

AxxonSoft

# Monitoring

Software Package

User Guide

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# 1 Introduction

## 1.1 Purpose of Monitoring

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

## 1.2 Document purpose

The document is intended for Operators working with *Monitoring*.

This User's Guide describes how to work with *Monitoring's* main graphic user interface (GUI) objects.

# 2 Control Panel

The Control Panel is part of the **Monitoring** interface window. You can configure this window using the setup panel for the **Monitoring** object. For how to do it, see the documents *Monitoring Software Package. Setup and Configuration Guide* and *Monitoring Software Package. Additional Workstation*.

You can see the Control Panel in the figure below (Fig. 1.2—1).

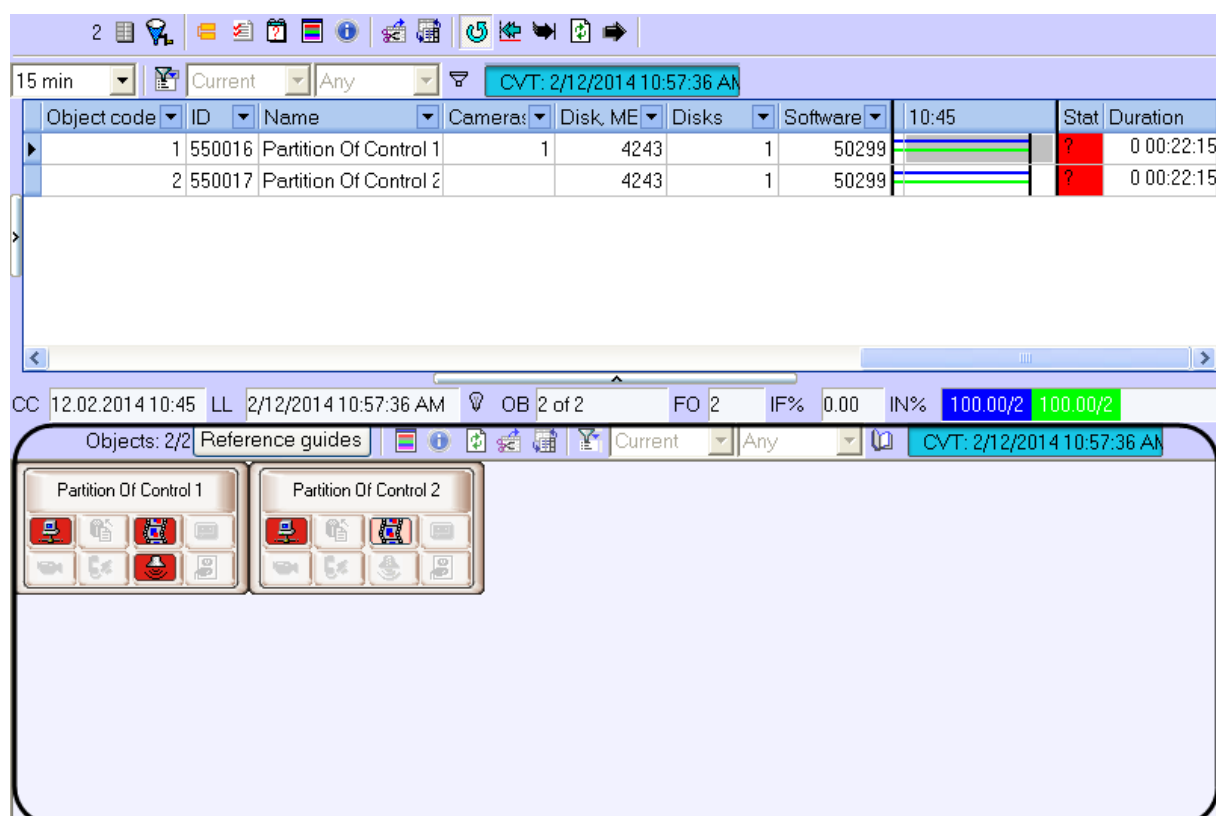


Fig. 1.2—1 Monitoring interface window

## 2.1 Purpose of the Control Panel

The Control Panel is intended for quickly assessing the current status of video surveillance components (Fig. 2.1—1).

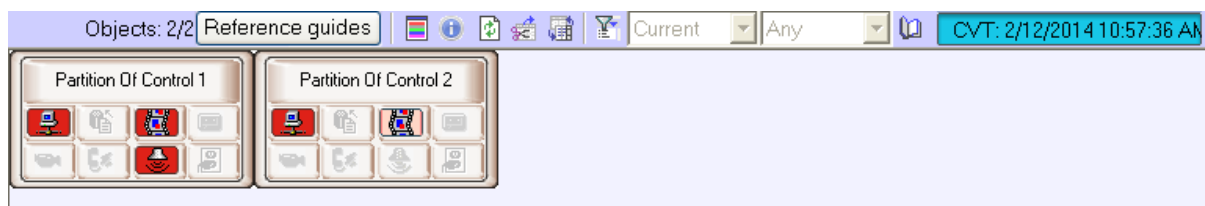


Fig. 2.1—1 Objects in the Control Panel

Each object has a corresponding graphic element shown as a rectangle. It contains the object's identification area (at the top) and a configurable number of alarm indication buttons arranged in groups by source type:

1. Communication Channel
2. Hardware
3. Video System Software
4. Size of Archives
5. Cameras
6. ACS
7. FSA
8. Detection tools/Detectors
9. Thermal Sensors

The number of shown alarm groups can change from 4 (Fig. 2.1—2) to 9 (Fig. 2.1—3), depending on the **Monitoring** object settings on the **Interfaces** tab.



Fig. 2.1—2 Four alarm groups

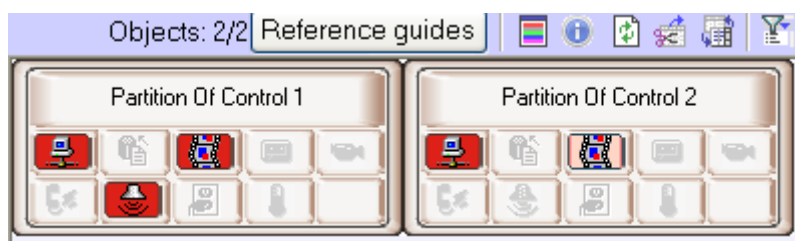



Fig. 2.1—3 Nine alarm groups

You can learn the meaning of the icons by clicking the button  (**Legend information**). When you click this button, the **Definitions** window opens (Fig. 2.1—4).

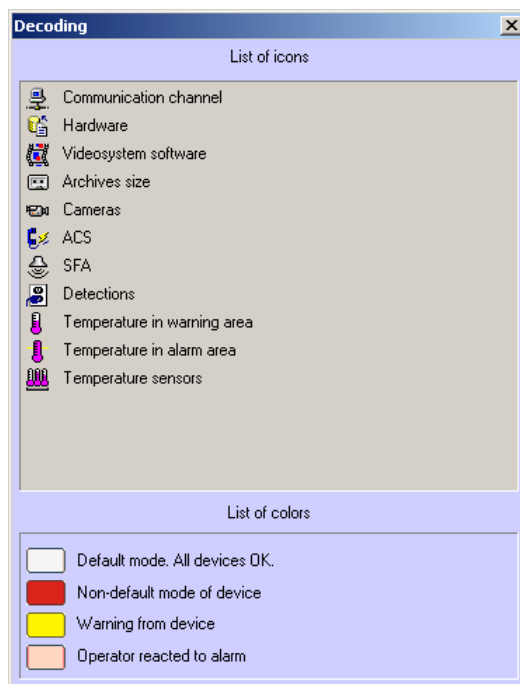


Fig. 2.1—4 Definitions of alarm group icons

## 2.2 Changing alarm group icons

You can change the default icons for each alarm group and assign your own icons. To change an icon, replace the corresponding default picture file in the package. You can find the files in the Bmp subfolder of *Monitoring*'s installation folder. The default path to the folder with pictures is C:\Program Files\Интеллект\VHost\Bmp. For example, to change the icon for the Communication Channel group, replace two files:

1. Bmp\Active\01\_net\_active.bmp
2. Bmp\InActive\01\_net\_inactive.bmp

The size of active icons is 16x16 pixels. The size of inactive icons is 17x17 pixels. If the size of your image is different, it will be changed to the above. Use the clFuchsia (RGB=255,0,255) color as the mask for transparent areas in active icons.

After you replace graphic files, restart *Intellect*. If at least one of the files is missing from the Bmp folder or has illegal format, the default icons are used.

## 2.3 Current display time

The information in the Control Panel is refreshed every time data is loaded from the database. The current display time (CDT) is shown in the window's upper-right corner (Fig. 2.3—1).

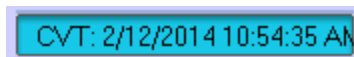



Fig. 2.3—1 Current display time

Data is loaded from the database every minute. To get the latest database information, click the button  (**Refresh data**). This forces the data to load. If new data is found, it is shown.

## 2.4 Ignoring objects

You can put the objects that must not be shown on the ignored objects list. For example, these can be objects that were created on *Monitoring's* server, but not launched yet or objects that are known for sure to be under maintenance at the moment.

The objects on the ignored objects list are not shown in the Control Panel or Log Panel. They are also not included in system reports.

To move an object to the ignored objects list, press the Shift key and left-click on one or multiple objects. The selected objects are now highlighted with a dark blue border (Fig. 2.4—1).

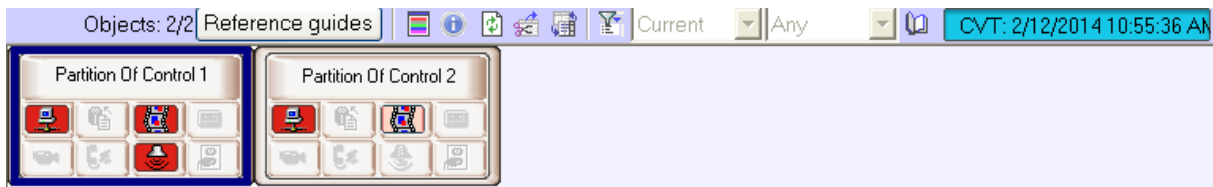



Fig. 2.4—1 Selected objects

Then click the button  (**Ignore/Analyze**).

You can see the ignored objects list by clicking the button  (**Show ignored objects**). Use the same actions to move objects back from the list.

## 2.5 Processing alarms

### 2.5.1 Confirming alarms

You can use the buttons of alarm indicators both to get information and perform an action:

1. Information: in the event of an alarm, a button becomes red; when an operator confirms the alarm, it becomes pink, and after the alarm is over, the button gets back to the inactive state.
2. Action: By clicking a button, the operator gets details for the device or event.

For example, if a camera is broken, the indicator button for the Cameras alarm group becomes red (Fig. 2.5—1).



Fig. 2.5—1 Alarm indication for Cameras group



To get the details about an alarm, click the alarm's icon. The **Alarm reaction** window opens (Fig. 2.5—2).

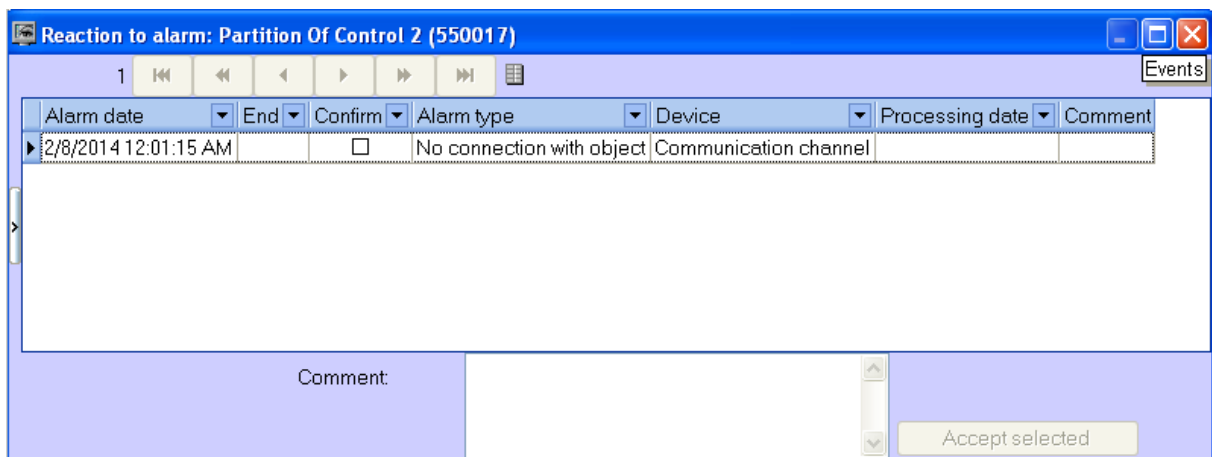


Fig. 2.5—2 Alarm reaction window

The title of the window contains the selected object's name and ID.

In the **Alarm date** field, the time when Server of Control had received the alarm from Agent of Control. This is not the time when the alarm appeared on the Agent of Control.

The **Alarm type** field contains the name of the alarm, and the **Device** field gives details on the device or event.

If you check the **Confirm** box in the **Alarm reaction** window, the icon's background in the Control Panel changes from red to orange (Fig. 2.5—3) and the **Processing date** column is automatically filled.

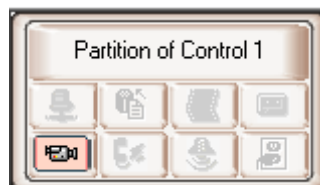


Fig. 2.5—3 Confirmed alarm

Note that the **Processing date** column will contain not the current computer time, but the current display time (see Section *Current display time*) stored in the database. This ensures that the operator cannot roll back the system time to confirm the alarm with a different time.

If when configuring the **Monitoring** interface object, you check the Non-empty Comments check box, alarms are not closed until an operator comments on them or his/her actions. Any alarm is closed automatically after its cause is resolved (for example, the connection was broken and then restored).

If you have many alarms at the same time, not more than 1000 alarm events are shown in the **Alarm reaction** window. To view other events, use the navigation buttons in the lower-right corner (Fig. 2.5—4).

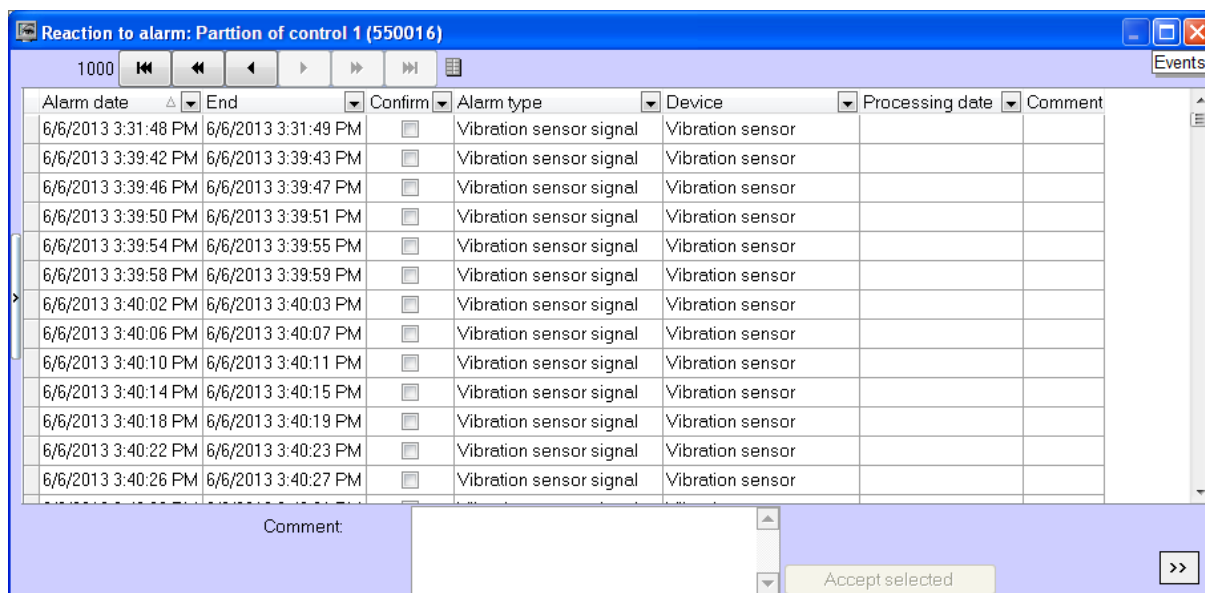


Fig. 2.5—4 Navigation buttons

## 2.5.2 Confirming multiple same-type alarms

You can confirm multiple same-type alarms at once. To do this, follow the steps below:

1. Click the icon that is informing about the alarm. The **Alarm reaction** window opens (Fig. 2.5—5).

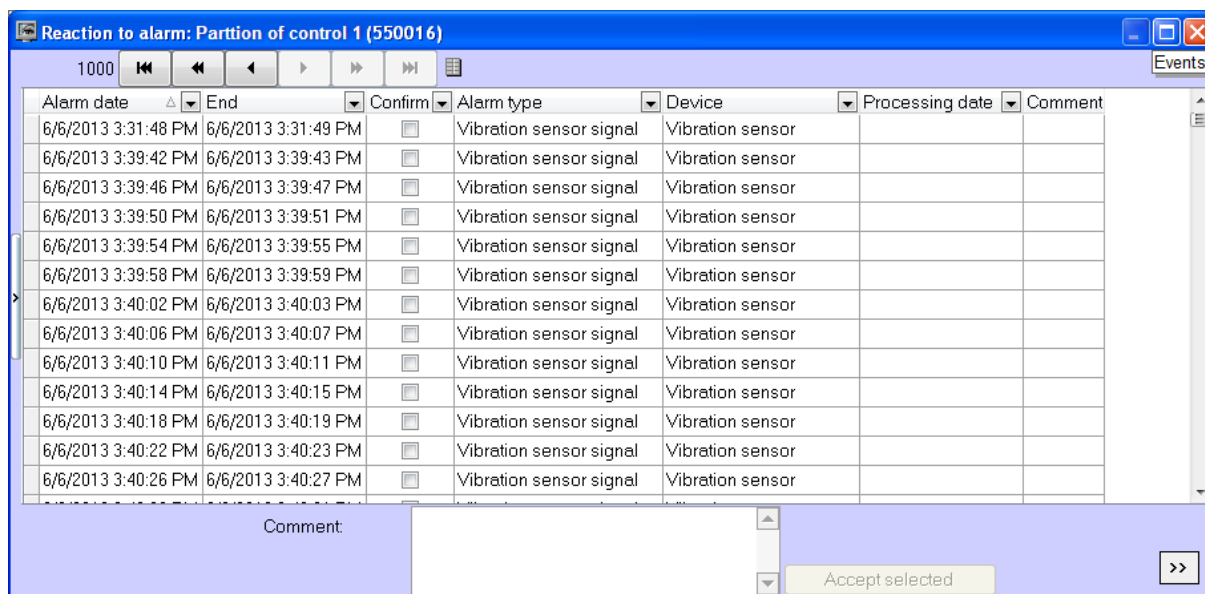


Fig. 2.5—5 Confirming an alarm group

2. Select multiple entries in one of the following ways:
  - 2.1. Use the left mouse button and the Ctrl or Shift key.
  - 2.2. Right-click on the list and click **Select all** item in the menu (Fig. 2.5—6).

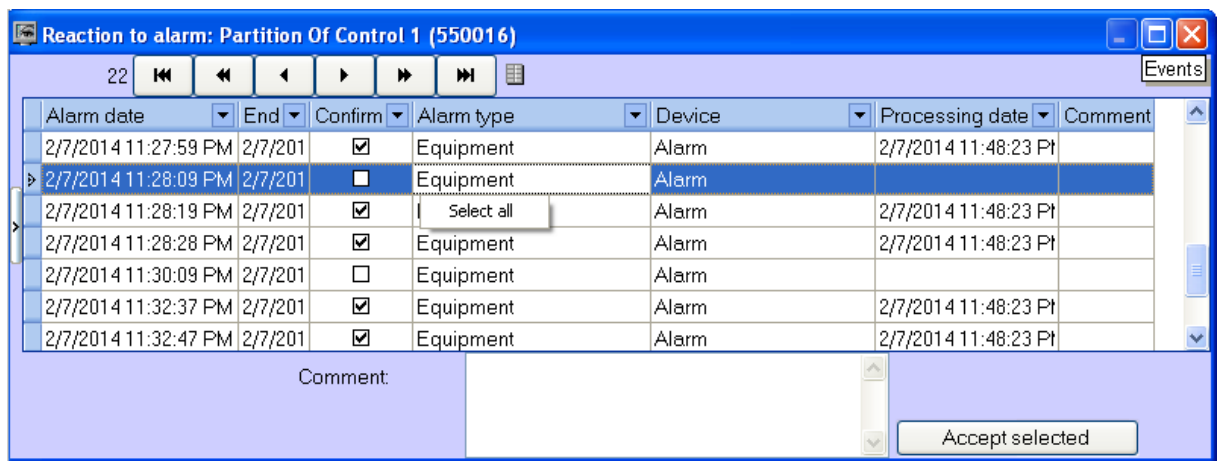


Fig. 2.5—6 Select all item

3. Fill in the **Comment** field if necessary.
4. Click **Accept selected**.

*Note: If a comment is required and the **Comment** field is not filled in, the **Accept selected** button is disabled.*

Multiple similar alarms are now confirmed.

### 2.5.3 Additional information on alarms

You can get additional information on alarms by clicking on the object name (Fig. 2.5—7).

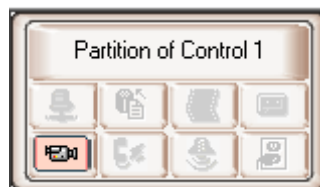


Fig. 2.5—7 Object name

The **Error explanation** window opens (Fig. 2.5—8).

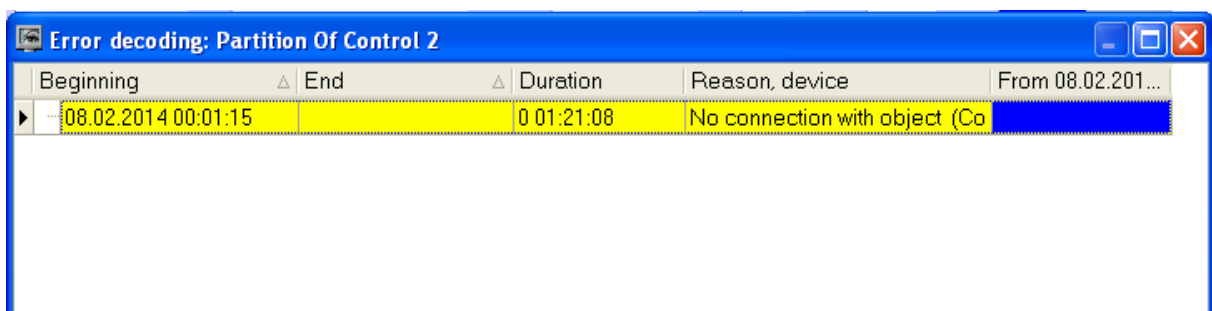


Fig. 2.5—8 Error explanation window

Alarms caused by different reasons can overlap, creating common alarm periods for the object. In the table, they are shown in gray. If an alarm is still active, its **Ended** column is empty.

If there are too many alarms, not more than 200 alarms are shown in the **Error explanation** window. To view other events, use the navigation buttons and the additional tool **View from date** in the lower-right corner.

## 2.5.4 Alarm types

Tab. 2.5—1 contains all the alarm types that are controlled by the monitoring system by default. For **Communication channel** alarm group: if *Agent Of Control* connects to *Control Server* via the TCP/IP protocol and it has connected to it before, the **Device** field shows the object's IP address.

Tab. 2.5—1 Alarm types

Alarm group	Alarm type	Device	Comment
Communication channel	No connection with the object	Communication channel	<i>Agent Of Control</i> connects to Control Server in client mode
	No connection with the monitoring agent	Local video system	<i>Agent Of Control</i> connects to Control Server in server mode
Hardware	Disk failure (analyzed when launching <i>Agent Of Control</i> and every 15 minutes after that)	101:Disk name	<i>Intellect</i> 's settings contain the names of the disks to record video archive on. This alarm occurs when one of these disks does not exist or has the wrong type. The correct type for a disk: fixed, removable, or network.
		102:Disk size	Error when computing the free disk space
		103:VIDEO folder	The VIDEO folder is not present
		104:Number of disks=0	No disks were selected in <i>Intellect</i> for recording the video archive.
		105:Disk error	An unknown disk error was received from <i>Agent Of Control</i>
	UPS signal	1000:PowerChute started	
		1001:PowerChute stopped	
		1002:Connection restored	
		1003:Power restored	
		1004:Self-Test passed	
		1005:Administrative shutdown	
		1006: Shutdown canceled	
		1007:Battery charged	
		1009:Battery changed	
		1013:Allowed overload	
		1014:RTC Started	
		1015:RTC Finished	
		1016: Shutdown in process	
		1102:Normal temperature	
		2000:Power is off	
		2001:Shutdown performed	
		2002:Low power	
		2003:Battery discharging	
		2004:RTC Aborted	
		2007:High power	
		3000:Connection lost	
		3001:Overload	
		1004:Self-Test not passed	
		3003:Battery discharged	
		3004:Connection lost - battery	

Alarm group	Alarm type	Device	Comment
		3016:Change battery 3107:High temperature	
Video system software	Software error	Core software	intellect.exe unloaded
		Base software (video)	video .run unloaded or hanging
		Registry	The registry does not have the data necessary for <i>Agent Of Control</i> to work
		Database	Error when connecting to the <i>Intellect</i> database
Size of archives	Small archive size (analyzed when launching <i>Agent Of Control</i> and every 15 minutes after that)	Archive 1 ... Archive 32	The archive depth requirements are not met for camera # 1..32. If an object has more than 32 cameras, create an additional Control Partition on <i>Agent Of Control</i> .
Cameras	Camera is off	Camera 1 ... Camera 32	Camera # 1..32 is not working. If an object has more than 32 cameras, create an additional Control Partition on <i>Agent Of Control</i> .
FSA	Vibration detector signal	Vibration detector	The four sensors that cannot be renamed on <i>Agent Of Control</i> i. e. they must be used according to their names (Vibration detector, Lock, etc.).
	Lock sensor signal	Lock	
	Overheat detector signal	Overheat detector	
	Additional sensor signal	Additional sensor	
	Additional sensor signal	EXT. SENSOR	12 sensors whose names must be renamed on <i>Agent Of Control</i> These names are shown in the <b>Device</b> column. By default, the following line will be shown: EXT. SENSOR
	Computer restarted normally (shown on <i>Control Server</i> in five minutes)	Computer	Logged off from Windows normally before restarting
	Computer restarted abnormally (shown on <i>Control Server</i> in five minutes)	Computer	The computer was restarted without logging off from Windows correctly (power off)
Thermal sensors	Thermal sensors are off	Set of thermal sensors	The adapter (DS2480B) that processes information from the thermal sensors is down.
	Temp.: warning	Set of thermal sensors	A thermal sensor's (DS18S20) temperature is close to the temperature that causes an alarm. The indicating button is yellow.
	Temp.: alarm	Set of thermal sensors	A thermal sensor's (DS18S20) temperature reached the temperature that causes an alarm.

The alarms tracked by the monitoring system can be of two types:

1. Long-term.
2. Short-term.

Long-term alarms are alarms that have a start and end time (for example, **Camera is off/Camera is on**, **No connection with object/Connection with object**).

Short-term alarms have no duration. They inform about occurred events, such as **Vibration detector triggered** or **Computer restarted normally**. These alarms are not included when the system's performance indicators are calculated.

Alarms that are configured as described above (in the abandoned object detector example) are always short-term. For short-term alarms, the **Ended** field (Fig. 2.5—8) is immediately filled with a time shifted by one second from the alarm detection time. Confirmed short-term alarms are shown in the Control Panel for 10 minutes. Long-term alarms include the following alarm types:

- ⤴ No connection with object
- ⤴ No connection with monitoring agent
- ⤴ Disk failure
- ⤴ Software error
- ⤴ Small archive size
- ⤴ Camera is off
- ⤴ Thermal sensors are off

Information about long-term alarm can be not recorded into the Monitoring database and not displayed in its interfaces in the following cases:


1. If a long-term alarm had started and ended within two polls of Agent of Control (within the **Ping frequency** interval, see *Agent of Control. Installation and Configuration Guide*).
2. If a long-term alarm had started and ended when the connection between Agent of Control and Server of Control was lost.

When there is no connection with Server of Control, the short-term alarms are stored in the “holding” data files on the Agent of Control. When connection with Server of Control is restored, they are transferred to the Server of Control, stored in the Monitoring database and displayed in its interfaces.

### 2.5.5 Defining user alarm types

For the **Access Control** and **Detection Tools** alarm groups, by default no data is sent from Agent Of Control. These alarm groups, as well as **Hardware** and **Fire/Security System**, can be used for designating their respective alarm types. For how to define user alarm groups, see the document *Agent Of Control. Setup and Configuration Guide*.

### 2.5.6 Configuring the Displayed Number of Alarms

The number of objects shown in the Control panel is defined by the current filter (Fig. 2.5—9). You must enable the filter by clicking the button  (**Turn filter on/off**). The first drop-down list defines the condition *Show only objects with errors for last...*, and the second one defines the condition *Show only objects with errors lasting longer than...*

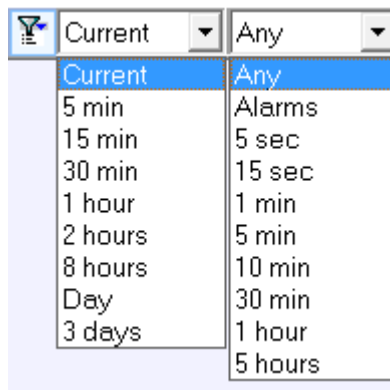



Fig. 2.5—9 Filter in the Control Panel

In the window's upper-left corner, you can see the two numbers: 1) the total number of objects and 2) the number of objects shown in the Control Panel after you click the button  (Fig. 2.5—10).

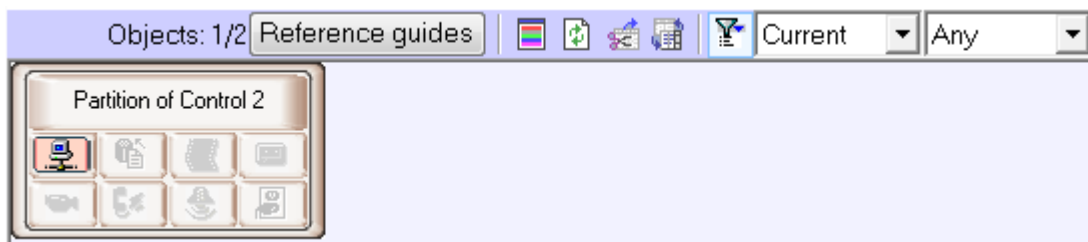


Fig. 2.5—10 Displaying number of objects

## 2.6 Viewing video data on alarms

### 2.6.1 Indication of video data presence

In *Monitoring* software, the alarms from sensors can be followed by video data, such as video clips and video frames.

If there are loaded but not viewed yet video data, the name of the object on the Control panel is colored in orange (Fig. 2.6—1).

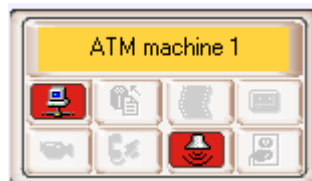


Fig. 2.6—1 Indication of unviewed data

### 2.6.2 Viewing video data

To view all received video data, select the Video data item in the object context menu (Fig. 2.6—2).

*Note.* Depending on the *Monitoring* software settings (see *Monitoring . Installation and configuration guide*) the received video frames and video clips can be opened immediately after they are received.

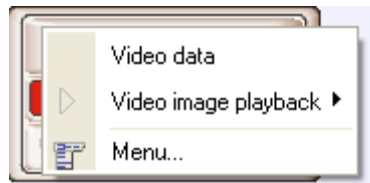


Fig. 2.6—2 Video data item

The **Video data** dialog box opens (Fig. 2.6—3) . The information on video data is displayed in this dialog box. This dialog box also provides function to cancel data downloading, if it is has not been completed yet, using he **Cancel download** button.

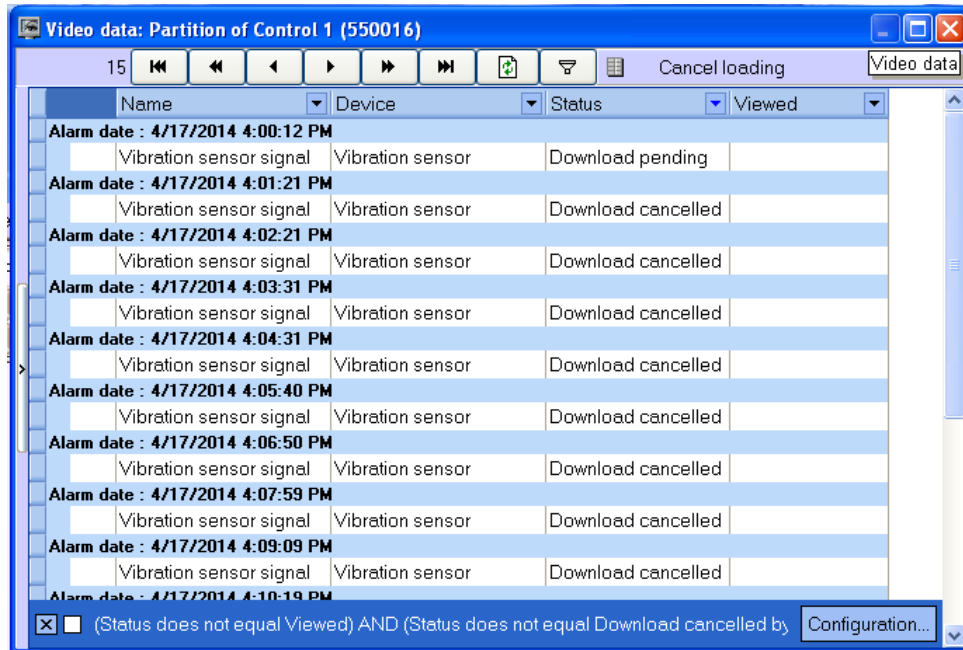



Fig. 2.6—3 Video data dialog box

To force an update of the information in the Video data dialog box, click the .

To open the loaded video data right-click in the row corresponding to required data and select the **View** item (Fig. 2.6—4). If the data download is not completed, this item is unactive.

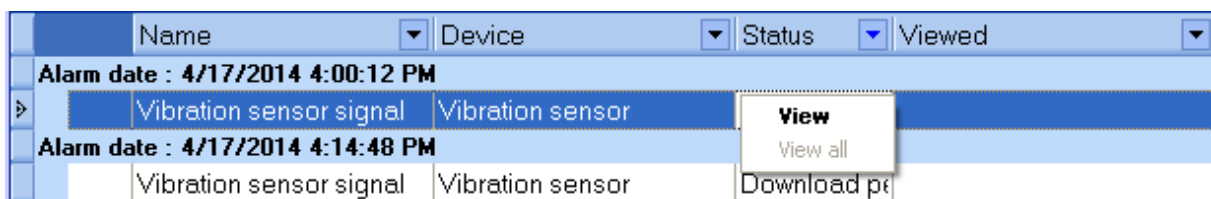


Fig. 2.6—4 View item

When the **View** item is selected, a video frame is opened with utility selected at the Monitoring setup and a video clip is opened with Axxon Player utility. Video data status changes to "Data viewed" and in the Viewed column the date of viewing is displayed.



### 2.6.3 Video data grouping setup

By default, video data are grouped by alarm time. If necessary, it is possible to set video data grouping by other parameters. To do so, in the context menu of a column, by which one need to group the data, select **Group by field** (Fig. 2.6—5).

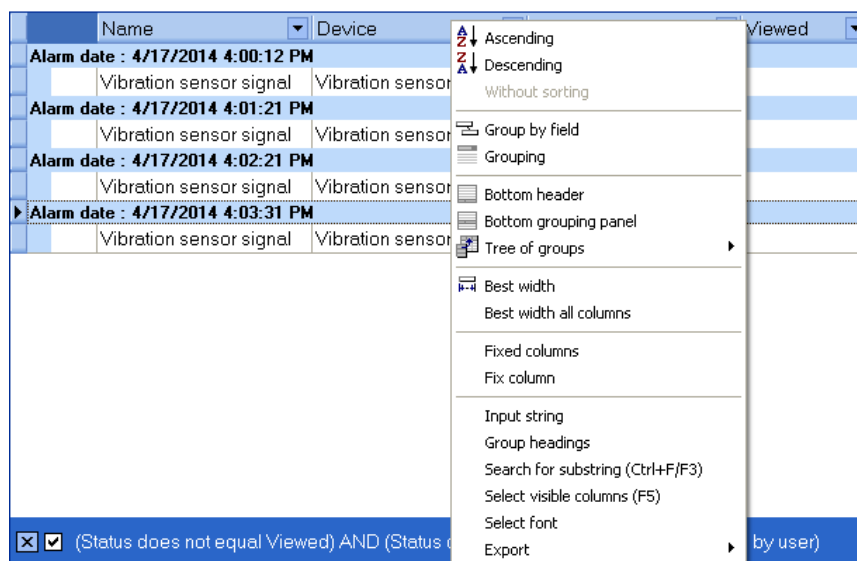


Fig. 2.6—5 Column context menu

Data will be grouped by selected field (Fig. 2.6—6). In the upper part of the dialog box the fields by which the video data are grouped are displayed - a grouping area. To view this area one can also select the **Grouping** item in a column context menu.

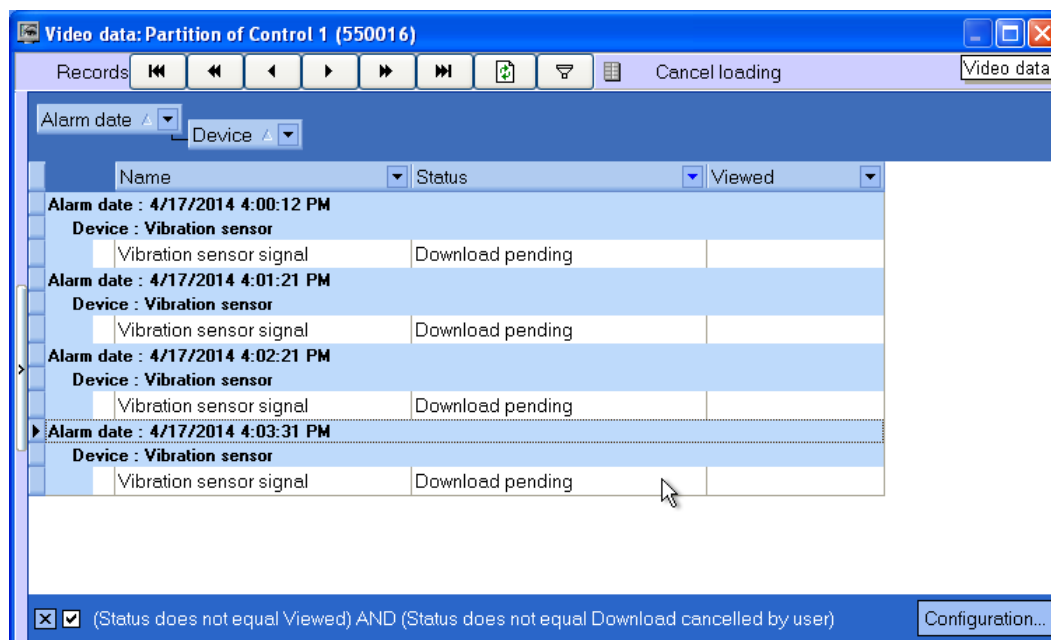


Fig. 2.6—6 Grouping by several fields and the grouping area

To cancel grouping by a field, right-click on it and select **Remove from grouping** (Fig. 2.6—7).

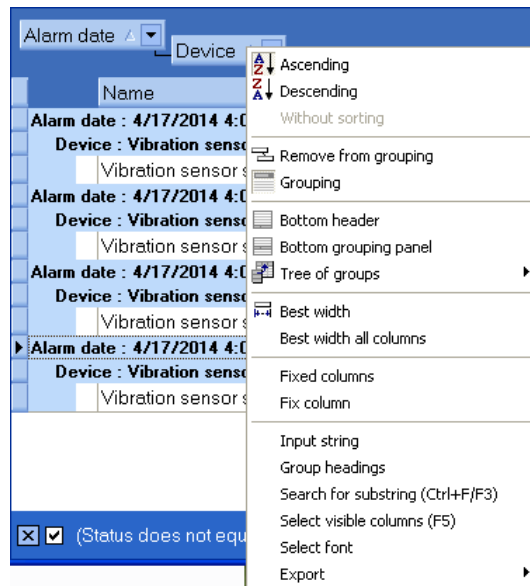


Fig. 2.6—7 Remove from grouping item

#### 2.6.4 Setting video data list filter

By default, in the **Video data** dialog box the data are not displayed, which has been viewed or for which downloading has been canceled by a user. To display all the video data, unset the checkbox in the lower left corner of the **Video data** window.

It is also possible to setup the filter for video data displaying. To open the filter setup dialog box, in the **Video data** dialog box click **Configuration...** or . The filter creator dialog box opens (Fig. 2.6—8).

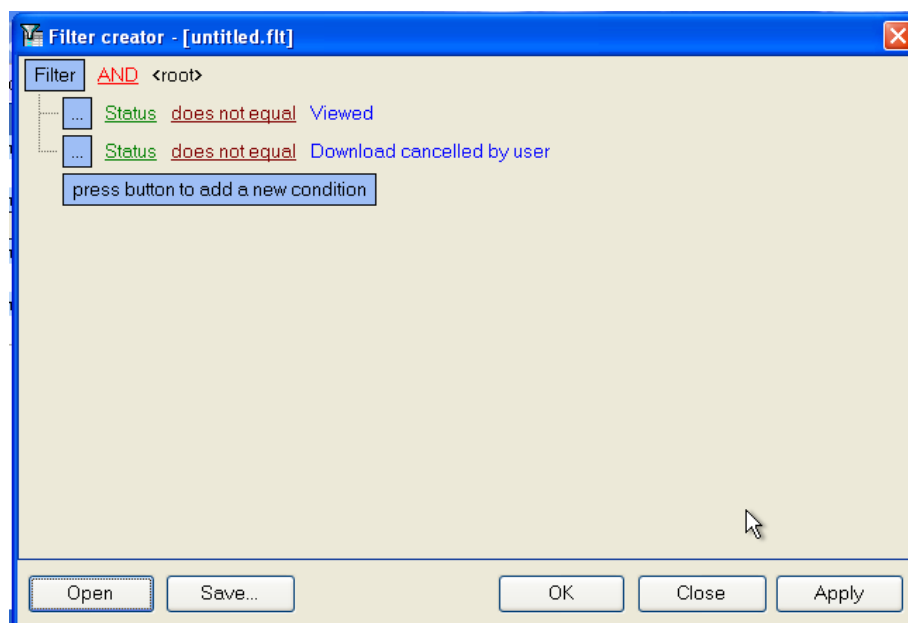


Fig. 2.6—8 Filter creator dialog box

When configuring the filter, one may need to perform the following operations:

- 1.1. Add a condition or subcondition. To add a condition click the **click to add a new condition** button or in the filter menu click the corresponding item (Fig. 2.6—9). The condition menu opens by clicking the ... or **Filter**.

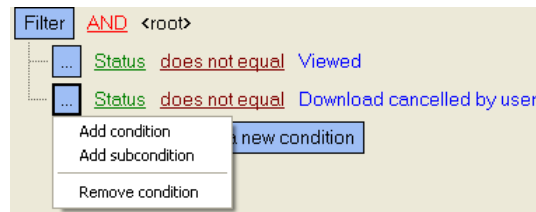


Fig. 2.6—9 Condition menu

- 1.2. Remove a condition. To remove a condition, click the corresponding item in the condition menu (Fig. 2.6—9).
- 1.3. Select a logical function for combining conditions (Fig. 2.6—10). A drop-down list for selecting the logical function opens on the left-click on the logical function.

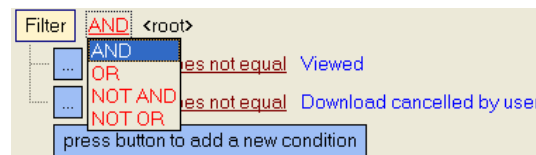


Fig. 2.6—10 Selecting a logical function

- 1.4. Select a field for comparison (Fig. 2.6—11). A drop-down list for selecting the field for comparison opens on the left-click on the field name.

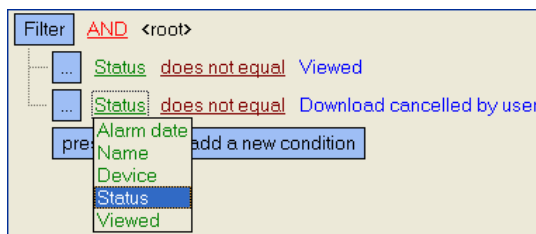


Fig. 2.6—11 Selecting a field

- 1.5. Select a method of comparing (Fig. 2.6—12). A drop-down list for selecting the method of comparing opens on the left-click on the method name.

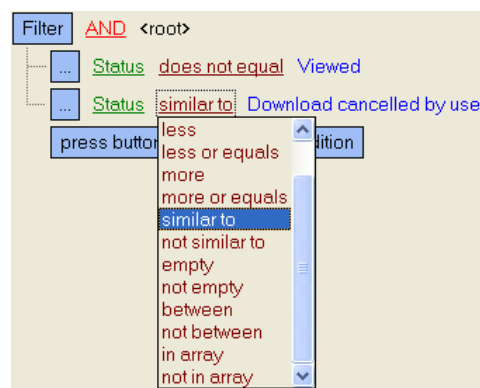


Fig. 2.6—12 Selecting a method of comparing

- 1.6. Select a value for comparing with. A way to select the value depends on the field type. For example, a date can be set using a calendar (Fig. 2.6—13), a name can be entered in a field (Fig. 2.6—14), etc.

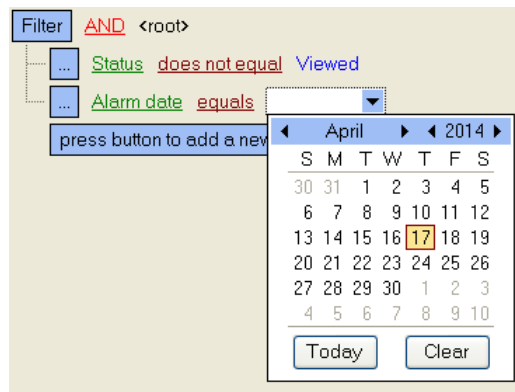


Fig. 2.6—13 Specifying a date

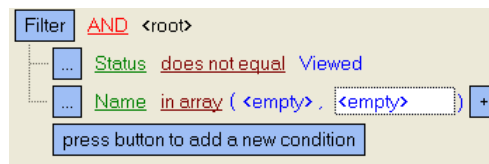



Fig. 2.6—14 Specifying an array of names

After completing settings, the filter can be saved to a file with the .flt extension by clicking the **Save...** button. This file can then be opened using the **Open** button.

## 2.7 Event log

To view all the events registered in *Monitoring*, click the button  (**Event log**). The **Event log** window opens (Fig. 2.7—1). You can sort and filter this table by any column.

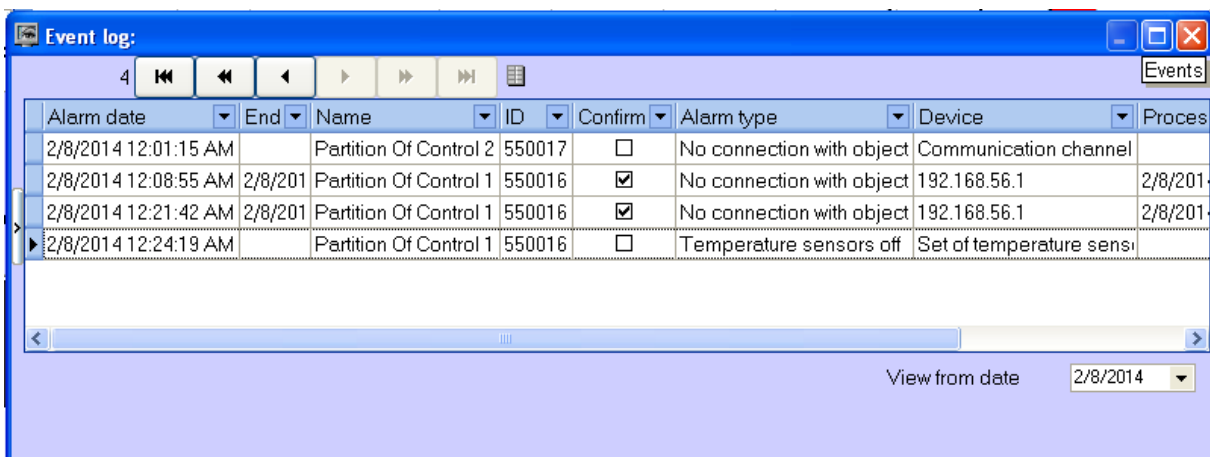


Fig. 2.7—1 Event log window

### 2.7.1 Viewing comments

If an operator enters a multi-line comment when he closes an alarm, only the first line is shown in the **Comment** column in the **Event log** window.

To view the entire comment, click the relevant cell (Fig. 2.7—2).

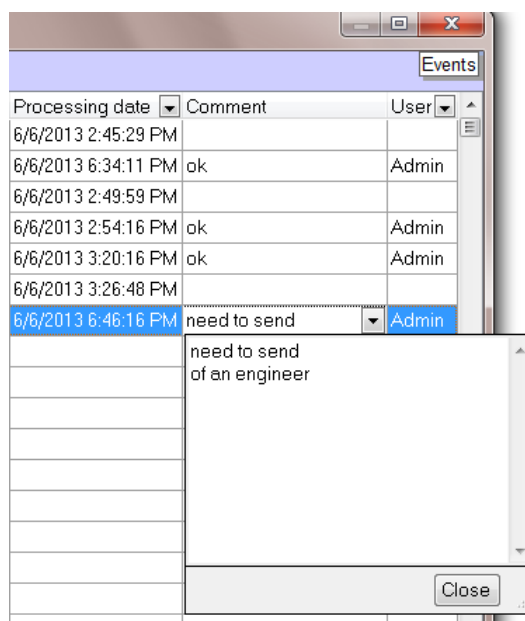


Fig. 2.7—2 Viewing an event comment

### 2.7.2 User that confirmed an alarm

By default, all the alarms confirmed by an operator are registered by the Admin user. However, a user with certain privileges can be created in the **Users** tab. Then, when an operator starts *Intellect* using this user's account, all the confirmed events are registered using this user.

### 2.7.3 Event display period

By default, the alarms for the current day are shown. To view earlier events, use the **View from date** drop-down list (Fig. 2.7—3).

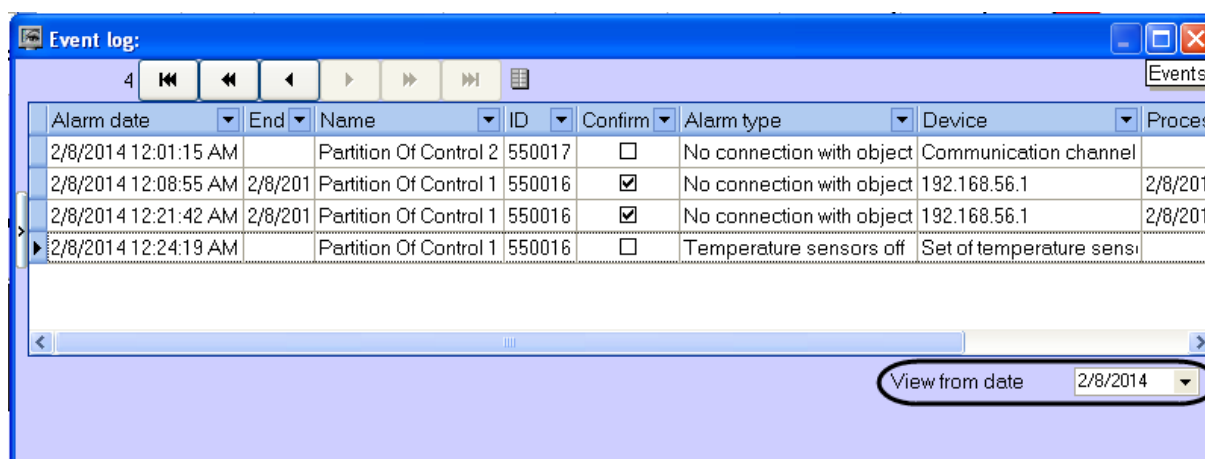


Fig. 2.7—3 View from date drop-down list

If the number of events exceeds 1000, use the navigation buttons for viewing.

### 2.7.4 Exporting the event log

To export the event log, open the context menu for a column of the table in the **Event log** window (Fig. 2.7—4).

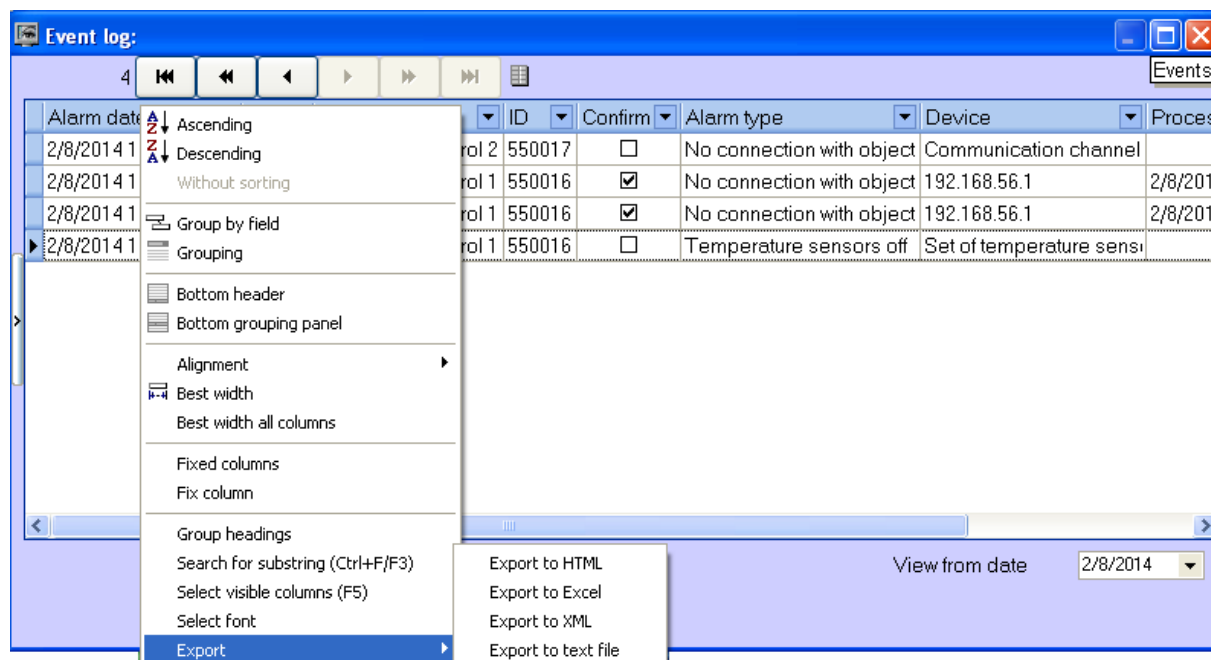


Fig. 2.7—4 Context menu in the event log

### 2.7.5 Configuring the position of the event log's columns

The columns' context menu contains the **Best width all columns** command. Select this command to set such a width for each column that fits all the column's content.

If not all the columns are visible in the **Event log** window, a scrolling GUI element appears. When you scroll, the columns that must be visible all the time (for example, **Alarm date**, **Processing date**) are moved. To lock the position of such columns, use the **Lock column** command from the same context menu.

You change the position of the columns. To do that, click on the heading of the column that you want to move and drag it to another place.

## 2.8 Regulatory and reference information

### 2.8.1 Viewing regulatory and reference information

*Monitoring* keeps regulatory and reference information for all objects. To view this information, click **Reference** and select the **Monitored objects** menu item (Fig. 2.8—1).

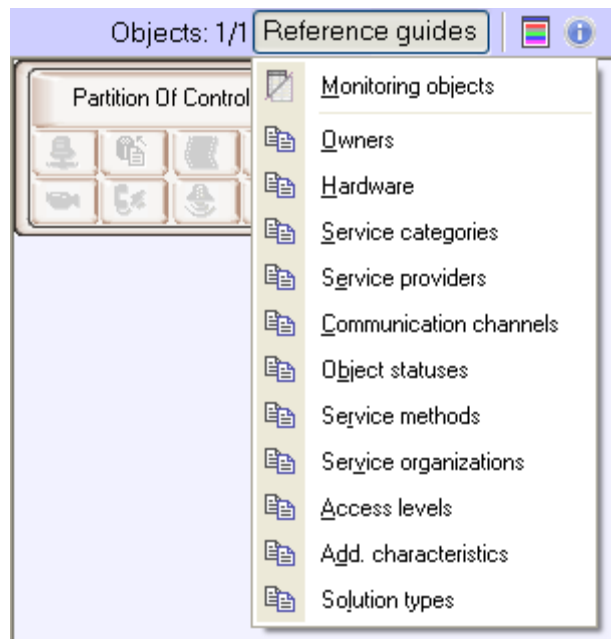


Fig. 2.8—1 Monitored objects menu item

The **Monitored objects** window opens. It contains all the objects created in the system (Fig. 2.8—2).

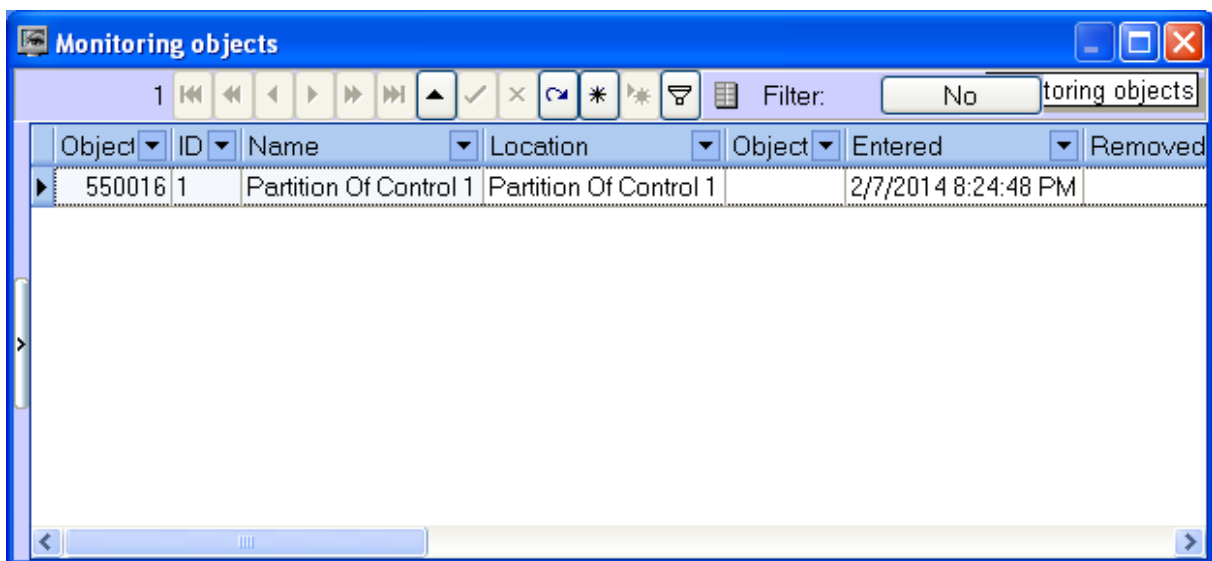


Fig. 2.8—2 Monitored objects window

## 2.8.2 Editing regulatory and reference information

If you double click on a record, a form opens. Here you can fill in regulatory and reference information for the object (Fig. 2.8—3).

Record	
Object code	550016
Name	Partition Of Control 1
ID	1
Location	Partition Of Control 1
Object	
Entered	2/7/2014 8:24:48 PM
Removed	
Access	
Add. characteristic	
Solution type	
Type of connection with object	
Service provider	
Owner	
Hardware	
Status	
Service category	
Service method	
Service company	

Fig. 2.8—3 Editing regulatory and reference information for a monitored object

Some fields offer default values and some do not (Fig. 2.8—4). This means that the corresponding reference book is empty and it must be filled out (see Section *Filling out reference books*).

Type of connection with object	
Service provider	RS232
Owner	TCP/IP
Hardware	X.25
Status	

Fig. 2.8—4 Offered default values

### 2.8.3 Filling out reference books

To fill out a reference book:

- 1.7. Click **Reference**. A window opens (Fig. 2.8—5). In the window, select the required reference book (for example, **Owners**).

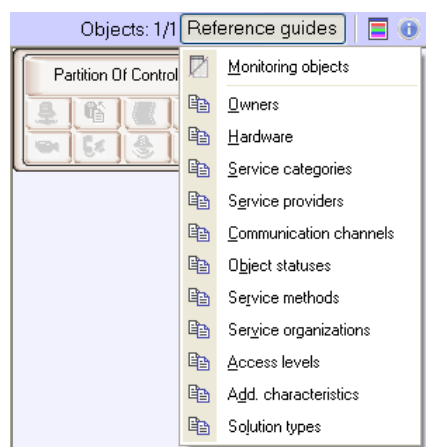


Fig. 2.8—5 Selecting a reference book to edit



1.8. Then, the editing window for the reference book opens (Fig. 2.8—6).

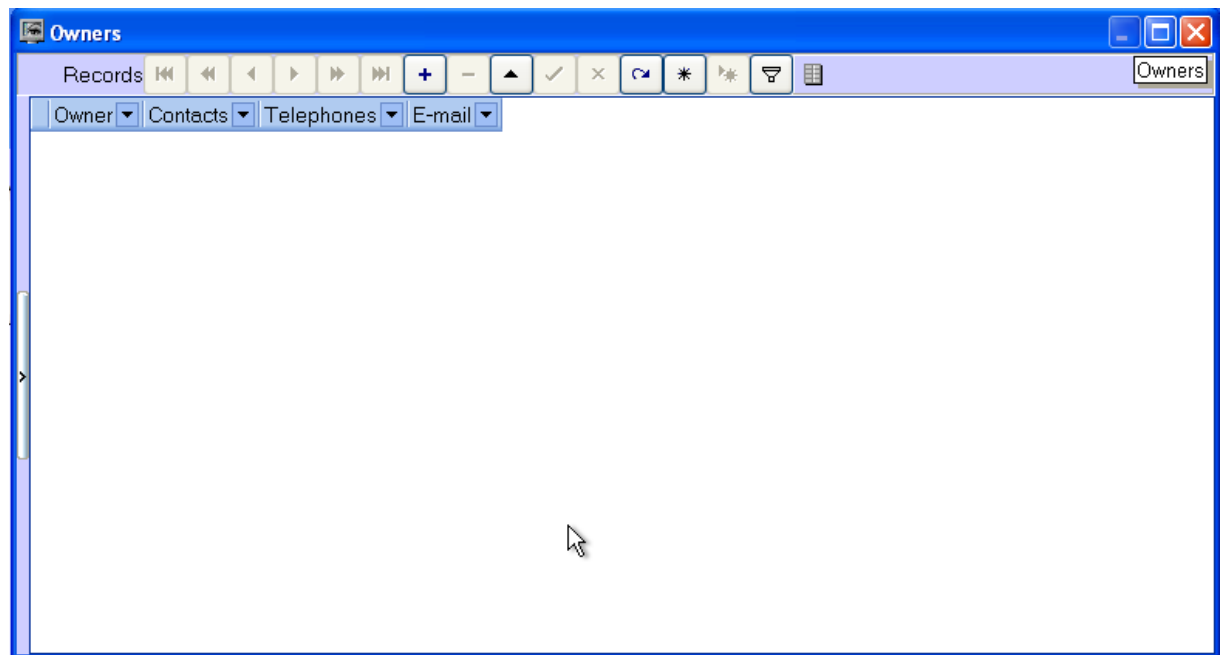


Fig. 2.8—6 Reference book editing window

1.9. To add an entry, click **Insert entry** and enter the value (Fig. 2.8—7).

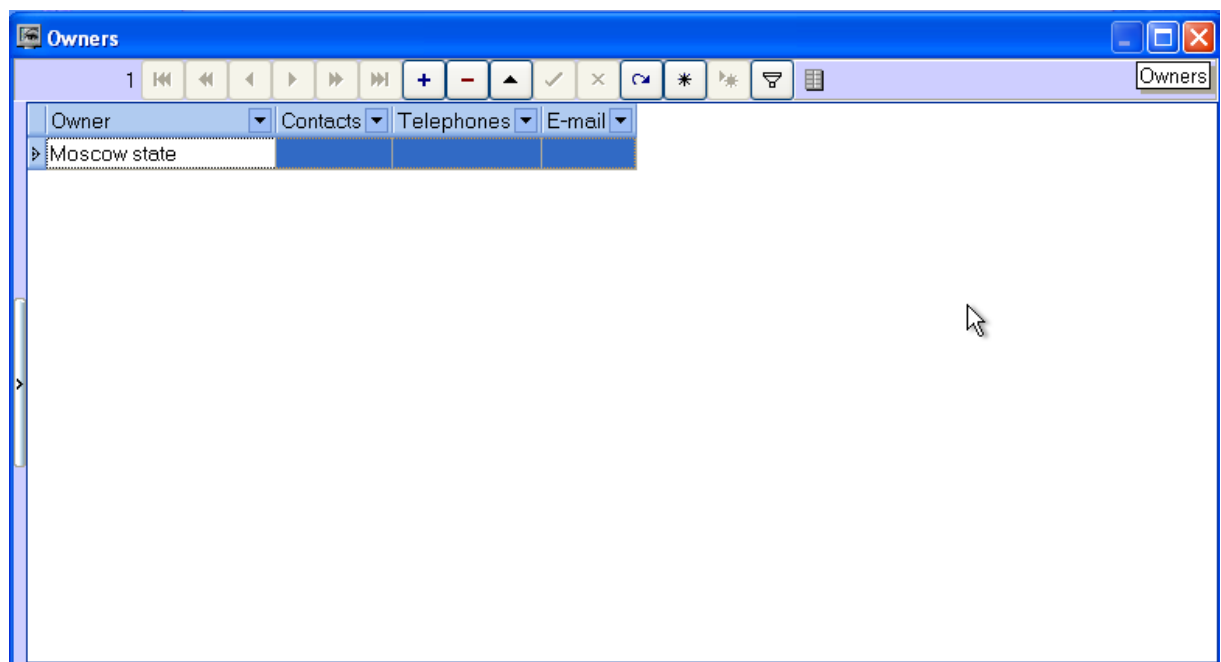


Fig. 2.8—7 Adding an entry

1.10. Click **Save**.

You can edit any reference book like this.

After you add a value to a reference book, you can use it for filling in the corresponding field for regulatory and reference information (Fig. 2.8—8)..


Owner	
Hardware	Moscow state
Status	
Service category	

Fig. 2.8—8 Using an added value

#### 2.8.4 Column context menu in the Monitored objects window

Right-click on the heading of any column in the **Monitored objects** window. A context menu opens (Fig. 2.8—9). You can use this menu for different actions, in a way similar to the actions with the event log (see *Exporting the event log* and *Configuring the position of the event log's columns*).

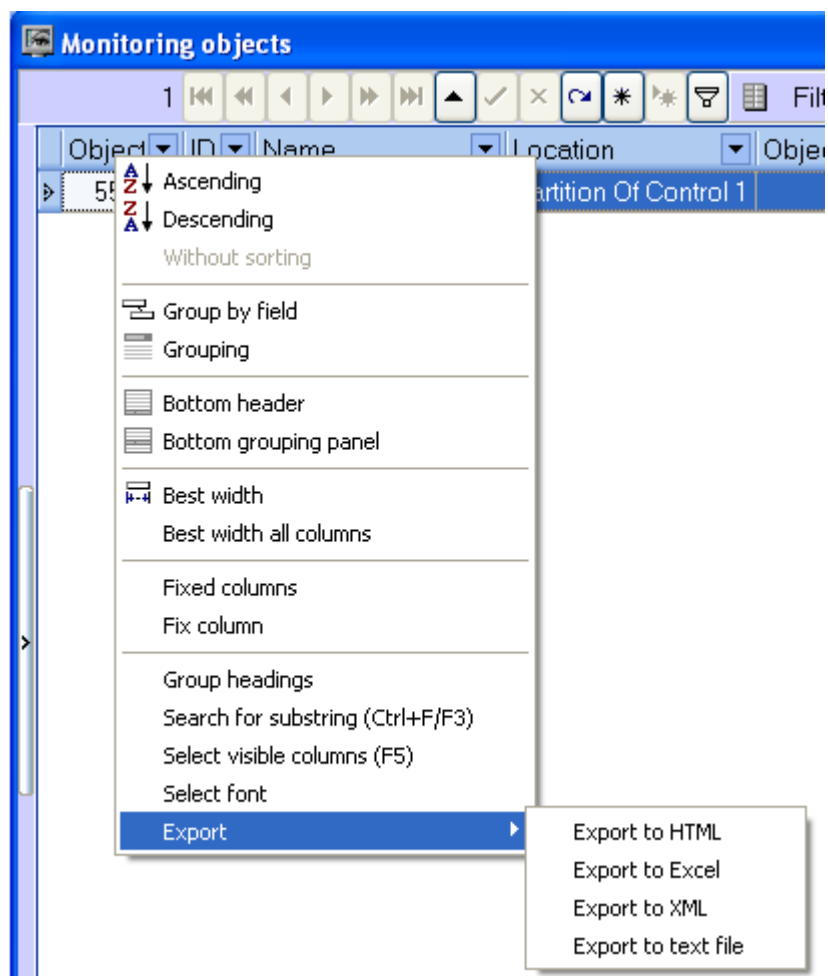


Fig. 2.8—9 Column context menu in the Monitored objects window

### 2.9 Viewing objects' live video and archives

To play an object's live video and archives, go to the Control Panel.

Then, right-click the area containing the object's name. After that, a context menu opens. Select the **Video image playback** menu item and a camera (Fig. 2.9—1).

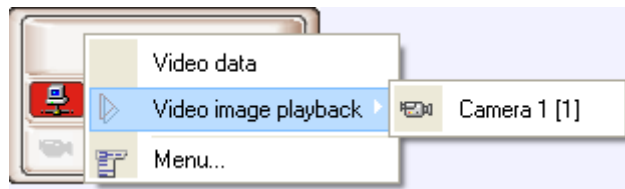


Fig. 2.9—1 Selecting a camera for viewing video

The list of cameras corresponds to the list of cameras specified when configuring the **Agent Of Control** object. The **View video** menu item is available only after the object connects to **Monitoring** for the first time. Before that, there is no such menu item (Fig. 2.9—2).



Fig. 2.9—2 No menu item for viewing video

If the *Monitoring* software have the corresponding setting, then when the camera is selected for viewing live video the warning will be displayed saying that transmission of video can create critical load on the channel (Fig. 2.9—1). If it is really necessary to view live video, click **OK** in the **Warning** dialog box. To cancel viewing live video, click **Cancel**.

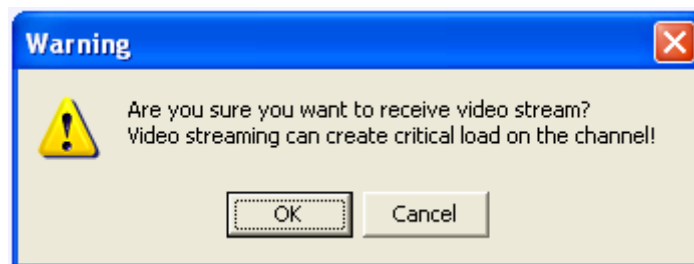


Fig. 2.9—1 Warning

After you select a camera, a dialog box opens. Wait for several seconds for the video to start (Fig. 2.9—3).



Fig. 2.9—3 Video in the dialog box

The window's title shows the description of the object, the camera sequence number, and the camera ID in brackets. The archive is accessed using Intellect's standard method (Fig. 2.9—4).

*Note: For more details, see the document Intellect software package. Operator's guide.*

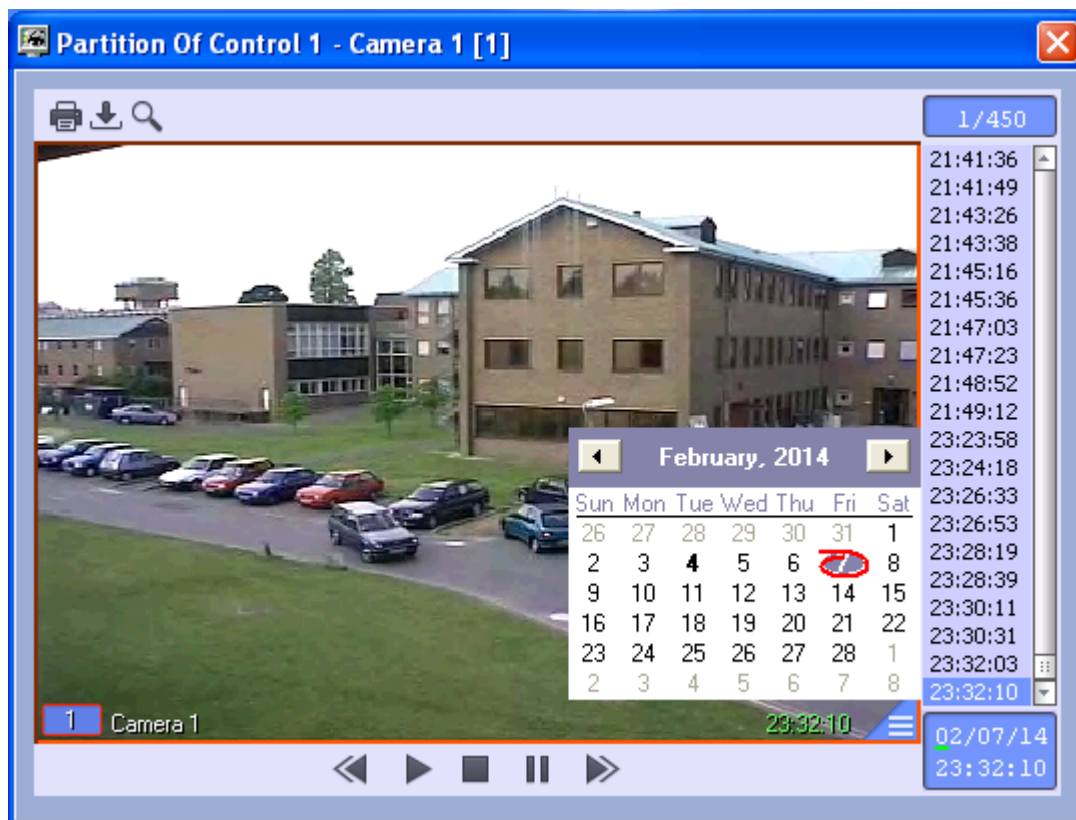


Fig. 2.9—4 Access to the archive

While viewing live video or archive from several cameras simultaneously, a separate dialog box opens for each camera.

## 2.10 Starting external applications from the Control Panel

You can use the **Menu...** item of the context menu (Fig. 2.10—1) to launch external applications from the Control Panel.

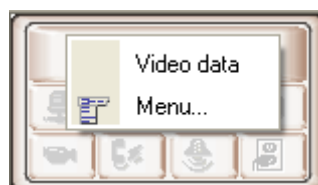


Fig. 2.10—1 Menu item Menu

You use the IP address of any object.

For example, if you want to ping any object, follow these steps:

1. Right-click the area that contains the object's name. The context menu opens. Select the **Menu...** menu item. (see Fig. 2.10—1). Then the **Menu...** dialog box opens. (Fig. 2.10—2).

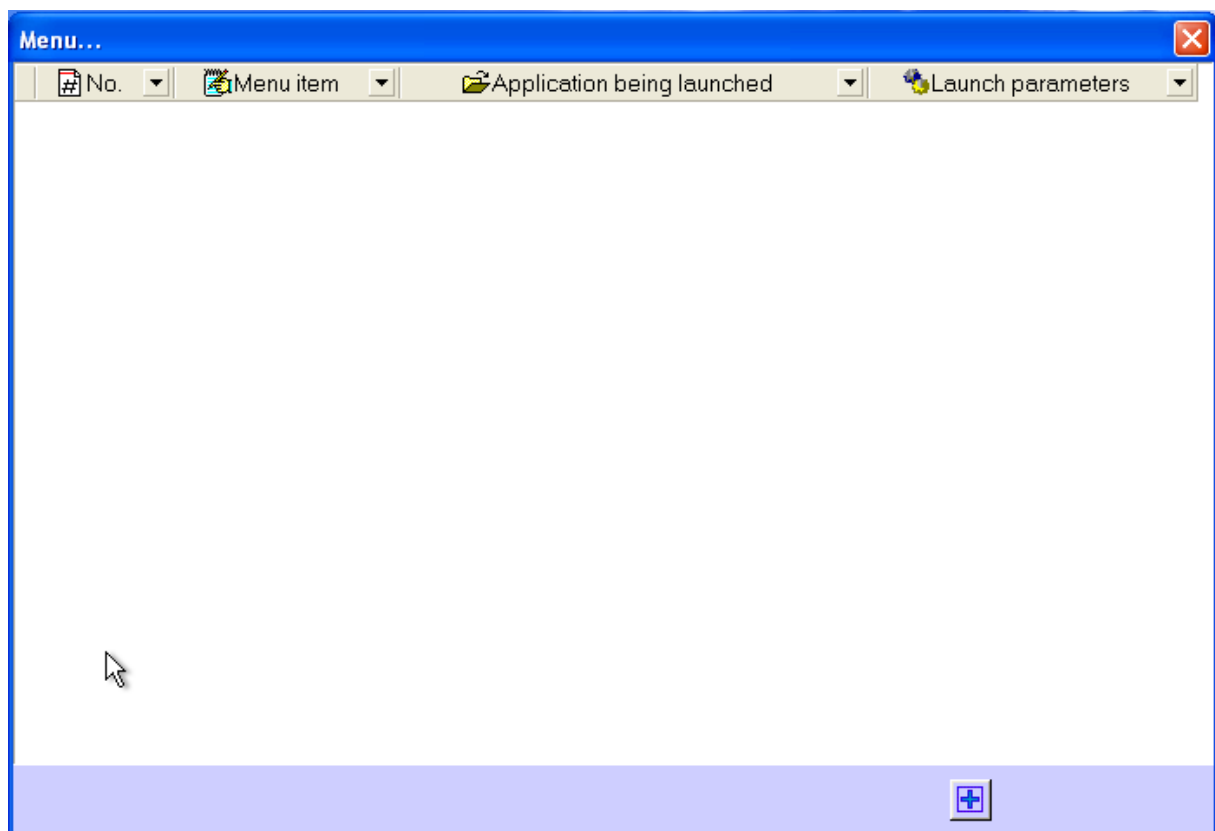


Fig. 2.10—2 Menu dialog box

2. in this dialog box, click **Add entry** and enter values as shown in Fig. 2.10—3.

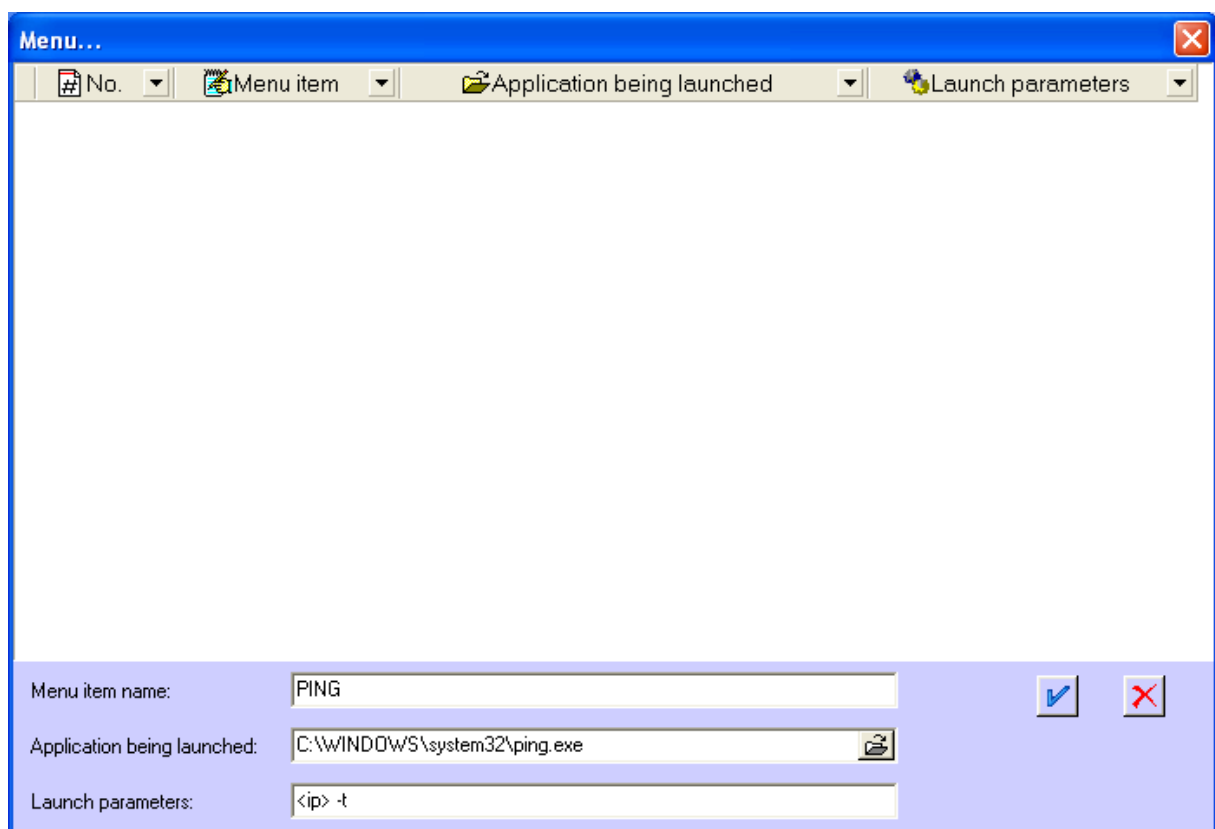


Fig. 2.10—3 Configuring the menu item's parameters

The <ip> string is a reserved expression. When application is called, the real IP address is inserted. Type this string in lowercase.

3. Click **OK**. The **Menu...** window shows a new entry that describes the new context menu item (Fig. 2.10—4).

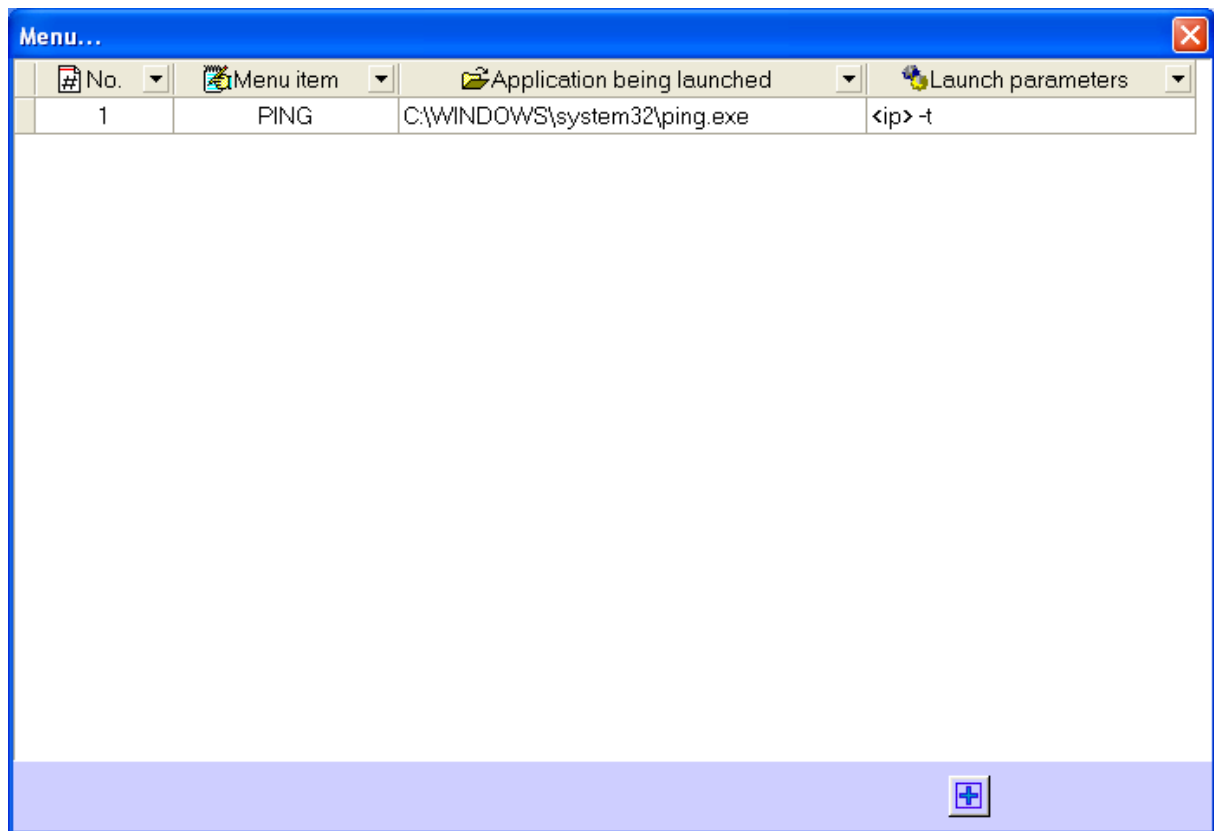


Fig. 2.10—4 New entry that describes a menu item

If you right-click on the area that contains an object's name, a context menu opens. The menu contains the new menu item, **PING** (Fig. 2.10—5).

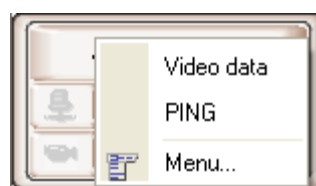


Fig. 2.10—5 New context menu item

If you select this menu item, the *ping* program starts (Fig. 2.10—6).

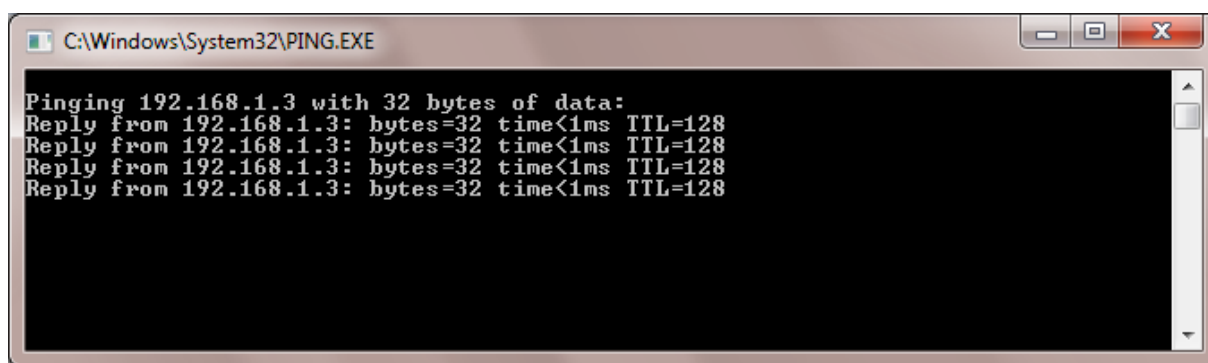


Fig. 2.10—6 Starting a program from the context menu

For objects that connect to *Monitoring* via RS232 or objects that never connected to it yet, use 127.0.0.1 instead of <ip>.

The same way you can create menu items that start other external applications (such as Radmin, etc.).

## 3 Log Panel

### 3.1 Log Panel's interface

The Log Panel has three main parts (Fig. 3.1—1):

1. Control buttons panel.
2. Working area.
3. Status bar.

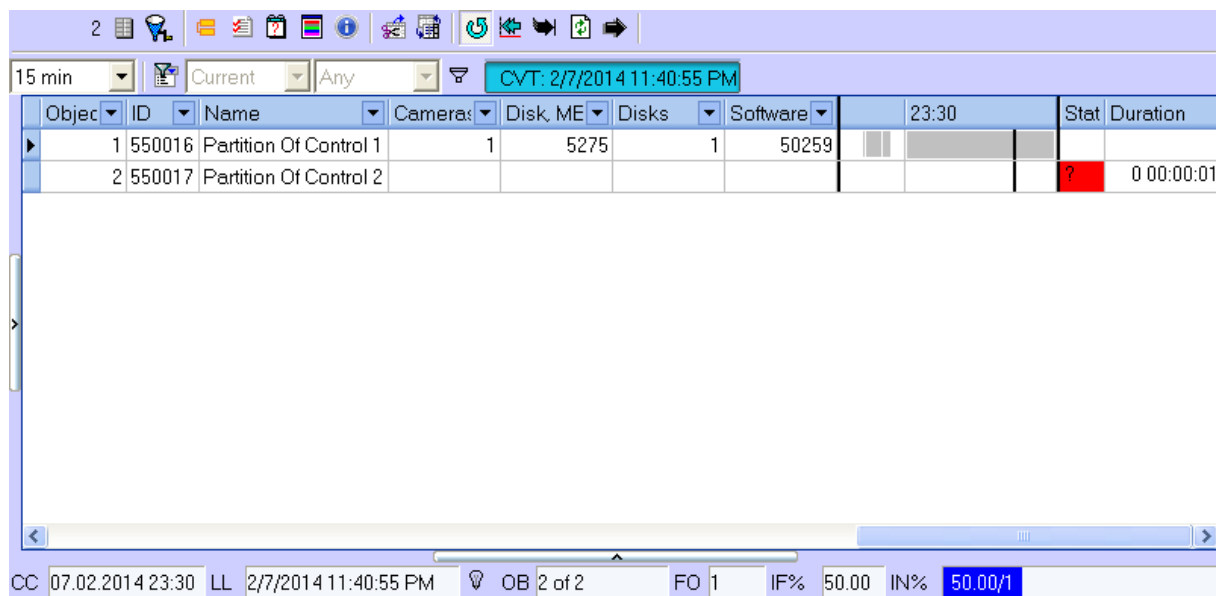


Fig. 3.1—1 General view of the Log Panel



3.1.1 Color definitions for events


In the Log Panel, alarms are shown as color stripes in a table. Each alarm type has its own color. You can learn the meaning of the colors by clicking the button  (**Legend information**). When you click this button, the information window opens (Fig. 3.1—2).



Fig. 3.1—2 Definitions window

Vertical stripes mean short-term errors and horizontal stripes mean long-term errors (hardware failure).

*Note: Alarm types are described in the Alarm types section.*




The length of a stripe shows the alarm's duration in accordance with the selected scale. The scale is a time period for one column (Fig. 3.1—3).




Fig. 3.1—3 Selecting a time interval

### 3.1.2 Moving through the list of alarms

Each column's heading always contains the start time for the column's time period. Use the Left and Right keys and the horizontal scrollbar to move to any date within the loaded data.

To quickly move to the required date and time, use the button  (**Go to date**). Use the button  (**Go to end**) if you want to move to the end time of the last download. Use the button  (**Go to the current error begin**) if you want to move to the start of the current error.

The data is loaded to the system at certain times only, so there is a need to refresh the data shown on the screen automatically. For that, you can use the button  (**Auto refresh**). If this button is in the pressed state, new alarm data is searched in the database. If such data is found, the view is refreshed and you can see the end of the shown data. The date and time of the current view are shown to the right of the filters (Current Display Time - CDT).

If the **Auto refresh** button is in the unpressed state, the current view can get outdated. In this case, the date of the last download exceeds the CDT. To show this, a "bulb" flashes in the status bar (Fig. 3.1—4).

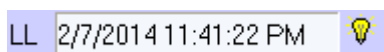



Fig. 3.1—4 "Bulb" in the status bar

The "bulb" shows that the current view is outdated and that you can refresh it with the button  (**Refresh**). The list is also refreshed when you move to the end, select and apply a filter, and in many other cases.

### 3.1.3 Ignoring objects

Ignored objects are never shown on the screen. For how to work with ignored objects, see the *Ignoring objects* section.

### 3.1.4 Status bar

#### 3.1.4.1 General information

The status bar shows the number of non-ignored objects (**OB**) and the number of objects that have hardware failures(**HF**) shown at the moment (Fig. 3.1—5).

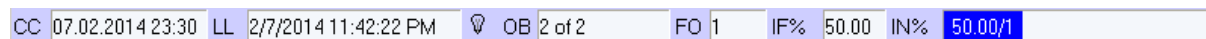


Fig. 3.1—5 Status bar information

The status bar also shows the start of the displayed period for the current cell column (**CC**), time when the data was last loaded into the database (**LD**), functioning rate (**FR%**) and non-functioning rate (**NR%**) for the video surveillance system, broken down by reason (see the *Functioning and non-functioning rates* section).

#### 3.1.4.2 Functioning and non-functioning rates

The status bar shows the functioning rate (**FR%**) and non-functioning rate (**NR%**) for the video surveillance system, broken down by reason.

**FR(%)** is calculated according to the following formula:

**$(1 - Nnf / Na) * 100$** , where

- *Nnf* is the number of objects that do not function properly.
- *Na* is the total number of objects


The non-functioning rate for a particular reason is calculated according to this formula:

**$(Nnfbr / Na) * 100$** , where

- *Nnfbr* is the number of objects that do not function properly for this particular reason
- *Na* is the total number of objects

These rates are calculated only for non-ignored objects. For ignored objects, these rates are never calculated and the filter is never used. If a non-functioning rate has the value of zero, it is not shown in the status bar.

## 3.2 Number of alarms displayed

The number of objects shown in the Log Panel or Control panel is defined by the current filter (Fig. 3.2—1) if it is enabled with the filtering button  (**Turn filter on/off**).

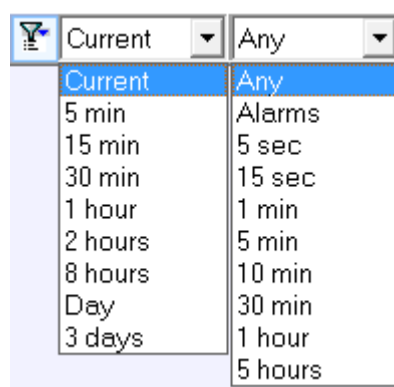


Fig. 3.2—1 Filter in the Log Panel

The left list shows time periods. If there was an alarm during the selected period, it is included on the list. The right list shows the alarm durations that trigger the filter. For example, if you set the filter to "Current - 1 minute", only those objects are shown that are currently in the alarm state and that have already been in this state for 1 minute or more. If you set the filter to "Day - 5 hours", only those objects are shown that have at least once been in the alarm state in the last 24 hours and that were in this state for at least 5 hours.

To calculate rates only for filtered objects, click  (**Calculate rates only for filtered table lines**).


## 3.3 Object status

The **Status** column shows the objects' status. Its color and contents are explained in the **Definitions** panel (see the *Color definitions for events* section). Note that the **Status** column in the Log Panel is shown in red only if there is at least one current long-term alarm.

### 3.4 Alarm duration

The table's last column (**Duration**) shows the duration of the current alarm for an object in *days hh:mm:ss* format.

### 3.5 Information about an object

Click  (**Show inspector Ctrl+I**). A special area appears (Fig. 3.5—1). This area contains short information about the currently selected object. The lower part contains the **Fields** tab (Fig. 3.5—1).

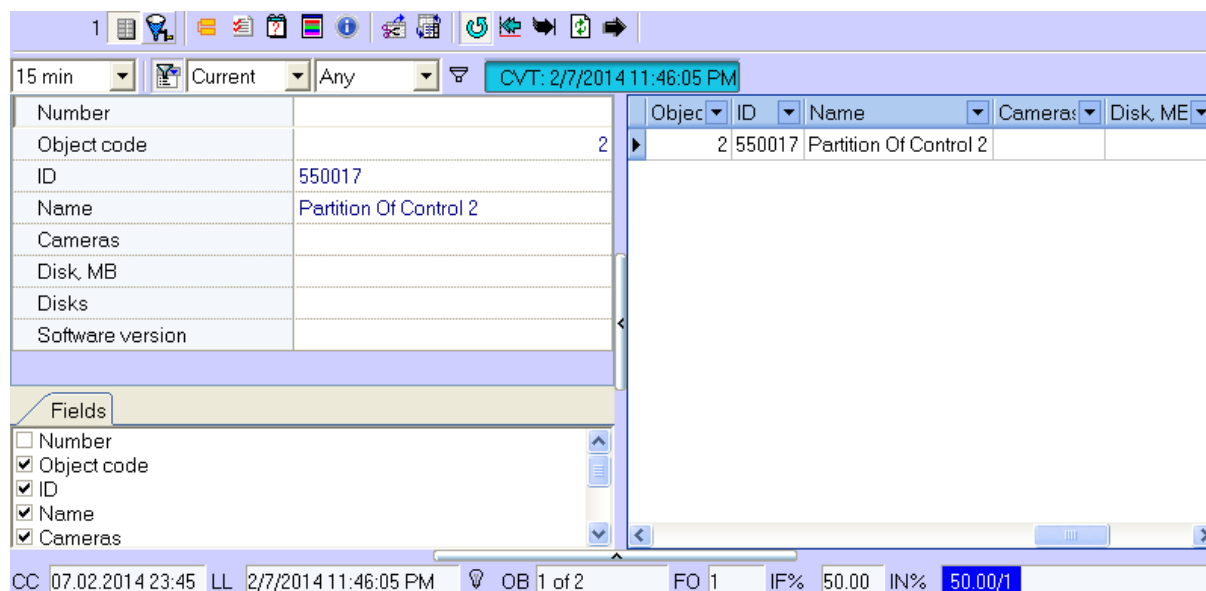



Fig. 3.5—1 Area for configuring information

The information is shown (according to the options selected) as columns in the main list of the Log Panel (Fig. 3.5—2).

Objec	ID	Name	Camera	Disk, ME	Disks	Software
2	550017	Partition Of Control 2				

Fig. 3.5—2 Information view in the Log Panel

To get more detailed information about an object, select it in the Log Panel and click  (**Show detailed information**). The **Detailed information** window opens (Fig. 3.5—3).

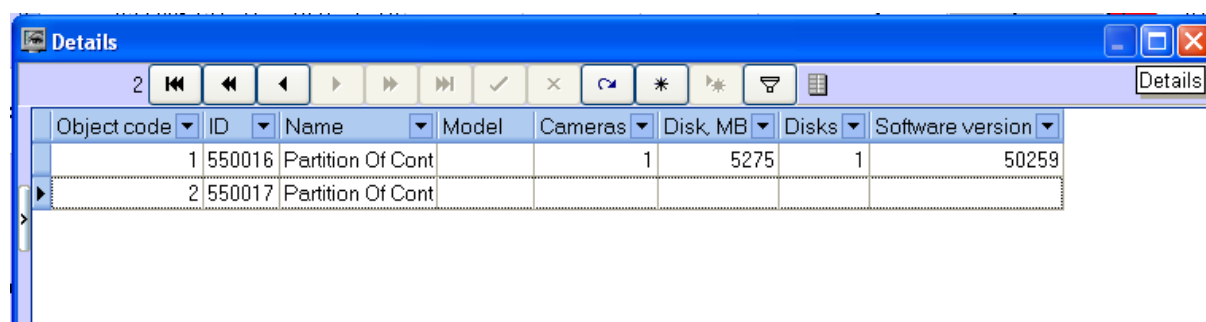



Fig. 3.5—3 Detailed information window

In the **Detailed information** window, click  (**Show inspector Ctrl+I**). A special area appears (Fig. 3.5—4). The upper part of this area contains information about the currently selected object.

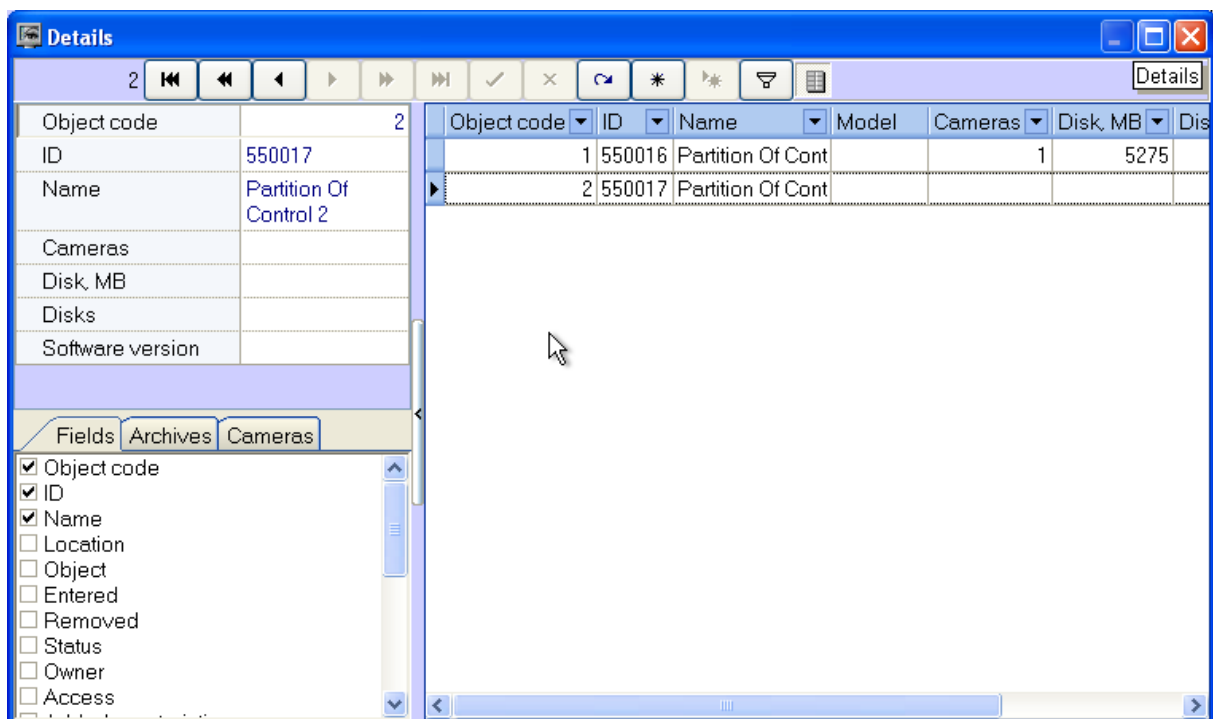


Fig. 3.5—4 Information about the current object

The lower part of the area contains three tabs: **Fields**, **Archives**, and **Cameras** (Fig. 3.5—5). The information is shown (according to the options selected) as columns in the main list of the **Detailed information** window.

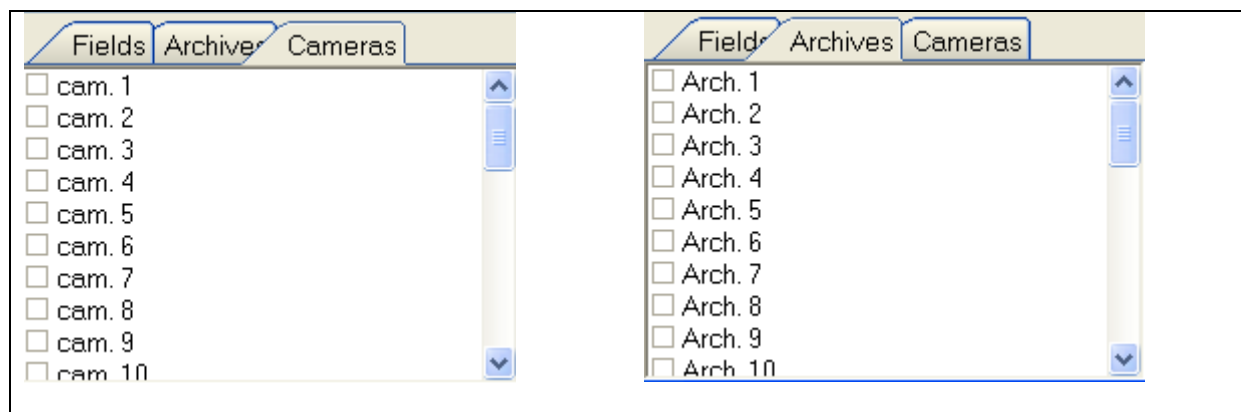


Fig. 3.5—5 Archives and Cameras tabs

The data in the **Cameras**, **Disk (MB)**, **Disks**, and **Version** fields and in all the fields in the **Archives** and **Cameras** tabs are filled in automatically when packets with technical information are received from the objects. If these fields are empty for an object, it means that the object never connected yet.

The **Cameras** field shows the number of cameras for the object.

The **Disk (MB)** field shows the maximum free space for all the logical disks where recording is performed.

The **Disks** field shows the number of logical disks where recording is performed.

The **Version** field shows the version of *Control Agent* installed at the object.


The fields in the **Archives** tab show the depth of the video archive in days for each camera. The fields in the **Cameras** tab show the current status of each camera (**on/off**).


*Note:*

*The video archive depth is determined by Agent Of Control as follows:*

*The system calculates the actual number of days when a given camera recorded data to the archive.*

*Example: The video surveillance system has been working for three days. A camera recorded data on the first and the third days. The camera was turned off on the second day. Thus, for this camera, the archive depth equals two days.*

Click the button  (**Show hardware data**). A special area appears. (Fig. 3.5—6). There you can see changes for these values (**Cameras, Disk (MB), Disks, Version** and others).

12  From 6/6/2013 - <span>Modification of archives values</span>			
Date	Device	Value	
6/6/2013 4:45:48 PM	Disks space	31373	
6/6/2013 6:23:21 PM	Disks space	31362	
6/6/2013 8:27:39 PM	Disks space	31346	
6/7/2013 12:09:39 PM	Archive 1	3	
6/7/2013 12:09:39 PM	Disks space	31287	

Date	6/6/2013	6/7/2013
Archive 1	2	3
Software version	49058	
Disks counter	1	
Cameras counter	1	
Disks space	31404	31287

Fig. 3.5—6 Viewing changing values for a time period

## 3.6 Exceeding the allowed number of failures

If the number of failures for a displayed object exceeds 500, then alarms for the object have no details and its background gets pink (Fig. 3.6—1).







<div> 15 min  Current  Any  CVT: 6/6/2013 5:24:16 PM</div>												
Cameras	Disk MB	Disks	Software version	Arch. 1	15:45	16:00	16:15	16:30	16:45	17:00	St	Duration
1	1	31373	1	49058	2							
2												0 04:00:21

Fig. 3.6—1 Exceeding the allowed number of failures

The number of failures is calculated not for each interval, but for a range of intervals. Consider the case depicted in Fig. 3.6—1. Here, the calculation is performed for ten columns from 3:30 p.m. to 6:00 p.m. and for one column from 6:00 p.m. to 6:15 p.m. Even if the maximum number of failures is exceeded in three columns, the background of all ten columns gets pink.

## 3.7 Forcing the confirmation of alarms

Sometimes an alarm must not be considered as an alarm. For example, if the **Set of thermal sensors** parameter was turned on by mistake. In this case, *Monitoring* shows a *Thermal sensors off* alarm that shows that the device is down. Even after the **Set of thermal sensors** parameter is turned off for the object, the alarm is still opened in *Monitoring*.

To fix this inconsistency, click the button  (**Force error closing**). To see the list of errors closed in such a way, click the button  (**Show closed errors**). An additional table in the right part of the screen (Fig. 3.7—1).

From	1/8/2014	-
Name	Beginning	Close with de
Partition Of Contr	07.02.2014 23:40:5	07.02.2014 23:58

Fig. 3.7—1 Viewing the list of errors that were forced to close

You can double click on an entry in the alarm display area to see the dialog box with an explanation for the errors for the time period of this cell (Fig. 3.7—2).

Objec	ID	Name	Camera	Disk, ME	Disks	Software	2/8/2014	Stat	Duration
1	550016	Partition Of Control 1	1	5275	1	50259		-	0 00:00:01
2	550017	Partition Of Control 2						?	0 00:00:01

Beginning	End	Duration	Reason, device	Fro...
08.02.2014 00:01:15		0 00:00:01	No connection with object (Co	

Fig. 3.7—2 Errors explanation

You can double click the area with regulatory and reference information to open the dialog form with a short description of device data (Fig. 3.7—3).

Record	
Number	
Object code	1
ID	550016
Name	Partition Of Control 1
Cameras	1
Disk, MB	5275
Disks	1
Software version	50259

Fig. 3.7—3 Regulatory and reference information

## 4 Archive search

### 4.1 Purpose of the Archive Search component

The Archive Search component allows you to do the following:

1. Make and send requests for searching video frames with subtitles and receive video search results
2. Make and send requests for video frames with or without subtitles and receive video search results.

3. Make and send requests (based on video search results) to an object's video archive, receive and view request results (video frames or video clips).
4. View and prints request results (video frames or video clips).

## 4.2 Request to a video archive by subtitles

To send a request to a video archive by subtitles (**By subtitles** mode), follow these steps:

1. Open the **Archive Search** component (Fig. 4.2—2).

Fig. 4.2—1 Archive Search component

2. Make a request for archive search by using the following parameters:
  - 2.1. In the **Period from:** field, set the date and time for the start of the search period
  - 2.2. In the **to:** field, set the date and time for the end of the search period
  - 2.3. Click the **By subtitles** option button.
  - 2.4. Enter any keyword (available only if you click **By subtitles**).
3. Select an object from the **Object name** list.
4. Set the waiting time by using the **Data timeout (min.)** field.
5. Click **Search**.

*Note: You can cancel the search at any moment by clicking **Cancel**.*

6. If the search completes successfully, the search result is displayed as a list of lines (Fig. 4.2—2). The number of lines in that list is limited to 500.



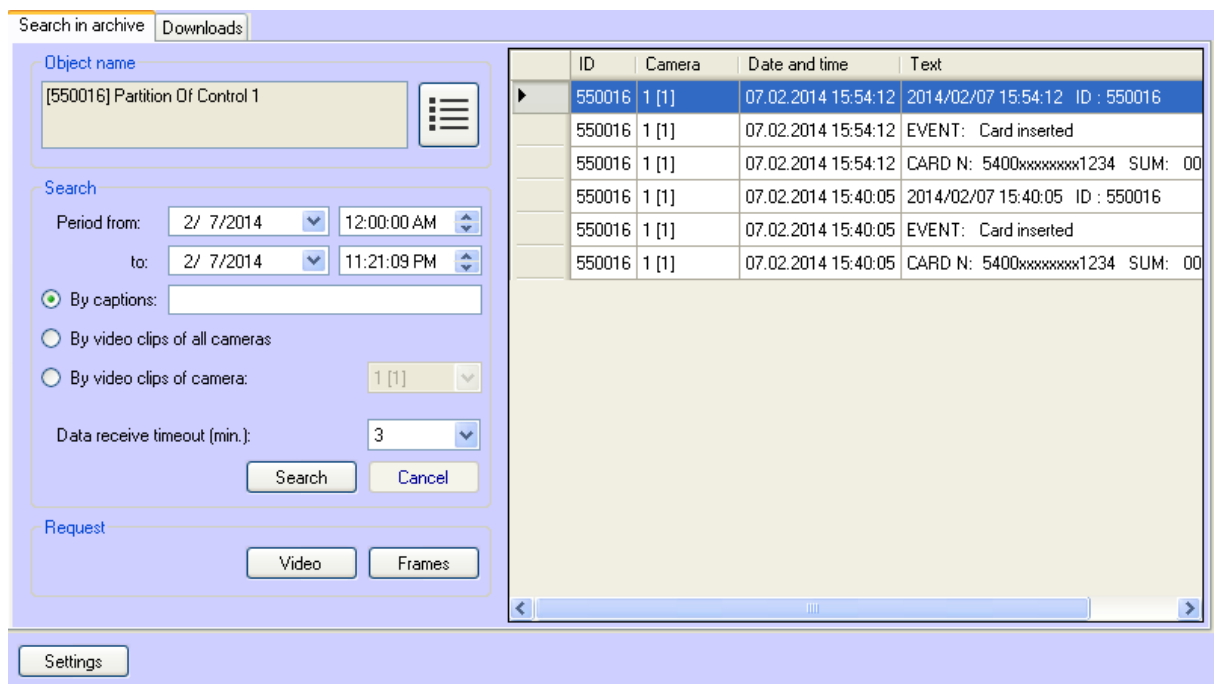


Fig. 4.2—2 Archive search result

You can also make a request to the archive based on received data (see *Request for video frames* from an object).

**Important:** This data is requested from Intellect's database at the object. If you want to change how long this data is stored, go to the Events archive length parameter, then to the General settings section and then to Programming tab.

### 4.3 Request to a video archive by video clips

To send a request to the video archive by clips, follow these steps:

1. Open the **Archive search** component (Fig. 4.3—1).

Fig. 4.3—1 Archive Search component

2. Make a request for archive search by using the following parameters:
  - 2.1. In the **Period from:** field, set the date and time for the start of the search period
  - 2.2. In the **to:** field, set the date and time for the end of the search period
  - 2.3. Click the **By clips on all cameras** option button.

*Note: To search by video clips on a certain camera, click the **By camera clips** option button. Then select the ID of the required camera from the drop-down list.*

3. Select an object from the **Object name** list.
4. Click **Search**. If the search completes successfully, the search result is displayed as a list of lines (Fig. 4.3—2). The number of lines in that list is limited to 500.

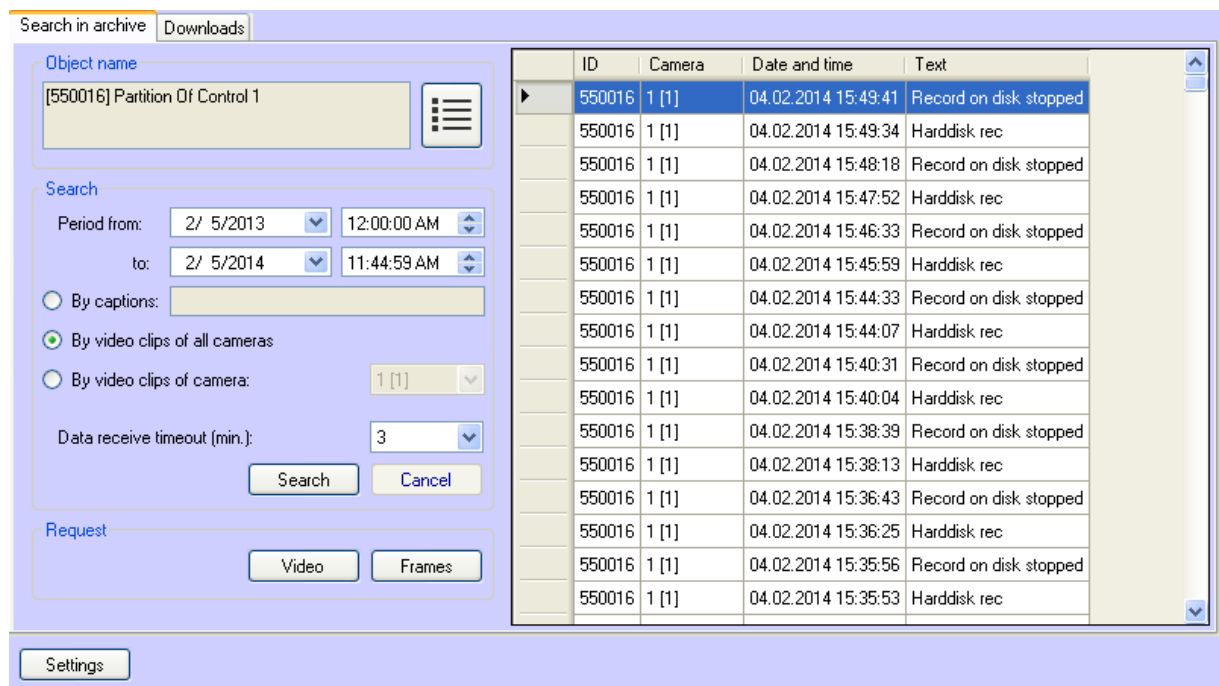


Fig. 4.3—2 Search by clips result

You can also make a request to the archive based on received data (see *Request for video frames* from an object).

**Important:** This data is requested from Intellect's database at the object. If you want to change how long this data is stored, go to the Events archive length parameter, then to the General settings section and then to Programming tab.

#### 4.4 Request for video frames from an object

You can use received data to request video frames from archives. To do this, follow these steps:

1. Search by titles or clips as described above.
2. The search results are shown as a list of entries. Right click on the required entry. A context menu opens. The menu has two items: **Video request** and **Frame request**.
3. Select the **Frame request** item. The dialog form for the request opens (Fig. 4.4—1). There is another way to open this form: Select an entry from the list and click **Frames**.

Fig. 4.4—1Frame request form

7. The **Date and time** and **Camera** fields are filled in automatically.
8. If you want to make a request with millisecond accuracy, use the **Msec** field.
9. If you select more than one frame, the parameter **Interval between frames** appears. Then enter the interval between frames (with millisecond accuracy).
10. in the **Start** area, select the time for sending the request: click either the **Immediately** option button or **By schedule** option button.
11. Set the waiting time by using the **Data timeout (sec.)** field.
12. If the check box **Open immediately** is selected, the data is put into the video archive and shown immediately. Otherwise, the data is only sent to the archive. To view such data, use the **Monitoring reports** component.
13. After you fill in all the fields, click **Create**.
14. You can check how the task is being performed in the **Downloads** tab. If the data is loaded successfully and the **Open immediately** check box is selected, the loaded frame is shown on the screen (Fig. 4.4—3).

*Note. In case data have stopped coming during the download, for example if connection with the object is lost, download will be restarted after a random time interval from 1 to 60 seconds. In case of the attempt failure, attempts will be made at intervals of 1 minute.*

*Information on the time remaining to the restart is displayed in the **Comment** field (Fig. 4.4—2). Any time you can restart loading manually using the Restart button.*

Fig. 4.4—2 Time remaining to the restart

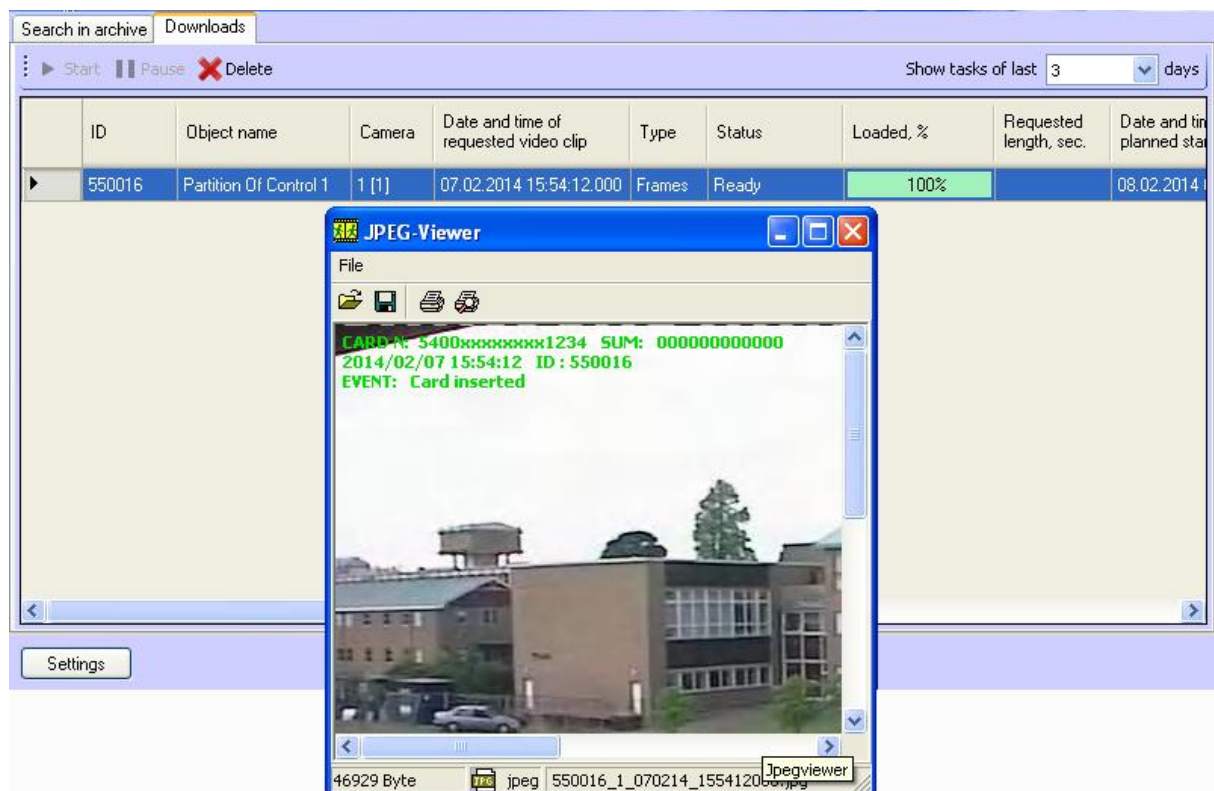
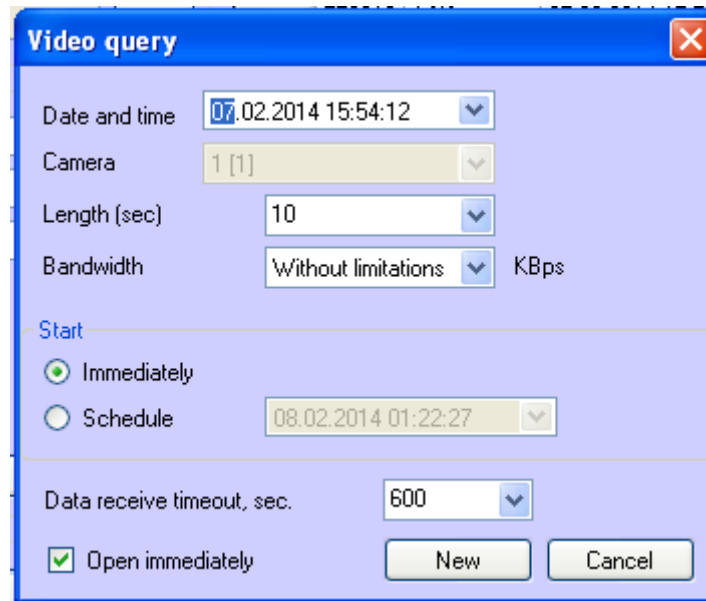


Fig. 4.4—3 Downloads tab

## 4.5 Request for video clips from objects

The **Archive search** component allows you to request small video clips from an object. For that, follow these steps:

1. Search by titles or clips as described above.
2. The search results are shown as a list of entries. Right click on the required entry. A context menu opens. The menu has two items: **Video request** and **Frame request**.
3. Select the **Video request** menu item. A dialog form for the request opens (Fig. 4.5—1). There is another way to open this form: Select an entry from the list and click **Video**.

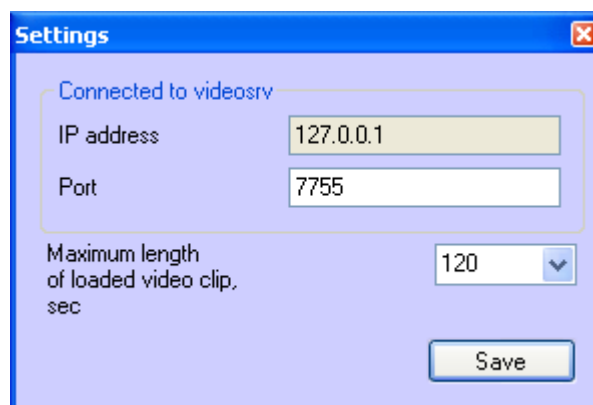


The 'Video query' dialog box has a blue title bar with a close button. It contains several fields and options:

- Date and time:** A dropdown menu showing '07.02.2014 15:54:12'.
- Camera:** A dropdown menu showing '1 [1]'.
- Length (sec):** A dropdown menu showing '10'.
- Bandwidth:** A dropdown menu showing 'Without limitations' and a unit 'KBps'.
- Start:** A section with two radio buttons: 'Immediately' (selected) and 'Schedule' (with a dropdown showing '08.02.2014 01:22:27').
- Data receive timeout, sec.:** A dropdown menu showing '600'.
- Open immediately:** A checked checkbox.
- Buttons:** 'New' and 'Cancel' buttons at the bottom right.

Fig. 4.5—1 Video request form

4. The **Date and time** and **Camera** fields are filled in automatically.
5. Use the **Duration (sec.)** field to limit video clips by time.
6. If you want to decrease network load, set the **Transfer Rate (KB/s)** field to the appropriate value.
7. in the **Start** area, select the time for sending the request: Click either the **Immediately** option button or **By schedule** option button.
8. Set the waiting time by using the **Data timeout (sec.)** field.
9. If the check box **Open immediately** is selected, the data is put into the video archive and shown immediately. Otherwise, the data is only sent to the archive. To view such data, use the **Monitoring reports** component.
10. If you try to set the value of the **Duration (sec.)** field to over 120, the value of 120 is offered. This is done to remind the user that such requests can export a big data file from a video archive on *Agent Of Control's* side. If you want to turn this limitation off, click **Settings** in the lower-left area of the **Archive Search** area. A window opens. In the window, change the value of the **Maximum duration for loaded video (sec)** field. (Fig. 4.5—2).



The 'Settings' dialog box has a blue title bar with a close button. It contains the following fields and options:

- Connected to videosrv:** A section header.
- IP address:** A text field containing '127.0.0.1'.
- Port:** A text field containing '7755'.
- Maximum length of loaded video clip, sec:** A dropdown menu showing '120'.
- Save:** A button at the bottom right.

Fig. 4.5—2 Configuring video clip duration

11. After you fill in all the fields, click **Create**.

12. You can check how the task is being performed in the **Downloads** tab. While the video clip is being downloaded, its file size, loaded size, and transfer rate are shown (Fig. 4.5—3). You can pause the download at any moment by clicking **Pause**.

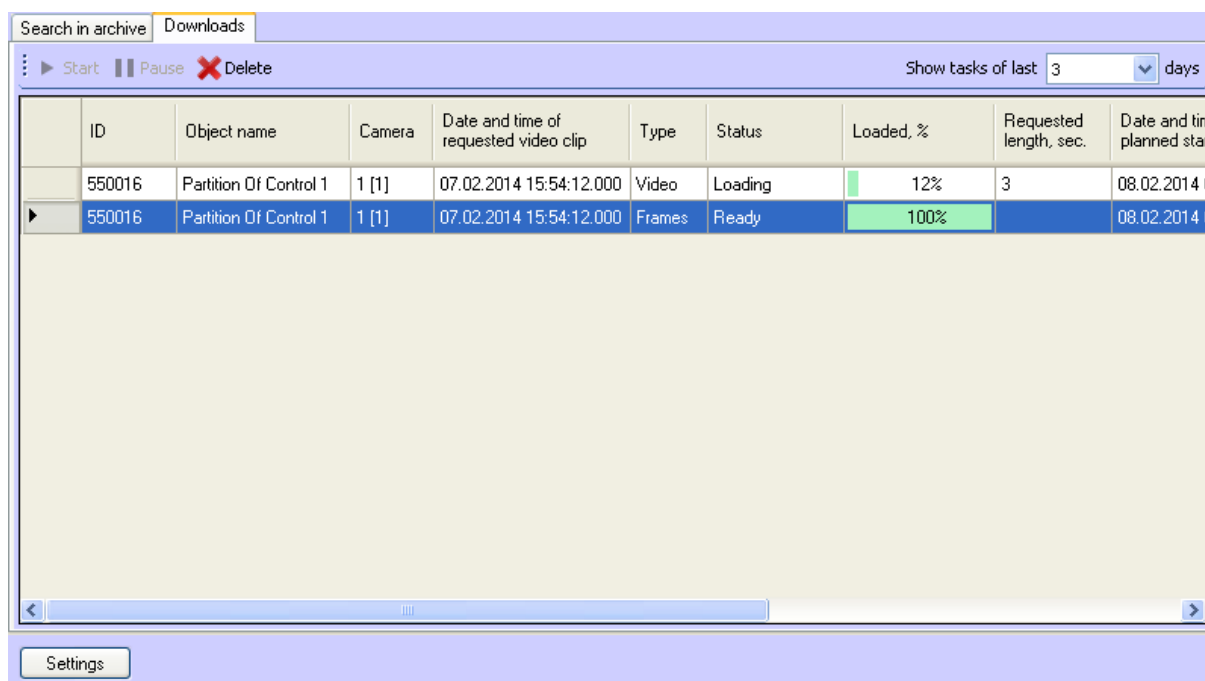


Fig. 4.5—3 Loading video clips in Downloads tab

*Note. In case data have stopped coming during the download, for example if connection with the object is lost, download will be restarted after a random time interval from 1 to 60 seconds. In case of the attempt failure, attempts will be made at intervals of 1 minute.*

*Information on the time remaining to the restart is displayed in the **Comment** field (Fig. 4.5—4). Any time you can restart loading manually using the Restart button.*

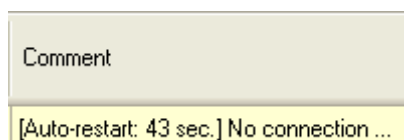


Fig. 4.5—4 Time remaining to the restart

13. If the data is loaded successfully and the **Open immediately** check box is selected, the downloaded clip is played with Axxon Player (Fig. 4.5—5).



Fig. 4.5—5 Playing downloaded video clip

The successfully completed task is marked in green. Double click such entry to see the corresponding frame or play the corresponding video clip.

The **Archive search** component supports the download resume function. If the connection to **Agent Of Control** breaks during a download, the task status changes to Network Error after two minutes' time-out. The **Comment** field shows the information that the data is no longer being transferred. Ten seconds later the system start periodic attempts to resume the download. It tries to do it every minute. After the connection to *Agent Of Control* is reestablished, the data is downloaded not from the beginning, but from the point where the connection was lost.

The download resume function uses temporary files. They are saved both on *Agent Of Control* and on *Server Of Control*. These files are stored for three days. After that, they are removed. For example, if you start a download, then click **Pause**, and resume the download five days later, the download starts from the beginning.

To change the storage period for the temporary files, go to the registry and create the value "StoreVideoFiles" in the HKLM\SOFTWARE\BITSoft\VHOST\VHostService branch and enter the required data in days. Then restart Videosrv.exe.

If you want to remove old tasks from the task list, go to **Downloads** tab and click **Remove** button. Tasks are stored in the database for max. 100 days. If you want to limit the number of tasks that are shown in the **Downloads** tab, use the **Show tasks for last N days** field in upper-right corner of the screen (Fig. 4.5—6).



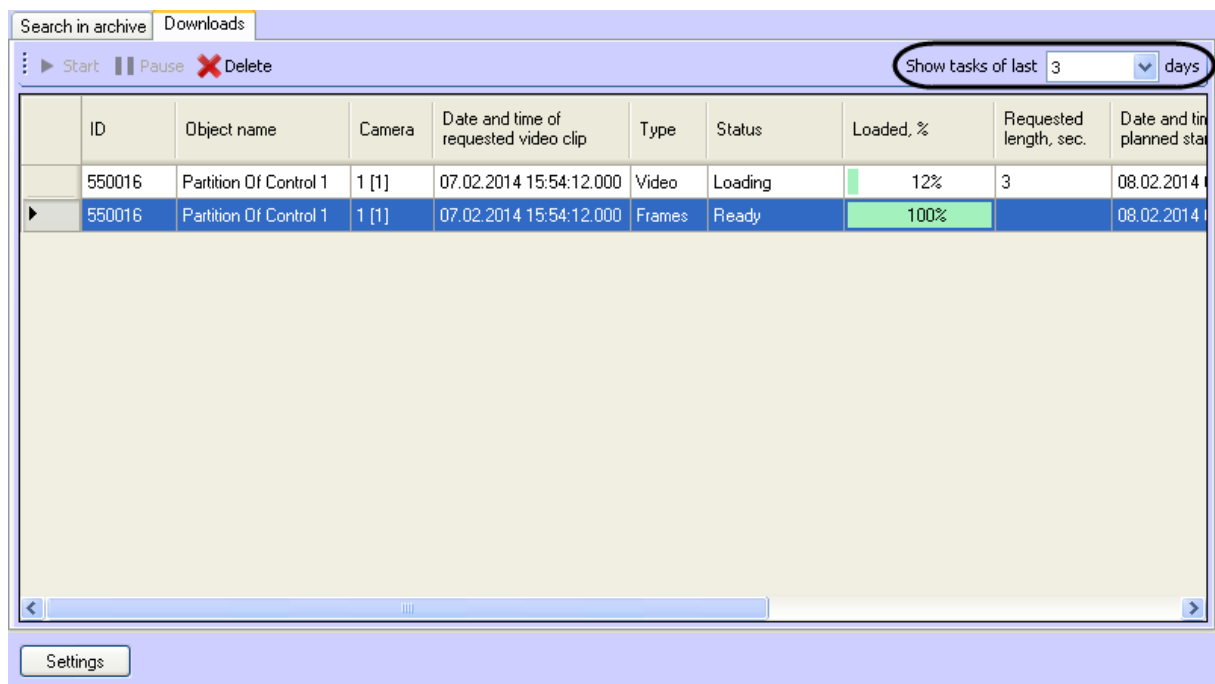


Fig. 4.5—6 Configuring the time of showing downloads

**Important:**

1. *If you request a clip that is longer than one minute, you have to increase the value of the Data timeout (sec.) parameter. You must do it, because some time is required for Agent Of Control to export large video clip.*
2. *If Intellect closes, all tasks with the Downloading status are paused. Start these tasks manually to resume.*

## 5 Monitoring Reports

### 5.1 Purpose of Monitoring Reports

Use the **Monitoring reports** component to automate the processing of statistical information on system performance. You can create reports of the following types:

1. Hardware failures report.
2. Alarms report.
3. Video report.
4. Statistical report.
5. Statistical report by owners.

General view of **Reports for Monitoring** window is shown in figure (Fig. 5.1—1).



Fig. 5.1—1 Reports for Monitoring window

*Note. Format of date and time present in reports depends on system regional and language options*

## 5.2 Hardware failures reports

To start creating a report, click **System failures** (Fig. 5.2—1).



Fig. 5.2—1 System failures button

A modal window opens. In this window, you can set the parameters needed to create the report (Fig. 5.2—2).

Object description	all objects
Failure type	all failures
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	12:27:28 AM
Sorting	event

Fig. 5.2—2 Configuring a system failures report

You can set the following report parameters:

1. The time range of the report. Use the **Start date**, **Start time**, **Stop date**, and **Stop time** fields.
2. **Object description** (Fig. 5.2—3). You can use this field to choose between two report modes:

- 2.1. Report on all the system objects.
- 2.2. Report on one system object.

The 'System failures' dialog box has a blue title bar with a close button. It contains a table with the following parameters and values:

Object description	all objects
Failure type	all objects
Beginning date	Partition Of Control 1
Beginning time	Partition Of Control 2
End date	12:00:00 AM
End time	2/8/2014
End time	12:27:28 AM
Sorting	event

At the bottom, there are 'OK' and 'Cancel' buttons.

Fig. 5.2—3 Object description parameter

- 3. **Failure type** (Fig. 5.2—4). You can use this field to specify the failure type for which to create the report. You can also create a report on all the failures within a certain time period.

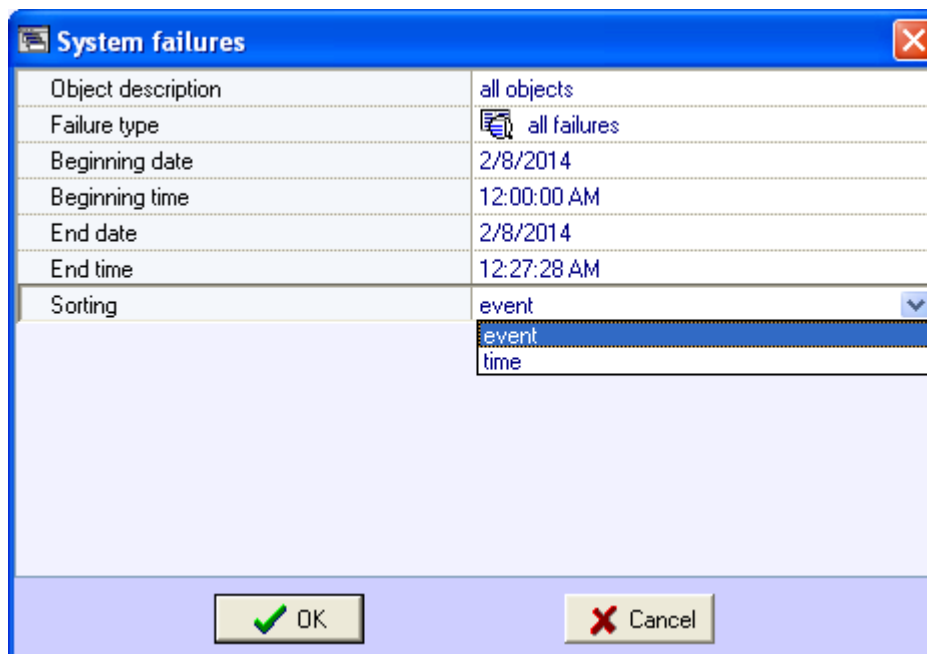
The 'System failures' dialog box has a blue title bar with a close button. It contains a table with the following parameters and values:

Object description	all objects
Failure type	all failures
Beginning date	all failures
Beginning time	cameras
End date	archive
End time	no connection (all reasons)
End time	no connection with object
End time	no connection with monitoring object
Sorting	videosystem software
	temperature sensor set
	HDD failure

At the bottom, there are 'OK' and 'Cancel' buttons.

Fig. 5.2—4 Failure type parameter

- 4. Sorting (Fig. 5.2—5). You can use two sorting modes when creating a report:
  - 4.1. Sort by events (**Cameras**, **Archive**, etc.).
  - 4.2. Sort by event start time.



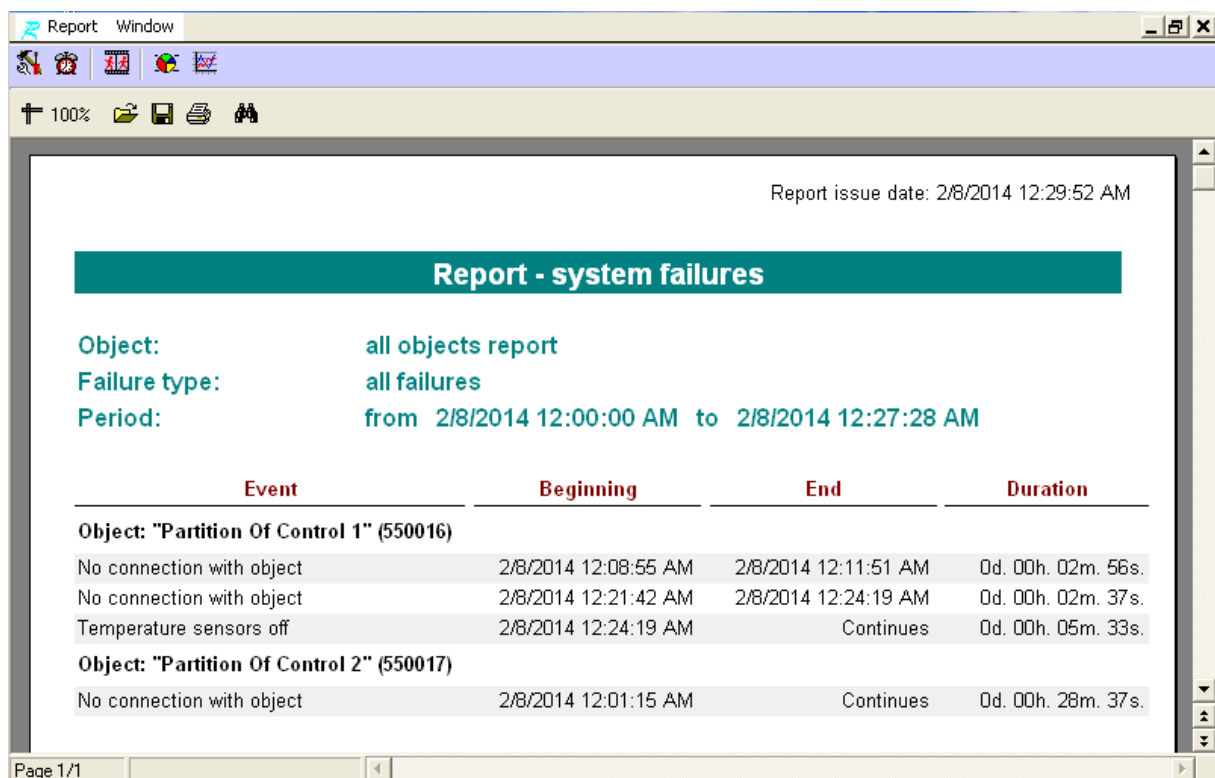
**System failures**

Object description	all objects
Failure type	all failures
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	12:27:28 AM
Sorting	event
	event
	time

OK Cancel

Fig. 5.2—5 Sorting parameter

After you configure all the parameters, click **OK**. You can see the report in a separate window (Fig. 5.2—6).



Report issue date: 2/8/2014 12:29:52 AM

### Report - system failures

**Object:** all objects report  
**Failure type:** all failures  
**Period:** from 2/8/2014 12:00:00 AM to 2/8/2014 12:27:28 AM

Event	Beginning	End	Duration
<b>Object: "Partition Of Control 1" (550016)</b>			
No connection with object	2/8/2014 12:08:55 AM	2/8/2014 12:11:51 AM	0d. 00h. 02m. 56s.
No connection with object	2/8/2014 12:21:42 AM	2/8/2014 12:24:19 AM	0d. 00h. 02m. 37s.
Temperature sensors off	2/8/2014 12:24:19 AM	Continues	0d. 00h. 05m. 33s.
<b>Object: "Partition Of Control 2" (550017)</b>			
No connection with object	2/8/2014 12:01:15 AM	Continues	0d. 00h. 28m. 37s.

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Fig. 5.2—6 A system failure report

The same report for one object looks as shown in Fig. 5.2—7.

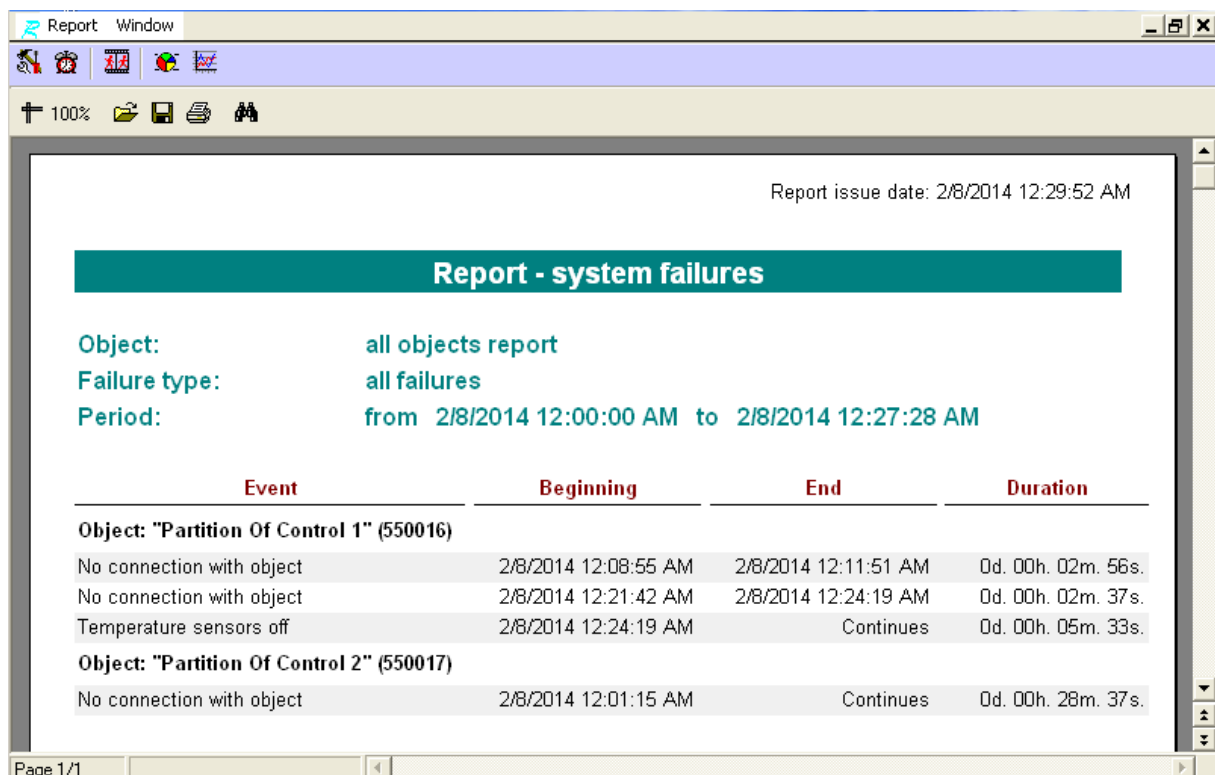


Fig. 5.2—7 Failure report for one object

Each report window contains a tool bar (Fig. 5.2—8).

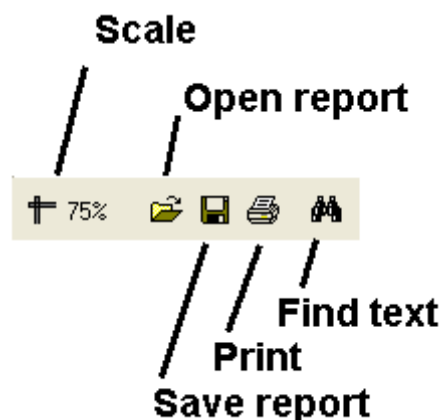


Fig. 5.2—8 Report tool bar

Here are some details on the **Save report** and **Open report** buttons. For example, if there is no printer at the place where the **Monitoring Reports** component is installed or if you want to save your report in electronic form to view it later, you can save the report as a FRP, XLS, XML, RTF, or HTML file. Then you can open the report on another computer.

### 5.3 Alarms reports

To start creating a report, click **Alarms** (Fig. 5.3—1).



Fig. 5.3—1 Alarms button

A modal window opens. In this window, you can set the parameters needed to create the report (Fig. 5.3—2).

A modal window titled "Alarms" with a blue header bar and a red close button. It contains a table with configuration parameters and two buttons at the bottom: "OK" with a green checkmark and "Cancel" with a red X.


Object description	all objects
Alarm	 all events
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	12:32:34 AM
Sorting	event

Fig. 5.3—2 Configuring an alarms report

You can set the following report parameters:

1. The time range of the report. Use the **Start date**, **Start time**, **Stop date**, and **Stop time** fields.
2. **Object description** (Fig. 5.3—3). You can use this field to choose between two report modes:
  - 2.1. Report on all the system objects.
  - 2.2. Report on one system object.

Object description	all objects
Alarm	all objects
Beginning date	Partition Of Control 1
Beginning time	Partition Of Control 2
End date	12:00:00 AM
End time	2/8/2014
Sorting	12:32:34 AM
	event

OK Cancel

Fig. 5.3—3 Object description parameter

3. **Alarm event** (Fig. 5.3—4). You can use this field to specify a certain alarm for creating the report. You can also create a report on all the alarms within a certain time period.

Object description	all objects
Alarm	all events
Beginning date	all events
Beginning time	vibration sensor signal
End date	lock sensor signal
End time	overheat sensor signal
Sorting	additional sensor signal
	temperature: warning
	temperature: alarm
	signal from UPS
	default PC restart
	non-default PC restart
	hardware
	ACS
	SFA
	detections

OK

Fig. 5.3—4 Alarm event parameter

4. **Sorting** (Fig. 5.3—5). You can use two sorting modes when creating a report:
  1. Sort by events (**Vibration sensor signal, Lock sensor signal, etc.**).
  2. Sort by event start time.

Object description	all objects
Alarm	all events
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	12:32:34 AM
Sorting	event
	event
	time

OK Cancel

Fig. 5.3—5 Sorting parameter

After you configure all the parameters, click **OK**. You can see the report in a separate window (Fig. 5.3—6).

Report issue date: 2/8/2014 12:35:37 AM

Report - alarms	
<b>Object:</b>	all objects report
<b>Alarm:</b>	all events
<b>Period:</b>	from 2/5/2014 12:00:00 AM to 2/8/2014 12:32:34 AM

Event	Time
<b>Object: "Partition Of Control 1" (550016)</b>	
Equipment (Alarm)	2/7/2014 11:25:59 PM
Equipment (Alarm)	2/7/2014 11:26:09 PM
Equipment (Alarm)	2/7/2014 11:26:19 PM
Equipment (Alarm)	2/7/2014 11:26:29 PM
Equipment (Alarm)	2/7/2014 11:26:32 PM
Equipment (Alarm)	2/7/2014 11:26:39 PM
Equipment (Alarm)	2/7/2014 11:26:49 PM

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Fig. 5.3—6 Alarms report

## 5.4 Video report

To start creating a report, click **Video report** (Fig. 5.4—1).





Fig. 5.4—1 Video report button

A window opens. In this window, you can set the parameters needed to create the report (Fig. 5.4—2).

Object description	all objects
Report type	snapshots - alarms
Beginning date	2/5/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	11:59:59 PM

OK Cancel

Fig. 5.4—2 Configuring a video report

You can set the following report parameters:

1. The time range of the report. Use the **Start date**, **Start time**, **Stop date**, and **Stop time** fields.
2. **Object description** (Fig. 5.4—3). You can use this field to choose between two report modes:
  - 2.1. Report on all the system objects.
  - 2.2. Report on one system object.

The 'Video report' dialog box has a blue title bar with a close button. It contains a table with the following fields and values:

Object description	all objects
Report type	all objects
Beginning date	Partition Of Control 1
Beginning time	Partition Of Control 2
End date	12:00:00 AM
End time	2/8/2014
	11:59:59 PM

At the bottom, there are 'OK' and 'Cancel' buttons.

Fig. 5.4—3 Object description parameter

3. **Report type** (Fig. 5.4—4). You can use this field to select one of the four report types:
  - 3.1. **Video frames – Alarms.** These are video frames received after an alarm sensor goes off at the object (**Vibration sensor signal, Lock sensor signal, etc.**).
  - 3.2. **Video frames – Others.** These are video frames received during an arbitrary request to the video archive.
  - 3.3. **Video clips – Alarms.** These are video clips received after an alarm sensor goes off at the object.
  - 3.4. **Video clips – Others.** These are video clips received during an arbitrary request to the video archive.

The 'Video report' dialog box has a blue title bar with a close button. It contains a table with the following fields and values:

Object description	all objects
Report type	snapshots - alarms
Beginning date	snapshots - alarms
Beginning time	snapshots - other
End date	video frames - alarms
End time	video frames - other

At the bottom, there are 'OK' and 'Cancel' buttons.

Fig. 5.4—4 Report type parameter

- If you select **Video frames – Others**, you can edit the **Camera ID** parameter (Fig. 5.4—5). Use this parameter to specify the ID of a camera from which you want to get video frames.

Fig. 5.4—5 Camera ID

After you configure all the parameters, click **OK**. You can see the results of the search by the specified criteria in the separate window (Fig. 5.4—6).

Number	Object	Camera No.	Date	Time
1	Partition Of Control 1 (550016)	1 (2)	2/12/2014	10:22:28.000 AM

Preview:

Snapshot type: "OTHER"  
 Snapshot name: "550016\_2\_120214\_102228"  
 Snapshot size: 2471 bytes

Records processed: 2

Fig. 5.4—6 Video frames search results

After you select a frame, click **Report**. The report window opens (Fig. 5.4—7).

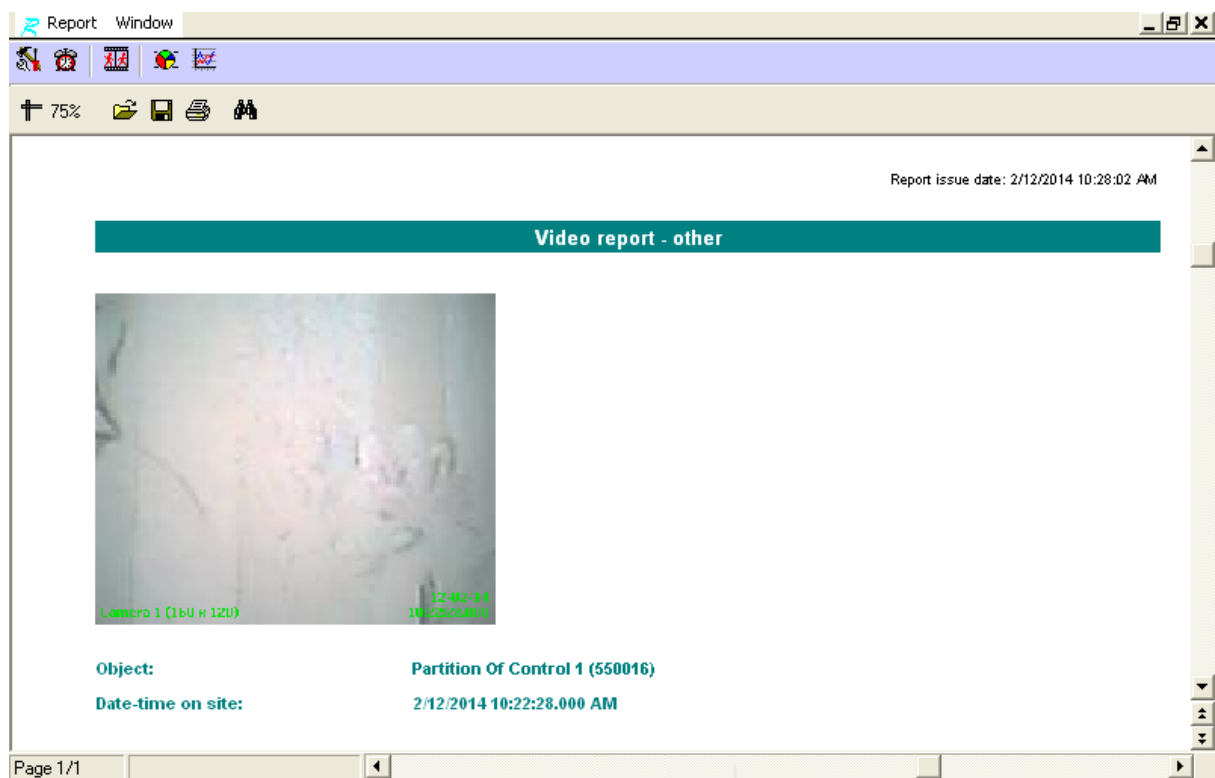


Fig. 5.4—7 A video report

After you search for video clips, you can select any entry and play a clip by clicking **View** (Fig. 5.4—8). The video clip is played with Axxon Player.

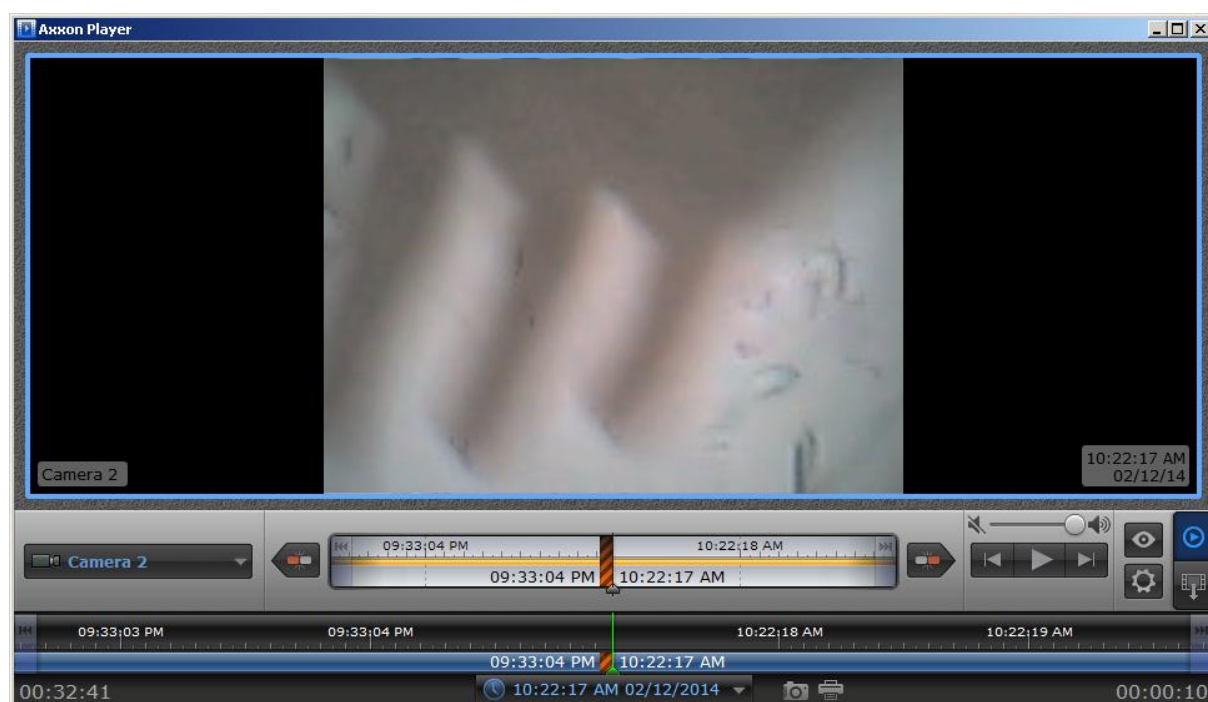
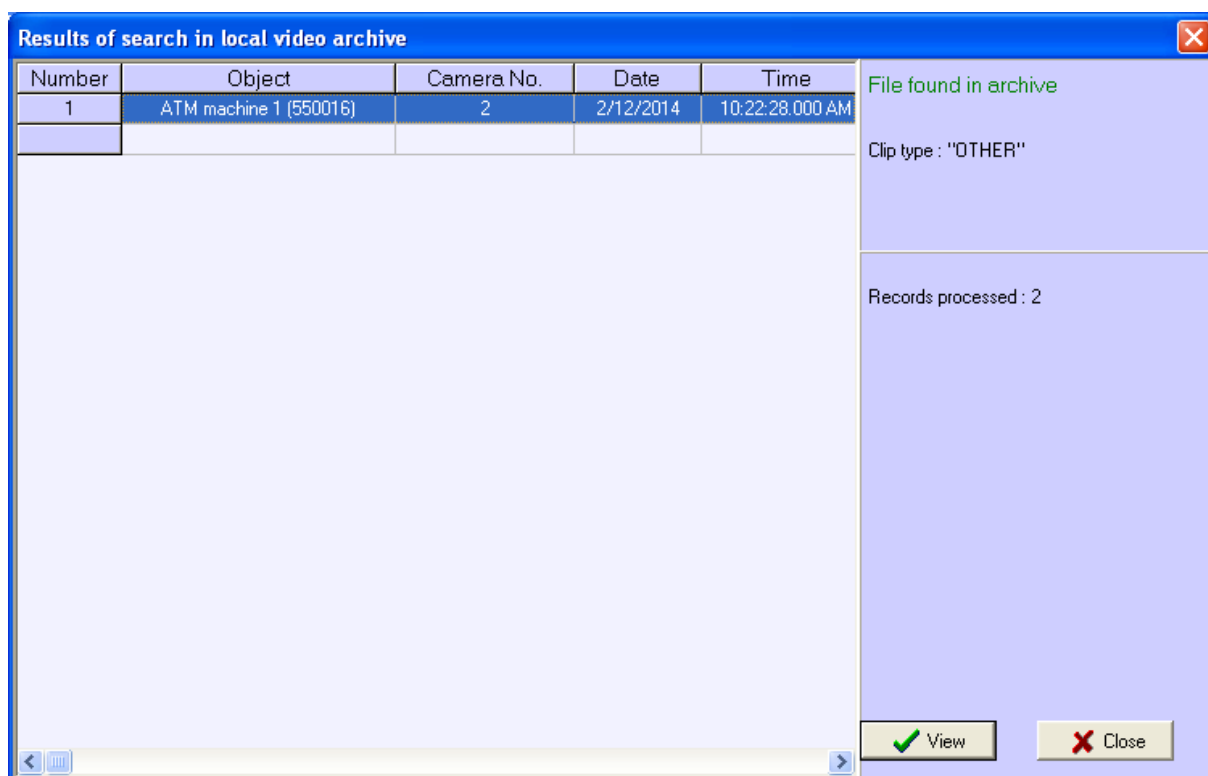


Fig. 5.4—8 Playing a video clip

Note: Video frames and video clips are searched for among the files previously downloaded with the **Archive search** component. This search is performed by archive time, but not by download time.

## 5.5 Statistical reports

To start creating a report, click **Statistics** (Fig. 5.5—1).



Fig. 5.5—1 Statistics button

A window opens. In this window, you can set the parameters needed to create the report (Fig. 5.5—2).

Statistics	
Object description	all objects
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	01:05:39 AM
Include number of cameras on site	<input checked="" type="checkbox"/>
Include archive errors	<input type="checkbox"/>
Show alarms	<input type="checkbox"/>
Detailed report	<input type="checkbox"/>

OK Cancel

Fig. 5.5—2 Configuring a statistical report

You can set the following report parameters:

1. The time range of the report. Use the **Start date**, **Start time**, **Stop date**, and **Stop time** fields.
2. **Object description** (Fig. 5.5—3). You can use this field to choose between two report modes:
  - 2.1. Report on all the system objects.
  - 2.2. Report on one system object.

The image shows a 'Statistics' dialog box with a blue title bar and a close button (X) in the top right corner. The dialog contains a table with the following fields and values:

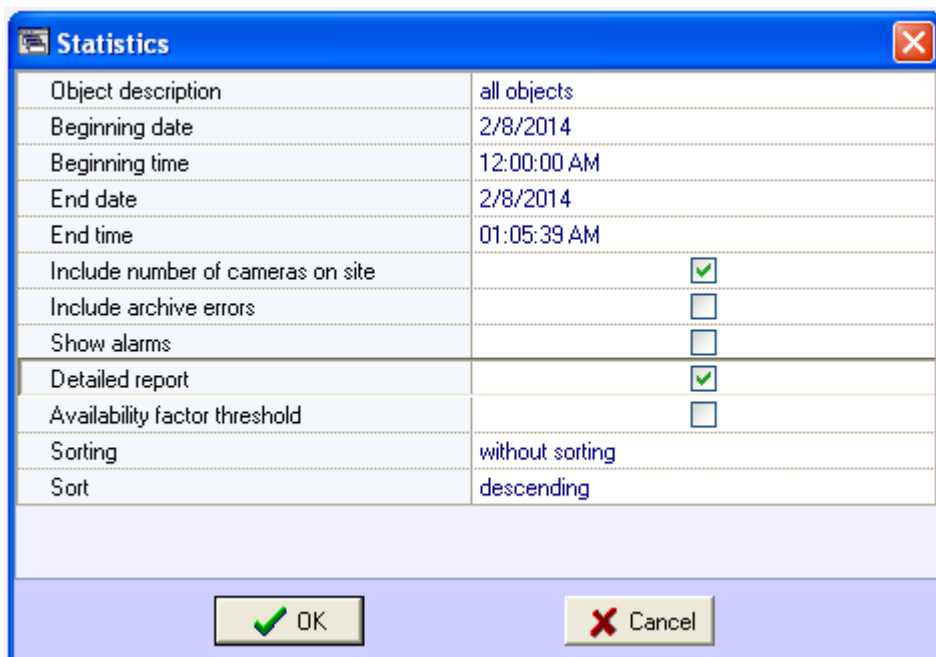
Object description	all objects
Beginning date	all objects
Beginning time	Partition Of Control 1
End date	Partition Of Control 2
End time	2/8/2014
Include number of cameras on site	<input checked="" type="checkbox"/>
Include archive errors	<input type="checkbox"/>
Show alarms	<input type="checkbox"/>
Detailed report	<input type="checkbox"/>

At the bottom of the dialog, there are two buttons: 'OK' with a green checkmark icon and 'Cancel' with a red X icon.

Fig. 5.5—3 Object description parameter

3. **Take into account the number of cameras** If you select this check box, the non-readiness rates for the cameras and archives are calculated taking into account all the cameras of the object.
4. **Take into account archive errors** If you select this check box, the non-readiness rates for the the whole system are calculated taking into account the non-readiness rates for the archives.
5. **Show alarms.** If you select this check box, alarm information from the object(s) is added to the report.
6. If you set the **Object description** parameter to **All objects**, you can edit the **Detailed report** parameter. If you do NOT select this check box, a generalized statistical report on the system is created.

If you select the **Detailed report** check box (Fig. 5.5—4), then **Sorting**, **Sort**, and **Readiness rate threshold** parameters become available. In this case, a detailed statistical report on the system is created.

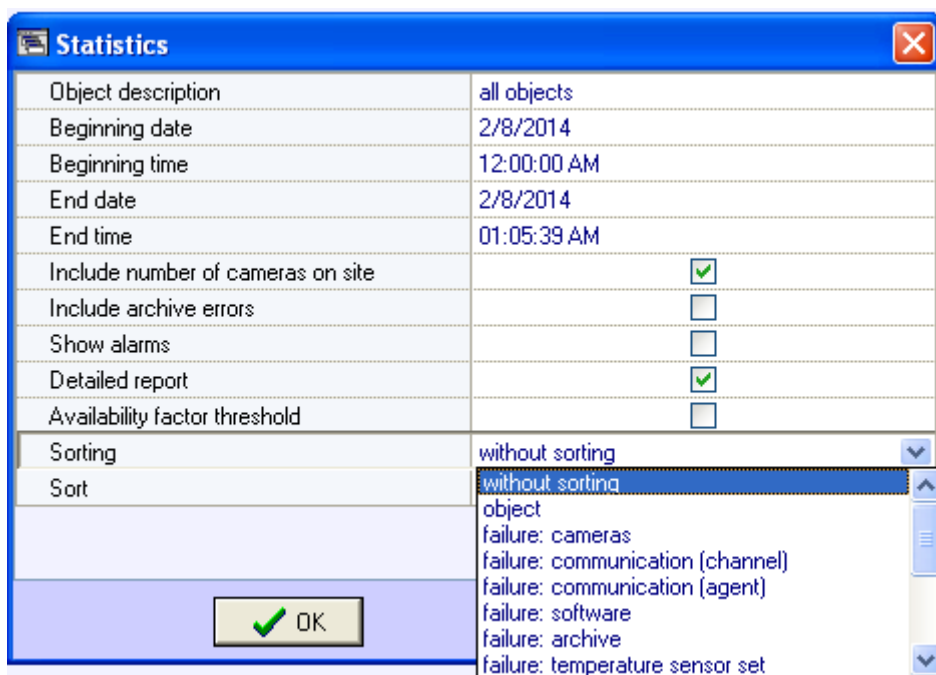


Statistics	
Object description	all objects
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	01:05:39 AM
Include number of cameras on site	<input checked="" type="checkbox"/>
Include archive errors	<input type="checkbox"/>
Show alarms	<input type="checkbox"/>
Detailed report	<input checked="" type="checkbox"/>
Availability factor threshold	<input type="checkbox"/>
Sorting	without sorting
Sort	descending

OK Cancel

Fig. 5.5—4 Detailed report check box is selected

7. **Sorting** (Fig. 5.5—5). This field allows you to sort statistical data by certain criteria.



Statistics	
Object description	all objects
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	01:05:39 AM
Include number of cameras on site	<input checked="" type="checkbox"/>
Include archive errors	<input type="checkbox"/>
Show alarms	<input type="checkbox"/>
Detailed report	<input checked="" type="checkbox"/>
Availability factor threshold	<input type="checkbox"/>
Sorting	without sorting
Sort	without sorting

OK

without sorting  
object  
failure: cameras  
failure: communication (channel)  
failure: communication (agent)  
failure: software  
failure: archive  
failure: temperature sensor set

Fig. 5.5—5 Sorting field

8. **Sort** (Fig. 5.5—6). Use this field to set the sort order (ascending or descending)



The 'Statistics' dialog box is shown with the 'Sort' field dropdown menu open. The dropdown menu lists 'ascending' and 'descending' options. The 'OK' button is highlighted with a green checkmark.

Object description	all objects
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	01:05:39 AM
Include number of cameras on site	<input checked="" type="checkbox"/>
Include archive errors	<input type="checkbox"/>
Show alarms	<input type="checkbox"/>
Detailed report	<input checked="" type="checkbox"/>
Availability factor threshold	<input type="checkbox"/>
Sorting	without sorting
Sort	descending

Fig. 5.5—6 Sort field

- If you select the **Readiness rate threshold** check box (Fig. 5.5—7), the **Threshold Value (%)** and **Condition** fields become available. Use this fields to sort objects by an additional condition, the threshold for the readiness rate.

The 'Statistics' dialog box is shown with the 'Readiness rate threshold' check box selected. The 'Threshold value, %' field is set to 90, and the 'Condition' field is set to 'lower than threshold'. The 'OK' button is highlighted with a green checkmark.

Object description	all objects
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	01:05:39 AM
Include number of cameras on site	<input checked="" type="checkbox"/>
Include archive errors	<input type="checkbox"/>
Show alarms	<input type="checkbox"/>
Detailed report	<input checked="" type="checkbox"/>
Availability factor threshold	<input checked="" type="checkbox"/>
Threshold value, %	90
Condition	lower than threshold
Sorting	without sorting
Sort	descending

Fig. 5.5—7 Readiness rate threshold check box is selected

- Threshold Value (%).** Use this field to set a threshold (between 0 and 100 %).
- Condition.** Use this field to set an object filtering condition: **Below threshold** or **Above threshold**.
- If you set the **Object description** field to a certain object, you can edit the **Alarm details** and **Failure details** parameters (Fig. 5.5—8). Select these check boxes if you want to include detailed information on failures and alarms in the report.

Statistics	
Object description	Partition Of Control 1
Beginning date	2/8/2014
Beginning time	12:00:00 AM
End date	2/8/2014
End time	01:05:39 AM
Include number of cameras on site	<input checked="" type="checkbox"/>
Include archive errors	<input type="checkbox"/>
Show alarms	<input type="checkbox"/>
Provide info about alarms	<input type="checkbox"/>
Provide info about failures	<input checked="" type="checkbox"/>

OK Cancel

Fig. 5.5—8 Alarm details and Failure details check boxes

After you configure all the parameters, click **OK**.

Fig. 5.5—9 shows a sample report on one object.

Report issue date: 2/8/2014 1:08:34 AM

### Object statistics

**Object:** Partition Of Control 1 (550016)  
**Period:** from 2/8/2014 12:00:00 AM to 2/8/2014 1:05:39 AM  
**Period length:** 0d. 01h. 05m. 39s. **Cameras:** 1  
**Exploitation length:** 0d. 01h. 05m. 39s.

**Number and duration of failures:**

Camera failures:	(0d. 00h. 00m. 00s.)	0
Connection lost (communication channel):	(0d. 00h. 05m. 33s.)	2
Connection lost (agent):	(0d. 00h. 00m. 00s.)	0
Videosystem software failure:	(0d. 00h. 00m. 00s.)	0
Insufficient archive size:	(0d. 00h. 00m. 00s.)	0
Temperature sensor set failure:	(0d. 00h. 41m. 20s.)	1

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Fig. 5.5—9 A statistical report on one object

Fig. 5.5—10 shows an example of different failures at an object. Then readiness and non-readiness rates are calculated.

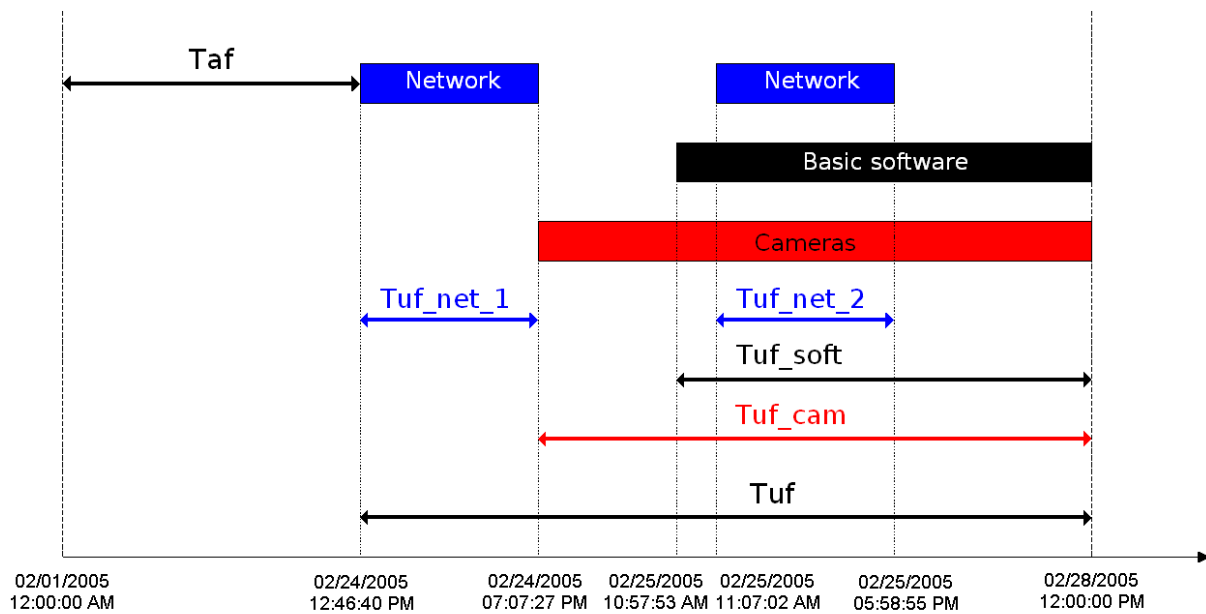


Fig. 5.5—10 An example of failures at an object

This example uses the time period from 12 a.m. on February 1, 2005, to 12 p.m. on February 28, 2005, to create a statistical report. The readiness rate of an object is calculated as a ratio between the duration of the time period when the object was functioning and the duration of the time period used for the report:

$$Rr = Taf / (Taf + Tuf)$$

The following types of failure are used for reports:

- Connection
- Core software
- Cameras

The non-readiness rates of the object in our example are calculated according to the below formulas.

Connection non-readiness:

$$Rn_c = (Tuf\_net\_1 + Tuf\_net\_2) / (Taf + Tuf)$$

Software non-readiness:

$$Rn_{sw} = Tuf\_soft / (Taf + Tuf)$$

Camera non-readiness:

$$Rn_{cam} = Tuf\_cam / (Taf + Tuf)$$

Note: Generally, in this model, the non-readiness rate  $Rn$  is not equal to the sum of all the non-readiness rates for all failures.

Fig. 5.5—11 shows a sample general report for the entire system. The readiness and non-readiness rates in the report are calculated as the arithmetic mean.

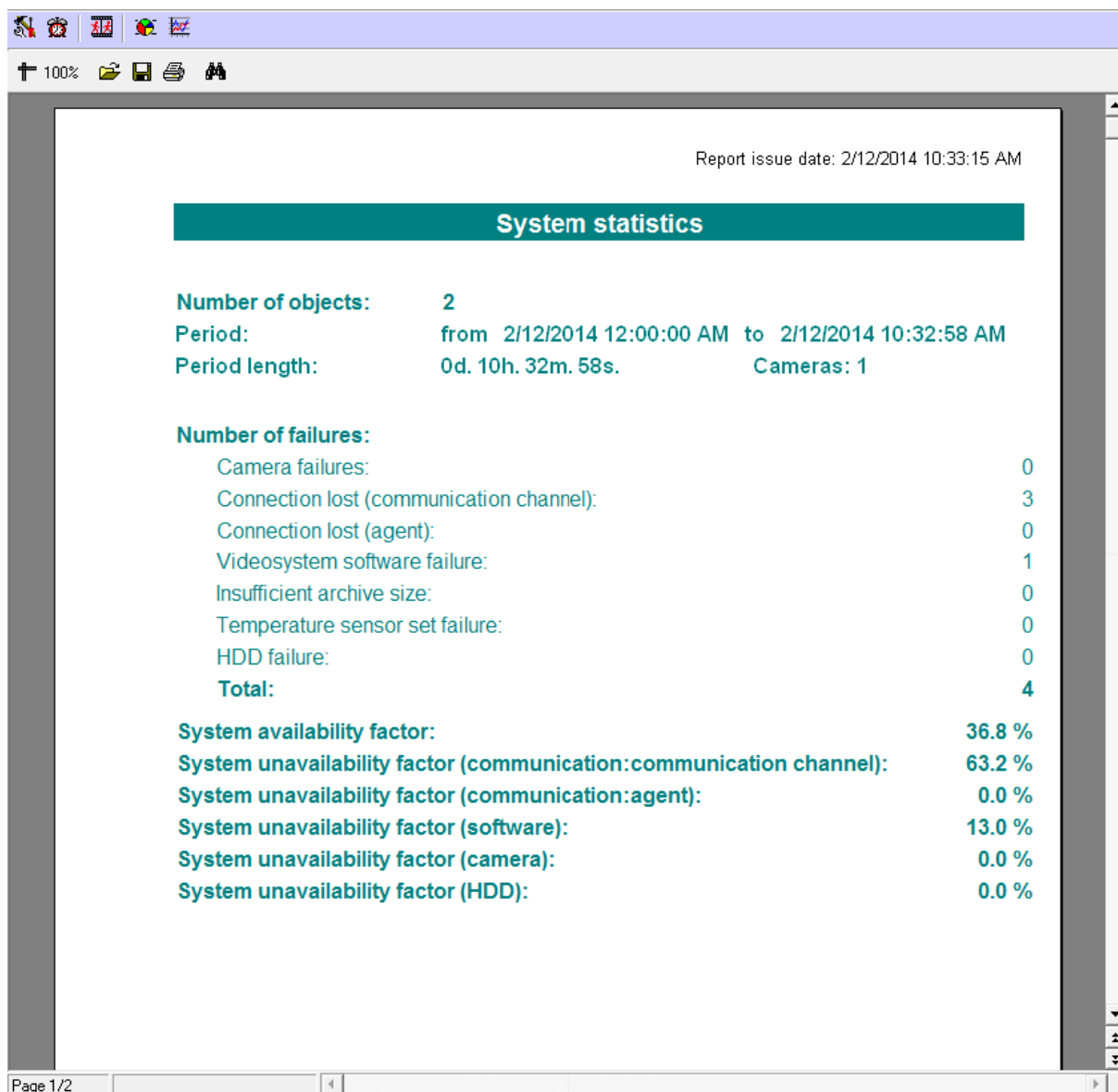


Fig. 5.5—11 A general statistical report for the entire system

When you create a detailed report for the entire system, in addition to the general information page (see Fig. 5.5—11), you get a table that contains detailed data for each object (Fig. 5.5—12).

Object	Number of failures							Kg, %	UF_com (chan.), %	UF_com (agent), %	UF_sw, %	UF_cam, %	UF_hdd, %	UF_arc, %
	Cameras	Com. (chan.)	Com. (agent)	Software	Archive	Temp. sens. set	HDD							
Partition Of Control 1	0	2	0	0	0	1	0	91.5	8.5	0	0	0	0	0

Fig. 5.5—12 Detailed data for an object

If you select the **Readiness rate threshold** check box when you create a detailed report for entire system, the first page looks as shown in Fig. 5.5—13.

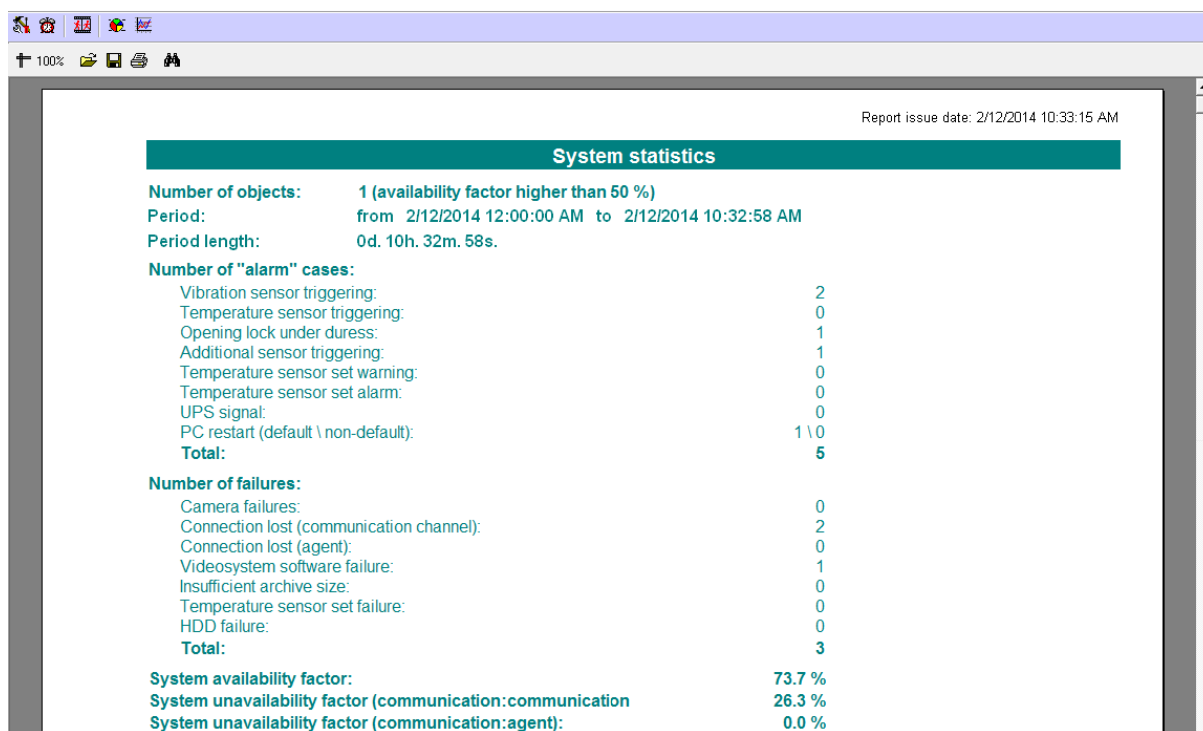


Fig. 5.5—13 A report created with the Readiness rate threshold check box selected

#### Important:

*If you create a statistical report on all the objects and a number of failures for the specified period exceeds 1000 for a particular object, then such object is excluded from the report. In this case, a list of such objects is shown.*

## 5.6 Statistical reports by owners

This type of report uses only objects for which the **Owner** field is filled in in the **Monitored objects** reference book (see the *Filling out* reference books section). To start creating a report, click **Statistics by owners** (Fig. 5.6—1).



Fig. 5.6—1 Statistics by owners button

A window opens. In this window, you can set the parameters needed to create the report (Fig. 5.6—2).

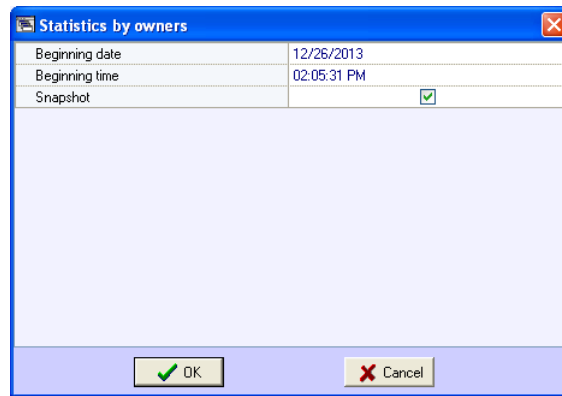


Fig. 5.6—2 Configuring a statistical report by owners

You can set the following report parameters:

1. The time range of the report. Use the **Start date** and **Start time** fields.
2. **Snapshot**. If you select this check box, the report is created for the specified date and time. Otherwise, the report is created for the entire day specified in the **Start date** field.

Fig. 5.6—3 shows a sample statistical report by owners.

Report issue date: 2/12/2014 3:08:26 PM

Statistics by owners (from 2/12/2014 3:08:23 PM to 2/12/2014 3:08:24 PM)									
No	Owner name	Total objects (total with errors)	General availability factor, %	Unavailability factor in % (number)					
				Cameras	Connection with object	Connection with monitoring agent	Software error	Archive	HDD error
1	The main office	1 (0)	100.0	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	The secondary office	1 (1)	0.0	0.0 (0)	100.0 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
TOTAL :		2 (1)	50.0	0.0 (0)	50.0 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Fig. 5.6—3 A sample statistical report by owners

## 6 Data Loader for Monitoring

### 6.1 Control Server

*Control Server* is a communication module that is responsible for receiving information from objects. The icon of the module (a red "tick" symbol) is shown in the toolbar, in the lower-right corner of the screen (Fig. 6.1—1).

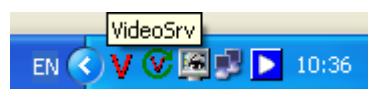


Fig. 6.1—1 *Control Server* module's icon

If you double click on the icon, the window shown in Fig. 6.1—2 opens.

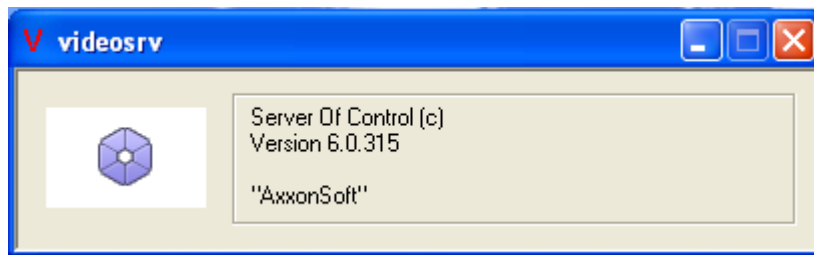


Fig. 6.1—2 Information about the installed software

*Control Server* starts automatically.

## 6.2 Data Loader for Monitoring

*Control Server* creates files that contain object status information and puts them in the exchange folder. The files are then loaded from the folder to the database by the *Data loader for Monitoring* module. The icon of the module (a "monitor" symbol) is shown in the toolbar, in the lower-right corner of the screen (Fig. 6.2—1).

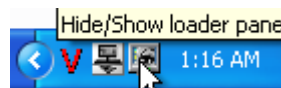


Fig. 6.2—1 Data loader for Monitoring module's icon

If you right-click on this icon, a context menu opens (Fig. 6.2—2).

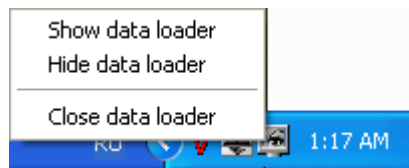


Fig. 6.2—2 Data loader for Monitoring's menu

If you select the **Show data loader** menu item, the **Data loader for Monitoring** window opens (Fig. 6.2—3).

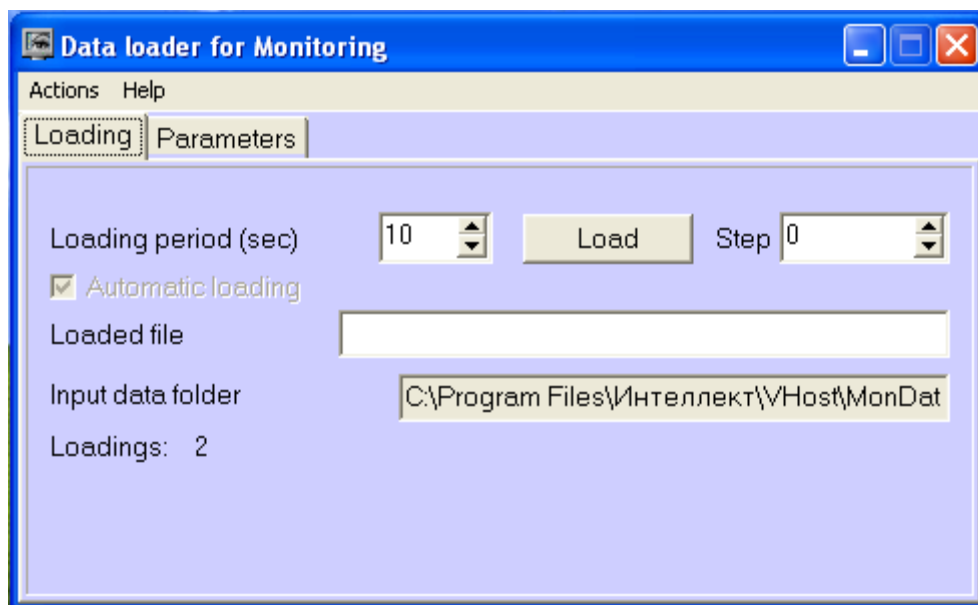


Fig. 6.2—3 Data loader for Monitoring window

This window contains the following parameters:

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

### 6.3 Connecting to the database

In the **Action** menu, select the **Database connection** item (Fig. 6.3—1). It allows you to configure the database connection line.



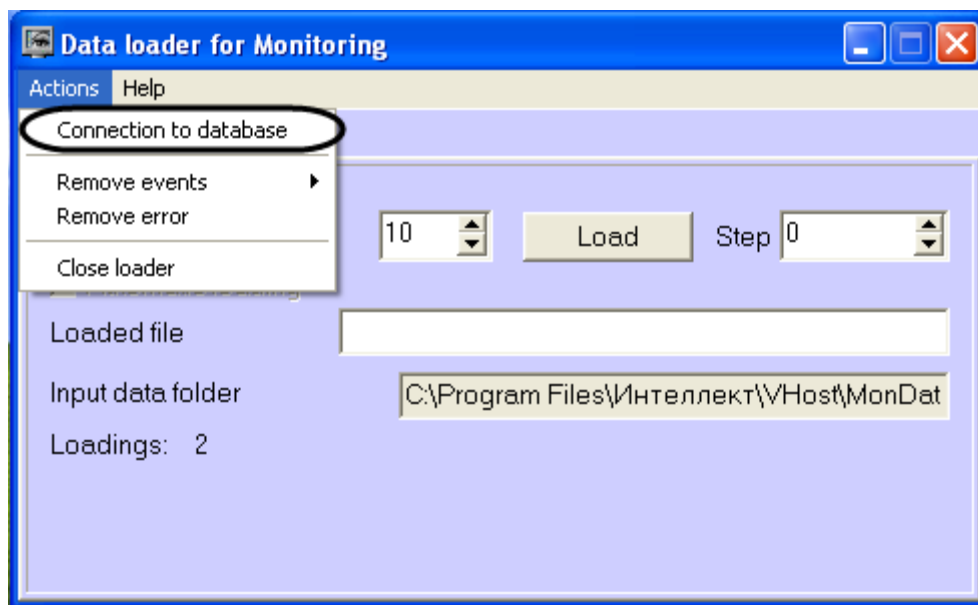


Fig. 6.3—1 Database connection menu item

## 6.4 Clearing errors

If there was a failure while loading data, you cannot close the program in a usual way, because the loading process cannot be interrupted. To close the program, use the **Clear error** menu item (Fig. 6.4—1).

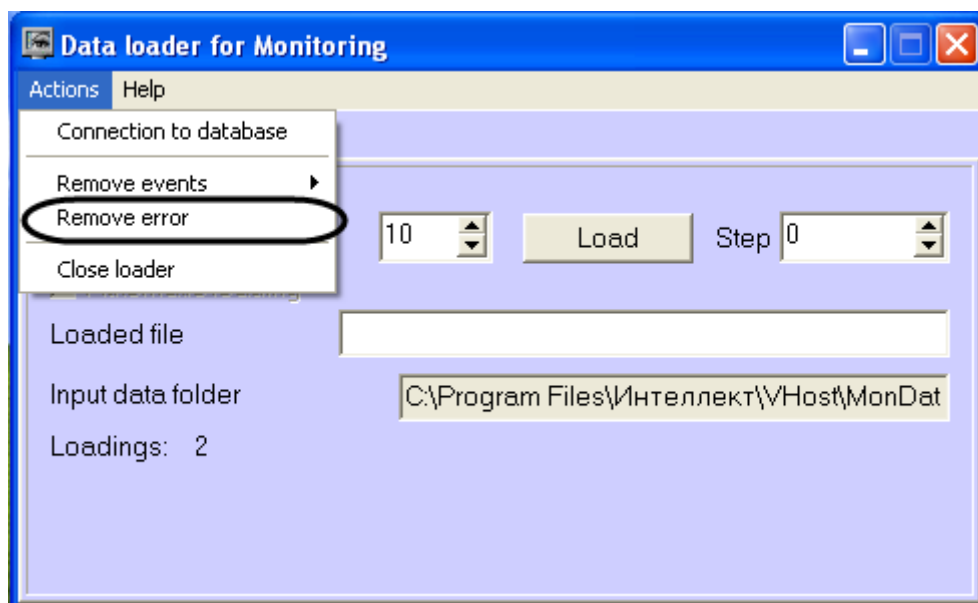


Fig. 6.4—1 Clear error menu item

## 6.5 Removing events from the database

The **Remove events** menu item allows you to clear database. You can use the following modes: (Fig. 6.5—1):

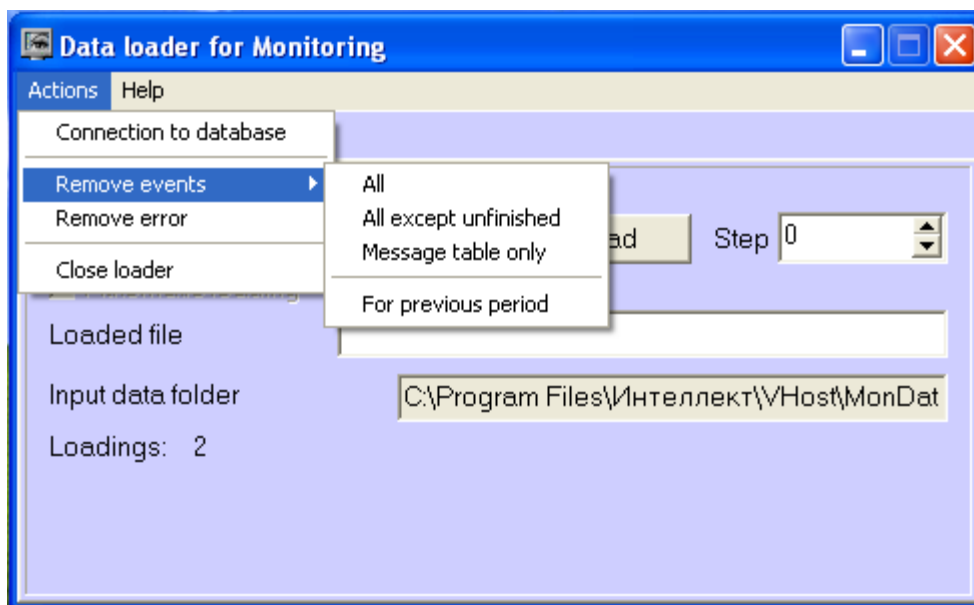


Fig. 6.5—1 Removing events

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

## 6.6 Setting the log storage period

If you want to specify how long the Data loader messages are kept in the log (event log), go to the **Data loader for Monitoring** window and then to the **Settings** tab (Fig. 6.6—1).

The data loader's event log is stored in the <Intellect software installation folder>VHost\MONITOR\LOADER\LoaderSSTV\_L\_M.log, where M is a month.

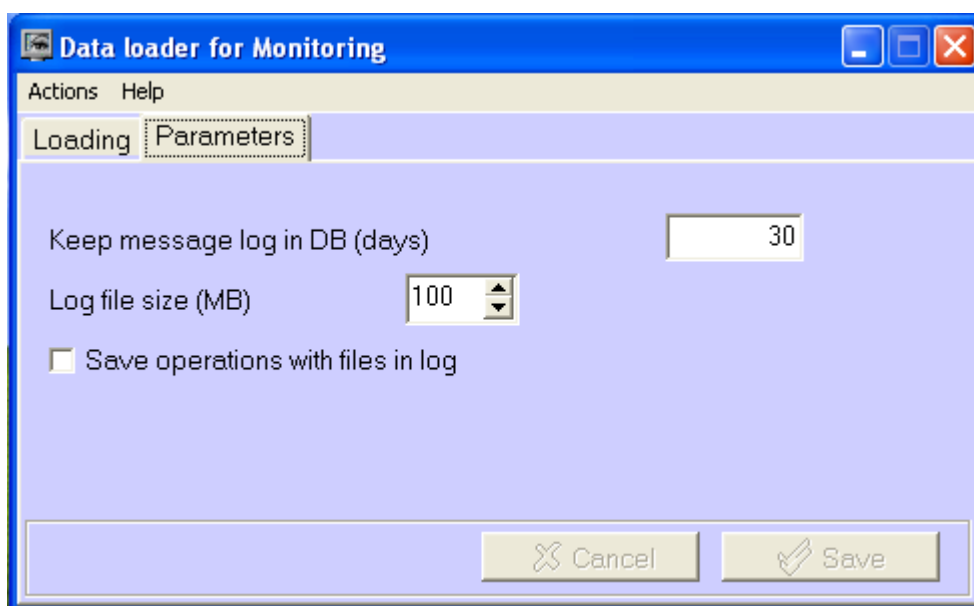


Fig. 6.6—1 Setting the log storage period

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

## 7 Controlling unregistered objects

If an object that is not registered in the Control Server settings (*Intellect*, the **Hardware** tab) connects to *Monitoring*, a dialog box opens and shows a warning for the operator. The message box informs about the unregistered object. (Fig. 6.6—1).

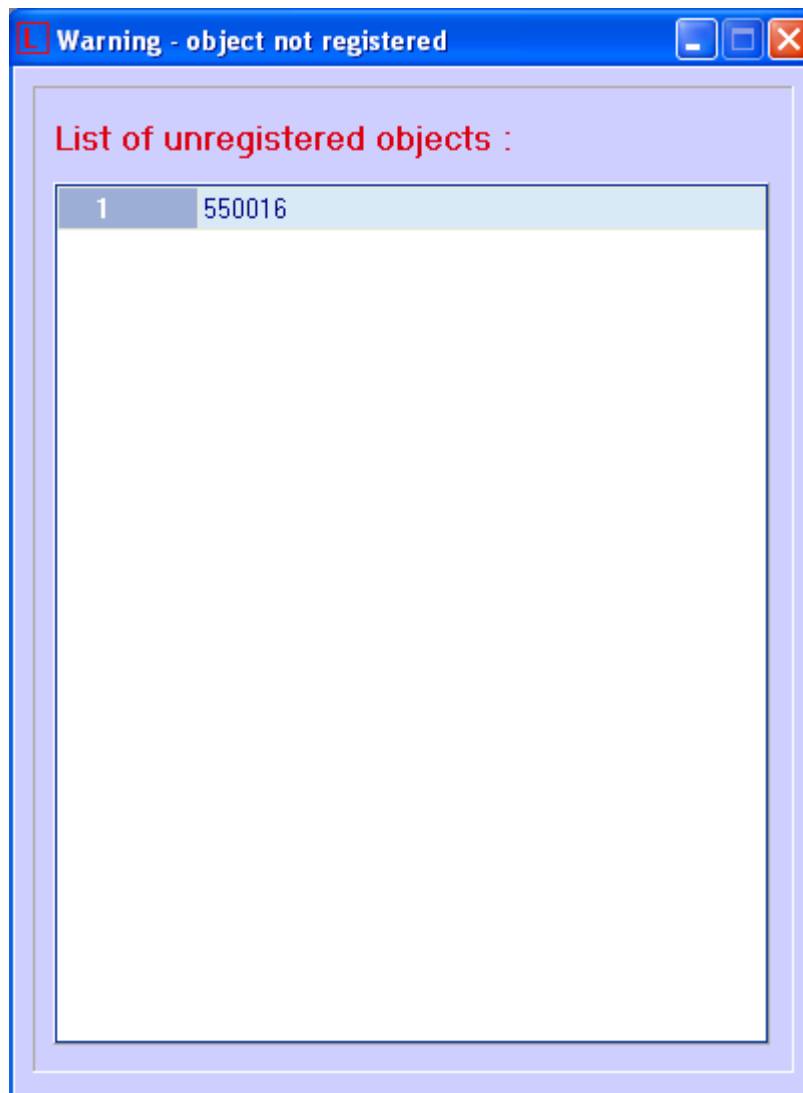



Fig. 6.6—1 Warning about an unregistered object

## 8 Appendix 1. Data update periods summary

Information on Control panel and Log panel is updated every time data is loaded **from** the database. The time of the last download from the database is shown in the CDT field. Data is loaded from the database every minute. To get the latest database information, click the  button (Refresh data). This forces the data to load.

The date of last load of data **to** the database (see section *Moving through the list of alarms*) is refreshed when changes in the database appear.

If there is no any change in the database in 5 minutes, the CDT field is forcibly updated and then is updated once a minute. At the same time there will be a gap from the current system time by 5 minutes. After coming of new information from any of the Agent of Control, the CDT become equal to the current system time of the computer.

Data are loaded to the database by the Data Loader for Monitoring with a period of 10 seconds by default (see section *Data Loader for Monitoring*).

Agent of Control sends to Server of Control packages with its technical condition with a period set while setting the Partition of Control object at the Agent of Control side using the **Ping frequency** parameter (see *Agent of Control. Installation and Configuration Guide*, section *Configuring communication between Agent of Control and Control Server*). The default ping frequency is 2 minutes (120 seconds).

Information about long-term alarms comes to the Server of Control from the Agent of Control with the ping frequency.

Information about short-term alarms comes to the Server of Control immediately after they have appeared at the Agent of Control.

The picture gives a general scheme of data transferring from the Agent of Control to the Server of Control (Fig. 6.6—1).

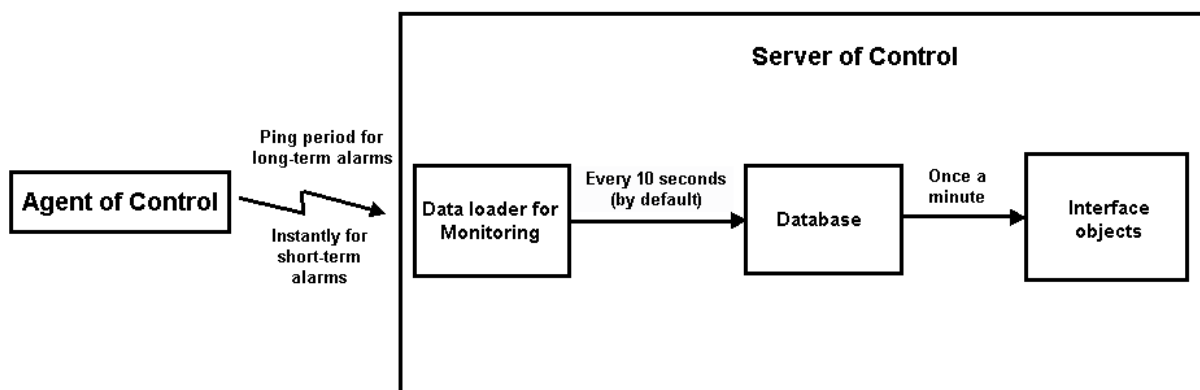


Fig. 6.6—1 Data transferring scheme

Information about long-term alarm can be not recorded into the Monitoring database and not displayed in its interfaces in the following cases:

1. If a long-term alarm had started and ended within two polls of Agent of Control (within the Ping frequency interval, see *Agent of Control. Installation and Configuration Guide*).
2. If a long-term alarm had started and ended when the connection between Agent of Control and Server of Control was lost.

When there is no connection with Server of Control, the short-term alarms are stored in the “holding” data files on the Agent of Control. When connection with Server of Control is restored, they are transferred to the Server of Control, stored in the Monitoring database and displayed in its interfaces.

Agent of Control technical condition data collection periods are given below:

1. Information on disk failures (the Disk failure alarm type) and its restoring is updated every 15 minutes.
2. Information on the computer normal and abnormal restarts is displayed in the interface in 5 minutes.
3. Information on free disk space is updated every 1 hour.
4. Information on losing connection with Agent of Control (the No connection with the object alarm type) is updated every 6 minutes.