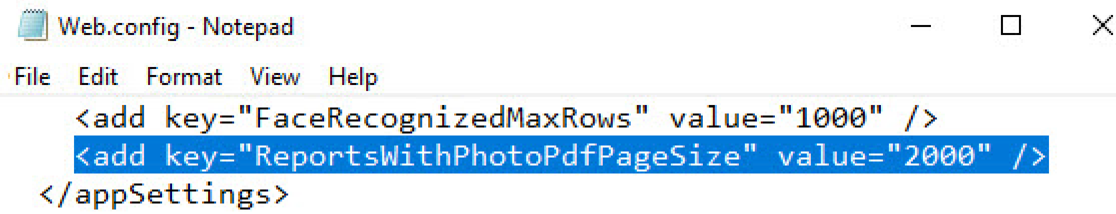
7.7.5 Configuring the number of entries in a file of the Recognized number plates report

> XML-file parameters reference guide

> **Attention!**
>
> You must configure the **Recognized number plates report** on the computer on which you will work with this report.
> After making any changes in the **Web.config** file, you must restart **Cassini Service**.

When you save the **Recognized number plates report** in PDF format, it is split into files of 1000 entries each, by default. To change the number of entries in the files of the report when saving:

1. Go to <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. For the **ReportsWithPhotoPdfPageSize** key, specify the required number of entries in each file of the report when saving the results. The default value is **1000**.



4. Save the changes in the **Web.config** file.

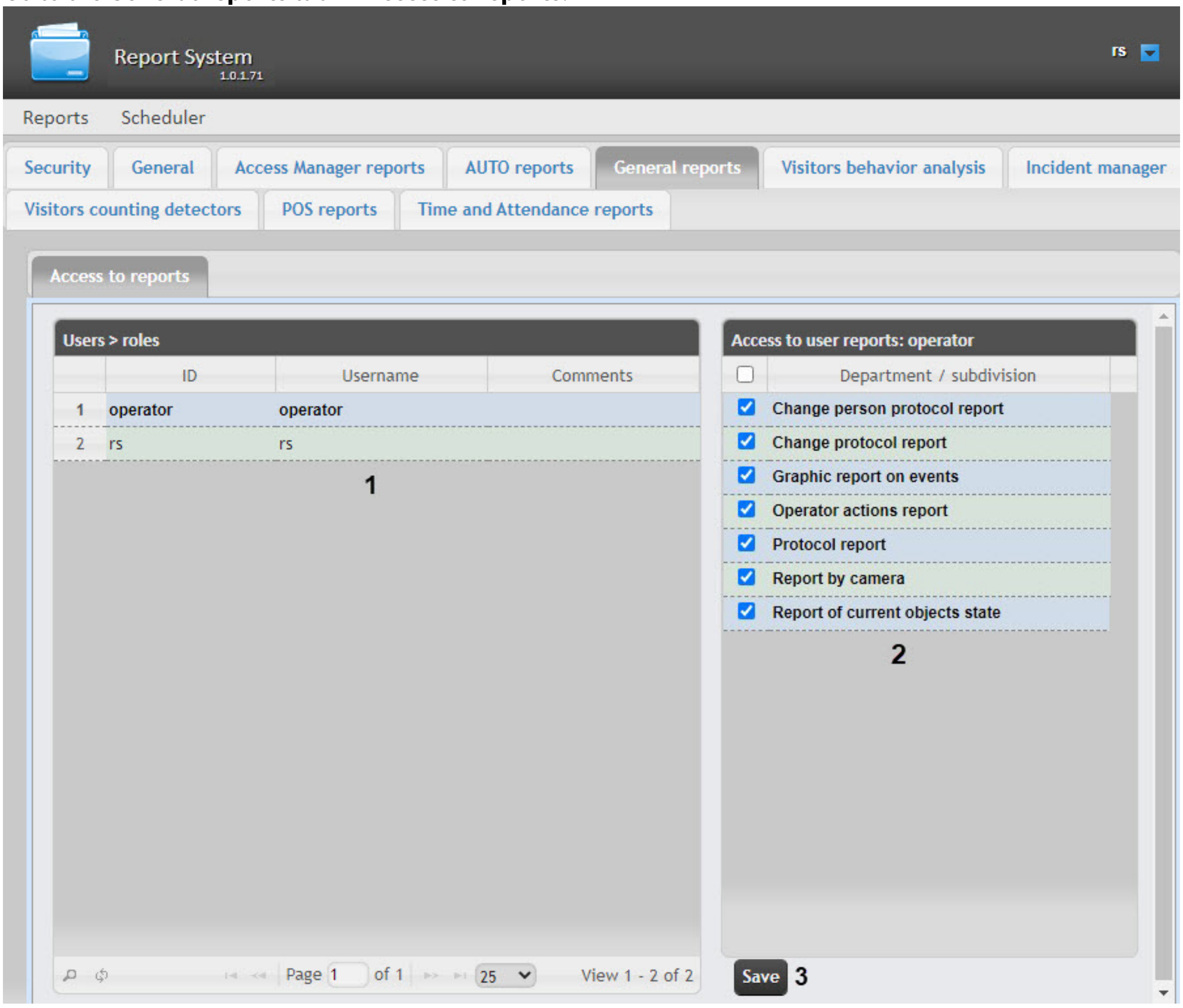
Configuring the number of entries in a file of the **Recognized number plates report** is complete.

7.8 Setting up the General reports

7.8.1 Setting up user access to General reports

To configure user access to *General reports,* do the following:

1. Go to the **General reports** tab → **Access to reports**.



2. In the **Users > roles** table, select a user for who you want to configure the access to reports (**1**).

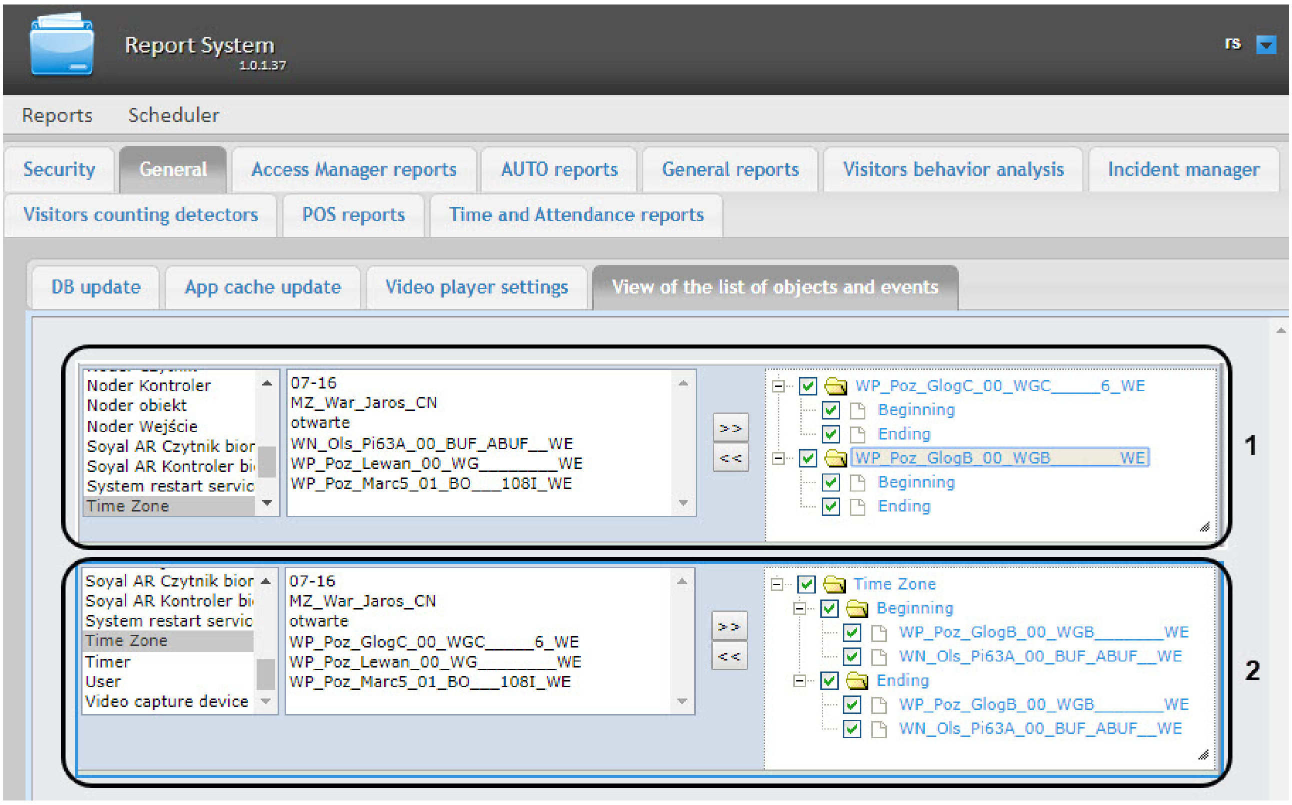
> **Note**
>
> The user must have a role with the right to perform the **Operator of general reports system** operations. For details on role configuration, see Set up the roles.

3. The list of available reports for the selected user will be displayed in the **Access to user reports** table (**2**).
4. Set the checkboxes next to the reports to which the user must have access.
5. Click the **Save** button (**3**).

Setting up user access to *General reports* is complete.

7.8.2 Selecting the view of the list of objects and events for the Protocol report

It is possible to select the view of the list of objects and events for the Protocol report. This can be set up on the **General** > **View of the list of objects and events** tab.



To select the view of the list of objects and events, left-click on the required view: (**1**) or (**2**).

> **Note**
>
> The selected view is highlighted with a blue frame.

7.8.3 Configuring the date and time format in General Reports

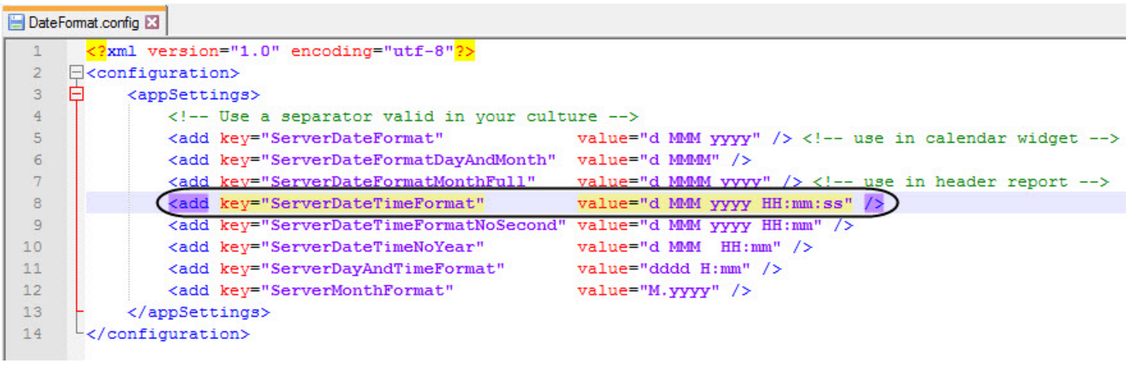
> **Attention!**
>
> The **DateFormat.config** file configuration must be performed on the computer where it is planned to work with the General Reports.
> After making any changes in the **DateFormat.config** file, it is necessary to restart the Cassini Service utility.

To configure the date and time format in General Reports, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2\App_Data\Settings.
2. Open the **DateFormat.config** file for editing.
3. Set the value for the **ServerDateTimeFormat** key, which corresponds to the required date and time format, where:
    - **d** is the day of the month.
    - **MMM** is the name of the month.

- **yyyy** is year.
- **HH** is hours.
- **mm** is minutes.
- **ss** is seconds.

> **Note**
>
> The number of identical characters sets the format for a short date and time display in the report.
> For example: **MMM** means that only 3 characters are allocated to the month name, and all subsequent characters will not be displayed. **dddd** means that the day of the week will be displayed. **yy** means that only the last 2 digits of the year will be displyed.



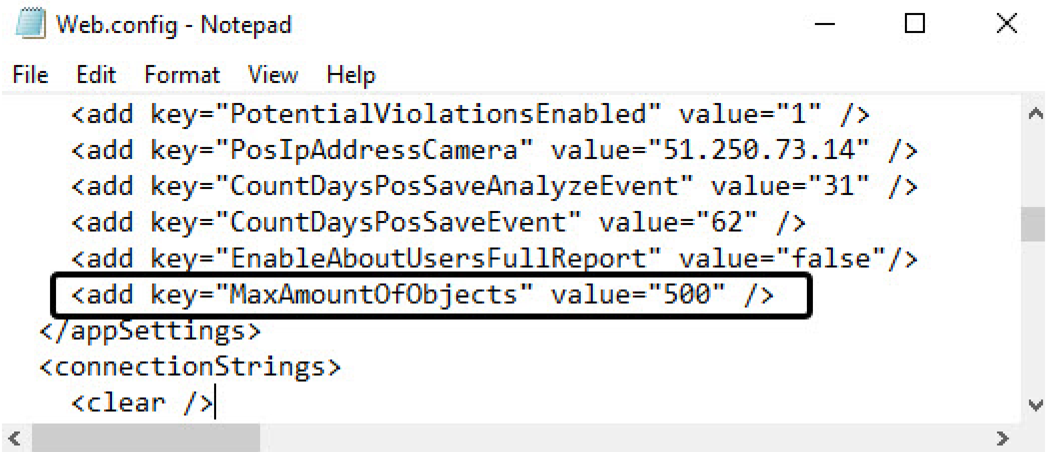
```
DateFormat.config
<?xml version="1.0" encoding="utf-8"?>
<configuration>
    <appSettings>
        <!-- Use a separator valid in your culture -->
        <add key="ServerDateFormat"                 value="d MMM yyyy" /> <!-- use in calendar widget -->
        <add key="ServerDateFormatDayAndMonth"      value="d MMMM" />
        <add key="ServerDateFormatMonthFull"        value="d MMMM yyyy" /> <!-- use in header report -->
        <add key="ServerDateTimeFormat"             value="d MMM yyyy HH:mm:ss" />
        <add key="ServerDateTimeFormatNoSecond"     value="d MMM yyyy HH:mm" />
        <add key="ServerDateTimeNoYear"             value="d MMM  HH:mm" />
        <add key="ServerDayAndTimeFormat"           value="dddd H:mm" />
        <add key="ServerMonthFormat"                value="M.yyyy" />
    </appSettings>
</configuration>
```

4. Save the changes in the **DateFormat.config** file.

7.8.4 Configuring the maximum number of events

You can set the maximum number of events in the **Operator actions report**. For this, do the following:

1. Go to <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** configuration file for editing.
3. Set the required value of the **MaxAmountOfObjects** key. The default value is 500.



```
Web.config - Notepad
File  Edit  Format  View  Help
    <add key="PotentialViolationsEnabled" value="1" />
    <add key="PosIpAddressCamera" value="51.250.73.14" />
    <add key="CountDaysPosSaveAnalyzeEvent" value="31" />
    <add key="CountDaysPosSaveEvent" value="62" />
    <add key="EnableAboutUsersFullReport" value="false"/>
    <add key="MaxAmountOfObjects" value="500" />
  </appSettings>
  <connectionStrings>
    <clear />
```

4. Save the changes in the edited **Web.config** file.

> **Attention!**

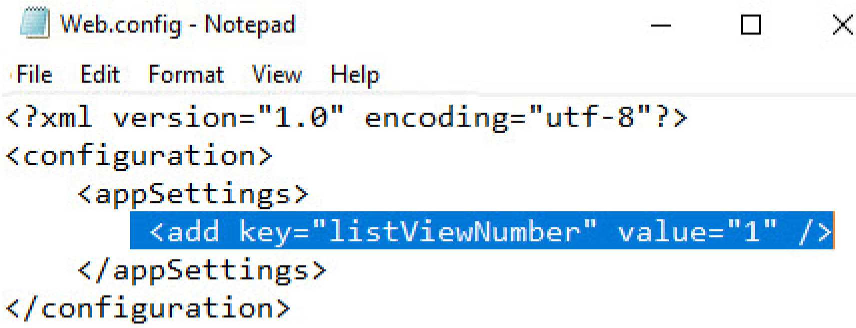
The **Operator actions report** configuration must be performed on the computer where it is planned to work with this report.
After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

7.8.5 Configuring an alternative view of the Protocol report

Attention!

You must configure the **web.config** file on the computer on which you will work with General reports.
After making any changes to the **web.config** file, you must restart **Cassini Service**.

In the **Protocol report**, you can remove the third column that displays selected objects and events:

1. Go to <*Axxon PSIM* installation directory>\Modules\Wt2\App_Data\General
2. Open the **web.config** file for editing.
3. Set the value for the key **listViewNumber**=1. The default value is **2**.


```
Web.config - Notepad
File  Edit  Format  View  Help
<?xml version="1.0" encoding="utf-8"?>
<configuration>
    <appSettings>
        <add key="listViewNumber" value="1" />
    </appSettings>
</configuration>
```

4. Save the changes in the **web.config** file.

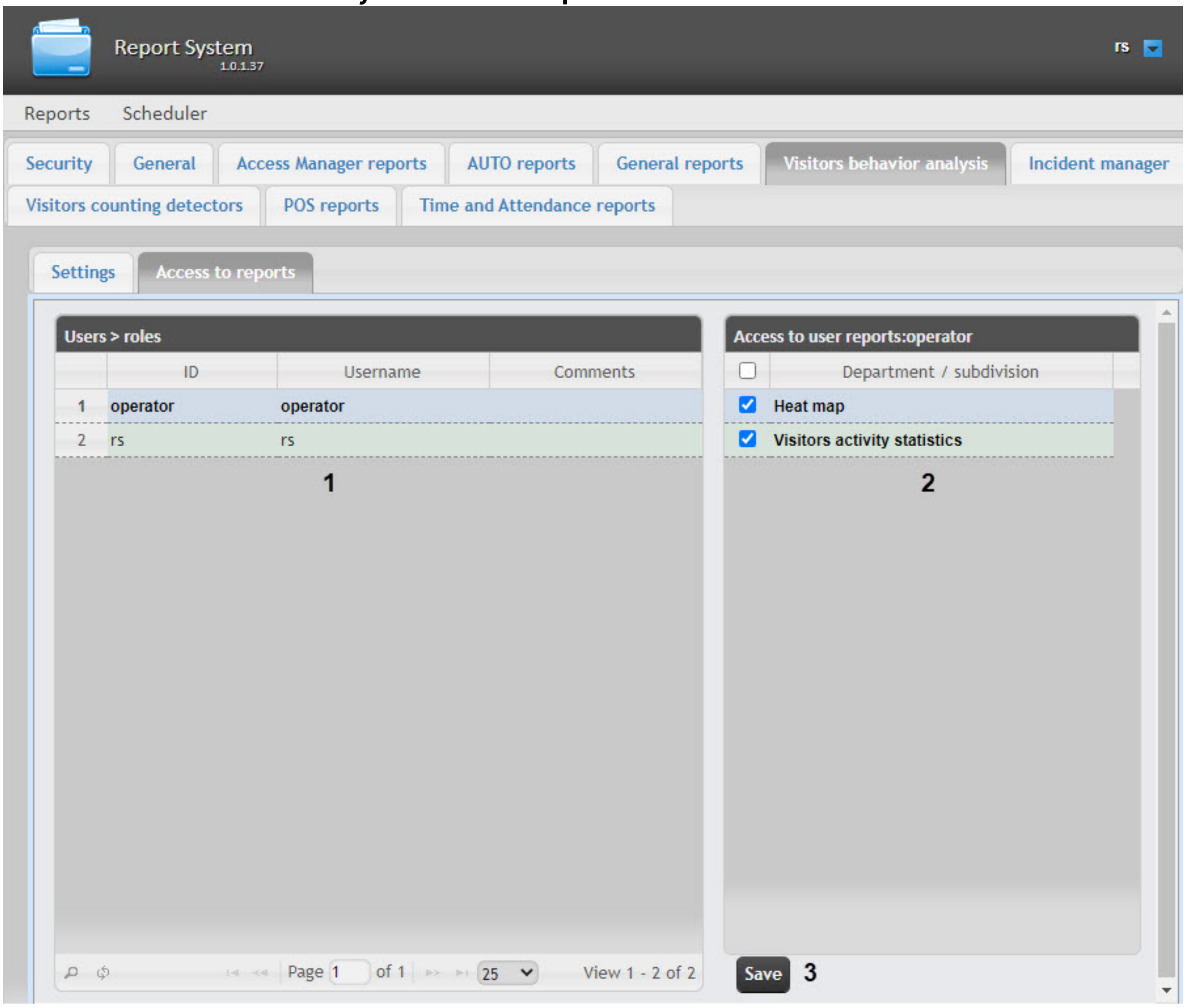
Configuring an alternative view of the protocol report is complete.

7.9 Setting up the Visitors behavior analysis reports

7.9.1 Setting up user access to Visitors behavior analysis

To configure user access to *Visitors behavior analysis* reports do the following:

1. Go to the **Visitors behavior analysis > Access to reports** tab.



2. In the **Users>roles** table select user for which the access is configured (**1**).

> **Note**
>
> The user must have a role with the right to perform the **Operator of Visitors behavior analysis subsystem** operations. For details on role configuration, see Set up the roles.

3. The list of available reports for the selected user is displayed in the **Access to user reports** table (**2**).
4. Set the checkboxes next to reports which will be enabled for the selected user.
5. Click the **Save** button (**3**).

Setting up user access to *Visitors behavior analysis* is complete.

7.9.2 Cleaning up the database for the Visitors behavior analysis reports

Cleaning up the database for the *Visitors behavior analysis* reports allows you to avoid the situation when the surveillance areas of the **Heat map detection** object (see Configuring the Heat map detection module) remain in the database after their deletion from *Axxon PSIM* and are displayed in the *Visitors behavior analysis* reports (see Working with Visitors behavior analysis reports).

Attention!

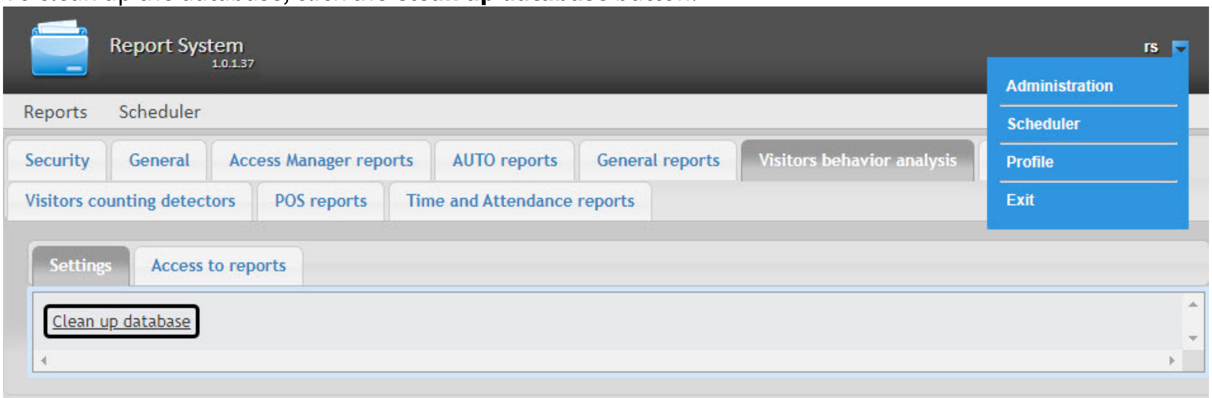
The database is cleaned up on the Server which is specified in *WEB Report System PSIM* connection string in the file C:\Program Files(x86)\Axxon PSIM\Modules\Wt2\Web.config (see WEB Report System PSIM Installation).

Note

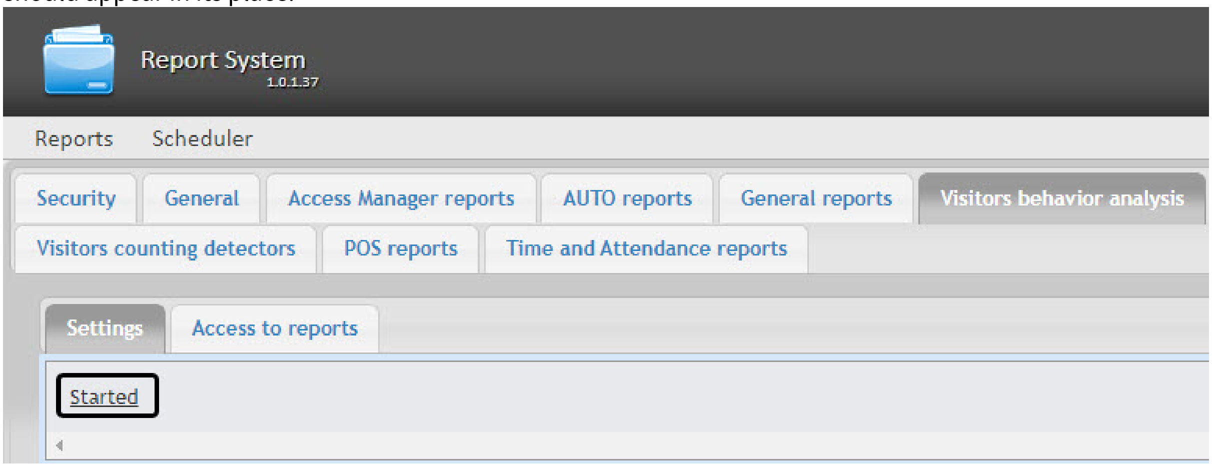
Only the data related to the **Heat map detection** object is deleted from the database.

To clean up the database for the *Visitors behavior analysis* reports, do the following:

1. Go to the **Administration**, then open the **Visitors behavior analysis** tab, then open the **Settings** tab.
2. To clean up the database, click the **Clean up database** button.



3. After you click the **Clean up database** button, the database should be cleaned up, and the **Started** sign should appear in its place.



4. After the database clean up, the computer with the database server should be restarted.

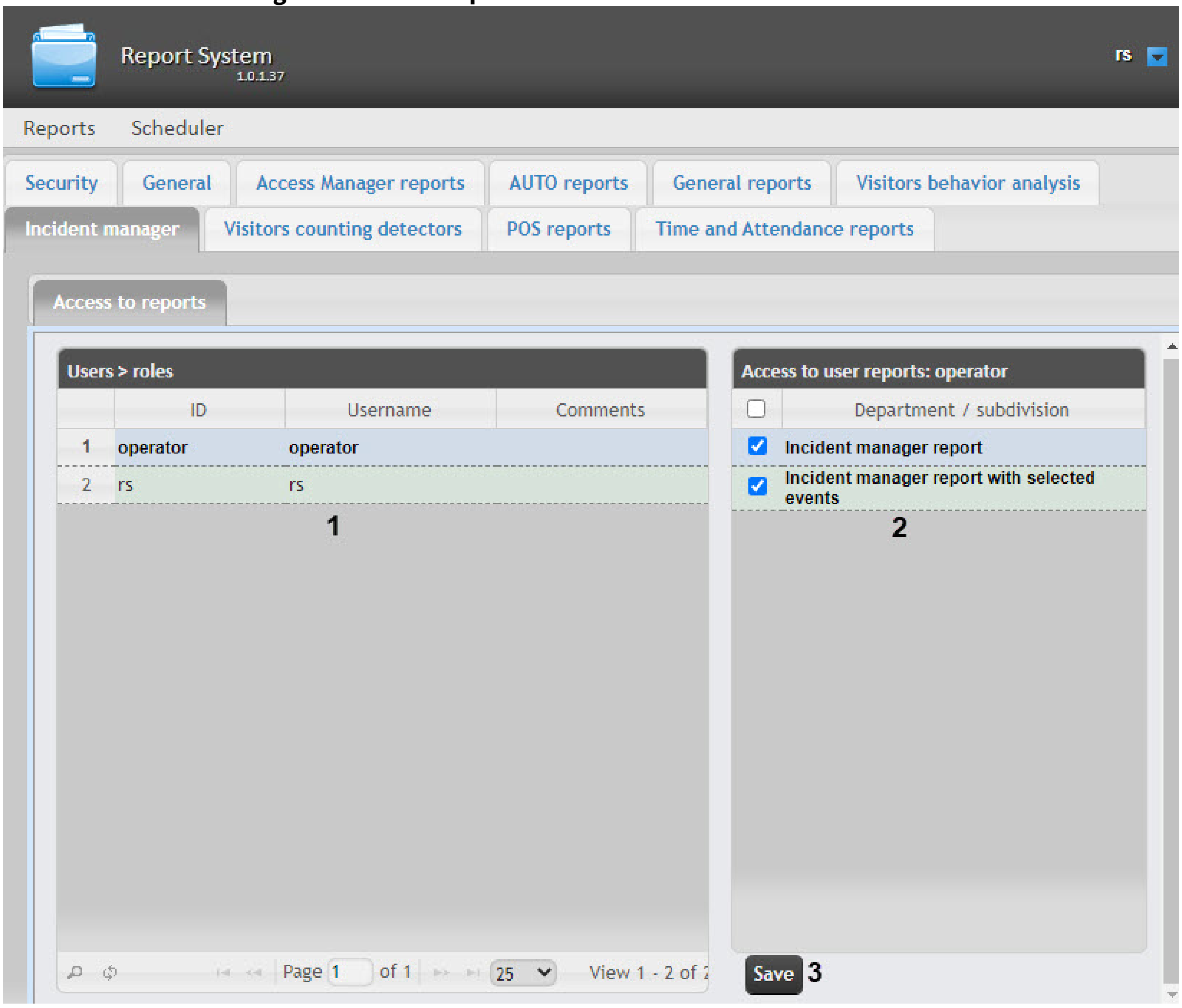
Cleaning up the database for the *Visitors behavior analysis* reports is completed.

7.10 Setting up the Incident manager reports

7.10.1 Setting up user access to Incident manager reports

To configure user access to *Incident manager* reports do the following:

1. Go to the **Incident manager > Access to reports** tab.



2. In the **Users>roles** table select user for which the access is configured (**1**).
   The list of available reports for the selected user is displayed in the **Access to user reports** table (**2**).

> **Note**
>
> The user must have a role with the right to perform the **Incident management operator** operations. For details on role configuration, see Set up the roles.

3. Set the checkboxes next to reports which will be enabled for the selected user.
4. Click the **Save** button (**3**).

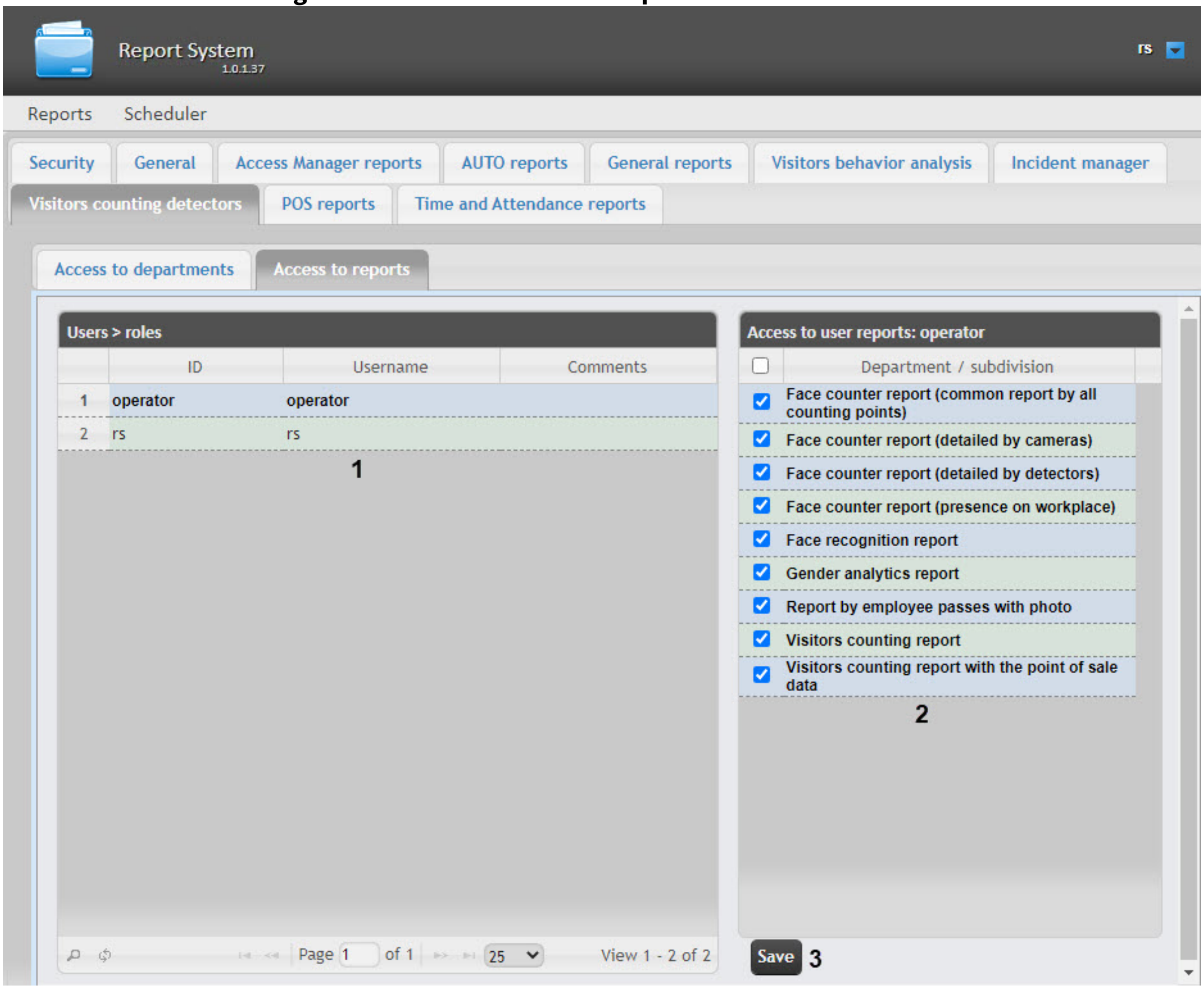
Setting up user access to *Incident manager* reports is complete.

7.11 Setting up the Visitors counting detectors reports

7.11.1 Setting up user access to Visitors counting detectors reports

To configure user access to *Visitors counting detectors* reports, do the following:

1. Go to the **Visitors counting detectors** tab → **Access to reports**.



2. In the **Users>roles** table, select a user for who you want to configure the access (**1**).

> **Note**
>
> The user must have a role with the permission to perform the **Operator of Visitors counting detectors** operations. For details on role configuration, see Set up the roles.

3. The list of available reports for the selected user is displayed in the **Access to user reports: username** table (**2**).
4. Set the checkboxes next to reports to which you want this user to have access.
5. Click the **Save** button (**3**).

Setting up user access to *Visitors counting detectors* reports is complete.

7.11.2 Configuring the Gender analytics report

Page contents

- Configuring the IP Address of the Face Recognition Server

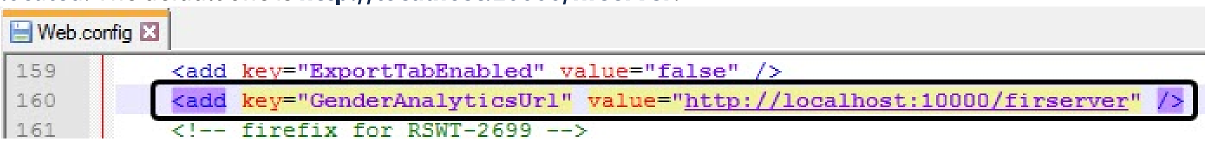
Configuring the IP Address of the Face Recognition Server

If you work with the **Gender analytics report** on one computer and the Face Recognition Server is located on another, then to ensure the operation of this report it is necessary to set the corresponding IP address of the Face Recognition Server.

> **Attention!**
>
> The **Web.config** file configuration must be performed on the computer where it is planned to work with the **Gender analytics report**.
> After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

To change the IP address of the Face Recognition Server, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. For the **GenderAnalyticsUrl** key, specify the IP address of the server, where the Face Recognition Server is located. The default one is **http://localhost:10000/firserver**.



4. Save the changes in the **Web.config** file.

7.11.3 Activating the Face recognition report and Report by employee passes with photo

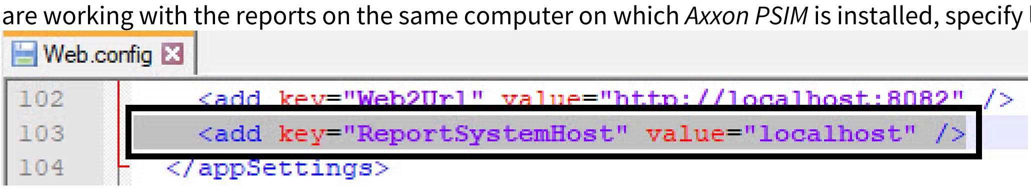
> XML-file parameters reference guide

> **Attention!**
>
> You must configure the **Face recognition report** and **Report by employee passes with photo** on the computer on which you will work with these reports.
> After making any changes in the **Web.config** file, you must restart **Cassini Service**.

Activating the **Face recognition report** and **Report by employee passes with photo**

For the **Face recognition report** and **Report by employee passes with photo** to work, you must specify the address of the server on which *Axxon PSIM* is installed. To do this:

1. Go to <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. For the **ReportSystemHost** key, specify the IP address of the server on which *Axxon PSIM* is located. If you are working with the reports on the same computer on which *Axxon PSIM* is installed, specify **localhost**.



4. Save the changes in the **Web.config** file.

The **Face recognition report** and **Report by employee passes with photo** are activated.

7.11.4 Configuring the number of entries in a file of the Face recognition report

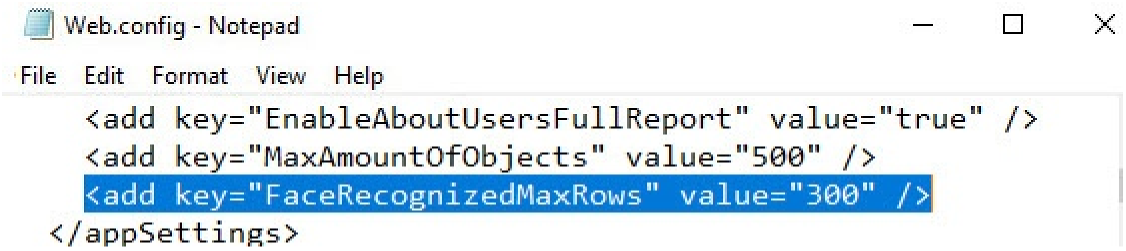
XML-file parameters reference guide

Attention!

You must configure the **Face recognition report** on the computer on which you will work with this report. After making any changes in the **Web.config** file, you must restart **Cassini Service**.

When you save the **Face recognition report** in PDF format, it is split into files of 1000 entries each, by default. To change the number of entries in the files of the report when saving:

1. Go to <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. For the **FaceRecognizedMaxRows** key, specify the number of entries in each file of the report when saving the results. The default value is **1000**.

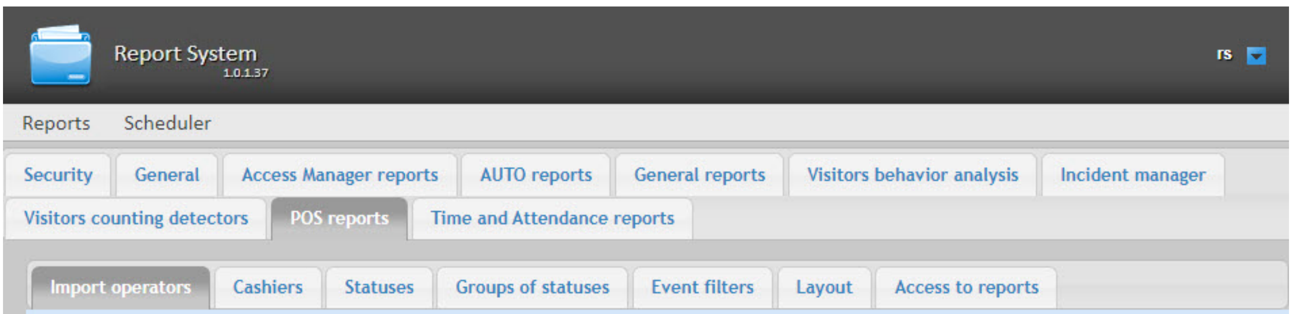


4. Save the changes in the **Web.config** file.

Configuring the number of entries in a file of the **Face recognition report** is complete.

7.12 Setting up the POS reports

Setting up the POS reports is performed in the **POS reports** tab on the administration page.



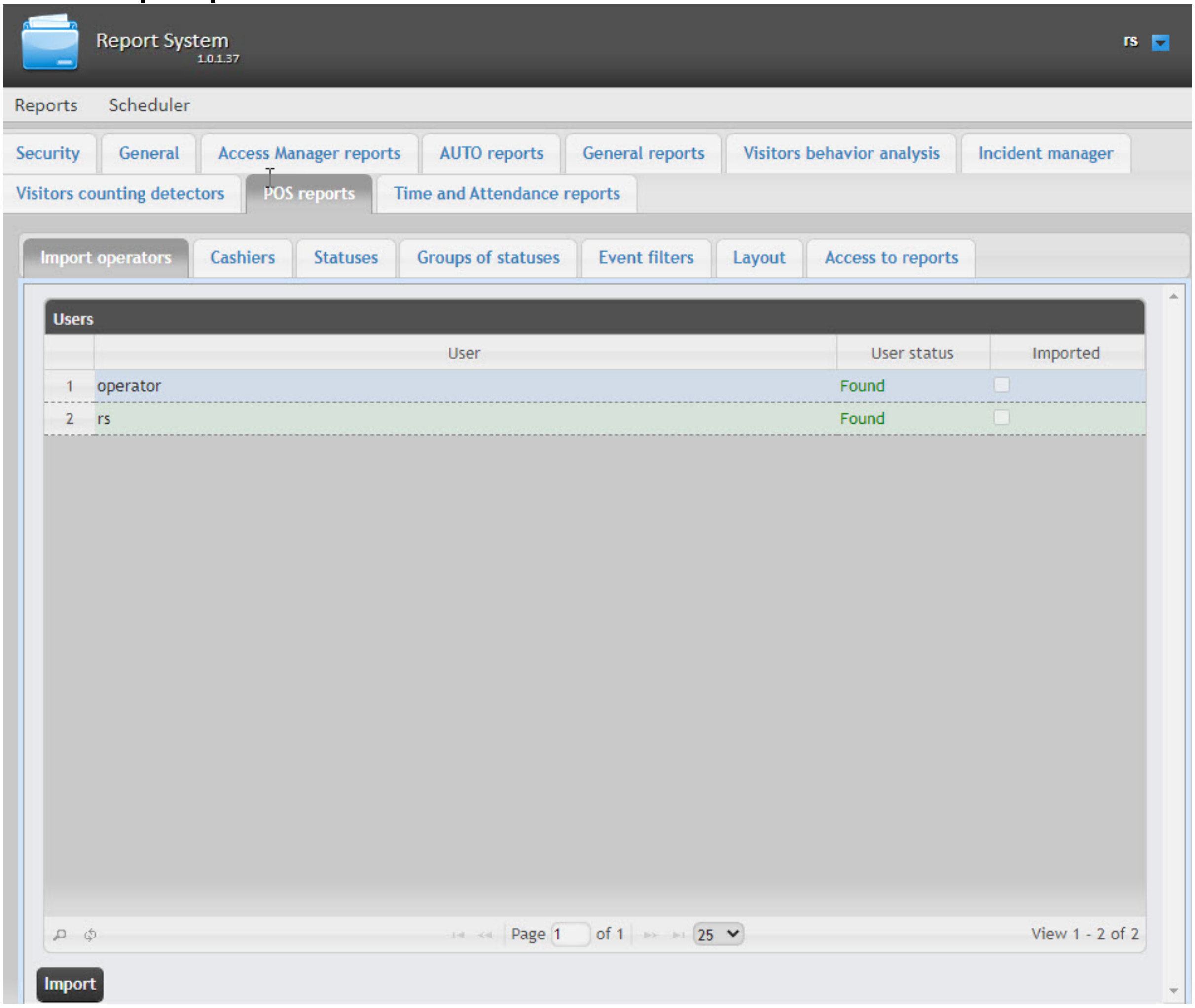
7.12.1 Creating the list of POS operators

The user that is not in the list of POS operators can not change statuses of POS events in reports whether he has the **POS expert** role or not (see Set up the roles and users section).

The list of POS operators is empty by default. In order to fill it in it is necessary to import users from the general list of *WEB Report System PSIM* users.

In order to import users do the following:

1. Go to the **Import operators** tab.



2. The list of users registered in *WEB Report System PSIM* including those who do not have the rights of **POS operator** or **POS expert**, is displayed. If the user is imported into the list of POS operators then there will be the checked checkbox in the **Imported** column.
3. In order to import remaining users click **Import**.

Users import into the list of POS operators is completed.

7.12.2 Setting up the cashiers in the POS reports

On the page:

- Setting up the cashiers list
- Setting up the new cashiers

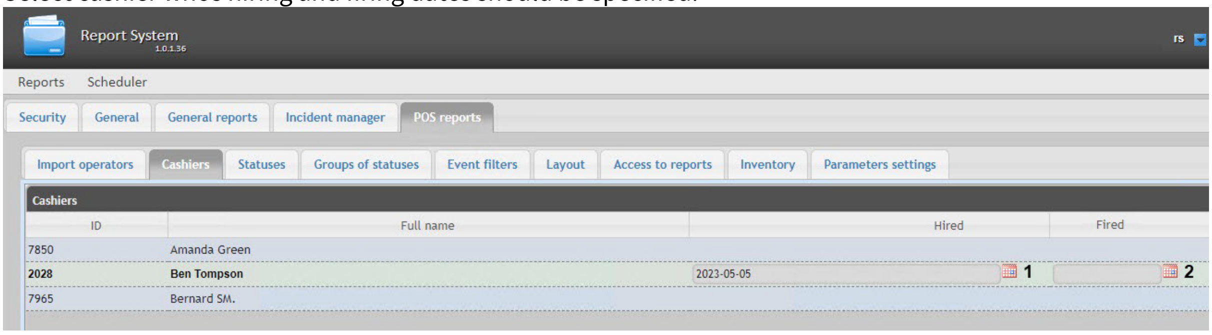
Setting up the cashiers list

The list of all cashiers from the database is displayed in the **Cashiers** tab.

To display only the working cashiers in the settings panel of the cashiers report or the potential violations report, it is possible to specify the cashiers' hiring and firing dates. In this case, the fired cashiers will not be available for selection when building the report.

To do this:

1. Go to the **Cashiers** tab.
2. Select cashier whos hiring and firing dates should be specified.



3. Specify the hiring using the **Calendar** tool in the area (**1**).
4. Specify the firing date using the **Calendar** tool in the area (**2**).

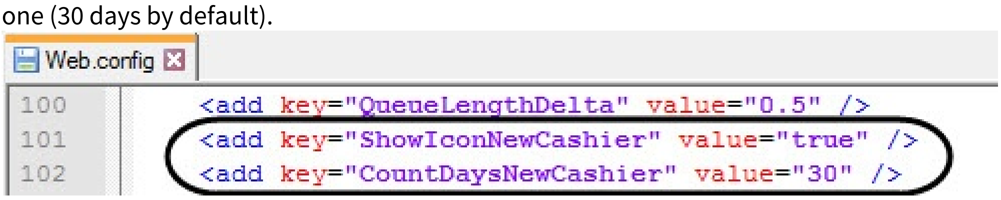
Setting up the new cashiers

In **POS** reports, you can highlight the new cashiers who work less than a specified number of days. To do this:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. Set the **true** value for the **ShowIconNewCashier** key to highlight the new cashier's name with the asterisk and the different color.

> **Note**
>
> The default key value is **true**. If you set the **false** value, the new cashiers will not be highlighted in the *POS reports*.

4. For the **CountDaysNewCashier** key, set the number of days within which the cashier is considered a new one (30 days by default).

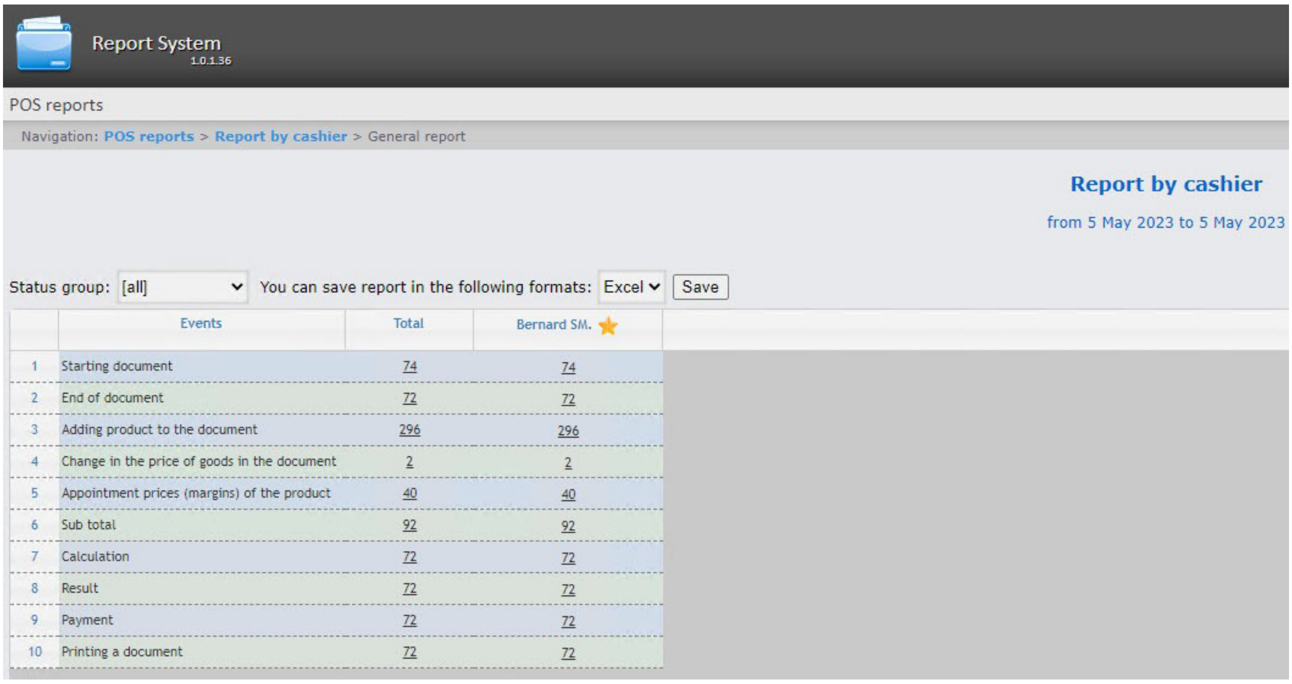


5. Save the changes in the **Web.config** file.

> **Attention!**
>
> The **Web.config** file configuration must be performed on the computer where it is planned to work with the *POS reports*.
> After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

> **Note**
>
> For the new cashiers, the date of hiring should be specified.

As a result, when generating *POS reports*, the new cashiers' names will be highlighted with the asterisk and the different color. See the example below:



	Events	Total	Bernard SM.
1	Starting document	74	74
2	End of document	72	72
3	Adding product to the document	296	296
4	Change in the price of goods in the document	2	2
5	Appointment prices (margins) of the product	40	40
6	Sub total	92	92
7	Calculation	72	72
8	Result	72	72
9	Payment	72	72
10	Printing a document	72	72

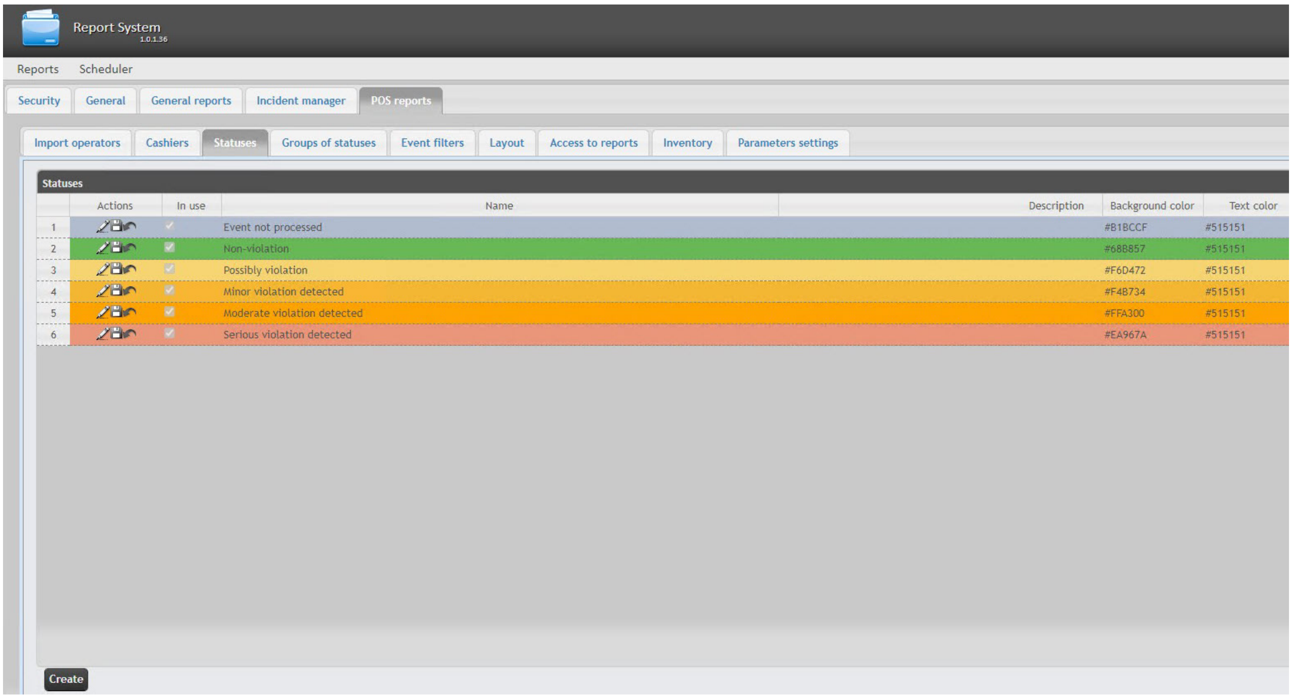
7.12.3 Setting up the statuses of POS events

Every POS event has the status. By default all POS events have the **Event not processed** status. In order to change this status POS operator should be added to the **POS expert** role.

> **Note.**
>
> This role allows changing the statuses of events repeatedly.

The following statuses processed by the operator of POS events are already registered in *WEB Report System PSIM*:

1. Non- violation.
2. Possibly violation.
3. Minor violation detected.
4. Moderate violation detected.
5. Serious violation detected.

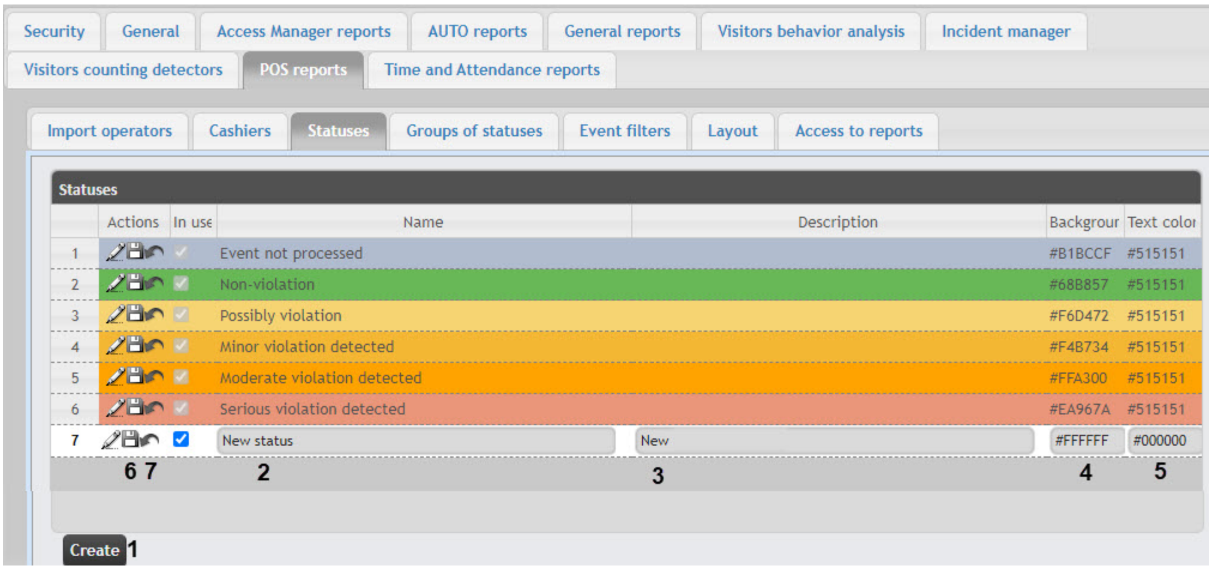


One can create user statuses and edit all existing ones.

Creating the user status

In order to create the user status do the following:

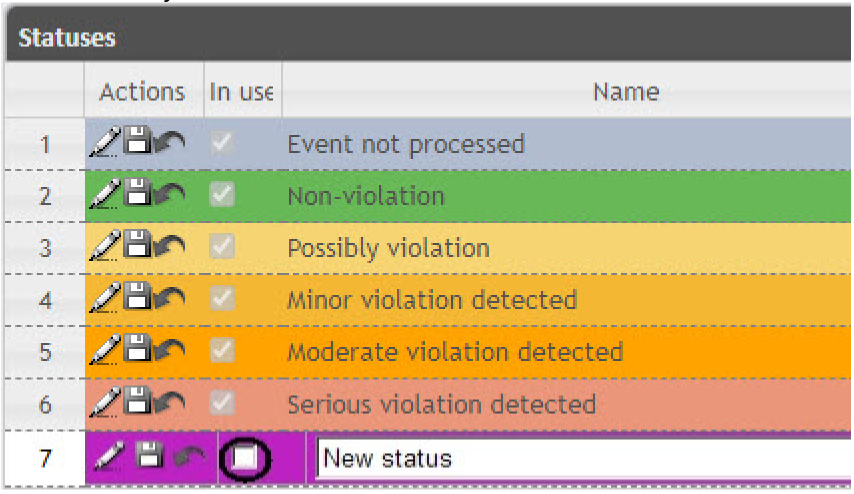
1. Go to the **Statuses** tab.



2. Click **Create** (**1**).
3. As a result a new line is added to the **Statuses** table.
4. In the **Name** field (**2**) enter a status name.
5. In the **Description** field (**3**) enter a short status description.
6. Set a color in which the line with event when it is moved to the created status will be colored. For this enter HTML color code in the **Background color** field (**4**) or use a color selection window.
   In the latter case left-click in the **Background color** field (**4**) and set the necessary color in the appeared

window. For setting a color one can use both a color palette and RGB/HSB/HTML codes. In order to apply a color to a status and close a color selection window click .

7. By analogy with the step 6 set a color in which the text of event when it is moved to the created status will be colored (**5**).
8. If it is necessary to use the status after its creation then set the checkbox checked in the **In use** column.



> **Note**
>
> One can both activate and deactivate the status afterwards when it is edited (see Editing the status section).

9. In order to save the status click (**6**) in the **Actions** column.

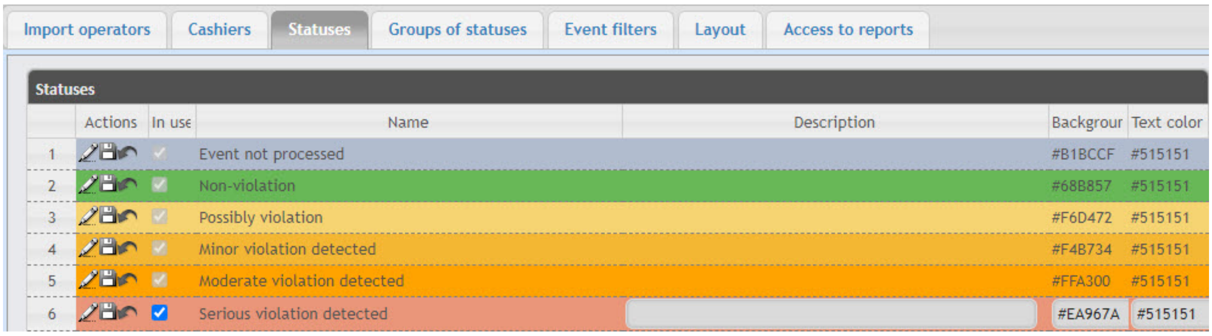
> **Note.**
>
> In order to cancel the status creation click (**7**) in the same column.

User status creating is completed.

Editing the status

In order to edit a status do the following:

1. Go to the **Statuses** tab.



2. Click for a required status in the **Actions** column.
3. As a result it will be possible to edit a status. The editing procedure of any status is similar to creating the user status (see Creating the user status section).

4. In order to save the status changes click in the **Actions** column.

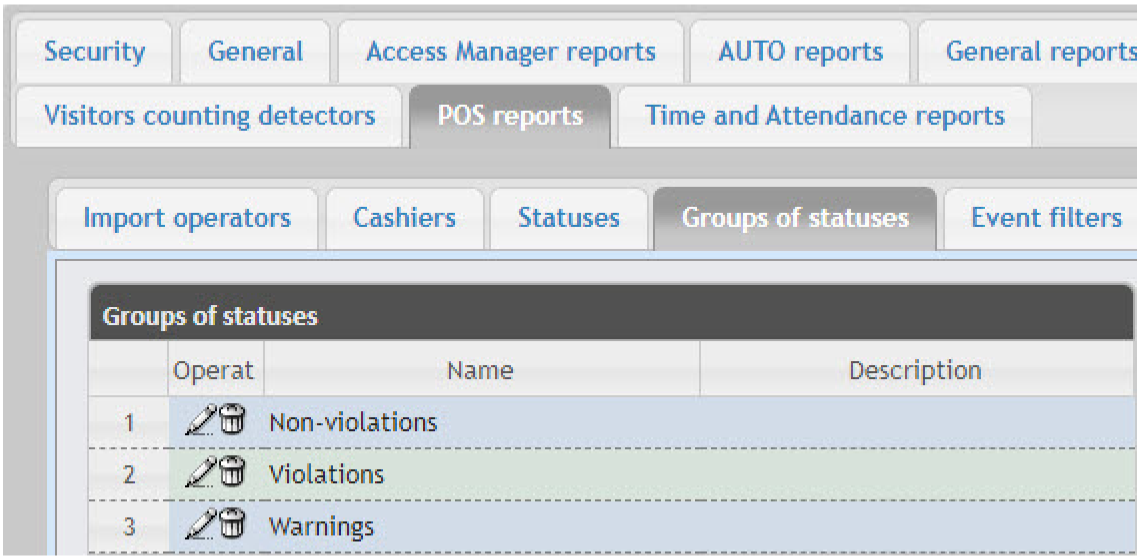
> **Note.**
>
> In order to cancel the changes in the status click in the same column.

Status editing is completed.

7.12.4 Setting up the groups of statuses of POS events

One can group statuses of POS events on the basis of one or another feature to make *WEB Report System PSIM* more convenient to use. Created groups are used for making reports.

Setting up the groups of statuses of POS events is carried out in the **Groups of statuses** tab.



By default three groups of statuses of POS events are already created in *WEB Report System PSIM*.

Groups of statuses of POS events are presented in the following table.

Group of statuses	**Statuses**
Non-violations	Non-violation
Violations	Minor violation detected
	Moderate violation detected
	Serious violation detected
Warnings	Event not processed

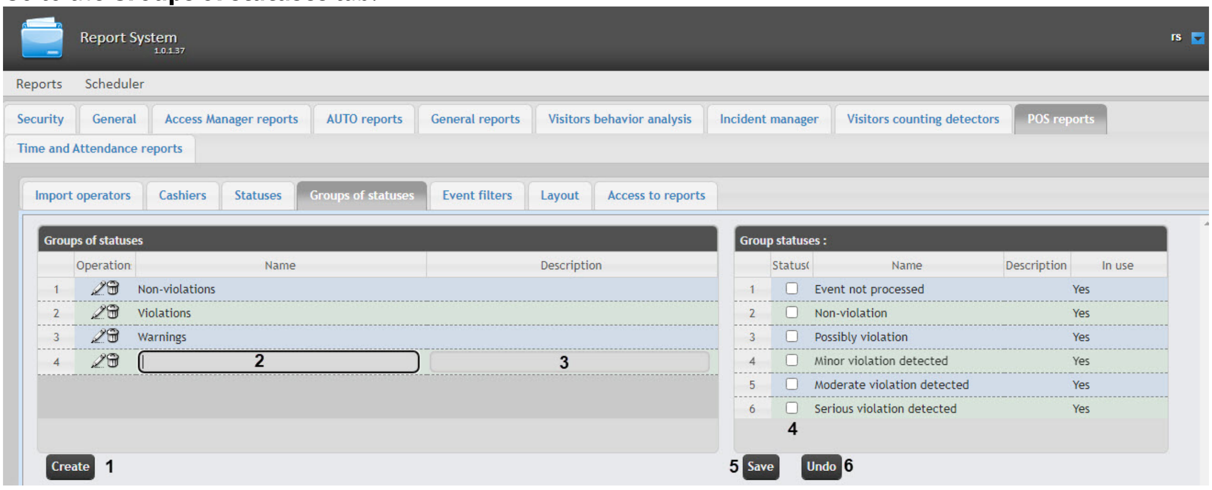
	Possibly violation

One can create other groups and also edit and delete the existing ones.

Creating a group of statuses

In order to create a group of statuses do the following:

1. Go to the **Groups of statuses** tab.



2. Click **Create** (**1**).
   As a result a new line is added to the **Groups of statuses** table. Fill in its fields:
   a. In the **Name** field enter the name of a new group of statuses (**2**).
   b. In the **Description** field enter a short description of a group of statuses (**3**).

   > **Note**
   >
   > This field is optional for filling in.

3. In the **StatusColumn_Selected** column of the **Group statuses** table (**4**) set checkboxes checked for those statuses that should be added to the group.

   > **Note**
   >
   > One should make sure that these statuses are in use (in the **In use** field there is **Yes**). Otherwise the statuses will be ignored while making a report by group.

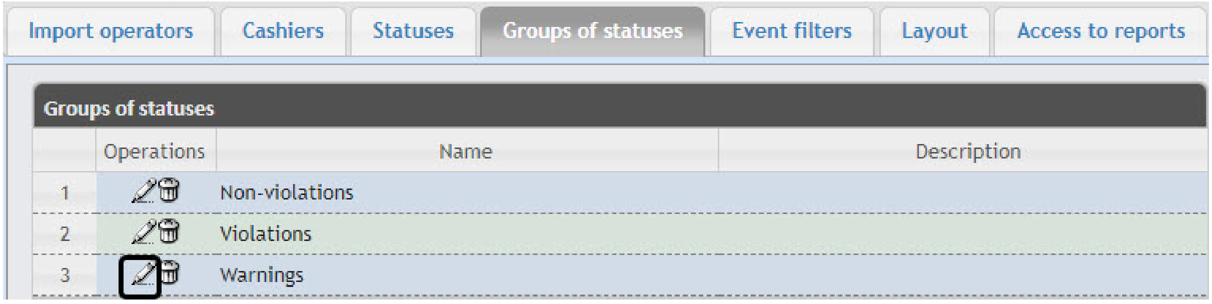
4. In order to save parameters of a new group of statuses click **Save** (**5**). to cancel the creating a new group of statuses click **Undo** (**6**).

Creating a new group of statuses is completed.

Editing a group of statuses

In order to edit a group of statuses do the following:

1. Go to the **Groups of statuses** tab.



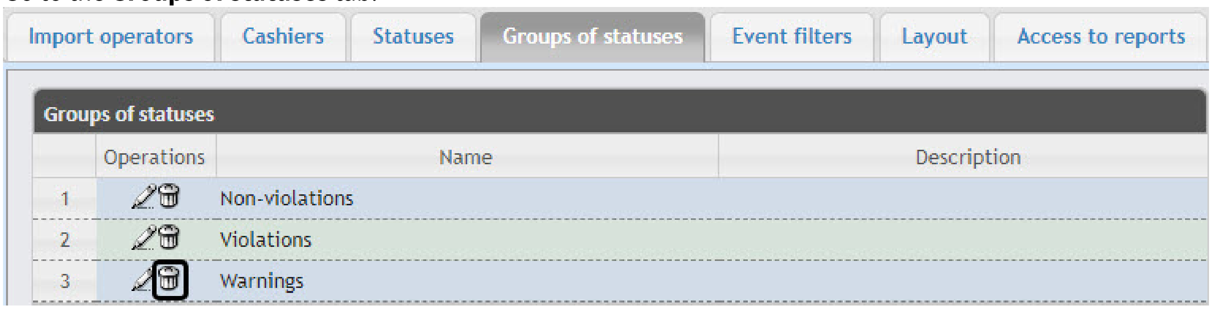
2. For the required group of statuses click in the **Operations** column.
3. As a result it will be possible to edit all parameters of a group of statuses. One can edit the group of statuses by analogy with its creation (see Creating a group of statuses section).

Editing a group of statuses is completed.

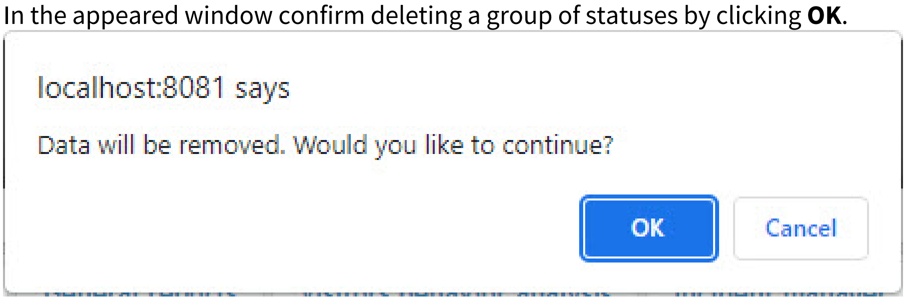
Deleting a group of statuses

In order to delete a group of statuses do the following:

1. Go to the **Groups of statuses** tab.



2. For the required group of statuses click in the **Operations** column.
3. In the appeared window confirm deleting a group of statuses by clicking **OK**.

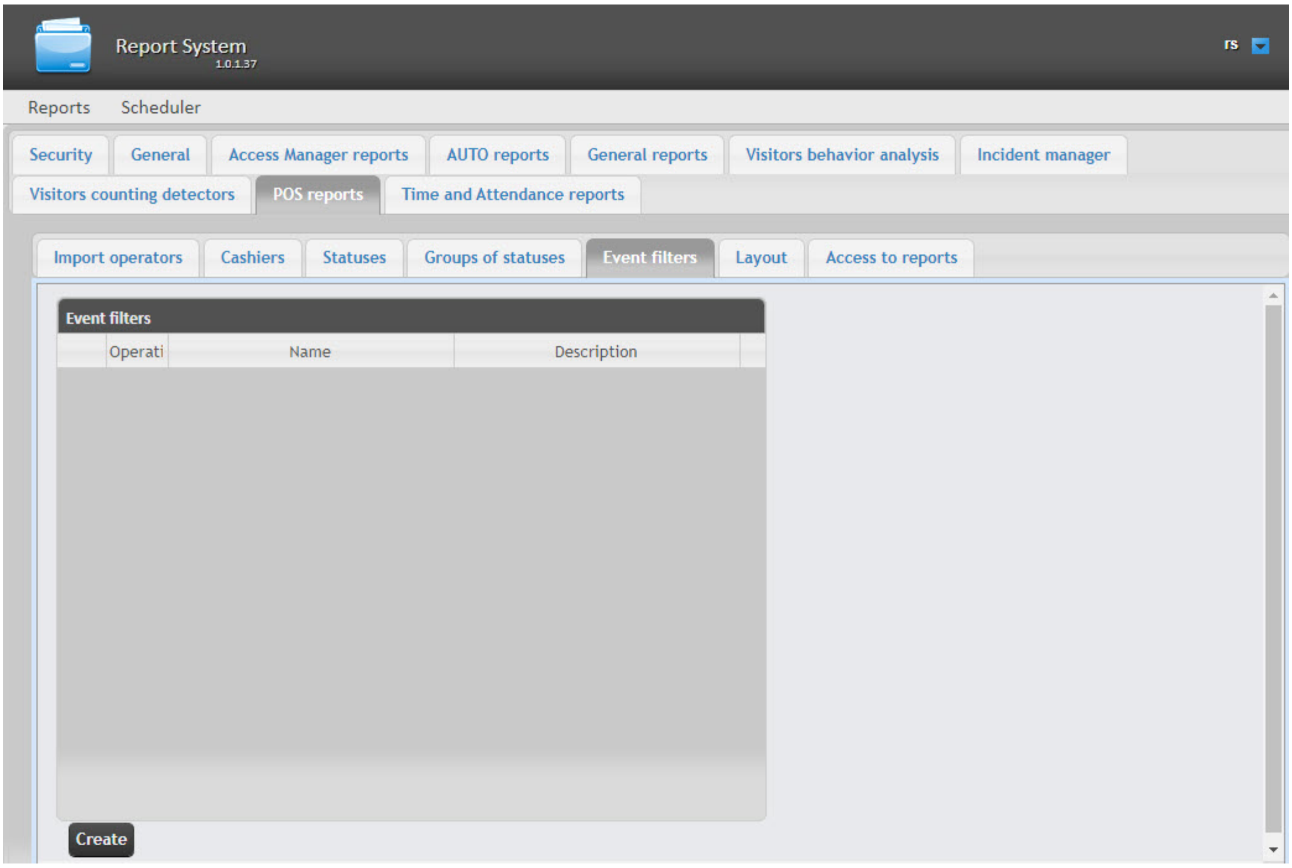


Deleting a group of statuses is completed.

7.12.5 Setting up the filter of events

One can create filters of function events and make general reports by these filters.

Setting up the event filters is carried out in the **Event filters** tab.



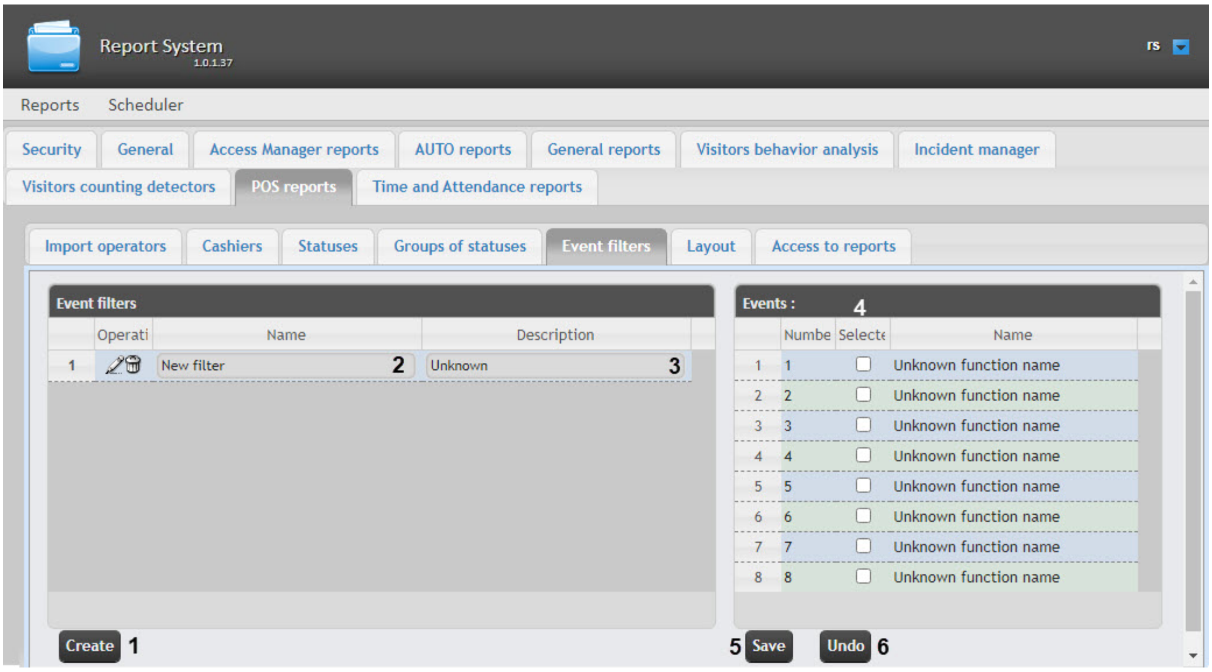
By default none filters are created in *WEB Report System PSIM*.

One can create event filters and also edit and delete them.

Creating a filter of events

In order to create a filter of events do the following:

1. Go to the **Event filter** tab.



2. Click **Create** (**1**). As a result a new line is added to the **Event filter** table.
3. In the **Name** field enter the name of a new filter of events (**2**).
4. In the **Description** field enter a short description of a filter of events (**3**).

> **Note**
>
> This field is optional for filling in.

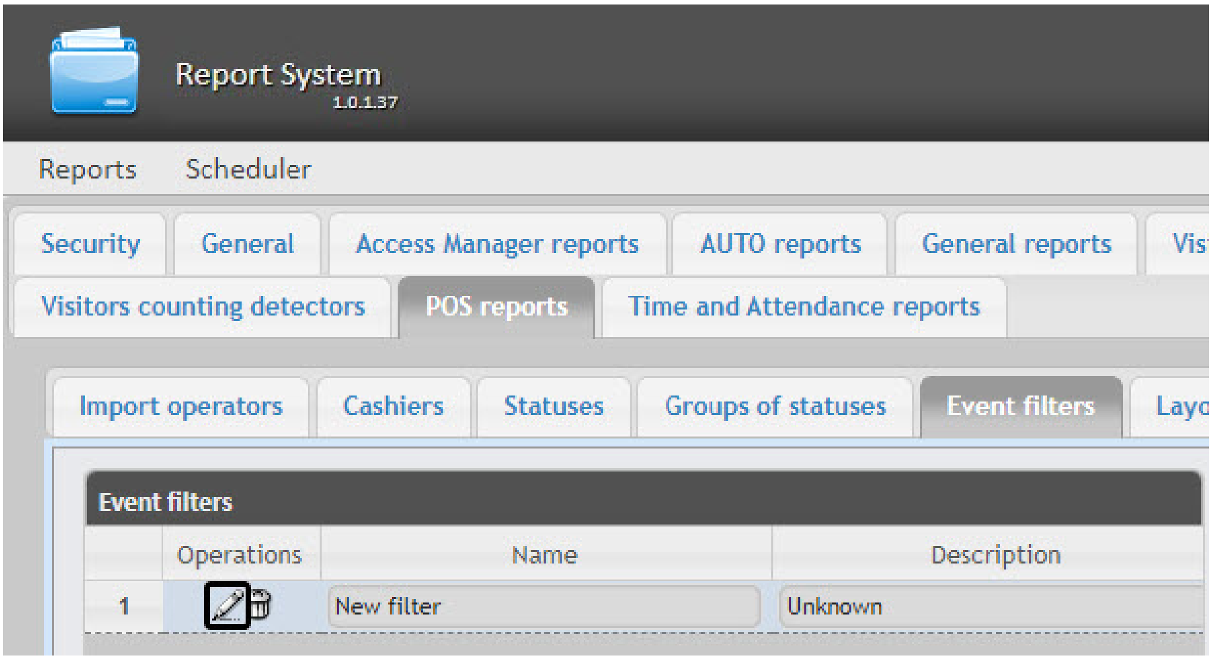
5. In the **Selected** column of the **Events** table (**4**) set checkboxes checked for those events that should be added to the filter.
6. In order to save parameters of a new filter of events click **Save** (**5**), to cancel the creating a new filter of events click **Undo** (**6**).

Creating a new filter of events is completed.

Editing a filter of events

In order to edit a filter of events do the following:

1. Go to the **Event filters** tab.



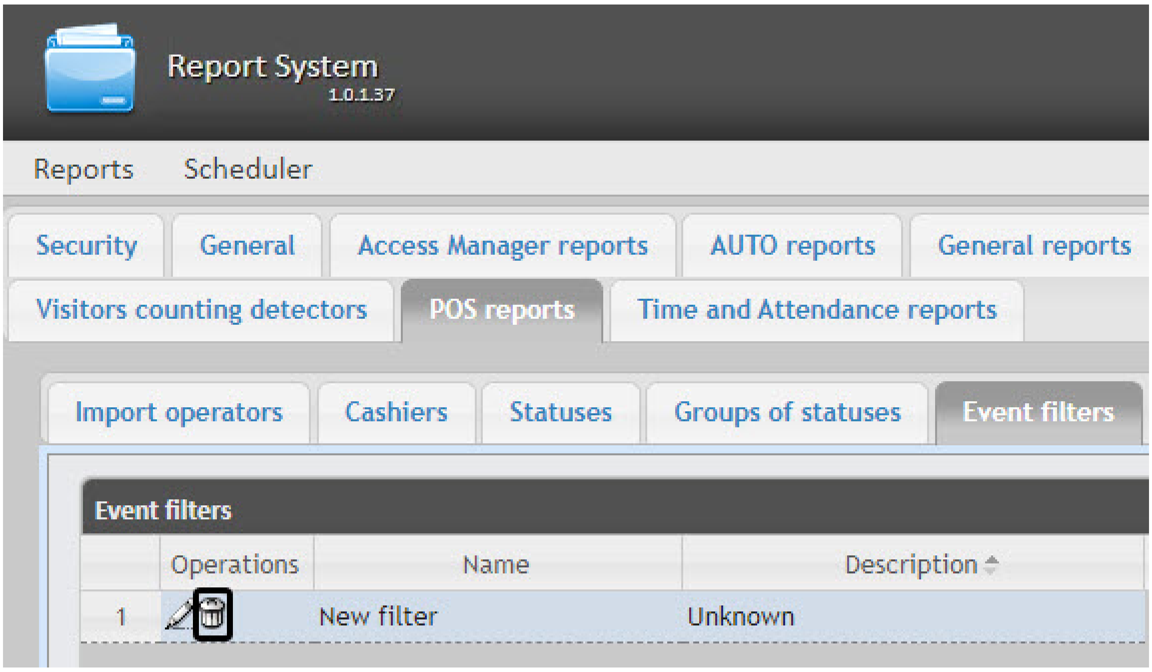
2. For the required filter of events click  in the **Operations** column.
3. As a result it will be possible to edit all parameters of a filter of events. One can edit the filter of events by analogy with its creation (see Creating a filter of events section).

Editing a filter of events is completed.

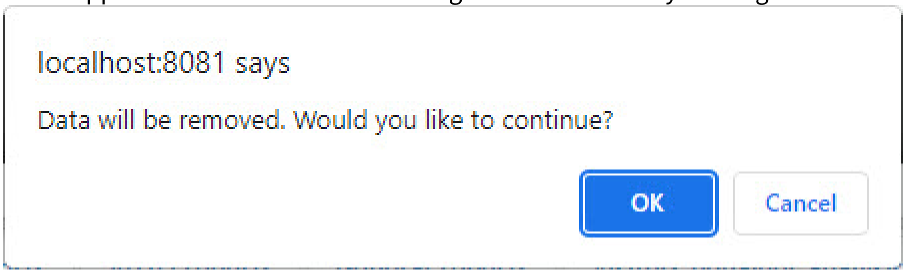
Deleting a filter of events

In order to delete a filter of events do the following:

1. Go to the **Event filters** tab.



2. For the required filter of events click in the **Operations** column.
3. In the appeared window confirm deleting a filter of events by clicking **OK**.

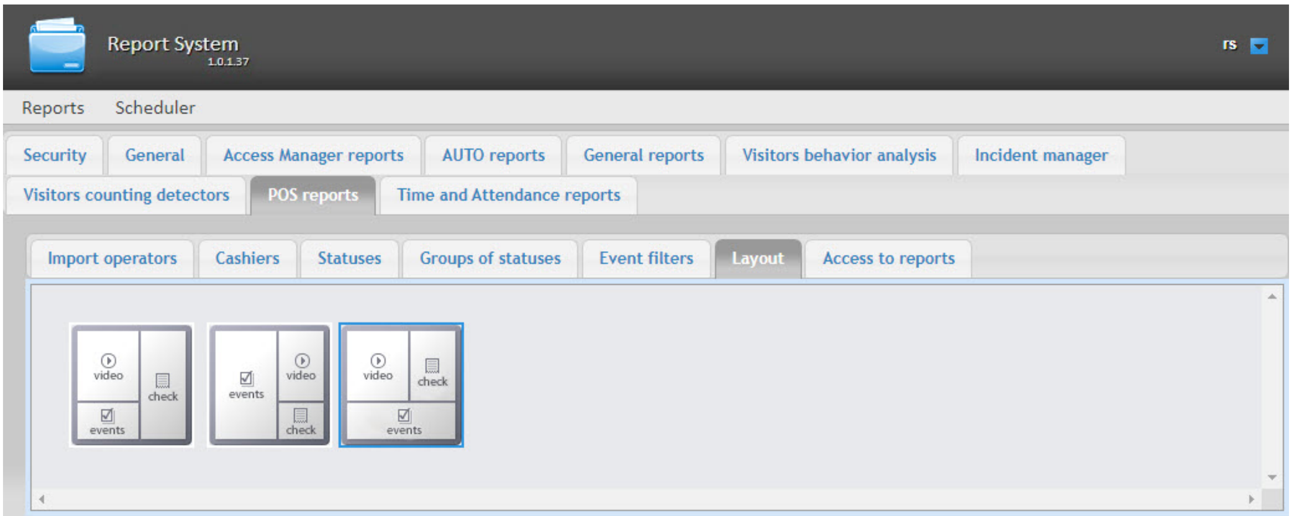


Deleting a filter of events is completed.

7.12.6 Selecting layouts in POS reports

One can select the layout of POS reports to make *WEB Report System PSIM* more convenient to use.

Selecting the layouts POS events is carried out in the **Layout** tab.

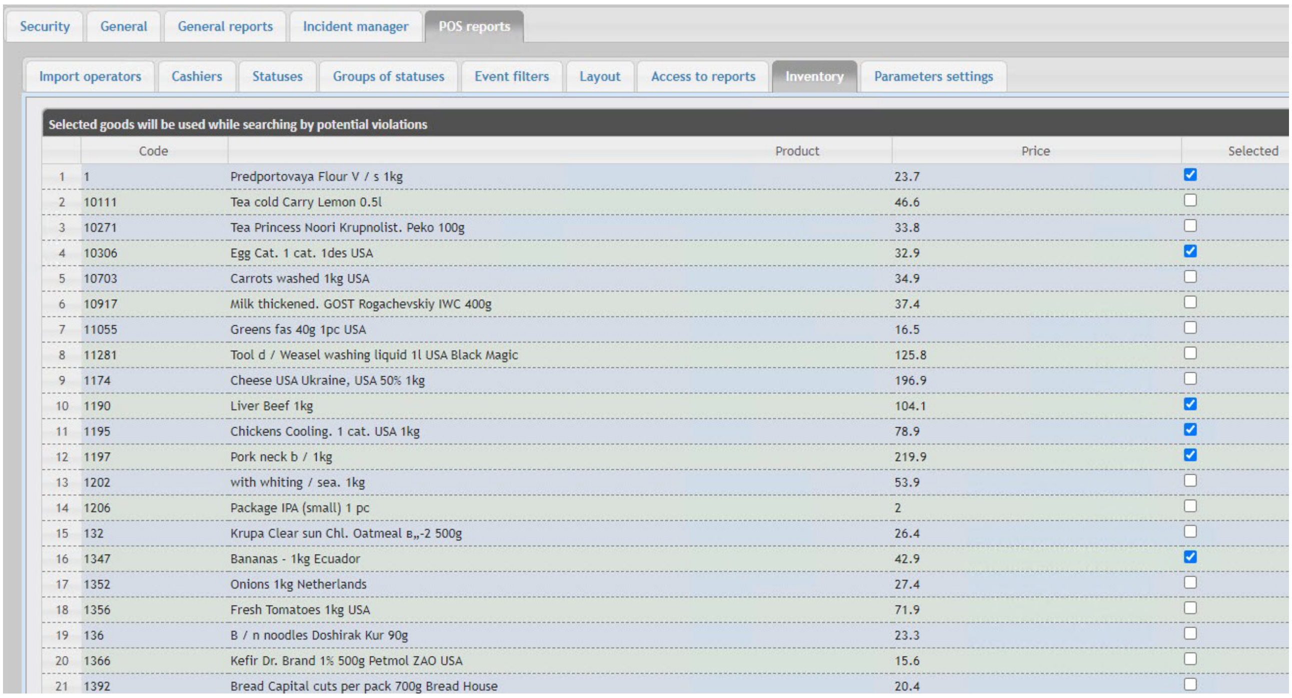


By default three layouts of POS reports are already created in *WEB Report System PSIM*.

Select the needed layout by clicking the left mouse button.

7.12.7 Selecting items for report creating

Selecting items by which the report by suspicious events is created is performed in the **Inventory** tab.

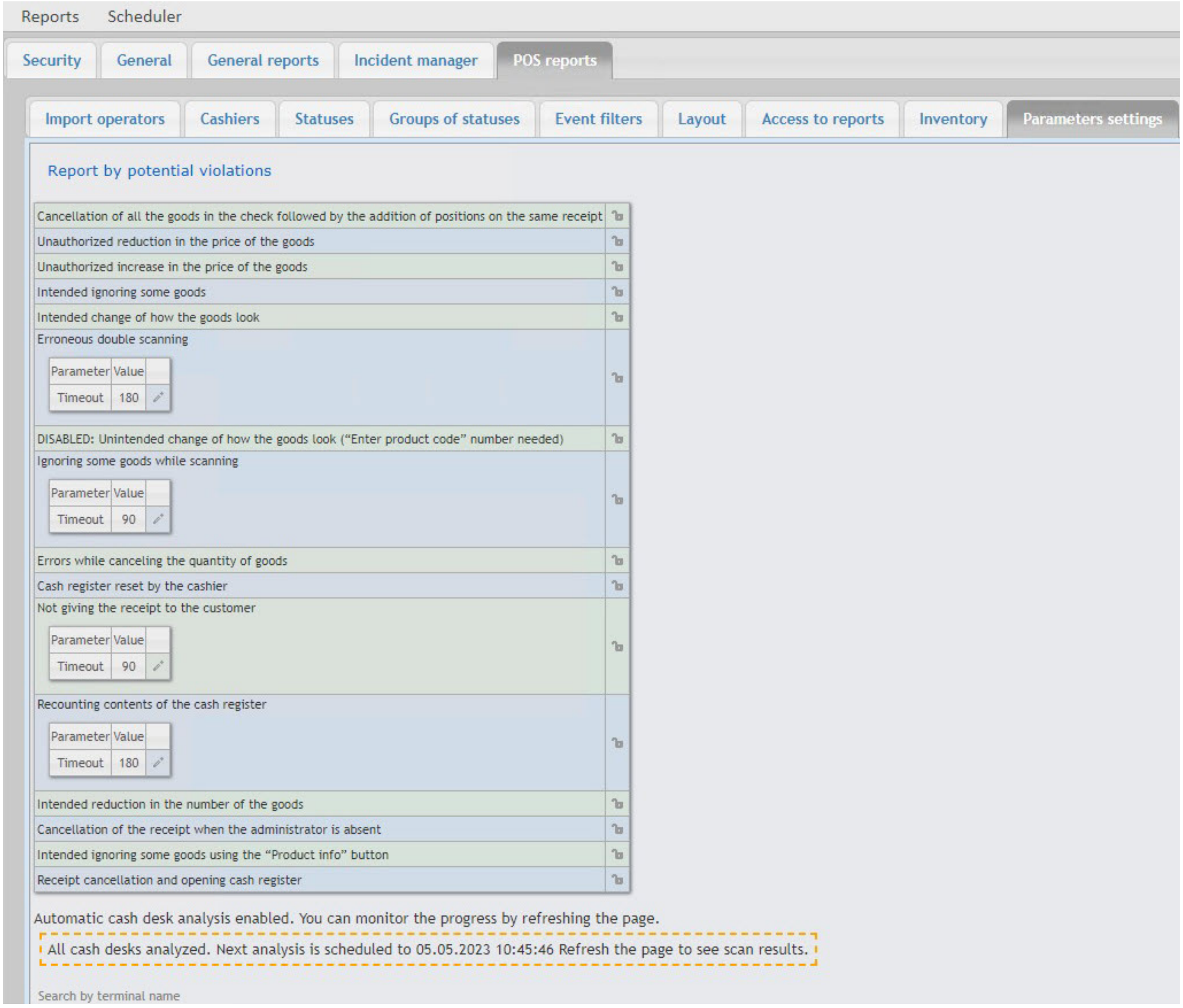


	Code	Product	Price	Selected
1	1	Predportovaya Flour V / s 1kg	23.7	☑
2	10111	Tea cold Carry Lemon 0.5l	46.6	☐
3	10271	Tea Princess Noori Krupnolist. Peko 100g	33.8	☐
4	10306	Egg Cat. 1 cat. 1des USA	32.9	☑
5	10703	Carrots washed 1kg USA	34.9	☐
6	10917	Milk thickened. GOST Rogachevskiy IWC 400g	37.4	☐
7	11055	Greens fas 40g 1pc USA	16.5	☐
8	11281	Tool d / Weasel washing liquid 1l USA Black Magic	125.8	☐
9	1174	Cheese USA Ukraine, USA 50% 1kg	196.9	☐
10	1190	Liver Beef 1kg	104.1	☑
11	1195	Chickens Cooling. 1 cat. USA 1kg	78.9	☑
12	1197	Pork neck b / 1kg	219.9	☑
13	1202	with whiting / sea. 1kg	53.9	☐
14	1206	Package IPA (small) 1 pc	2	☐
15	132	Krupa Clear sun Chl. Oatmeal в„-2 500g	26.4	☐
16	1347	Bananas - 1kg Ecuador	42.9	☑
17	1352	Onions 1kg Netherlands	27.4	☐
18	1356	Fresh Tomatoes 1kg USA	71.9	☐
19	136	B / n noodles Doshirak Kur 90g	23.3	☐
20	1366	Kefir Dr. Brand 1% 500g Petmol ZAO USA	15.6	☐
21	1392	Bread Capital cuts per pack 700g Bread House	20.4	☐

Set a checkbox close to the required name to select this item.

7.12.8 Setting up parameters of Report by potential violations

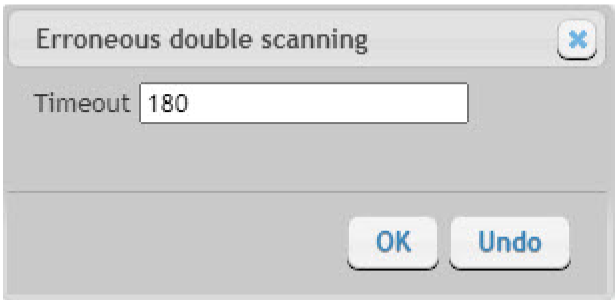
You can set up the parameters of Report by potential violations on the **Parameters settings** tab.



To enable the analysis of cash registers in the background, specify the value of the key **PotentialViolationsEnabled** =1 in the C:\Program Files (x86)\Axxon PSIM\Modules\Wt2\Web.config file (see Report by potential violations).

Click the icon next to the corresponding violation to make this violation unavailable for selection when creating a Report by potential violations.

Using the icon next to the **Erroneous double scanning**, **Ignoring some goods while scanning**, **Not giving the receipt to the customer**, **Recounting contents of the cash register** violations, you can edit the time interval of violations. After you click the icon, a window opens where you must specify the required value using the keyboard and click the **OK** button.



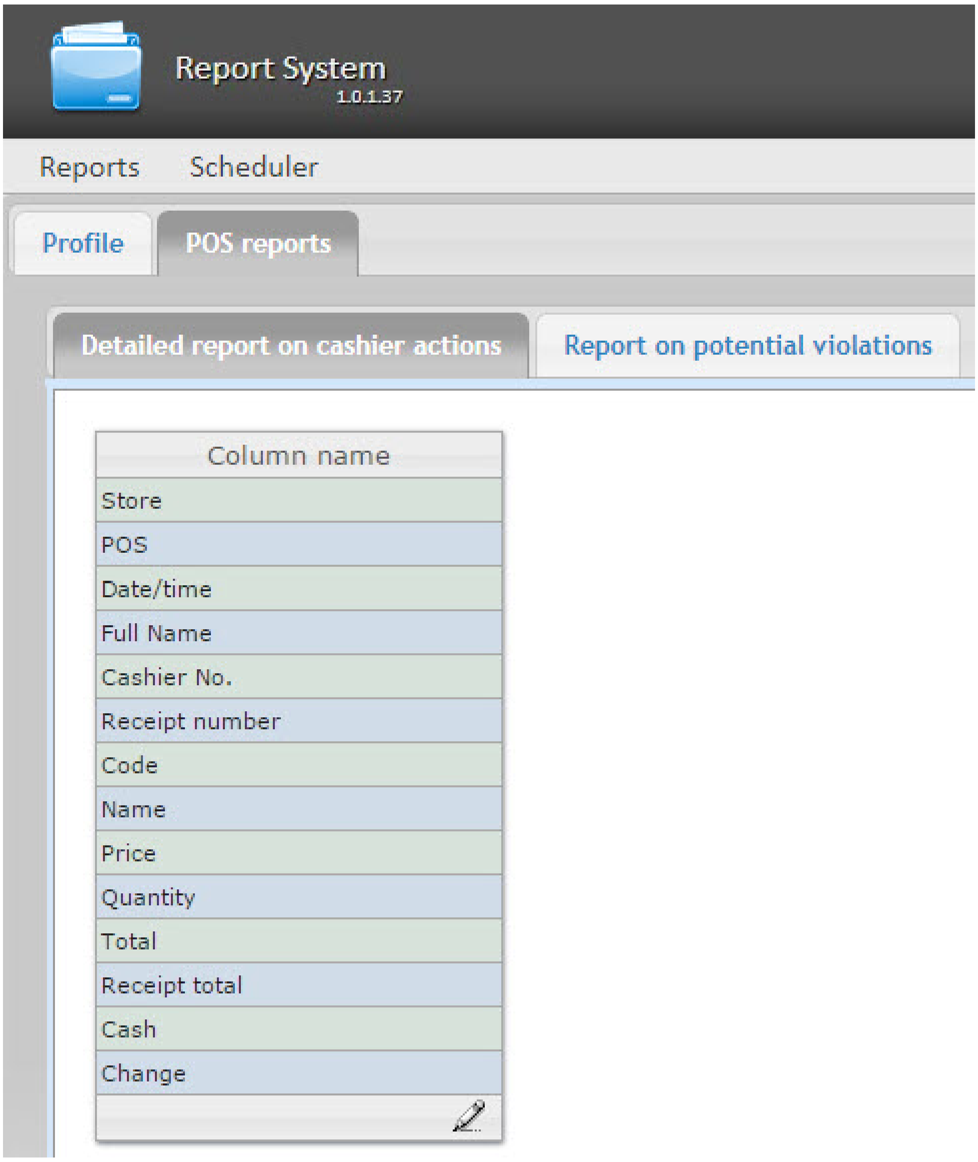
Note.

Report by the **Unintended change of how the goods look** violation type isn't available for creation. To enable this violation type, refer to the AxxonSoft technical support.

7.12.9 Setting up the user interface of POS reports

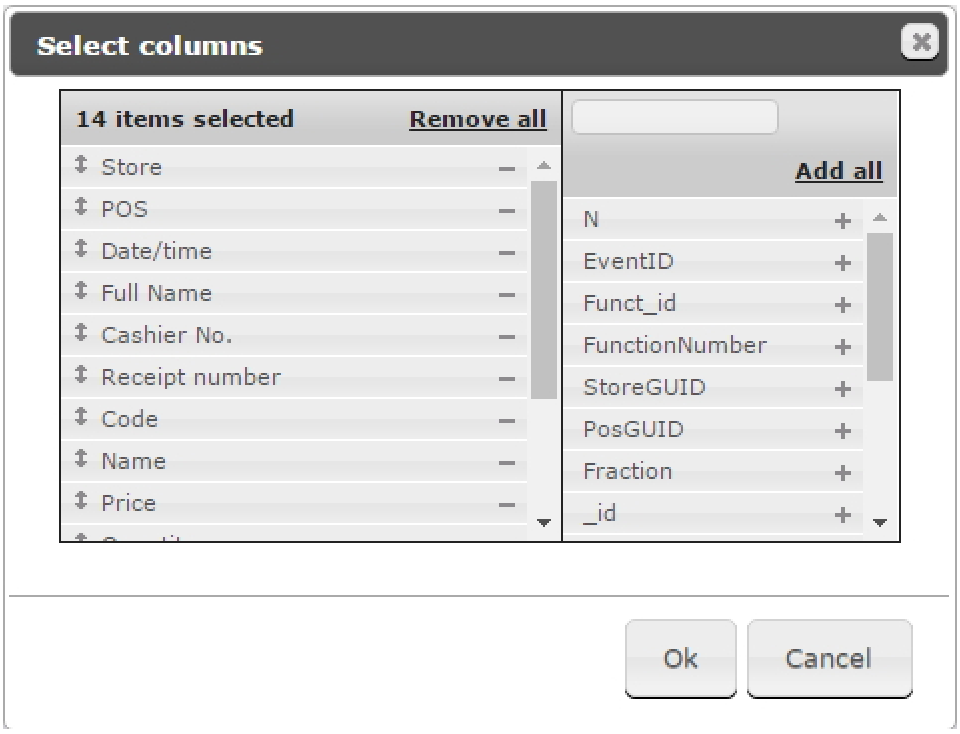
A unique interface of POS reports can be configured for every user.

User interface setup is performed on the **Profile** > **POS reports** tab.



To edit the list of columns in the report, do the following:

1. Click the icon at the bottom of the list.
2. In the window that appears, add the required columns by clicking and remove the unnesserary ones by clicking . It is possible to add/remove all the columns.
3. Click **OK** to save the changes.

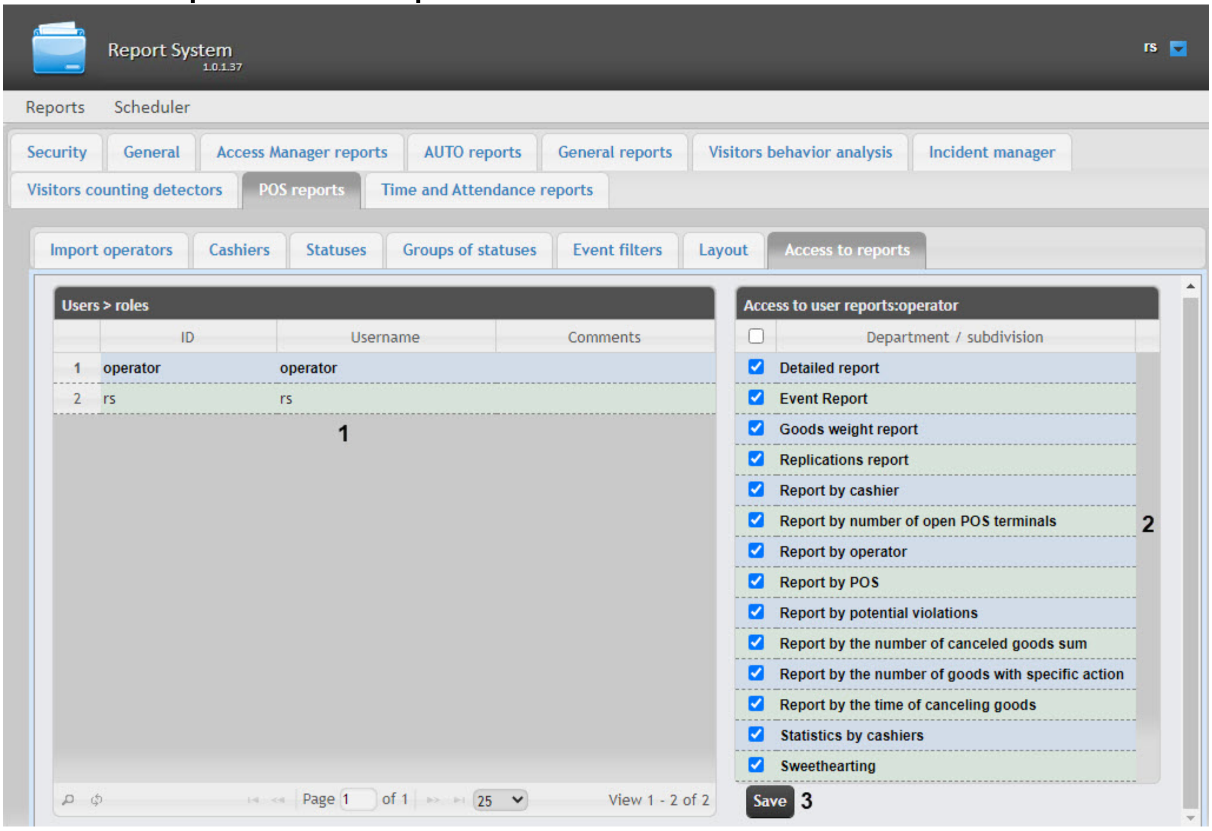


The list of columns can be edited in a similar way by clicking the **Edit columns** button right on the report page.

7.12.10 Setting up user access to POS reports

To configure user access to *POS reports* do the following:

1. Go to the **POS reports > Access to reports** tab.



2. In the **Users>roles** table select user for which the access is configured (**1**).

> **Note**
>
> The user must have a role with the right to perform the **POS operator** and/or **POS expert** operations. For details on role configuration, see Set up the roles.

3. The list of available reports for the selected user is displayed in the **Access to user reports** table (**2**).
4. Set the checkboxes next to reports which will be enabled for the selected user.
5. Click the **Save** button (**3**).

Setting up user access to *POS reports* is complete.

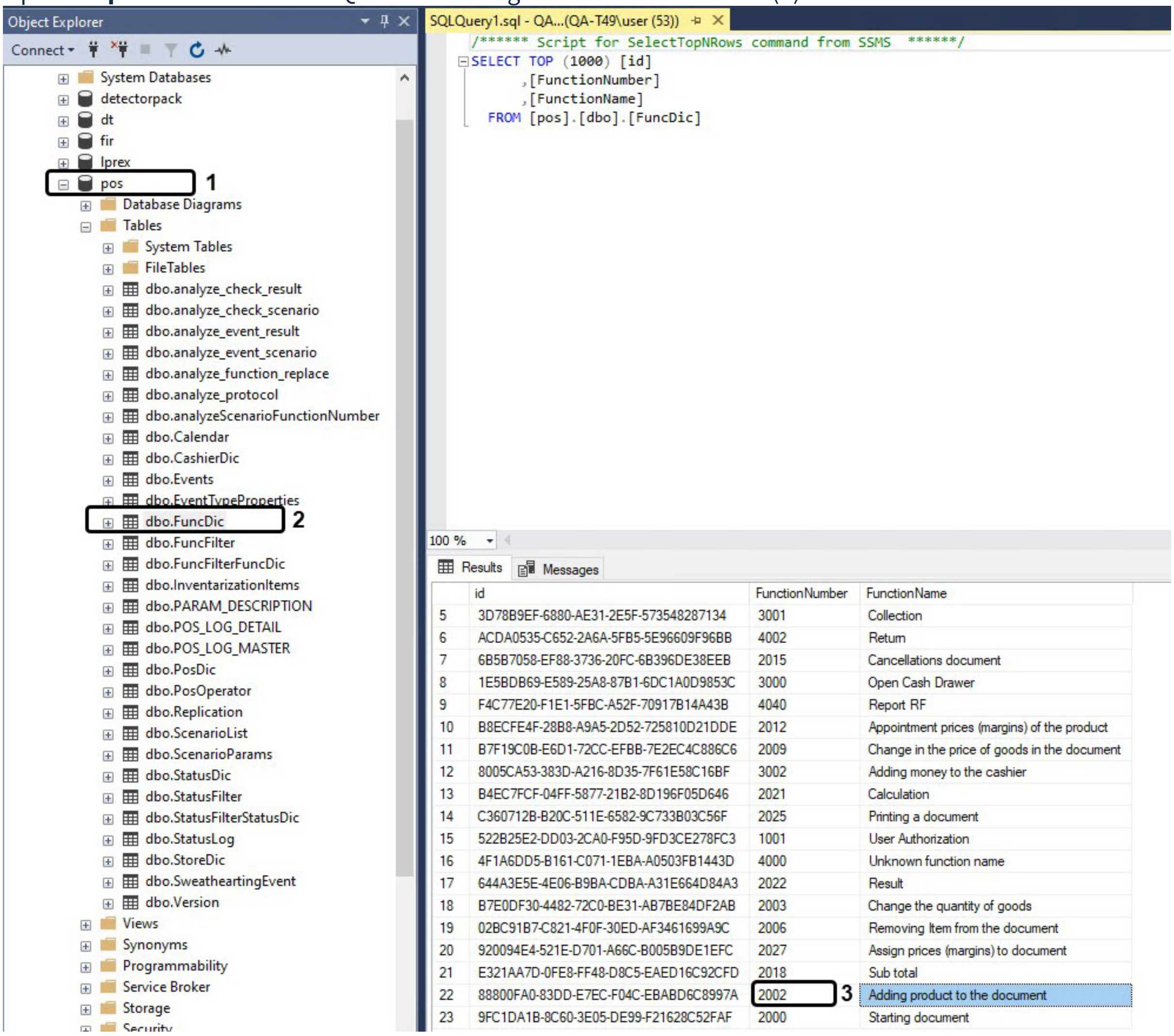
7.12.11 Setting up the Sweethearting report

Enabling the Sweethearting report

> **Important!**
>
> The **Web.config** file configuration must be performed on the computer where it is planned to work with the **Sweethearting** report.
> After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

By default, the **Sweethearting** report is disabled. To enable it, do the following:

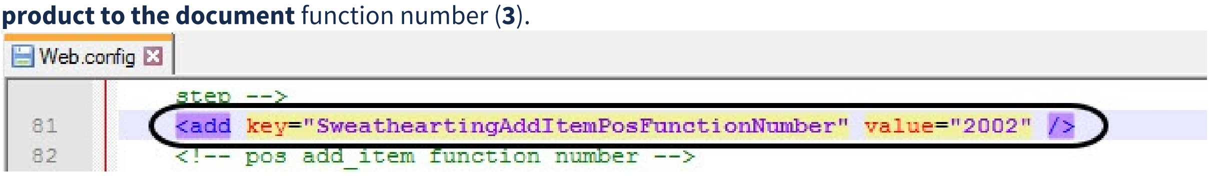
1. Open the **pos** database in the SQL Server Management Studio software (**1**).



2. Open the **dbo.FuncDic** table (**2**).
3. Copy to the clipboard or memorize the **Adding product to the document** function number (**3**).

> **Note**
>
> The **Adding product to the document** function name can differ depending on the localization.

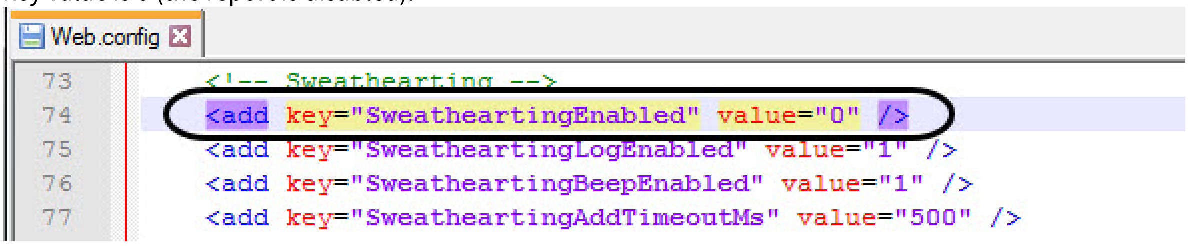
4. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
5. Open the **Web.config** file for editing.
6. For the **SweatheartingAddItemPosFunctionNumber** key specify the value corresponding to the **Adding product to the document** function number (**3**).



> **Important!**

If the **Adding product to the document** function number is specified incorreclty, the **Sweethearting** report will not be enabled, because only the receipts with the item adding event number specified in the **SweatheartingAddItemPosFunctionNumber** key are added to the report.

7. To enable the **Sweethearting** report, specify the **1** value for the **SweatheartingEnabled** key. The default key value is **0** (the report is disabled).



8. Save the changes in the **Web.config** file.

The parameters of the **Web.config** file are described on the page XML-file parameters reference guide.

Filtering the sweethearting events

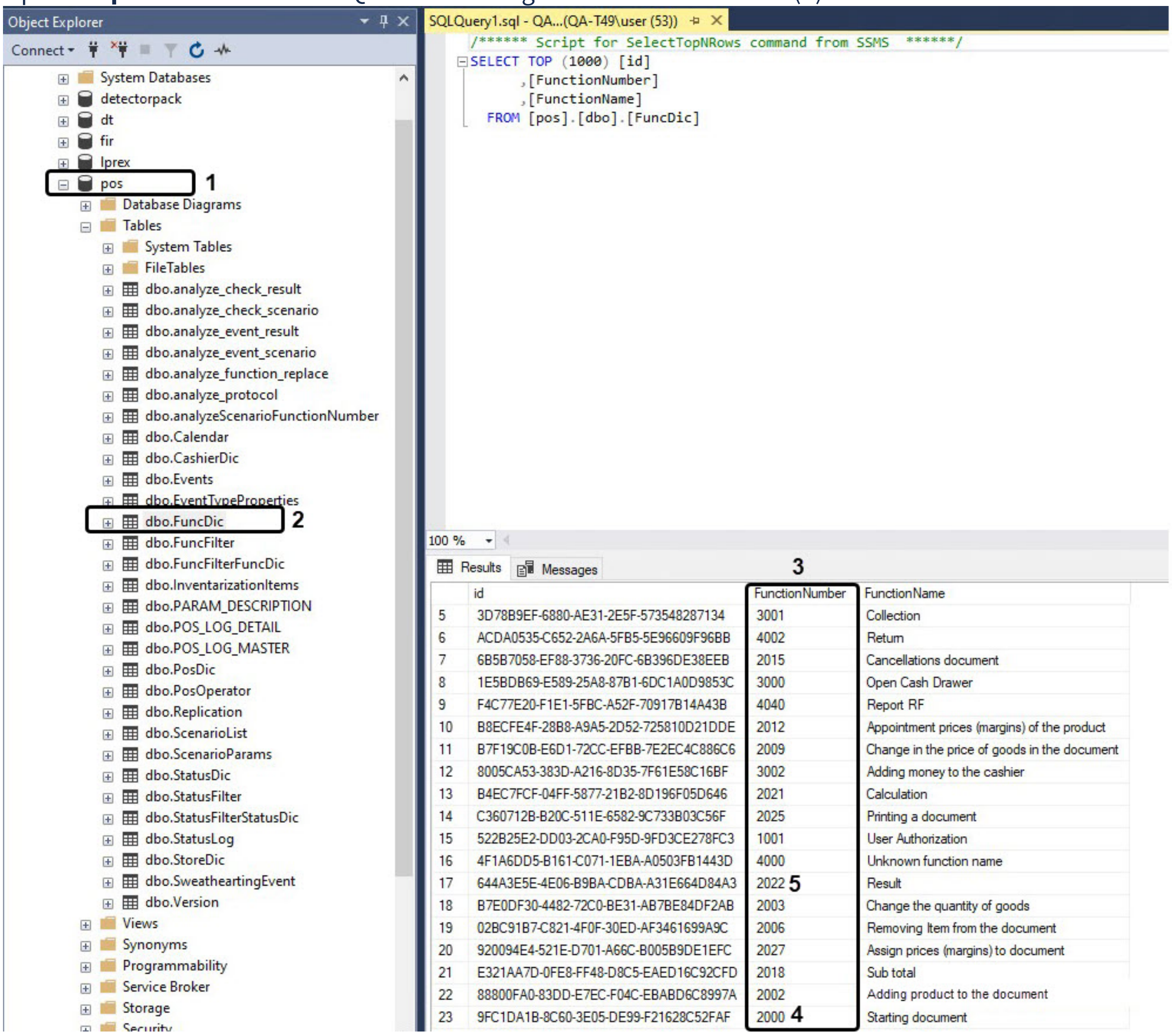
Important!

The **Web.config** file configuration must be performed on the computer where it is planned to work with the **Sweethearting** report.
After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

You can filter the sweethearting events in order to build the **Sweethearting** report only by the events which occured while the receipt was open.

To filter the sweethearting events, do the following:

1. Open the **pos** database in the SQL Server Management Studio software (**1**).

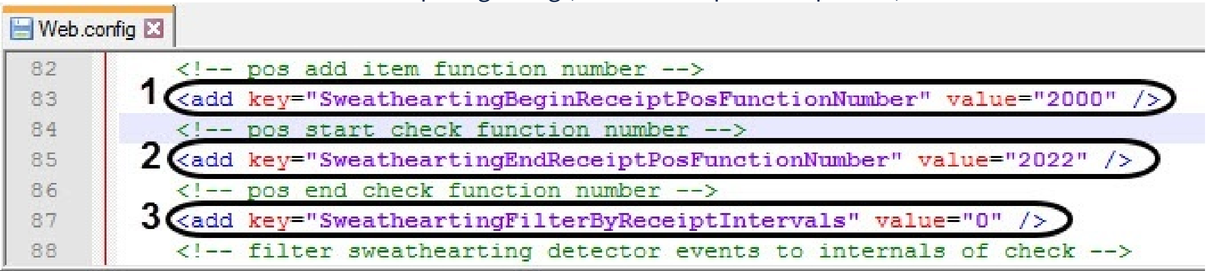


2. Open the **dbo.FuncDic** table (**2**).
3. Copy to the clipboard or memorize the function numbers in the **FunctionNumber** column (**3**) which will indicate the beginning and the end of the receipt.

> **Note**
>
> For example, the **Starting document** function with the corresponding function number **2000** can be used as the receipt beginning (**4**), and the **Result** function with the corresponding function number **2022** can be used as the receipt end (**5**).

4. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
5. Open the **Web.config** file for editing.

6. For the **SweatheartingBeginReceiptPosFunctionNumber** key (**1**) specify the value corresponding to the function number used as the receipt beginning (see **3** on the previous picture).



7. For the **SweatheartingEndReceiptPosFunctionNumber** key (**2**) specify the value corresponding to the function number used as the receipt end (see **3** on the previous picture).
8. To enable filtering, specify the **1** value for the **SweatheartingFilterByReceiptIntervals** key (**3**). The default key value is **0** (filtering is disabled).
9. Save the changes in the **Web.config** file.

Note

As a result, only the events which occured while the receipt was open will be displayed in the **Sweethearting** report. If the sweethearting event occured when the receipt was closed, such event will not be displayed in the report.

Note

The receipts which do not have their beginning and end specified in the **Web.config** file will be considered incorrect and will not be processed. Meanwhile, the receipt with several beginnings and ends specified will be processed.

The parameters of the **Web.config** file are described on the page XML-file parameters reference guide.

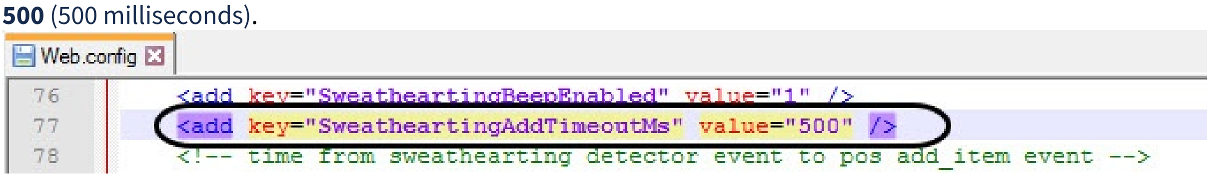
Setting the timeout for sweethearting event addition to report

Important!

The **Web.config** file configuration must be performed on the computer where it is planned to work with the **Sweethearting** report.
After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

You can set the timeout between the sweethearting detector event and the POS event. If this timeout is exceeded, the sweethearting event will be added to the report. To set the timeout, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. For the **SweatheartingAddTimeoutMs** key specify the required value in milliseconds. The default value is **500** (500 milliseconds).



4. Save the changes in the **Web.config** file.

Note

For example, if the time period between the **alarmStartTime** and **alarmFinishTime** events is 1000 milliseconds, and the **SweatheartingAddTimeoutMs** key is set to 500 milliseconds, then the sweethearting event will be generated if the event of adding goods to the document does not occur within 1500 milliseconds from the **alarmStartTime** event.

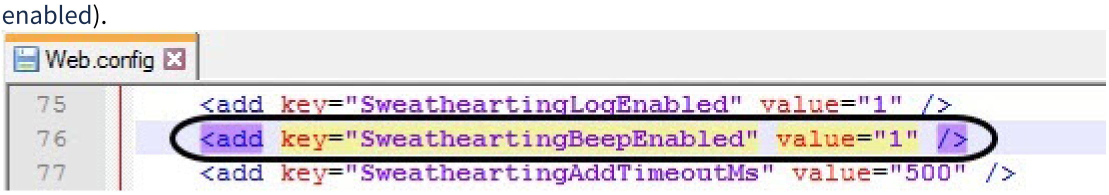
The parameters of the **Web.config** file are described on the page XML-file parameters reference guide.

Disabling sound notification about new events in Sweethearting report

Important!

The **Web.config** file configuration must be performed on the computer where it is planned to work with the **Sweethearting** report.
After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

To disable the sound notification about new events in **Sweethearting** report, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. Set the **0** value for the **SweatheartingBeepEnabled** key. The default value is **1** (the sound notification is enabled).


4. Save the changes in the **Web.config** file.

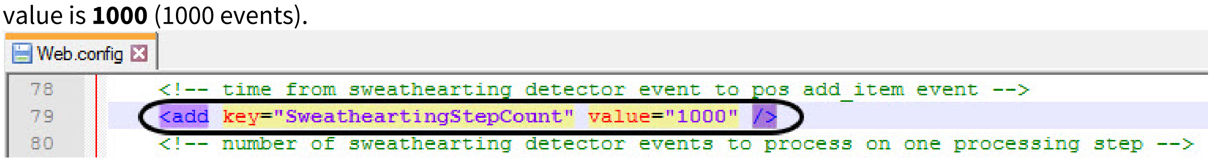
The parameters of the **Web.config** file are described on the page XML-file parameters reference guide.

Configuring the events preloaded on first Sweethearting report launch

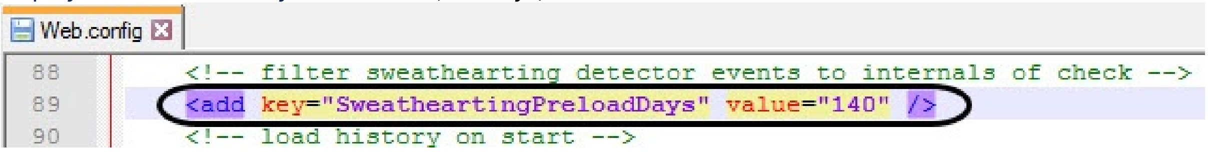
Important!

The **Web.config** file configuration must be performed on the computer where it is planned to work with the **Sweethearting** report.
After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

To configure the events which should be preloaded on the first **Sweethearting** report launch, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. For the **SweatheartingStepCount** key specify the required number of preloaded events. The default key value is **1000** (1000 events).


4. For the **SweatheartingPreloadDays** key specify the required number of days which events should be displayed. The default key value is **140** (140 days).



> **Note**
>
> For example, if the **1** (1 day) value is specified for the **SweatheartingPreloadDays** key, then on the first **Sweethearting** report launch all events occurred within the past 24 hours will be displayed. However, the number of preloaded events is limited by the value specified for the **SweatheartingStepCount** key. Therefore, if within the specified number of days the number of occurred events exceeds the **SweatheartingStepCount** key value, only the most recent events will be displayed in the report.

5. Save the changes in the **Web.config** file.

> **Note**
>
> This configuration applies to the events which are preloaded only on the first **Sweethearting** report launch. After you specify any filters in the report interface, they will be applied to the report.

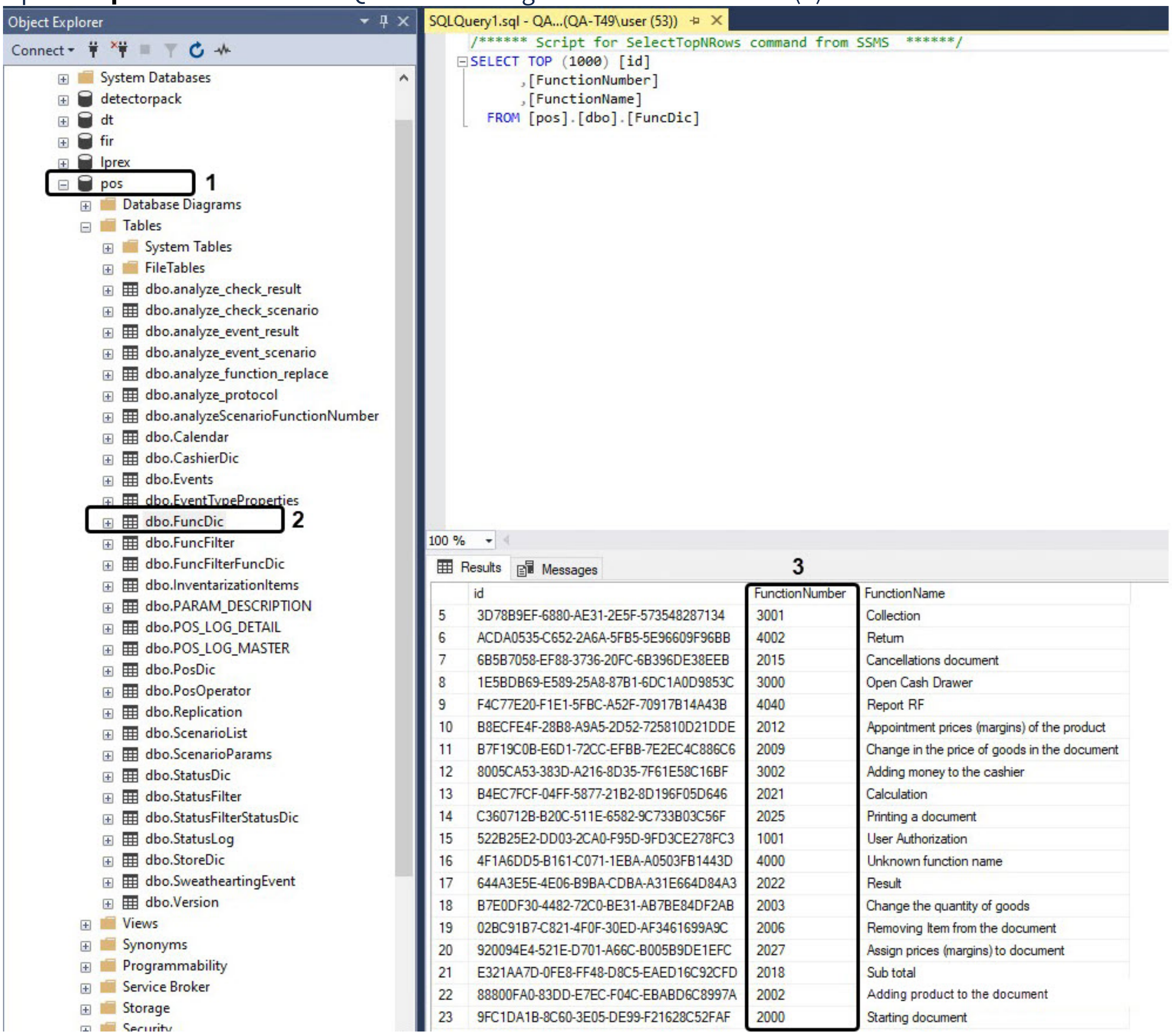
> The parameters of the **Web.config** file are described on the page XML-file parameters reference guide.

7.12.12 Setting up the Statistics by cashiers report

> **Attention!**
>
> The **known-functions.json** file configuration must be performed on the computer where it is planned to work with the **Statistics by cashiers** report.
> After making any changes to the **known-functions.json** file, it is necessary to restart the Cassini Service utility.

Set up the **Statistics by cashiers** as follows:

1. Open the **pos** database in the SQL Server Management Studio software (**1**).



2. Open the **dbo.FuncDic** table (**2**).
3. Copy to the clipboard or memorize the function numbers in the **FunctionNumber** column in area (**3**).
4. Go to the <*Axxon PSIM* installation directory>*Modules**Wt2**App_Data**Pos*.
5. Open the **known-functions.json** file for editing.

6. For each function, set the **function-number** corresponding to the function number from the **dbo.FuncDic** table.

known-functions.json


```json
[
  {
    "known-id": "print_document",
    "comment": "Printing a document",
    "function-number": 2025
  },
  {
    "known-id": "payment",
    "comment": "Payment",
    "function-number": 2024
  },
  {
    "known-id": "change_item_price_in_the_document",
    "comment": "Change in the price of the goods in the document",
    "function-number": 2009
  },
  {
    "known-id": "add_item",
    "comment": "Adding a product to a document",
    "function-number": 2002
  },

  {
    "known-id": "login",
    "comment": "User authorization",
    "function-number": 1001
  },
  {
    "known-id": "logout",
    "comment": "User unregistrations",
    "function-number": 1003
  },
  {
    "known-id": "start_check",
    "comment": "The beginning of the document",
    "function-number": 2000
  },
  {
    "known-id": "annulate_check",
    "comment": "Cancellation of the document",
    "function-number": 2015
  },
  {
    "known-id": "annulate_item",
    "comment": "Removing an item from a document",
    "function-number": 2006
  },
  {
    "known-id": "total_check",
    "comment": "Result",
    "function-number": 2022
  }
]
```

7. Save the changes to the **known-functions.json** file.

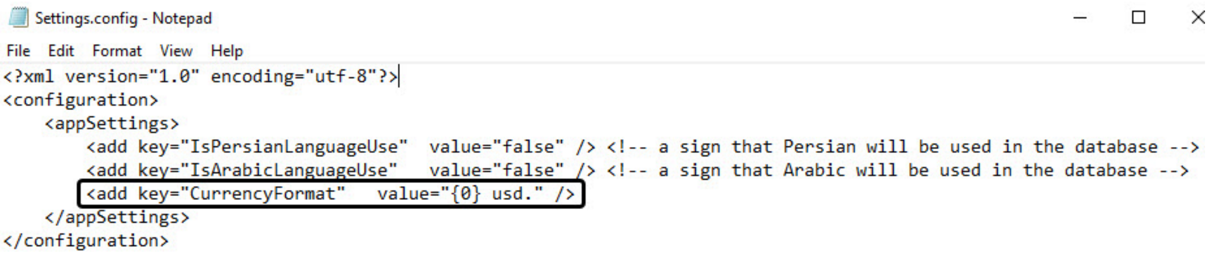
Setting up the **Statistics by cashiers** report is completed.

7.12.13 Setting up the currency format for Report by the number of goods with specific action

> **Attention!**
>
> The **Settings.config** file configuration must be performed on the computer where it is planned to work with the report by the number of goods with specific action.
> After making any changes in the **Settings.config** file, it is necessary to restart the Cassini Service utility.

To set up the currency display format for the report by the number of goods with specific action, do the following:

1. Go to the *<Axxon PSIM installation directory>\Modules\Wt2\App_Data\Settings*.
2. Open the **Settings.config** file for editing.
3. For the **CurrencyFormat** key, specify the currency name after **value="{0}**. By default, the currency name is **usd**.



```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
    <appSettings>
        <add key="IsPersianLanguageUse"  value="false" /> <!-- a sign that Persian will be used in the database -->
        <add key="IsArabicLanguageUse"   value="false" /> <!-- a sign that Arabic will be used in the database -->
        <add key="CurrencyFormat"   value="{0} usd." />
    </appSettings>
</configuration>
```

4. Save the changes in the **Settings.config** file.

The currency display format for the report by the number of goods with specific action is now configured.

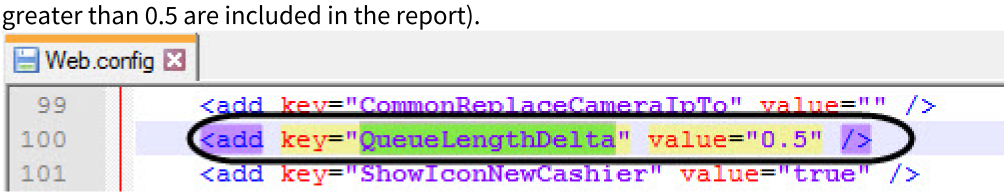
7.13 Setting up the reports by Queue Length detectors

7.13.1 Disabling the zero value filter

> **Attention!**
>
> The **Web.config** file configuration must be performed on the computer where it is planned to work with the reports by Queue Length detectors.
> After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

To include the 0 values to the table reports by Queue Length detectors, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. Set the **0** value for the **QueueLengthDelta** key. The default value is **0.5** (which means that only the values greater than 0.5 are included in the report).



```
99   <add key="CommonReplaceCameraIpTo" value="" />
100  <add key="QueueLengthDelta" value="0.5" />
101  <add key="ShowIconNewCashier" value="true" />
```

4. Save the changes in the **Web.config** file.

The parameters of the **Web.config** file are described on the page XML-file parameters reference guide.

7.14 Setting up the Time and Attendance reports

Setting up the Time and Attendance reports is performed in the **Time and Attendance reports** tab on the administration page.

Time and Attendance reports setup is performed in the following sequence:

1. Setting up the user access rights to departments
2. Setting up user access to Time and Attendance reports

Note

In order to perform the setup, you need to create the *Workitime support* interface object in the server, see Configuring the Worktime subsystem.

Note

In order to be able to work with Time and Attendance reports, the role with the right to perform the **Time and Attendance Module operator** operations should be created and assigned to users, as described in Set up the roles.

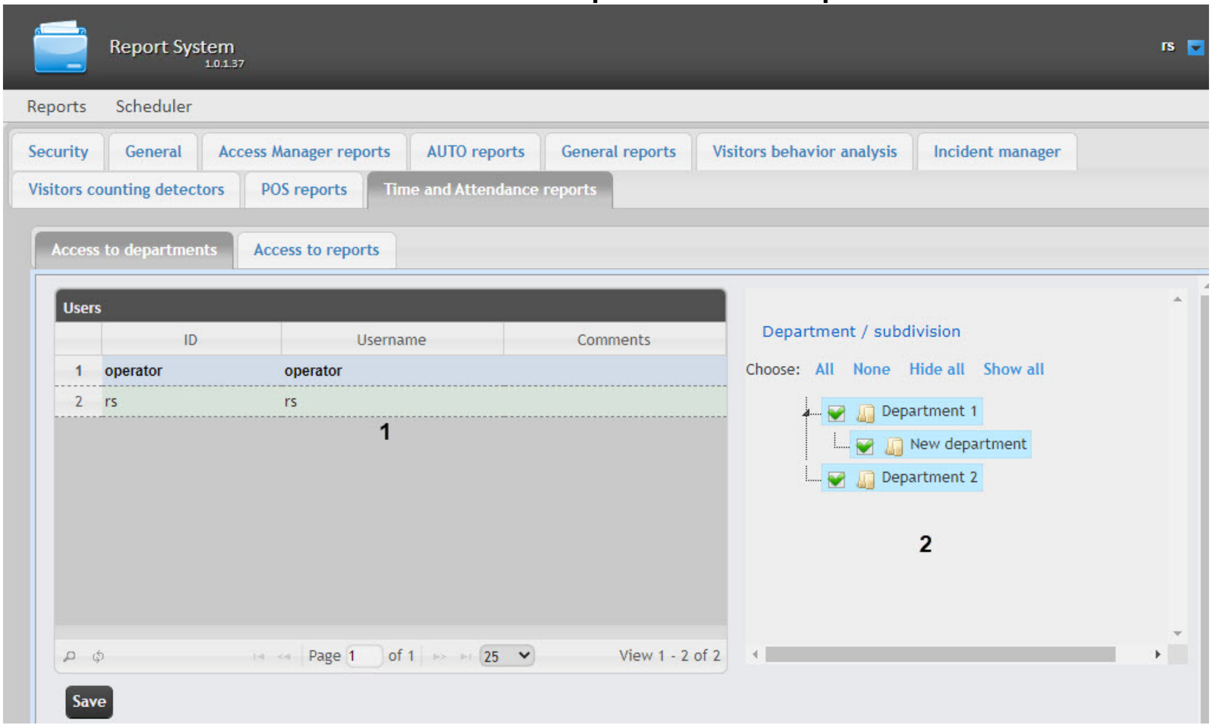
Note

Once the configuration is complete, update the report database as described in Updating the report database.

7.14.1 Setting up the user access rights to departments

To configure user access to departments do the following:

1. Go to the **Administration** > **Time and Attendance reports > Access to departments** tab.



2. In the **Users** table select the user for which access is to be configured (**1**).

> **Note**
>
> The user must have a role with the right to perform the **Time and Attendance Module operator** operations. For details on role configuration, see Set up the roles.

3. The list of available departments for the selected user is displayed in the **Department / subdivision** table (**2**).

> **Note**
>
> Only departments selected while configuring the *Worktime* subsystem display in the **Department / subdivision** table.

4. Set checkboxes close to departments to which access will be allowed for the selected user.
5. Click the **Save** button.

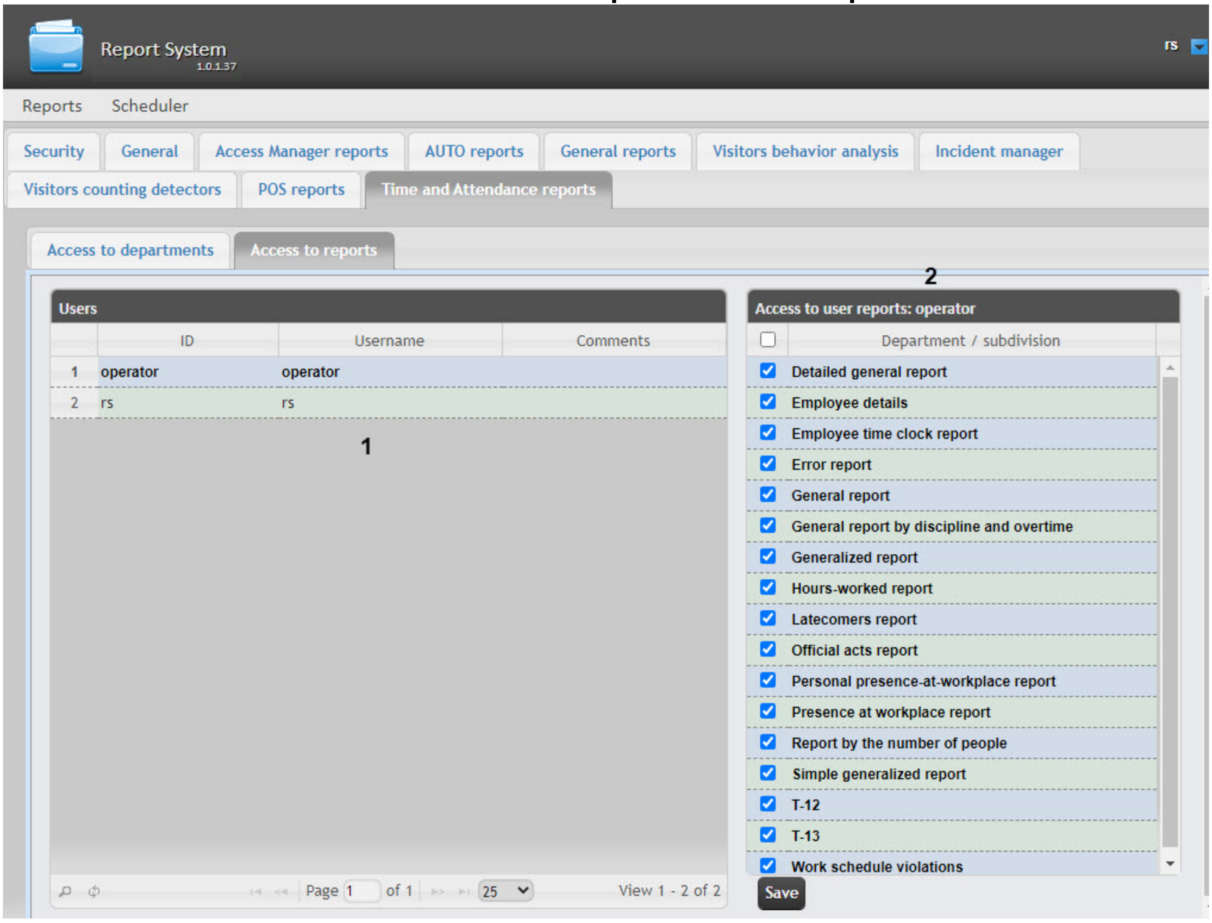
> **Note**
>
> The **rs** user has access to all departments by default, this can not be changed.

Configuring of user access to departments is completed.

7.14.2 Setting up user access to Time and Attendance reports

To configure user access to *Time and Attendance reports*, do the following:

1. Go to the **Administration** → **Time and Attendance reports** → **Access to reports** tab.



2. In the **Users** table select user for whom the access is configured (**1**).

> **Note**
>
> The user should have a role with the right to perform the **Time and Attendance Module operator** operations. For details on role configuration, see Set up the roles.

3. The list of available reports for the selected user is displayed in the **Access to user reports** table (**2**). Set the checkboxes next to the reports that you want the user to have access to.
4. Click the **Save** button.

Setting up user access to *Time and Attendance reports* is complete.

> **Attention!**
>
> To save the users' access rights to *Time and Attendance reports*, you need to update the database using the UpdateDB Utility (see Starting and working with the UpdateDB Utility).

7.14.3 Setting up the Presence at workplace report and Personal presence-at-workplace report

On the page:

- Selecting a report format
- Adding the fields to the custom database template file

Attention!

The **Web.config** file configuration must be performed on the computer where it is planned to work with the **Presence at workplace report** and **Personal presence-at-workplace report**.
After making any changes in the **Web.config** file, it is necessary to restart the Cassini Service utility.

Selecting a report format

The **Presence at workplace report** has two appearances: **Standard** or **Compact**. The **Personal presence-at-workplace report** has two appearances: **View 1** or **View 2**. In the **Compact** and **View 2** option, photos of users can be displayed in the report. To display user photos, do the following:

1. Go to the <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** file for editing.
3. Add the following key to the **<appSettings>** key group:

```
<add key="PSIMPath" value="C:\Program Files (x86)\Axxon PSIM\" />
```

where "C:\Program Files (x86)\Axxon PSIM\" is the *Axxon PSIM* installation directory.

Note

Photos are assigned to users in the *Access Manager* module (see Assigning a photograph to a user in the Access Manager software module).

4. Save the changes in the **Web.config** file.

Adding the fields to the custom database template file

For the **Presence at workplace report** correct operation, it is necessary to do the following:

1. Create a text document with the .dbi extension (for example **ext.dbi**) in the root directory of the *Axxon PSIM* installation — C:\Program Files (x86)\Axxon PSIM\.

Note

You can add the fields to the **psim.ext.dbi** file, which is specifically designed for custom tables and fields (see The ddi.exe utility for editing database templates and external settings files).

2. Open this dbi file in a text editor.

> **Attention!**
>
> Before you enter any data, make sure that the Windows-1251 text encoding is selected. Otherwise, when adding additional fields to the database, the text will be recognized incorrectly.

3. Copy the following code block to the dbi file:

```
[OBJ_PERSON]
personnelCat, CHAR, 64 //Personnel category{C%Workers|Employees|Managers|Other}
course, CHAR, 255 //Activity area
contractNum, CHAR, 255 //Agreement #
specialty, CHAR, 255 //Speciality
```

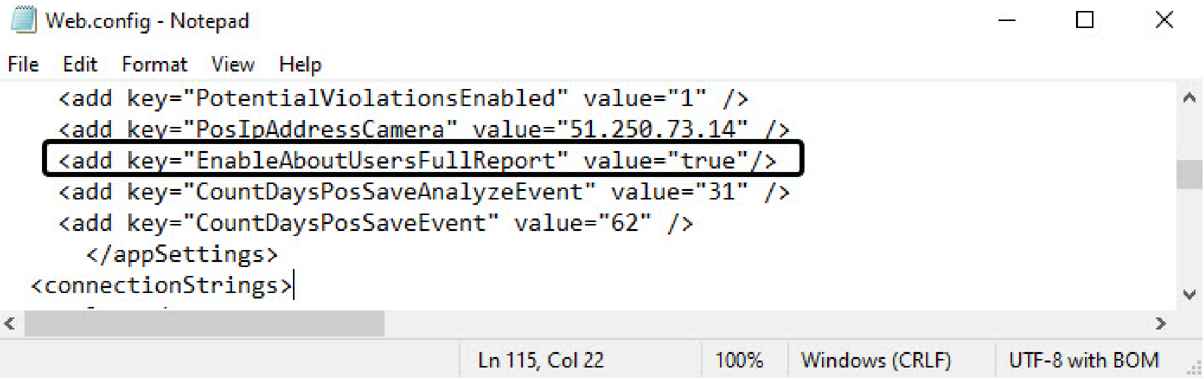
4. After the fields are created, it is necessary to save the changes in the dbi file.

> **Attention!**
>
> After you save the dbi file, it is necessary to update the main database. To do this, use the idb.exe utility (see The ddi.exe utility for editing database templates and external settings files).

7.14.4 Enabling the Employee details (full report)

To enable the **Employee details (full report)**, do the following:

1. Go to <*Axxon PSIM* installation directory>\Modules\Wt2.
2. Open the **Web.config** configuration file for editing.
3. Set the value of the **EnableAboutUsersFullReport** key to **true**. The default value is **false**.



4. Save the changes in the edited **Web.config** file.

> The parameters of the **Web.config** file are described in XML-file parameters reference guide.

> **Note**
>
> The **Web.config** file configuration must be performed on the computer on which you plan to work with the **Employee details (full report)**.

After making any changes to the **Web.config** configuration file, you must restart the Cassini Service.

8 Working with WEB Report System PSIM

Working with *WEB Report System PSIM* is performed on the document page (see Web Report System PSIM interface section).

Opportunities of the *WEB Report System PSIM* are described in the Purpose of WEB Report System PSIM section.

Note.

For proper operation of the *WEB Report System PSIM* you may need to edit the configuration file (Web.config) by increasing the value of the **CommandTimeout** parameter (see the XML-file parameters reference guide)

8.1 Working with Access Manager reports

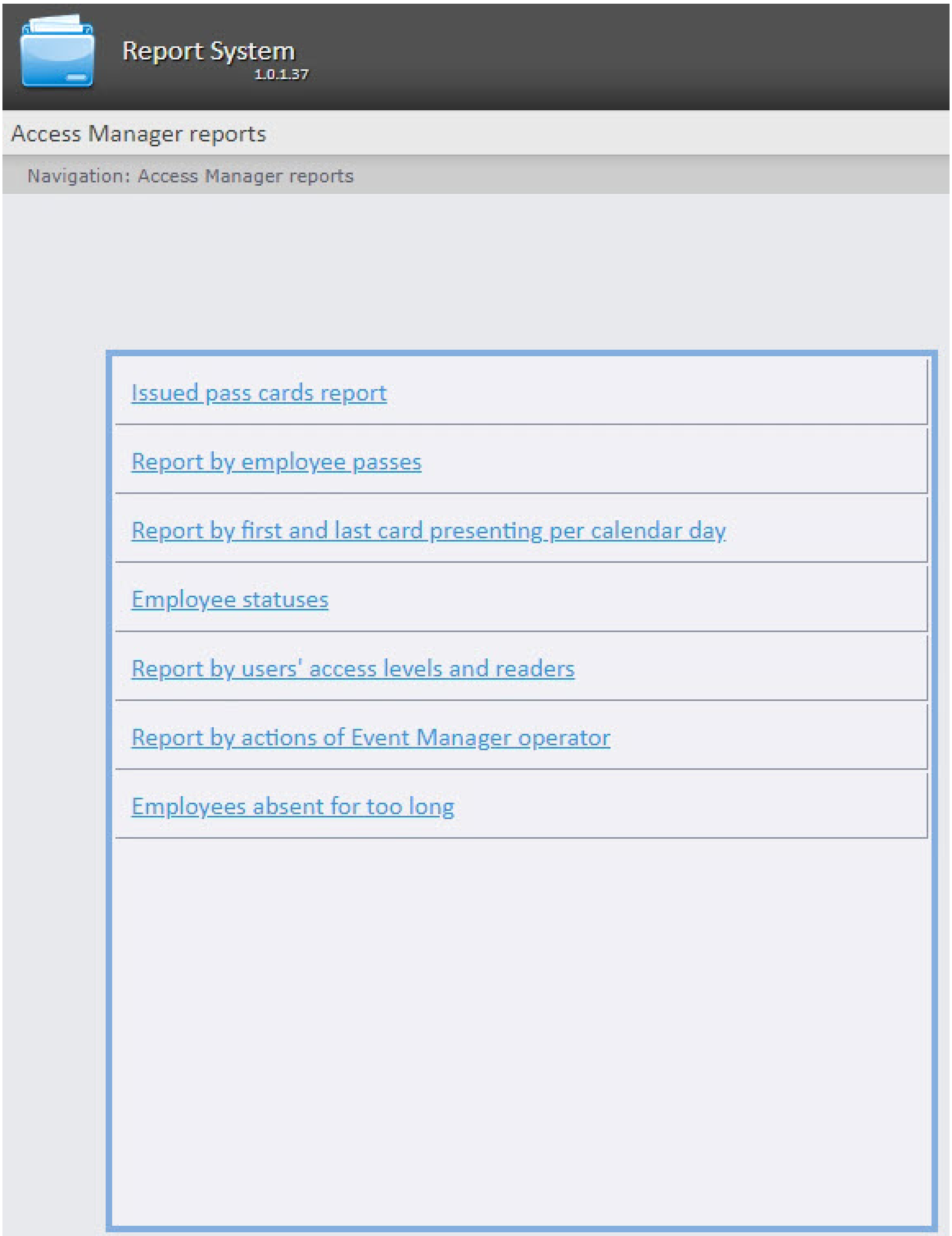
Working with the *Access Manager reports* consists of the following stages:

1. Selecting the report type.
2. Creating a report.

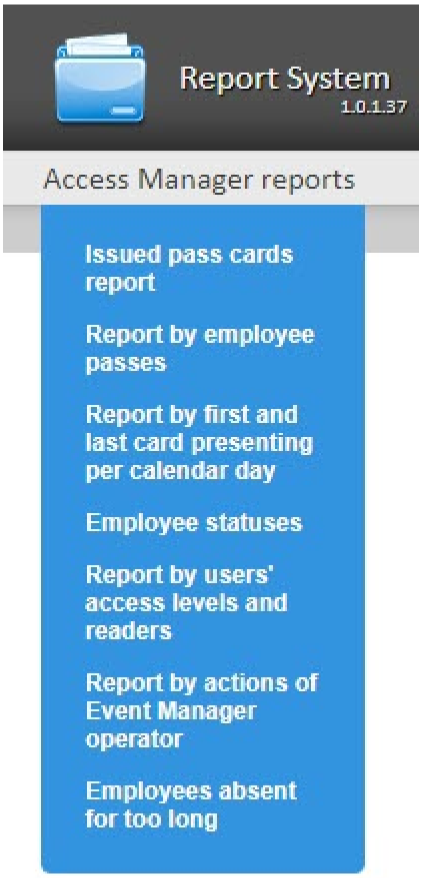
8.1.1 Selecting the type of Access Manager report

To select the type of the *Access Manager report*, click the **Access Manager reports** link in the *WEB Report System PSIM* menu.

As a result, the list of available *Access Manager reports* will be displayed. To select the required report, click the corresponding link.



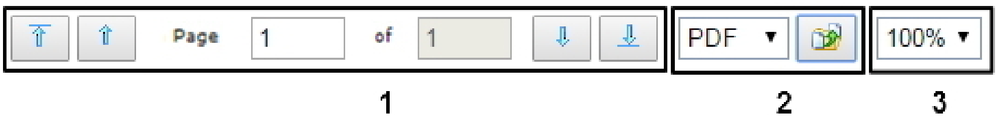
The list of the *Access Manager reports* is also displayed when hovering over the **Access Manager reports** link in the reports menu.



8.1.2 Creating the Access Manager report

Access Manager report toolbar

The toolbar displayed at the page top is used for the report navigation, scaling the report page and exporting the *Access Manager report*.



To switch to the previous and next report page click  and  correspondingly (**1**). To go back to the first report page click . To go further to the last report page click .

The created *Access Manager report* can be exporting on computer (**2**), for more information see Exporting of reports).

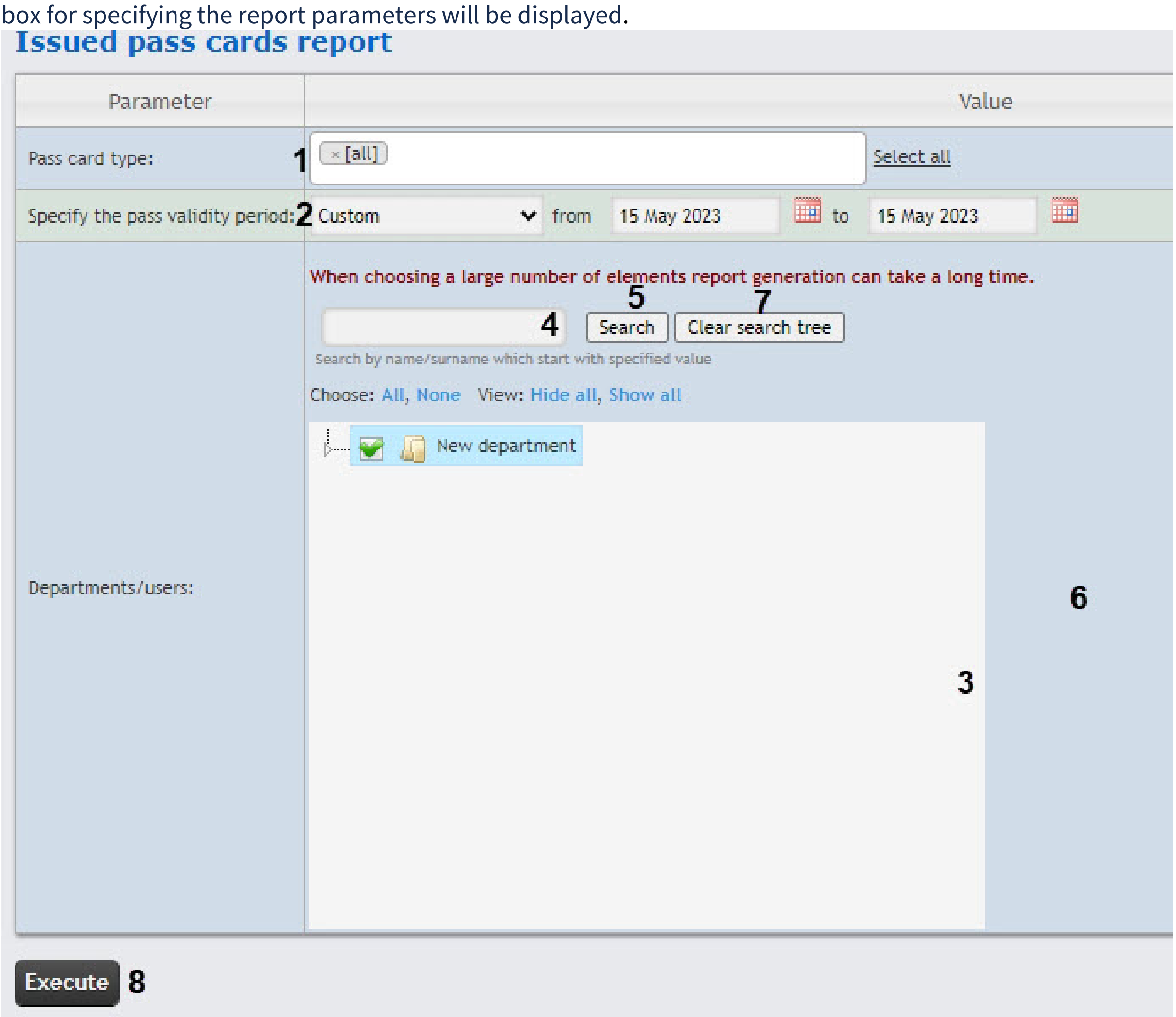
To zoom in/zoom out the report page, choose the required scale in the drop-down list (**3**).

Issued pass cards report

The **Issued pass cards report** is a table that contains the information about the time of issuing the pass card for the selected employees or departments, its type and period of validity.

To build the **Issued pass cards report**, do the following:

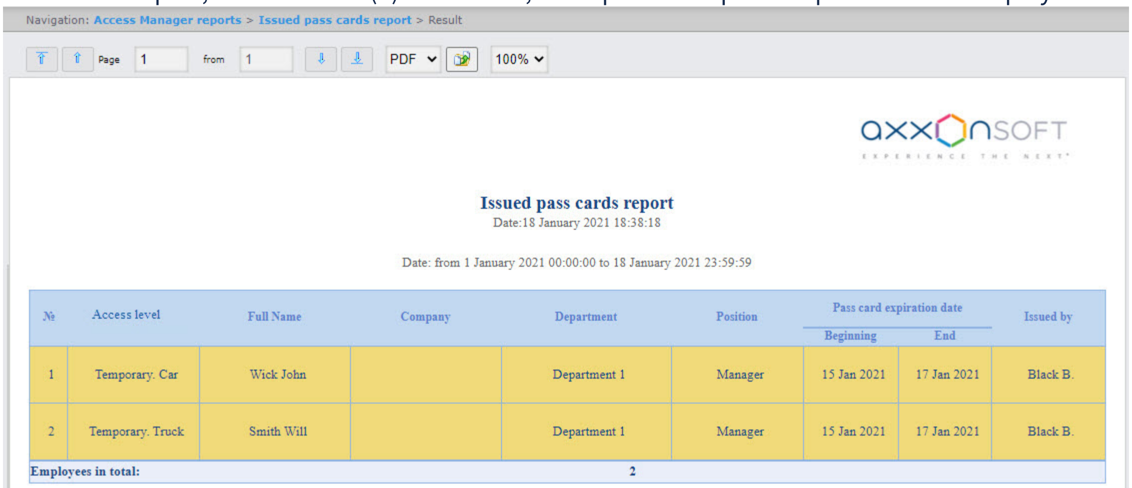
1. Select the **Issued pass cards report** (see Selecting the type of Access Manager report). As a result the dialog box for specifying the report parameters will be displayed.



2. Set the report parameters in the following way:
   a. From the **Pass card type** drop-down list (**1**), select the type of issued pass card.
   b. From the **Specify the pass validity period** drop-down list (**2**) select the time period for which the report is to be created.

> **Note**
>
> - If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields (**5**) using the **Calendar** tool. Click the  button near the corresponding field to use the **Calendar** tool.
> - The minimum period of time that can be set is one week.

c. In the **Departments/users** field (**3**) set checkboxes for the departments or employees, the information on which should be displayed in the report. Click **All** to select all found employees or departments, click **None** to deselect. Click **Show all** to expand the department structure, click **Hide all** to hide the structure.
d. You can find an employee by their first name or surname using the search. For this, enter in the search field (**4**) at least 4 first characters of the employee's first name or surname and click the **Search** button (**5**). The department to which the found employee belongs will be displayed in the search tree in the area **6**. To clear the search field and the search tree, click the **Clear search tree** button (**7**).
e. To create a report, click **Execute** (**8**). As a result, the report with specified parameters is displayed.



№	Access level	Full Name	Company	Department	Position	Pass card expiration date		Issued by
						Beginning	End	
1	Temporary. Car	Wick John		Department 1	Manager	15 Jan 2021	17 Jan 2021	Black B.
2	Temporary. Truck	Smith Will		Department 1	Manager	15 Jan 2021	17 Jan 2021	Black B.
Employees in total:				2				

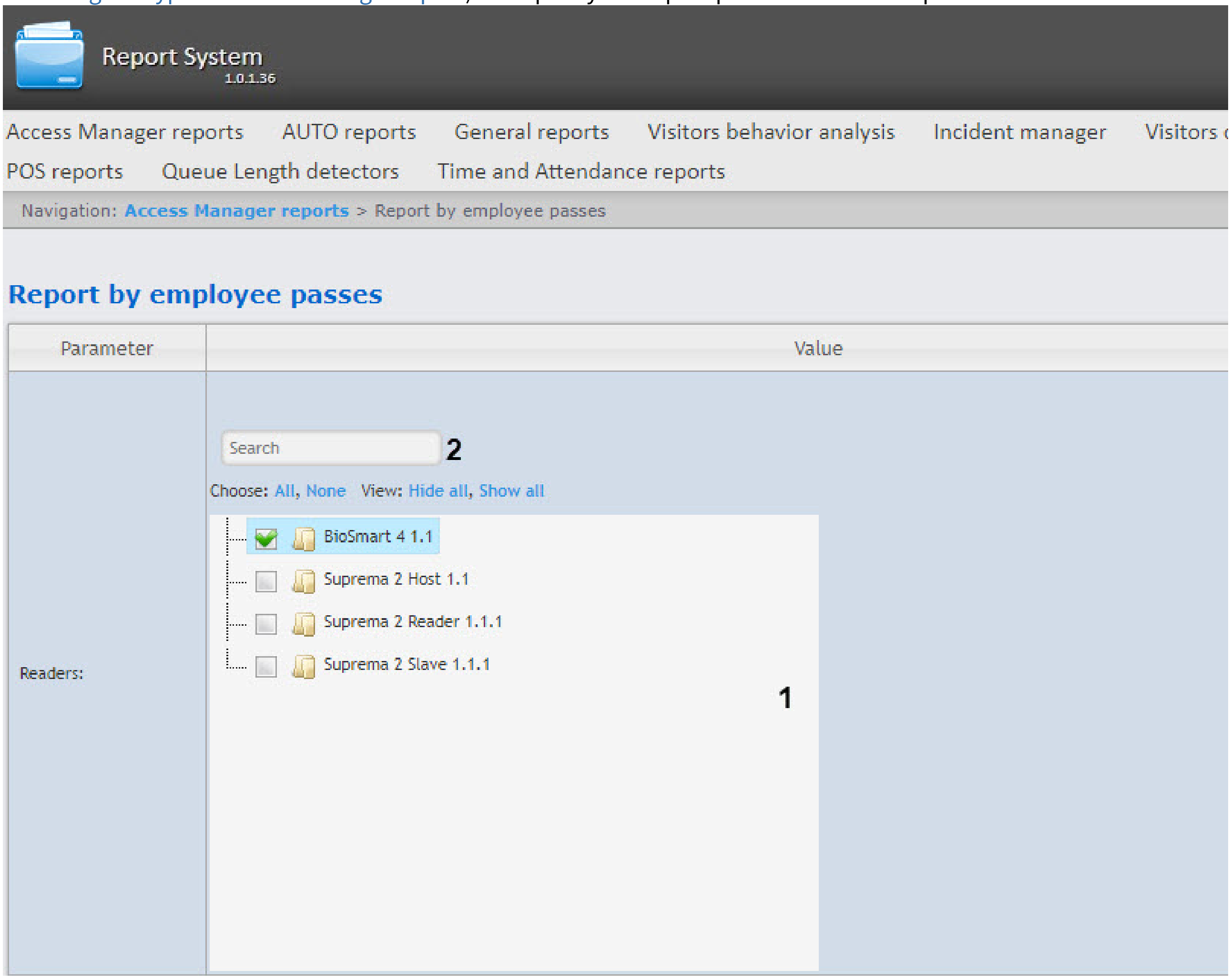
The report fields are described in the table.

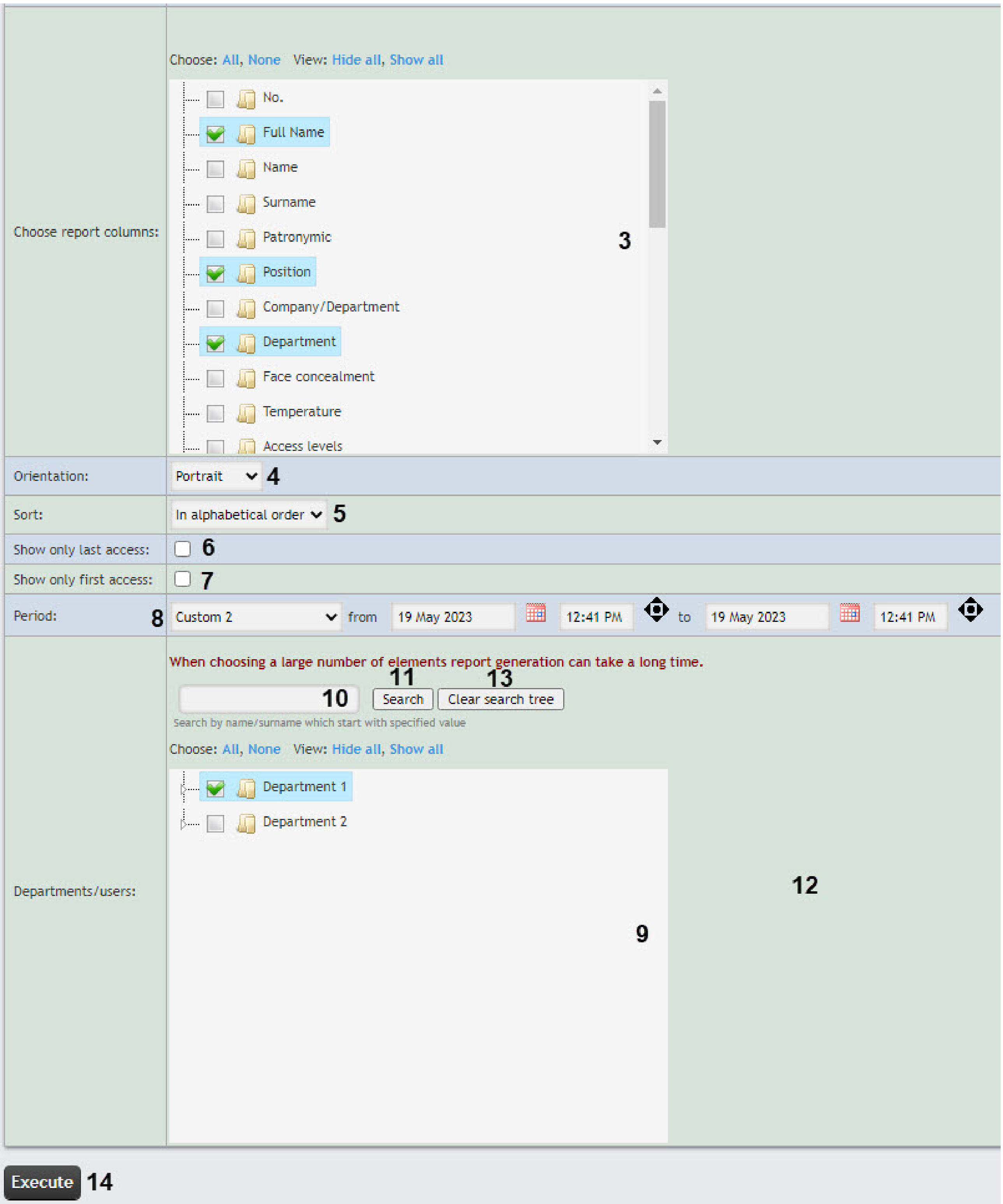
Field name	Description
Issued pass card type	Type of pass card
Date/Time of issue	Date and time of pass card issue
Period of validity (the number of days)	Pass card validity period
Issuing authority (individual)	Full name fo employee
Issuing authority (department)	Department to which the employee belongs
Issuing authority (access manager employee)	Full name of employee who issued the pass card
The **Employees in total** line indicates the number of issued pass cards of each type within current department	

Report by employee passes

The **Report by employee passes** displays all interactions between the selected employee and the selected readers. The report allows you to track the movement of the selected employee within a specified area.

To generate the report, select the **Report by employee passes** from the list of *Access Manager reports* (see Selecting the type of Access Manager report) and specify the report parameters in the opened form.





1. In the **Readers** area (**1**), set the checkboxes next to those access points, the information on which should be displayed in the report. Click **All** to select all found access points. click **None** to deselect. Click **Show all** to expand the access points structure, click **Hide all** to hide the structure.

Attention!

This field displays only the access points which are added to any access level in the *Access Manager* module (see Creating access levels).
For the **rs** user, it is enough to create an access level with all access points. For other users, it is necessary to assign access levels in the *Access Manager* module (see Assigning access levels to a user).

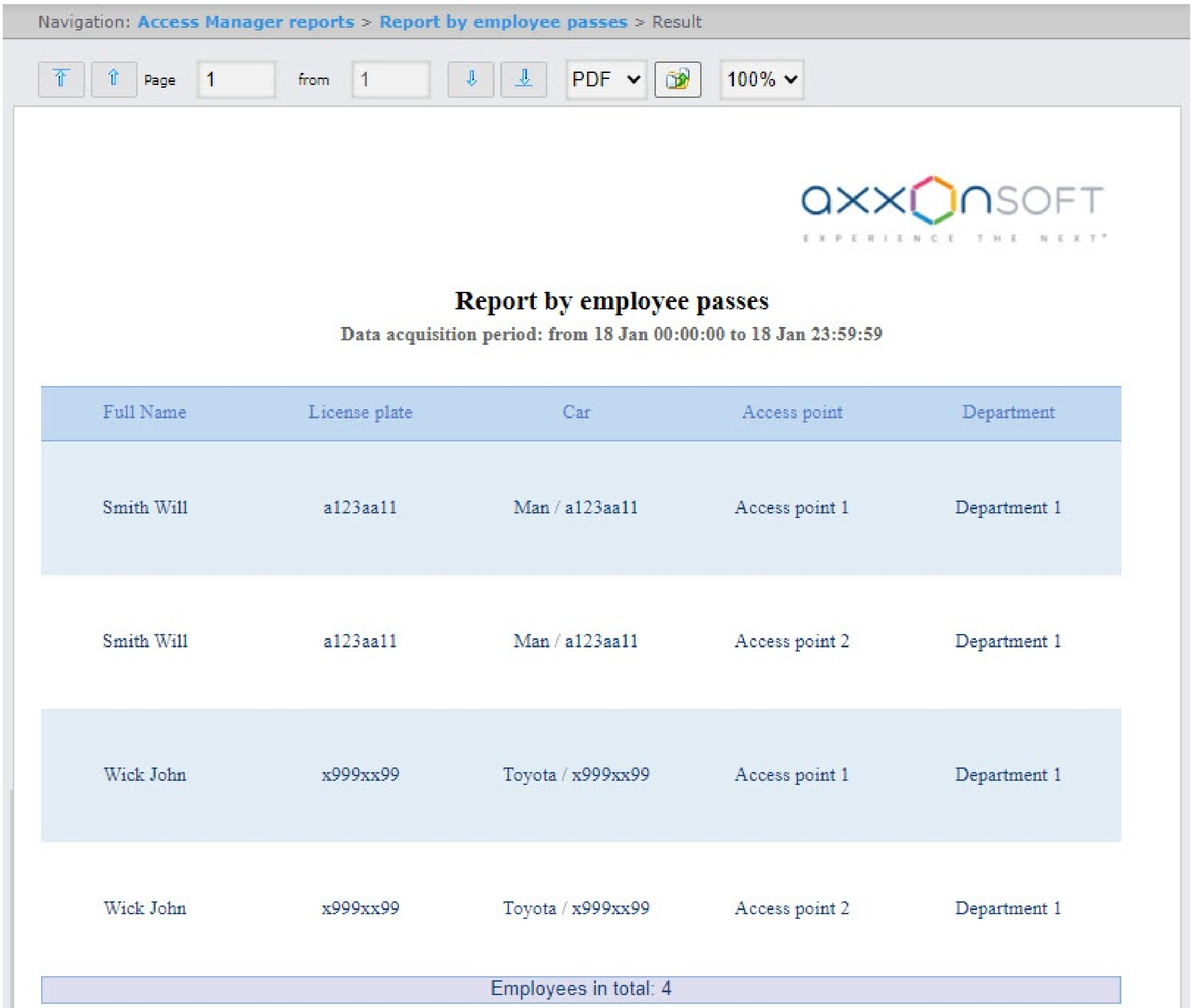
2. You can search for the access points using the search field. For this, in the search field (**2**), enter the name of the access points. The search works from the first character. The results will be highlighted in a different color.
3. In the **Choose report columns** area (**3**), set the checkboxes next to those columns that should be displayed in the report. You can also change the order of the columns: left-click and hold the column name and drag it higher or lower relative to other columns. Click **All** to select all columns, click **None** to deselect. Click **Show all** to expand the columns structure, click **Hide all** to hide the structure.
4. From the **Orientation** drop-down list (**4**), select the report display orientation: **Portrait** (vertical) or **Landscape** (horizontal).

Attention!

- In the **Portrait** orientation, you can select up to 5 columns.
- In the **Landscape** orientation, you can select up to 7 columns.

5. From the **Sort** drop-down list (**5**), select the sorting type: **In alphabetical order** or **By department**.
6. Set the **Show only last access** checkbox (**6**) to show only the last access of employees.
7. Set the **Show only first access** checkbox (**7**) to show only the first access of employees.
8. From the **Period** drop-down list (**8**) select the time period for which the report should be created. If the **Custom** or **Custom 2** time period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. For the **Custom 2** time period, it is also necessary to enter the time of start and end period using the button.
9. In the **Departments/users** area (**9**), set the checkboxes next to those departments or employees, the information on which should be displayed in the report. Click **All** to select all found departments and employees, click **None** to deselect. Click **Show all** to expand the department structure, click **Hide all** to hide the structure.
10. You can find an employee by their first name or surname using the search. For this, enter in the search field (**10**) at least 4 first characters of the employee's first name or surname and click the **Search** button (**11**). The department to which the found employee belongs will be displayed in the search tree in the area **12**. To clear the search field and the search tree, click the **Clear search tree** button (**13**).
11. To create a report, click the **Execute** button (**14**). As a result, the report with the specified parameters will be displayed.

Example of a report in the **Portrait** orientation:



All possible report fields are described in the table.

Field name	**Description**
No.	Line number
Full name	Employee's full name
Name	Employee's first name
Surname	Employee's last name
Patronymic	Employee's patronymic

Field name	Description
Position	Employee's position
Company/Department	Company/Department where employee works
Department	Department where employee works
Face concealment	Glasses, masks and other options of face concealment
Temperature	Face temperature in degrees Celsius from thermal camera or external system
Access levels	Employee's access levels
License plate	Employee's car license plate number
Car	Employee's car brand
Card number	Employee's access card number
Card code	Employee's access card code
Date of card issue	Date when the card was issued to the employee
Access point	Access point through which the employee passed
Date	Date of passage
Date and time	Date and time of passage
Time	Time of passage
Phone	Employee's phone number
Comment	Comment
Card start date	Employee's card start date
Card expiration date	Employee's card expiration date

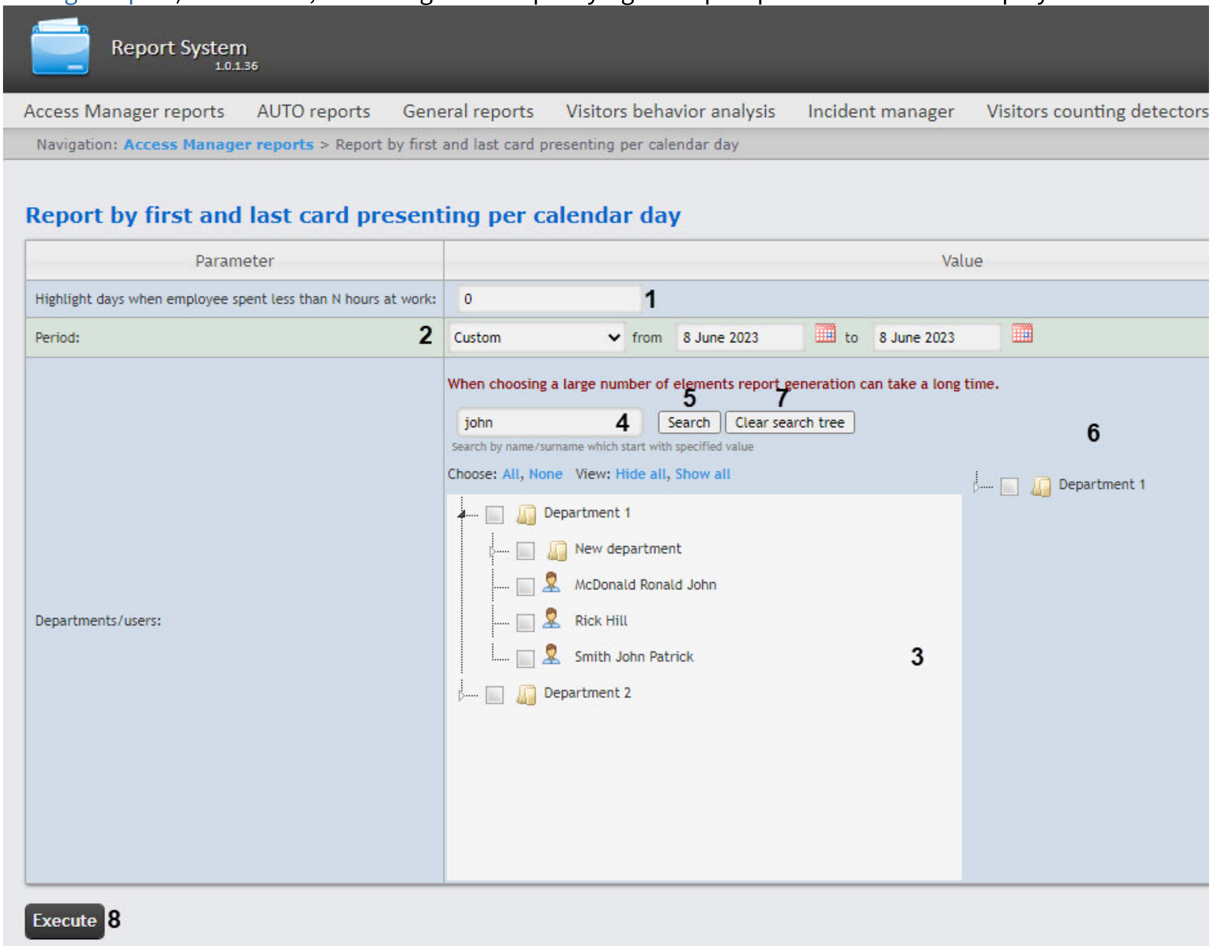
Field name	Description
Pin code	Employee's card PIN code
External ID	Employee's external ID
Personnel number	Employee's personnel number
Entry-Exit	Date and time of employee's entry and exit
The **Employees in total** line displays the number of captured employee faces, not the number of unique faces	

Report by first and last card presenting per calendar day

The **Report by first and last card presenting per calendar day** is a table which contains the information about the first and last time the selected employee presented the card to the access point. Working schedules are ignored in the report, the data is displayed per calendar day. All access points are analyzed during the report generation.

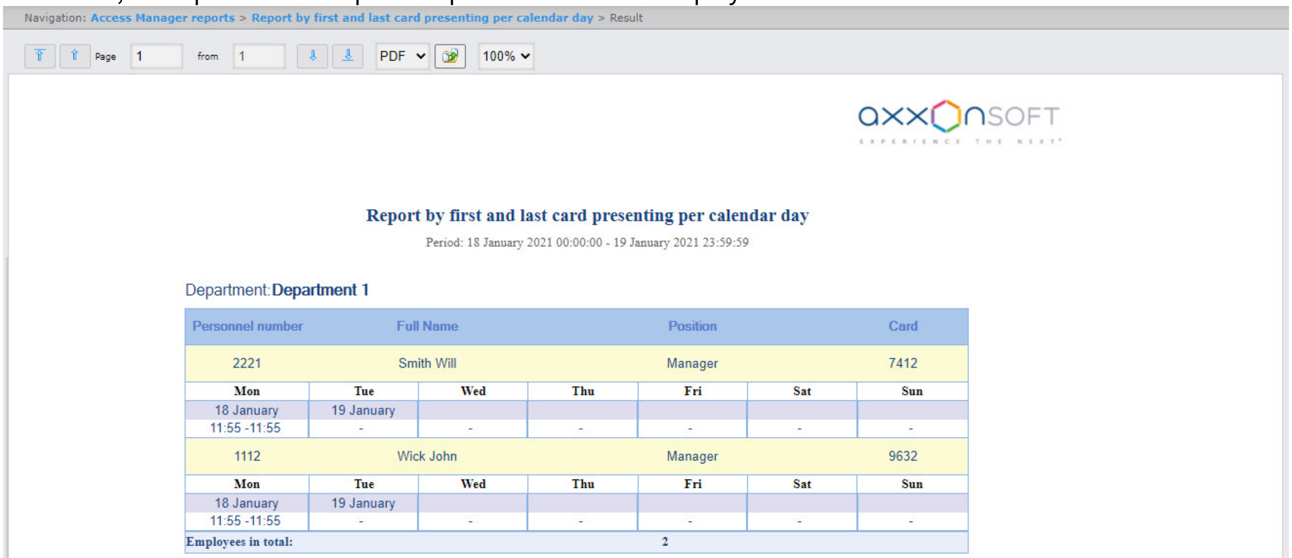
To create the **Report by first and last card presenting per calendar day**, do the following:

1. Select the **Report by first and last card presenting per calendar day** (see Selecting the type of Access Manager report). As a result, the dialog box for specifying the report parameters will be displayed.



2. In the **Highlight days when employee spent less than N hours at work** field (**1**), enter the number of hours that employees must spend at work in a day. If employees spent less than the specified number of hours at work in a day, these days will be highlighted in orange.
3. From the **Period** drop-down list (**2**), select the time period for which the report should be created. If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
4. In the **Departments/users** field (**3**), set the checkboxes next to those departments or employees, the information on which should be displayed in the report. Click **All** to select all found departments and employees, click **None** to deselect. Click **Show all** to expand the department structure, click **Hide all** to hide the structure.
5. You can find an employee by their first name or surname using the search. For this, enter in the search field (**4**) at least 4 first characters of the employee's first name or surname and click the **Search** button (**5**). The department to which the found employee belongs will be displayed in the search tree in the area **6**. To clear the search field and the search tree, click the **Clear search tree** button (**7**).
6. Click the **Execute** button (**8**) to create the report.

As a result, the report with the specified parameters will be displayed.



Personnel number	Full Name			Position		Card
2221	Smith Will			Manager		7412
Mon	Tue	Wed	Thu	Fri	Sat	Sun
18 January	19 January					
11:55 -11:55	-	-	-	-	-	-
1112	Wick John			Manager		9632
Mon	Tue	Wed	Thu	Fri	Sat	Sun
18 January	19 January					
11:55 -11:55	-	-	-	-	-	-
Employees in total:			2			

The report fields are described in the table.

Field	Description
Personnel number	Personnel number of an employee
Full Name	Full name of an employee
Position	Position of an employee
Card	Employee card number
Time of first/last presenting of card	A table indicating the time of the first/last presenting of the card on each day within the selected time period
The **Employees in total** line displays the number of employees included in this report	

Note

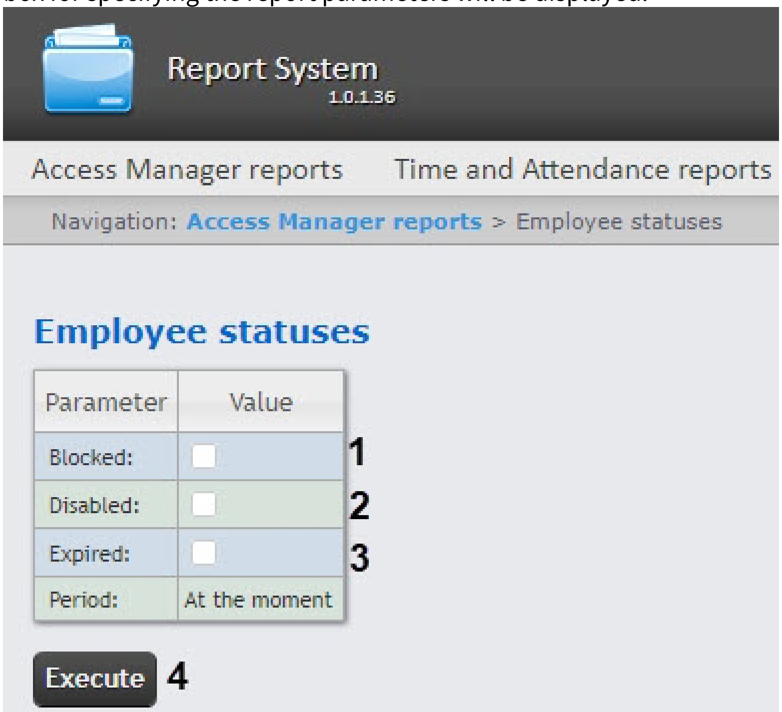
If the report was created automatically in Excel format (see Setting up WEB Report System PSIM operation in the automatic mode), it will contain the information about the department to which the employee belongs.

	1	2	3	4	5	6	7
1	**Report by first and last card presenting per calendar day**						
2	from 18 January 2021 to 18 January 2021						
3	**2221**	**Smith Will**	**Department 1**		**Manager**		**7412**
4	Mon	Tue	Wed	Thu	Fri	Sat	Sun
5	**18 January**	**19 January**					
6	11:55 - 11:55						
7	**1112**	**Wick John**			**Manager**		**9632**
8	Mon	Tue	Wed	Thu	Fri	Sat	Sun
9	**18 January**	**19 January**					
10	11:55 - 11:55						

Employee statuses report

The **Employee statuses** report is a table which contains the information about the current status of employees' cards (expired, disabled, locked) and the dates of their expiration.

To create the **Employee statuses** report, do the following:

1. Select the **Employee statuses** report (see Selecting the type of Access Manager report). As a result the dialog box for specifying the report parameters will be displayed.


2. Set the report parameters in the following way:
    a. Set the **Blocked** checkbox (**1**) to display the employees with locked cards.
    b. Set the **Disabled** checkbox (**2**) to display the employees with disabled cards.
    c. Set the **Expired** checkbox (**3**) to display the employees with expired cards.
3. To create a report click **Execute** (**4**).
4. As a result the report with specified parameters is displayed.

The report fields are described in the table.

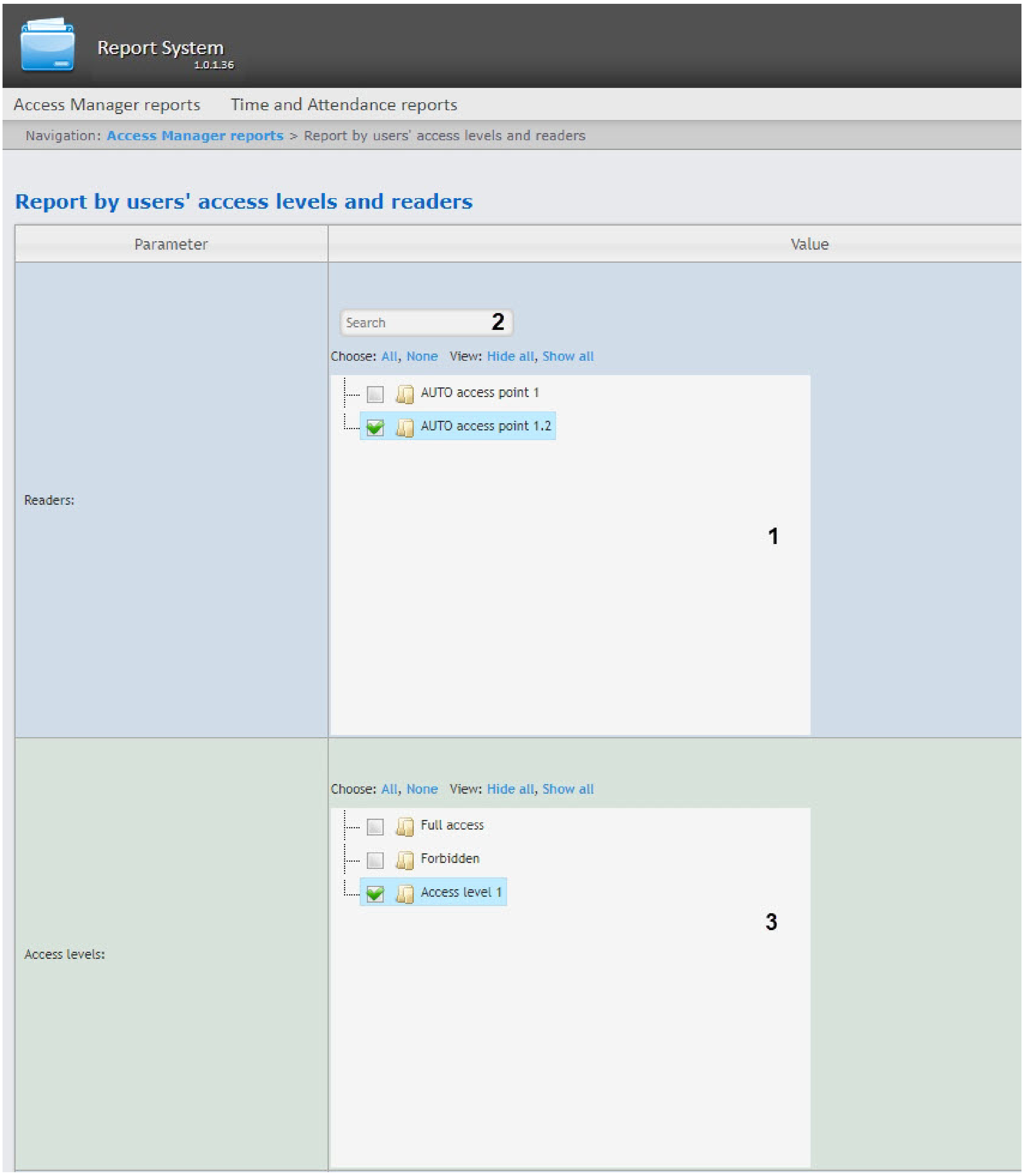
Field name	Description
Personnel number	Employee number in the *Access Manager* module
Full Name	Full name of the selected employee
Expire date of card	Expiration date of the employee card
Employees in total line displays the employee's total number in the report	

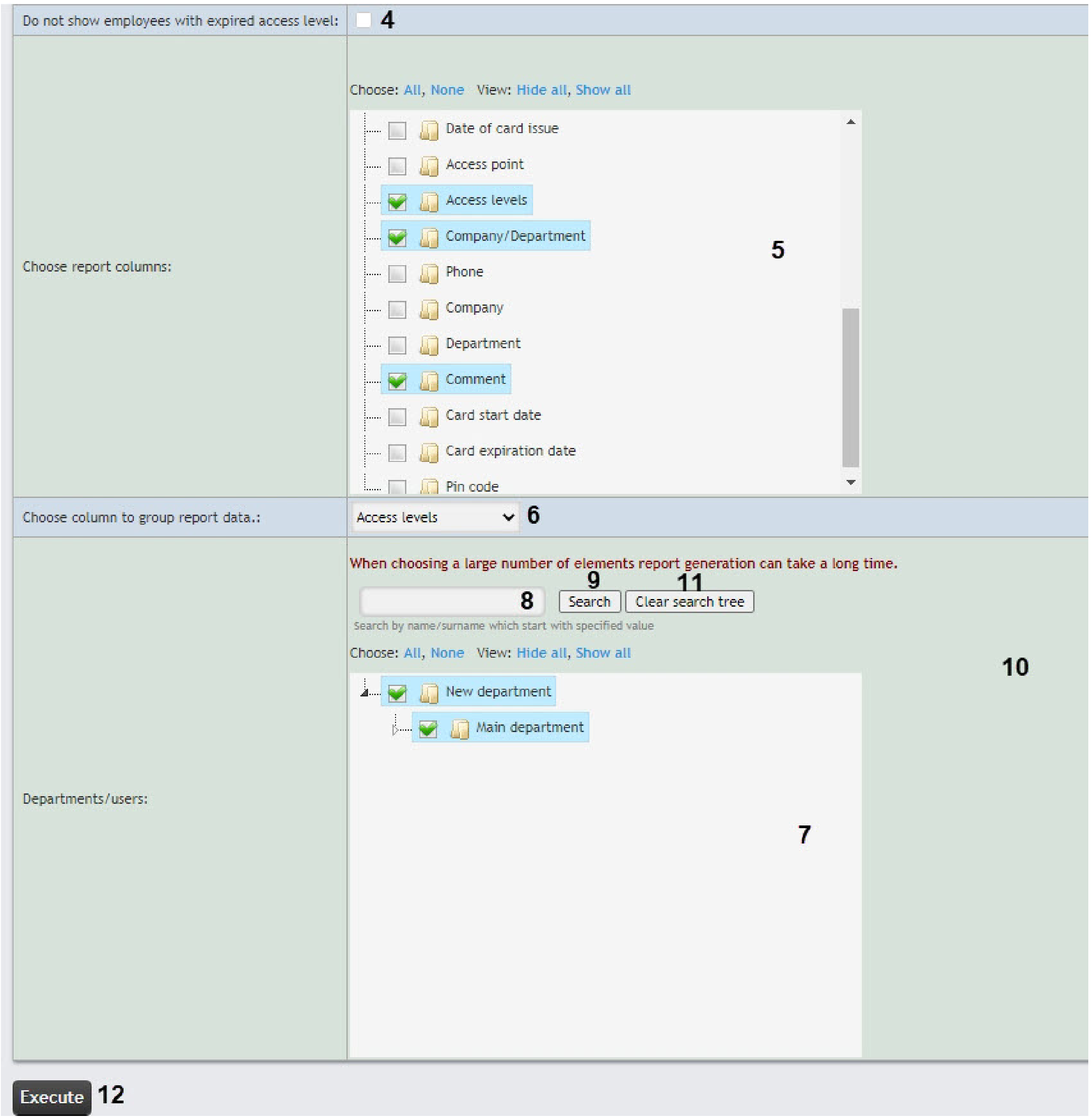
Report by users' access levels and readers

The **Report by users' access levels and readers** is a table that contains the information about users with the selected access levels or selected readers assigned to them.

To create the **Report by users' access levels and readers**, do the following:

1. Select the **Report by users' access levels and readers** (see Selecting the type of Access Manager report). As a result, the dialog box for specifying the report parameters will be displayed.


Report System
1.0.1.36
Access Manager reports
Time and Attendance reports
Navigation: Access Manager reports > Report by users' access levels and readers
Report by users' access levels and readers
Parameter
Value
Readers:
Search
2
Choose: All, None View: Hide all, Show all
AUTO access point 1
AUTO access point 1.2
1
Access levels:
Choose: All, None View: Hide all, Show all
Full access
Forbidden
Access level 1
3



2. Set the report parameters in the following way:
    a. In the **Readers** field (**1**), set the checkboxes next to those readers the information on which should be displayed in the report.
    b. You can search for the reader using the search field. For this, in the search field (**2**), enter the name of the reader. The search works from the first character. The results will be highlighted in a different color. Click **All** to select all found/available readers, click **None** to deselect. Click **Show all** to expand the readers structure, click **Hide all** to hide the structure.
    c. In the **Access levels** field (**3**), set the checkboxes next to those access levels the information on which should be displayed in the report. Click **All** to select all found/available access levels, click **None** to deselect. Click **Show all** to expand the access levels structure, click **Hide all** to hide the structure.
    d. Set the **Do not show employees with expired access level** checkbox (**4**) to display only valid access levels and employees who have them in the report. If the checkbox is clear, the report will display all employee access levels, including expired (temporary) ones.

e. In the **Choose report columns** field (**5**), set the checkboxes next to those columns that should be displayed in the report. You can also change the order of the columns: left-click and hold the column name and drag it higher or lower relative to other columns. Click **All** to select all found/available columns, click **None** to deselect. Click **Show all** to expand the columns structure, click **Hide all** to hide the structure.

> **Note**
>
> You can select up to 5 columns.

f. From the **Choose column to group report data** drop-down list (**6**), select the required column to group the report data: **Access levels**, **Access point**, **Department, Company/Department**.

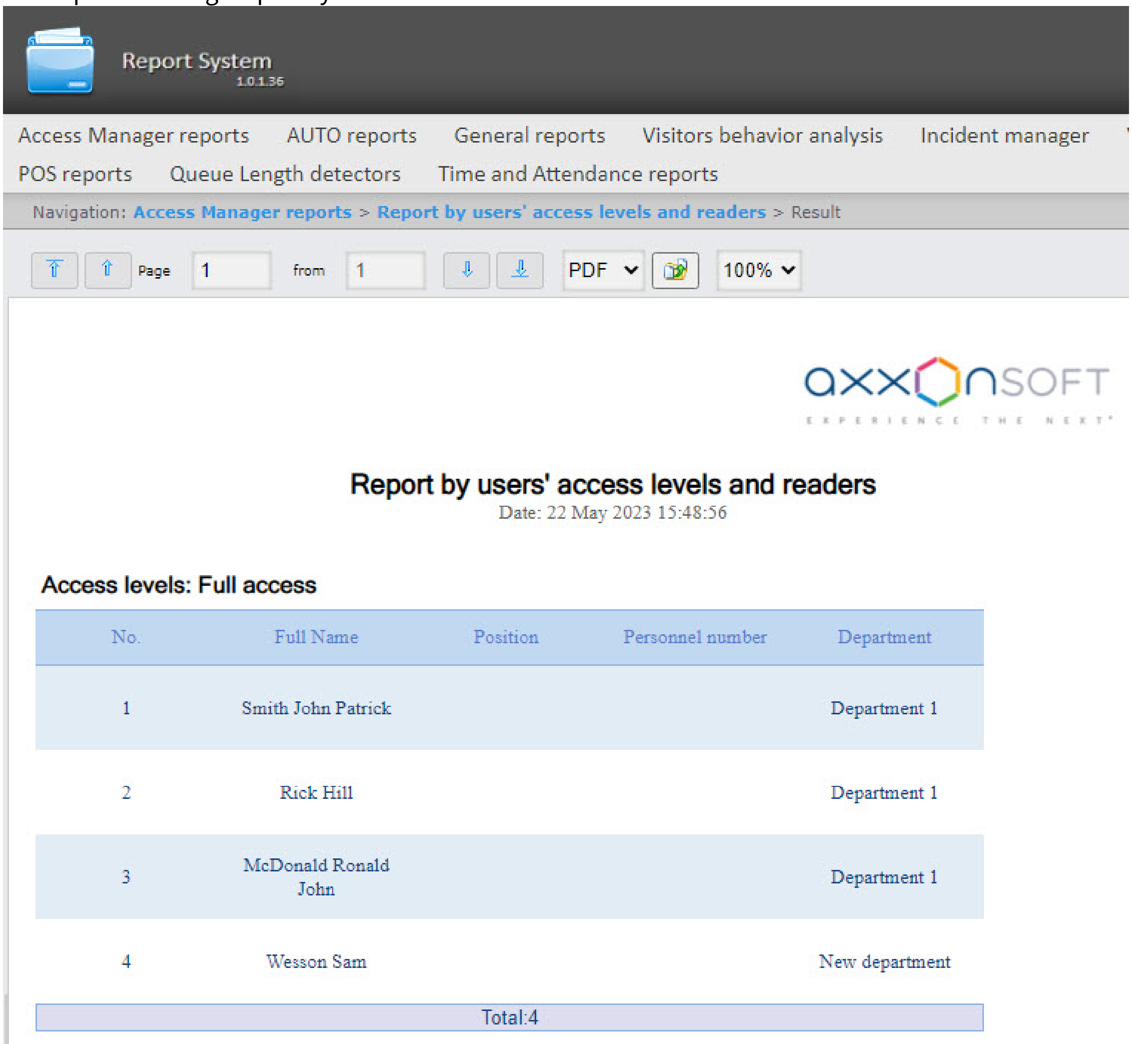
g. In the **Departments/users** field (**7**), set the checkboxes next to those departments or employees the information on which should be displayed in the report. Click **All** to select all found/available departments/employees, click **None** to deselect. Click **Show all** to expand the departments/employees structure, click **Hide all** to hide the structure.

h. You can find an employee by their first name or surname using the search. For this, enter in the search field (**8**) at least 4 first characters of the employee's first name or surname and click the **Search** button (**9**). The department to which the found employee belongs will be displayed in the search tree in the area **10**. To clear the search field and the search tree, click the **Clear search tree** button (**11**).

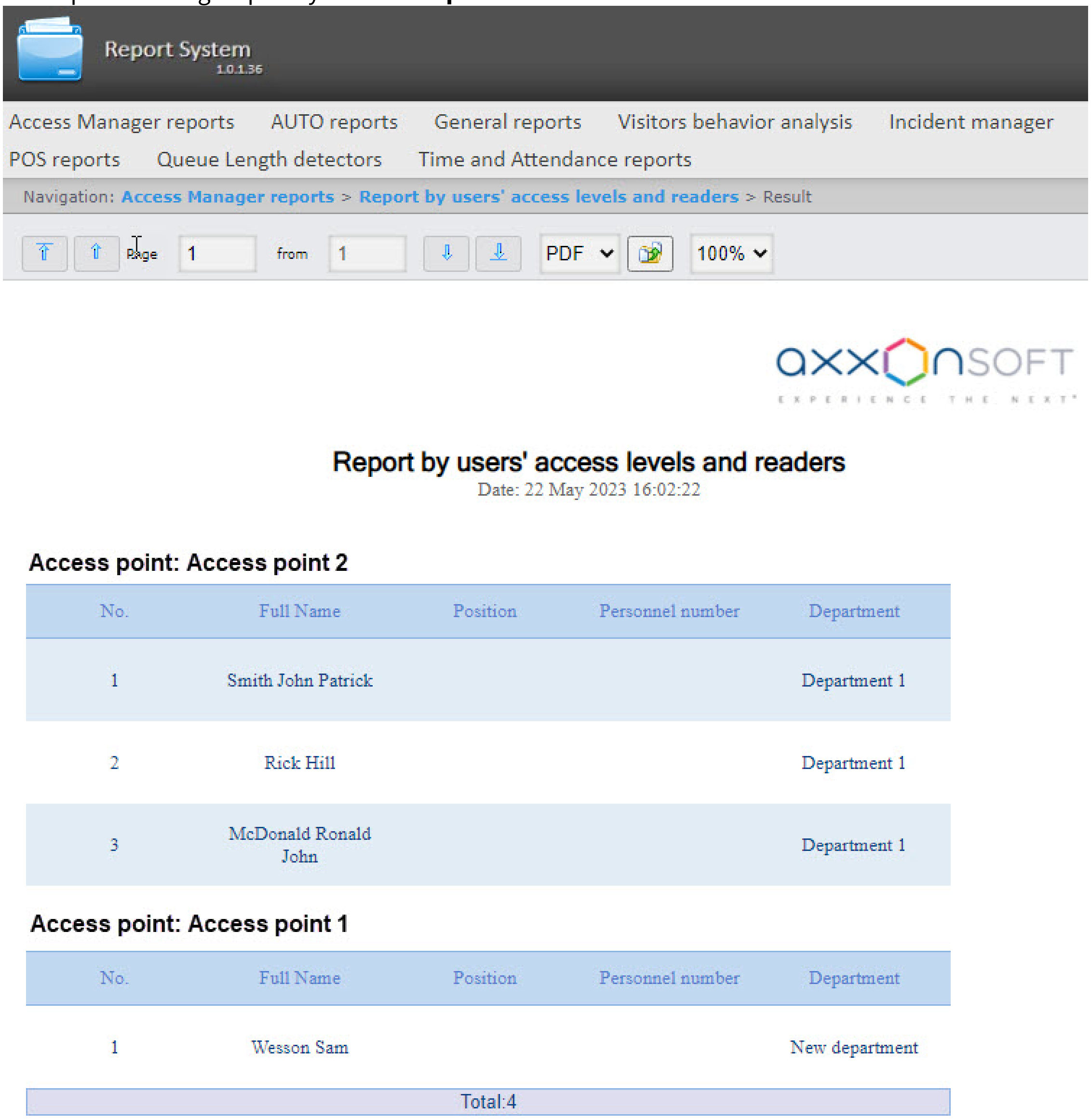
> **Note**
>
> If the search tree is blank, the report is generated by the objects selected in the area **7**, otherwise the report is generated by the objects selected in the search tree.

3. To create a report, click the **Execute** button (**12**).
4. As a result, the report with the specified parameters will be displayed.

a. The report data is grouped by the **Access levels** column.



b. The report data is grouped by the **Access point** column.



Report by users' access levels and readers

Date: 22 May 2023 16:02:22

Access point: Access point 2

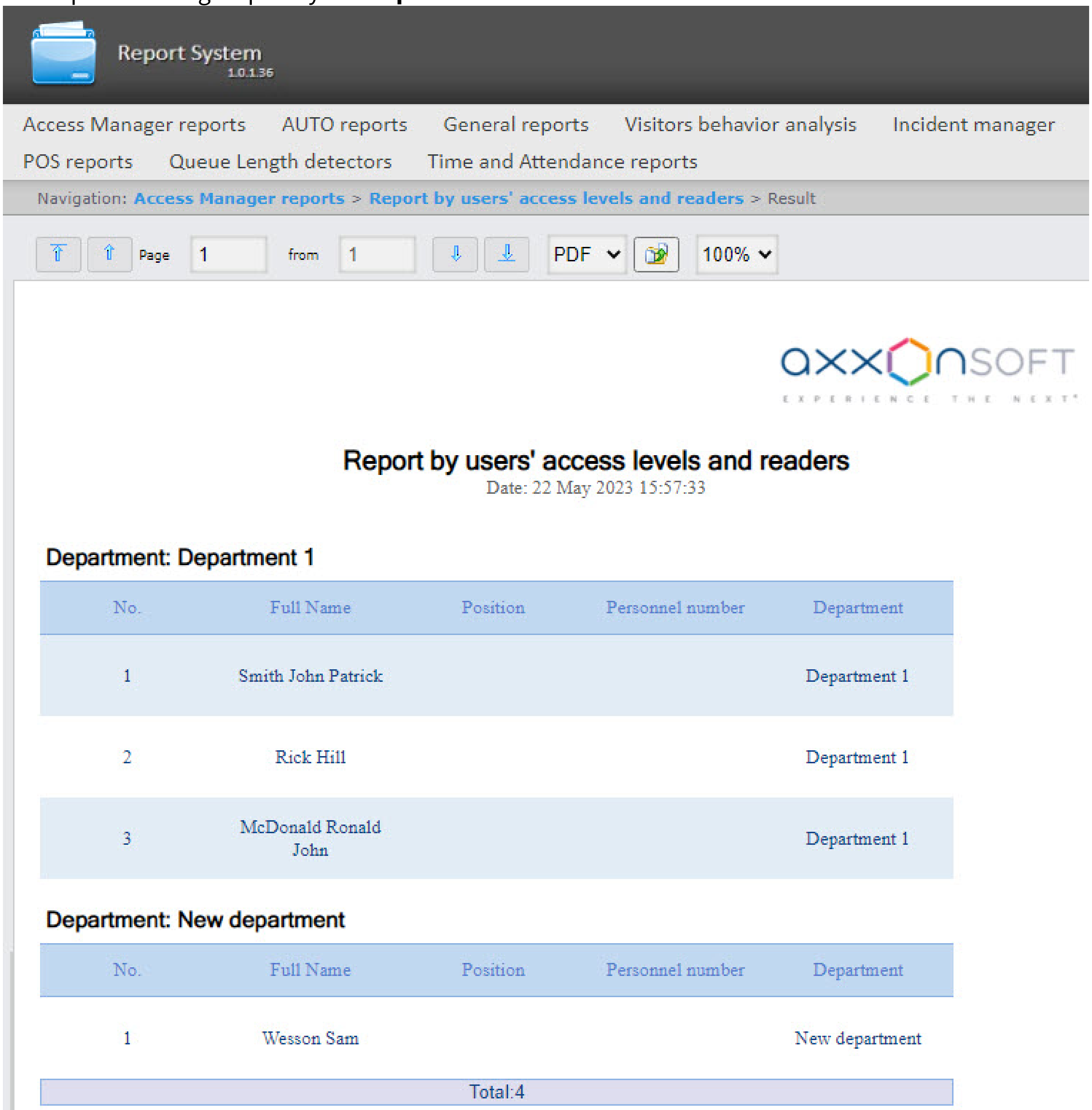
No.	Full Name	Position	Personnel number	Department
1	Smith John Patrick			Department 1
2	Rick Hill			Department 1
3	McDonald Ronald John			Department 1

Access point: Access point 1

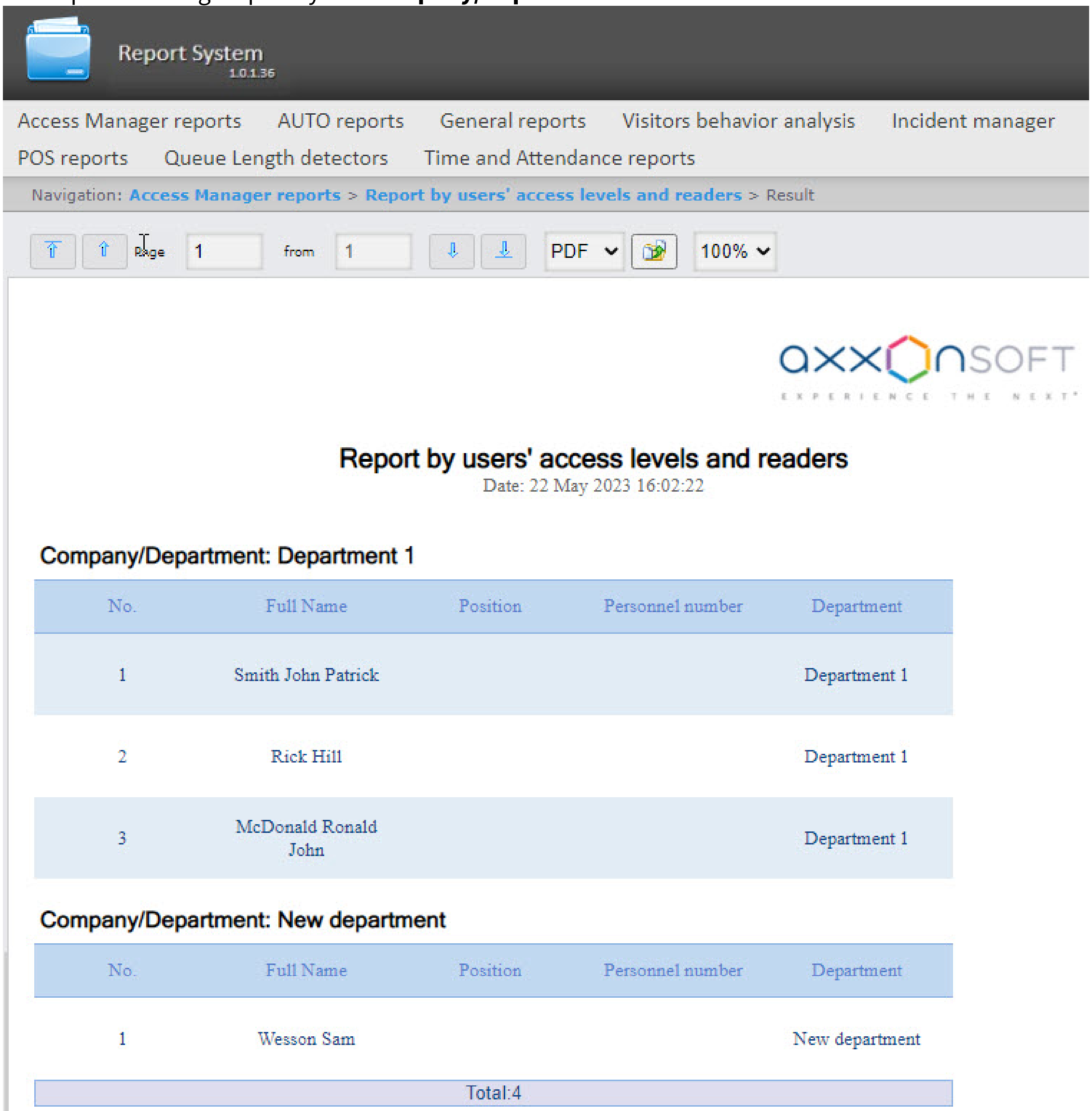
No.	Full Name	Position	Personnel number	Department
1	Wesson Sam			New department

Total:4

c. The report data is grouped by the **Department** column.



d. The report data is grouped by the **Company/Department** column.



All possible report fields are described in the table.

Field name	Description
No.	Line number
Full Name	Employee's full name
Name	Employee's first name
Surname	Employee's last name

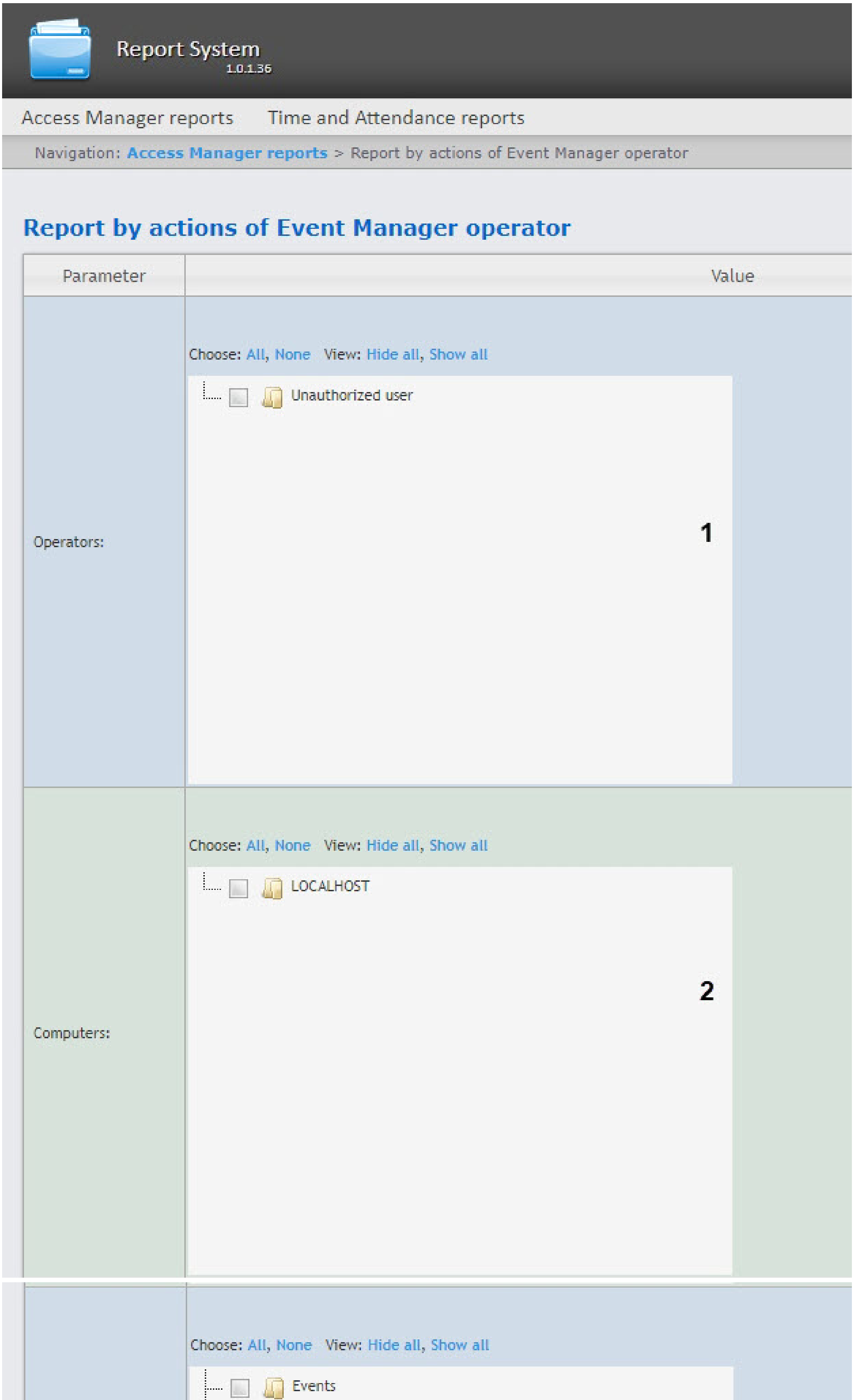
Field name	Description
Patronymic	Employee's patronymic
Position	Employee's position
External ID	Employee's external ID
Personnel number	Employee's personnel number
License plate	Employee's car license plate number
Car	Employee's car brand
Card number	Employee's access card number
Card code	Employee's access card code
Date of card issue	Date when the card was issued to the employee
Access point	Access point through which the employee passed
Access levels	Employee's access level
Company/Department	Company/Department where employee works
Phone	Employee's phone number
Company	The name of the parent department, if the employee's department is a subsidiary
Comment	Comment
Card start date	Employee's card start date
Card expiration date	Employee's card expiration date
Pin code	Employee's card PIN code

Report by actions of Event Manager operator

The **Report by actions of Event Manager operator** is a table which displays the requests received by the *Event Manager* operator and his reactions to them.

To create the **Report by actions of Event Manager operator**, do the following:

1. Select the **Report by actions of Event Manager operator** (see Selecting the type of Access Manager report).
   As a result the dialog box for specifying the report parameters will be displayed.


Report System
1.0.1.36
Access Manager reports
Time and Attendance reports
Navigation: Access Manager reports > Report by actions of Event Manager operator
Report by actions of Event Manager operator
Parameter
Value
Operators:
Choose: All, None View: Hide all, Show all
Unauthorized user
1
Computers:
Choose: All, None View: Hide all, Show all
LOCALHOST
2
Choose: All, None View: Hide all, Show all
Events

2. In the **Operators** field (**1**) set the checkboxes for the operators whose actions should be displayed in the report. Click **All** to select all available operators, click **None** to deselect. Click **Show all** to expand the operators structure, click **Hide all** to hide the structure.
3. In the **Computers** field (**2**) set the checkboxes for the computers the information on which should be displayed in the report. Click **All** to select all available computers, click **None** to deselect. Click **Show all** to expand the computers structure, click **Hide all** to hide the structure.
4. In the **Events and reactions** field (**3**) set the checkboxes for the events and reactions the information on which should be displayed in the report. Click **All** to select all available events and reactions, click **None** to deselect. Click **Show all** to expand the events and reactions structure, click **Hide all** to hide the structure.
5. From the **Period** drop-down list (**4**) select the time period for which the report is to be created. If the **Custom** or **Custom 2** time period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. For the **Custom 2** time period, it is also necessary to enter the time of start and end period using the button.
6. In the **Departments/users** field (**5**), set the checkboxes next to those departments or employees, the information on which should be displayed in the report. Click **All** to select all found departments and employees, click **None** to deselect. Click **Show all** to expand the department structure, click **Hide all** to hide the structure.
7. You can find an employee by their first name or surname using the search. For this, enter in the search field (**6**) at least 4 first characters of the employee's first name or surname and click the **Search** button (**7**). The department the founded employee belongs will be displayed in the search tree in the area **8**. To clear the search field and the search tree, click the **Clear search tree** button (**9**).
8. To create a report click **Execute** (**10**).

As a result the report with specified parameters is displayed.

Date	Passage point	Event	Full Name	Department	Card	Operator	Action	Workstation
10.09.2017 10:59:26	entrance	Passage request	Darcy Johnson		(200)0000	Mark Harrington	'Allow'	Computer 1
10.09.2017 11:01:08	exit	Passage request	Darcy Johnson		(200)0000	Mark Harrington	'Deny'	Computer 1
10.09.2017 12:35:33	exit	Passage request	Darcy Johnson		(200)0000	Mark Harrington	'Allow'	Computer 1
10.09.2017 12:41:24	exit	Passage request	Darcy Johnson		(200)0000	Mark Harrington	'Deny'	Computer 1
10.09.2017 12:41:46	entrance	Passage request	Darcy Johnson		(200)0000	Mark Harrington	'Deny'	Computer 1

The report fields are described in the table.

Field name	Description
Date	Date of the request received by the operator

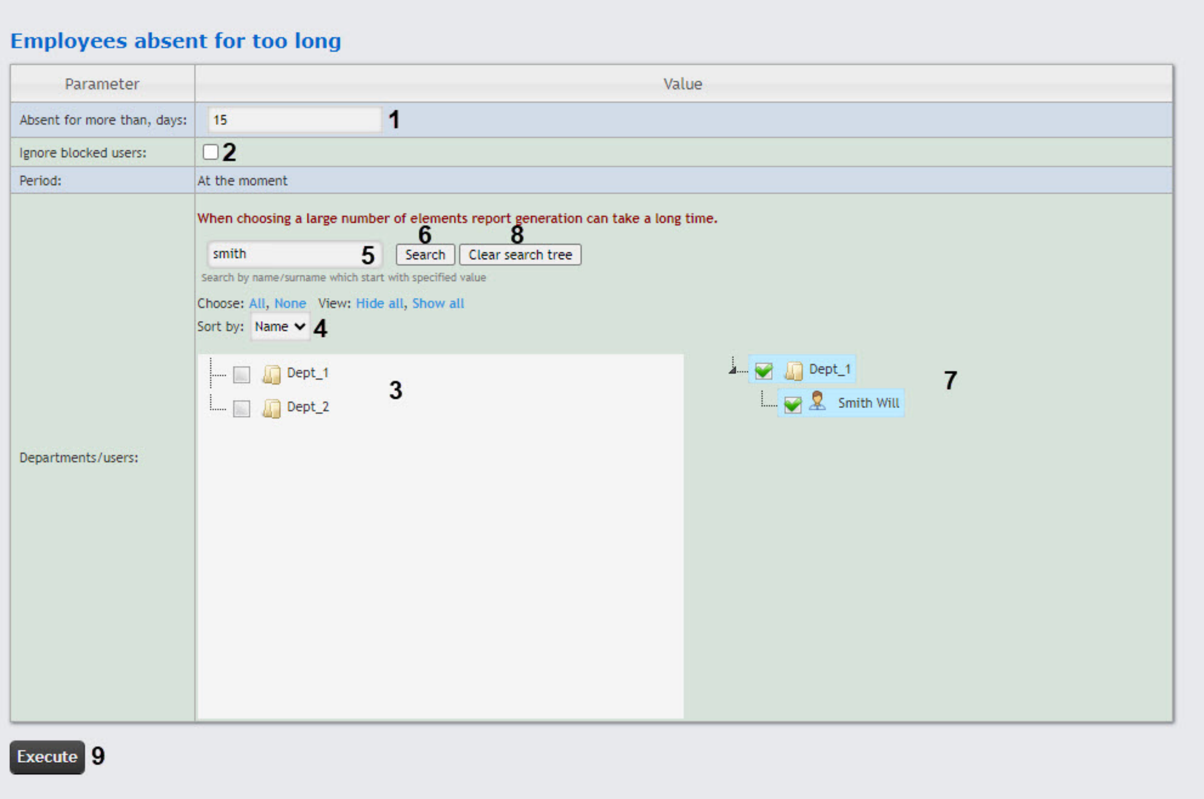
Field name	Description
Passage point	The passage point controlled by the *Event Manager* module
Event	Request received by the operator
Full Name	Full name of the requesting person
Department	Department of the requesting person
Card	Card number of the requesting person
Operator	Full name of the operator
Action	Operator reaction to a request
Workstation	The name of the computer on which the operator action was performed

Employees absent for too long report

The **Employees absent for too long** report is represented in the form of a table that contains the information about the last entries by the employees' cards that were not used for a long time. The cards that were not used for a long time are cards that were not used for access for a specified number of days.

To generate the **Employees absent for too long** report, do the following:

1. Select the **Employees absent for too long** report (see Selecting the type of Access Manager report).



2. In the **Absent for more than, days** field (**1**), specify the required number of days.
3. If the user is blocked and must not be included into the report, set the **Ignore blocked users** checkbox (**2**).
4. In the **Departments/users** field (**3**), set the checkboxes next to those departments or employees, the information on which must be displayed in the report. Click **All** to select all found departments and employees, click **None** to deselect. Click **Show all** to expand the department structure, click **Hide all** to hide the structure. Be default, the list of departments and employees is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**4**).
5. You can find an employee by their name or surname using the search. For this, enter in the search field (**5**) at least 4 first characters of the employee's name or surname and click the **Search** button (**6**). The department to which the found employee belongs will be displayed in the search tree in the area **7**. To clear the search field and the search tree, click the **Clear search tree** button (**8**).
6. Click the **Execute** button (**9**) to generate the report.

Example of the **Employees absent for too long** report:

Report on employees who didn't come for a long time

Date: Saturday, July 6, 2024 3:04 PM

Absent more than 1 days

Personnel number	Department	Full Name	Card	The last entry	Last access point
2221	Department 1	Smith Will	13	Thursday, July 4, 2024 12:50 PM	FACE access point 1
1112	Department 1	Wick John	12	Thursday, July 4, 2024 12:50 PM	FACE access point 1
Employees in total:			**2**		

The report fields are described in the table:

Field	**Description**
Personnel number	Employee's personnel number
Department	Employee's department
Full Name	Employee's full name
Card	Employee's card number
The last entry	Date of the employee's last entry through the access point
Last access point	Access point through which employee entered last using the card
The **Employees in total** line displays the number of employees included in the report	

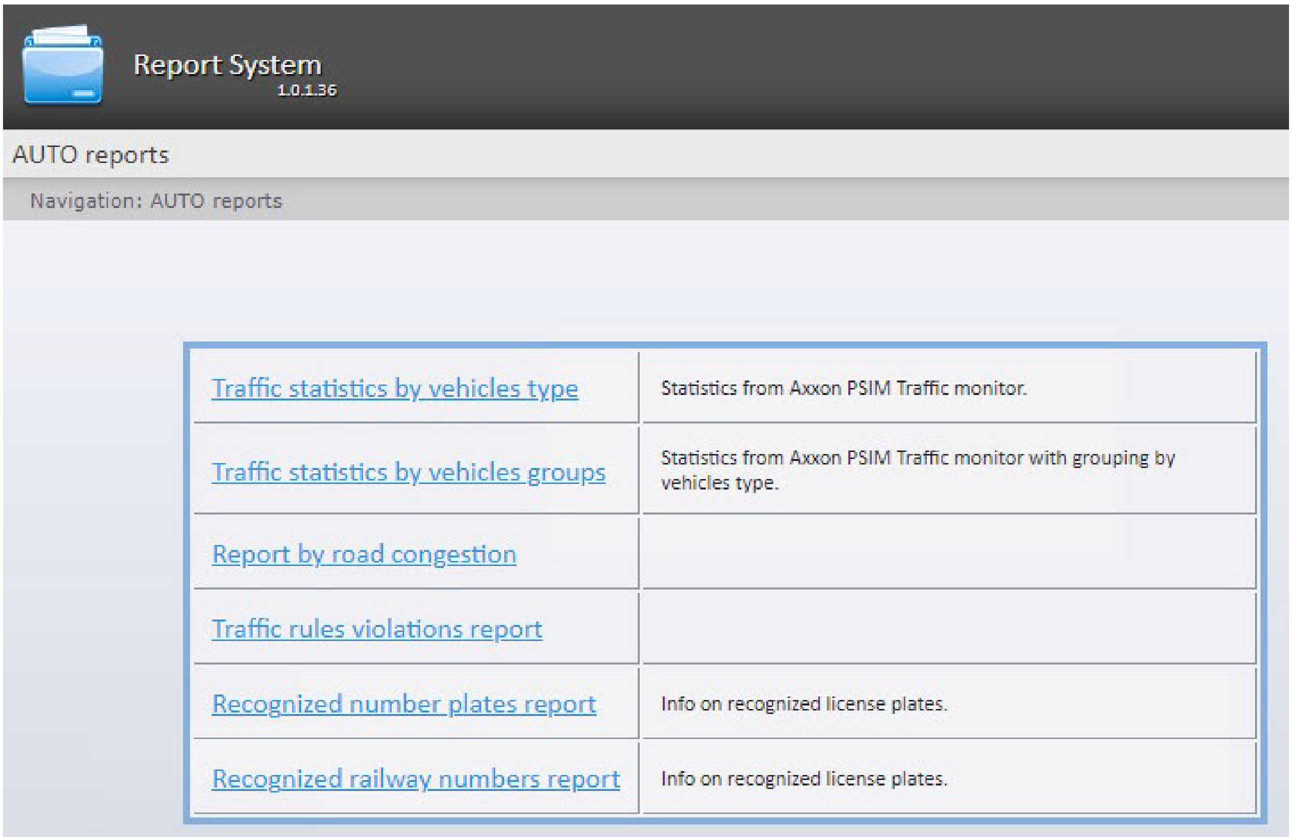
8.2 Working with AUTO reports

Working with *AUTO reports* consists of selecting the necessary report type and creating a report. You can find the description of each report type on the corresponding page.

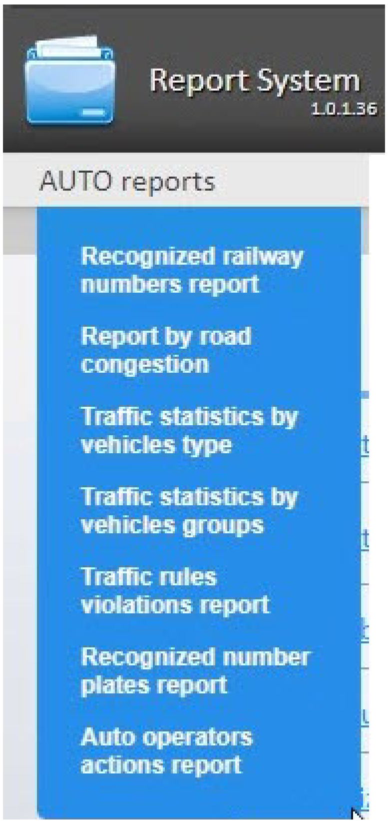
8.2.1 Selecting the type of Auto report

To select the type of Auto report click **AUTO reports** link in the report menu of *WEB Report System PSIM.*

As a result the list of available Auto reports is displayed. For switching to the required report click the corresponding link.



List of links for switching to Auto reports is also available when hovering over the **AUTO reports** link in the report menu.



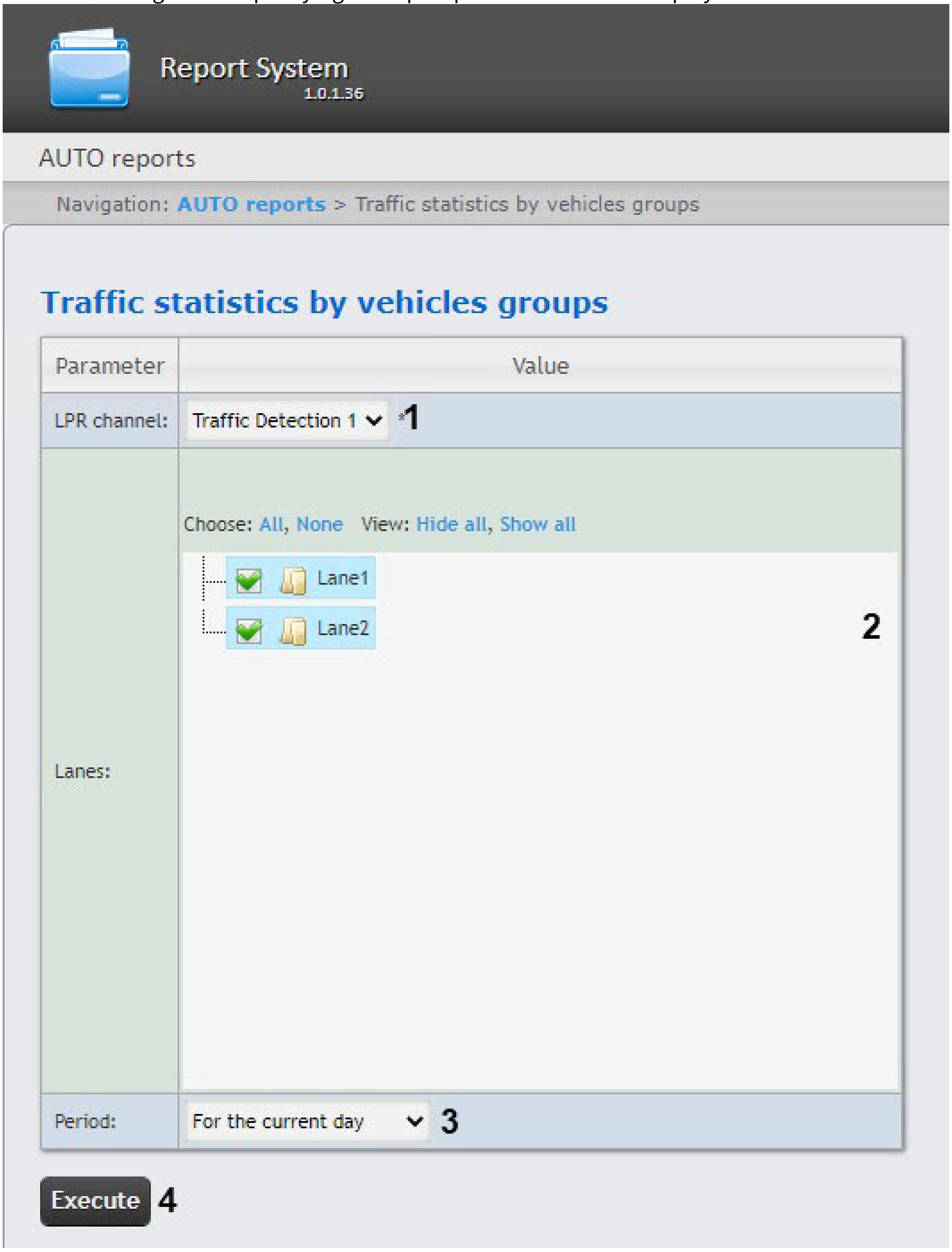
8.2.2 Traffic statistics by vehicles groups

The **Traffic statistics by vehicles groups** report allows getting statistical data for each group of vehicles. Vehicles group is a set of several vehicles types.

> **Note**
>
> The **Traffic statistics by vehicles groups** report is related to the *Traffic Detection* module, it is necessary to create the corresponding object in the *Auto PSIM* software (see Traffic Detection setup procedure).

To create the **Traffic statistics by vehicles groups** report, do the following:

1. Select the **Traffic statistics by vehicles groups** report type (see Selecting the type of Auto report). As a result the dialog box for specifying the report parameters will be displayed.

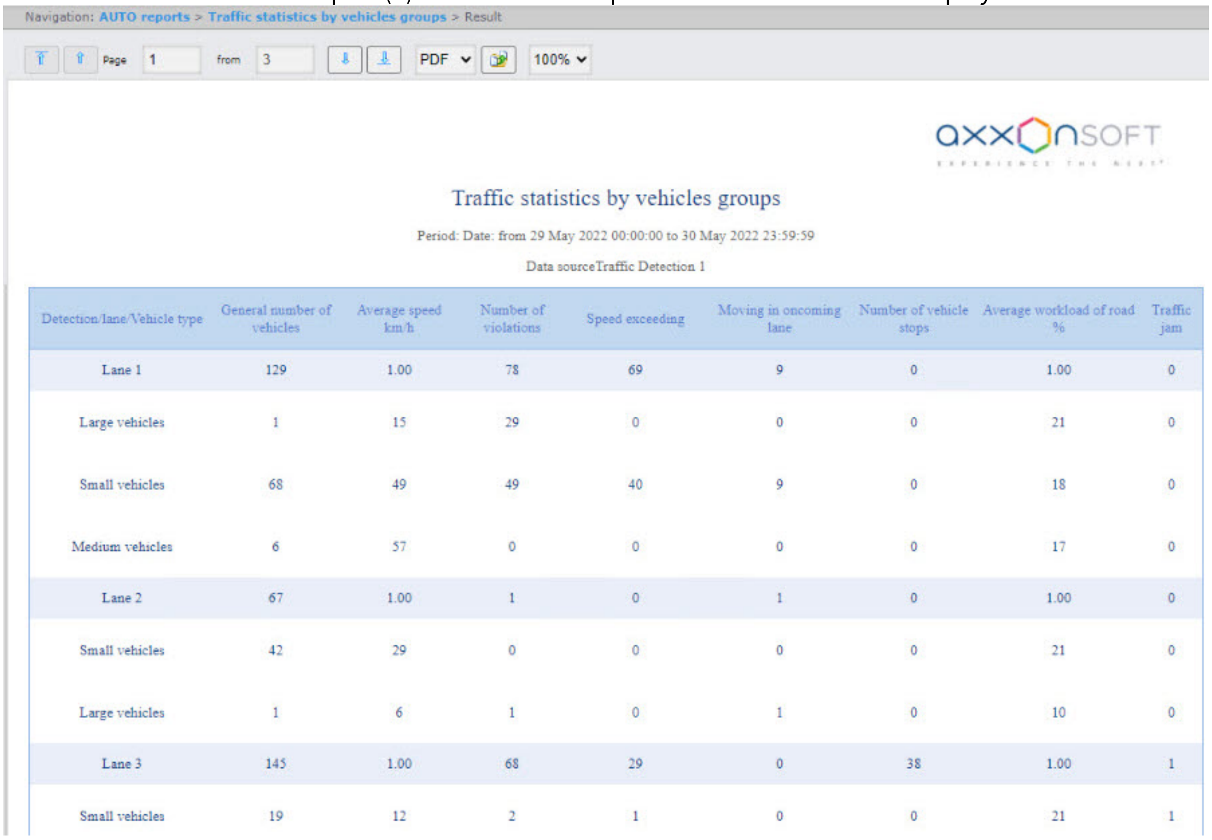


2. From the **LPR channel** drop-down list (**1**), select the **Traffic Detection** object, which data should be used in the report.
3. In the **Lanes** list (**2**), set the checkboxes next to those lanes, which data should be included in the report.
4. In the **Period** drop-down list (**3**), select the time period for which the report is to be created.

Note

If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the button next to the corresponding field to use the **Calendar** tool.

5. Click **Execute** to create the report (**4**). As a result the report in the selected form is displayed.



Traffic statistics by vehicles groups

Period: Date: from 29 May 2022 00:00:00 to 30 May 2022 23:59:59

Data sourceTraffic Detection 1

Detection/lane/Vehicle type	General number of vehicles	Average speed km/h	Number of violations	Speed exceeding	Moving in oncoming lane	Number of vehicle stops	Average workload of road %	Traffic jam
Lane 1	129	1.00	78	69	9	0	1.00	0
Large vehicles	1	15	29	0	0	0	21	0
Small vehicles	68	49	49	40	9	0	18	0
Medium vehicles	6	57	0	0	0	0	17	0
Lane 2	67	1.00	1	0	1	0	1.00	0
Small vehicles	42	29	0	0	0	0	21	0
Large vehicles	1	6	1	0	1	0	10	0
Lane 3	145	1.00	68	29	0	38	1.00	1
Small vehicles	19	12	2	1	0	0	21	1

This report contains the following information for each selected lane and vehicle group:

Column name	**Description**
Detection/ lane/Vehicle type	Vehicle detector/lane/type of the vehicle
General number of vehicles	Total number of recorded vehicles
Average speed, km/h	Average vehicle speed in km/h
Number of violations	The total number of recorded traffic violations
Speed exceeding	Number of recorded speeding
Moving in oncoming lane	The number of recorded vehicles moving towards the main traffic

Column name	Description
Number of vehicle stops	The number of recorded stops of the vehicle
Average workload of road %	Average road congestion in percent
Traffic jam	The total number of vehicles that caused the congestion

This report can be saved to a file in the following formats:

- PDF;
- Excel;
- CSV.

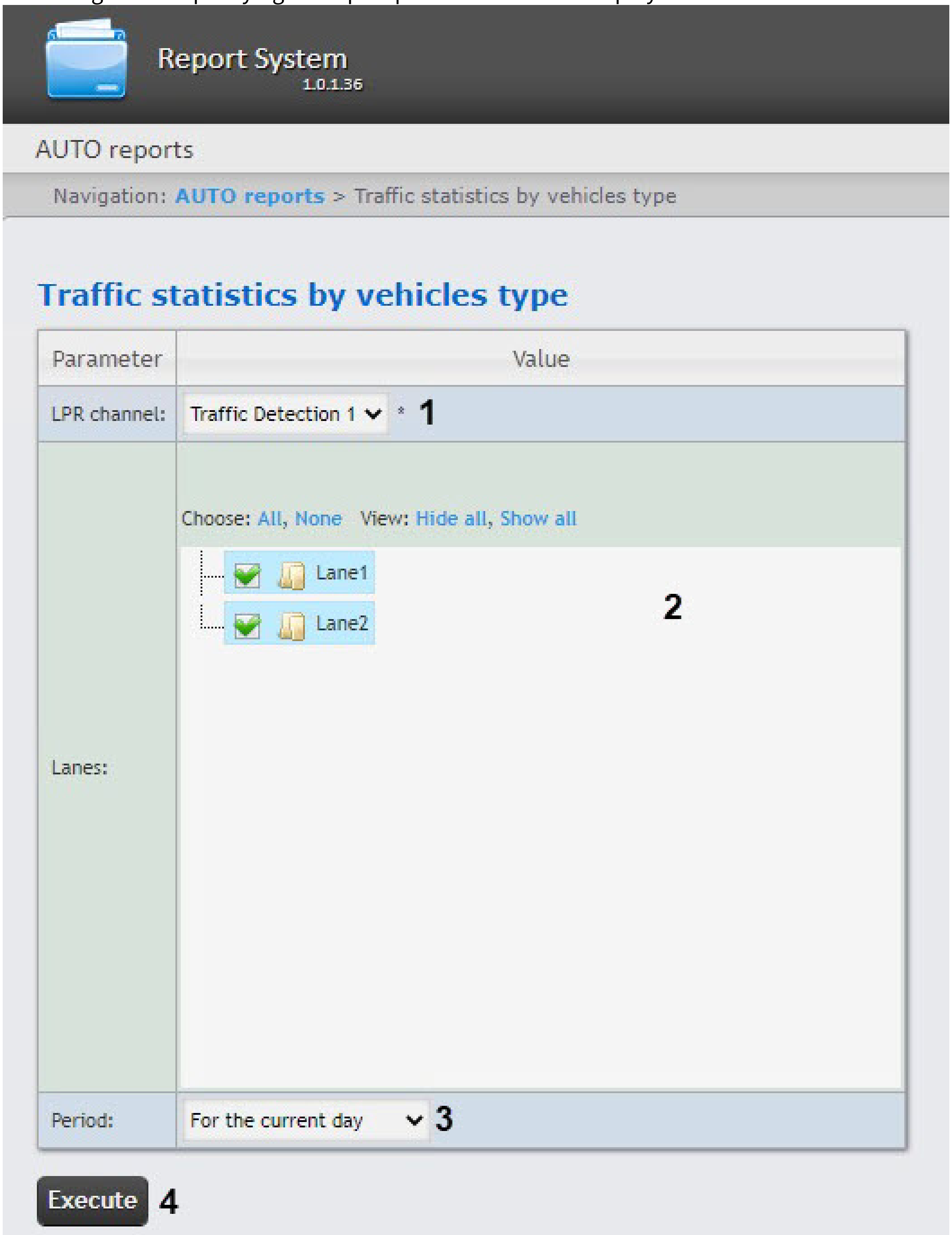
8.2.3 Traffic statistics by vehicles type

The **Traffic statistics by vehicles type** report allows getting statistical data for each type of vehicles. Vehicle type is a set of vehicles the sizes of which are within the certain intervals.

> **Note**
>
> The **Traffic statistics by vehicles type** report is related to the *Traffic Detection* module, it is necessary to create the corresponding object in the *Auto PSIM* software (see Traffic Detection setup procedure).

To create the **Traffic statistics by vehicles type** report, do the following:

1. Select the **Traffic statistics by vehicles type** report type (see Selecting the type of Auto report). As a result the dialog box for specifying the report parameters will be displayed.

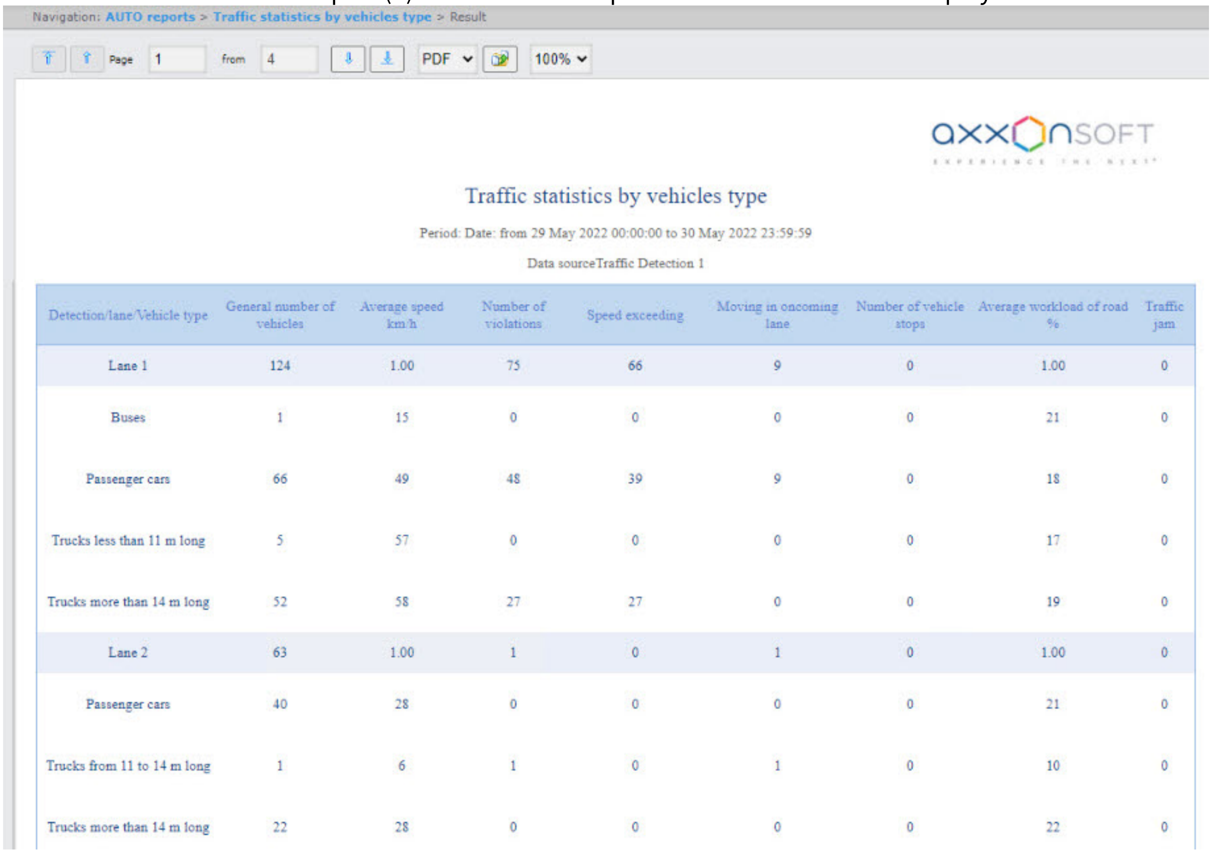


2. From the **LPR channel** drop-down list (**1**) select the **Traffic Detection** object, which data should be used in the report.
3. In the **Lanes** list (**2**) set the checkboxes next to those lanes, which data should be included in the report.
4. In the **Period** drop-down list (**3**) select the time period for which the report is to be created.

Note

If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the button next to the corresponding field to use the **Calendar** tool.

5. Click **Execute** to create the report (**4**). As a result the report in the selected form is displayed.


Navigation: AUTO reports > Traffic statistics by vehicles type > Result

Page 1 from 4 PDF 100%

Traffic statistics by vehicles type

Period: Date: from 29 May 2022 00:00:00 to 30 May 2022 23:59:59

Data sourceTraffic Detection 1

Detection/lane/Vehicle type	General number of vehicles	Average speed km/h	Number of violations	Speed exceeding	Moving in oncoming lane	Number of vehicle stops	Average workload of road %	Traffic jam
Lane 1	124	1.00	75	66	9	0	1.00	0
Buses	1	15	0	0	0	0	21	0
Passenger cars	66	49	48	39	9	0	18	0
Trucks less than 11 m long	5	57	0	0	0	0	17	0
Trucks more than 14 m long	52	58	27	27	0	0	19	0
Lane 2	63	1.00	1	0	1	0	1.00	0
Passenger cars	40	28	0	0	0	0	21	0
Trucks from 11 to 14 m long	1	6	1	0	1	0	10	0
Trucks more than 14 m long	22	28	0	0	0	0	22	0

This report contains the following information for each selected lane and vehicle type:

Column name	Description
Detection/ lane/Vehicle type	Vehicle detector/lane/type of the vehicle
General number of vehicles	Total number of recorded vehicles
Average speed km/h	Average vehicle speed in km/h
Number of violations	The total number of recorded traffic violations
Speed exceeding	Number of recorded speeding
Moving in oncoming lane	The number of recorded vehicles moving towards the main traffic

Column name	Description
Number of vehicle stops	The number of recorded stops of the vehicle
Average workload of road %	Average road congestion in percent
Traffic jam	The total number of vehicles that caused the congestion

This report can be saved to a file in the following formats:

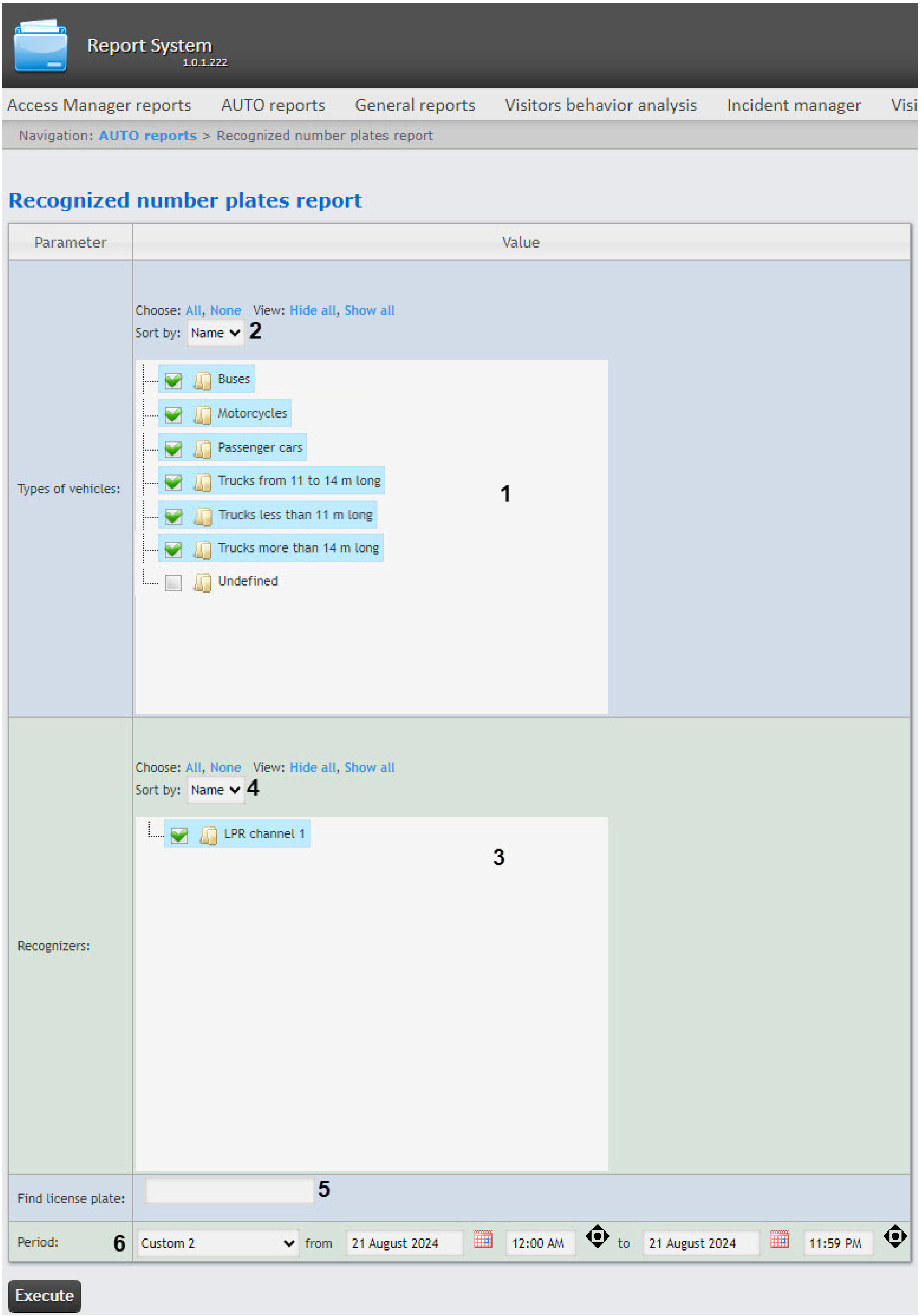
- PDF;
- Excel;
- CSV.

8.2.4 Recognized number plates report

The **Recognized number plates report** allows you to get information about the license plates recognized within a specified time period.

> **Note**
>
> The **Recognized number plates report** belongs to the *LPR channel* module. To get the information about vehicle types, use the *RoadAR vendor and model recognizer* module or the *Vehicle type recognition module.* You must create and configure the corresponding objects in *Auto PSIM* (see Setting up the LPR channel, Configuring the RR vendor and model recognizer module and Setting up the Vehicle type recognition module).

To create the **Recognized number plates report**, select it from the Auto reports (see Selecting the type of Auto report) and specify the report parameters in the form that opens.


Report System
1.0.1.222
Access Manager reports
AUTO reports
General reports
Visitors behavior analysis
Incident manager
Visi
Navigation: AUTO reports > Recognized number plates report
Recognized number plates report
Parameter
Value
Types of vehicles:
Choose: All, None View: Hide all, Show all
Sort by: Name
2
Buses
Motorcycles
Passenger cars
Trucks from 11 to 14 m long
Trucks less than 11 m long
Trucks more than 14 m long
Undefined
1
Recognizers:
Choose: All, None View: Hide all, Show all
Sort by: Name
4
LPR channel 1
3
Find license plate:
5
Period:
6
Custom 2
from
21 August 2024
12:00 AM
to
21 August 2024
11:59 PM
Execute

1. In the **Types of vehicles** list (**1**), set the corresponding checkboxes and select the required vehicle types for the report. To select all vehicle types, click **All**, to deselect, click **None**. To collapse the structure of vehicle types, click **Hide all**, to expand the structure, click **Show all**. By default, the list of vehicle types is sorted by name, to sort by number, select this option from the **Sort by** drop-down list (**2**).
2. In the **Recognizers** list (**3**), set the corresponding checkboxes and select the required LPR channels for the report. To select all recognizers, click **All**, to deselect, click **None**. To collapse the structure of recognizers, click **Hide all**, to expand the structure, click **Show all**. By default, the list of recognizers is sorted by name, to sort by number, select this option from the **Sort by** drop-down list (**4**).
3. In the **Find license plate** field (**5**), you can specify a certain license plate by which you want to find all recognition events. Otherwise, the report is built by all license plates recognized in the specified time interval.
4. From the **Period** drop-down list (**6**), select the time interval for which the report must be built. If you select **Custom** or **Custom 2** period, enter the date of start and end periods for which the report must be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. Enter the start and end time of the **Custom 2** period using the button.
5. Click the **Execute** button to build the report.

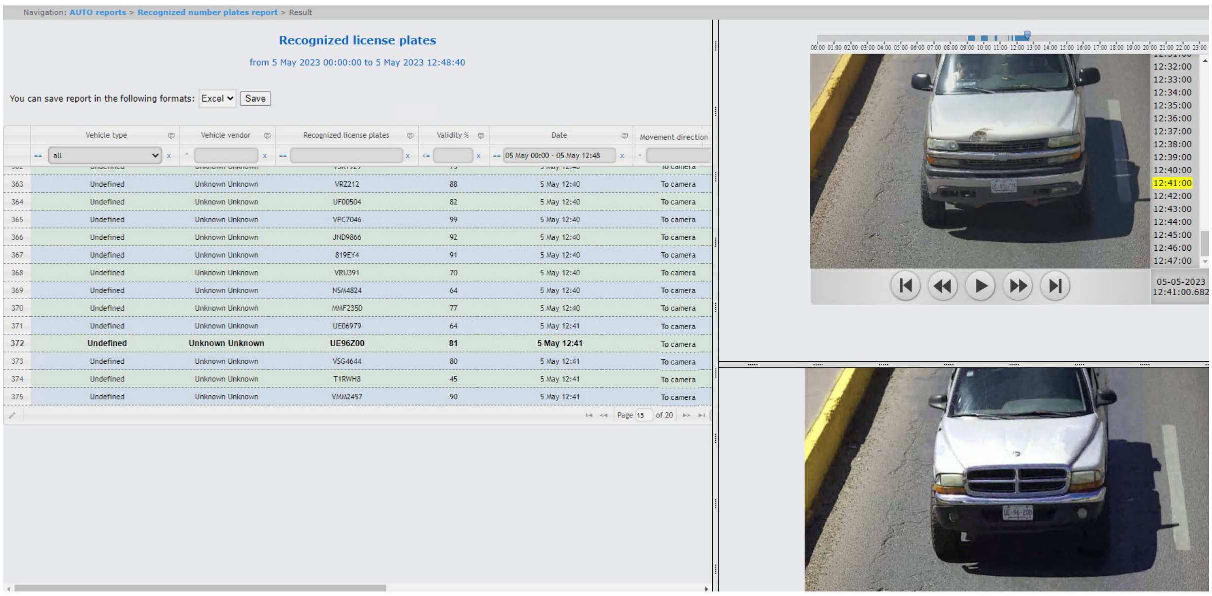
Attention!

If the images of the recognized LP and the vehicle frames are stored in a folder on a disk, then to display the screenshots from a camera, you must configure the storage source for license plates and frames (see Configuring the storage source for Recognized number plates report and Recognized railway numbers report).

The report table contains the vehicle type, vehicle make, recognized LP number, recognition accuracy as a percentage, date of recognition, direction of movement, recognizer, vehicle speed (km/h), operator's comment. When you click a row in the table, a screenshot from a camera is displayed in the lower right corner of the report and, if there is access to the video archive, the video is played in the upper right corner of the report.

Note

Working with this table is described in Working with the generated Recognized number plates report and Recognized railway numbers report.



To save the report to a file, select the report format and click the **Save** button. You can save the report in the following formats:

- PDF,
- Excel,
- CSV.

> **Note**
>
> The number of entries in the report is unlimited.
> You can use forward and rewind buttons to view the contents of the report.
> When you save the result in PDF format, it is split into files of 1000 entries each. The names of files contain the range of license plates and date when the report was created. You can change the number of entries in one document in the **Web.config** file by specifying a new value for the **ReportsWithPhotoPdfPageSize** key (see Configuring the number of entries in a file of the Recognized number plates report).

The **Recognized number plates report** is created.

8.2.5 Recognized railway numbers report

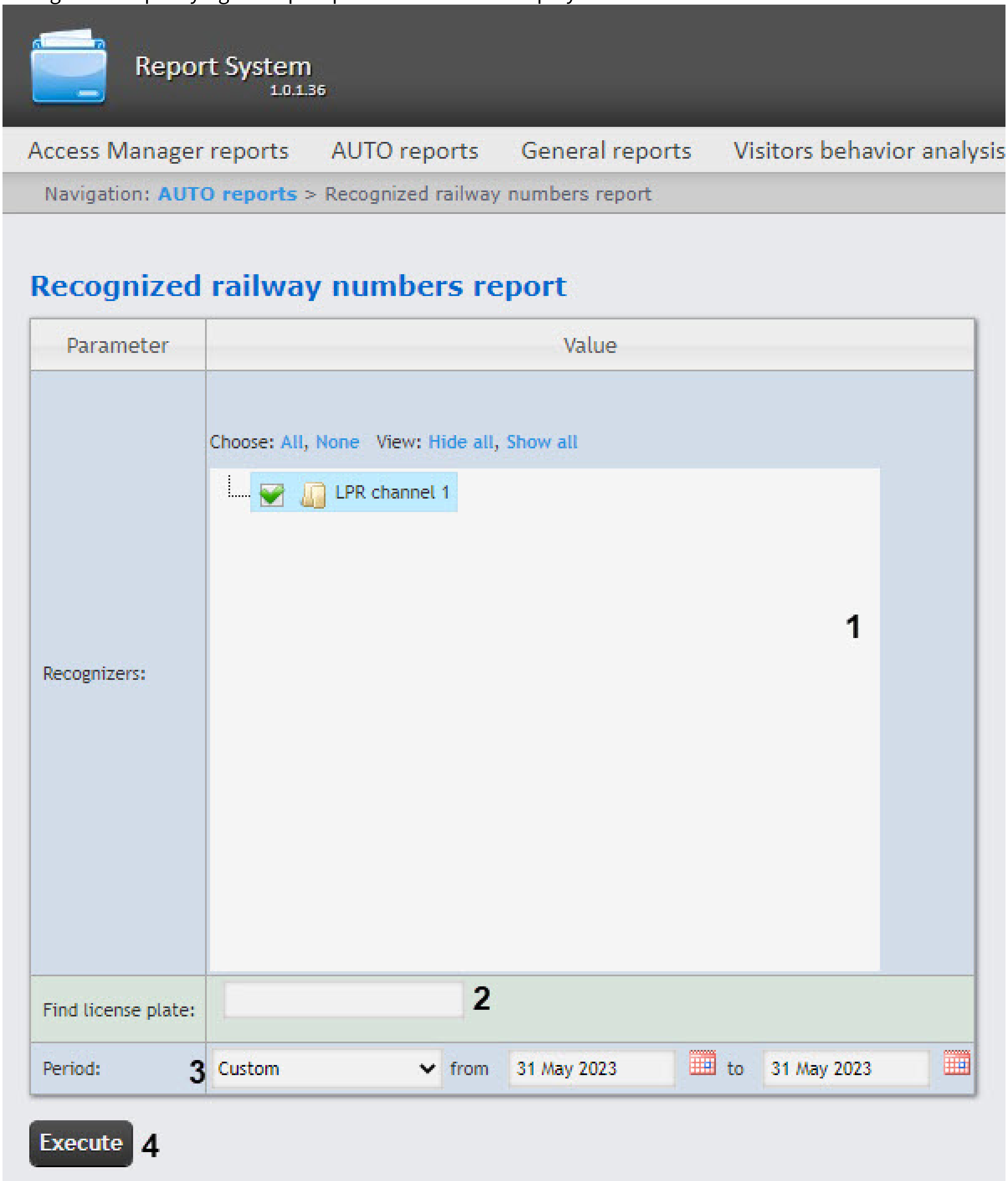
> **Note**
>
> To access the **Recognized railway numbers report**, it is necessary to activate it (see Configuring the Recognized railway numbers report).

The **Recognized railway numbers report** allows getting data about the railway numbers recognized within a specified time period.

> **Note**
>
> The **Recognized railway numbers report** is related to the **LPR channel** module, it is necessary to create and configure the corresponding object in *Auto PSIM* (see Setting up the LPR channel).

To create the **Recognized railway numbers report**, do the following:

1. Select the **Recognized railway numbers report** type (see Selecting the type of Auto report). As a result the dialog box for specifying the report parameters will be displayed.



2. Specify the report parameters in the following way:
   a. In the **Recognizers** field (**1**), set the check boxes for the necessary LPR channels according to which the report will be built.
   b. In the **Find license plate** field (**2**), you can specify a certain number by which all recognition events will be searched. Otherwise, the report will be built by all numbers recognized at the specified time interval.
   c. From the **Period** drop-down list (**3**), select the time interval for which the report should be built.

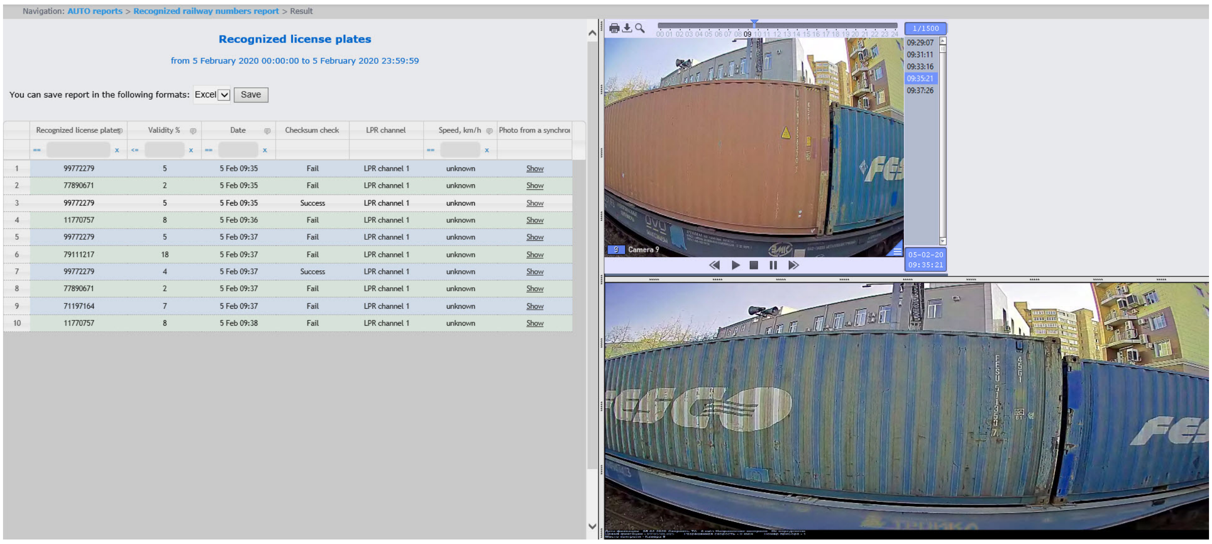
> **Note**
>
> If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.

3. Click **Execute** (**4**) to run the report. As a result the report in the selected form is displayed.

> **Attention!**
>
> If the recognized railway number images and frames are stored in a folder on a disk, then to display the screenshots from the camera, it is necessary to configure the storage source for number plates and frames (see Configuring the storage source for Recognized number plates report and Recognized railway numbers report).

The report table will contain railway numbers, the accuracy of number recognition, date, checksum check, recognizer, railway speed and photos from the linked camera. When you click on a row in the table, a screenshot from the camera will be displayed (in the lower right corner of the report) and, if there is access to the video archive, the video will be played (in the upper right corner of the report).

> **Note**
>
> Working with this table is described in Working with the generated Recognized number plates report and Recognized railway numbers report.



To save the report to a file, select the appropriate report format and click the **Save** button.

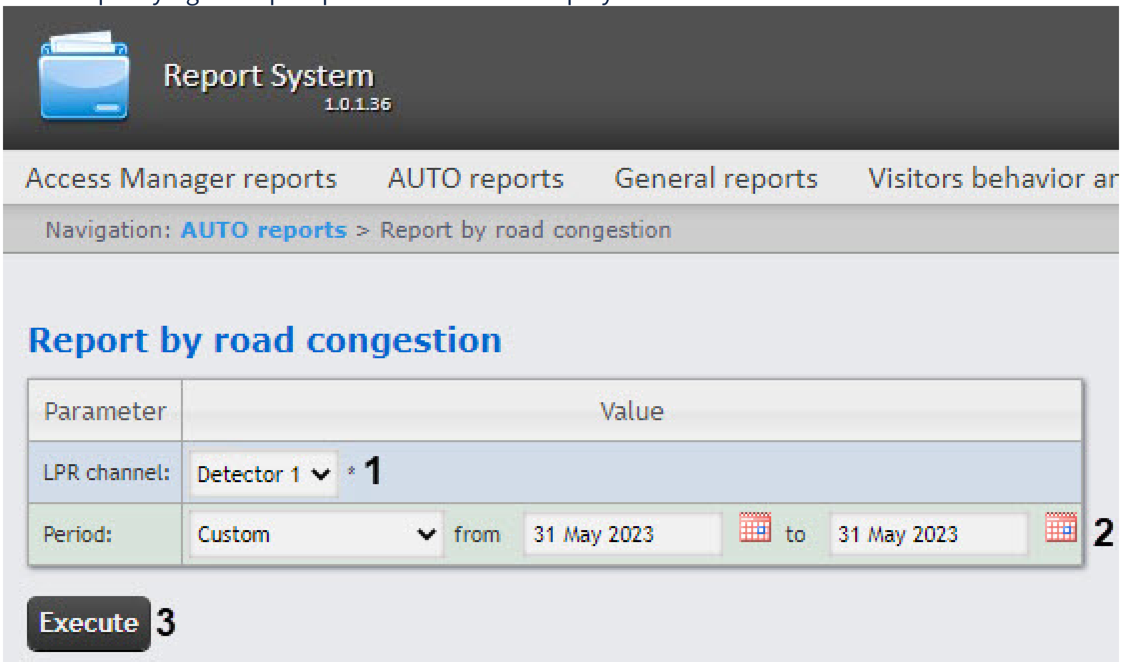
> **Attention!**
>
> This report cannot be generated automatically.

8.2.6 Report by road congestion

The **Report by road congestion** allows you to get statistical information about traffic congestion.

> **Note**
>
> The **Report by road congestion** is related to the *Intellivision vehicle detection* and *Vehicle Processor* modules (it is necessary to create and configure the corresponding objects in *Axxon PSIM*).

To get statistics on road congestion, do the following:

1. Select the **Report by road congestion** type (see Selecting the type of AUTO report). As a result, the dialog box for specifying the report parameters will be displayed.


2. From the **LPR channel** drop-down list (**1**), select the **Detector** object which data should be used to build the report.
3. From the **Period** drop-down list (**2**), select the time interval for which the report should be built.

> **Note**
>
> If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.

4. Click **Execute** (**3**) to run the report. As a result the report in the selected form is displayed
The **Data source** table contains the following information:

Column name	Description
Types of vehicles	Name of vehicle types that correspond to the configured vehicle type classification on the settings panel of the **Vehicle Processor** object
General number of vehicles	The total number of recorded vehicles of all vehicle types, and separate number of recorded vehicles divided by each vehicle type

Column name	Description
Average speed, km/h	The total average speed of the vehicle in km/h for all vehicle types, and separate average speed divided by each vehicle type
Traffic density, %	Traffic density in percent
Lane occupancy, %	Lane occupancy in percent

The **Average speed, km/h** graph displays the average speed for each type of vehicle.
The **Number of vehicles** graph displays the number of vehicles of each type.
This report can be saved to a file in the following formats:

- PDF;
- Excel;
- CSV.

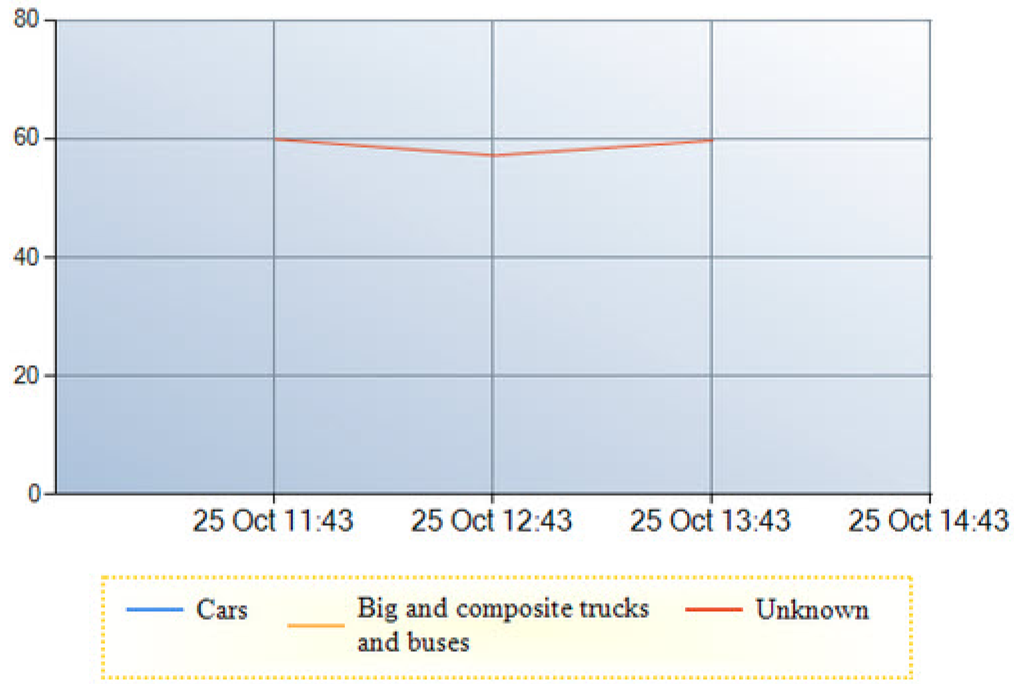
Example of the **Report by road congestion**:

Report by road congestion
Period: Date: from 25 October 2023 00:00:00 to 25 October 2023 14:29:14

Data source: Vehicle Processor 1

Types of vehicles	General number of vehicles	Average speed, km/h	Traffic density, %	Lane occupancy, %
25 Oct 11:43:20 - 25 Oct 12:43:20	663	58.78	12.72	26.07
Cars	316	57.20		
Big and composite trucks and buses	1	69.33		
Unknown	346	59.88		
25 Oct 12:43:20 - 25 Oct 13:43:20	235	57.16	14.52	27.84
Unknown	235	57.16		
25 Oct 13:43:20 - 25 Oct 14:29:05	28	59.67	9.56	26.16
Unknown	28	59.67		

Average speed, km/h



Vehicle amount

8.2.7 Working with the generated Recognized number plates report and Recognized railway numbers report

All actions are performed in the already built **Recognized number plates report** (see Recognized number plates report) and **Recognized railway numbers report** (see Recognized railway numbers report).

Filter and sort the license plate numbers

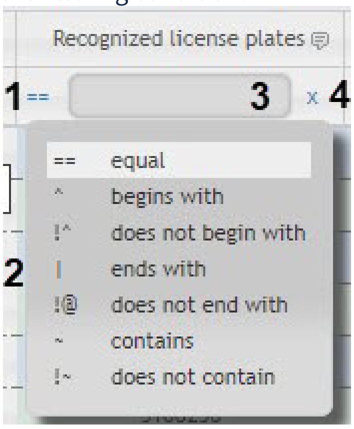
On this page:

- Filter the numbers
- Sort the numbers

Filter the numbers

Filter the numbers as follows:

1. In the column the data in which you want to filter, click on the icon (**1**) and from the drop-down list (**2**) select the filtering condition.

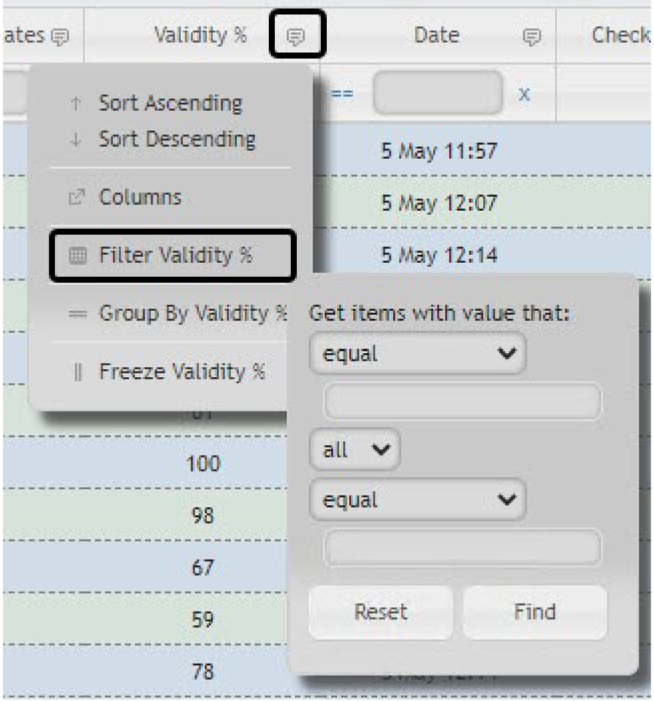


> **Note**
>
> - The list of filtering conditions (**2**) may differ depending on the selected column.
> - To be able to filter numbers using the Arabic or Persian alphabet and numbers, it is necessary to configure the corresponding settings (see Configuring numbers filtering for Recognized number plates report and Recognized railway numbers report).

2. In the field (**3**), enter the required filter value.
3. As a result, the list of numbers will be automatically filtered according to the specified filter.

> **Note**
>
> To reset the filter, click the button (**4**).

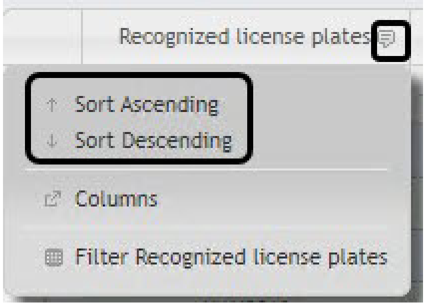
4. Filtering is also available in the submenu when you click the button next to the names of some columns.



Sort the numbers

Sort the numbers as follows:

1. Left-click on the name of the column the data in which you want to sort. As a result, the list of numbers will be automatically sorted. An icon for the current sorting condition will be displayed next to the column name:
   - - Descending sorting.
   - - Ascending sorting.
2. Sorting is also available in the submenu when you click the button next to the names of some columns.



Customize, group, and freeze the columns

On this page:

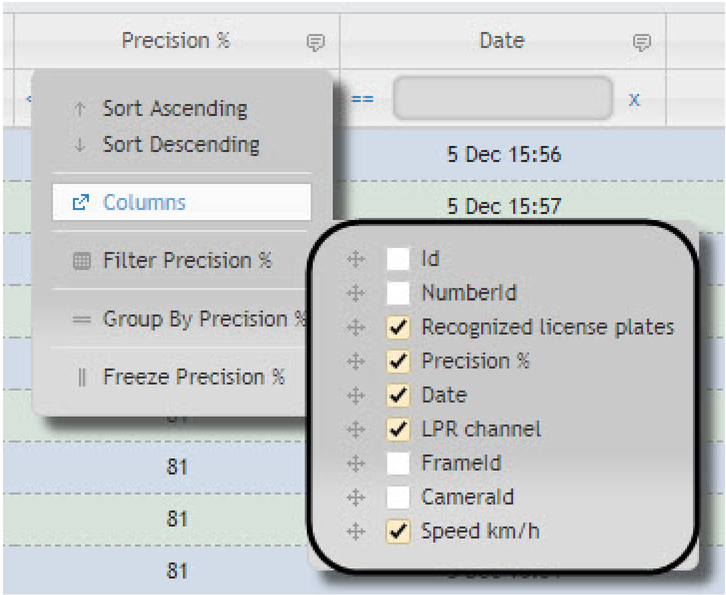
- Customize the columns

- Freeze the columns

Customize the columns

Customize the columns as follows:

1. Click the button next to the name of some columns.



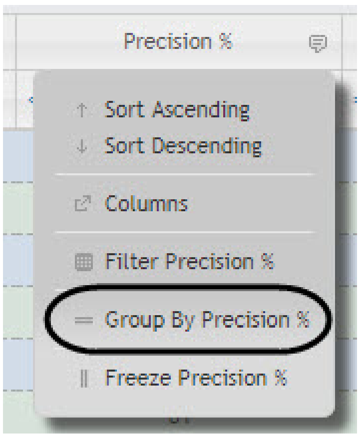
2. In the **Columns** submenu, select the necessary columns that will be displayed in the generated report.

> **Note**
>
> You can also set the order of the columns by moving the column names higher or lower in the list.

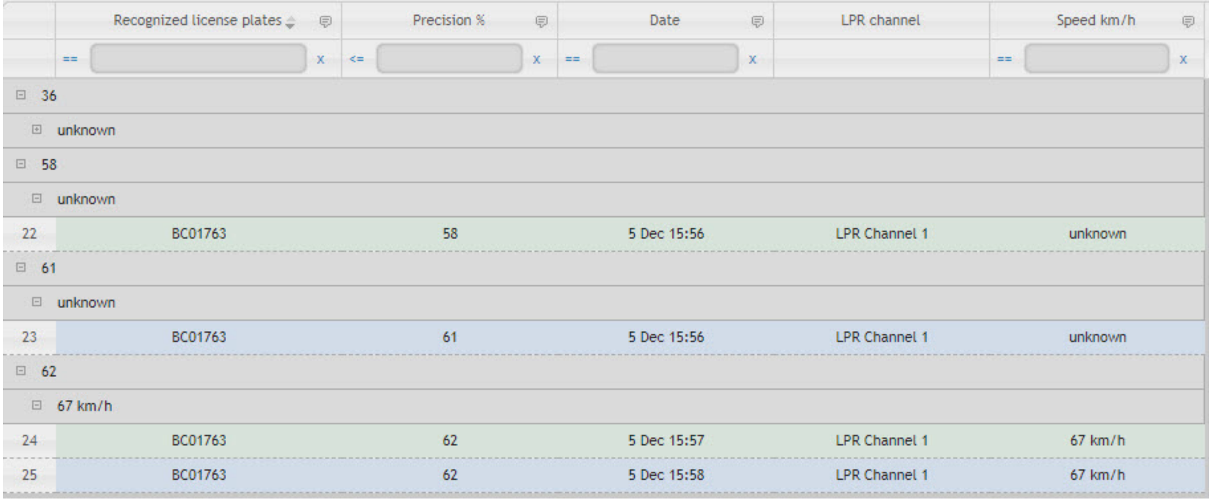
Group the columns

Group the columns as follows:

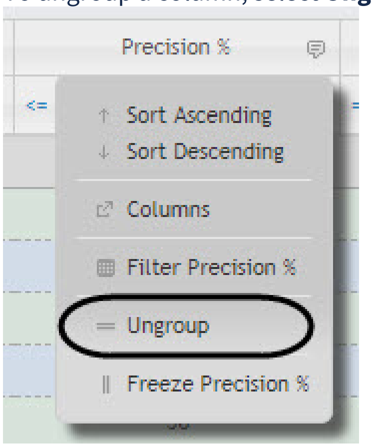
1. Click the button next to the name of some columns.



2. Select the **Group By "Column Name"** item. As a result, the numbers will be grouped by the specified column. It is possible to group the numbers by several columns.



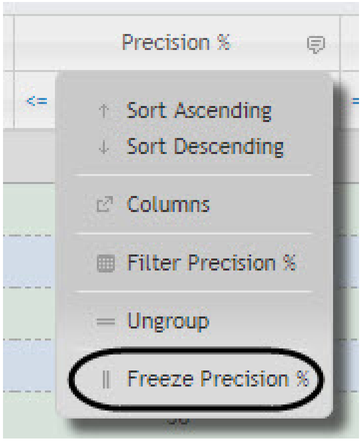
3. To ungroup a column, select **Ungroup**.



Freeze the columns

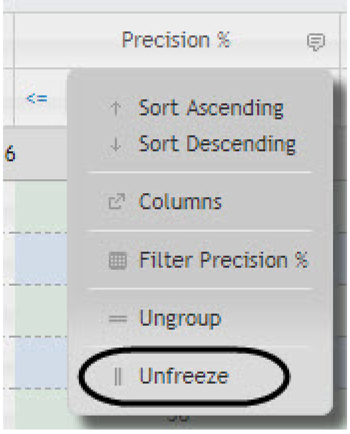
Freeze the columns as follows:

1. Click the button next to the name of some columns.



2. Select the **Freeze "Column Name"** item. As a result, the frozen column will move to the leftmost position and this column cannot be hidden.

3. To unfreeze a column, select **Unfreeze**.



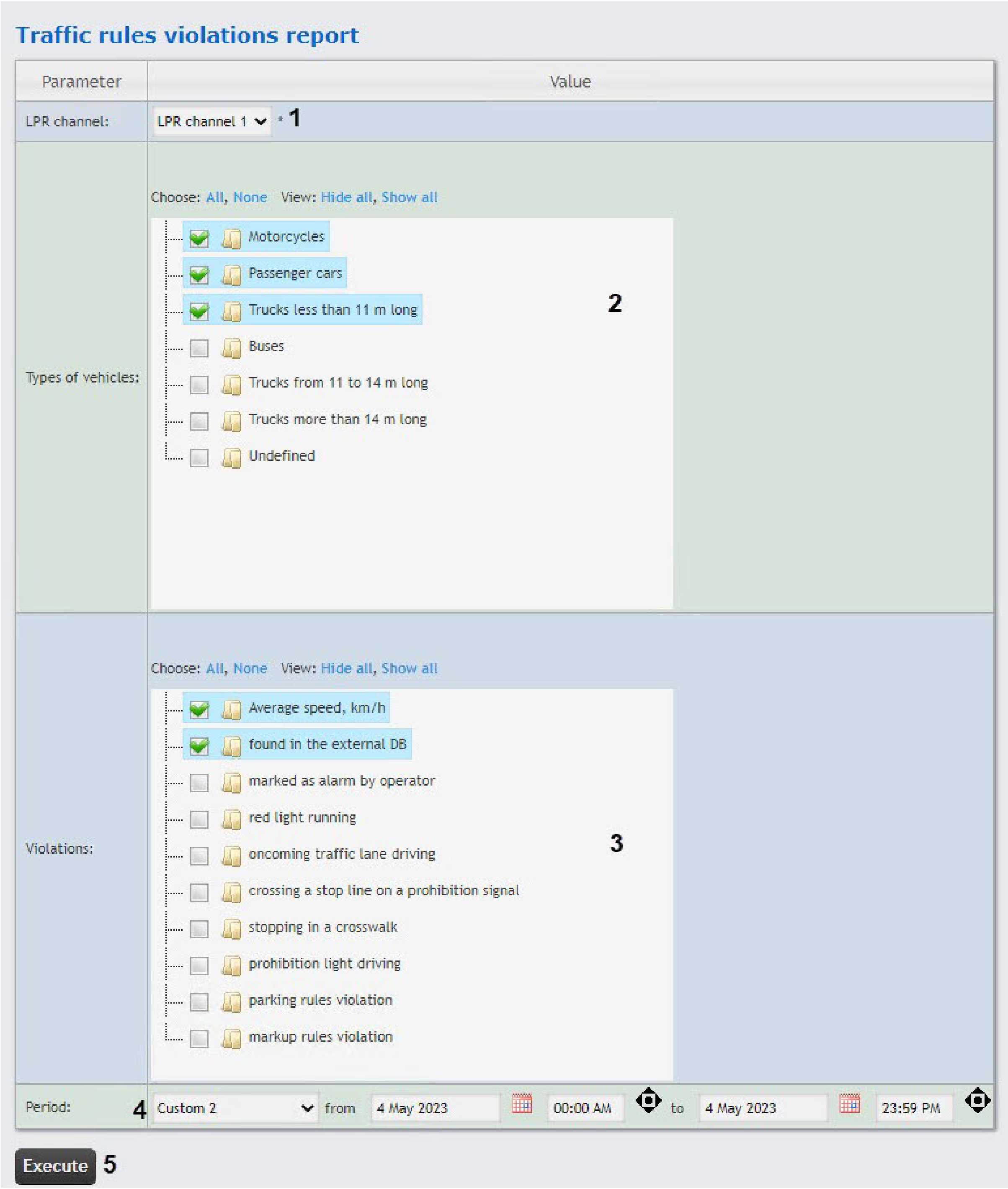
8.2.8 Traffic rules violations report

The **Traffic rules violations report** allows you to get the information about traffic violations for the selected period of time.

> **Note**
>
> The **Traffic rules violations report** is a part of the **LPR channel** module. That is why a corresponding object should be set up and configured in *Auto PSIM* (see Setting up the LPR channel).

In order to generate a traffic rules violations report, do the following:

1. Select the **Traffic rules violations report** (see Selecting the type of Auto report). A form for specifying the report parameters will open.



2. From the **LPR channel** drop-down list (**1**), select the **LPR channel** by the data from which the report will be generated.
3. In the **Types of vehicles** list (**2**), set the checkboxes next to the types of vehicles required for the report. Click **All** to select all available types of vehicles. Click **None** to deselect. Click **Show all** to expand the types of vehicles structure. Click **Hide all** to hide the types of vehicles structure.
4. In the **Violations** list (**3**), set the checkboxes next to the violations required for the report. Click **All** to select all available violations. Click **None** to deselect. Click **Show all** to expand the violations structure. Click **Hide all** to hide the violations structure.

5. From the **Period** drop-down list (**4**), select the time interval for which the report should be generated. When selecting the **Custom 3** or **Custom 2** periods using the tool, you should set the exact time (hours, minutes) at which the report should be generated. When selecting the **Custom 2** period, you should set not only the time, but the dates as well. Enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
6. Click the **Execute** button (**5**) to generate the report.

Example of a traffic rules violations report:


Traffic rules violations report

Period: Date: from 4 May 2023 22:10:00 to 5 May 2023 10:10:00

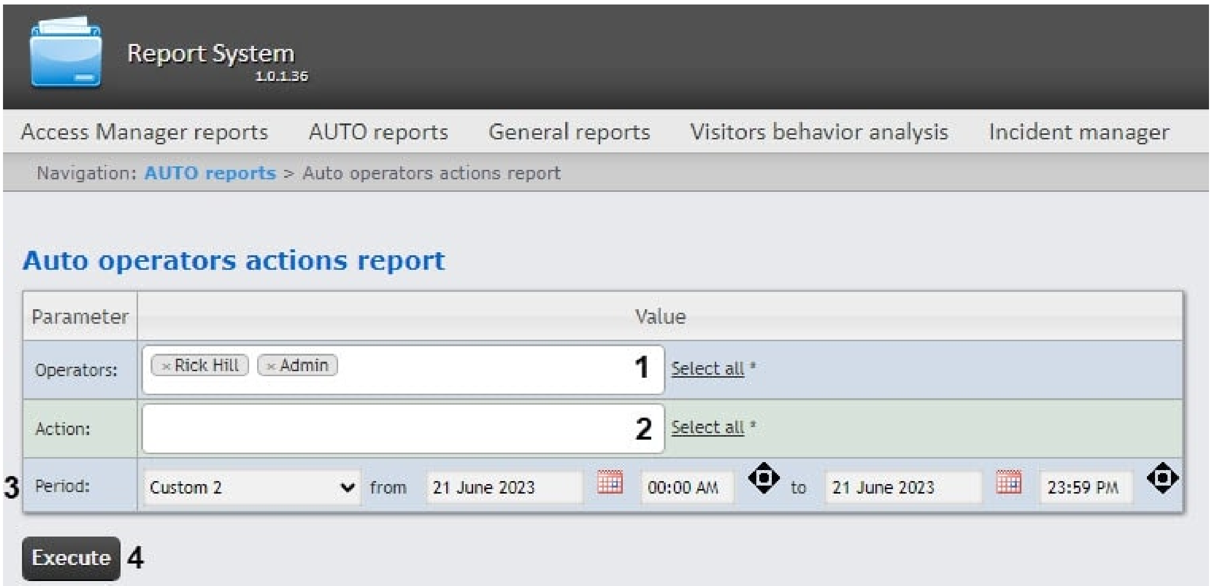
Violation	Recognized LP photo	View from camera	Map with violation place mark
Vehicle type: Unknown Vehicle vendor: Unknown Unknown Violation: Average speed, km/h Violation fixation time: 5/5/2023 1:05:57 PM	MZA-36-35	Camera 2	

8.2.9 The Auto operators actions report

The **Auto operators actions report** allows you to get information about the actions of the selected operators for a certain time period.

To create the report, do the following:

1. Select the **Auto operators actions report** (see Selecting the type of Auto report). As a result, the dialog box for specifying the report parameters will be displayed.



2. In the **Operators** field (**1**), select the auto operators whose actions you want to include in the report by clicking the field. The list of all available operators will be displayed, you can select by clicking. You can also use the search. For this, start entering the name, surname or patronymic of an employee in field **1**. The search works from the first character. To select all available operators, click the **Select all** button to the right of field **1**.
3. In the **Action** field (**2**), select the actions of auto operators, the information about which you want to include in the report by clicking the field. The list of all available auto operator actions will be displayed, you can select by clicking. You can also use the search. For this, start entering the name of the action in field **2**. The search works from the first character. To select all available actions, click the **Select all** button to the right of field **2**.
4. From the **Period** drop-down list (**3**), select the time period for which the report should be created. If the **Custom** or **Custom 2** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. If the **Custom 2** period is selected, enter additionally the time of start and end periods for which the report should be created using the button.
5. Click the **Execute** button (**4**) to create the report.

As a result, an auto operators actions report in the form of a table will be displayed.

Operator actions report

Period: 28 August 2023 00:00:00 - 31 August 2023 11:46:38

№	Date	Time	Operator	Computer	Action	Plate number	Requested data interval
1	31 August 2023	11:38:26	Hill	TAG-2597	SEARCH_PLATES		from to
2	31 August 2023	11:38:32	Hill	TAG-2597	SEARCH_PLATES		from to
3	31 August 2023	11:38:34	Hill	TAG-2597	REQUEST_DETAIL		from to
4	31 August 2023	11:45:15	Hill	TAG-2597	SEARCH_PLATES	%CIN87222%	from to
Events in total:4							

8.3 Working with General reports

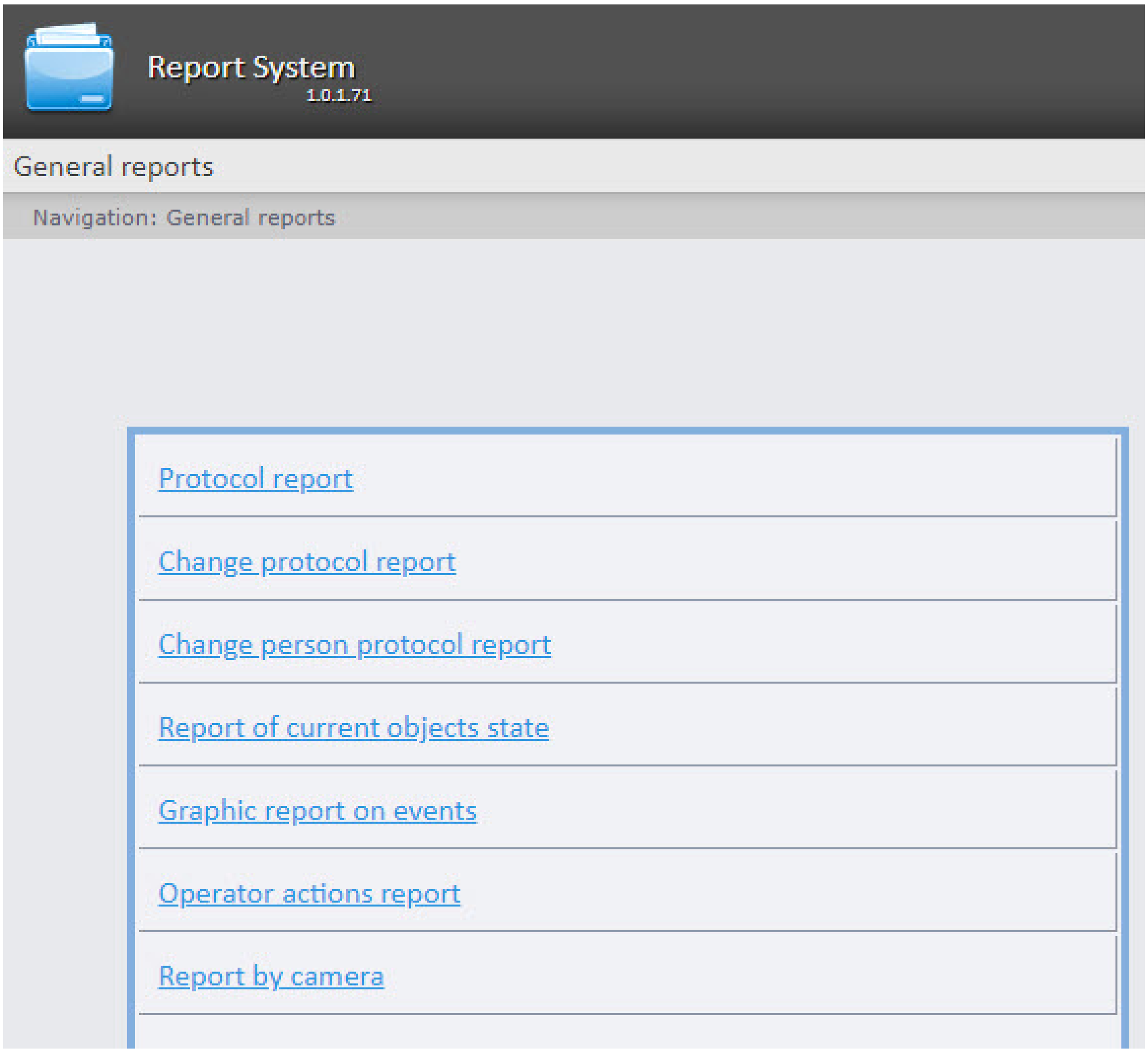
8.3.1 Selecting the type of general report

It is possible to create the following general reports:

1. Protocol report. This report allows you to get information about the presence of events from the specified objects.
2. Change protocol report. This report allows you to get information about performed changes to objects.
3. Change person protocol report. This report allows you to get information about performed changes by employees.
4. Report of current objects state. This report allows you to get information about the current status of objects.
5. Graphic report on events. This report allows you to get information about the specified objects events in the form of a chart.
6. Operator actions report. This report allows you to get information about the actions of the selected operators for a certain time period.
7. Report by camera. This report allows you to get up-to-date information about all selected cameras.

To select a type of general report, click the **General reports** link in the report menu of *WEB Report System PSIM.*

As a result, the list of available general reports will be displayed. To go to the required report, click the corresponding link.

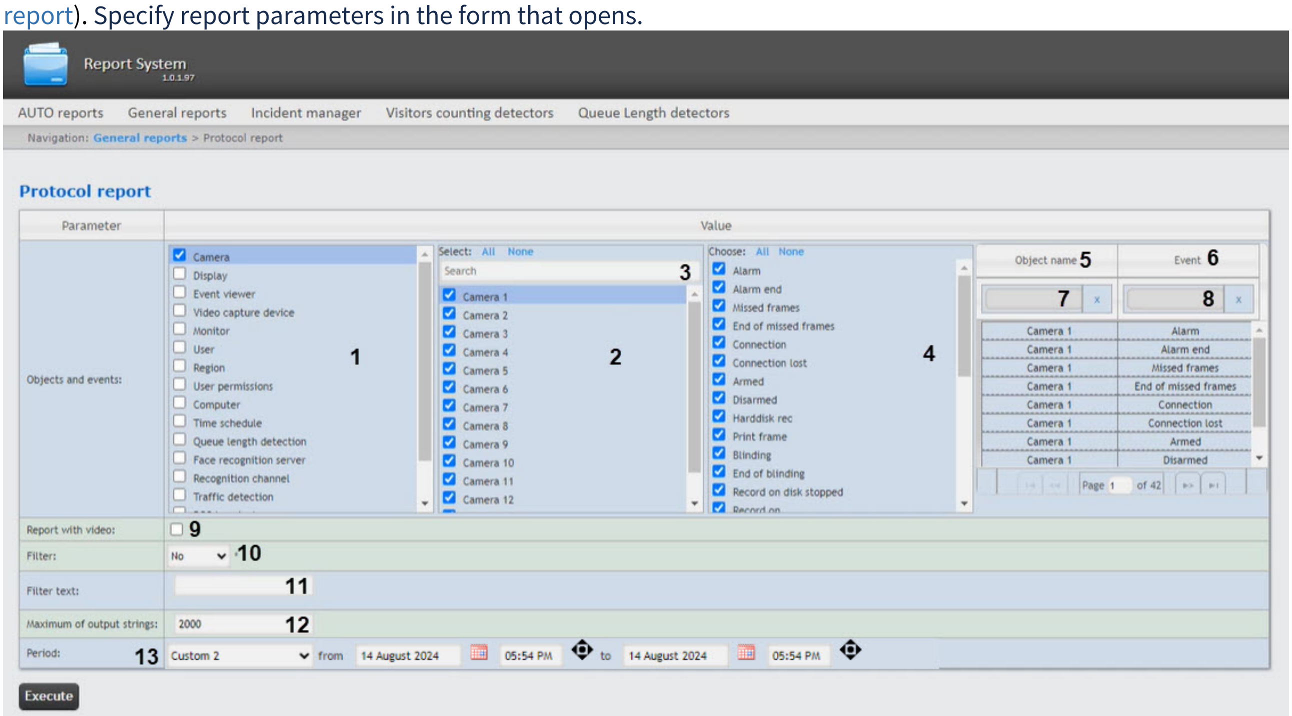


Note

List of links to go to General reports is available when hovering over the **General reports** link in the reports menu.

8.3.2 Protocol report

To create this report, select the **Protocol report** from the list of **General reports** (see Selecting the type of general report). Specify report parameters in the form that opens.



1. In the **Objects and events** list (**1**), select the object types for the report by setting the corresponding checkboxes. All objects of this type will be automatically selected (**2**). To cancel the selection, clear the checkbox for the object type.

   > **Note**
   >
   > You can select the view of the list of objects and events (see Selecting the view of the list of objects and events for the Protocol report).

2. From the list of corresponding object types created in *Axxon PSIM* (**2**), select the objects for the report or use the **Search** field (**3**). To select all objects in the list, click **All**,to deselect, click **None**. After the search by clicking the **All** button all objects from the filtered list of objects are selected. You can also select one or more objects using the Shift (select an object) and Ctrl (deselect an object) keys.
3. From the events list (**4**), select events for the report. These events will be added to the selected objects in column **2**, and checkboxes will be set for the objects and the type to which they belong. To add all events to all selected objects in the list (**2**), click **All**. Checkboxes will be set for the objects and the type to which they belong. To cancel the addition, click **None**.
4. After you select events for the corresponding object, the **Object name** column (**5**) that displays only selected objects and the **Event** column (**6**) that displays only selected events, will be filled out. From the selected objects and events you can find the required ones. For this, enter the name in the field **7** for objects and in the field **8** for events. The search starts from the first character.
5. Set the **Report with video** checkbox (**9**) to create the report that contains the video image from the camera.
6. From the **Filter** drop-down list (**10**), select the rule by which the data will be filtered when generating the report.
   a. **No**—filter isn't applied.
   b. **Equal**—report will be generated only for those events where the **Information** column content is strictly equal to the filter value specified in the **Filter text** field (**11**).
   c. **Contains**—report will be generated only for those events where the **Information** column contains the filter value specified in the **Filter text** field (**11**).

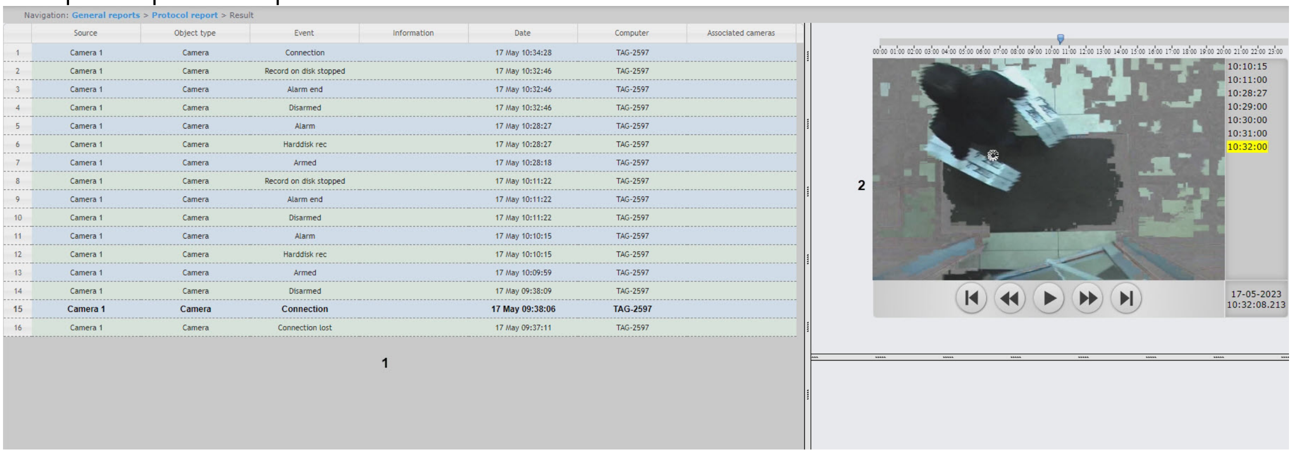
   > **Note**
   >
   > The report is filtered only by the **Information** column (see the report fields description in the table below).

7. In the **Filter text** field (**11**), specify the value for the report filtering.
8. In the **Maximum of output strings** field (**12**), specify the maximum number of output strings in the protocol report.
9. From the **Period** drop-down list (**13**), select the time period for which the report must be created.

   > **Note**
   >
   > - If the **Custom** period is selected, enter the date of start and end periods for which the report must be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
   > - If the **Custom 2** period is selected, enter additionally the time of start and end periods for which the report must be created using the button.

10. Click the **Execute** button to generate the report.

Example of a protocol report:



The form of the protocol report with video displaying feature consists of three parts. Part (**1**) is similar to the print form of the protocol report without video displaying feature. Part (**2**) displays video from the selected camera if there is a video archive for the specified period. Otherwise, the last frame from archive is displayed.

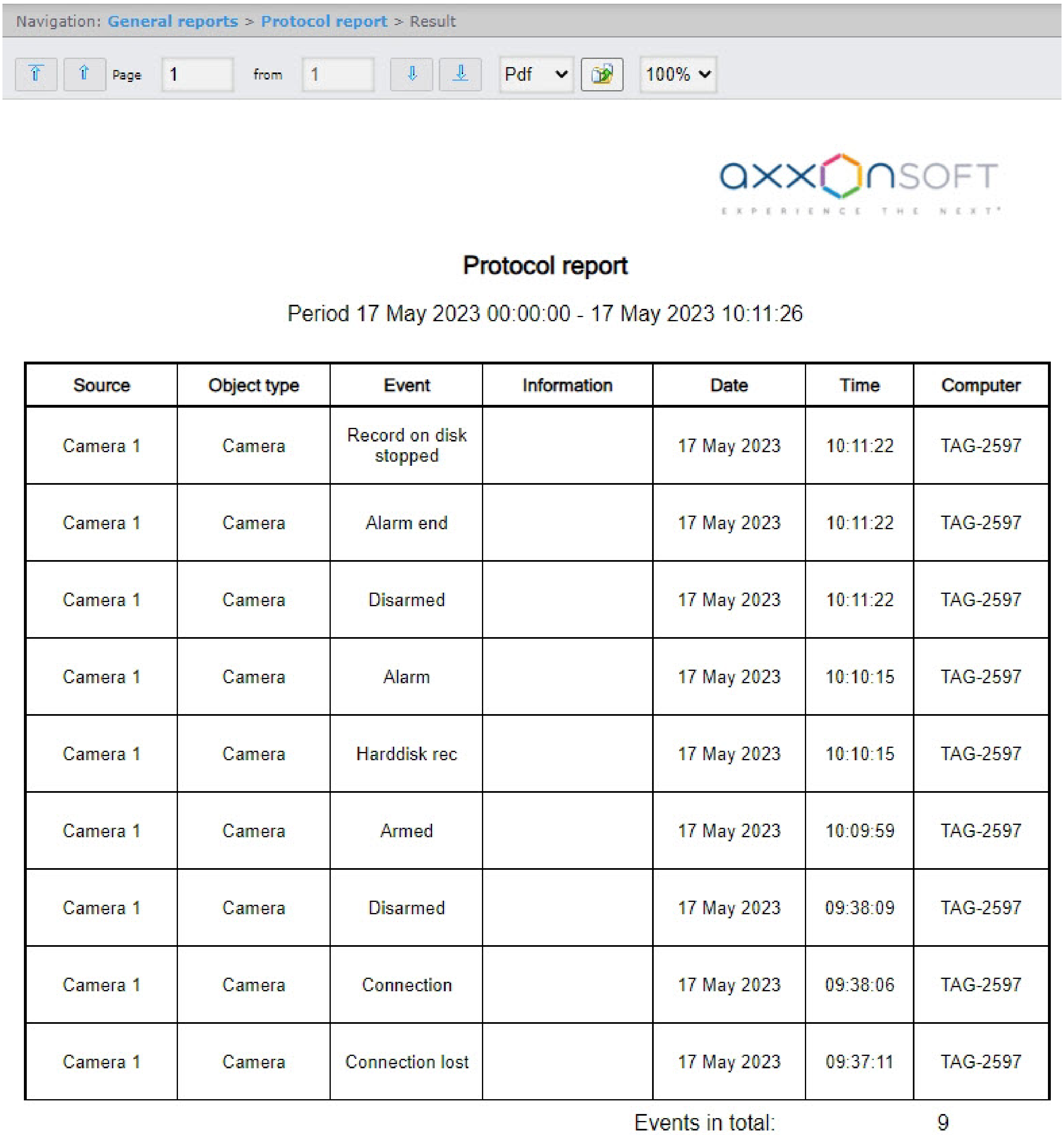
The images corresponding to the employee access events will be displayed when using the FSA/ACS module. To display the images, specify the path to the folder with the images in the <add key="PathToPhotos" value ="" /> parameter in the **web.config** file. By default, the /BMP/Person/ path is specified.

The names of the files with the images must correspond to the ID of the employees whose accesses are displayed in the report.

Attention!

- You cannot print the form of the protocol report with video displaying feature. If you need to get the print form of the protocol report, create the report without video, that is, the **Report with video** checkbox (**9**) must be clear.
- When creating an autogenerated protocol report, you must select the report without video displaying feature.

Example of a print form of the protocol report:


Navigation: General reports > Protocol report > Result

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Protocol report

Period 17 May 2023 00:00:00 - 17 May 2023 10:11:26

Source	Object type	Event	Information	Date	Time	Computer
Camera 1	Camera	Record on disk stopped		17 May 2023	10:11:22	TAG-2597
Camera 1	Camera	Alarm end		17 May 2023	10:11:22	TAG-2597
Camera 1	Camera	Disarmed		17 May 2023	10:11:22	TAG-2597
Camera 1	Camera	Alarm		17 May 2023	10:10:15	TAG-2597
Camera 1	Camera	Harddisk rec		17 May 2023	10:10:15	TAG-2597
Camera 1	Camera	Armed		17 May 2023	10:09:59	TAG-2597
Camera 1	Camera	Disarmed		17 May 2023	09:38:09	TAG-2597
Camera 1	Camera	Connection		17 May 2023	09:38:06	TAG-2597
Camera 1	Camera	Connection lost		17 May 2023	09:37:11	TAG-2597

Events in total: 9

Description of report fields is given in the table.

Field name	**Description**
Source	Identifier of the source object of the event (data from the objid column of the dbo.PROTOCOL table of the *Axxon PSIM* database)

Field name	Description
Object type	Type of object to which an event belongs (data from the objtype column of the dbo.PROTOCOL table of the *Axxon PSIM* database)
Event	Name of the event (data from the action column of the dbo.PROTOCOL table of the *Axxon PSIM* database)
Information	Additional information about the event (if available), such as the name of the computer where the event occurred, the operator's comment, and so on (data from the param0 column of the dbo.PROTOCOL table of the *Axxon PSIM* database)
Date	Date of the event (data from the date column of the dbo.PROTOCOL table of the *Axxon PSIM* database)
Time	Time of the event (data from the date column of the dbo.PROTOCOL table of the *Axxon PSIM* database)
Computer	Name of the computer where the event occurred

Note

- The operator's comment confirming the event in Event Manager module is specified in the **Information** field in square brackets (see Example of working with the Event manager module).
- For details about the dbo.PROTOCOL table, see Base Axxon PSIM database tables.

You can save the report in the following formats:

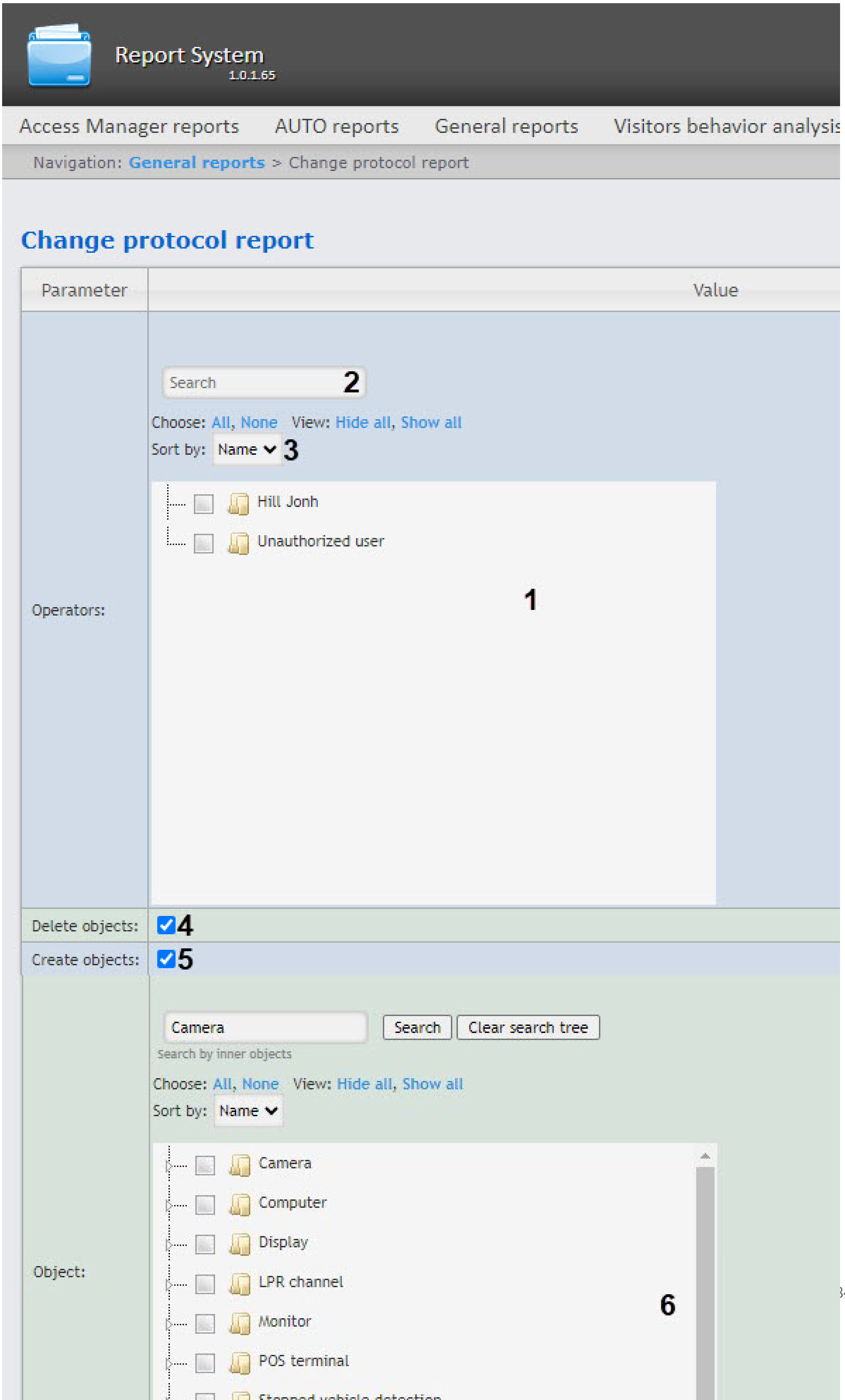
- PDF,
- Excel,
- CSV.

The protocol report is created.

8.3.3 Change protocol report

In order to create a change protocol report, do the following:

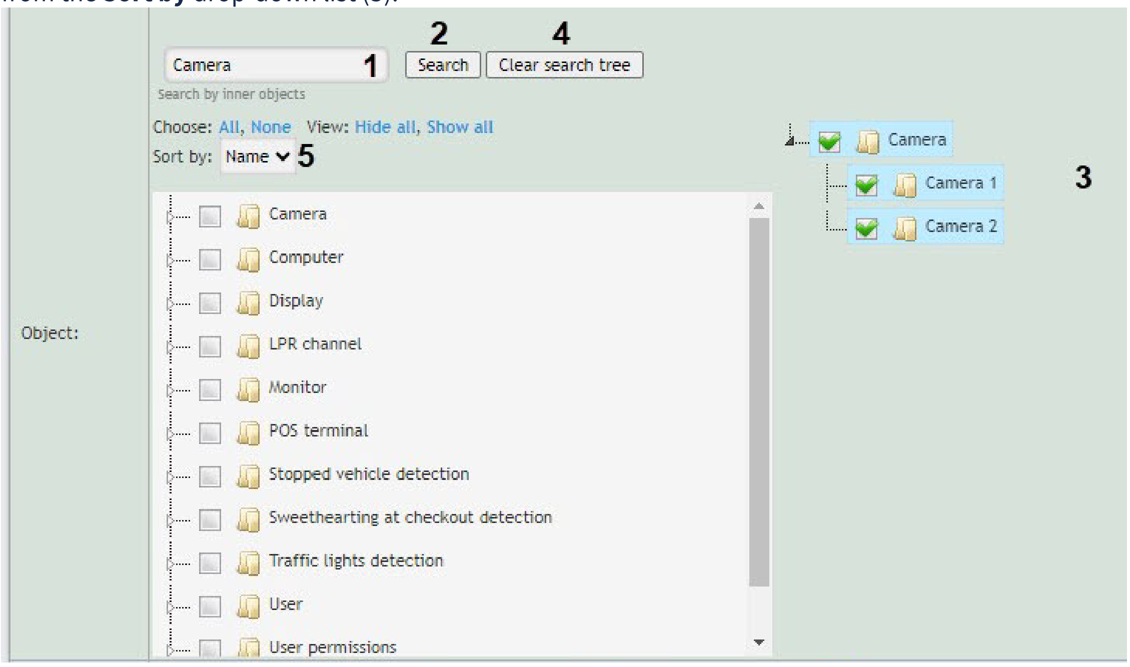
1. Select the **Change protocol report** type (see Selecting a type of general report). As a result, the dialog window for specifying the report parameters will be displayed.


Report System
1.0.1.65
Access Manager reports
AUTO reports
General reports
Visitors behavior analysis
Navigation: General reports > Change protocol report
Change protocol report
Parameter
Value
Search
2
Choose: All, None View: Hide all, Show all
Sort by: Name
3
Hill Jonh
Unauthorized user
1
Operators:
Delete objects:
4
Create objects:
5
Camera
Search
Clear search tree
Search by inner objects
Choose: All, None View: Hide all, Show all
Sort by: Name
Camera
Computer
Display
LPR channel
Monitor
POS terminal
6
Object:

2. Set the following report parameters:
   a. In the **Operators** field (**1**), set the checkboxes next to those users who have the rights to make change. You can also use the search by operators (**2**). Be default, the list of operators is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**3**).

   > **Note**
   >
   > The **Unauthorized user** value means change of system by a user who wasn't authorized, or a user who was removed from the system, and/or a user who had their rights deleted.

   b. To display deleted objects in the report, set the **Delete objects** checkbox (**4**).
   c. To display created objects in the report, set the **Create objects** checkbox (**5**).
   d. In the **Object** field (**6**), set the checkboxes next to the objects which changes you want to display in the report. You can also use the search by objects. To do this, enter the name of the object (minimum four characters) in the **Search by inner objects** field (**1**) and click the **Search** button (**2**). As a result, the found objects will be displayed in the additional object tree (**3**). To cancel, click the **Clear search tree** button (**4**). By default, the list of objects is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**5**).



   e. From the **Period** drop-down list (**7**), select the time period to build a report.

   > **Note**
   >
   > If you selected the **Custom** period, enter the date of start and end periods for which the report must be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.

3. To create a report, click the **Execute** button (**8**).
   Example of a change protocol report:

Change protocol report

Period 28 August 2023 00:00:00 - 31 August 2023 12:31:42

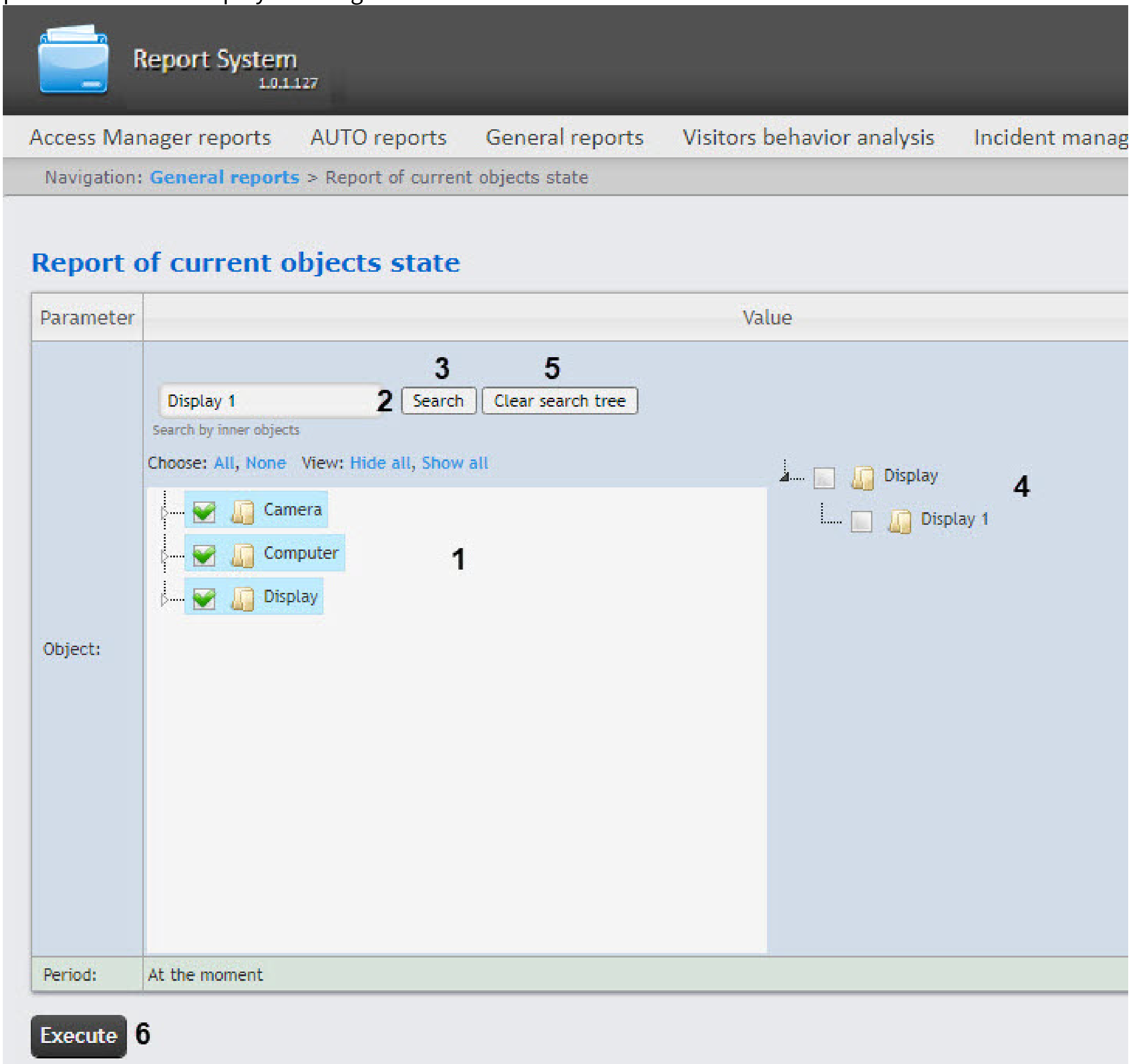
Object type	Object name	Event	User	Date	Computer	Changes
Computer	LOCALHOST [TAG-2597]	Change		30 August 2023 15:17:36	TAG-2597	client <> => <0>; local_protocol <> => <0>; sleep <> => <0>;

Note

- The identifier of the object is indicated in square brackets in the end of the object name in the **Object name** field.
- The identifier of the user is indicated in square brackets at the end of the user name in the **User** field.
- In the created report, the objects are sorted by their identifiers and by the event date.

8.3.4 Report of current objects state

In order to generate the Report of current objects state, do the following:

1. Select the **Report of current objects state** (see Selecting a type of general report). Specify the report parameters in the displayed dialog box.


2. In the **Object** field (**1**), set checkboxes next to those objects which current state should be displayed in the report. Click **All** to select all objects from the list. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.

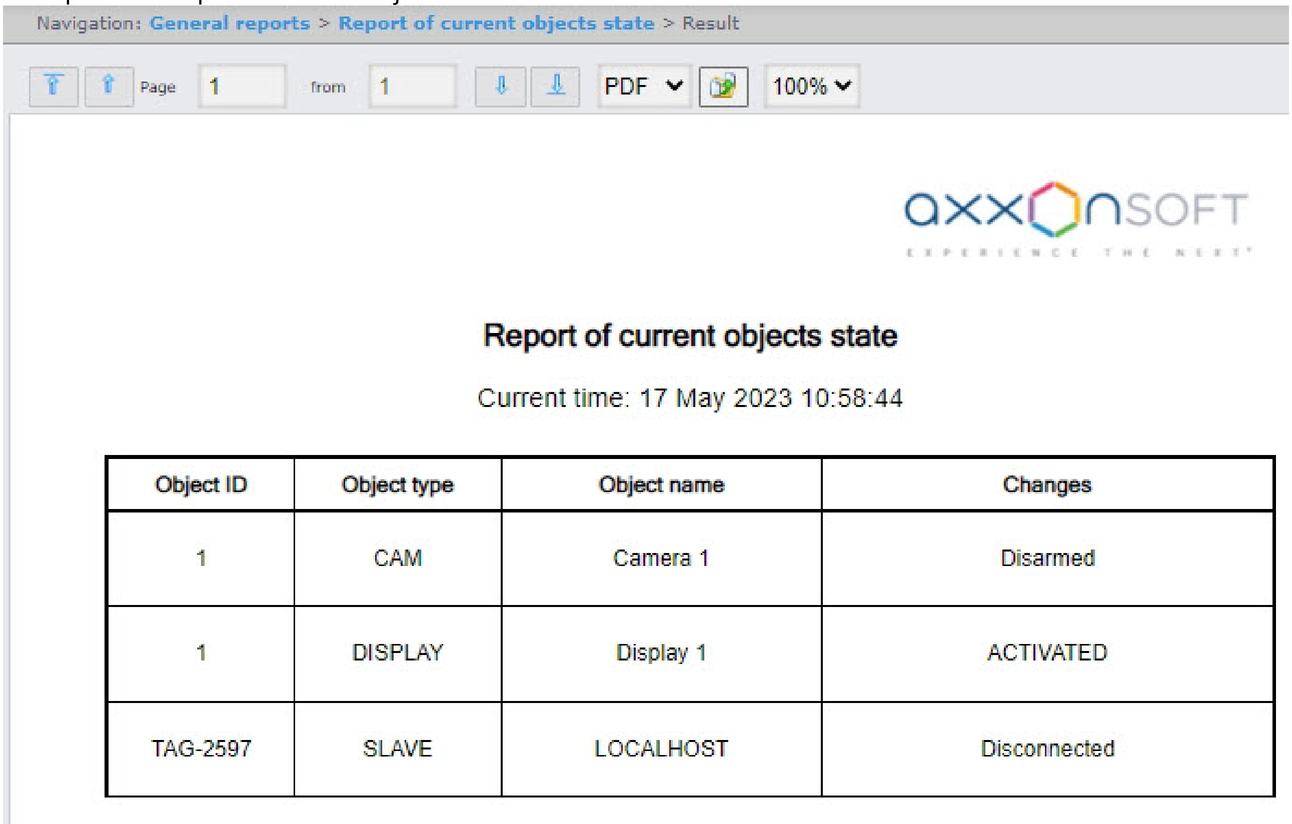
> **Note**
>
> The **Object** field displays only those objects which can be assigned a status displayed on the map.

3. To search for the inner object, enter its name (at least 4 characters) into the search field (**2**) and click the **Search** button (**3**). The found object will be displayed in the search tree (**4**).
4. Click the **Clear search tree** button (**5**) to remove the objects from the search tree.
5. Click the **Execute** button (**6**) to generate the report.

> **Note**

If the search tree is empty, the report is generated on the objects selected in the area **1**. Otherwise, the report is generated on the objects selected in the search tree.

Example of the report of current objects state:


Navigation: General reports > Report of current objects state > Result

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Report of current objects state

Current time: 17 May 2023 10:58:44

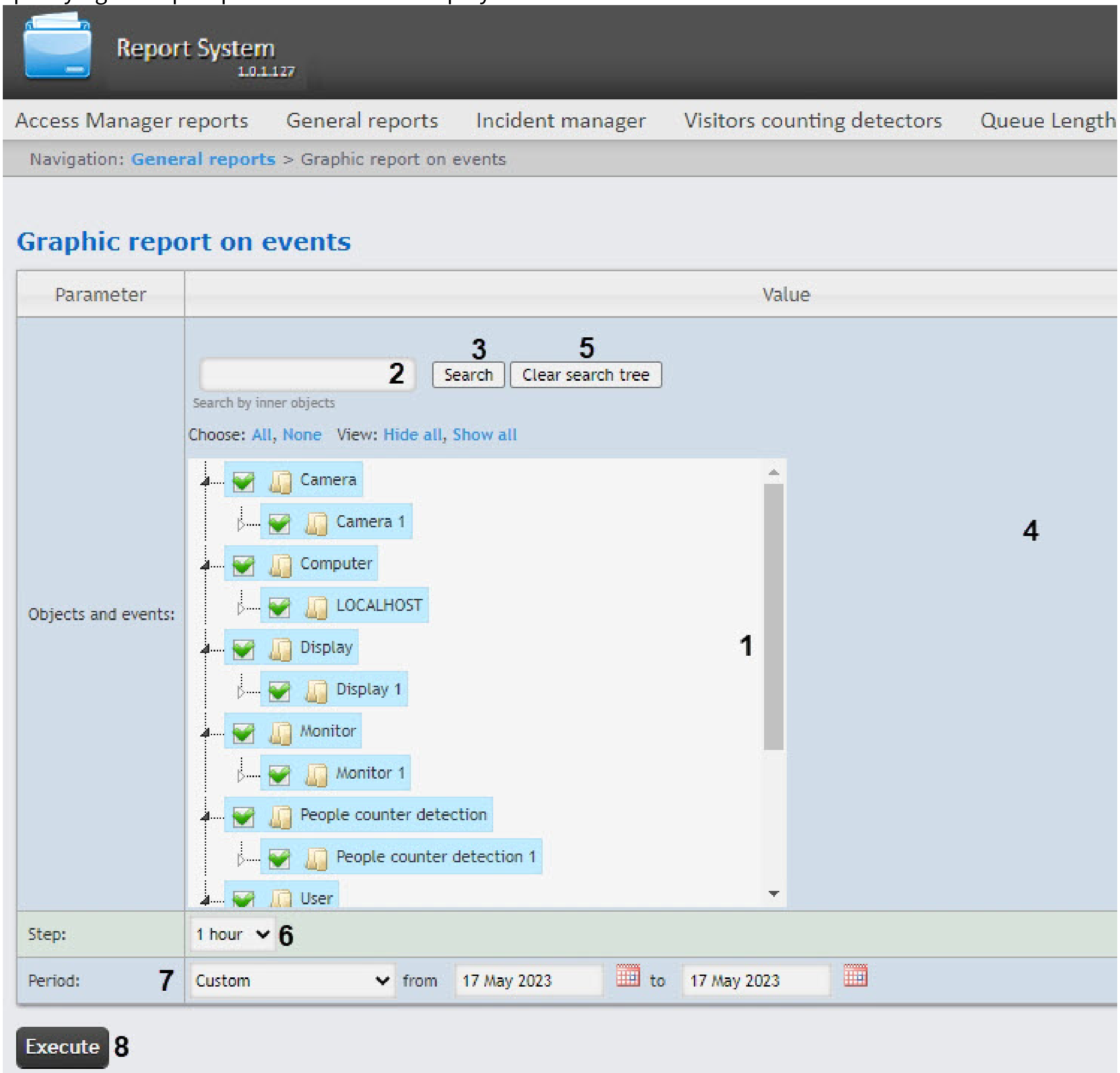
Object ID	Object type	Object name	Changes
1	CAM	Camera 1	Disarmed
1	DISPLAY	Display 1	ACTIVATED
TAG-2597	SLAVE	LOCALHOST	Disconnected

Generation of the report of current objects state is complete.

8.3.5 Graphic report on events

To create the **Graphic report on events**, do the following:

1. Select the **Graphic report on events** (see Selecting the type of general report). As a result the dialog box for specifying the report parameters will be displayed.



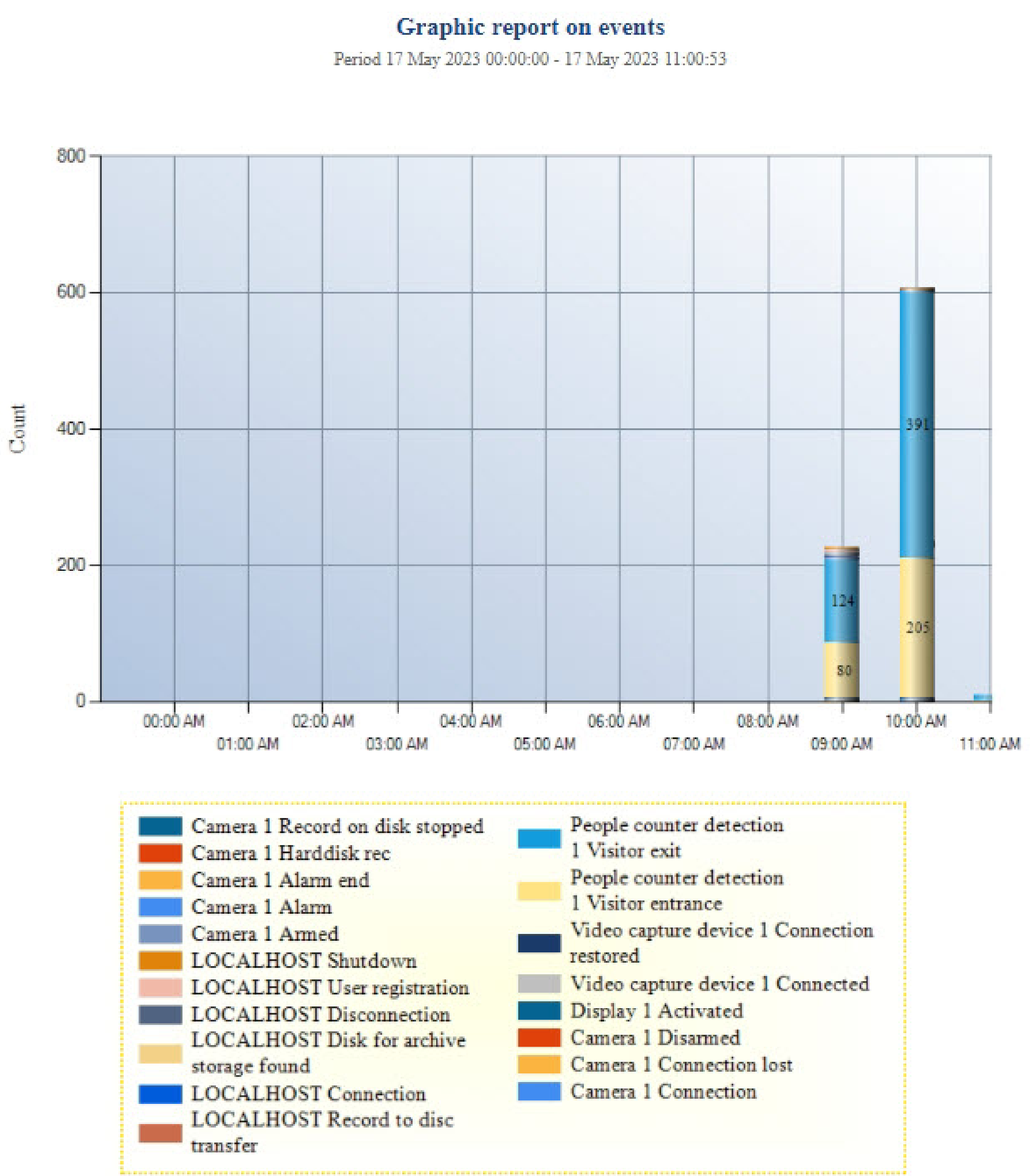
2. In the **Objects and events** field (**1**) set the checkboxes for the objects and their events the information on which should be displayed in the report. Click **All** to select all objects from the list. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.

> **Note**
>
> You can select any event by expanding the object type list.

3. To search for the inner object, enter its name (at least 4 characters) into the search field (**2**) and click the **Search** button (**3**). The found object will be displayed in the search tree (**4**).
4. Click the **Clear search tree** button (**5**) to remove the objects from the search tree.
5. From the **Step** drop-down list (**6**) select the time period during which the data for the report will be summarized. The list of available steps depends on the selected period (**3**).
6. From the **Period** drop-down list (**7**) select the time period for which the report is to be created. If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in

the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.

7. To create a report click **Execute** (**8**). As a result the report with specified parameters is displayed.



If the report is exported (see Exporting of reports), the report file will also contain the events table, sorted by the event source. This table contains the event name, event date and events number for each event source.

Source: **Camera 1**

Event: Connection

Date	Amount
17 May 2023 09:00:00	1
17 May 2023 10:00:00	1

Event: Connection lost

Date	Amount
17 May 2023 09:00:00	1

Event: Disarmed

Date	Amount
17 May 2023 09:00:00	1
17 May 2023 10:00:00	2

Event: Activated

Date	Amount
17 May 2023 09:00:00	1
17 May 2023 10:00:00	1

Event: Connected

Date	Amount
17 May 2023 09:00:00	1
17 May 2023 10:00:00	1

Event: Connection restored

Date	Amount
17 May 2023 09:00:00	1
17 May 2023 10:00:00	1

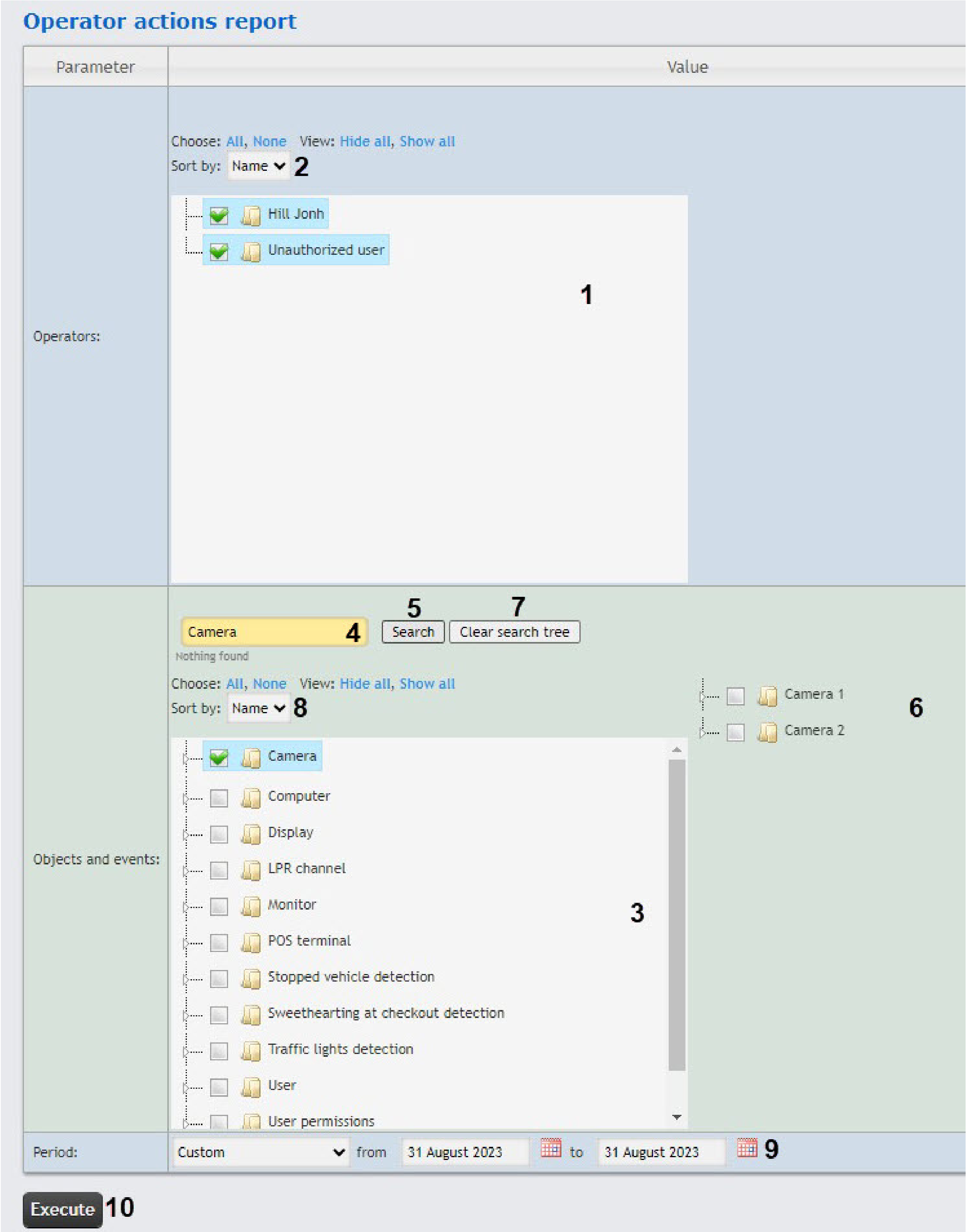
Event: Visitor entrance

Date	Amount
17 May 2023 09:00:00	80

8.3.6 Operator actions report

To create an **Operator actions report**, do the following:

1. Select the **Operator actions report** type (see Selecting the type of general report).
2. In the **Operators** field (**1**), select the users who have been assigned rights to make edits. The **Unauthorized user** value means a user who wasn't authorized, or a user who was removed from the system, and/or a user who had their rights deleted. By default, the list of operators is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**2**).



3. In the **Objects and events** field (**3**), set the checkboxes next to those objects and their events, the information on which you want to display in the report. You can select arbitrary events by expanding the list of object type or by searching by inner objects. To use the search by inner objects, enter the name of the object you are looking for (minimum four characters) in the search field (**4**) and click the **Search** button (**5**). The found objects will appear in the search tree in the area **6**. To cancel the action, click the **Clear search tree** button (**7**).
4. By default, the list of objects and events is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**8**).
5. From the **Period** drop-down list (**9**), select the time period to build a report. If you selected **Custom** or **Custom 2** period, enter the start and end dates of the time period in the **from** and **to** fields using the **Calendar** tool. Open the **Calendar** tool by clicking the button next to the corresponding field. If you selected the **Custom 2** period, enter additionally the time of start and end periods to create a report using the button.
6. To build a report, click the **Execute** button (**10**).

Example of an Operator actions report:

Operator actions report

Period 31 August 2023 00:00:00 - 31 August 2023 12:51:42

Object type	Object name	Event	Information	Card number	Date	Time	Related object	Computer
CAM	Camera [1]	Change	Connection lost		31 August 2023	00:00:00	Camera 1	
CAM	Camera [2]	Change	Connection lost		31 August 2023	00:00:00	Camera 2	
CAM	Camera [2]	Change	Connection		31 August 2023	09:47:32	Camera 2	
CAM	Camera [1]	Change	Connection		31 August 2023	09:47:32	Camera 1	
CAM	Camera [2]	Change	Alarm		31 August 2023	09:48:02	Camera 2	

Report fields are described in the table.

Field	Description
Object type	Type of an object in the system

Field	Description
Object name	Name of an object. *Note. The object's identifier is displayed at the end of the object name in square brackets*
Event	Event type
Information	Event name
Card number	Operator access card number
Date	Date of an event
Time	Time of an event
Related object	Object name with which an event is related
Computer	Computer name

Note

In the report, the objects are sorted by their identifiers and by the event date.

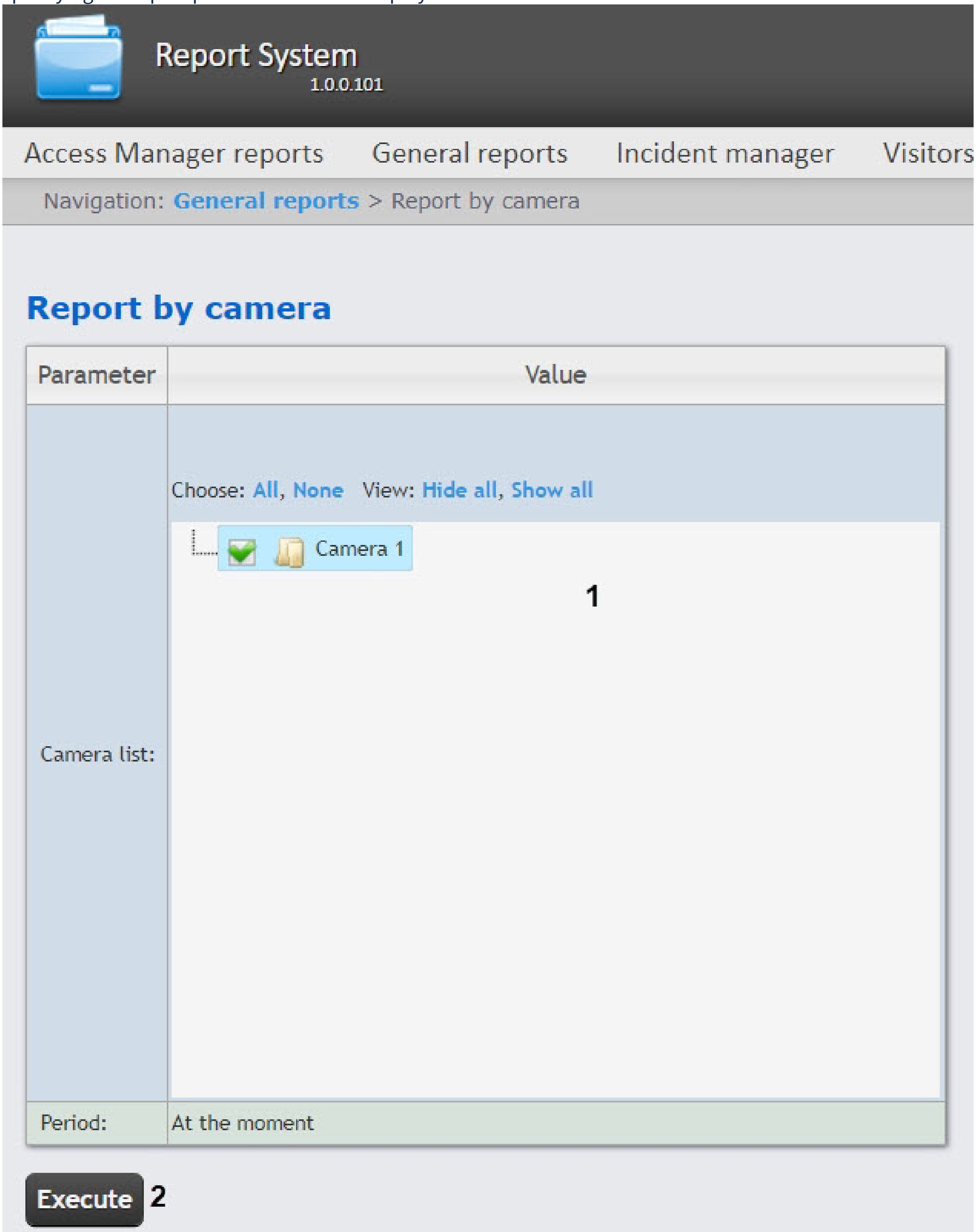
8.3.7 Report by camera

Attention!

To display frames from cameras in the generated report, it is necessary to configure the video player (see Video Player Settings).

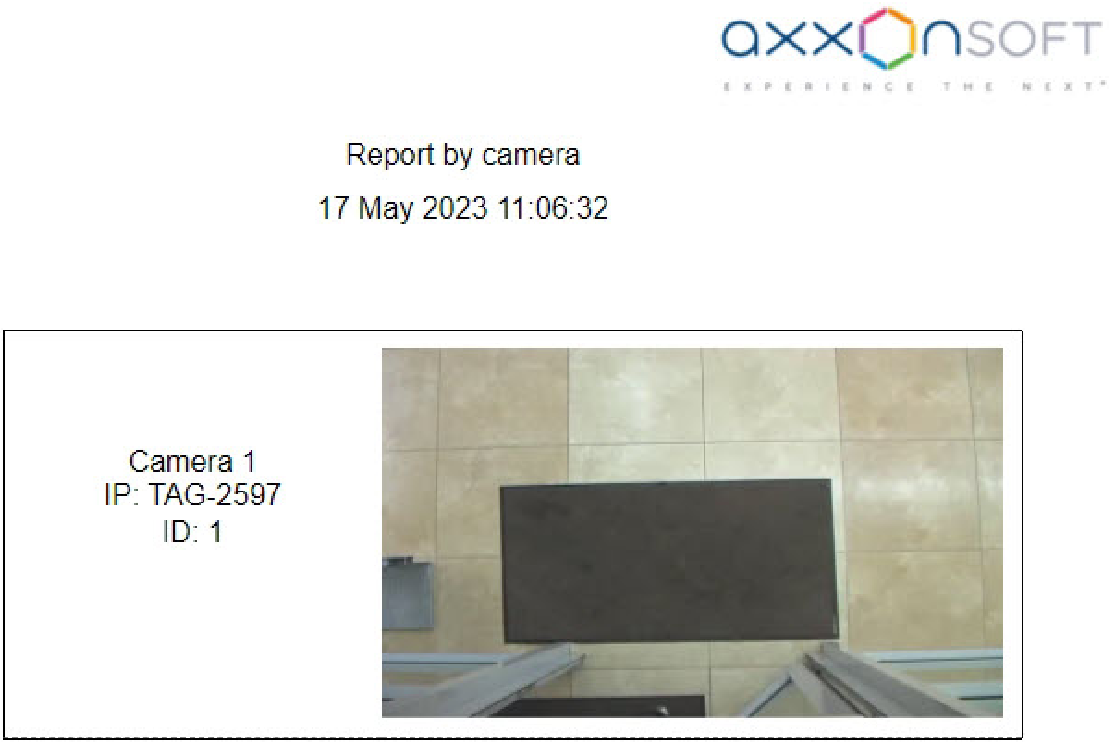
To create a **Report by camera**, do the following:

1. Select the **Report by camera** type (see Selecting the type of general report). As a result the dialog box for specifying the report parameters will be displayed.



2. In the **Camera list** (**1**) set the checkboxes for those camera objects for which you want to build a report. Click **All** to select all objects from the list. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.

3. To build a report, click the **Execute** button (**2**). As a result, a report for the selected cameras will be displayed:

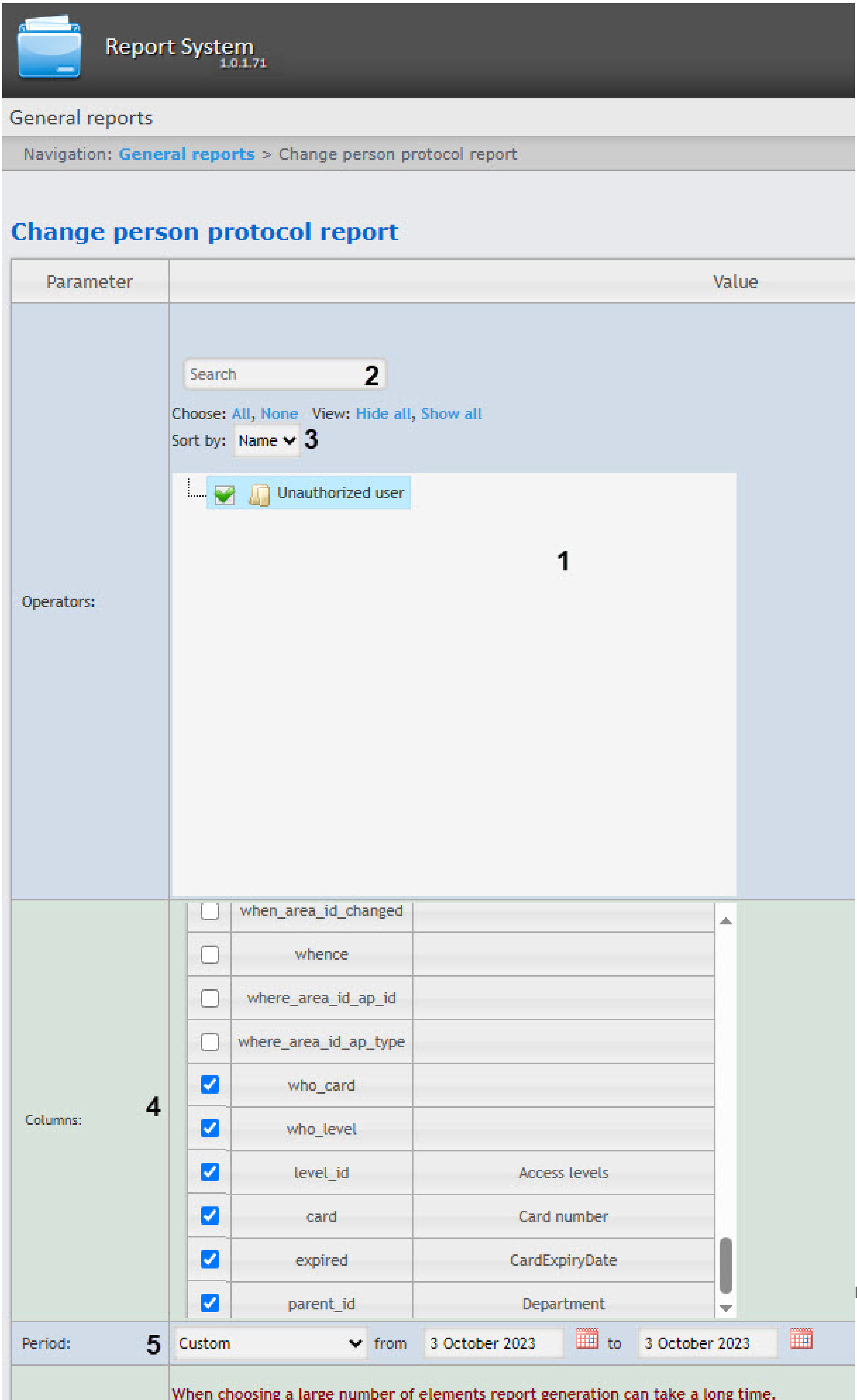


The report by camera contains the following information:

- Camera name in *Axxon PSIM;*
- Camera IP address;
- Camera ID;
- Frame from the camera at the time of the report generation. The frame is taken from the video stream, which is intended for recording the archive.

8.3.8 Change person protocol report

To create this report, select the **Change person protocol report** from the list of **General reports** (see Selecting the type of general report). Specify report parameters in the form that opens.


Report System
1.0.1.71
General reports
Navigation: General reports > Change person protocol report
Change person protocol report
Parameter
Value
Operators:
Search
2
Choose: All, None View: Hide all, Show all
Sort by: Name
3
Unauthorized user
1
Columns:
4
when_area_id_changed
whence
where_area_id_ap_id
where_area_id_ap_type
who_card
who_level
level_id
Access levels
card
Card number
expired
CardExpiryDate
parent_id
Department
Period:
5
Custom
from
3 October 2023
to
3 October 2023
When choosing a large number of elements report generation can take a long time.

1. In the **Operators** field (**1**), set the checkboxes next to the users who were assigned the rights to make changes. To select all found operators, click **All**, to deselect, click **None**. To expand the operator structure, click **Show all**, to hide the operator structure, click **Hide all**.
2. You can find an operator using the search (**2**). The search starts from the first character, the result is highlighted in a different color.
3. By default, the list of operators is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**3**).
4. In the **Columns** table, determine which fields will be included in the report (will become columns of the report table) and what they will be called.
    a. Set the checkboxes in the **Parameter** column to select the fields that you want to include in the report. The number of fields is unlimited. The recommended number of columns in the report is six. With more columns, it can be difficult to read the text of the report.
    b. In the **Value** column, you can enter the name of the field that will be displayed in the report. If the user hasn't entered a name and the line is left blank, the report will display the name of the field from the database (**4**).
5. From the **Period** drop-down list (**5**), select the time period to create the report. If you select the **Custom** or **Custom 2** period, enter the date of start and end periods for which the report must be created in the **from** and **to** fields using the **Calendar** tool. Click the  button near the corresponding field to use the **Calendar**. If you select **Custom 2** period, enter the time of start and end periods for which the report must be created using the  button.
6. In the **Departments/users** field (**6**), set the checkboxes next to the departments or employees, the information about which you want to be displayed in the report. To select all found employees and departments, click **All**, to deselect, click **None**. To expand the structure of departments, click **Show all**, to hide the structure of departments, click **Hide all**.
7. You can find an employee by name or surname using the search. To do it, enter at least 4 first characters of the employee's first name or surname in the search field (**7**) and click the **Search** button (**8**). The department to which the found employee belongs will be displayed in the search tree in the area **9**. To clear the search field and the search tree, click the **Clear search tree** button (**10**).
8. By default, the list of employees is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**11**).
9. To create the report, click the **Execute** button.

Example of a Change person protocol report.

Change person protocol report

Period Friday, May 24, 2024 12:00 AM - Friday, May 24, 2024 2:46 PM

User	Object name	Event	Date	Access levels		Card number		CardExpiryDate		Department	
				Old	New	Old	New	Old	New	Old	New
User without authorization	User 1 [1]	Creating	5/24/2024 9:57 AM		[]						Department 1[1]
User without authorization	User 1 [1]	Change	5/24/2024 10:01 AM	[]	Access level 1[1]				5/10/2024 11:59 PM		
User without authorization	User 1 [1]	Change	5/24/2024 10:07 AM					5/10/2024 11:59 PM	5/16/2024 11:59 PM		
User without authorization	User 15 [15]	Creating	5/24/2024 10:25 AM		Access level 1[1]						Department 1[1]
User without authorization	User 15 [15]	Change	5/24/2024 10:26 AM						5/3/2024 11:59 PM		

Events in total: 5

Note

In the Change person protocol report, the **Department** and **Access levels** columns are displayed: Department name[id] and Access level name[id], respectively.
Several access levels are seperated by commas.
Access level inherited from a department is displayed in the report: [].
The **Access forbidden** access level is displayed in the report: Access forbidden[-].
The **Full access** access level is displayed in the report: Full access[*].

8.4 Working with Visitors behavior analysis reports

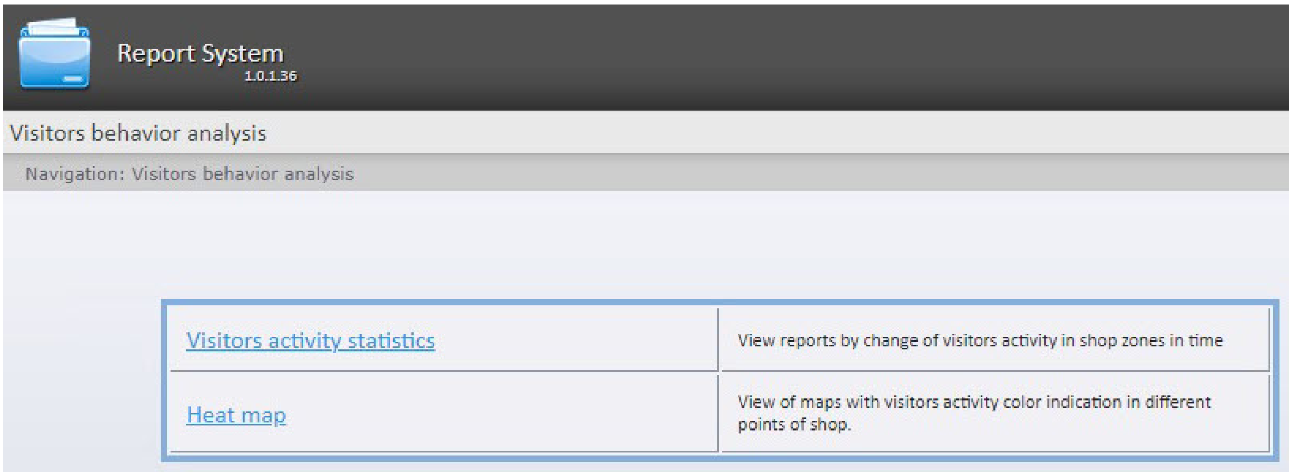
8.4.1 Selecting a type of Visitors behavior analysis reports

It is possible to create the following visitors behavior analysis reports:

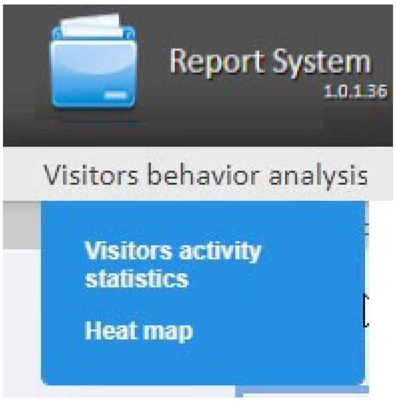
1. Visitors activity statistics report is used to inspect the change of customer activity over time and quantitatively estimate activity in different zones of monitored area.
2. Heat map report decides the issue of quick and auality comparison of customer activity in different zones of monitored area.

To select a type of visitors behavior analysis report click **Visitors behavior analysis** link in the report menu of *WEB Report System PSIM*.

As a result the list of available visitors behavior analysis reports is displayed. For switching to the required report click the corresponding link.



List of links for switching to visitors behavior analysis reports is available when hovering the **Visitors behavior analysis** link in the report menu.



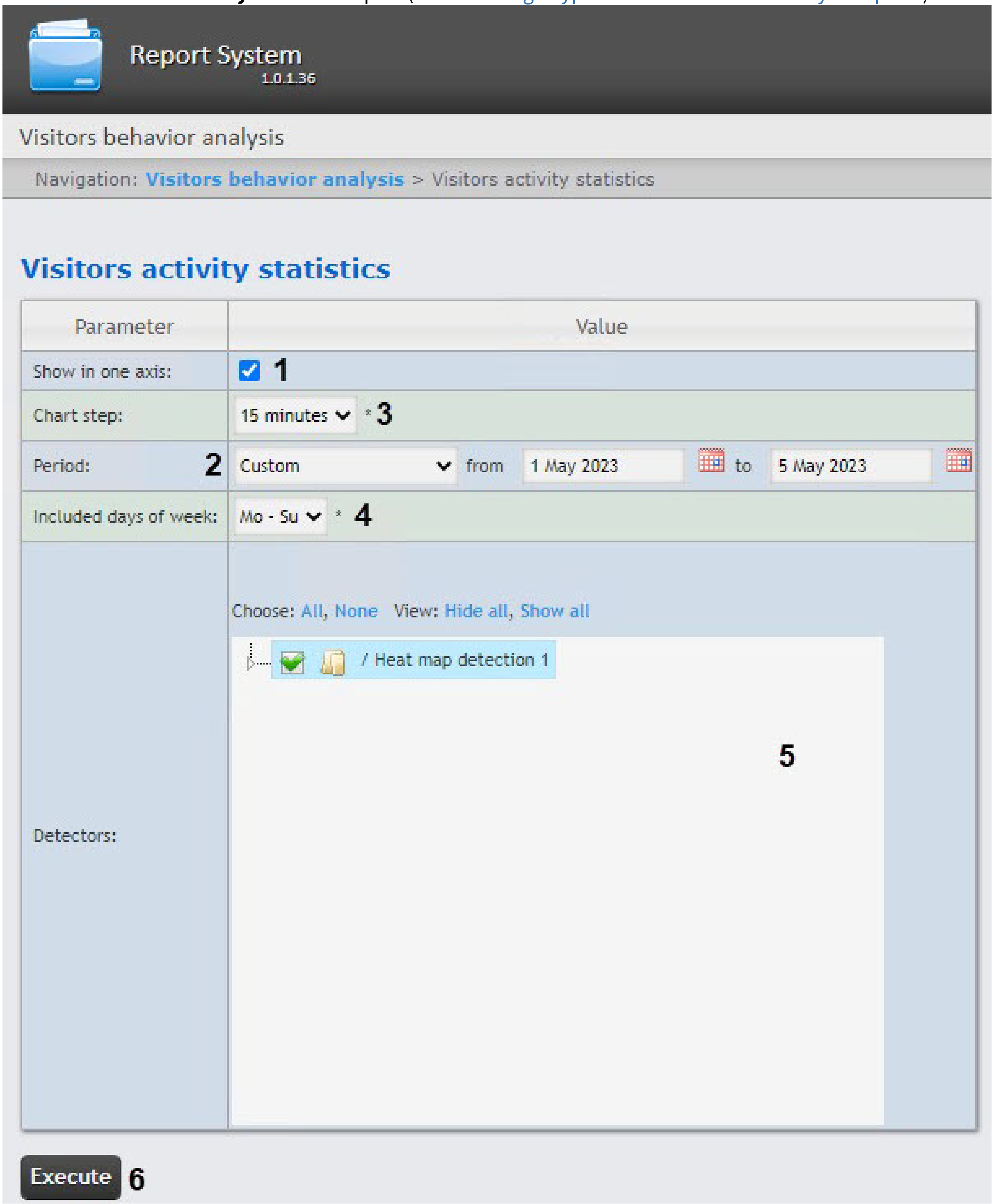
8.4.2 Creating the Visitors activity statistics report

Note

The **Visitors activity statistics** is related to the **Heat map detection** module, it is necessary to create and configure the corresponding object in *DetectorPack PSIM* (see Configuring the Heat map detection module).

To generate the **Visitors activity statistics** report, do the following:

1. Select the **Visitors activity statistics** report (see Selecting a type of Visitors behavior analysis reports).



2. Set the **Show in one axis** checkbox to display data from different areas in one chart (**1**). By default, the checkbox is set.
3. From the **Period** drop-down list, select the time period for which the report should be created (**2**). For the **Custom 1** and **Custom 2** periods, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the  button near the corresponding field

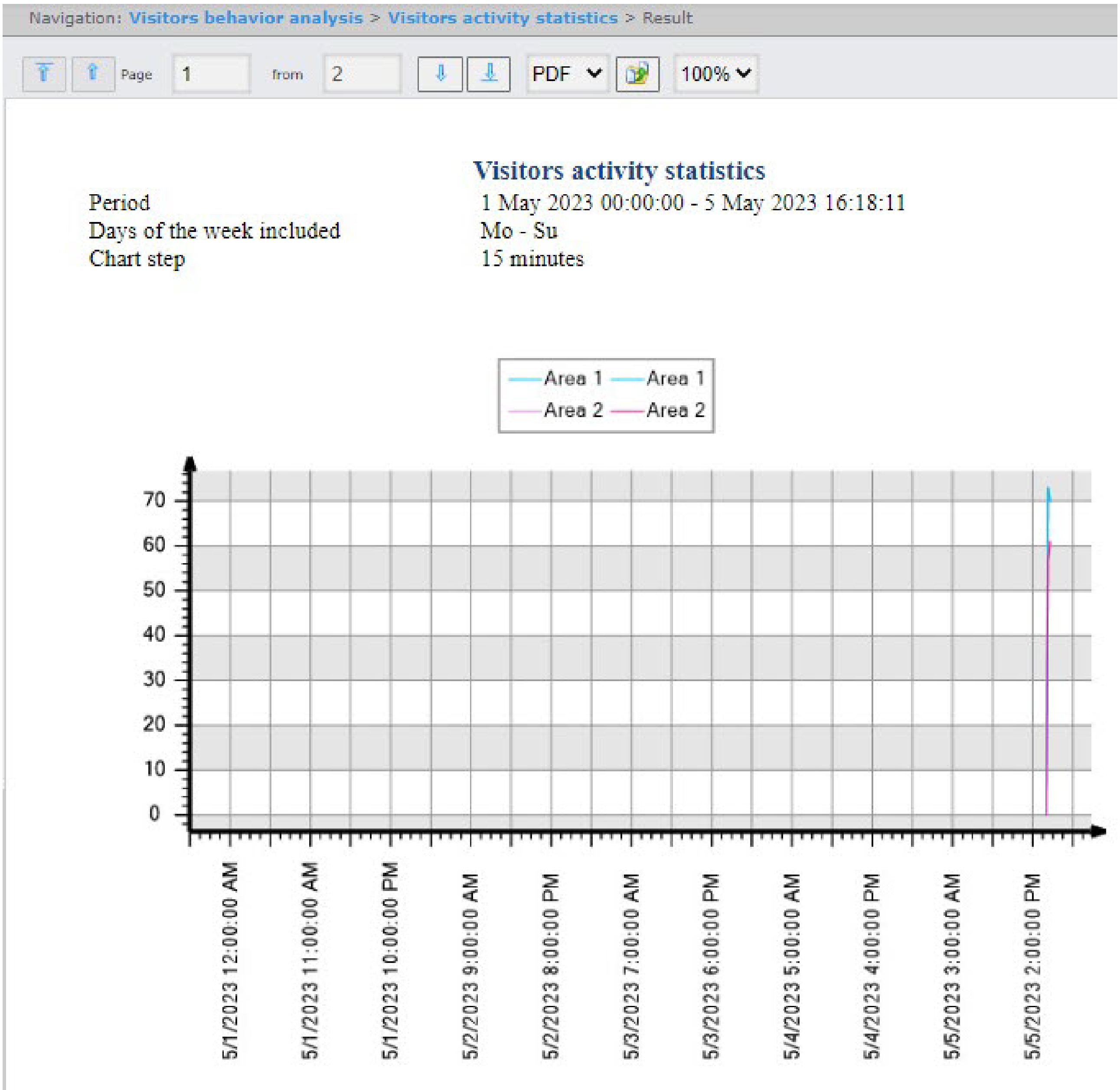
to use the **Calendar** tool. If the **Custom 2** period is selected, enter additionally the start and end time of the period for which the report should be created using the button.

4. From the **Chart step** drop-down list, select the time interval in which data will be averaged (**3**). The list of available steps depends on the selected period (**2**).
5. From the **Included days of week** drop-down list, select the days when most customers work/don't work to consider in statistics (**4**).

   > **Note**
   >
   > If the data period and the specified included days of week don't overlap, an empty report will be created, and a message prompting to change the **Included days of week** parameter or specify another **Period**.

6. In the **Detectors** field, set the checkboxes next to the areas, the information on which should be displayed in the report (**5**). Click **All** to select all objects from the list. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.
7. Click the **Execute** button (**6**) to generate the report.

Example of a **Visitors activity statistics** report.


Navigation: Visitors behavior analysis > Visitors activity statistics > Result
Page
1
from
2
PDF
100%
Visitors activity statistics
Period
1 May 2023 00:00:00 - 5 May 2023 16:18:11
Days of the week included
Mo - Su
Chart step
15 minutes
Area 1
Area 1
Area 2
Area 2
70
60
50
40
30
20
10
0
5/1/2023 12:00:00 AM
5/1/2023 11:00:00 AM
5/1/2023 10:00:00 PM
5/2/2023 9:00:00 AM
5/2/2023 8:00:00 PM
5/3/2023 7:00:00 AM
5/3/2023 6:00:00 PM
5/4/2023 5:00:00 AM
5/4/2023 4:00:00 PM
5/5/2023 3:00:00 AM
5/5/2023 2:00:00 PM

Area and detector: : / Heat map detection 1

Detector	Receiving data period	Visitors
Average results for whole period		
Area 1	1 May 00:00 5 May 16:18	48%
Area 2	1 May 00:00 5 May 16:18	39%
Area 1	1 May 00:00 5 May 16:18	48%
Area 2	1 May 00:00 5 May 16:18	39%
Detailed statistics by points		
Area 1	5 May 16:15 5 May 16:29	70%
Area 1	5 May 16:00 5 May 16:14	73%
Area 1	5 May 15:45 5 May 15:59	0%

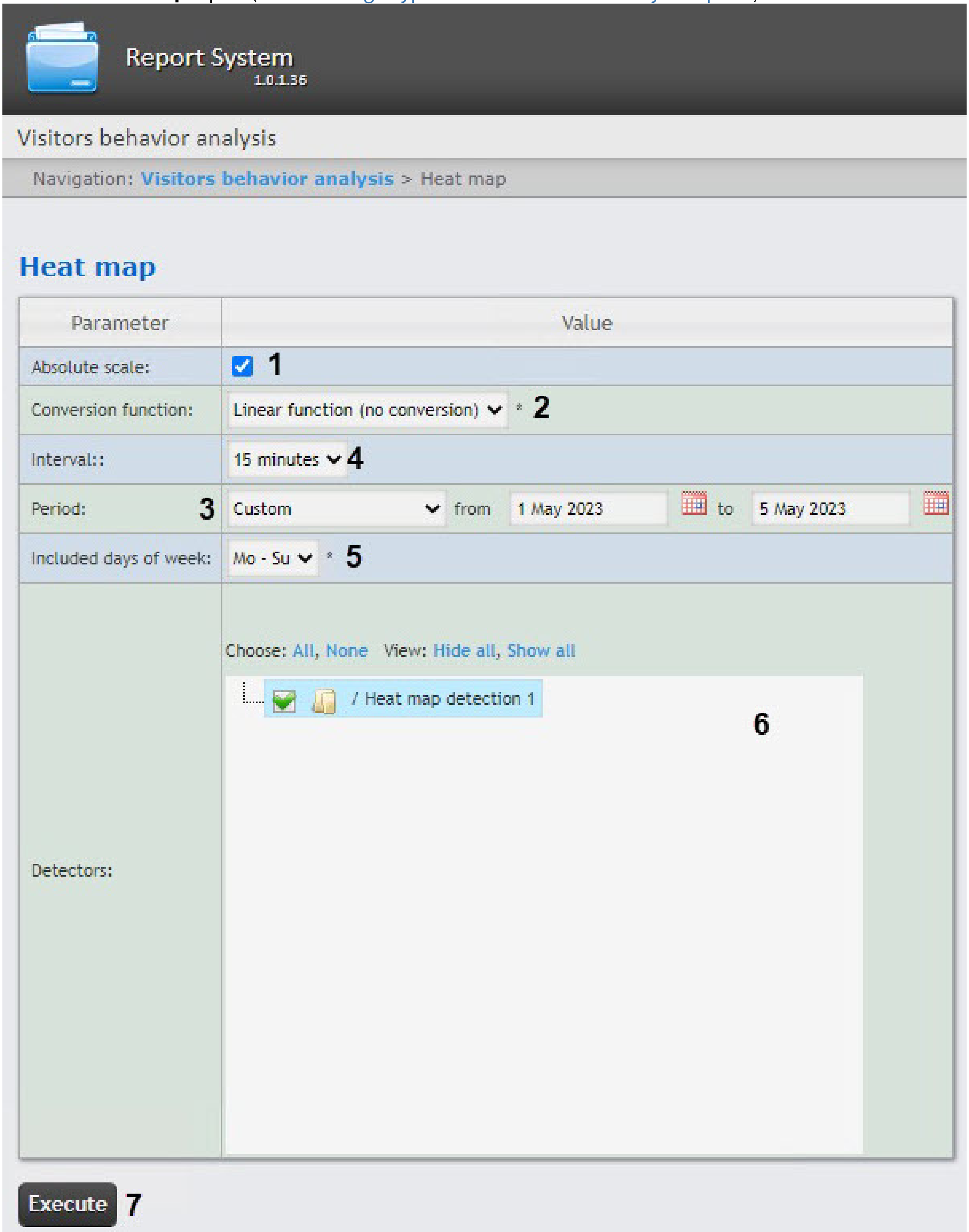
The report displays the average customer activity by areas for the whole period and the detailed statistics on customer activity for each time interval.

8.4.3 Creating a Heat map report

> **Note**
>
> The **Heat map** is related to the **Heat map detection** module, it is necessary to create and configure the corresponding object in *DetectorPack PSIM* (see Configuring the Heat map detection module).

To generate the **Heat map** report, do the following:

1. Select the **Heat map** report (see Selecting a type of Visitors behavior analysis reports).



2. Set the **Absolute scale** checkbox, if it is required to dispaly initial data without any changes (**1**). By default, the checkbox isn't set.

> **Note**
>
> It is recommended to use this option only when there is high customer activity in the store. If customer activity is low, it is not recommended to set the **Absolute scale** checkbox. If a person is in the area 100% of the time, then the area will be red, if the person is not in the area at all, then the area will not be colored. As practice shows, a person can not be in a certain area 100% of the time, hence, there will never be red zones. Use the conversion function to better demonstrate this (**2**). For example, if the customer activity fluctuates in a range from 0% to 20%, then when using the linear function of conversion, each activity value will be multiplied by 100%/20% = 5 and earlier the blue zone corresponding to 20% of activity will be displayed as 100% and colored red, and not blue. Find more information about the conversion functions at http://easings.net/en or https://wiki.multitheftauto.com/wiki/Easing.

3. From the **Conversion function** drop-down list, select the function of converting the initial data into relative units (**2**).

> **Note**
>
> Different conversion functions are used to emphasize various aspects of customer activity statistics.

4. From the **Period** drop-down list, select the time period for which the report should be created (**3**). For the **Custom** and **Custom 2** periods, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. If the **Custom 2** period is selected, enter additionally the start and end time of the period for which the report should be created using the button.
5. From the **Interval** drop-down list, select the time interval in which data will be summarized (**4**). The list of available intervals depends on the selected period (**3**).
6. From the **Included days of week** drop-down list, select the days when most customers work/ don't work to consider in statistics (**5**).

> **Note**
>
> If the data period and the specified included days of week don't overlap, an empty report will be created, and a message prompting to change the **Included days of week** parameter or specify another **Period**.

7. In the **Detectors** field, set the checkboxes next to the detectors, the information on which should be displayed in the report (**6**).
8. Click the **Execute** button (**7**) to generate the report.

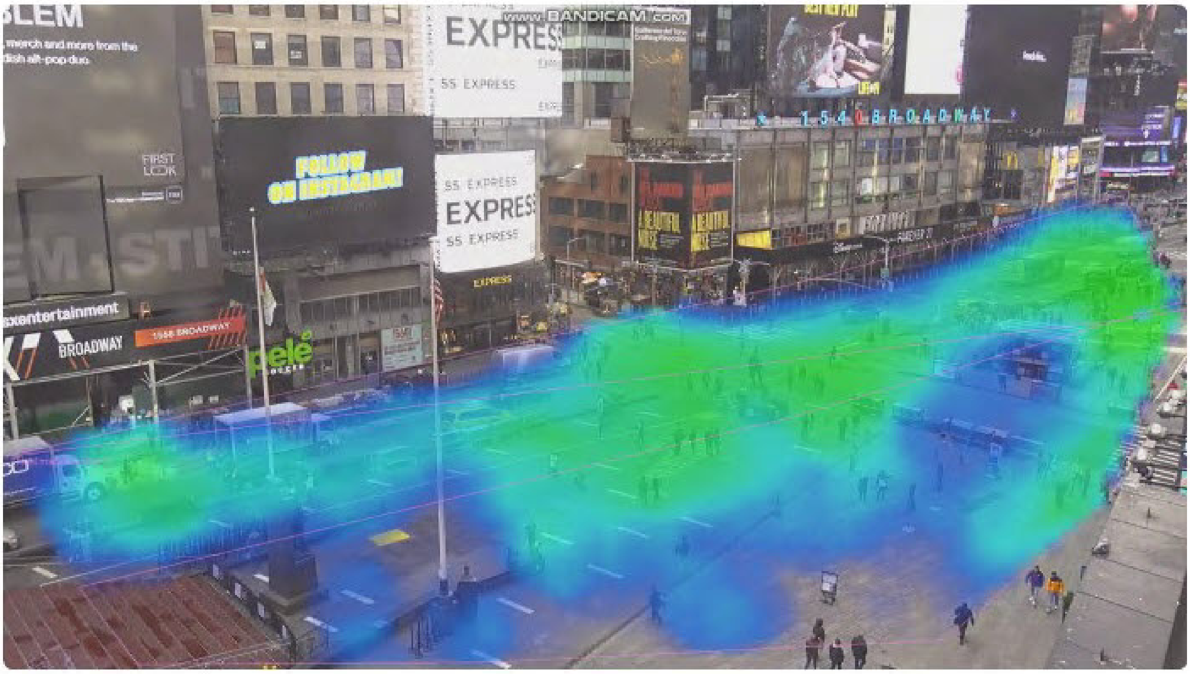
Example of a **Heat map** report.

Navigation: **Visitors behavior analysis** > **Heat map** > Result

Page 1 from 3 PDF 100%

Heat map

Period	5 May 2023 12:45:00 - 5 May 2023 13:00:00
Days of the week included	Mo - Su
Data source	/ Heat map detection 1



Customer activity in different parts of the observed area is highlighted in the corresponding color.

8.5 Working with the Incident manager reports

8.5.1 Selecting the type of the Incident manager reports

The Incident manager is used for:

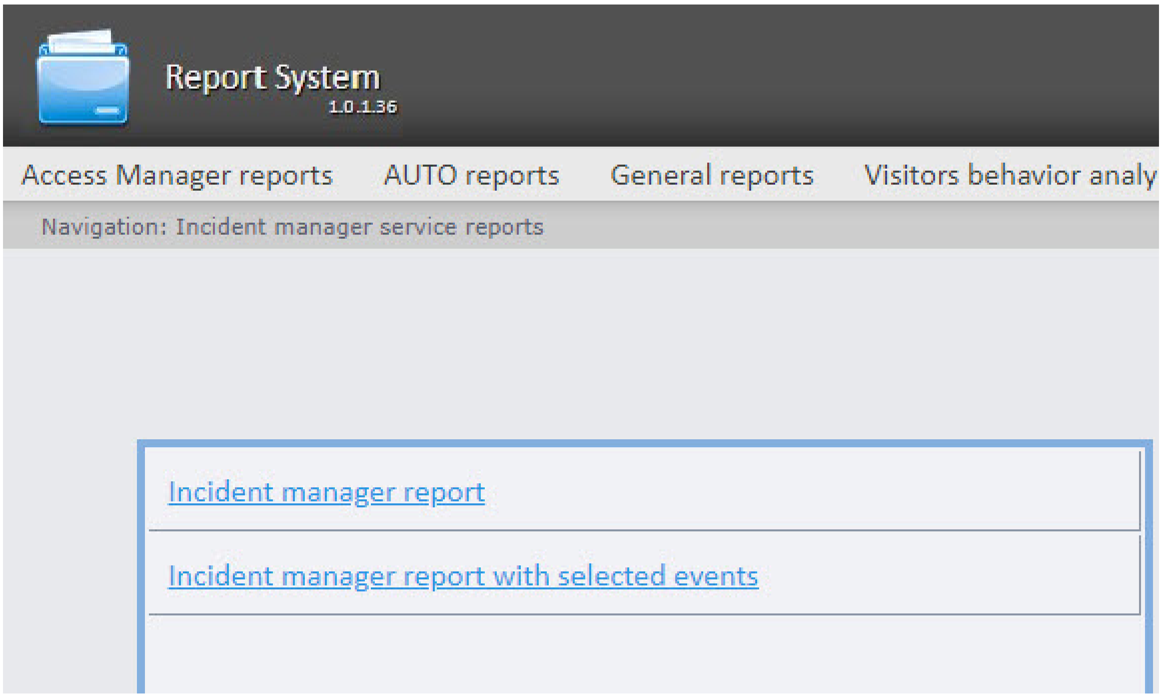
1. Processing of events according to a preconfigured script.
2. Automatic execution of macros that are started by some operator's actions.
3. Generating a report on the event and operator's actions.

You can create the following Incident manager reports:

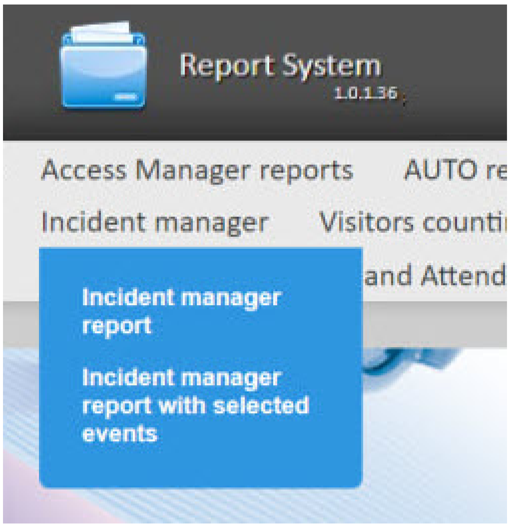
1. Incident manager report is created based on the operator's actions when processing all events.
2. Incident manager report with selected events is created based on the operator’s actions when processing the selected events.

To select the type of the **Incident manager** reports, click the **Incident manager** link in the reports menu of *WEB Report System PSIM.*

As a result, the list of available **Incident manager** reports will be displayed. To select the required report, click the corresponding link.



The list of links to the **Incident manager** reports will also be available when you hover the cursor over the **Incident manager** link in the reports menu.



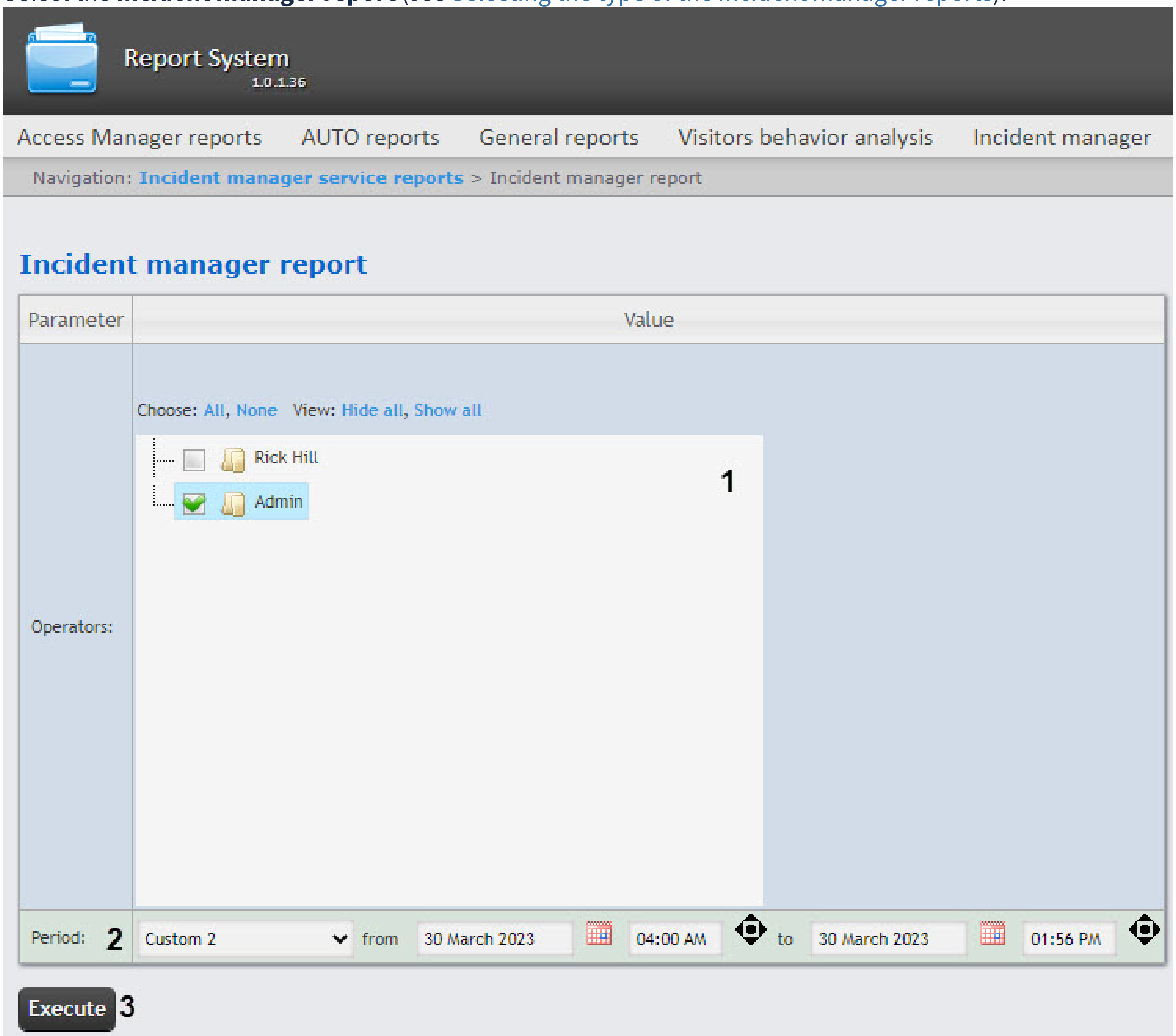
8.5.2 The Incident manager report

Attention!

To create the **Incident manager report**, you must first create and configure the **Incident manager** (see Configuring the Incident manager interface object), **Incident server** and **Incident handler** (see Configuring Incident server and Incident handler) objects in *Axxon PSIM.*

To create the Incident manager report, do the following:

1. Select the **Incident manager report** (see Selecting the type of the Incident manager reports).



2. In the **Operators** field (**1**), set the checkboxes next to those operators by whose actions you want to create the report. Click **All** to select all objects from the list, click **None** to deselect. Click **Show all** to expand the objects structure. Click **Hide all** to hide the objects structure.
3. From the **Period** drop-down list (**2**), select the time period for which the report should be created. If the **Custom** or **Custom 2** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. If the **Custom 2** period is selected, enter additionally the time of start and end periods for which the report should be created using the button.

4. Click the **Execute** button (**3**) to create the report.

Example of the Incident manager report:

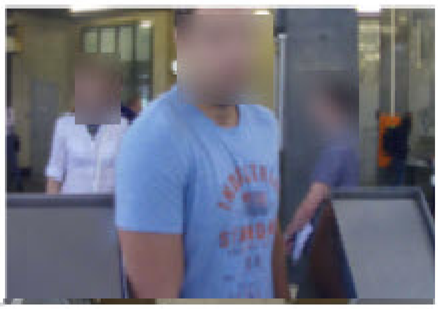
Incident manager report

Date: from 6 June 2023 00:00:00 to 6 June 2023 14:58:32

Event date and time	6 June 2023 14:56:47
Object ID and name and event	[3]Camera 3, Alarm
Server name	R-GIZATULLINA
Resolution	Processed

Operator ID and name	Server	Date and time	Message	Operator actions	Attachments
[1] sa sa sa	R-GIZATULLINA	6 June 2023 14:56:58		Images added : 1	Picture1
[1] sa sa sa	R-GIZATULLINA	6 June 2023 14:56:59	Image	Send	
[1] sa sa sa	R-GIZATULLINA	6 June 2023 14:57:01		123	
[1] sa sa sa	R-GIZATULLINA	6 June 2023 14:57:03		1;222;	
[1] sa sa sa	R-GIZATULLINA	6 June 2023 14:57:03		Send	

Picture1



Note

The Incident manager report has a **Resolution** field with the **Processed** or **Canceled** values. When you close an event without going through all steps, Resolution: Canceled is displayed. When you close an event with going through all steps, Resolution: Processed is displayed. If an event wasn't processed and wasn't canceled (for example, *Axxon PSIM* restart), the **Resolution** field is blank. This information is contained in the resolution column of the dbo.PROTOCOL_INC_SERVER table. When resolution=1, an alarm was closed without processing.

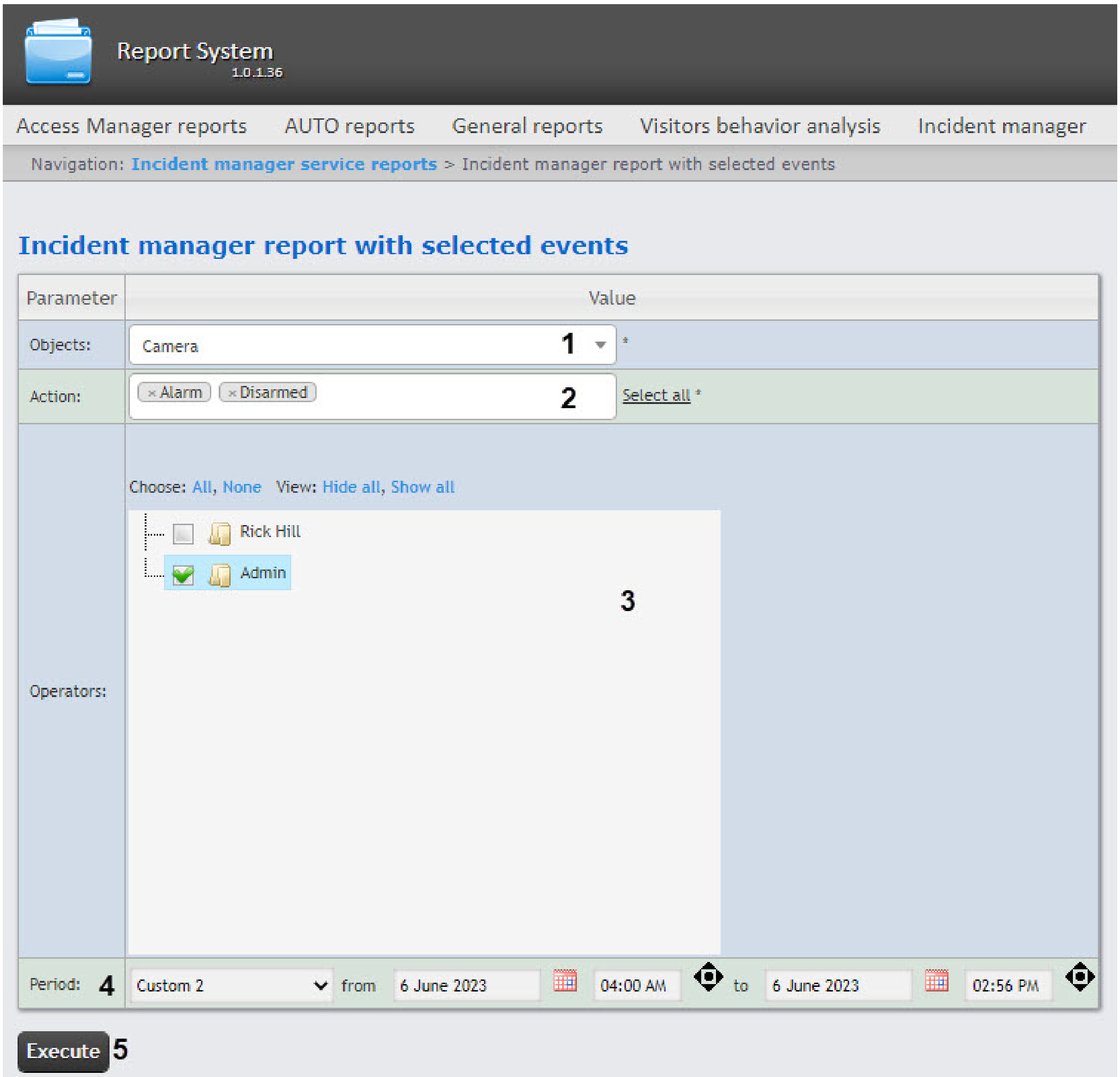
8.5.3 The Incident manager report with selected events

Attention!

To create the **Incident manager report with selected events**, you must first create and configure the **Incident manager** (see Configuring the Incident manager interface object), **Incident server** and **Incident handler** (see Configuring Incident server and Incident handler) objects in *Axxon PSIM.*

To create the Incident manager report with selected events, do the following:

1. Select the **Incident manager report with selected events** (see Selecting the type of the Incident manager reports).



2. In the **Objects** field (**1**), from the drop-down list, select the object, the actions with which you want to display in the report. You can also search for an object by name. For this, start entering the name of the object in the field **1**. The search works from the first character.

> **Note**
>
> The **Objects** field displays only those objects that can be assigned a status displayed on the map.

3. In the **Action** field (**2**), from the drop-down list, select those actions with objects by which you want to create the report. You can also use the search by name. For this, start entering the name of the action in the field **2**. The search works from the first character. Click **Select all** to select all available actions with objects from the list. The contents of the list depends on the selected object in the field **1**.
4. In the **Operators** field (**3**), set the checkboxes next to those operators by whose actions you want to create the report. Click **All** to select all objects from the list, click **None** to deselect. Click **Show all** to expand the objects structure. Click **Hide all** to hide the objects structure.
5. From the **Period** drop-down list (**4**), select the time period for which the report should be created. If the **Custom** or **Custom 2** period is selected, enter the date of start and end periods for which the report

should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. If the **Custom 2** period is selected, enter additionally the time of start and end periods for which the report should be created using the button.

6. Click the **Execute** button (**5**) to create the report.

Example of the Incident manager report with selected events:

Incident manager report

Date: from 30 March 2023 00:00:00 to 30 March 2023 13:56:02

Camera 1: Connection 30 March 2023 13:55:26

Server: QA-T50
Resolution: Canceled

Camera 3: Connection 30 March 2023 13:55:25

Server: QA-T50
Resolution: Canceled

Camera 2: Connection 30 March 2023 13:55:25

Server: QA-T50
Resolution: Canceled

Camera 3: Record on disk stopped 30 March 2023 13:54:59

Server: QA-T50
Resolution: Canceled

Date and time	Operator ID	Operator	Server	Message	Operator actions
30 March 2023 13:55:41			QA-T50		

Camera 3: Record off 30 March 2023 13:54:59

Server: QA-T50
Resolution: Processed

Date and time	Operator ID	Operator	Server	Message	Operator actions
30 March 2023 13:55:38	Admin	Admin	QA-T50		kjhgjghkgfhjkgfhj
30 March 2023 13:55:38	Admin	Admin	QA-T50		Send

Note

The Incident manager report has a **Resolution** field with the **Processed** or **Canceled** values. When you close an event without going through all steps, Resolution: Canceled is displayed. When you close an event with going through all steps, Resolution: Processed is displayed. If an event wasn't processed and wasn't canceled (for example, *Axxon PSIM* restart), the **Resolution** field is blank. This information is contained in the resolution column of the dbo.PROTOCOL_INC_SERVER table. When resolution=1, an alarm was closed without processing.

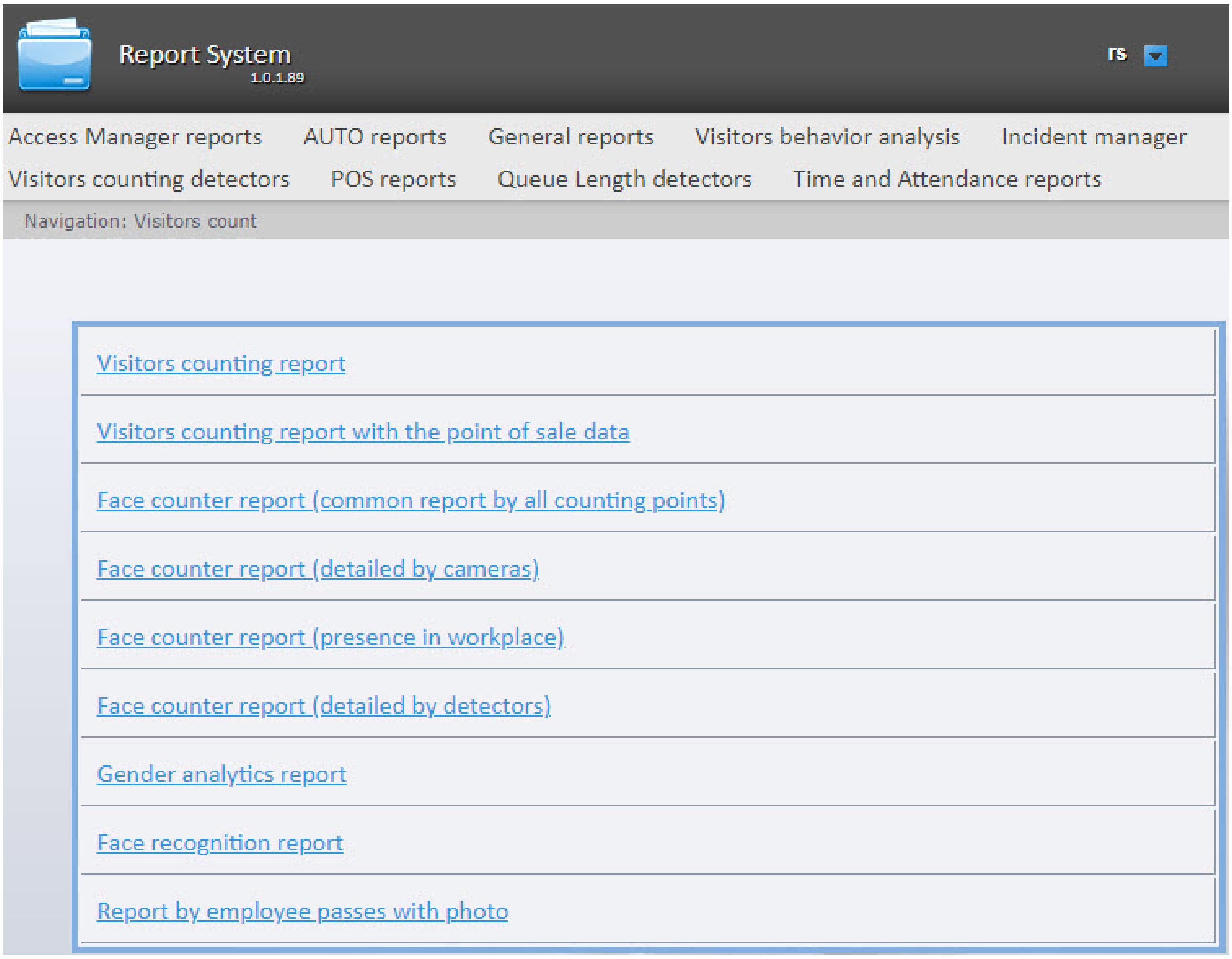
8.6 Working with reports by Visitors counting detectors

To work with the reports by the *Visitors counting detectors*, select and build the required report. The description and purpose of each report is presented on the corresponding page.

8.6.1 Selecting a type of reports by Visitors counting detectors

To select a type of report by visitors counting detectors, click the **Visitors counting detectors** link in the report menu of *WEB Report System PSIM*.

As a result, the list of available reports by *Visitors counting detectors* will be displayed. To go to the required report, click the corresponding link.



List of links to go to the reports by *Visitors counting detectors* is also available when hovering over the **Visitors counting detectors** link in the report menu.

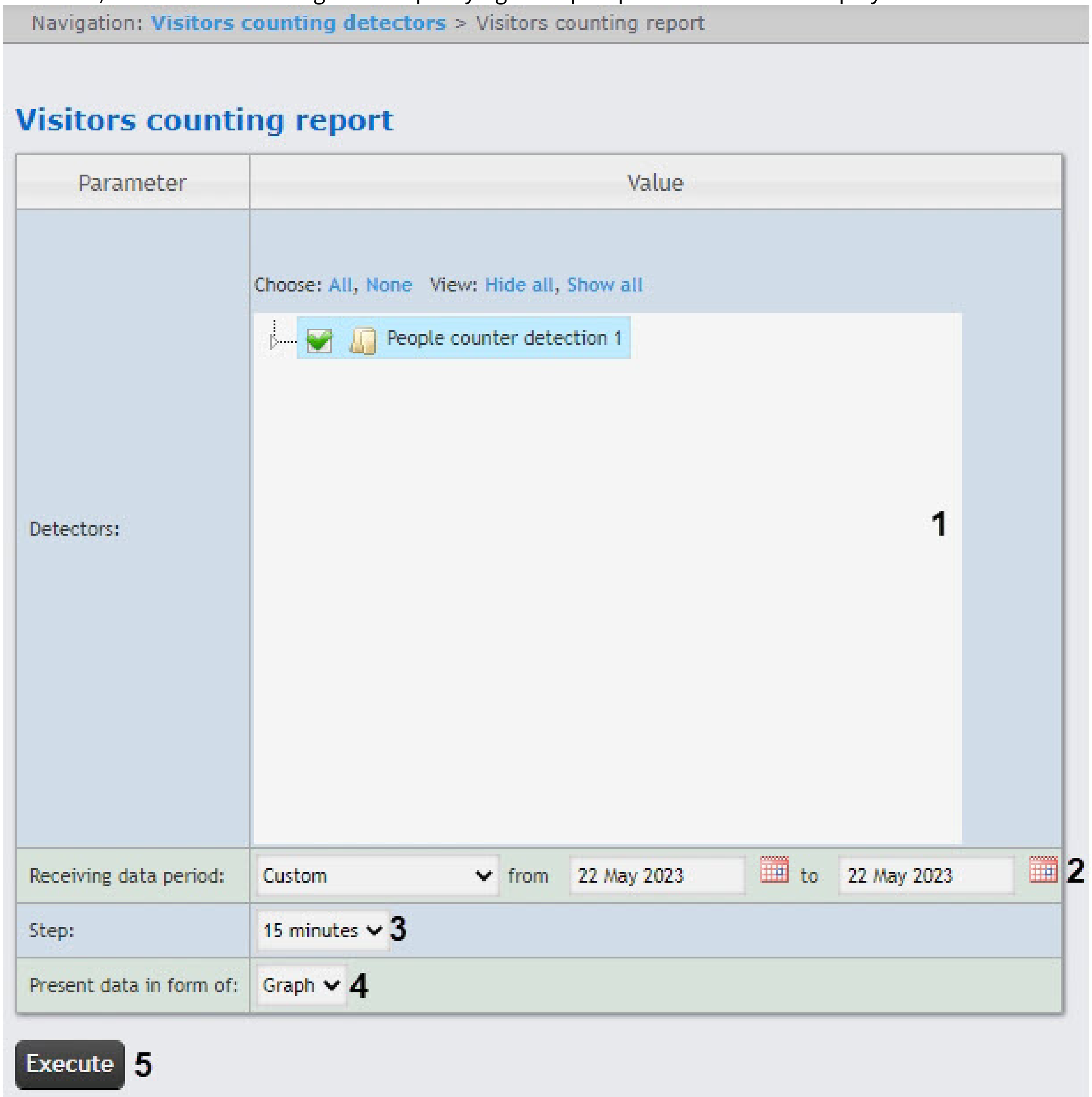
8.6.2 Creating a Visitors counting report

The **Visitors counting report** allows getting the data about the number of entering people. The data can be presented as a table or as a graph.

> **Note**
>
> The **Visitors counting report** is related to the **People counter detection**, it is necessary to create the corresponding object in the *DetectorPack PSIM* software (see Configuring the People counter detection module).

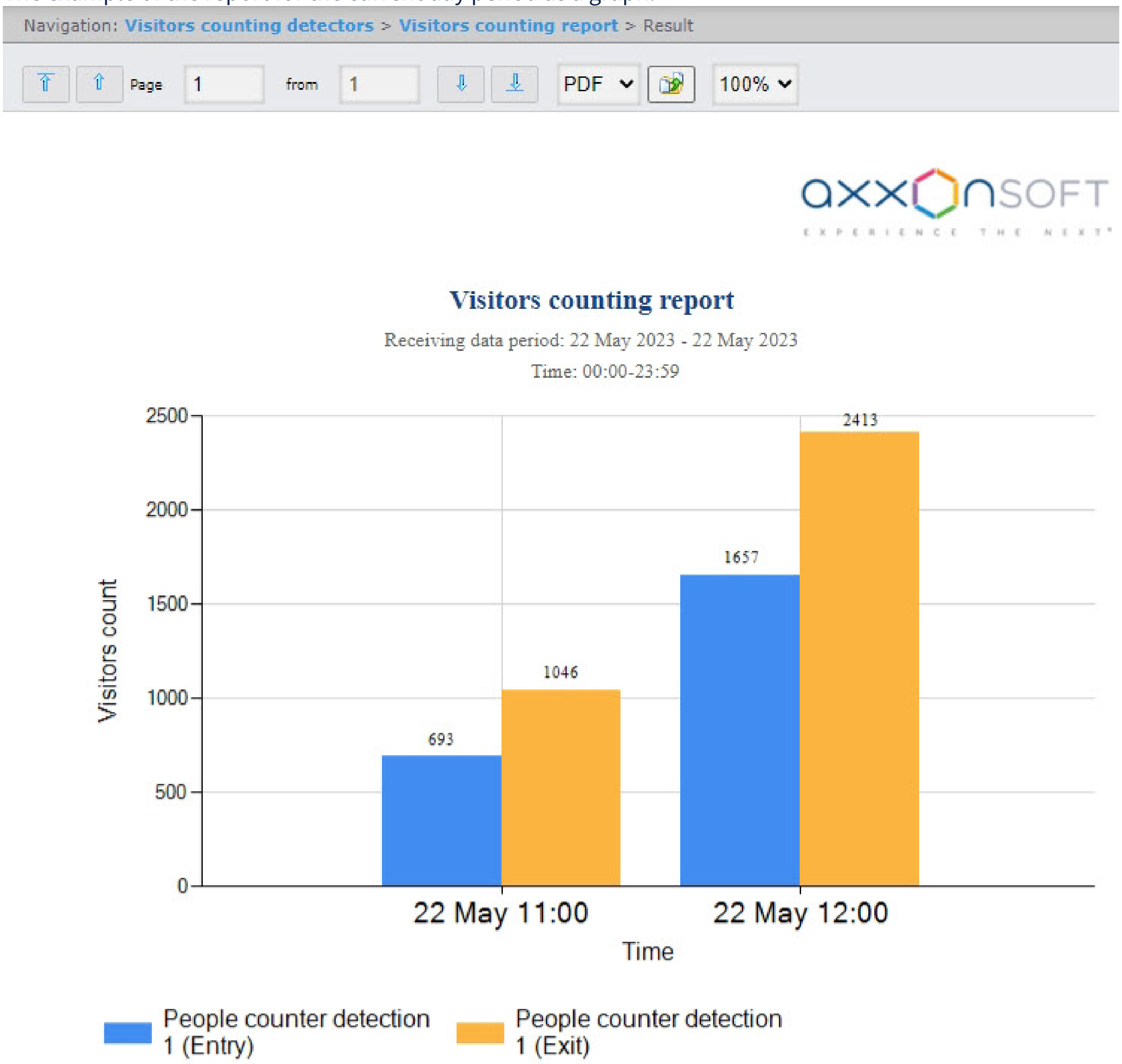
To create a **Visitors counting report**, do the following:

1. Select the **Visitors counting report** report type (see Selecting a type of reports by Visitors counting detectors). As a result the dialog box for specifying the report parameters will be displayed.

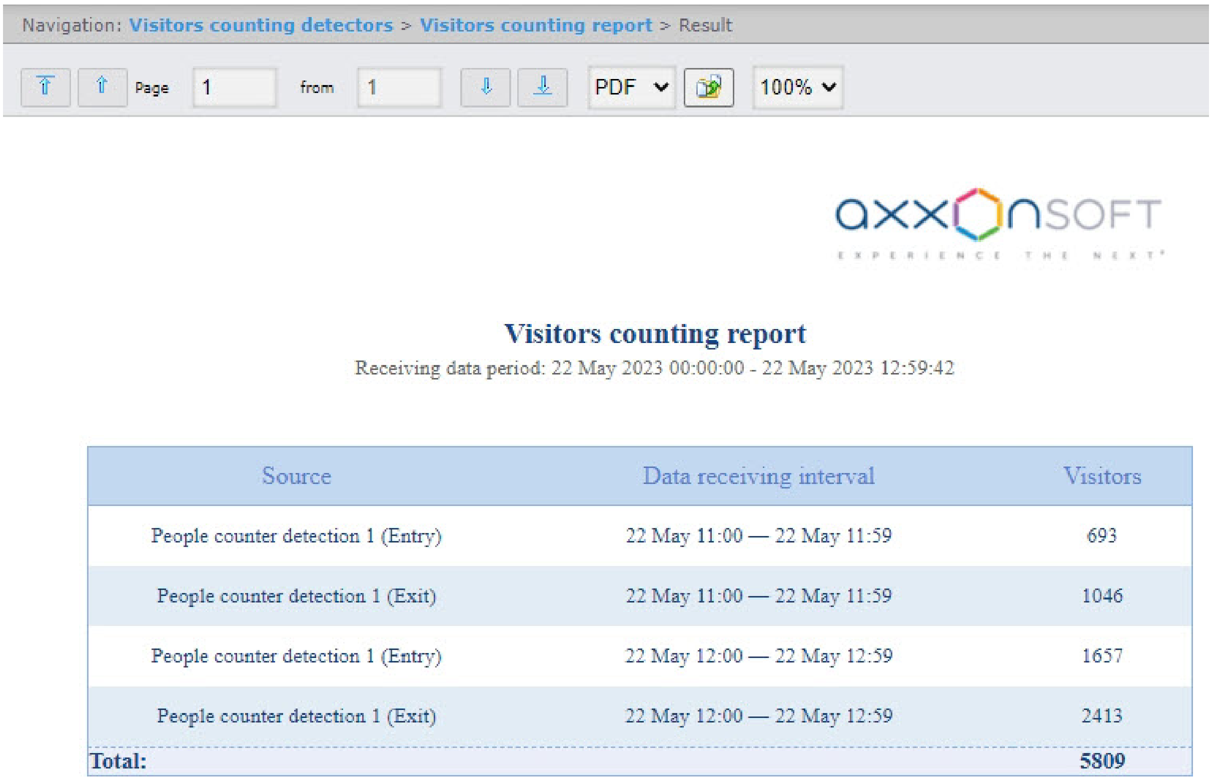


2. Set the report parameters in the following way:
    a. In the **Detectors** field (**1**) set the checkboxes for those **People counter detection** objects which data should be displayed in the report. You can also set the **Entry** and/or **Exit** checkboxes to build a report on the number of entered and/or exited visitors.
    b. From the **Receiving data period** drop-down list select the time period for which the report is to be created (**2**).
    c. If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
    d. From the **Step** drop-down list (**3**) select the time period during which the values received from people counter detector will be summed (depends on the **Receiving data period** parameter, see 2.b).
    e. From the **Present data in form of** drop-down list (**4**), select the report format: **Table** or **Graph**.

3. To create a report click **Execute** (**5**).
   As a result the report with specified parameters will be displayed.
   The example of the report for the current day period as a graph:



The example of the report for the current day period presented as a table:



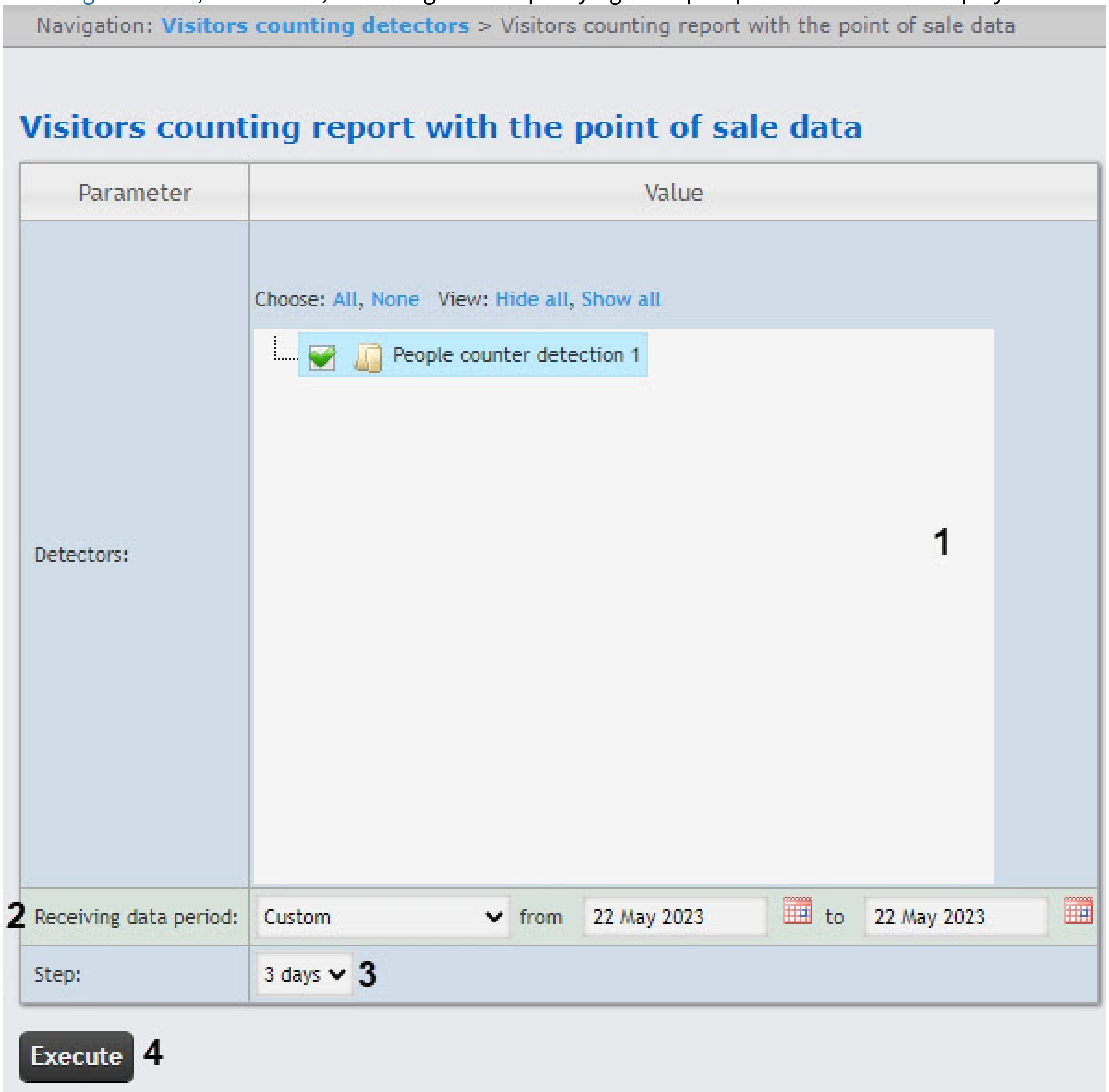
Source	Data receiving interval	Visitors
People counter detection 1 (Entry)	22 May 11:00 — 22 May 11:59	693
People counter detection 1 (Exit)	22 May 11:00 — 22 May 11:59	1046
People counter detection 1 (Entry)	22 May 12:00 — 22 May 12:59	1657
People counter detection 1 (Exit)	22 May 12:00 — 22 May 12:59	2413
Total:		**5809**

8.6.3 Creating Visitors counting report with the point of sale data

The **Visitors counting report with the point of sale data** allows you to get information about the profits brought by visitors. The data can be presented only as a table.

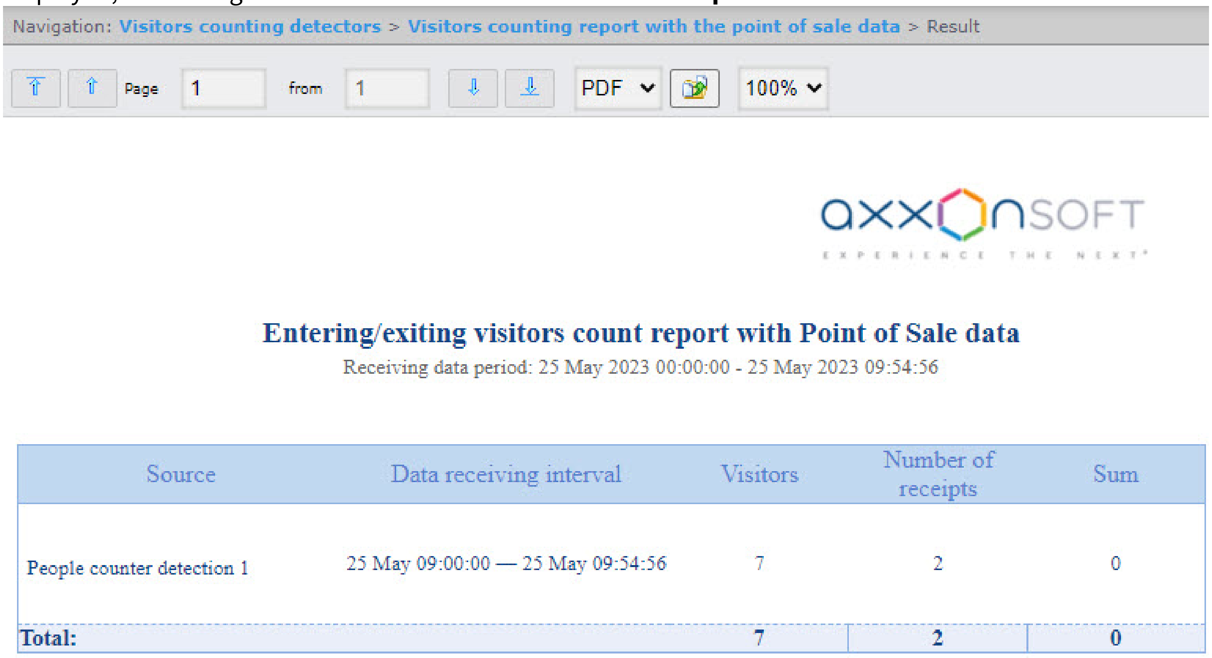
> **Note**
>
> The **Visitors counting report with the point of sale data** belongs to the *People counter detection* and *POS PSIM* (it is necessary to create the corresponding objects in *DetectorPack PSIM* (see Configuring the People counter detection module) and configure *POS PSIM* (for details, see Administrator's Guide)). The information about the profits brought by visitors is received from the database of the Server, which was specified during *POS PSIM* installation.

To create the **Visitors counting report with the point of sale data**, do the following:

1. Select the **Visitors counting report with the point of sale data** (see Selecting a type of reports by Visitors counting detectors). As a result, the dialog box for specifying the report parameters will be displayed.


2. In the **Detectors** field (**1**), set the checkboxes next to those **People counter detection** objects, the information on which should be displayed in the report.
3. From the **Receiving data period** drop-down list (**2**), select the time period for which the report should be created. If the **Custom** time period is selected, enter the date of start and end periods in the **from** and **to** fields using the **Calendar** tool. Click the  button near the corresponding field to use the **Calendar** tool.
4. From the **Step** drop-down list (**3**), select the time period during which the data received from people counter detection will be summarized. The value of this field depends on the selected receiving data period.
5. Click the **Execute** button (**4**).
As a result, the **Visitors counting report with the point of sale data** with the specified parameters will be

displayed, containing two additional columns: **Number of receipts** and **Sum**.



Source	Data receiving interval	Visitors	Number of receipts	Sum
People counter detection 1	25 May 09:00:00 — 25 May 09:54:56	7	2	0
Total:		**7**	**2**	**0**

8.6.4 Creating a Face counter report (common report by all counting points)

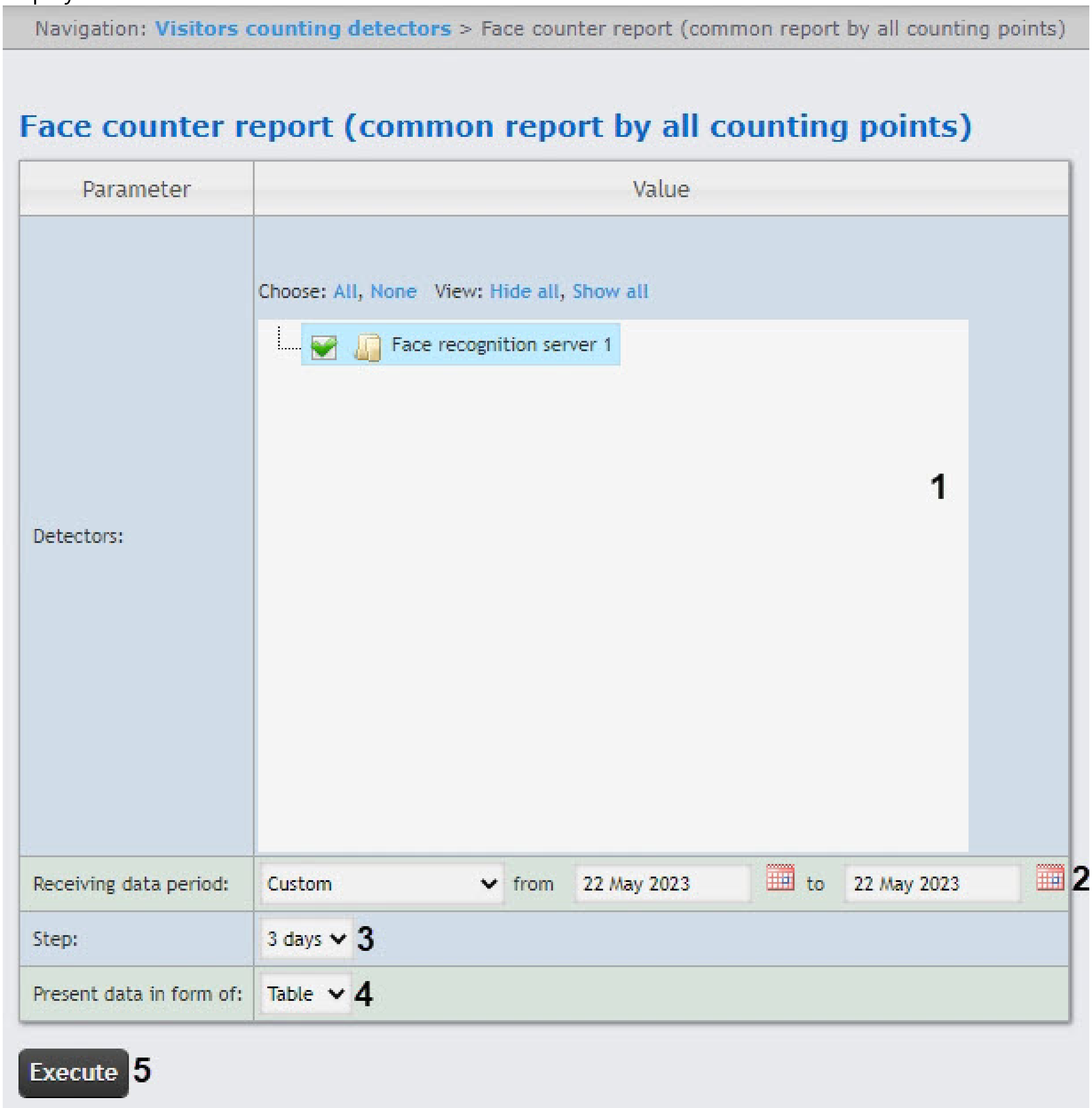
The **Face counter report (common report by all counting points)** allows getting data about the number of captured faces (people/persons) using the data from the face recognition servers. The data can be presented as a table and a chart.

> **Note**
>
> The **Face counter report (common report by all counting points)** is related to the **Face recognition server** object, it is necessary to create the corresponding object in *Face PSIM* (see Configuring the Face recognition server object).

To create the **Face counter report (common report by all counting points)**, do the following:

1. Select the **Face counter report (common report by all counting points)** (see Selecting a type of reports by Visitors counting detectors). As a result, the dialog box for specifying the report parameters will be

displayed.



2. Set the report parameters in the following way:
   a. In the **Detectors** field set checkboxes in those **Face recognition server** objects information on which should be displayed in the report (**1**).
   b. From the **Receiving data period** drop-down list select the time period for which the report is to be created (**2**). If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
   c. From the **Step** drop-down list (**3**) select the time period during which the values received from people counter detector will be summed (depends on the **Receiving data period** parameter, see 2.b).
   d. From the **Present data in form of** drop-down list (**4**), select the report format: **Table** or **Graph**.
3. To create a report click **Execute** (**5**).

Example of a face counter report by all counting points as a table is given in the following figure.

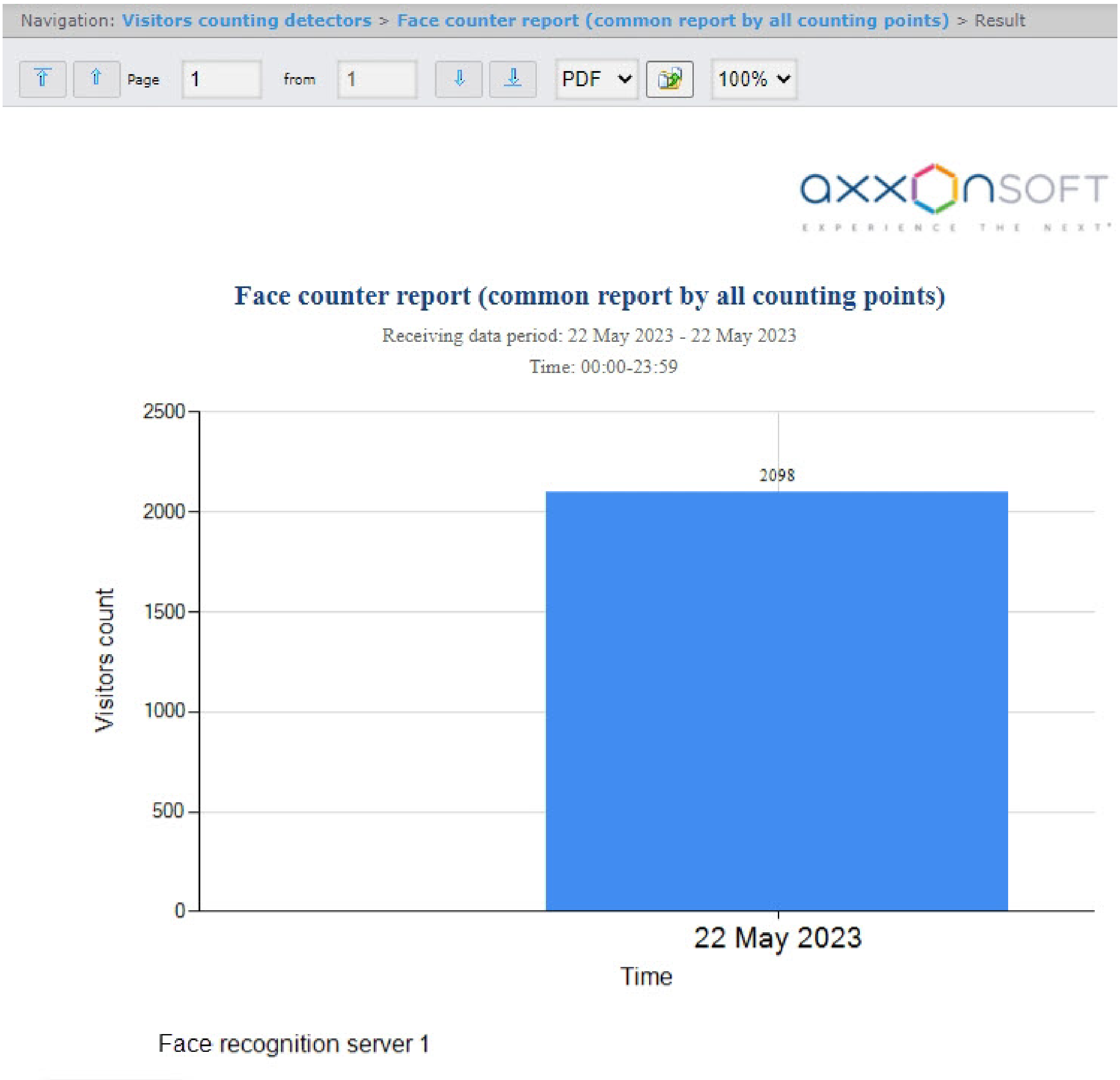
Face counter report (common report by all counting points)

Receiving data period: 17 May 2023 - 17 May 2023

Time: 00:00-23:59

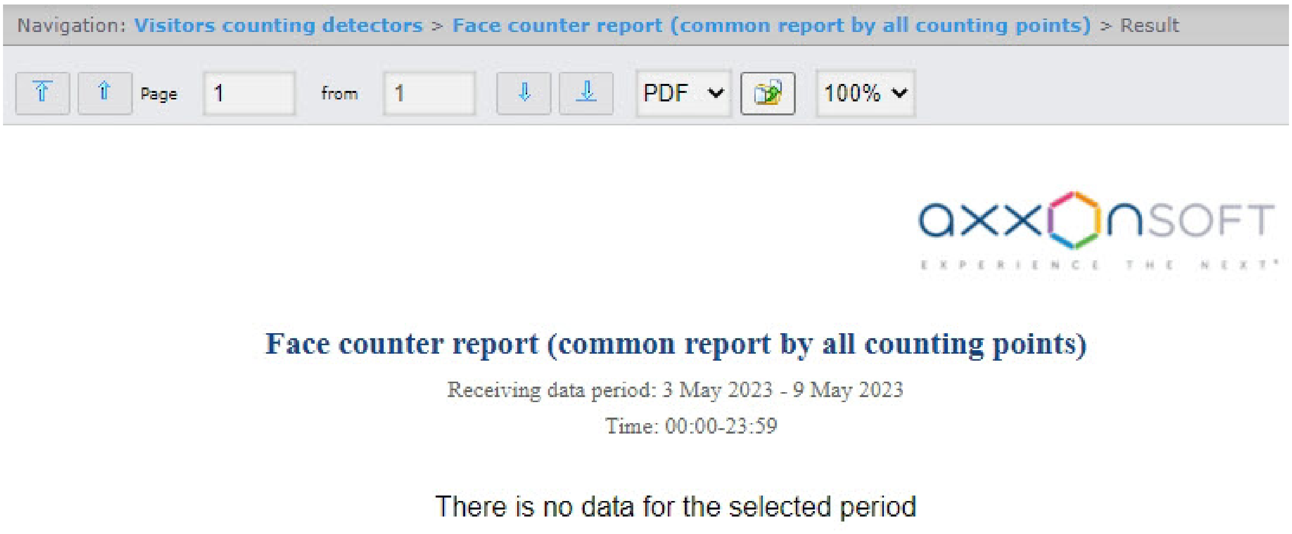
Source	Data receiving interval	Visitors
Face recognition server 1	17 May 11:00 — 17 May 11:56	81
Total:		**81**

Example of a face counter report by all counting points as a graph is given in the following figure.



> **Note**
>
> The number of people (persons) in the report means the number of captured faces, not the number of unique visitors.

If there is no data for specified time period, the report will be displayed as in the following figure.



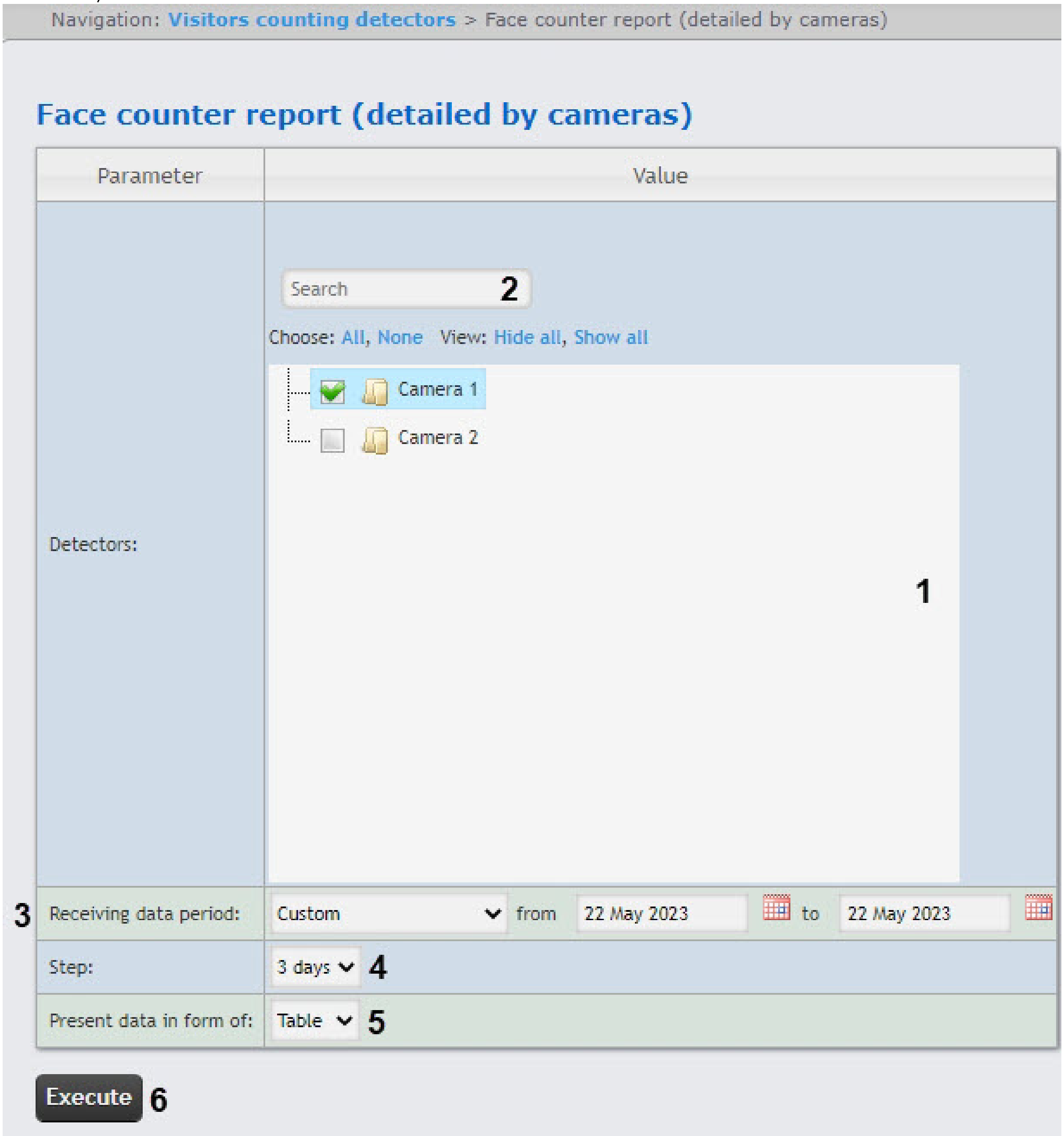
8.6.5 Creating a Face counter report (detailed by cameras)

The **Face counter report (detailed by cameras)** allows getting data on the number of the captured faces (people) using the data from the video cameras. The data can be presented as a table and as a graph.

> **Note**
>
> The **Face counter report (detailed by cameras)** is related to the **Camera** object. It is necessary to create the corresponding object in *Axxon PSIM* (see Creating and configuring the Camera object).

To generate the **Face counter report (detailed by cameras)**, do the following:

1. Select the **Face counter report (detailed by cameras)** (see Selecting a type of reports by Visitors counting detectors).



2. In the **Detectors** field, set checkboxes for those **Camera** objects, the information on which should be displayed in the report (**1**).
3. To use the search when selecting camera, in the search field (**2**) start entering the camera name. The search works starting from the first character. The results will be highlighted in a different color. Click **All** to select all found or available objects. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.
4. From the **Receiving data period** drop-down list (**3**), select the time period for which the report should be created. If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.

5. From the **Step** drop-down list (**4**), select the time period, during which the data recieved from the face recognition server will be summarized. The list of the available intervals depends on the selected period (**3**).
6. From the **Present data in form of** drop-down list (**5**), select the form in which the data will be presented in the report: **Table** or **Graph**.
7. Click the **Execute** button (**6**) to generate the report.

Example of the **Face counter report (detailed by cameras)** in the form of a table:

Face counter report (detailed by cameras)

Receiving data period: 17 May 2023 - 17 May 2023

Time: 00:00-23:59

Source	Data receiving interval	Visitors
Camera 1	17 May 11:00 — 17 May 11:59	172
Camera 1	17 May 12:00 — 17 May 12:03	92
Total:		**264**

Example of the **Face counter report (detailed by cameras)** in the form of a graph:

> **Note**
>
> People in the report refer to the number of the captured faces, not the number of the unique visitors.

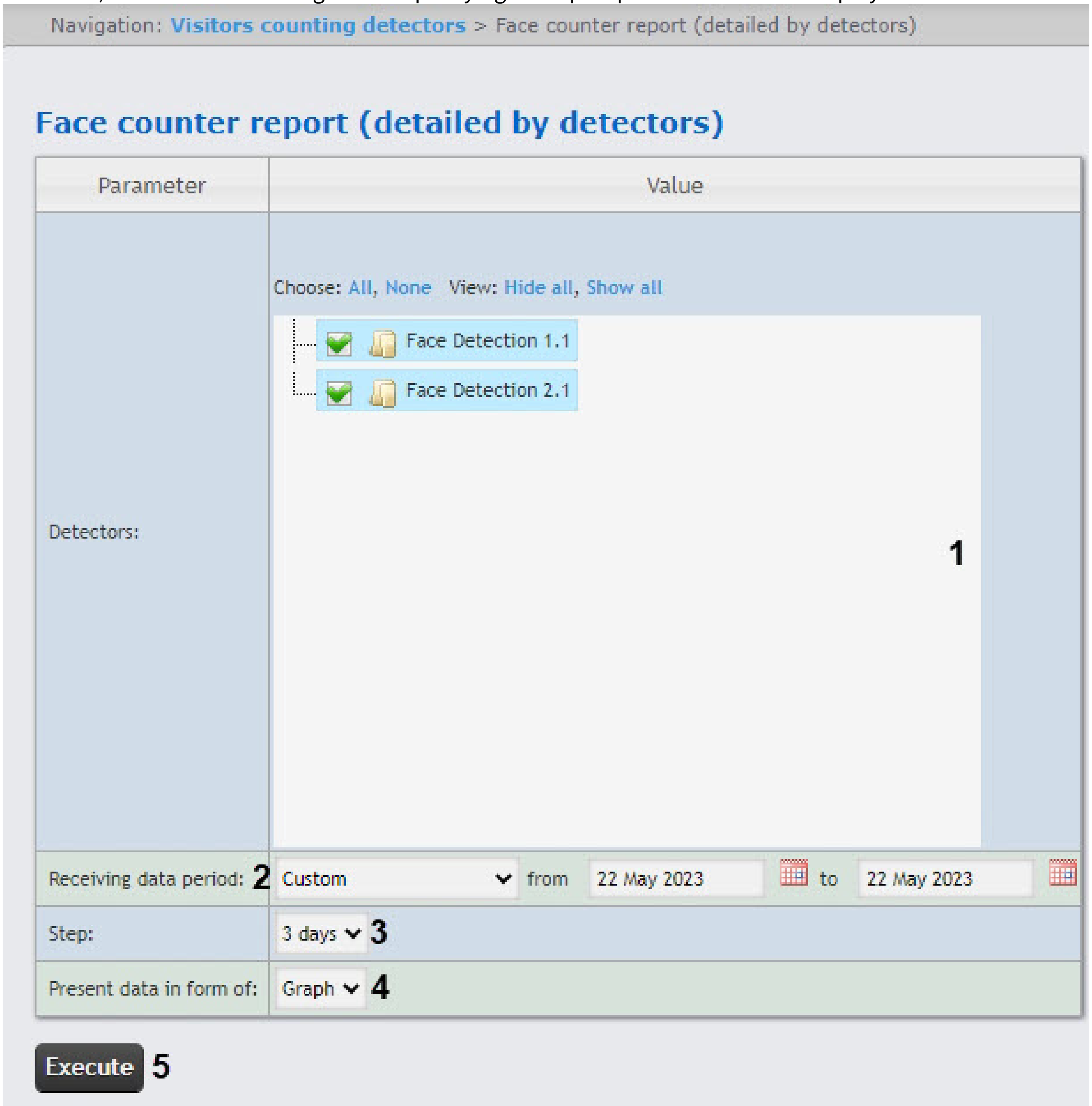
8.6.6 Creating a Face counter report (detailed by detectors)

The **Face counter report (detailed by detectors)** allows getting the data about the number of captured faces (people/persons) using the data from the face detectors. The data can be presented as a table or as a graph.

> **Note**
>
> The **Face counter report (detailed by detectors)** is related to the **Face Detection** object (it is necessary to create the corresponding object in the *Face PSIM* software (see Configuring the Face Detection module).

To create the **Face counter report (detailed by detectors)**, do the following:

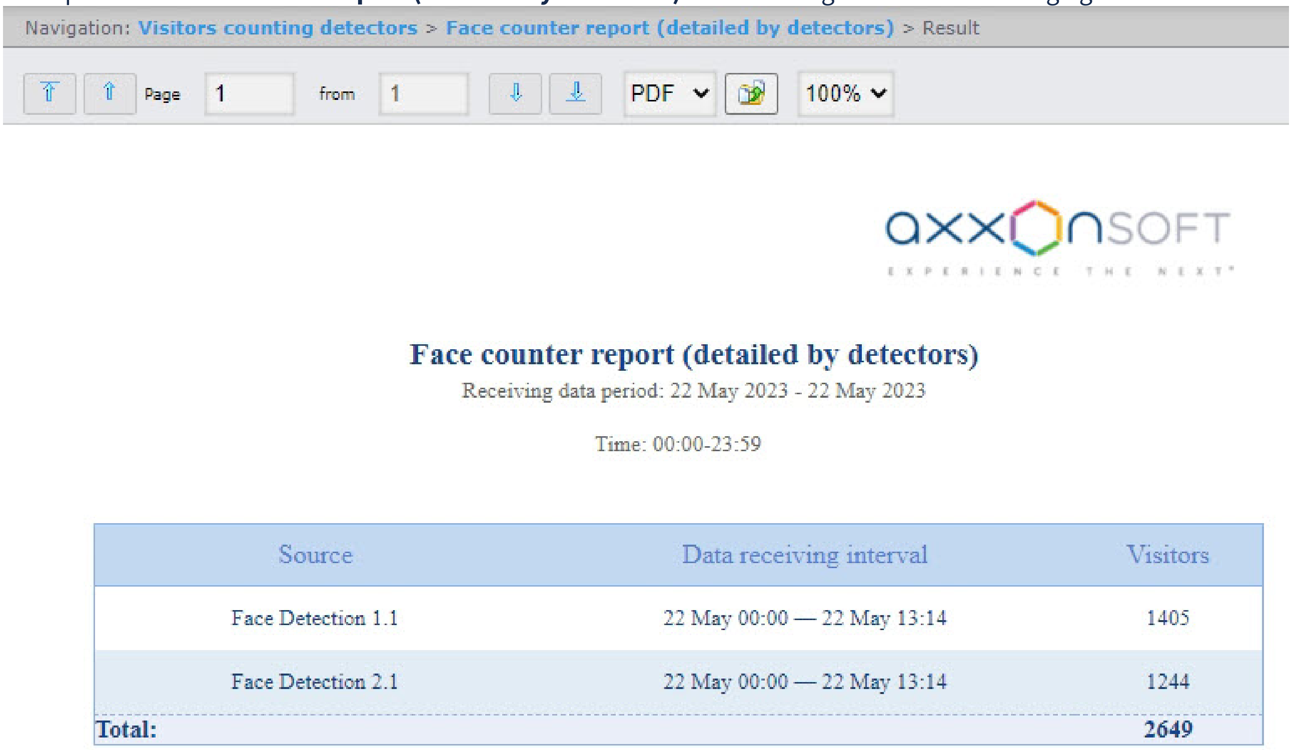
1. Select the **Face counter report (detailed by detectors)** (see Selecting a type of reports by Visitors counting detectors). As a result the dialog box for specifying the report parameters will be displayed.



2. In the **Detectors** field, set checkboxes for those **Face Detection** objects, the information on which should be displayed in the report (**1**). Click **All** to select all found or available objects. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.
3. From the **Receiving data period** drop-down list (**2**), select the time period for which the report should be created. If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
4. In the **Step** field (**3**), enter the time period, during which the data recieved from the face recognition server will be summarized. The list of the available intervals depends on the selected period (**2**).
5. In the **Present data in form of** field (**4**), select the form in which the data will be presented in the report: **Table** or **Graph**.

6. To create a report click **Execute** (**5**).

Example of the **Face counter report (detailed by detectors)** as a table is given in the following figure.



Face counter report (detailed by detectors)

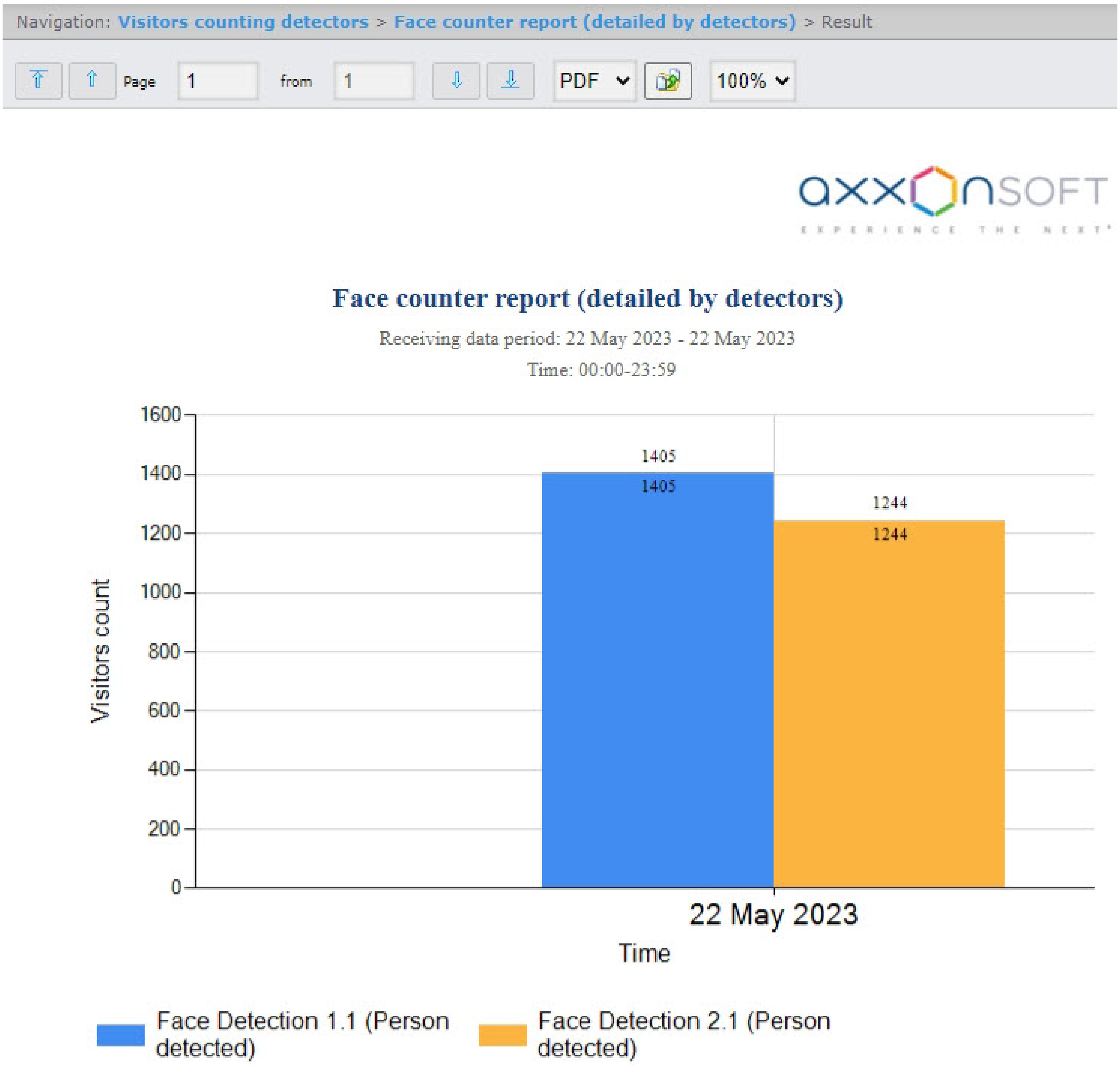
Receiving data period: 22 May 2023 - 22 May 2023

Time: 00:00-23:59

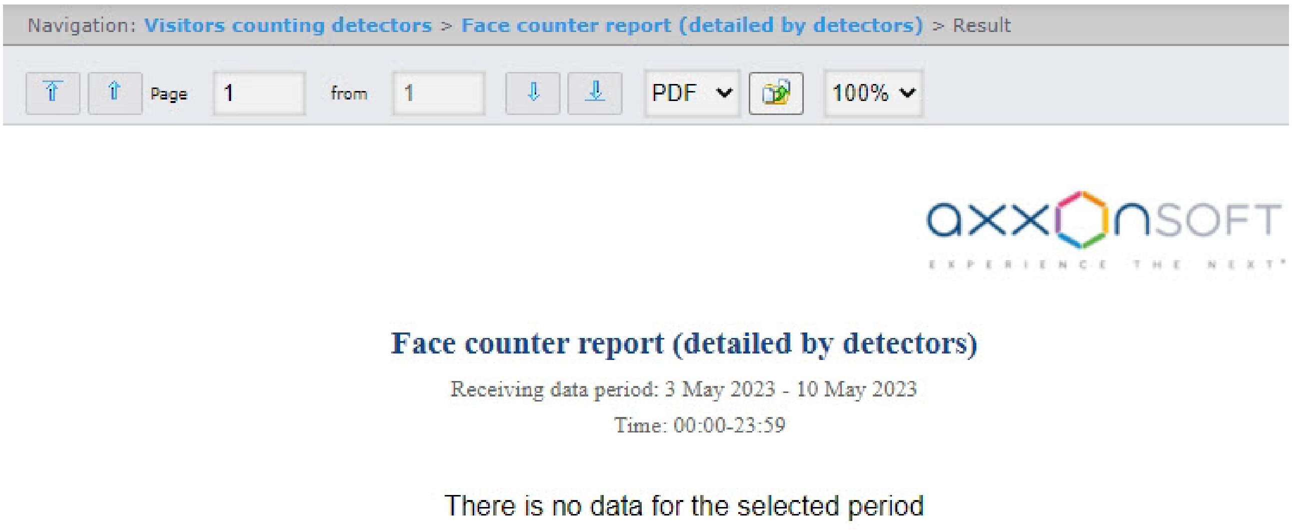
Source	Data receiving interval	Visitors
Face Detection 1.1	22 May 00:00 — 22 May 13:14	1405
Face Detection 2.1	22 May 00:00 — 22 May 13:14	1244
Total:		**2649**

> **Note**
>
> The number of people (persons) in the report means the number of captured faces, not the number of unique visitors.

Example of the **Face counter report (detailed by detectors)** as a graph is given in the following figure.



If there is no data for specified time period, the report will be displayed as in the following figure.



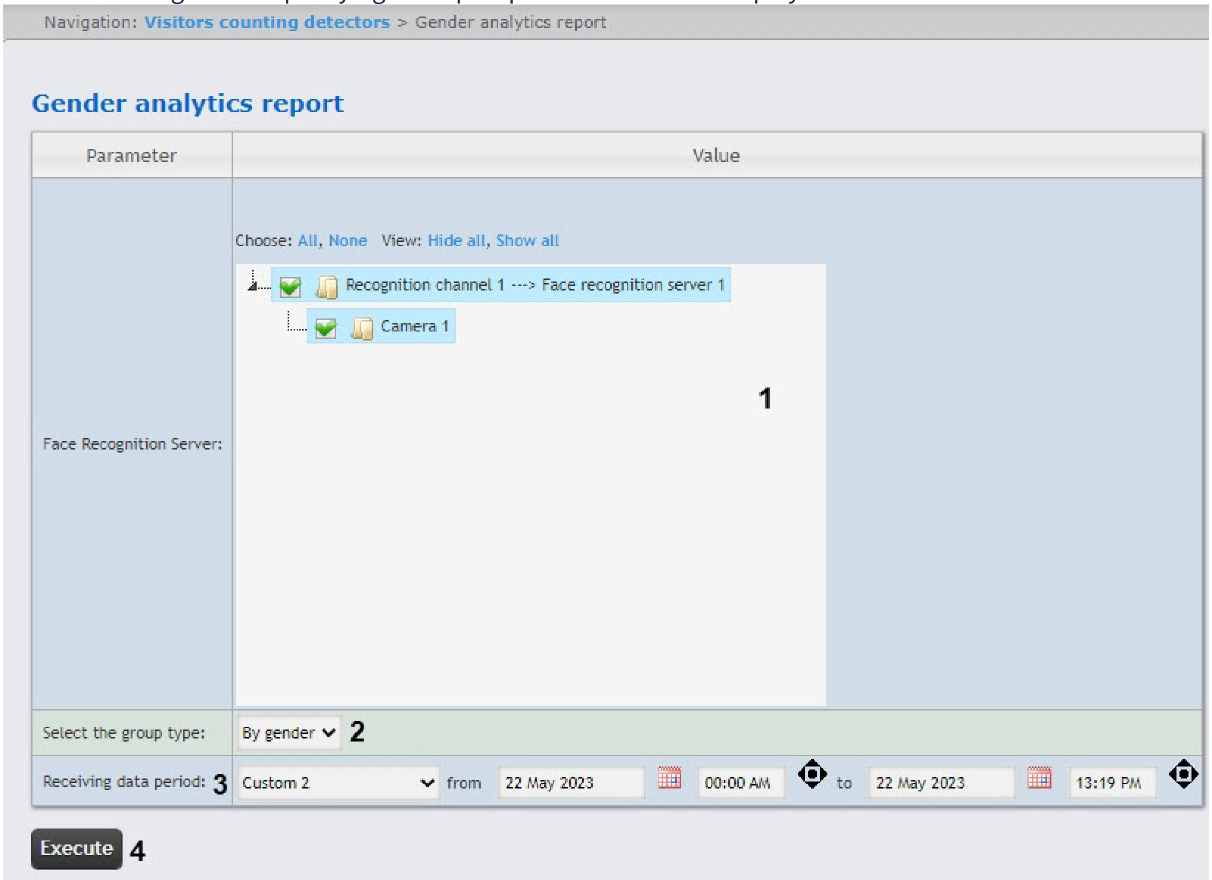
8.6.7 Gender analytics report

The **Gender analytics report** allows you to receive the data on gender analytics from *Face PSIM* for a certain time period. The data is displayed in graph.

> **Note**
>
> The **Gender analytics report** refers to the **Face recognition server** module (it is necessary to create and configure the corresponding object in *Face PSIM* (see Configuring the Face recognition server object).

To build the **Gender analytics report**, do the following:

1. Select the **Gender analytics report** (see Selecting a type of reports by Visitors counting detectors). As a result the dialog box for specifying the report parameters will be displayed.



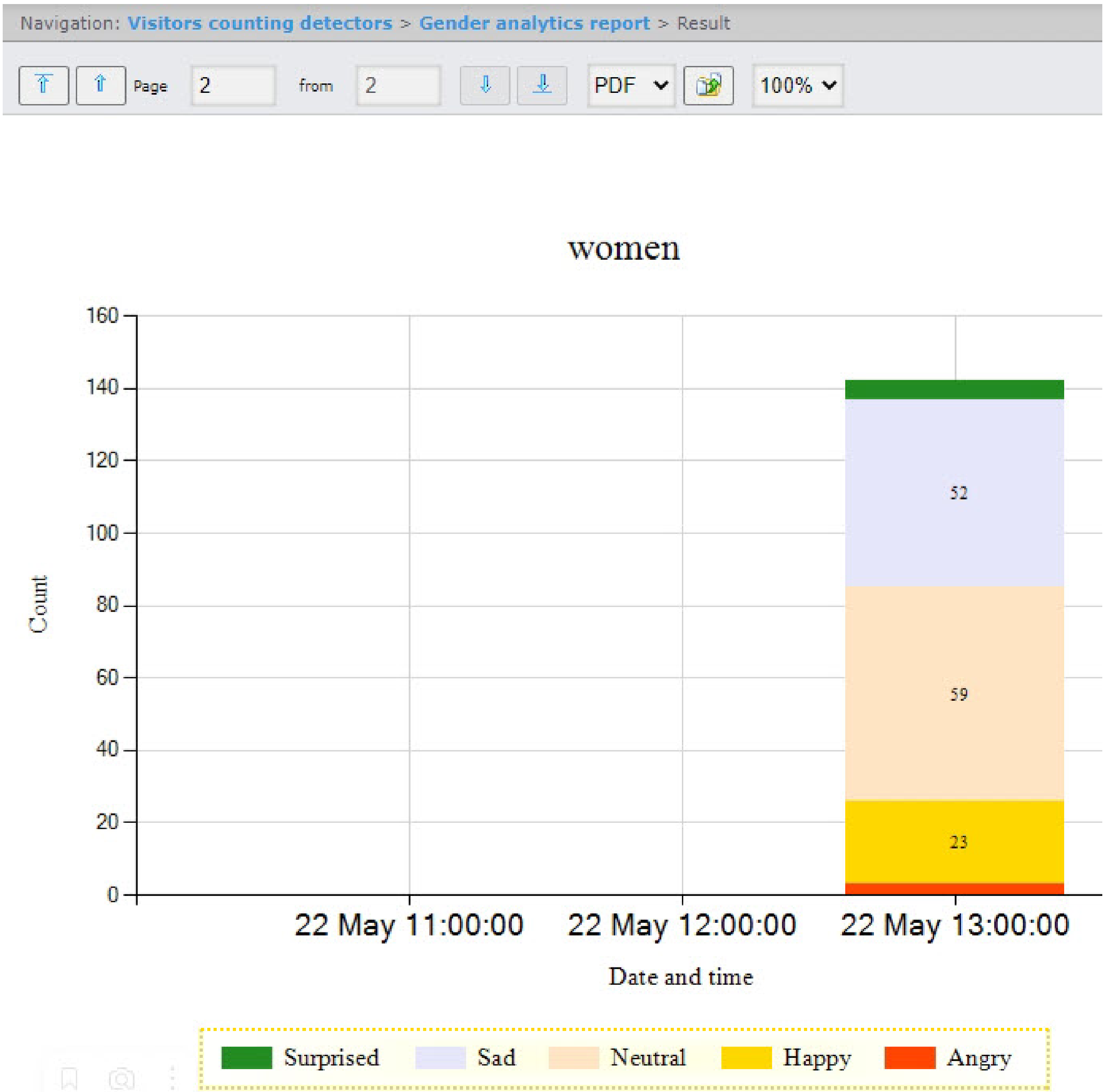
2. Set the report parameters in the following way:
   a. In the **Face Recognition Server** field (**1**), set the checkboxes for those **Face recognition server** and **Camera** objects, the information from which should be displayed in the report.
   b. From the **Select the group type** drop-down list (**2**), select the type of data grouping: **By gender** or **By age**.

   > **Note**
   >
   > If the **By gender** grouping type is selected, the report will also contain data on the face emotions.

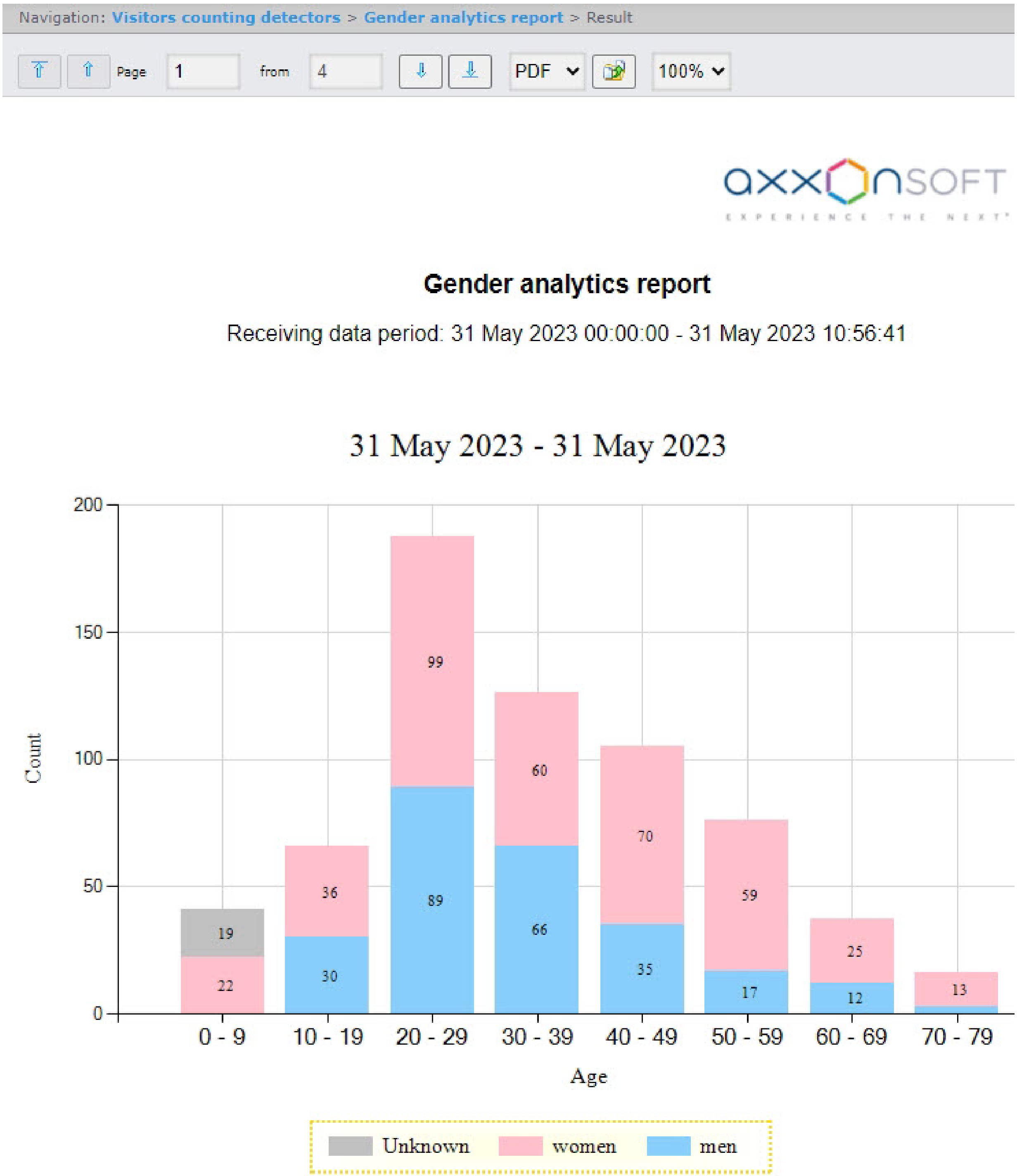
   c. From the **Receiving data period** drop-down list (**3**), select the time period for which you want to build a report.

   > **Note**
   >
   > If the **Custom 2** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. Enter the start and end time of the period using the button.

3. To create a report, click **Execute** (**4**). As a result, the report with specified parameters is displayed.
   The report example of the **By gender** grouping type:



The report example of the **By age** grouping type:

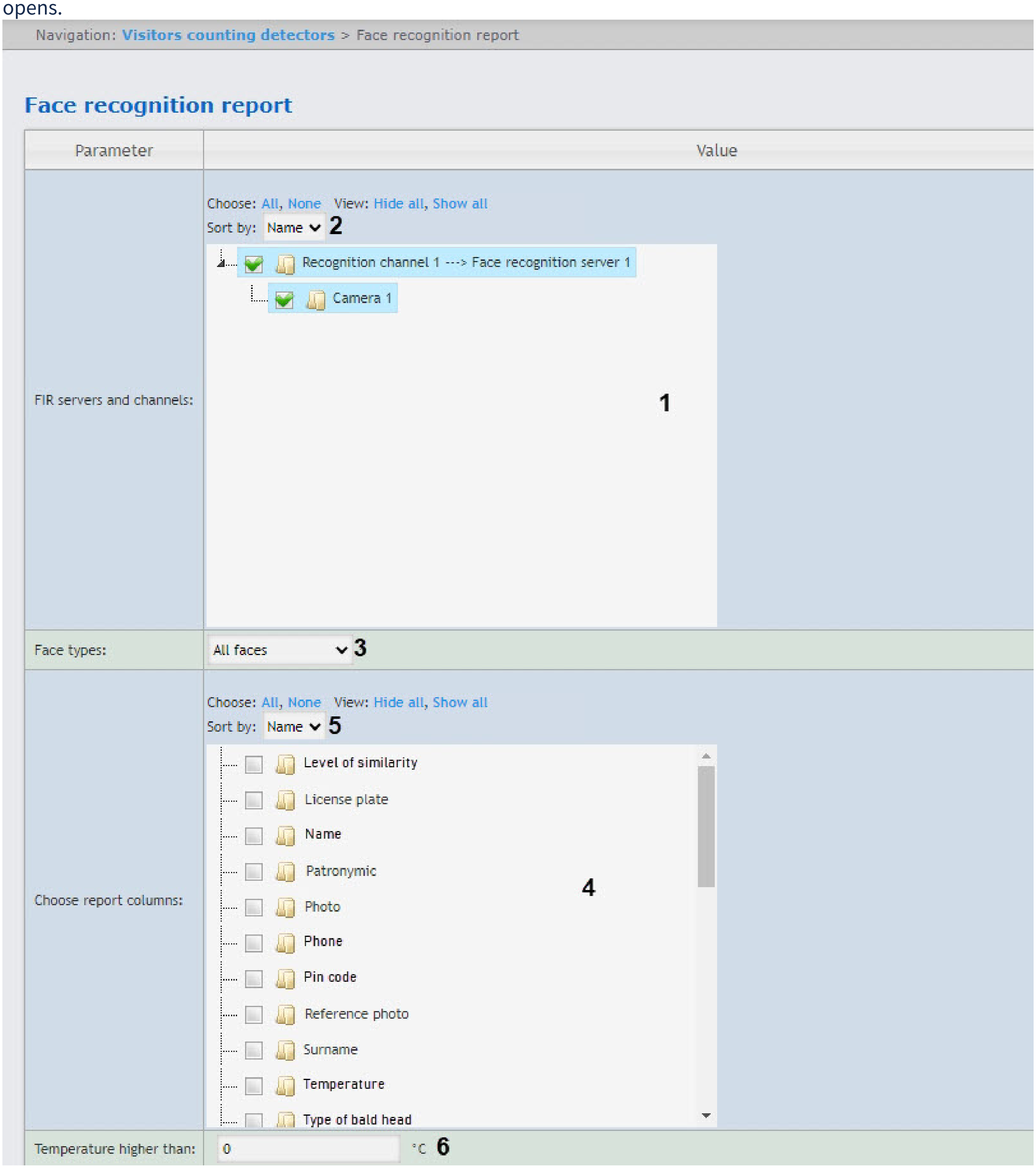


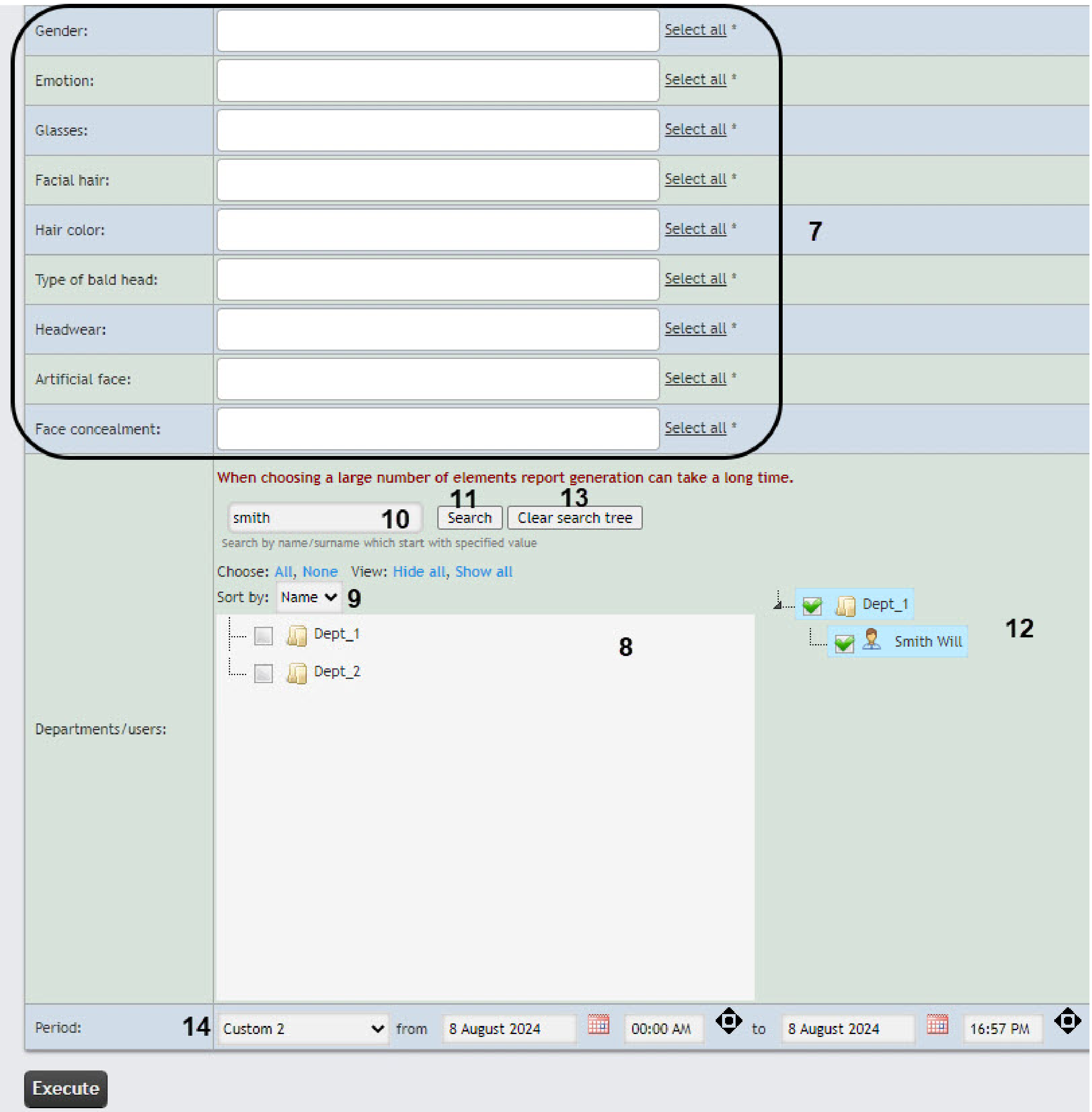
8.6.8 Face recognition report

The **Face recognition report** allows you to receive the data on recognized/unrecognized faces from *Face PSIM* over a certain time period. The data are presented in the form of a table.

> **Note**
>
> The **Face recognition report** is a part of the *Face characteristics recognition channel* module and *Face recognition server* module. It is necessary to create and configure the corresponding objects in *Face PSIM* (see Face PSIM configuration and setup procedure).

To generate the report, select the **Face recognition report** from the list of *Visitors counting detectors* reports (see Selecting a type of reports by Visitors counting detectors) and specify the report parameters in the form that opens.


Navigation: Visitors counting detectors > Face recognition report
Face recognition report
Parameter
Value
FIR servers and channels:
Choose: All, None View: Hide all, Show all
Sort by: Name
2
Recognition channel 1 ---> Face recognition server 1
Camera 1
1
Face types:
All faces
3
Choose report columns:
Choose: All, None View: Hide all, Show all
Sort by: Name
5
Level of similarity
License plate
Name
Patronymic
Photo
Phone
Pin code
Reference photo
Surname
Temperature
Type of bald head
4
Temperature higher than:
0
°C
6



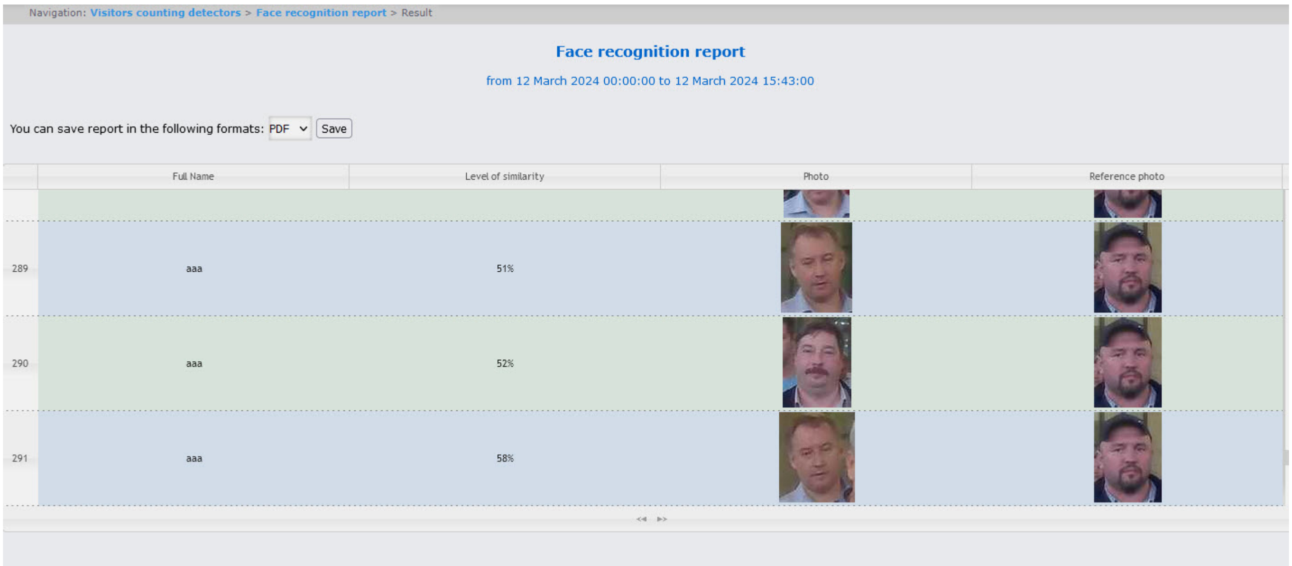
1. From the **FIR servers and channels** drop-down list (**1**), select the **Face recognition server** object, the information from which must be displayed in the report. To select all found servers, click **All**. Click **None** to deselect. Click **Show all** to expand the server structure. Click **Hide all** to hide the structure. By default the list of servers is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**2**).
2. From the **Face types** drop-down list (**3**), select the face types the information on which must be displayed in the report:
    - **All faces**;
    - **Only unrecognized**;
    - **Only recognized**.
3. In the **Choose report columns** field (**4**), set the checkboxes next to the columns that must be displayed in the report. To select all found columns, click **All**. Click **None** to deselect. Click **Show all** to expand the

column structure. Click **Hide all** to hide the structure. By default the list of columns is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**5**).
You can also change the order of the columns: to do this, use the left mouse button to move the column name up or down. You can select up to six columns.
4. If necessary, in the **Temperature higher than** field (**6**), specify the value of a filter of face temperature that must be displayed in the report.
5. If necessary, in area (**7**), specify a filter by face characteristics, selecting only those face characteristics that must be displayed in the report.
6. In the **Departments/users** field (**8**), set the checkboxes next to those departments or employees, the information on which must be displayed in the report. Click **All** to select all found departments and employees. Click **None** to deselect. Click **Show all** to expand the department structure. Click **Hide all** to hide the structure. By default the list of departments/users is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**9**).
7. You can find an employee by their first name or surname using the search. For this, enter in the search field (**10**) at least 4 first characters of the employee's first name or surname and click the **Search** button (**11**). The department to which the found employee belongs will be displayed in the search tree in the area **12**. To clear the search field and the search tree, click the **Clear search tree** button (**13**). Selecting the department is not available if you selected the **Only unrecognized** face type (see step 2).
8. In the **Period** fields (**14**) select the time period for which you want to generate the report.

> **Note**
>
> - If the **Custom 2** period is selected, enter the date of start and end periods for which the report must be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. Enter the start and end time of the period using the button.
> - The **Custom 3** period allows you to set the time interval from **Yesterday (time)** to **Today (time)** relative to the report date.

9. Click the **Execute** button.

Example of a face recognition report:



All possible fields of the report are described in the table.

Field name	Description
Photo	Photo from the camera
Reference photo	Employee's photo from the *Face PSIM* database
Date and time	Employee's face recognition date and time
Full Name	Employee's full name
Name	Employee's first name
Surname	Employee's last name
Patronymic	Employee's patronymic
Level of similarity	Level of similarity of the captured face with a reference photo in percent if the face is recognized. A dash is displayed for unrecognized faces
License plate	Employee's car license plate number
Camera	Name of the camera that captured the employee's face
Car	Employee's car brand
Card number	Employee's access card number
Card code	Employee's access card code
Date of card issue	Employee's access card issue date
Access levels	Employee's access level
Phone	Employee's phone number
Company/Department	Company/Department where the employee works
Department	Department to which the employee belongs
Comment	Comment

Field name	Description
Card expiration date	Employee's access card expiration date
Pin code	Employee's access card pin code
Temperature	Employee's face temperature in degrees Celsius
Gender	Employee's gender
Emotion	Employee's emotion
Glasses	Glasses on face
Facial hair	Facial hair
Hair color	Hair color
Type of bald head	Type of bald head
Headwear	Headwear
Artificial face	Artificial face
Face concealment	Face concealment

Note

The number of entries in the report is unlimited.
You can use forward and rewind buttons to view the contents of the report.
When you save the default result, it is split into files of 1000 entries each. You can change the number of entries in one document in the **Web.config** file by specifying a new value for the **FaceRecognizedMaxRows** key (see Configuring the number of entries in a file of the Face recognition report).

To save the report to a file, select the format and click the **Save** button. You can save the report in the following formats:

- PDF,
- Excel,
- CSV.

The **Face recognition report** is created.

8.6.9 Report by employee passes with photo

The **Report by employee passes with photo** displays all interactions of the selected employee with the selected readers, displaying a photo from the video archive at the time they have passed the reader. The report allows you to track the movement of the selected employee within the specified zone.

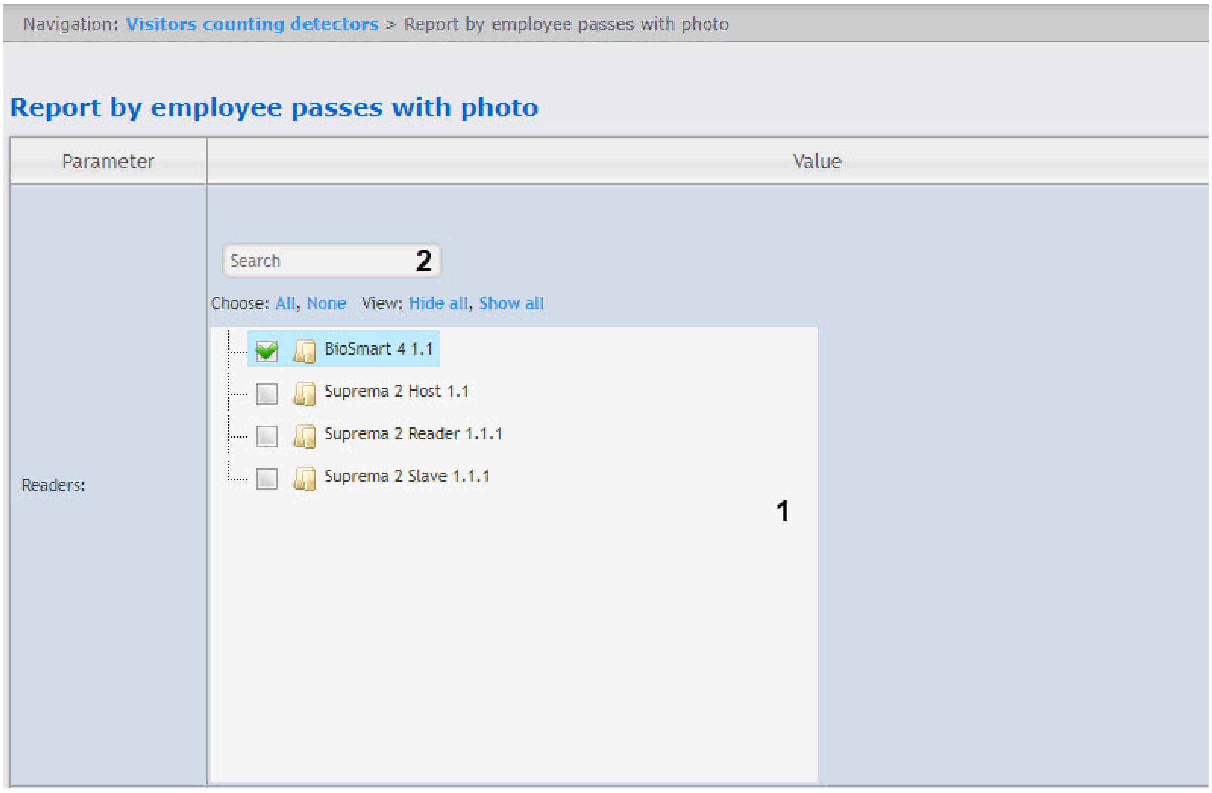
Note

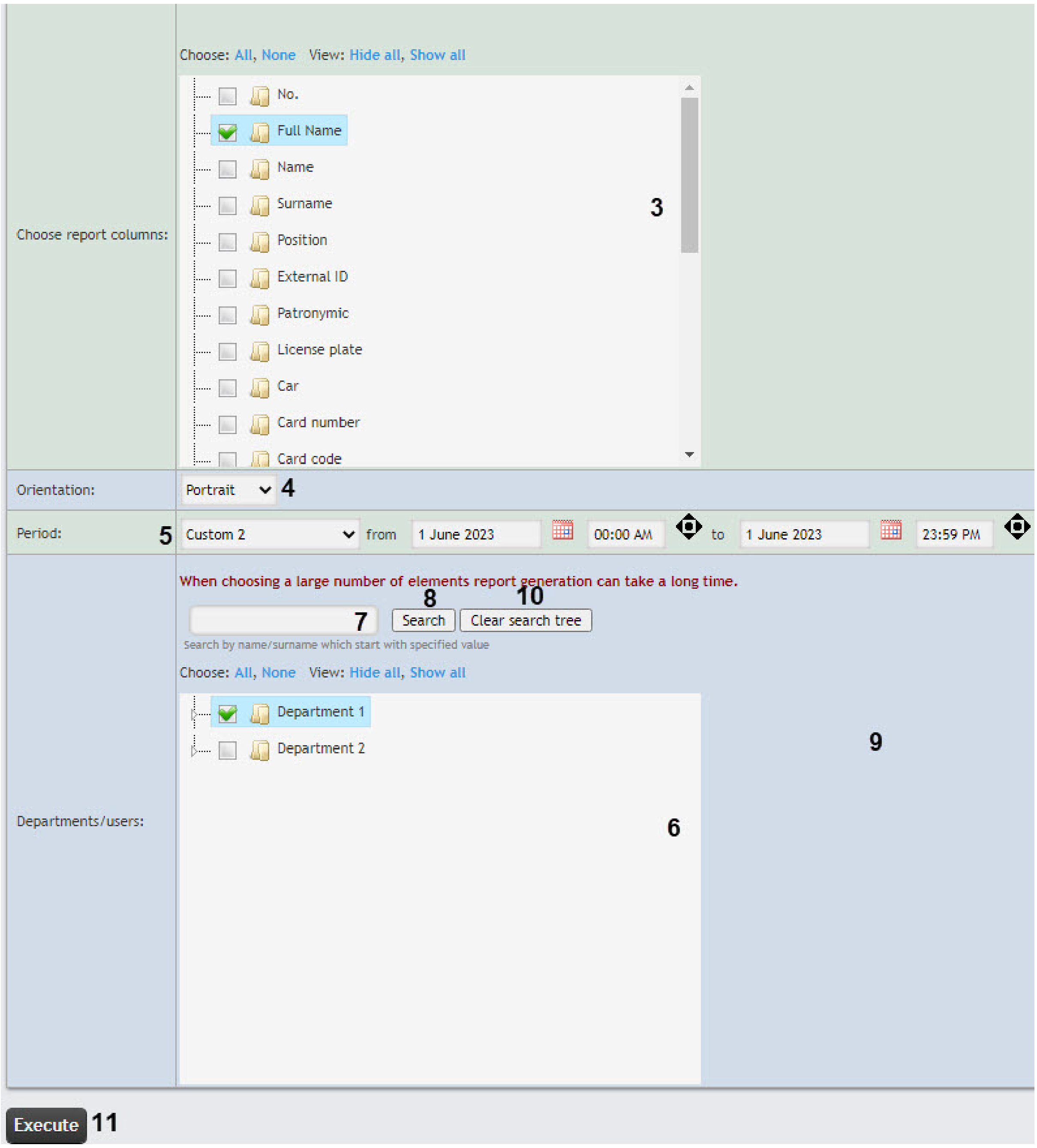
To build the **Report by employee passes with photo**, first you need to create and configure the following objects in *Axxon PSIM:*

1. Create and configure the **Web-Server** object (see Configuring the videoserver to connect Clients via the Web-server module).
2. On the **List of cameras** tab of the **Web-Server** object, add the cameras, from the archive of which photos will be added to the report (see Selecting and configuring cameras for the Web-server module).
3. Create and configure the **Web-Server 2.0** object (see Configuring the Server to connect the Clients via the Web-server 2.0 module).
4. In the settings of the Video player of the *Web Report System* (see Video Player Settings), specify the Web-Server address and port.
5. Link the camera to the reader by configuring the connection between them on the settings panel of the **Objects link** object on the **Programming** tab (see Connection of objects with cameras). Each reader must be linked to its own camera.
6. When building the **Report by employee passes with photo**, *Axxon PSIM* must be running and the camera linked to the reader must have an archive record of the user's pass.

To build the **Report by employee passes with photo**, do the following:

1. Select the **Report by employee passes with photo** (see Selecting a type of reports by Visitors counting detectors). As a result, the dialog window for specifying the report parameters will be displayed.


Navigation: Visitors counting detectors > Report by employee passes with photo
Report by employee passes with photo
Parameter
Value
Readers:
Search
2
Choose: All, None View: Hide all, Show all
BioSmart 4 1.1
Suprema 2 Host 1.1
Suprema 2 Reader 1.1.1
Suprema 2 Slave 1.1.1
1



2. In the **Readers** field (**1**), set the checkboxes next to the access points, information on which should be displayed in the report.

> **Attention!**
>
> This field displays only those access points that have been added to any access level in the *Access Manager* module (see Creating access levels).

3. To use the search when selecting readers, in the search field (**2**) start entering the reader name. The search works starting from the first character. The results will be highlighted in a different color. Click **All** to select all found or available objects. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.

4. In the **Choose report columns** field (**3**), set the checkboxes next to the columns that should be displayed in the report. You can also change the order of the columns: to do this, use the left mouse button to move the column name up or down. Click **All** to select all available objects. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.
5. From the **Orientation** drop-down list (**4**), select the report orientation: **Portrait** (vertical) or **Landscape** (horizontal).

   Attention!

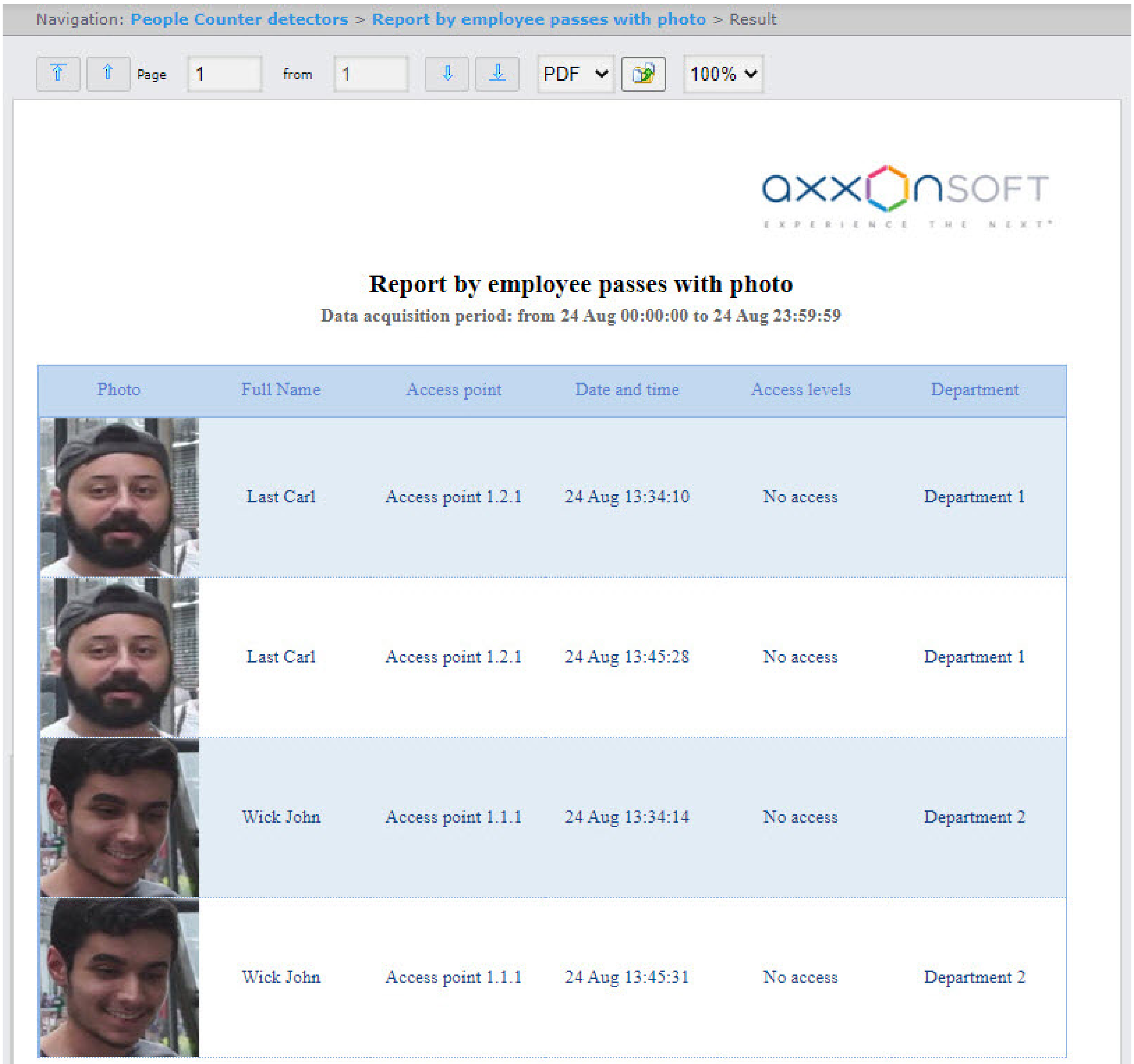
   - In **Portrait** orientation, you can select up to five columns.
   - In **Landscape** orientation, you can select up to seven columns.

6. In the **Period** field (**5**), select the time period for which you want to build the report.

   Note

   - If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the  button near the corresponding field to use the **Calendar** tool.
   - If the **Custom 2** period is selected, additionally enter the start and end time of the period for which the report is to be created using the  button.
   - The **Custom 3** period allows you to set the time interval from **Yesterday (time)** to **Today (time)** relative to the report date.

7. In the **Departments/users** field (**6**), select the departments or users, information on which should be displayed in the report. Click **All** to select all available objects. Click **None** to deselect. Click **Show all** to expand the object structure. Click **Hide all** to hide the object structure.
8. You can find an employee by their first name or surname using the search. For this, enter in the search field (**7**) at least 4 first characters of the employee's first name or surname and click the **Search** button (**8**). The department to which the found employee belongs will be displayed in the search tree in the area **9**. To clear the search field and the search tree, click the **Clear search tree** button (**10**).
9. To create a report, click the **Execute** button (**11**). As a result, the report with specified parameters is displayed.



All possible fields of the report are described in the table.

Field name	Description
No.	Line number
Photo	Photo from the camera
Full Name	Employee's full name
Name	Employee's first name

Field name	Description
Surname	Employee's last name
Position	Employee's position
External ID	Employee's external identity number
Patronymic	Employee's patronymic name
License plate	Employee's car license plate number
Car	Employee's car brand
Card number	Employee's access card number
Card code	Employee's access card code
Date of card issue	Employee's access card issue date
Access point	Access point through which the employee has passed
Date	Date of the passage
Date and time	Date and time of the passage
Time	Time of the passage
Access levels	Employee's access levels
Phone	Employee's phone number
Company	The name of the parent department, if the employee's department is a subsidiary
Department	Department where employee works
Comment	Commentary
Card expiration date	Employee's access card expiration date

Field name	Description
Pin code	Employee's access card PIN code

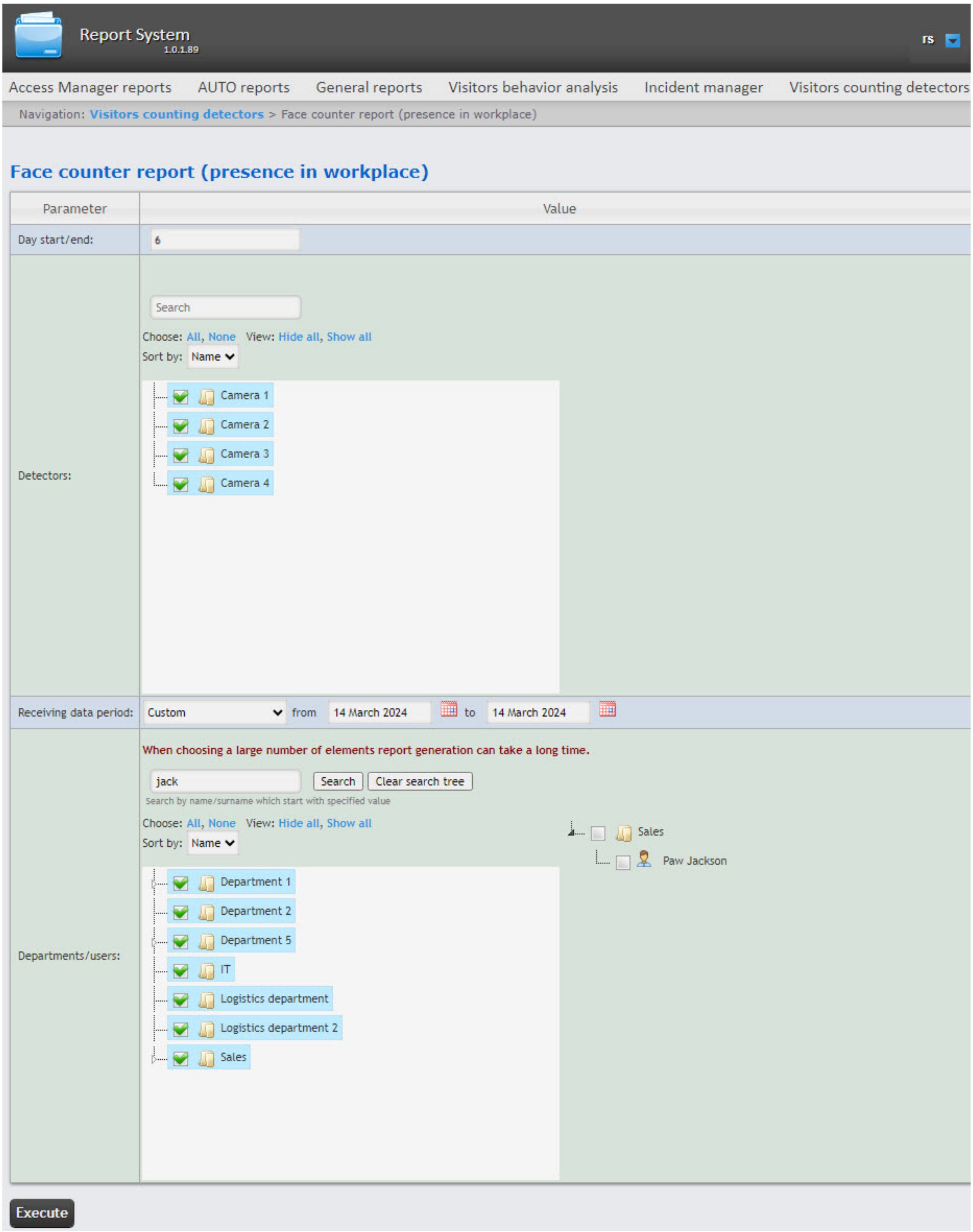
8.6.10 Face counter report (presence in workplace)

The **Face counter report (presence in workplace)** allows you to count the number of appearances of an employee, whose face is in the face database, over certain time intervals using the information received from cameras. The data is presented in the form of a table.

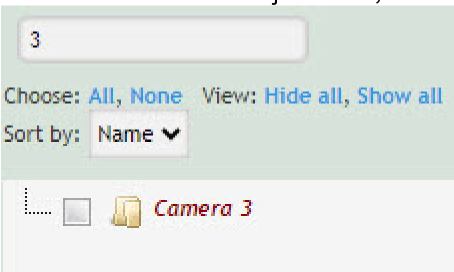
> **Note**
>
> The **Face counter report (presence in workplace)** belongs to the **Camera** object (you must create the corresponding object in *Axxon PSIM*).

To create the **Face counter report (presence in workplace)**, do the following:

1. Select the **Face counter report (presence in workplace)** from the list of the visitors counting detectors reports. As a result, the report configuration form will open.

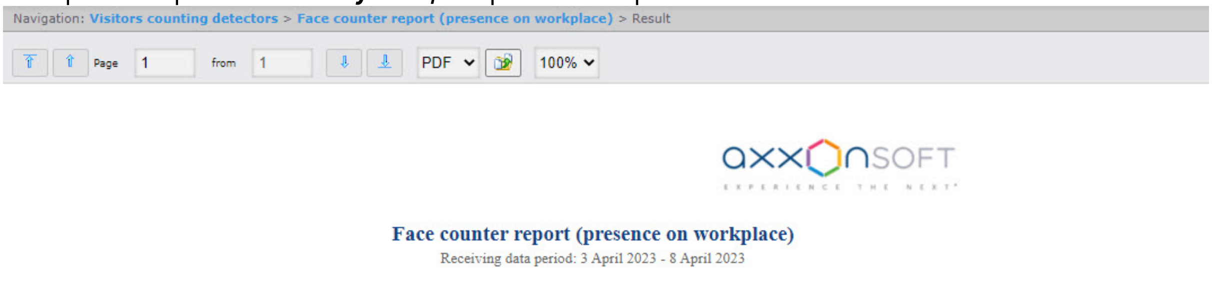


2. In the **Day start/end** field, specify the time value from which the beginning of the day is considered when creating a report from the range 0–23. The default value is 6.
3. In the **Detectors** field, set the checkboxes next to the **Camera** objects, the information from which will be included in the report.

4. To find a camera by name, you can use the search. Start entering the camera name in the search field. The search works from the first character, the found objects will be highlighted in a different color. To select all available or found objects, click **All**. To deselect, click **None**. You can expand the objects tree by clicking **Show all**. To hide the objects tree, click **Hide all**.


5. By default the list of cameras is sorted by name. To sort by number, select this option from the **Sort by** drop-down list.
6. From the **Receiving data period** drop-down list, select the time period for which you want to create the report. If you select the **Custom** period, enter the date of start and end periods for which the report must be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
If you select the **For the selected day** period, specify the day for which you want to create a report using the **Calendar** tool.
If you select the **For the selected month** period, specify the year and month for which you want to create a report from the drop-down lists.
If you select the **For the last N days** period, specify the number of days for which you want to create a report.
7. In the **Departments/users** field, set the checkboxes next to those departments or employees, the information on which you want to include in the report. To select all found employees and departments, click **All**. To deselect, click **None**. To expand the department structure, click **Show all**. To hide the structure, click **Hide all**.
8. You can find an employee by name or surname using the search. To do this, enter at least four first characters of the employee's name or surname in the search field and click the **Search** button. The department to which the found employee belongs will be displayed in the search tree in the area to the right of the list of departments and users. To clear the search field and the search tree, click the **Clear search tree** button.
9. By default the list of employees is sorted by name. To sort by number, select this option from the **Sort by** drop-down list.
10. Click the **Execute** button to create the report.
As a result, a report with the specified parameters will be displayed. If the amount of detections for a certain hour is greater than 0, the cell is highlighted in green. If the date of the last detection is different from the date of the first detection, the cell is highlighted in red.

Example of a report with the **Day start/end** parameter equal to 12.



Maslennikov Sanya
Personnel number:
Position: null
QA

First detection	Last detection	Presence time	Amount of detections per hour																							
			09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00
4/7/2023 10:42:19 AM	4/7/2023 11:12:23 AM	00:30:03	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Tkhazaplizhev Eldar
Personnel number:
Position: null
QA

First detection	Last detection	Presence time	Amount of detections per hour																							
			09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00
4/7/2023 11:14:59 AM	4/8/2023 8:52:12 AM	21:37:13	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4/8/2023 10:06:09 AM	4/8/2023 10:06:09 AM	00:00:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.7 Working with POS reports

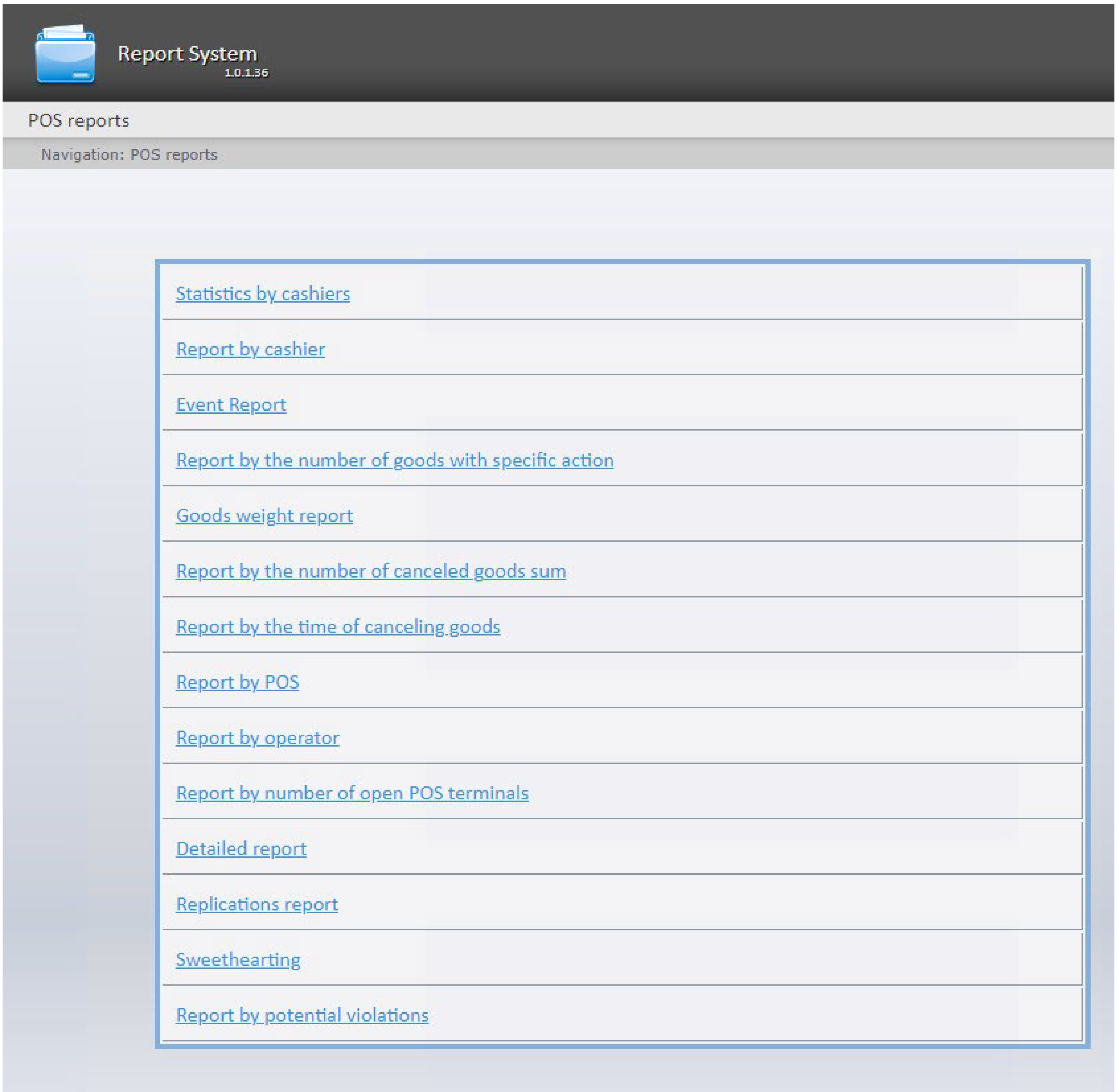
POS reports are created by the local database of *Axxon PSIM*, but it is also possible to use data from remote servers. Configuration of database replication is needed (see Configuring the POS Replicator system object).

Working with *POS reports* starts with selection of summary report type.

8.7.1 General reports

Selecting a type of general POS report

In order to select the type of the general *POS reports*, click **POS reports** in the menu of *WEB Report System PSIM.* As a result, the list of the available general *POS reports* will be displayed.



In order to select the required report, click the corresponding link.

Note

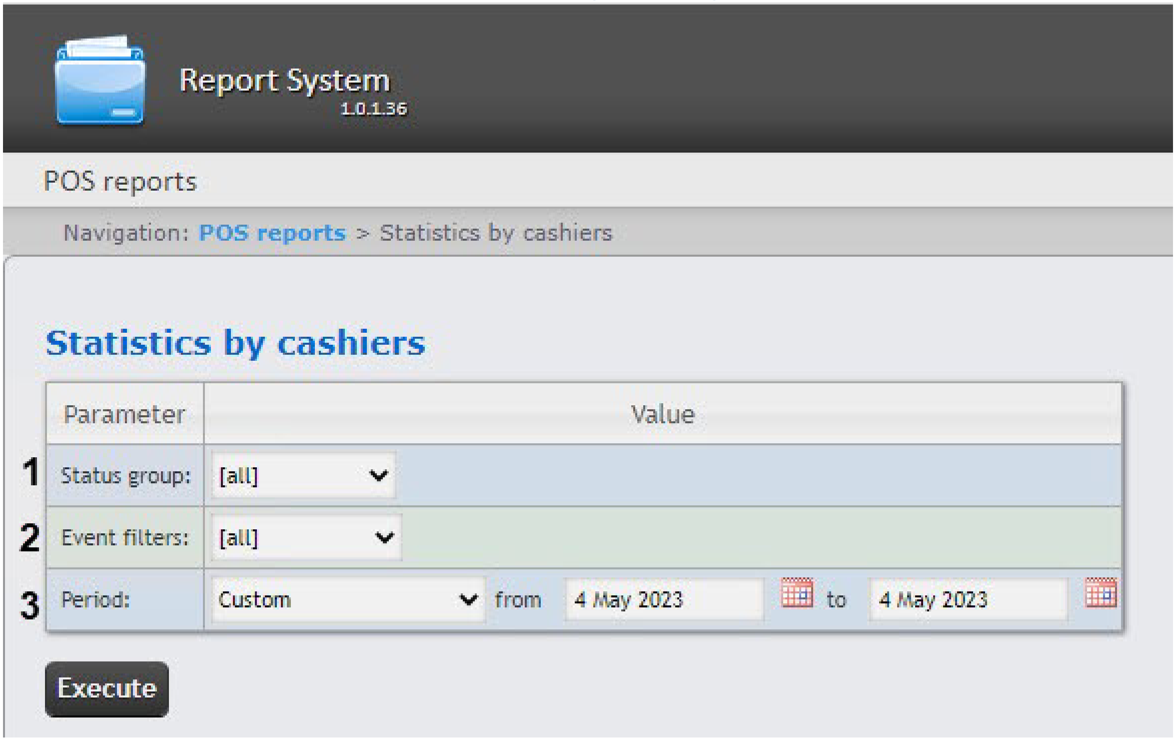
The list of the general *POS reports* links is also available when hovering over the **POS reports** link in the reports menu.

Statistics by cashiers

> **Attention!**
>
> To enable the displaying of the cashier statistics, the **POS terminal** object should be created and configured in *POS PSIM* (see The POS terminal object setup), and this report should be configured (see Setting up the Statistics by cashiers report).

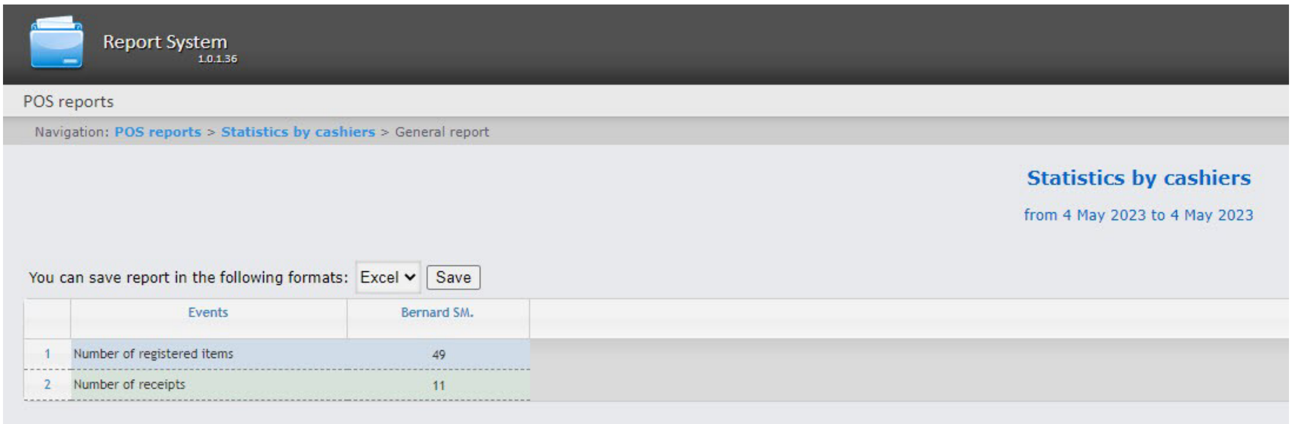
In order to generate the Statistics by cashiers report, do the following:

1. Select the **Statistics by cashiers** report (see Selecting a type of general POS report).



2. Specify the **Status group** of the events you want to display in the report (**1**). If **[all]** is selected, the report will include all events regardless of their statuses.
3. From the **Event filters** drop-down list (**2**), select an event filter that should be used to generate the report. If **All** is selected, then event filters are not considered and the report is created by all events.
4. From the **Period** drop-down list, select the time period of the cashier data (**3**). If **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
5. Click **Execute** to run the report.

Example of a **Statistics by cashiers** report:



This is a summary table of events for all cashiers. In the cashier name column, the total number of events registered for this cashier will be indicated. To view a detailed report on the selected event for the cashier, click on the corresponding value in the table.

In order to save a **Statistics by cashiers** report in .xls format, click **Save**.

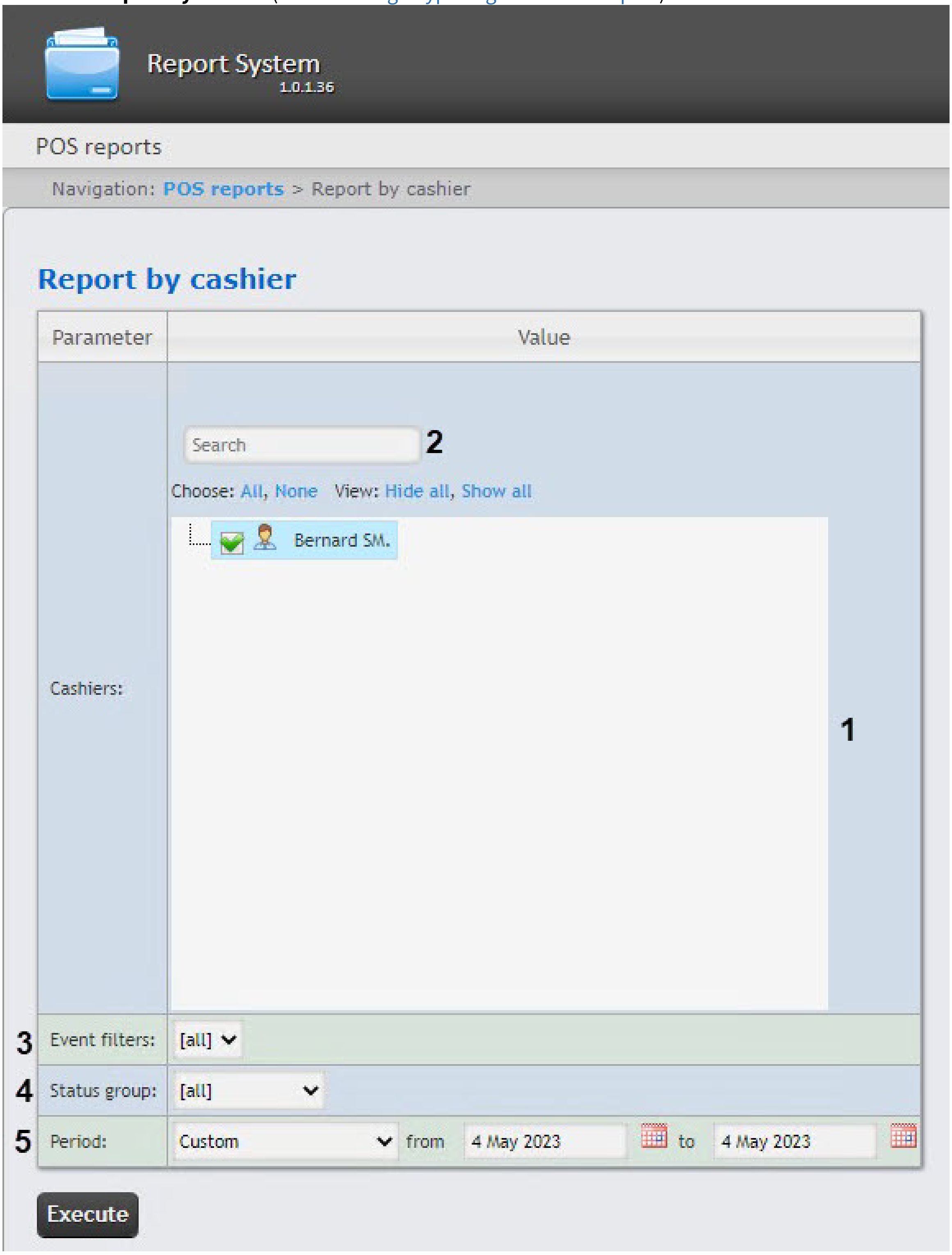
Report by cashier

Attention!

In order to generate the Report by cashier, the **POS terminal** object should be set up and configured in *POS PSIM* (see The POS terminal object setup).

In order to generate the Report by cashier, do the following:

1. Select the **Report by cashier** (see Selecting a type of general POS report).

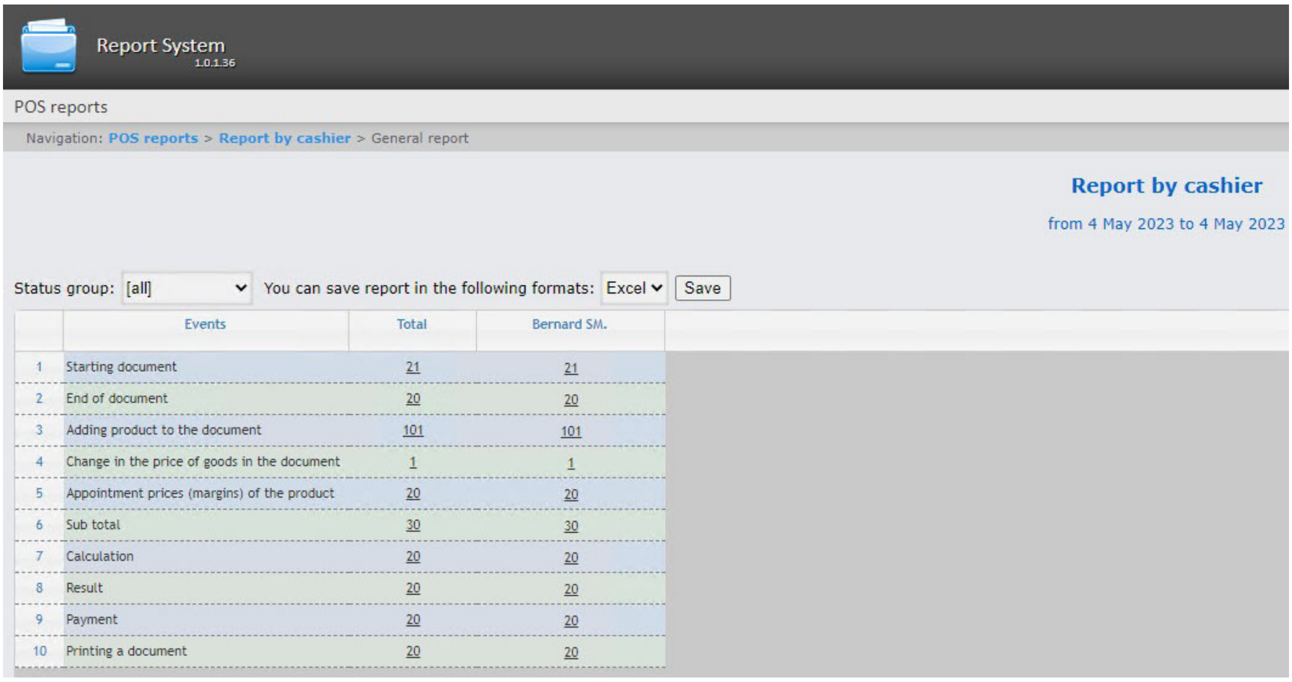


2. Select the cashiers by whom it is necessary to generate the report by setting the corresponding checkboxes in the **Cashiers** list (**1**).

> **Attention!**
>
> This field is mandatory: the report will not be generated if no value is selected. If you try to generate a report, a warning message will alert you that you should select at least one value from the list.

3. To use the search when selecting cashiers, in the search field (**2**) start entering the cashier's last name. The search works starting from the first character. The results will be highlighted in a different color. Click **All** to select all found/available cashiers. Click **None** to deselect. Click **Show all** to expand the cashiers structure. Click **Hide all** to hide the cashiers structure.
4. From the **Event filters** drop-down list (**3**), select an event filter that should be used to generate the report. If **All** is selected, then event filters are not considered and the report is created by all events.
5. From the **Status group** drop-down list (**4**), select the status group of those events that should be displayed in the report. If **All** is selected, the report will include all POS events regardless of their status.
6. From the **Period** drop-down list (**5**), select the time period for which the report should be created. If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
7. Click the **Execute** button.

Example of a Report by cashier:



	Events	Total	Bernard SM.
1	Starting document	21	21
2	End of document	20	20
3	Adding product to the document	101	101
4	Change in the price of goods in the document	1	1
5	Appointment prices (margins) of the product	20	20
6	Sub total	30	30
7	Calculation	20	20
8	Result	20	20
9	Payment	20	20
10	Printing a document	20	20

In the **Total** column the total amount of events by their type is displayed. In the column with the cashier name the amount of events by their type registered for this cashier is displayed.

In order to save the summary Report by cashier in .xls format, click the **Save** button.

Event report

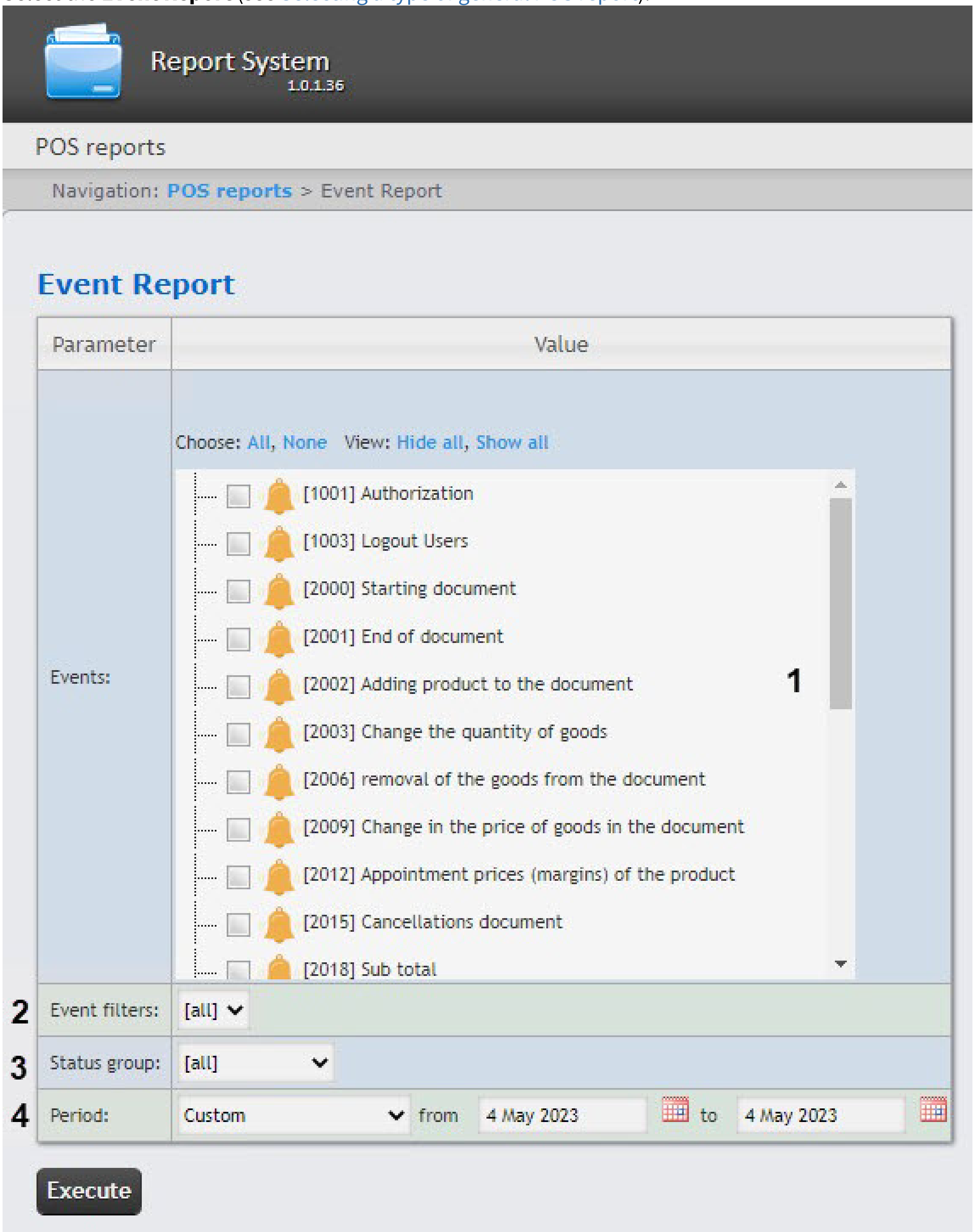
> **Attention!**

In order to generate the Event Report, the **POS terminal** object should be set up and configured in *POS PSIM* (see The POS terminal object setup).

The Event Report allows displaying the information on the selected events, including the shop and the POS terminal where they occurred, and what cashier performed the specified actions.

In order to display the event report, do the following:

1. Select the **Event Report** (see Selecting a type of general POS report).



2. Select the events that should be displayed in the report by setting the corresponding checkboxes in the list (**1**). Click **All** to set all checkboxes in the list. Click **None** to clear all checkboxes.

   > **Attention!**
   >
   > This field is mandatory: the report will not be generated if no value is selected. If you try to generate a report, a warning message will alert you that you should select at least one value from the list.

3. From the **Event filters** drop-down list (**2**), select an event filter that should be used to generate the report. If **all** is selected, then event filters are not considered and the report is created by all events.
4. From the **Status group** drop-down list (**3**) select the status group of those events that should be displayed in a report. If **all** is selected, then all POS events will be displayed in the report regardless of their status.
5. Specify the period in the following way:
   a. From the **Period** drop-down list (**4**) select the time period for which the report should be created.
   b. If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the  button near the corresponding field to use the **Calendar** tool.
   c. If another period type is selected, specifying the date of start and end periods is not needed.
6. Click the **Execute** button.

As a result, a summary table of cashiers and events is displayed according to the specified parameters. A total of events for a cashier is displayed in the events type columns.

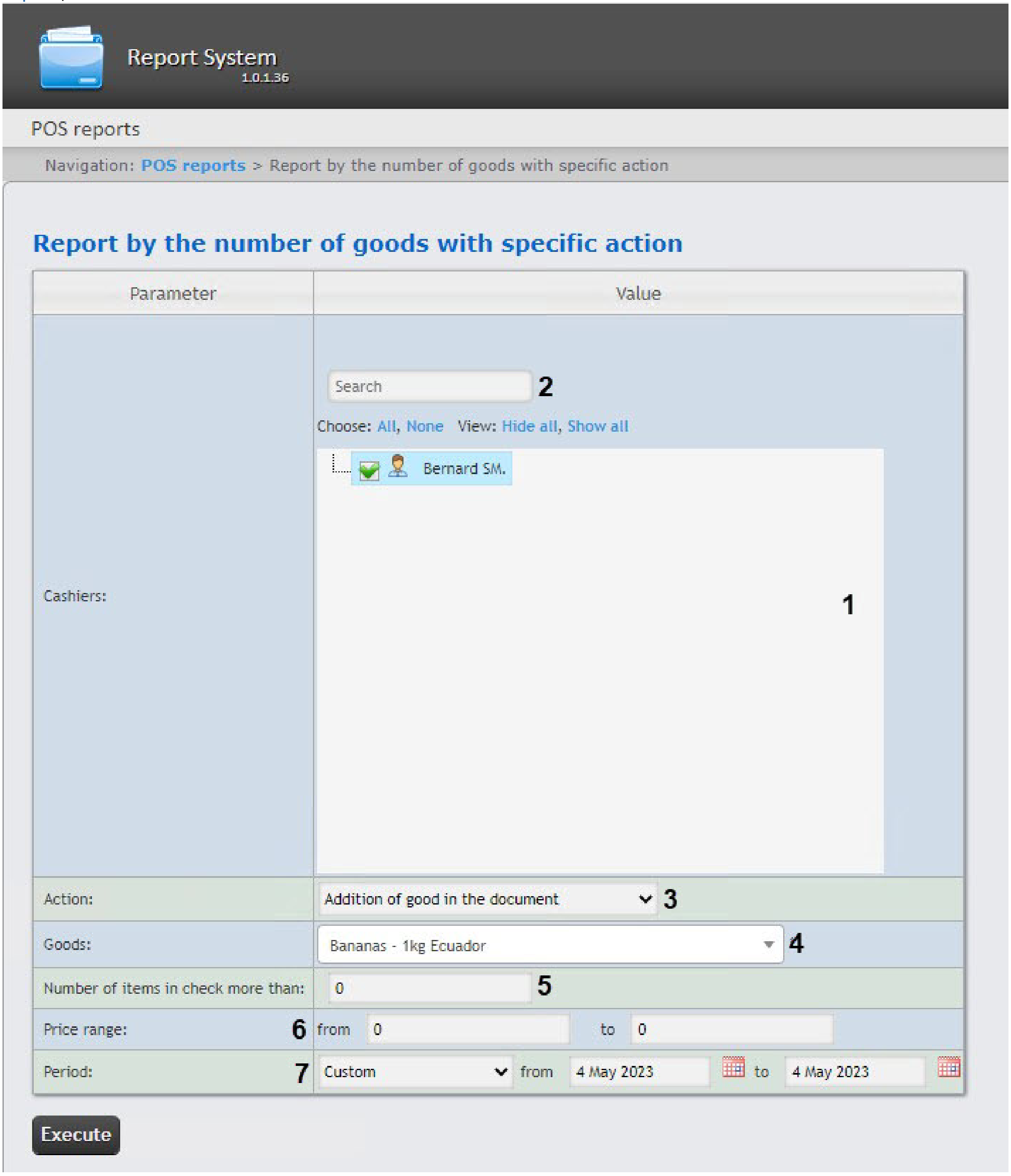
In order to save the summary Event Report in .xls format, click the **Save** button.

Report by the number of goods with specific action

> **Attention!**
>
> In order to generate a report by the number of goods with specific action, the **POS terminal** object should be setup and configured in *POS PSIM* (for details, see The POS terminal object setup).

In order to generate a report by the number of goods with specific action, do the following:

1. Select the **Report by the number of goods with specific action** (see Selecting a type of general POS report).



2. Select the cashiers by whom the report will be generated by setting the corresponding checkboxes in the **Cashiers** list (**1**).

> **Attention!**
>
> This field is mandatory: the report will not be generated if no value is selected. If you try to generate a report, a warning message will alert you that you should select at least one value from the list.

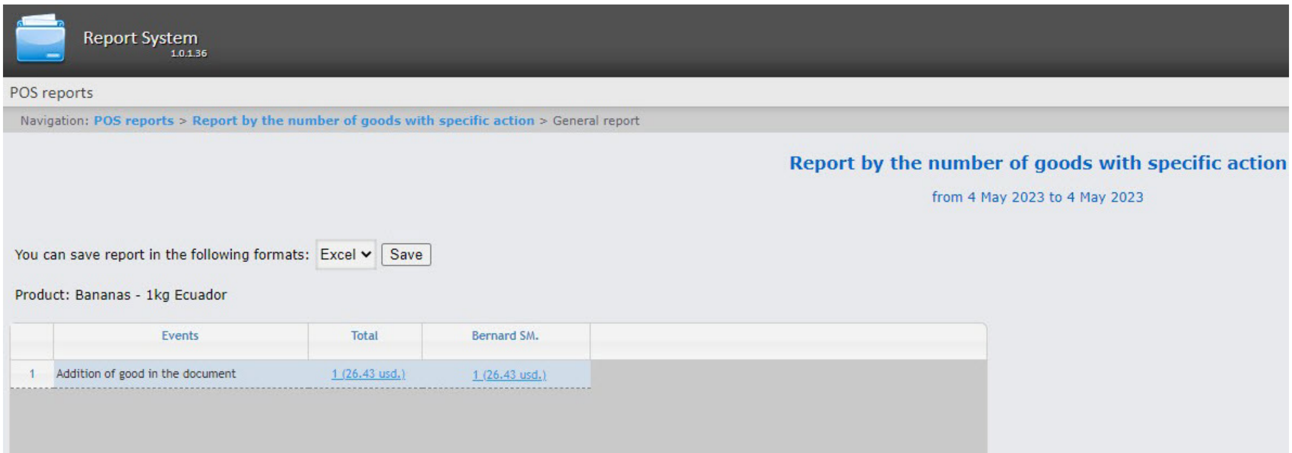
3. To use the search when selecting cashiers, in the search field (**2**) start entering the cashier's last name. The search works starting from the first character. The results will be highlighted in a different color. Click **All** to select all found/available cashiers. Click **None** to deselect. Click **Show all** to expand the cashiers structure. Click **Hide all** to hide the cashiers structure.
4. From the **Action** drop-down list (**3**), select the required cashier action.
5. In the **Goods** field (**4**), enter a substring of the goods name to search for the goods, the action on which should be displayed in the report. The substring should be at least four characters long.

   > **Note**
   >
   > When you click the **Goods** field, the **No results found** message is displayed. The message will disappear when you enter the name of the goods.

6. In the **Number of items in check more than** field (**5**), enter the minimum number of this item in a check.
7. In the **Price range** field (**6**), enter the minimum and maximum price values for the item in the **from** and **to** fields.
8. From the **Period** drop-down list (**7**), select the time period for which the report should be created. If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
9. Click the **Execute** button.

   > **Note**
   >
   > To change the currency display name in the report, see Setting up the currency format for Report by the number of goods with specific action.

Example of a report by the number of goods with specific action:



This is a summary table of the selected action by the cashiers. The **Total** column displays the total price of the goods with the selected action for all cashiers. The column called by the cashier name displays the price of the goods with the selected action for this cashier.

To save a report by the number of goods with specific action in .xls format, click the **Save** button.

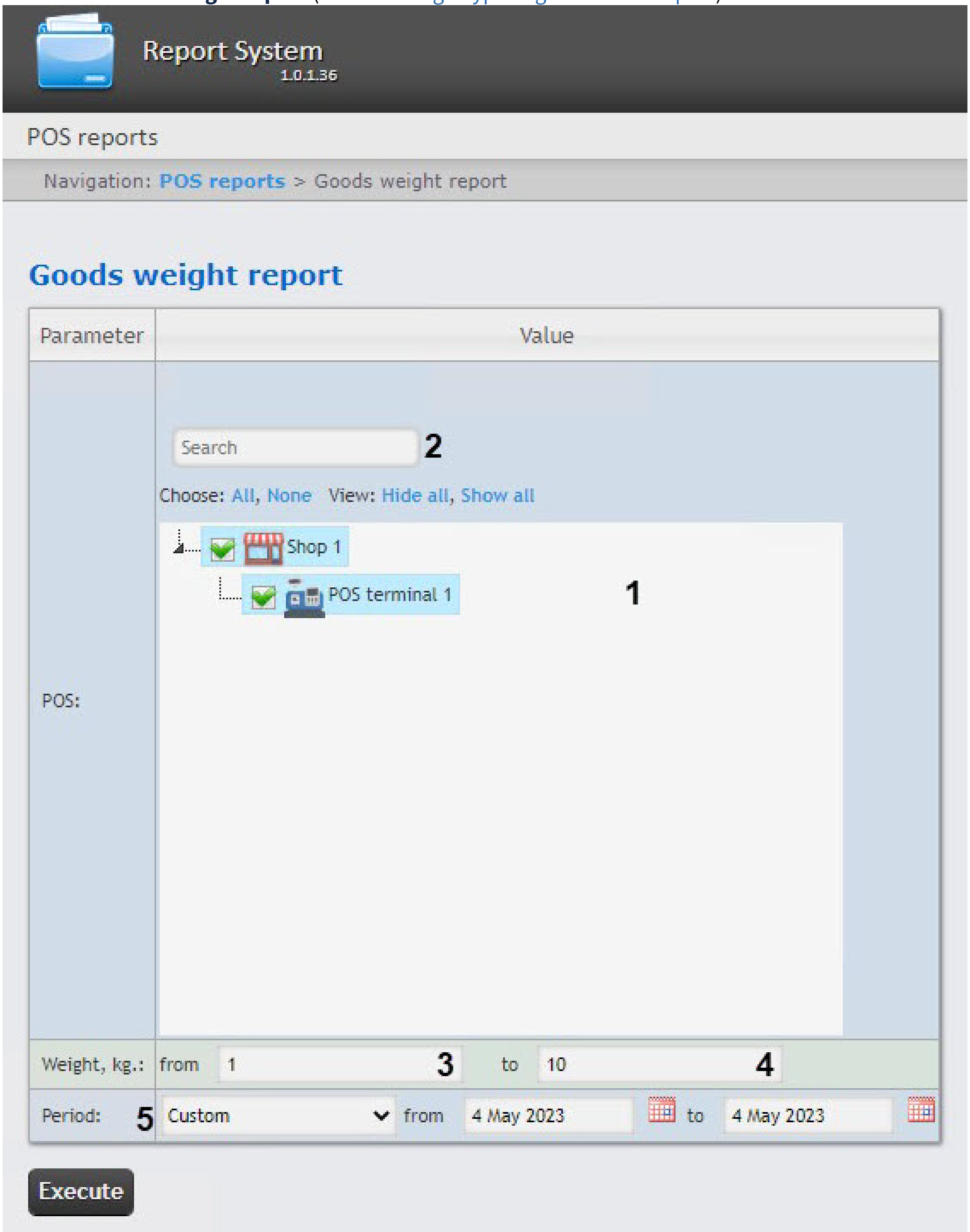
Goods weight report

Attention!

- In order to generate the Goods weight report, the **POS terminal** object should be created and configured in *POS PSIM* (see The POS terminal object setup).
- The Goods weight report is generated only when using SQL starting from the SQL2017 version. If an earlier version is installed, for example, SQL2014, the Goods weight report will not be generated.

In order to generate the Goods weight report, do the following:

1. Select the **Goods weight report** (see Selecting a type of general POS report).

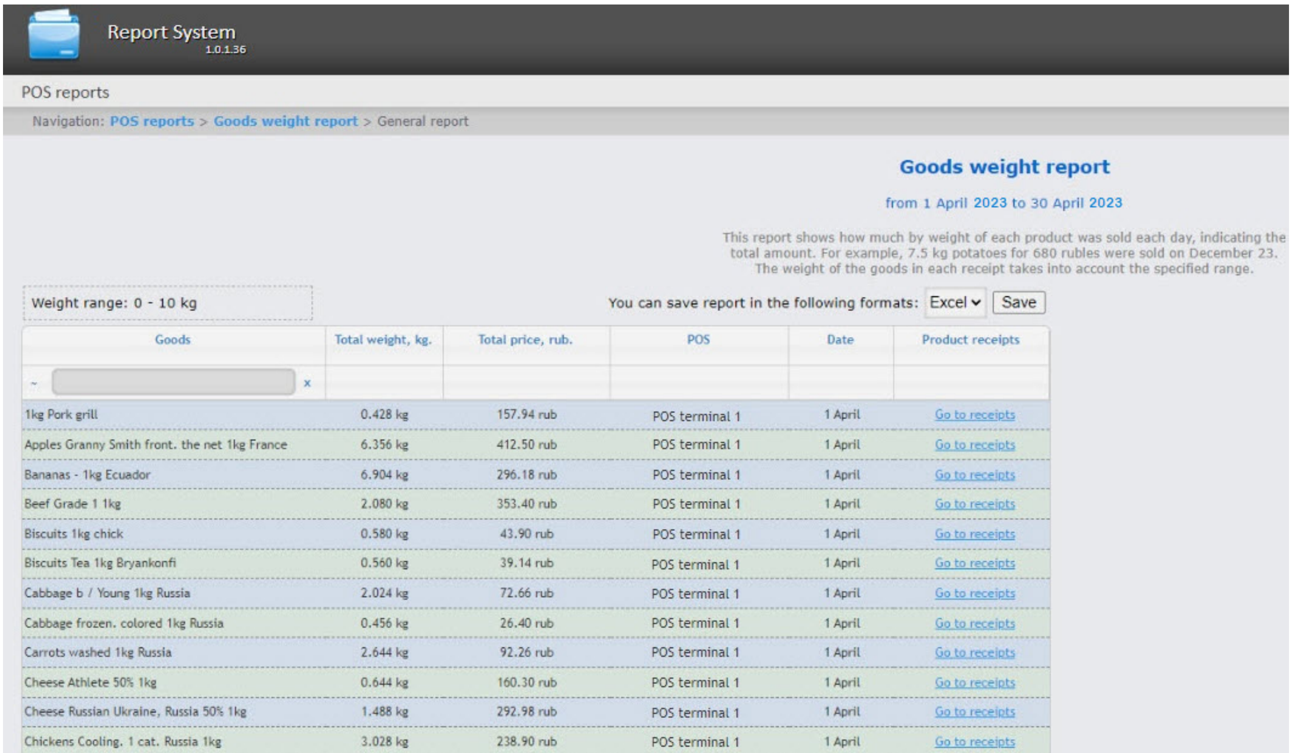


2. From the **POS** drop-down list (**1**), select the POS terminals for which the report will be generated.

> **Attention!**
>
> This field is mandatory: the report will not be generated if no value is selected. If you try to generate a report, a warning message will alert you that you should select at least one value from the list.

3. To use the search when selecting the POS terminals, in the search field (**2**) start entering the POS terminal name. The search works starting from the first character. The results will be highlighted in a different color. Click **All** to select all found/available POS terminals. Click **None** to deselect. Click **Show all** to expand the POS terminals structure. Click **Hide all** to hide the POS terminals structure.
4. In the **Weight, kg. from** (**3**) and **to** fields (**4**), enter the minimum and maximum weight of the goods in kilograms.
5. From the **Period** drop-down list (**5**) select the time period for which the report should be created. If the **Custom** period is selected, enter the date of start and end periods in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
6. Click the **Execute** button.

As a result, a summary table of the events by the goods weight will be displayed according to the specified parameters. To go to the detailed report on the specified goods, click on the **Go to receipts** link of this goods.



To save the Goods weight summary report in .xls format, click the **Save** button.

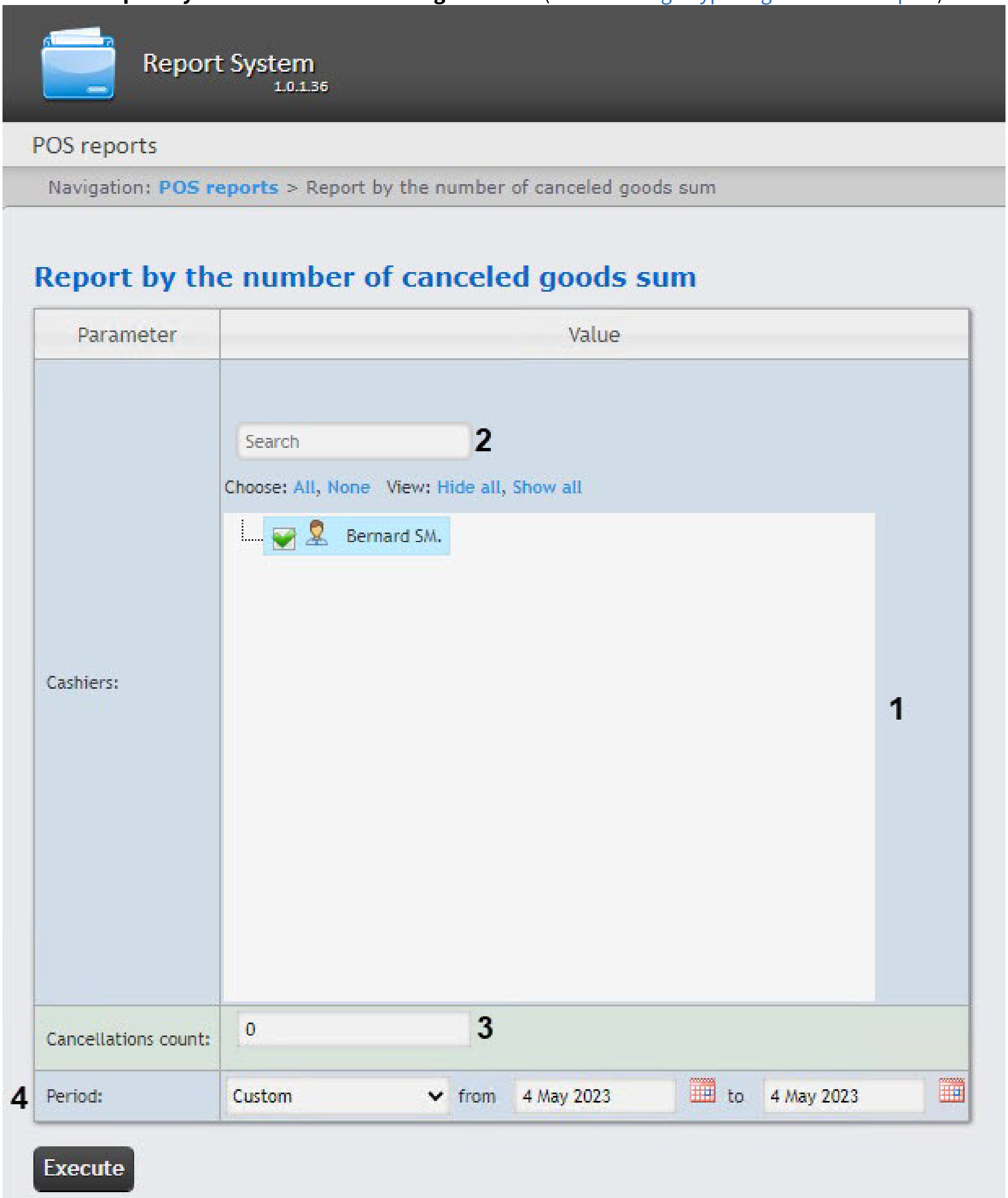
The Goods weight report generation is complete.

Report by the number of canceled goods sum

> **Attention!**
>
> In order to generate the Report by the number of canceled goods sum, the **POS terminal** object should be created and configured in *POS PSIM* (see The POS terminal object setup).

In order to generate the Report by the number of canceled goods sum, do the following:

1. Select the **Report by the number of canceled goods sum** (see Selecting a type of general POS report).



2. Select the cashiers for which the report should be displayed by setting the corresponding checkboxes in the list (**1**).

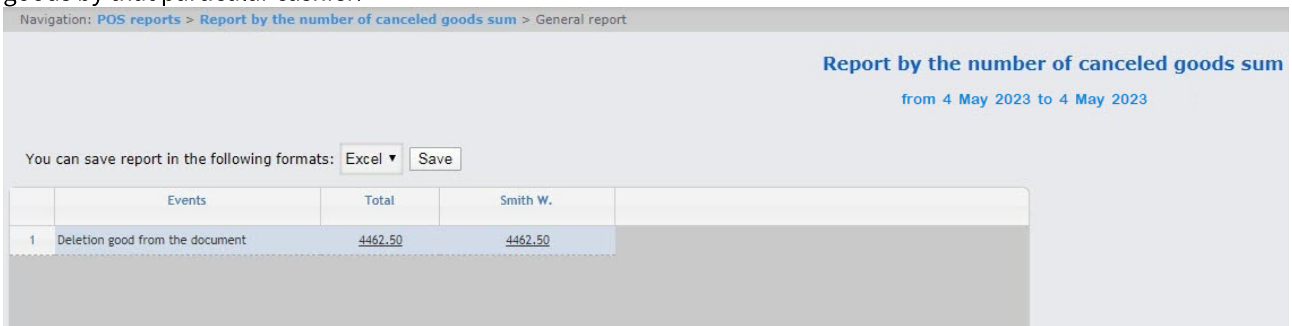
> **Attention!**
>
> This field is mandatory: the report will not be generated if no value is selected. If you try to generate a report, a warning message will alert you that you should select at least one value from the list.

3. To use the search when selecting cashiers, in the search field (**2**) start entering the cashier's last name. The search works starting from the first character. The results will be highlighted in a different color. Click **All** to select all found/available cashiers. Click **None** to deselect. Click **Show all** to expand the cashiers structure. Click **Hide all** to hide the cashiers structure.
4. In the **Cancellations count** field (**3**) specify the threshold value of the sum of the canceled goods number.
5. From the **Period** drop-down list (**4**) select the time period for which the report should be created.

> **Note**
>
> If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.

6. Click the **Execute** button.

As a result, a summary table will be displayed according to the specified parameters. The **Total** column displays the total sum of the canceled goods by all cashiers. The column with the cashier name displays the sum of the canceled goods by that particular cashier.



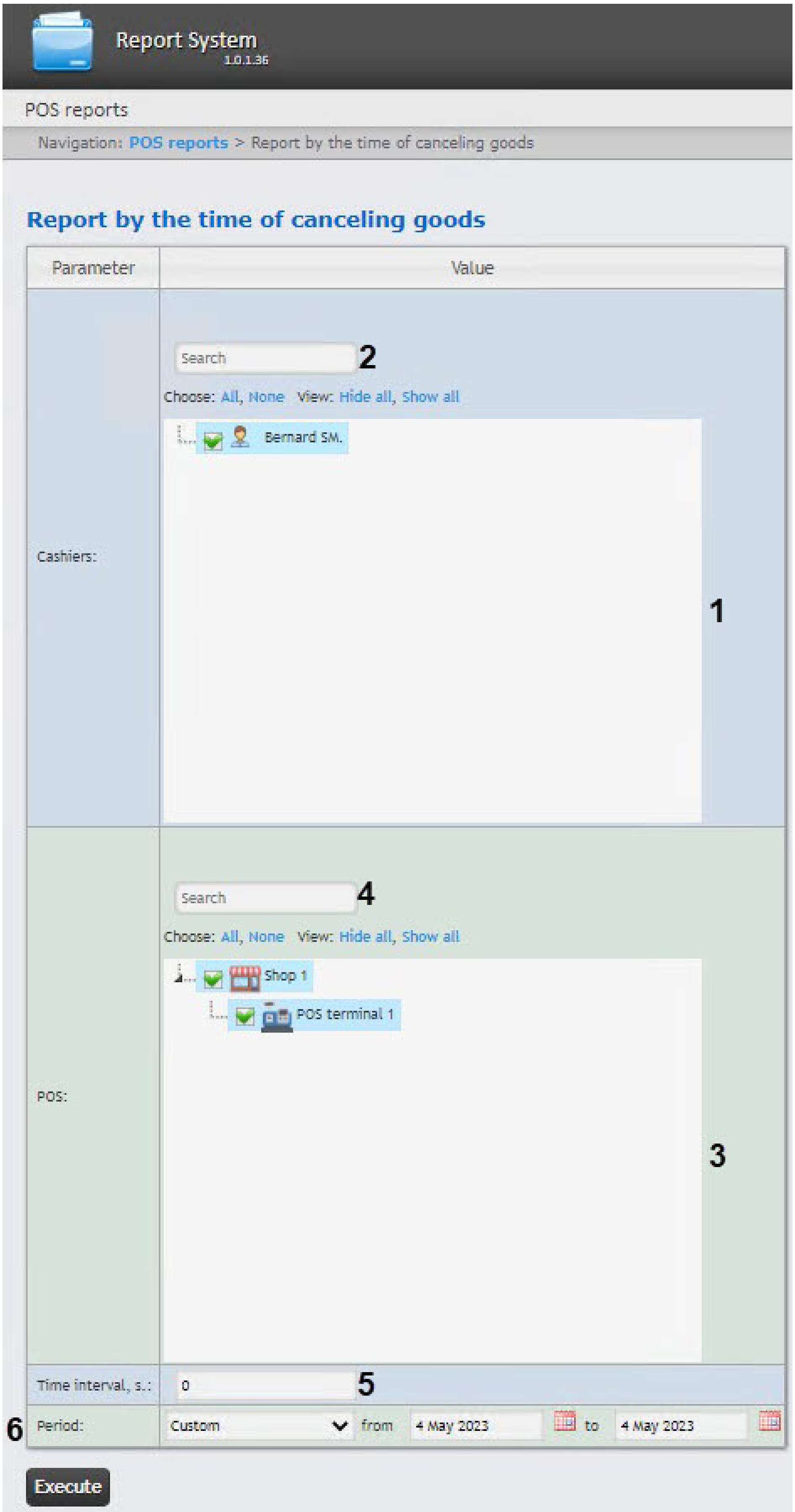
To save the summary report in .xls format, click the **Save** button.

Report by the time of canceling goods

> **Attention!**
>
> In order to generate the Report by the time of canceling goods, the **POS terminal** object should be created and configured in *POS PSIM* (see The POS terminal object setup).

In order to generate the Report by the time of canceling goods, do the following:

1. Select the **Report by the time of canceling goods** (see Selecting a type of general POS report).

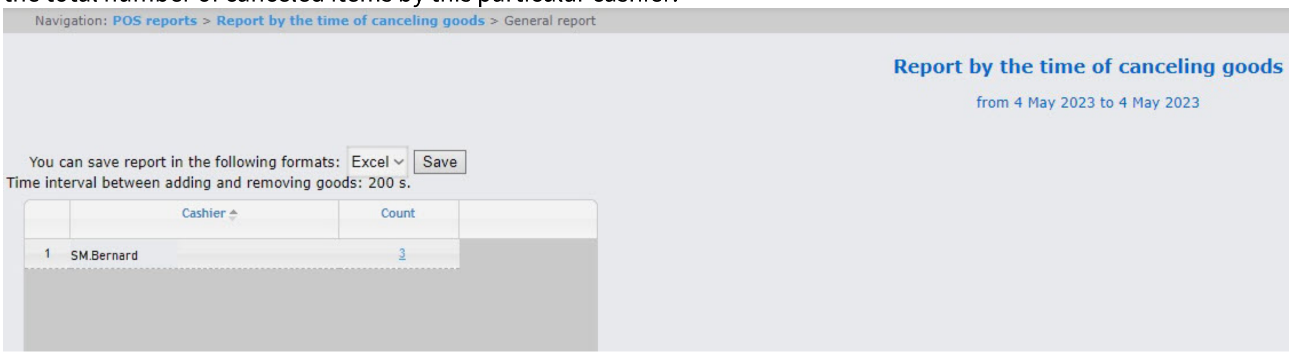

Report System
1.0.1.36
POS reports
Navigation: POS reports > Report by the time of canceling goods
Report by the time of canceling goods
Parameter
Value
Cashiers:
Search
2
Choose: All, None View: Hide all, Show all
Bernard SM.
1
POS:
Search
4
Choose: All, None View: Hide all, Show all
Shop 1
POS terminal 1
3
Time interval, s.:
0
5
6
Period:
Custom
from
4 May 2023
to
4 May 2023
Execute

2. Select the cashiers for which the report should be displayed by setting the corresponding checkboxes in the list (**1**).
3. To use the search when selecting cashiers, in the search field (**2**) start entering the cashier's last name. The search works starting from the first character. The results will be highlighted in a different color. Click **All** to select all found/available cashiers. Click **None** to deselect. Click **Show all** to expand the cashiers structure. Click **Hide all** to hide the cashiers structure.
4. Select the POS terminals (cash desks) for which the report should be displayed by setting the corresponding checkboxes in the list (**3**).
5. To use the search when selecting the POS terminals, in the search field (**4**) start entering the POS terminal name. The search works starting from the first character. The results will be highlighted in a different color. To select all POS terminals of a shop, set a checkbox next to this shop. Click **All** to select all found/available POS terminals. Click **None** to deselect. Click **Show all** to expand the POS terminals structure. Click **Hide all** to hide the POS terminals structure.
6. In the **Time interval, s.** field (**5**), specify the time interval in seconds between adding an item and canceling it. If an item was added and canceled during the specified interval, then such item will be included in the report.
7. From the **Period** drop-down list (**6**), select the time period for which the report should be created.

> **Note**
>
> If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.

8. Click the **Execute** button.

As a result, a summary table will be displayed according to the specified parameters. The **Count** column displays the total number of canceled items by this particular cashier.



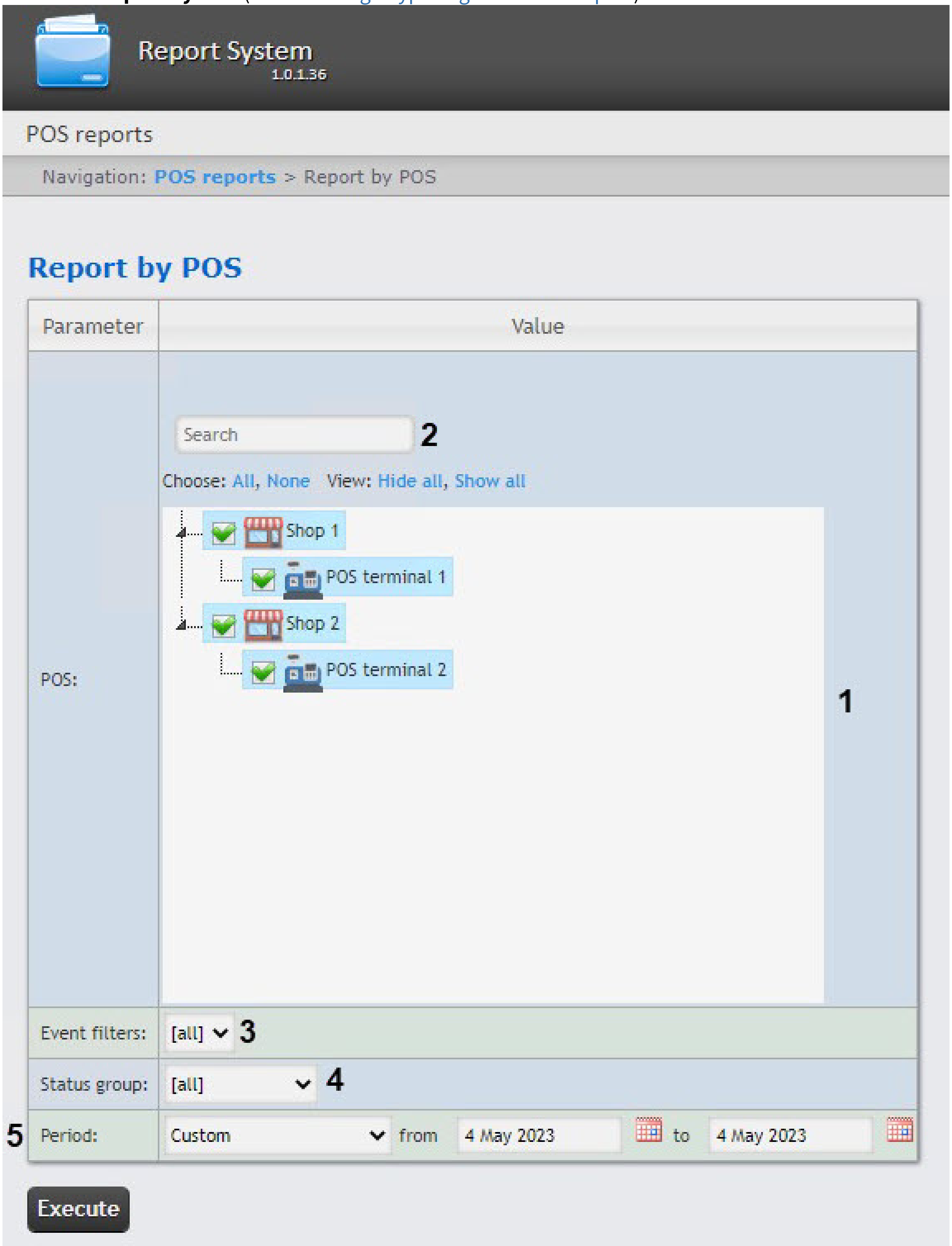
To save the report in .xls format, click the **Save** button.

Report by POS

> **Attention!**
>
> In order to generate the Report by POS, the **POS terminal** and the **Shop** objects should be set up and configured in *POS PSIM* (see The POS terminal object setup and Setting up the Shop system object).

In order to generate the Report by POS, do the following:

1. Select the **Report by POS** (see Selecting a type of general POS report).



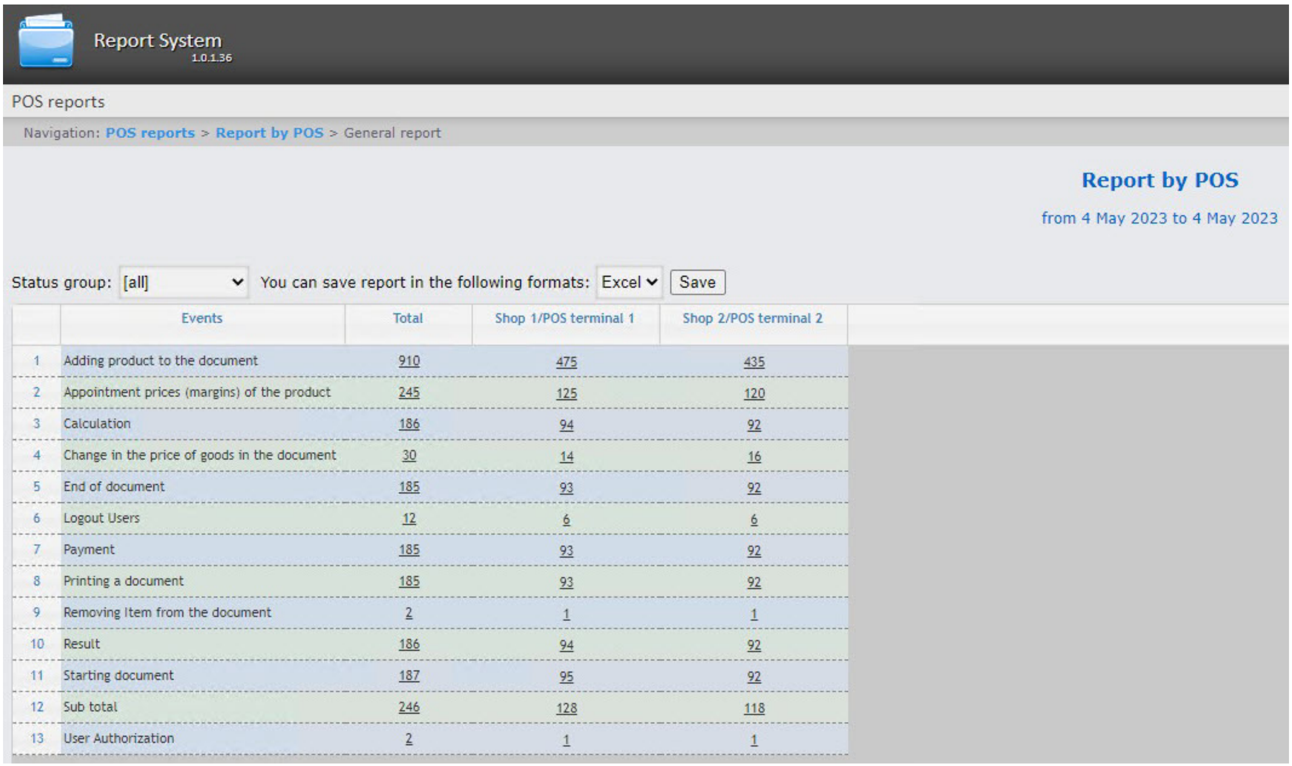
2. Select the POS terminals (cash desks) by which it is necessary to generate a report by setting the corresponding checkboxes in the **POS** list (**1**).

Attention!

- This field is mandatory: the report will not be generated if no value is selected. If you try to generate a report, a warning message will alert you that you should select at least one value from the list.
- The POS terminals that are not assigned to the shop, are not available in the list.

3. To use the search when selecting the POS terminals, in the search field (**2**) start entering the POS terminal name. The search works starting from the first character. The results will be highlighted in a different color. To select all POS terminals of a shop, set a checkbox next to this shop. Click **All** to select all found/available POS terminals. Click **None** to deselect. Click **Show all** to expand the POS terminals structure. Click **Hide all** to hide the POS terminals structure.
4. From the **Event filters** drop-down list (**3**), select an event filter that should be used to generate the report. If **all** is selected, then event filters are not considered and the report is created by all events.
5. From the **Status group** drop-down list (**4**), select the status group of those events that should be displayed in the report. If **all** is selected, the report will include all events regardless of their status.
6. From the **Period** drop-down list (**5**) select the time period for which the report is to be created. If the **Custom** period is selected, enter the date of start and end periods for which the report is to be created in the **from** and **to** fields using the **Calendar** tool. Click the  button near the corresponding field to use the **Calendar** tool.
7. Click the **Execute** button.

Example of a Report by POS:


Report System
1.0.1.36
POS reports
Navigation: POS reports > Report by POS > General report

Report by POS
from 4 May 2023 to 4 May 2023

Status group: [all] You can save report in the following formats: Excel Save

	Events	Total	Shop 1/POS terminal 1	Shop 2/POS terminal 2
1	Adding product to the document	910	475	435
2	Appointment prices (margins) of the product	245	125	120
3	Calculation	186	94	92
4	Change in the price of goods in the document	30	14	16
5	End of document	185	93	92
6	Logout Users	12	6	6
7	Payment	185	93	92
8	Printing a document	185	93	92
9	Removing Item from the document	2	1	1
10	Result	186	94	92
11	Starting document	187	95	92
12	Sub total	246	128	118
13	User Authorization	2	1	1

In the **Total** column the total amount of events by their type is displayed. In the column called by the POS terminal name the amount of events by their type registered for this POS terminal is displayed.

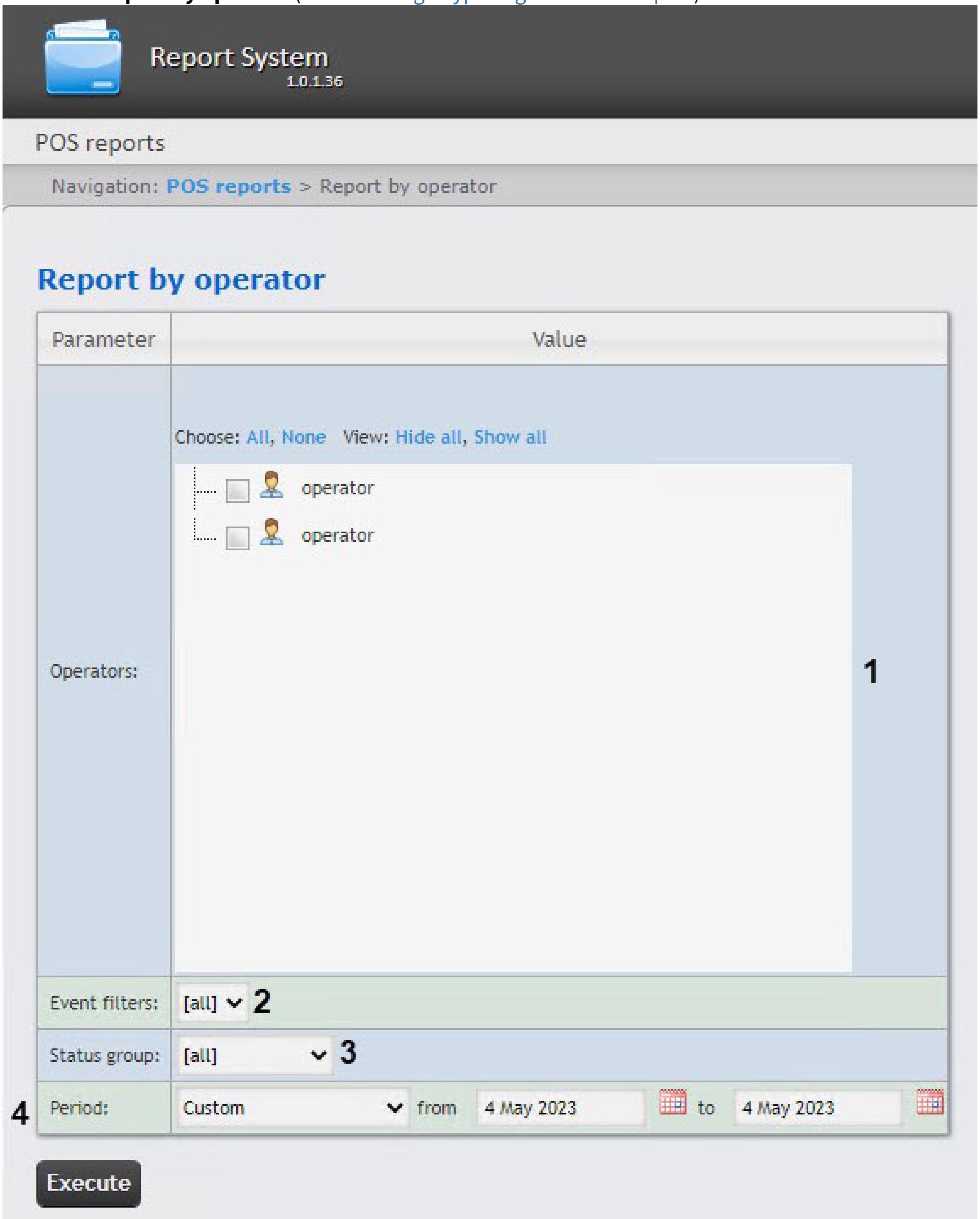
In order to save a summary Report by POS in .xls format, click the **Save** button.

Report by operator

This report shows which operators assigned which statuses to the POS events. To generate a report by operator, do the following:

> **Attention!**
>
> - In order to generate a report by POS operator, the **POS terminal** object should be setup and configured in the *POS PSIM* (see The POS terminal object setup).
> - To configure the list of POS operators, see Creating the list of POS operators.

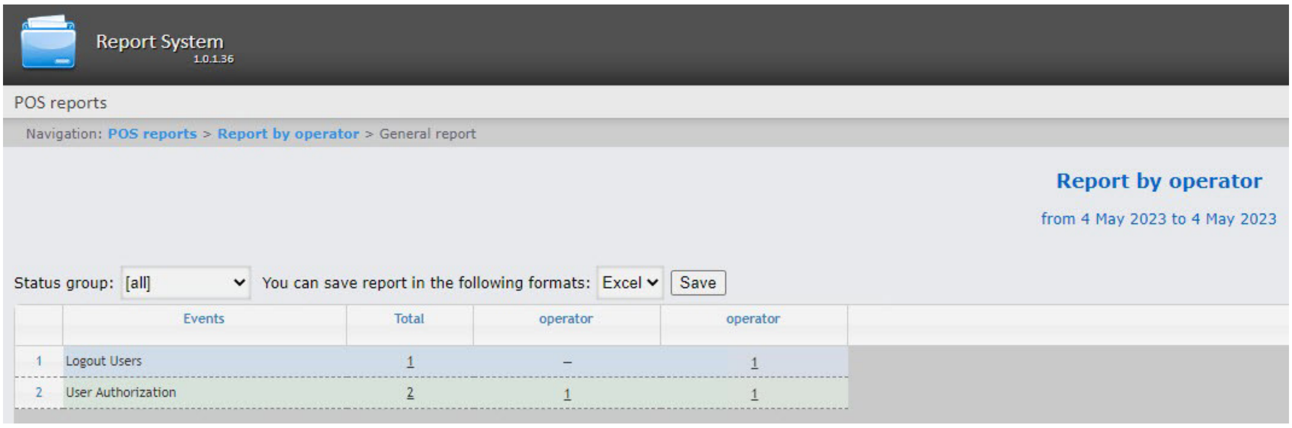
1. Select the **Report by operator** (see Selecting a type of general POS report).



2. Select the POS operators by whom it is necessary to generate a report by setting the corresponding checkboxes in the **Operators** list (**1**). Click **All** to select all operators from the list. Click **None** to deselect. Click **Show all** to expand the operators structure. Click **Hide all** to hide the operators structure.
3. From the **Event filters** drop-down list (**2**), select an event filter that should be used to generate the report. If **All** is selected, then event filters are not considered and the report is created by all events.
4. From the **Status group** drop-down list (**3**), select the status group of those events that should be displayed in the report. If **All** is selected, the report will include all POS events regardless of their status.

5. From the **Period** drop-down list (**4**), select the time period for which the report should be created. If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the  button near the corresponding field to use the **Calendar** tool.
6. Click the **Execute** button.

Example of a report by operator:



This is a summary table of events by the POS operators. The **Total** column displays the total number of events for each type of event. The column called by the POS operator name displays the number of events by their type processed by that operator (changed the status).

In order to save a summary report by operator in.xls format, click the **Save** button.

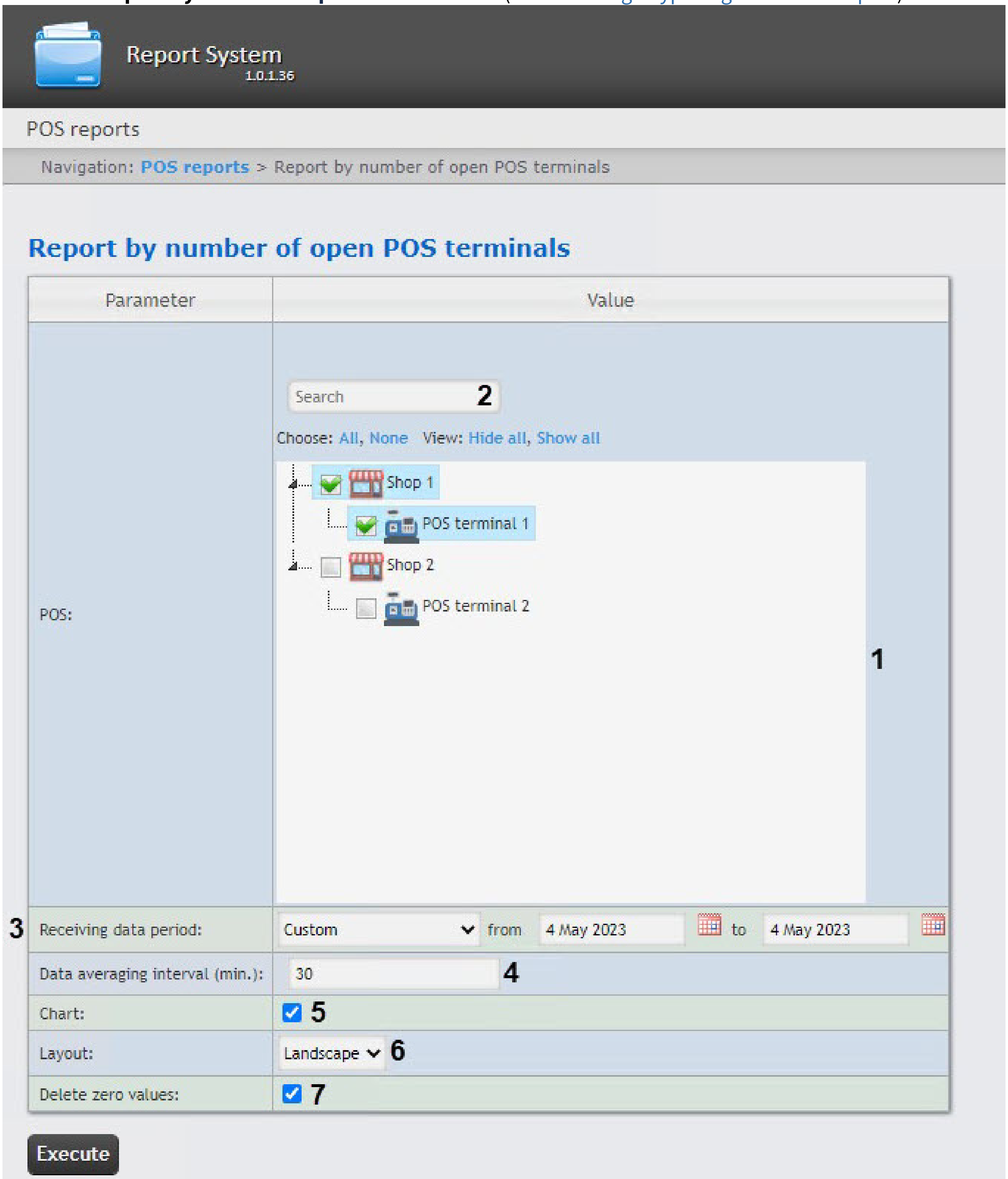
Report by number of open POS terminals

Attention!

In order to generate the Report by number of open POS terminals, the **POS terminal** and the **Shop** objects should be set up and configured in *POS PSIM* (see The POS terminal object setup and Setting up the Shop system object).

In order to display the Report by number of open POS terminals, do the following:

1. Select the **Report by number of open POS terminals** (see Selecting a type of general POS report).

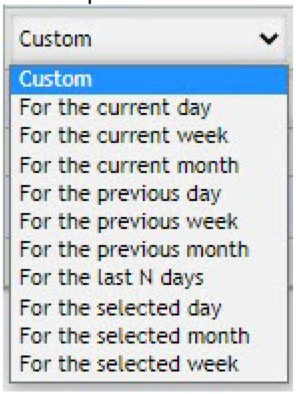


2. Select the POS terminals (cash desks) by which it is necessary to display a report by setting the corresponding checkboxes in the list (**1**).
3. To use the search when selecting the POS terminals, in the search field (**2**) start entering the POS terminal name. The search works starting from the first character. The results will be highlighted in a different color. To select all POS terminals of a shop, set a checkbox next to this shop. Click **All** to select all found/available POS terminals. Click **None** to deselect. Click **Show all** to expand the POS terminals structure. Click **Hide all** to hide the POS terminals structure.

Attention!

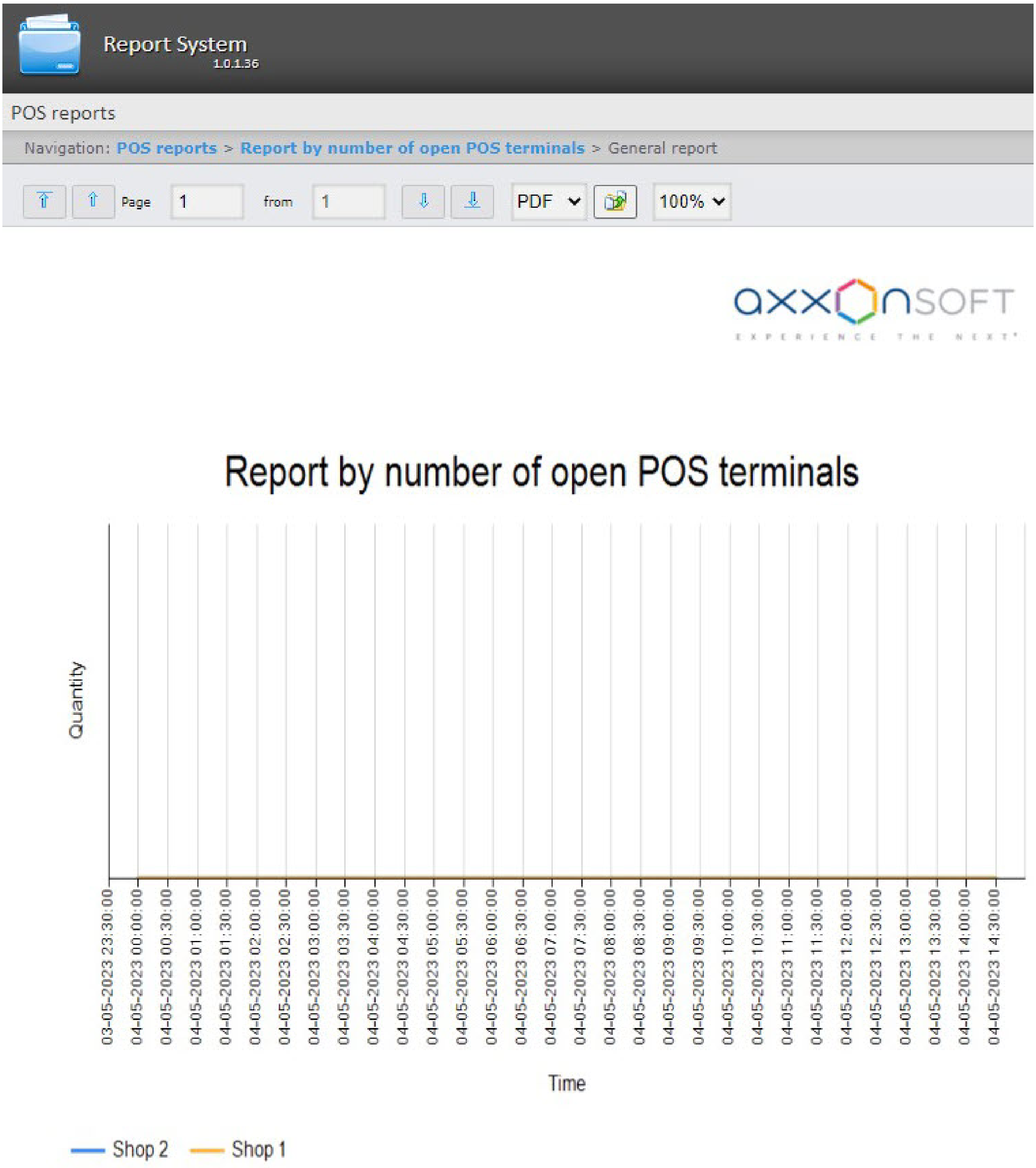
- This field is mandatory: the report will not be generated if no value is selected. If you try to generate a report, a warning message will alert you that you should select at least one value from the list.
- The POS terminals that are not assigned to the shop are not available in the list.

4. Specify the period in the following way:
   a. From the **Receiving data period** drop-down list, select the time period for which the report should be created (**3**).
   b. If the **Custom** period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
   c. Other options are also available:



5. In the field **Data averaging interval (min.)**, specify the data averaging interval in minutes (**4**).
6. Set the **Chart** checkbox to display the report as a chart (**5**).
7. In the **Layout** drop-down list, select the report orientation (**Landscape** or **Portrait**) (**6**).
8. Set the **Delete zero values** checkbox in order not to display the open POS terminals in the report if their number equals zero (**7**).
9. Click the **Execute** button to start the report generation.

As a result, a summary table or a chart will be displayed containing the number of open POS terminals according to the specified parameters. If the report is displayed as a chart, then the number of open POS terminals will be displayed along the vertical line, and the time corresponding to the number of open POS terminals will be displayed along the horizontal line.



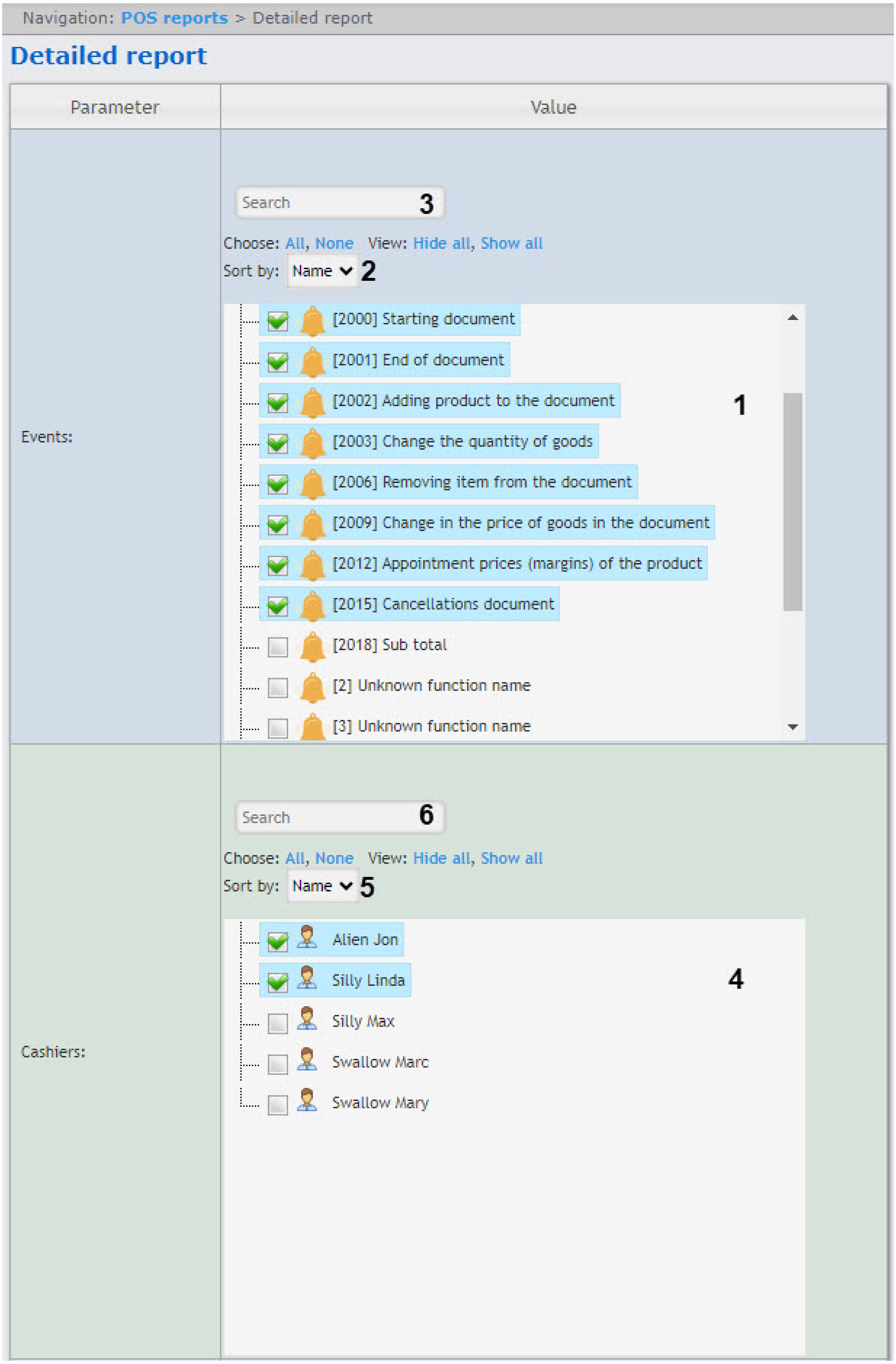
You can export the generated report (see Exporting of reports).

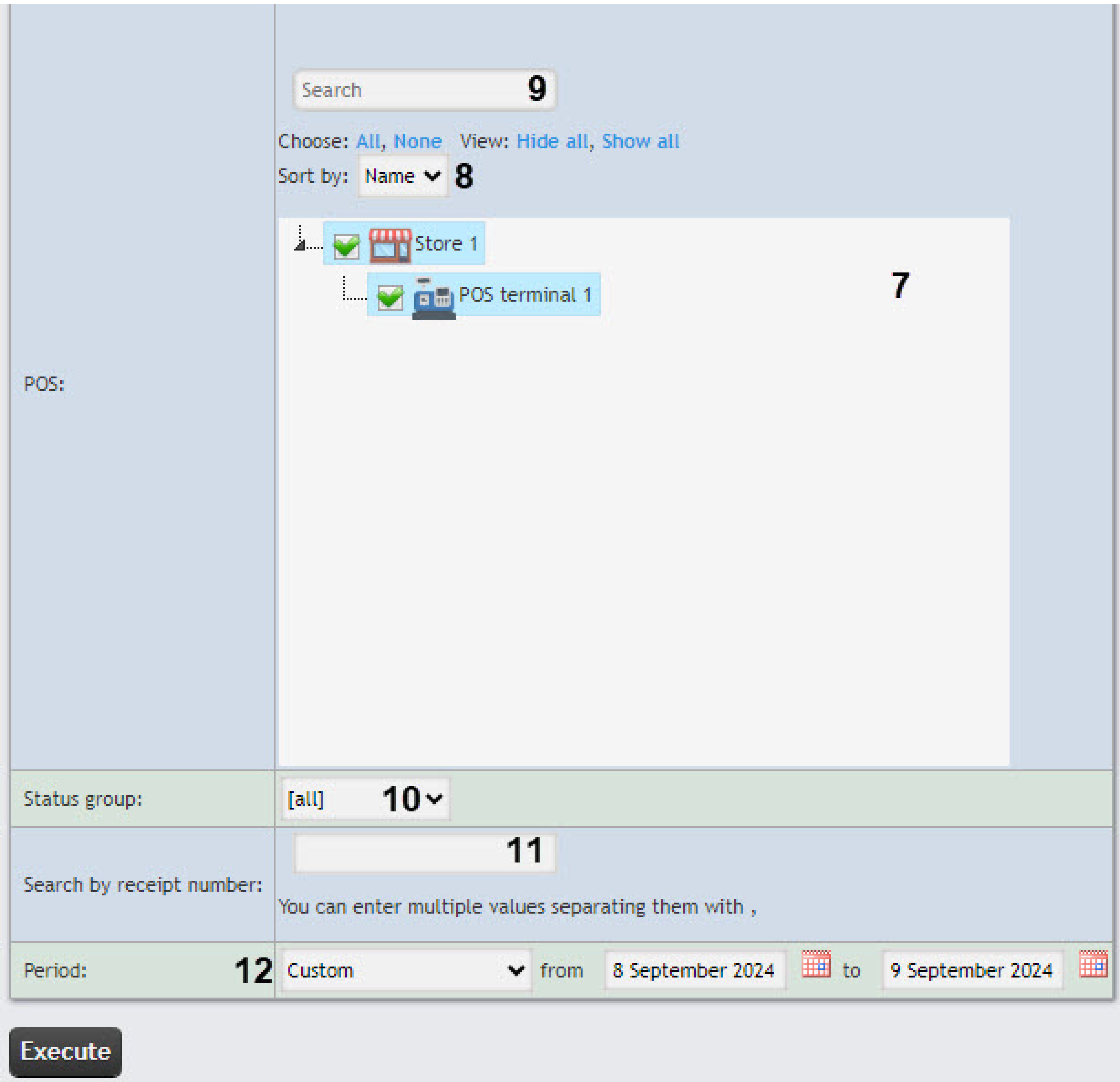
Detailed report

Attention!

To create a Detailed report, first you must create and configure the **POS terminal** object in *POS PSIM* (see The POS terminal object setup).

To create a report, select the **Detailed report** from the list of POS reports (see Selecting a type of general POS report) and edit report parameters in the form that opens.


Navigation: POS reports > Detailed report
Detailed report
Parameter
Value
Events:
Search
3
Choose: All, None View: Hide all, Show all
Sort by: Name
2
[2000] Starting document
[2001] End of document
[2002] Adding product to the document
1
[2003] Change the quantity of goods
[2006] Removing item from the document
[2009] Change in the price of goods in the document
[2012] Appointment prices (margins) of the product
[2015] Cancellations document
[2018] Sub total
[2] Unknown function name
[3] Unknown function name
Cashiers:
Search
6
Choose: All, None View: Hide all, Show all
Sort by: Name
5
Alien Jon
Silly Linda
4
Silly Max
Swallow Marc
Swallow Mary



1. Select the events that must be displayed in the report by setting the corresponding checkboxes in the **Events** list (**1**). Click **All** to select all available events. Click **None** to deselect. Click **Show all** to expand the events structure. Click **Hide all** to hide the structure. By default, the list of events is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**2**).
2. To use the search when selecting events, in the search field (**3**), start entering the event name. The search works from the first character. The results are highlighted in a different color.
3. Select the cashiers for the report by setting the corresponding checkboxes in the **Cashiers** list (**4**). Click **All** to select all available cashiers. Click **None** to deselect. Click **Show all** to expand the cashiers structure. Click **Hide all** to hide the structure. By default, the list of cashiers is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**5**).
4. To use the search when selecting cashiers, in the search field (**6**), start entering the cashier's last name. The search works from the first character. The results are highlighted in a different color.
5. Select the POS terminals (cash registers) that must be displayed in the report by setting the corresponding checkboxes in the **POS** list (**7**). Click **All** to select all available POS terminals. Click **None** to deselect. Click **Show all** to expand the POS terminals structure. Click **Hide all** to hide the structure. By default, the list

of POS terminals is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**8**).

6. To use the search when selecting the POS terminals, in the search field (**9**), start entering the POS terminal name. The search works from the first character. The results are highlighted in a different color.

> **Attention!**
>
> The **Events**, **Cashiers** and **POS** fields are mandatory: the report will not be generated if no value from these fields is selected. If you try to generate a report, a warning message will alert you that you must select at least one value from the list.

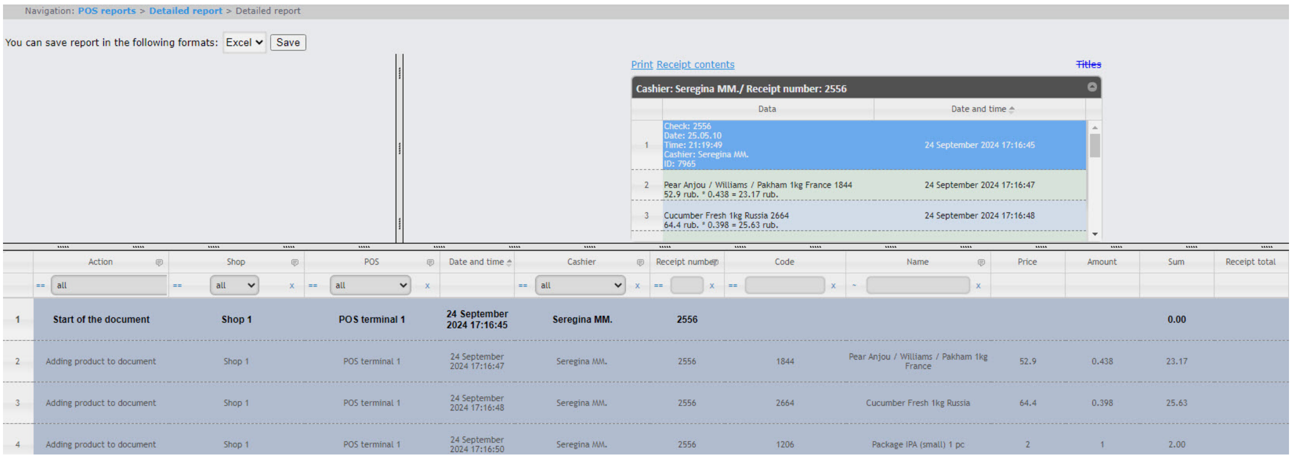
7. From the **Status group** drop-down list (**10**), select a status group (see Setting up the groups of statuses of POS events).
8. In the **Search by receipt number** field (**11**), specify the receipt numbers separated by a comma.
9. From the **Period** drop-down list (**12**), select the time period for which the report must be created.

> **Note**
>
> If the **Custom** time period is selected, enter the start and end dates of the time period for which the report must be created in the **from** and **to** fields using the **Calendar** tool. Click the  button next to the corresponding field to use the **Calendar** tool.

10. Click the **Execute** button.

To save the report to a file, click the **Save** button. This report can only be saved in Excel format.

Example of a **Detailed report**:



Example of a **Detailed report** in Excel format:

Detailed report

from 24 September 2024 00:00:00 to 24 September 2024 17:17:03

POS	Event	Receipt number	Check ID	Code	Amount	Name	Sum
POS terminal 1	Starting document	2556	106	0	0	-	00 rub
POS terminal 1	Adding product to the document	2556	106	1844	0.438	Pear Anjou / Williams / Pakham 1kg France	23 rub
POS terminal 1	Adding product to the document	2556	106	2664	0.398	Cucumber Fresh 1kg Russia	26 rub
POS terminal 1	Adding product to the document	2556	106	1206	1	Package IPA (small) 1 pc	02 rub
POS terminal 1	Adding product to the document	2556	106	26355	0.762	Pets 1kg Dumplings	53 rub
POS terminal 1	Adding product to the document	2556	106	28654	1	Sausage Salami Finnish n / smoked. 400g Sagittarius Company	67 rub
POS terminal 1	Adding product to the document	2556	106	34560	3	Curd Glazed Vanilla Miracle 23% milk 40g Baltic Russia	19 rub
POS terminal 1	Adding product to the document	2556	106	49833	1	Baking 150g Vkusnoten first CVD Russia	30 rub
POS terminal 1	Sub total	2556	106	0	0	-	00 rub
POS terminal 1	Adding product to the document	2556	106	2505	1	Cigarettes Parliament 20pcs Philip Morris Russia	52 rub
POS terminal 1	Sub total	2556	106	0	0	-	00 rub
POS terminal 1	Calculation	2556	106	0	0	-	00 rub
POS terminal 1	Result	2556	106	0	0	-	00 rub
POS terminal 1	Payment	2556	106	0	0	-	00 rub

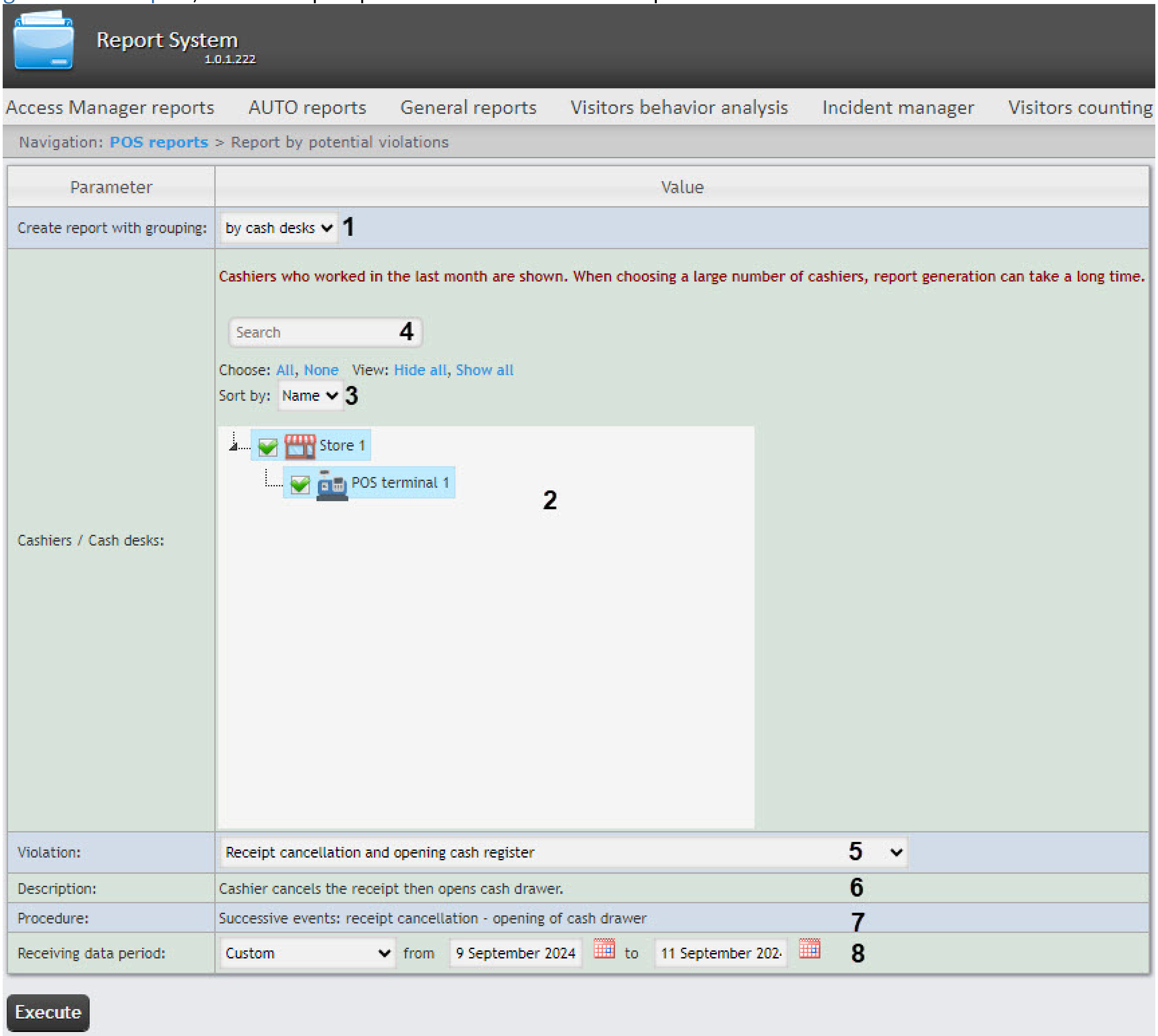
The **Detailed report** generation is complete.

Report by potential violations

Attention!

Before creating a Report by potential violations, first you must create and configure the **POS terminal** object in *POS PSIM* (see The POS terminal object setup).

To create a report, select the **Report by potential violations** from the list of POS reports (see Selecting a type of general POS report) and edit report parameters in the form that opens.



1. From the **Create report with grouping** drop-down list (**1**), select the type of data grouping: **by cashiers** or **by cash desks**.
2. Select the cashiers or cash desks with potential violations you want to display in the report by setting the corresponding checkboxes in the list (**2**). Click **All** to select all available objects. Click **None** to deselect. Click **Show all** to expand the objects structure. Click **Hide all** to hide the structure. By default, the list of cashiers or cash desks is sorted by name. To sort by number, select this option from the **Sort by** drop-down list (**3**).

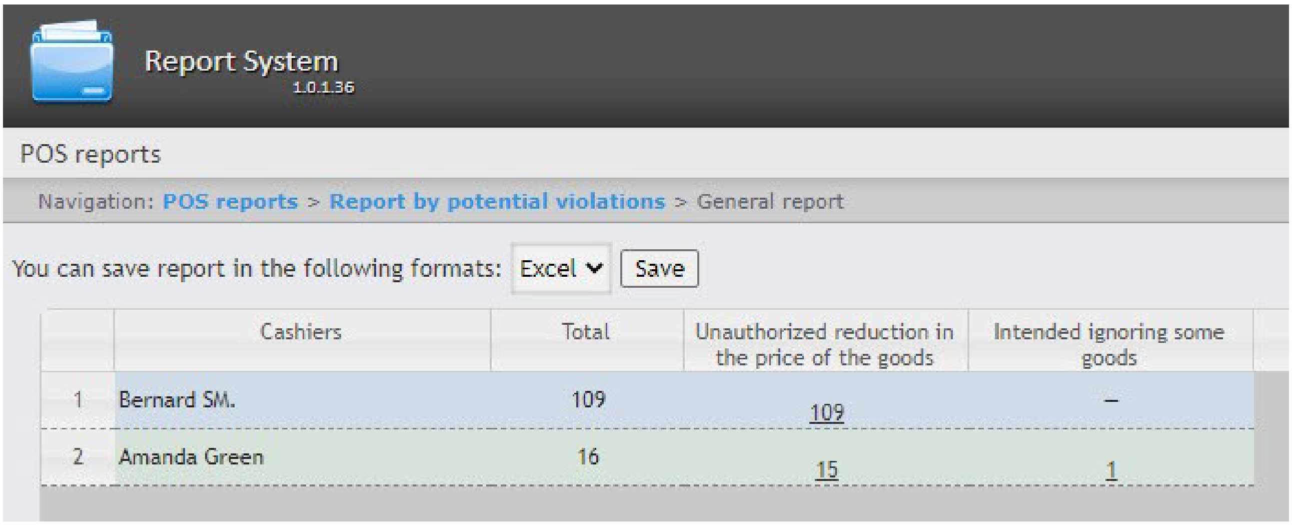
> **Attention!**
>
> This field is mandatory: the report will not be generated if no value is selected. If you try to generate a report, a warning message will alert you that you must select at least one value from the list.

3. To use the search when selecting cashiers or cash desks, in the search field (**4**), start entering the cashier's last name or the name of cash desk. The search works from the first character. The results are highlighted in a different color.
4. Select potential violations which must be displayed in the report (**5**). If **all** is selected, then all types of violations will be displayed in the report:
    - **Cancellation of all the goods in the check followed by the addition of positions on the same receipt**—cashier cancels all positions in receipt taking advantage of the fact of customer leaving before the receipt printing. After that cashier adds goods of next customer on the same receipt or closes the receipt with minimal sum. Money got for the purchase from the first customer goes to category of unaccounted money surplus.
    - **Unauthorized reduction in the price of the goods**—cashier enters price manually to reduce price of goods (while selling to accomplice).
    - **Unauthorized increase in the price of the goods**—cashier enters price manually to increase price of goods. If customer left before receipt printing cashier returns correct price of good and receives unaccounted money surplus.
    - **Intended ignoring some goods**—cashier includes only one good with the smallest price (e.g. package) from all positions of goods. The rest of goods cashier misses without payment.
    - **Intended change of how the goods look**—cashier reads barcode from another goods or from prepared label instead of goods which lies on the counter. If price of added position is less than price of purchased good the cashier can give to accomplice expensive good at a low price. Goods which are to be inspected in this type of violation are determined while inventory.
    - **Erroneous double scanning**—cashier erroneously scans the same goods two times. Doesn't perform cancellation of extra good. Cheating in accounts is performed.
    - **DISABLED: Unintended change of how the goods look ("Enter product code" number needed)**—as a result of error while manual entering the code of goods due to the cashier error some goods can be sold as another.
    - **Ignoring some goods while scanning**—barcode of goods is not scanned, but cashier doesn't pay attention to it and starts processing the next goods. As a result the goods are sold without payment.
    - **Errors while canceling the quantity of goods**—cashier makes an error while entering the quantity of goods (e.g. enters 56 instead of 5), cancels this operation and forgets to enter the correct number and starts to process the next goods. As a result the goods are sold without payment.
    - **Cash register reset by the cashier**—cashier restarts the cash register when the administrator is absent.
    - **Not giving the receipt to the customer**—cashier settles account with customer and doesn't give them a receipt. Receipt is not closed, after the customer leaving cashier can cancel goods, discount goods and performs other actions to make an unaccounted money surplus.
    - **Recounting contents of the cash register**—cashier recounts money when the administrator is absent. Probably with purpose of taking out unaccounted money surplus.
    - **Intended reduction in the number of the goods**—customer leaves before the receipt printing. Cashier reduces quantity of goods (e.g. from 2 items to 1 item) and prints receipt. Then takes the money surplus for 1 item of goods.
    - **Cancellation of the receipt when the administrator is absent**—key of administrator is freely moved between cashiers.
    - **Intended ignoring some goods using the "Product info" button**—cashier presses the "Product info" button. Scans goods, entitles a price. Receives cash. Doesn't print the receipt and takes the money surplus.
    - **Receipt cancellation and opening cash register**—cashier cancels the receipt, then opens the cash register.
5. The **Description** field (**6**) has the description of the violation and is filled in automatically when the violation is selected.
6. The **Procedure** field (**7**) has the description of the procedure by which the violation is determined, and is filled in automatically when the violation is selected.

7. From the **Receiving data period** drop-down list (**8**), select the period of time for which the report must be created. If the **Custom** period is selected, enter the date of start and end periods for which the report must be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool.
8. Click the **Execute** button.

As a result, a summary table of potential violations according to the specified parameters is displayed. Only those cashiers (cash registers) that you selected and for which there is data are displayed.

In the **Total** column, the total amount of potential violations by cashiers (cash registers) is displayed. You can also create a detailed report on a specific violation for a specific cashier (cash register) by clicking the number of events in the column.



In order to save the report in Excel format, click the **Save** button.

Example of the report in Excel format:

	A	B	C	D	E
1	Cashiers	Total	Intended ignoring some goods	Recounting contents of the cash register	Unauthorized reduction in the price of the goods
2	Bernard SM.	75	1	1	73
3	Amanda Gree	12			12
4					

You can enable the analysis of cash registers in the background. To do this, in the C:\Program Files (x86)\Axxon PSIM\Modules\Wt2\Web.config file, set the value of the **PotentialViolationsEnabled** key to **1**:

```
<add key="PotentialViolationsEnabled" value="1" />
```

Note

- By default, the analysis of cash registers in the background is disabled and the value of the **PotentialViolationsEnabled** key is **0**.
- If there are many cash registers and their analysis is not completed before the end of the user session, then increase the value of the **timeout** parameter in the C:\Program Files (x86)\Axxon PSIM\Modules\Wt2\Web.config file. The value of the **timeout** parameter is set in seconds.

```
<authentication mode="Forms">
  <forms loginUrl="~/Account/LogOn" timeout="600" cookieless="UseCookies"></forms>
</authentication>
```

The Report by potential violations is created.

8.7.2 Detailed reports

One can view and process the following detailed reports by event:

1. For specific cashier/POS terminal/POS operator.
2. For all cashiers/POS terminals/POS operators.

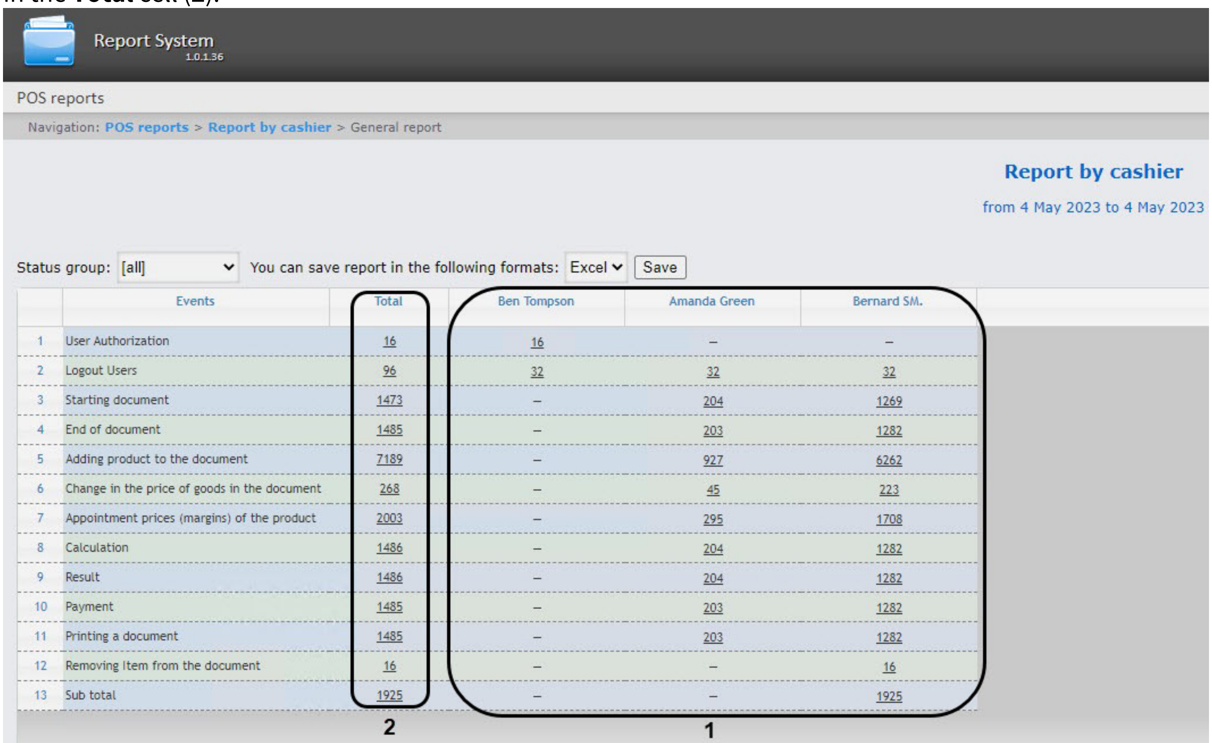
A detailed report enables viewing data from the POS terminal that corresponds to the POS event. It also enables viewing an event archive (if there are relevant settings in *POS PSIM* software package).

Detailed reports are created on the basis of corresponding general reports (e.g. a detailed report by cashier is created on the basis of a general report by cashier).

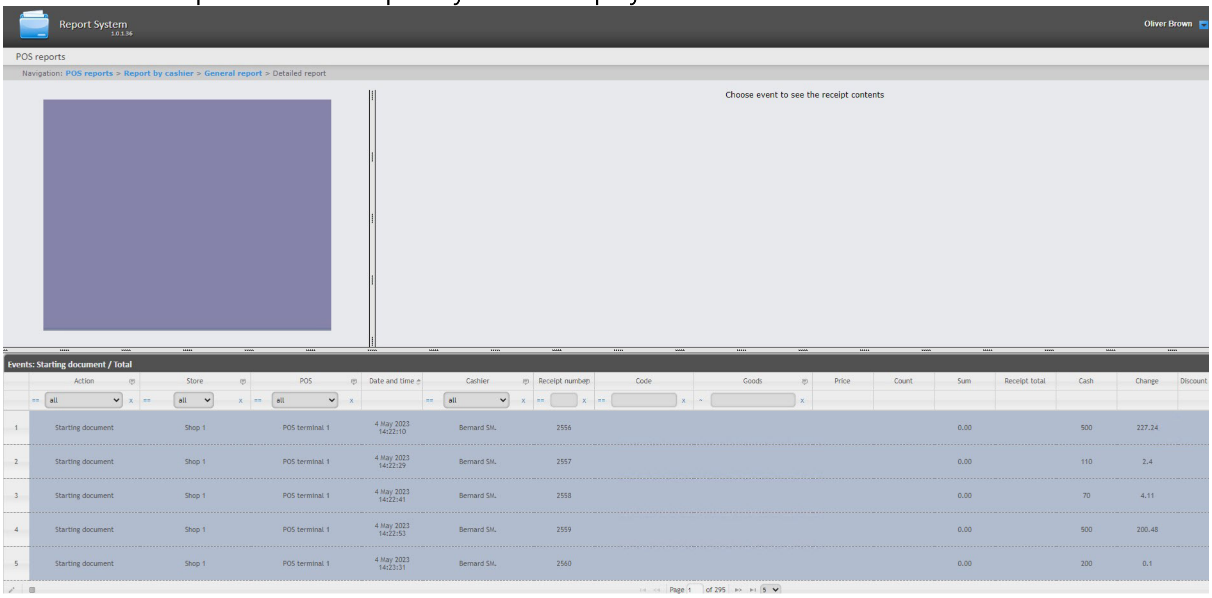
Viewing a detailed report

In order to view a detailed report, do the following:

1. Generate a general report of the required type (see General reports).
2. Click the link in the cell corresponding to a necessary event and a cashier/POS terminal/POS operator (**1**). To display a detailed report by event for all cashiers/POS terminals/POS operators click the corresponding link in the **Total** cell (**2**).



3. As a result the required detailed report by event is displayed.

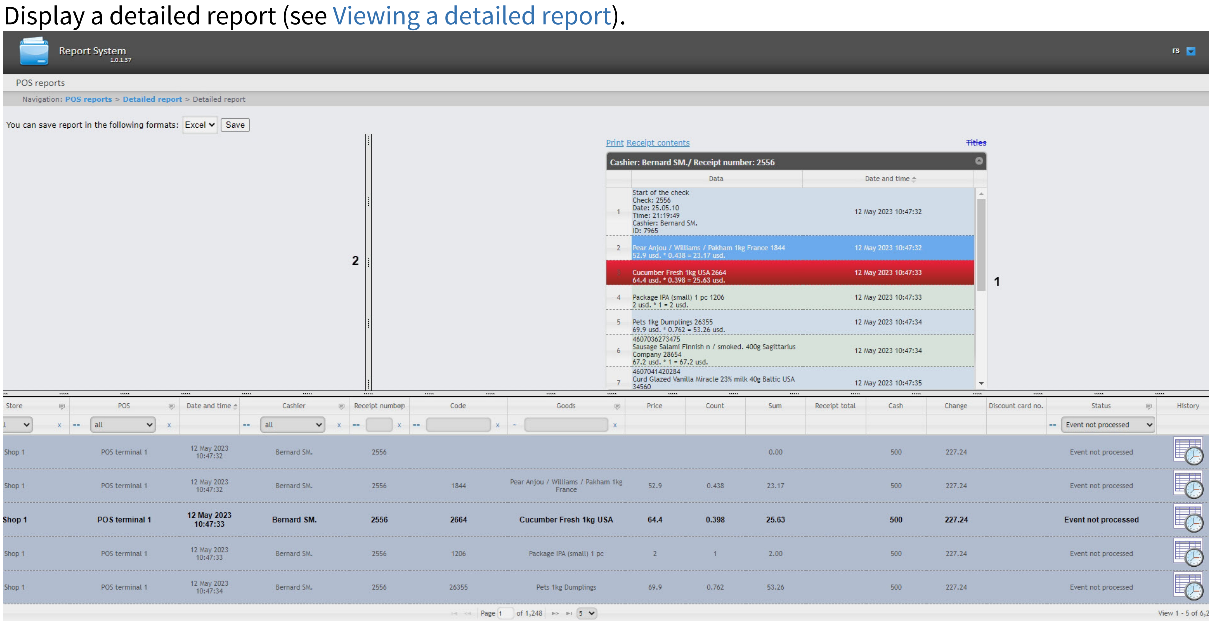


All detailed reports are identical in structure and represent the table. To configure the columns displayed in the table, see Select columns in detailed reports.

Viewing data from the POS terminal and the video of event

In order to view data from the POS terminal and video of the event, do the following:

1. Display a detailed report (see Viewing a detailed report).



2. Left-click the line with the required event.
3. As a result data from the POS terminal by event (**1**) and video events (**2**) are displayed in the provided windows.

Window for viewing the video by event is a standard *Axxon PSIM* video surveying window that is open in the archive mode. One can view the archive not only by the current event but also by other events.

Note

Working with video surveying window in the archive mode is given in details in Axxon PSIM software package. Operator's Guide.

Note

Video can not be displayed (it depends on whether the requirements for Web server and/or Client realization are performed (see Requirements for WEB Report System PSIM implementation).

Note

The view of displayed data from the POS terminal and video events can be changed by selecting the needed layout (see Selecting layouts in POS reports).

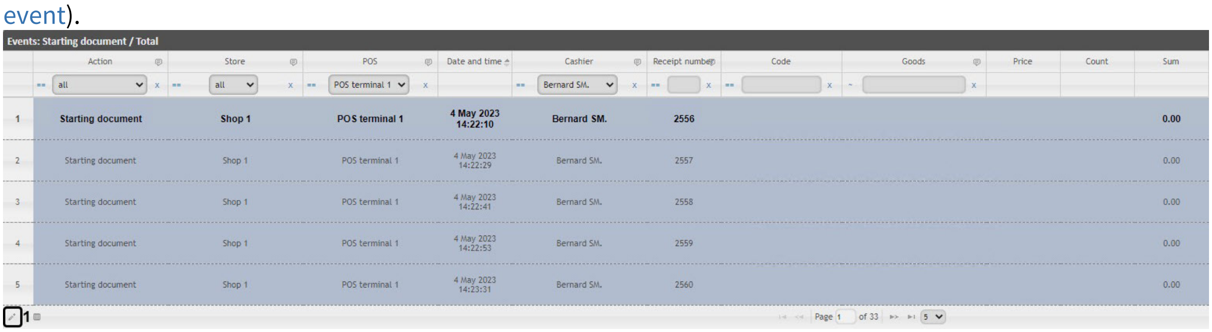
Changing the event status and the comment

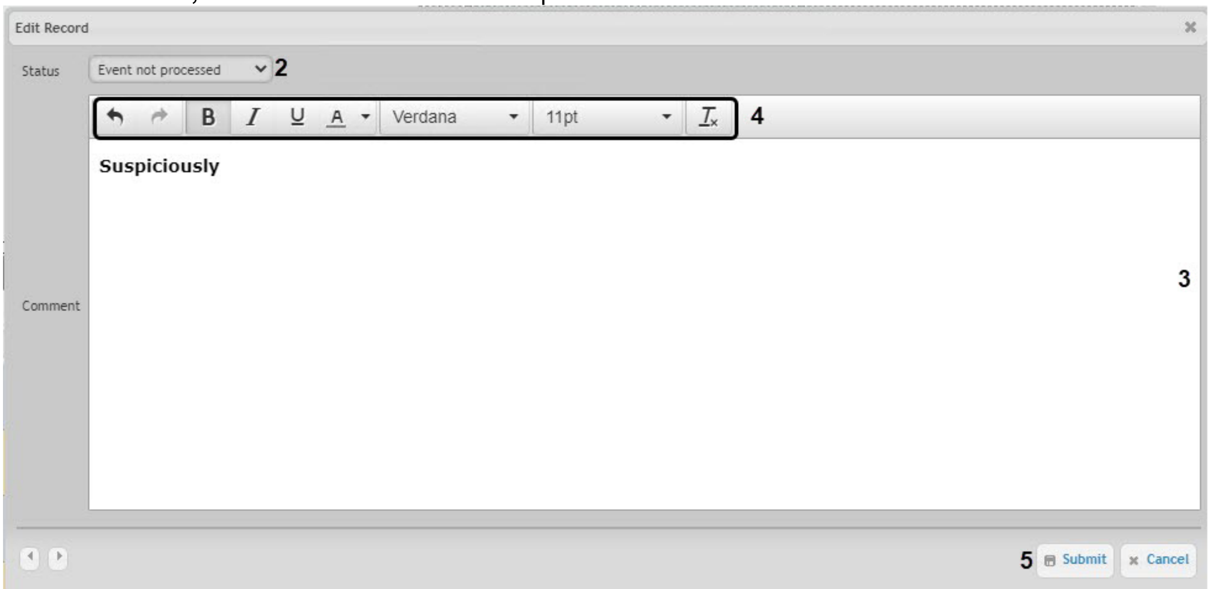
Attention!

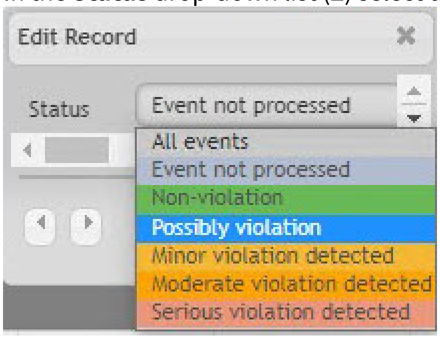
For this operation the user should be added to the POS expert role.

In order to change the event status and the comment, do the following:

1. Select the required event in the detailed report (see Viewing data from the POS terminal and the video of event).



2. In the lower left part of the event list, click the **Edit selected row**  button (**1**) or double-click the required event. As a result, the **Edit Record** window will open.


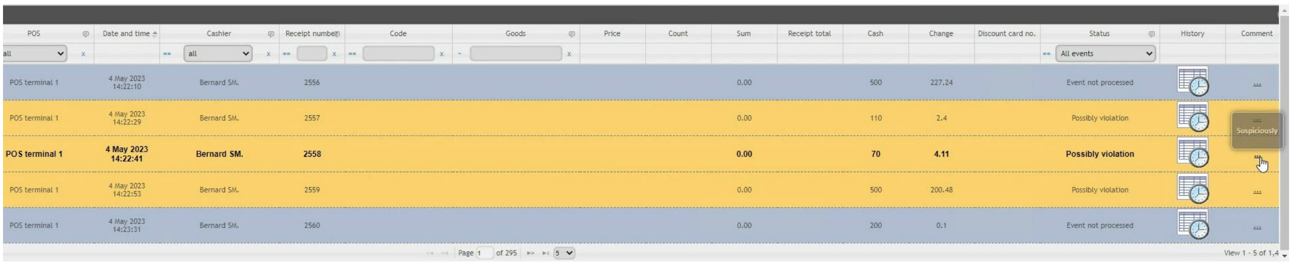
3. In the **Status** drop-down list (**2**) select the required event status.


> **Note**
>
> The statuses in the list can be changed (see Setting up the statuses of POS events).

4. If necessary, enter a comment in the field **Comment** (**3**). Text formatting tools are displayed on the panel (**4**).
5. Click **Submit** (**5**) to apply the changes.

As a result, the status for the specified event will be changed and the comment will be specified.

> **Note**
>
> To view a comment, click the ellipsis in the **Comment** column of the corresponding event. As a result, a pop-up window containing the comment text will appear.

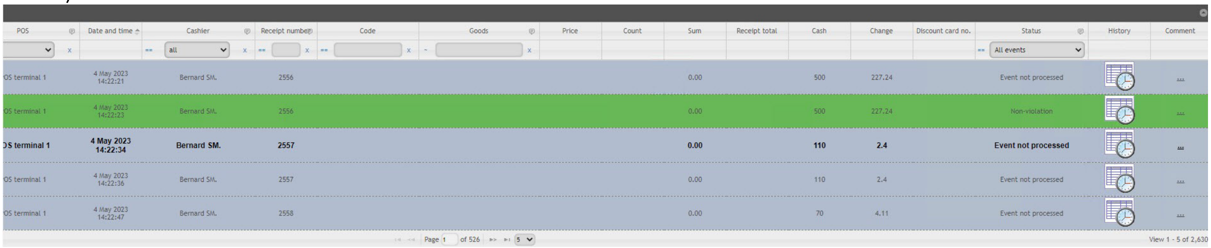


POS	Date and time	Cashier	Receipt number	Code	Goods	Price	Count	Sum	Receipt total	Cash	Change	Discount card no.	Status	History	Comment
POS terminal 1	4 May 2023 14:22:10	Bernard SM.	2556					0.00		500	227.24		Event not processed		...
POS terminal 1	4 May 2023 14:22:29	Bernard SM.	2557					0.00		110	2.4		Possibly violation		...
POS terminal 1	**4 May 2023 14:22:41**	**Bernard SM.**	**2558**					**0.00**		**70**	**4.11**		**Possibly violation**		...
POS terminal 1	4 May 2023 14:22:53	Bernard SM.	2559					0.00		500	200.48		Possibly violation		...
POS terminal 1	4 May 2023 14:23:31	Bernard SM.	2560					0.00		200	0.1		Event not processed		...

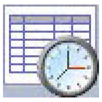
Viewing the history of event status or comment changing

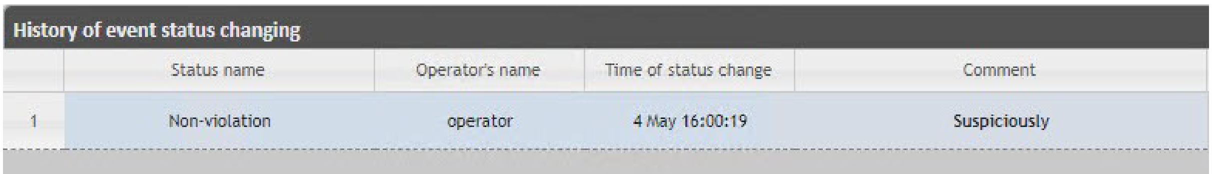
In order to view the history of the event status or the comment changing, do the following:

1. Select the required event in the detailed report (see Viewing data from the POS terminal and the video of event).



POS	Date and time	Cashier	Receipt number	Code	Goods	Price	Count	Sum	Receipt total	Cash	Change	Discount card no.	Status	History	Comment
OS terminal 1	4 May 2023 14:22:21	Bernard SM.	2556					0.00		500	227.24		Event not processed		...
OS terminal 1	4 May 2023 14:22:23	Bernard SM.	2556					0.00		500	227.24		Non-violation		...
S terminal 1	**4 May 2023 14:22:34**	**Bernard SM.**	**2557**					**0.00**		**110**	**2.4**		**Event not processed**		...
OS terminal 1	4 May 2023 14:22:36	Bernard SM.	2557					0.00		110	2.4		Event not processed		...
OS terminal 1	4 May 2023 14:22:47	Bernard SM.	2558					0.00		70	4.11		Event not processed		...

2. Click the  button in the **History** column of the corresponding event.
3. As a result, the **History of event status changing** page will open. The following data is displayed on the page:
   - Status name;
   - Operator's name;
   - Time of status change;
   - Comment.



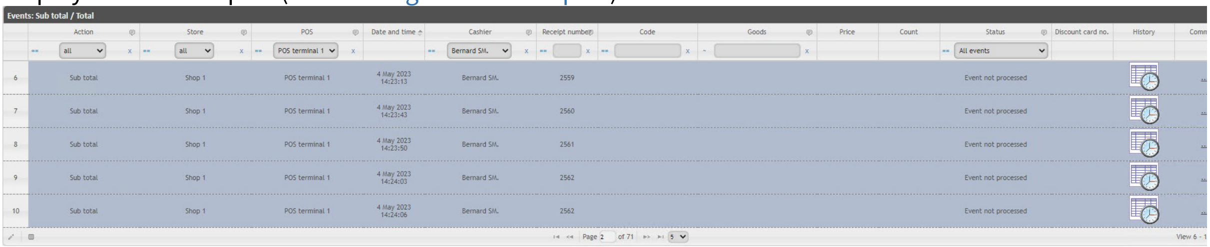
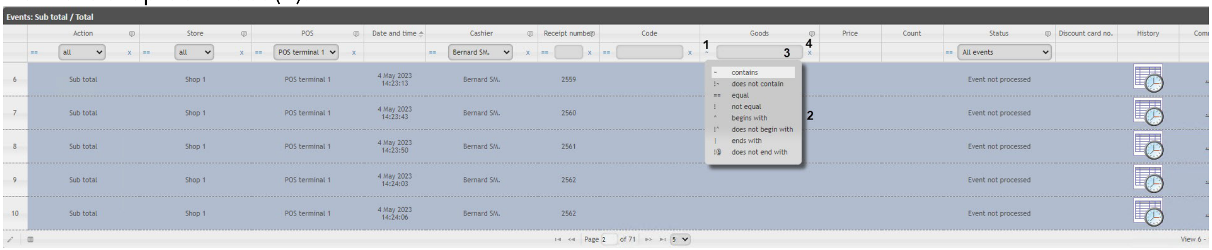
History of event status changing

	Status name	Operator's name	Time of status change	Comment
1	Non-violation	operator	4 May 16:00:19	Suspiciously

> **Note**
>
> If the event status or comment has not changed, then the **History of event status changing** page will be empty.

Filtering and sorting events in detailed reports

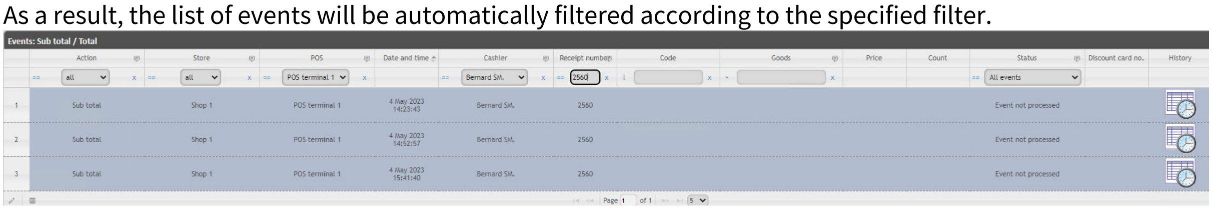
To filter and sort events in the detailed POS report, do the following:

1. Display a detailed report (see Viewing a detailed report).

2. In the column containing the data required for filtering, click on the icon (**1**) and select the filtering condition from the drop-down list (**2**).


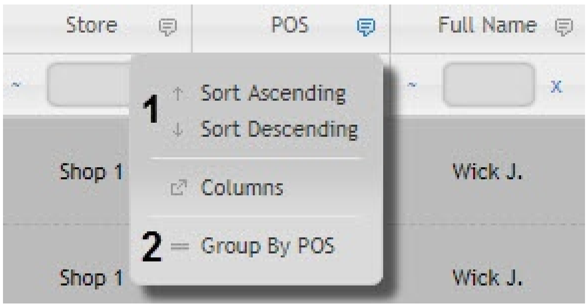
> **Note**
>
> - For some columns, the filtering is not available.
> - The list of filtering conditions (**2**) may differ depending on the selected column. For example, for the **Receipt number**, **Code**, and **Status**, columns only 2 conditions are available: **equal "=="** and **not equal "!"**.

3. In the field (**3**) specify the required filter value and press the Enter key.

> **Note**
>
> The filter values of the **Status** column depend on the specified statuses in the *WEB Report System PSIM* (see Setting up the statuses of POS events).

4. As a result, the list of events will be automatically filtered according to the specified filter.

5. To reset the filter, click the (**4**) button.
6. To sort the events in the detailed POS report, left-click on the column name.
   - - Descending.
   - - Ascending. As a result, the event list will be automatically sorted. The icon corresponding to the current sorting condition will appear next to the column name:

   > **Note**
   >
   > The data in some columns can also be sorted by clicking the button next to the column name. In this case, the ascending and descending sorting (**1**) and grouping option (**2**) will be available for the selected column.

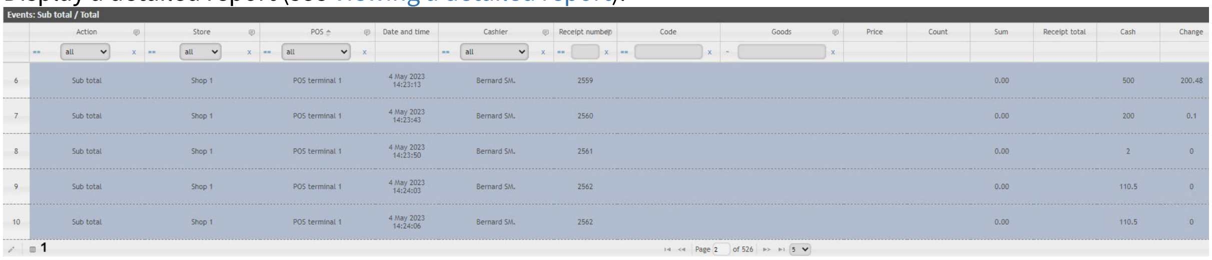


The filtering and sorting the events in the detailed reports is complete.

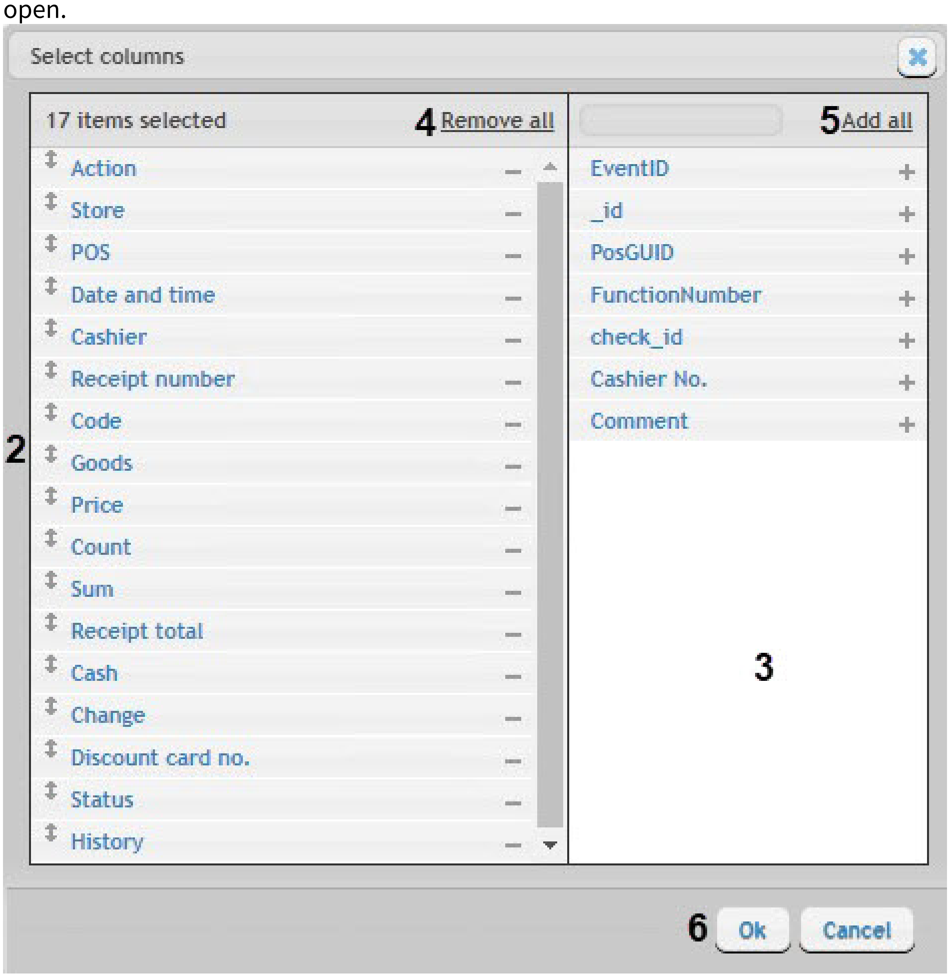
Select columns in detailed reports

To select the columns displayed in the detailed POS report, do the following:

1. Display a detailed report (see Viewing a detailed report).



2. Click the button (**1**) in the lower left part of the event list. As a result, the **Select columns** window will open.



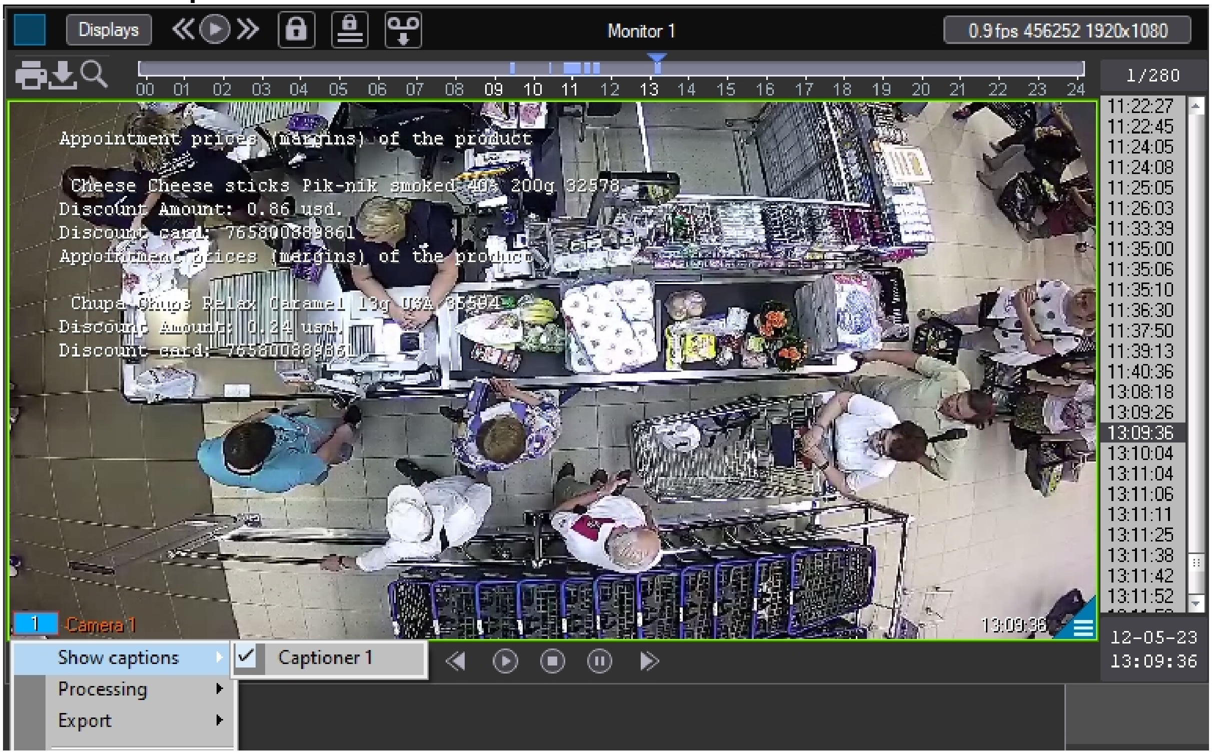
3. The active (displayed) columns are displayed in the (**2**) field.
    - To remove a column, click on the icon next to the name of the corresponding column in the field (**2**).
    - To remove all columns, click **Remove all** (**4**).
    - To change the order of the columns, in the field (**2**) drag the column name up and down to the required position.
4. The inactive (not displayed) columns are displayed in the (**3**) field.
    - To add a column, click on the icon next to the name of the corresponding column in the field (**3**).
    - To add all columns, click **Add all** (**4**).
5. To save changes, click **Ok** (**6**).

Selecting the columns to be displayed in the detailed reports is completed.

Disabling captions in the video surveying window

To disable captions in the video surveying window, do the following:

1. Choose **Show captions** in the functions menu of the video surveillance window.

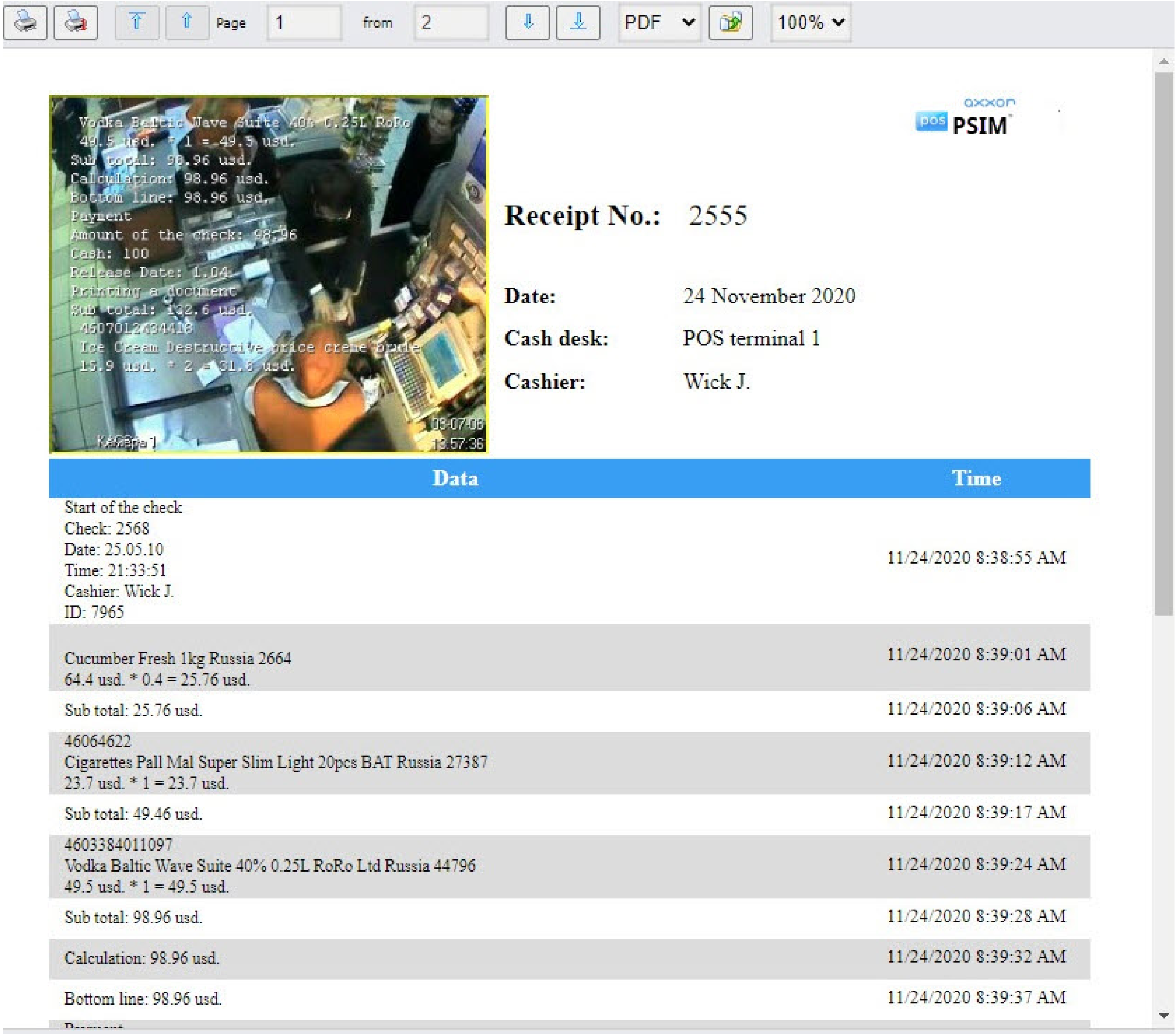


2. In the displayed list of available captioners select those from which captions are to be received.
3. To disable captions from some captioners left-click the line with the required captioner.

Operations with data from POS terminal

To work with data from the POS terminal by event, the following operations are possible:

- **Print** (**1**) – opens a window for printing a receipt with all the data from the POS terminal, including the image from a video camera.



- **Receipt contents** (**2**) – opens a window for printing only the list of items in the receipt.

Receipt No. 2555
Cash desk: POS terminal 1
Cashier: Wick J.

Goods	Amount (Items/Kg)	Price
Cucumber Fresh 1kg Russia	0.772	25.76
Cigarettes Pall Mal Super Slim Light 20pcs BAT Russia	1	23.7
Vodka Baltic Wave Suite 40% 0.25L RoRo Ltd Russia	1	49.5
Ice Cream Destructive price creme brulee 200g Russia	2	31.8
Ice Cream Vanilla 200g price Destructive Russia	2	31.8
Bear Tea cold peach 1l Coca-Cola HBC Eurasia LLC Russia	2	55.8
Sauerkraut Recipes, time-tested 900g Russia	1	59.9
Pork Leg n / a 1kg	0.634	98.21
Sour Merry Milkman 20% 400g WBD of Russia	1	36.8
Mayonnaise Makheev Prov.na egg yolk 840g sachet 40% of Russia	1	59.5
Package 100g Whiskas Tasty Eats Russia	2	13.8
green onion 100g FAS Russia	2	43.7

- **Download receipt video** (**3**) – saves a segment of a video with a receipt from the archive to a file. The video file has the following naming: id<receipt>_<cashier>_<POS terminal id>_<receipt beginning time>_<receipt ending time>.avi.

> **Note**
>
> The video file is exported to the *<C:\Users\<user name>\Documents\Export>* folder.

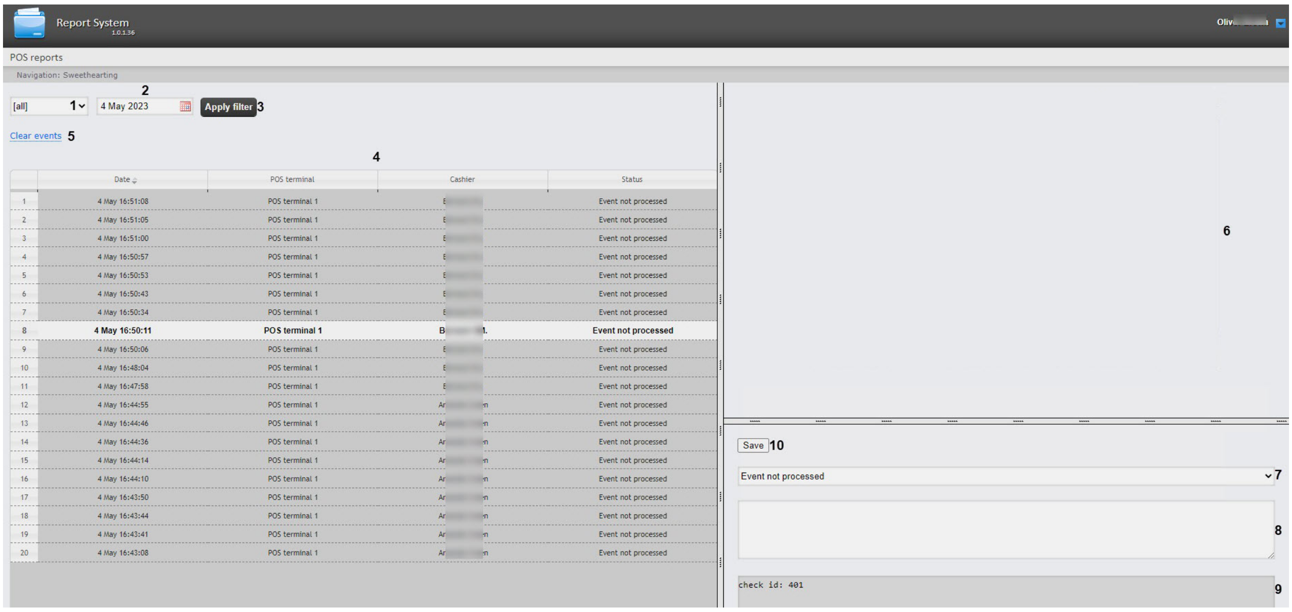
- **Titles** (**4**) – enables or disables displaying captions on the video of the receipt when it is saved using the **Download receipt video** link.

8.7.3 Sweethearting monitor

> **Attention!**
>
> The **Sweethearting** report is generated automatically based on the data from the *Sweethearting at checkout detection* module, which is part of the *DetectorPack PSIM* (see Configuring the Sweethearting at checkout detection module).
> Also the **POS terminal** and the **Shop** objects should be set up and configured in *POS PSIM* (see The POS terminal object setup).

The **Sweethearting** detailed report enables real-time monitoring of goods scanning events by cashiers in order to prevent intentional theft by carrying goods past the barcode scanner (so-called *sweethearting*).

Open the **Sweethearting** report (see Selecting a type of general POS report). The interface of the **Sweethearting** monitor is shown in the picture below.



Attention!

Events appear in the report only if there is no **Add goods** event at the same second as the event from the **Sweethearting at checkout detection** object of *DetectorPack PSIM* (see Setting the timeout for sweethearting event addition to report).

Note

It is possible to enable sound notification about new events (see Setting up the Sweethearting report).

The goods scanning events are loaded into the table (**4**), ranging from the newest to the oldest. Each of the events is provided with the following summary information:

- **Date** — the date and time at which the goods were recognized and identified at the cash register;
- **POS terminal** — the POS-terminal on which the goods were recognized;
- **Cashier** — the full name of the cashier, who was supposed to make a scan;
- **Status** — the status of the event, which is determined by the operator of *WEB Report System PSIM*, working with the **Sweethearting** monitor.

To display the events for a specific day, do the following:

1. From the drop-down list (**1**), select the POS terminals (cash registers) for which it is necessary to display thefts. If the **All** value is selected, the events from all POS terminals (cash registers) will be displayed.
2. Using the **Calendar** tool (**2**), set the day for which it is necessary to build the report. Click the button near the corresponding field to use the **Calendar** tool.
3. Click the **Apply filter** button (**3**) to display the events for the specified day.

In order to clear the event table, click the **Clear events** link in the upper-left part of the table (**5**).

In order to view the details of an event and a video image, select the event in the list by clicking on the corresponding row in the table. After that, the following elements will become available in the right part of the screen:

1. The video of the event with the indication of the time when the event was recorded and the possibility of viewing in the archive mode (**6**).

   > **Note**
   >
   > Working with video surveillance window in the archive mode is given in details in Axxon PSIM software package. Operator's Guide.

2. The drop-down list for selecting the status of the event (**7**). By default, all events have the **Event not processed** status. Having examined the video, the operator of *WEB Report System PSIM*, working with the **Sweethearting** monitor, can manually assign the event one of the following statuses:
   a. Non-violation,
   b. Possibly violation,
   c. Minor violation detected,
   d. Moderate violation detected,
   e. Serious violation detected.
3. The text field for operator comment (**8**). If necessary, the operator can leave his comment to the event (no more than five lines).
4. The field for program log output, unavailable for editing (**9**).
5. The **Save** button to save the event changes (new status and comment)

The **Sweethearting** report is unavailable for export and can only be viewed in the monitoring mode. It is possible to export the video image from the event processing window, as described in Export and print out.

> **Note**
>
> On default, exporting the video is performed to the *My documents**Export* folder.

8.8 Working with reports by Queue Length detectors

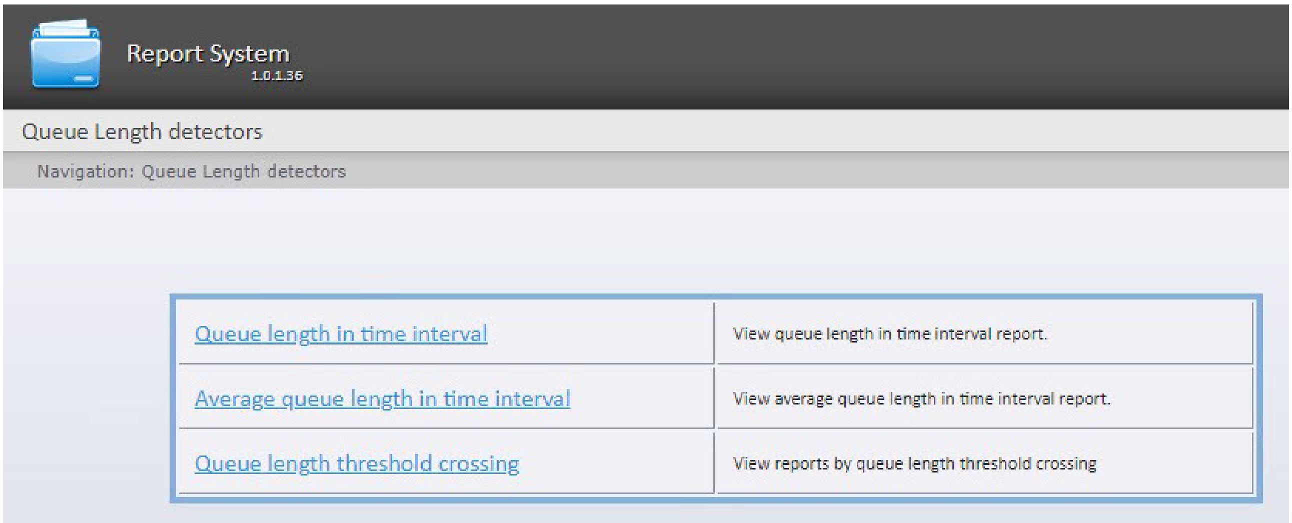
In order to be able to view and generate reports by Queue Length detectors, you should install *DetectorPack PSIM* subsystem and configure the Queue length detection as described in the DetectorPack. User Guide.

> **Note**
>
> By default, in the reports by Queue Length detectors, the values equal to 0 are not included to the report table. To include the zero values in the report, it is necessary to perform the configuration (see Disabling the zero value filter).

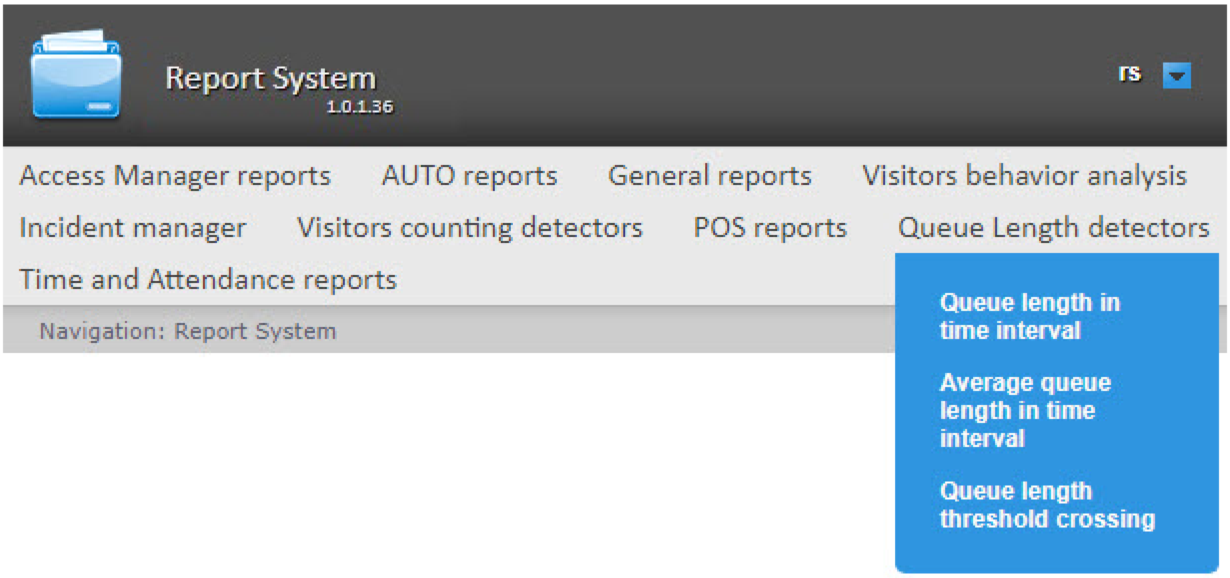
8.8.1 Selecting a type of reports by Queue Length detectors

To select a report by queue length detectors, click the **Queue Length detectors** link in the report menu of *WEB Report System PSIM*.

As a result, the list of available reports is displayed. For switching to the required report, click the corresponding link.



List of links for switching to reports by queue length detectors is also available when hovering over the **Queue Length detectors** link in the report menu.



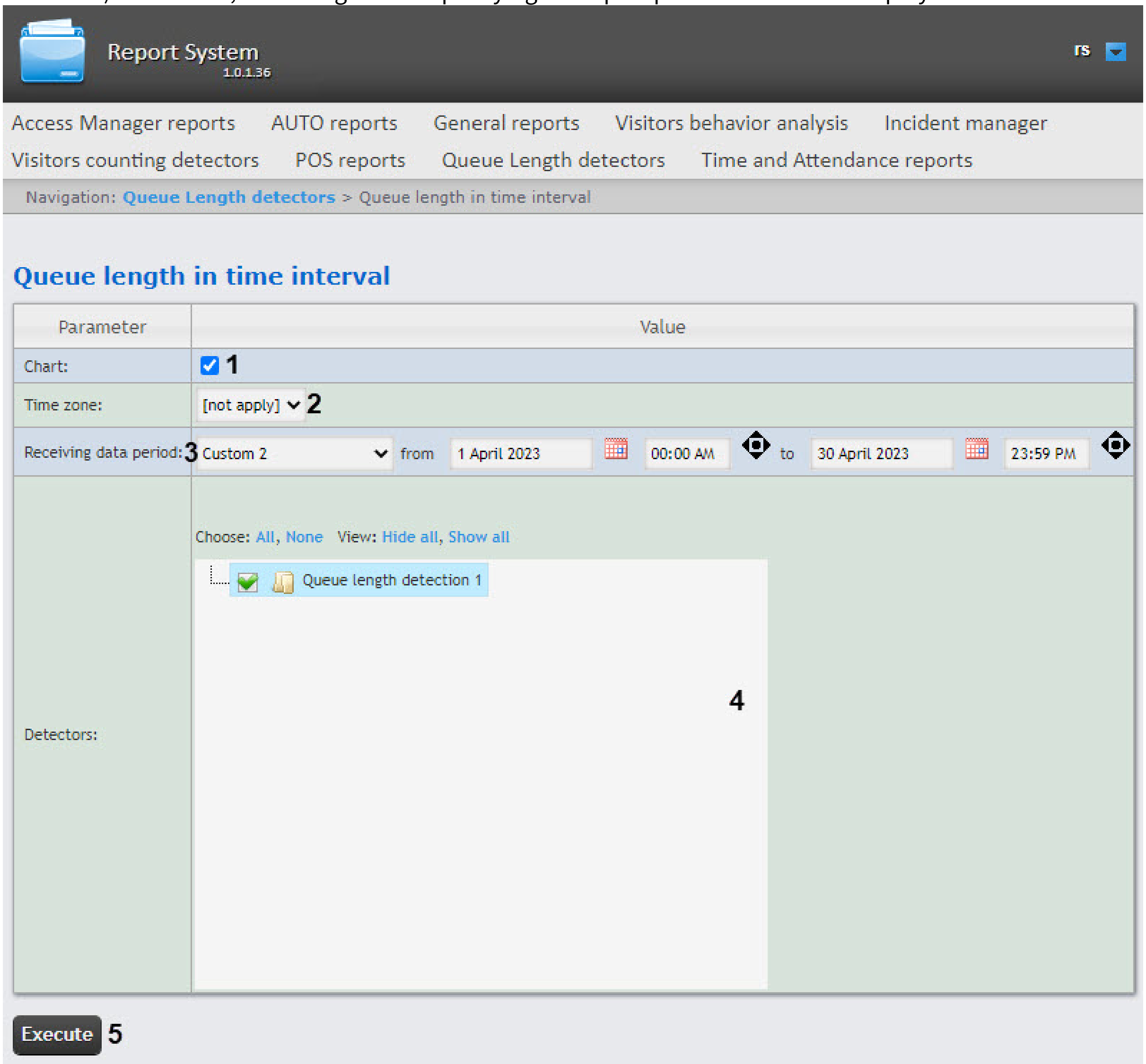
8.8.2 Queue length in time interval

The **Queue length in time interval** report provides the information on the queue length in time interval. The data can be presented in the form of a chart or a table.

> **Note**
>
> The **Queue length in time interval** report is a part of the *Queue length detection* module, it is necessary to create and configure the corresponding object in *DetectorPack PSIM* (see Configuring the Queue length detection module).

To create the **Queue length in time interval** report, do the following:

1. Select the **Queue length in time interval** report type (see Selecting a type of reports by Queue Length detectors). As a result, the dialog box for specifying the report parameters will be displayed.



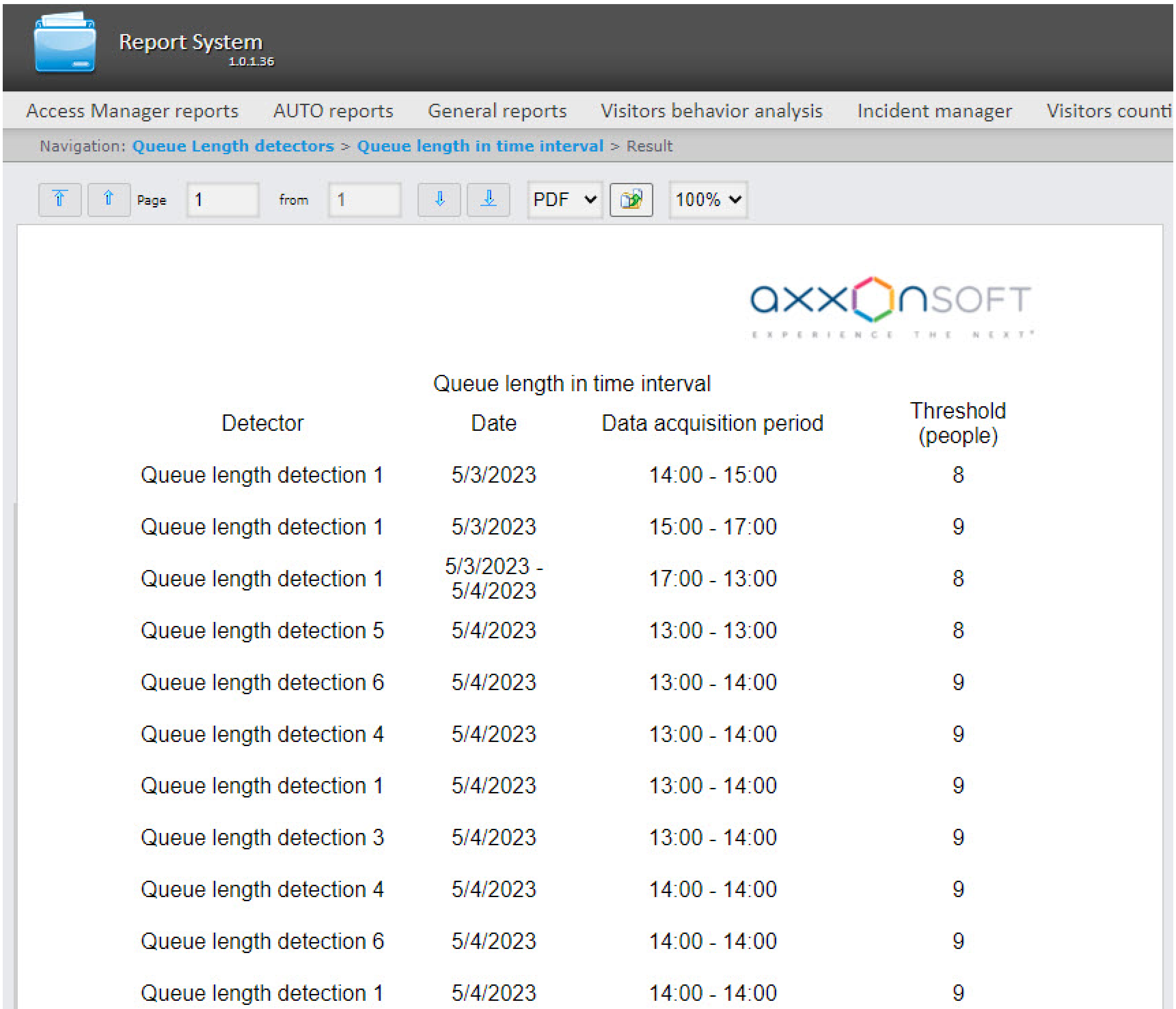
2. Set the **Chart** checkbox (**1**), if it is necessary to display the report in the form of a chart.
3. From the **Time zone** drop-down list (**2**), select the time zone for which the report should be created.

> **Note**
>
> You can select time zones created in *Axxon PSIM* that have only one time period and don't have any nested time periods. You cannot select days of the week. For detailed information about creation and using time zones, see Creating and using time schedules.

4. From the **Receiving data period** drop-down list (**3**), select the time period for which the report should be created. If the **Custom** or **Custom 2** time period is selected, enter the start and end dates of the time period for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. If the **Custom 2** period is selected, enter additionally the start and end time of the period for which the report should be created using the button.

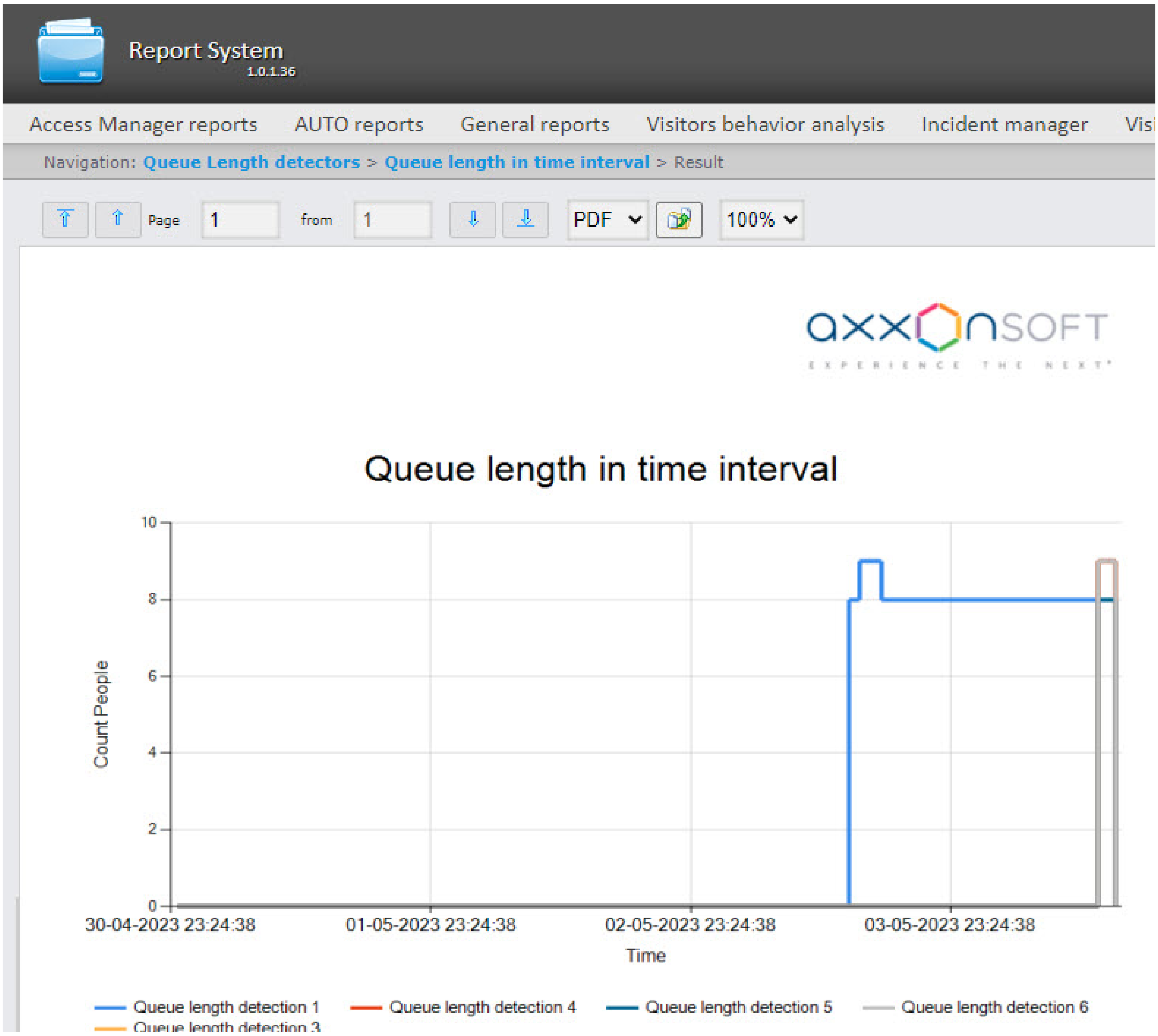
5. In the **Detectors** field (**4**), set the checkboxes next to those **Queue length detection** objects which information should be displayed in the report. Click **All** to select all available objects, click **None** to deselect. Click **Show all** to expand the objects structure. Click **Hide all** to hide the structure.
6. To create a report, click the **Execute** button (**5**). As a result, the report by the queue length in time interval with the specified parameters will be displayed. The data is displayed with averaging depending on the selected time interval. If you select more than 14 days, the data averaging is one day. If you select from one day to 14 days, the data averaging is one hour. If you select less than one day, the data averaging is one minute.

Example of the report in the form of a table:



Detector	Date	Data acquisition period	Threshold (people)
Queue length detection 1	5/3/2023	14:00 - 15:00	8
Queue length detection 1	5/3/2023	15:00 - 17:00	9
Queue length detection 1	5/3/2023 - 5/4/2023	17:00 - 13:00	8
Queue length detection 5	5/4/2023	13:00 - 13:00	8
Queue length detection 6	5/4/2023	13:00 - 14:00	9
Queue length detection 4	5/4/2023	13:00 - 14:00	9
Queue length detection 1	5/4/2023	13:00 - 14:00	9
Queue length detection 3	5/4/2023	13:00 - 14:00	9
Queue length detection 4	5/4/2023	14:00 - 14:00	9
Queue length detection 6	5/4/2023	14:00 - 14:00	9
Queue length detection 1	5/4/2023	14:00 - 14:00	9

Example of the report in the form of a chart:



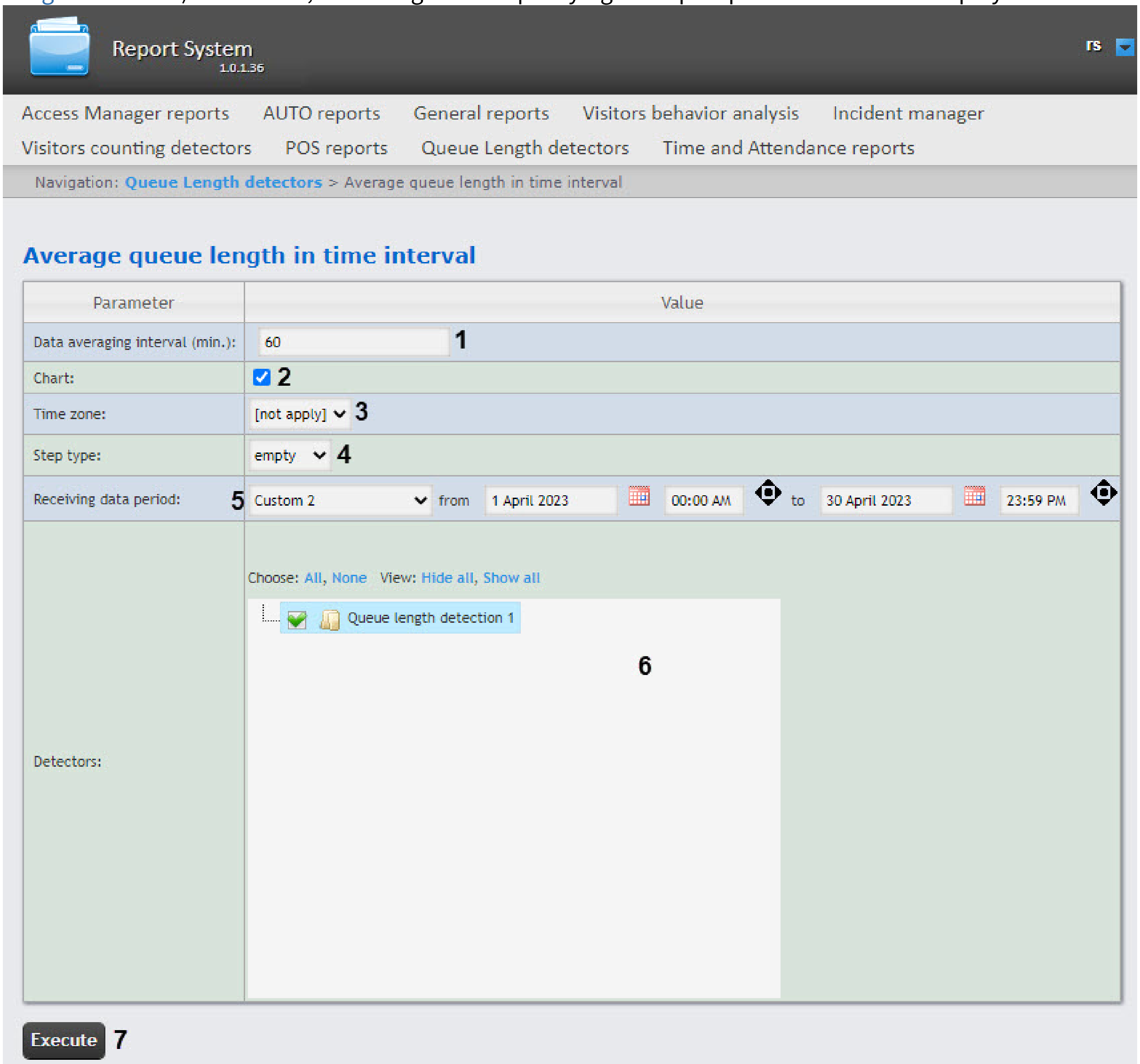
8.8.3 Average queue length in time interval

The **Average queue length in time interval** report provides the information on the average queue length. The data can be presented in the form of a chart or a table.

> **Note**
>
> The **Average queue length in time interval** report is a part of the *Queue length detection* module, it is necessary to create and configure the corresponding object in *DetectorPack PSIM* (see Configuring the Queue length detection module).

To create the **Average queue length in time interval** report, do the following:

1. Select the **Average queue length in time interval** report type (see Selecting a type of reports by Queue Length detectors). As a result, the dialog box for specifying the report parameters will be displayed.



2. In the **Data averaging interval (min.)** field (**1**), enter the calculation step of the queue length—the time interval between the congestion values of the monitored area. The report displays the average values of the queue length over a time equal to the calculation step. The maximum and minimum values of this field depend on the selected step type (**4**).

> **Note**
>
> If the average value is zero for all such intervals over a specified period, that period will not be displayed in the report. In this case, it is recommended to change the data averaging interval.

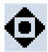
3. Set the **Chart** checkbox (**2**), if it is necessary to display the report in the form of a chart.
4. From the **Time zone** drop-down list (**3**), select the time zone for which report should be created.

> **Note.**

You can select time zones created in *Axxon PSIM* that have only one time period and don't have any nested time periods. You cannot select days of the week. For detailed information about creation and using time zones, see Creating and using time schedules.

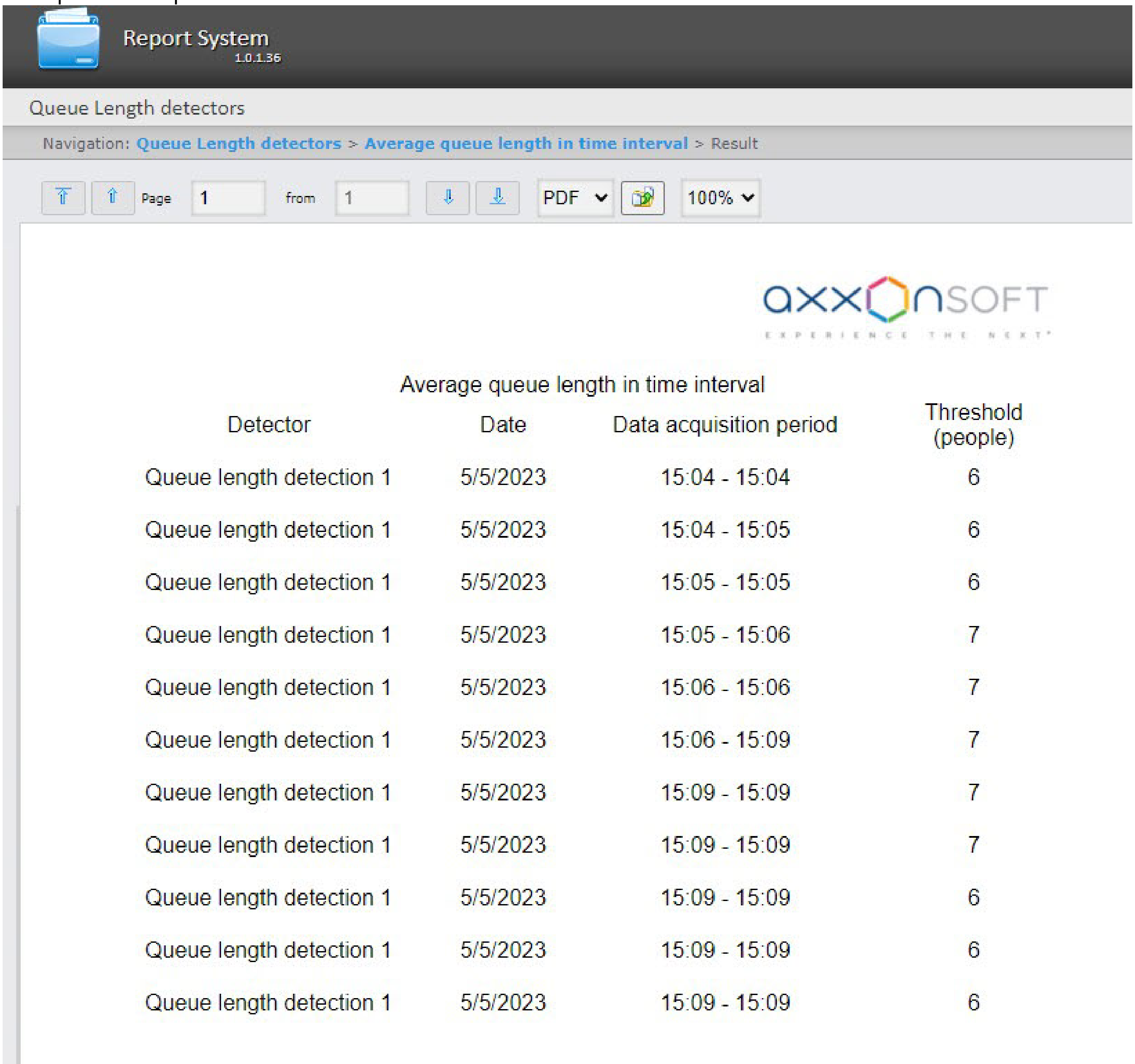
5. From the **Step type** drop-down list (**4**), select the type of data averaging:
    a. **empty**—the data will be displayed as is, i.e., it won't be averaged. The **Data averaging interval (min.)** field (**1**) isn't taken into account;
    b. **seconds**—the data will be averaged by seconds with a step in the range 1-60 from the **Data averaging interval (min.)** field (**1**);
    c. **minutes**—the data will be averaged by minutes with a step in the range 1-60 from the **Data averaging interval (min.)** field (**1**);
    d. **hours**—the data will be averaged by hours with a step in the range 1-24 from the **Data averaging interval (min.)** field (**1**);
    e. **days**—the data will be averaged by days with a step in the range 1-31 from the **Data averaging interval (min.)** field (**1**).
6. From the **Receiving data period** drop-down list (**5**), select the time period for which the report should be created.

Note

If the **Custom** or **Custom 2** time period is selected, enter the start and end dates of the time period for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the  button near the corresponding field to use the **Calendar** tool. For the **Custom 2** time period, it is also necessary to enter the time of start and end period using the  button.

7. In the **Detectors** area (**6**), set the checkboxes next to those **Queue length detection** objects, the information from which should be displayed in the report.
8. To create a report, click the **Execute** button (**7**). As a result, the report by the average queue length in time interval with the specified parameters will be displayed.

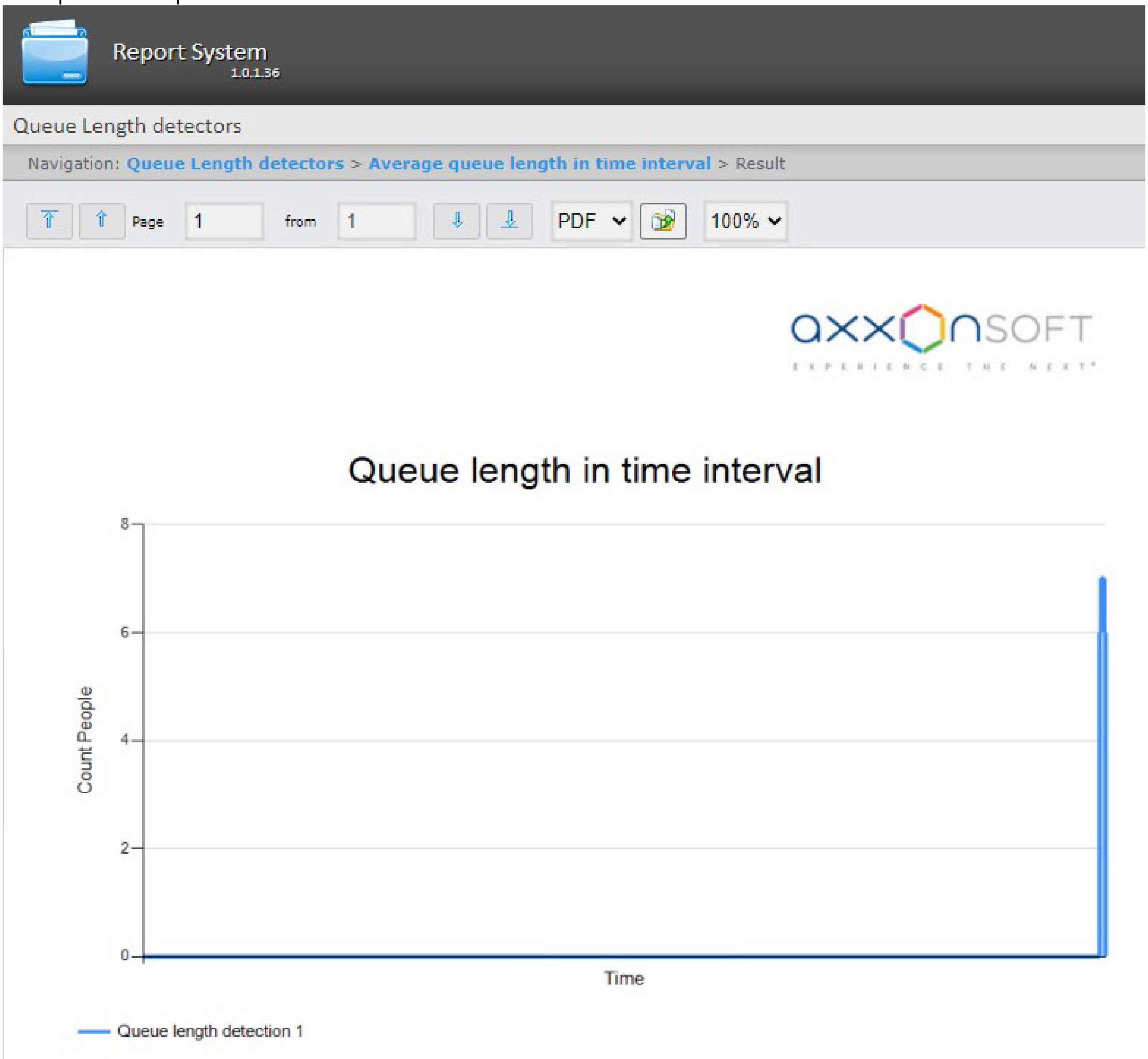
Example of the report in the form of a table:



Average queue length in time interval

Detector	Date	Data acquisition period	Threshold (people)
Queue length detection 1	5/5/2023	15:04 - 15:04	6
Queue length detection 1	5/5/2023	15:04 - 15:05	6
Queue length detection 1	5/5/2023	15:05 - 15:05	6
Queue length detection 1	5/5/2023	15:05 - 15:06	7
Queue length detection 1	5/5/2023	15:06 - 15:06	7
Queue length detection 1	5/5/2023	15:06 - 15:09	7
Queue length detection 1	5/5/2023	15:09 - 15:09	7
Queue length detection 1	5/5/2023	15:09 - 15:09	7
Queue length detection 1	5/5/2023	15:09 - 15:09	6
Queue length detection 1	5/5/2023	15:09 - 15:09	6
Queue length detection 1	5/5/2023	15:09 - 15:09	6

Example of the report in the form of a chart:



> **Note**
> If more than one detector is used, the data from each detector will be displayed in a different color.

8.8.4 Queue length threshold crossing

The **Queue length threshold crossing** report allows you to get information about exceeding the maximum queue length.

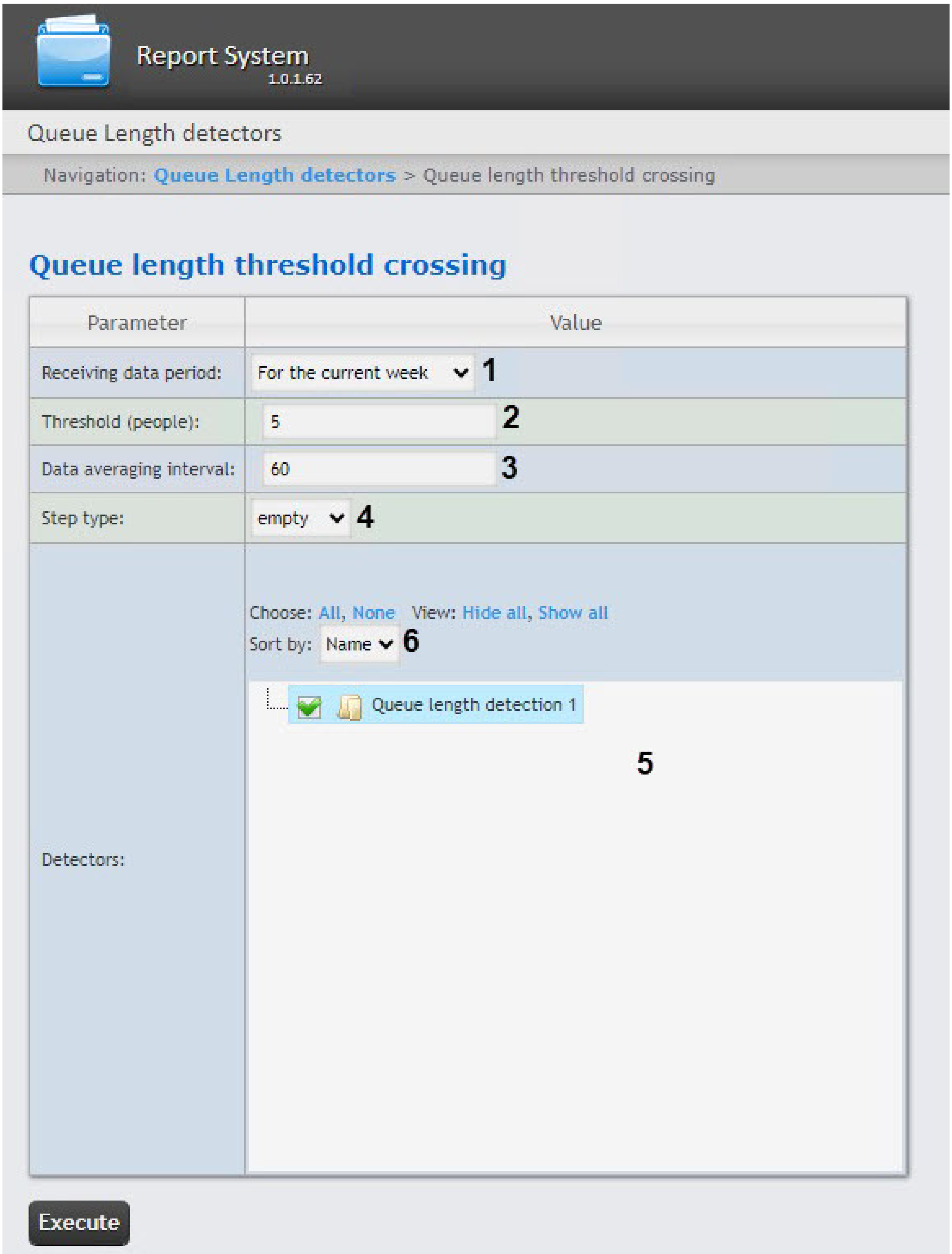
> **Note**

The **Queue length threshold crossing** report is a part of the *Queue length detection* module. It is necessary to create and configure the corresponding object in *DetectorPack PSIM* (see Configuring the Queue length detection module).

To create the **Queue length threshold crossing** report, do the following:

1. Select the **Queue length threshold crossing** report (see Selecting a type of reports by Queue Length detectors) from the list of the available Queue Length detectors reports.

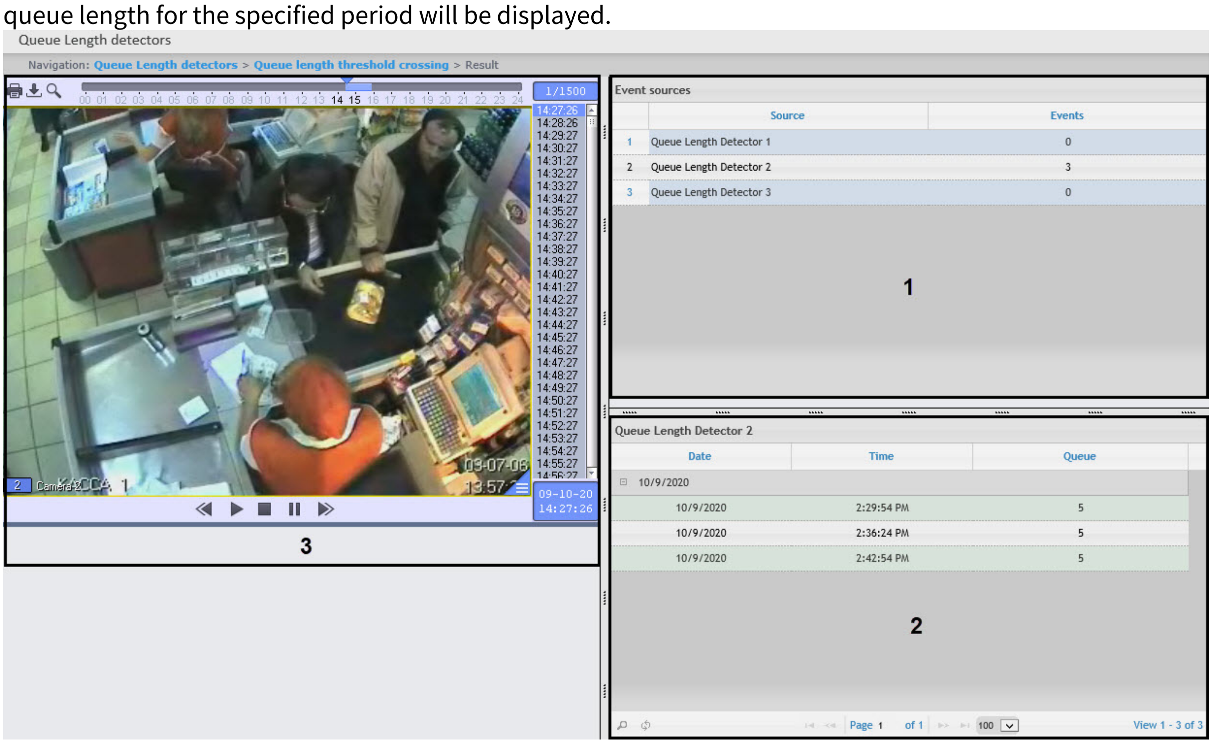
2. From the **Receiving data period** drop-down list (**1**), select the time period for which the report should be created.



Note

If the **Custom 2** time period is selected, enter the date of start and end periods for which the report should be created in the **from** and **to** fields using the **Calendar** tool. Click the button near the corresponding field to use the **Calendar** tool. It is also necessary to enter the time of start and end period using the button.

3. In the **Threshold (people)** field (**2**), set the number of people in the queue, which is considered maximum.
4. In the **Data averaging interval** field (**3**), enter the calculation step of the queue length—the time interval between the congestion values of the monitored area. The report displays the average values of the queue length over a time equal to the calculation step. The maximum and minimum values of this field depend on the selected step type (**4**).
5. From the **Step type** drop-down list (**4**), select the type of data averaging:
    a. **empty**—the data will be displayed as is, i.e., it won't be averaged. The **Data averaging interval** field (**3**) isn't taken into account;
    b. **seconds**—the data will be averaged by seconds with a step in the range 1-60 from the **Data averaging interval** field (**3**);
    c. **minutes**—the data will be averaged by minutes with a step in the range 1-60 from the **Data averaging interval** field (**3**);
    d. **hours**—the data will be averaged by hours with a step in the range 1-24 from the **Data averaging interval** field (**3**);
    e. **days**—the data will be averaged by days with a step in the range 1-31 from the **Data averaging interval** field (**3**).
6. In the **Detectors** field (**5**), set the checkboxes next to those **Queue length detection** objects, the information from which should be displayed in the report. Click **All** to select all found/available detectors, click **None** to deselect. Click **Show all** to expand the detectors structure. Click **Hide all** to hide the structure.
7. From the **Sort by** drop-down list (**6**), select how the data will be sorted in the report: by detector **Name** (selected by default) or by the detector **Number**.
8. To create a report, click the **Execute** button. As a result, a report on all recorded facts of exceeding the queue length for the specified period will be displayed.



The report has three sections:

a. Section **1** displays a list of queue length detectors that have recorded the events of exceeding the threshold of queue length for the specified period, and the number of recorded events.
b. Section **2** displays a detailed table of events recorded by the detector selected in section **1**, the time of recording for each event, and the number of people in the queue at the specified time. The maximum number of entries on one page of the table is 100.
c. Section **3** displays a video recording of the event selected in section **2**.

8.9 Working with Time and Attendance reports

Working with Time and Attendance reports consists of three stages:

1. Selecting a type of report.
2. Creating a report.
3. Viewing a report.

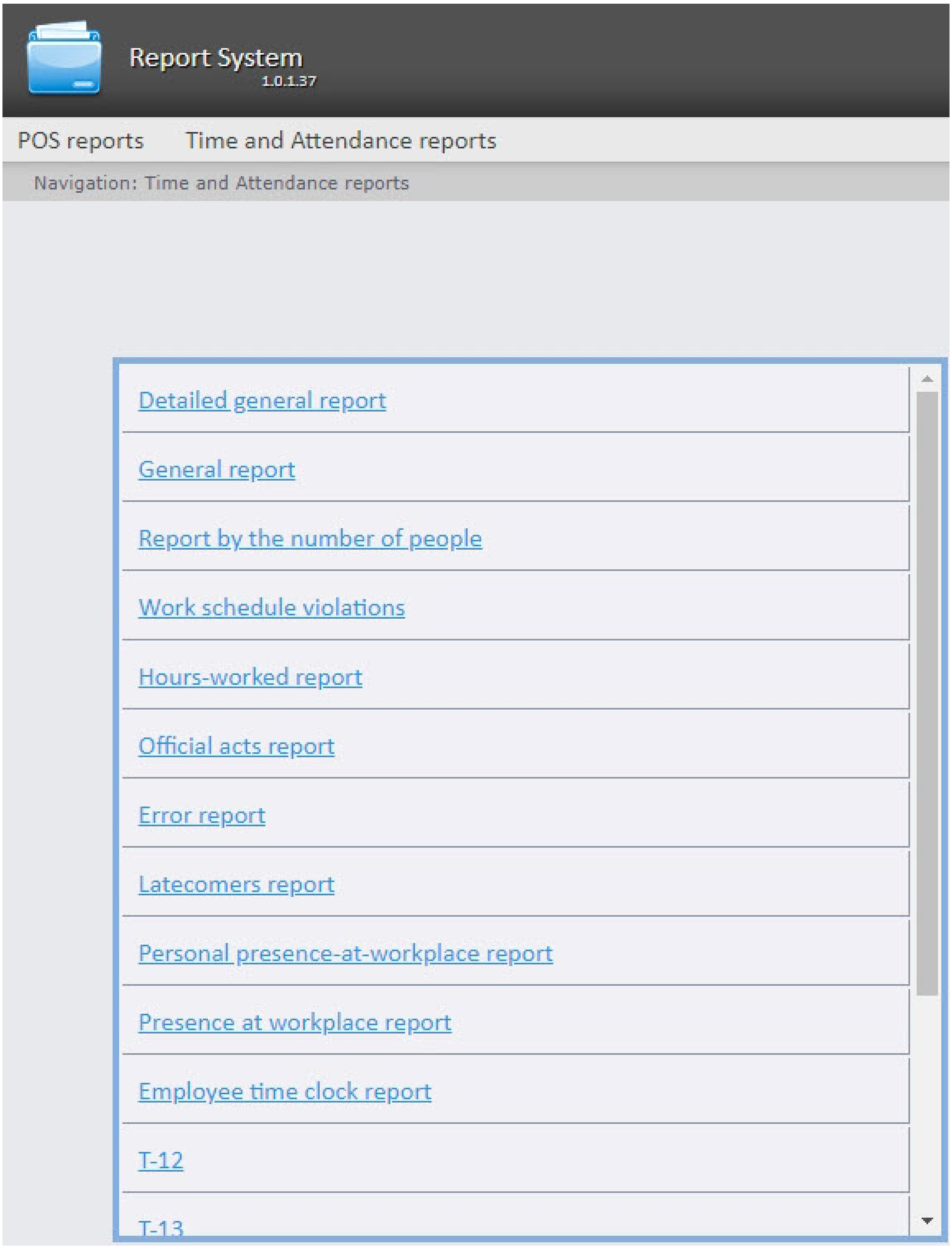
Attention!

It's required to configure user access to departments for working with Time and Attendance reports (see Setting up the Time and Attendance reports).

8.9.1 Selecting a type of Time and Attendance report

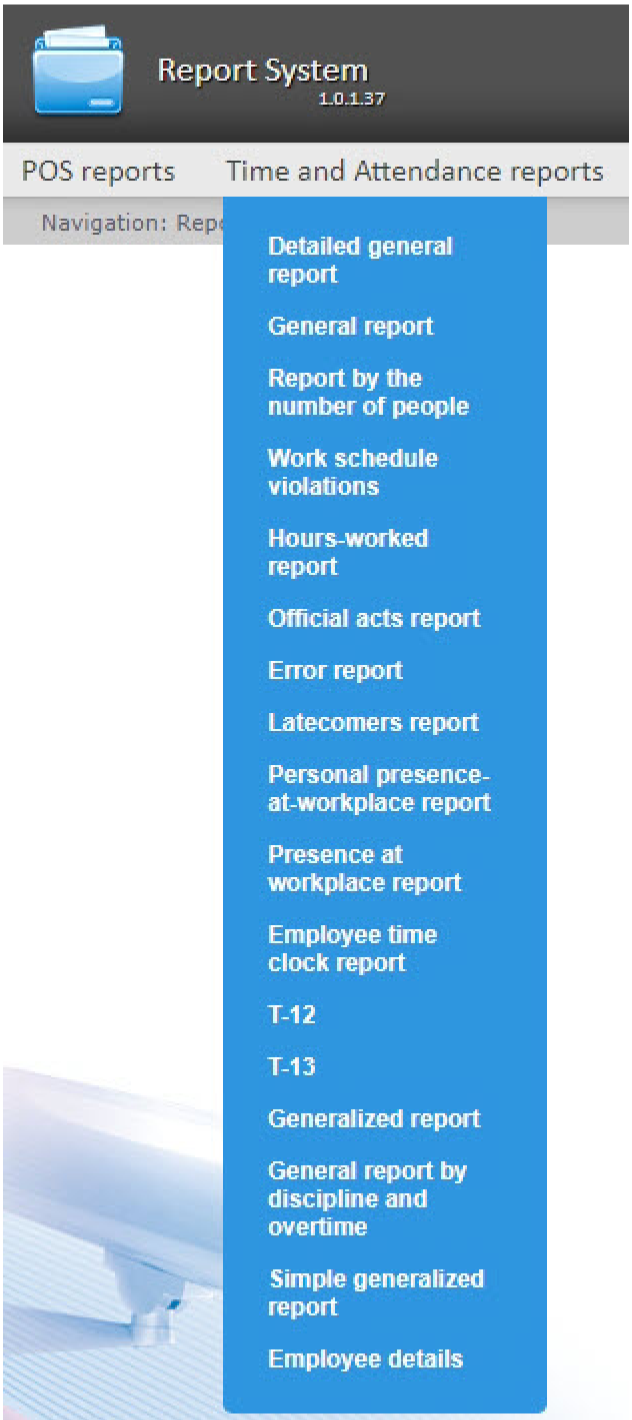
In order to select a type of Time and Attendance report click on **Time and Attendance reports** link in *Report System* menu.

As a result the list of available Time and Attendance reports is displayed. For switching to the required report click the corresponding link.



Note

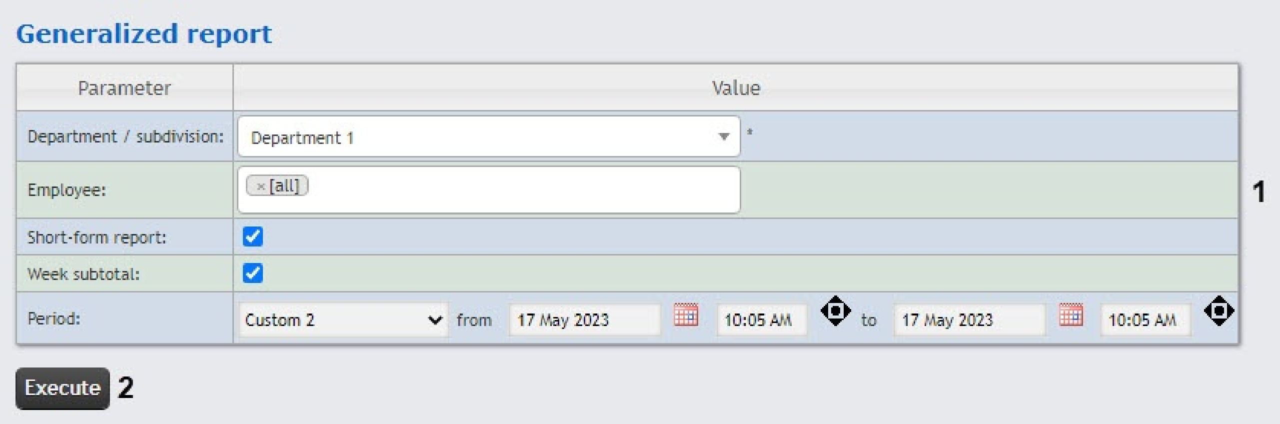
List of links for switching to Time and Attendance reports is available when hovering over the **Time and Attendance reports** link in the report menu.



8.9.2 Creating a Time and Attendance report

In order to create a Time and Attendance report, do the following:

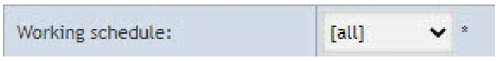
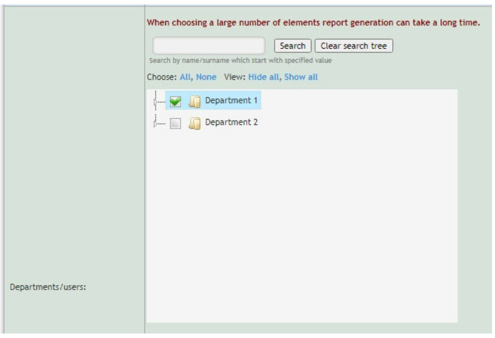
Select a Time and Attendance report in one way (see Selecting a type of Time and Attendance report).
Set the required values to the parameters that are necessary for displaying the report of the selected type (**1**).

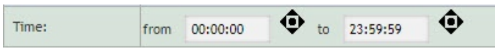
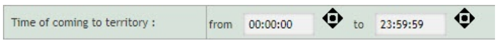
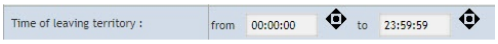


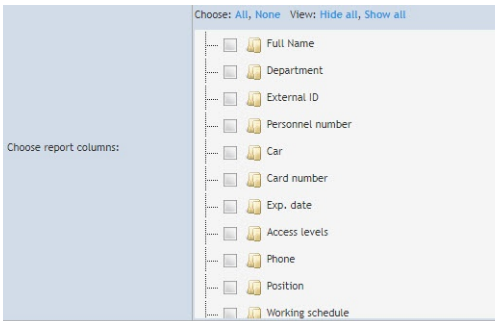
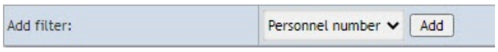
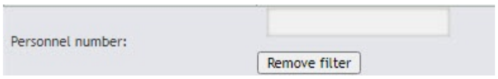
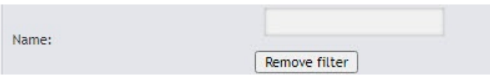
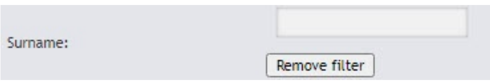
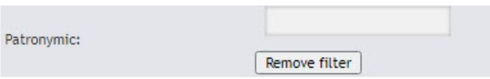
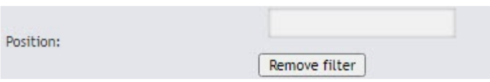
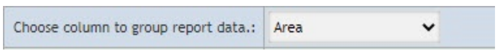
> **Note**
>
> The figure illustrates the parameters of a **Generalized report**.

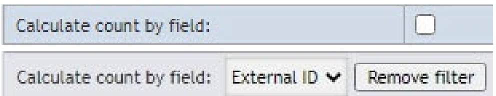
The set of parameters depends on the type of Time and Attendance report. Description of parameters used for creating reports is given in the table.

Parameter	Description	Used in reports
	Used to select the area the information on which you want to display in the report	• Detailed general report • General report • Presence at workplace report • Report by person quantity • Personal presence-at-workplace report
	Used to set the period for which you want to display the report	Used in all reports
	When the checkbox is set, some report fields are hidden	• General report • Detailed general report
	When the checkbox is set, the Comment column will be displayed in the report, which is used to manually add a comment to the printed report	• General report • Detailed general report

Parameter	Description	Used in reports
	When the checkbox is set, each department will be displayed on a separate sheet	• Detailed general report
	Used to select the working schedule of employees the information on which you want to display in the report. You can select one of the available schedules or all working schedules at once	• Detailed general report • General report
	Used to select a department or an employee the information on which you want to display in the report. The structure of the departments in the reports corresponds to the structure of the departments in the *Time and Attendance* module. You can select all departments at once, or separately parent and child departments, as well as several employees of a department	• Work schedule violations • Hours-worked report • Official acts report • Error report • Latecomers report • Presence at workplace report • Employee time clock report • General report by discipline and overtime • Simple generalized report • General report • Report by person quantity • Employee details
	Used to select the department or subdivision the information on which you want to display in the report. You can select only a department/subdivision. You can also use the search for the required department/subdivision by substring	• General report • T-12 • T-13

Parameter	Description	Used in reports
	Used to select an employee the information on which you want to display in the report. If there are more than 100 employees, then the entire list is not displayed. To search for an employee, enter at least three first letters of their surname. As a result, employees with matching surnames will be displayed in the drop-down list	• General report • Personal presence-at-workplace report
	When the checkbox is set, only those employees who were not present at their workplace will be displayed in the report	• Hours-worked report
	Used to set the exact time (hours, minutes) at which you want to display the report	• Report by person quantity
	When the checkbox is set, the information on the working area only will be displayed in the report	• Presence at workplace report • Personal presence-at-workplace report
	Used to set the time period of employee coming to territory for which you want to display the report	• Presence at workplace report *Note. For the **Presence at workplace report** to work correctly, you need to configure it (see* Setting up the Presence at workplace report and Personal presence-at-workplace report*)*
	Used to set the time period of employee leaving territory for which you want to display the report	
	Used to set the time period of employee presence on territory for which you want to display the report	

Parameter	Description	Used in reports
	Used to select the columns of the report	
	Used to add a filter by which the employees will be filtered. Filter availability depends on whether the corresponding parameters are filled in for the employees in the *Access Manager* module	
	Used to filter the employees by their personnel number	
	Used to filter the employees by their name	
	Used to filter the employees by their surname	
	Used to filter the employees by their patronymic	
	Used to filter the employees by their position	
	Used to sort the data in the report	
	Used to group the data in the report	

Parameter	Description	Used in reports
	Used to select the appearance of the report: Standard or Compact for Presence at workplace report and View 1 or View 2 for Personal presence-at-workplace report	• Presence at workplace report • Personal presence-at-workplace report
	Used to include in the report the employees who arrived later than the start of the working day	• Employee time clock report
	If an employee left the work region for a time not exceeding the specified time, then this time will be counted as spent in the work region	• General report
	Used to add an additional filter by the **External ID** field for counting the number of employees	• General report • Report by the number of people
	Used to select the the alternate view of the report appearance	• T-13 • Employee time clock report
	Used to add week subtotal to the report	• Generalized report

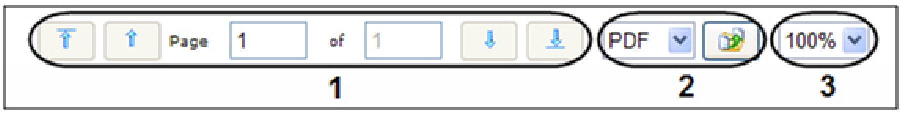
Click the **Execute** button (**2**).

As a result, a report will be created and displayed (see Viewing a Time and Attendance report).

8.9.3 Viewing a Time and Attendance report

Time and Attendance report toolbar

The toolbar on the top of a page is used for report navigating, scaling the displayed page and Time and Attendance report exporting.



In order to switch to the previous and next report page click and correspondingly (**1**). In order to go back to the first report page click . In order to go to the last report page click .

WEB Report System PSIM allows exporting the created Time and Attendance report to computer in the following formats:

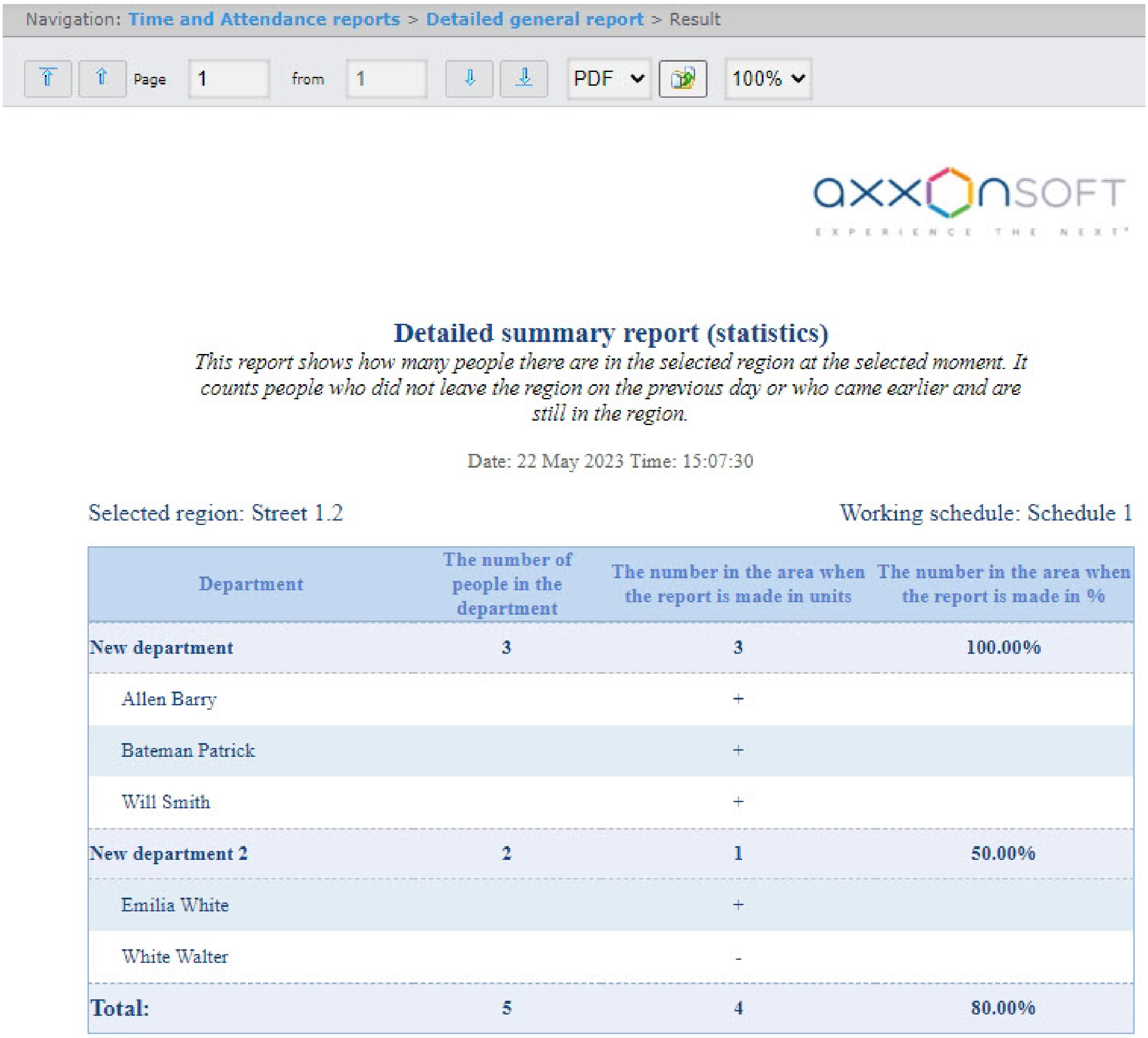
- PDF;
- RTF;
- HTML;
- Excel;
- CSV;
- Text.

For this select a format in which the report is exported and click  (**2**).

Zooming in/out the displayed page is performed through the choosing the required scale in the list (**3**).

Detailed general report

A **Detailed general report** contains the information about the total number of people in the department, with the specified work schedule, the number of department's employees in the selected region at the time of the report creation or on the specified date and time.


Navigation: Time and Attendance reports > Detailed general report > Result

Page 1 from 1 PDF 100%

Detailed summary report (statistics)

This report shows how many people there are in the selected region at the selected moment. It counts people who did not leave the region on the previous day or who came earlier and are still in the region.

Date: 22 May 2023 Time: 15:07:30

Selected region: Street 1.2

Working schedule: Schedule 1

Department	The number of people in the department	The number in the area when the report is made in units	The number in the area when the report is made in %
New department	**3**	**3**	**100.00%**
Allen Barry		+	
Bateman Patrick		+	
Will Smith		+	
New department 2	**2**	**1**	**50.00%**
Emilia White		+	
White Walter		-	
Total:	**5**	**4**	**80.00%**

The report fields are described in the table.

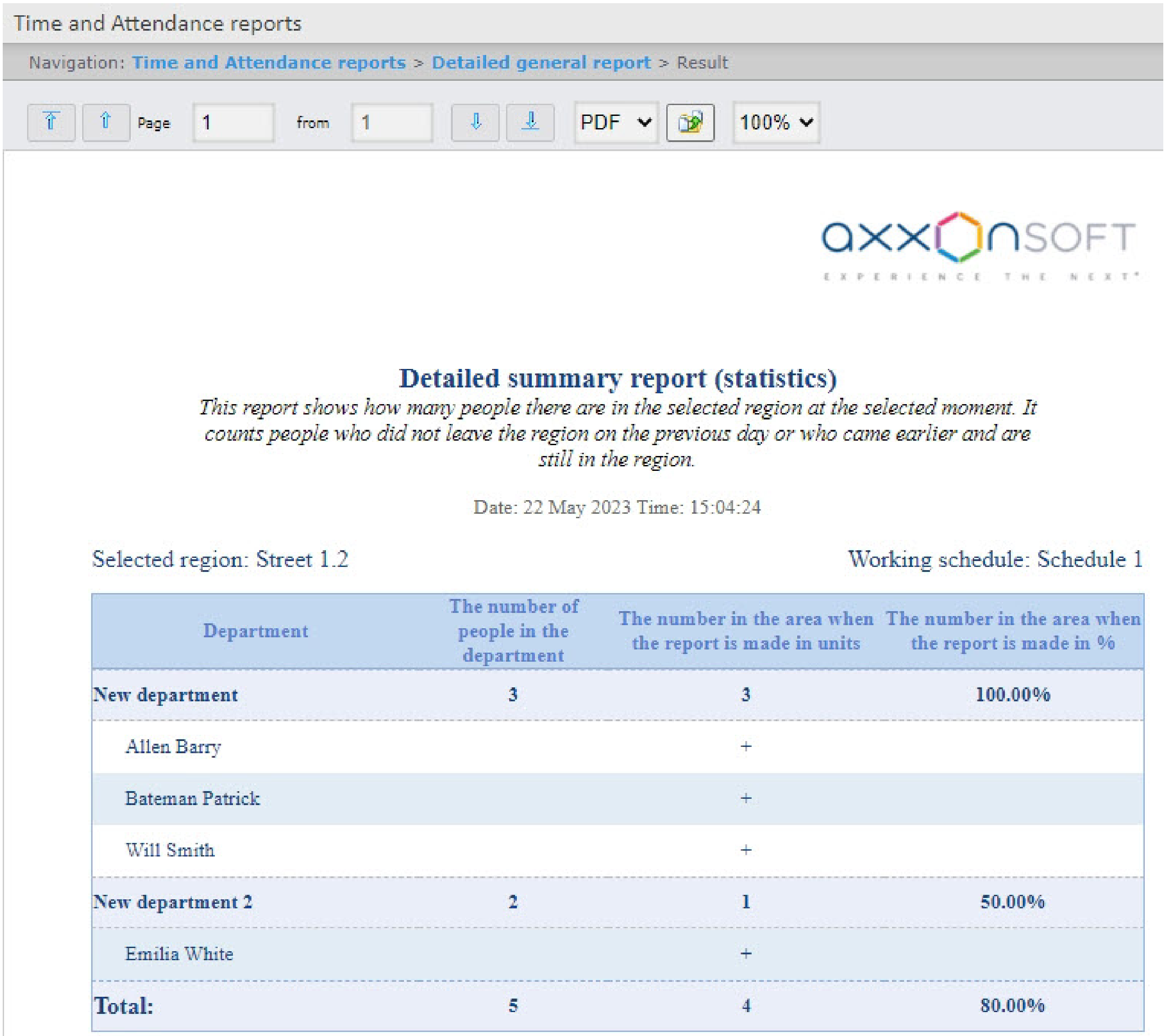
Field name	**Description**
Department	The name of the department and the full names of its employees
The number of people in the department	Total number of people in the department
The number in the area when the report is made in units	The number of people present in the selected region on the specified time period

Field name	Description
The number in the area when the report is made in %	The number of people present in the selected region on the specified time period
Total	Total number of people in all departments

Note

The employees that are present in the area are marked with "+", those who are absent are marked with "-".

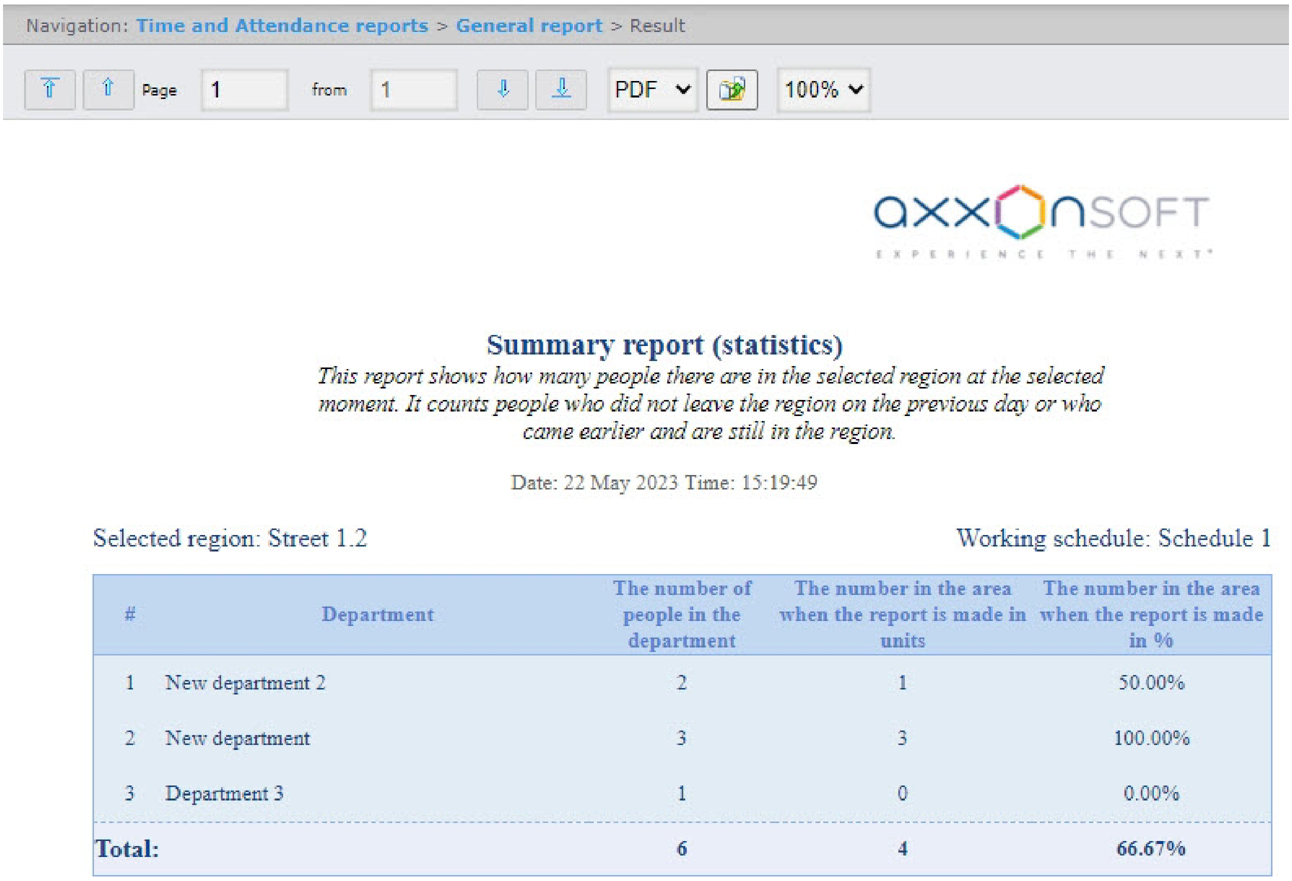
In the short report, the employees who are not present in the selected region are hidden:



Department	The number of people in the department	The number in the area when the report is made in units	The number in the area when the report is made in %
New department	**3**	**3**	**100.00%**
Allen Barry		+	
Bateman Patrick		+	
Will Smith		+	
New department 2	**2**	**1**	**50.00%**
Emilia White		+	
Total:	**5**	**4**	**80.00%**

General report

A **General report** contains the information about the total number of people in the departments, with the specified work schedule, the number of department's employees in the selected region, and the percentage of the employees present at the workplace at the time of the report creation or on the specified date and time.



Summary report (statistics)

This report shows how many people there are in the selected region at the selected moment. It counts people who did not leave the region on the previous day or who came earlier and are still in the region.

Date: 22 May 2023 Time: 15:19:49

Selected region: Street 1.2 Working schedule: Schedule 1

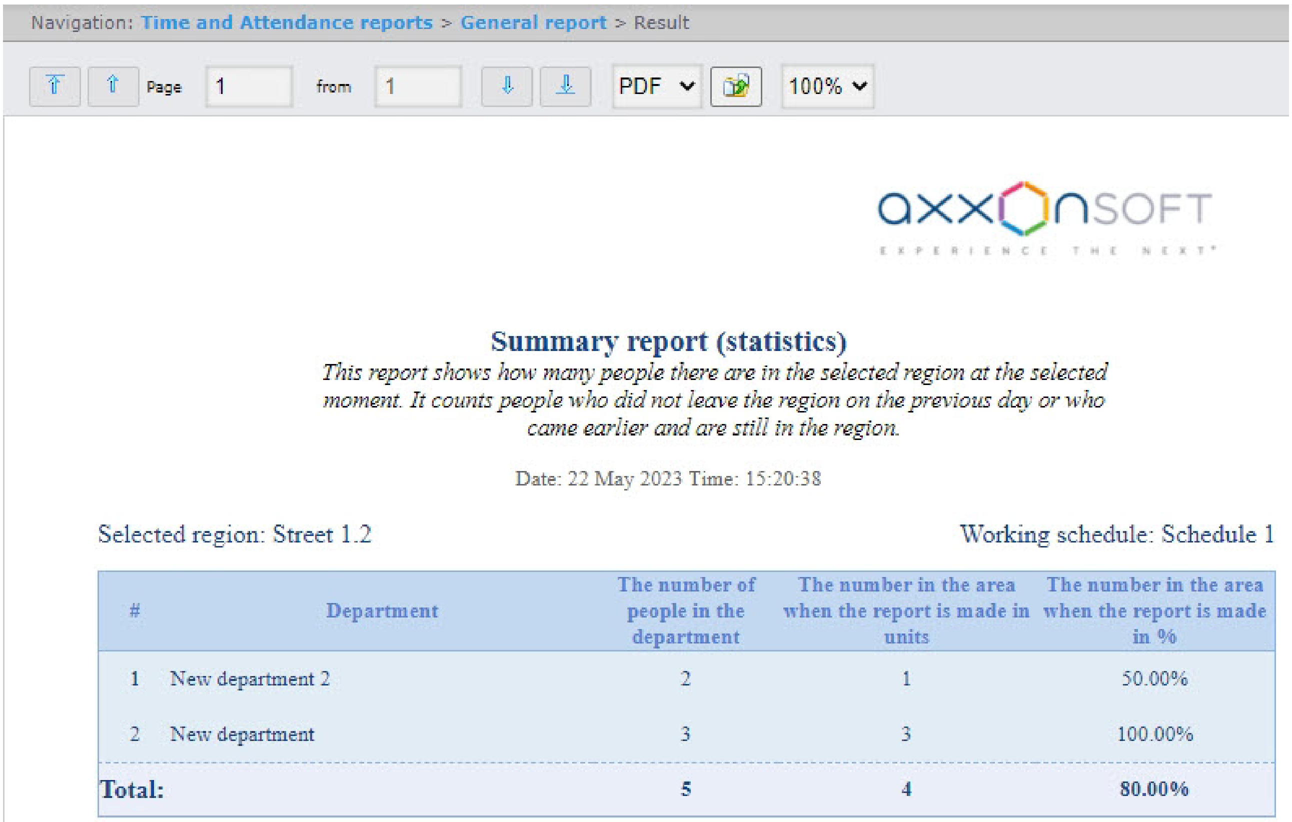
#	Department	The number of people in the department	The number in the area when the report is made in units	The number in the area when the report is made in %
1	New department 2	2	1	50.00%
2	New department	3	3	100.00%
3	Department 3	1	0	0.00%
Total:		**6**	**4**	**66.67%**

The report fields are described in the table.

Field name	Description
Department	The name of the department
The number of people in the department	Total number of people in the department
The number in the area when the report is made in units	The number of people present in the selected region at the time of the report creation or on the specified day and time. If you added the **Calculate count by field** filter in the settings, the data in this field will be additionally filtered by the **External ID** field

Field name	**Description**
The number in the area when the report is made in %	The number of people present in the selected region at the time of the report creation or on the specified day and time. If you added the **Calculate count by field** filter in the settings, the data in this field will be additionally filtered by the **External ID** field
The **Total** line displays the total number of people in all departments and the total number of people present in the selected region	

In the short **General report**, the departments with no employees present in the selected region are hidden:



Navigation: Time and Attendance reports > General report > Result

Page 1 from 1 PDF 100%

Summary report (statistics)

This report shows how many people there are in the selected region at the selected moment. It counts people who did not leave the region on the previous day or who came earlier and are still in the region.

Date: 22 May 2023 Time: 15:20:38

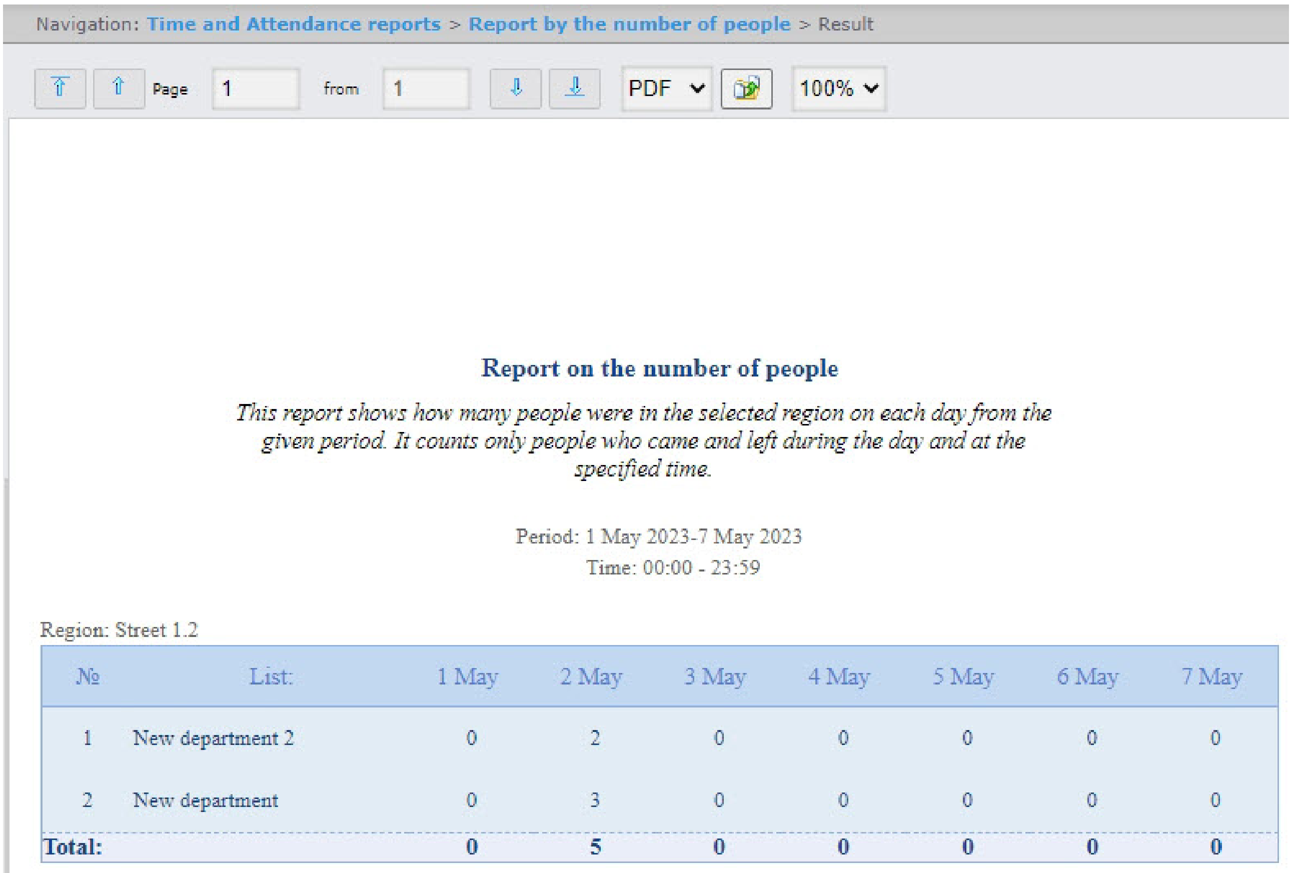
Selected region: Street 1.2

Working schedule: Schedule 1

#	Department	The number of people in the department	The number in the area when the report is made in units	The number in the area when the report is made in %
1	New department 2	2	1	50.00%
2	New department	3	3	100.00%
Total:		**5**	**4**	**80.00%**

Report by the number of people

The **Report by the number of people** contains the information on the total number of employees in the departments who were present in the selected region within a specified period of time.



The report fields are described in the table.

Field name	Description
List	Department name
Date and month	The number of people present in the selected region on the corresponding day. If you added the **Calculate count by field** filter in the settings, the data in this field will be additionally filtered by the **External ID** field
The **Total** line displays the total number of people in all departments who were present in the selected region for each day of the specified time period	

> **Note**
>
> The maximum period of time for which the report can be displayed is one week.

Work schedule violations

A **Work schedule violations** report contains the information about the employees that violated the work schedule in the specified time period, the violation type and its duration.

Navigation: Time and Attendance reports > Work schedule violations > Result

Page 1 from 2 PDF 100%

Violating working regulations

Date: from 22 May 2023 00:00:00 to 22 May 2023 15:41:01

Department: New department

Allen Barry — Working schedule: Schedule 1

Date; hours to scheduled completion	Actual date and time	Violation type	Duration	Code
22 May		Absence	02:00:00	
Total by employee		**Amount**	**Duration**	
Coming late		0	00:00:00	
Time of absence		0	00:00:00	
Leaving earlier		0	00:00:00	
Absence		1	02:00:00	
Underworking		0	00:00:00	

Bateman Patrick — Working schedule: Schedule 1

Date; hours to scheduled completion	Actual date and time	Violation type	Duration	Code
22 May		Absence	02:00:00	
Total by employee		**Amount**	**Duration**	
Coming late		0	00:00:00	
Time of absence		0	00:00:00	
Leaving earlier		0	00:00:00	
Absence		1	02:00:00	
Underworking		0	00:00:00	

White Walter — Working schedule: Schedule 1

Date; hours to scheduled completion	Actual date and time	Violation type	Duration	Code
22 May		Absence	02:00:00	

Total by employee	Amount	Duration
Coming late	0	00:00:00
Time of absence	0	00:00:00
Leaving earlier	0	00:00:00
Absence	1	02:00:00
Underworking	0	00:00:00

Total by department	Amount	Duration
Coming late	0	00:00:00
Time of absence	0	00:00:00
Leaving earlier	0	00:00:00
Absence	2	04:00:00
Underworking	0	00:00:00

Total by report	Amount	Duration
Coming late	0	00:00:00
Time of absence	0	00:00:00
Leaving earlier	0	00:00:00
Absence	5	10:00:00
Underworking	0	00:00:00

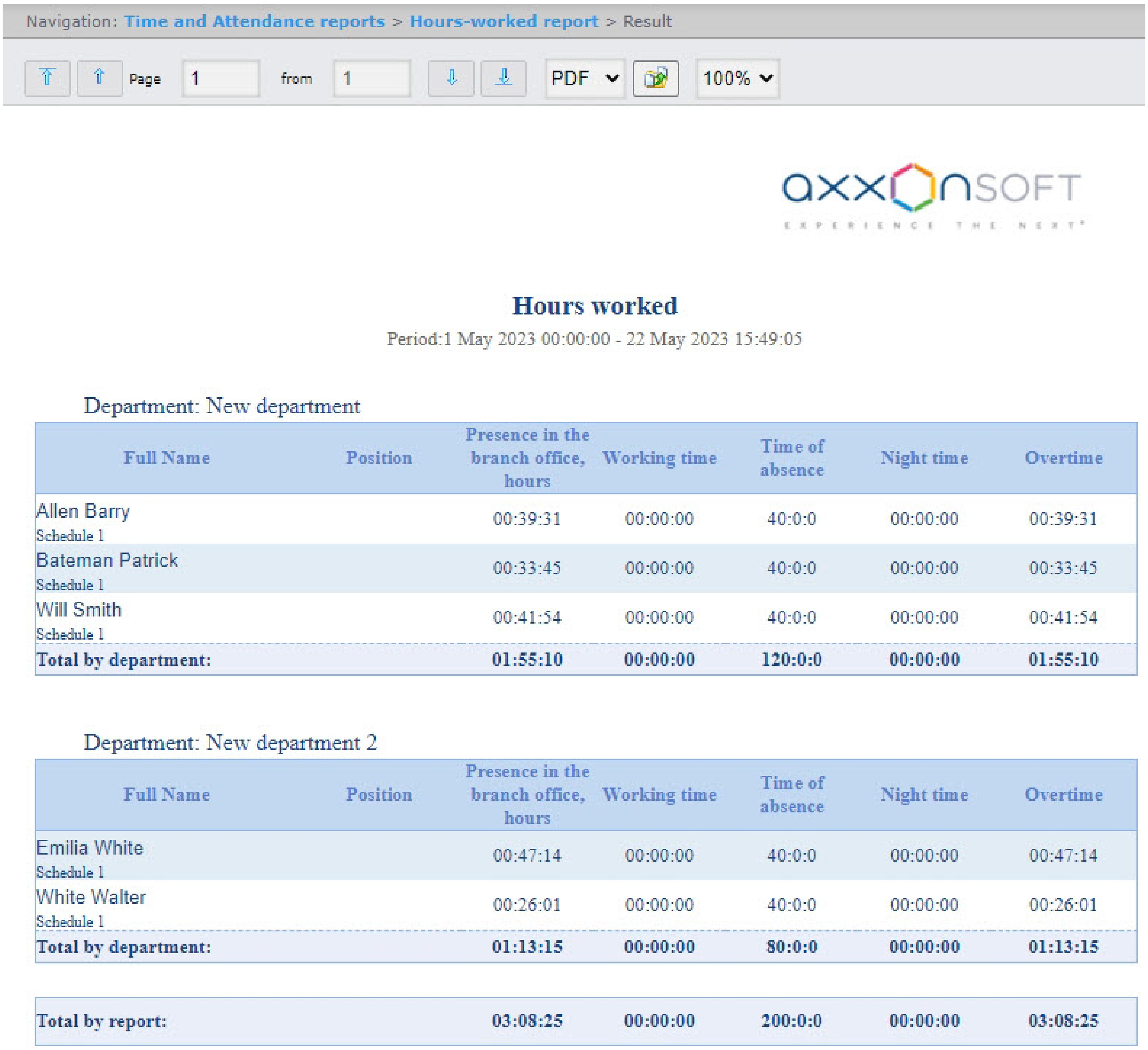
Report fields are described in the table.

Field name	Description
Date; hours to scheduled completion	Planned duration of a workday for the specified date
Actual date and time	Date and time when violation was registered
Violation type	Type of registered violation
Duration	Violation duration
Code	Violation code

In the report there are separate tables with information about total amount of violations by employee, department and report as a whole.

Hours-worked report

An **Hours-worked report** is a table that contains the information on hours worked by employees of the selected department with details for each employee for a specified period of time.



Navigation: Time and Attendance reports > Hours-worked report > Result

Page 1 from 1 PDF 100%

Hours worked

Period:1 May 2023 00:00:00 - 22 May 2023 15:49:05

Department: New department

Full Name	Position	Presence in the branch office, hours	Working time	Time of absence	Night time	Overtime
Allen Barry Schedule 1		00:39:31	00:00:00	40:0:0	00:00:00	00:39:31
Bateman Patrick Schedule 1		00:33:45	00:00:00	40:0:0	00:00:00	00:33:45
Will Smith Schedule 1		00:41:54	00:00:00	40:0:0	00:00:00	00:41:54
Total by department:		**01:55:10**	**00:00:00**	**120:0:0**	**00:00:00**	**01:55:10**

Department: New department 2

Full Name	Position	Presence in the branch office, hours	Working time	Time of absence	Night time	Overtime
Emilia White Schedule 1		00:47:14	00:00:00	40:0:0	00:00:00	00:47:14
White Walter Schedule 1		00:26:01	00:00:00	40:0:0	00:00:00	00:26:01
Total by department:		**01:13:15**	**00:00:00**	**80:0:0**	**00:00:00**	**01:13:15**

Total by report:		**03:08:25**	**00:00:00**	**200:0:0**	**00:00:00**	**03:08:25**

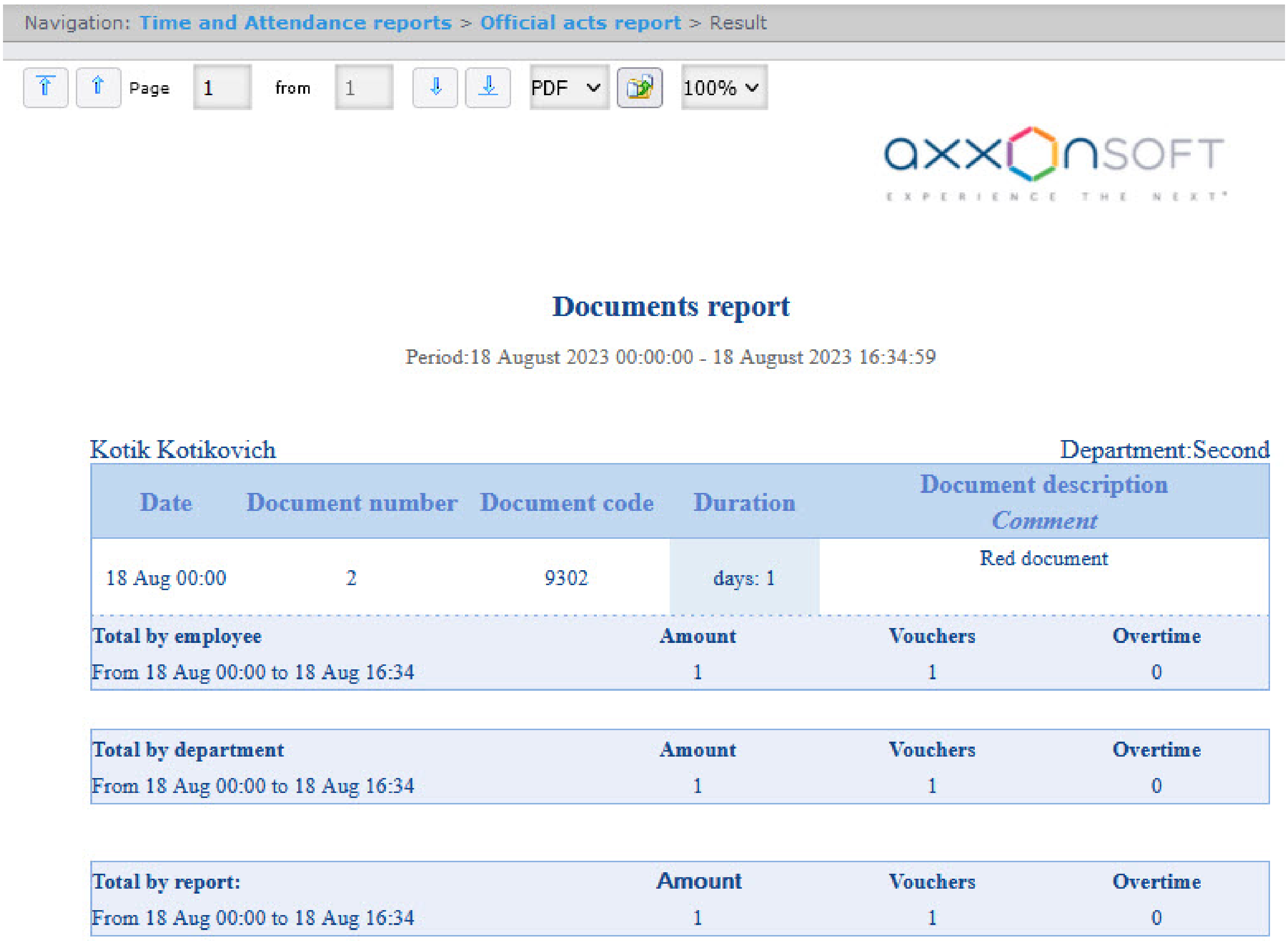
Report fields are described in the table.

Field name	Description
Full Name	Employee's full name
Position	Employee's position

Field name	Description
Presence in the branch office, hours	Time that was spent in the workplace. If time of presence is more than planned working hours for specified period then the field is marked red
Working time	Time that was spent in the workplace according to the work plan (schedule)
Time of absence	Difference between the planned work hours and time of presence in the workplace
Night time	Time that was worked at night
Overtime	Time that was worked overtime
The **Total by department** line displays the sum values by each department's employee.	
The **Total by report** line displays the sum values by each department.	

Official acts report

The **Official acts report** contains the information about the vouchers and overtime documents that were drawn by employees in the specified time period.



Report fields are described in the table.

Field name	**Description**
Date	Date of document creation
Document number	Document number given in *Time and Attendance* program module
Document code	Document code given in *Time and Attendance* program module
Duration	Document validity period, days
Document description	Document name

In the report there are separate tables with information about total amount of documents by employee, department and report as a whole.

Error report

An **Error report** contains the information about the employees' incorrect passes/exits to/from the region within the specified time period.

Navigation: Time and Attendance reports > Error report > Result

Error report

Period:2 May 2023 00:00:00 - 22 May 2023 16:06:08

Allen Barry

Department: New department

Date	Arrival time	Access point	Region	Error type
2 May 17:48	17:48:25	AUTO access point 1	Street 1.2	Exit with no entrance
2 May 17:48	17:48:25	AUTO access point 1.2	Street 1.2	Entrance with no exit
2 May 17:46	17:46:49	AUTO access point 1	Street 1.2	Exit with no entrance
2 May 18:03	18:03:14	AUTO access point 1.2	Street 1.2	Entrance with no exit
2 May 18:03	18:03:14	AUTO access point 1	Street 1.2	Exit with no entrance
2 May 18:03	18:03:14	AUTO access point 1	Working zone 1.1	Entrance with no exit
2 May 18:03	18:03:14	AUTO access point 1.2	Working zone 1.1	Exit with no entrance
2 May 17:46	17:46:49	AUTO access point 1	Street 1.2	Exit with no entrance
2 May 17:41	17:41:45	AUTO access point 1.2	Street 1.2	Entrance with no exit
2 May 17:41	17:41:45	AUTO access point 1.2	Street 1.2	Entrance with no exit
2 May 17:38	17:38:32	AUTO access point 1.2	Working zone 1.1	Exit with no entrance
2 May 17:41	17:41:45	AUTO access point 1	Street 1.2	Exit with no entrance
2 May 17:46	17:46:49	AUTO access point 1.2	Street 1.2	Entrance with no exit
2 May 17:46	17:46:49	AUTO access point 1.2	Street 1.2	Entrance with no exit
2 May 17:41	17:41:45	AUTO access point 1	Street 1.2	Exit with no entrance
Total by employee		**Amount**	**Entrance with no exit**	**Exit with no entrance**
During interval from 2 May 00:00 to 22 May 16:06		15	7	8

Department: New department 2			
Total by department	**Amount**	**Entrance with no exit**	**Exit with no entrance**
During interval from 2 May 00:00 to 22 May 16:06	80	40	40

Total by report	**Amount**	**Entrance with no exit**	**Exit with no entrance**
During interval from 2 May 00:00 to 22 May 16:06	199	99	100

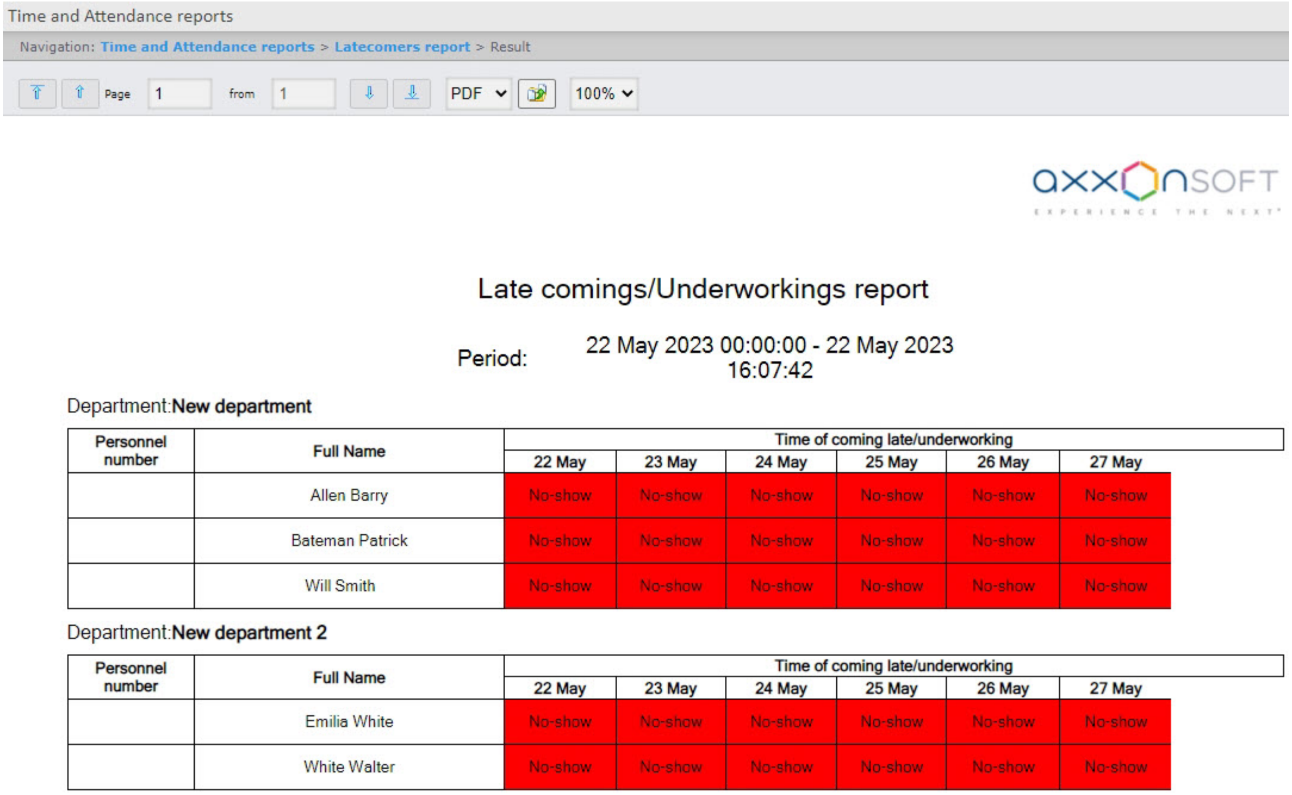
Report fields are described in the table.

Field name	**Description**
Date	Date when an error was registered
Arrival time	Time when there was a passage to the region that caused an error
Passage point	Name of a passage point
Region	Name of a region where an error was registered
Error type	Type of a registered error

In the report there are separate tables with information about total amount of errors by department and report as a whole.

Latecomers report

A **Latecomers report** contains the information about how late an employee came and how much time he underworks for every day of a specified period.



Late comings/Underworkings report

Period: 22 May 2023 00:00:00 - 22 May 2023 16:07:42

Department:**New department**

Personnel number	Full Name	Time of coming late/underworking					
		22 May	23 May	24 May	25 May	26 May	27 May
	Allen Barry	No-show	No-show	No-show	No-show	No-show	No-show
	Bateman Patrick	No-show	No-show	No-show	No-show	No-show	No-show
	Will Smith	No-show	No-show	No-show	No-show	No-show	No-show

Department:**New department 2**

Personnel number	Full Name	Time of coming late/underworking					
		22 May	23 May	24 May	25 May	26 May	27 May
	Emilia White	No-show	No-show	No-show	No-show	No-show	No-show
	White Walter	No-show	No-show	No-show	No-show	No-show	No-show

The report fields are described in the table.

Field name	Description
Personnel number	Employee's personnel number
Full Name	Employee's full name
Time of coming late/underworking	Date and information about the employee’s latecoming or underworking for each day of the specified period

Note

Minimal time period for which the report can be displayed is one week.

Personal presence-at-workplace report

Personal presence-at-workplace report contains the information about periods when a selected employee visited and left a specified region during a day and how long an employee was in a selected region for a specified period.

Note

Each employee should have the date of hiring filled in. Employees whose date of hiring is not filled in, or is set for a date later than actual passes, are not displayed in the report.

Example of report with the **View 1** appearance.

Navigation: Time and Attendance reports > Personal presence-at-workplace report > Result

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Presence at workplace

Date: from 2 May 2023 00:00:00 to 2 May 2023 23:59:59

Department: New department

Smith Working schedule: Schedule 1

Entry to the area	Exit from the area	Region	Entrance point	Exit point	Presence in the branch office, hours
2 May 17:37	2 May 17:37	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:09
2 May 17:37	2 May 17:37	Street 1.2	AUTO access point 1.2	AUTO access point 1	0:00:01
2 May 17:37	2 May 17:37	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:22
2 May 17:37	2 May 17:38	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:09
2 May 17:38	2 May 17:38	Street 1.2	AUTO access point 1.2	AUTO access point 1	0:00:01
2 May 17:38	2 May 17:38	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:22
2 May 17:38	2 May 17:38	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:09
2 May 17:38	2 May 17:38	Street 1.2	AUTO access point 1.2	AUTO access point 1	0:00:01
2 May 17:38	2 May 17:39	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:22
2 May 17:39	2 May 17:39	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:09
2 May 17:39	2 May 17:39	Street 1.2	AUTO access point 1.2	AUTO access point 1	0:00:09
2 May 17:39	2 May 17:39	Street 1.2	AUTO access point 1.2	AUTO access point 1	0:00:23
2 May 17:39	2 May 17:39	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:23
Total by employee:					**0:41:54**

Example of report with the **View 2** appearance.

Navigation: Time and Attendance reports > Personal presence-at-workplace report > Result

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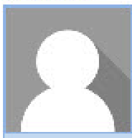
Presence at workplace

Date: from 2 May 2023 00:00:00 to 2 May 2023 23:59:59

Area: all

Department: New department



Smith
Personnel number: not specified
Position: not specified
3AP1482

Working schedule: Schedule 1
Pass card expiration date:
from 5 February 2023 to not specified

Entry to the area	Exit from the area	Entrance point	Exit point	Presence in the branch office, hours
2 May 17:37	2 May 17:37	Entrance (AUTO access point 1)	Exit (AUTO access point 1.2)	0:00:09
2 May 17:37	2 May 17:37	Entrance (AUTO access point 1.2)	Exit (AUTO access point 1)	0:00:01
2 May 17:37	2 May 17:37	Entrance (AUTO access point 1)	Exit (AUTO access point 1.2)	0:00:22
2 May 17:37	2 May 17:38	Entrance (AUTO access point 1)	Exit (AUTO access point 1.2)	0:00:09
2 May 17:38	2 May 17:38	Entrance (AUTO access point 1.2)	Exit (AUTO access point 1)	0:00:01
2 May 17:38	2 May 17:38	Entrance (AUTO access point 1)	Exit (AUTO access point 1.2)	0:00:22
2 May 17:38	2 May 17:38	Entrance (AUTO access point 1)	Exit (AUTO access point 1.2)	0:00:09
2 May 17:38	2 May 17:38	Entrance (AUTO access point 1.2)	Exit (AUTO access point 1)	0:00:01
2 May 17:38	2 May 17:39	Entrance (AUTO access point 1)	Exit (AUTO access point 1.2)	0:00:22
2 May 17:39	2 May 17:39	Entrance (AUTO access point 1)	Exit (AUTO access point 1.2)	0:00:09
2 May 17:39	2 May 17:39	Entrance (AUTO access point 1.2)	Exit (AUTO access point 1)	0:00:09
2 May 18:02	2 May 18:03	Entrance (AUTO access point 1)	Exit (AUTO access point 1.2)	0:00:22
Total by employee:				**0:41:54**

Note

In order for employee photos to be displayed, it is necessary to configure the report (see Setting up the Presence at workplace report and Personal presence-at-workplace report).

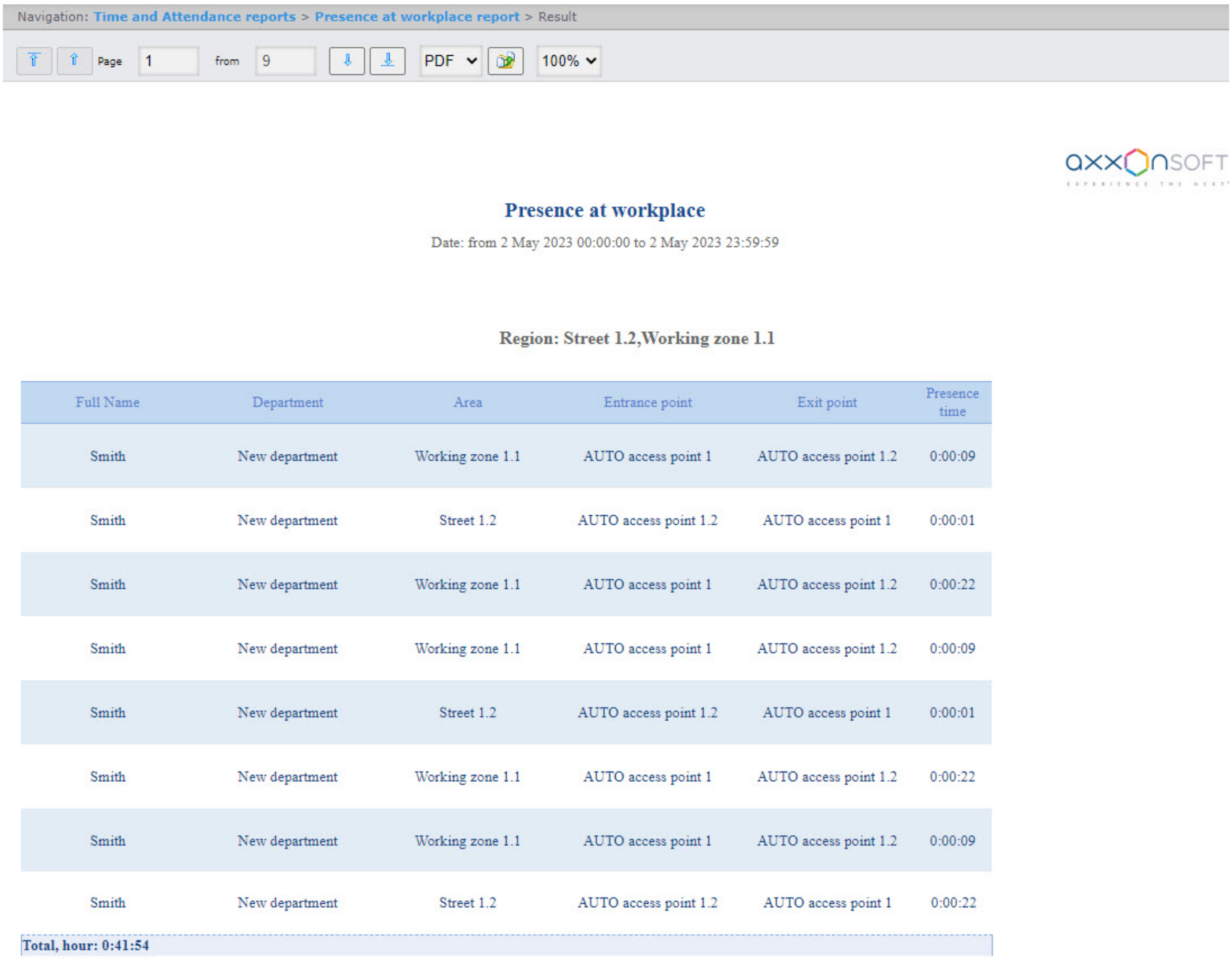
Report fields are described in the table.

Field name	Description
Entry to the area	Date and time the employee entered the region
Exit from the area	Date and time the employee left the region
Region	Region where employee is located after the pass
Entrance point	Name of passage point through which the employee entered the region
Exit point	Name of passage point through which the employee left the region
Presence in the branch office, hours	The time period during which the employee was present in the region
The **Total by employee** line displays the total time spent by the employee in the region for the selected period of time.	

Presence at workplace report

The **Presence at workplace report** contains the information about the times when the employee left the selected region during the day, and how much time the employee spent in the selected region within the specified time period.

The report example with the **Standard** appearance.


Navigation: Time and Attendance reports > Presence at workplace report > Result

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Presence at workplace

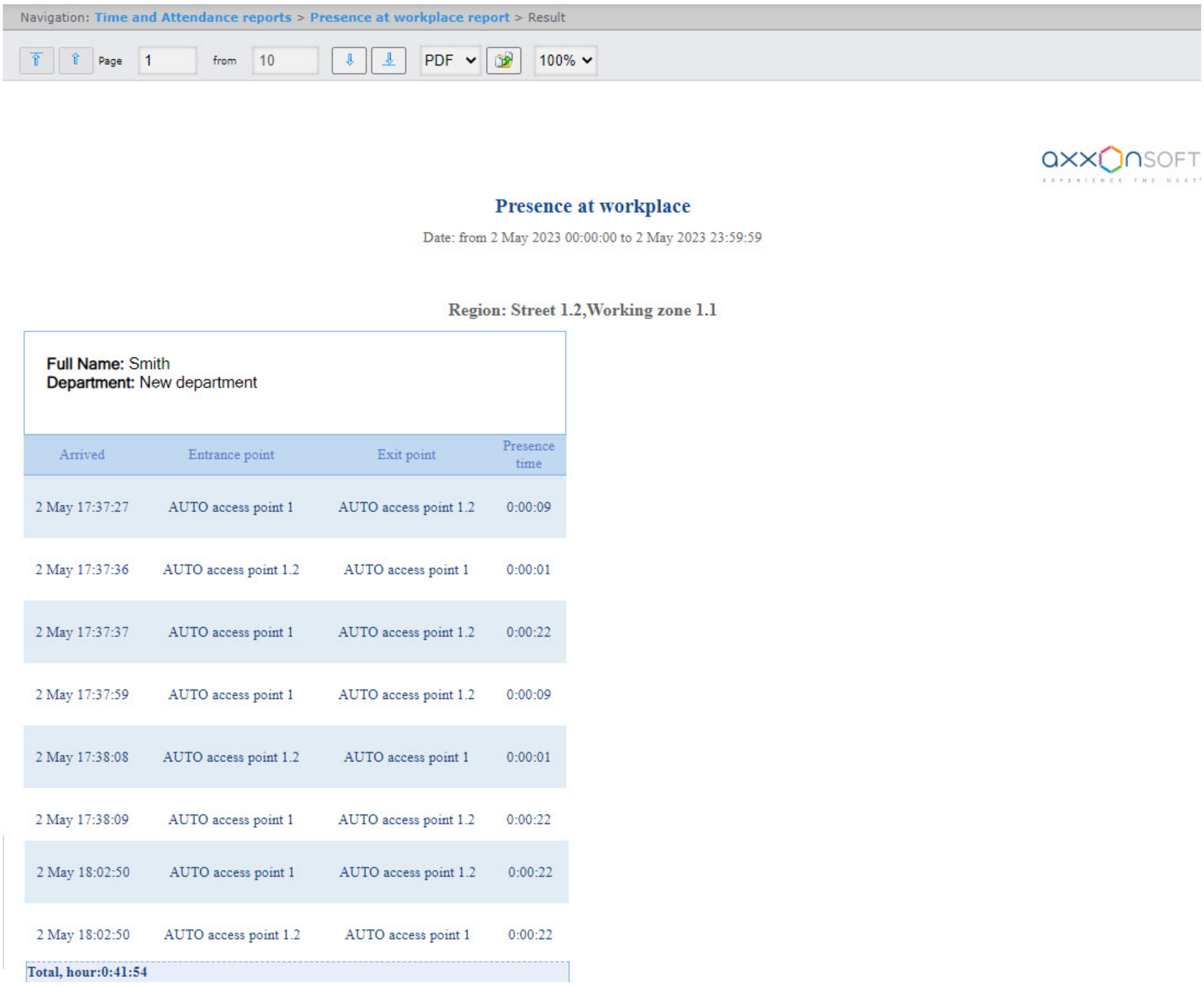
Date: from 2 May 2023 00:00:00 to 2 May 2023 23:59:59

Region: Street 1.2,Working zone 1.1

Full Name	Department	Area	Entrance point	Exit point	Presence time
Smith	New department	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:09
Smith	New department	Street 1.2	AUTO access point 1.2	AUTO access point 1	0:00:01
Smith	New department	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:22
Smith	New department	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:09
Smith	New department	Street 1.2	AUTO access point 1.2	AUTO access point 1	0:00:01
Smith	New department	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:22
Smith	New department	Working zone 1.1	AUTO access point 1	AUTO access point 1.2	0:00:09
Smith	New department	Street 1.2	AUTO access point 1.2	AUTO access point 1	0:00:22

Total, hour: 0:41:54

The report example **Compact** appearance.



Arrived	Entrance point	Exit point	Presence time
2 May 17:37:27	AUTO access point 1	AUTO access point 1.2	0:00:09
2 May 17:37:36	AUTO access point 1.2	AUTO access point 1	0:00:01
2 May 17:37:37	AUTO access point 1	AUTO access point 1.2	0:00:22
2 May 17:37:59	AUTO access point 1	AUTO access point 1.2	0:00:09
2 May 17:38:08	AUTO access point 1.2	AUTO access point 1	0:00:01
2 May 17:38:09	AUTO access point 1	AUTO access point 1.2	0:00:22
2 May 18:02:50	AUTO access point 1	AUTO access point 1.2	0:00:22
2 May 18:02:50	AUTO access point 1.2	AUTO access point 1	0:00:22

Total, hour:0:41:54

Note

In order for the photos of employees to be displayed, it is necessary to configure the report (see Setting up the Presence at workplace report and Personal presence-at-workplace report).

Report fields are described in the table.

Field name	Description
Full Name	Employee's full name
Department	Department where employee works
External ID	Employee's external identity number
Personnel number	Employee's personnel number

Field name	Description
Car	Employee's car brand
Card number	Employee's access card number
Exp. date	Employee's card expiration date
Access levels	Employee's access levels
Phone	Employee's phone number
Position	Employee's position
Working schedule	Employee's working schedule
Photo	Photo from the camera
Company	The name of the parent department, if the employee's department is a subsidiary
Company/Department	Company/Department where employee works
No.	Line number
Area	Area where employee is located after the pass
Arrived	Date and time of an employee's arrival to a region
Left	Date and time of an employee's leaving a region
Entrance point	Name of an entrance point to the region
Exit point	Name of an exit point from the region
Presence time	The time the employee spent in the selected region
The **Total, hour** line displays the total time spent by the employee in the region for the selected time period.	

You can select up to 17 columns.

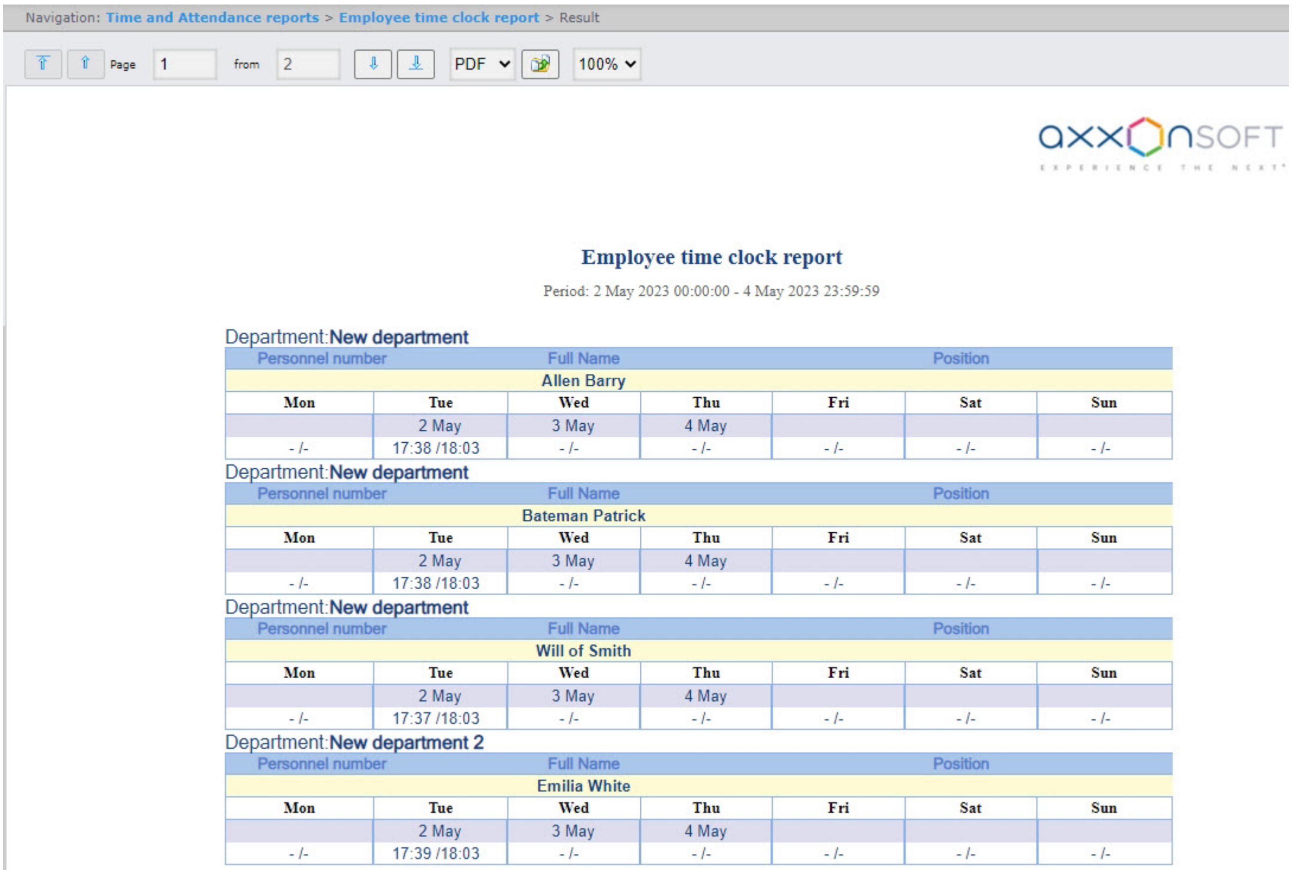
Employee time clock report

The **Employee time clock report** contains the information about an employee's arrival and leaving time every day of the specified time period.

This report is generated in two variants: regular view (default) and alternate view.

If the **Including latecomers** checkbox is set, the users' late arrivals will be marked, including the time by which they were late.

Example of the regular view of the **Employee time clock report**:


Navigation: Time and Attendance reports > Employee time clock report > Result

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Employee time clock report

Period: 2 May 2023 00:00:00 - 4 May 2023 23:59:59

Department: **New department**

Personnel number	Full Name	Position
	Allen Barry	

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	2 May	3 May	4 May			
- /-	17:38 /18:03	- /-	- /-	- /-	- /-	- /-

Department: **New department**

Personnel number	Full Name	Position
	Bateman Patrick	

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	2 May	3 May	4 May			
- /-	17:38 /18:03	- /-	- /-	- /-	- /-	- /-

Department: **New department**

Personnel number	Full Name	Position
	Will of Smith	

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	2 May	3 May	4 May			
- /-	17:37 /18:03	- /-	- /-	- /-	- /-	- /-

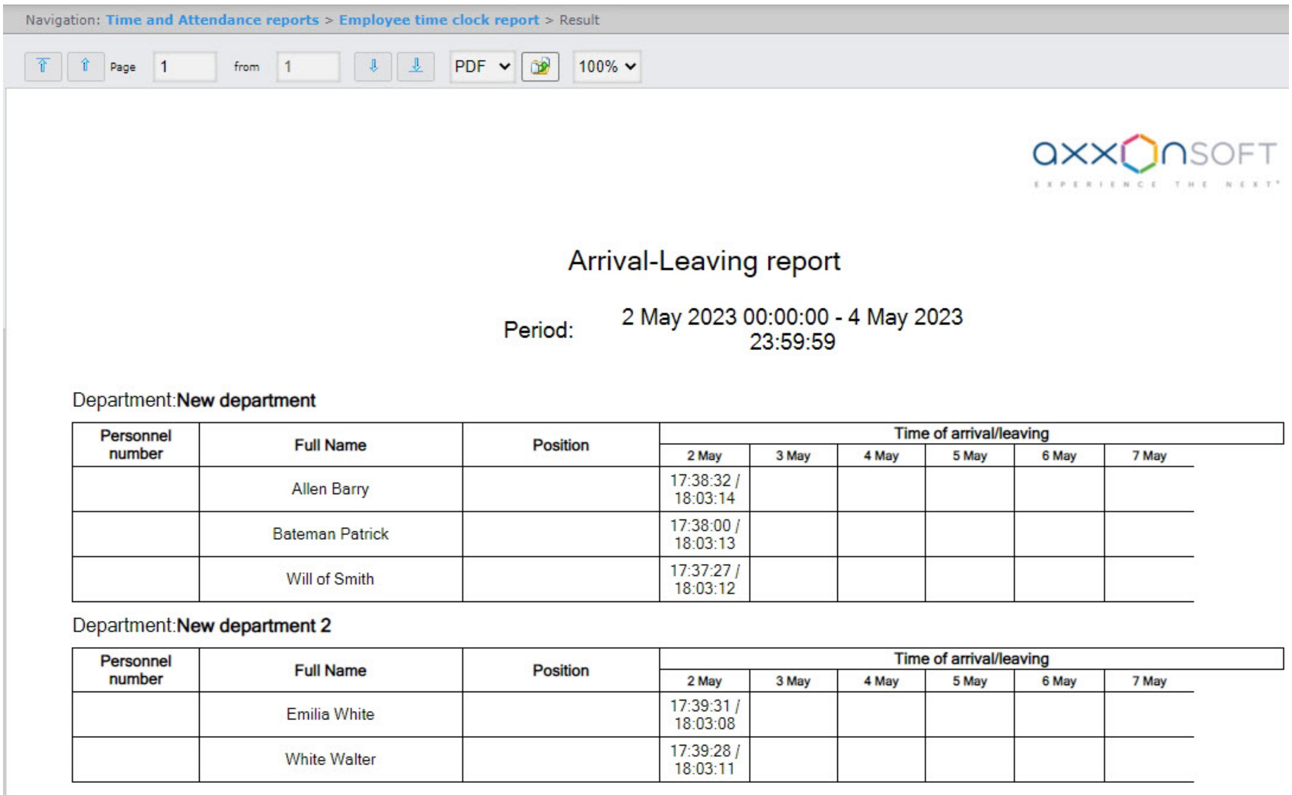
Department: **New department 2**

Personnel number	Full Name	Position
	Emilia White	

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	2 May	3 May	4 May			
- /-	17:39 /18:03	- /-	- /-	- /-	- /-	- /-

The regular view report is generated for the period selected by the user.

Example of the **Employee time clock report** when the **Alternate view** checkbox is set:



Department:**New department**

Personnel number	Full Name	Position	Time of arrival/leaving					
			2 May	3 May	4 May	5 May	6 May	7 May
	Allen Barry		17:38:32 / 18:03:14					
	Bateman Patrick		17:38:00 / 18:03:13					
	Will of Smith		17:37:27 / 18:03:12					

Department:**New department 2**

Personnel number	Full Name	Position	Time of arrival/leaving					
			2 May	3 May	4 May	5 May	6 May	7 May
	Emilia White		17:39:31 / 18:03:08					
	White Walter		17:39:28 / 18:03:11					

If the selected period is a week or less, the **Employee time clock report** in alternative view is generated for a week. If the selected period is more than a week, the report will be generated for a month.

The report fields are described in the table.

Field name	Description
Personnel number	Employee's personnel number
Full Name	Employee's full name
Position	Employee's position
Time of arrival/leaving	Date and information on the arrival and departure of the employee for each day of the specified period

T-12 and T-13 reports

WEB Report System PSIM allows you to create the **T-12** and **T-13** reports that represent time and attendance reports.

The **T-12** and **T-13** reports display the information on the hours worked by an employee for each calendar day in the reporting month. Also, the **T-12** and **T-13** reports calculate the total hours (days) worked for the month and the number of absences for each employee of the department.

The top line of the columns 4 and 6 of the **T-12** report and the column 4 of the **T-13** report displays a letter code (note of attendances and non-attendances, etc.), and the bottom line displays the hours worked.

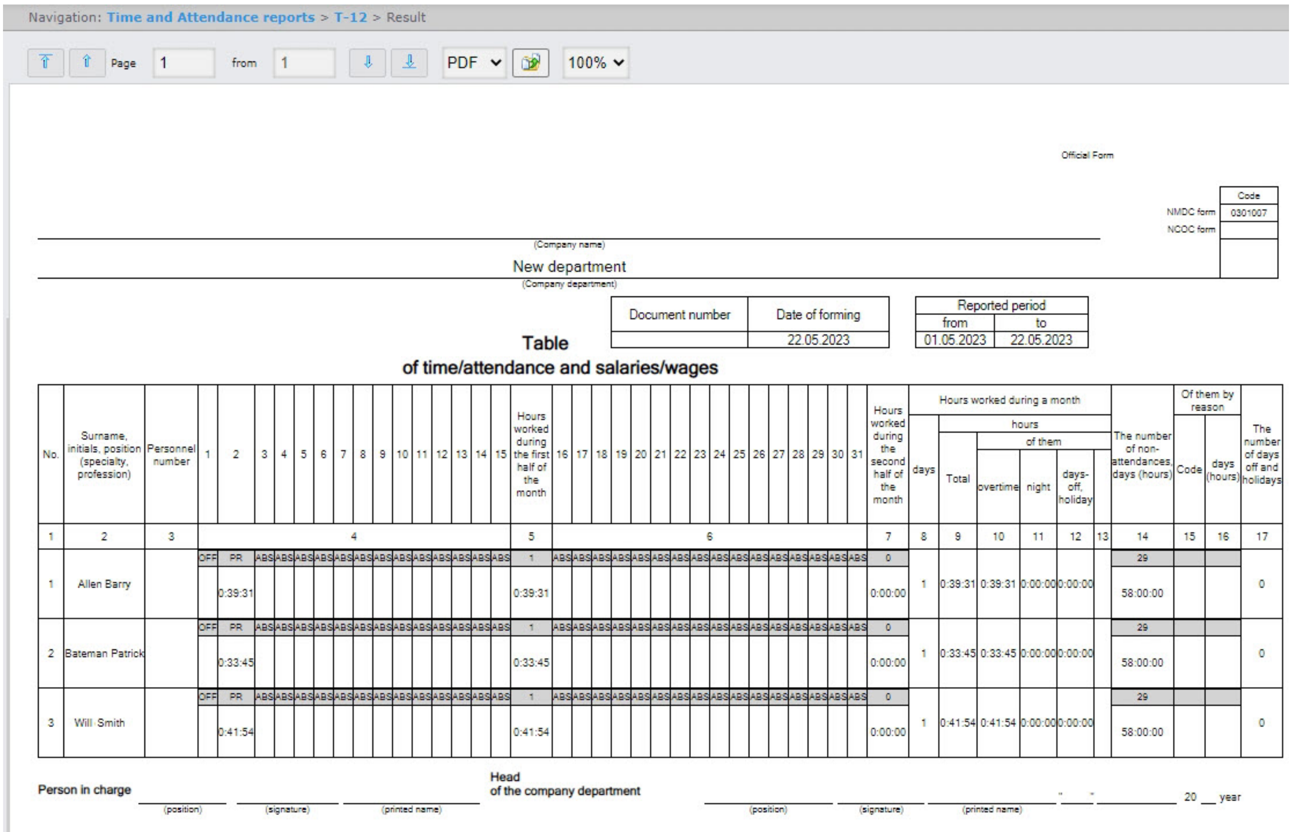
The top line of the columns 5 and 7 of the **T-12** report and the column 5 of the **T-13** report displays the number of days worked, and the bottom line displays the hours worked by each employee for half of the reporting month. The column 6 of the **T-13** report contains the number of days and the total hours worked by each employee in the reporting month.

The data to calculate salaries by types and priorities of expenses are displayed in the columns 7-9 of the **T-13** report.

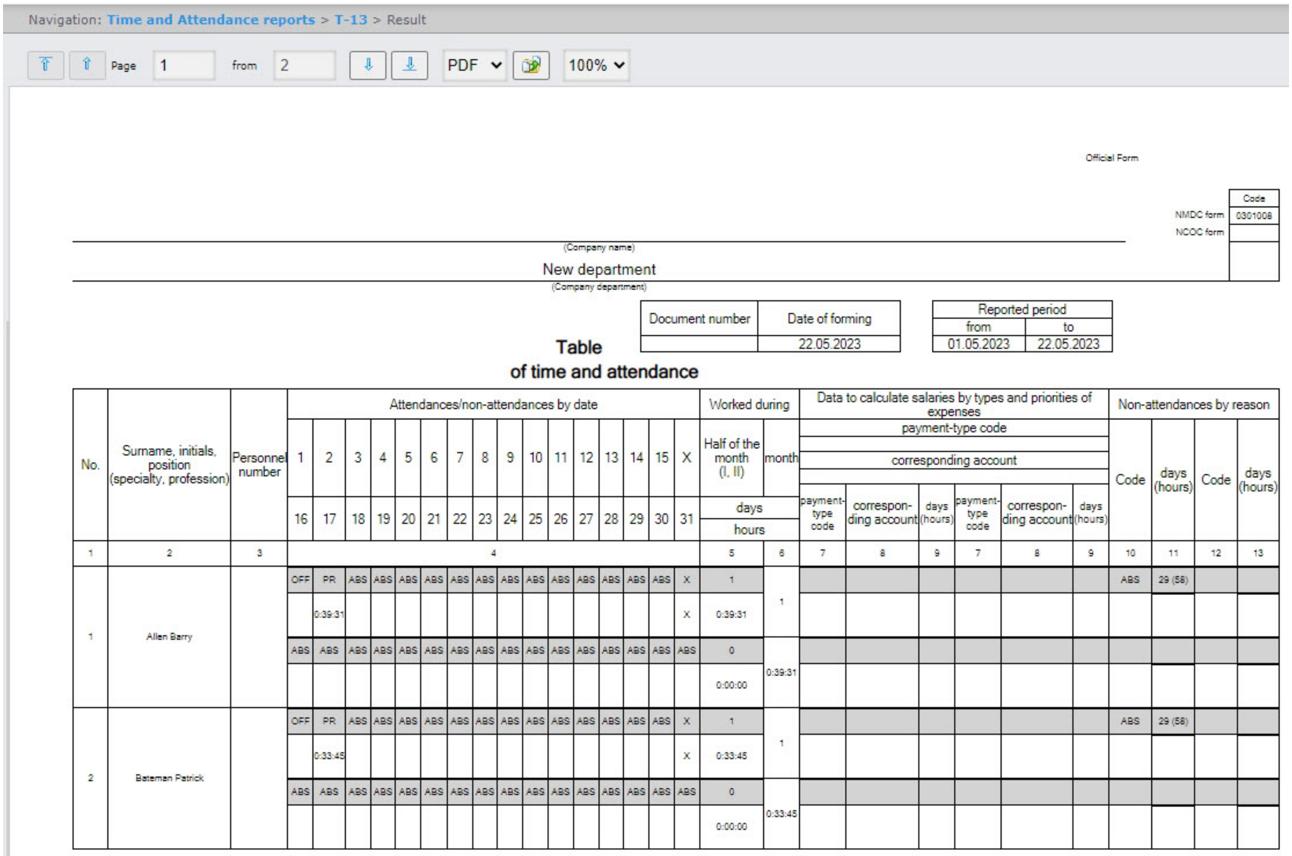
The total of the hours worked during a month by an employee is displayed in the columns 8-13 of the **T-12** report.

The total of an employee's non-attendances are displayed in the columns 14-16 of the **T-12** report and in the columns 10-13 of the **T-13** report.

The **T-12** report is presented in the following figure.



The **T-13** report is generated in two variants: regular view (selected by default) and alternate view. In addition, you can select multiple departments. The following figure shows the regular view of this report.



Navigation: Time and Attendance reports > T-13 > Result

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Official Form

	Code
NMDC form	0301008
NCOC form	

(Company name)

New department

(Company department)

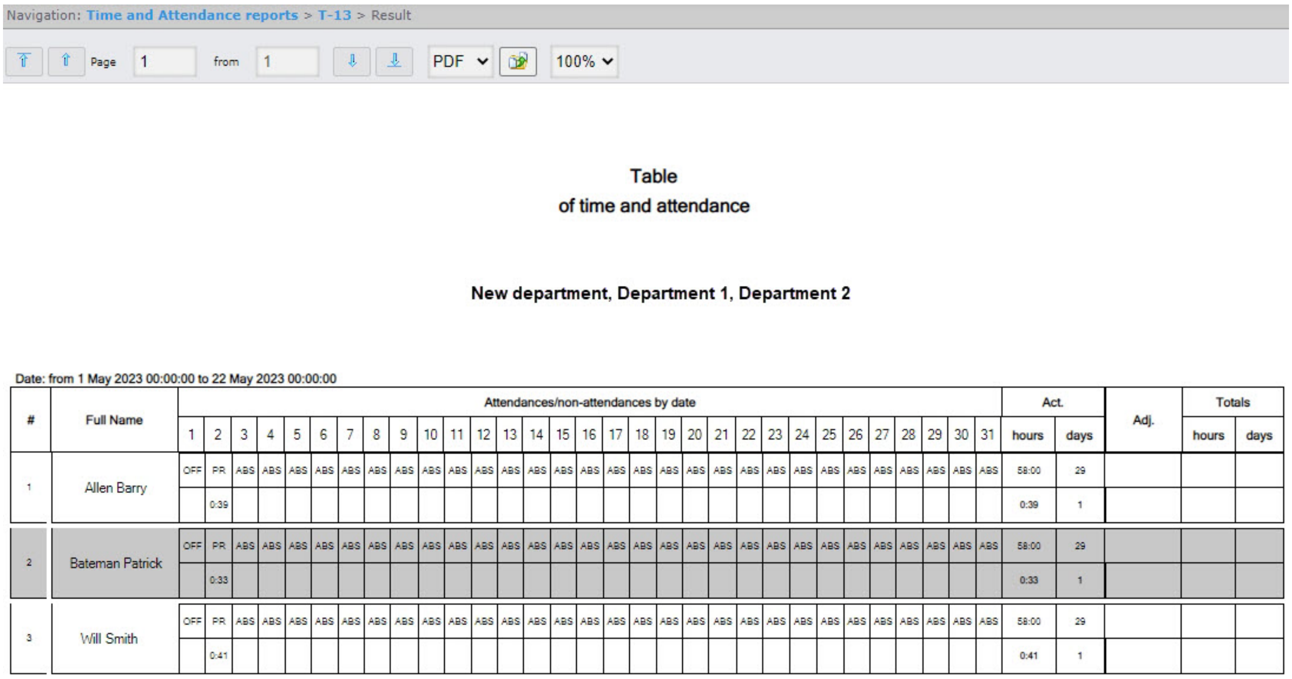
Document number	Date of forming
	22.05.2023

Reported period	
from	to
01.05.2023	22.05.2023

Table
of time and attendance

No.	Surname, initials, position (specialty, profession)	Personnel number	Attendances/non-attendances by date																Worked during		Data to calculate salaries by types and priorities of expenses (payment-type code / corresponding account)						Non-attendances by reason			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	X	Half of the month (I, II)	month	payment-type code	correspon-ding account	days (hours)	payment-type code	correspon-ding account	days (hours)	Code	days (hours)	Code	days (hours)
			16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	days / hours											
1	2	3	4																5	6	7	8	9	7	8	9	10	11	12	13
1	Allen Barry		OFF	PR	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	X	1	1							ABS	29 (58)		
				0:39:31														X	0:39:31											
			ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	0	0:39:31										
																			0:00:00											
2	Bateman Patrick		OFF	PR	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	X	1	1							ABS	29 (58)		
				0:33:45														X	0:33:45											
			ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	0	0:33:45										
																			0:00:00											

The following figure shows the alternative view of this report with several departments selected.



Navigation: Time and Attendance reports > T-13 > Result

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Table
of time and attendance

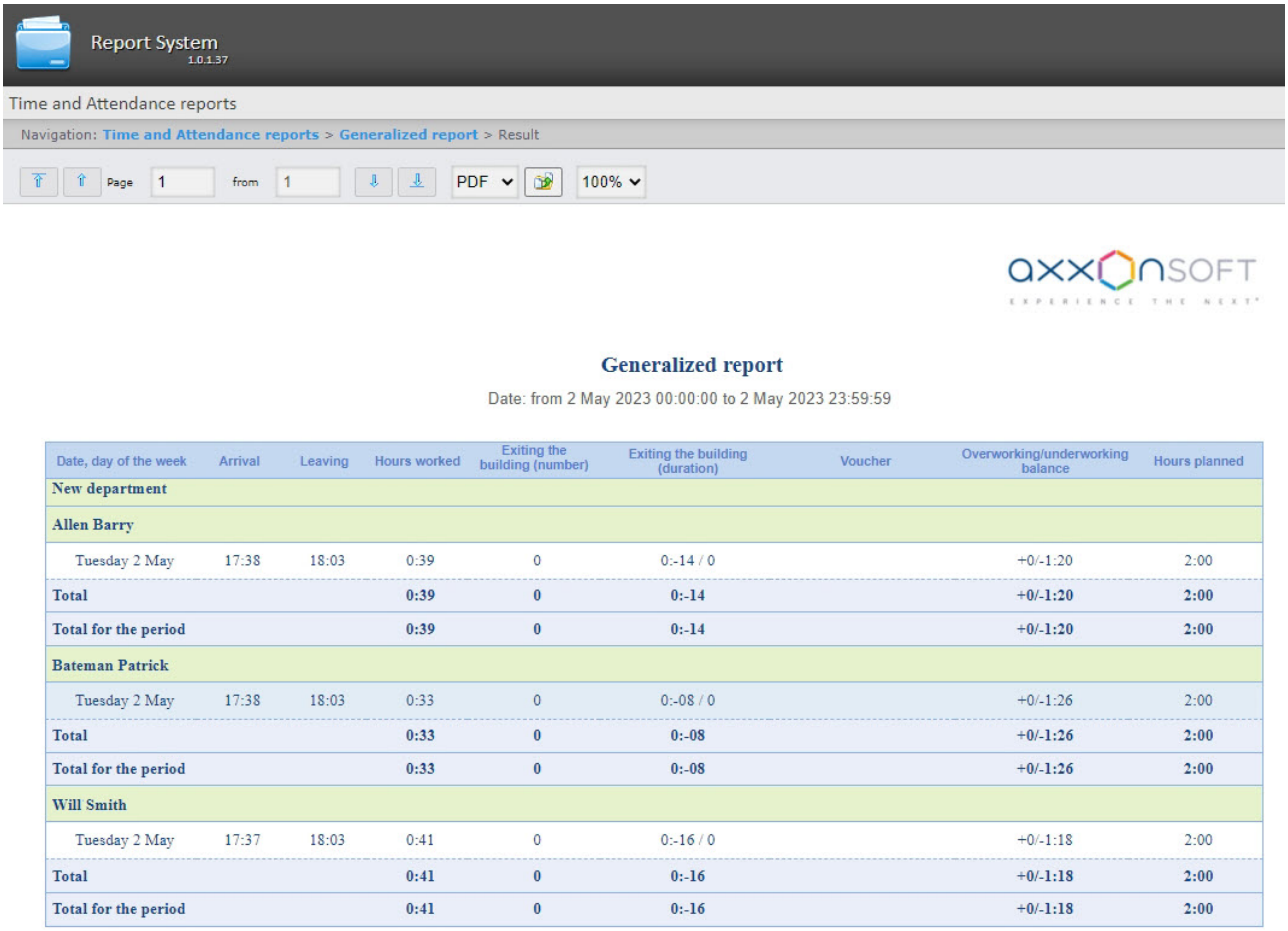
New department, Department 1, Department 2

Date: from 1 May 2023 00:00:00 to 22 May 2023 00:00:00

#	Full Name	Attendances/non-attendances by date																															Act.		Adj.	Totals	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	hours	days		hours	days
1	Allen Barry	OFF	PR	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	58:00	29			
			0:39																														0:39	1			
2	Bateman Patrick	OFF	PR	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	58:00	29			
			0:33																														0:33	1			
3	Will Smith	OFF	PR	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	58:00	29			
			0:41																														0:41	1			

Generalized report

Generalized report is a table that contains information on carrying out the workday order by employees for every day of selected period.



Date, day of the week	Arrival	Leaving	Hours worked	Exiting the building (number)	Exiting the building (duration)	Voucher	Overworking/underworking balance	Hours planned
New department								
Allen Barry								
Tuesday 2 May	17:38	18:03	0:39	0	0:-14 / 0		+0/-1:20	2:00
Total			**0:39**	**0**	**0:-14**		**+0/-1:20**	**2:00**
Total for the period			**0:39**	**0**	**0:-14**		**+0/-1:20**	**2:00**
Bateman Patrick								
Tuesday 2 May	17:38	18:03	0:33	0	0:-08 / 0		+0/-1:26	2:00
Total			**0:33**	**0**	**0:-08**		**+0/-1:26**	**2:00**
Total for the period			**0:33**	**0**	**0:-08**		**+0/-1:26**	**2:00**
Will Smith								
Tuesday 2 May	17:37	18:03	0:41	0	0:-16 / 0		+0/-1:18	2:00
Total			**0:41**	**0**	**0:-16**		**+0/-1:18**	**2:00**
Total for the period			**0:41**	**0**	**0:-16**		**+0/-1:18**	**2:00**

Report fields are described in the table.

Field name	**Description**
Date, day of the week	Date, day of the week
Arrival	Time of arrival
Leaving	Time of leaving
Hours worked	Hours worked by employee
Exiting the building (number)	Number of leavings out of the building (region)

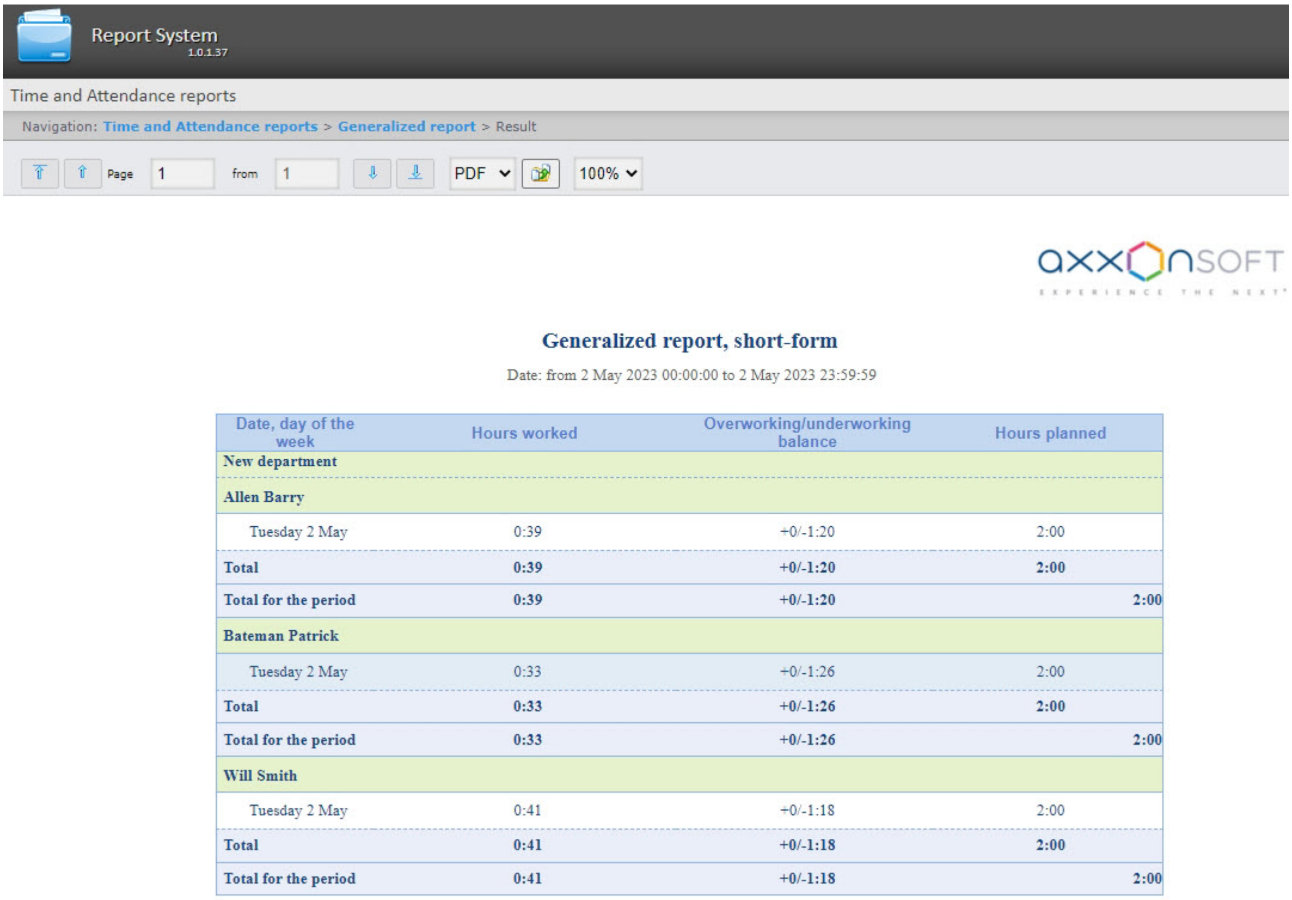
Field name	Description
Exiting the building (duration)	Time when the employee is absent in the region
Voucher	Explanations made by employee
Overworking/underworking balance	Time of overwork/underwork
Hours planned	Planned workday duration

Note

Note. Short form of the report contains the following fields:

1. Date, day of the week.
2. Hours worked.
3. Overworking/underworking balance.
4. Hours planned.

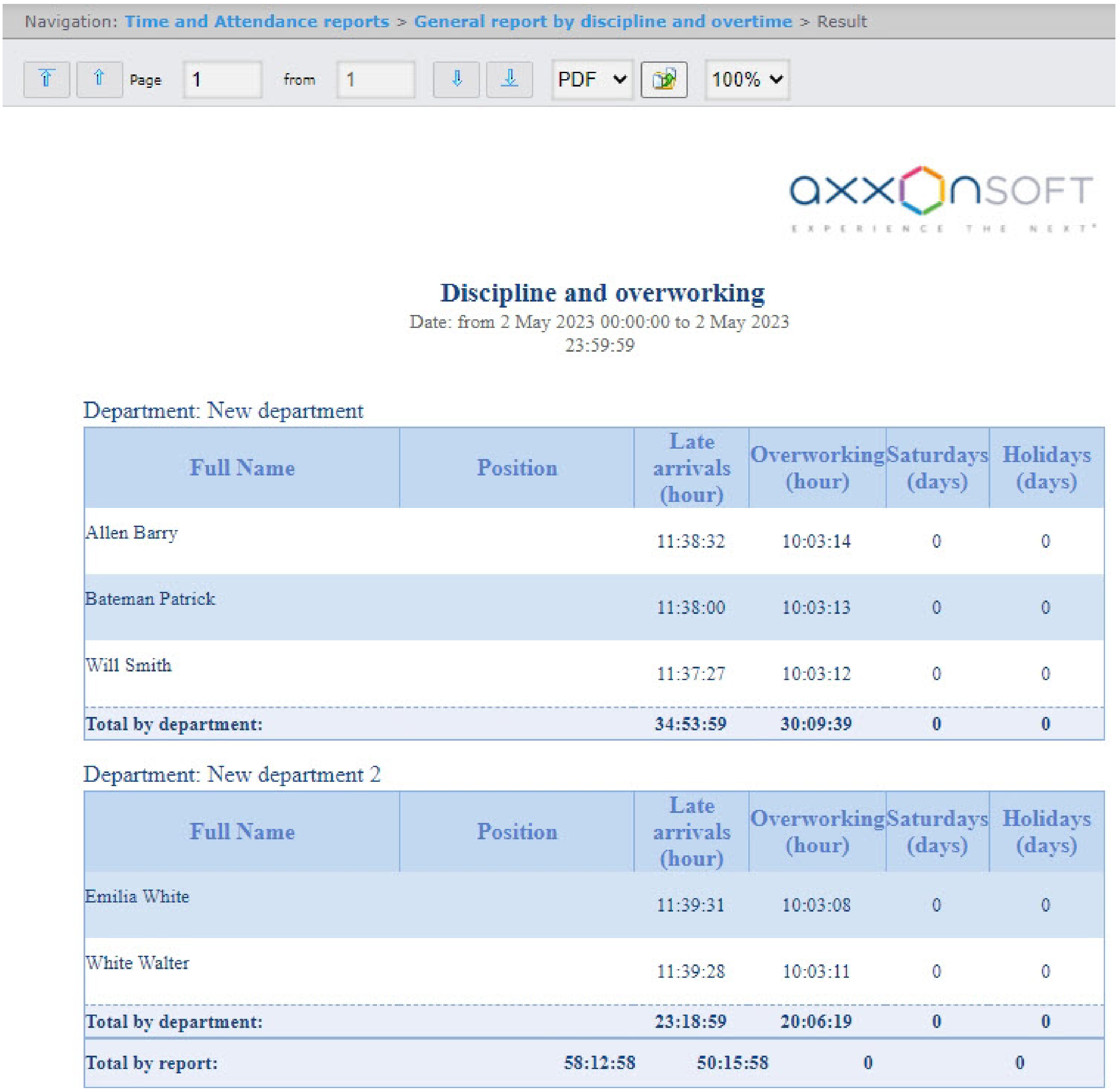
The short form of the report is presented in the following figure.



Date, day of the week	Hours worked	Overworking/underworking balance	Hours planned
New department			
Allen Barry			
Tuesday 2 May	0:39	+0/-1:20	2:00
Total	**0:39**	**+0/-1:20**	**2:00**
Total for the period	**0:39**	**+0/-1:20**	**2:00**
Bateman Patrick			
Tuesday 2 May	0:33	+0/-1:26	2:00
Total	**0:33**	**+0/-1:26**	**2:00**
Total for the period	**0:33**	**+0/-1:26**	**2:00**
Will Smith			
Tuesday 2 May	0:41	+0/-1:18	2:00
Total	**0:41**	**+0/-1:18**	**2:00**
Total for the period	**0:41**	**+0/-1:18**	**2:00**

General report by discipline and overtime

General report by discipline and overtime is a table that contains information on overtimes and beings late, about working of employee on weekend and holidays for the specified time period.



Navigation: Time and Attendance reports > General report by discipline and overtime > Result

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Discipline and overworking

Date: from 2 May 2023 00:00:00 to 2 May 2023 23:59:59

Department: New department

Full Name	Position	Late arrivals (hour)	Overworking (hour)	Saturdays (days)	Holidays (days)
Allen Barry		11:38:32	10:03:14	0	0
Bateman Patrick		11:38:00	10:03:13	0	0
Will Smith		11:37:27	10:03:12	0	0
Total by department:		**34:53:59**	**30:09:39**	**0**	**0**

Department: New department 2

Full Name	Position	Late arrivals (hour)	Overworking (hour)	Saturdays (days)	Holidays (days)
Emilia White		11:39:31	10:03:08	0	0
White Walter		11:39:28	10:03:11	0	0
Total by department:		**23:18:59**	**20:06:19**	**0**	**0**
Total by report:		**58:12:58**	**50:15:58**	**0**	**0**

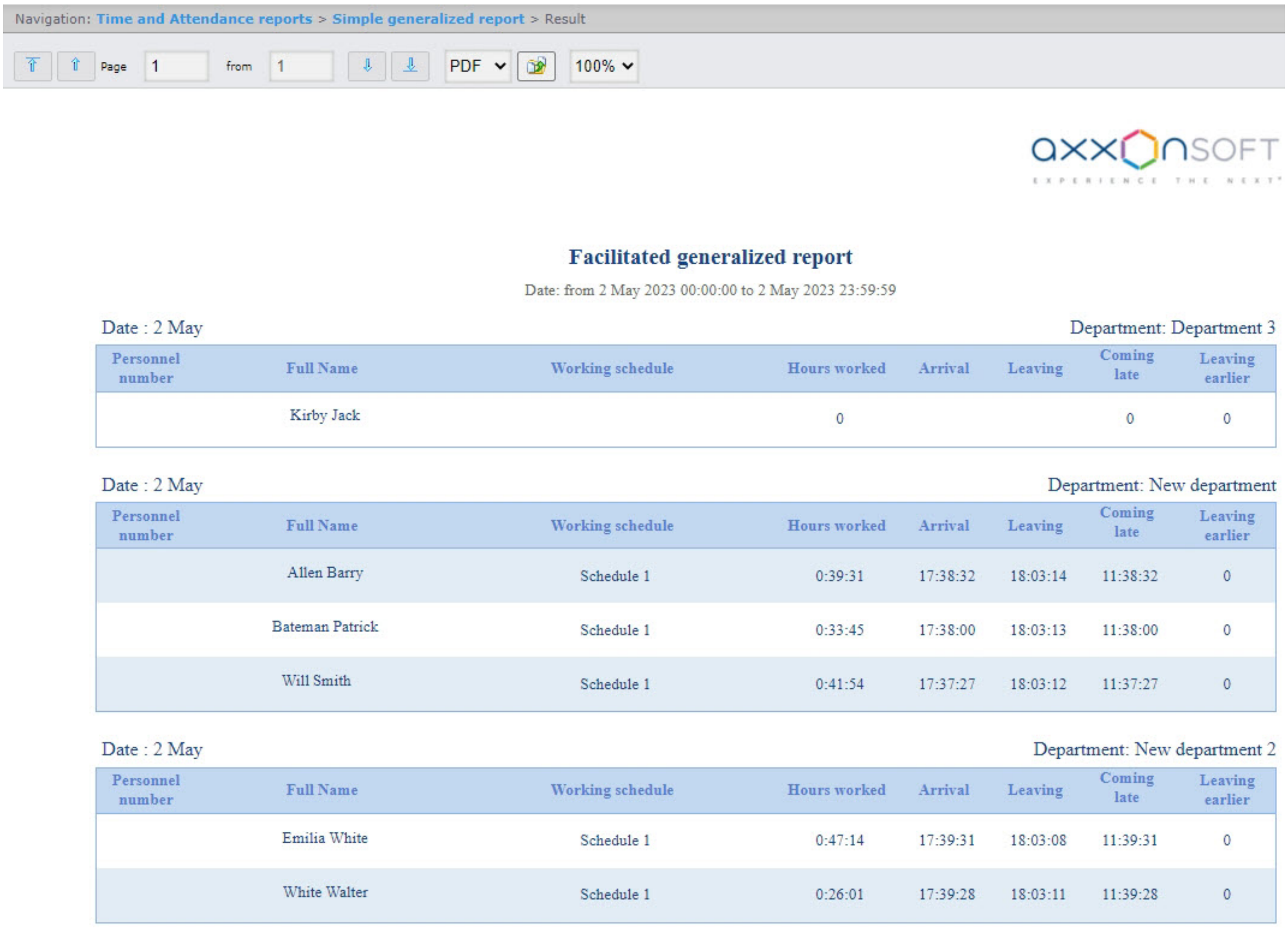
The report fields are described in the following table.

Field name	Description
Full Name	Employee's full name
Position	Employee's position

Field name	Description
Late arrivals (hour)	General time if being late during the specified period (in hours)
Overworking (hour)	General time of overtime during the specified period (in hours)
Saturdays (days)	Number of worked weekend days
Holidays (days)	Number of worked holidays
The **Total by department** line displays the total sum by each employee of the department.	
The **Total by report** line displays the total sum by each department.	

Simple generalized report

Simple generalized report is a table that contains information about worked hours, time of employee arrival and leaving, and information about being late and underwork for each day of the specified period.



Facilitated generalized report

Date: from 2 May 2023 00:00:00 to 2 May 2023 23:59:59

Date : 2 May — Department: Department 3

Personnel number	Full Name	Working schedule	Hours worked	Arrival	Leaving	Coming late	Leaving earlier
	Kirby Jack		0			0	0

Date : 2 May — Department: New department

Personnel number	Full Name	Working schedule	Hours worked	Arrival	Leaving	Coming late	Leaving earlier
	Allen Barry	Schedule 1	0:39:31	17:38:32	18:03:14	11:38:32	0
	Bateman Patrick	Schedule 1	0:33:45	17:38:00	18:03:13	11:38:00	0
	Will Smith	Schedule 1	0:41:54	17:37:27	18:03:12	11:37:27	0

Date : 2 May — Department: New department 2

Personnel number	Full Name	Working schedule	Hours worked	Arrival	Leaving	Coming late	Leaving earlier
	Emilia White	Schedule 1	0:47:14	17:39:31	18:03:08	11:39:31	0
	White Walter	Schedule 1	0:26:01	17:39:28	18:03:11	11:39:28	0

Report fields are described in the table.

Field name	Description
Personnel number	Employee's personnel number
Full Name	Employee's full name
Working schedule	Employee's working schedule
Hours worked	Hours worked by employee
Arrival	Time of arrival
Leaving	Time of leaving
Coming late	Time of coming late
Leaving earlier	Time on which employee left work earlier

Employee details

Employee details is a report in the form of a table that provides information about all passes of one or several employees, or all employees of the selected department for the specified period. You can configure the report so that only unique passes are taken into account.

The **Employee details** report looks like this:

Navigation: Time and Attendance reports > Employee details > Result

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Employee details

Date: from 2 May 2023 00:00:00 to 2 May 2023 23:59:59

Date: from 2 May 2023 00:00:00 to 2 May 2023 23:59:59

Bateman Patrick			**Access level: Full access**
Access time	**Access point**	**Direction**	**Area**
2 May 17:48	AUTO access point 1	enter	Working zone 1.1
2 May 17:58	AUTO access point 1.2	exit	Working zone 1.1
Diana Backwood			**Access level: Full access**
Access time	**Access point**	**Direction**	**Area**
2 May 17:48	AUTO access point 1	enter	Working zone 1.1
2 May 17:48	AUTO access point 1.2	enter	Street 1.2
2 May 17:58	AUTO access point 1	exit	Street 1.2
Hill Jonah			**Access level: Full access**
Access time	**Access point**	**Direction**	**Area**
2 May 17:48	AUTO access point 1	enter	Working zone 1.1
2 May 17:48	AUTO access point 1.2	enter	Street 1.2
2 May 17:58	AUTO access point 1	exit	Street 1.2
White Walter			**Access level: Full access**
Access time	**Access point**	**Direction**	**Area**
2 May 17:48	AUTO access point 1	enter	Working zone 1.1
2 May 17:58	AUTO access point 1.2	exit	Working zone 1.1
Employees in total:		4	

The report fields are described in the table.

Field name	Description
Access time	Date and time of employee pass
Access point	Access point through which employee passed
Direction	Direction of employee movement
Area	Area where employee is located after the pass

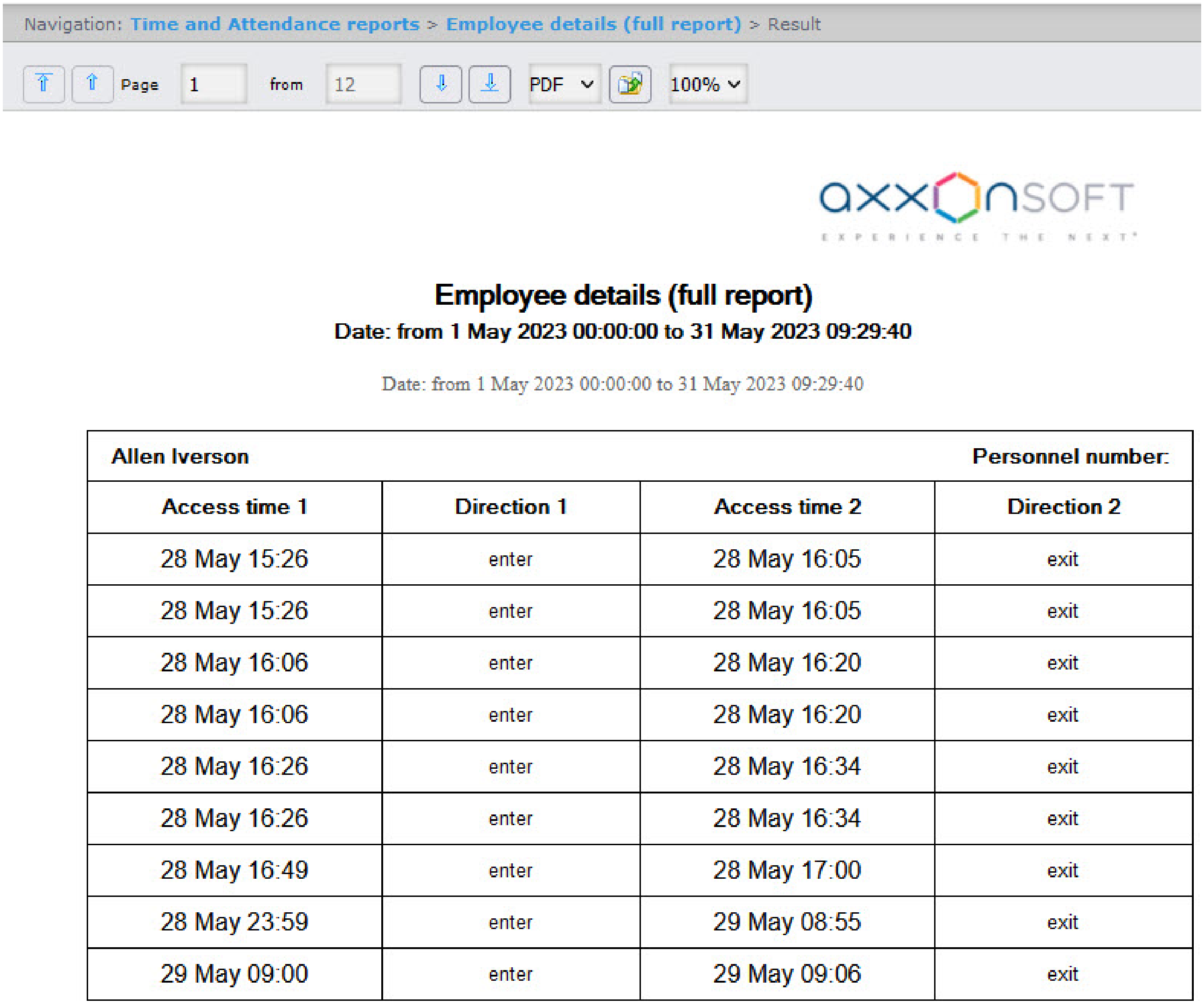
Employee details (full report)

Employee details (full report) is a report in the form of a table that provides information about entries and exits to different regions of one or several employees, or all employees of the selected department for a specified time period.

Employee details (full report) is a variant of **Employee details** report, and it is created using the same data.

> **Note**
>
> To enable the report, set the value of the **EnableAboutUsersFullReport** key to **true** (see Enabling the Employee details (full report)) and give the selected user the access rights to this report (see Setting up user access to Time and Attendance reports).

Employee details (full report) looks like this:



Employee details (full report)

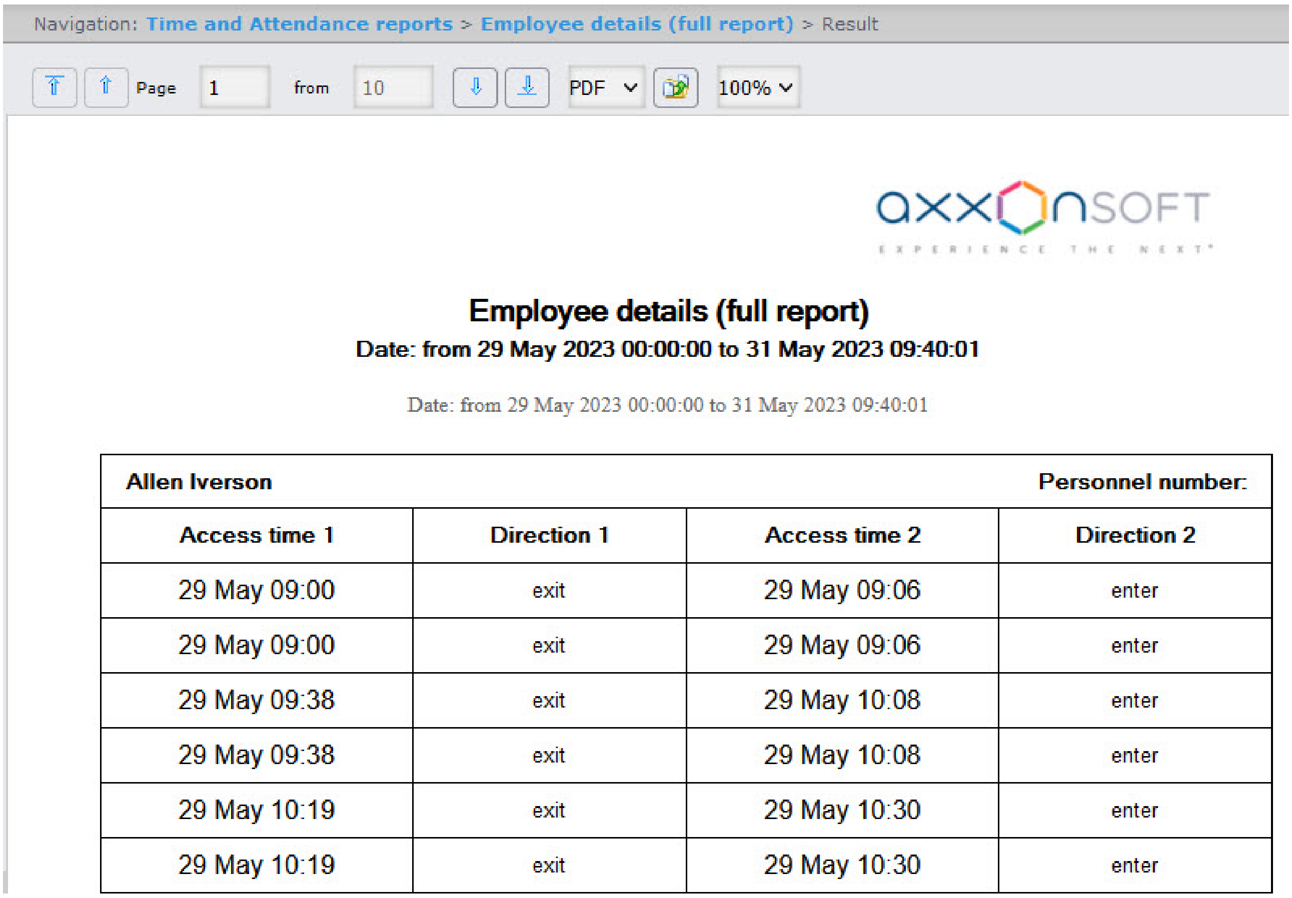
Date: from 1 May 2023 00:00:00 to 31 May 2023 09:29:40

Date: from 1 May 2023 00:00:00 to 31 May 2023 09:29:40

Allen Iverson			Personnel number:
Access time 1	Direction 1	Access time 2	Direction 2
28 May 15:26	enter	28 May 16:05	exit
28 May 15:26	enter	28 May 16:05	exit
28 May 16:06	enter	28 May 16:20	exit
28 May 16:06	enter	28 May 16:20	exit
28 May 16:26	enter	28 May 16:34	exit
28 May 16:26	enter	28 May 16:34	exit
28 May 16:49	enter	28 May 17:00	exit
28 May 23:59	enter	29 May 08:55	exit
29 May 09:00	enter	29 May 09:06	exit

If an employee entered the first region after the start date of the reporting period, the report will display the data in the order, as shown in the figure above: enter (the **Direction 1** column)—exit (the **Direction 2** column).

If an employee entered the first region before the start date of the reporting period, the report will display the data in the order, as shown in the figure below: exit (the **Direction 1** column)—enter (the **Direction 2** column).



Employee details (full report)

Date: from 29 May 2023 00:00:00 to 31 May 2023 09:40:01

Date: from 29 May 2023 00:00:00 to 31 May 2023 09:40:01

Allen Iverson			Personnel number:
Access time 1	Direction 1	Access time 2	Direction 2
29 May 09:00	exit	29 May 09:06	enter
29 May 09:00	exit	29 May 09:06	enter
29 May 09:38	exit	29 May 10:08	enter
29 May 09:38	exit	29 May 10:08	enter
29 May 10:19	exit	29 May 10:30	enter
29 May 10:19	exit	29 May 10:30	enter

The fields of the report are described in the table.

Field name	Description
Access time	Date and time of employee access
Direction	Direction of the employee movement
The **Employees in total** line displays the number of employees included in this report	

8.10 Exporting of reports

WEB Report System PSIM allows exporting the reports to computer in the following formats:

- PDF;
- CSV;
- Excel.

The list of available formats may differ depending on the generated report type.

Note

Images are only supported in PDF format. If you export the report in a format other than PDF, only the text will be saved.

To export a report to a file, select an available format from the drop-down list (**1**) on the toolbar and click the button (**2**).

Note

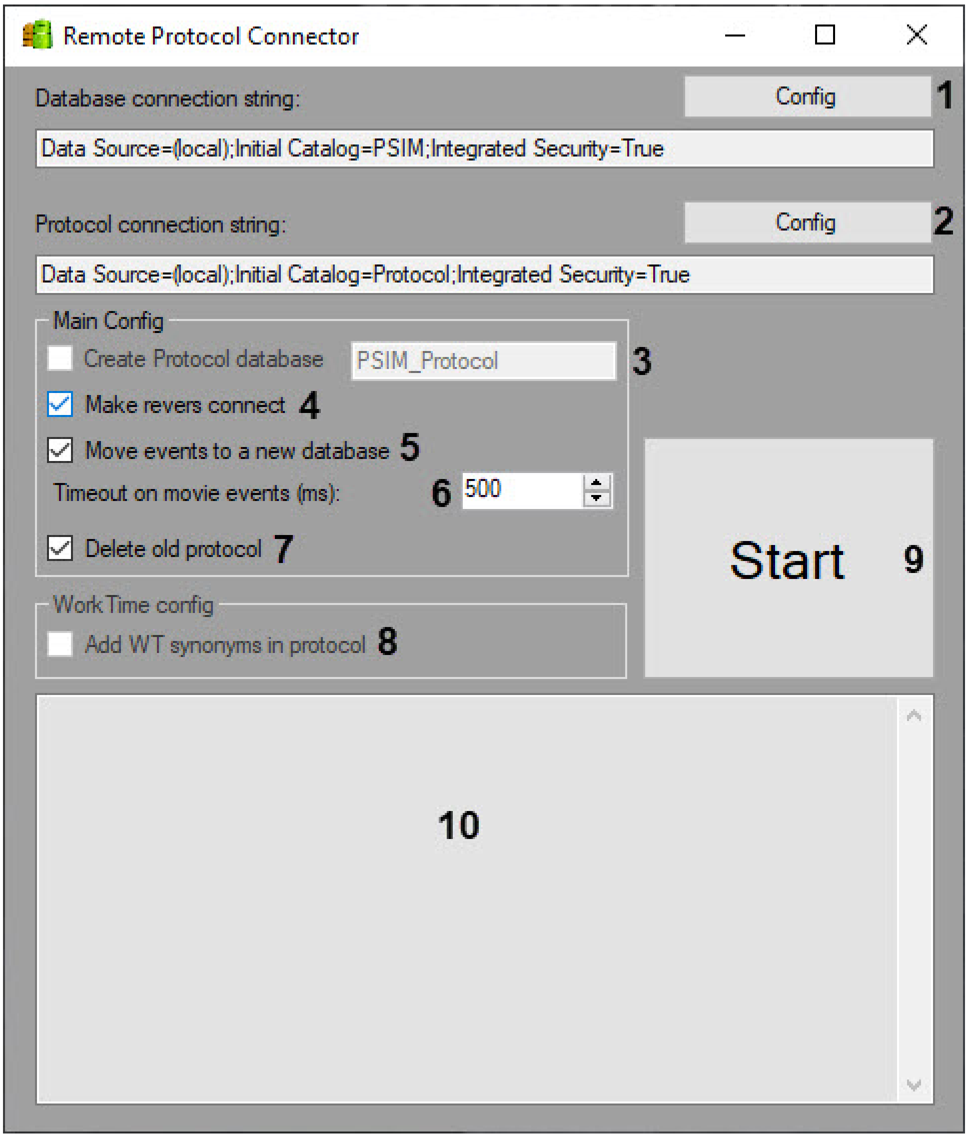
If a *"System.OutOfMemoryException"* message is displayed when you try to export the created **Report by users' access levels and readers** in PDF format, then it is necessary to reduce the exported data by splitting the report into several documents. For instance, create reports by less departments and then merge several PDF files in one file using the third-party software.

9 Appendix 1. The RemoteProtocolConnector utility for extracting event protocol to a separate database

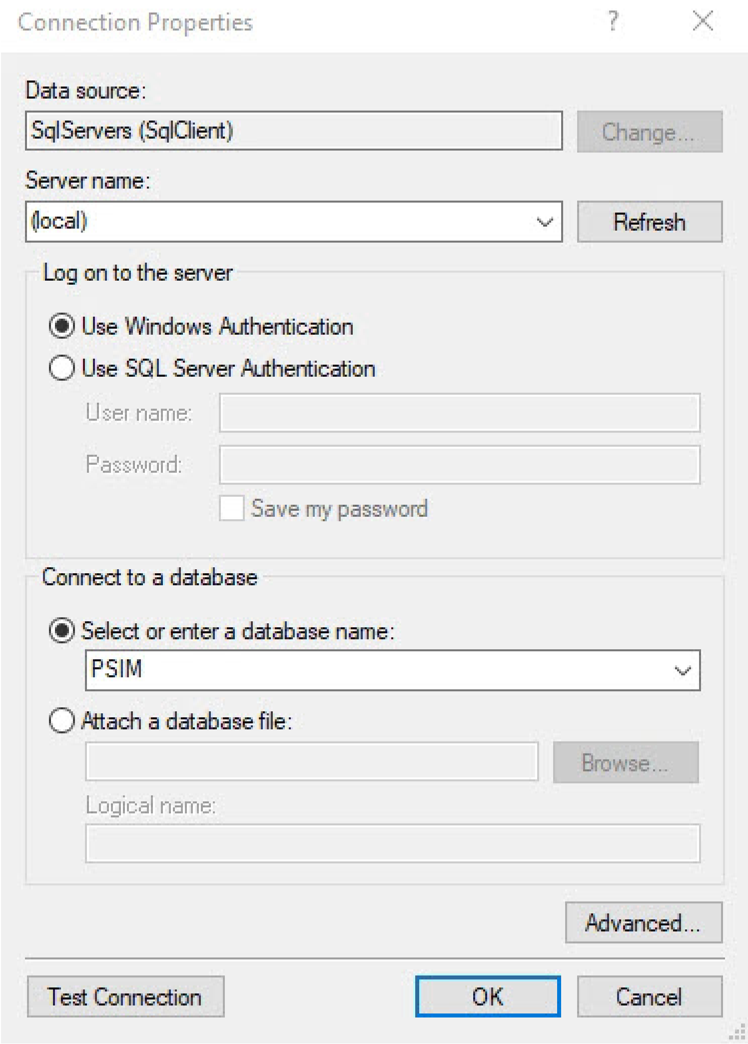
9.1 Extracting event protocol to a separate DB with RemoteProtocolConnector

Extracting event protocol to a separate DB with RemoteProtocolConnector is carried out as follows:

1. Run the RemoteProtocolConnector.



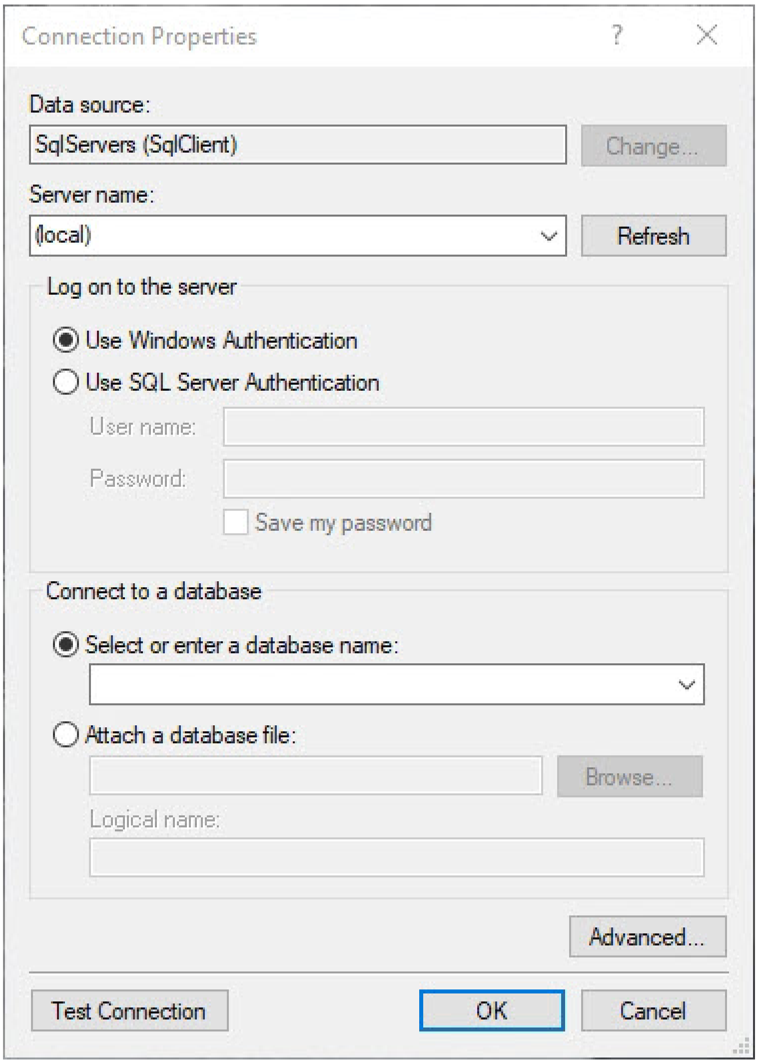
2. Check the connection string for *Axxon PSIM* software database. If the connection string is not correct, click **Config** (**1**) and set parameters of connection in the **Connection Properties** dialog box.



3. Specify the connection string to the database server on which the new event log database is to be created. To do that, click **Config** (**2**), then select database server and connection parameters in the **Connection Properties** dialog box. The **Select or enter a database name** field must be empty.

Note

After moving the event protocol to a separate database, the connection string to created database is displayed in the **Protocol connection string** field.



4. Set the **Create Protocol database** checkbox and enter the name of new database in the corresponding field (**3**).
5. Set the **Make revers connect** checkbox if you want to keep the old event protocol table, but associate it with the new database that will be created by the utility (**4**).
6. If events from the old event protocol database are to be transferred to a new one, set the **Move events to a new database** checkbox (**5**). If this check box is not selected, the created database will initially be empty, and the events registered before the protocol transfer to a separate database will not be available in the system.
7. In the **Timeout on movie events (ms)** field, specify the time period in milliseconds to wait for the transfer of events into the new database to be completed (**6**). If there are many events that are transferred, this process can take a long time, so the timeout should be increased to avoid errors when executing SQL queries.
8. If after transferring the event protocol database into the new database it is required to delete the old database, check the **Delete old protocol** (**7**) checkbox.
9. Set the **Add WT synonyms in protocol** sheckbox (**8**). This checkbox is required to ensure that events of user passes are copied to the appropriate database table.
10. Click **Start** (**9**).
11. Data transferring process and errors that occur are displayed in (**10**) field.

> **Important!**
>
> After performing the above actions start idb.exe utility and extract the event protocol database to the created database – see Appendix 2 of the *Axxon PSIM software. Administrator's Guide* (the most relevant version of this document is available in AxxonSoft documentation repository).

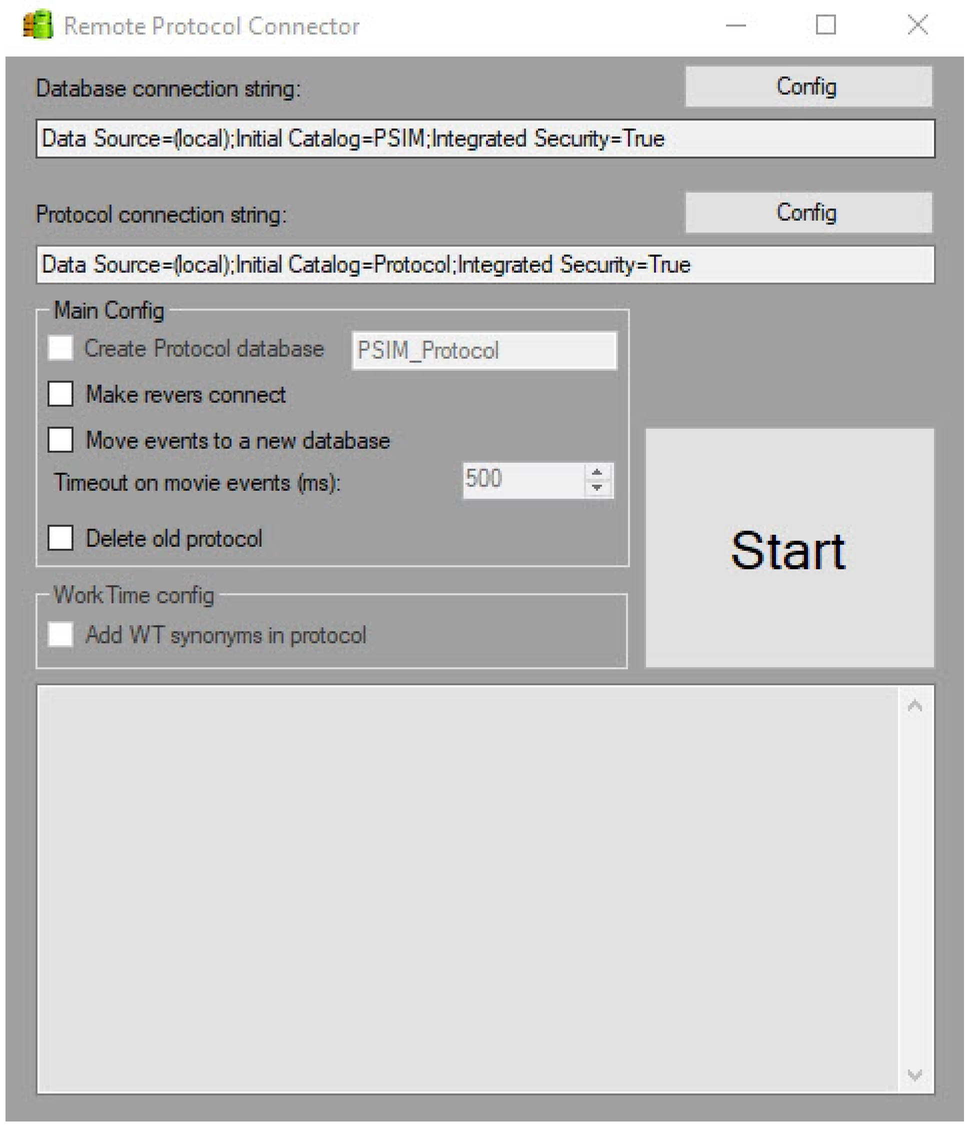
Extracting event protocol to a separate DB with RemoteProtocolConnector is completed.

9.2 Purpose of the RemoteProtocolConnector. Start and shutdown

Axxon PSIM software allows extracting event protocol into a separate database using the idb.exe utility – see *Axxon PSIM software. Administrator's Guide* (the most relevant version of this document is available in AxxonSoft documentation repository). However, this method can lead to troubles in operation of the *Time&Attendance* module which is the part of *ACFA PSIM* software (see Time and Attendance Module Settings and Operation Guide). If this module is in use in the system, use the RemoteProtocolConnector utility to extract event protocol to a separate database.

To start the utility, run the RemoteProtocolConnector.exe executable file in the <*Axxon PSIM* installation>\Tools folder.

The utility window is shown in the picture below.



To stop the RemoteProtocolConnector utility, click the button.