Report System

User Guide

03.02.2014

Introduction

Purpose of document

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

> **Note.**
>
> At the moment of writing this document ReportSystem allows creating the following reports:
>
> 1. in POS-Intellect software package;
> 2. in Time and Attendance application software;
> 3. Queue length reports;
> 4. People counter detection;
> 5. in AUTO-Intellect software package.

The structure of the document allows the user to skim over the provided information about *Report System* 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 *Report System* system functionality and implementation features.

Recommendations that are necessary to user-administrator for *Report System* system installation are given in details in the Requirements for Report System realization and Report System installation and removing chapters of this guide.

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

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

Further in the Report System 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 *Report System* functionality is given in the Working with Report System chapter.

Purpose of Report System

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

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

1. Setting up the varied user access to POS reports and reports of the *Time and Attendance* module.
2. Setting up *Report System* operation in automatic mode.

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

3. Setting up reports for POS events (setting up statuses of POS events and so on).

> **Note.**
>
> Statuses of POS events are used for analyzing POS events while creating reports.

4. Creating and exporting general and detailed reports for POS events.
5. Creating and exporting general and detailed reports for time and attendance.
6. Viewing video archive from registration time of event that is selected in the report.
7. Viewing data from cash desk that correspond to selected POS event.
8. Giving a status to registered POS events.
9. Creating and exporting Load reports.
10. Creating and exporting reports by amount of people on observed object.
11. Face search by picture.

Components of Report System

The following components perform *Report System* 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 *Report System* can coincide. In other cases Web server should be available for Clients through network.

Installation of *Report System* is performed only on computer that is supposed to be used as Web server (see Report System installation and removing chapter).

Requirements for realization of Web server and Client are given in details in Requirements for Report System realization chapter.

Requirements for Report System realization

Web server of Report System

For Web server organization of *Report System* it is necessary to install it from distribution kit that consists only of ReportSystem.msi installation package.

> **Attention!**
>
> For working with Report System it is strongly recommended to use Windows OS server platforms. This requirement is connected with limit of Microsoft Internet Information Services (IIS) server set in 10 simultaneous connections on any other Windows OS platforms.

> **Note.**
>
> Report System Web server is compatible with the same versions of operating systems as the Intellect software package.

Before *ReportSystem* installation it is necessary to make sure that the following components are installed on computer:

1. Microsoft.NET Framework 4 platform;
2. Set of Microsoft Internet Information Services (IIS) servers;
3. ASP.NET 4.5 module.

If these program products are not installed it is necessary to install them.

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

> **Note.**
>
> Set of IIS servers is distributed along with operating systems of Windows family and as their optional component. Installation of IIS servers set is performed in accordance with vendor website.
> Installation of ASP.NET 4.5 module which is submodule to the IIS set of servers is performed in accordance with the following vendor website.

> **Note.**
>
> 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.

For correct creation of reports in *Report System* Web server should be connected by network with all servers of databases that are used in operation. At the moment these are SQL servers that store database of *Intellect software package* configuration and system itself and optionally SQL servers where *Time and Attendance* and/or *POS reports* databases are located. In special cases both Web server and SQL server can be located on one computer.

Corresponding *Intellect* video servers (registered in the database of the *Intellect* 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.

Client of Report System

General requirements

For proper displaying on Web interface Client of *Face Intellect* software package the following conditions are necessary:

1. *Internet Explorer* browser of 8.0 version and later.

> **Attention!**
>
> Use Internet Explorer 32-bit browser for Report System functioning in 64-bit operating system.

2. If it is supposed to view video archive of event from the report:

   a. Permission to use ActiveX components in browser.
   b. ActiveX *CamMonitor set component*.

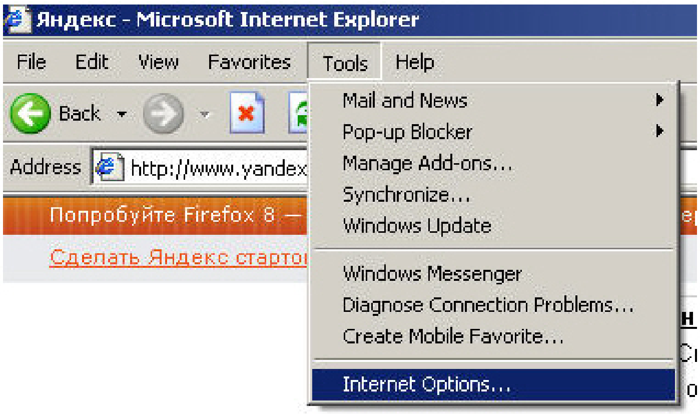
> **Note.**
>
> CamMonitor component is installed automatically with Intellect software package. If Intellect software package is not installed on the Client it's necessary to install this component separately.

Setting up security parameters in Internet Explorer browser

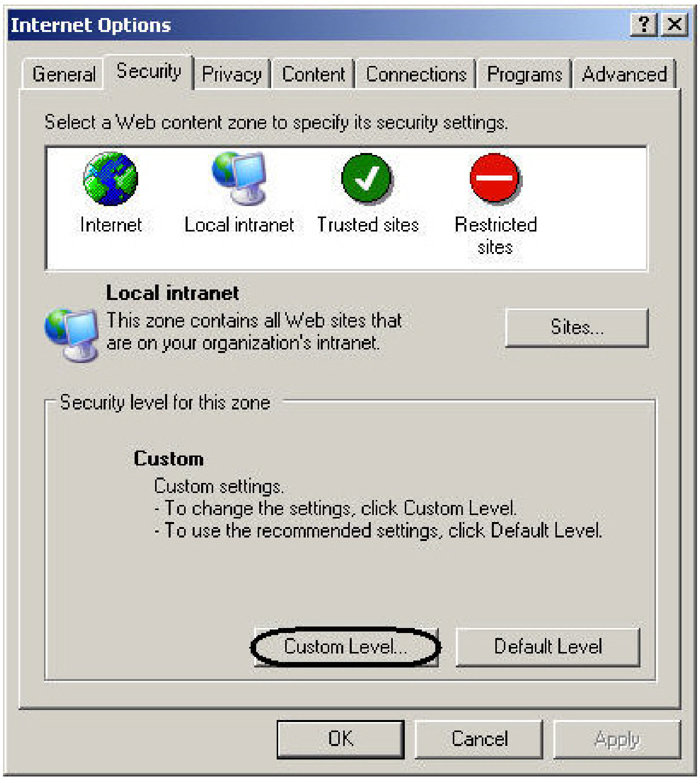
On default the use of ActiveX components is forbidden in *Internet Explorer*, that is why it's necessary to set extra security parameters.

For this do the following:

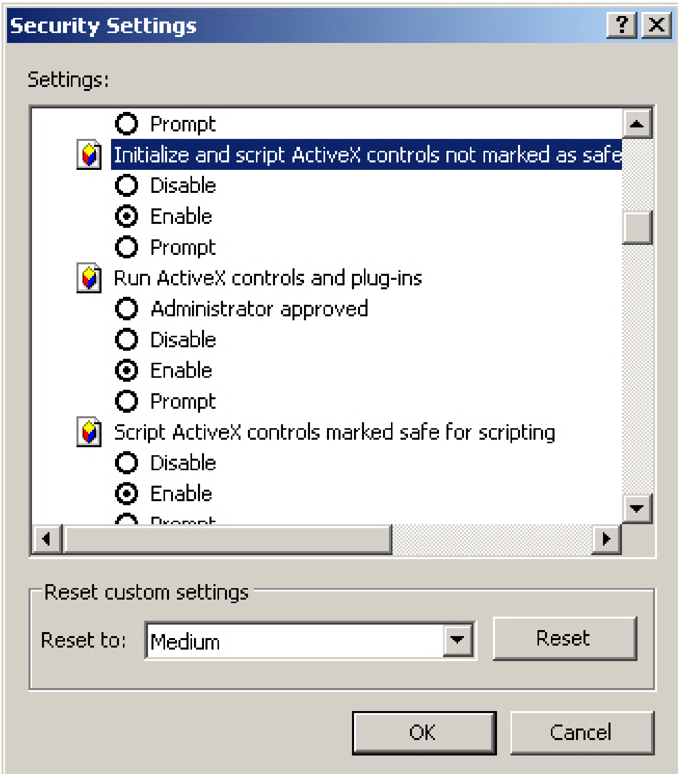
1. Execute the **Tools** –> **Internet options** command in main menu of *Internet Explorer* browser.



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** p osition.
   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.

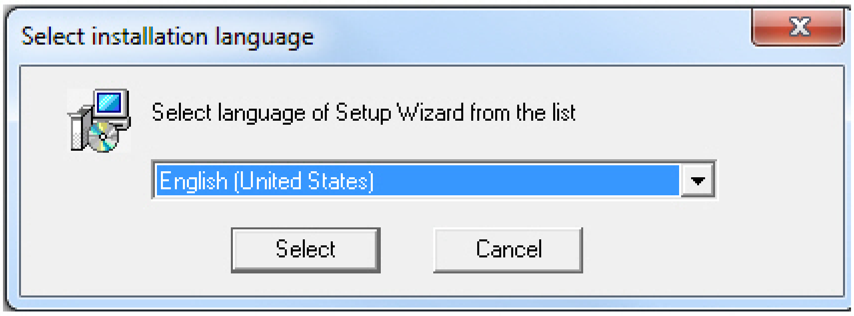
Setting security parameters in Internet Explorer browser is completed.

Report System installation and removing

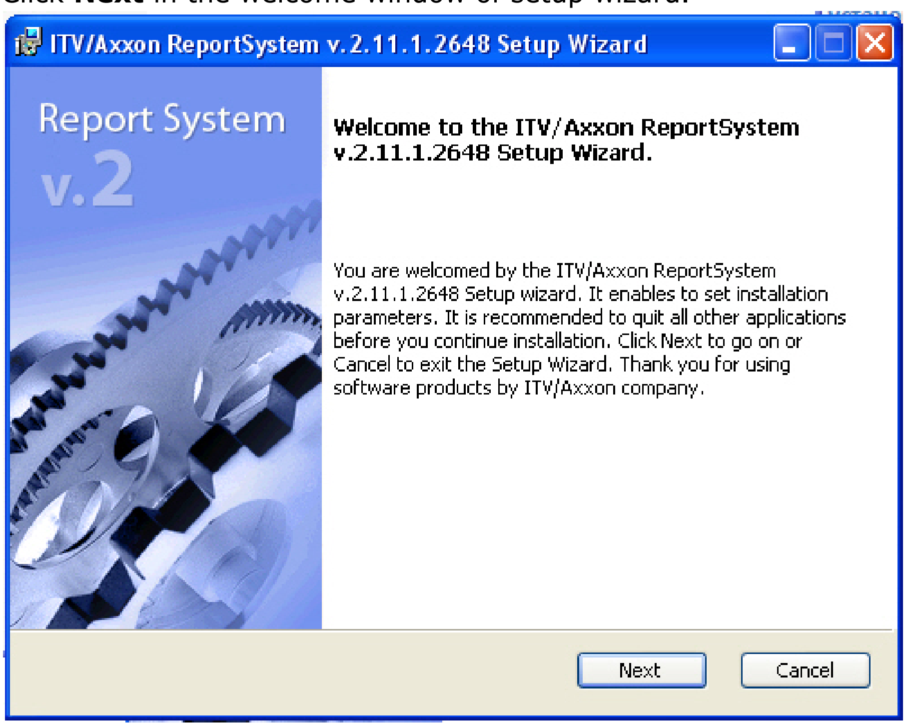
Installation

To install *Report System* do the following:

1. Start the ReportSystem.msi installation package.
2. In the language dialog window select the language from the list.



3. Click **Next** in the welcome window of setup wizard.

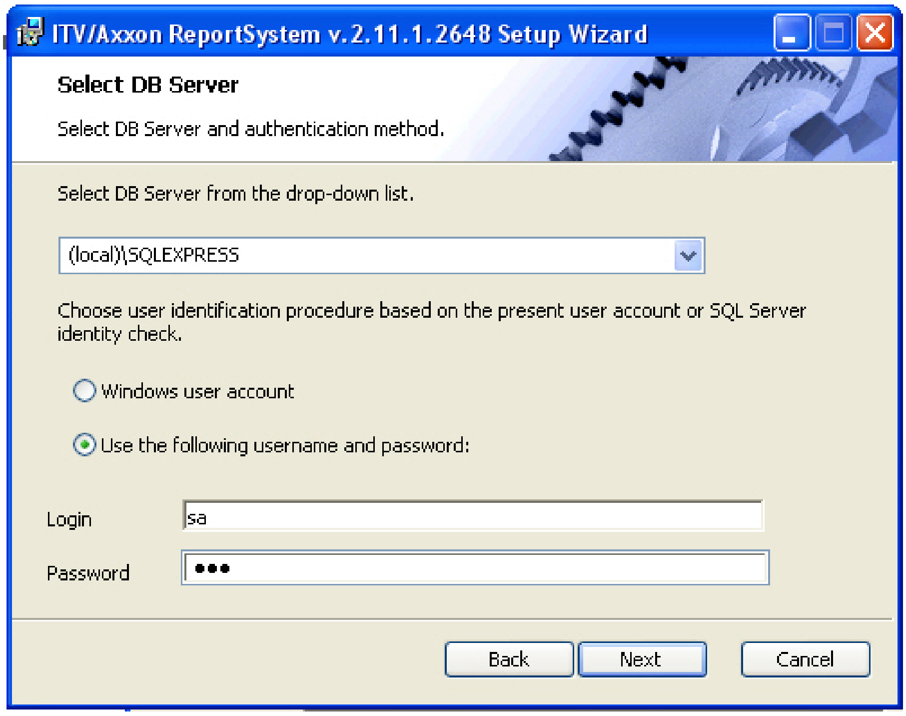


   The dialog box of the License agreement is displayed.
4. To continue the installation one should accept the terms of the License agreement by setting the switch into **I accept the terms of the License agreement** position. Then click **Next**.

The **Select DB server** window is displayed.

5. From the **Select DB Server from the drop-down list** select SQL server where the database of the Intellect software package configuration is located. The database of *Report System* system will be created on the same SQL server.

> **Note.**
>
> Later it's possible to move the database of Report System system to another SQL server. The changes should be made in C:\Program Files\Intellect\Modules\Wt2\Web.config file by correcting the following connection string:
> <add
> name="ReportSystemConnectionString"
> connectionString="Password=ITV;Persist Security Info=True;User ID=sa;Initial Catalog=ReportSystem;Data Source=(local)\SQLEXPRESS;"
> providerName="System.Data.SqlClient" />.



6. Set the authentication method that will be used by the *Report System* system while connecting to SQL server with the database of the Intellect software package configuration. Connecting by the **Windows Account information** method there is a confirmation of user identity by using current account information of Windows OS. Method of using specified user name and password allows confirming SQL server authenticity.

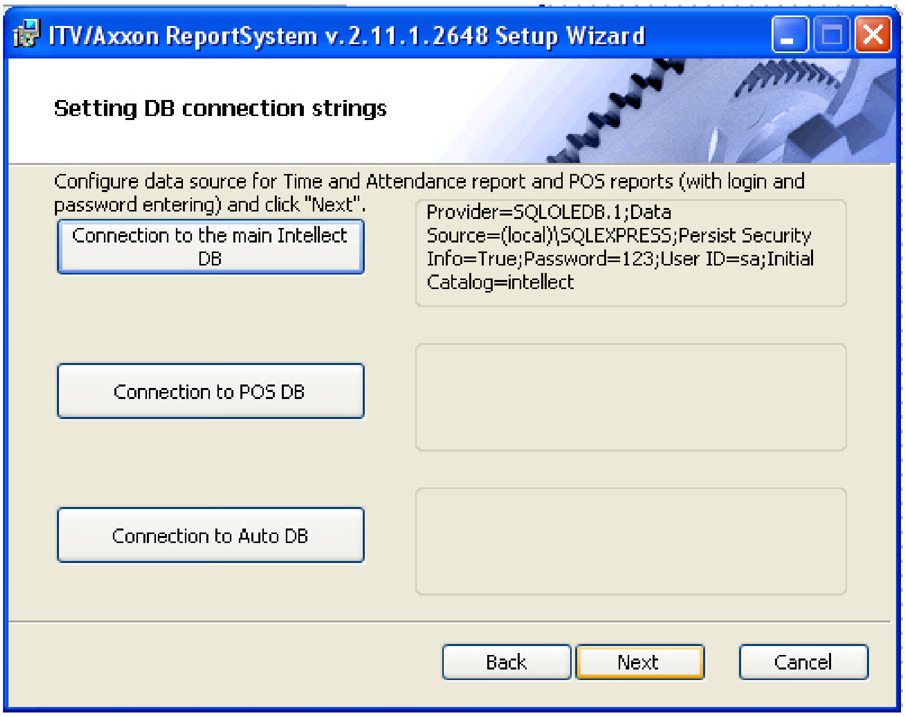
> **Note.**
>
> Windows Account information method is used in the following cases:
>
> a. When SQL server where it's necessary to create *Report System* syste m database and system itself are installed on one computer.
> b. When SQL server and *Report System* system are installed on different computers connected by TCP/IP and located in one network domain. An account for user that is authorized in Windows OS on computer where *Report System* is installed should be created in Windows OS on computer with installed SQL server.

> **Note.**
>
> Method of using login and password is for the following cases:
>
> a. When SQL server where it's necessary to create *Report System* syste m database and system itself are installed on one computer.
> b. When SQL server and *Report System* system are installed on differen t computers connected by TCP/IP and located in one network domain. At the same time specified user name (login) and password should be the same as user name (login) and password that are used to SQL server access.

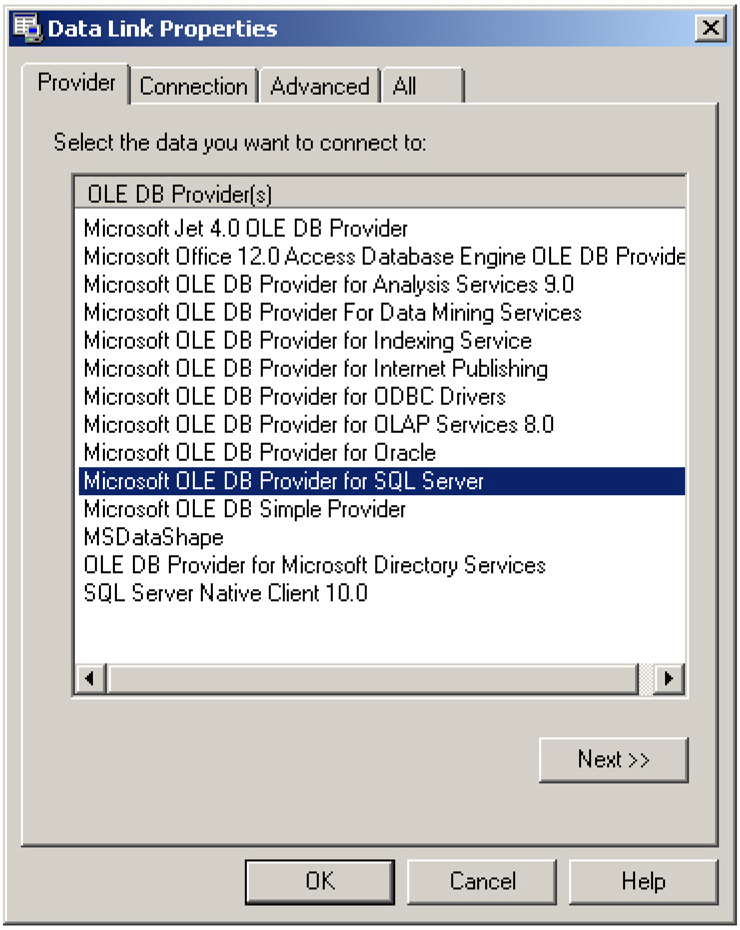
7. To continue the installation process click **Next.**
The window where it is necessary to set connection string of *Report System* to the database of Time and attendance module, to *POS Intellect* database and/or *AUTO Intellect* database. Connected databases will be the data source when creating reports.

Note.

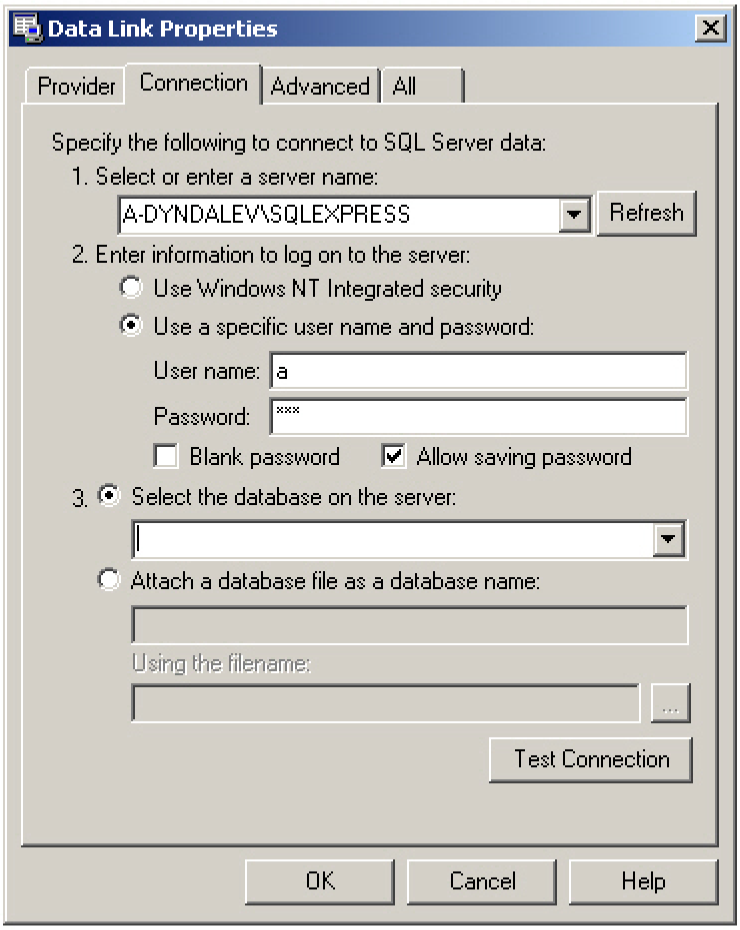
If the POS Intellect software and the AUTO Intellect software are installed after the *Report System* installation, the connection of *Report System* data base to the corresponding module is to be performed. Launch the Repairing mode of *Report System* and enter the corresponding connection strings (see Repairing section).



8. To set connection string to the database of *Time and Attendance*module do the following:
   8.1 Click **Connection to the main Intellect DB**.
   8.2 As a result the **Data link properties** dialog box is displayed.



8.3 In the **Data provider** tab select **Microsoft OLE DB Provider for SQL Server**. Click **Ne xt**.
8.4 As a result there will be an automatic switch to **Connection**.



8.5 In **1. Select or enter a server name** line select from the list or enter manually the name of SQL server where database of *Time and Attendance* module is stored.
8.6 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.
8.7 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.

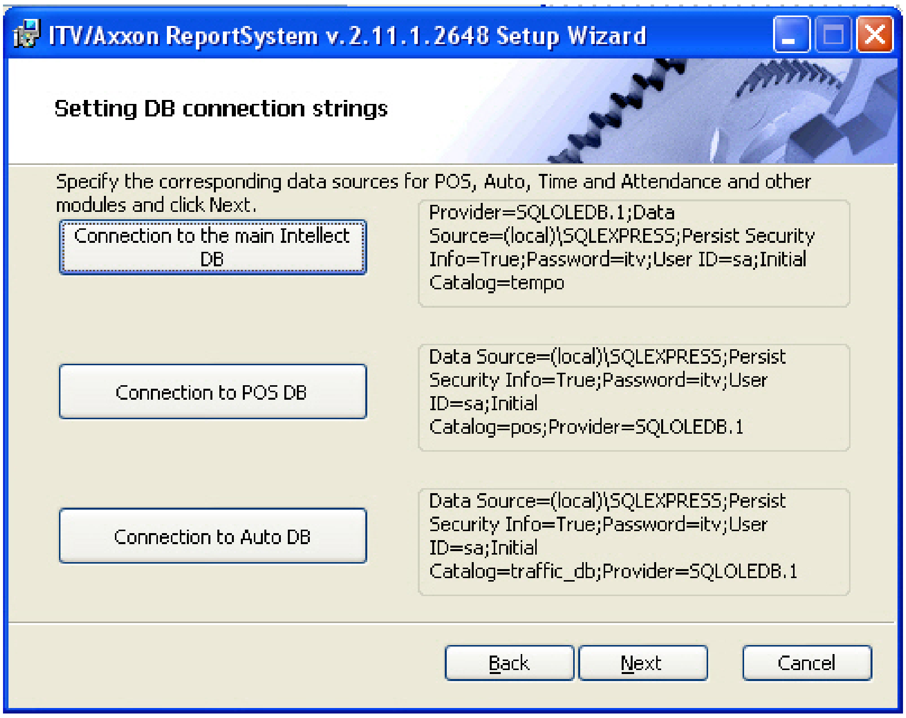
To shut down the window with the message, click **OK**. Then correct the data and check connection to SQL server once again.
8.8 If check of connection to SQL server is successful, select from the **Select database on server** list the name of connected database.

> **Note.**
>
> Database of the *Time and Attendance* module coincides with the database of Intellect configuration (name by default is intellect).

8.9 Click **OK** in the **Data connection properties** dialog box. As a result of this operation the dialog box will shut down.
Setting connection string to the database of *Time and Attendance* module is completed.

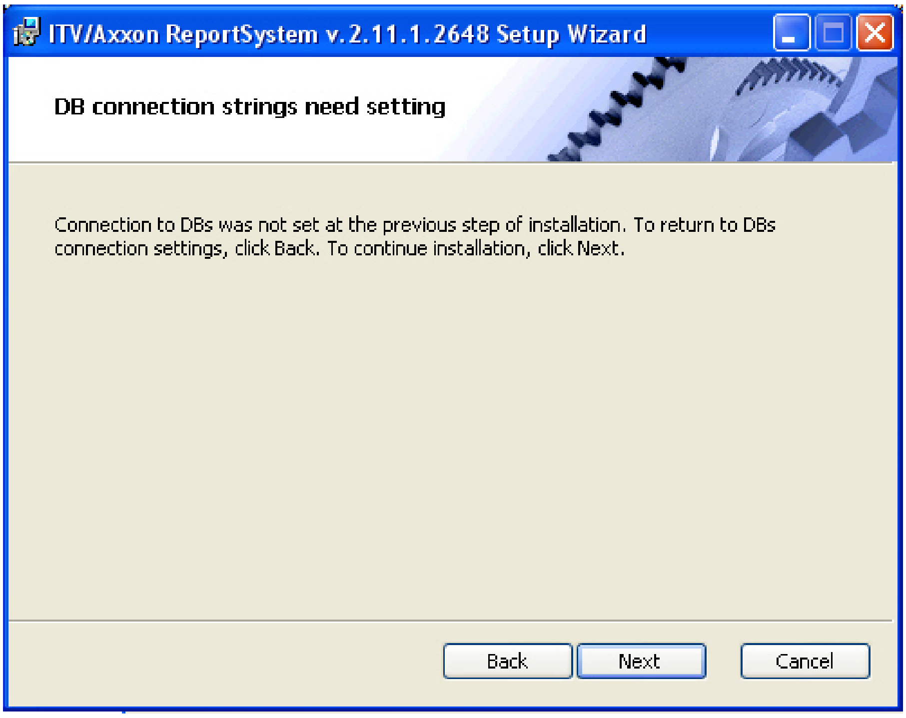
9. To set connection string to *POS* database do the following:
   9.1 Click **Connection to POS DB**.
   9.2 As a result of this operation the **Data connection properties** dialog box is displayed.
   9.3 Repeat 8.3-8.9 steps but connect POS database (name by default is *pos*).
   Setting connection string to POS database is completed.
10. To set connection string to *AUTO* database do the following:
    10.1 Click **Connection to Auto DB**.
    10.2 As a result of this operation the **Data connection properties** dialog box is displayed.
    10.3 Repeat 7.3-7.9 steps but connect AUTO database (name by default is *traffic_db*).
    Connection strings to databases are displayed in the **Setting DB connection strings** dialog

box.



11. Click **Next**. If DB connection strings has not been set then the **DB connection strings need setting** dialog box will be displayed as a result.

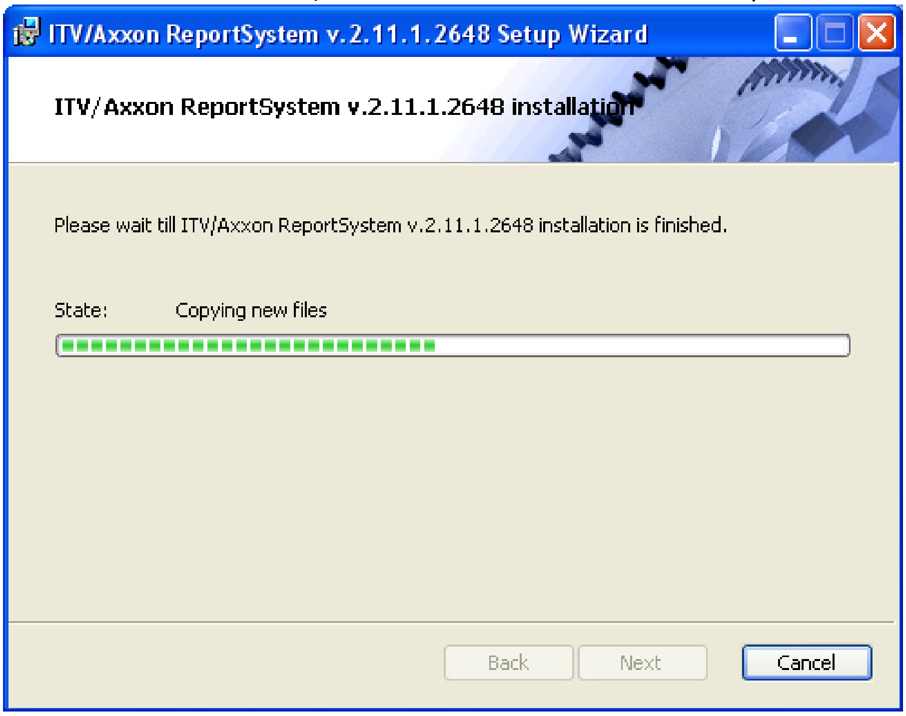
> **Note.**
>
> If DB connection strings has been set then installation will start as a result (see point 10).



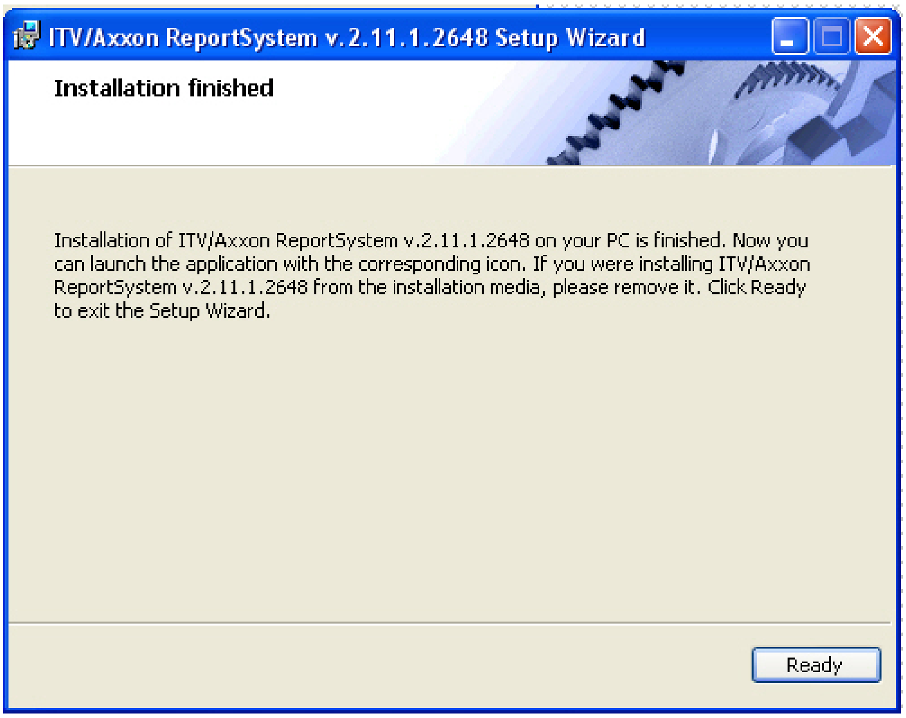
This dialog box warns about failure of connection to DB that doesn't guarantee the operation of the system.

> **Note.**
>
> If there was installation without setting connection to DB then you can set the connection to DB using C:\Program Files\Интеллект\Modules\Wt2\Web.config file and adding connection strings. Examples of connection strings are given below:
>
> a. <add name="IntellectDB" connectionString="Provider=SQLOLEDB.1;Password=itv;Persist Security Info=True;User ID=sa;Initial Catalog=intellect;Data Source=WS2\SQLEXPRESS"/>
> b. <add name="PosDB" connectionString="Server=.\SQLEXPRESS;Integrated Security=SSPI;Persist Security Info=False;Database=pos;Provider=SQLOLEDB.1"/>
> c. <add name="ReportSystemConnectionString" connectionString="Password=itv;Persist Security Info=True;User ID=sa;Initial Catalog=ReportSystem;Data Source=(local)\SQLEXPRESS;"/>

12. To continue installation, click **Next**. As a result of this operation installation starts.



Message that *Report System* installation is finished is displayed in a new dialog box.



Report System installation is finished and system is installed in *C:\Program Files\Интеллект\Modules\Wt2* folder.

Note.

If there is no folder it will be created automatically.

Attention!

After Report System installation it's necessary to restart Intellect software package.

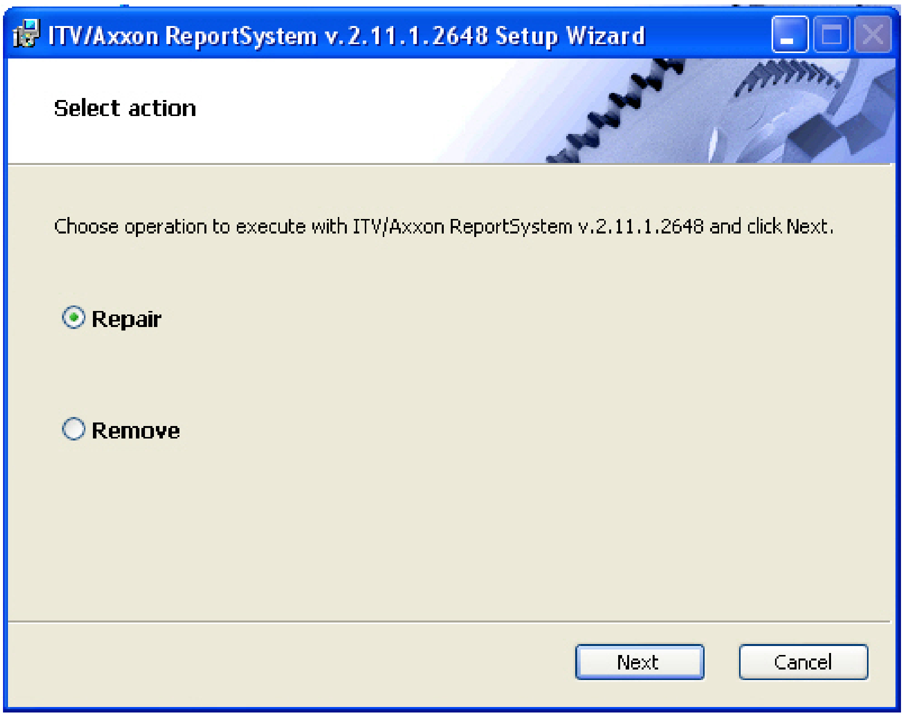
Repairing

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

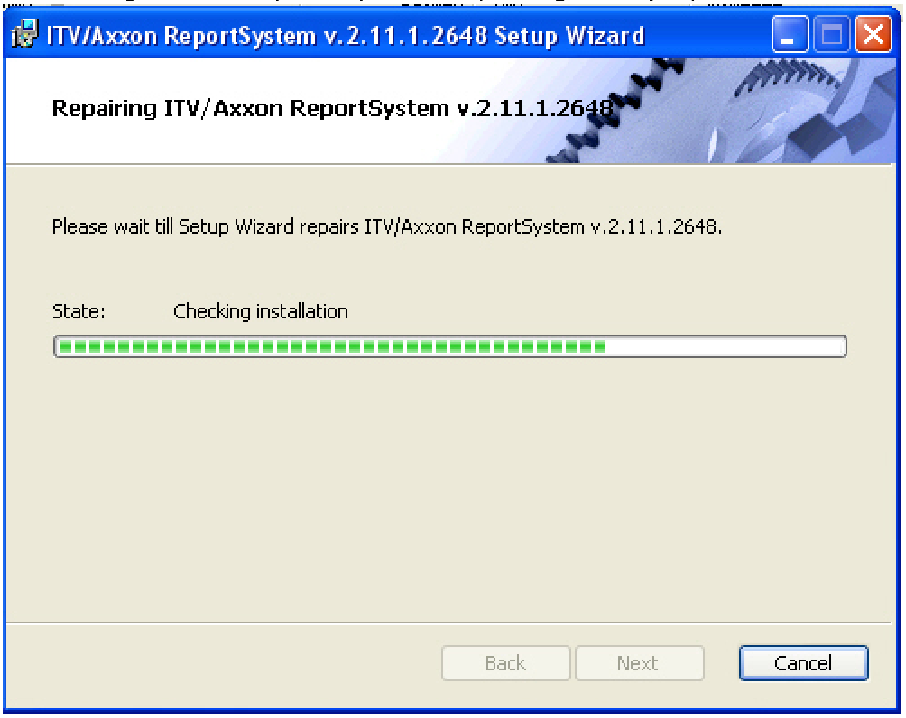
To start repairing mode it's necessary to start *Report System* installation once again without removing previous version of system.

To repair *Report System* необходимо do the following:

1. Start the ReportSystem.msi installation package.
   The dialog box of action selection is displayed.



2. Select **Repair** type and click **Next**
   The **Selection DB server** box is displayed.
3. In this and following boxes repeat 4-9 steps of *Installation* part.
   The dialog box of *Report System* repairing is displayed.



When repairing is finished the dialog box, where it's necessary to click **Ready**, is displayed.

Report System repairing is completed.

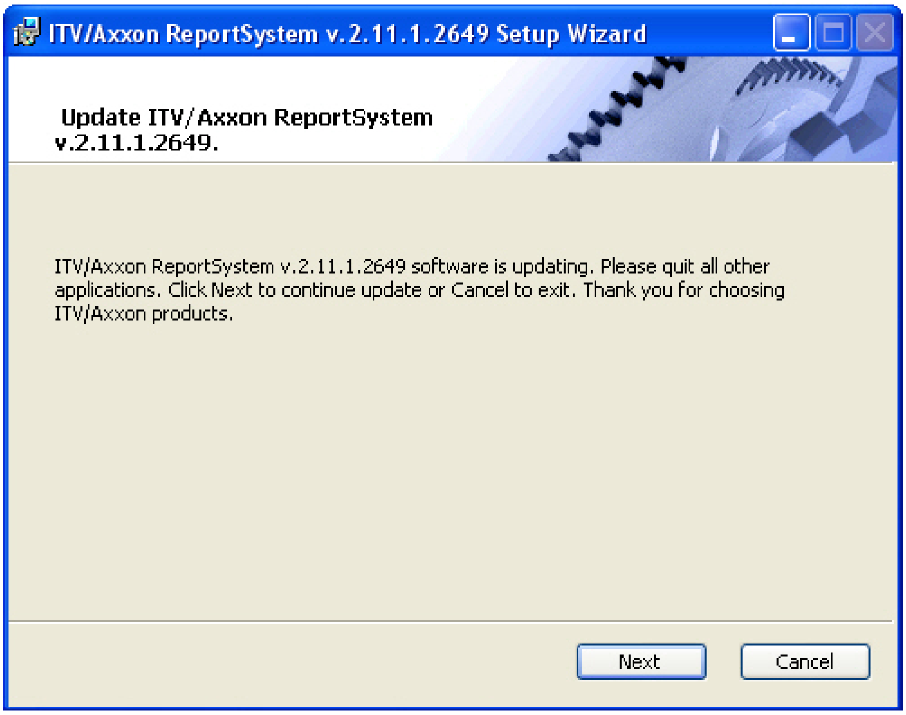
Attention!

After *Report System* repairing it's necessary to restart Intellect software package.

Updating

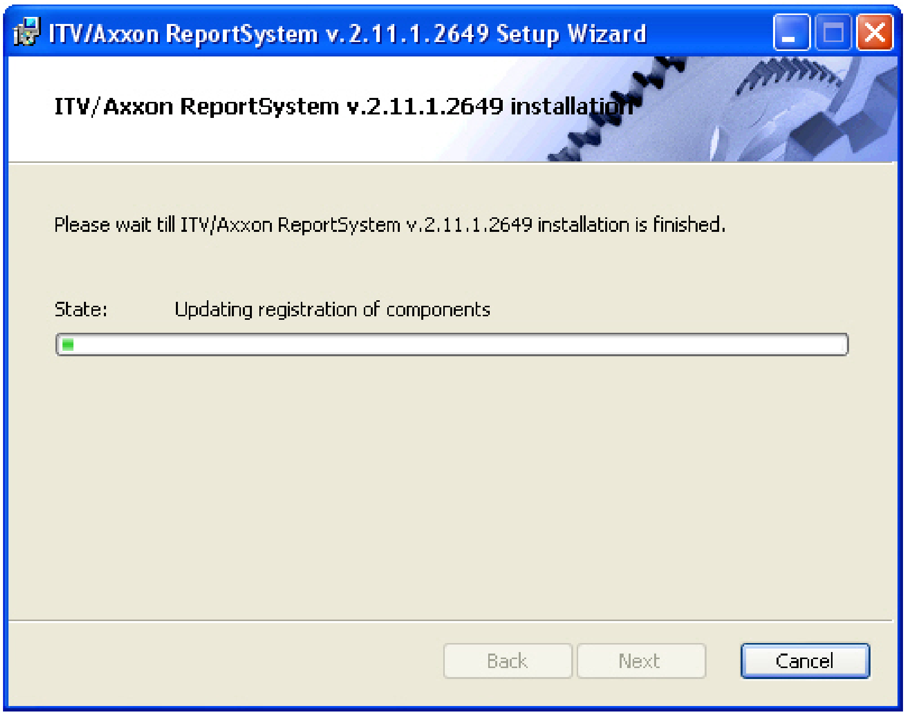
Updating mode is used for installation of *Report System* new version without removing the previous one.

To update *Report System* do the following:

1. Start the ReportSystem.msi installation package.
   The dialog box of *Report System* updating is displayed.
   

2. Click **Next**.
   The **Selection DB server** box is displayed**.**
3. Repeat steps 4 and 5 of *Installation* part.

The dialog box of *Report System* updating is displayed*.*



When updating is finished the dialog box, where it's necessary to click **Ready**, is displayed.

Report System updating is completed.

> **Attention!**
>
> After *Report System* updating it's necessary to restart Intellect software package.

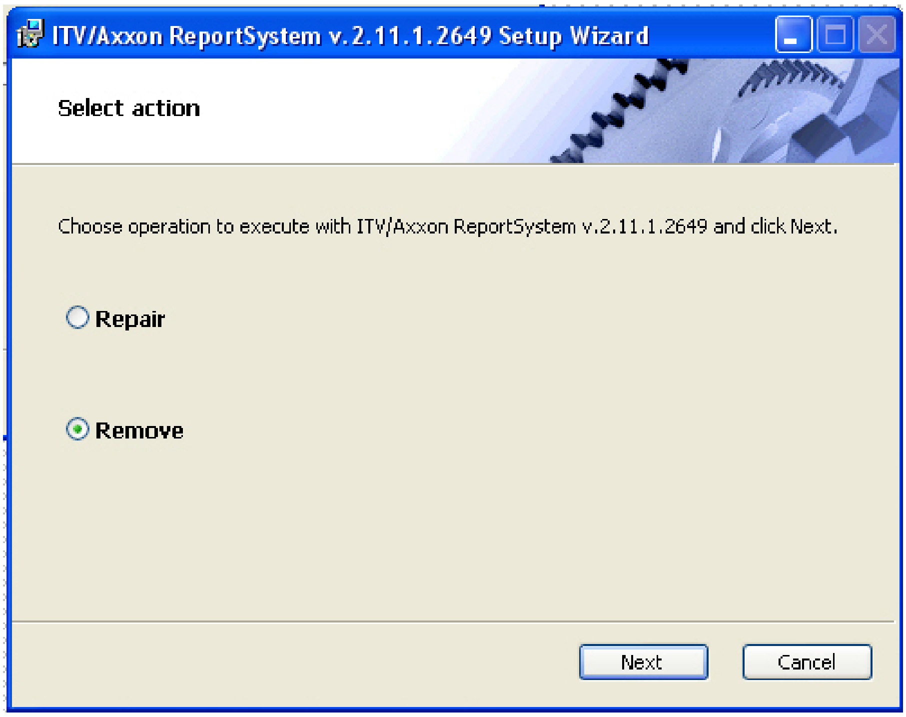
Removing

Report System installation wizard also operates in removing mode. This mode is necessary when you need to remove all *Report System* components on your Computer.

Starting removal is performed by using one of the following ways:

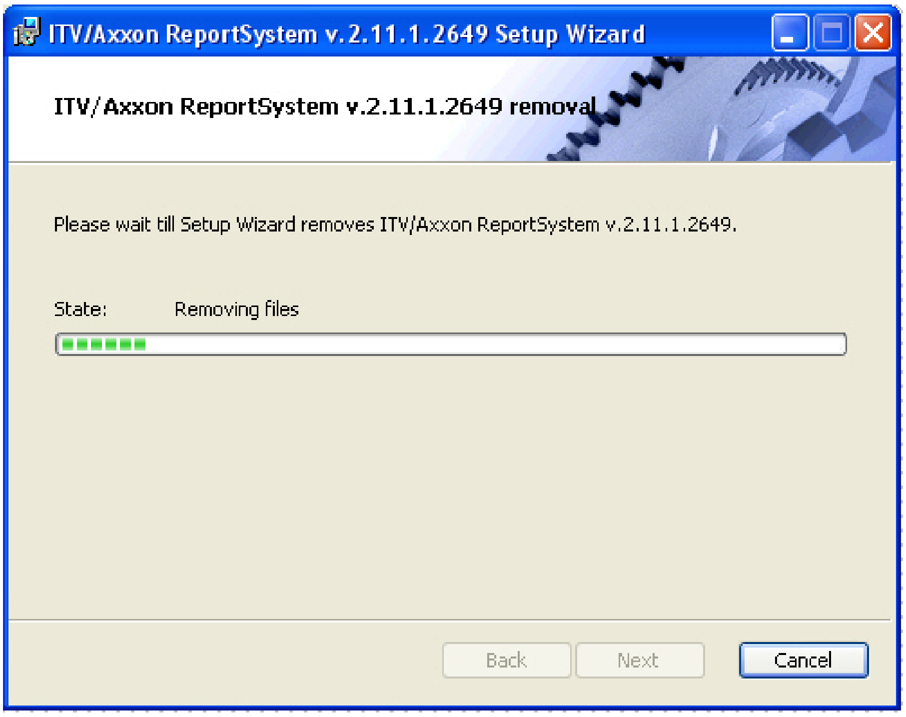
1. Using *Add or Remove Programs application* of Windows OS control panel;
2. Using ReportSystem.msi installation package.

As a result of one of these actions the dialog box of action selection is displayed.



Select **Remove** type and click **Next**.

The dialog box of removing process of *Report System* will be displayed.



When removing is finished the dialog box, where it's necessary to click **Ready**, is displayed.

Report System removing is completed.

Report System licensing

Activation key

Report System functionality is restricted by the activation key that is bundled with the *Intellect* ins tallation kit.

If the *Report System* 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.

Activation of Report System functionality

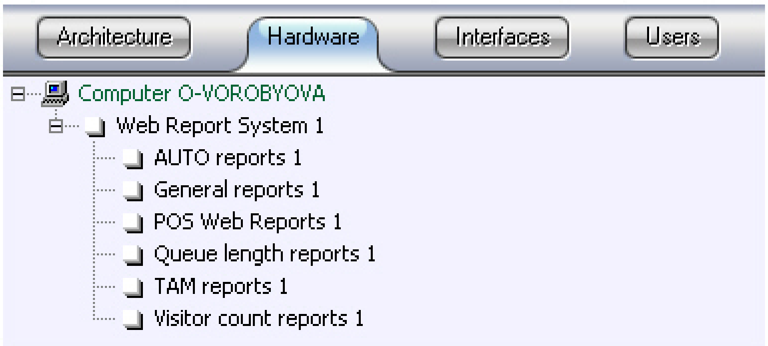
> **Attention!**
>
> The activation of Report System functionality is possible only if there is the corresponding activation key.

To activate *Report System* functionality do the following:

1. Start *Intellect*.
2. Create the **Web report system** object on the basis of the **Computer** object on the **Hardw are** tab of the **System settings** dialog box.

3. Create the objects (**Time and Attendance reports**, **POS reports, Queue-length detection, People counter detection, AUTO reports, General reports**) on the basis of

the **Web report system** object corresponding to the types of reports specified in the activation key.



Note.

If it is necessary to activate the **Search by picture** functional module that corresponds to Face Intellect software package then it is necessary to create and setup the corresponding object on the basis of the **Web report system** (see *Face Intellect software package. User Guide*).

Activation of *Report System* functionality is completed.

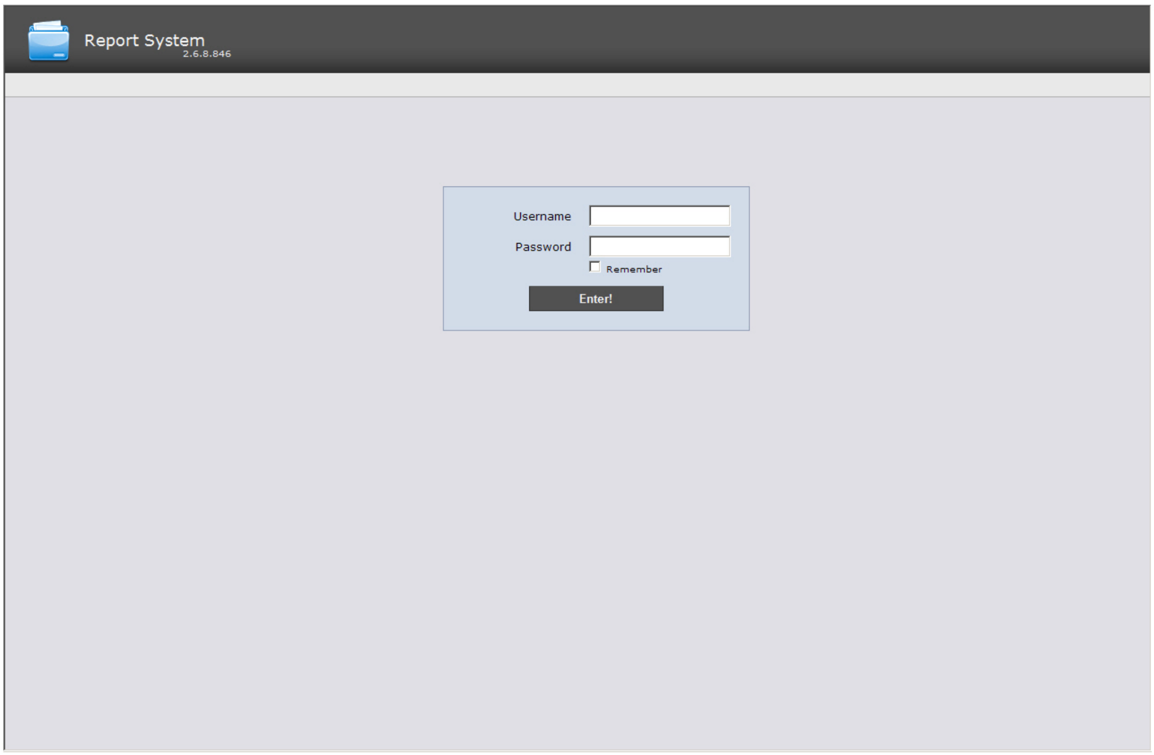
Report System startup and shutdown

Ways of starting

Starting of *Report System* is carried out in one of two ways:

1. If the Client coincides with the Web server – through the Start menu of Windows OS: Start -> All Programs -> Intellect -> Reports system;
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 *Report System* authorization page is displayed.

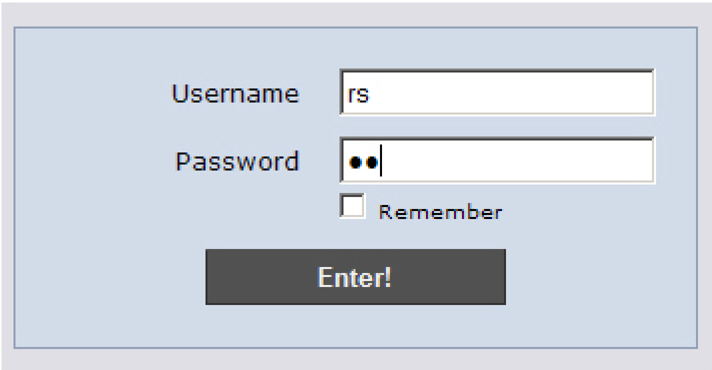


Authorization

For *Report System* authorization do the following:

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

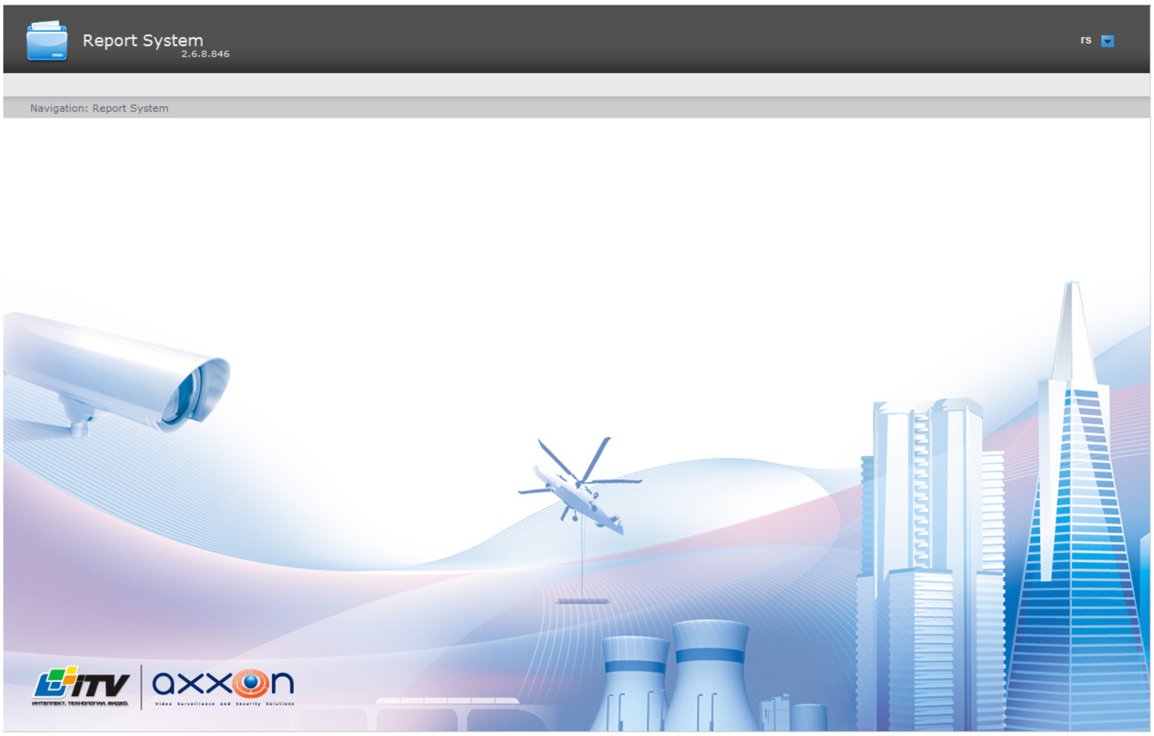
> **Note.**
>
> Initial entry to Report System is under **rs** user who has administrative rights. In the **Username** and **Password** fields one should type **rs**. Further the administrator has to set the system for a multiuser mode (for more details see Set up the roles and users section).



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

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

> **Note.**
>
> Interface of the document page is described in the Report System interface chapter.



Shutdown

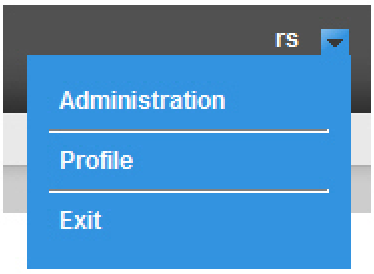
To shutdown *Report System* close the window in the browser.

User switching

One can switch *Report System* users fast.

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. *Report System* 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.

Report System interface

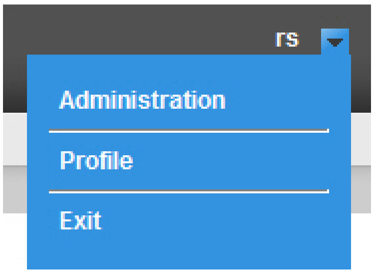
Report System interface consists of the following elements:

1. context menu;
2. page of documents;
3. administration page;
4. user profile page.

Context menu

Report System 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.



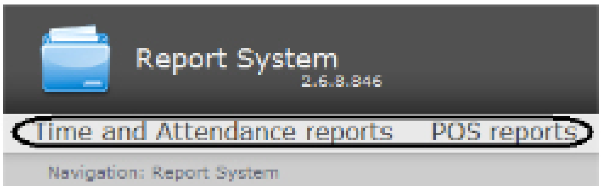
The following operations are available from the context menu:

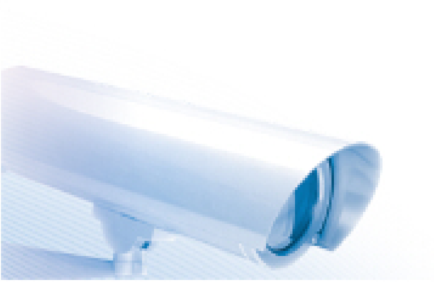
1. Switch to the administration page – the **Administration** item is used;
2. Switch to the user profile page – the **Profile** item is used;
3. Switch to the authorization page – the **Exit** item is used.

Page of documents

Page of documents is displayed automatically after the authorization in *Report System*.

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





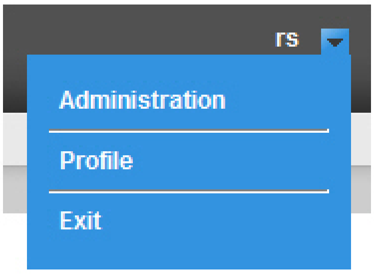
Note.

If there are no operation rights for Time and Attendance reports and/or POS repo rts then the corresponding items of the reports menu (POS reports, Time and Attendance reports) are not displayed.

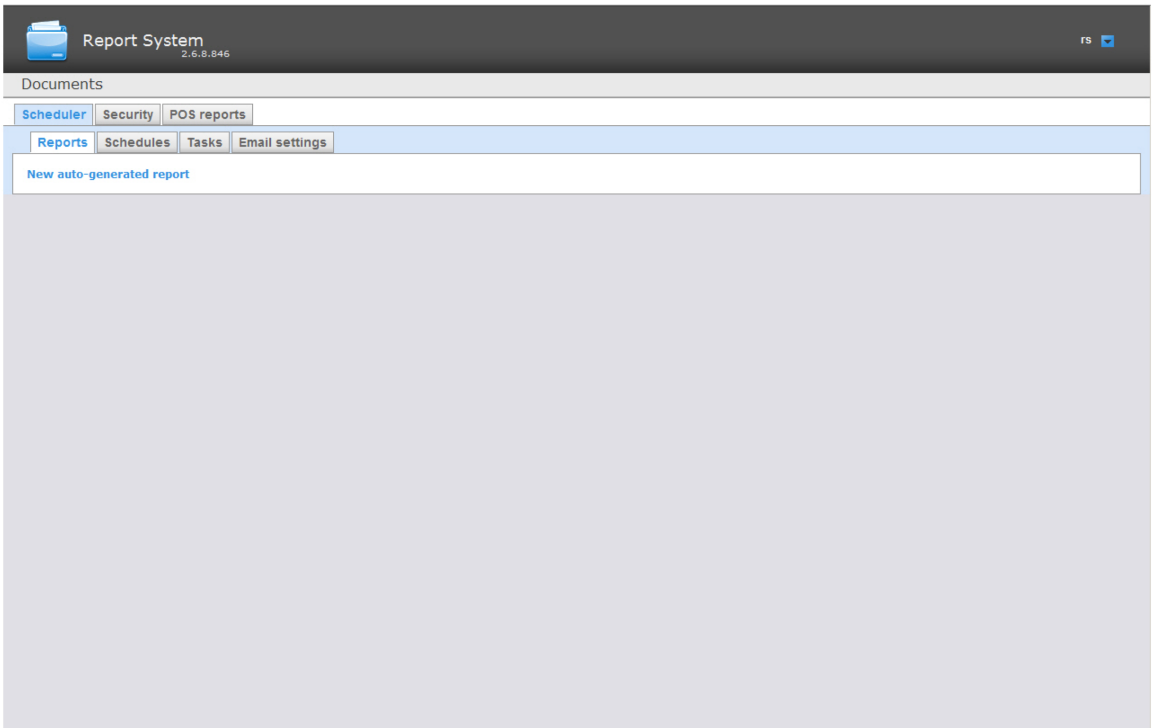
Administration page

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

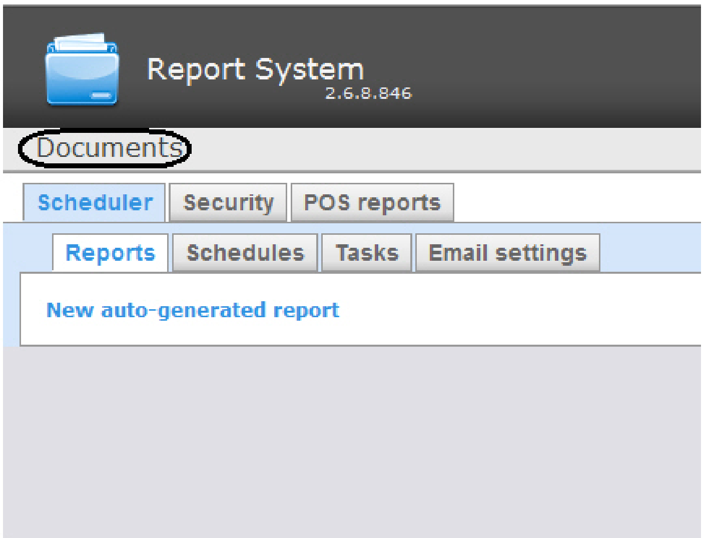
> **Note.**
>
> For some users this item can not be displayed (it depends on the availability of the administration rights).



The Report System administration page will display.



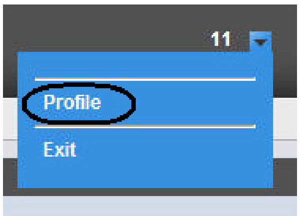
To return to the documents page click the **Documents** link.



User profile page

Changing the interface language of *Report System* is performed in the user profile page.

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



Change the Report System interface language

To change the interface language, do the following:

1. Go to the user profile page.

2. From the **Language** drop-down list select the requested interface language (**1**).
3. Click **Save** (**2**).

Changing the interface language is completed.

Report System administration

Set up the roles and users

In *Report System* one role and one user are registered by default. They are **Administrators** and **rs** accordingly. They cannot be removed.

The **rs** user has rights to control all the components of *Report System* subsystem. The role of this user can't be changed. There is a possibility to change the password for **rs** user login to the *Repor t System* subsystem. Changing the password is performed on the **Profile** tab (see the Change the password section). The other user are able to change the password only on the **Programming** ta b of the *Intellect* software.

In order to register an operator with individual rights one should create a new user and a new role with these rights.

> **Note.**
>
> New users are created in *Report System* automatically after their registration in Intellect software package (see the Peculiarities of the user registration in Intellect software package chapter).

On default, users created in the *Intellect* software don't have any roles and operations, they don't have the rights to control *Report System* subsystem. All rights can be assigned them by subsystem administrator, on default it is the **rs** user.

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

Set up the roles

Setting up the roles is carried out in the **Role > operations** tab.

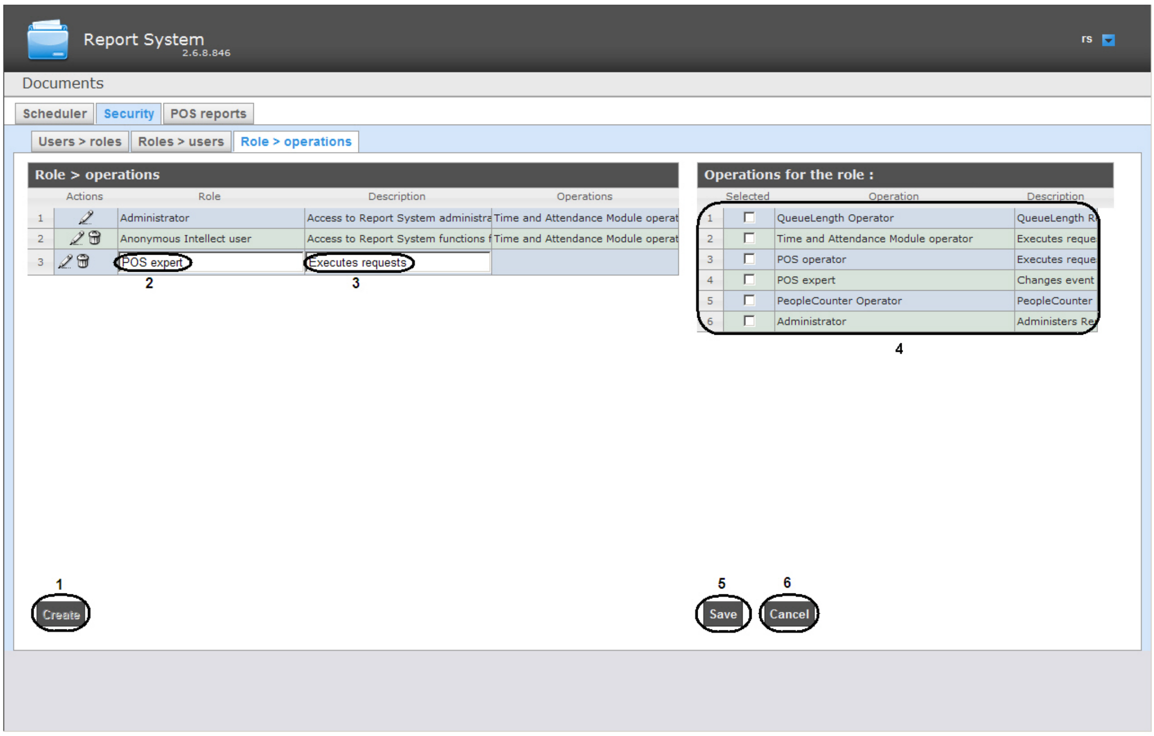
The following actions with roles are available:

1. Role registration with assigning the operations available for this role;
2. Role editing;
3. Role removing.

Role registration

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

1. Go to the **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:
   3.1 In the **Role** field type the name of a new role (**2**).
   3.2 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.

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**).

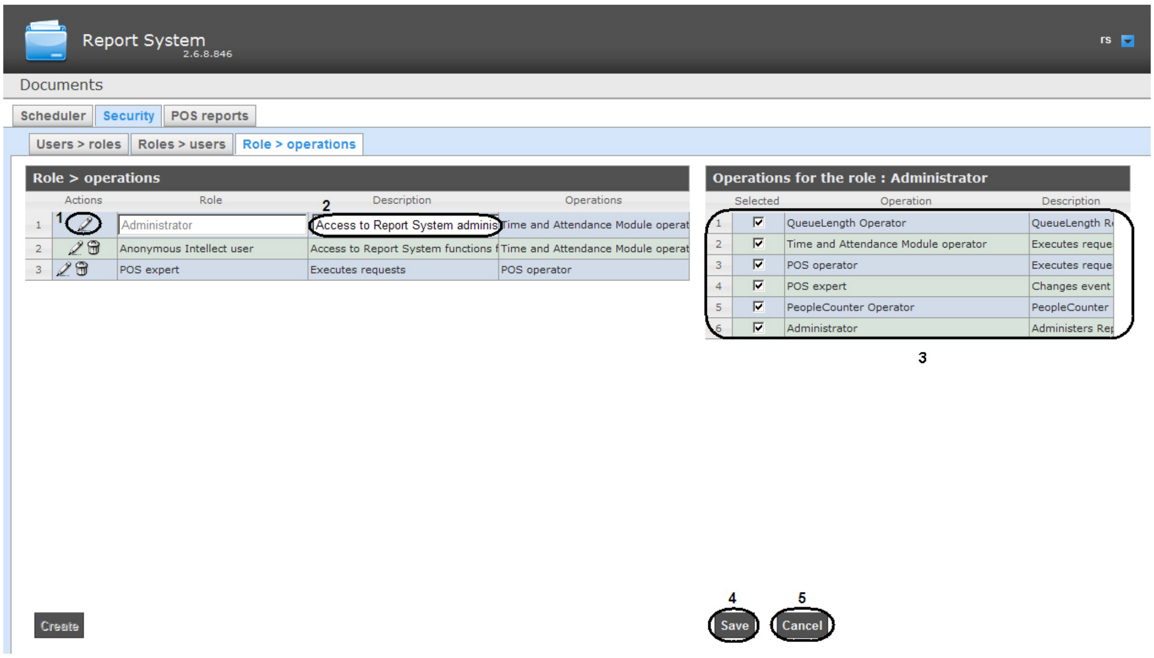
> **Note.**
>
> In order to cancel the registration of a new role click **Cancel** (**6**).

Role registration in *Report System* is completed.

Role editing

In order to edit a new role do the following:

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



2. For the required role click  button in the **Actions** column of the **Role > operations** table (**1**).
3. As a result one can edit some role parameters. For example:
   3.1 In the **Description** field (**2**) one can edit a brief description of operations that will be available for users with this role.
   3.2 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.
4. In order to save the changes in role parameters click **Save** (**4**).

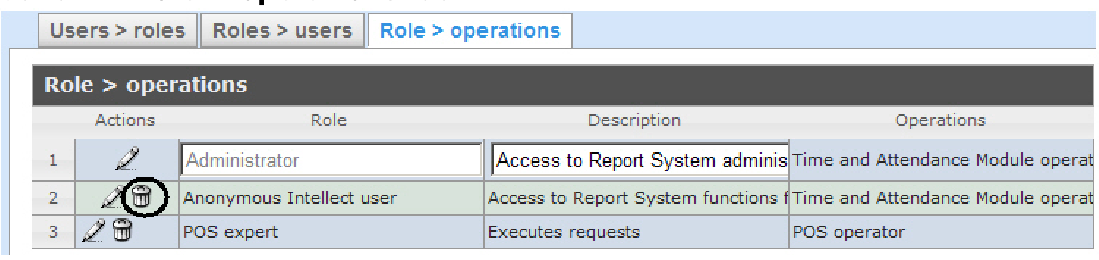
> **Note.**
>
> In order to cancel the changes in the role click **Cancel** (**5**).

Role editing is completed.

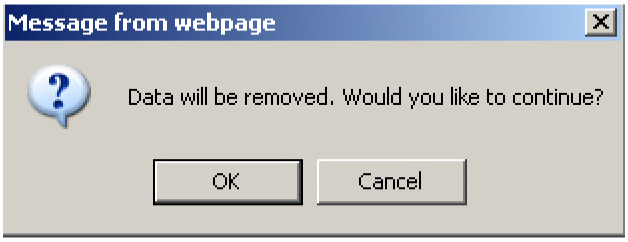
Role removing

In order to remove the role, do the following:

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



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



Role removing is completed.

Peculiarities of the user registration in Intellect software package

The algorithm of user registration in *Intellect* software package is given in details in *Intellect software package: Administrator's Guide*.

Registering the user in *Intellect* software package one should take into account the following peculiarities:

1. In Report System the username is the user login that is set while its adding to the user rights in *Intellect* software package.
2. The same rules as for the login in Windows OS are applied to the username (and login).

Set up the correspondence between the roles and users

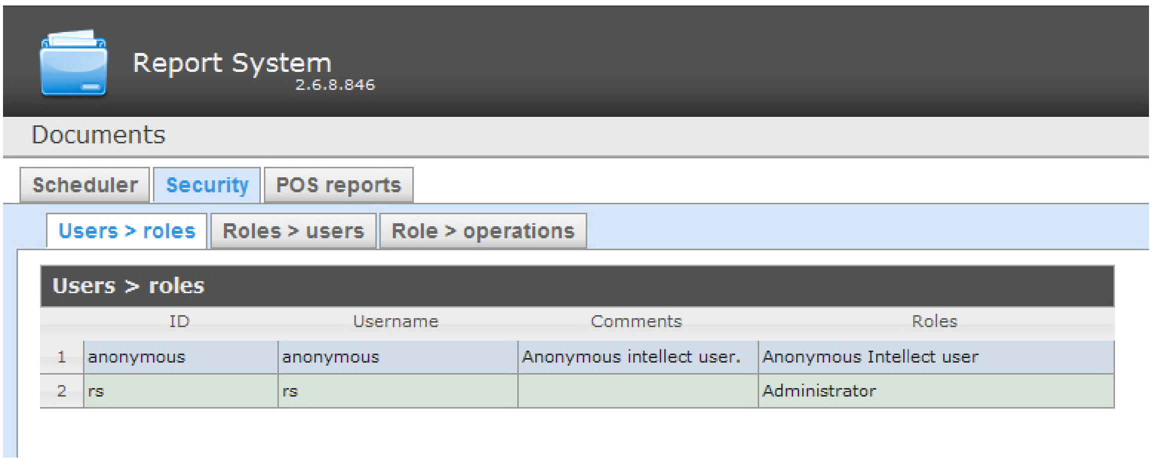
Setting up the correspondence between the roles and users can be carried out in two ways:

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

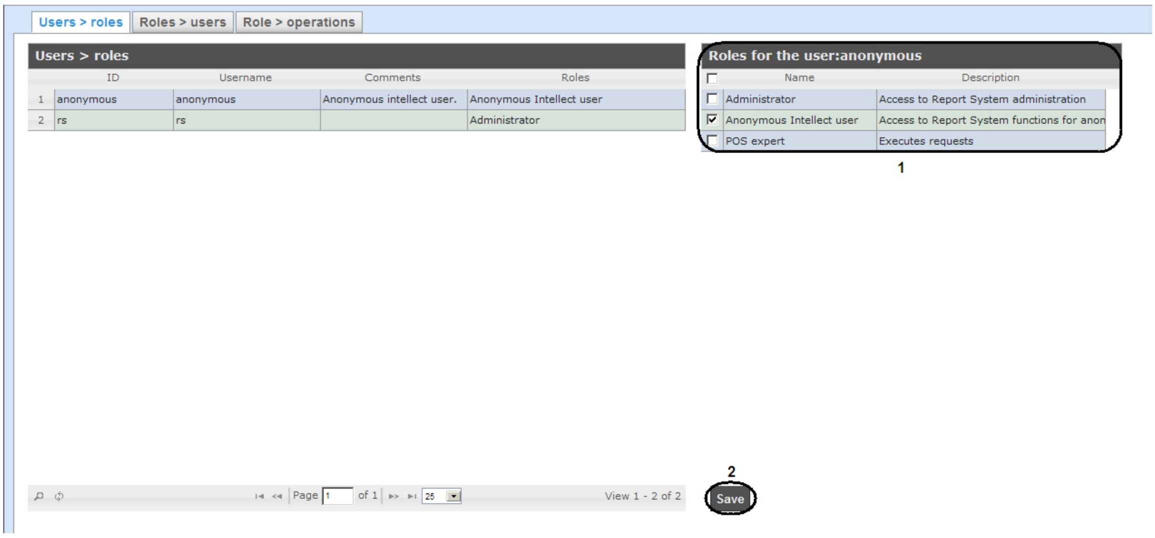
Assigning the roles to the user

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

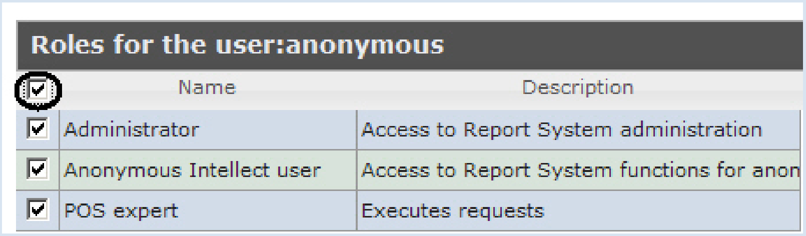
1. Go to the **Users > roles** tab.



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



4. On can change the list of roles assigned to the user by setting or deselecting the corresponding checkboxes (**1**).

> **Note.**
>
> To assign all possible roles to the user set the checkbox in the table head a t the **Name** field.
>
> 
>

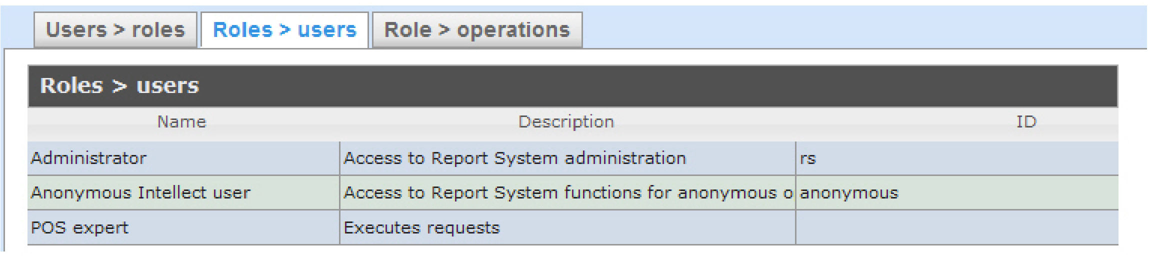
5. Click **Save** (**2**).

Assigning the roles to the user is completed.

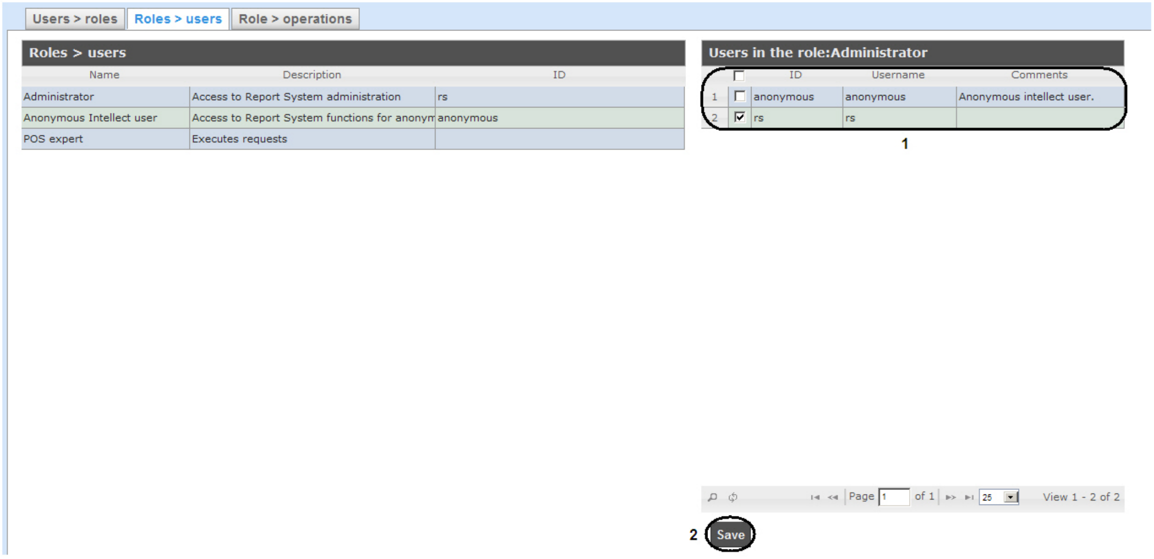
Adding the users to the role

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

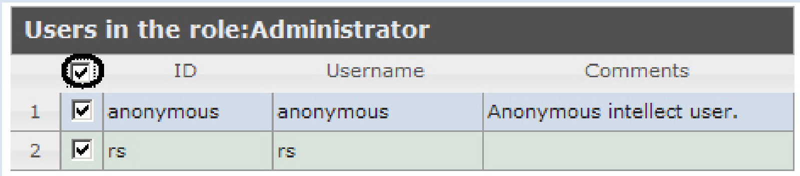
1. Go to the **Roles > users** tab.



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



4. On can change the list of users added to the role by setting or deselecting the corresponding checkboxes (**1**).

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

5. Click **Save** (**2**).

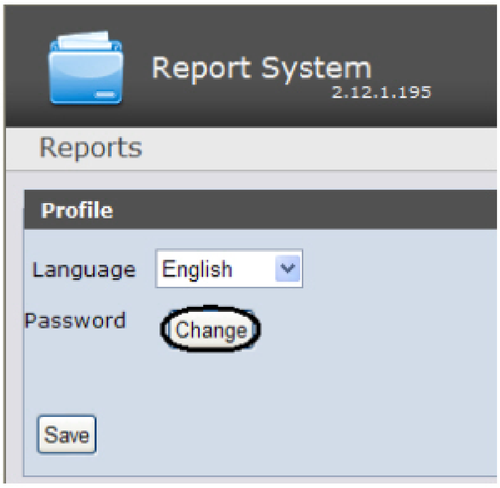
Adding the users to the role is completed.

Change the password

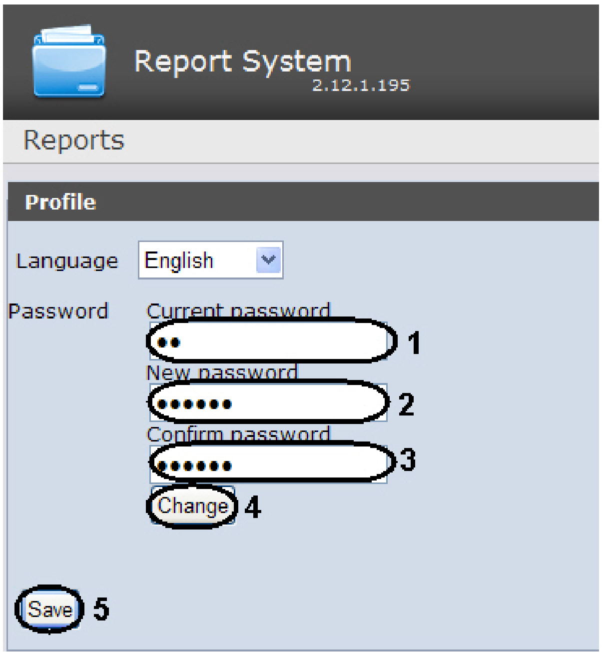
> **Attention!**
>
> The password can be changed in the **Profile** page only for the **rs** user. The password changing for other users is performed only on the **Users** tab of the *Inte llect* software.

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

1. Go to the 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 *Report System* subsystem (**1**).



4. In the **New password** field enter the new password for login to the *Report System* subsystem (**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**).

Changing the password for **rs** user login to the *Report System* subsystem is completed.

Setting up Report System operation in the automatic mode

Report System setting up procedure in the automatic mode

Setting up the *Report System* 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. In the **Email settings** tab setup the SMTP Server used for sending the auto-generated reports.

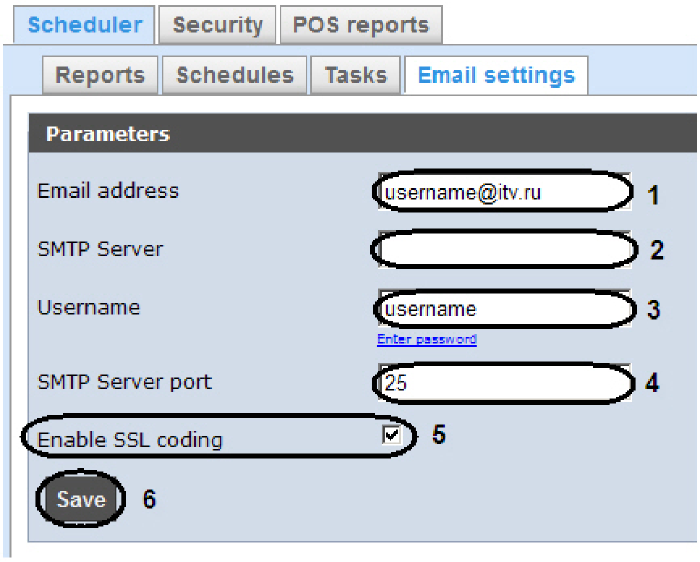
> **Note.**
>
> This step can be missed if there is no need to send the reports by e-mail in the automatic mode.

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

SMTP Server setup

In order to set up the SMTP Server do the following:

1. Go to the **Email settings** tab.



2. In the **Email address** field (**1**) type the e-mail address from which the auto-generated reports will be sent.
3. In the **SMTP Server** field (**2**) enter the name of SMTP Server.
4. In the **Username** field (**3**) enter the name of account used for sending the messages to SMTP Server.
5. Specify the password of the account used for sending the messages to SMTP Server. For this click the **Enter password** link. In the box enter the password.

6. In the **SMTP Server port** field (**4**) enter the port number used by SMTP Server.
7. If the SSL coding is required to connect the SMTP Server then set the **Enable SSL coding** c heckbox (**5**).
8. Click **Save** (**6**).

SMTP Server setup is completed.

Auto-generated reports setup

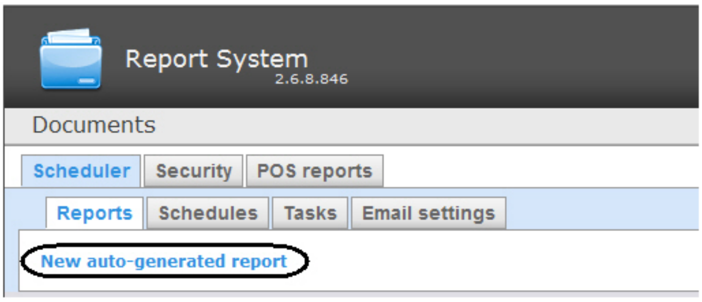
One can assign and setup the reports that will be auto-generated on the schedule.

> **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).

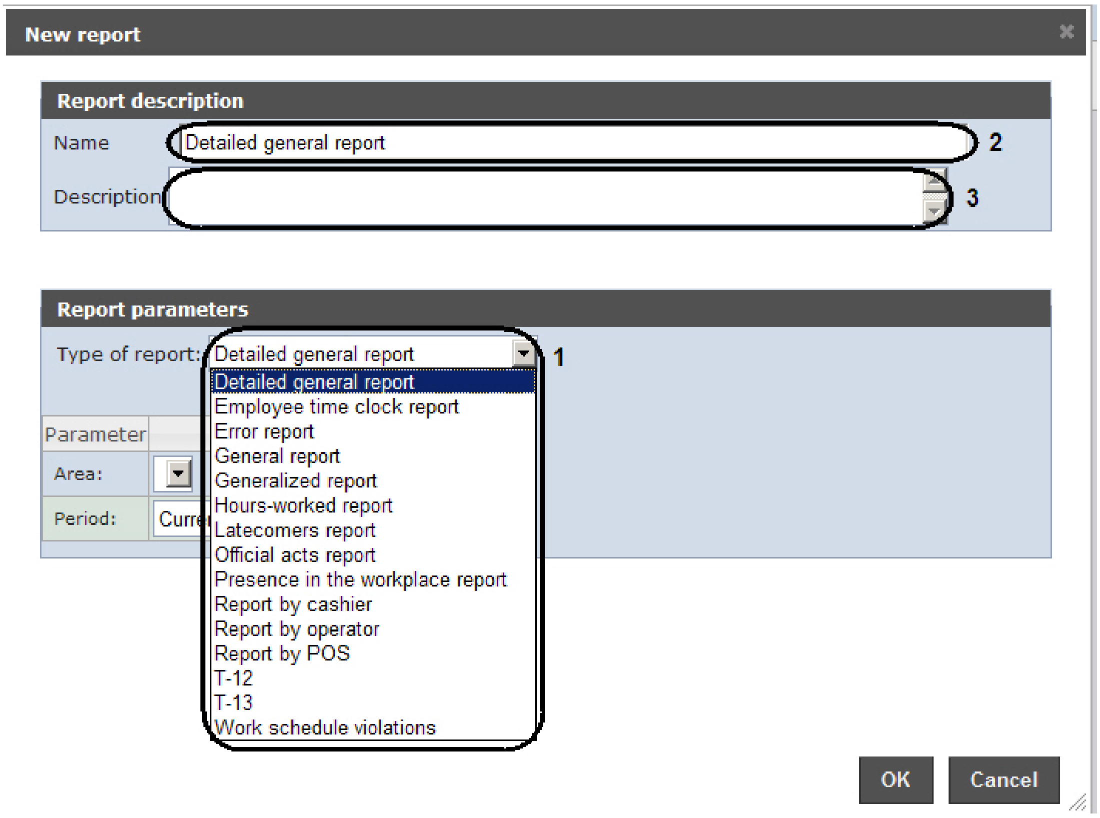
Making the report

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

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



2. Click the **New auto-generated report** link.
3. As a result the **New report** form is displayed.

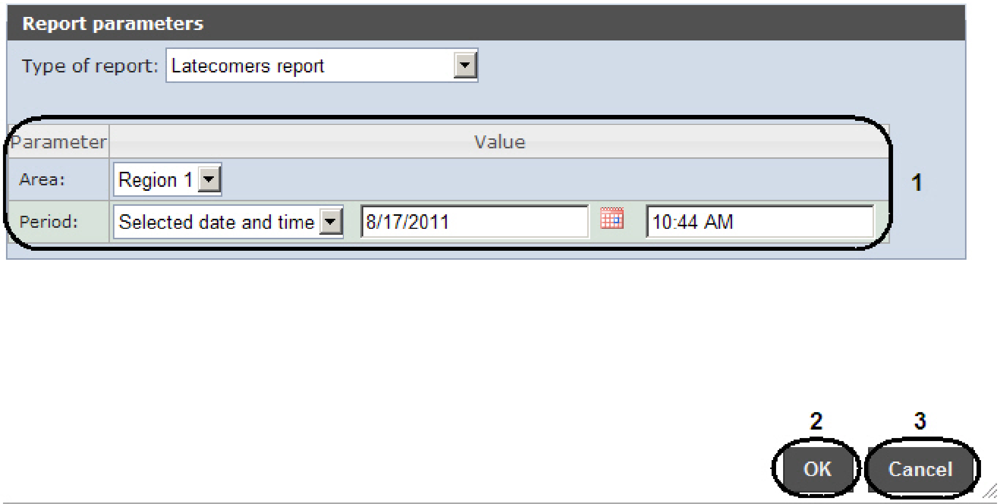


4. In the **Report parameters** group from the **Type of report** list (**1**) select the required type of report.
5. In the **Name** field (**2**) of the **Report description** group the prior report name is displayed automatically. If it is necessary it can be edited.
6. In the **Description** field (**3**) of the **Report description** group enter the description of the report contents.

> **Note.**
>
> This field does not have to be filled in.

7. Set up the report parameters in the group of the same name (**1**).

> **Note.**
>
> The parameters are individual for every type of report, the procedure of their setting is clear.



8. In order to save the description and new report parameters click **OK** (**2**).

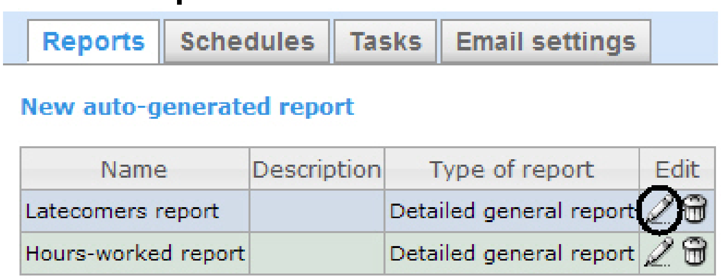
> **Note.**
>
> In order to cancel making the report click **Cancel** (**3**).

Making the auto-generated report is completed.

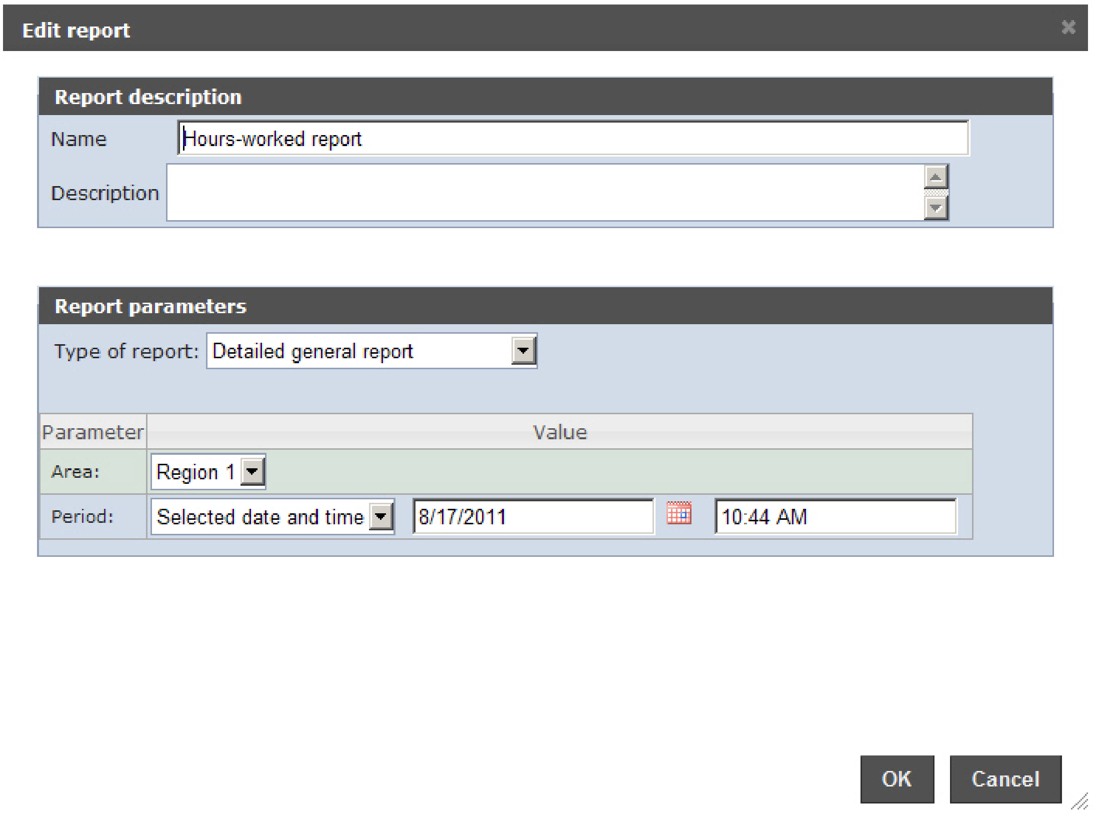
Editing the report

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 Making the report section).



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

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

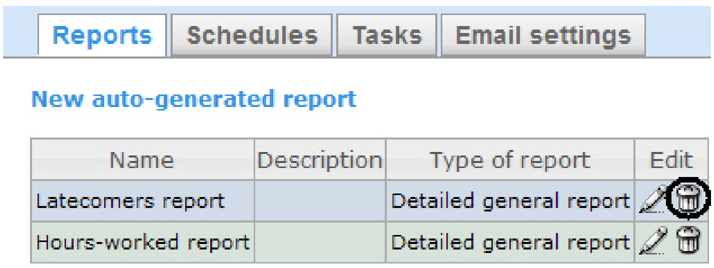
In order to change the language of the auto-generated report select the corresponding language in the profile page of the *rs* user (see User profile page section).

Editing the auto-generated report is completed.

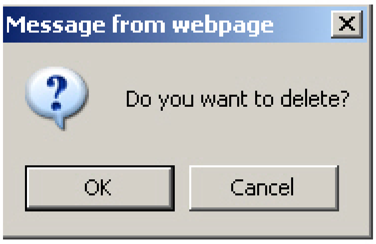
Deleting the report

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.

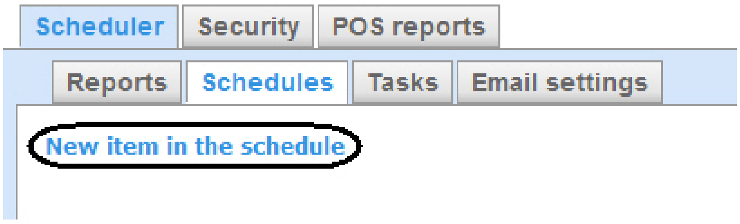
Setting up the schedule of operation in the automatic mode

Setting up the schedule of *Report System* 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).

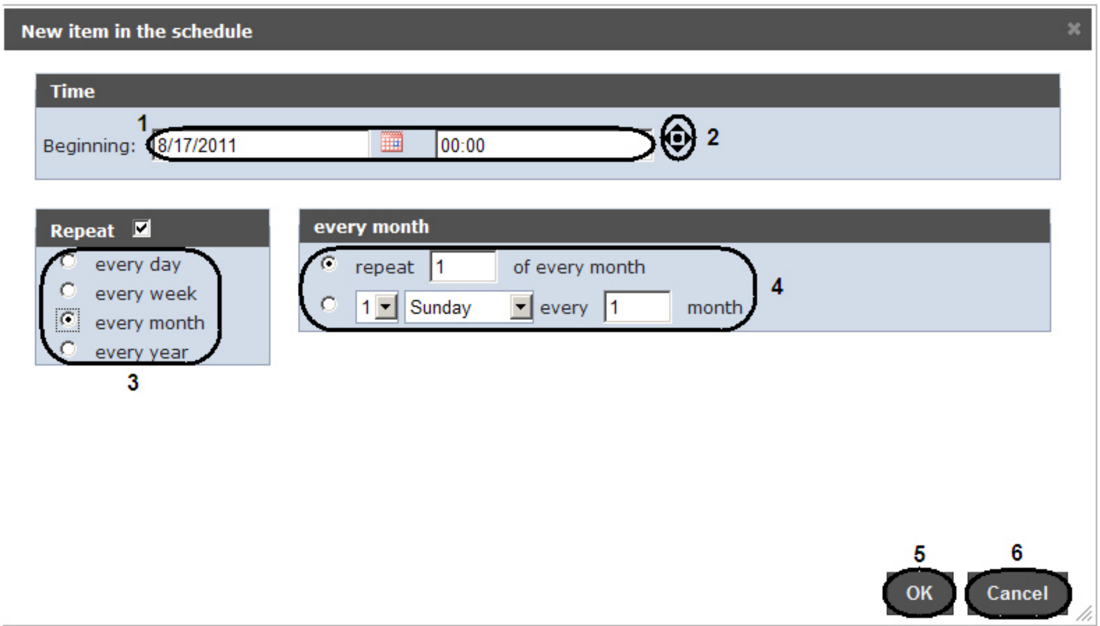
Creating the schedule item

In order to create the schedule item do the following:

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



2. Click the **New item in the schedule** link.
3. As a result the **New item in the schedule** form is displayed.



4. In the **Time** group (**1**) enter the instant approaching which the required reports will be generated automatically.

> **Note.**
>
> The selection of required reports will be performed when the tasks are created (see Setting up the automatically executed tasks section).

> **Note.**
>
> In order to set current date and time it is convenient to use button (**2**)
> .

5. If the reports should be generated regularly since the specified instant then in the **Repeat** g roup set the checkbox in the boxes of required generation period (**3**).
6. As a result the tweaking form of strategy for repeating is displayed (**4**). The procedure of filling it in is clear.
7. In order to save the schedule item click **OK** (**5**).

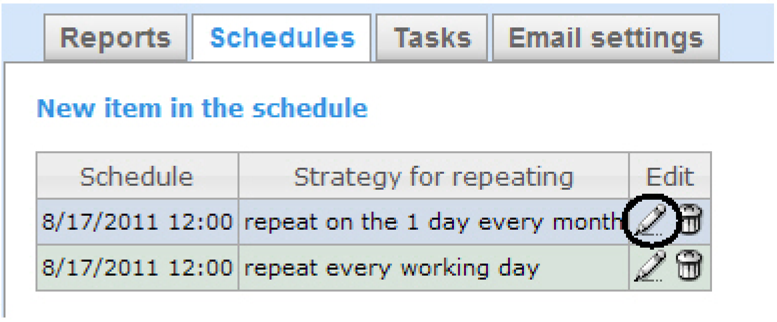
> **Note.**
>
> In order to cancel creating of the schedule item click **Cancel** (**6**).

Creating the schedule item is completed.

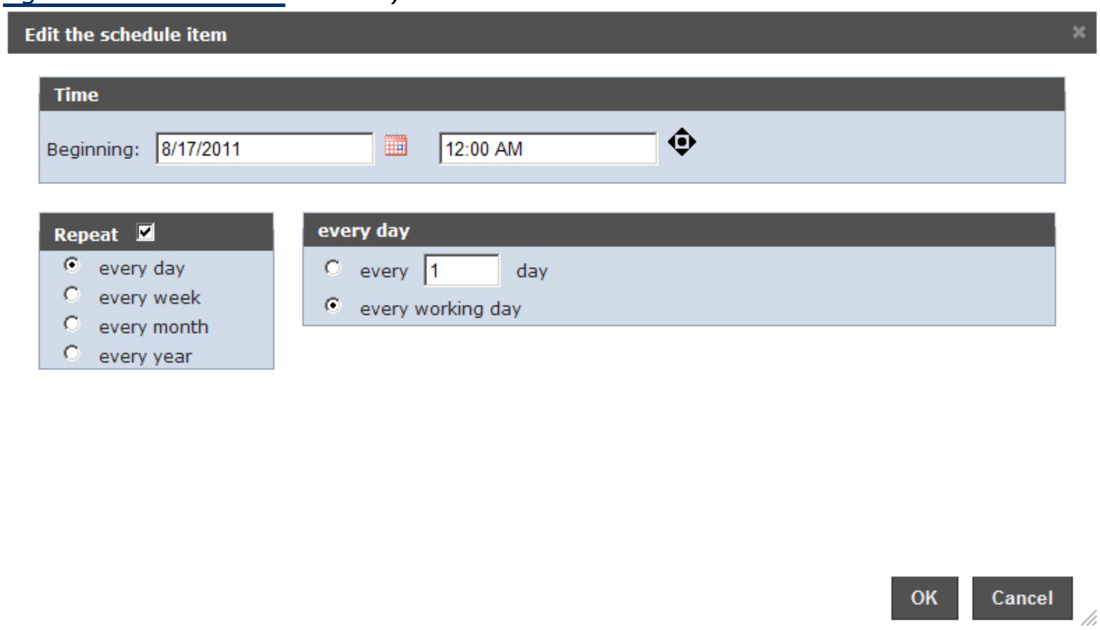
Editing the schedule item

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**.** In this form one should edit the schedule item parameters by analogy with the **New item in the schedule** form (see Creati ng the schedule item section).



4. In order to save the changes in the schedule item click **OK.**

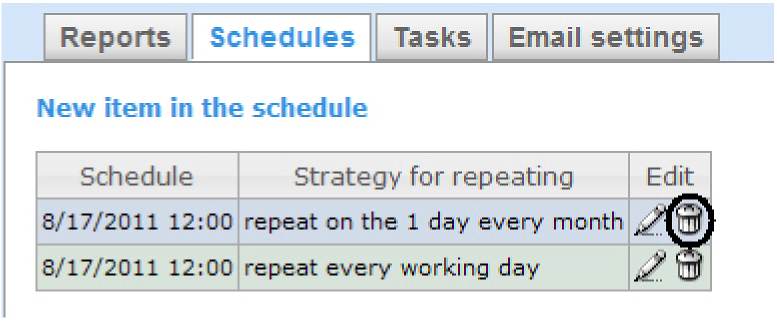
> **Note.**
>
> In order to cancel the changes in the schedule item click **Cancel**.

Editing the schedule item is completed.

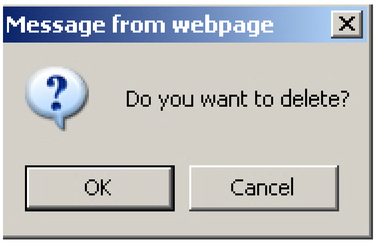
Deleting the schedule item

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.

Setting up the automatically executed tasks

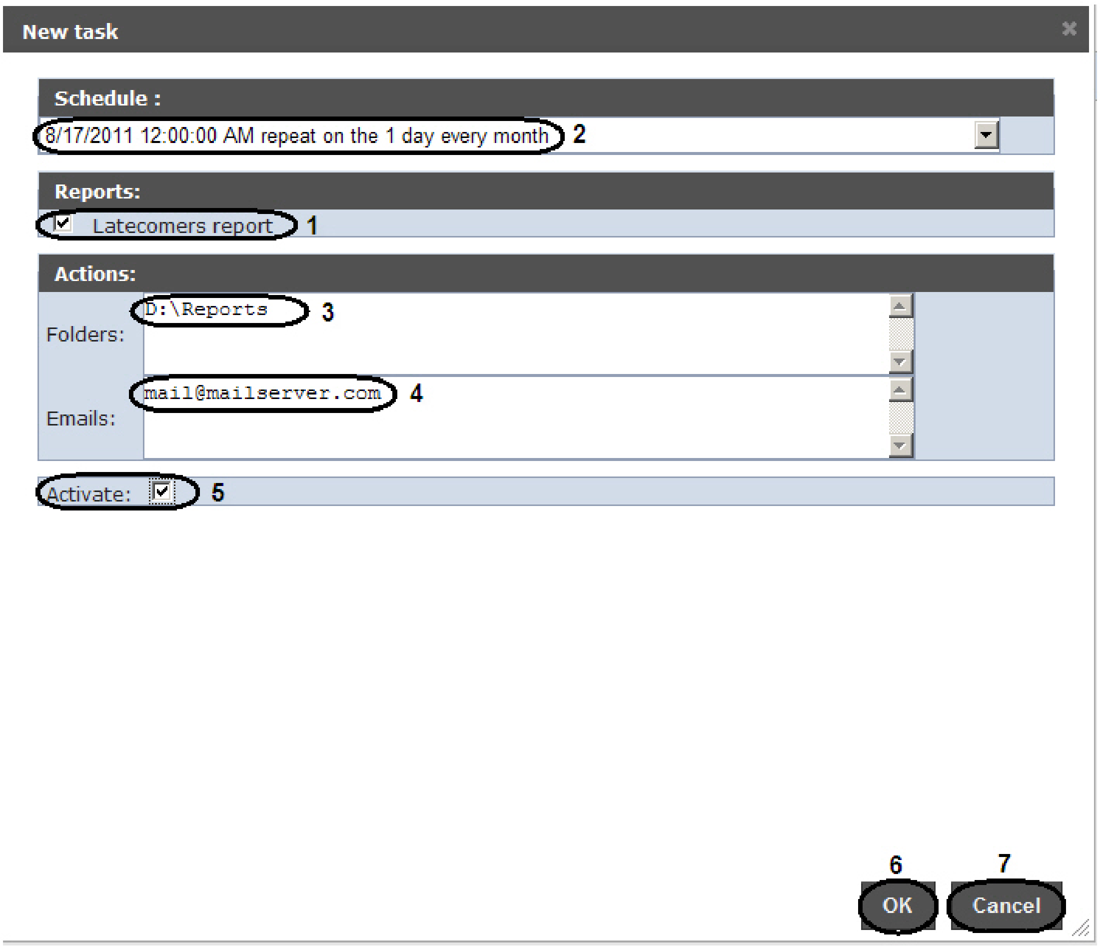
If the required reports should be auto-generated according to the specified schedule then it is necessary to create, set up and run a task.

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:
   6.1 In the **Foldres** 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.
   6.2 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 address.

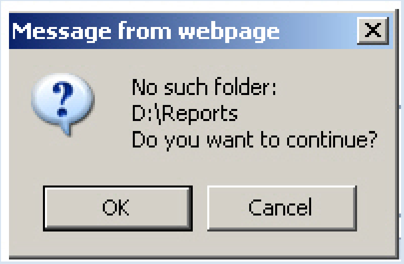
> **Note.**
>
> Generated reports that are sent to emails are PDF and XLS files.

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** (**6**).

> **Note.**
>
> In order to cancel the task creation click Cancel (**7**).

> **Note.**
>
> If there are no folders that are set at 6.1 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 e-mail 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.

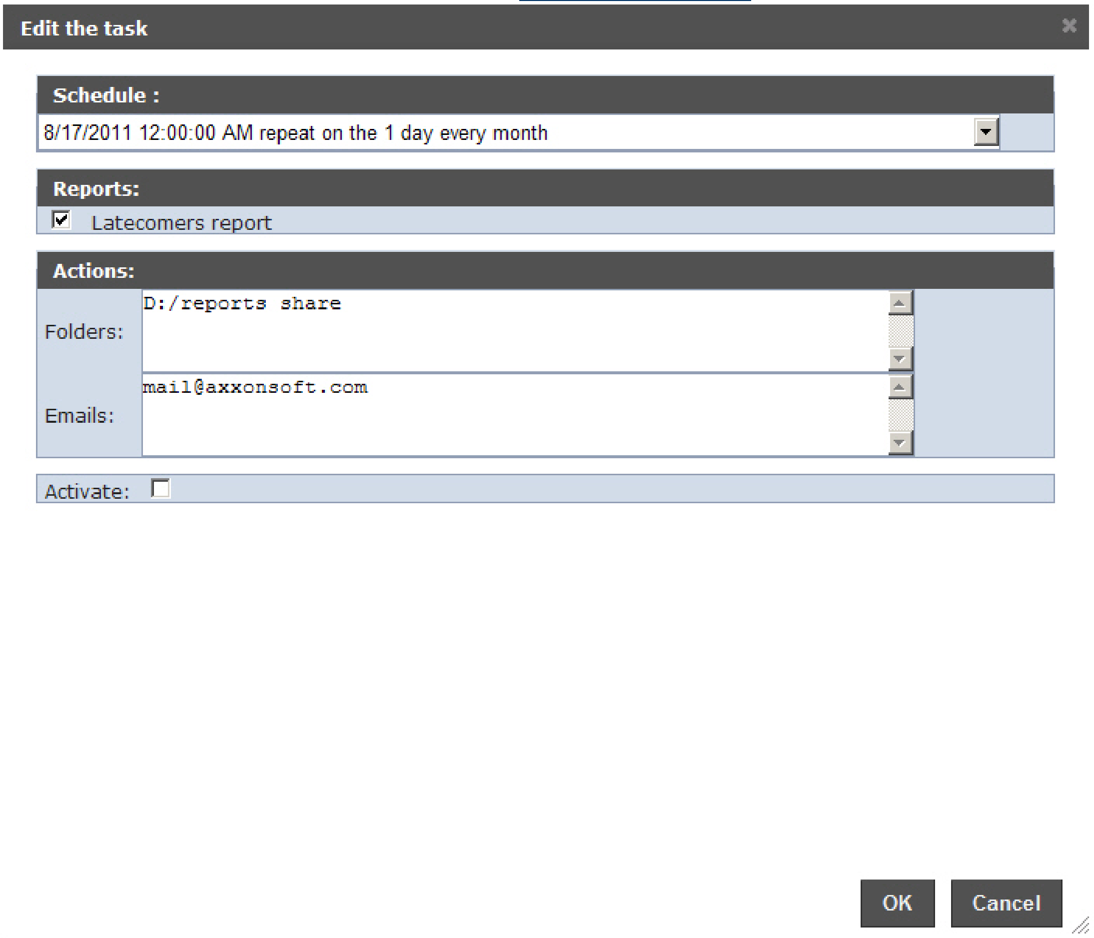
Running or/and stopping the task execution are completed.

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 the 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.**

Note.

In order to cancel the changes in the task click **Cancel**.

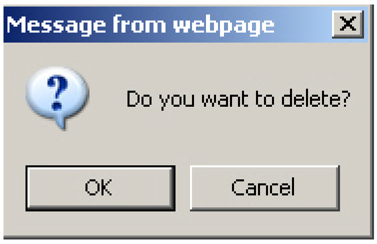
Editing the auto-executed task is completed.

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.

Setting up the POS reports

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

POS reports setup consists of:

1. Creating the list of POS operators.
2. Setting up the statuses of POS events.
3. Setting up the groups of statuses of POS events.

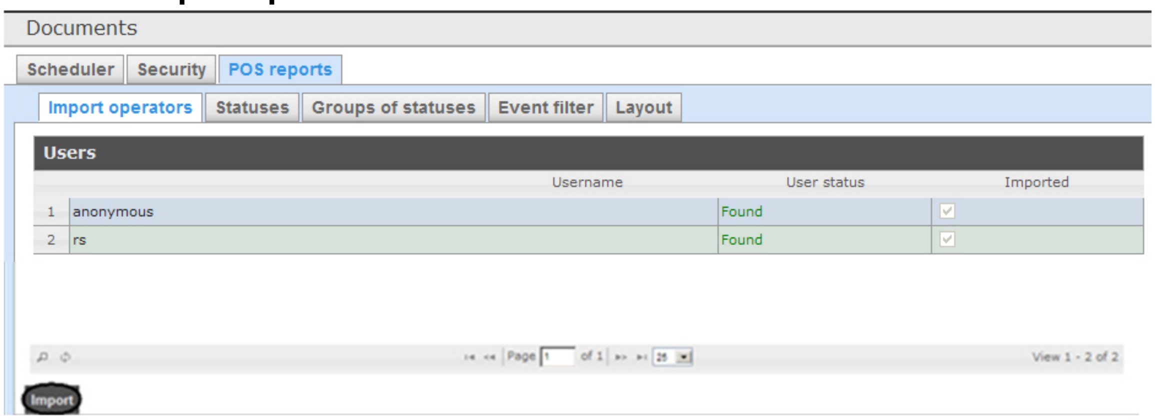
Creating the list of POS operators

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 in it is necessary to import users from the general list of *Report System* users.

In order to import users do the following:

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



2. The list of users registered in *Report System* 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.

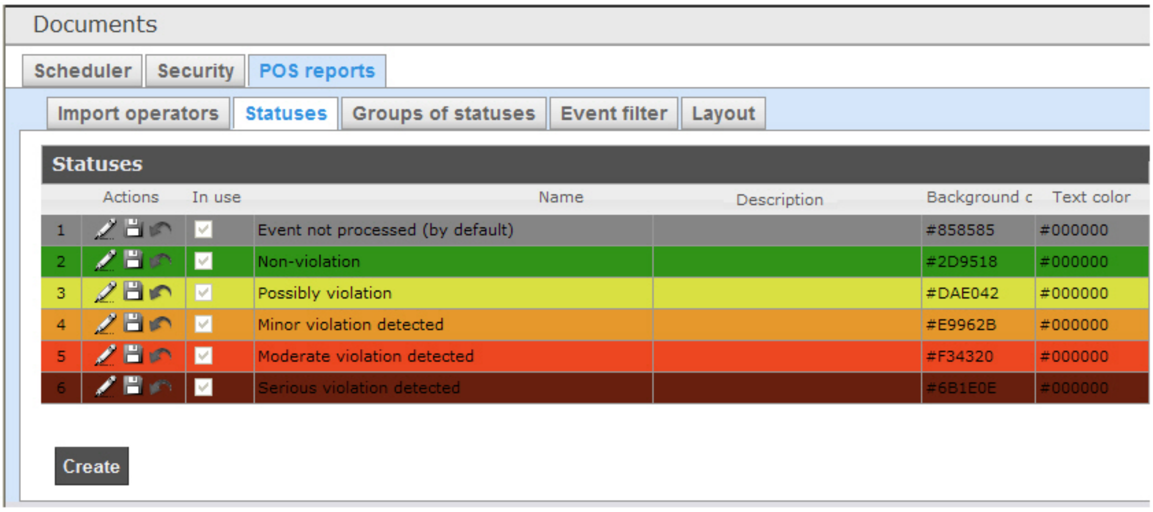
Setting up the statuses of POS events

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 *ReportSystem*:

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

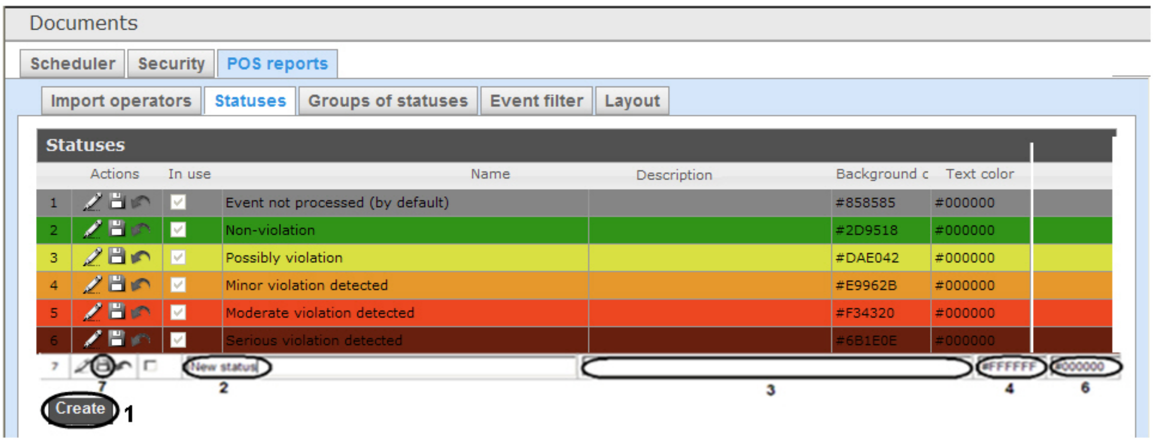


One can create user statuses and edit all existing ones.

Creating the user status

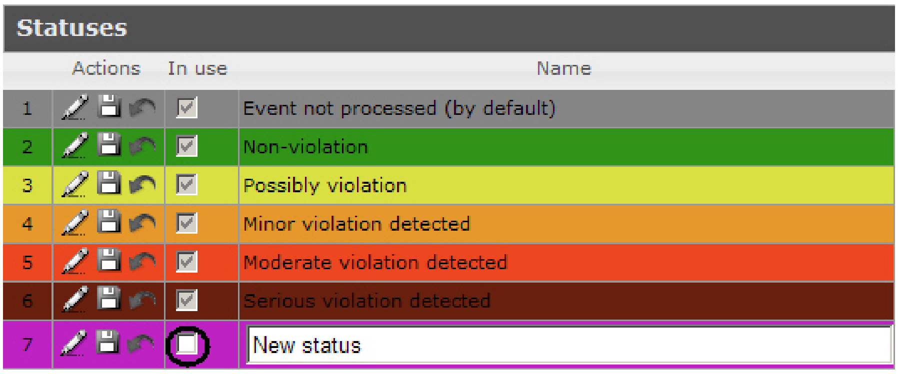
In order to create the user status do the following:

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 (**5**). 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 (**6**).
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 (**7**) in the **Actions** column.

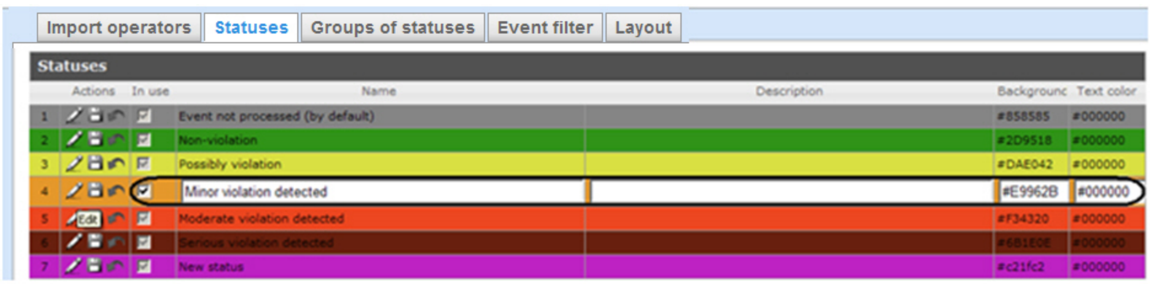
> **Note.**
>
> In order to cancel the status creation click in the same column.

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.

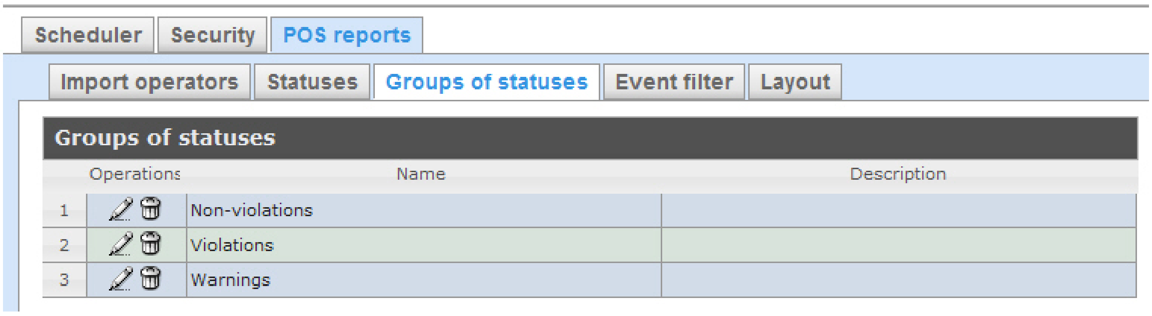
> **Note.**
>
> In order to cancel the changes in the status click in the same column.

Status editing is completed.

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 *Report System* 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 *Report System*.

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

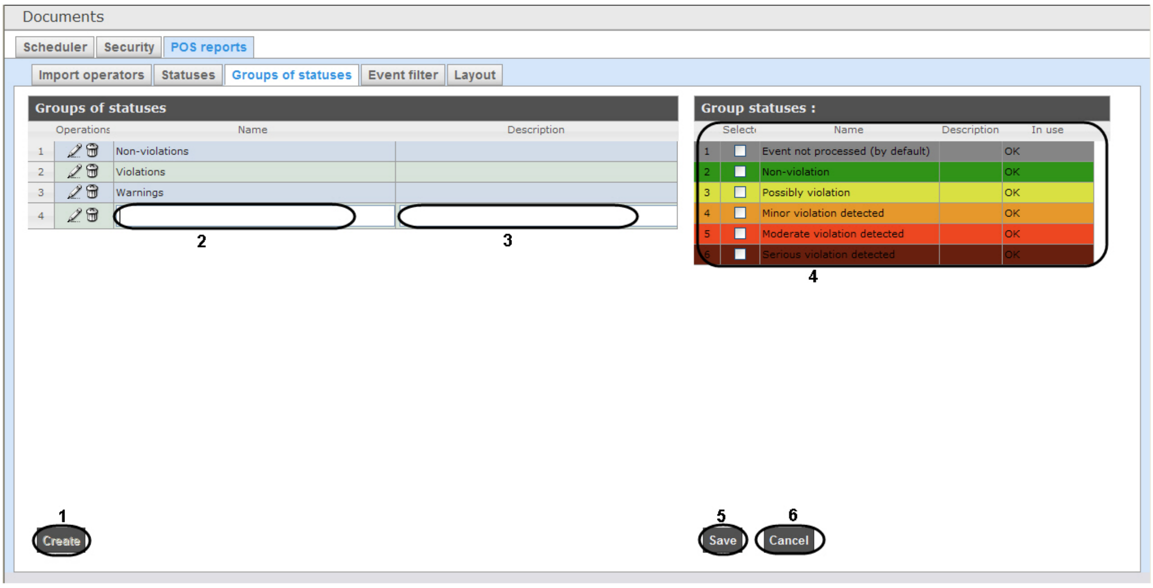
Group of statuses	**Statuses**
Non-violations	Non-violation
Violations	Minor violation detected
	Moderate violation detected
	Serious violation detected
Warnings	Event not processed
	Possibly violation

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

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

4. In the **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 **OK**). Otherwise the statuses will be ignored while making a report by group.

5. In order to save parameters of a new group of statuses click **Save** (**5**).

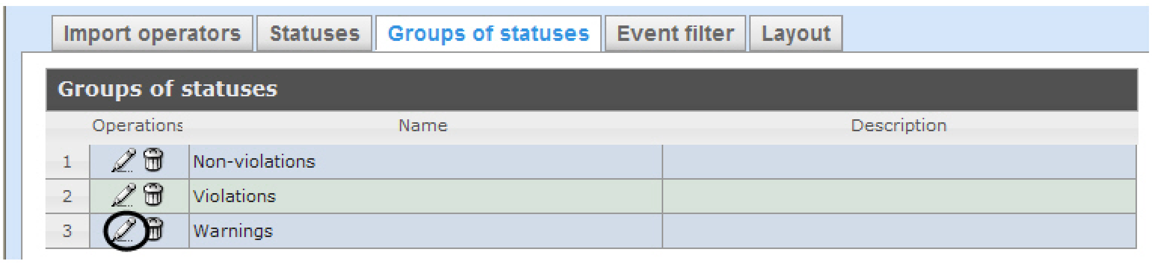
> **Note.**
>
> In order to cancel the creating a new group of statuses click **Cancel** (**6**).

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.

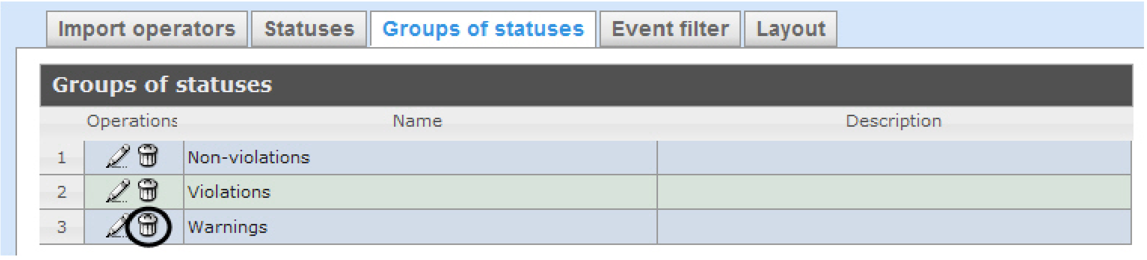
3. As a result it will be possible to edit all parameters of a group of statuses. One can edit the group of statuses by analogy with its creation (see Creating a group of statuses section).

Editing a group of statuses is completed.

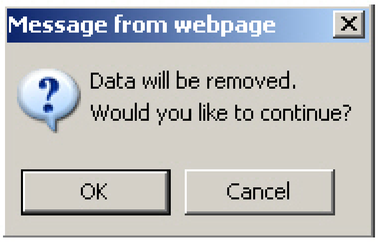
Deleting a group of statuses

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**.

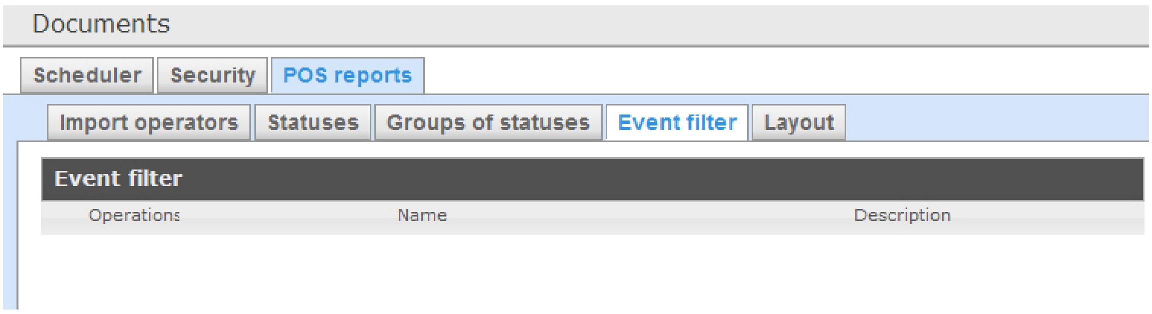


Deleting a group of statuses is completed.

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 filter** tab.



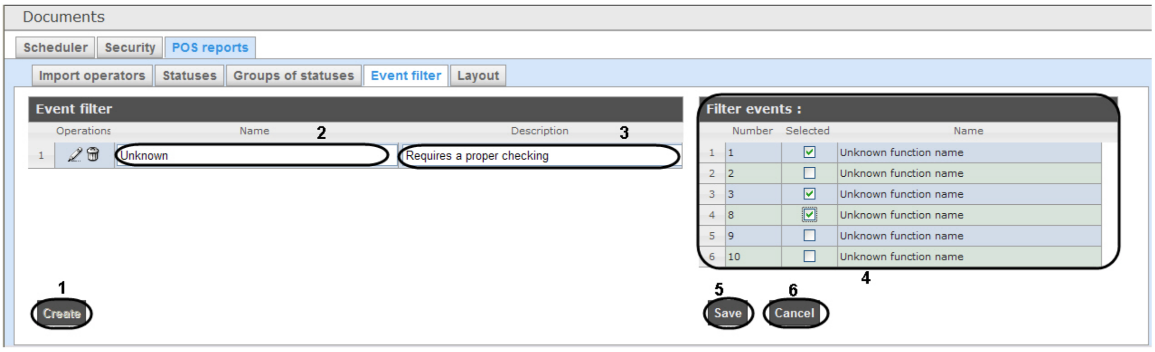
By default none filters are created in *Report System*.

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**).
3. As a result a new line is added to the **Event filter**table. Fill in its fields:
   3.1 In the **Name** field enter the name of a new filter of events (**2**).
   3.2 In the **Description** field enter a short description of a filter of events (**3**).

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

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

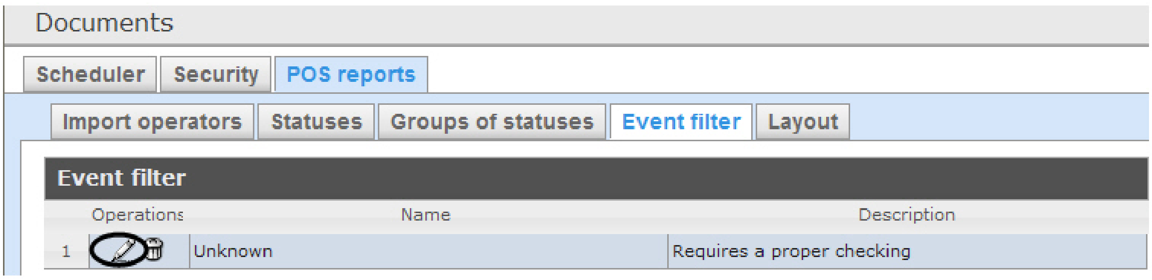
> **Note.**
>
> In order to cancel the creating a new filter of events click **Cancel** (**6**).

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 filter** tab.



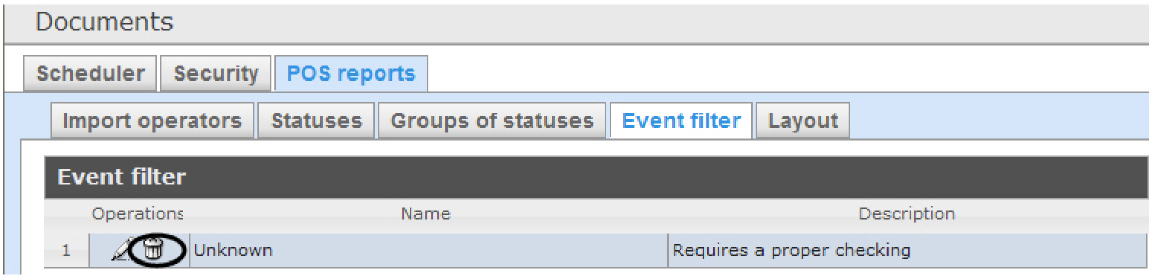
2. For the required filter of events click  in the **Operations** column.
3. As a result it will be possible to edit all parameters of a filter of events. One can edit the filter of events by analogy with its creation (see Creating a filter of events section).

Editing a filter of events is completed.

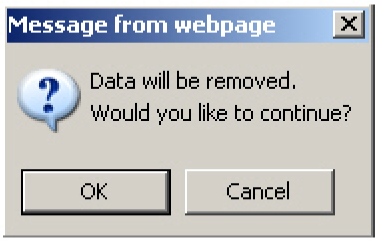
Deleting a filter of events

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

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

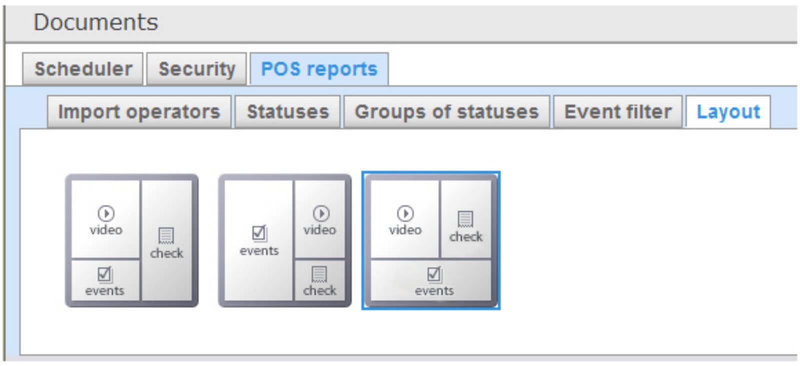


Deleting a filter of events is completed.

Selecting layouts in POS reports

One can select the layout of POS reports to make *Report System* 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 *Report System*.

Select the needed layout by clicking the left mouse button.

Working with Report System

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

In the current release *Report System* allows creating and processing reports of the following software products:

1. *POS Intellect* software package*;*
2. *Time and attendance* module (installed from *ACFA Intellect* software package distribution kit);
3. detection package *(*Queue Length detection and People Counter detection);
4. *AUTO Intellect* software package.

Working with POS reports

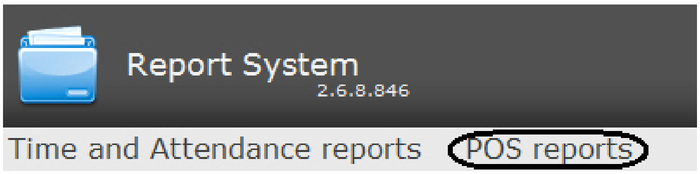
POS reports are created by the local database of the *Intellect* software package, but it is also possible to use data from remote servers. Configuration of database replication is needed (see *POS-Intellect Software Package. Administrator's guide* document*, Configuring the POS-replicator system object* section).

Working with POS reports starts with selection of summary report type.

General reports

Selecting a type of general POS report

In order to select type of general POS report click **POS reports** in the menu of reports.



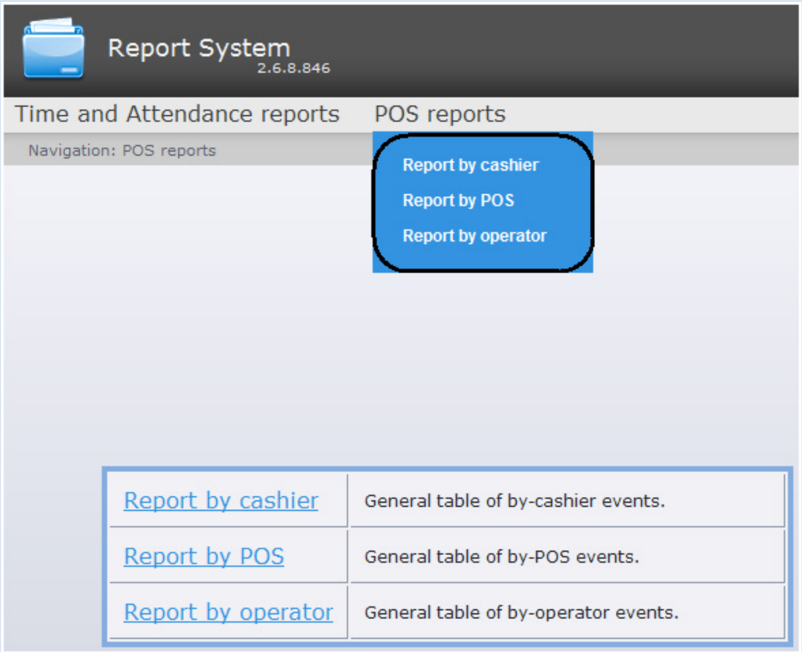
As a result the list of available general POS reports (with a short description of each one) is displayed:

1. Report by cashier is a general table of by cashier-events;
2. Report by POS is a general table of by POS-events;
3. Report by operator is a general table of by operator-events.

In order to switch to the required report click the corresponding link.

Note.

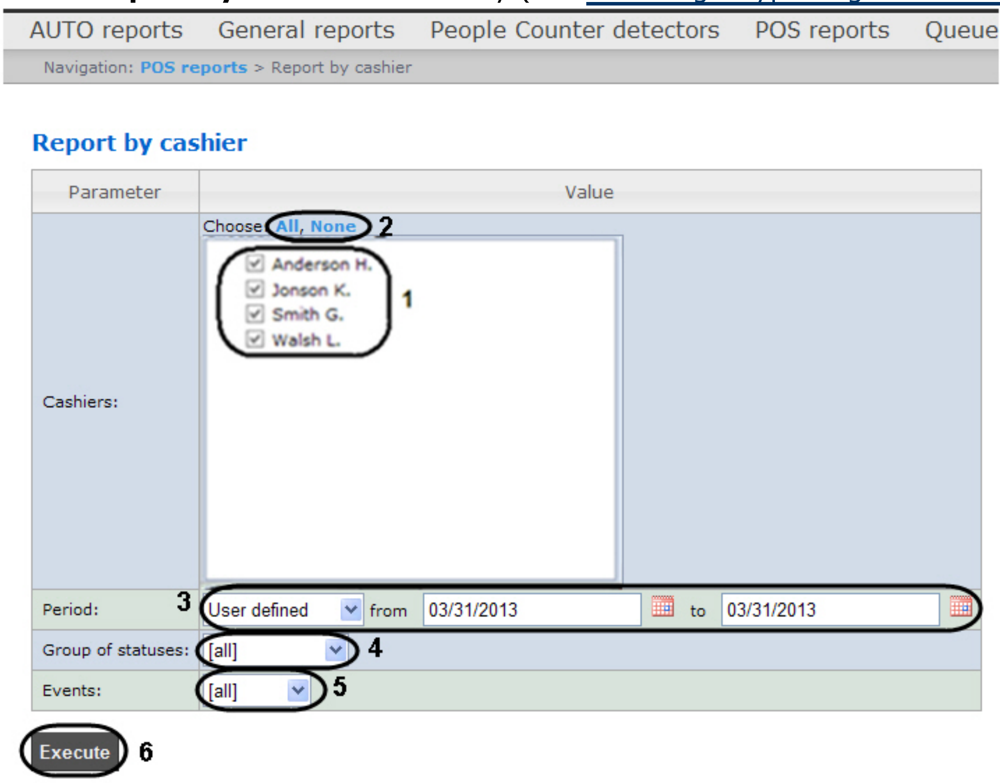
The list of links for switching to general POS reports is also available when hovering over a link to **POS reports** in the reports menu.



Report by cashier

In order to display a report by cashier do the following:

1. Select **Report by cashier** in one way (see Selecting a type of general POS report section).

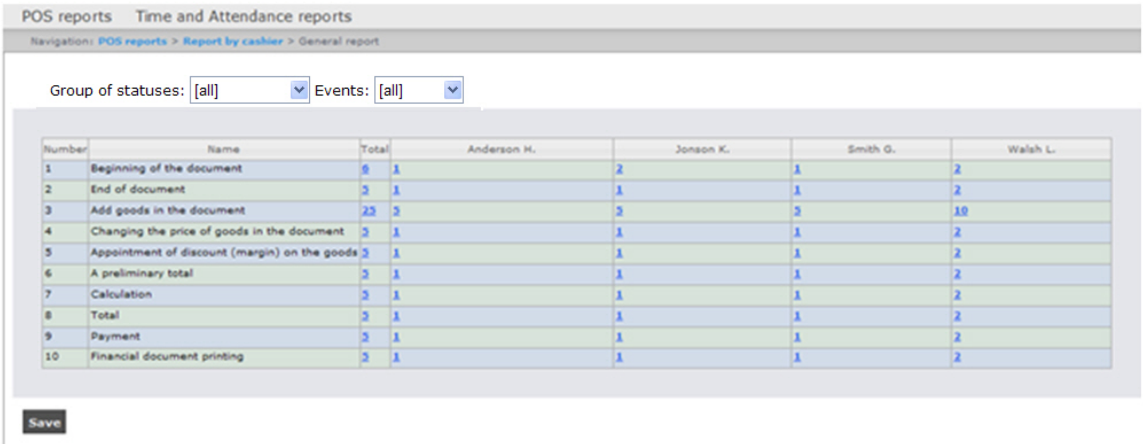


2. Select cashiers by whom it is necessary to display a report by setting corresponding checkboxes checked in the list (**1**).

> **Note.**
>
> In order to set checkboxes checked in every item of the list click **All**, to set all checkboxes unchecked click **None** (**2**).

3. Set a period for which it is necessary to display a report (**3**). One can set both a standard period (e.g. current month, preceding year etc.) and a user one.
4. Specify a group of statuses of those events that should be displayed in a report (**4**). If **All** is selected then all POS reports are displayed regardless of their status.
5. Specify a filter of those events that should be displayed in a report (**5**). If **All** is selected then filter of events is not considered and report is created by all events.
6. Click **Execute** (**6**).

As a result a general table of by-cashier events (according to the parameters) is displayed. In the **Total** column the total amount of events is displayed by their type. In the column called by cashier name the amount of events registered for this cashier is displayed by their type.



Number	Name	Total	Anderson H.	Jonson K.	Smith G.	Walsh L.
1	Beginning of the document	6	1	2	1	2
2	End of document	5	1	1	1	2
3	Add goods in the document	25	5	5	5	10
4	Changing the price of goods in the document	5	1	1	1	2
5	Appointment of discount (margin) on the goods	5	1	1	1	2
6	A preliminary total	5	1	1	1	2
7	Calculation	5	1	1	1	2
8	Total	5	1	1	1	2
9	Payment	5	1	1	1	2
10	Financial document printing	5	1	1	1	2

In order to save a general report by cashier in.xls format click **Save**.

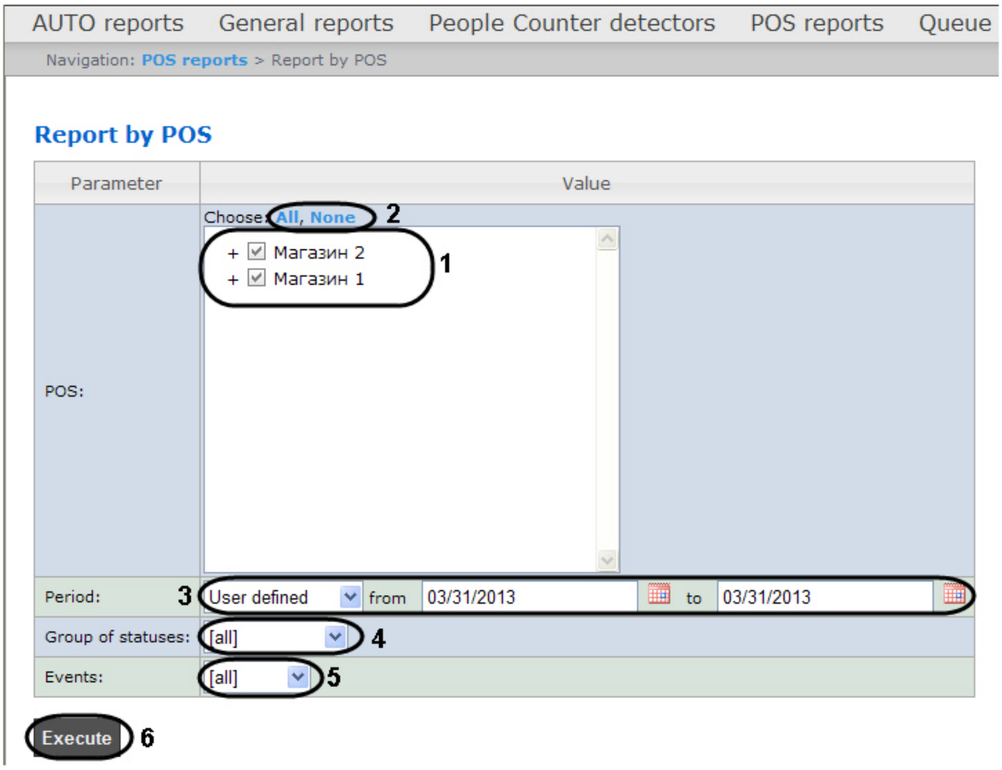
Report by POS terminal

> **Attention!**
>
> In order to create reports by POS terminal the **Shop** objects are to be created and configured in the Intellect software package. The **Shop** object is created on the **Programming** tab of the **System settings** dialog box.

> **Note.**
>
> Detailed information about **Shop** object settings see in the Setting up the Shop system objects section of the POS-Intellect Software Package. Administrator's Guide document.

In order to display a report by POS do the following:

1. Select **Report by POS** in one way (see Selecting a type of general POS report section).



2. Select POS terminals (cash desks) by which it is necessary to display a report by setting corresponding checkboxes checked in the list (**1**).

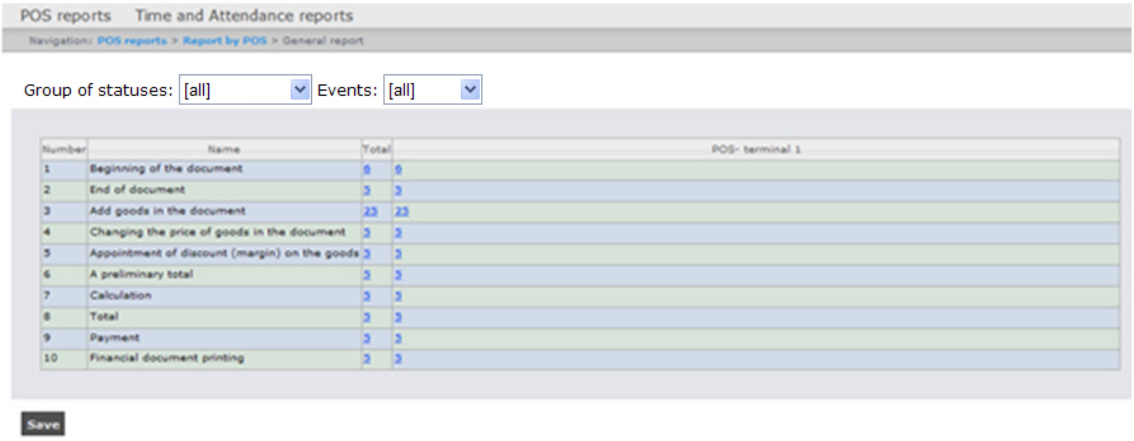
> **Note.**
>
> In order to set checkboxes checked in every item of the list click **All**, to set all checkboxes unchecked click **None** (**2**).

> **Note.**
>
> In order to select all POS terminals in one shop set a checkbox for this shop. In order to delete all POS terminals of a shop from report do vice versa: set a checkbox unchecked for this shop.

> **Note.**
>
> POS terminals which do not related with the shop are not available in the list.

3. Set a period for which it is necessary to display a report (**3**). One can set both a standard period (e.g. current month, preceding year etc.) and a user one.
4. Specify a group of statuses of those events that should be displayed in a report (**4**). If **All** is selected then all events are displayed regardless of their status.
5. Specify a filter of those events that should be displayed in a report (**5**). If **All** is selected then filter of events is not considered and report is created by all events.
6. Click **Execute** (**6**).

As a result a general table of by POS events (according to the parameters) is displayed. In the **To tal** column the total amount of events is displayed by their type. In the column called by cash desk name the amount of events registered for this cash desk is displayed by their type.



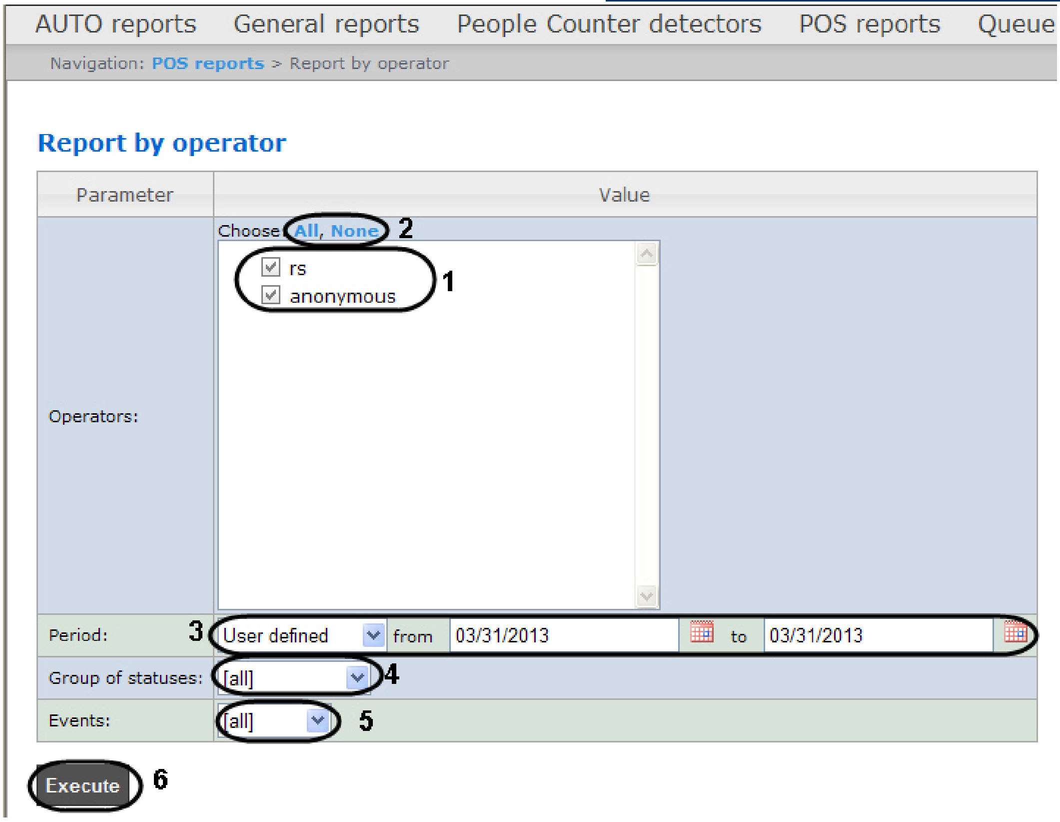
In order to save a general report by POS terminals in.xls format click **Save**.

Report by POS operator

One can create reports by POS operators that gave one or another status to POS events.

In order to display a report by POS operator do the following:

1. Select **Report by operator** in one way (see Selecting a type of general POS report section).



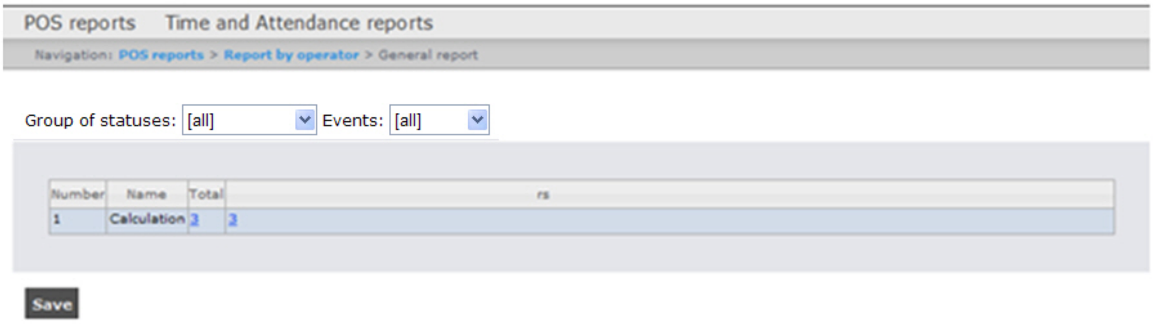
2. Select POS operators by which it is necessary to display a report by setting corresponding checkboxes checked in the list (**1**).

> **Note.**
>
> In order to set checkboxes checked in every item of the list click **All**, to set all checkboxes unchecked click **None** (**2**).

3. Set a period for which it is necessary to display a report (**3**). On can set both a standard period (e.g. current month, preceding year etc.) and a user one.
4. Specify a group of statuses of those events that should be displayed in a report (**4**). If **All** is

selected then all events are displayed regardless of their status.
5. Specify a group of those events that should be displayed in a report (**5**). If **All** is selected then filter of events is not considered and report is created by all events.
6. Click **Execute** (**6**).

As a result a general table of by-operator events (according to the parameters) is displayed. In the **Total** column the total amount of events is displayed by their type. In the column called by POS operator name the amount of events processed by this operator (changed a status) is displayed by their type.



In order to save a general report by POS operators in.xls format click **Save**.

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.

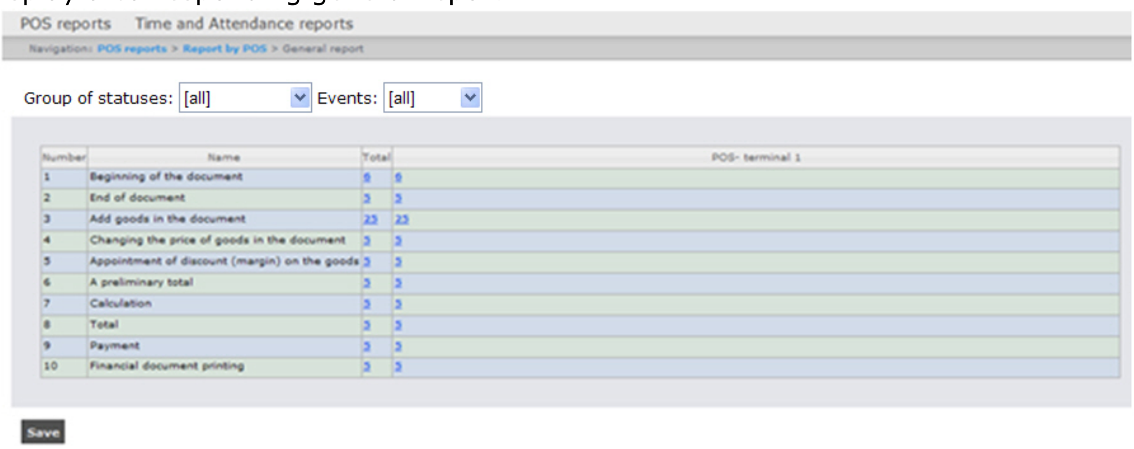
A detailed report enables viewing data from the POS terminal that corresponds to the POS event. It also enables viewing an event archive (if there are relevant settings in *POS Intellect* software package).

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:

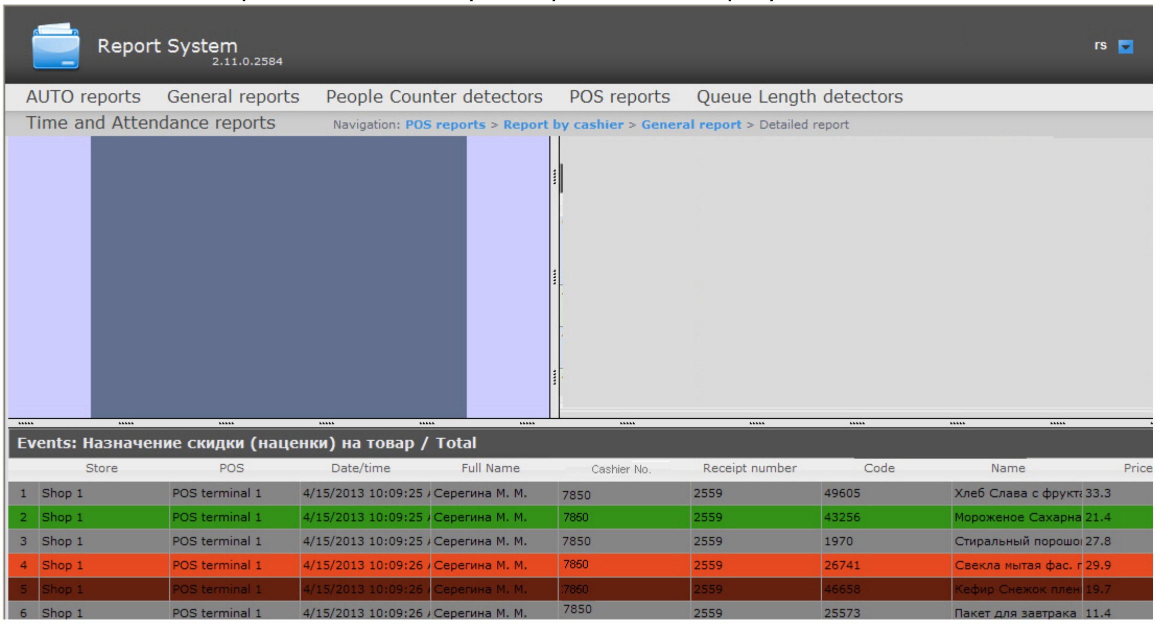
1. Display a corresponding general report.



2. Click the link in the cell corresponding to a necessary event and a cashier/POS terminal/ POS operator. To display a detailed report by event for all cashiers/POS terminals/ POS operators click the corresponding link in the **Total** cell.

Name	Total	Anderson H.
Beginning of the document	6	1
End of document	5	1
Add goods in the document	25	5
Changing the price of goods in the document	5	1
Appointment of discount (margin) on the goods	5	1
A preliminary total	5	1
Calculation	5	1
Total	5	1
Payment	5	1
Financial document printing	5	1

3. As a result the required detailed report by event is displayed.



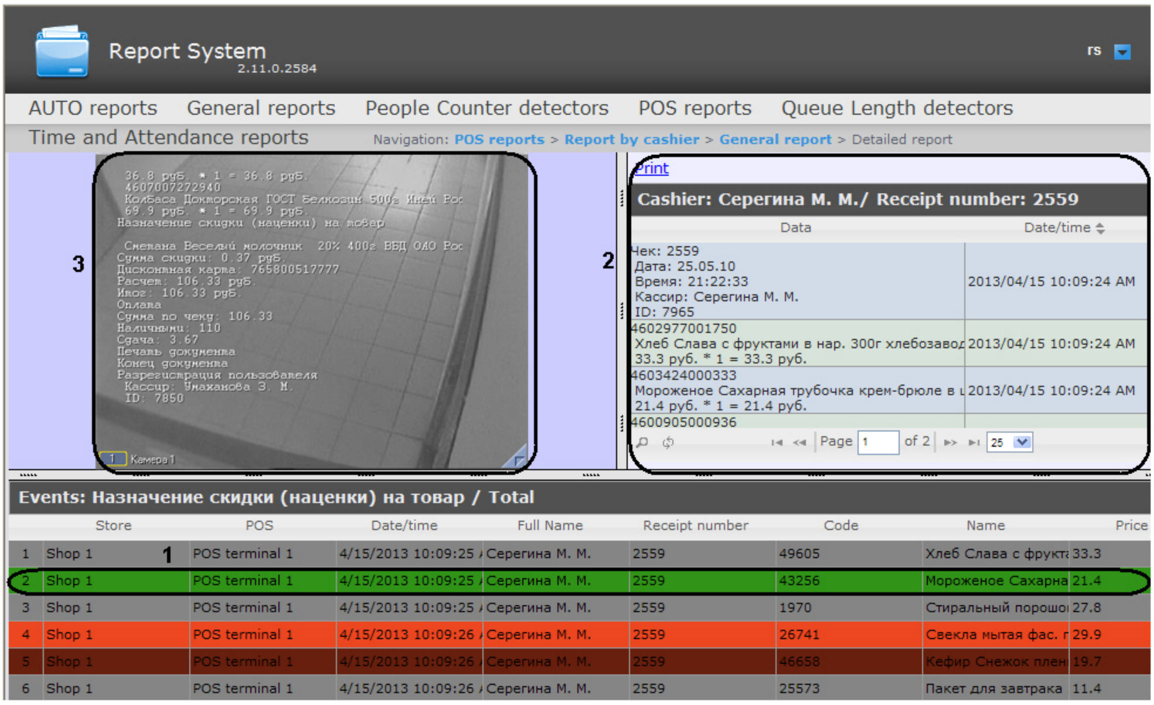
All detailed reports are the same in the structure and represent the table that consists of the following columns:

1. Store where the event happened;
2. Number of POS terminal where the event happened;
3. Date and time of event registration;
4. Full name of cashier for whom the event was registered;
5. Number of cashier;
6. Receipt number in which the event was registered;
7. Code;
8. Name;
9. Price;
10. Quantity;
11. Total sum;
12. Receipt total;
13. Cash;
14. Change;
15. Previous status of event;
16. Current status of event;
17. POS operator who gave the current status to the event;
18. Date and time of last status change.

Viewing data from the POS terminal and the video of event

In order to view data from the POS terminal and video of event, do the following:

1. Display a detailed report.



2. Left-click the line with the required event (**1**).
3. As a result data from the POS terminal by event (**2**) and video events (**3**) are displayed in the provided windows.

Window for viewing the video by event is a standard *Intellect* 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 [In tellect software package. Operator's guide].

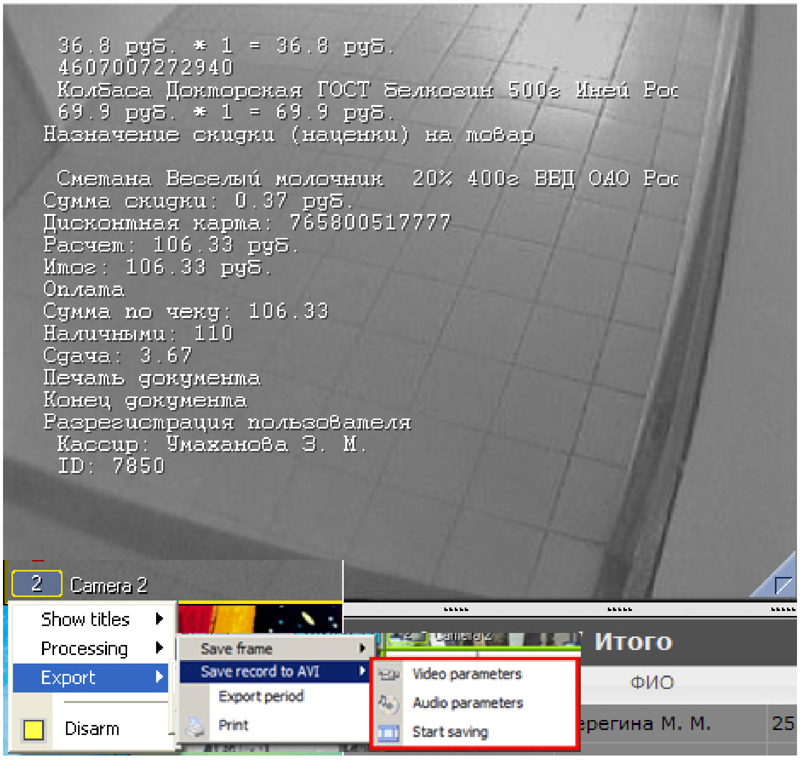
> **Note.**
>
> Video can not be displayed (it depends on whether the requirements for Web server and/or Client realization are performed – see the [Requirements for Report System realization] section).

> **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] sec tion).

Exporting the video

The video recording segment is exported using the playback control panel.

Choose **Export** in the functions menu of the video surveillance window and then select **Save Recording to AVI**.



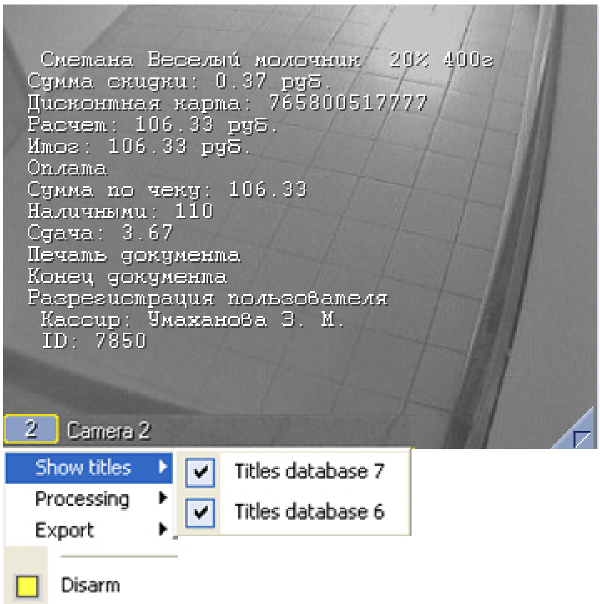
Parameters of the video and audio, which will be saved, may be configured in the displayed window. As soon as recording saving parameters are selected, the video segment may be exported to the file by selecting the **Start Saving** command (exporting the video is given in details in the Export of Silent Video Recordings section in Intellect software package. Operator's guide).

On default, exporting the video is performed to the *My documents**Export* folder.

Disabling titles in the video surveying window

To disable titles in the video surveying window, do the following:

1. Choose **Show titles** in the functions menu of the video surveillance window.



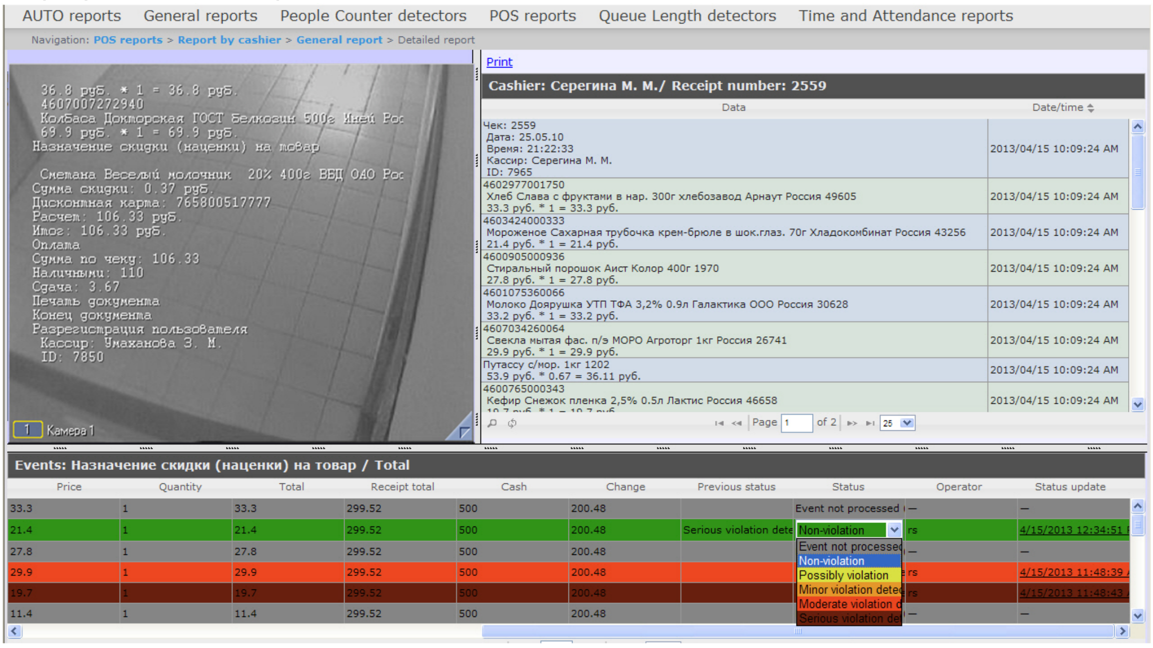
2. In the displayed list of available titles databases select those from which titles are to be received.
3. To disable titles from some titles database left-click the line with the required titles database.

Changing the event status

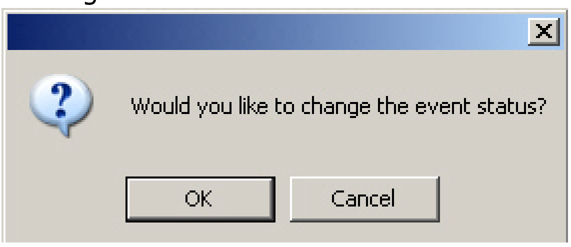
> **Attention!**
>
> For this operation the user should be added to the POS expert role.

In order to change the event status, do the following:

1. Display a detailed report.



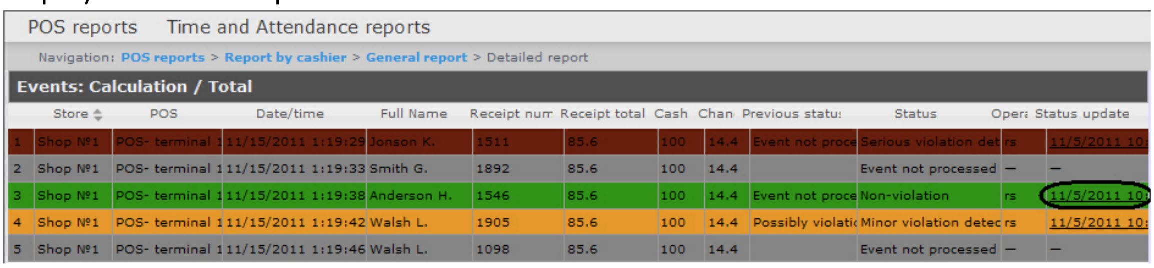
2. Left-click in the **Status** field. As a result the list of available statuses is displayed.
3. Left-click on the required status. In the appeared window confirm the status changing by clicking **OK**.



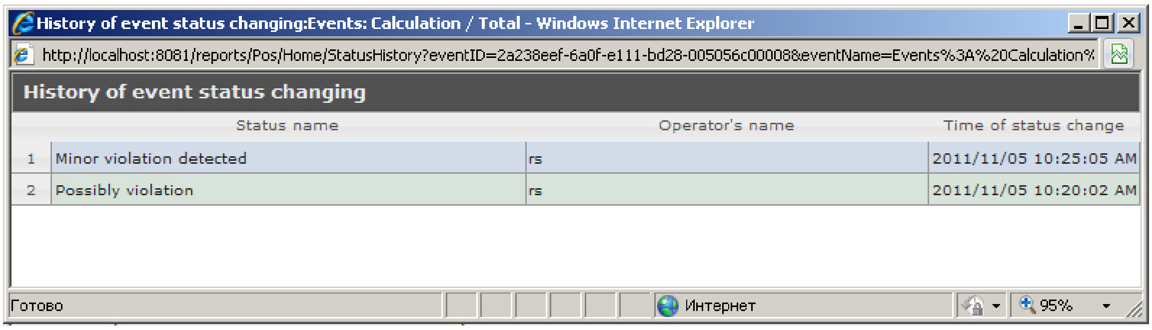
Viewing the history of event status changing

In order to view the history of event status changing, do the following:

1. Display a detailed report.



2. Left-click the link in the **Status update** field where the date and time of last status changing is displayed (if there is any status for event).
3. As a result the **History of event status changing** page appears where the following data is displayed: status name, name of operator who gave the status, and time of status change



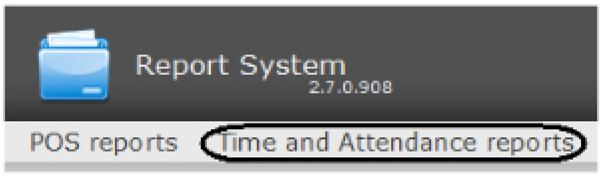
Working with Time and Attendance reports

Working with Time and Attendance reports consists of three stages:

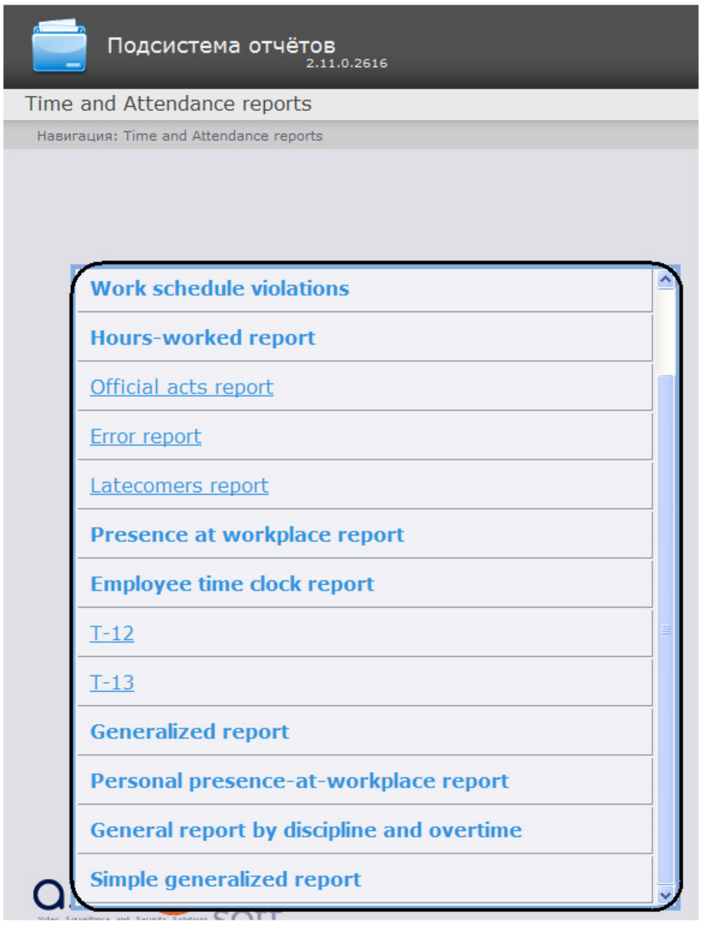
1. Selecting a type of report.
2. Creating a report.
3. Viewing a report.

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** li nk in *Report System* menu.

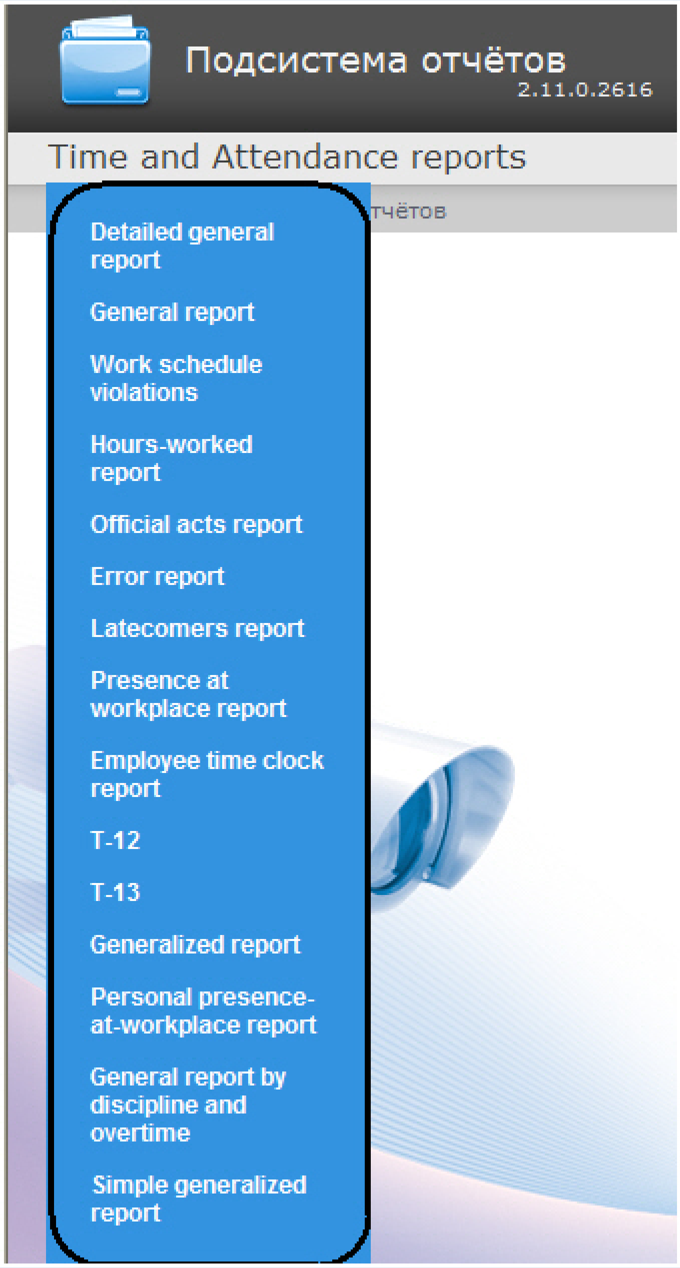


As a result the list of available Time and Attendance reports is displayed. For switching to the required report click the corresponding link.


Подсистема отчётов
2.11.0.2616
Time and Attendance reports
Навигация: Time and Attendance reports
Work schedule violations
Hours-worked report
Official acts report
Error report
Latecomers report
Presence at workplace report
Employee time clock report
T-12
T-13
Generalized report
Personal presence-at-workplace report
General report by discipline and overtime
Simple generalized report

Note.

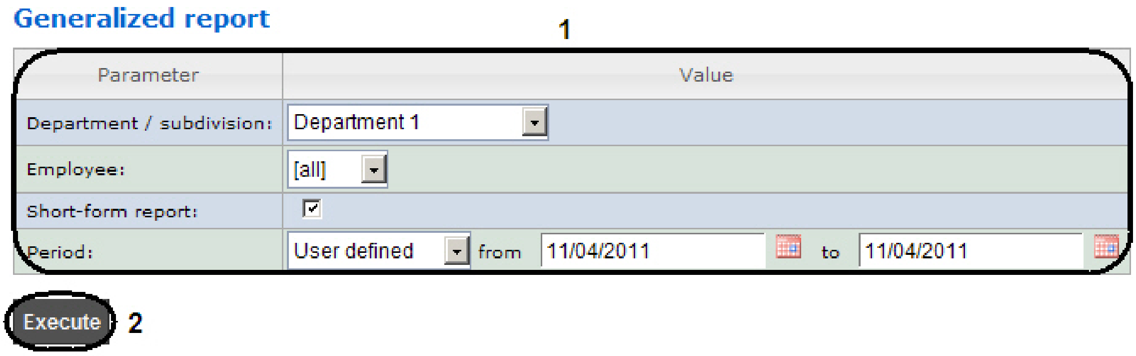
List of links for switching to Time and Attendance reports is available when hovering over the **Time and Attendance reports** link in the report menu.



Creating a Time and Attendance report

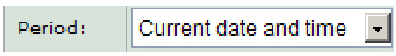
In order to create a Time and Attendance report, do the following:

1. Select a Time and Attendance report in one way (see Selecting a type of Time and Attendance report section).
2. Set required values to the parameters that are necessary for displaying the report of selected type (**1**).



> **Note.**
>
> The figure illustrates the parameters of a **Generalized report**.

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 for selecting the area by which data is displayed in the report	• Detailed general report • General report • Presence in the workplace report • Personal presence-at-workplace report
	Used for setting the period by which the report is displayed	Used in all reports
	Used for selecting the department or subdivision by which the report is displayed	• Work schedule violations • Hours-worked report • Official acts report • Error report • Latecomers report • Presence in the workplace report • Employee time clock report • T-12 • T-13 • Generalized report • General report by discipline and overtime • Simple generalized report
	When the checkbox is checked then entrances/exits points are displayed in the report	• Presence in the workplace report • Personal presence-at-workplace report

	When the checkbox is checked then the data only by working area is displayed in the report	• Presence in the workplace report • Personal presence-at-workplace report
	Used for selecting the employee by whom the report is displayed	• Work schedule violations • Hours-worked report • Official acts report • Error report • Latecomers report • Presence in the workplace report • Employee time clock report • Generalized report • General report by discipline and overtime • Simple generalized report • Personal presence-at-workplace report
	Some fields are hidden when the checkbox is checked	• Presence in the workplace report • Generalized report • Personal presence-at-workplace report

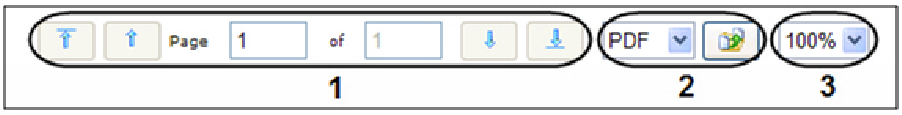
3. Click **Execute** (**2**).

As a result a report is created and displayed.

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.



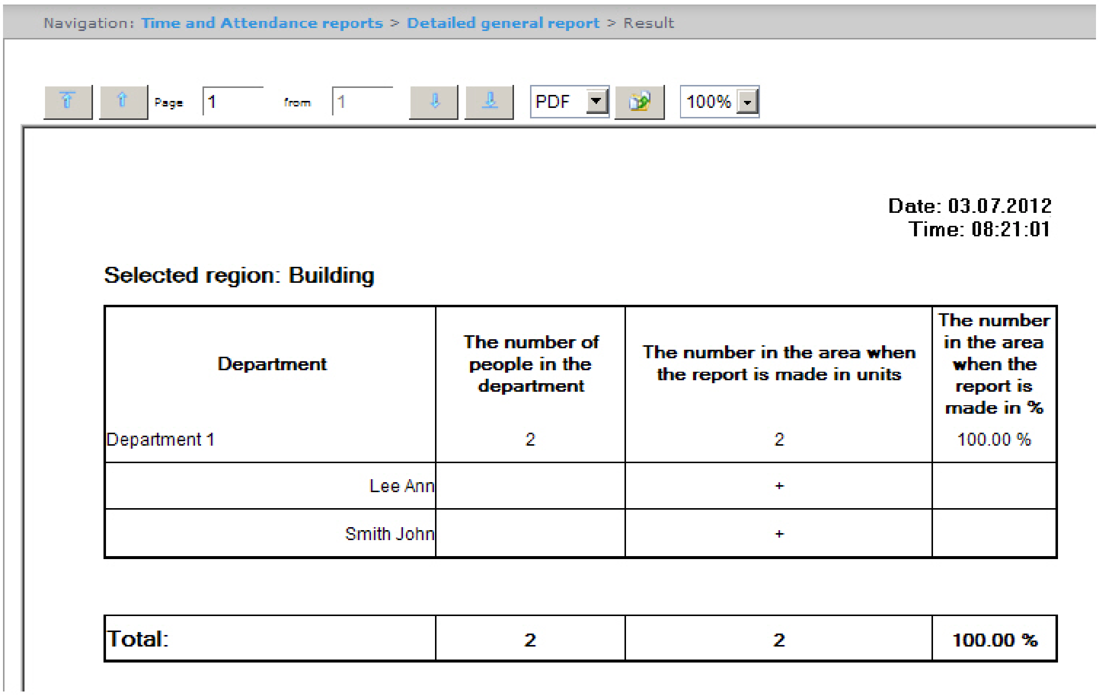
In order to switch to the previous and next report page click  and  correspondingly (**1**). In order to go back to the first report page click . In order to go to the last report page click .

Report System allows exporting the created Time and Attendance report to computer. For this one should 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** presents the information about the presence of staff in the area with details by employees. The report contains the information about the number of people in the department, the number of employees in the area when the report is made and the number of employees in the area when the report is made in %.



Date: 03.07.2012
Time: 08:21:01

Selected region: Building

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 %
Department 1	2	2	100.00 %
Lee Ann		+	
Smith John		+	

Total:	2	2	100.00 %

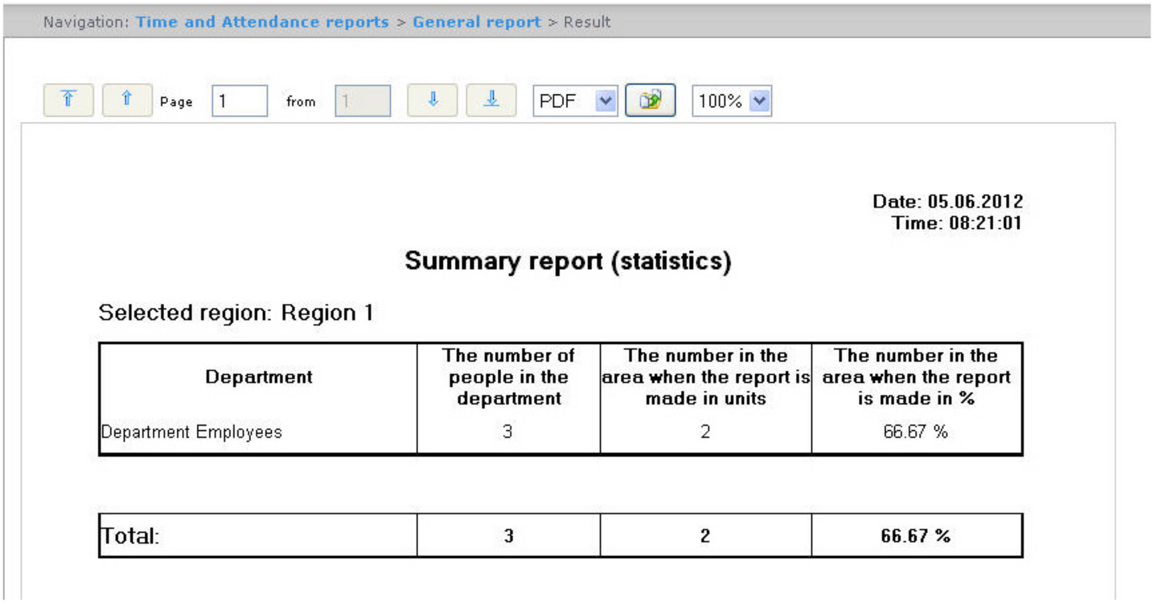
Note.

The employees that are present in the area when the report is made are marked with "+", those who are absent are marked with "-".

In the **Total** line there is the information about the total number of people in the department, total number of employees present in the area and the percentage of employees in the area when the report is made.

General report

A **General report** is a table that contains the information about the number of employees in the department, the number of employees present in the area and the percentage of employees in the area when the report is made.



Navigation: Time and Attendance reports > General report > Result

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Date: 05.06.2012
Time: 08:21:01

Summary report (statistics)

Selected region: Region 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 %
Department Employees	3	2	66.67 %
Total:	**3**	**2**	**66.67 %**

In the **Total** line there is the information about the total number of people in the department, total number of employees present in the area and the percentage of employees in the area when the report is made.

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

Date: from 04.06.2012
to 10.06.2012

Violating working regulations

Department: Department Employees

Hood William (Working schedule)

Planned date and time	Actual date and time	Violation type	Duration	Code
04.06.2012 10:00:00	04.06.2012 15:23:46	Coming late	07:23:46	
Total by day			**07:23:46**	
05.06.2012 10:00:00	05.06.2012 08:11:36	Leaving earlier	09:48:24	
Total by day			**09:48:24**	
06.06.2012 10:00:00		Absence	10:00:00	
Total by day			**10:00:00**	
07.06.2012 10:00:00		Absence	10:00:00	
Total by day			**10:00:00**	
08.06.2012 10:00:00		Absence	10:00:00	
Total by day			**10:00:00**	

Total by employee	Amount	Duration
Coming late	1	07:23:46
Time of absence	0	00:00:00
Leaving earlier	1	09:48:24
Absence	3	30:00:00
Underworking	0	00:00:00

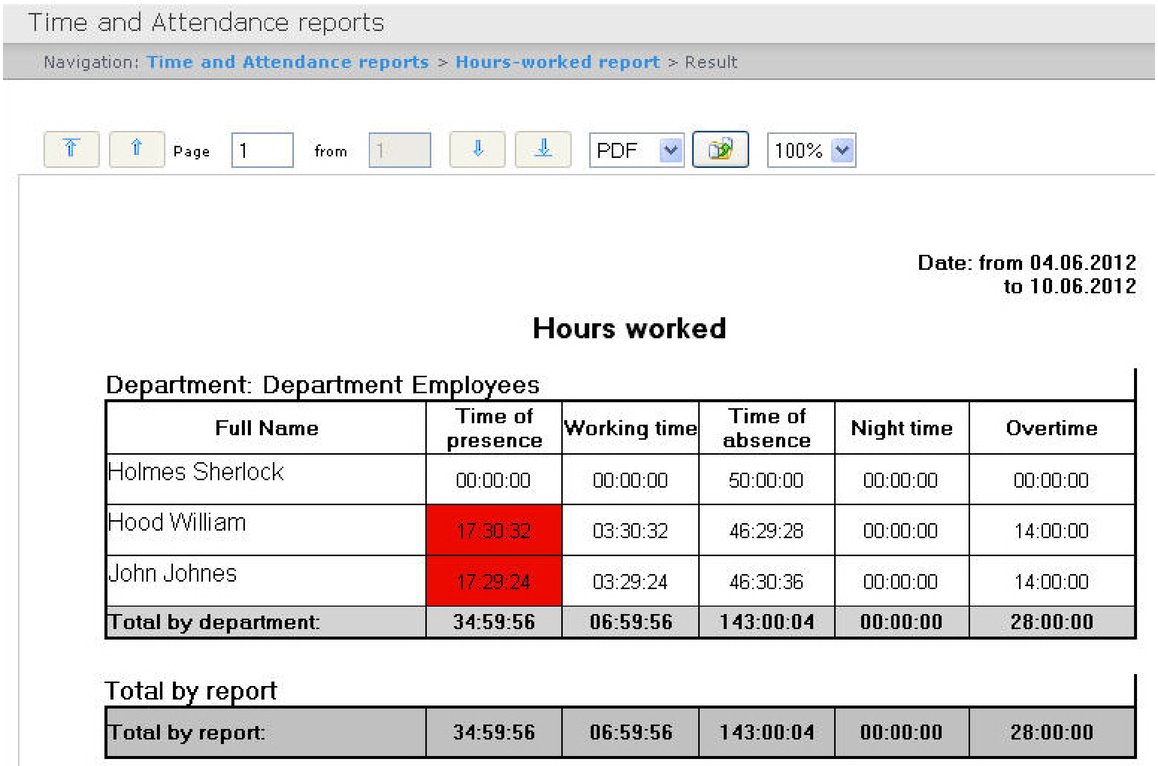
Report fields are described in the table.

Field name	Description
Planned date and time	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

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 about the time worked by the department staff in the specified time period with details by employees.



Date: from 04.06.2012
to 10.06.2012

Hours worked

Department: Department Employees

Full Name	Time of presence	Working time	Time of absence	Night time	Overtime
Holmes Sherlock	00:00:00	00:00:00	50:00:00	00:00:00	00:00:00
Hood William	17:30:32	03:30:32	46:29:28	00:00:00	14:00:00
John Johnes	17:29:24	03:29:24	46:30:36	00:00:00	14:00:00
Total by department:	34:59:56	06:59:56	143:00:04	00:00:00	28:00:00

Total by report

Total by report:	34:59:56	06:59:56	143:00:04	00:00:00	28:00:00

Report fields are described in the table.

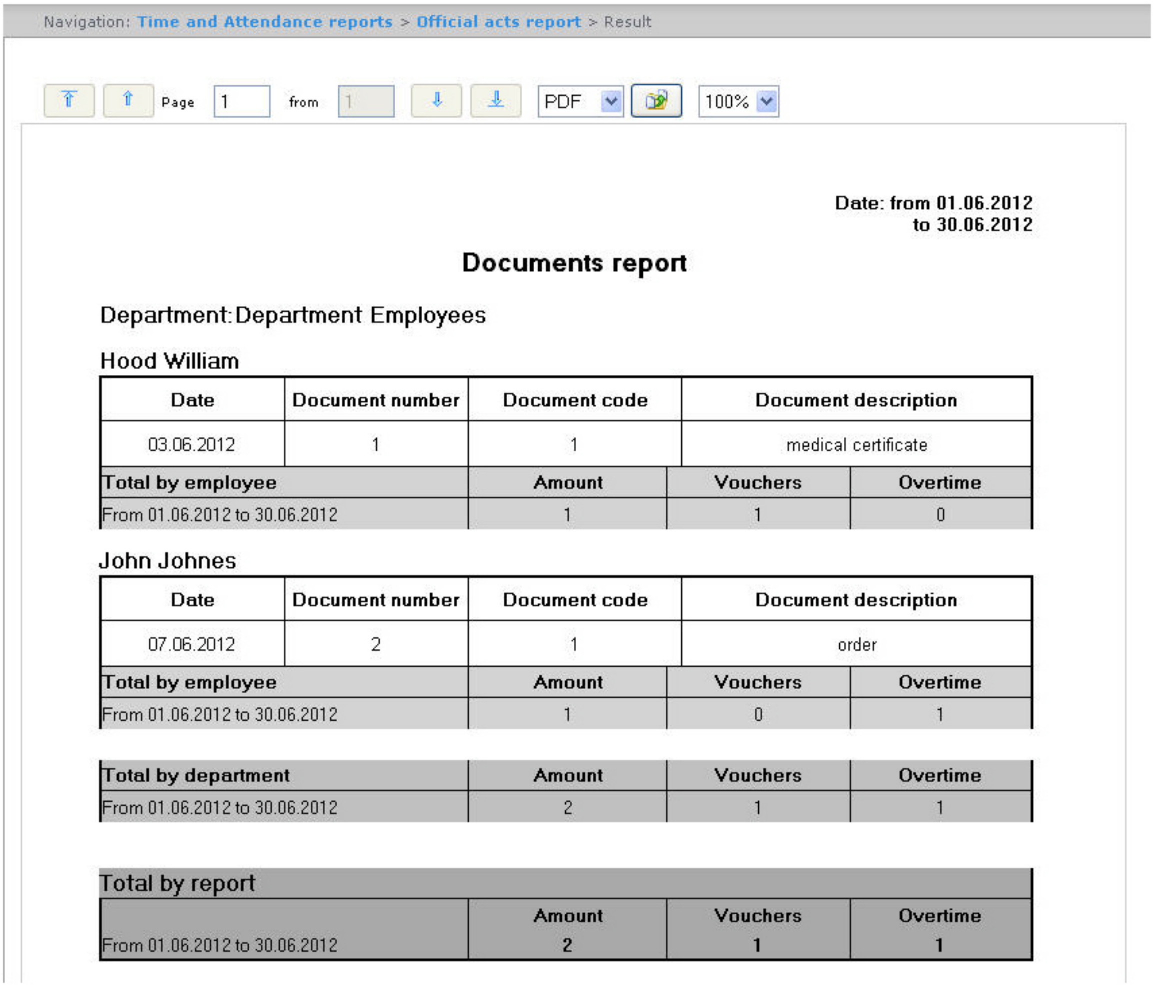
Field name	Description
Full name	Full name of an employee
Time of presence	Time that was spent in the workplace. If time of presence is more than planned working hours for specified period then the field is marked red

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 sum by each report field is calculated in the **Total by department** line.

Official acts report

An **Official acts report** contains the information about *"non-guilty"* and overtime documents that were made by employees in the specified time period.



Report fields are described in the table.

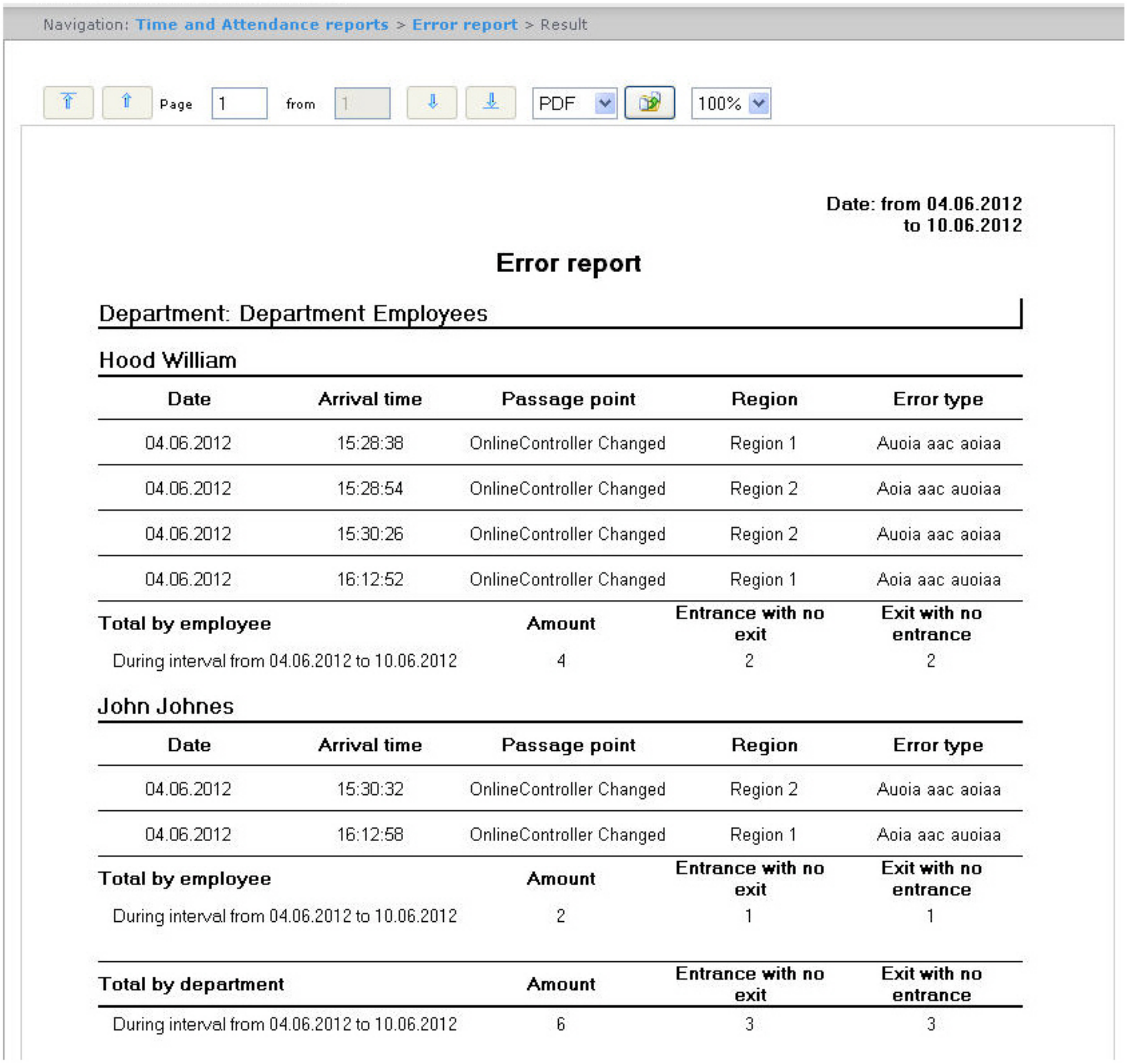
Field name	**Description**
Date	Date of document creation
Document number	Document number given in Time and Attendance program module

Document code	Document code given in Time and Attendance program module
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 employees' erroneous passages.


Navigation: Time and Attendance reports > Error report > Result

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Date: from 04.06.2012
to 10.06.2012

Error report

Department: Department Employees

Hood William

Date	Arrival time	Passage point	Region	Error type
04.06.2012	15:28:38	OnlineController Changed	Region 1	Auoia aac aoiaa
04.06.2012	15:28:54	OnlineController Changed	Region 2	Aoia aac auoiaa
04.06.2012	15:30:26	OnlineController Changed	Region 2	Auoia aac aoiaa
04.06.2012	16:12:52	OnlineController Changed	Region 1	Aoia aac auoiaa

Total by employee	Amount	Entrance with no exit	Exit with no entrance
During interval from 04.06.2012 to 10.06.2012	4	2	2

John Johnes

Date	Arrival time	Passage point	Region	Error type
04.06.2012	15:30:32	OnlineController Changed	Region 2	Auoia aac aoiaa
04.06.2012	16:12:58	OnlineController Changed	Region 1	Aoia aac auoiaa

Total by employee	Amount	Entrance with no exit	Exit with no entrance
During interval from 04.06.2012 to 10.06.2012	2	1	1

Total by department	Amount	Entrance with no exit	Exit with no entrance
During interval from 04.06.2012 to 10.06.2012	6	3	3

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 employee, 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.

Report by late-comers ("leaving earlier")

Period: 04.06.2012 - 10.06.2012

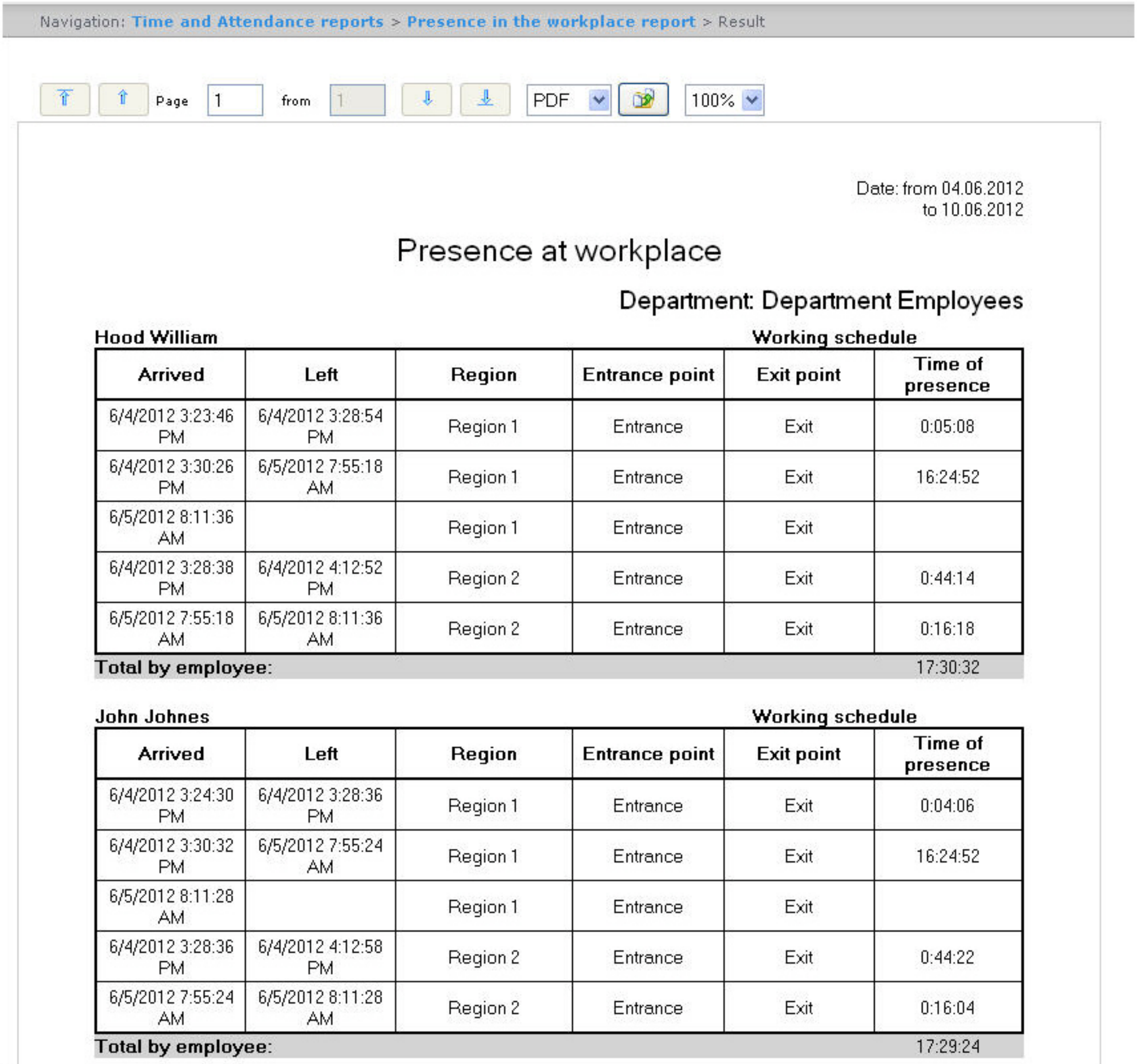
Department:Department Employees

Employee number	Full Name	Time of coming late/underworking						
		04.06.2012	05.06.2012	06.06.2012	07.06.2012	08.06.2012	09.06.2012	10.06.2012
35	Holmes Sherlock	No exit	No exit	No exit	No exit	No exit		
11	Hood William	7:23:46 / 0:00:00	0:00:00 / 9:48:24	0:00:00 / 0:00:00	0:00:00 / 0:00:00	0:00:00 / 0:00:00		
12	John Johnes	7:24:30 / 0:00:00	0:00:00 / 9:48:32	0:00:00 / 0:00:00	0:00:00 / 0:00:00	0:00:00 / 0:00:00		

> **Note.**
>
> Minimal time period for which the report can be displayed is one week.

Presence in the workplace report

A **Presence in the workplace report** contains the information about periods when an employee left a specified region during a day and how long an employee was in a selected region for a specified period.


Navigation: Time and Attendance reports > Presence in the workplace report > Result

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Date: from 04.06.2012
to 10.06.2012

Presence at workplace

Department: Department Employees

Hood William — Working schedule

Arrived	Left	Region	Entrance point	Exit point	Time of presence
6/4/2012 3:23:46 PM	6/4/2012 3:28:54 PM	Region 1	Entrance	Exit	0:05:08
6/4/2012 3:30:26 PM	6/5/2012 7:55:18 AM	Region 1	Entrance	Exit	16:24:52
6/5/2012 8:11:36 AM		Region 1	Entrance	Exit	
6/4/2012 3:28:38 PM	6/4/2012 4:12:52 PM	Region 2	Entrance	Exit	0:44:14
6/5/2012 7:55:18 AM	6/5/2012 8:11:36 AM	Region 2	Entrance	Exit	0:16:18
Total by employee:					17:30:32

John Johnes — Working schedule

Arrived	Left	Region	Entrance point	Exit point	Time of presence
6/4/2012 3:24:30 PM	6/4/2012 3:28:36 PM	Region 1	Entrance	Exit	0:04:06
6/4/2012 3:30:32 PM	6/5/2012 7:55:24 AM	Region 1	Entrance	Exit	16:24:52
6/5/2012 8:11:28 AM		Region 1	Entrance	Exit	
6/4/2012 3:28:36 PM	6/4/2012 4:12:58 PM	Region 2	Entrance	Exit	0:44:22
6/5/2012 7:55:24 AM	6/5/2012 8:11:28 AM	Region 2	Entrance	Exit	0:16:04
Total by employee:					17:29:24

Report fields are described in the table.

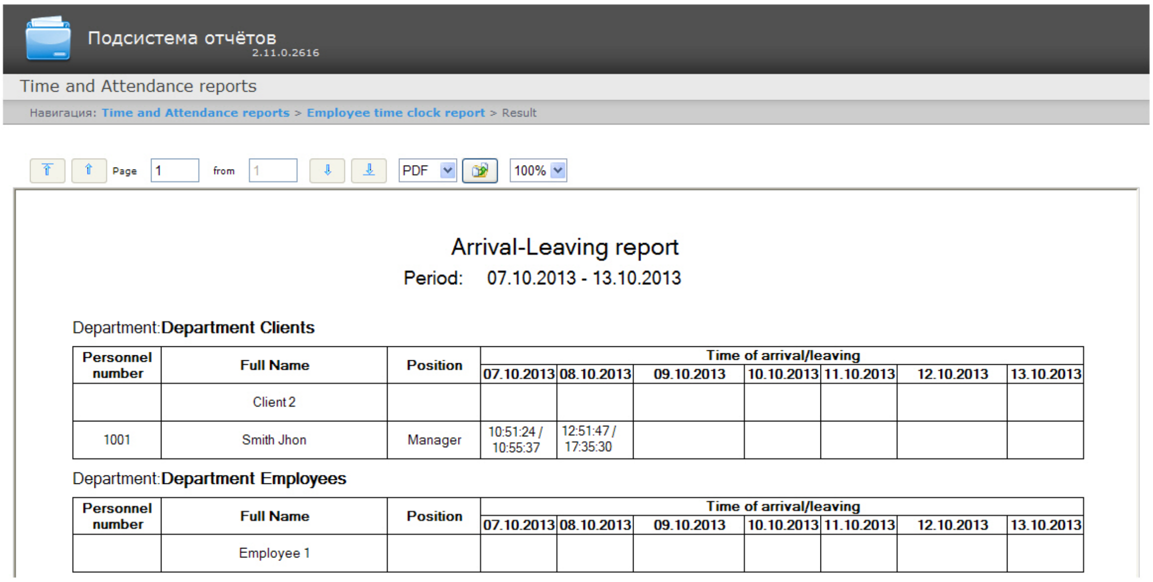
Field name	Description
Arrived	Date and time of an employee's passage to a region
Left	Date and time of an employee's leaving a region
Entrance point	Name of an entrance point to a region
Exit point	Name of an exit point to a region
Region	Region name
Time of presence	Difference between the passage and leaving time

Total time of an employee's presence in the workplace for a specified period is displayed in the **To tal by employee** line.

> **Note.**
>
> If the **Summary view** checkbox was set then the report consists only of the **Tot al by employee** lines**.**

Employee time clock report

An **Employee time clock report** contains the information about employee's arrival and leaving for every day of the specified period.



Department: **Department Clients**

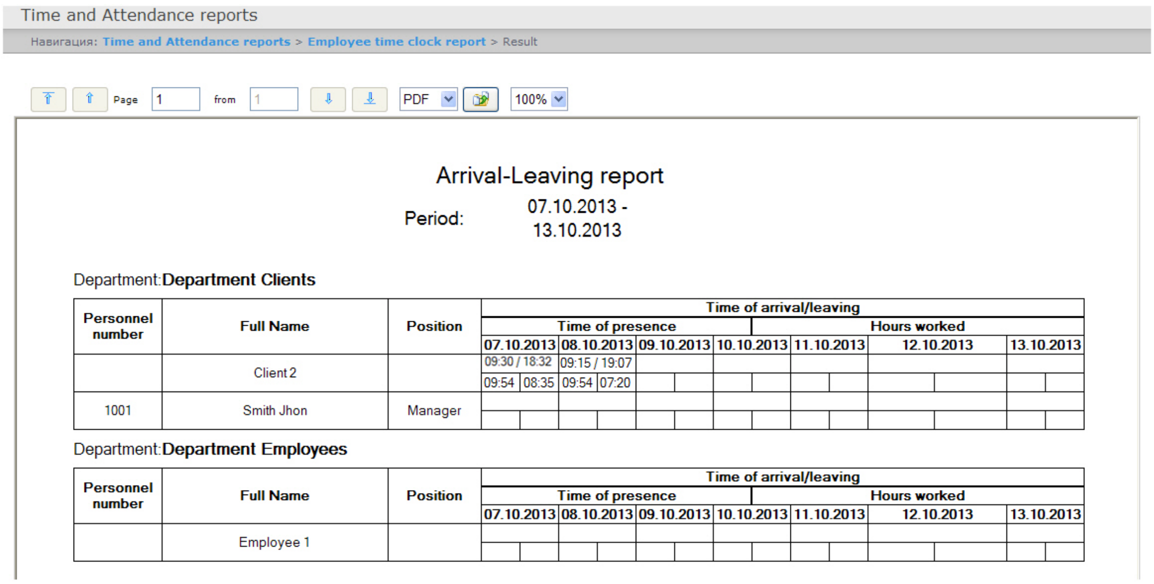
Personnel number	Full Name	Position	Time of arrival/leaving						
			07.10.2013	08.10.2013	09.10.2013	10.10.2013	11.10.2013	12.10.2013	13.10.2013
	Client 2								
1001	Smith Jhon	Manager	10:51:24 / 10:55:37	12:51:47 / 17:35:30					

Department: **Department Employees**

Personnel number	Full Name	Position	Time of arrival/leaving						
			07.10.2013	08.10.2013	09.10.2013	10.10.2013	11.10.2013	12.10.2013	13.10.2013
	Employee 1								

> **Note.**
>
> Minimal time period for which the report can be displayed is one week.

If the **Expanded** checkbox is set the view of the **Employee time clock report** will be the following:



Department: **Department Clients**

Personnel number	Full Name	Position	Time of arrival/leaving						
			Time of presence				Hours worked		
			07.10.2013	08.10.2013	09.10.2013	10.10.2013	11.10.2013	12.10.2013	13.10.2013
	Client 2		09:30 / 18:32 09:54 | 08:35	09:15 / 19:07 09:54 | 07:20					
1001	Smith Jhon	Manager							

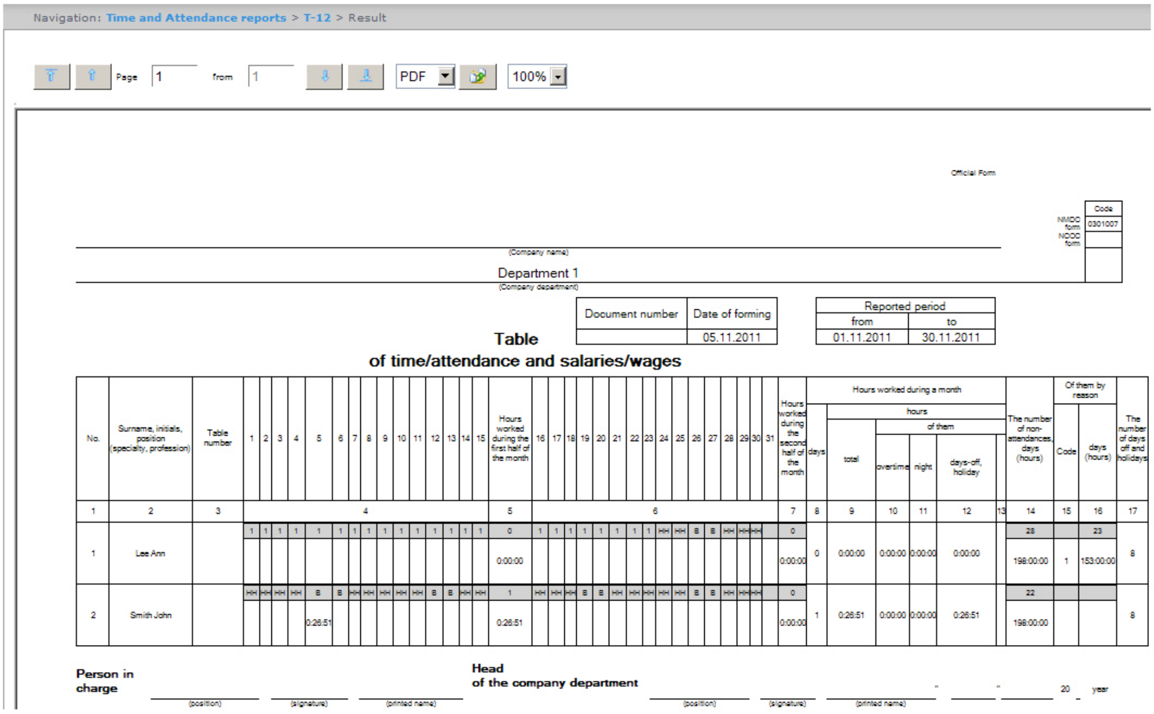
Department: **Department Employees**

Personnel number	Full Name	Position	Time of arrival/leaving						
			Time of presence				Hours worked		
			07.10.2013	08.10.2013	09.10.2013	10.10.2013	11.10.2013	12.10.2013	13.10.2013
	Employee 1								

T-12 and T-13 reports

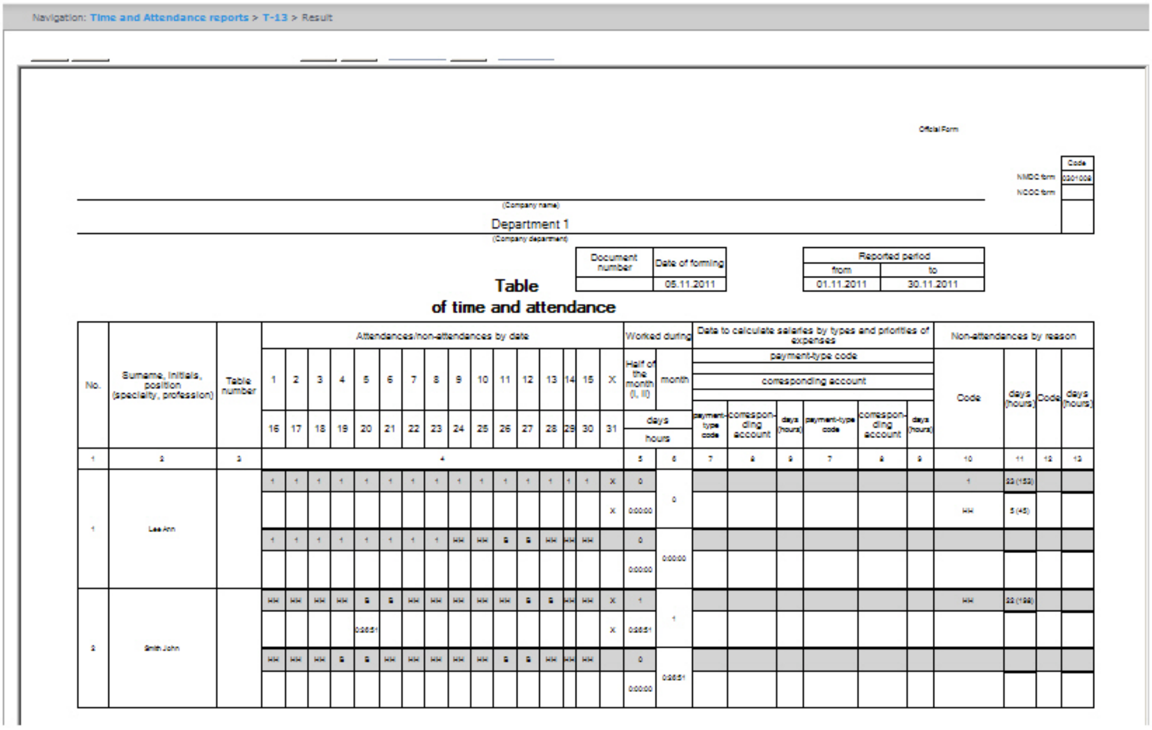
Report System allows create **T-12** and **T-13** reports that represent time and attendance reports. In **T-12** and **T-13** reports the information on worked time for every calendar day in a month is given. Also in **T-12** and **T-13** reports the total of worked hours (days) in a month and number of absences from work is given. Examples of **T-12** and **T-13** reports are given in the following figures correspondingly.

The **T-12** report is presented in the following figure.



In the 4 and 6 columns of **T-12** report and in the 4 column of **T-13** report the letter code (note of presence and absence, etc.) is given in the upper line, worked time is given in the bottom line. In the 5 and 7 columns of **T-12** report and in the 5 column of **T-13** report the number of worked days is given in the upper line, time worked for half of a month is given in the bottom line. The 6 column of **T-13** report contains number of days and total time worked by every employee in a month.

The **T-13** report is presented in the following figure.



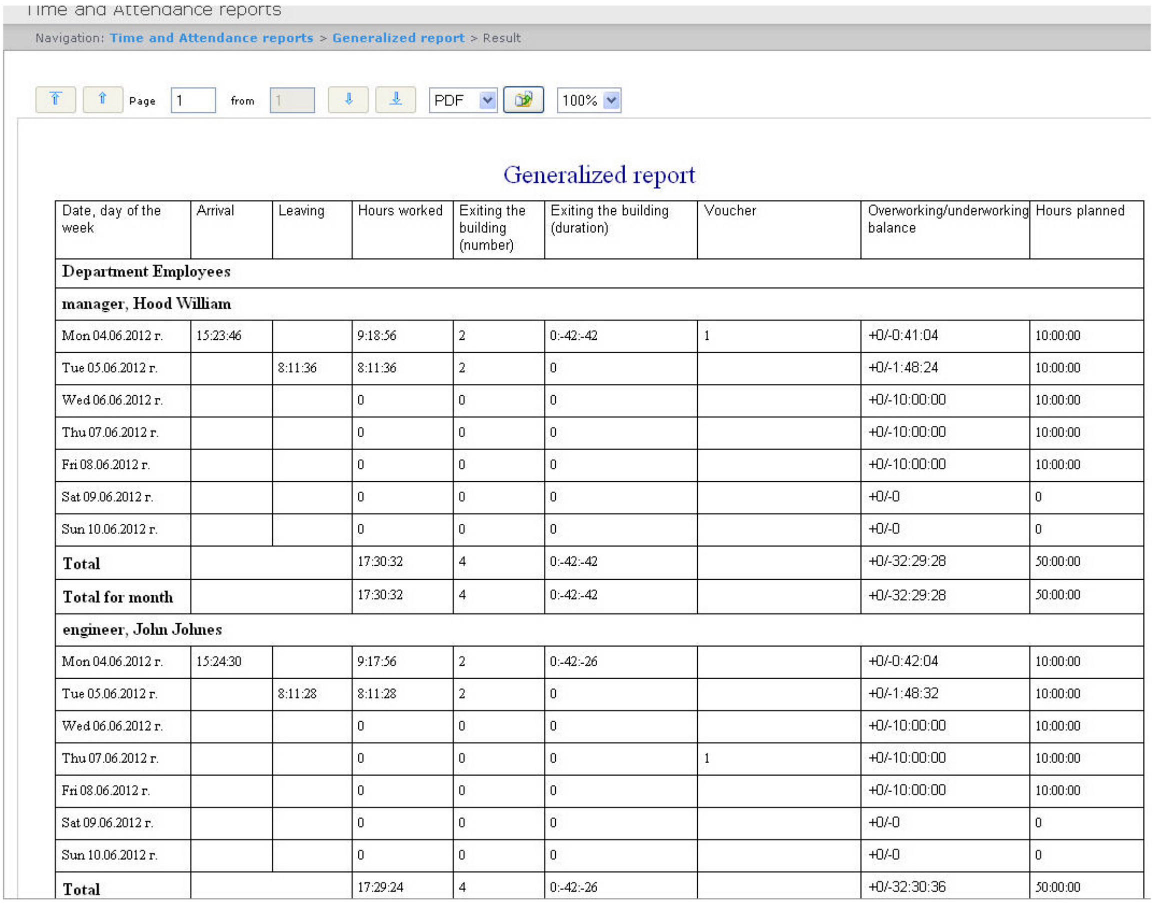
Information on salary accounting by expense kinds is given in the 7-9 columns of **T-13** report.

Total by worked time for a month is given in the 8-13 columns of **T-12** report.

Total by employee's absence from work is given in the 14-16 columns of **T-12** report and in the 10-13 columns of **T-13** report.

Generalized report

Generalized report is a table that contains information on carrying out the workday order by employees for every day of selected period.



Time and Attendance reports

Navigation: Time and Attendance reports > Generalized report > Result

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Generalized report

Date, day of the week	Arrival	Leaving	Hours worked	Exiting the building (number)	Exiting the building (duration)	Voucher	Overworking/underworking balance	Hours planned
Department Employees								
manager, Hood William								
Mon 04.06.2012 г.	15:23:46		9:18:56	2	0:-42:-42	1	+0/-0:41:04	10:00:00
Tue 05.06.2012 г.		8:11:36	8:11:36	2	0		+0/-1:48:24	10:00:00
Wed 06.06.2012 г.			0	0	0		+0/-10:00:00	10:00:00
Thu 07.06.2012 г.			0	0	0		+0/-10:00:00	10:00:00
Fri 08.06.2012 г.			0	0	0		+0/-10:00:00	10:00:00
Sat 09.06.2012 г.			0	0	0		+0/-0	0
Sun 10.06.2012 г.			0	0	0		+0/-0	0
Total			17:30:32	4	0:-42:-42		+0/-32:29:28	50:00:00
Total for month			17:30:32	4	0:-42:-42		+0/-32:29:28	50:00:00
engineer, John Johnes								
Mon 04.06.2012 г.	15:24:30		9:17:56	2	0:-42:-26		+0/-0:42:04	10:00:00
Tue 05.06.2012 г.		8:11:28	8:11:28	2	0		+0/-1:48:32	10:00:00
Wed 06.06.2012 г.			0	0	0		+0/-10:00:00	10:00:00
Thu 07.06.2012 г.			0	0	0	1	+0/-10:00:00	10:00:00
Fri 08.06.2012 г.			0	0	0		+0/-10:00:00	10:00:00
Sat 09.06.2012 г.			0	0	0		+0/-0	0
Sun 10.06.2012 г.			0	0	0		+0/-0	0
Total			17:29:24	4	0:-42:-26		+0/-32:30:36	50:00:00

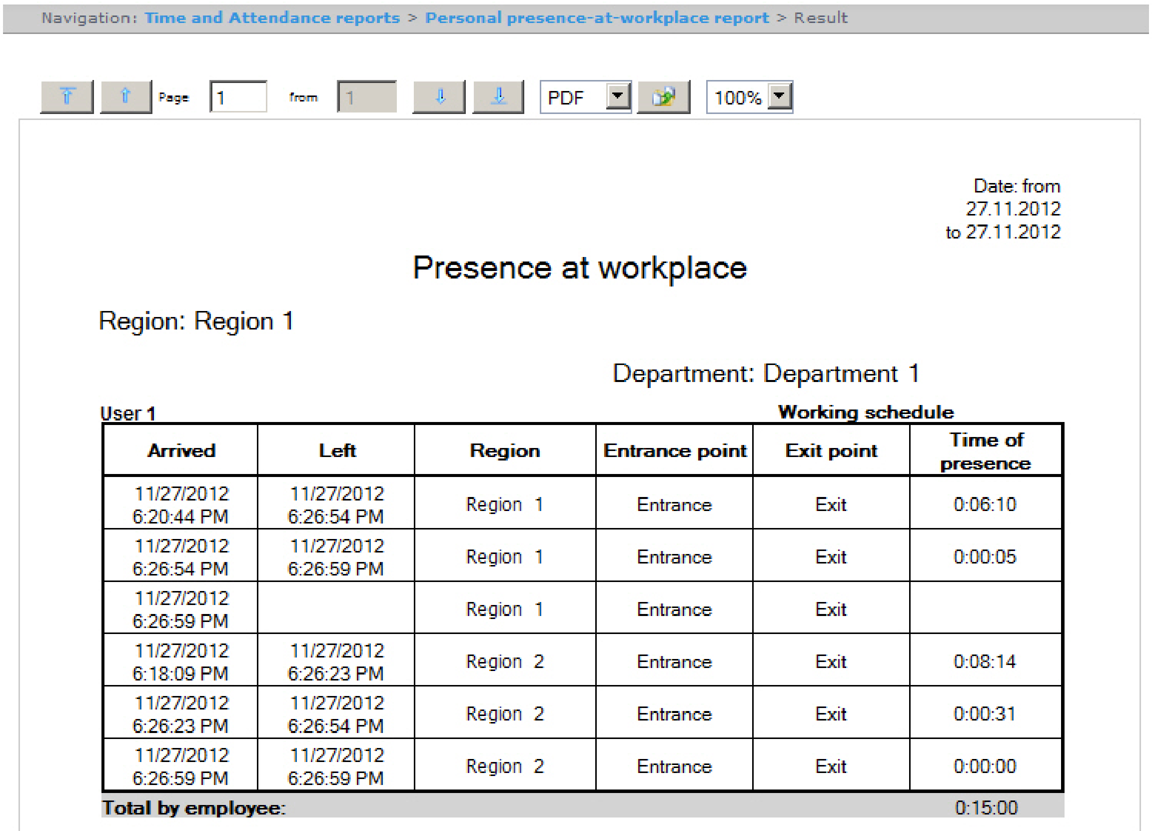
Report fields are described in the table.

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
Leaving the building (number)	Number of leavings out of the building (region)
Leaving the building (duration)	Time when the employee is absent in the region
Explanation	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.

Personal presence-at-workplace report

Personal presence-at-workplace report contains the information about periods when an employee visited and left a specified region during a day and how long an employee was in a selected region for a specified period.


Navigation: Time and Attendance reports > Personal presence-at-workplace report > Result

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Date: from 27.11.2012 to 27.11.2012

Presence at workplace

Region: Region 1

Department: Department 1

User 1 — Working schedule

Arrived	Left	Region	Entrance point	Exit point	Time of presence
11/27/2012 6:20:44 PM	11/27/2012 6:26:54 PM	Region 1	Entrance	Exit	0:06:10
11/27/2012 6:26:54 PM	11/27/2012 6:26:59 PM	Region 1	Entrance	Exit	0:00:05
11/27/2012 6:26:59 PM		Region 1	Entrance	Exit	
11/27/2012 6:18:09 PM	11/27/2012 6:26:23 PM	Region 2	Entrance	Exit	0:08:14
11/27/2012 6:26:23 PM	11/27/2012 6:26:54 PM	Region 2	Entrance	Exit	0:00:31
11/27/2012 6:26:59 PM	11/27/2012 6:26:59 PM	Region 2	Entrance	Exit	0:00:00
Total by employee:					0:15:00

Report fields are described in the table.

Field name	Description
Arrived	Date and time of an employee's passage to a region
Left	Date and time an employee's leaving a region
Region	Name of visited region
Entrance point	Name of an entrance point to a region
Exit point	Name of an exit point to a region

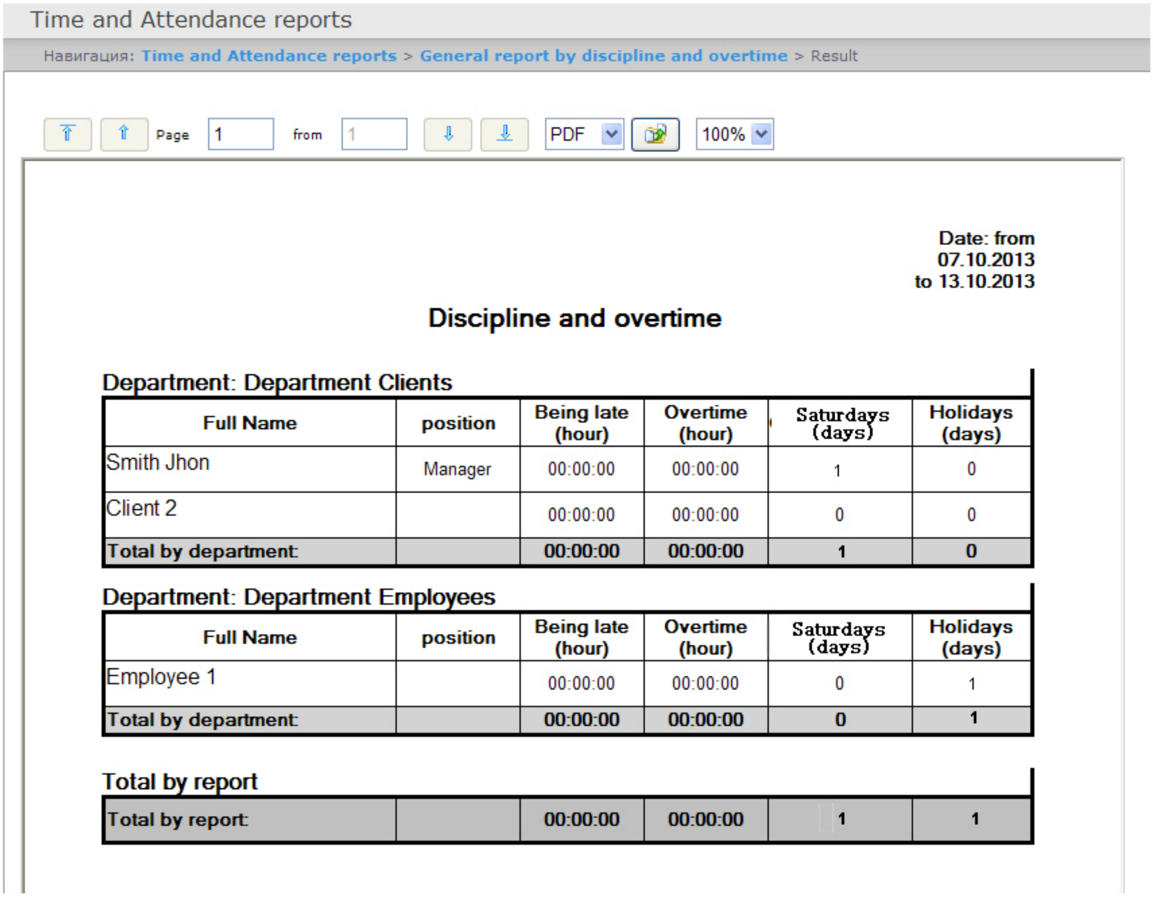
Time of presence	Difference between the passage and leaving time

Note.

In the short form of the report the information about entrances and exits is not displayed. Only the total time of employee's presence in the selected regions is displayed.

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 during the specified time period.



Full Name	position	Being late (hour)	Overtime (hour)	Saturdays (days)	Holidays (days)
Smith Jhon	Manager	00:00:00	00:00:00	1	0
Client 2		00:00:00	00:00:00	0	0
Total by department		**00:00:00**	**00:00:00**	**1**	**0**

Full Name	position	Being late (hour)	Overtime (hour)	Saturdays (days)	Holidays (days)
Employee 1		00:00:00	00:00:00	0	1
Total by department		**00:00:00**	**00:00:00**	**0**	**1**

Total by report		**00:00:00**	**00:00:00**	**1**	**1**

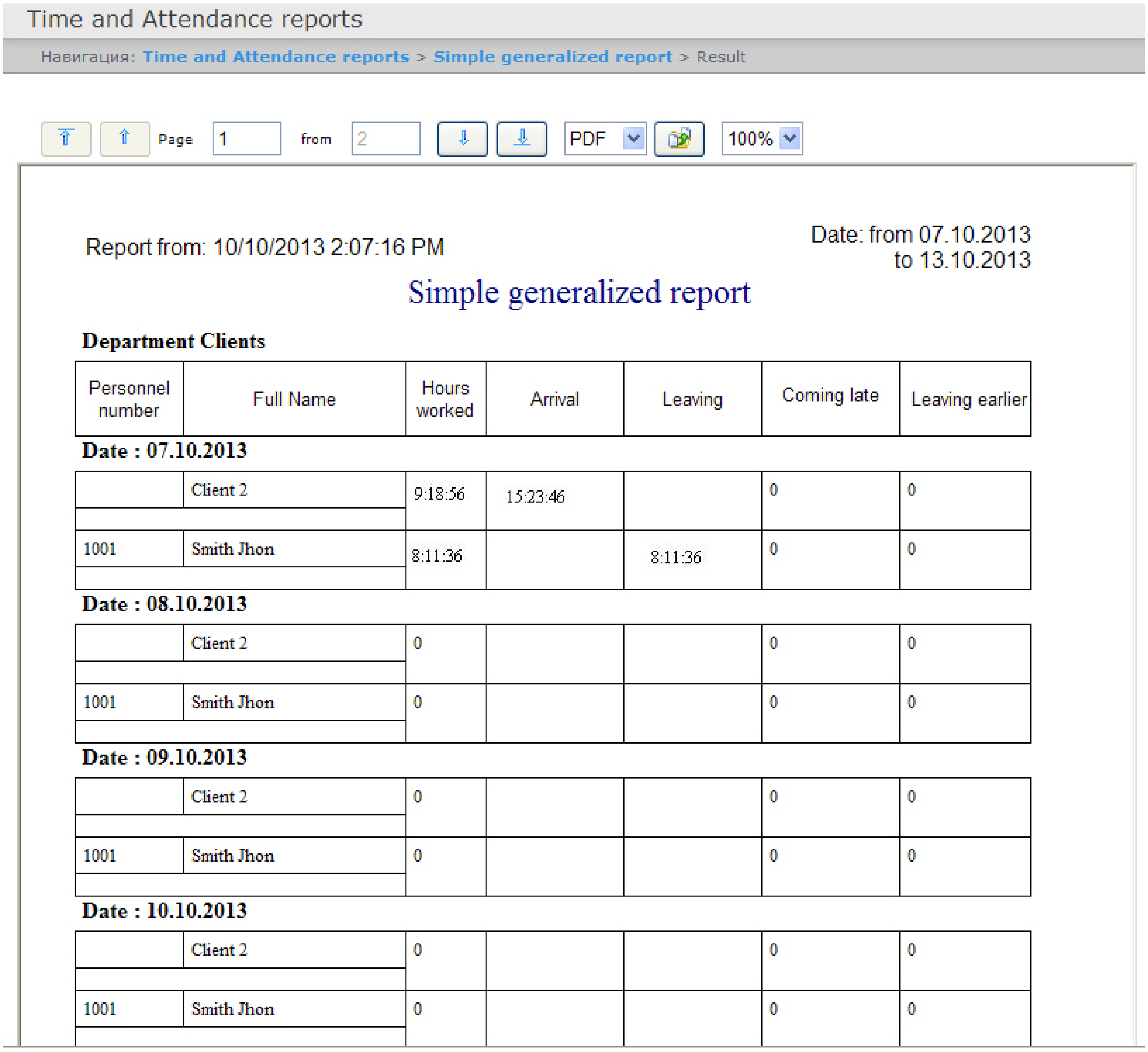
The report fields are described in the following table.

Field name	Description
Full name	Employee full name
Position	Employee position
Being late (hour)	General time if being late during the specified period (in hours)

Overtime (hour)	General time of overtime during the specified period (in hours)
Saturdays (days)	Number of worked weekend days
Holidays (days)	Number of worked holidays

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.



Personnel number	Full Name	Hours worked	Arrival	Leaving	Coming late	Leaving earlier
Date : 07.10.2013						
	Client 2	9:18:56	15:23:46		0	0
1001	Smith Jhon	8:11:36		8:11:36	0	0
Date : 08.10.2013						
	Client 2	0			0	0
1001	Smith Jhon	0			0	0
Date : 09.10.2013						
	Client 2	0			0	0
1001	Smith Jhon	0			0	0
Date : 10.10.2013						
	Client 2	0			0	0
1001	Smith Jhon	0			0	0

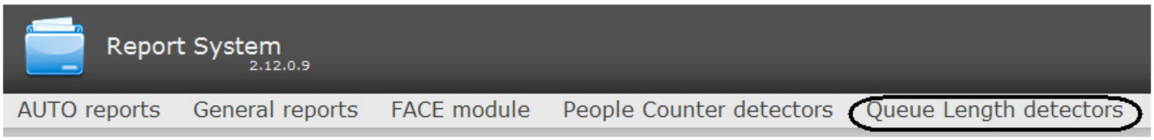
Report fields are described in the table.

Field name	Description
Personnel number	Employee personnel number
Full name	Employee full name
Hours worked	Hours worked by employee

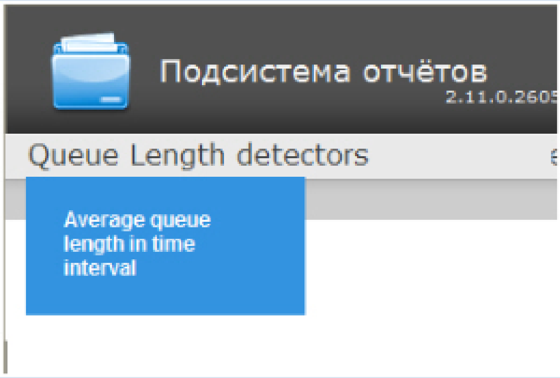
Arrival	Time of arrival
Leaving	Time of leaving
Coming late	Time of coming late
Leaving earlier	Time on which employee left work earlier

Working with reports by Queue Length detectors

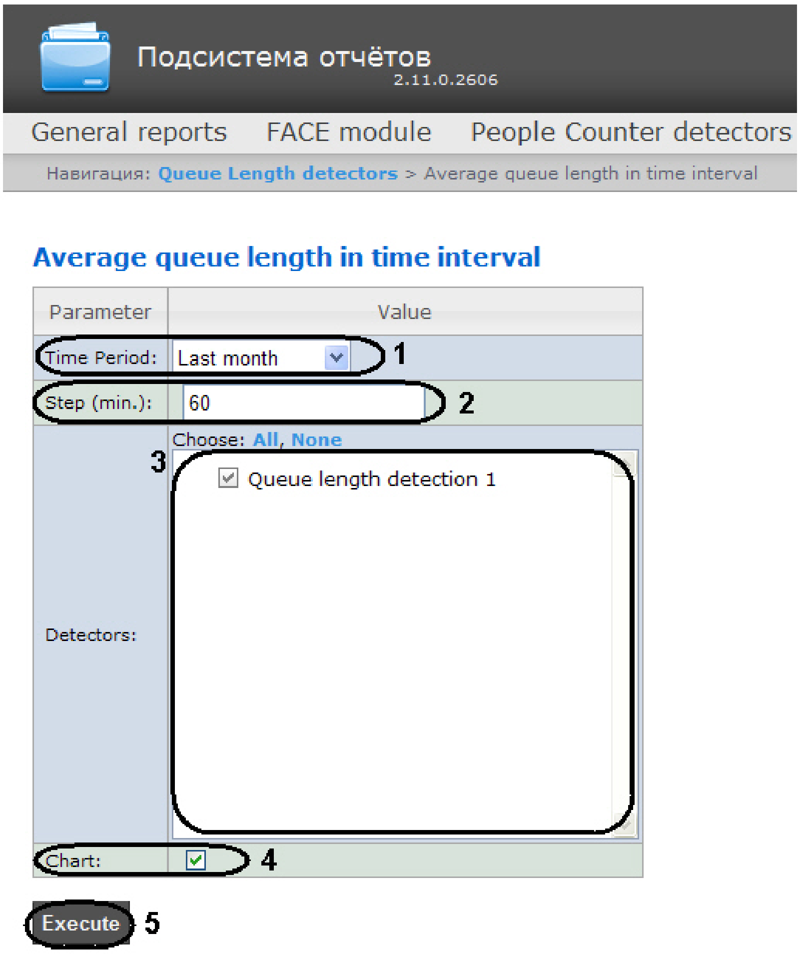
To create a Queue Length report click **QueueLength detectors** in the report menu of *Report Syst em.*



Click **Average queue length in time interval**.

> **Note.**
>
> Link of going to a report of average queue length in time interval is available when cursor is hovered over the **QueueLength detectors** link in the report menu.
>
> 
>

A page of a report of average queue length in time interval is displayed.



Set the following report parameters:

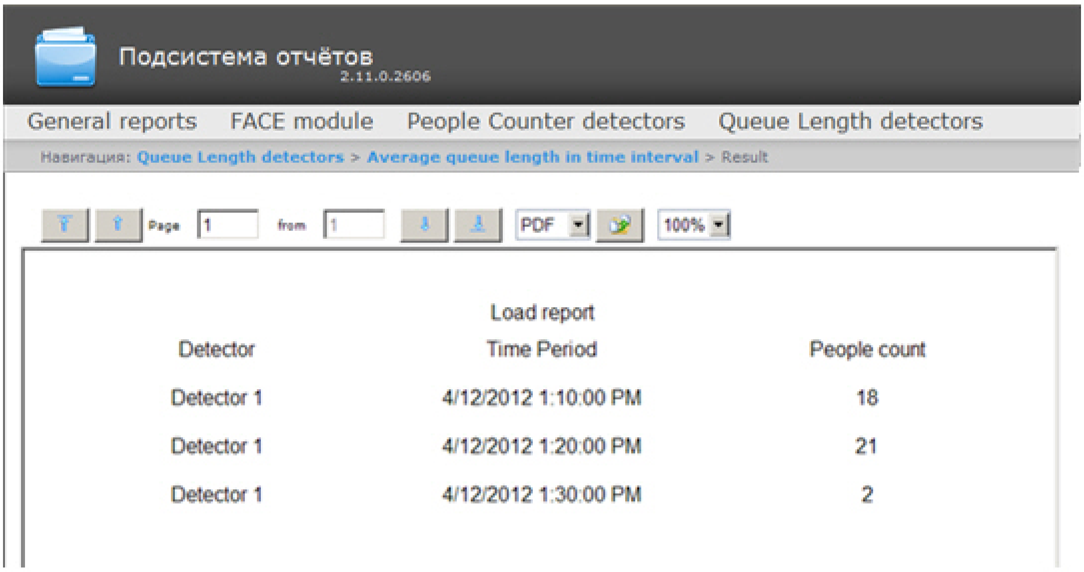
1. From the **Period** drop-down list select a period of time for which a load report should be created (**1**).
2. Enter a period of time (in minutes) between load values in the **Step (min.)** field (**2**). The average values of queue length for the specified interval are displayed in the report.

> **Note.**
>
> If the average value is null the empty report will be displayed for such intervals for the specified period. It is recommended to change the step in this case.

3. In the **Detectors** field set checkboxes in those **Queue length** objects information on which should be displayed in the report (**3**).
4. If it is necessary to view a report as a chart, set the corresponding checkbox (**4**).

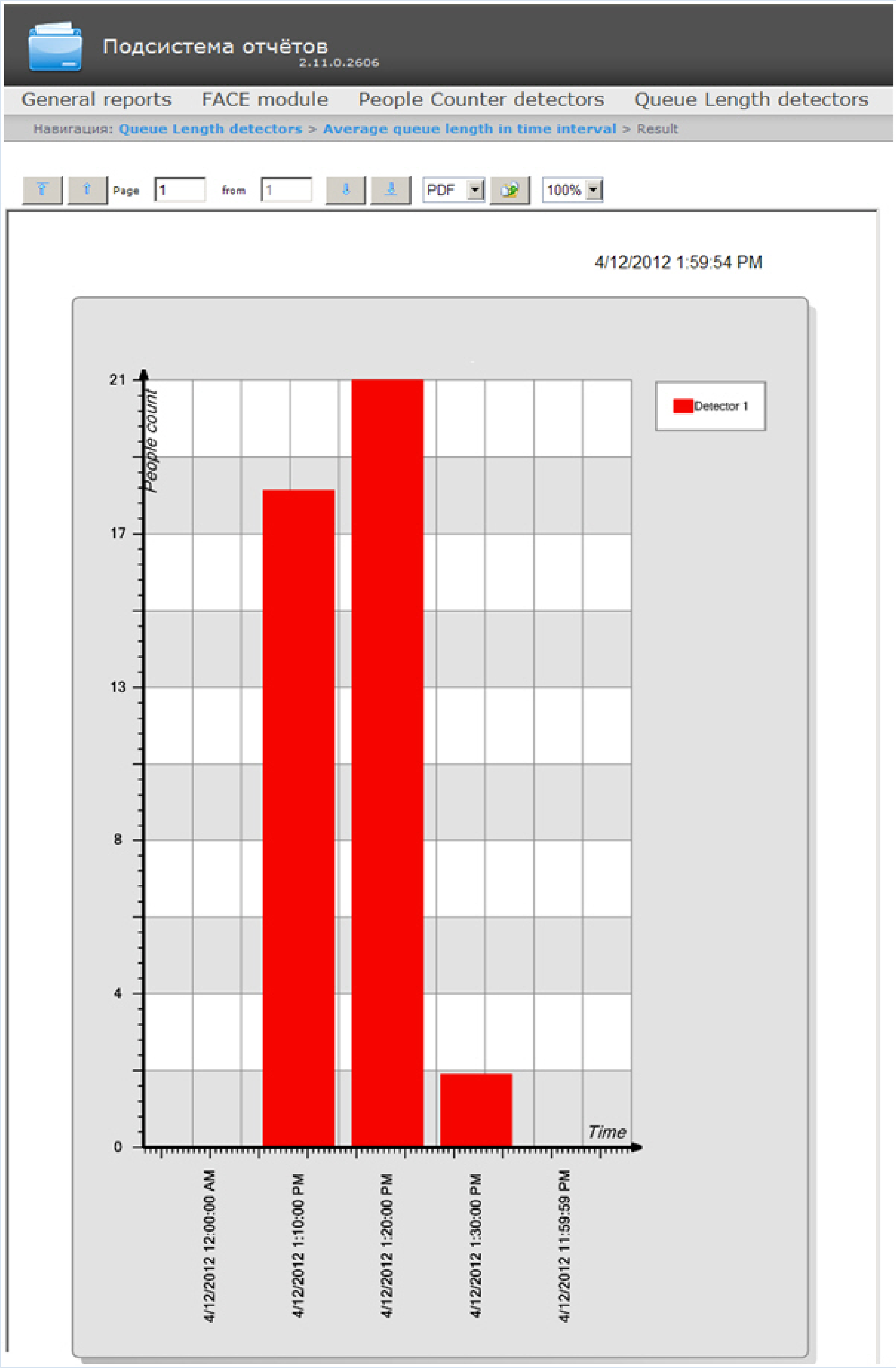
To create a report click **Execute** (**5**).

As a result a report of average queue length in time interval with specified parameters is displayed.



Note.

Example of a report of average queue length in time interval as a chart is given in the following figure.



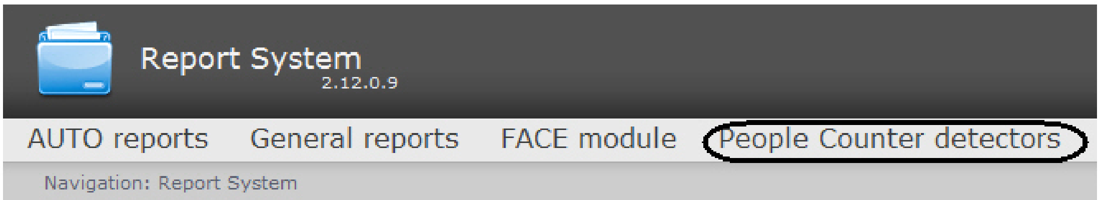
Working with reports by People Counter detectors

Selecting a type of reports by People Counter detector

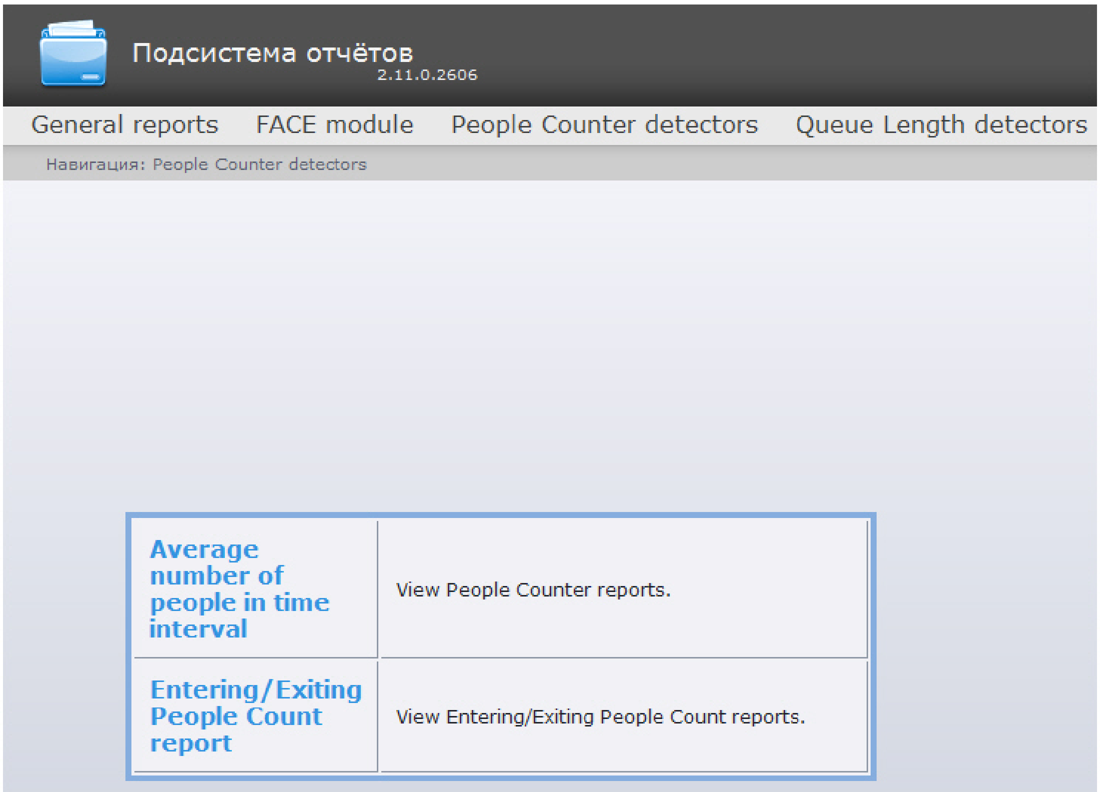
It is possible to create the following reports by data of people counter detector:

1. Average number of people in time interval. This report allows getting data about the people quality for the selected time period. Data can be presented as a table and chart.
2. Entering/Exiting People Count report. This report allows getting data about the number of entering/exiting people. Data can be presented as a table and chart.

To select a type of report by people counter detectors click **People Counter detectors** link in the report menu of *Report System*.

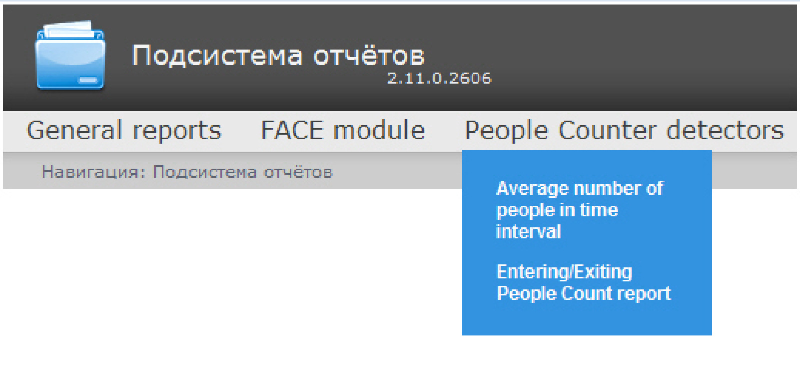


As a result the list of available reports by people counter detectors is displayed. For switching to the required report click the corresponding link.



Note.

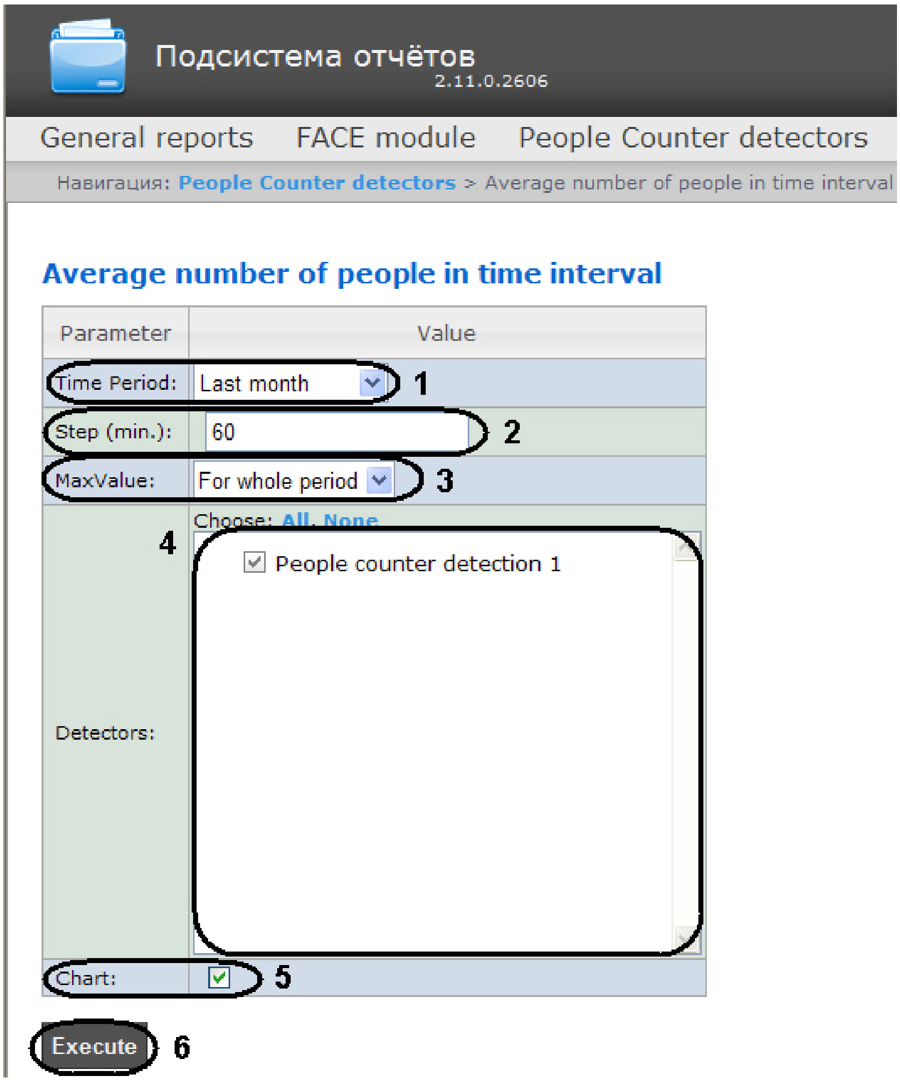
List of links for switching to reports by people counter detectors is available when hovering over the **People Counter detectors** link in the report menu.



Creating a report of average number of people in time interval

In order to create a report of average number of people in time interval, do the following:

1. Select the **Average number of people in time interval** type (see Selecting a type of reports by People Counter detector section).
2. As a result the dialog box for specifying the report parameters will be displayed.



Set the following report parameters:

1. From the **Period** drop-down list select a period of time for which a People counter report should be created (**1**).
2. Enter a time period (in minutes) during which the values received from people counter detector will be averaged in the **Step (min.)** field (**2**). The average values of people amount for the specified interval are displayed in the report.

> **Note.**
>
> If the average value is null the empty report will be displayed for such intervals for the specified period. It is recommended to change the step in this case.

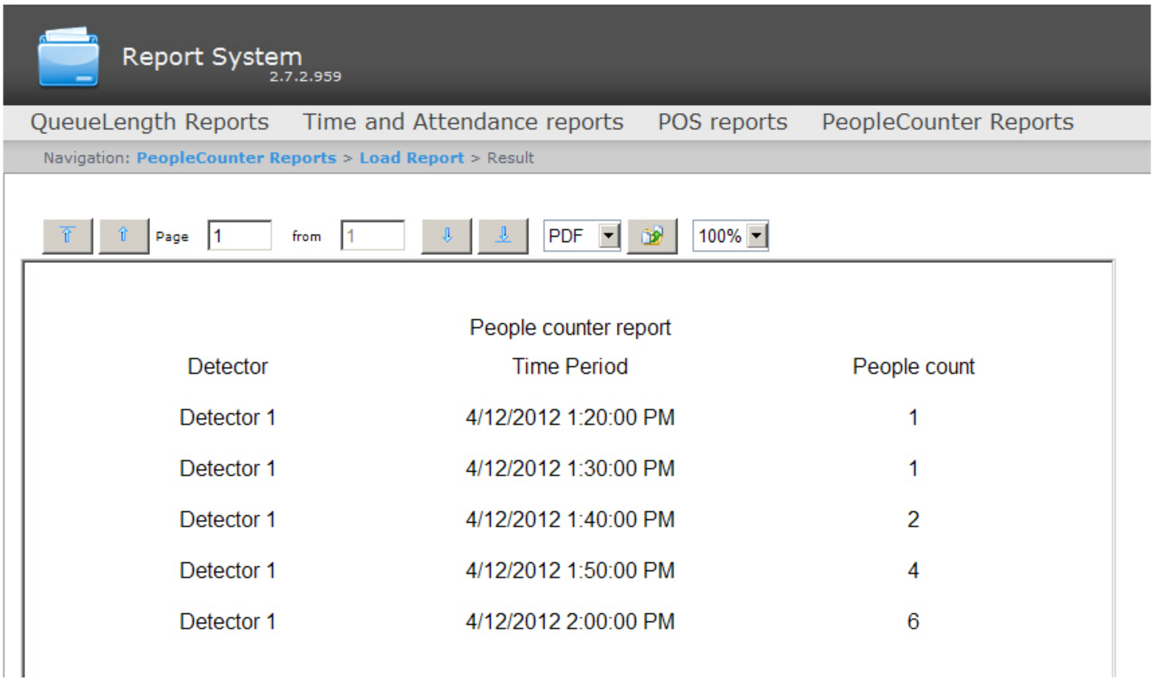
3. In the **Max value** field specify a maximum value of people that will be displayed in a chart (**3**).
4. In the **Detectors** field set checkboxes in those **People counter** objects information on which should be displayed in the report (**4**).
5. If it is necessary to view a report as a chart, set the corresponding checkbox (**5**).
6. To create a report click **Execute** (**6**).

Procedure of working the people counter detector for creation the report of average number of people in time interval is follows:

1. The basic data are events about enter and exit sorted by time.

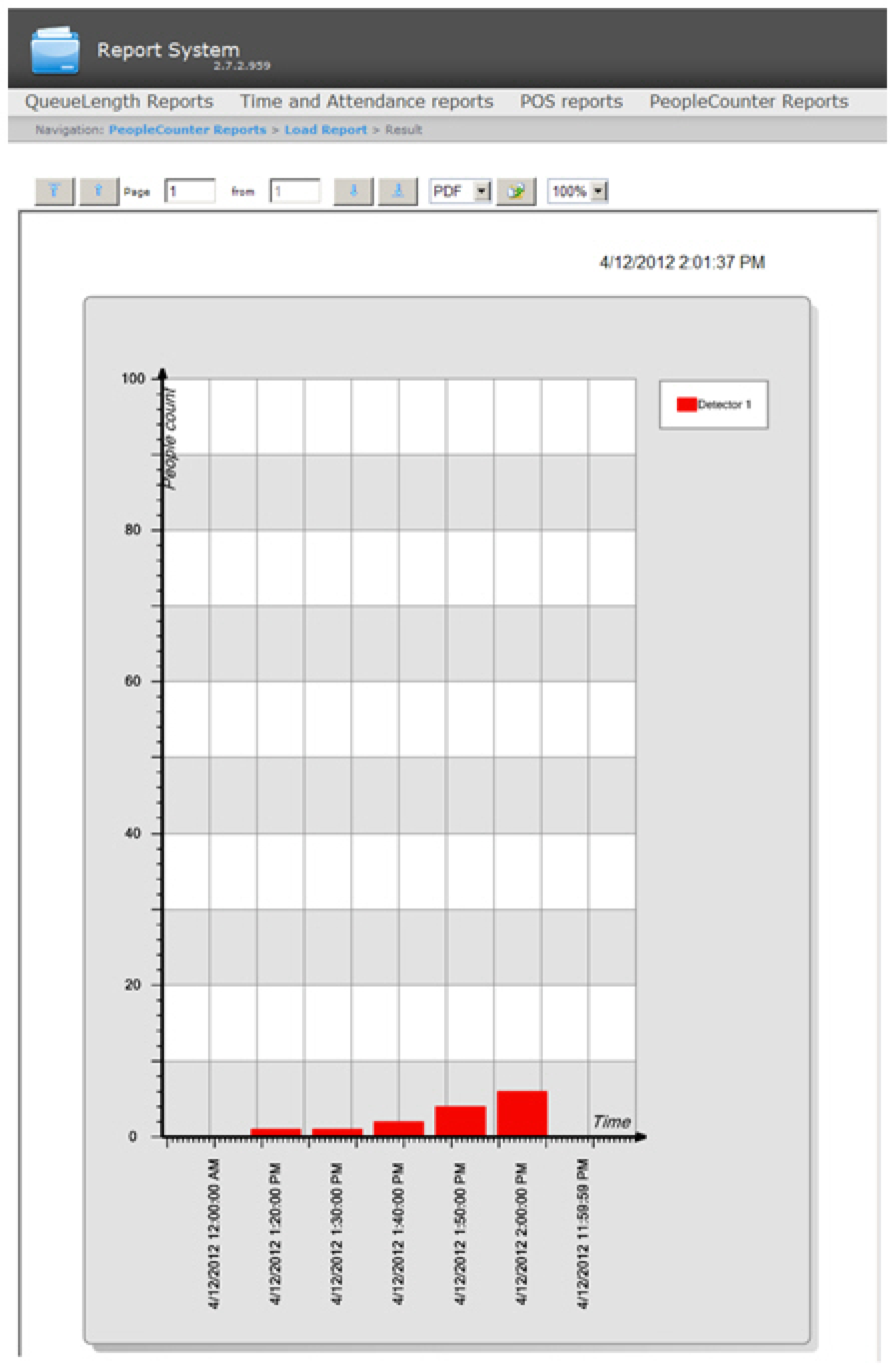
2. Do the previous calculations to create the "Number of people at a time" function:
   2.1 During the specified period the "current number of people" in the zone is calculated at a time. Depending on the people entering or exiting the basic data is increasing or reducing by one.
   2.2 If the "current number of people" takes the negative value on the next step (the number of exiting people from the area is more than number of entering people to this area), the "current number of people" is set to zero. Also, the "current number of people" is set to zero every day at 2 a.m. (on default) or after the time (in minutes) past midnight specified as PeopleCounterZeroPointMinute key in C:\Program Files\Intellect\Modules\Wt2\Web.config file.
   For example, the string
   add key="PeopleCounterZeroPointMinute" value="60"
   means that the people counter is set to zero in 60 minutes past midnight.
   2.3 It there are no events about entering or exiting to the defined time, the "current number of people" remains unchanged.
3. For every interval calculate the average number of people being in the area. "Average number of people for the interval" is calculated as the average value of "Number of people at a time" function at a time.

As a result a report of average number of people in time interval with specified parameters is displayed.



Note.

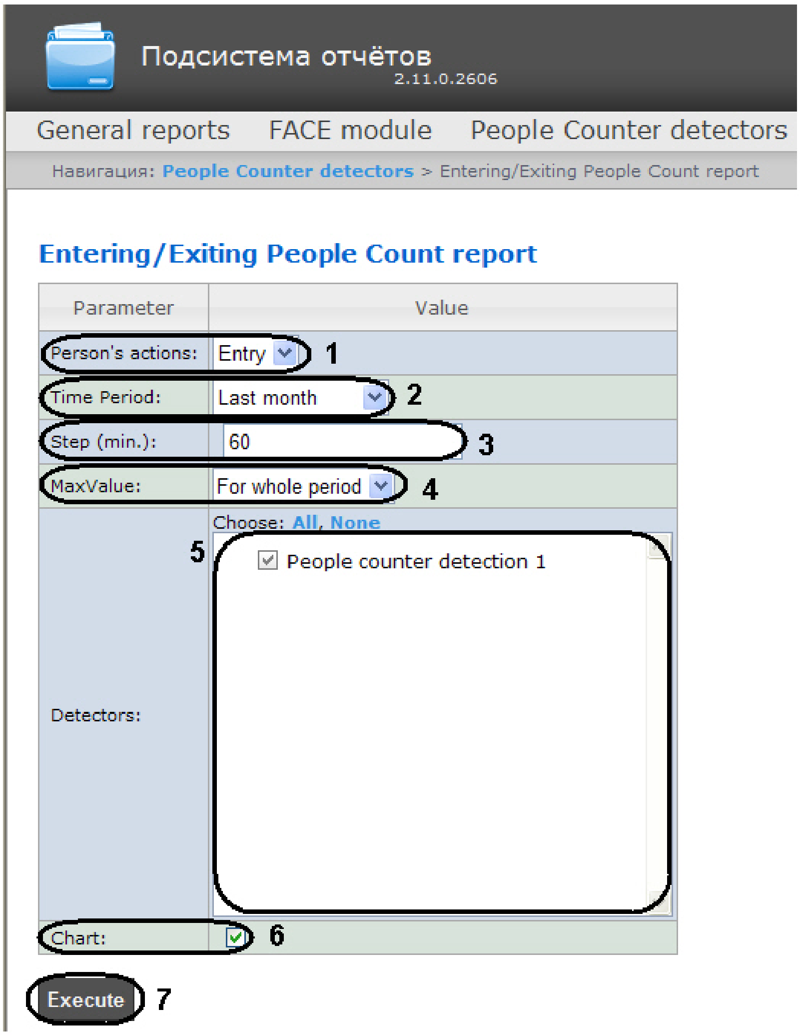
Example of a report of average number of people in time interval as a chart is given in the following figure.



Creating an Entering/Exiting People Counter report

In order to create an **Entering/Exiting People Counter report**, do the following:

1. Select the **Entering/Exiting People Counter report** type (see Selecting a type of reports by People Counter detector section).
2. As a result the dialog box for specifying the report parameters will be displayed.

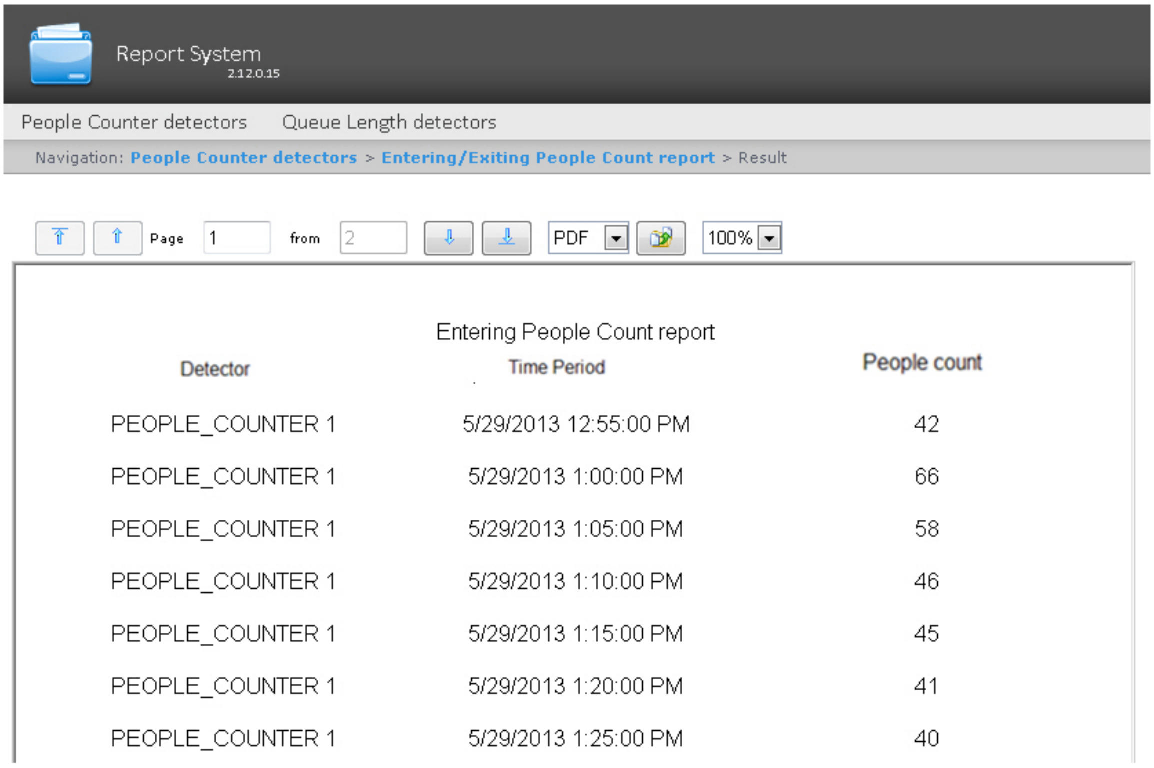


Set the following report parameters:

1. From the **Person's actions** drop-down list select a value on which the report is to be created (**1**).
2. From the **Receiving data period** drop-down list select a period of time for which a People counter report should be created (**2**).
3. Enter a time period (in minutes) during which the values received from people counter detector will be summarized in the **Step (min.)** field (**2**).
4. From the **Maximum value** drop-down list select a maximum value of people that will be displayed in a chart (**3**).
5. In the **Detectors** field set checkboxes in those **People counter** objects information on which should be displayed in the report (**4**).
6. If it is necessary to view a report as a chart, set the corresponding checkbox (**5**).
7. To create a report click **Execute** (**6**).

Entering/Exiting people counting is performed by summation of "enter"/ "exit" events at every interval.

As a result an **Entering/Exiting People Counter report** with specified parameters is displayed.

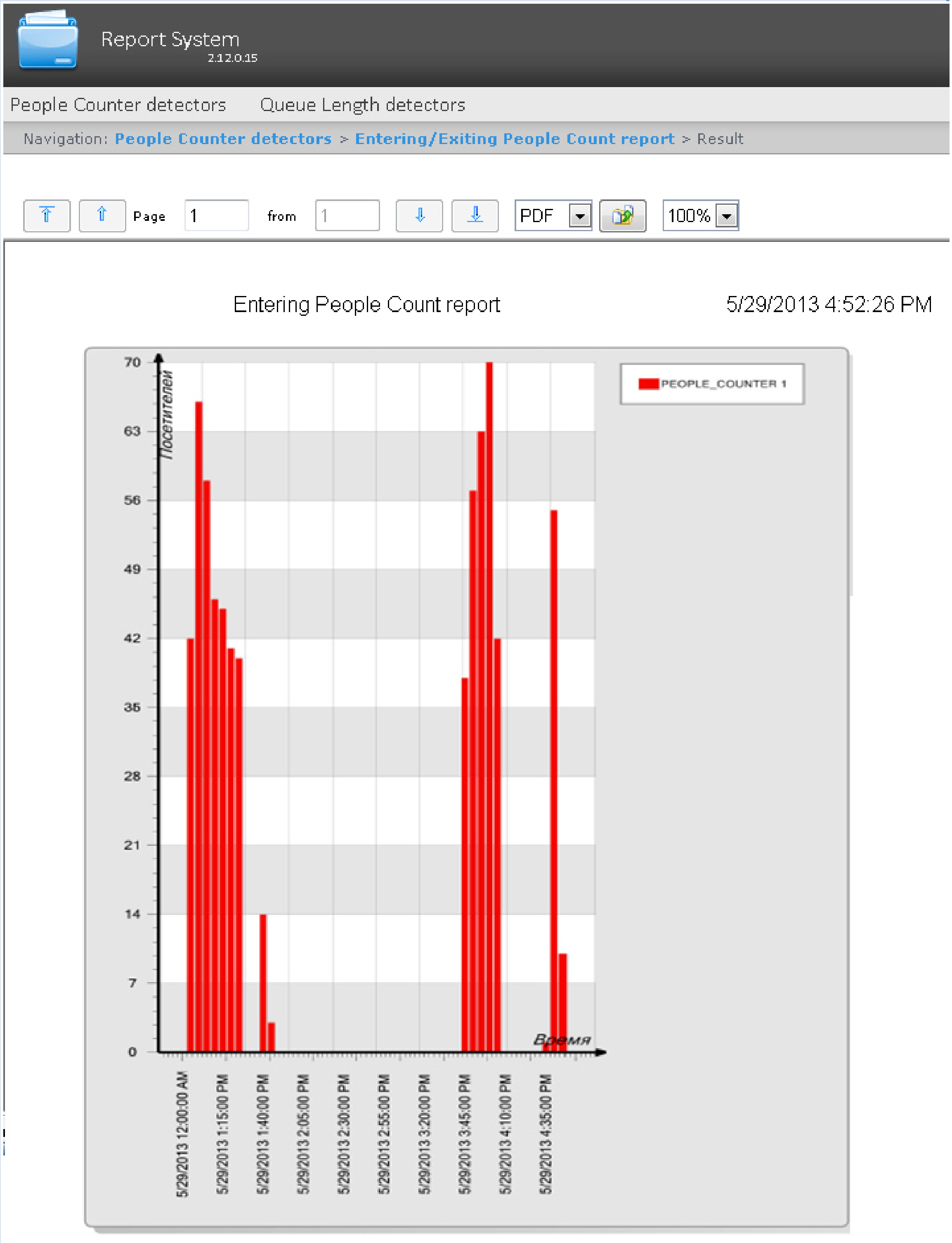


Entering People Count report

Detector	Time Period	People count
PEOPLE_COUNTER 1	5/29/2013 12:55:00 PM	42
PEOPLE_COUNTER 1	5/29/2013 1:00:00 PM	66
PEOPLE_COUNTER 1	5/29/2013 1:05:00 PM	58
PEOPLE_COUNTER 1	5/29/2013 1:10:00 PM	46
PEOPLE_COUNTER 1	5/29/2013 1:15:00 PM	45
PEOPLE_COUNTER 1	5/29/2013 1:20:00 PM	41
PEOPLE_COUNTER 1	5/29/2013 1:25:00 PM	40

Note.

Example of a **Entering/Exiting People counter report** as a chart is given in the following figure.



Working with AUTO reports

Working with AUTO reports consists of the following steps:

1. Selecting a type of report.

2. Creating a report.

Navigating, scaling the displayed page and AUTO report exporting are performed by analogy with *Time and Attendance* reports using the toolbar on the top of a page (see Time and Attendance report toolbar section).

Selecting a type of Auto report

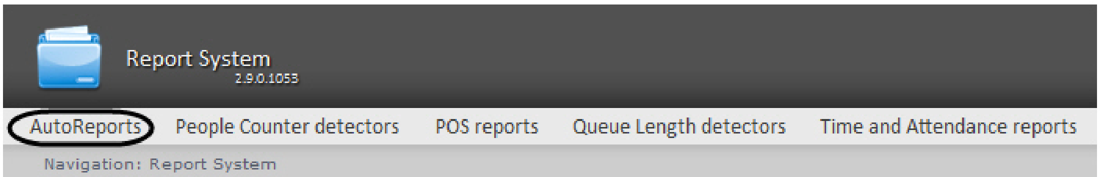
It is possible to create the following reports on *Auto-Intellect* software data:

1. «Time slice» on zone. This report allows getting data about the average speed of vehicle moving, range and density of traffic, occupation of the specified lane for the selected time period. Time period is specified within the accuracy of a day. Data can be presented as a table and chart.
2. «Slice» on group. This report allows getting data about the average speed of vehicle moving, range and density of traffic, occupation of several lanes for the fixed point of time. Time interval is specified within the accuracy of a minute. Data can be presented as a table and chart.
3. Traffic statistics by vehicles type. This report allows getting statistical data for each specified type of vehicles. Vehicle type is a set of vehicles the sizes of which are in certain intervals.
4. Traffic statistics by vehicles groups. This report allows getting statistical data for each specified group of vehicles. Vehicles group is a set of several vehicles types.

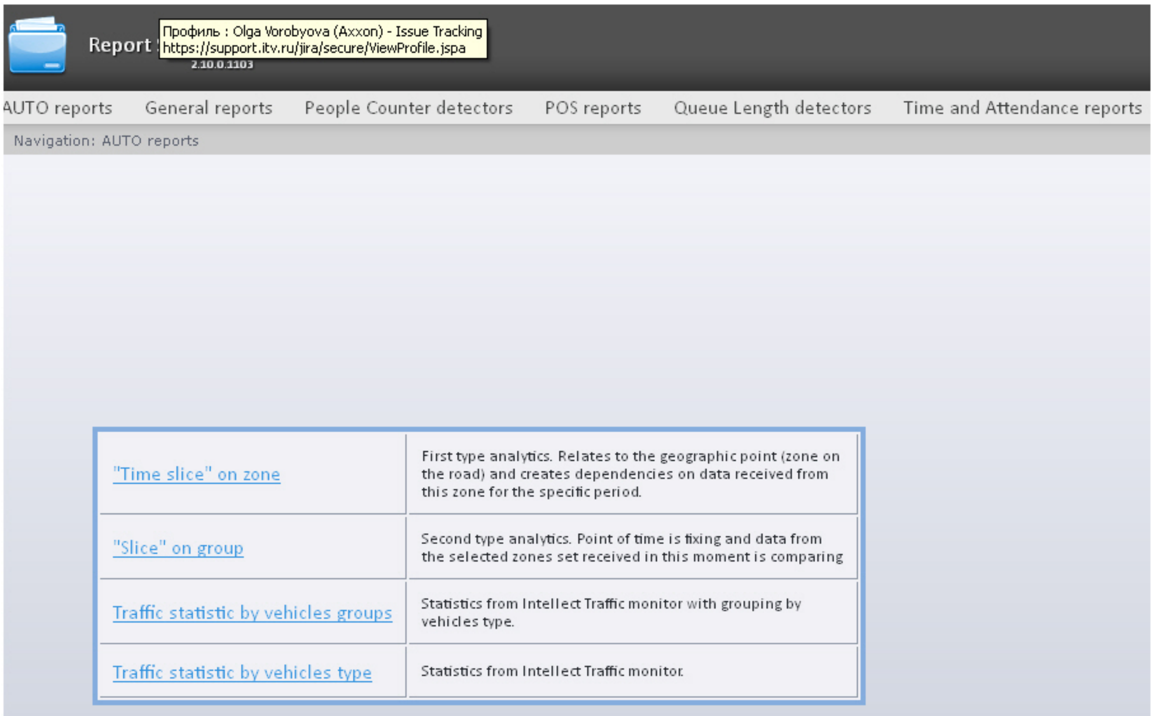
«Time slice» on zone and **«Slice» on group** reports refer to **Traffic Detector** and **Vehicle Processor** modules (the corresponding modules are to be created in the *Intellect* software package).

Traffic statistics by vehicles type and **Traffic statistics by vehicles groups** reports refer to **Vehicle Detecto**r module (the corresponding module is to be created in the *Intellect* software package).

To select a type of Auto report click **Auto Reports** link in the report menu of *Report System.*

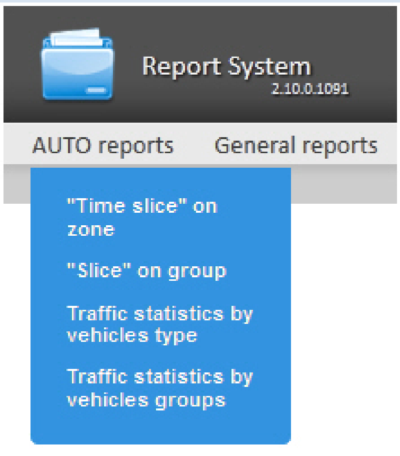


As a result the list of available Auto reports is displayed. For switching to the required report click the corresponding link.



Note.

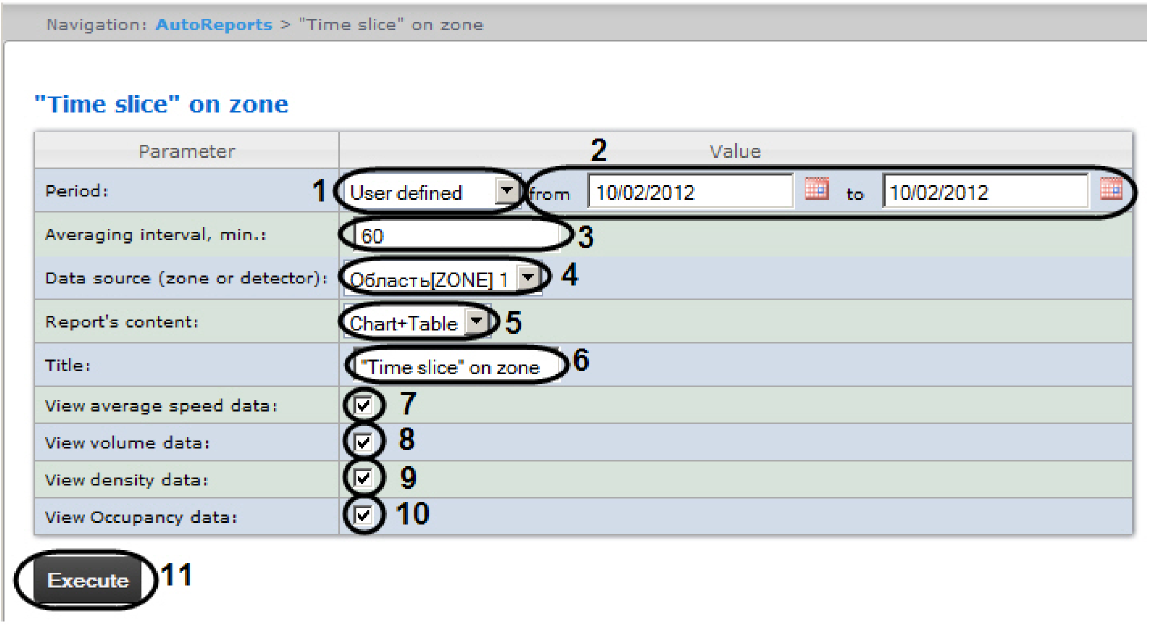
List of links for switching to Auto reports is available when hovering over the **Aut o reports** link in the report menu.



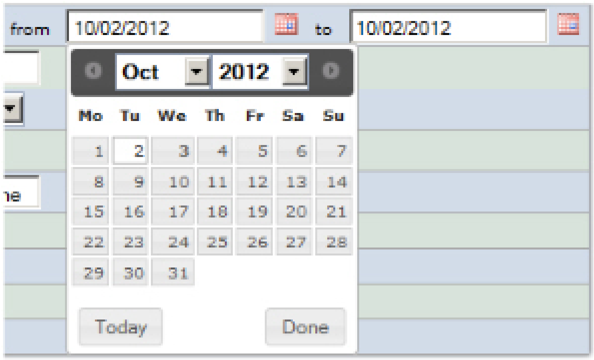
Creating a «Time slice» on zone

In order to create a «Time slice» on zone, do the following:

1. Select the **«Time slice» on zone** type of Auto reports (see Selecting a type of Auto report section).
2. As a result the dialog box for specifying the report parameters will be displayed.



3. Specify parameters of «time slice» in the following way:
   3.1 From the **Period:** drop-down list select the time period for which the report is to be created (**1**).
   3.2 If the **User defined** 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 (**2**). Click the button near the corresponding field to use the **Calendar** tool.



If another period type is selected, specifying the date of start and end periods is not needed.
3.3 In the **Averaging interval, min** enter the time period corresponding to the interval in which points on the chart and values in the table will follow (**3**). The average values for the specified averaging interval are displayed in the report.

> **Note.**
>
> If the average value is null the empty report will be displayed for such intervals for the specified period. It is recommended to change the interval in this case.

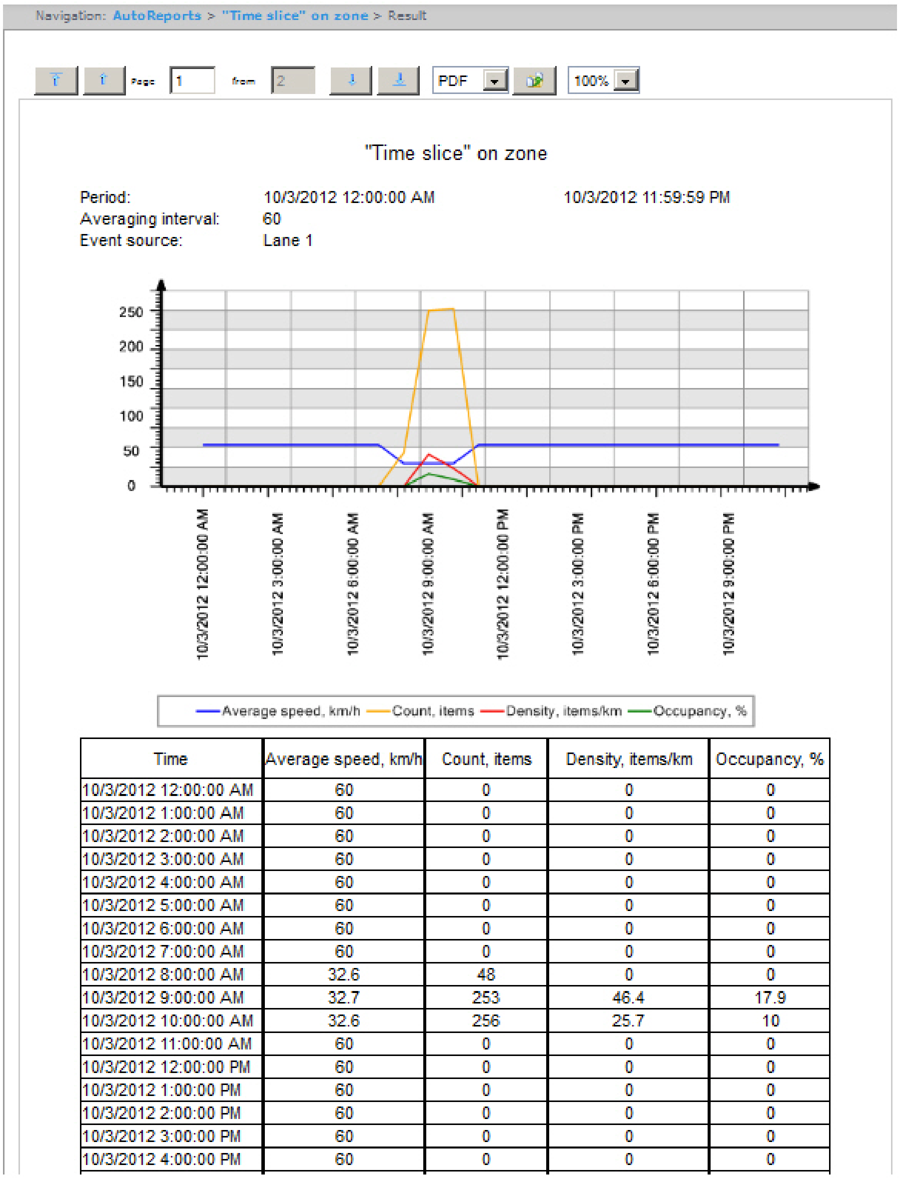
3.4 From the **Data source (zone or detector)** drop-down list select the **Region** object corresponding to the lane on which the report is to be created (**4**).
3.5 From the **Report's content** drop-down list select the way of report displaying: table and/or chart (**5**).
3.6 In the **Title** field enter the report name which is to be displayed (**6**).
3.7 Set the **View average speed data** checkbox to include the data about average speed

on the selected lane (**7**).
3.8 Set the **View volume data** checkbox to include the data about vehicle numbers on the lane for the specified time period (**8**).

3.9 Set the **View density data** checkbox to include the data about vehicle numbers per kilometer on the specified lane (**9**).
3.10 Set the **View Occupancy data** checkbox to include the data about percent of lane occupancy (**10**).

4. Click Execute to create the report (**11**).

As a result the report in the selected form is displayed.

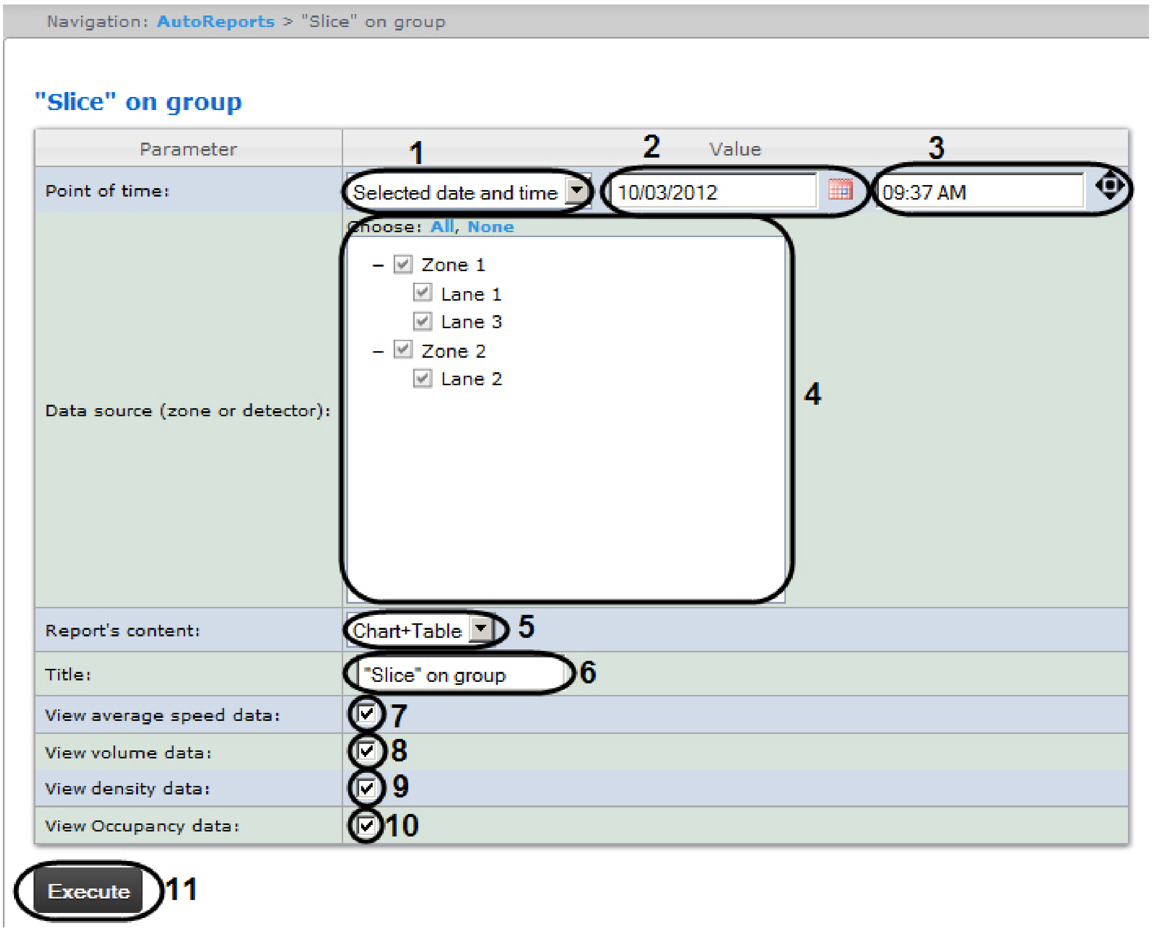


Time	Average speed, km/h	Count, items	Density, items/km	Occupancy, %
10/3/2012 12:00:00 AM	60	0	0	0
10/3/2012 1:00:00 AM	60	0	0	0
10/3/2012 2:00:00 AM	60	0	0	0
10/3/2012 3:00:00 AM	60	0	0	0
10/3/2012 4:00:00 AM	60	0	0	0
10/3/2012 5:00:00 AM	60	0	0	0
10/3/2012 6:00:00 AM	60	0	0	0
10/3/2012 7:00:00 AM	60	0	0	0
10/3/2012 8:00:00 AM	32.6	48	0	0
10/3/2012 9:00:00 AM	32.7	253	46.4	17.9
10/3/2012 10:00:00 AM	32.6	256	25.7	10
10/3/2012 11:00:00 AM	60	0	0	0
10/3/2012 12:00:00 PM	60	0	0	0
10/3/2012 1:00:00 PM	60	0	0	0
10/3/2012 2:00:00 PM	60	0	0	0
10/3/2012 3:00:00 PM	60	0	0	0
10/3/2012 4:00:00 PM	60	0	0	0

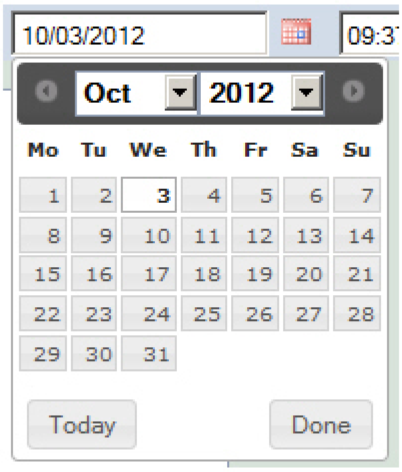
Creating a «Slice» on group

In order to create a «Slice» on group, do the following:

1. Select the **«Slice» on group** type of Auto reports (see Selecting a type of Auto report secti on).
2. As a result the dialog box for specifying the report parameters will be displayed.



3. Specify parameters of «Slice» on group in the following way:
3.1 From the **Point of time:** drop-down list select the mode of specifying the slice moment: select the **Current date and time** if the report is to be created on the current moment or **S elected date and time** if the report is to be created on the specified point of time (**1**).
3.2 If the **Selected date and time** mode was selected, enter the date when the report is to be created using the **Calendar** tool in the (**2**) field and date of report in the (**3**) field. Click the  button near the corresponding field to use the **Calendar** tool.



Note.

Click the  button to set the current system date and time as the report time (**3**).

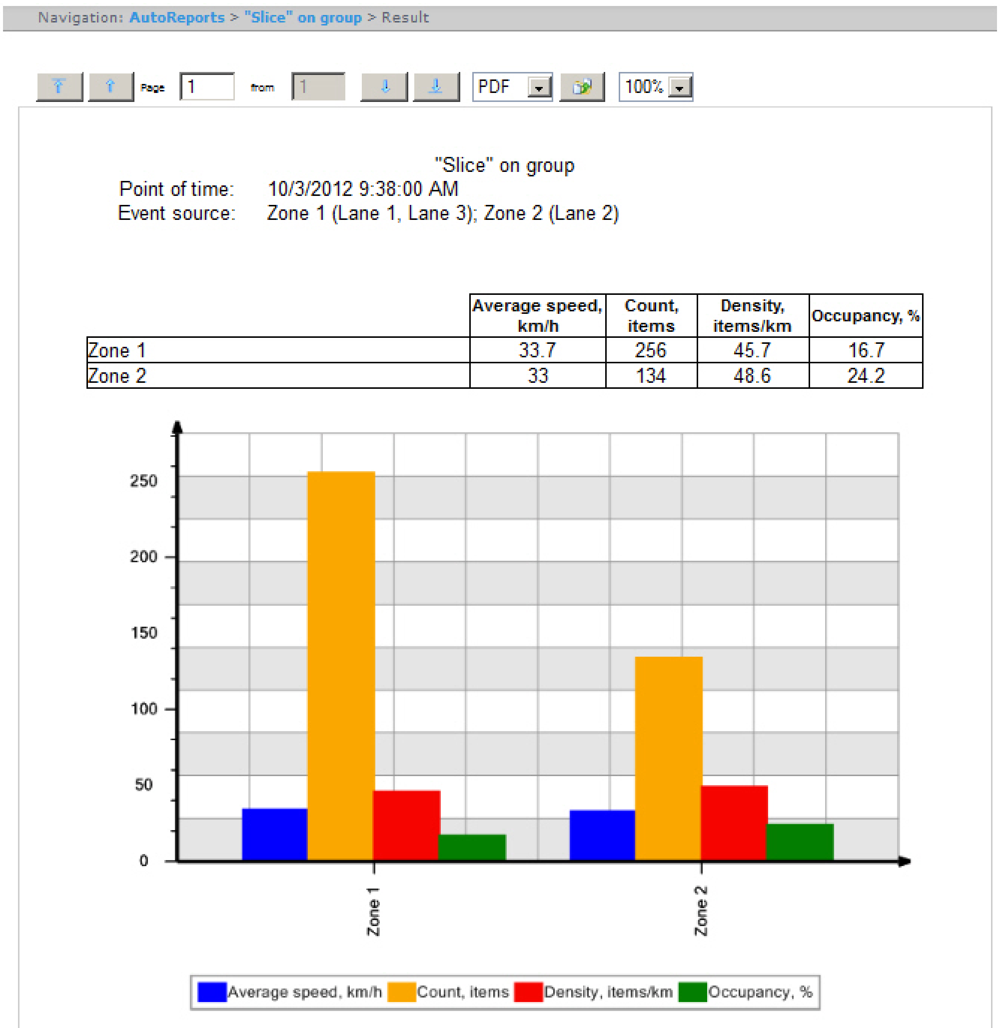
3.3 Set checkboxes next to those lanes and/or detectors by which the report is to be created (**4**).

> **Note.**
>
> Click the **All** link to select all lanes and detectors in the list. Click the **None** link to uncheck all checkboxes (**4**).

3.4 From the **Report's content** drop-down list select the way of report displaying (**5**).
3.5 In the **Title** field enter the report name which is to be displayed (**6**).
3.6 Set the **View average speed data** checkbox to include the data about average speed on selected lanes (**7**).
3.7 Set the **View volume data** checkbox to include the data about vehicle numbers on lanes for the specified time period (**8**).
3.8 Set the **View density data** checkbox to include the data about vehicle numbers per kilometer on the specified lanes (**9**).
3.9 Set the **View Occupancy data** checkbox to include the data about percent of lanes occupancy (**10**).

4. Click Execute to create the report (**11**).

As a result the report in the selected form is displayed.


Navigation: AutoReports > "Slice" on group > Result

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"Slice" on group

Point of time: 10/3/2012 9:38:00 AM

Event source: Zone 1 (Lane 1, Lane 3); Zone 2 (Lane 2)

	Average speed, km/h	Count, items	Density, items/km	Occupancy, %
Zone 1	33.7	256	45.7	16.7
Zone 2	33	134	48.6	24.2

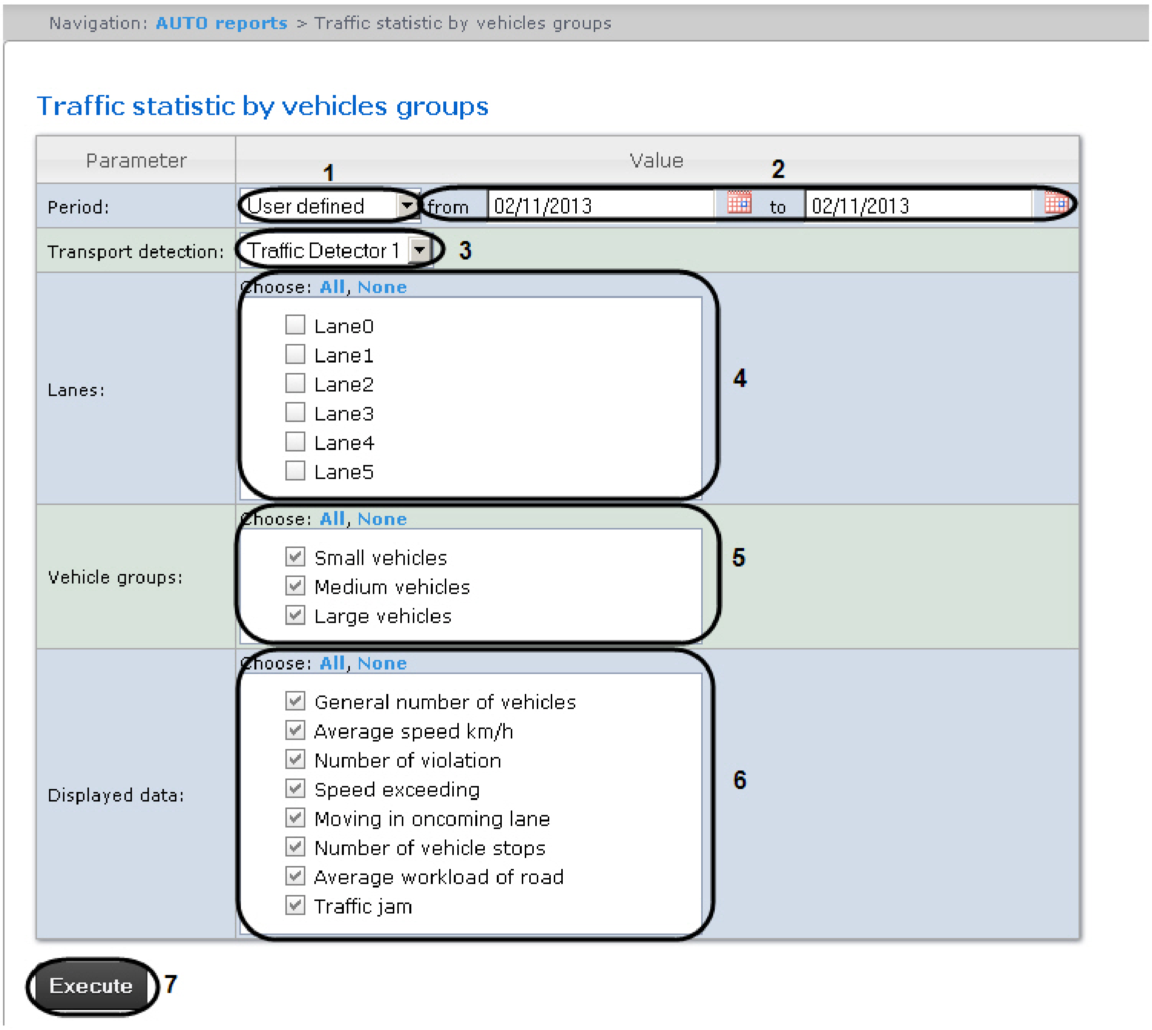
Getting a traffic statistics by vehicles groups

In order to get a traffic statistics, do the following:

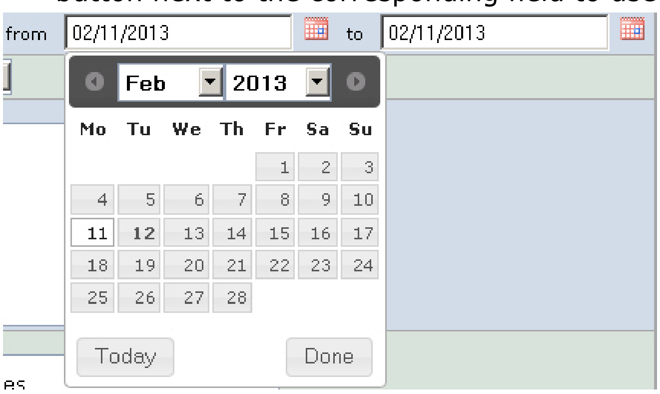
1. Select the **Traffic statistics by vehicles groups** type of Auto reports (see Selecting a type

of Auto report section).

2. As a result the dialog box for specifying the report parameters will be displayed.



3. Specify parameters of Traffic statistics by vehicles groups in the following way:
3.1 In the **Period:** drop-down list select the time period for which the report is to be created (**1**).
3.2 If the **User defined** 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 (**2**). Click the  button next to the corresponding field to use the **Calendar** tool.



If another period type is selected, specifying the date of start and end periods is not needed.
3.3 In the **Transport detection** drop-down list select the **Transport detection** object, data of which is to be used to create the report (**3**).
3.4 In the **Lanes** list set checkboxes next to those lanes data of which is to be included in the report (**4**).

> **Note.**
>
> In order to select all lanes in the list click the **All** link. To uncheck all checkboxes click the **None** link (**4**).

3.5 In the **Vehicle groups** list set checkboxes in those vehicle groups data of which is to be included in the report (**5**). The following vehicle groups are available:

- Small vehicles (the group includes cars and motorcycles);
- Medium vehicles (the group includes vehicles less than 12 m);
- Large vehicles (the group includes vehicles more than 12 m and buses).

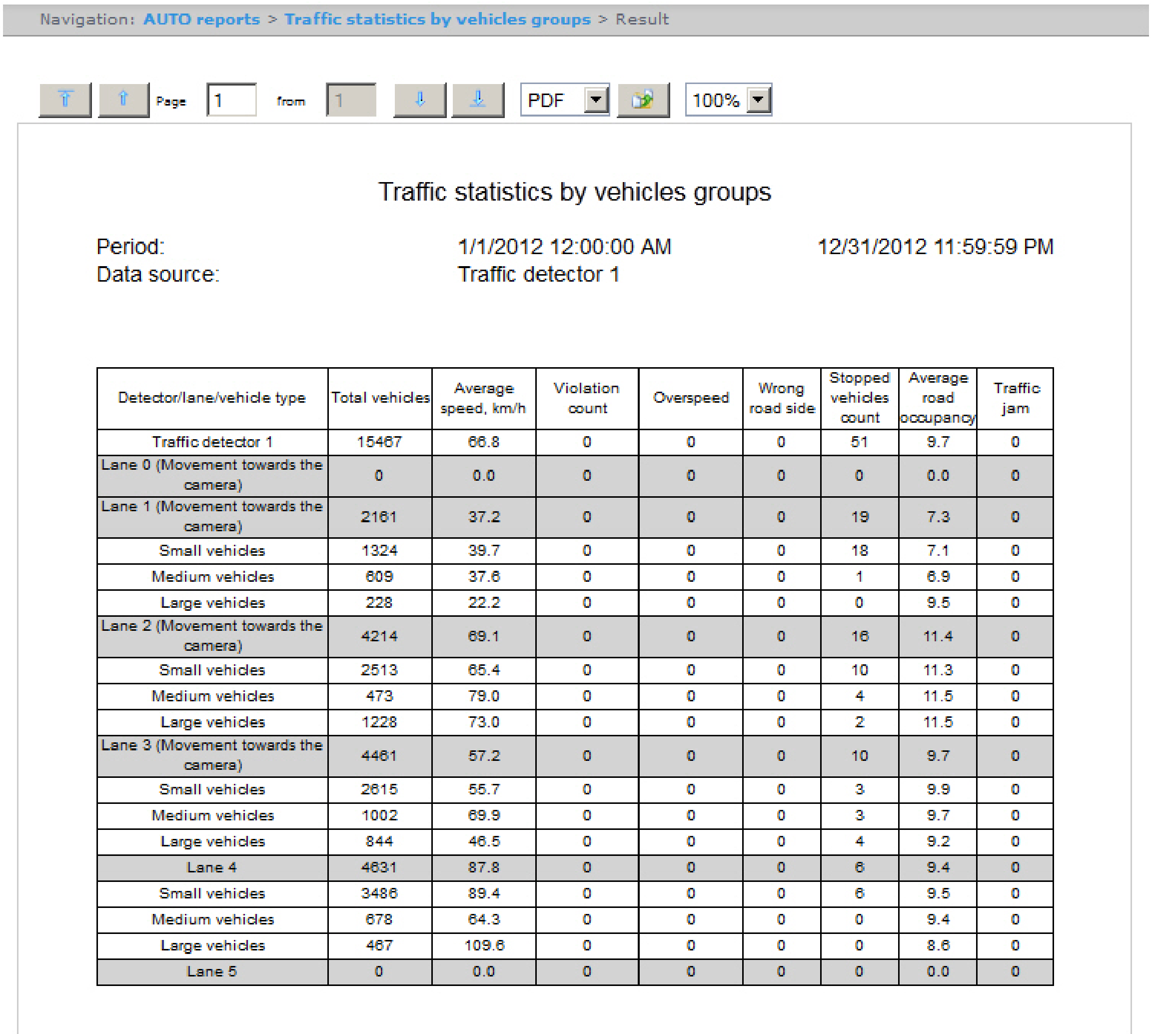
> **Note.**
>
> In order to select all groups in the list click the **All** link. To uncheck all checkboxes click the **None** link (**5**).

3.6 In the **Displayed data** list set checkboxes next to those parameters which are to be included in the report (**6**).

> **Note.**
>
> In order to select all fields in the list click the **All** link. To uncheck all checkboxes click the **None** link (**6**).

4. Click **Execute** to create the report (**7**).

As a result the report in the selected form is displayed.



Traffic statistics by vehicles groups

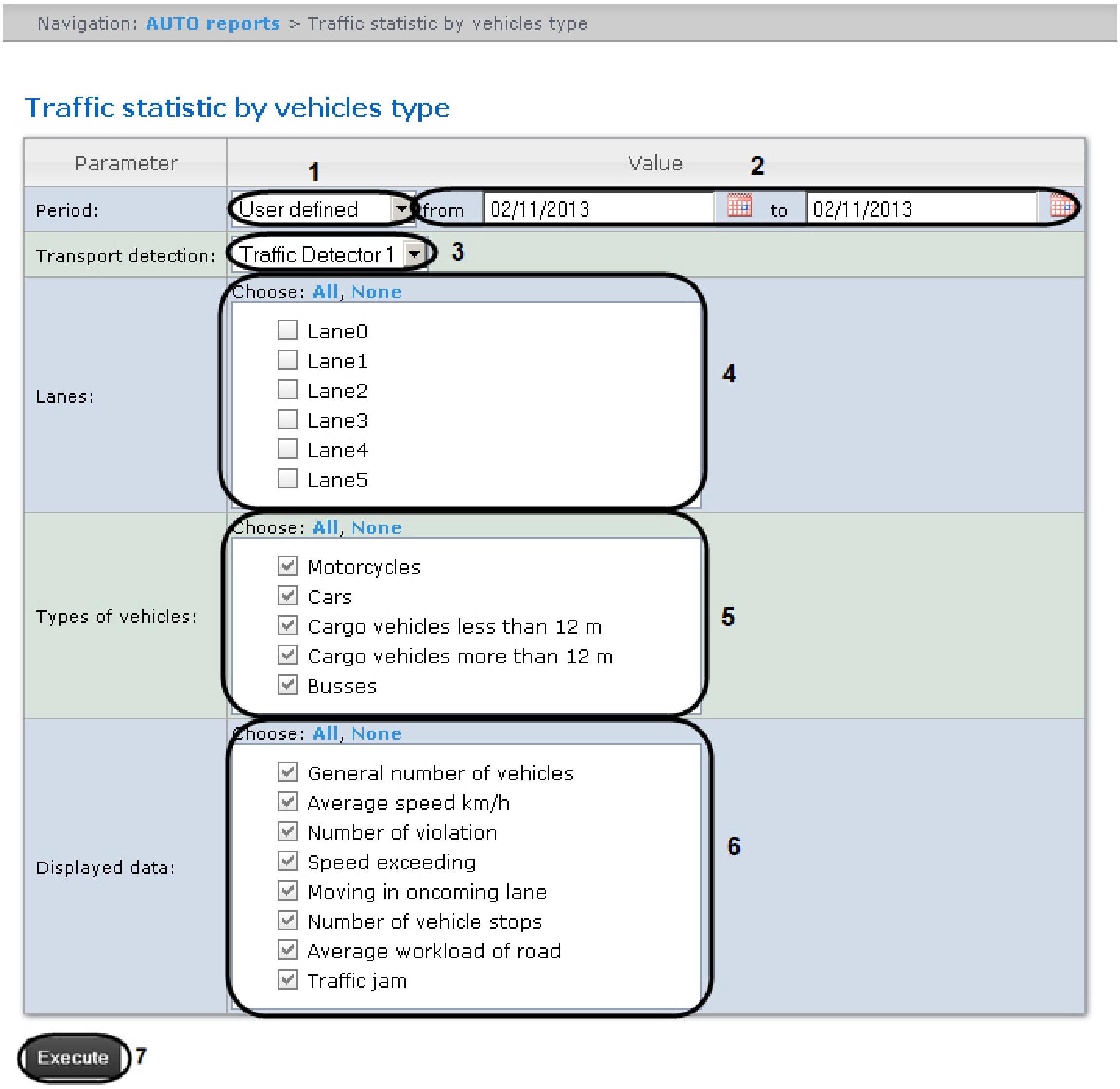
Period: 1/1/2012 12:00:00 AM 12/31/2012 11:59:59 PM
Data source: Traffic detector 1

Detector/lane/vehicle type	Total vehicles	Average speed, km/h	Violation count	Overspeed	Wrong road side	Stopped vehicles count	Average road occupancy	Traffic jam
Traffic detector 1	15467	66.8	0	0	0	51	9.7	0
Lane 0 (Movement towards the camera)	0	0.0	0	0	0	0	0.0	0
Lane 1 (Movement towards the camera)	2161	37.2	0	0	0	19	7.3	0
Small vehicles	1324	39.7	0	0	0	18	7.1	0
Medium vehicles	609	37.6	0	0	0	1	6.9	0
Large vehicles	228	22.2	0	0	0	0	9.5	0
Lane 2 (Movement towards the camera)	4214	69.1	0	0	0	16	11.4	0
Small vehicles	2513	65.4	0	0	0	10	11.3	0
Medium vehicles	473	79.0	0	0	0	4	11.5	0
Large vehicles	1228	73.0	0	0	0	2	11.5	0
Lane 3 (Movement towards the camera)	4461	57.2	0	0	0	10	9.7	0
Small vehicles	2615	55.7	0	0	0	3	9.9	0
Medium vehicles	1002	69.9	0	0	0	3	9.7	0
Large vehicles	844	46.5	0	0	0	4	9.2	0
Lane 4	4631	87.8	0	0	0	6	9.4	0
Small vehicles	3486	89.4	0	0	0	6	9.5	0
Medium vehicles	678	64.3	0	0	0	0	9.4	0
Large vehicles	467	109.6	0	0	0	0	8.6	0
Lane 5	0	0.0	0	0	0	0	0.0	0

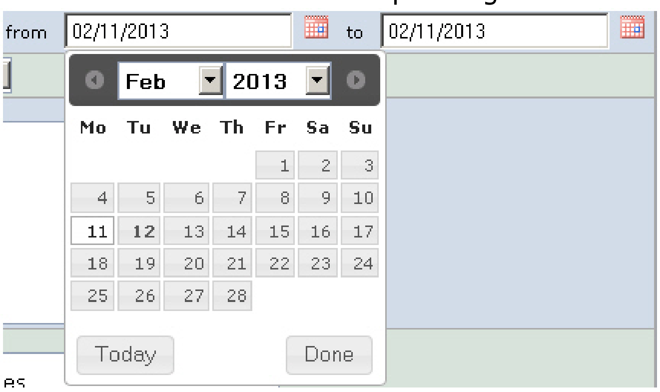
Getting a traffic statistics by vehicles type

In order to get a traffic statistics by vehicles type, do the following:

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



3. Specify parameters of Traffic statistics by vehicles type in the following way:
   3.1 In the **Period:** drop-down list select the time period for which the report is to be created (**1**).
   3.2 If the **User defined** 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 (**2**). Click the  button next to the corresponding field to use the **Calendar** tool.



   If another period type is selected, specifying the date of start and end periods is not needed.
   3.3 In the **Transport detection** drop-down list select the **Transport detection** object, data of which are to be used to create the report (**3**).
   3.4 In the **Lanes** list set checkboxes next to those lanes data of which is to be included in the report (**4**).

> **Note.**
>
> In order to select all lanes in the list click the **All** link. To uncheck all checkboxes click the **None** link (**4**).

3.5 In the **Types of vehicles** list set checkboxes next to those vehicle types data of which is to be included in the report (**5**).

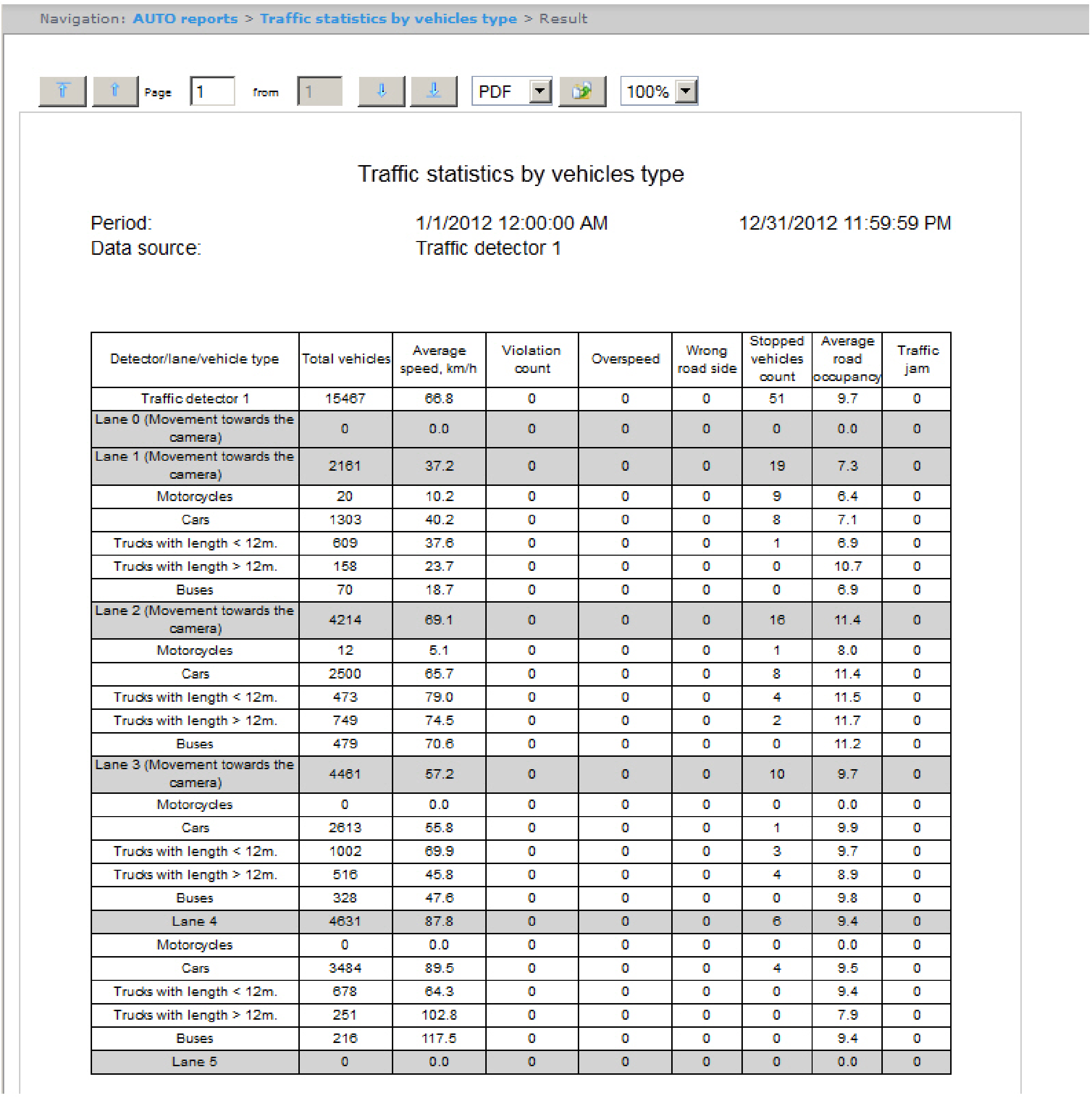
> **Note.**
>
> In order to select all groups in the list click the **All** link. To uncheck all checkboxes click the **None** link (**5**).

3.6 In the **Displayed data** list set checkboxes next to those parameters which are to be included in the report (**6**).

> **Note.**
>
> In order to select all fields in the list click the **All** link. To uncheck all checkboxes click the **None** link (**6**).

4. Click **Execute** to create the report (**7**).

As a result the report in the selected form is displayed.



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

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Traffic statistics by vehicles type

Period: 1/1/2012 12:00:00 AM 12/31/2012 11:59:59 PM

Data source: Traffic detector 1

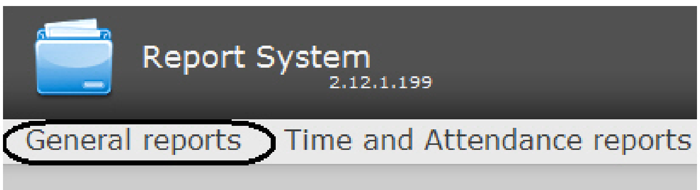
Detector/lane/vehicle type	Total vehicles	Average speed, km/h	Violation count	Overspeed	Wrong road side	Stopped vehicles count	Average road occupancy	Traffic jam
Traffic detector 1	15467	66.8	0	0	0	51	9.7	0
Lane 0 (Movement towards the camera)	0	0.0	0	0	0	0	0.0	0
Lane 1 (Movement towards the camera)	2161	37.2	0	0	0	19	7.3	0
Motorcycles	20	10.2	0	0	0	9	6.4	0
Cars	1303	40.2	0	0	0	8	7.1	0
Trucks with length < 12m.	609	37.6	0	0	0	1	6.9	0
Trucks with length > 12m.	158	23.7	0	0	0	0	10.7	0
Buses	70	18.7	0	0	0	0	6.9	0
Lane 2 (Movement towards the camera)	4214	69.1	0	0	0	16	11.4	0
Motorcycles	12	5.1	0	0	0	1	8.0	0
Cars	2500	65.7	0	0	0	8	11.4	0
Trucks with length < 12m.	473	79.0	0	0	0	4	11.5	0
Trucks with length > 12m.	749	74.5	0	0	0	2	11.7	0
Buses	479	70.6	0	0	0	0	11.2	0
Lane 3 (Movement towards the camera)	4461	57.2	0	0	0	10	9.7	0
Motorcycles	0	0.0	0	0	0	0	0.0	0
Cars	2613	55.8	0	0	0	1	9.9	0
Trucks with length < 12m.	1002	69.9	0	0	0	3	9.7	0
Trucks with length > 12m.	516	45.8	0	0	0	4	8.9	0
Buses	328	47.6	0	0	0	0	9.8	0
Lane 4	4631	87.8	0	0	0	6	9.4	0
Motorcycles	0	0.0	0	0	0	0	0.0	0
Cars	3484	89.5	0	0	0	4	9.5	0
Trucks with length < 12m.	678	64.3	0	0	0	0	9.4	0
Trucks with length > 12m.	251	102.8	0	0	0	0	7.9	0
Buses	216	117.5	0	0	0	0	9.4	0
Lane 5	0	0.0	0	0	0	0	0.0	0

Working with general reports

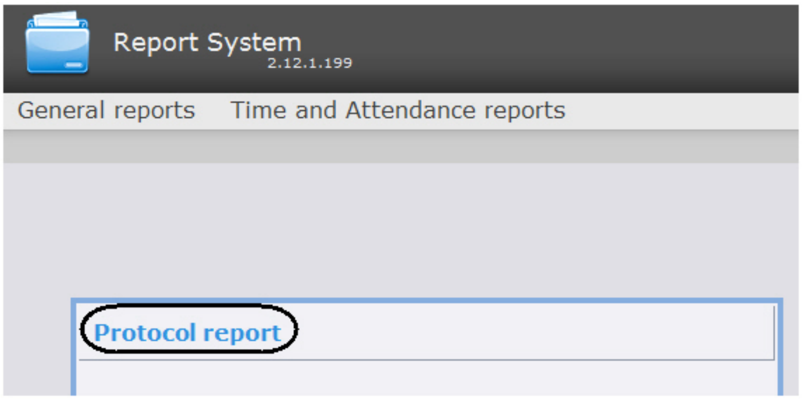
Protocol report is a table that contains information on events presence from specified objects during the determined time period.

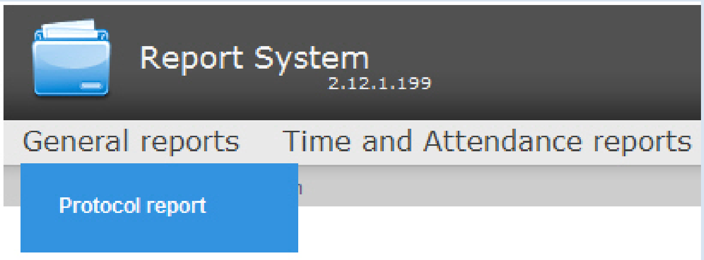
The **General reports module operator** operation is to be selected for the role of corresponding user for working with the protocol reports (see the Role editing section).

To create a protocol report click **General Reports** link in the report menu of *Report System.*

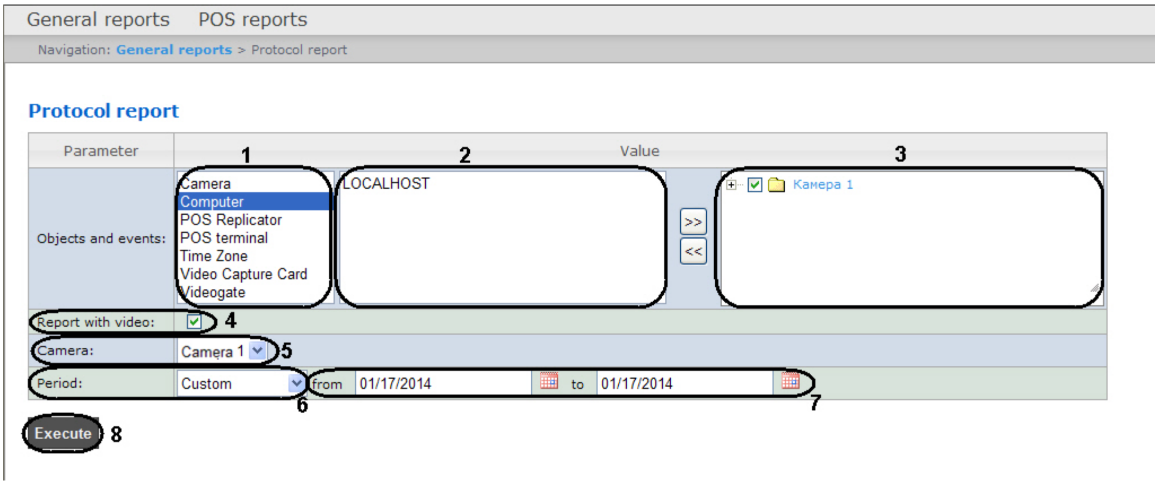


For switching to the **Protocol report** click the corresponding link.



> **Note.**
>
> List of links for switching to **Protocol reports** is available when hovering over the **General reports** link in the report menu.
>
> 
>

A page of a **Protocol report** is displayed.



In order to create a protocol report, do the following:

1. Select the needed object type from the objects list (**1**).
2. Select objects on which the report is to be created from the objects list of corresponding type (**2**).
3. Click the  button to display events corresponding to the selected object.
4. Set the checkboxes in those events of the selected object on which information is to be displayed in the report (**3**).
5. Set the **Report with video:** checkbox to create the report which will be contain video image from the camera (**4**).
6. From the **Camera:** drop-down list select the camera from which the video will be displayed in the report (**5**).
7. Specify the period in the following way:
   7.1 From the **Period:** drop-down list select the time period for which the report is to be

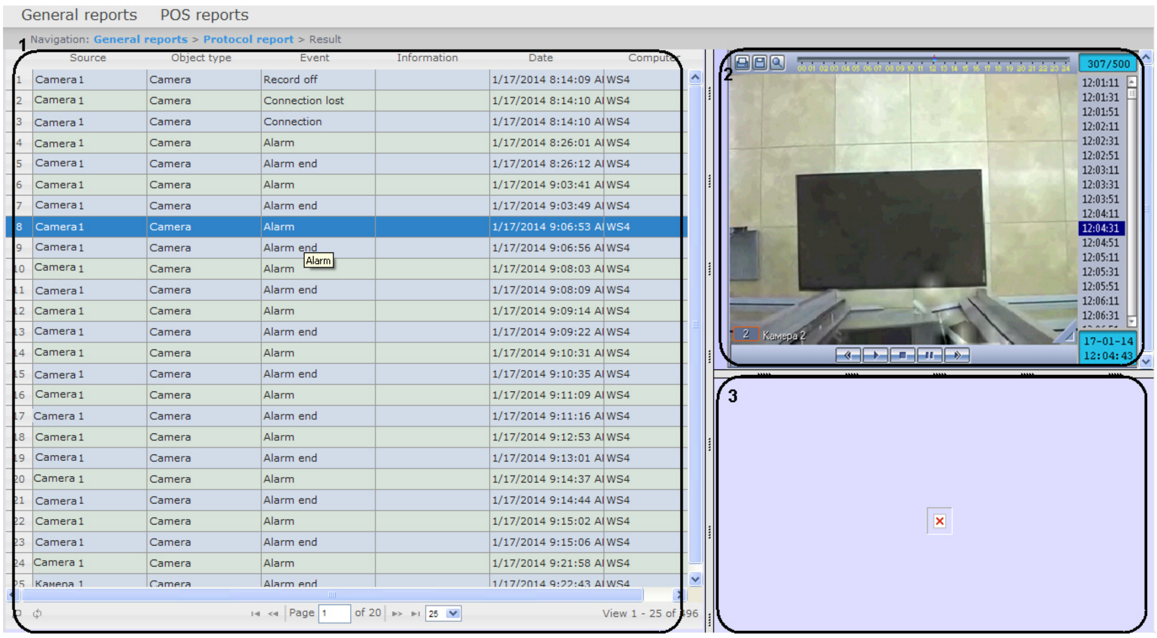
created (**6**).

7.2 If the **User defined** 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 (**7**). Click the  button near the corresponding field to use the **Calendar** tool.

If another period type is selected, specifying the date of start and end periods is not needed.

8. To create a report click **Execute** (**8**).

As a result a Protocol report with specified parameters is displayed.



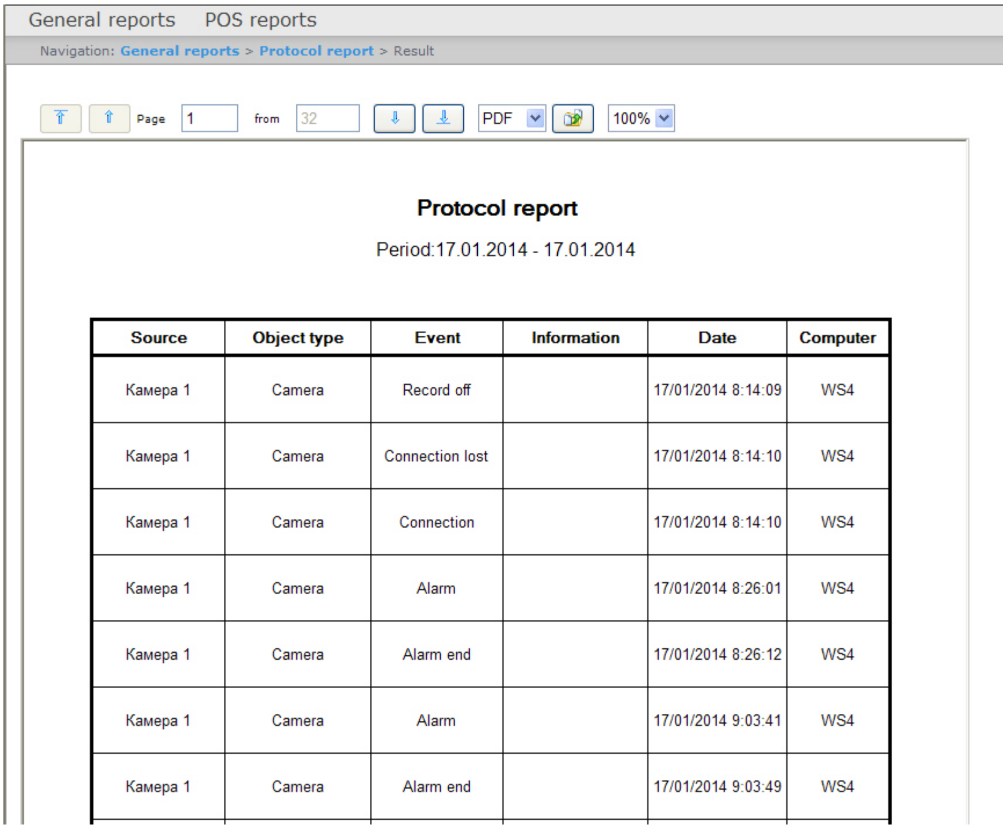
A form of the **Protocol report** with video displaying consists of three parts. Part **1** is equal to the print form of protocol reports without video displaying. Part **2** displays video from the selected camera. Part **3** displays image.

Video is displayed in case of the video archive for the specified period is existed. Otherwise, the last frame from archive is displayed.

Images corresponding to events of employee passes will be displayed while using the FSA/ACS module. Specify the path to the folder with images in the <add key="PathToPhotos" value ="" /> parameter in the web.config file to display images. On default, the "/BMP/Person/" path is specified.

Names of files should correspond to ID of emloyees whose passes are displayed in report.

> **Attention!**
>
> It is impossible to print the form of **Protocol report** with video displaying. If it is needed to get the pint form of the **Protocol report** create the report without video, i.e. the **Report with video:** checkbox should be deselect.



Protocol report

Period:17.01.2014 - 17.01.2014

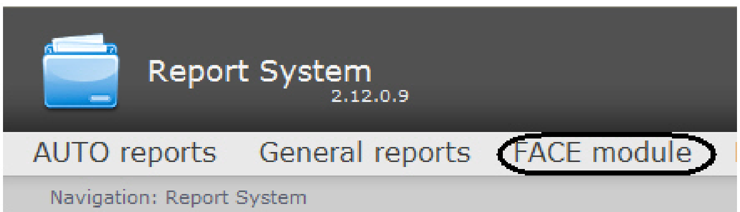
Source	Object type	Event	Information	Date	Computer
Камера 1	Camera	Record off		17/01/2014 8:14:09	WS4
Камера 1	Camera	Connection lost		17/01/2014 8:14:10	WS4
Камера 1	Camera	Connection		17/01/2014 8:14:10	WS4
Камера 1	Camera	Alarm		17/01/2014 8:26:01	WS4
Камера 1	Camera	Alarm end		17/01/2014 8:26:12	WS4
Камера 1	Camera	Alarm		17/01/2014 9:03:41	WS4
Камера 1	Camera	Alarm end		17/01/2014 9:03:49	WS4

> **Attention!**
>
> To create the auto generated protocol report you should select the report without video displaying.

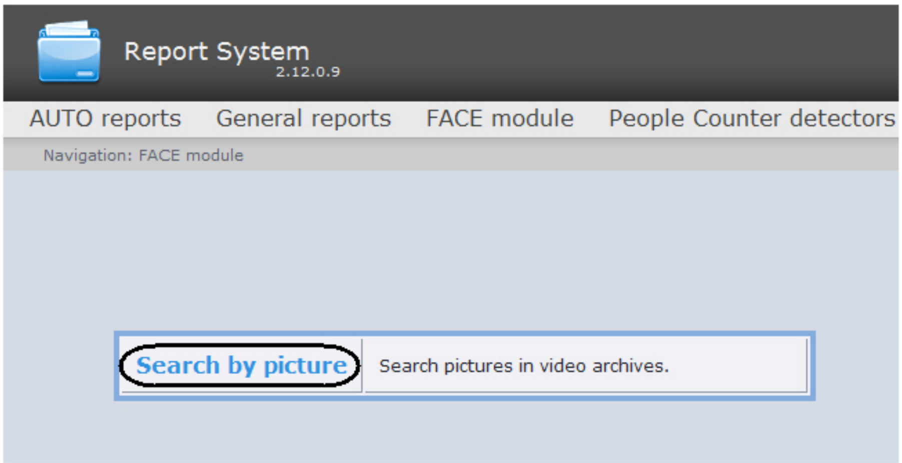
Working with «Face» module report

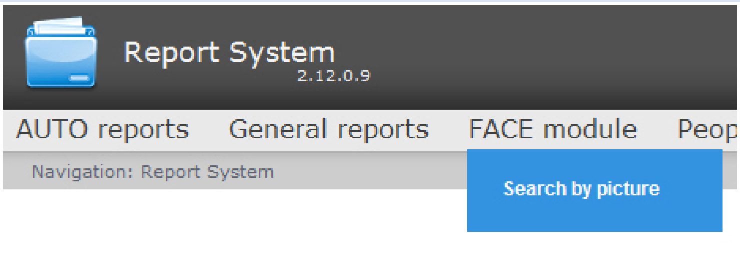
The **Face operator** operation is to be selected for the role of corresponding user for working with the Face module reports (see the Role editing section).

To search by picture click **Face module** link in the report menu of *Report System.*

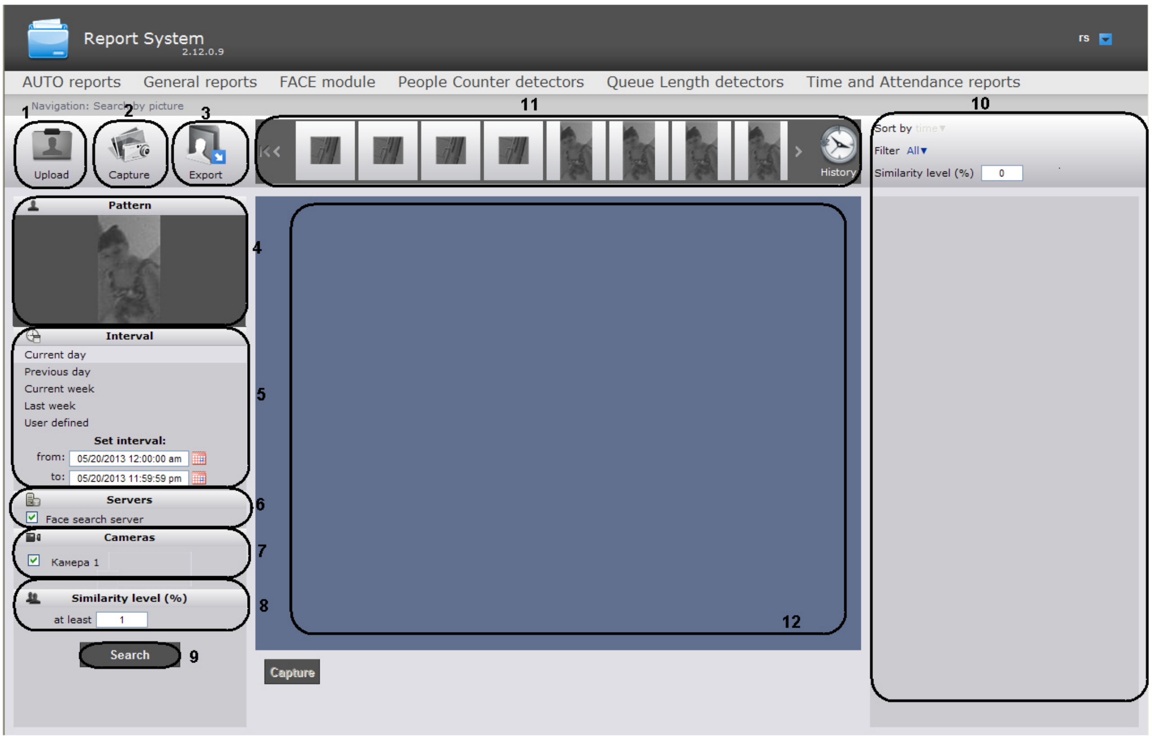


For switching to the **Search by picture** click the corresponding link.



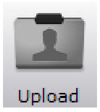
> **Note.**
>
> List of links for switching to **Search by picture** is available when hovering over the **Face module** link in the report menu.
>
> 
>

A page with parameters of **Search by picture** is displayed.

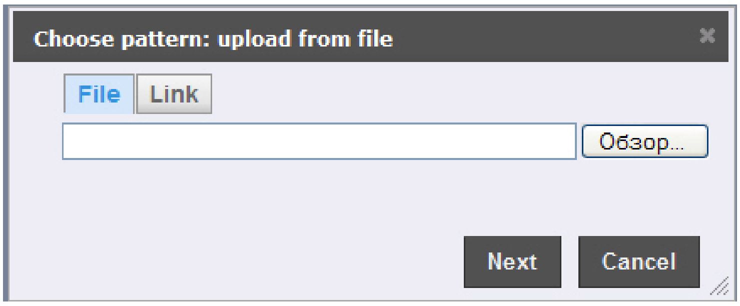


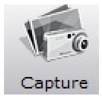
In order search by picture, do the following:

1. Upload the picture by one of the following ways:

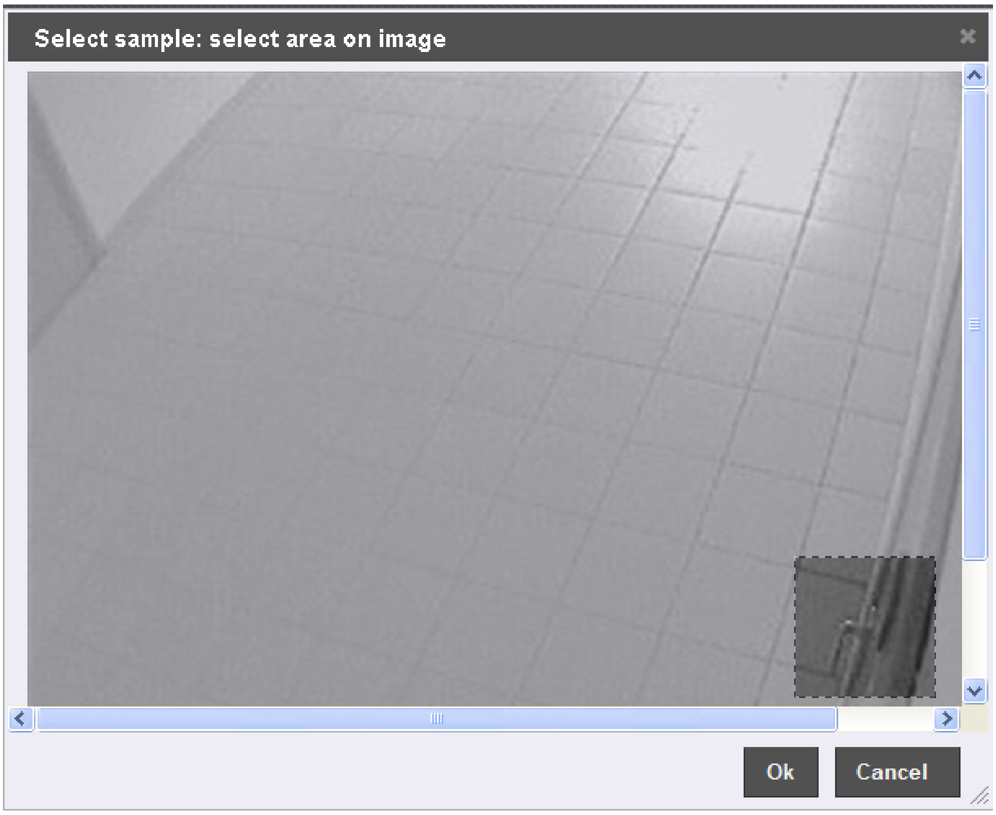
- to upload the picture click 

(**1**).
As a result the uploading window will display. In the **File** tab choose the needed file. To add file using the URL go to the **Link** tab and enter the corresponding link. To confirm click **Next**.



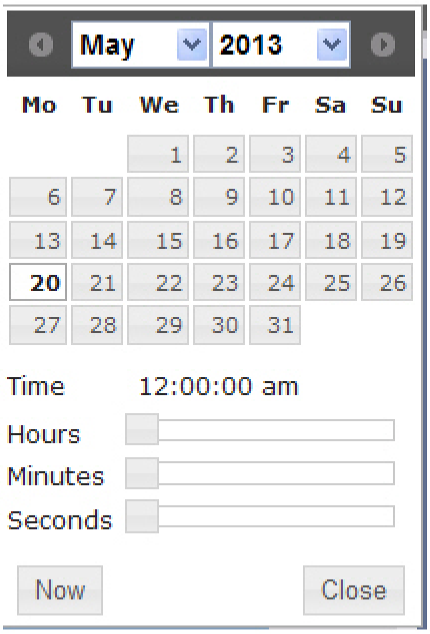
- to capture the picture from the video camera click the 

button (**2**).
As a result the window with the captured picture will display. Select the needed area in the image and click **Ok**.



2. The picture by which the search will be performed is displayed in the **Pattern** section (**4**).
3. Specify the search interval in the **Interval** section. If the **User defined** interval is selected, enter the date of start and end periods for which the search is to be performed in the **from**

and **to** fields using the **Calendar** tool (**5**). Click the  button near the corresponding field to use the **Calendar** tool.

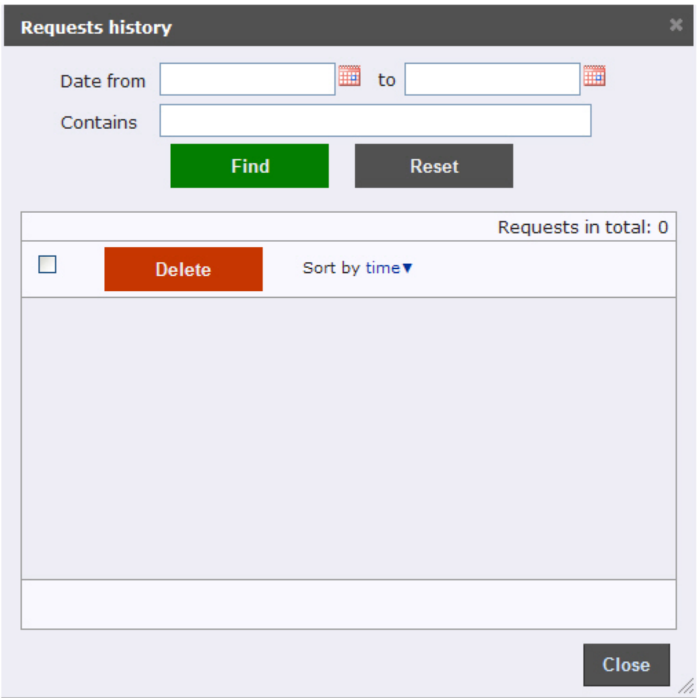


4. Set the checkboxes in those Face search servers which are needed for search by picture in the **Servers** section (**6**).
5. Set the checkboxes in those cameras on which the search by picture is to be performed in the **Cameras** section (**7**).
6. Specify the smallest similarity level in percents in the **Similarity level** section (**8**).
7. Click **Search** to start searching by picture (**9**).
8. The search results will display in the left pat of the window (**10**). Select the needed result from the list and in the central part of the window the corresponding archive is displaying and the fragment where the matching is found out is highlighted (Figure 8.7—4, **12**).
9. The search history is displayed in the high part of the window. To review the detailed history click 

.

   9.1 To search the request enter the date of search by picture and click **Search**.

   9.2 To go back to the page of Search by picture click **Close**.



Conclusion

Please send your comments or requests concerning this Guide to the AxxonSoft Training and documentation development division at documentation@itv.ru.

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