

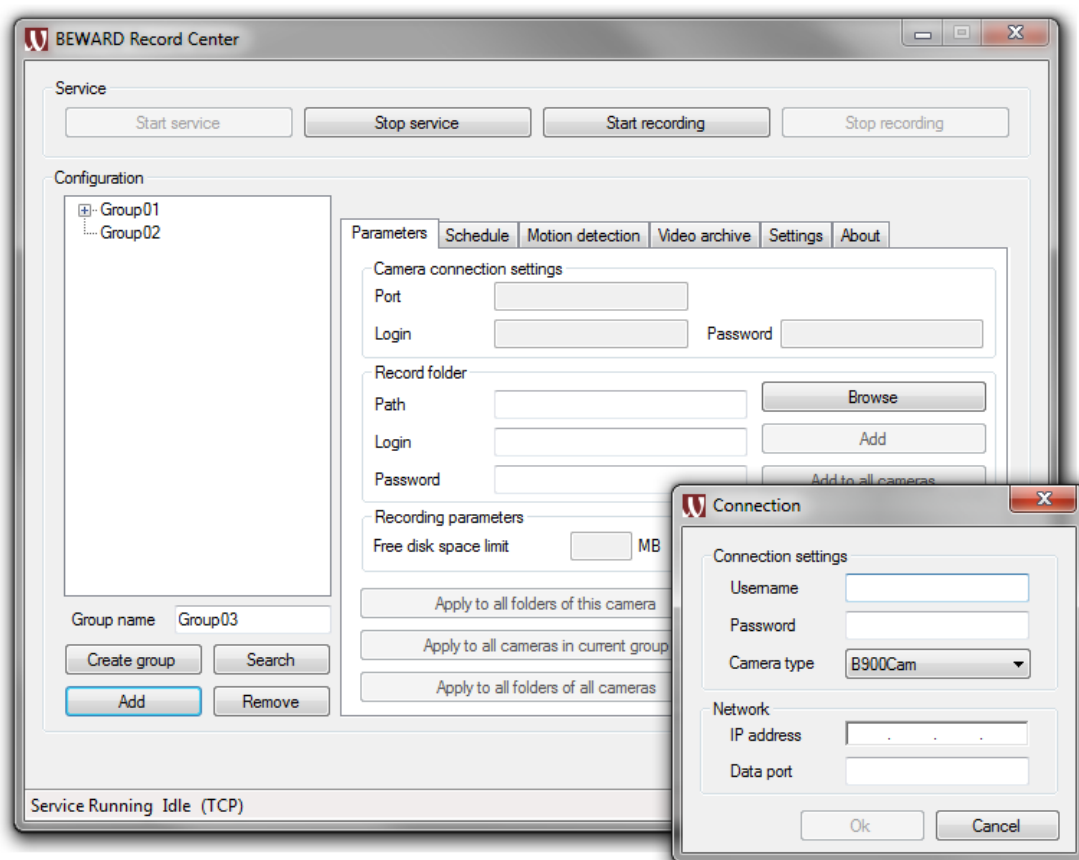
2011

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# BEWARD Record Center

## User manual

Ver. 1.13



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Please, read this user manual before using BEWARD IP Visor software.  
Some items of the manual and parts of control menu could be changed without preliminary notice.

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## Chapter 1. General information

### 1.1. BEWARD Record Center bundled software review

This manual contains information about BEWARD Record Center software installation and settings (hereafter: BRC or BEWARD Record Center) designed for building surveillance systems based on IP cameras and IP servers.

#### ATTENTION!

Before adjusting the software parameters please read this manual carefully. Incorrect installation and settings of the equipment may cause its malfunction.

IP cameras are surveillance cameras with a built-in web server and network interface. IP cameras support direct connection to the Ethernet. Video servers digitize analogue video and transmit it over IP networks making possible remote video view in real time over a local network or the Internet. Video server has a built-in motion detector; powerful monitoring functions are based on triggered or planned events.

Images can be recorded, stored and played with BEWARD Record Center which has all the functions of video surveillance systems.

BEWARD Record Center software is bundled software designed for recording and storing video information of centralized or remote surveillance systems. BEWARD Record Center Software and IP devices make possible to record video from up to 36 IP cameras and IP servers.

### 1.2. IP surveillance systems benefits

IP surveillance replaces analogue surveillance systems and DVR systems by IP cameras or IP servers. However, existent TCP/IP Ethernet networks are used for video surveillance purposes. It makes possible to unify a net infrastructure and avoid separate cable lines laying costs. IP systems have a variety of advantages in comparison with traditional analogue systems:

- **More effective network infrastructure using**

Surveillance systems that are based on IP technology do not require expensive coaxial cable laying as analogue systems do but use “twisted pair” cable or wireless communication systems for connection. Using the “twisted pair” means no separate wire connection that is necessary for a control signals transmission and energizing of a video camera. Moreover, where laying cables are expensive or not practicable, wireless Wi-Fi technologies could be used.

- **Openness and compatibility**

In distinction from traditional analogue systems which are “black boxes” and closed technical decisions, IP surveillance systems equipment is based on open standards that

makes possible to use equipment of different manufacturers in one surveillance system, for example switchboards, routers, servers and applicable software. All this considerably reduces surveillance systems' cost and increases their technical specification.

- **Network convergence using**

Many organizations generally use only Ethernet networks based on IP protocol for various data transmission that makes their control more effective and economically profitable.

- **Easy system integration**

IP surveillance technology is an open, easily integrated platform. Since the system integration becomes more and more important there must be an assurance that control access, conditioning, managing and other systems and programs could be easily and effectively integrated into a whole system.

- **Remote access ability**

It is possible to obtain an image from any camera or recorded video in real time from any place in the world with the help of wire or wireless net connection.

- **Expandability**

IP networks make possible to expand security surveillance system easily when it is the growth of demand for. If it is necessary to set an additional video camera it is possible just put it in a local network so it is ready to work. Besides it is possible not only just to add cameras but also to increase a volume of data's storage by spreading information through the entire network. IP networks support a multiply subscriber's access to the same information at the same time.

- **Intellectual processing of video in a camera**

Various built-in functions let IP camera to decide when to trigger alarm, send a video, even the frequency and quality a video should be sent with (it depends on a channel width). Thus, it helps to improve a video access and making decisions due to basing on IP surveillance systems.

- **Reliability**

An ability of data's transmission with IP protocol makes possible to use external data storage devices, realize a reservation, use server and archived construction. The time of defective equipment replacement is much less than when using analogue equipment within a standard and server equipment using. The software makes possible to observe the surveillance system state in real time and inform about different problems. Besides an arrangement of reserve power supply is much easier than the power supply of analogue systems.

- **Quality of image**

The modern IP systems use H.264 (MPEG-4 Part10) video compression format. It helps to use the network more effectively in comparison with Motion JPEG or MPEG-4 format. User obtains the most qualitative image by using limited channels capacity. Thus it helps to save hard drive space unlike previous generation codecs.

- **Noise resistance**

It is obviously that a system installation and checking process is quite long and requires a lot of efforts. Quite often noise appears in image at primary start due to other electric systems working so removing of the noise is hard and sometimes cannot be successful. The installation and checking process becomes faster because IP cameras are prone to noises less than other cameras.

### **1.3. System requirements:**

#### **Supported operating systems:**

Windows 2000, Windows XP, Windows Vista

#### **Minimal system requirements:**

**Processor:** Pentium 4 2.0 GHz

**RAM:** 512 Mb

**Audiocard:** necessary for microphone using (feedback).

**Videocard:** Nvidia Geforce FX5200 or ATI RADEON 7000 (9000) series.

#### **Software requirements:**

Microsoft.NET Framework 2.0 or later

DirectX 9.0 the august of the 2008 or later

Codec for MPEG-4 playback: k-lite 470f or later is recommended

## **Chapter 2. The BEWARD Record Center software introducing**

BEWARD Record Center is professional software for IP cameras and IP servers and it supports all the essential functions:

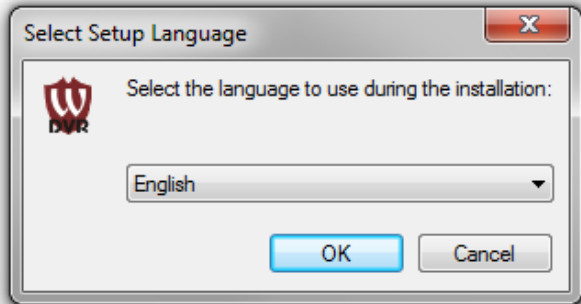
- 1. Automatic recording by Windows tools regardless of users status.**
- 2. Record to local network hard drives.**
- 3. Record in suitable formats:**
  - \*.avi from cameras of N and BD series;
  - \*.mp6 from cameras of series.
- 4. Free computer disk space control by the program and automatic record renewal in archive mode when space is not enough.**
- 5. Different record modes:**
  - Twenty-four-hour record;
  - Detection record;
  - Sensor alarm record;
  - Schedule record defined by user.
- 6. Nonstop record: video file size is limited by adjusted parameters. When a file size is exhausted the program starts to record a new file.**
- 7. Archive record view with built-in player.**



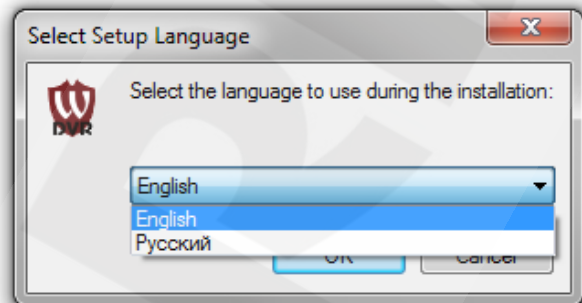
## Chapter 3. BEWARD Record Center S/W installation

**Step 1:** insert the installation CD to CD-Rom drive (device for CD reading).

**Step 2:** open the CD with Explorer and run the installation program. Run the installation file for this. Select the setup language from the language list. (Pic. 3.1, 3.2). Click **[Ok]**.



ic. 3.1



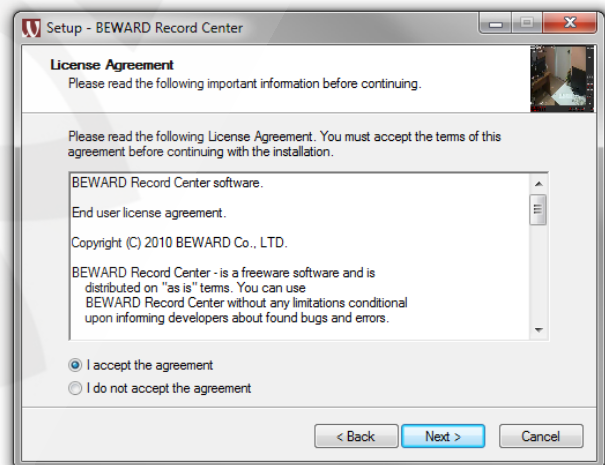
ic. 3.2

**Step 3:** in the Setup Wizard window click **[Next]** to continue the installation process (Pic. 3.3).

**Step 4:** read the License agreement (Pic. 3.4) carefully, select “I accept the agreement”. Click **[Next]** to continue.



i . 3.3



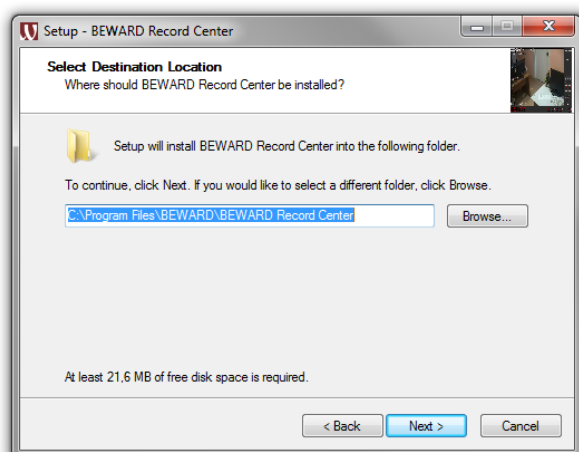
i . 3.4

During the installation process the program will offer to install necessary components.

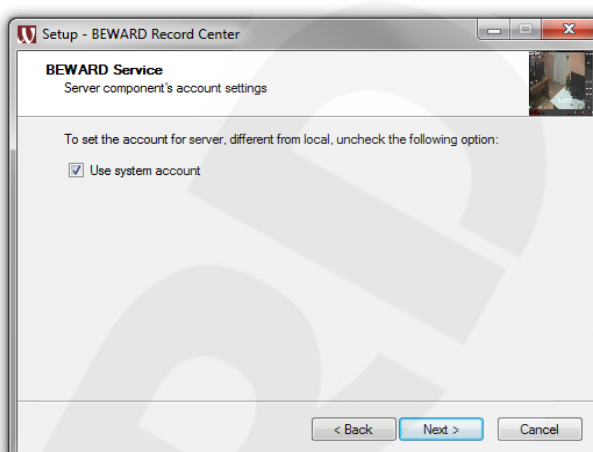
**Step 5:** select a folder for the S/W files installation (take into account the disk space). Click **[Browse...]** in the window (Pic. 3.5). Click **[Next]**.

**Step 6:** there is a system account by default in BRC server settings. If it is necessary to choose another account, deselect the check box “Use the system account” (Pic. 3.6). Click **[Next]**.





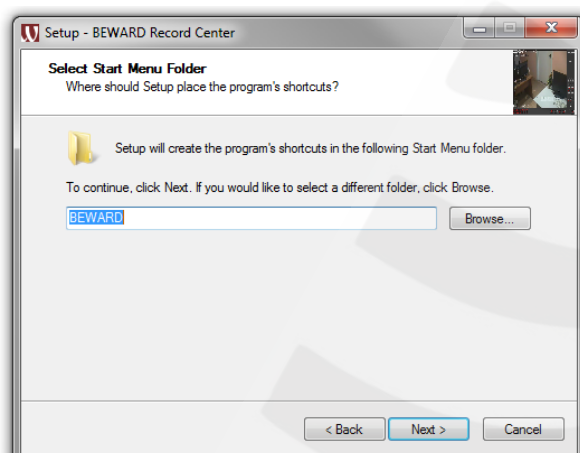
i . 3.5



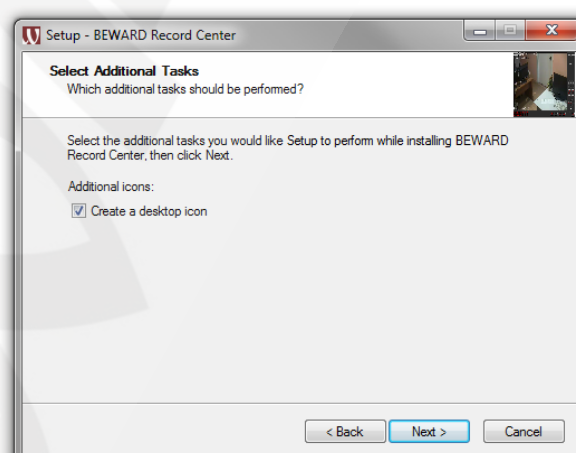
i . 3.6

**Step 7:** choose BRC shortcut location, the default location the Start menu folder. Click **[Browse...]** to choose another folder (*Pic. 3.7*) and point the shortcut location. Click **[Next]**.

**Step 8:** select advanced options to install. Check “Create a desktop icon” to provide fast access to the program launch from the desktop (*Pic. 3.8*). Click **[Next]**.



i . 3.7



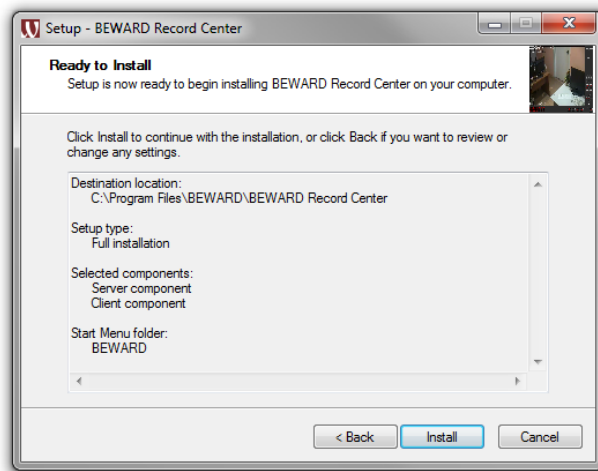
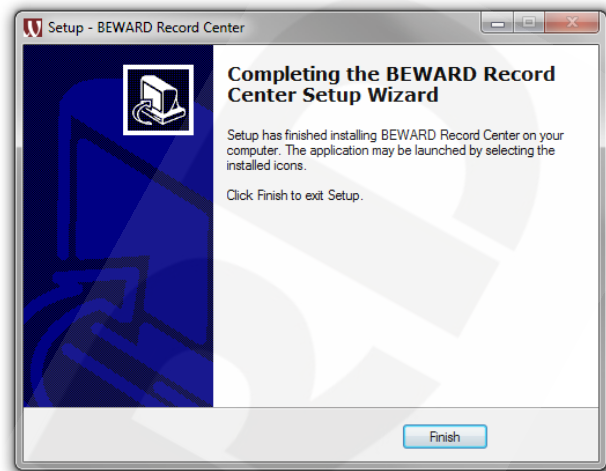
i . 3.8

**Step 9:** when component settings are finish click **[Install]** (*Pic. 3.9*). If it is necessary to view or change previous settings click **[Back]**.

#### ATTENTION!

The Service Pack 3 for MS SQL 2005 Express Edition installation is required to provide BEWARD Record Center correct installation and running in Windows 7. More detailed information you can find on: <http://www.microsoft.com/downloads/details.aspx?FamilyID=3181842a-4090-4431-acdd-9a1c832e65a6&DisplayLang=ru>.

**Step 10:** when BRC and its components installation is finished click **[Finish]** to exit the installation program (*Pic. 3.10*). You can launch the program from the shortcut.

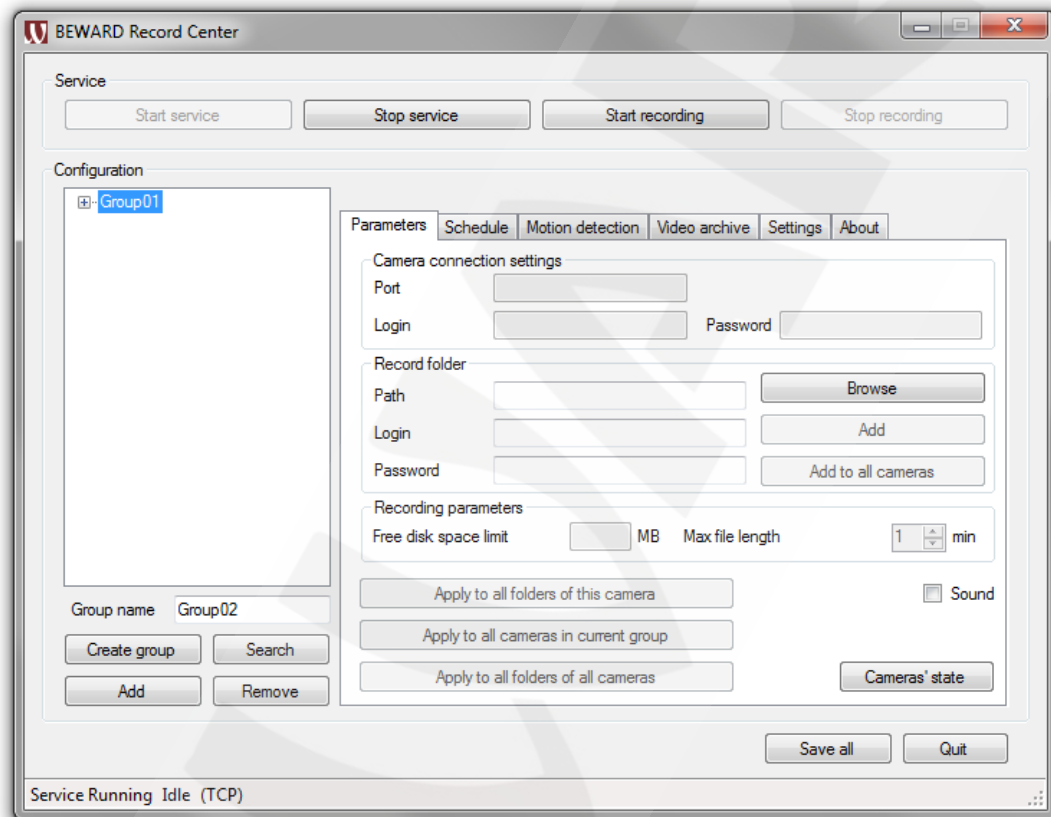
*i . 3.9**i . 3.10*

## Chapter 4. BEWARD Record Center Software

### 4.1. The main window of BEWARD Record Center program.

Run BEWARD Record Center. Use the shortcut «BRSController» you have created before on your desktop (Chapter 3, Step 8) or use the shortcut that is located in the menu “Start” “All programs” “BEWARD” “BEWARD Record Center” “BRSController” by default. Or use the shortcut located in another defined location.

The main window is in the Picture 4.1.



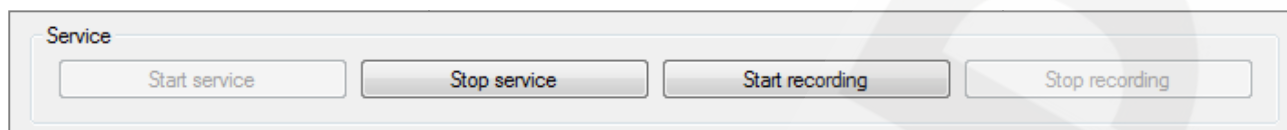
Pic. 4.1

The BRC software consists of 2 parts:

- Windows service that performs record from IP cameras (“Service” hereafter). The control buttons are located in the top of the main window;
- Window application that controls service activity (“Controller” hereafter). Controller buttons are located below the Service buttons group.

## 4.2. The main menu “Service”.

The main menu buttons are shown in the *Picture 4.2*.

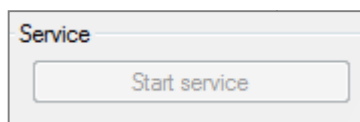


*Pic. 4.2*

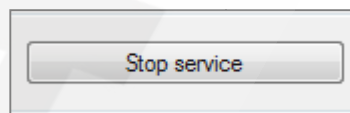
**[Start service]** (*Pic. 4.3*): activates the Service activity and requests its current settings. The button is active if the button **[Stop service]** was pushed before (has an opposite function).

### NOTE!

If there was a recording process when the Service shut down the recording will be started automatically after the Service is enabled.



*Pic. 4.3*

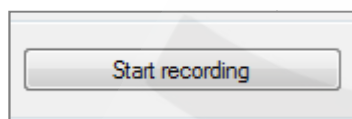


*Pic 4,4*

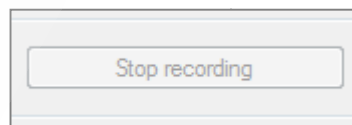
**[Stop service]** button (*Pic. 4.4*) stores in memory the “Service” current state (“perform record” / “not to perform record”) and stops the “Service” activity.

**[Start recording]** button (*Pic. 4.5*) starts record from all cameras in the list according to the settings saved after last click on **[Save all]** (the right bottom part of the main window).

**[Stop recording]** button (*Pic. 4.6*) stops records from all the cameras.



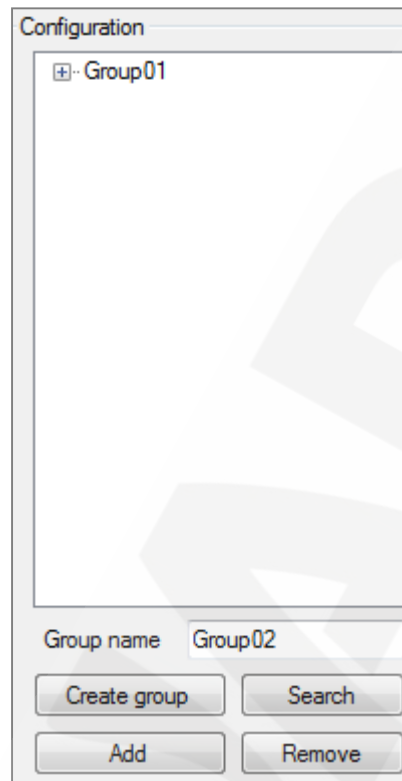
*Pic. 4.5*



*Pic 4.6*

### 4.3. Search and add groups

The “Configuration” buttons group is shown in the *Picture 4.7*.



*Pic. 4.7*

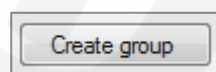
**[Create group]** button (*Pic. 4.8*) creates an empty group of cameras. The group name could be typed in the field above the “Group name” box.

#### NOTE!

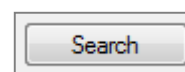
Default group names are Group01,...02,...03 and so on.

Click **[Create group]** to create a camera group. You can rename the group or use the default name. Groups quantity is not limited.

Click **[Save all]** to apply and save settings.



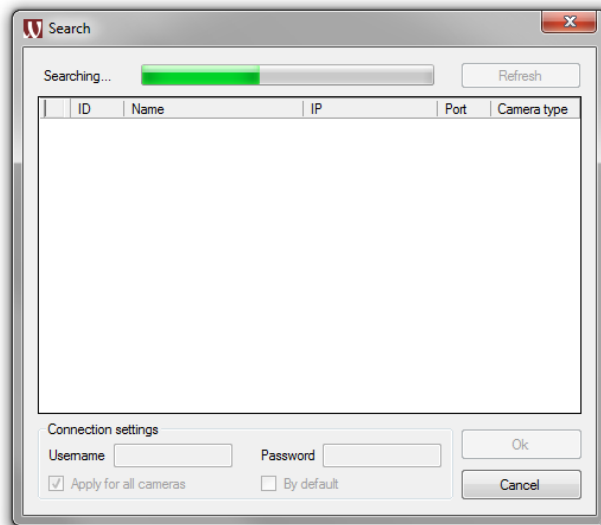
*Pic. 4.8*



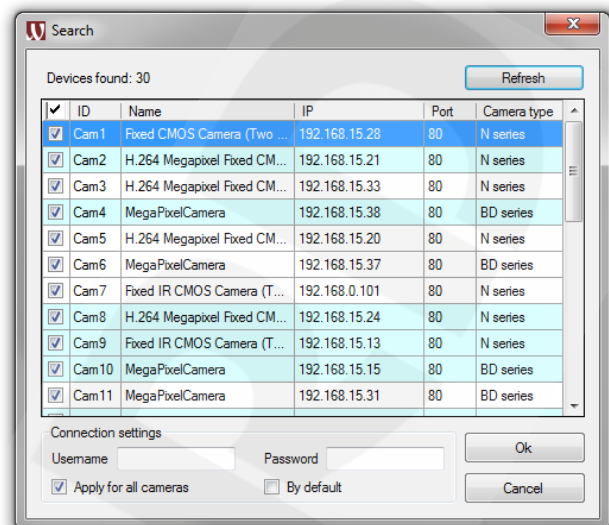
*Pic. 4.9*

**[Search]** button (*Pic.4.9*) opens the camera search form (*Pic. 4.10, 4.11*) to add some of them to a group. **[Search]** button adds cameras automatically.

Click **[Search]** to search available recordable cameras. When the search finishes there will be information about the quantity of cameras which were found, their types, IP addresses, data ports (*Pic 4.11*).



Pic. 4.10



Pic. 4.11

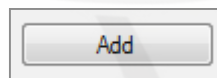
Enter “Username” and “Password” in the form (Pic. 4.11) (default: admin / admin) or check “By default” to apply software data automatically. Click **[Ok]** to save changes.

Click **[Save all]** in the bottom right part of “Controller”.

When the option “Apply for all cameras” is checked, the “Username” and “Password” will be applied for all cameras from the list. To apply a password for certain cameras, choose cameras by **[Ctrl]** or **[Shift]** and click **[Ok]** to finish.

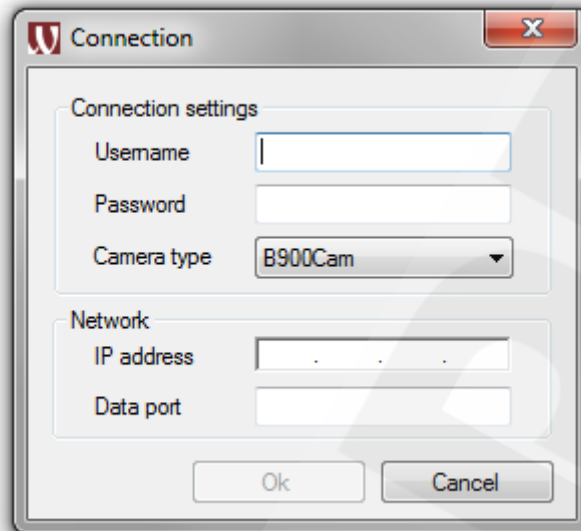
**[Refresh]** button (Pic. 4.11) to retry the automatic camera search.

**[Add]** button (Pic. 4.7, 4.12) opens a form to add a camera manually. This function is useful when some cameras could not be found automatically, for instance, cameras from the Internet.



Pic. 4.12

Click **[Add]**. The “Connection” form opens (Pic. 4.13). Click **[Ok]** when all the necessary parameters are entered. The camera will be added to the available cameras list. Click **[Save all]**.



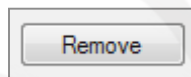
Pic. 4.13

**Username, Password:** username, password to enter a camera.

**Camera type:** a type of camera to add.

**IP-address, data port:** IP-address and data port of a camera.

**[Remove]** button (Pic. 4.7, 4.14) removes a camera from the “Configuration” list in the “Controller” main window.



Pic. 4.14

Click on a camera or a group list and click **[Remove]**. The chosen element will be removed from the list. Also it is possible to use the **[Delete]** button on a keyboard. Click **[Save all]**.

#### 4.4. System settings parameters.

##### 4.4.1. “Controller” window application: “Parameters” page

The “Parameters” page is shown in the *Picture 4.15*. This one is to set primary settings for camera records.



Pic. 4.15

The “Camera connection settings” area is shown in the *Picture 4.16*.

Pic. 4.16

Settings are available only if a camera was chosen in the list.

#### NOTE!

To choose a camera in the list click left mouse button on its name.

**Port** (Pic. 4.16): displays information from the data port. Data is displayed automatically for every chosen camera and corresponds to port default settings.

**Login** (Pic. 4.16): displays username when camera connection is active. This field displays the information entered in search results window. (Pic. 4.10, 4.11) (default: admin/admin).

**Password** (Pic. 4.16): user password. This field displays the information entered in search results window. (Pic. 4.10, 4.11).

Click on a camera from the list and “Port”, “Login” and “Password” fields will be filled with information.

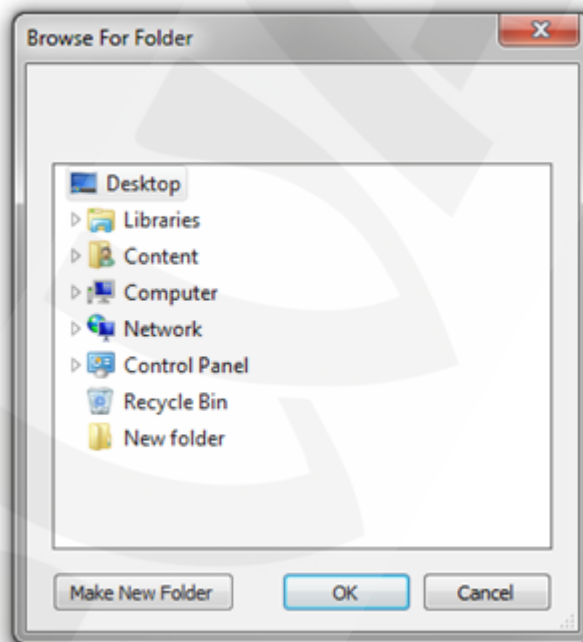
“Record folder” area is in the *Picture 4.17*.



*Pic. 4.17*

**Path** (*Pic 4.17, 4.15*): path to find a folder where a record will be stored from a defined camera (cameras).

To select the path for records storage click left mouse button on a camera or a group of cameras in the list. Click **[Browse...]** (*Pic. 4.17*) to open the “Folders browser” window (*Pic. 4.18*). Choose a folder or create a folder (**[Create folder]** button (*Pic. 4.18*)) to store records from a camera (cameras).



*Pic. 4.18*

Click **[Add]** (*Pic. 4.17*) to get the path of folder directory. Click **[Save all]**.

You can type the path of storage manually in the box “Path”.

Authorization data in the boxes “Login” and “Password” must be checked to enter a remote record folder.

#### ATTENTION!

For 2.920 series camera quantity of frames per second is differ from adjusted in the program.


**NOTE!**

To run the BR service under the required account it is necessary to open the “Services applications” in “Computer management”. Choose “Services”. Open “BEWARD Record Service”. In the page “Log on” check the parameter “This account” and enter the account name and the password to enter the system. Restart the service after that.

**[Add to all cameras]** button (*Pic. 4.17*) adds a folder for all cameras records in the list.

To add a folder for all cameras click **[Browse...]**, the “Browse for folder” form opens (*Pic. 4.18*). Choose a folder or create another one (button **[Make new folder]**) to store records from all cameras. Click **[OK]** in the form. Click **[Add to all cameras]** (*Pic. 4.17*) to obtain the path of record storage. Click **[Save all]**.

The area “Recording parameters” is shown in the *Picture 4.19*.



*Pic. 4.19*

**Free disk space limit (Mb)** (*Pic. 4.19*): free size for video records’ storage is indicated here. Every folder has its own space limit. The limit of one folder which was added to different cameras is not summarized. Option is active when the path of recording and cameras’ data storage is shown; the option is located below the cameras name (camera) at the left in the list.

**ATTENTION!**

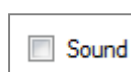
If a video is recorded to the installed and running OS section (particularly to the system disk where the operation system was installed), it is recommended to set the limit more than 1024 Mb to avoid decrease of the system’s productivity when the limit is almost over.

When the limit is over the “Service” removes the oldest files and continues recording.

In the box “Max file length” (*Pic. 1.19*) the maximum time length of a recording file is shown. The option is active when the path of recording and cameras’ data storage is shown.

Choose a folder by clicking it. Set maximum file size in minutes. Click **[Save all]**.

**Sound:** if camera has a built-in microphone or an external microphone is connected to this camera (through audio input) the video record will be with sound. Check “Sound” (*Pic. 4.20*) in “Parameters” page to record a video with sound.

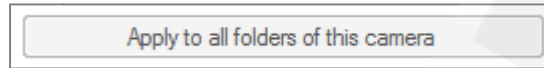


*Pic. 4.20*

Default the parameter “Sound” is not checked and a video is recorded without sound.

The “Parameters’ ” buttons group is shown in the *Picture 4.21, 4.22, 4.23*.

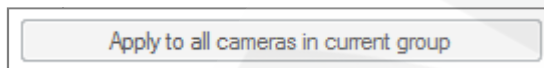
**[Apply to all folders of this camera]** button (*Pic. 4.21*) is active when a folder (left list) for cameras recording is chosen.



*Pic. 4.21*

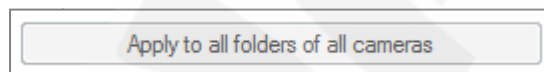
This button copies the free space limit settings, motion detection and record schedule for all cameras folders in the list.

**[Apply to all cameras in current group]** button (*Pic. 4.22*) is active when a folder (left list) for cameras recording is chosen. This button copies the free space limit settings, motion detection and record schedule to settings for all folders and all cameras of a chosen group in the list.



*Pic. 4.22*

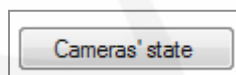
**[To apply to all folders of all cameras]** button (*Pic. 4.23*) is active when a folder (left list) for cameras recording is chosen.



*Pic. 4.23*

This button copies the free space limit settings, “sound” parameter, motion detection and record schedule to settings of all folders and all cameras of the list.

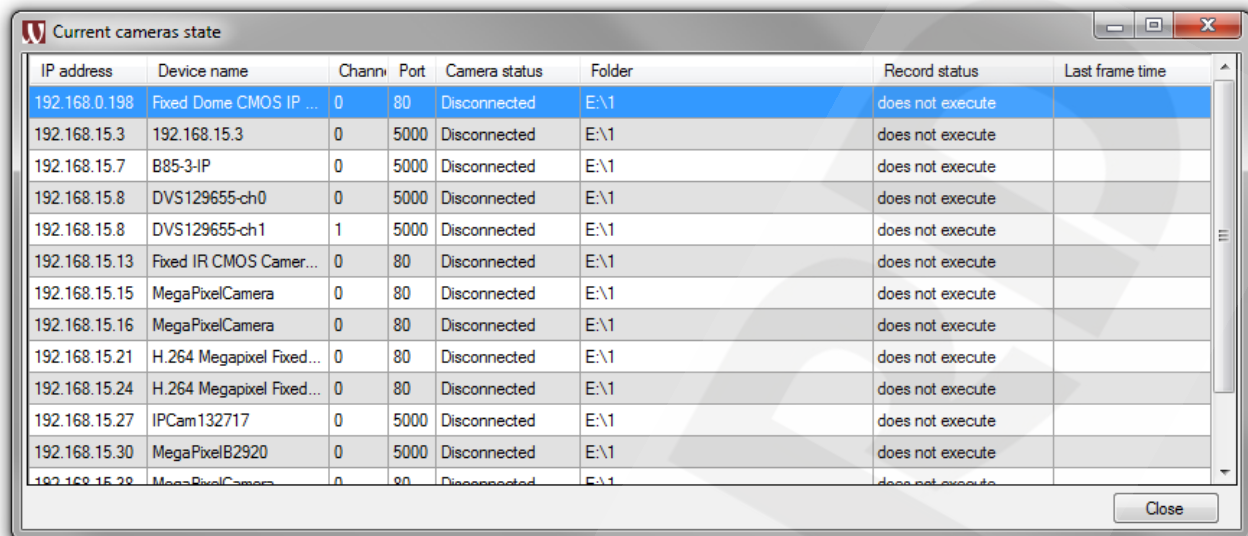
**[Camera’s state]** button (*Pic. 4.24*) opens a form where current cameras state is displayed (*Pic. 4.25*). The record status of cameras which were chosen before is displayed.



*Pic. 4.24*

To obtain the form of cameras state save previous settings clicking **[Save all]**. Then click **[Cameras’ state]** (*Pic. 4.15, 4.24*).

The form of current cameras’ state opens (*Pic. 4.25*).



The screenshot shows a window titled "Current cameras state" with a table listing camera details. The table has 8 columns: IP address, Device name, Channel, Port, Camera status, Folder, Record status, and Last frame time. All cameras listed are in a "Disconnected" state with a "Record status" of "does not execute".

IP address	Device name	Channel	Port	Camera status	Folder	Record status	Last frame time
192.168.0.198	Fixed Dome CMOS IP ...	0	80	Disconnected	E:\1	does not execute	
192.168.15.3	192.168.15.3	0	5000	Disconnected	E:\1	does not execute	
192.168.15.7	B85-3-IP	0	5000	Disconnected	E:\1	does not execute	
192.168.15.8	DVS129655-ch0	0	5000	Disconnected	E:\1	does not execute	
192.168.15.8	DVS129655-ch1	1	5000	Disconnected	E:\1	does not execute	
192.168.15.13	Fixed IR CMOS Camer...	0	80	Disconnected	E:\1	does not execute	
192.168.15.15	MegaPixelCamera	0	80	Disconnected	E:\1	does not execute	
192.168.15.16	MegaPixelCamera	0	80	Disconnected	E:\1	does not execute	
192.168.15.21	H.264 Megapixel Fixed...	0	80	Disconnected	E:\1	does not execute	
192.168.15.24	H.264 Megapixel Fixed...	0	80	Disconnected	E:\1	does not execute	
192.168.15.27	IPCam132717	0	5000	Disconnected	E:\1	does not execute	
192.168.15.30	MegaPixelB2920	0	5000	Disconnected	E:\1	does not execute	
192.168.15.38	MegaPixelCamera	0	80	Disconnected	E:\1	does not execute	

Pic. 4.25

**IP address:** camera address;

**Device name:** camera name;

**Channel:** channel number if a camera is connected to a server;

**Port:** camera port;

**Camera status:** current camera status;

**Folder:** path to the folder for video records storage;

**Record status:** current record status to the folder;

**Last frame time:** time of the last saved camera frame.

Columns "IP address", "Device name", "Channel" and "Port" display current parameters of connection to camera. They are to define a camera in the list. Column "Status" displays a status of connection to camera:

**Connected:** connection is active;

**Connecting:** connection to a camera is in the process;

**Disconnected:** no connection to a camera;

**Reconnect:** reconnection is in the process;

**VideoLost:** connection to a camera is active but no video;

**ConnectionErr:** camera connection error;

**GetVideoStreamErr:** error occurred during video stream from a camera.

The program requests a camera status every 500 millisecond (ms).

"Reconnect" process takes 20 seconds.

"Folder" column (Pic. 4.25) displays a direction for cameras video records.

"Record status" column (Pic. 4.25) displays current state of a record to a defined folder.

The record statuses are available:

**By schedule:** record is in the mode which was defined in schedule for this folder;

**Permanently:** no schedule setting for this folder, twenty-four-hour record;

**By detection:** record by motion detection;

**By sensor:** record by a sensor connected to camera;

**By sensor and motion:** record by motion detection and sensor;

**Does not execute:** record stops;

**Error:** record error;

**Not enough free space:** during the record process the program checks free space size of the folder to record the next video. If space is not enough the program removes old files from an archive;

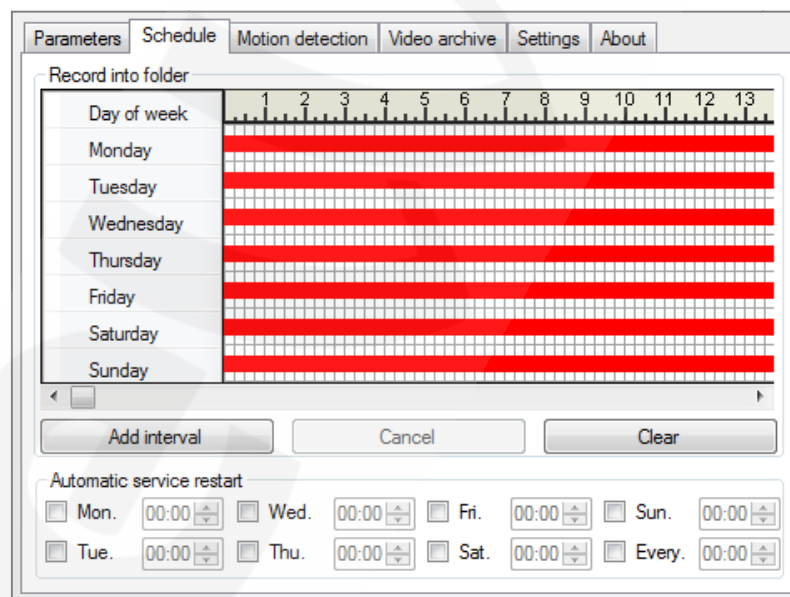
**Interrupt:** the recording process was stopped due to a problem.

When video record error occurs, camera attempts to record a new file every 60 seconds.

“Last frame time” column displays current date and time of last frame saving from a camera.

#### 4.4.2. “Controller” window application: “Schedule” page

The “Schedule” page is shown in the *Picture 4.26*.



*Pic. 4.26*

The “Schedule” page is to set time intervals of video from a camera.

The “Schedule” page looks like an array where 7 lines correspond to days of week. Columns are for time intervals (from 00:00 to 23:59). Every cell is referred to the minimal time interval of 15 minutes.

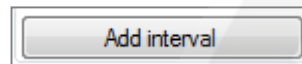


**ATTENTION!**

“Schedule” page is available to edit when one of the record folders was chosen in the cameras list

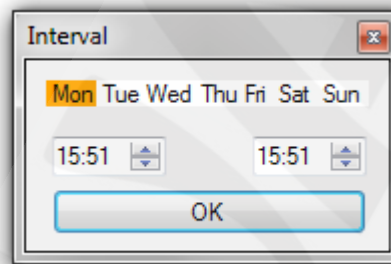
Defined time interval looks like a red line corresponding to a day of week and its length depends on the time interval.

**[Add interval]** button (Pic. 4.27) opens a dialog window to add time interval to the schedule.



Pic.4.27

Click this button to add an interval and (Pic. 4.28) click on a day in the form “Interval”. After choosing a day set the interval (minutes, seconds) in 2 boxes below. These boxes are for time intervals of a chosen day and have parameters “From” and “To”.



Pic. 4.28

Use left mouse button (click “up” and “down”) or buttons on your keyboard to set time intervals. Click **[OK]**. Repeat these actions to add more record time intervals.

**NOTE!**

For user's convenience it is possible to use **[Tab]** on your keyboard for jumps from one to another input boxes or **[Left]** and **[Right]** buttons.

To set record time intervals choose cells of minimal intervals on the page “Schedule”. Click left mouse button on a cell of a definite day, hold this button to drag it to the right, and then drop it in the required cell. Use a horizontal scroll bar to capture bigger time diapason if it is needed. The chosen diapason is blue. Choose “Create” in the drop-down menu. Time intervals will be created in the marked area.

Inputted settings let displaying added record interval from cameras to the time diagram of the “Schedule” page. The interval looks like red lines according to every chosen day of week.

**[Move]:** to move the adjusted time interval within the frame of “Schedule” array.



Point the cursor on the “red” interval of a particular day, the cursor will be changed to 2 crossed arrows. Click and hold left mouse button and drag the marked interval to the necessary line (cell) of the schedule. The interval moves to the pointed location.

**[Delete]:** to delete a defined time interval within “Schedule” array.

Point the cursor on an interval, click right mouse button to open a shortcut menu. Click left mouse button on “Delete” item and the interval will be removed from the Schedule.

**[Change]:** to change time interval settings.

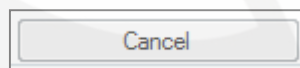
Point the cursor on an interval, click right mouse button to open a shortcut menu. Click on “Change” item. Click left mouse button to open the interval settings form (*Pic. 4.28*). Make changes if it is required.

**[Copy]:** to copy time interval in “Schedule” array.

Point the cursor on the interval, click right mouse button to open a shortcut menu. Click on “Copy” item. Then point the cursor on the particular day, click right mouse button on empty cells of another day. Click on “Paste” in the shortcut menu. The record time interval will be copied.

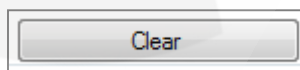
Also it is possible to make several intervals for performing records with pauses within one day using ways listed above.

**[Cancel]** button (*Pic. 4.29*) cancels the last changes in the schedule. If needed all changes in the schedule is may be cancelled.



*Pic. 4.29*

**[Clear]** button (*Pic. 4.30*) removes all schedule intervals for a folder. Point the cursor on time intervals in the schedule, click **[Clear]**.

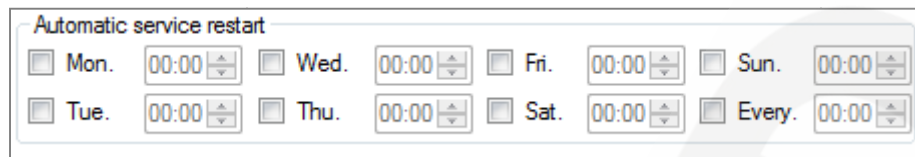


*Pic. 4.30*

All temporary records settings will be removed from the schedule.

If there are no intervals in the schedule then camera will record in permanent mode.

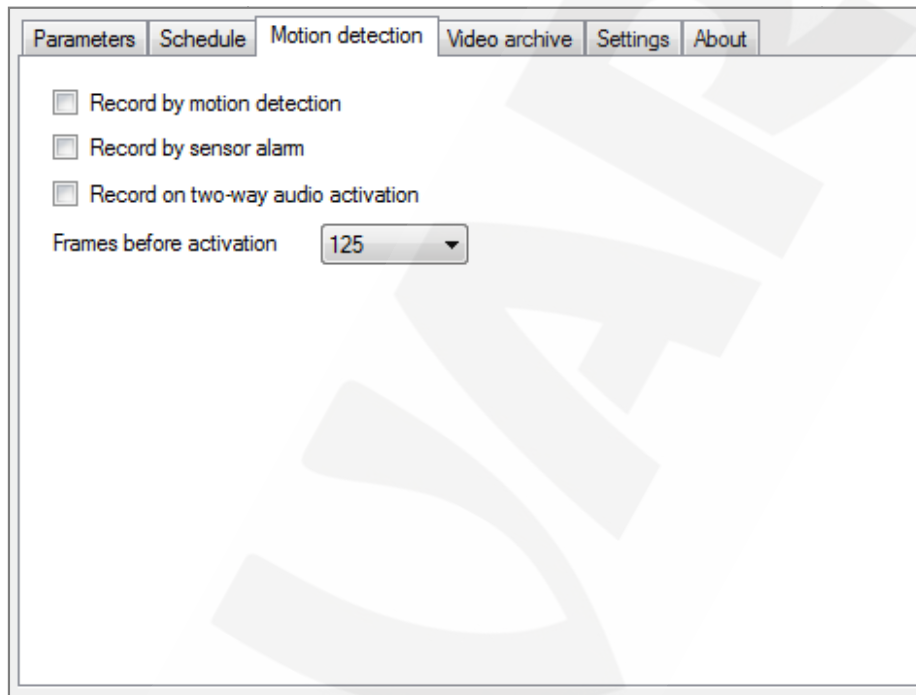
**Automatic service restart:** a schedule of automatic restart (*Pic. 4.31*) could be set for BRC program. The schedule is available for changes regardless of the active element in the list of groups and cameras. Check the corresponding element of the schedule (a day) and set the automatic restart time. You can adjust the schedule for daily restart at the same time. The adjustment of daily restarts does not cancel restart settings for definite days. It is possible to create up to 2 automatic restarts for each day.



Pic. 4.31

#### 4.4.3. “Controller” window application: “Motion detection” page

The “Motion detection” page is shown in the *Picture 4.32*.



Pic. 4.32

Cameras records modes are set in this page:

- Motion detection;
- Sensor alarm;
- Two-way audio activation.

“Motion detection” option activates a record by motion detection.

#### ATTENTION!

“Motion detection” option must be switched on in camera settings.

“Sensor alarm” option activates a record when the sensor registers a motion.

#### ATTENTION!

“Sensor alarm” option must be switched on in camera settings.

“Two-way audio activation” option means that record starts when an operator switches on duplex audio mode in BEWARD IP Visor and finishes when the operator switches it off. When this option is on the sound from camera and from microphone is recorded to the file.

#### ATTENTION!

This function means that duplex audio starts after pushing the “Record two-way audio activation” button in BEWARD IP Visor S/W. BEWARD Record Center S/W and BEWARD IP Visor must be installed to the same PC.

BEWARD IP Visor and BRC Components must be installed on the same PC to make the “Record two-way audio activation” function accessible. Check the “Popup window” (settings of camera reactions) in BEWARD IP Visor and in the “Popup window” check “Recording when talk enabled”. This parameter is enabled when “Motion detection” and “Sensor alarm record” are active.

If the “Two-way audio activation” option is on, “Motion detection” and “Sensor alarm” options are reset. “Motion detection” and “Sensor alarm” options could be both chosen.

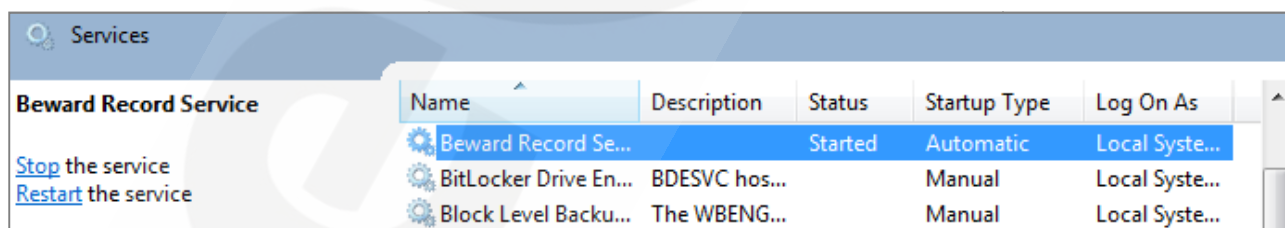
#### NOTE!

When “Two-way audio activation” option is on, the system automatically starts to record files with sound if the sound record was not switched on before.

#### NOTE!

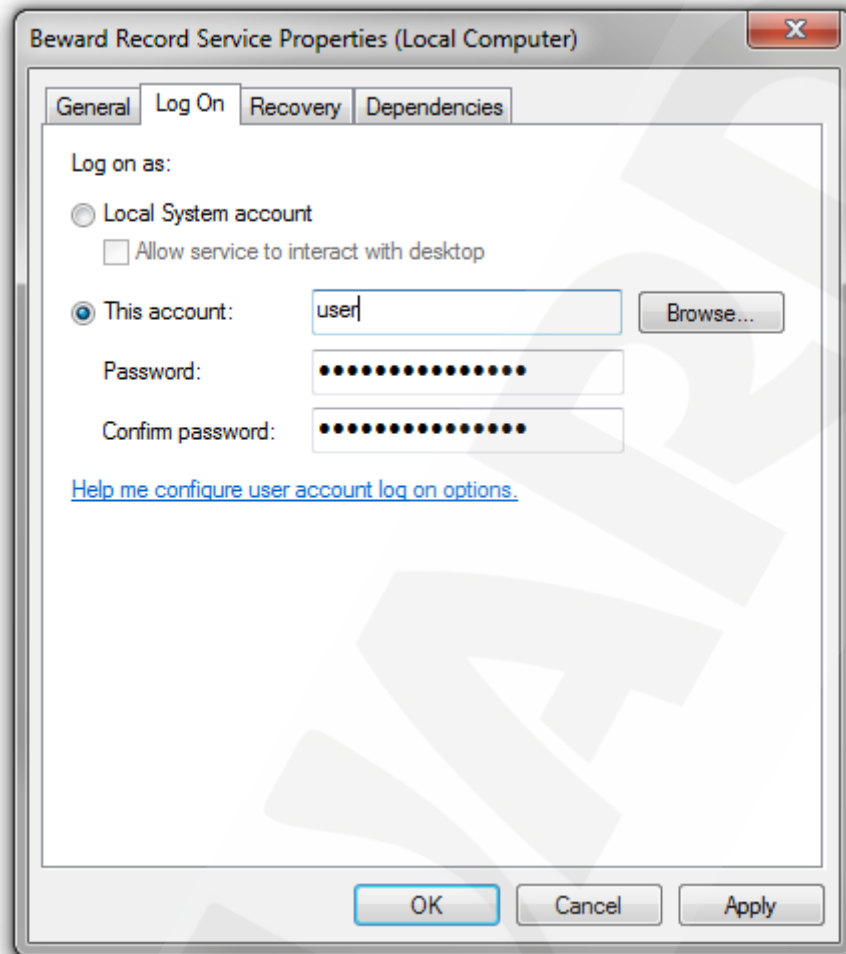
For BRC (BEWARD Record Service) the enter account must be adjusted. The account must be different from the system account, i.e. not Local service.

The BEWARD Record Service is installed under the “Local system” account by default.



Pic. 4.33

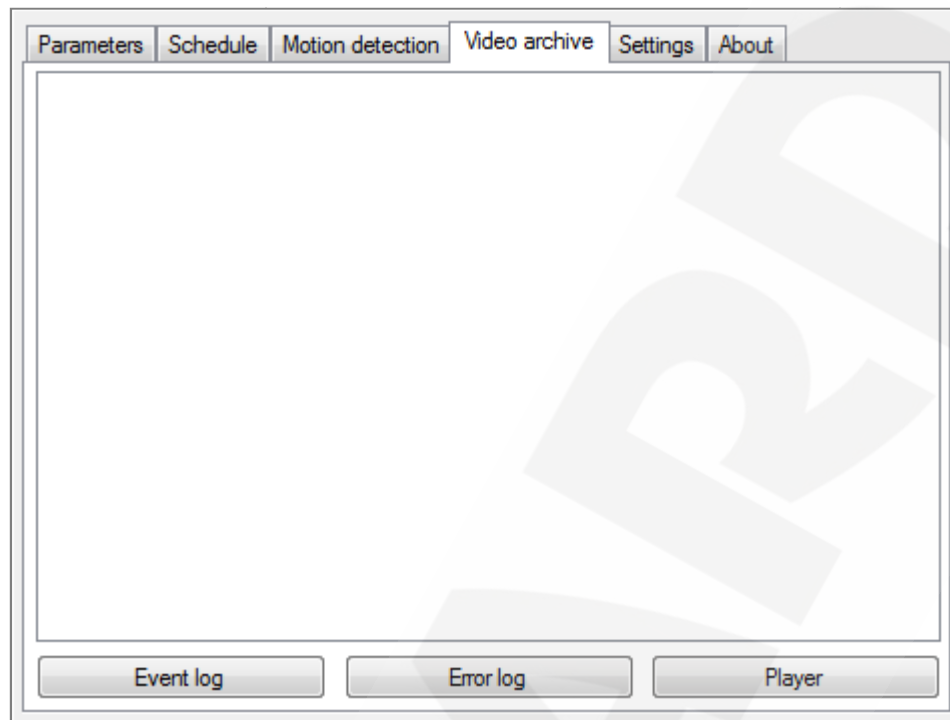
To change the account type it is necessary to change log in parameters by selecting “Enter system: with account” on the “Enter system” page of BEWARD Record Service (Picture 4.34). Check the account to enter the OS.

*Pic.4.34*

The "Frames before activation" parameter indicates of buffer preliminary record (frames) size. 0, 25, 50, 75, 100, 125, 250 values are available. "0" means that the buffer is disabled. 125 frames are set by default.

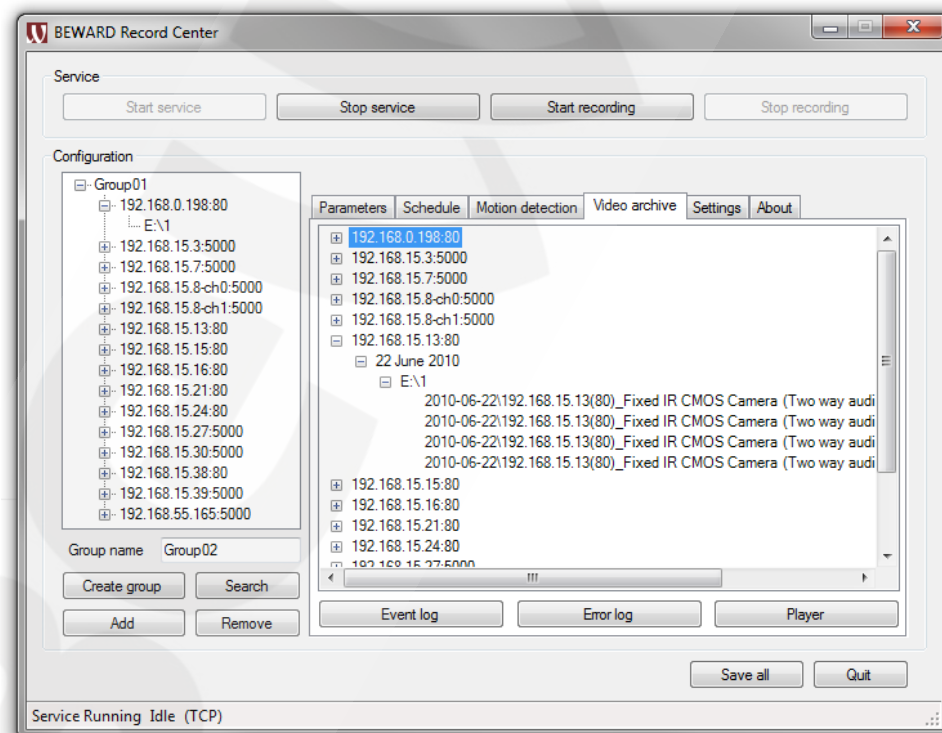
#### **4.4.4. "Controller" window application: "Video archive" page**

The "Motion detection" page is shown in the *Picture 4.35*.



Pic. 4.35

The “Video archive” page is for records storage from cameras which are pointed in the program settings (displayed in the “Settings’ ” area in a drop-down list). To review records choose a camera from the popup list. Video records date appears in the “Video archives” page (Pic. 4.36).



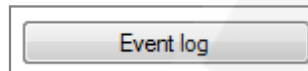
Pic.4.36

The archive files list looks like a list of dates. Every date indicates existence of an archive for this date. To review an archive point a date in a drop-down list.

Select an archive date. Double click on records folder opens a list of saved records in the folder (Pic. 4.36). Point a mouse on one of the records, double click on a file. After that BEWARD Record Center's player window opens where recorded information is displayed (q.v. "BEWARD Player Manual").

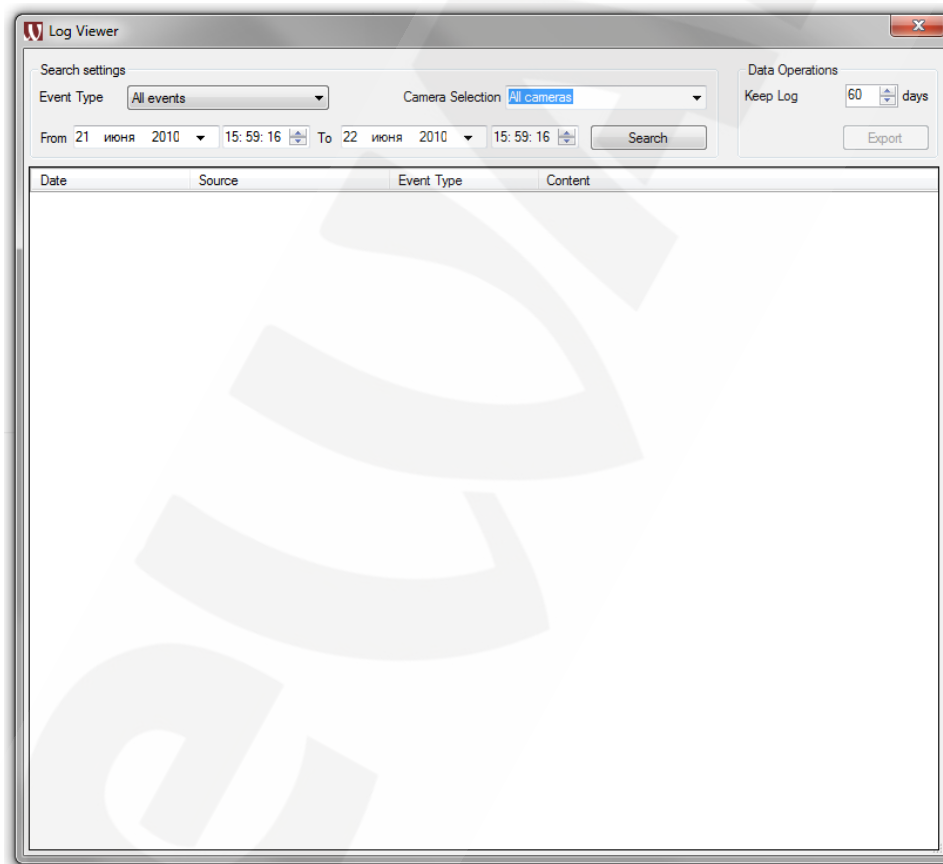
#### 4.4.5. Event log ("Video archive" page)

Click on **[Event log]** button (Pic. 4.37) which is located in "Video archive" page (Pic. 4.36) to display a Log Viewer.



Pic. 4.37

Click **[Event log]** button to open the Log Viewer window. (Pic. 4.38).

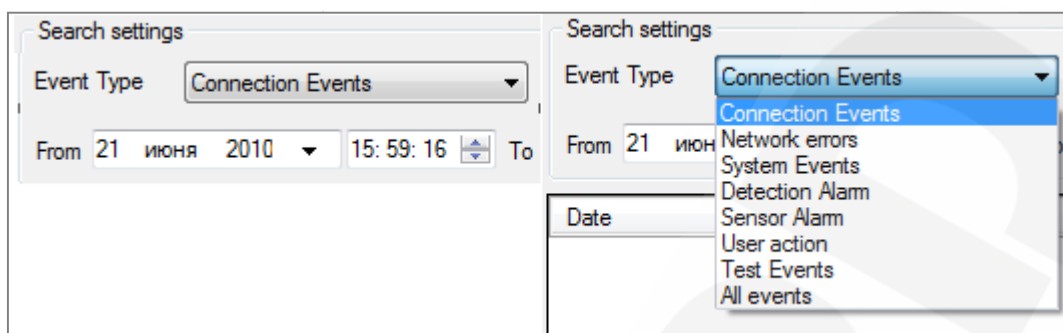


Pic. 4.38

The event log is to fix and monitor the system events which occurred during the time of the program running.

Control panel located in the top part of the Log viewer window is called "Search settings". The type for viewing event is "All events" by default.

Click on the drop-down list and choose event type to filter data in the event log (Pic. 4.39).



Pic. 4.39

Log filtration parameters (Pic. 4.37):

- Connection events;
- Network errors;
- System events;
- Detection alarm;
- Sensor alarm;
- User action;
- Test events;
- All events.

Choose an event type. Every event is colored in a specific color for convenience.

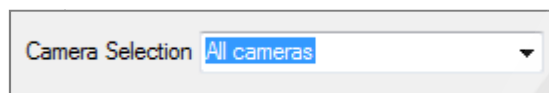
Table of the log events

Event type	Description
Connection events	Connection / disconnection of cameras to surveillance system
Network errors	Network errors which occurred during connecting cameras to surveillance systems
System events	Events which refer to surveillance system activity, e.g. program launch
Detection alarm	Events referred to alarm start and end which was generated by motion detection
Sensor alarm	Events referred to alarm start and end which was generated by camera sensor
User action	User actions which were registered by the system, e.g. an operator's reaction to motion detection
Test events	The surveillance system auto test launch events

The next filtration parameter is "Camera selection". "All cameras" is a default parameter. There are cameras which were added in "Controller" settings in the drop-down list (Pic. 4.7).

Click on the "Camera selection" drop-down list and choose a camera (Pic. 4.40). Filtration occurs by camera name.





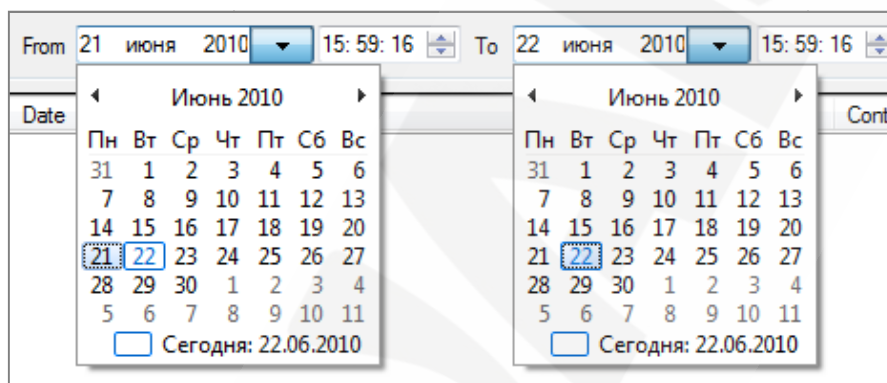
Pic. 4.40

The “Time intervals” parameter is to set the time interval of displaying selected camera events. Time interval is set by “From” and “To” (Pic. 4.41).



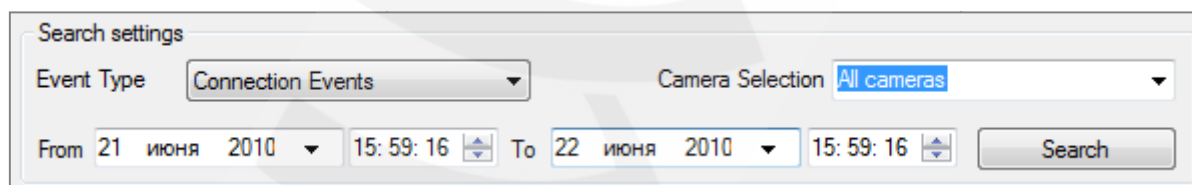
Pic. 4.41

Users can choose the date from the drop-down calendar and enter time by buttons (to the right from the field) (Pic. 4.42).



Pic. 4.42

**[Search]** button (Pic. 4.43) launches the event filter according to settings.



Pic. 4.43

For users' convenience all events which were registered by the system can be filtered by certain conditions: “Date”, “Event type” and “Source”.

**Date:** set a time span by calendars on the panel “From” and “To” and click **[Search]** to filtrate events by dates. All events which occurred at time of the chosen span will be displayed.

**Event type:** in the “Event type” drop-down list choose the event type you need and click **[Search]**. All events of this type will be displayed.

**Source:** choose a camera in the “Camera selection” drop-down list (q.v. “Camera selection” description) and click **[Search]**. All events concerned with this camera will be displayed.

Combine different types of the filtration to make the search more effective.

“Data operations” menu is located in the right part of the Log viewer. All the event log data could be stored during a defined period of time. Maximum – 100 days, minimum – 30. The system periodically cleans the event log for more effective search; it removes events which are outdated.

All events upwards 60 days are deleted by default. It is possible to change the time log cleaning in the “Keep log” box. It is not recommended to set more than 60 days span for log cleaning in this box.

**[Export]** button exports the Log data to MS Excel document to a folder defined by user for storage, print and delivery.

Click **[Export]** to open the “Save as” window and choose a directory of saving. Choose the needed folder or create another one.

#### ATTENTION!

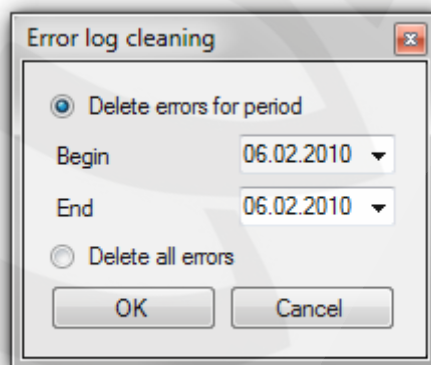
To export a log to Excel, Microsoft Office 2007 must be installed.

#### 4.4.6. Error log (“Video archive” page)

**[Error log]** button opens the Error log window.

When the system works correctly the message “Error log is empty” appears. If there are any messages in the Error log it is recommended to make an export of the log and send the file to (e-mail): [developer@beward.ru](mailto:developer@beward.ru). It is recommended to do it regardless of the service operability.

**[Clear]** button opens a window to create a period for error log cleaning (*Pic. 4.44*).



*Pic 4.44*

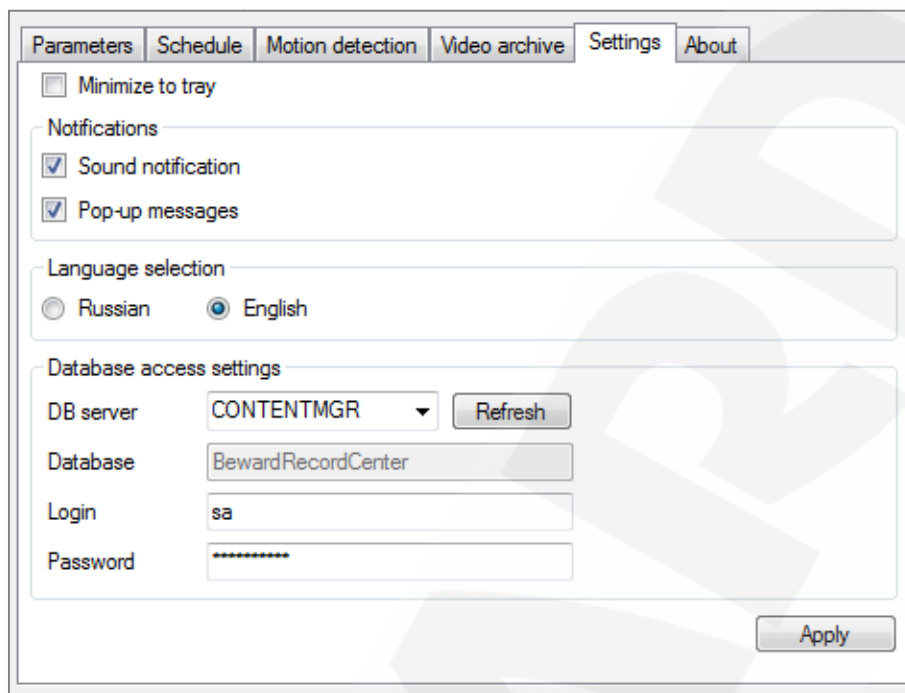
After checking “Delete errors for period” option and clicking **[OK]** button all errors of the “Begin” and “End” period will be deleted. To delete all errors from the log check “Delete all errors”.

**[Refresh]** button restarts the Error log.

**[Export]** button saves Error log data to BEWARD Record Center folder by default. User can save data to any folder on a disk and then e-mail it to the technical support.

#### 4.4.7. «Controller» window application: “Settings” page

The “Settings” page is shown in the *Picture 4.45*.



Pic. 4.45

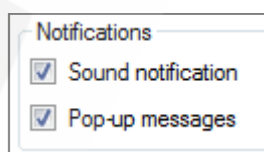
“Minimize to tray” option (Pic. 4.45) sets an area of the program minimizing. A window minimizes and displays as a button on the taskbar in normal mode after clicking **[Minimize]** in the top right corner. When the “Minimize to tray” option is active window minimizes and displays like an icon in the Windows notification area (system tray). Notification area is located in the bottom right corner of desktop, it is for programs which are running but not used at the time.

This setting saves automatically and applies immediately after its changing.

Check the “Minimize to tray” option. Point mouse cursor to the top right corner of the program and click **[Minimize]**. The window minimizes and displays as an icon in the notification area.

Check off the “Minimize to tray” option. Point mouse cursor to the top right corner of the program and click **[Minimize]**. The window minimizes and displays as a button on the taskbar.

Alarm notifications settings are in the “Notifications” area (Pic. 4.46).

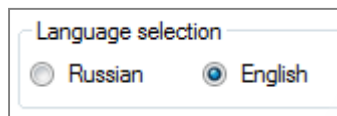


Pic. 4.46

“Sound notification” option (Pic. 4.46) switches on/off a sound notification of camera disconnection. When this option is on the sound notification will appear even if BRSController was not run.

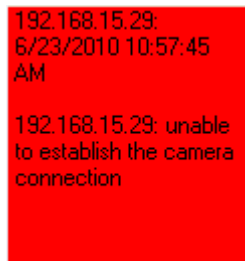
“Pop-up messages” option (Pic. 4.46) switches on/off a notification of camera disconnection by pop-up messages in the bottom right corner of a screen (Pic. 4.48). This option is active only when the program is active.

“Language selection”: select the user interface language. Russian and English languages are available (Pic. 4.47). English is a default language.

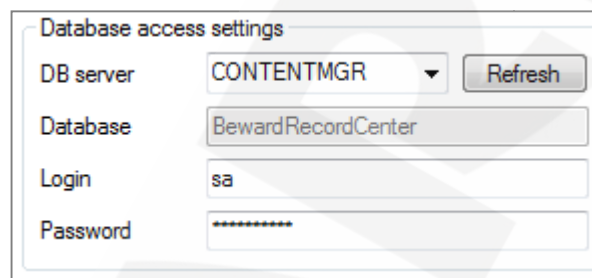


Pic. 4.47

The “Database access settings” option group is shown in the picture (Pic. 4.49).



Pic. 4.48



Pic. 4.49

The “Database access settings” option group corresponds to MSSQL database connection settings. This database registers recorded information.

#### ATTENTION!

The record service uses default **Login: sa, Password: SQL2005key** for database access. If using other username and password the connection to MSSQL database is impossible, user gets a notification message about the error.

**Database server** (Pic. 4.49): this is a list of available databases (MSSQL), which are accessible during the program working. The list fills automatically after the first access to the settings page.

Click on “BD server”. Choose a base in the drop-down list of DB. If the required server is not found type manually the Server name and IP-address.

**[Refresh]** button (Pic. 4.49) refreshes the list of DB servers.

**Database** (Pic. 4.49): inaccessible to edit. Default settings define it as BEWARD Record Center.

**Login:** is for an account name of MSSQL DB user. Default settings define it as “sa”.

**Password:** is for an account password of MSSQL DB user. Default settings define it as “SQL2005key”.

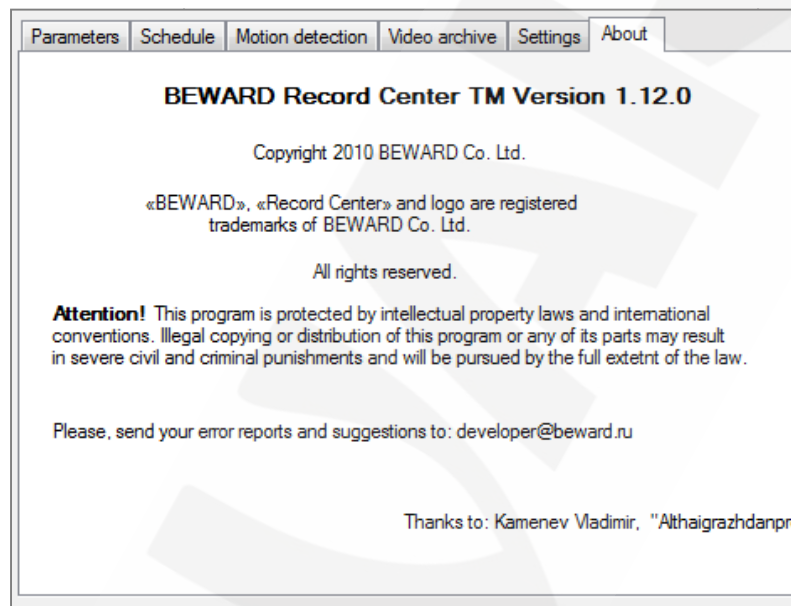
**ATTENTION!**

In case if DB account is differ from “sa”, it is necessary to pay attention to the following circumstance: a DB user must have permissions to create databases and tables, otherwise BEWARD Record Center database must be created manually.

**[Apply]** button applies changes made on the “Settings” page.

**4.4.8. «Controller» window application: “About” page**

“About” page is shown in the *Picture 4.50*.



*Pic. 4.50*

This page informs a user of legal aspects of the Program BEWARD Record Center usage.

## Chapter 5. Making a report of BEWARD Record Center S/W errors

The Bug report applet is included into the installation of BEWARD S/W to make error report which occurred during the working process of Record Center.

The BRC Bug Reporter applet launches by a shortcut which was created during the BEWARD S/W installation. By default: **“Start” – “All programs” – “BEWARD” – “BEWARD Record Center”- “Bug report BRC”** or click **[Report]** exactly when any error appears.

### ATTENTION!

For correct activity of the BRC Errors report applet in the Windows 7 reduce the frequency of notification to the minimum (Parameters of users accounts control). Do the following actions: Start – Control panel – System and security – Change user account control settings. Then move the cursor to “Never notify” in the notifications window.

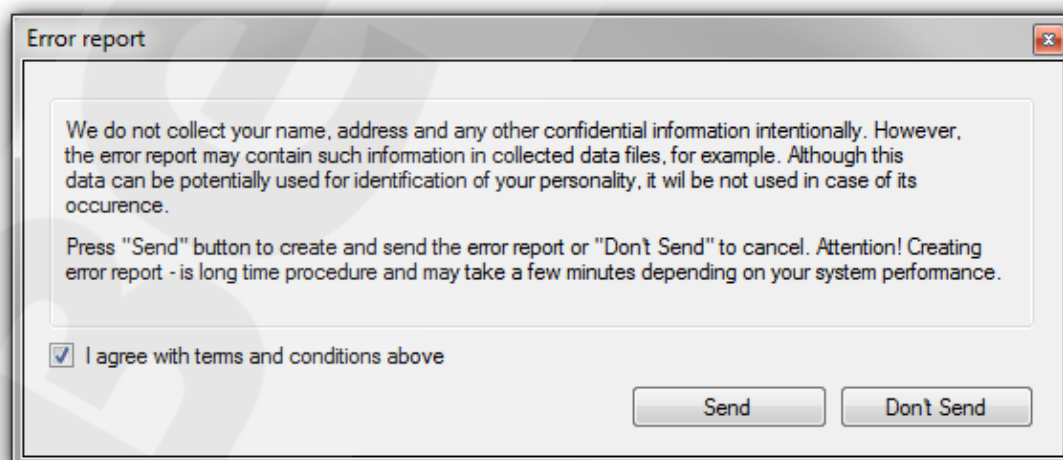
### NOTE!

User account control (UAC) is used for users’ notification before making any changes which demand the administrator privileges. UAC notifications are displayed by default when there are attempts to change computer parameters by programs but it is possible to set up a frequency of notifications.

In the first case the “Error notification” window opens. Press **[Error report]** button to continue. Click **[Exit]** to exit.

In the second case the dialog window opens to confirm conditions of reports forming (Pic. 5.1).

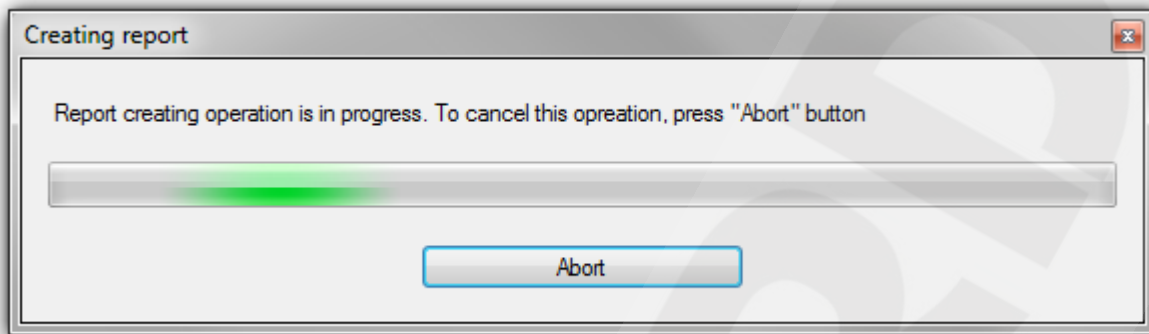
If you agree with offered information check “I agree with items and conditions above” and click **[Send a report]** or click **[Do not send a report]** to close the dialog window and exit the BRC error report.



Pic. 5.1



Click **[Send]** to run the process of reports creation (Pic. 5.2).



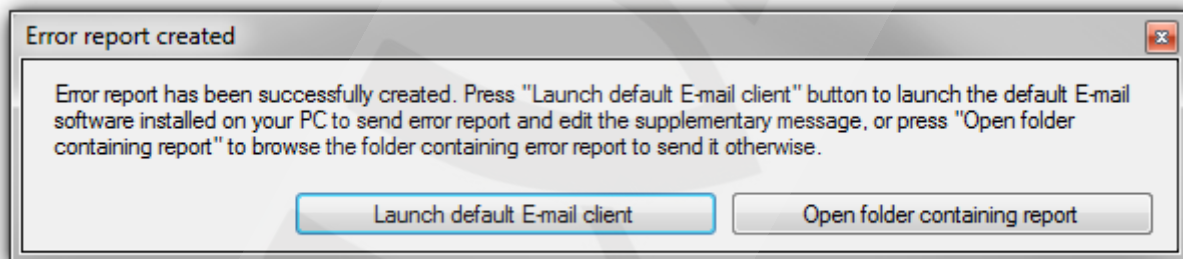
Pic. 5.2

Click **[Abort]** to finish the creation process.

#### ATTENTION!

The creation process can take a long time.

When the creation process finishes the dialog window opens where user can review or send a report by an e-mail client (Pic. 5.3).



Pic. 5.3

To run a default e-mail client click **[Launch default E-mail client]**. The new e-mail message opens with the developer address [developer@beward.ru](mailto:developer@beward.ru) and a link in the message to the created report.

!

After opening an e-mail client the created file **does not attach** to the new message automatically, therefore it is required to attach the created report file to the message.

To review the created report click **[Open folder containing report]** button. The file is an archive with \*.bbr extension which contains files with databases settings and registered programs errors. Review of these files is possible by any archive program on the computer. If the file was formed over the "Start" menu the text file "LastError" that is included into the report will be empty.



Please send error reports and offers for improving the program to: [developer@beward.ru](mailto:developer@beward.ru)

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