

Operator's Guide

POS PSIM 1.0 (english)

Exported on 08/18/2022

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1 Terms and abbreviations

The following terms are used throughout this document:

1. The Guide – the *POS PSIM*. Operator's Guide document
2. The System – the *POS PSIM* software system
3. Video Surveillance Monitor/Monitor – the interface window for displaying and controlling video tiles
4. Video tile – surveillance window with the receipt details superimposed over video of transactions
5. Titles DB – the titles database
6. Receipts DB – the receipts database.

2 Operator's Guide. Introduction

On the page:

- The purpose and structure of the guide
- The purpose of the POS PSIM system
- Recommendations for using the POS PSIM system

2.1 The purpose and structure of the guide

The *POS PSIM. Operator's Guide* is a reference manual to be used by operators of the *POS PSIM* software package.

2.2 The purpose of the POS PSIM system

The *POS PSIM* software package is designed for monitoring cashier operations in retail shops and has the following functionality:

1. Simultaneous viewing of the video image, the receipt contents and the POS terminal events in real time.
2. Simultaneous recording of the video image, the receipt contents and the POS terminal events.
3. Creating user queries allowing to search the video archive by receipt contents and by system events.
4. Integration with common POS terminals.
5. Possibility to create, view and process general and itemized on the POS terminal events in *Axxon PSIM WEB Report System* subsystem.

2.3 Recommendations for using the POS PSIM system

For correct operation of the *POS PSIM* system, please follow these recommendations:

1. Follow the job description accurately.
2. Use the system for the intended purpose only.
3. Do not use the computer with *Axxon PSIM* installed, to run other software which is not part of the *Axxon PSIM* package.

3 General description of the POS PSIM software package

POS PSIM includes the following software modules:

1. The basic version of the *Axxon PSIM* software package – *Axxon PSIM* (base).
2. *POS-operations* module.

The *POS-operations* module has the following functionality:

1. Simultaneous viewing of the video image, the receipt contents and the POS-terminal events in real time.
2. Simultaneous recording of the video image, the receipt contents and the POS-terminal events.
3. Creating user queries allowing to search the video archive by receipt contents and by system events.
4. The module provides user interfaces for the following functional modules:
    a. *Monitor* module (video and captions display), represented by the **Monitor** window;
    b. *Search by captions* module (searching the video database by captions), represented by the **Search by captions** window;
    c. *Receipt viewer* module (searching the receipts by event), represented by the **Receipt viewer** window.

The following databases are used in *POS PSIM*:

1. Internal database of the server – contains the system settings and the data on registered events.
2. Captioner – contains the data from POS-terminals.
3. Receipts database – contains the data from POS-terminals.

Database has MS SQL format. A list of MS SQL Server versions, supported in the *POS PSIM* software is identical with the list of supported versions for the *Axxon PSIM* software (see the Axxon PSIM Software Package. Administrator's Guide document).

The *POS-operations* module uses the *Captioner* module, which is installed by default with the *Axxon PSIM* (base) platform. The *Captioner* module overlays the video image received from the surveillance camera with the receipt contents. The result of this operation is included in the captioner (using the *Captioner* module) and the receipts database (using the *POS terminal* module), and is displayed in the **Monitor** window.

The *Search by captions* module allows searching the captioner, and the *Receipt viewer* module allows searching the receipts database. The captioners and receipts databases are stored in the folder specified during the MS SQL Server setup. For information please visit: http://www.microsoft.com/.

The video archive is stored in the folder specified during the *Axxon PSIM* (base) software setup. For further information please refer to the Axxon PSIM Software Package. The Administrator's Guide document.

The *POS PSIM* software functionality is specified in the **psim.sec** key file of the *Axxon PSIM (base)* software platform; please refer to the Axxon PSIM Software Package. The Administrator's Guide document.

4 Using the POS PSIM software system

4.1 Starting and closing the system

Prior to starting the system, please check the working condition of all hardware components – connections, cameras, etc.



The system can be started using one of the following methods:

1. Automatically – the system starts automatically after the operating system boots up.
2. Manually – to start the system manually, in the **Start** menu select **Programs**, then **Axxon PSIM**, then **Client Workstation**, or use the corresponding shortcut on the Desktop.

System startup may be password protected. In this case, enter your password to start the system.

To shut down the system, do the following:

1. Point the mouse to the upper right corner of the screen, the main control panel will open.
2. Click the  icon on the panel.
3. Select **Shutdown** in the menu that opens.

The shutdown process will start, the password will be required if set.



Note.

The system can be set up to forbid the shut down. Then, the **Shutdown** item is not present in the menu.

Starting and closing the program are described in more details in the Axxon PSIM software. Operator's Guide.

4.2 Using the Monitor window

The **Monitor** window is used for simultaneous real-time viewing or recording of video images received from the camera and the receipt contents.

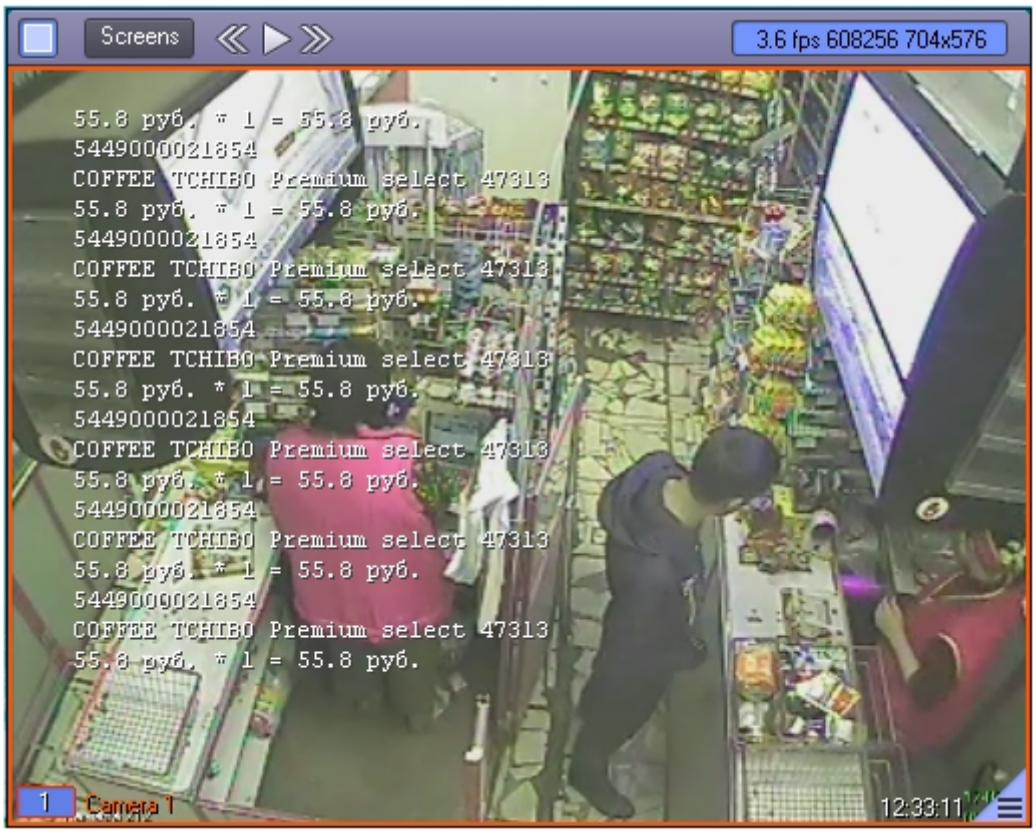
4.2.1 Viewing video and receipt contents

The **Monitor** is used for simultaneous real-time viewing of video images and receipt contents.

Video images are displayed in video tiles, while the receipt details are superimposed over the video image.

Note

By default, the captions timestamps (UTC) are not displayed. To display in the Monitor the time (UTC) when each caption appeared, it is necessary to change the **PrintTime** key value to **1** (for details see Registry keys reference guide, for details about working with the registry, see Working with Windows OS registry).



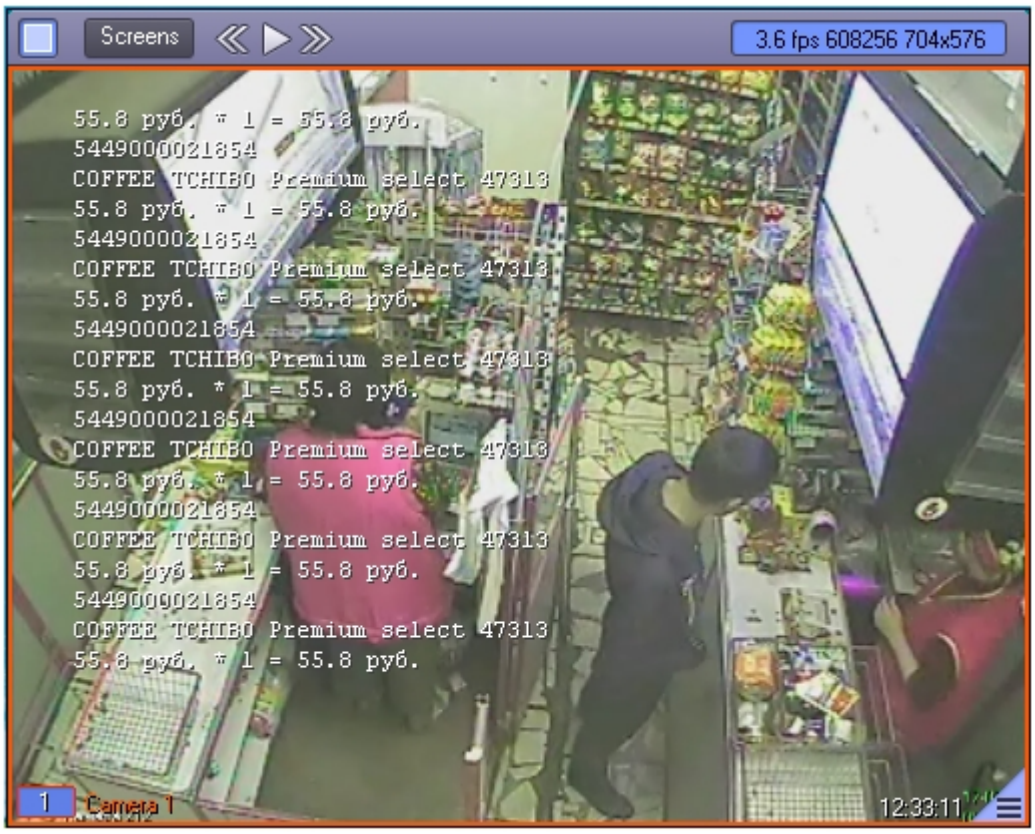
Note.

Please refer to the Axxon PSIM. Operator's Guide document for detailed description of **Monitor** usage.

4.2.2 Recording video and receipt contents

The monitor is also used for recording video images and receipt contents.

The video images containing the receipt contents superimposed are saved to the videoserver archive.



Note.

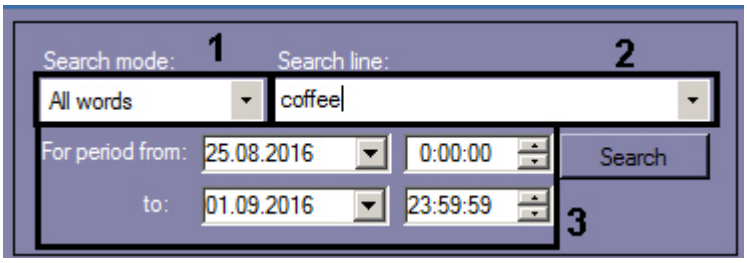
Please refer to the Axxon PSIM. Operator's Guide document for detailed description of the **Monitor** usage.

4.3 Using the Search by captions window

The **Search by captions** window is used to query the captioner.

4.3.1 Creating a query

Create a query before you start searching.



In the **Search line** field (**2**), enter the full words, parts of words (substring) or phrases to be searched for.

Note

If the **All words** search mode is selected, then you can enter a regular expression using the "*" symbol, for example: **co*f*e***.

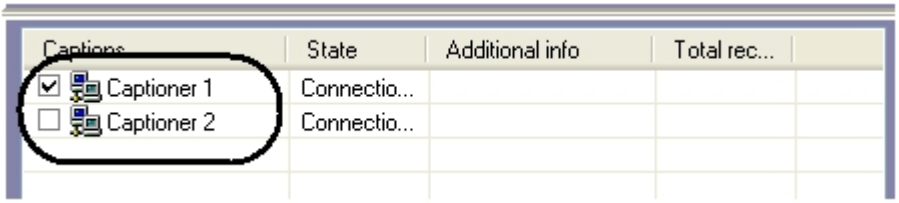
To use multiple search criteria (words or phrases), in the **Search mode** drop-down list, select one of the folowing modes (**1**):

1. **All words** – to find ALL words in the phrase;
2. **Any of words** – to find at least ONE of the words in the phrase;
3. **Substring** – to find the part of the word in the phrase.

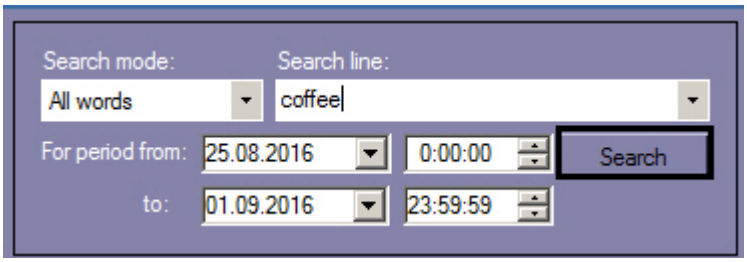
Enter the date/time interval of the recordings to be searched for in the **For period from** and **To** fields (**3**).

4.3.2 Searching the captioner

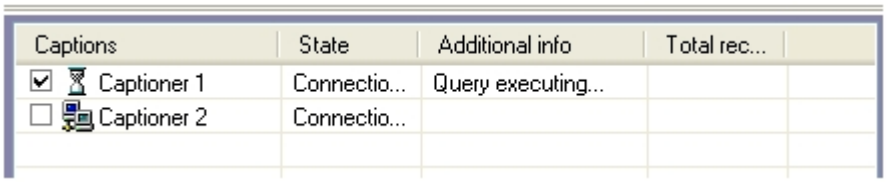
Before starting the search, select the databases to search in by checking the appropriate checkboxes in the table below .



Click the **Find** button to start searching.

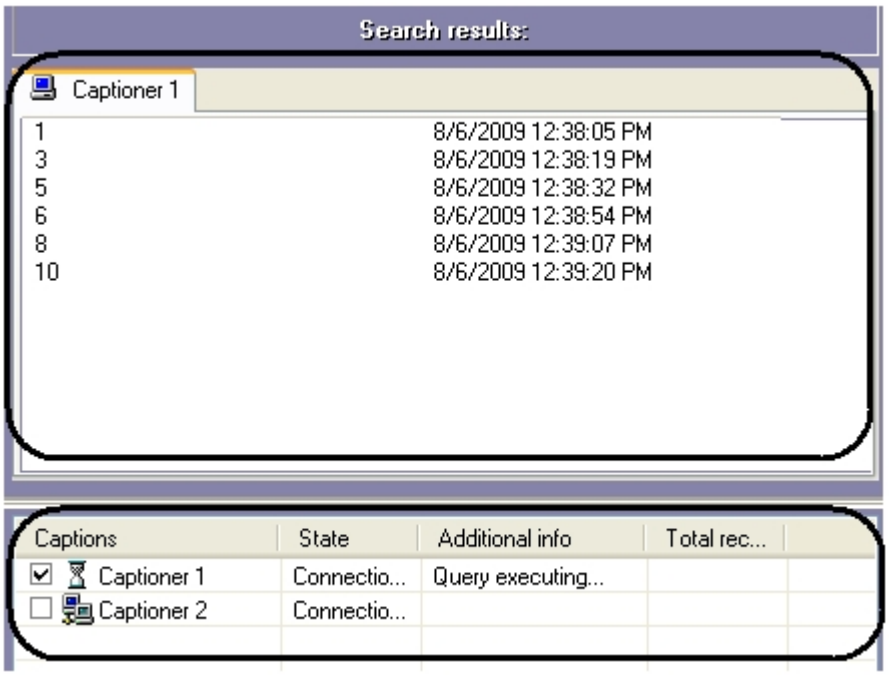


The search status (**Query executing...**) is displayed in the **Additional info** column for all selected databases.



To stop searching at any time, click the **Cancel** button.

The search process stops when all selected captioners are processed, i.e. the **Additional info** column reads **Search complete** for all selected captioners. The number of found records for each captioner will be displayed in the **Records found** column of the captioner status table, while the list of all found transactions will be displayed in the search results table.

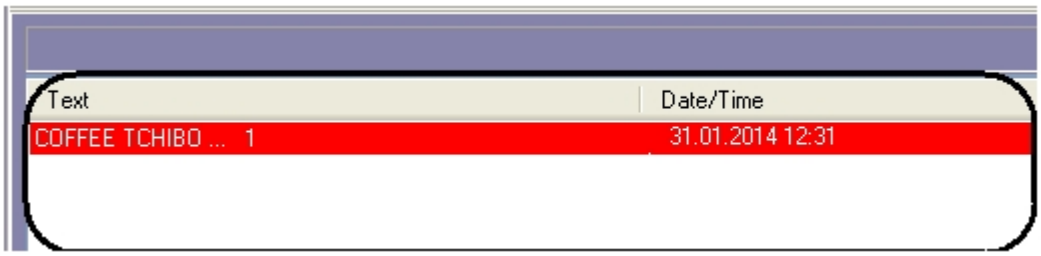


4.3.3 Viewing search results

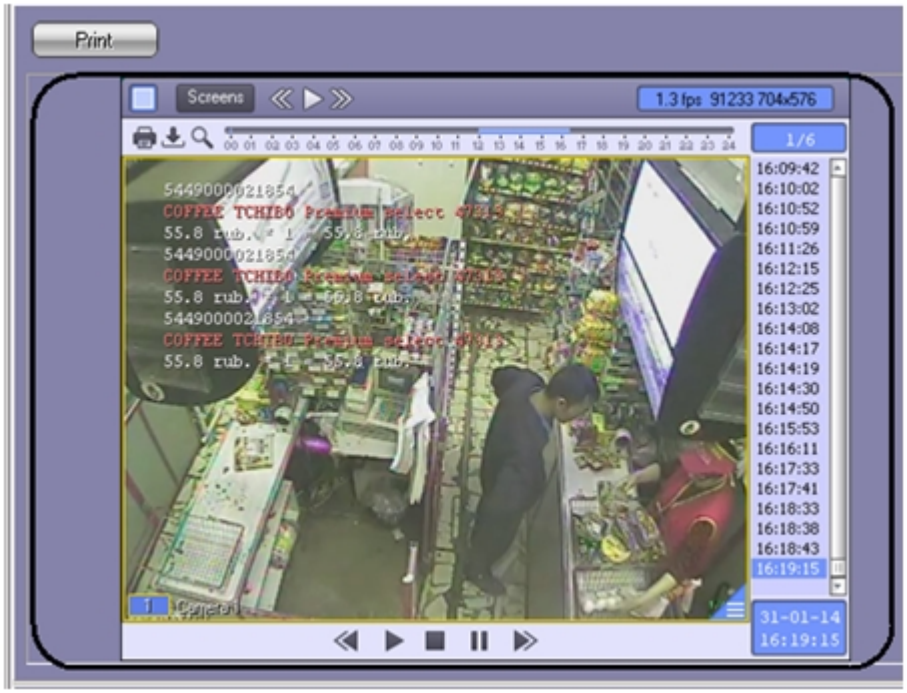
Search results are grouped by captioner and by transaction.

To view search results, select the tab of a captioner, then select a transaction in the search results table.

The contents of the desired receipt will be displayed in the **Captions** table. The search text, or the whole line containing the search text, will be highlighted.



The video fragment linked to the selected transaction will be displayed in the video search results area.



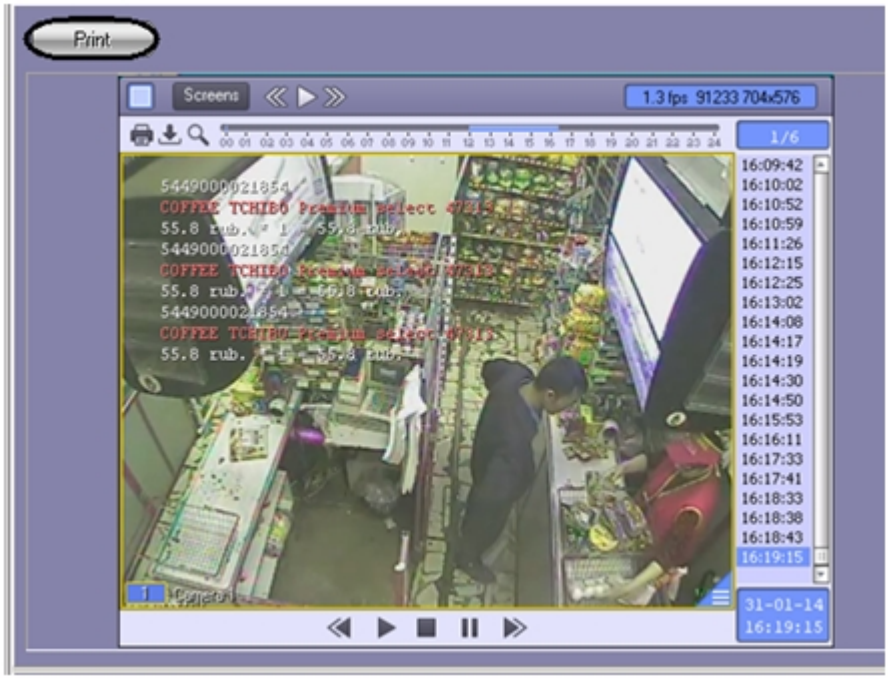
Export and processing functions simillar to those of Video surveillance monitor are available in this window, including video clips export with subtitles. For more details on using Video surveillabce monitor functions, see *Axxon PSIM software. Operator's Guide* (the most relevant version of this document is available in AxxonSoft documentation repository).

4.3.4 Printing search results

Search results, including the video frame screenshot, can be printed out and exported to general formats.

To print search results, click the **Print** button

> **Note.**
>
> The **Print** button may be absent depending on the system setup.



The search results report will be displayed in a new window.



Note.

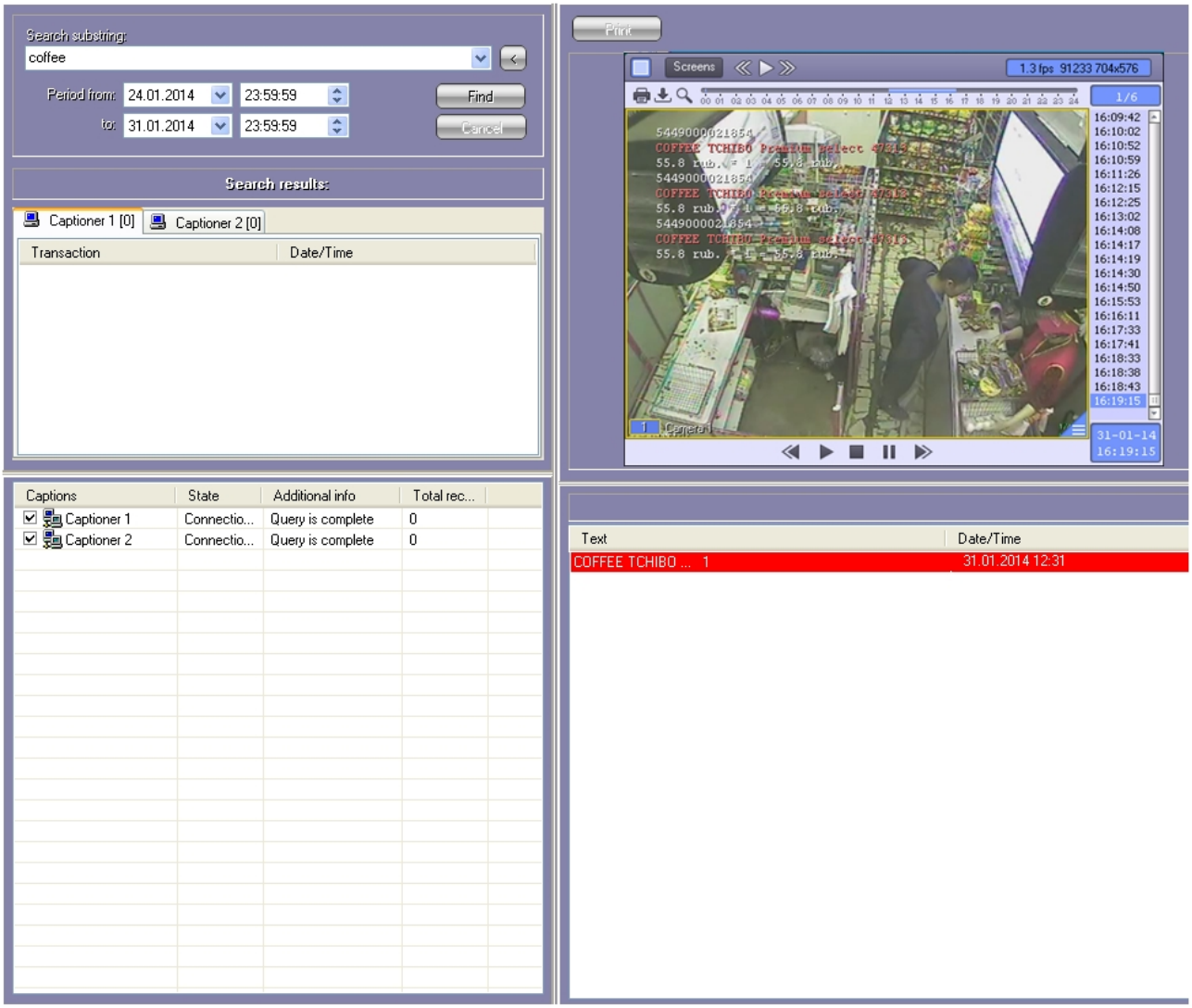
Please refer to the Axxon PSIM. Operator's Guide document for a detailed description of how to create reports.

4.3.5 Changing the sizes of interface elements

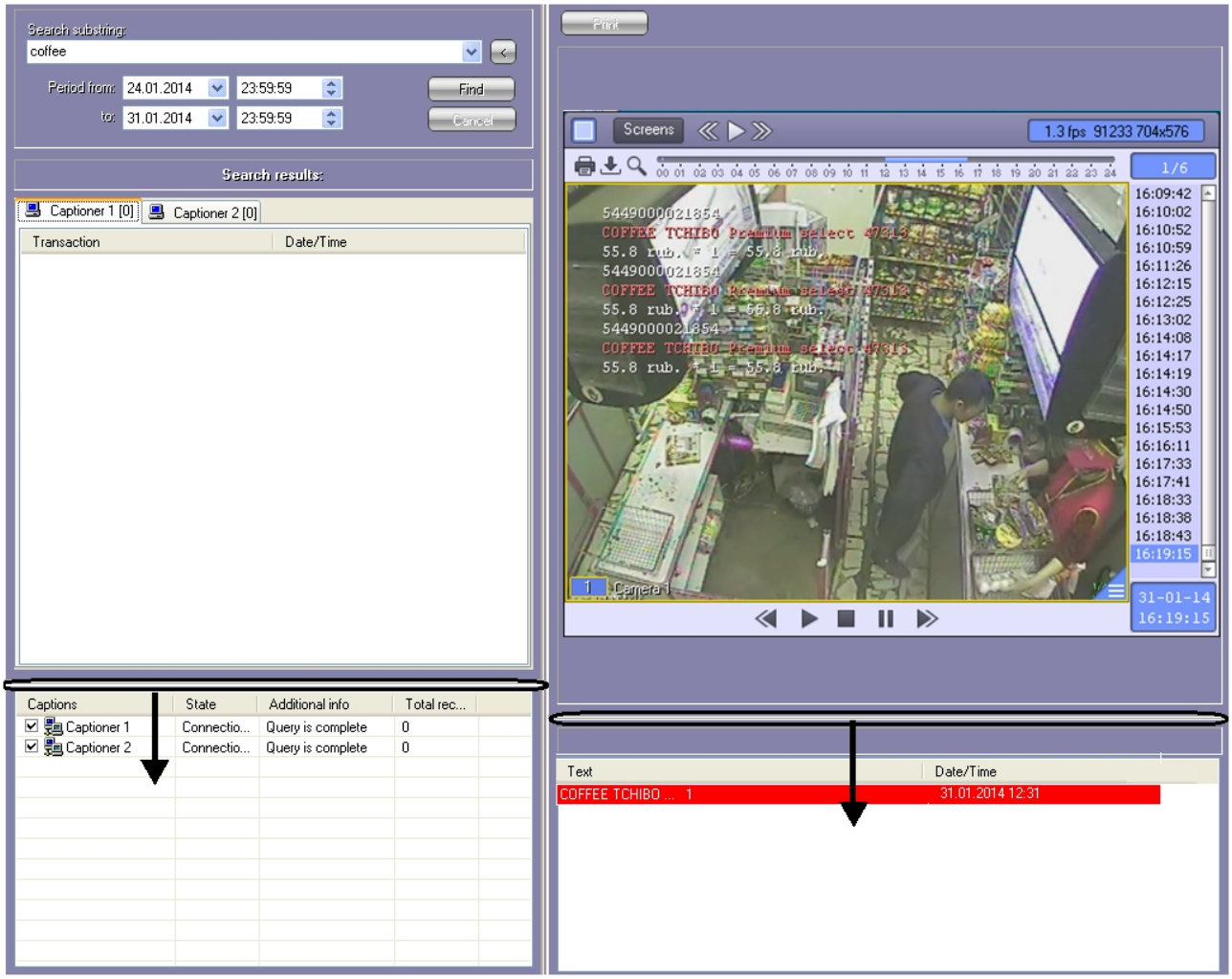
The user can change positions of the interface elements in the **Search by captions** window.

> **Note.**
>
> Availability of this function depends on system setup.

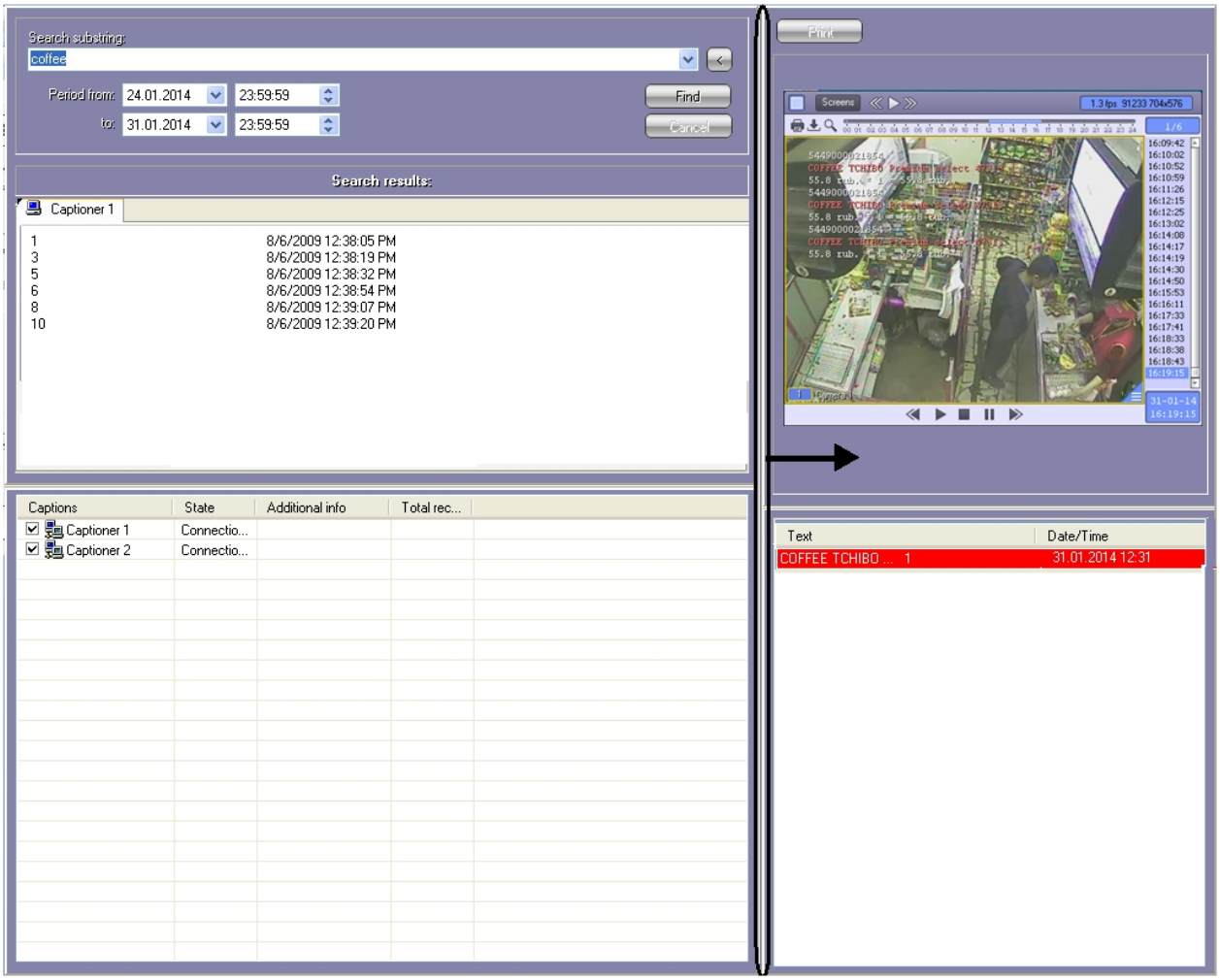
To change mutual positions of window elements, drag the element separators using the mouse.



Changing the window layout (initial layout)



Changing the window layout (vertical shift)



Changing the window layout (horizontal shift)

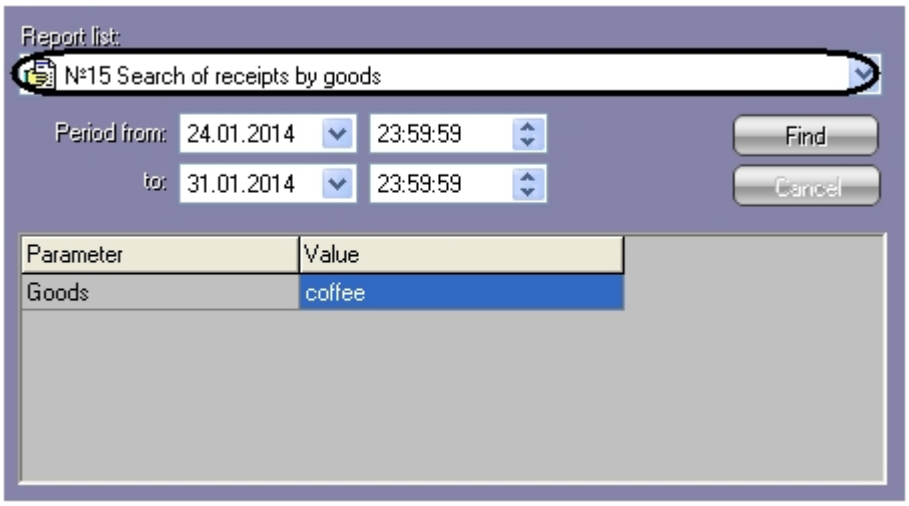
4.4 Using the Receipt viewer window

The **Receipt viewer** window is used to search the receipts database.

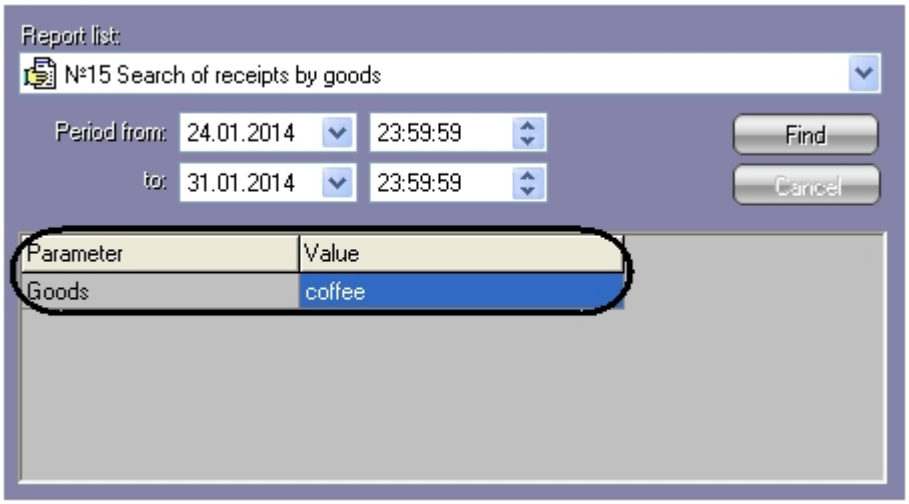
4.4.1 Creating a query to the receipts database

Create a query before starting the search.

Select the report type in the **Query list** drop-down list



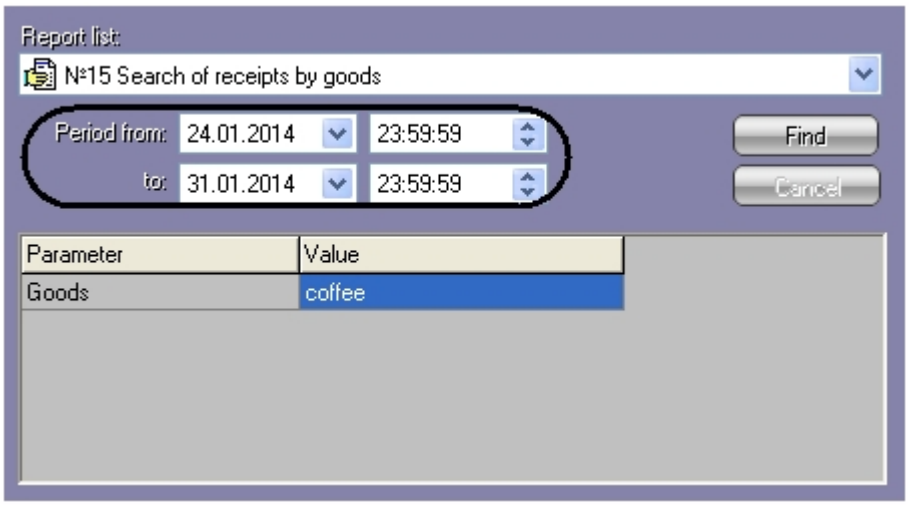
Each query type has its own set of parameters which is displayed when the query type is selected.



Note.

Some queries, for example, the **List of all queries**, have no parameters.

Enter the date/time interval of the receipts to be searched for in the **From** and **To** fields



If settings of search query was not been performed (see the Editing the receipts database queries (optional) section of the Administrator's Guide document) then queries described in the following table are used on default.

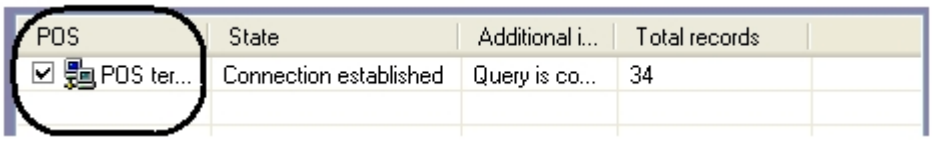
Name of query	Parameters	Purpose of query
№01 List of all receipts	-	Getting the list of all receipts recorded to the database for the specified period. The cashier number is displayed for each receipt.
№02 All receipts list with a cashier's name	-	Getting the list of all receipts recorded to the database for the specified period. The cashier number is displayed for each receipt.
№03 List of all good's returns (1)	-	Getting the list of all good's returns for the specified period. Return is defined by non-zero value of the return parameter in the database.
№03 List of all good's returns (2)	-	Getting the list of good's returns with negative number of goods for the specified period.
№04 Search by receipt number	Receipt number	Search for receipt with the specified number for the specified period.
№05 Search by return number	Return number	Search for receipts containing the specified return number. Value of this parameter is specified on the parser.
№06 Search by cashier number	Cashier number	Search for receipts containing the specified cashier number for the specified period.
№07 Search by marking of good	Marking of goods	Search for receipts containing the specified marking of goods for the specified period.

Name of query	Parameters	Purpose of query
№09 Goods report	Goods	Getting the number of sold goods with specified name and realized sum for the specified period
№10 Archive depth	-	Getting the information about the earliest receipt date in the database and the latest receipt date and the number of receipts between these dates.
№11 Search by goods amount in receipt	Minimal goods amount Maximal goods amount	Getting the list of receipts for the specified period in which the amount of goods is in the specified range.
№12 Query by receipt's total	Minimal total Maximal total	Getting the list of receipts, sum (total) of which is in the specified range.
№13 List of all receipts by goods (and)	Goods No.1 Goods No.2	Getting the list of receipts containing both of specified goods for the specified period.
№14 List of receipts by goods (or)	Goods No.1 Goods No.2 Minimal price Maximal price	Getting the list of receipts for the specified period containing at least one of the specified goods and in which the price is in the specified range.
№15 Search of receipts by goods	Goods	Getting the list of receipts containing the specified goods.
№16 List of all receipts of cashier	Cashier name	Search for receipts containing the specified cashier name for the specified period.
№17 List of receipt's cancellation (negative sum)	-	Getting the list of receipts for the specified period sum of which is negative.
№18 Query by goods weight	Goods maximal weight	Search for receipts for the specified period containing the catchweight goods weight of which less than the specified weight.
№19 Query by discount value	Minimal discount Maximal discount	Search for receipts discount of which is in the specified range for the specified period.
№20 List of all receipts of waiter	Waiter's name	Getting the list of receipts containing the waiter's name for the specified period.

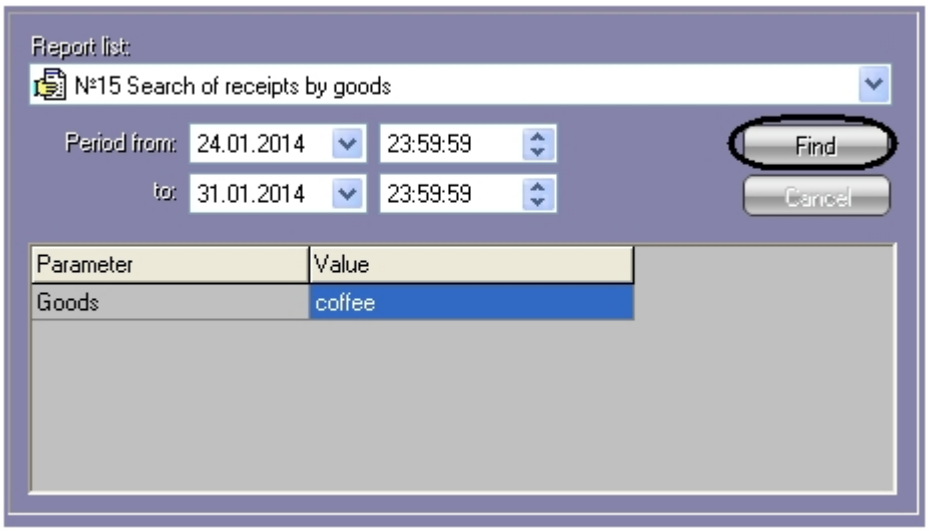
Name of query	Parameters	Purpose of query
№21 List of receipt's cancellations (receipt's numbers)	-	Getting the list of cancelled receipts for the specified period.
№22 Selling for a period	-	Total sum of gain for the specified period.
№23 Receipts with cancelled positions (negative sum)	-	Search for receipts containing positions with negative sum for the specified period.
№24 Goods rating by selling sum	Goods quantity to list Name	Getting the specified amount of goods of specified name with the most total sum by all receipts for the specified period.
№25 Goods rating by quantity	Goods quantity to list Name	Getting the specified amount of goods of specified name with the most total amount by all receipts for the specified period.
№26 List of receipts with multyple same goods	Goods Min. goods amount Max. goods amount	Getting the list of receipts containing the specified goods in the amount is within the specified range for the specified period.
№27 Cash point's gain report for every 30 minutes	-	Getting information about gain by all cash points for every 30 minutes for the specified period.

4.4.2 Searching the receipts database

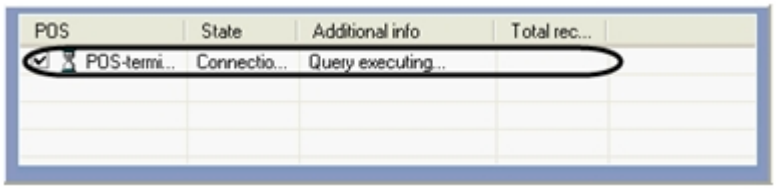
Before starting the search, select the POS-terminals to search in by checking the appropriate checkboxes in the table below.



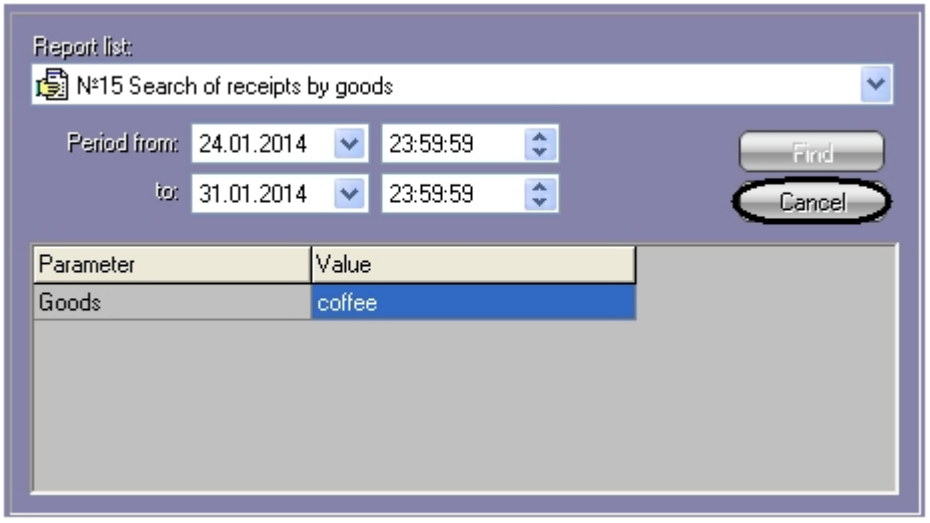
Click the **Search** button to start searching.



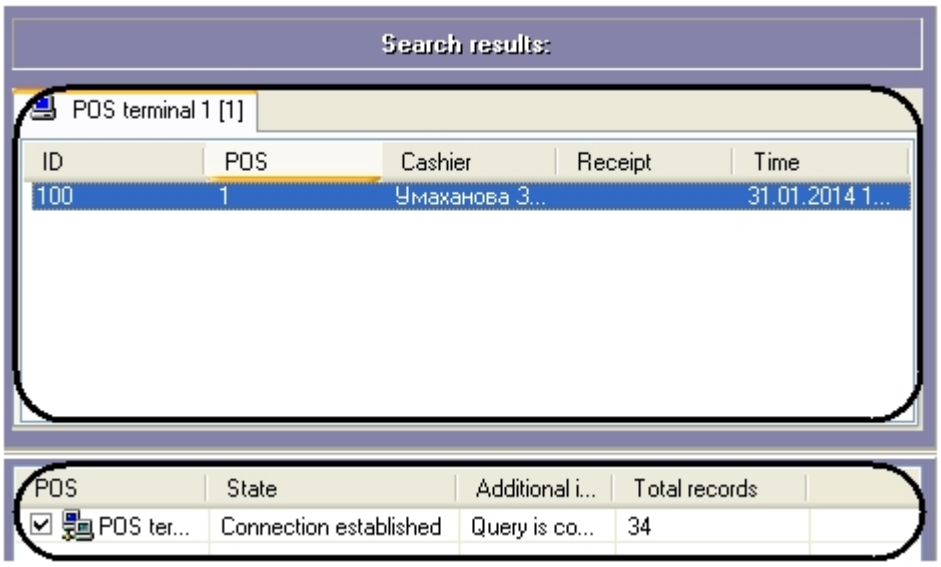
The search status (**Query executing…**) is displayed in the **Additional info** column for all selected POS-terminals.



To stop searching at any time, click the **Cancel** button.



The search process stops when all selected POS-terminals are processed, i.e. the **Additional info** column reads **Search complete** for all selected POS-terminals. The number of found records for each POS-terminal will be displayed in the **Records found** column of the POS-terminal status table, while the list of all found transactions will be displayed in the search results table.



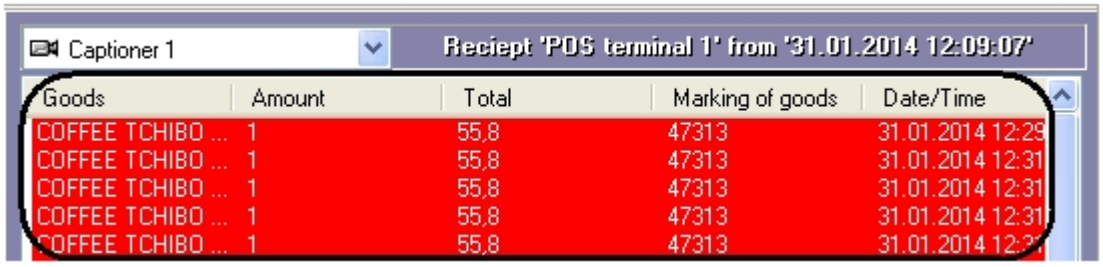
4.4.3 Viewing receipts database search results

Search results are grouped by POS-terminal and by transaction.

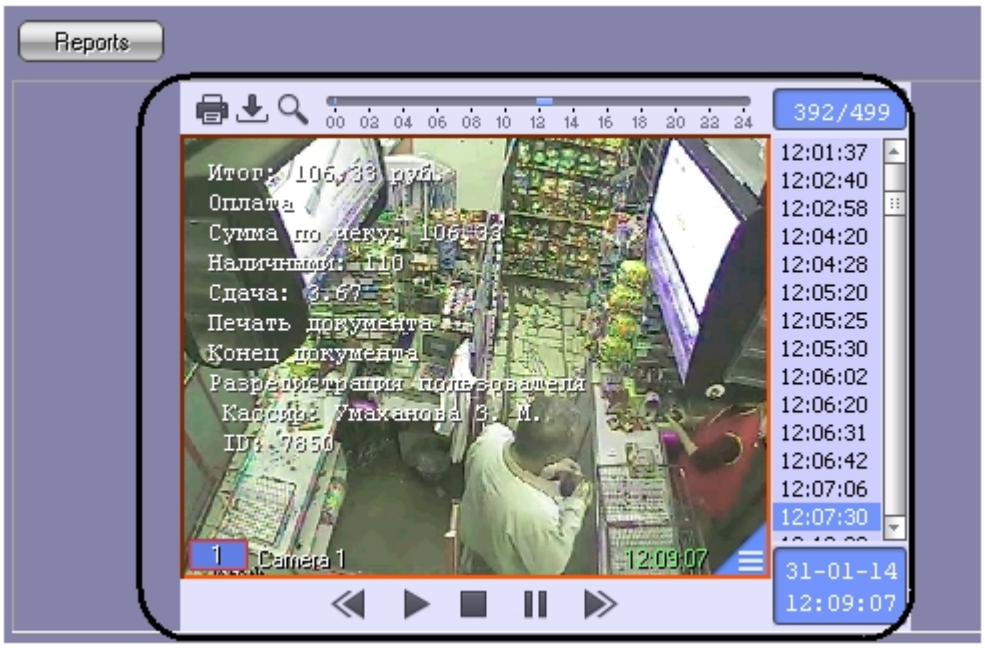
To view search results, select the tab of a POS-terminal, then select a transaction in the search results table. The number of the selected POS-terminal and the date/time of the selected transaction are displayed in the search results header.



The contents of the selected receipt in text format will be displayed in the search results table.



The video fragment linked to the selected transaction will be displayed in the video search results area.



Export and processing functions simillar to those of Video surveillance monitor are available in this window, including video clips export with subtitles. For more details on using Video surveillabce monitor functions, see *Axxon PSIM software. Operator's Guide* (the most relevant version of this document is available in AxxonSoft documentation repository).

To view the results for a specific captioner, select the captioner in the drop-down list.

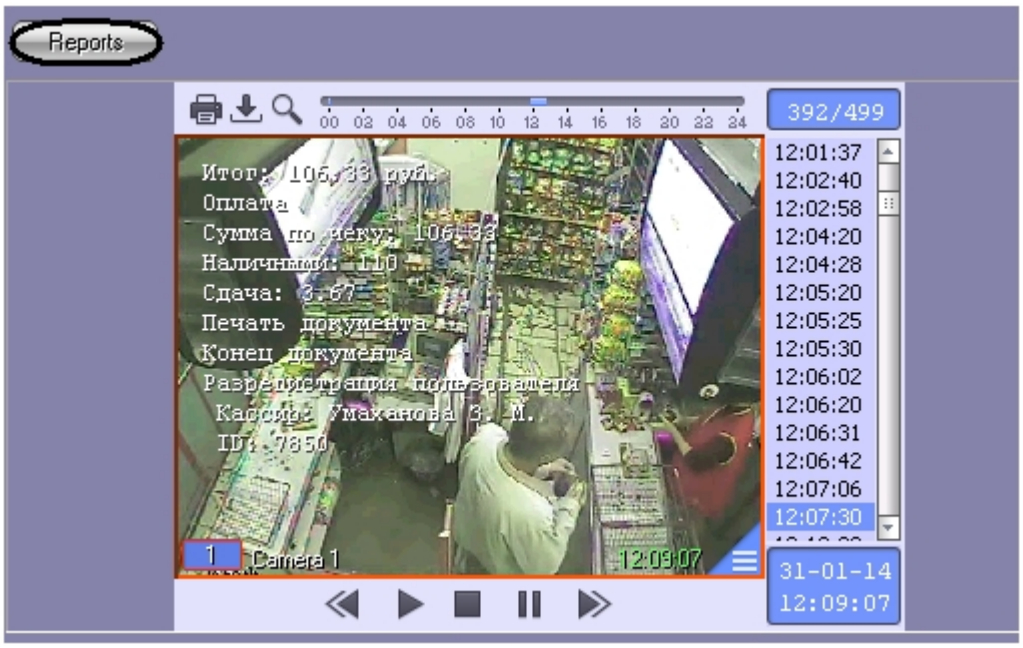


4.4.4 Printing the receipts database search results

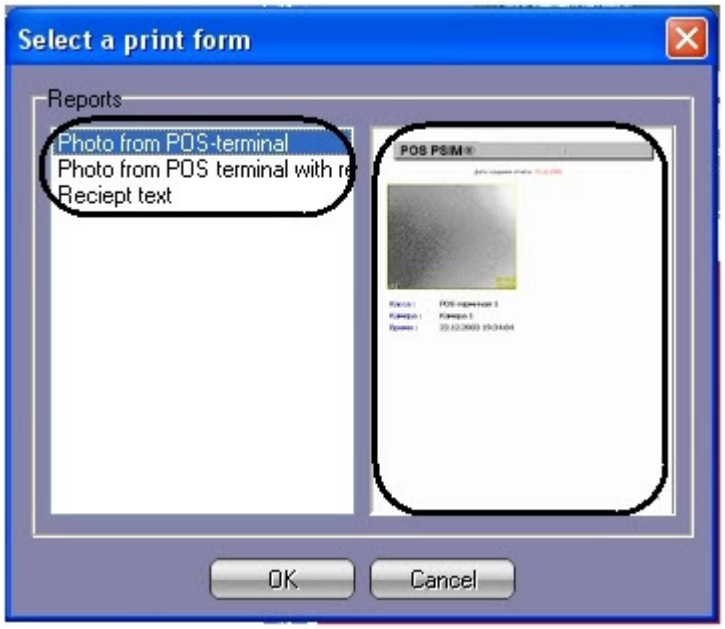
Search results, including the video frame screenshot, can be printed out.

To print search results, click the **Print** button.

> **Note.**
>
> The **Print** button may be absent depending on the system setup.



Select the report type in the dialog box that opens to see the report preview in the right pane, then click **OK**.



The report will be displayed in a new window.



Note.

Please refer to the Axxon PSIM. Operator's Guide document for a detailed description of how to handle reports.

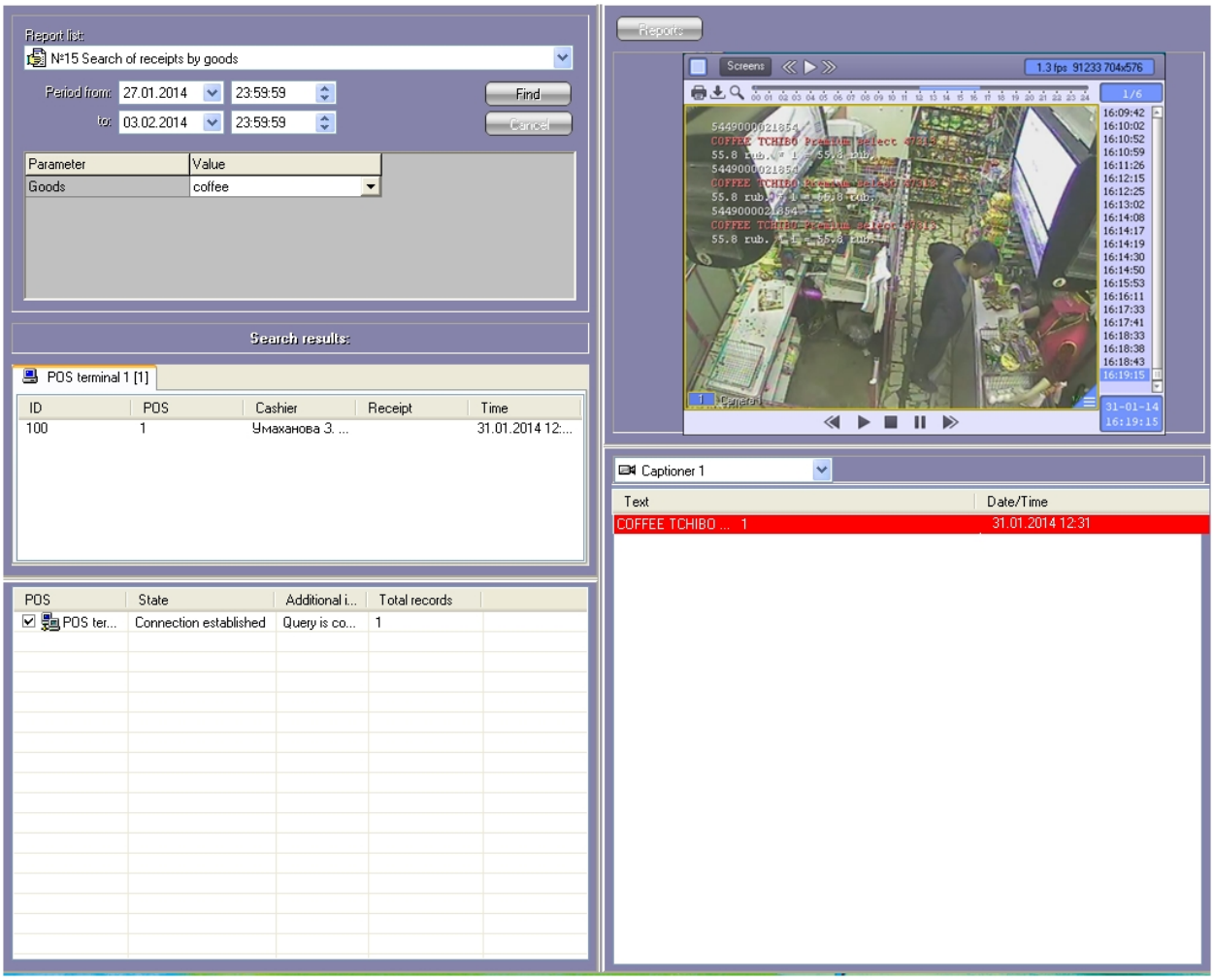
4.4.5 Changing the window layout

The user can change position of the elements in the **Receipt viewer** window.

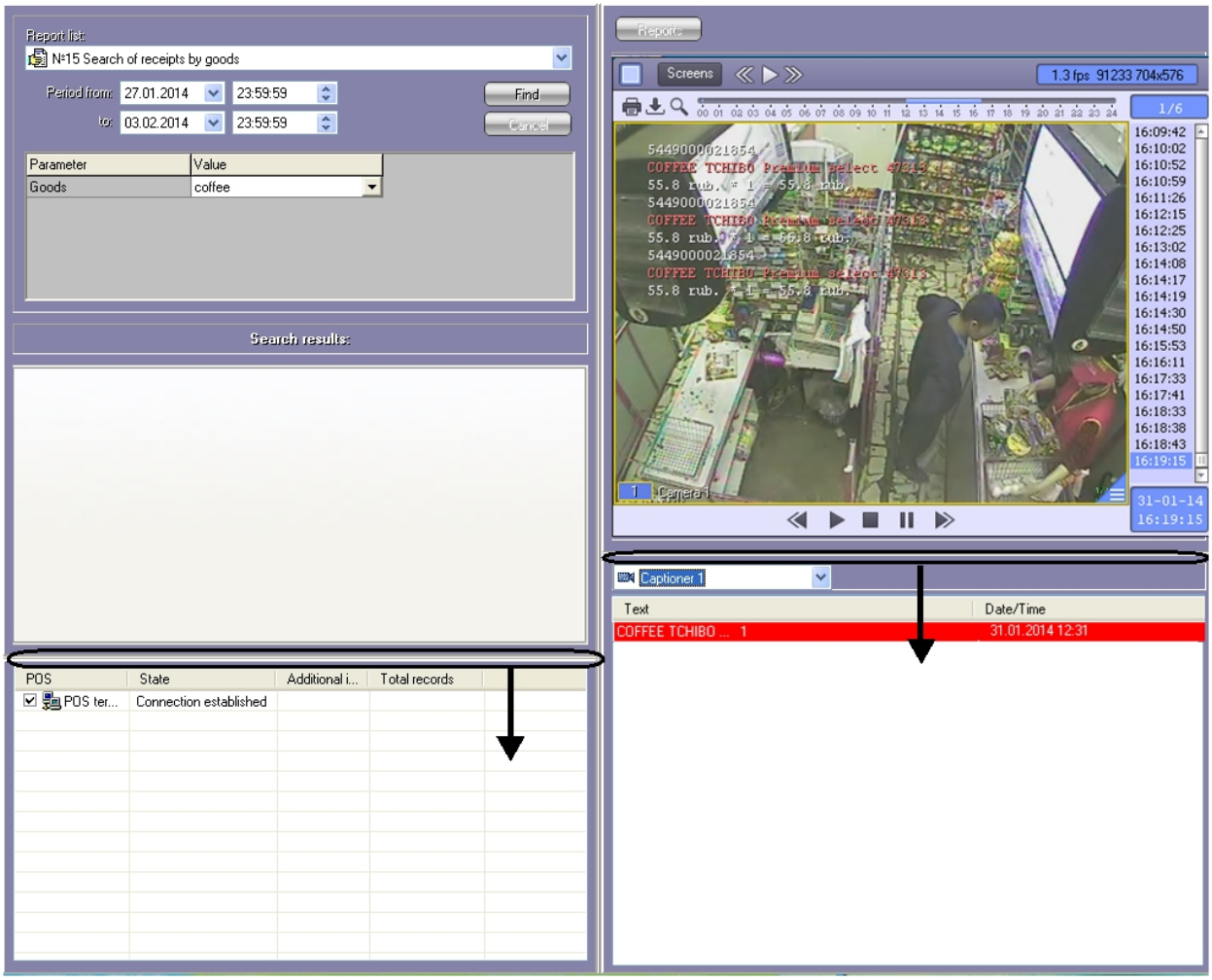
Note.

Availability of this function depends on system setup.

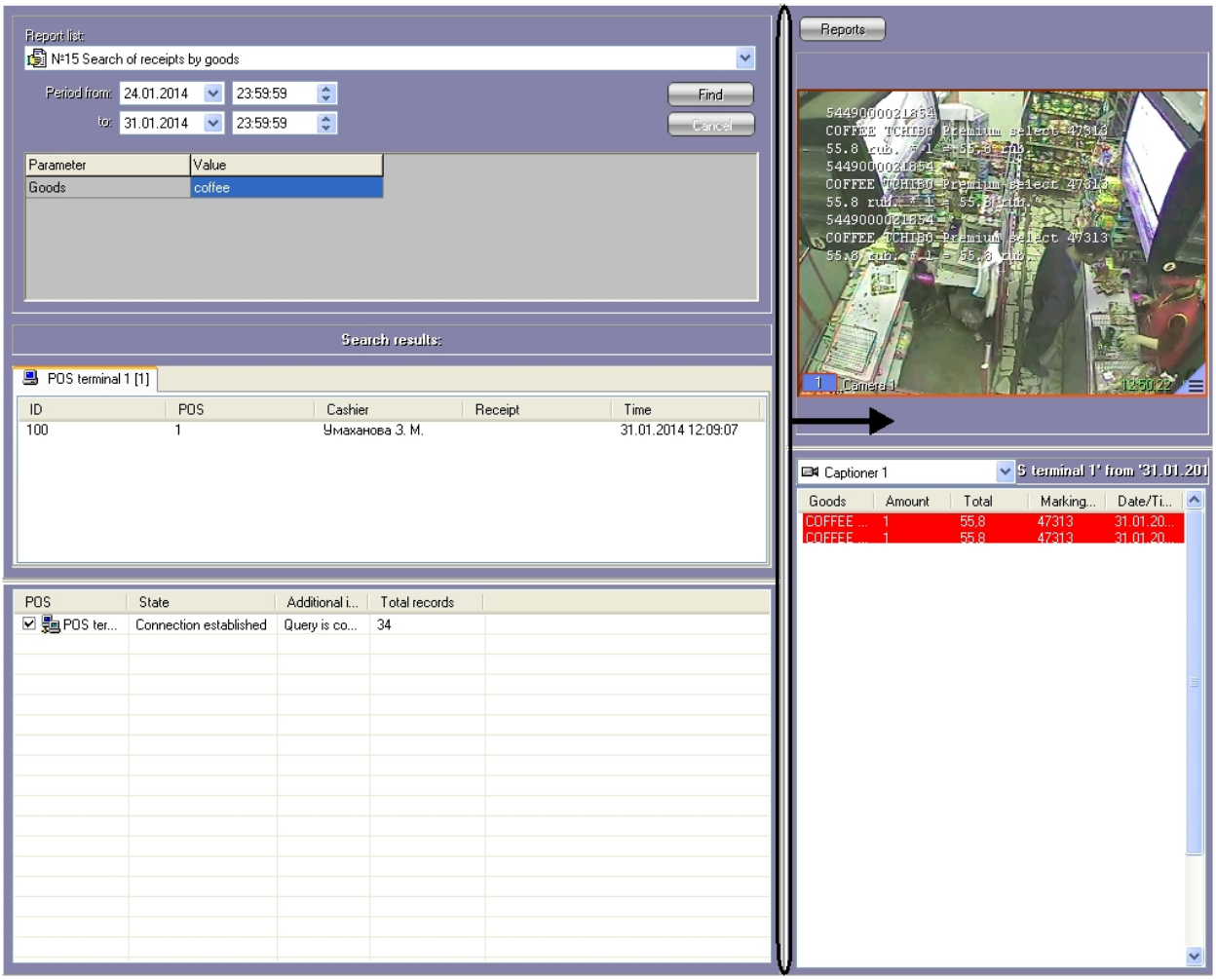
To change mutual position of window elements, drag the element separators using the mouse.



Changing the window layout (initial layout)



Changing the window layout (vertical shift)



Changing the window layout (horizontal shift)

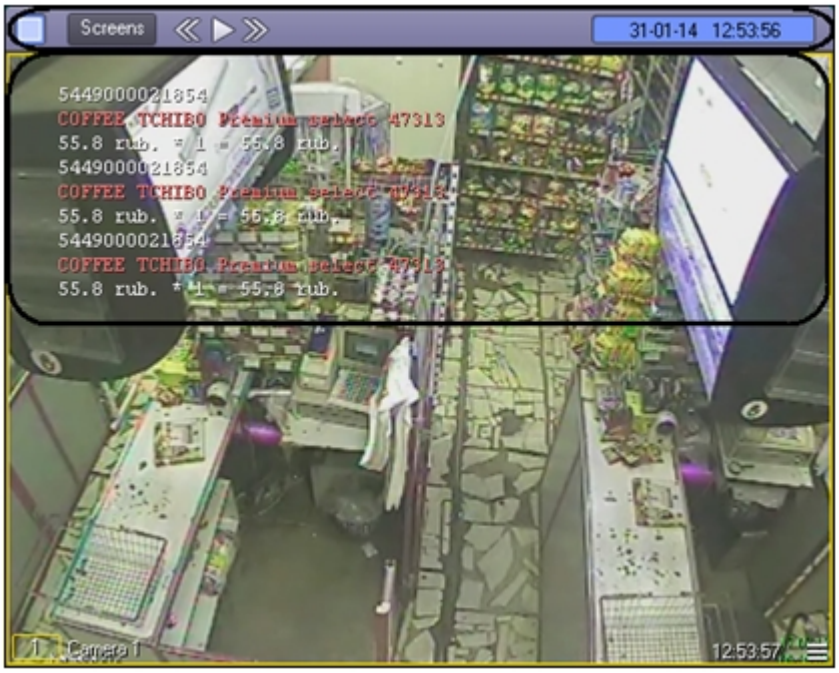
4.5 Using the Web-reports

Working with general and itemized reports is carried out in *Axxon PSIM WEB Report System* subsystem. To get detailed information see Axxon PSIM WEB Report System. User Guide.

5 Description of the POS PSIM user interface

5.1 The Monitor window

The figure shows the overall view of the **Monitor** window.



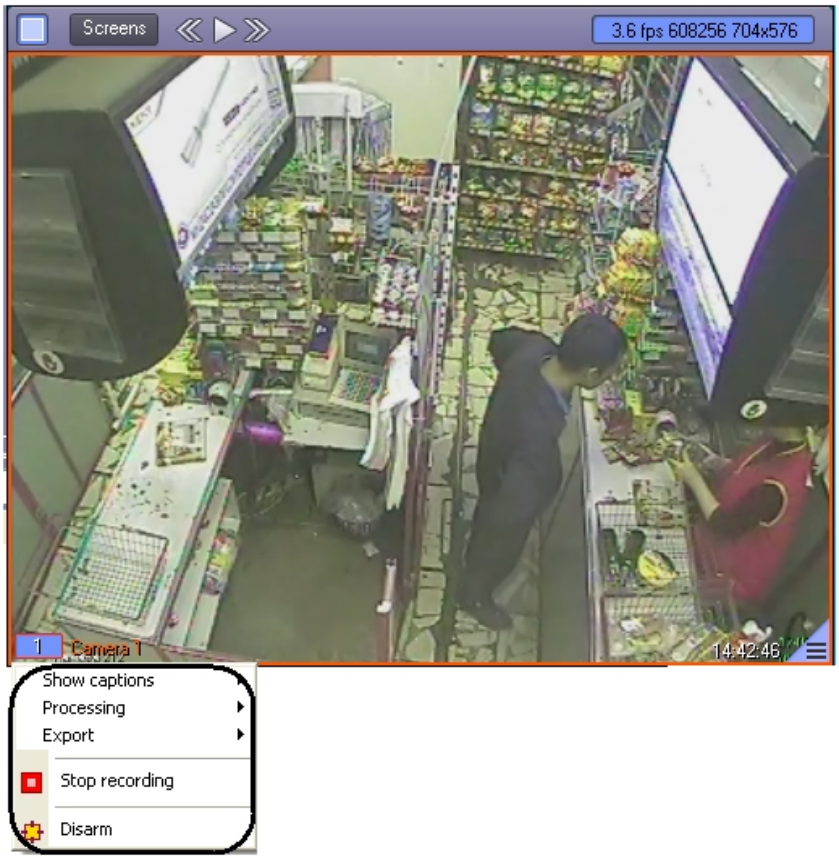
The **Monitor** contains video tiles and the toolbar which includes the following elements:

1. The  buttons allow switching the number of video tiles displayed in the **Monitor**.
2. The  button allows controlling **Monitor** layouts.
3. The  buttons allow to switch between video tiles.
4. The  field displays current date and time.

Each video tile includes the video image area superimposed with the captions display area. Besides, a functional menu opens for each video tile to allow you to access various system functions.

When one of the Debug 1, 2, 3, modes is enabled, current video characteristics (FPS, Bitrate, Resolution) are displayed in the field . If the Debug mode is disabled, current date and time are displayed in the field .

To open the menu, click the camera number in the lower left corner of the video tile.



The table describes the keyboard shortcuts available for the **Monitor** and video tiles.

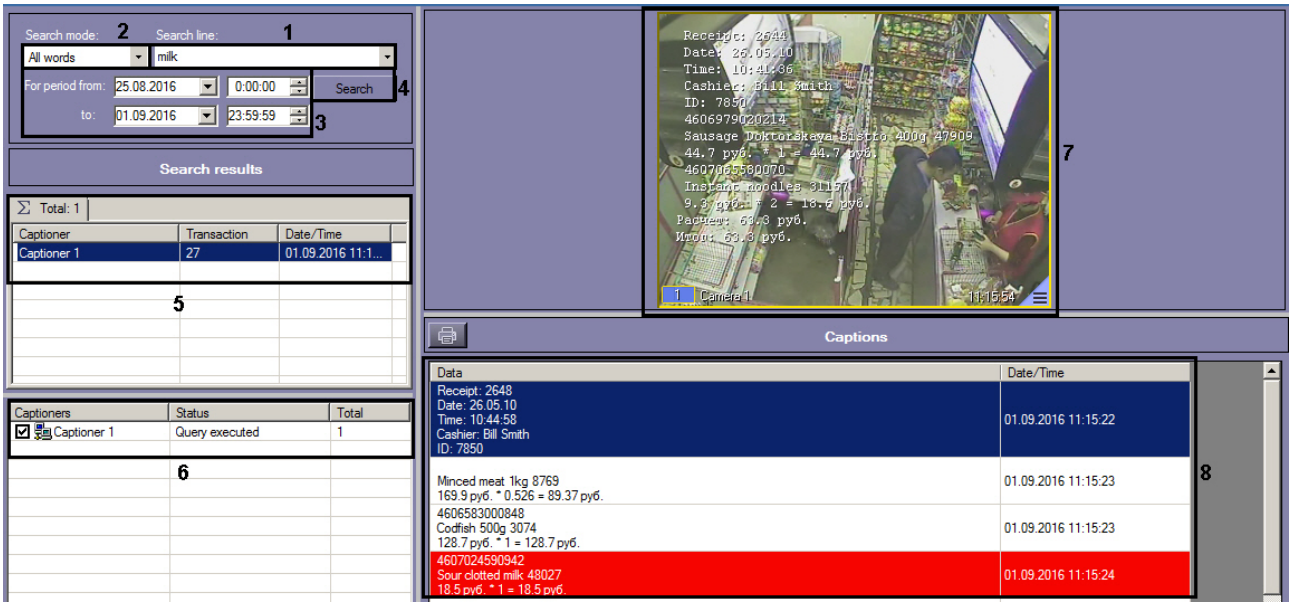
Shortcut	**Action**	**Description**
0 .. 9 Numpad	Select current video tile	Numerals correspond to video tile numbers. To select a two-digit number, press two keys in quick succession.
F1 .. F8	Select the number of video tiles in the Monitor	F1 – 1 tile. F2 – 4 tiles. F3 – 9 tiles. F4 – 16 tiles, etc.
Ctrl + R Ctrl + T	Video recording control	Ctrl + R – start recording, Ctrl + T – stop recording.
Shift + LeftClick/RightClick	Scale video image	Shift + LeftClick – zoom in. Shift + RightClick – zoom out.

Note.

Please refer to the Axxon PSIM. Operator's Guide document for a detailed description of the **Monitor** and video tiles.

5.2 The Search by captions window

The figure shows the **Search by captions** window.

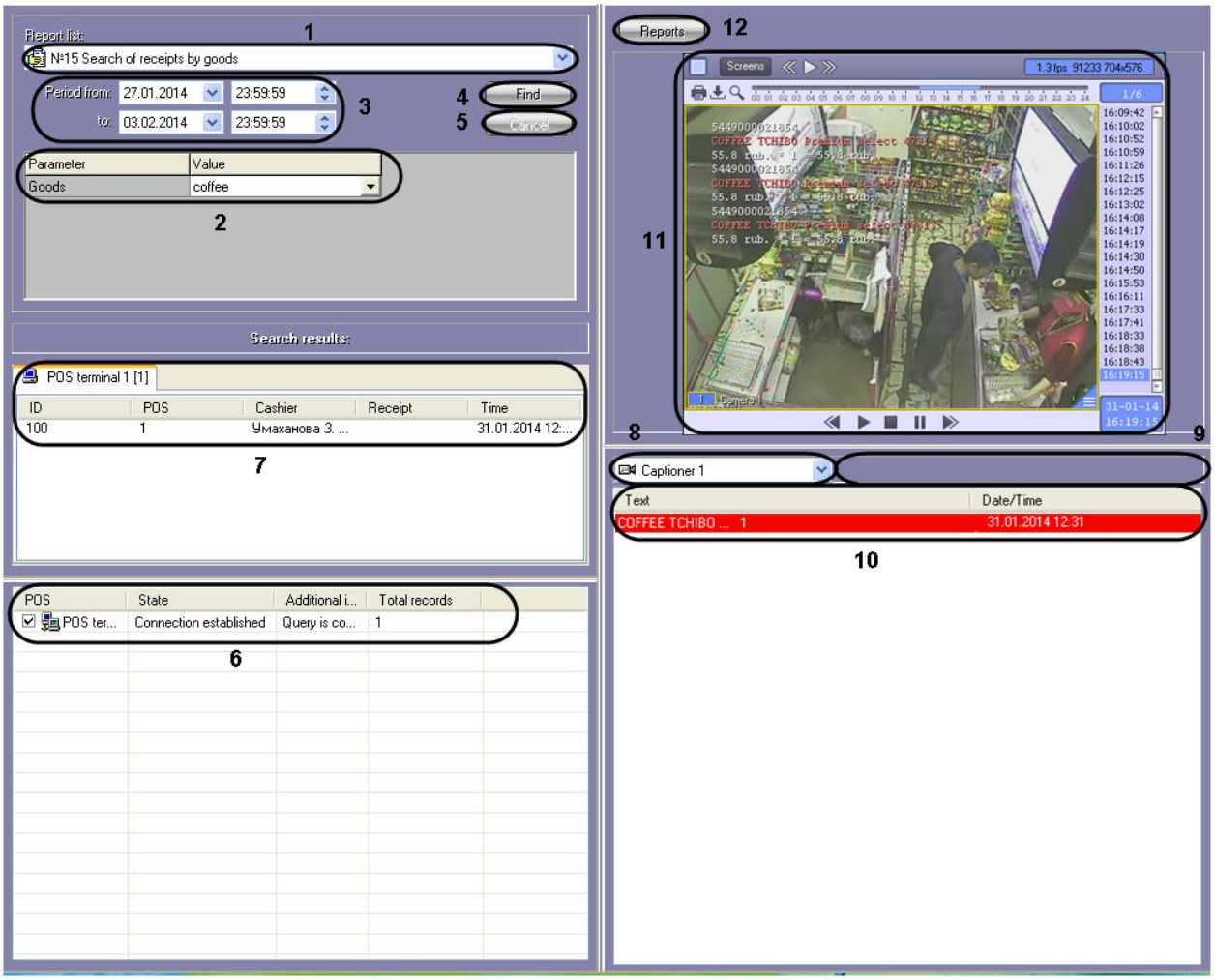


The table describes the elements in the **Search by captions** window.

Element #	Description
1	Enter the search text
2	Select the search mode
3	Set time interval for the search
4	Start searching
5	Search results (transactions)
6	Captioner status
7	Search results (video)
8	Search results (receipt contents)

5.3 The Receipt viewer window

The figure shows the **Receipt viewer** window.



The table describes the elements in the **Receipt viewer** window

Element #	Description
1	Select query type
2	Specify search parameters
3	Set time interval for the search
4	Start searching
5	Cancel the search
6	POS-terminal status

Element #	Description
7	Search results (transactions)
8	Search results (captioner selection)
9	Search results (POS-terminal number, transaction date/time)
10	Search results (receipt contents)
11	Search results (video)
12	Print search results