SmartVMS™
Security Management System
Server

User Guide

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www.smart-vms.com

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1. Quick Start

Execute the ‘Security Management System Server’ installable on the target server computer. Follow the wizard to complete the installation.

1.1 Locating application

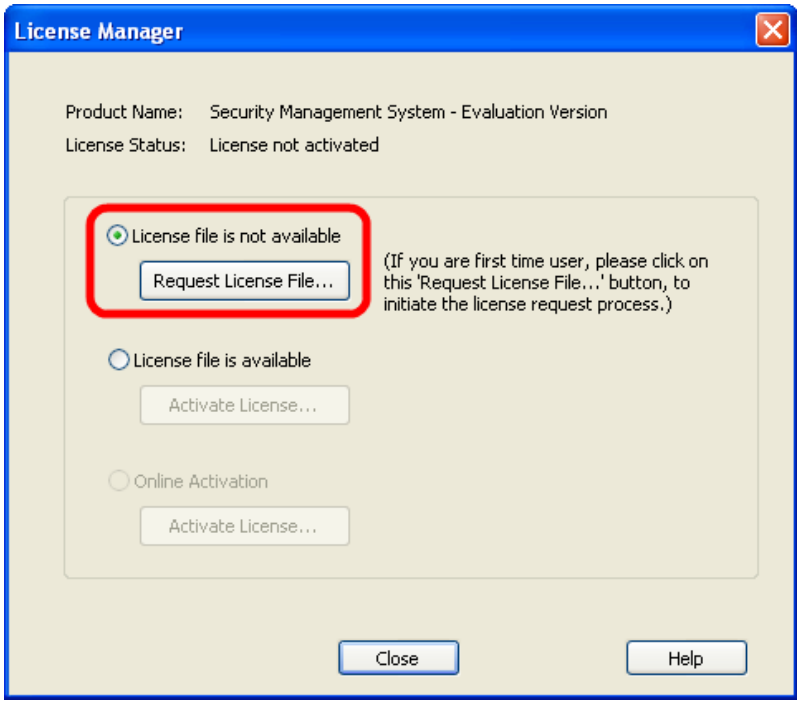
Execute the ‘Security Management System Server’ application from the desktop shortcut or from the programs menu shortcut under ‘Security Management System\Server Software’.

1.2 License request

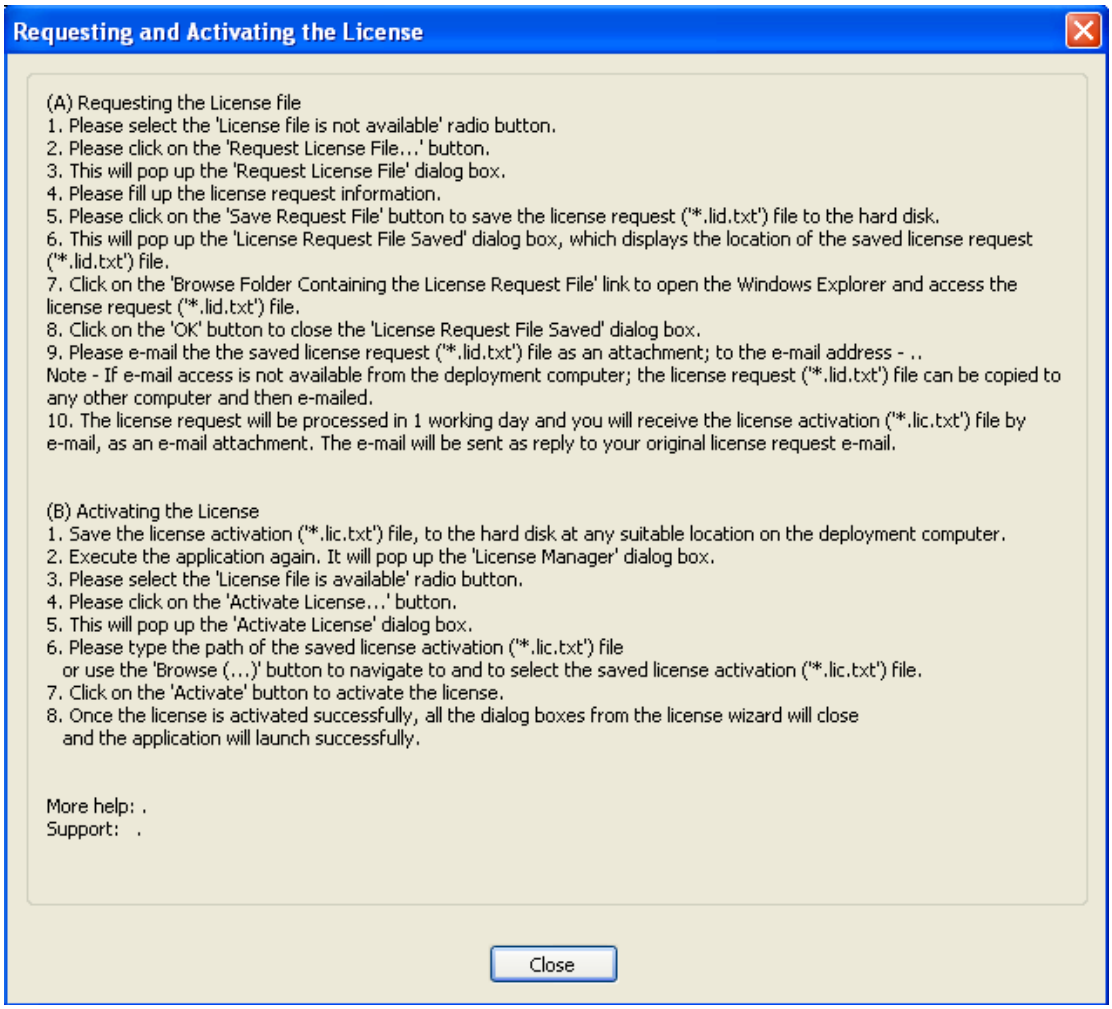
The ‘Security Management System Server’ application displays a license dialog box when license for this software is expired or is not available.

The ‘Security Management System Server’ application needs a ‘computer specific license’. Which means that licensing process needs to be followed for every computer on which the ‘Security Management System Server’ application is installed.

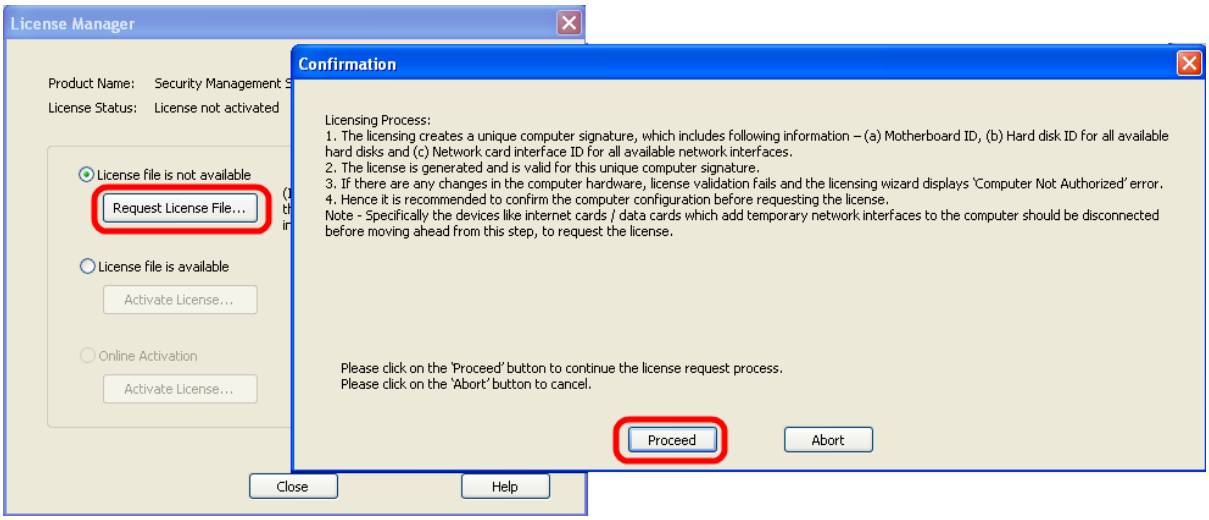
The licensing process involves following steps –
(a) Capturing hardware information and creating license request file – managed by the licensing Wizard
(b) E-mailing the license request file to license administrator – advisable to manage this step manually by sending the license request file as e-mail attachment through any standard e-mail program
(c) The license manager generates ‘license activation file’ and e-mails it back to the license requestor.
(d) Receiving the ‘license activation file’ and activating the license


License Manager
Product Name: Security Management System - Evaluation Version
License Status: License not activated
License file is not available
Request License File...
(If you are first time user, please click on this 'Request License File...' button, to initiate the license request process.)
License file is available
Activate License...
Online Activation
Activate License...
Close
Help

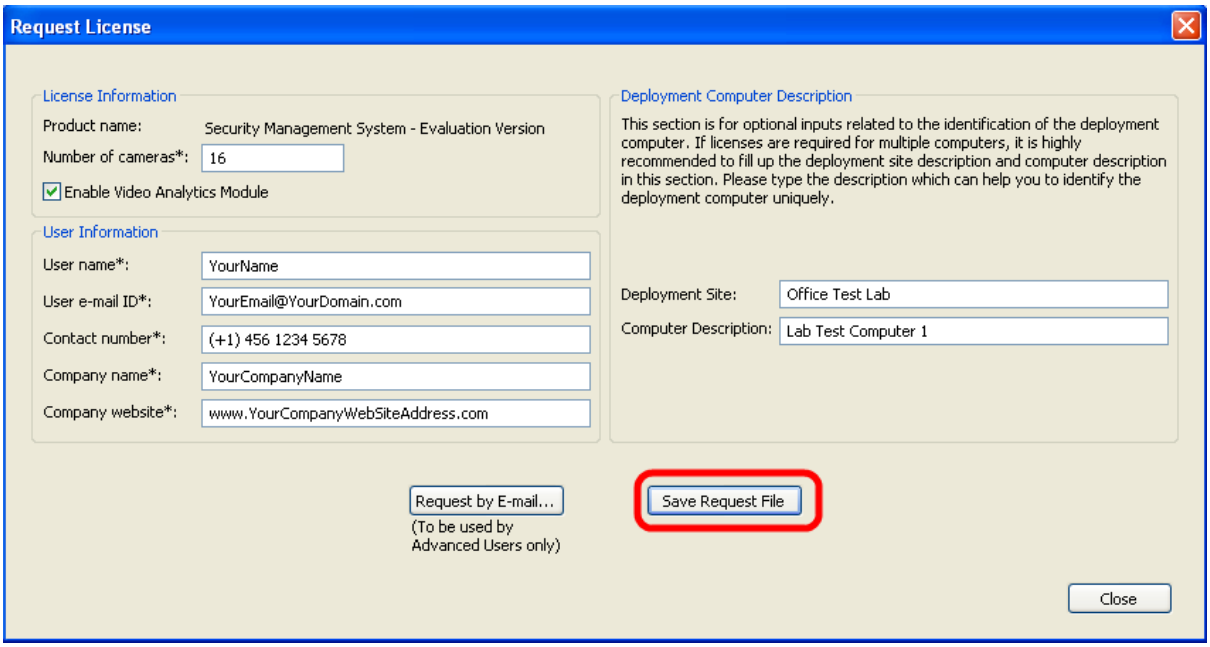
For more information on how to get the license, please click on ‘Help’ button present on the license manager dialog. This will pop up separate dialog box which mentions steps for getting the license.



Click on ‘Request License File…’ button. This will pop up ‘Confirmation’ dialog, which describes the licensing policy and the process. Click on the ‘Proceed’ button to move ahead.

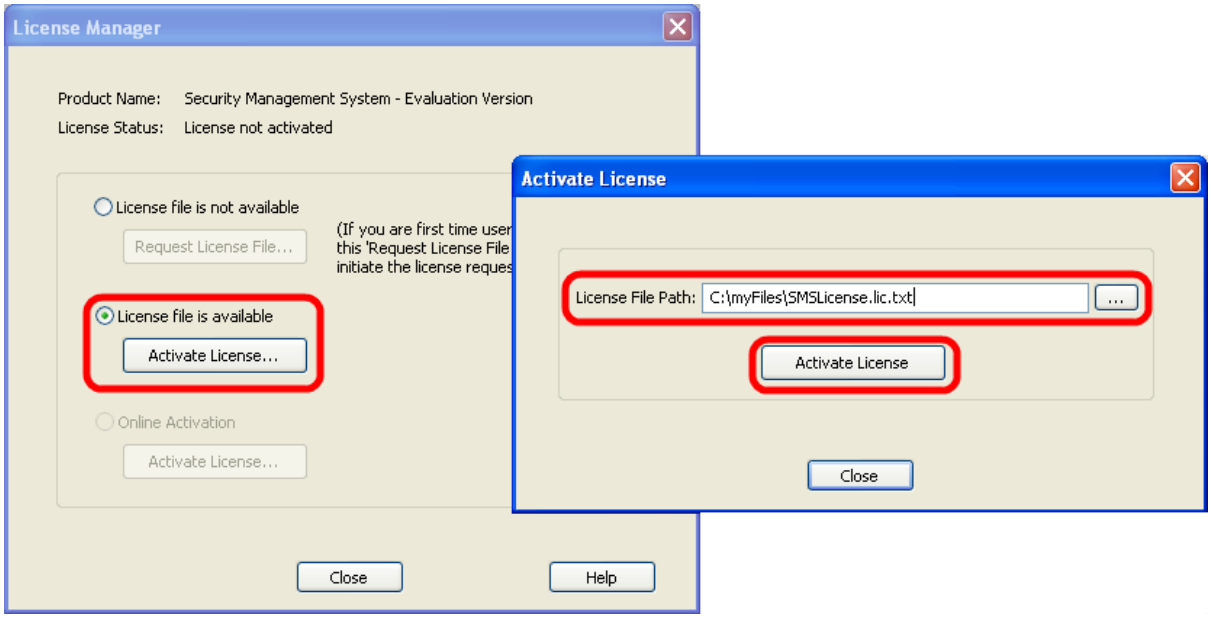


A license request form will be displayed. Please fill up the form and send the license request file to the e-mail address specified in the licensing wizard. It is advisable to click on the ‘Save Request file’ button and e-mail the saved license request file using any e-mail client program.
The license administrator will receive the ‘license request file’ and will create the ‘license activation file’ and will e-mail it back.



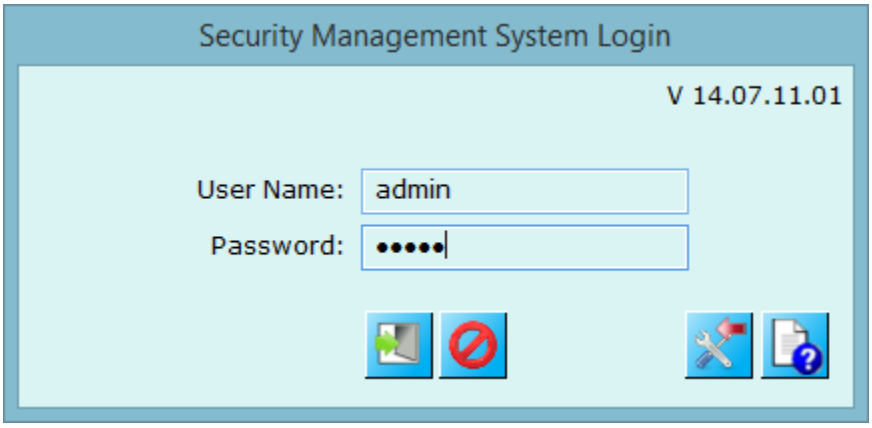
1.3 License activation

When you have ‘license activation file’, select option ‘License file is available’ and click ‘Activate License…’ button. A dialog box will be popped up which asks for ‘license activation file’ path, provide correct license path and click on the ‘Activate License’ button to activate the license.



1.4 Login to server application

The ‘Login’ window will be displayed.



Please type the default username and password
‘User name’ as ‘admin’ (case sensitive, without the single quote characters)
‘Password’ as ‘admin’ (case sensitive, without the single quote characters)

Click on the ‘Login’ button to login.

Click on ‘Cancel’ button to exit application.

Click on ‘Import settings’ button to import saved settings.

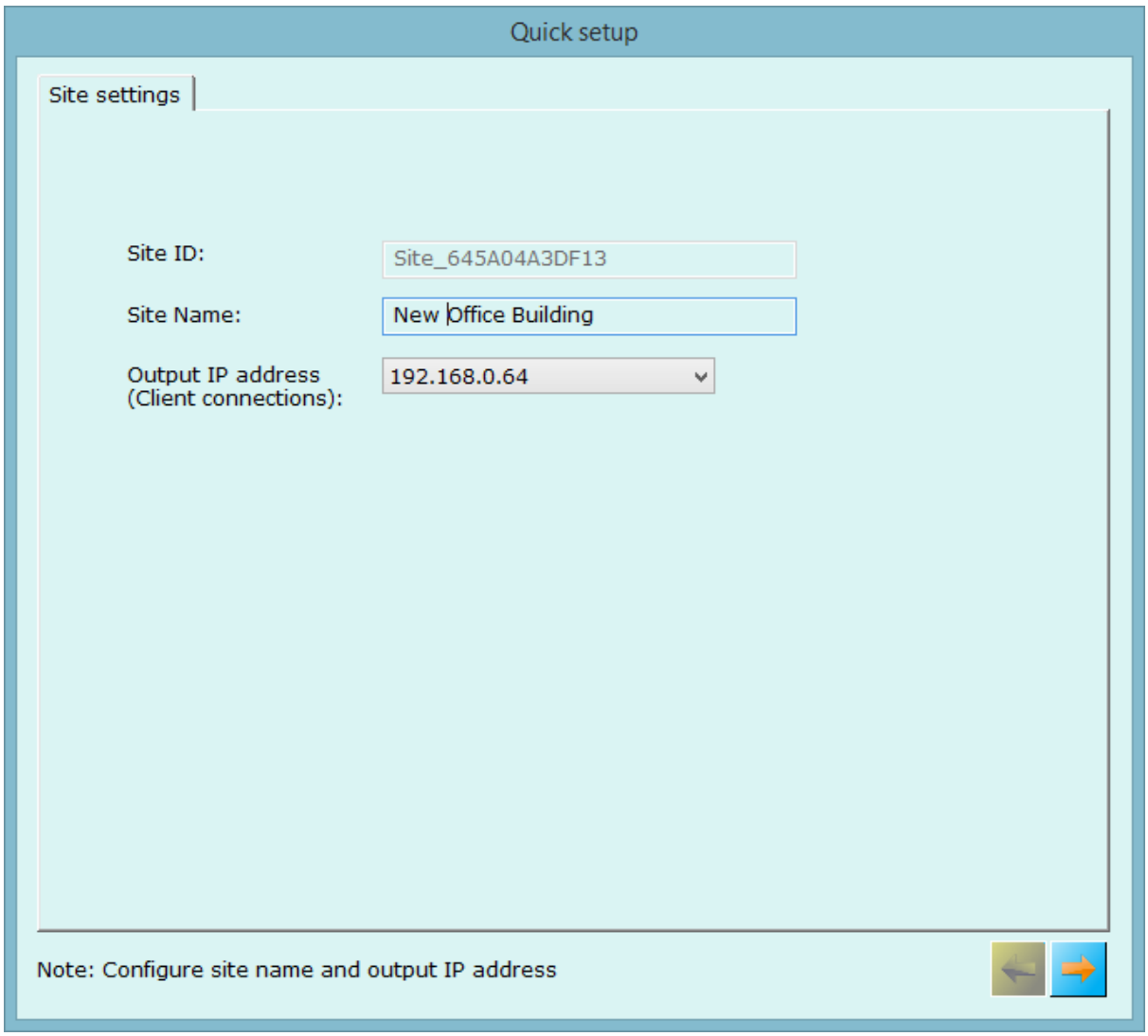
Click on ‘Help’ button to launch this file.

1.5 Quick Setup wizard

The main application window will be displayed and you will be prompted to configure system with "**Quick Setup**" wizard.
The 'Quick Setup' wizard includes the minimal settings which are required to get the 'Security Management System Server' application up and running.

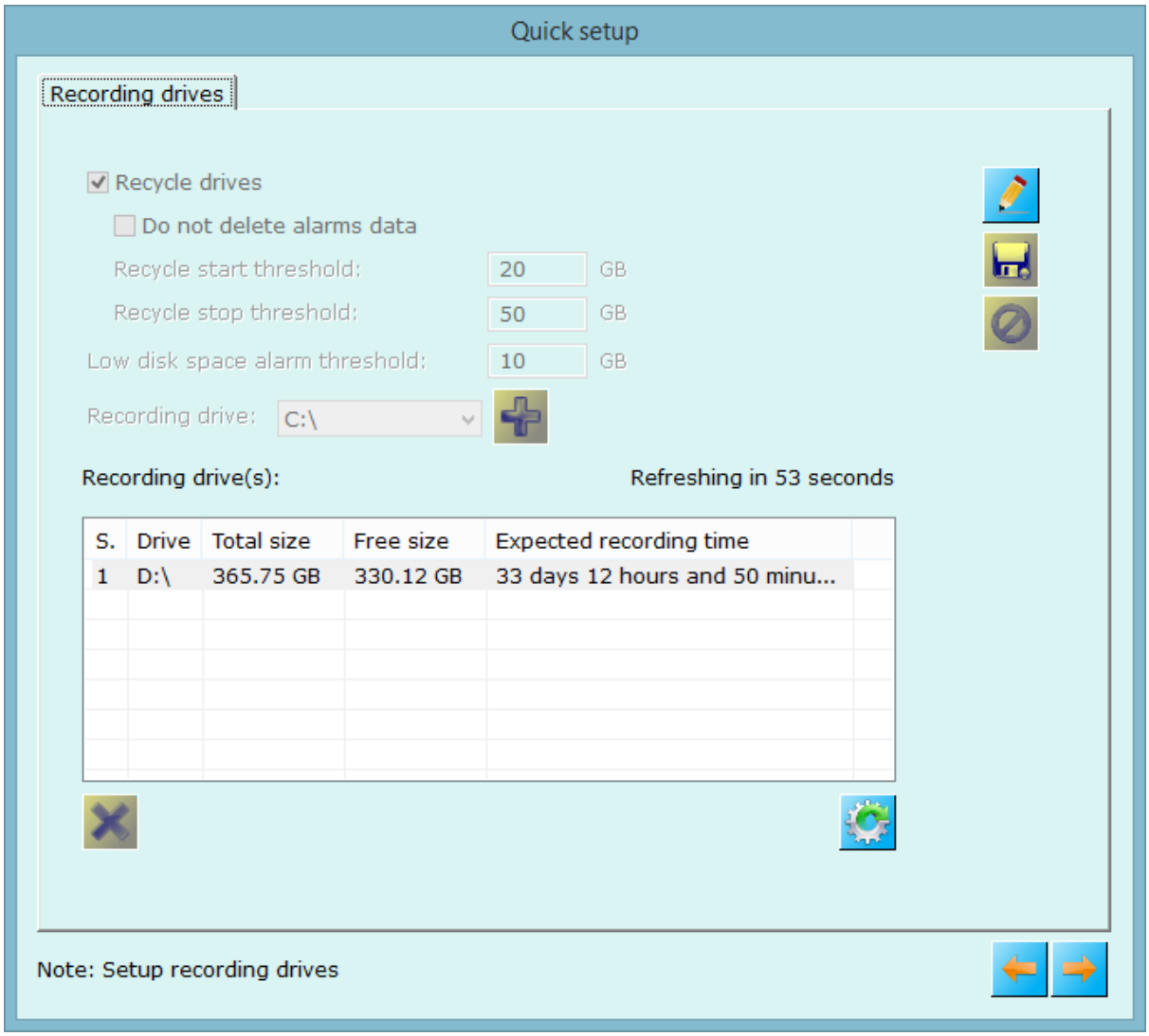
1.5.1 Site Settings

The first step from wizard allows you to define Site name and 'Output IP address' which will be used by remote clients to connect to server application.



1.5.2 Quick Setup – Recording drives

Recording drives configuration is an important setting. Through this, you can configure multiple recording drives for recording of video streams and other data collected by the software.



Click on “Edit” button to configure settings.

1. You can add more drives for recording video streams using add recording drive button.
2. Select any drive from the list and click “Remove recording drive” button to remove selected recording drive from the list of recording drives.

3. “Recycle drives” when checked automatically overwrites data when application finds the recording space to be low for a specific recording drive.

   Check ‘Do not delete alarm data’ so that application will not delete data associated with alarms while recycling recording drives.

   You can specify thresholds to start recycling data and stop recycling of data from this user interface.

   If ‘Recycle data’ is unchecked, application will not recycle (or overwrite) video data when it found less space for recording, instead it will give alarm “Low disk space” to the user. You can configure the low disk space alarm threshold.

Recording drive list shows more information like total size of the drive, current free space for the drive, and expected recording time for the drive. This information will get updated/refreshed every 60 seconds.

Click on “Save” button to save configured settings.

Click on “Cancel” button to discard edited settings

Click on “Next” button to move to next step in the wizard setup.

1.5.3 Quick setup – Users

This step allows configuring users of the system. Application shows the list of added users in the system, allows you to add new users using "Add user" button, allows you to remove added user using "Remove user" button.

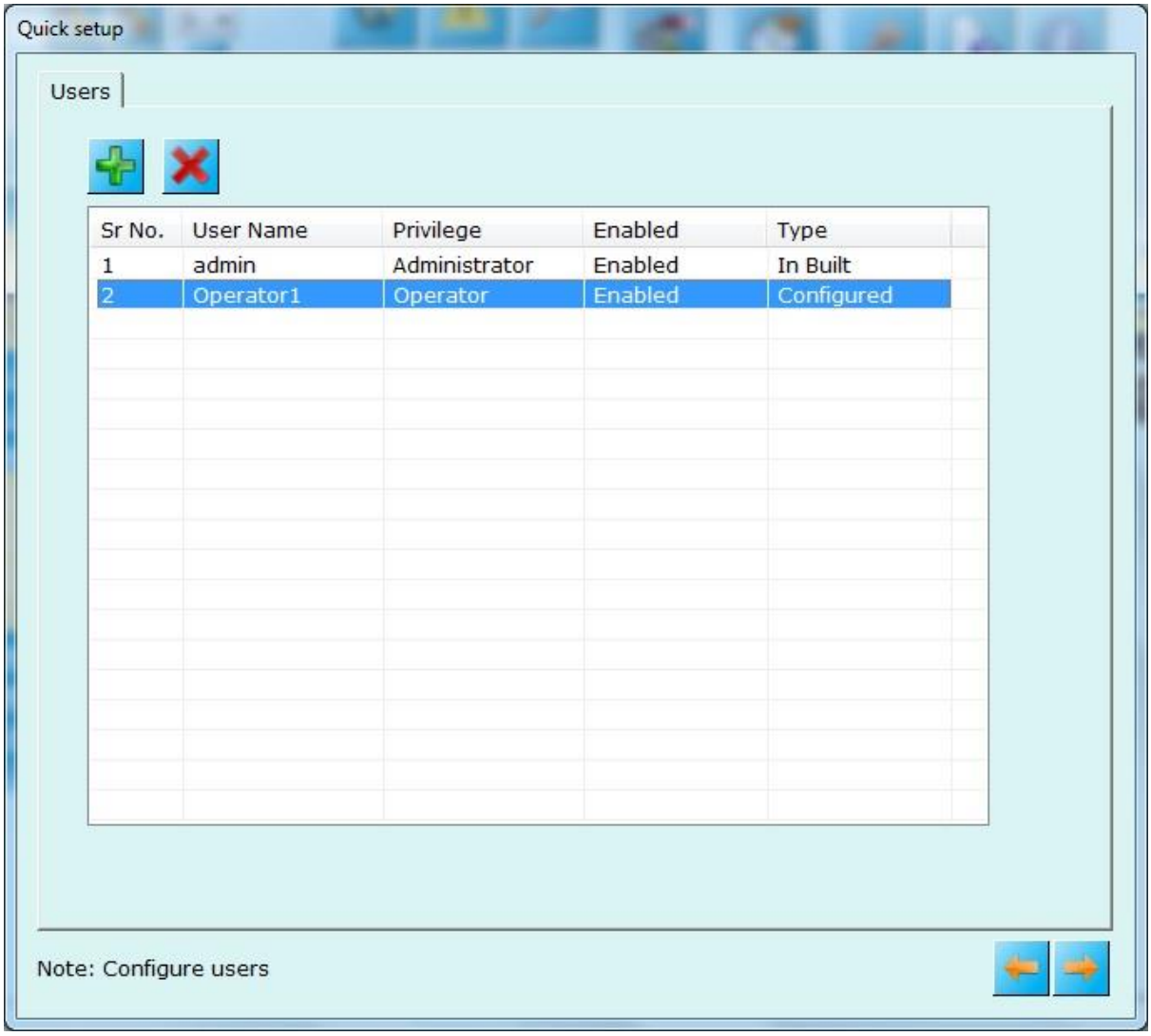
Add new user –

Type any valid string as 'User Name' for the new user.
Type any valid string as 'Password' for the new user,
Re-type the password for confirmation, in the 'Confirm Password' text box.
Select 'Privilege' as 'Operator'.
The 'Enable user' checkbox should be checked.

Click on the 'Add' button to add the new user.

It is recommended to add at least one new user with Operator privilege. This user can login from the Security Management System client application. If at least one user with Operator privilege is not added, the application displays a warning message.

After successful addition of user, application will show newly added user in the list of users, you can add more users as per the requirement by repeating above steps.

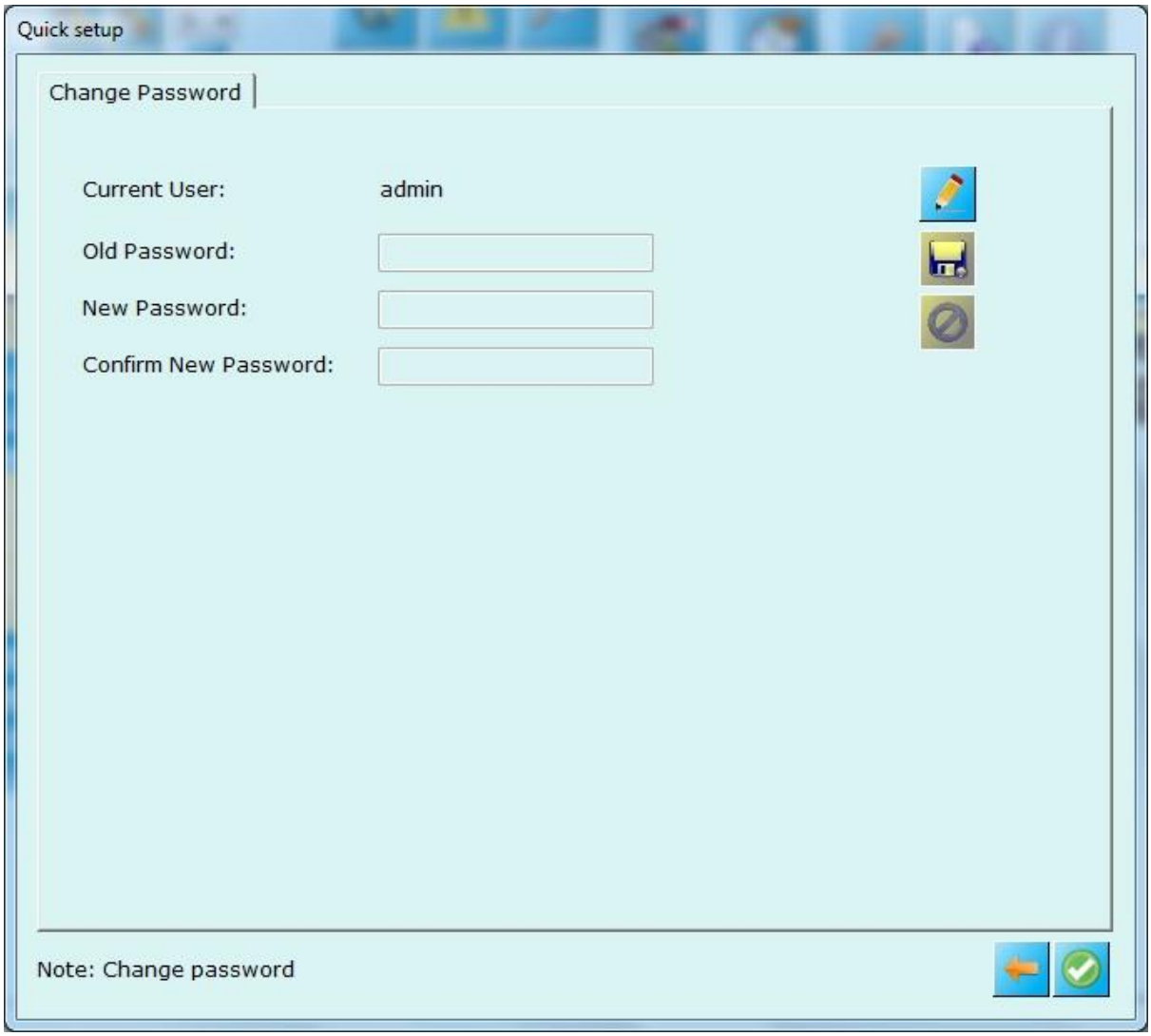


Click on “Next” button to advance to next step in quick setup wizard.

Click on “Back” button to go back to previous step in quick setup wizard.

1.5.4 Quick setup – Change Password

It is highly recommended not using the default password, and changing the password of the ‘admin’ user, for better security of the system.



Click on the ‘Edit’ button .
Specify the correct ‘Old Password’.
Type the ‘New Password’ and re-type the new password in ‘Confirm New Password’.

Click on the ‘Save’ button to save the changes.

This new password should be used for the ‘admin’ user login from next login.

If the default password for the current login (which is ‘admin’ user login) is not changed, application displays a warning message.

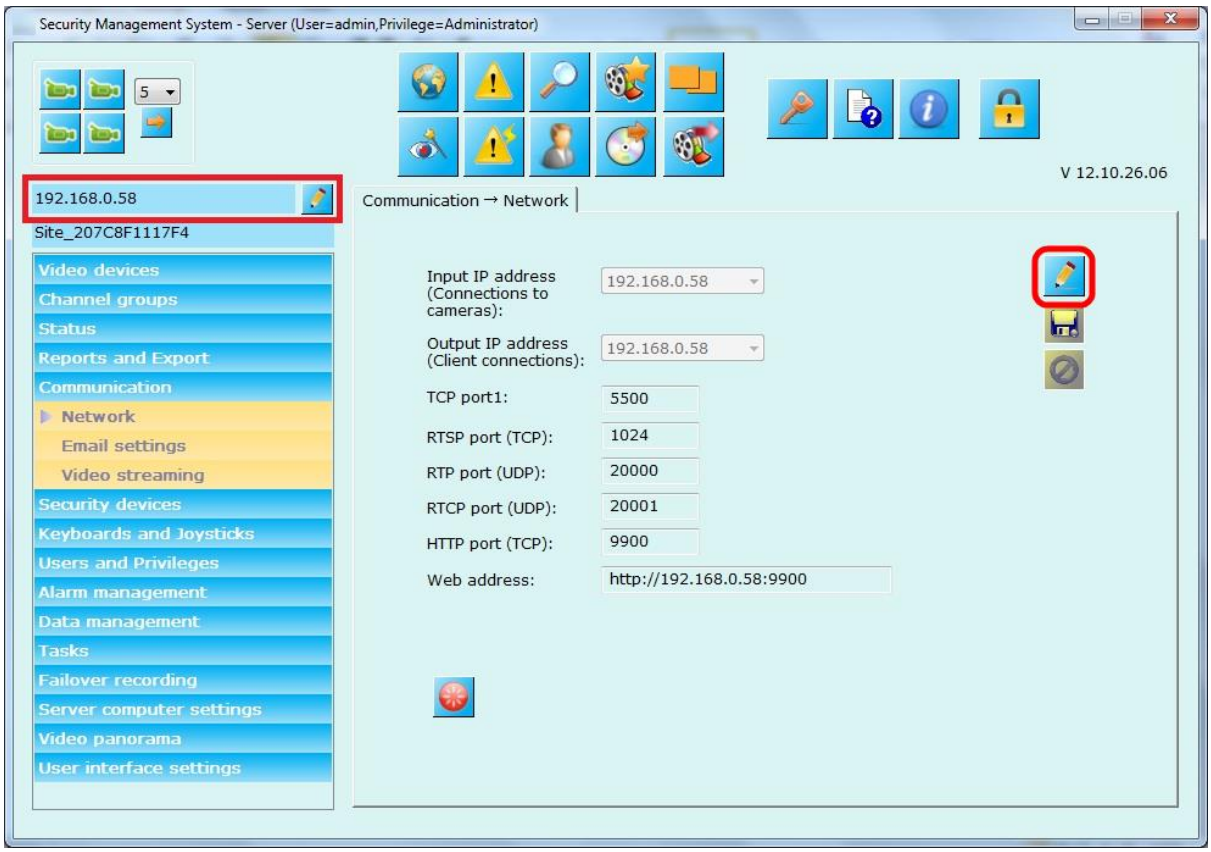
Click on ‘Next’ button to move forward.

Click on “Finish” button to finish quick setup wizard.

Now system is ready with basic configuration, please add cameras to the system now.

1.5.5 Communication

Please click on edit button to edit network communication settings.



Click on edit button available on the right hand side, to enable editing on this dialog.

Change ‘Input IP address. This IP address is used for communication with the cameras.
Change ‘Output IP address’. This IP address is used by client applications to connect to this server.

Click on ‘Save’ button, after your changes are done.

Click on ‘Cancel’ button to discard your current edited changes. Application will disable user interface showing currently used settings.

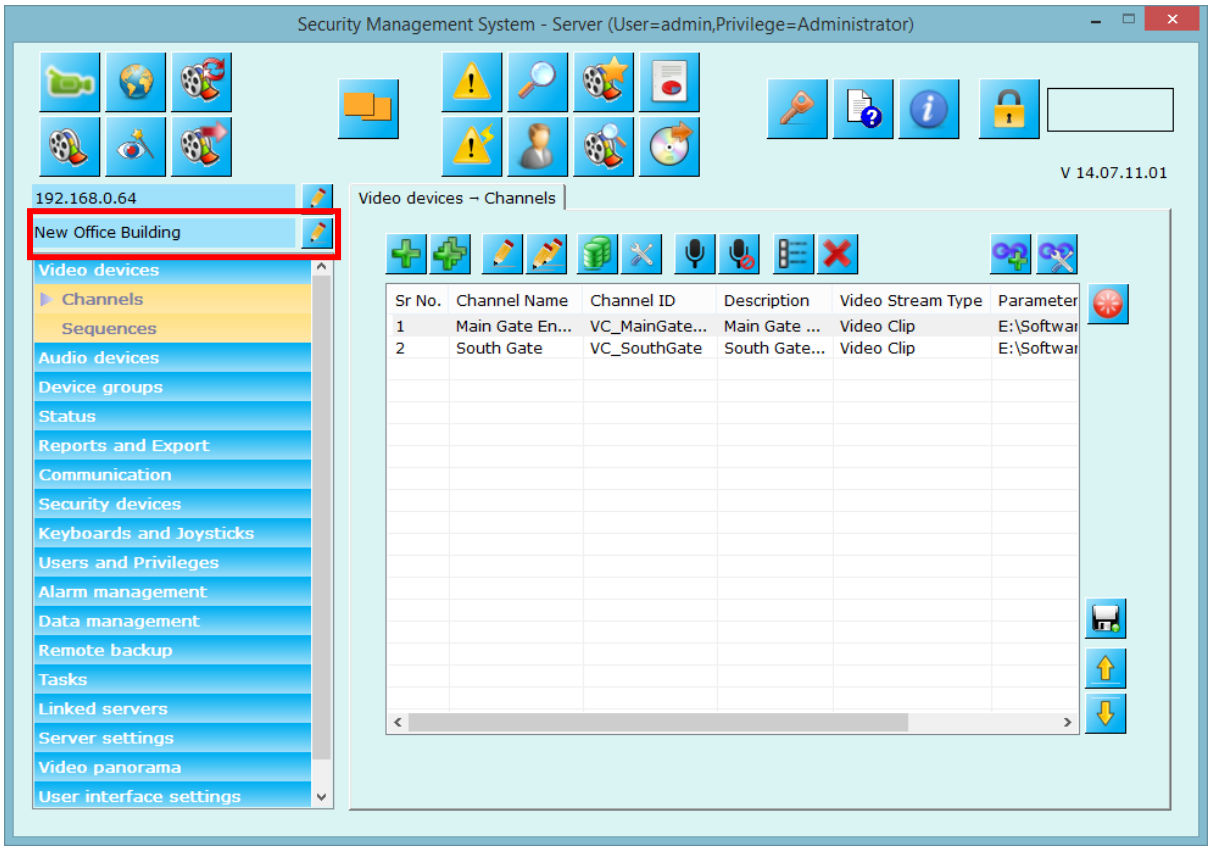
‘Reset communication’ button can be used to resolve any issues observed while client applications connection to this server. This button is expected to be used only in extreme conditions where network may become unstable which may affect the working of the software in rare cases. This button can quickly rectify such error conditions.

Port numbers are used by the client applications while connecting to this server.

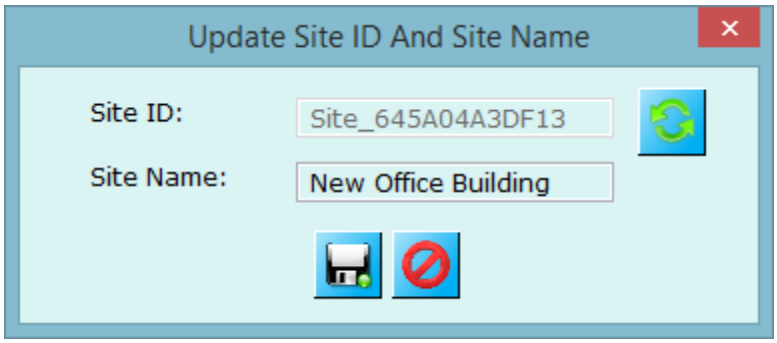
The URL displayed next to ‘Web address’ can be used to connect to this Security Management System server application from browser based clients like Internet Explorer, Mozilla Firefox, Apple Safari etc.

1.5.6 Change Site Name and Site ID

Click on “Change Site ID and Site Name’ button available on the right hand side to change site ID and site name.



This will popup dialog where you can enter new site name and refresh site ID.



Use ‘Refresh Site ID’ to change the site ID.

Use ‘Save’ button to save new site name and site id.

Use ‘Cancel’ button to cancel the update of site id and site name.

2. Server Configuration

The server can be configured from the navigation menus available on the left hand side of the main window.

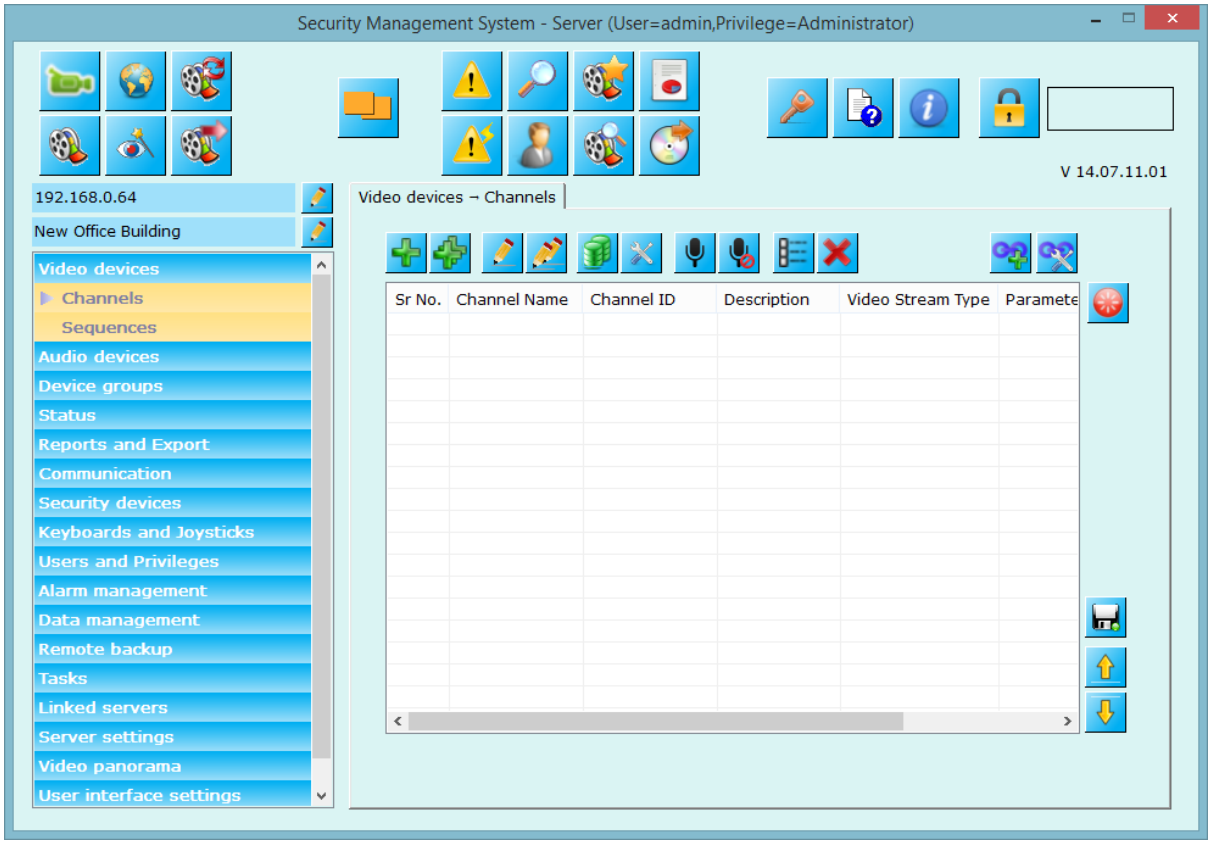
2.1 Video Devices – Channels

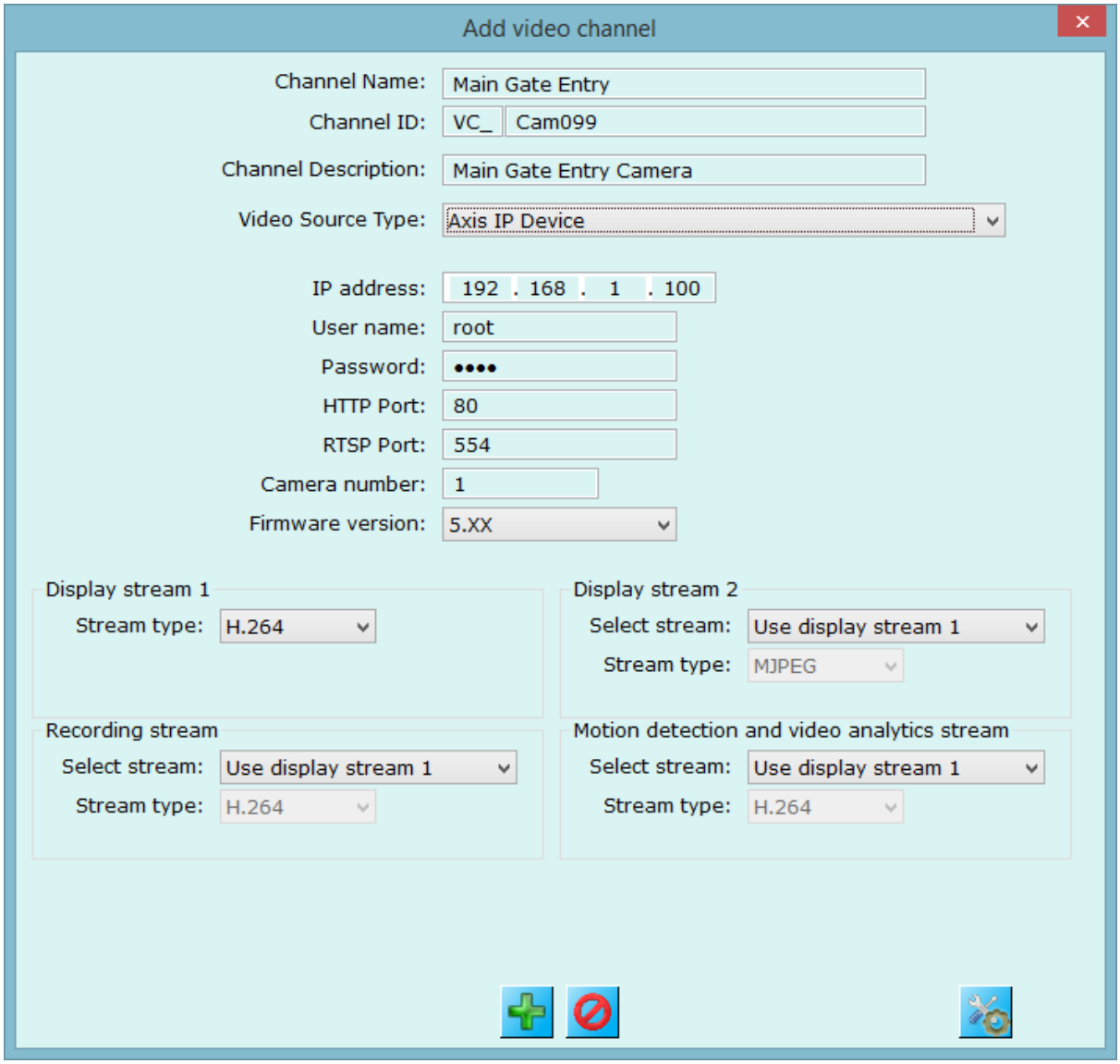
This link displays the list of currently configured video channels. There are two modes for displaying channels.

2.1.1 Add video channel

Please select 'Video Devices->Channels' page to add video channels to the system.

To add video channel, click on button. This will pop up the 'Add Video Channel' dialog box.





Please type the ‘Channel Name’, next to the ‘Channel Name’ textbox. The name string can contain any characters or digits.

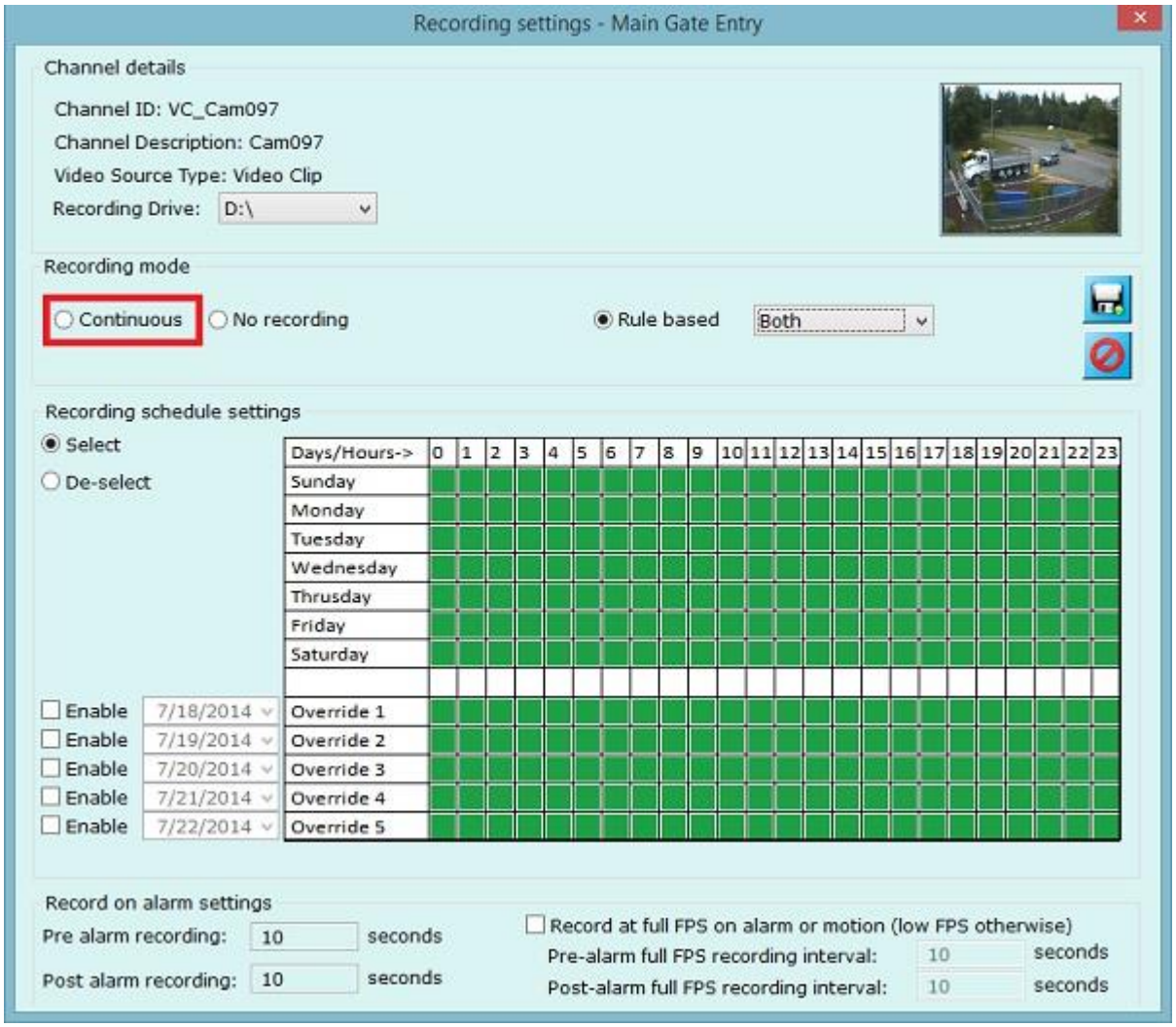
Please type the ‘Channel description’, it can be any string. Channel description is useful for other users and operators to identify a camera/channel correctly, since the channel name may be short and may not be able to provide all information about the camera. Please select the ‘Video Source Type’, as per the make and model of the video server / the camera to be added.

Please provide the video server / camera connection information, as per the user interface elements displayed on the dialog box. These elements change based on the video source type selection.

Click on the ‘Add’ button to connect to the video source, application displays connecting dialog box, please wait while application connects to the requested video source or camera.

Click on “Cancel” button if you wish not to add the video channel.

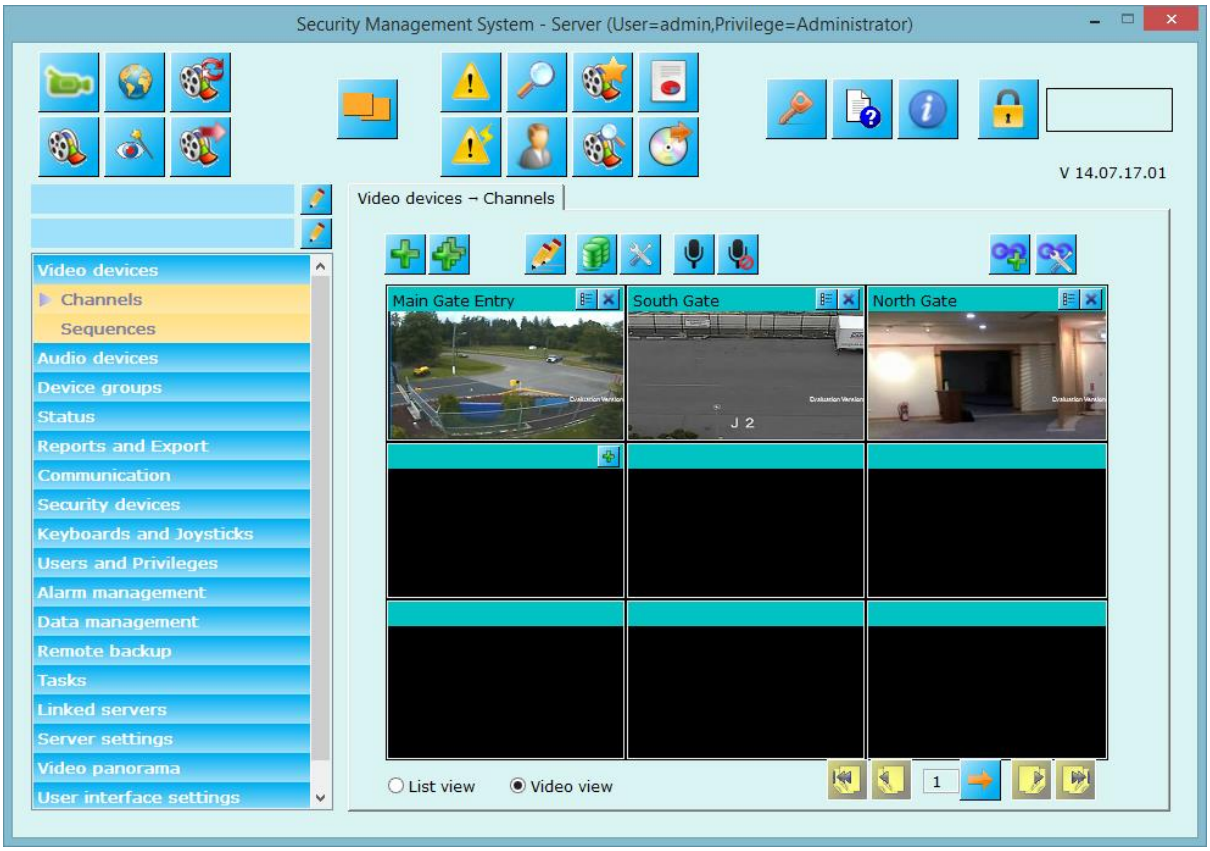
Once the video channel is added, the ‘Recording settings’ dialog box will be popped up. Recording settings for the newly added channel can be configured from this dialog box. Please select the **‘Continuous’** recording mode, and click on the Save button to save the settings and to close the dialog box. (Detailed description of recording modes is available in later sections in this document).



Application will show newly added video channel in list.

Please click on the ‘Add video channel’ button , to add more channels, and follow the same procedure, as mentioned in above step.

2.1.2 Video view mode



'Add video channel' button (or on video view) can be used to add and configure a new video channel.

Use button to add more than one video channel into the system.

Use button to edit more than one video channel at a time.

Use button to update recording settings to one or more videos simultaneously.

Use button to edit one or more video channel settings simultaneously.

The 'Remove channel' (on video view) button can be used to delete the video channel.

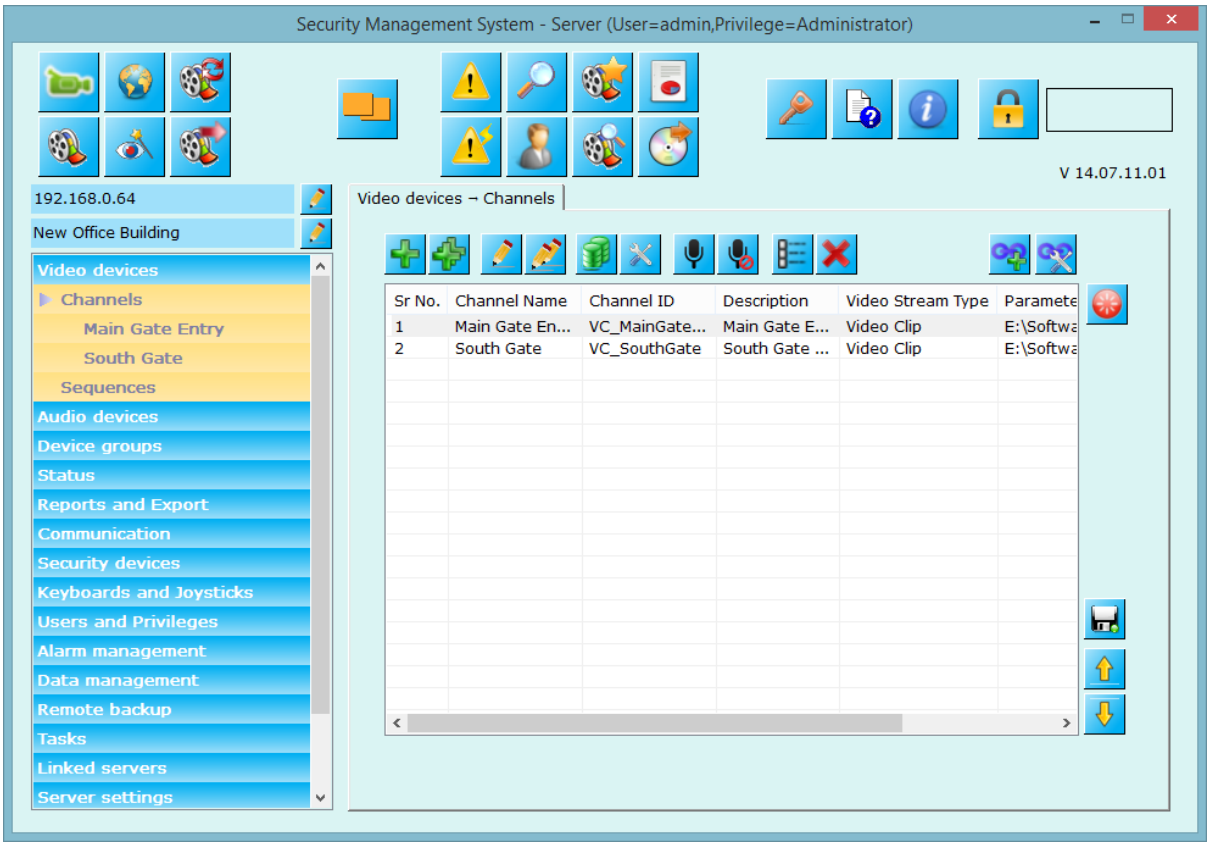
The 'Details' button (on video view) can be used to view the setting of that video channel

Use button to play audio from all channels, audio will start only for those for which audio has been enabled during addition/editing video channel.

Use button to mute audio from all channels.

You can navigate between videos using page navigation toolbar.

2.1.3 List view mode



This mode displays all configured video channels in the list with details like channel name, channel ID, description, video stream type, display resolution(s).

Toolbar buttons can be used to setup video channels in the system.

Use button to add single video channel – already discussed in ‘Quick setup’ section above.

Use button to add one or more video channels simultaneously (described below)

Use button to edit connection settings for selected video channel from list.

Use button to edit connection settings for more than one video channel.

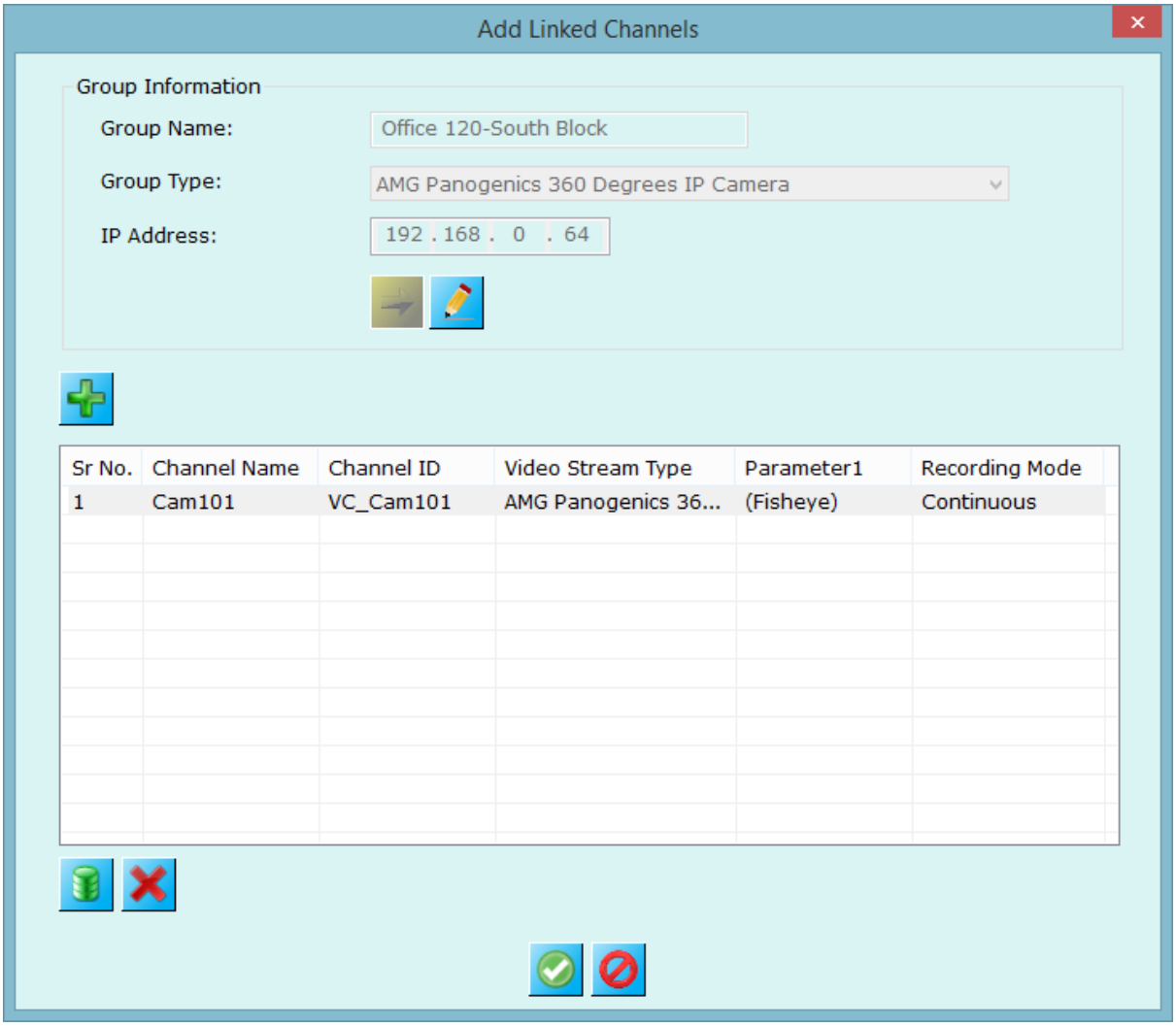
Use button to edit recording settings for one or more video channels.

Use button to edit video parameters (resolution, bit rate, fps etc.) for one or more video cameras configured in the system.

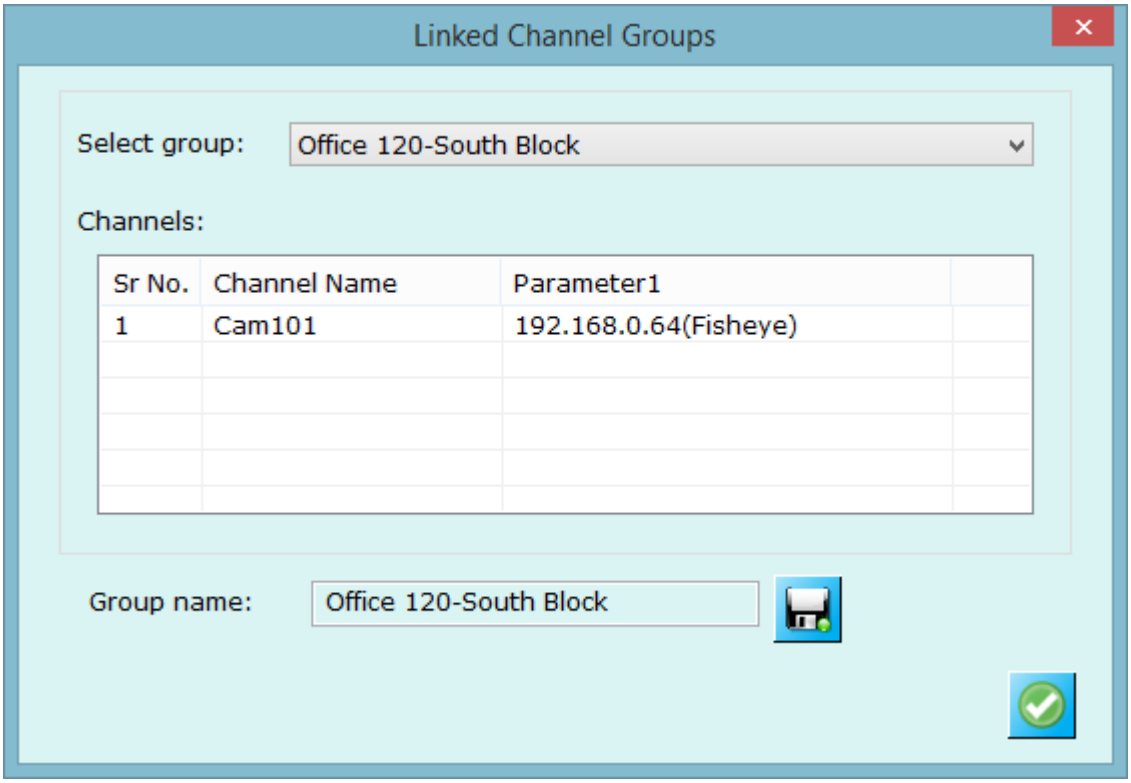
Use button to play audio from all channels, audio will start only for those for which audio has been enabled during addition/editing video channel.

Use button to mute audio from all channels.

Use button add linked channel groups. Linked channel's which share common connection parameter like IP address. These channels can be viewed under one node in live and playback video screens tree control.


Add Linked Channels
Group Information
Group Name:
Office 120-South Block
Group Type:
AMG Panogenics 360 Degrees IP Camera
IP Address:
192 . 168 . 0 . 64
Sr No.
Channel Name
Channel ID
Video Stream Type
Parameter1
Recording Mode
1
Cam101
VC_Cam101
AMG Panogenics 36...
(Fisheye)
Continuous

Use button to edit linked camera group names.



Use button to save the new group name for selected linked camera group.

Other options from list view mode page as,

Use button to see details for selected video channel from the list.

Use button to remove selected video channel from the system.

Use button to reset all the cameras. This is expected to be used only in extreme situations when cameras display ‘Video Loss’ due to problem in the network or cameras due to some accidental or abrupt situations. This will disconnect all the cameras and reconnect them immediately.

Use button to save the configured video channel information into standard format like text, xml, PDF or standard CSV format.

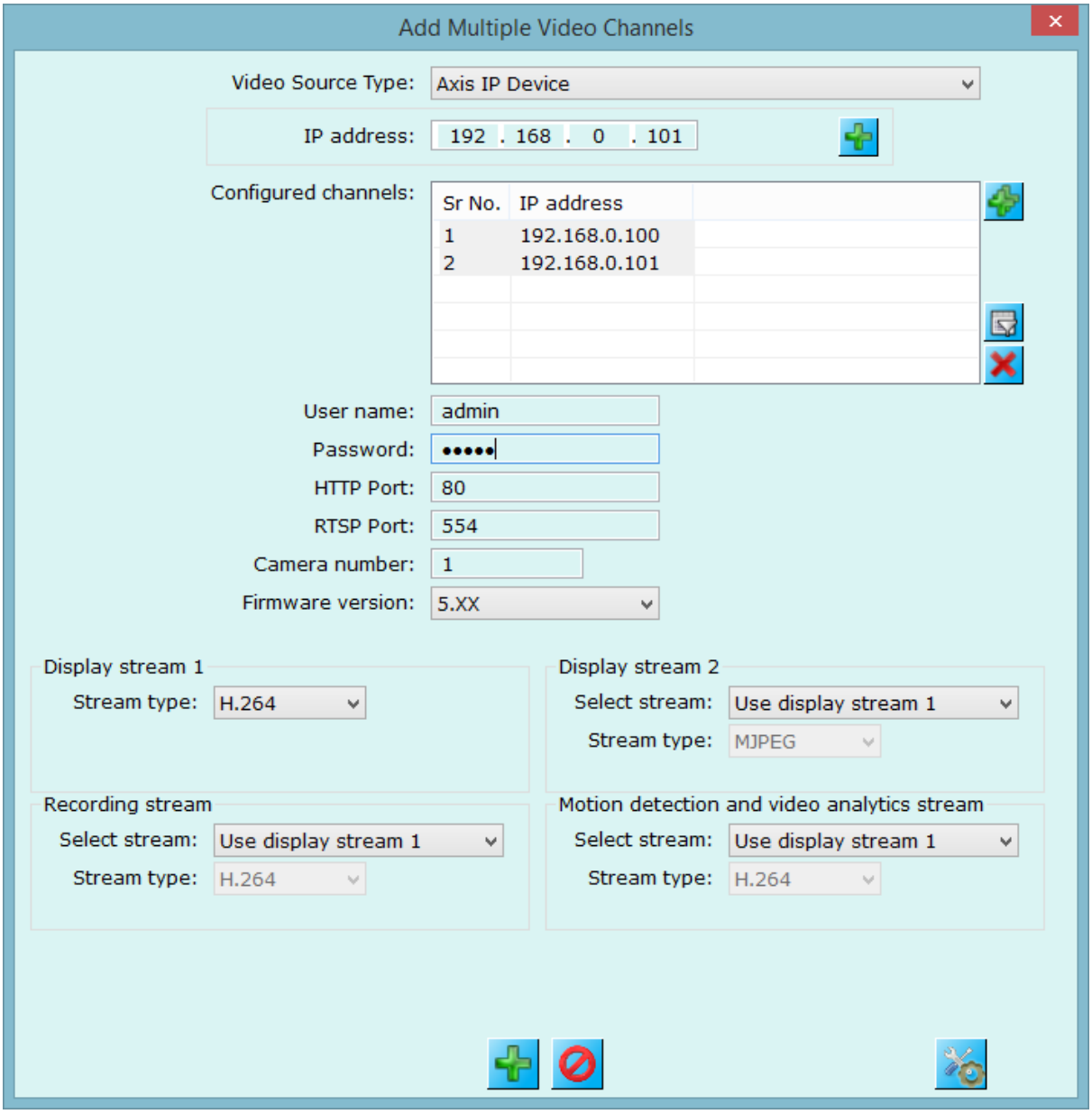
Use “Move Up” and “Move Down” buttons for moving up or down video channel in the order of the list.

2.1.4 Adding multiple cameras

Use button to pop-up ‘Add multiple video channels’ dialog box.

Select video source type from available options.

Add multiple IP addresses into list box (Please note – ‘IP address’ is an example here, cameras can have unique parameters other than IP address or may have more than one unique parameter e.g. IP address with channel number can be unique parameter).



Use button to add cameras within specified IP range.

Use button to search cameras on the network. *(This is camera dependent feature)*

Use button to remove duplicate parameters from list box.

Use button to remove selected cameras from the list box.

Configure remaining parameters which would apply for all cameras to be added.

Click on ‘Add cameras’ button to add the specified cameras to the system.

2.1.5 Using dual/triple streaming

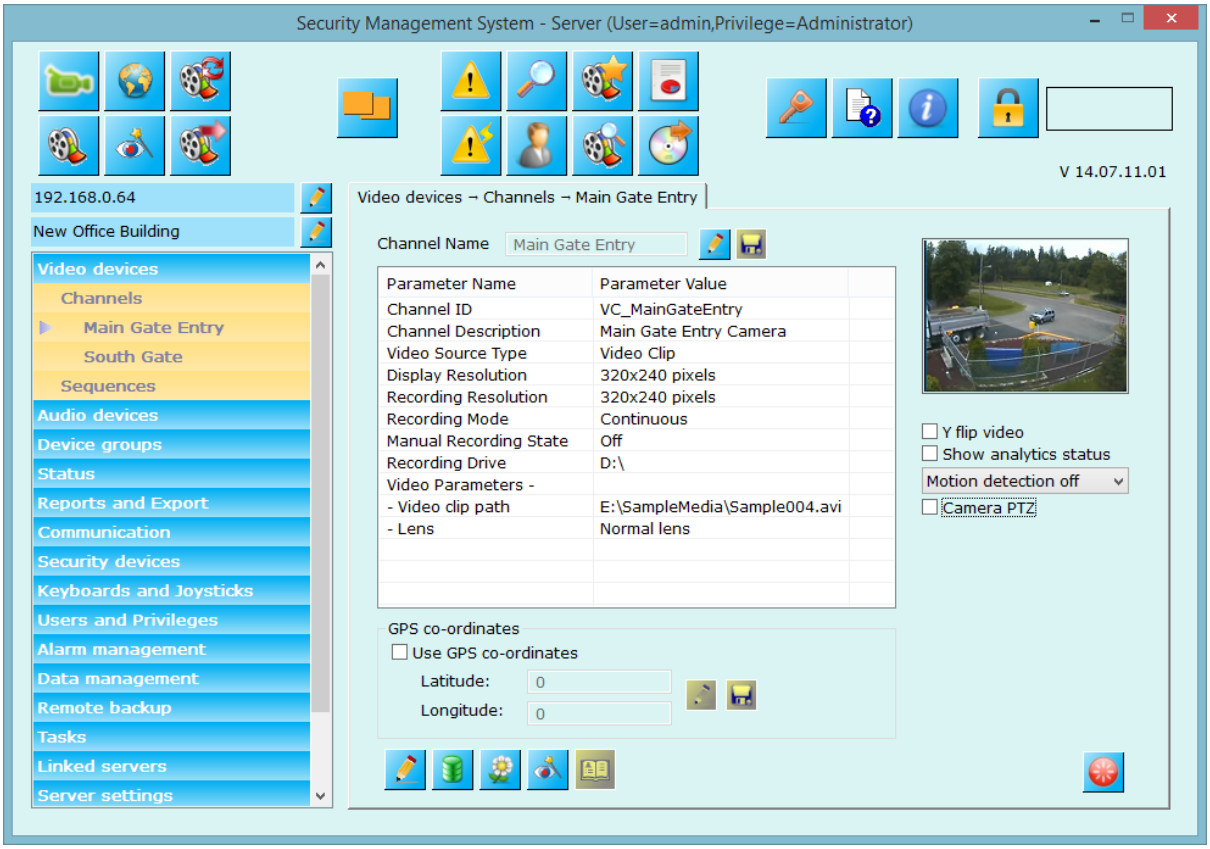
Many cameras provide dual or triple streaming support, with each stream configured with different set of parameters (resolution, frame rate, bit rate, quality etc.).

Security Management System intelligently uses multiple streams from cameras to lower the resources utilization to minimum possible levels and still provide the expected quality output.
Hence it is recommended to use dual or multiple streams while adding video sources to Security Management System.

The 'Camera Configuration Guidelines' document (which is available separately) provides more detailed description on configuration options and steps for using multiple streams in Security Management System.

2.1.6 Video channel details

The 'Channels' link has sub-links, one for every video channel added in the system. Clicking on any of these sub-links displays the channel details page for that channel.



The channel details page shows the configuration settings along with the video source information, resolutions and also the live video thumbnail view.

Use button (present immediate to channel name) to change video channel name.

'Y-flip video' checkbox can be used to enable flipping of video in Y direction. This setting is useful when the video orientation for any video channel does not match with the software orientation and the video is upside down by default.

'Show analytics status' check box can be used to embed video analytics meta-data when analytics is enabled for this video channel.

'Motion detection' option can be one of the following 3 sub-options.

- 'Motion detection off' – application will not do motion detection on channel.
- 'Motion from application' – motion detection is processed from application.
- 'Motion from camera' – motion detection is done by camera and application will use this information to save the alarm.

Camera PTZ – Check this option if the video channel supports PTZ operations.

This will add ‘Camera PTZ’ button to the bottom part of the page.

Use button to update video channel parameters.

Use button to update recording settings for the video channel.

Use button to adjust image properties like brightness, contrast etc.

Use button can be used to configure video analytics settings for that channel.

Use button (disabled in above figure, this button will be enabled when analytics is ON for the video channel) can be used to reset the analytics processing and to restart the analytics processing.

Use button to control pan-tilt-zoom for the video channel. You can also configure camera ‘Presets’ and ‘Tour’ from the popped up dialog.

Use button to reset the camera. Application will reset the camera stream by disconnecting from this camera and reconnect to it immediately. This button expected to be used only in extreme cases where there is accidental or abrupt changes to network or camera by which camera is not showing video stream in the application.

You can also define GPS co-ordinates (Latitude and Longitude) of the camera by enabling ‘Use GPS co-ordinates’, the GPS coordinates information ‘<geo:lat>’ and ‘<geo:long>’ is included in the RSS feed response of alarm if enabled for camera.

Other options (dependent on camera feature support)

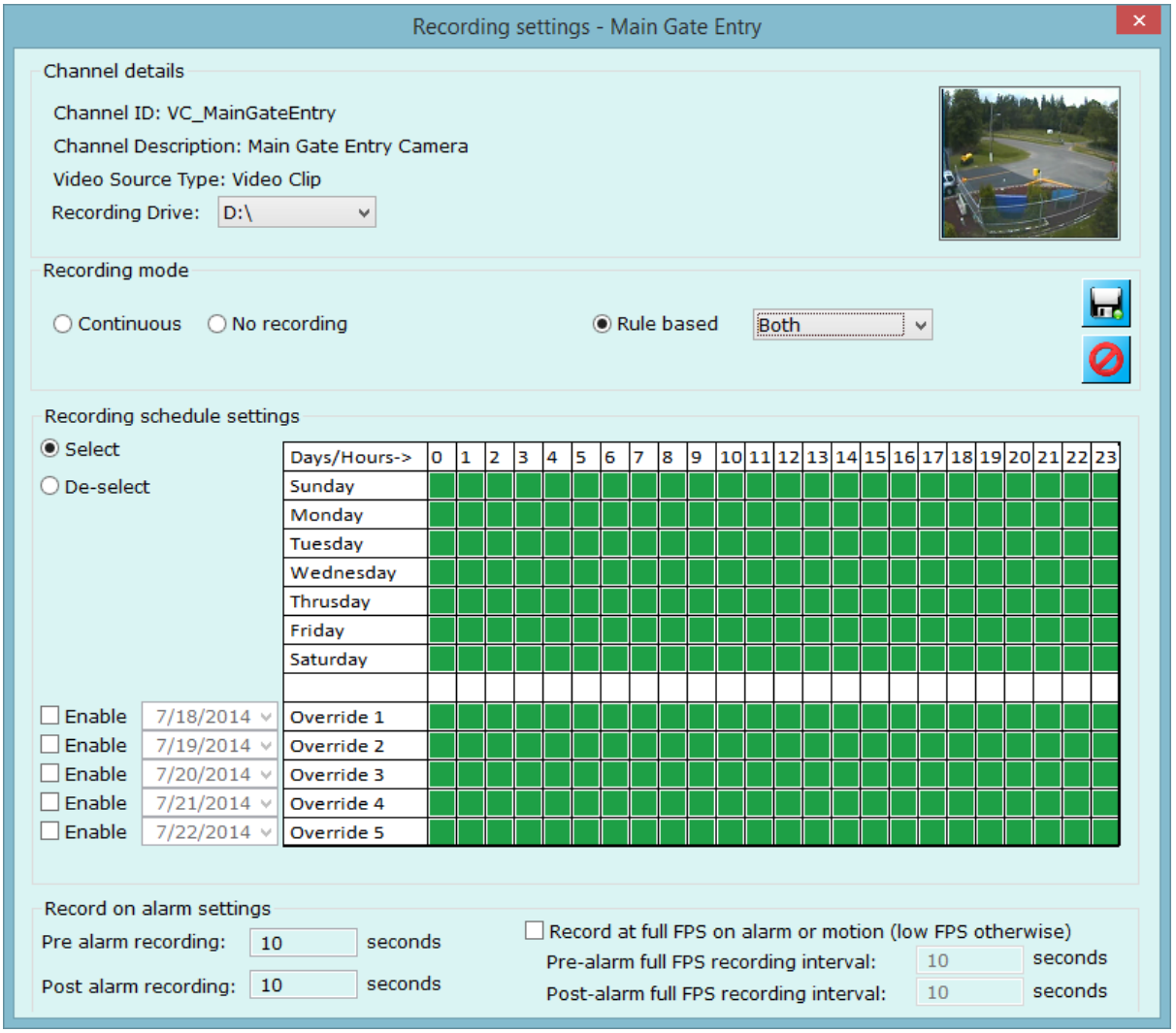
➔ Configuring ‘Camera alarms’ – use button

➔ Send audio to camera (2-way audio) – check box below ‘Camera PTZ’ option.

➔ Motion detection settings button - can be seen when ‘Motion detection from application’ is selected – can be used to configure motion detection parameters such as motion detection sensitivity, area on which motion detection to be performed etc.

2.1.7 Recording settings/plan/options

The recording settings can be configured for each channel independently.



The recording drive to record the data for this selected channel can be selected from the available options. The available options include all the recording drives configured in the software. The recording drives can be configured from the 'Data management -> Recording drives' settings page.

Recording mode can be one of the following

1. **Continuous** – application will record video stream continuously.
2. **No recording** – application will not record any video data from the stream.
3. **Rule based** – this option has 3 sub-options

   a. **Scheduled** –

User can configure the schedule for recording video stream day wise. User can select or deselect recording for each hour available in a week. Application also provides 5 dates which user can override and provide different settings for these dates. When overridden, application ignores day based setting for this date and follows the overridden schedule. The override happens only for the specified dates, the recording schedule switches back to the normal configuration at the end of the day (00 hours)

b. **Alarm based** –

User can choose to record video stream only when application learns any alarm. User can configure 'pre alarm recording' and 'post alarm recording' time. E.g. if user has configured 10 seconds for both pre and post alarm recording, then when application learns any alarm for video stream then application will record video streams from 10 seconds back of this alarm to 10 seconds forth of this alarm. This way user will have better recorded data of the alarm situation to observe.

c. **Both** –

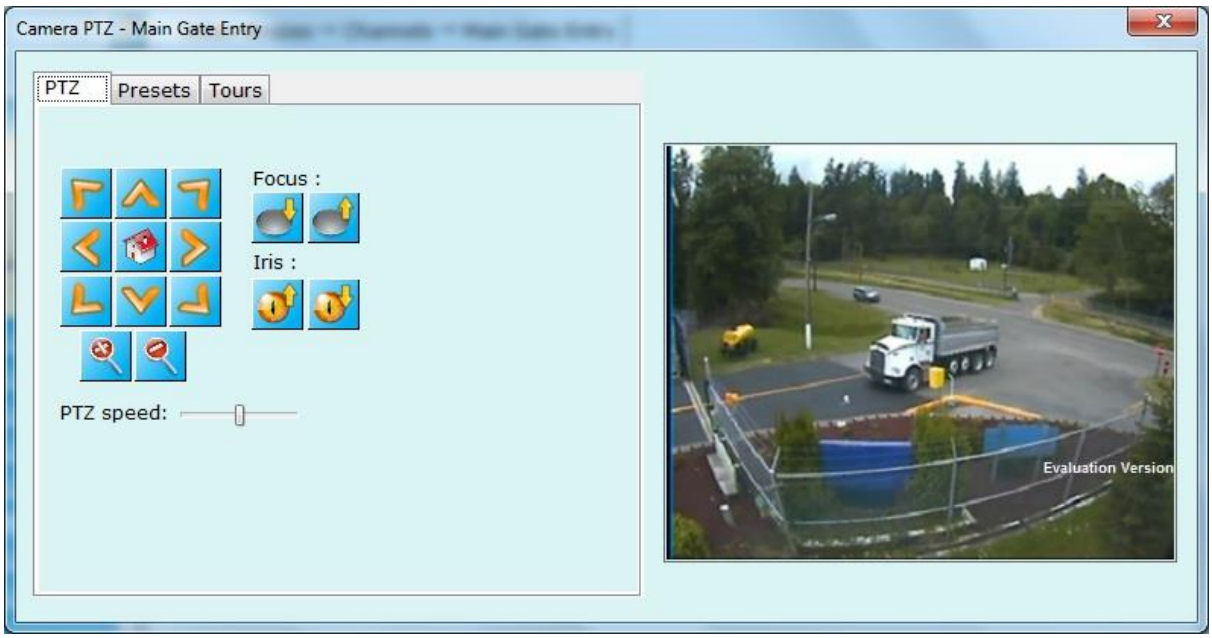
User has an option to record both in schedule and alarm based too. When either of the schedule or alarm condition is met, the application will start recording video stream.

Record at full FPS on alarm (low FPS on no-alarm) – This feature is available in 'Continuous', Rule based- Schedule' and 'Rule based – Both' recording mode. When checked, application will record stream at low FPS (frames per second) when there is no alarm, thus saving disk space. When application receive any alarm, it will save video stream at full FPS from specified 'pre-alarm full FPS recording interval' to 'post-alarm full FPS recording interval'.

Click on ‘Camera PTZ’ button on ‘Video details page’ to popup camera PTZ dialog box. It has 3 tabs.

2.1.8 Camera configuration – PTZ

Use PTZ buttons available on the user interface to move camera, you can also adjust focus and iris. Camera video is shown at right part of the dialog which will immediately reflect the changes made to the camera position.



2.1.9 Camera configuration – Presets

If camera supports configuring presets, this tab will be visible. ‘Preset list’ contains all the already configured presets for the camera.

By default, application adds ‘Home’ preset when camera is added. You cannot delete ‘Home’ preset as it will be used as reference position when ‘Video Analytics’ features are used for the camera.

To **add new preset** for the camera, adjust camera position using available PTZ buttons. Specify preset name and click on button to add new preset. The added preset can be seen in preset list and its image on right hand side the list.

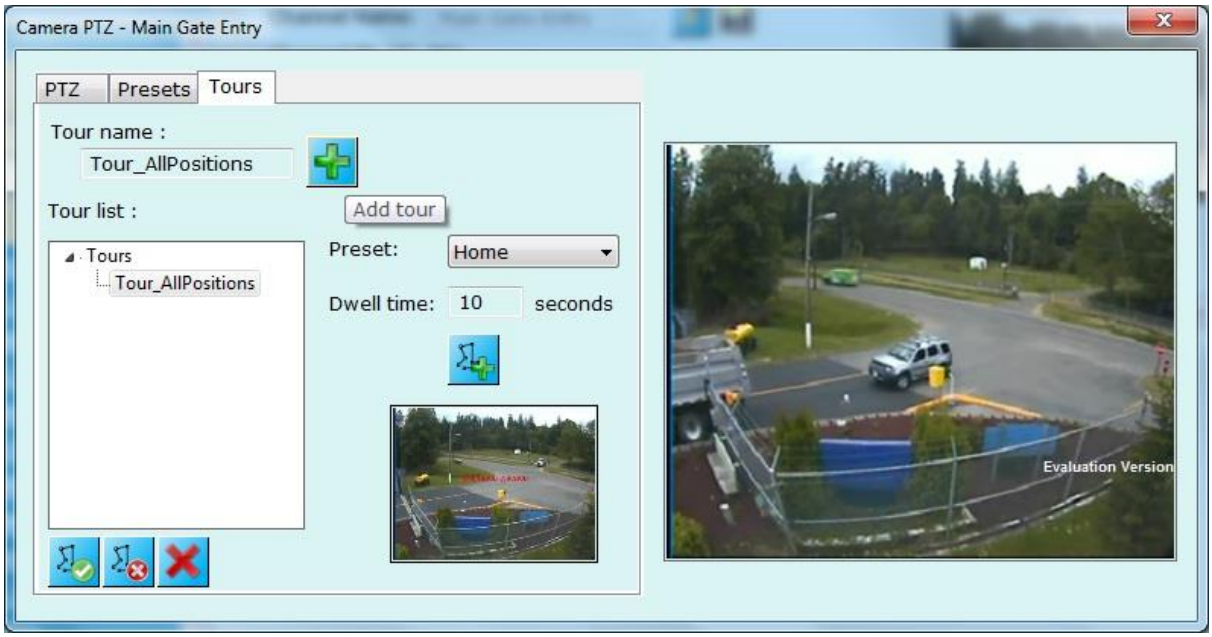
Select any preset from the list, right hand side image will be updated to **show selected preset position snapshot.**

Select any preset from the list and click button to **remove preset** from the camera

To **update any preset**, adjust camera position as per your requirement, then select any preset from the list and click button. Selected preset will get updated with this new position after getting confirmation from user and preset snapshot image too gets updated.

Select any preset from the list and click button to move the camera to selected preset position.

2.1.10 Camera configuration – Tours



For adding 'Tour', first enter tour name and click on button to add tour name to the 'Tour list' tree control.

Select tour name from the tree control and now you can go on adding 'Presets' to selected tour name from tree control.

Select any preset from the list, enter dwell time (time in seconds to which preset should be shown before moving to next preset in a tour), and click on button to add preset to tour. Tree control will show added presets with their dwell time below the tour name. (Please refer screenshot at below page where tour is configured to 3 presets)

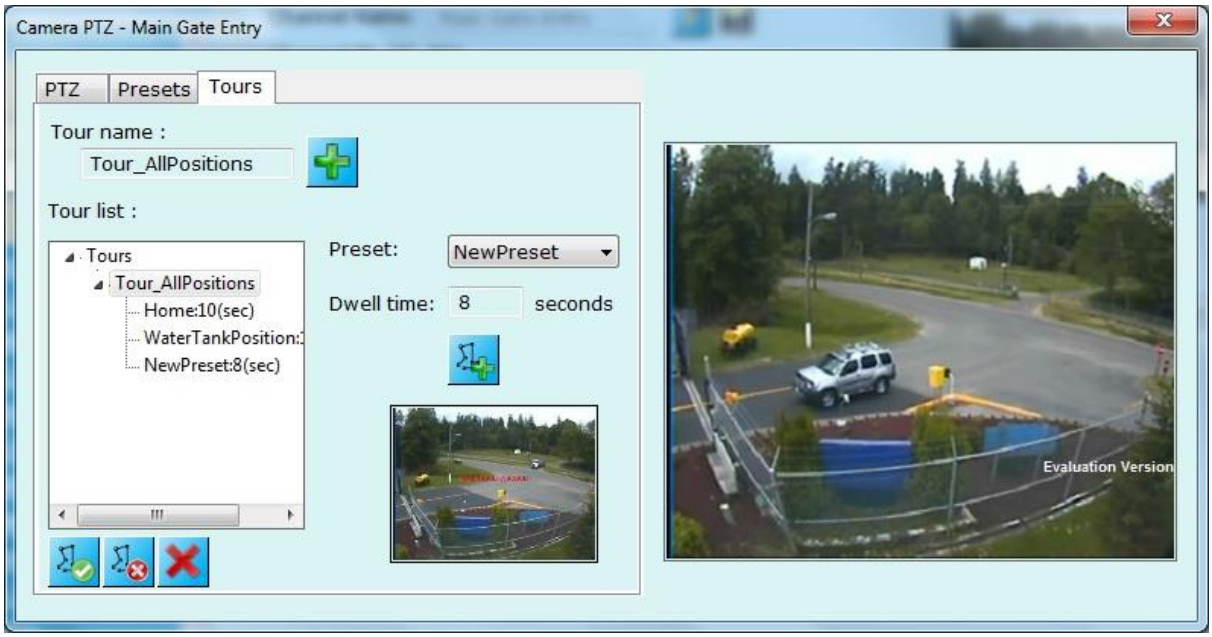
Keep doing same procedure to add more presets as per your choice.

Select any node (preset name or tour name) from the tree control and click button to remove selected node from the list.

Click on to start the tour.

Click on to stop the tour.

Screenshot where tour ‘Tour_AllPositions’ is configured with 3 preset from camera ‘Main Gate Entry’

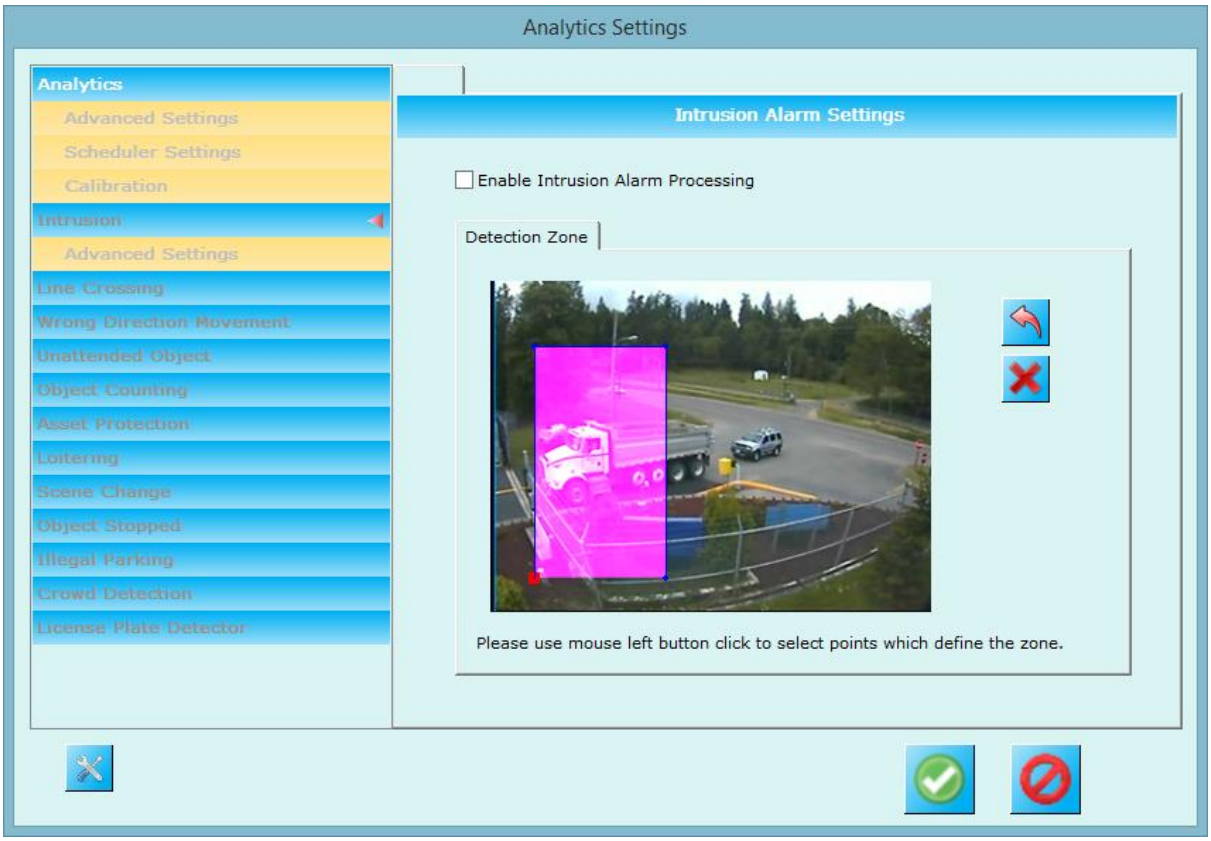


2.1.11 Analytics settings

User can set various analytics settings from below dialog. Settings include the area to be under supervision; by default application processes all the area for different types of alarms.

User can select for analytics options available like Intrusion detection, line crossing, wrong direction movement detection, un-attended object detection, asset protection, scene change, and object stopped, illegal parking, crowd detection, and license plate recognition.

Advanced users further can set more parameters for each analytics type.



'Enable analytics processing' should be checked and detection zone should be updated as per the requirement.

Update schedule for which analytics should be active from 'Scheduler settings' on this page.

Tweak parameters from 'Advanced settings' option available with every type of analytics module.

For more than one rule within the specific analytics module (e.g. Intrusion) – click on button.

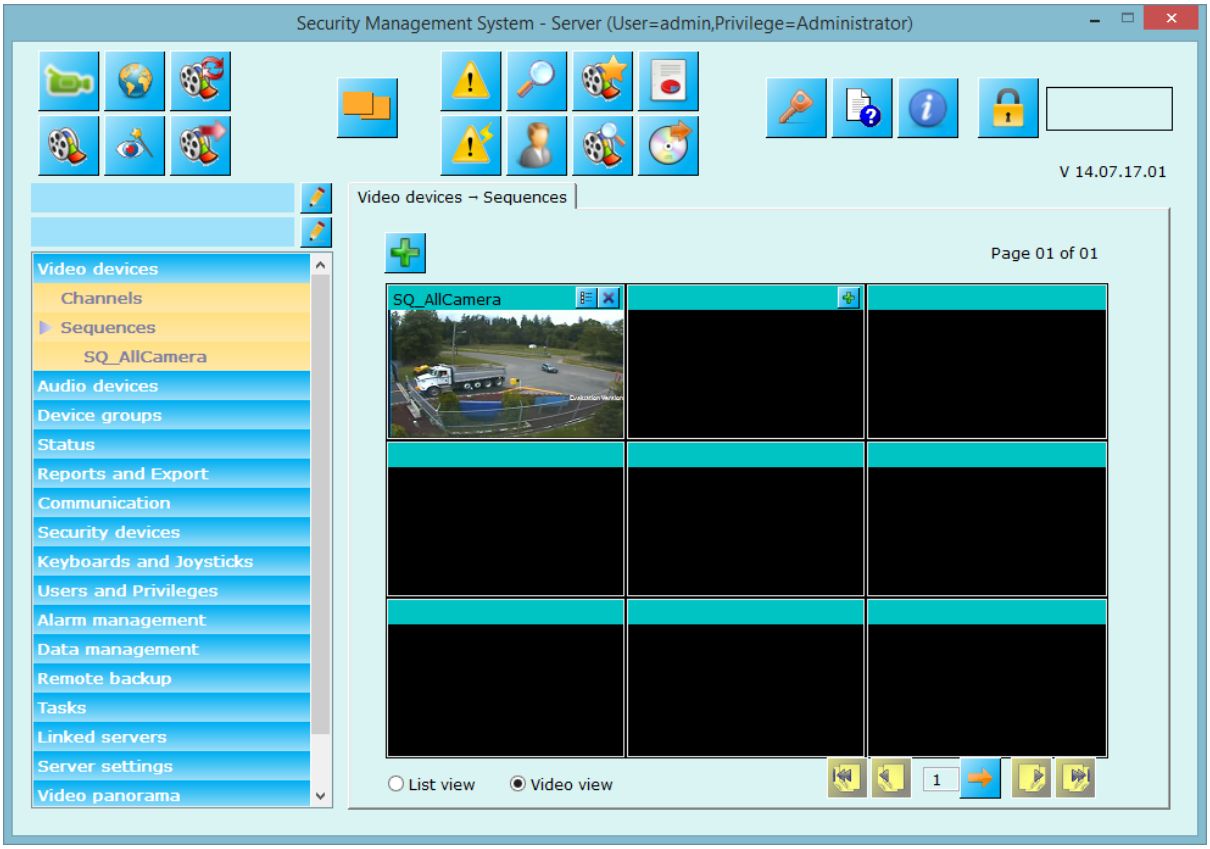
2.2 Video Devices - Sequences

This link displays the list of currently configured video sequences. A video sequence is a sequence of video channels, with dwell time specified for each channel. The video sequences can be used in the live view or playback view for patrol mode video display.

There are two modes for sequence display.

2.2.1 Video view mode

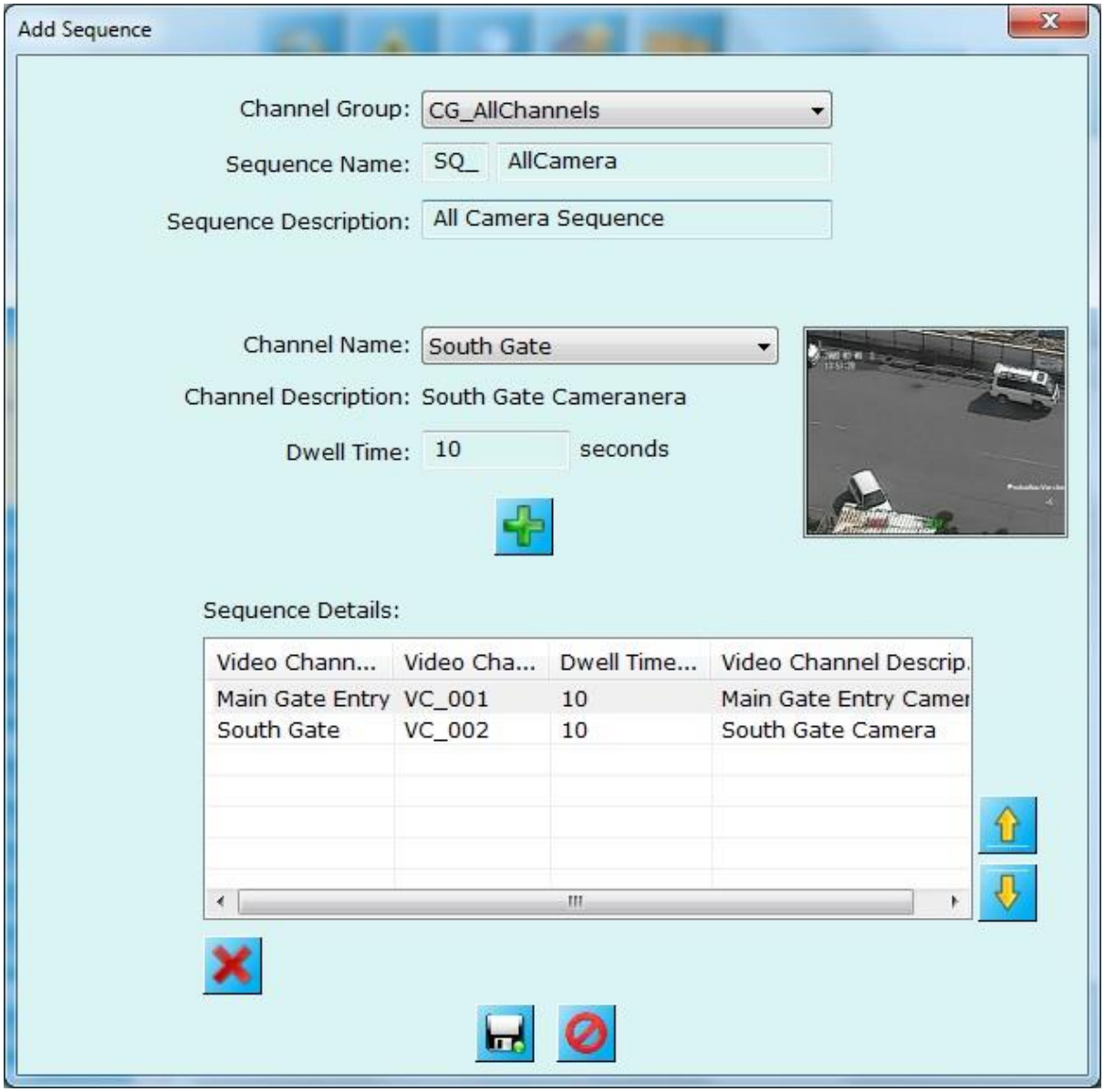
This shows playing video sequences with video and their dwell time.



The 'Add sequence' button (or on video window) can be used to configure a new video sequence. This will pop up a dialog box (see figure below) which allows you to name your video sequence, add description of video sequence and define or add video channels to video sequence with their dwell time.

Use user control available on dialog for adding video channel to the sequence, removing video channel from the sequence and changing video channel execution order (Move up and move down) buttons.

Click on ‘Save’ button to add video sequence to the system.

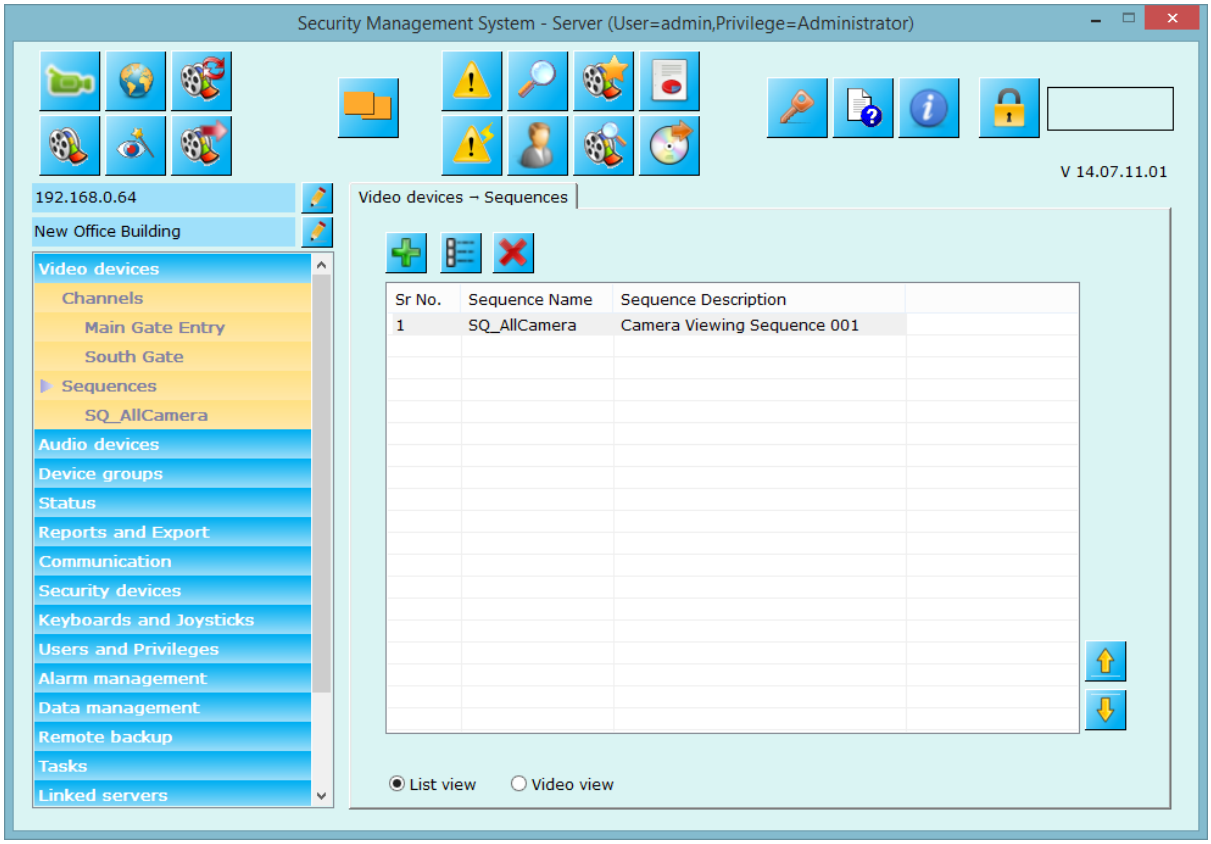


After adding video sequence, application starts showing video sequence at the dialog.

You can add more sequence by repeating above steps.

2.2.2 List view mode

This link shows the list of video sequence, their name and description. You can add sequence, remove selected sequence or see details about the sequence using controls available on the page.



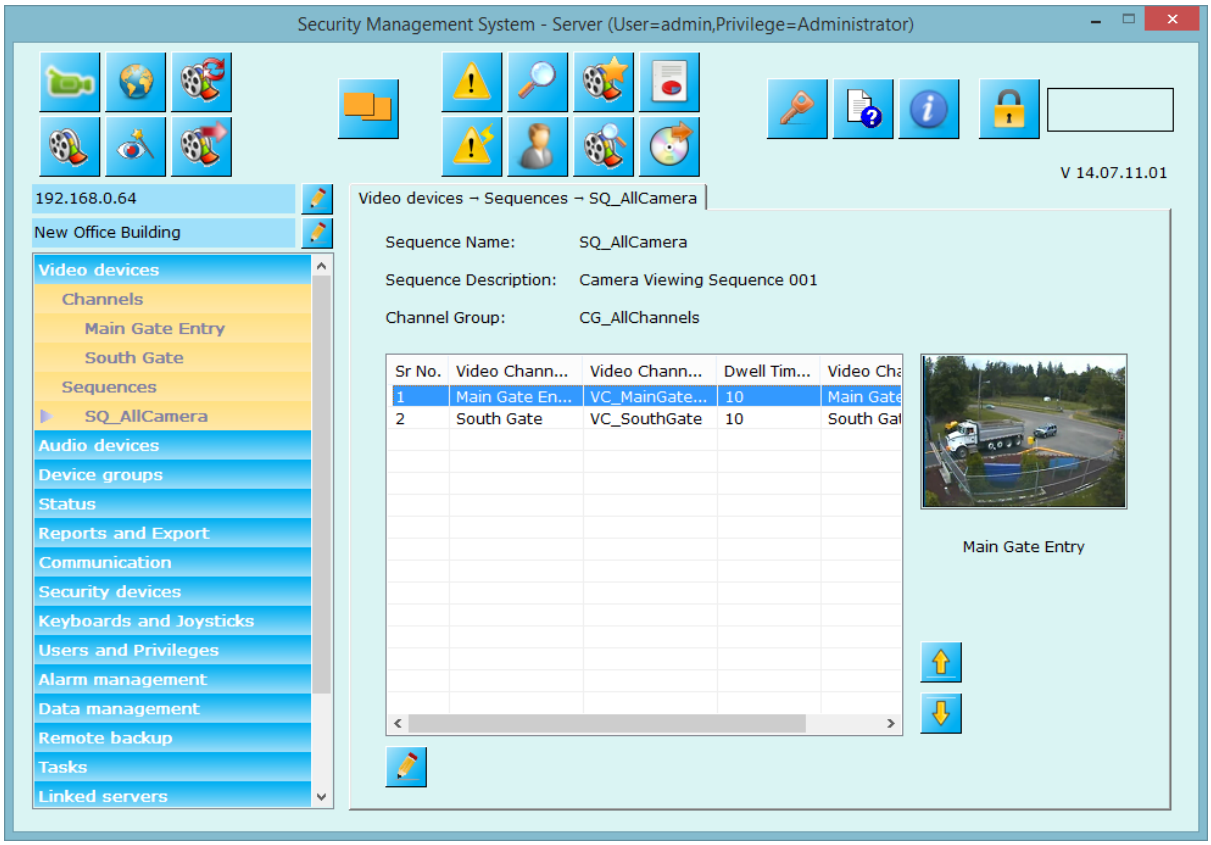
The 'Remove sequence' button can be used to delete the currently selected video sequence.

The 'Detail' button can be used to view the settings of the currently selected video sequence.

The 'Up' and 'Down' buttons can be used to change the sequence of the video sequences in the list.

2.2.3 Sequences details

The ‘Sequences’ link has sub-links, one for every video sequence configured in the system. Clicking on any of these sub-links displays the video sequence details page for that sequence. The sequence details page shows the list of video channels in that video sequence, along with their dwell times.



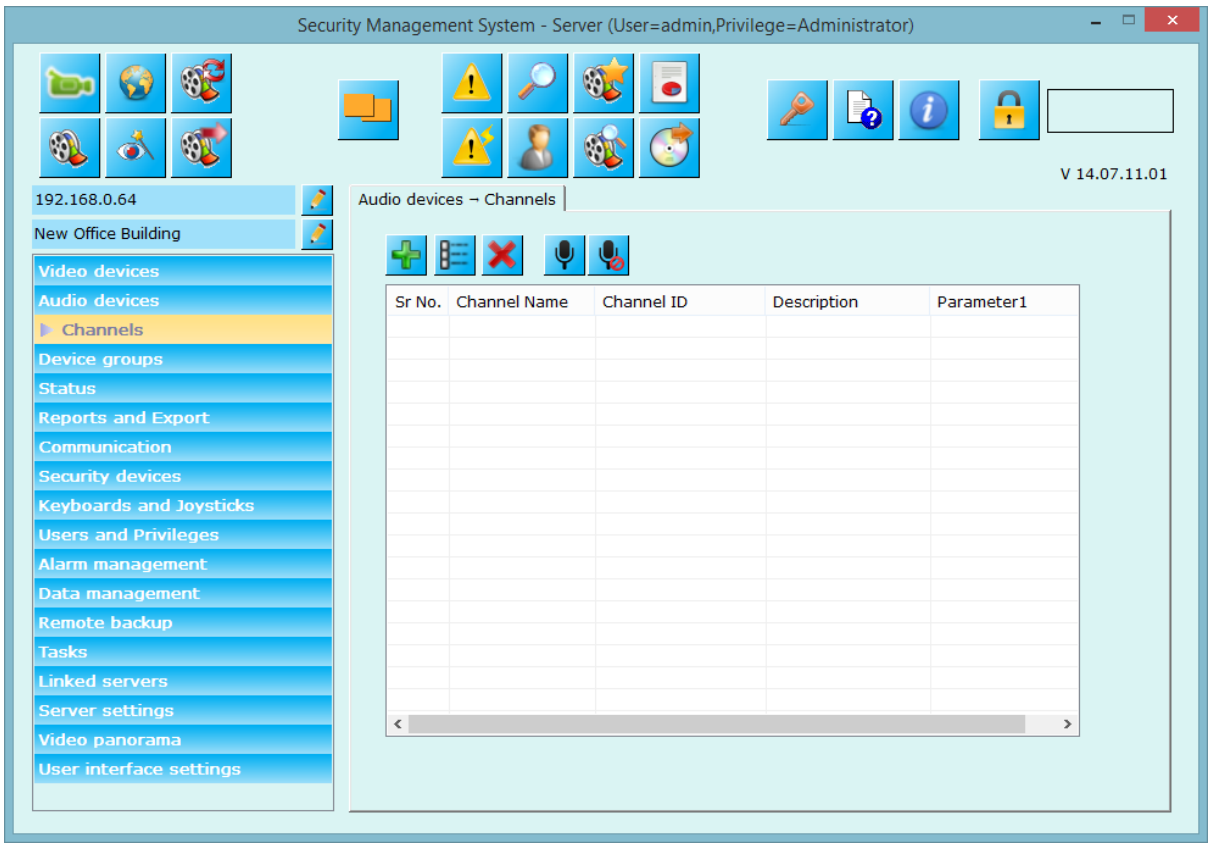
Any row from the list can be selected, and the corresponding video channel is treated as the currently selected video channel. Live video is displayed for the currently selected video channel at right hand side.

The ‘Up’ and ‘Down’ buttons can be used to change the sequence of the video channels in the list, and hence in the video sequence.

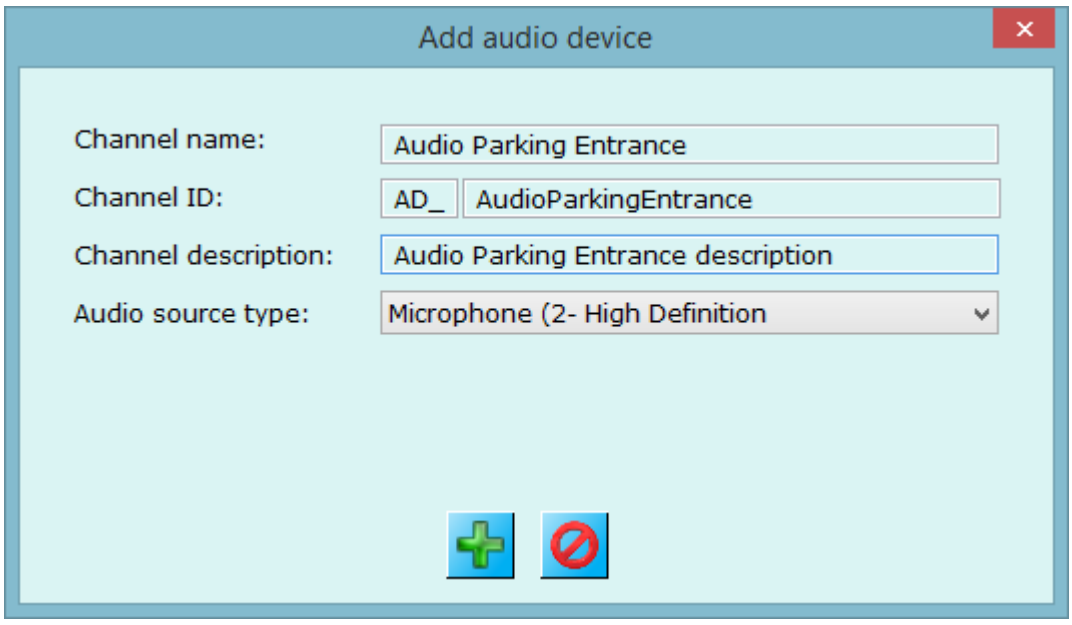
The ‘Edit sequence…’ button can be used to edit the video sequence, this pops up same dialog box as that of add video sequence. You can change video sequence settings using user interface controls from this dialog.

2.3 Audio Device

This link displays list of currently added video devices. And lets you add audio devices.

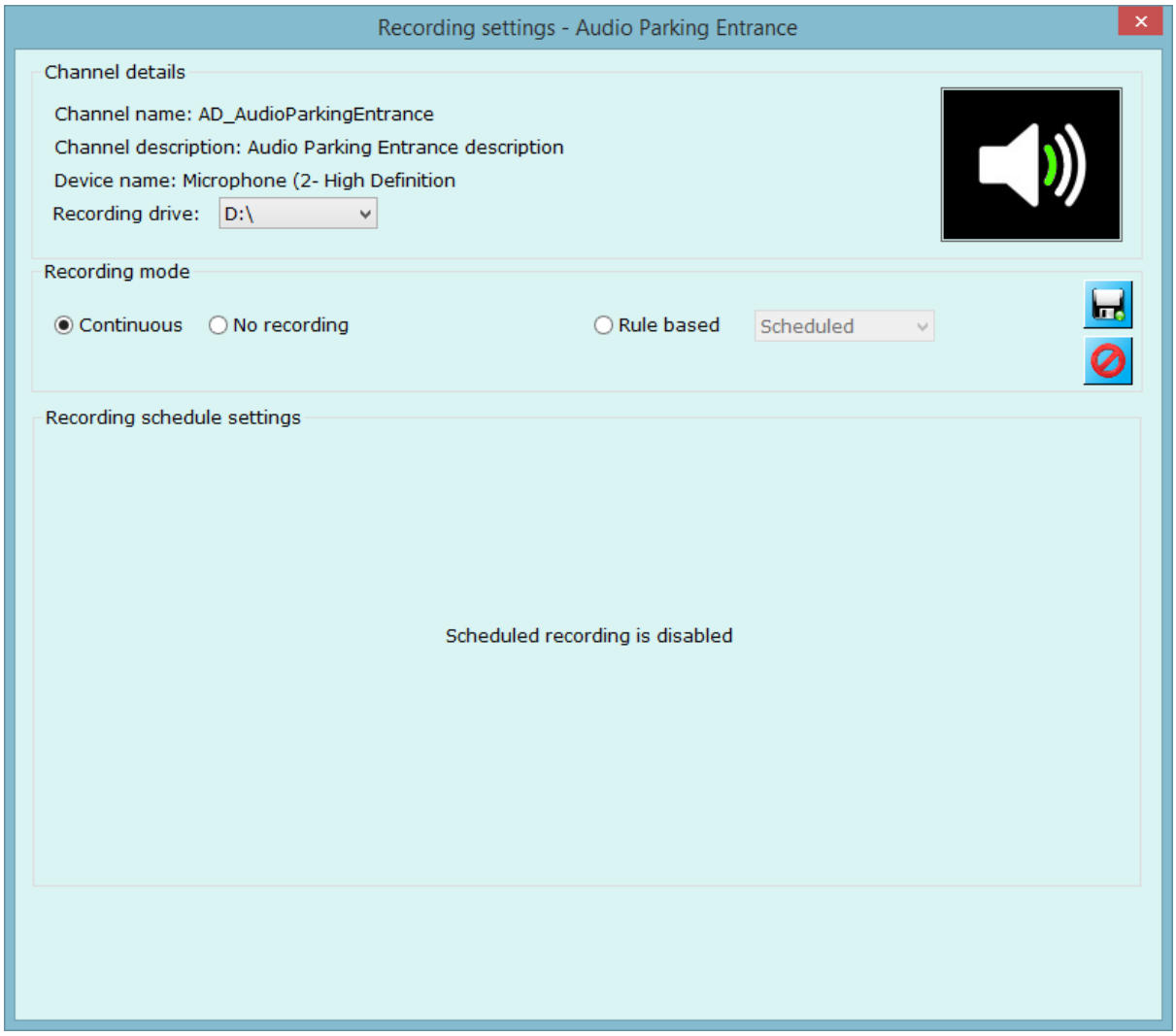


Use ‘Add video device…’ button to add video device to the system.



Enter details for audio device name and desciption and select audio source type from list.

Click on 'Add' button to add audio device to system.
This will popup recording selection dialog for audio device, configure recording settings for audio device and click 'Save' button to save settings.



The 'Remove selected audio device button can be used to delete the currently selected audio device.

The 'View audio device details' button can be used to view the settings of the currently selected audio device.

The 'Up' and 'Down' buttons can be used to change the sequence of the video sequences in the list.

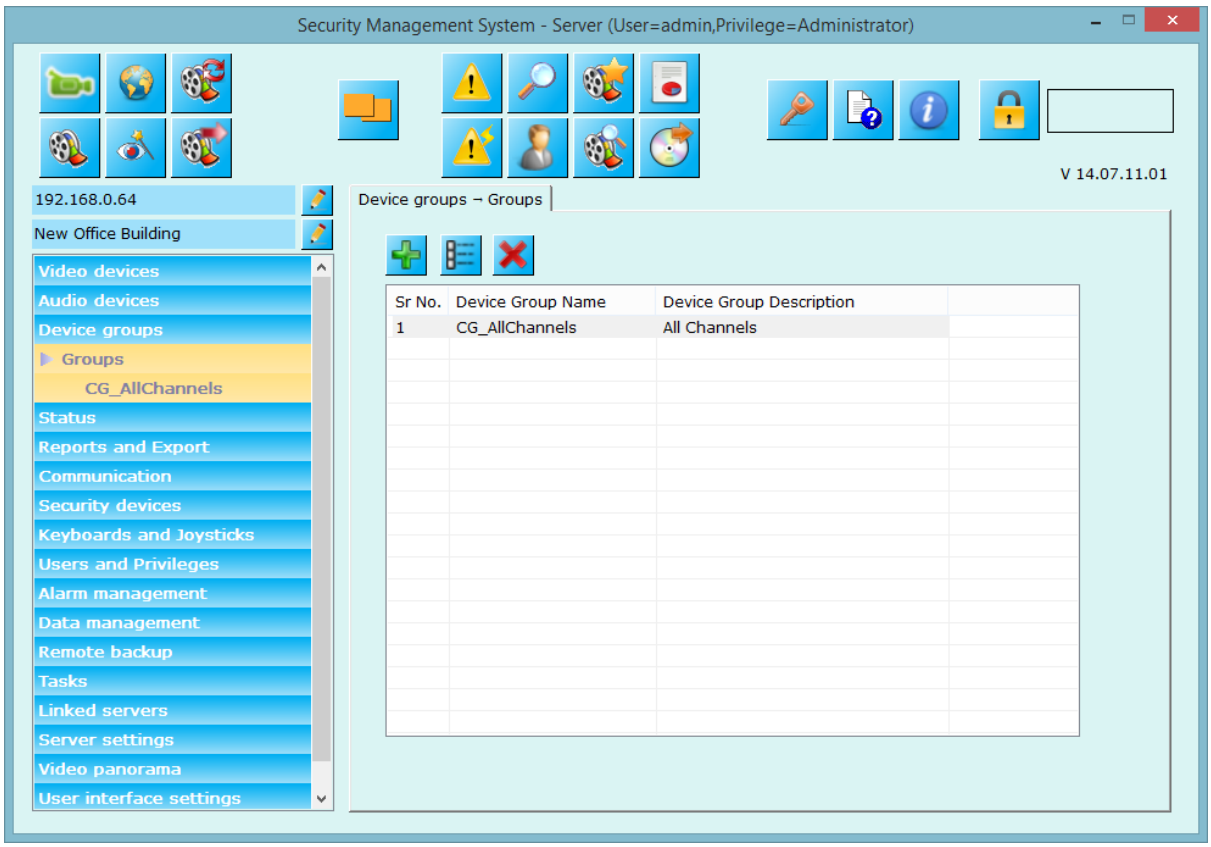
Use button to play audio from all channels, audio will start only for those for which audio has been enabled during addition/editing video channel.

Use button to mute audio from all channels.

2.4 Device Groups

2.3.1 Groups

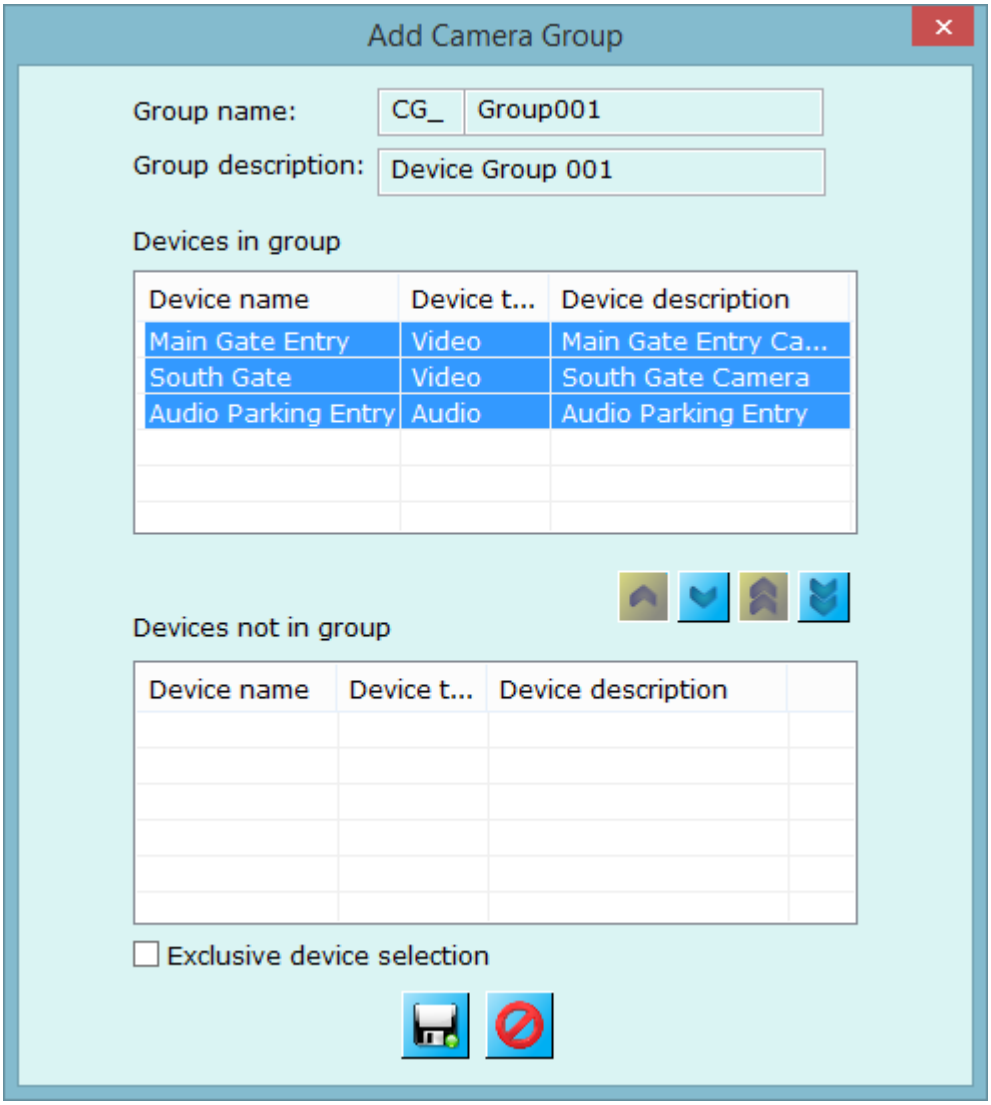
The ‘Device Groups’ link lists all video devices and audio devices groups currently defined in the system. By default system adds ‘CG_AllChannels” group which includes all the video devices and audio devices from the system. You can define device groups as per your need.



The ‘Add new device group’ button can be used to add new group to the system. This will pop up a dialog box (see figure below) which allows you to name your group, add description of group and define or add video channels and audio devices to group.

The ‘Remove group’ button can be used to delete the currently selected group.

The ‘Detail’ button can be used to view the details of the currently selected group.



Use

- To remove all devices from the group.

- To remove selected devices from the group.

- To add all video devices to the group.

- To add selected devices from ‘Devices not in group’ to ‘Devices in group’

Use ‘Exclusive device selection’ to exclude all the devices from ‘Devices not in group’ list which are already used in one or more device groups.

Click on ‘Save’ button to complete adding group to the system.

2.3.2 Group Details

The ‘Group’ link has sub-links, one for every group configured in the system. Clicking on any of these sub-links displays the details about that group. This details page shows all the video channels that are available in the group and all the video channels that are not in the group. Click on ‘Edit camera group settings…’ button to change the settings. Change the ‘Channels in group’ list with the buttons below it. After changes completed, click on ‘Save camera group settings’ button to save the changes.

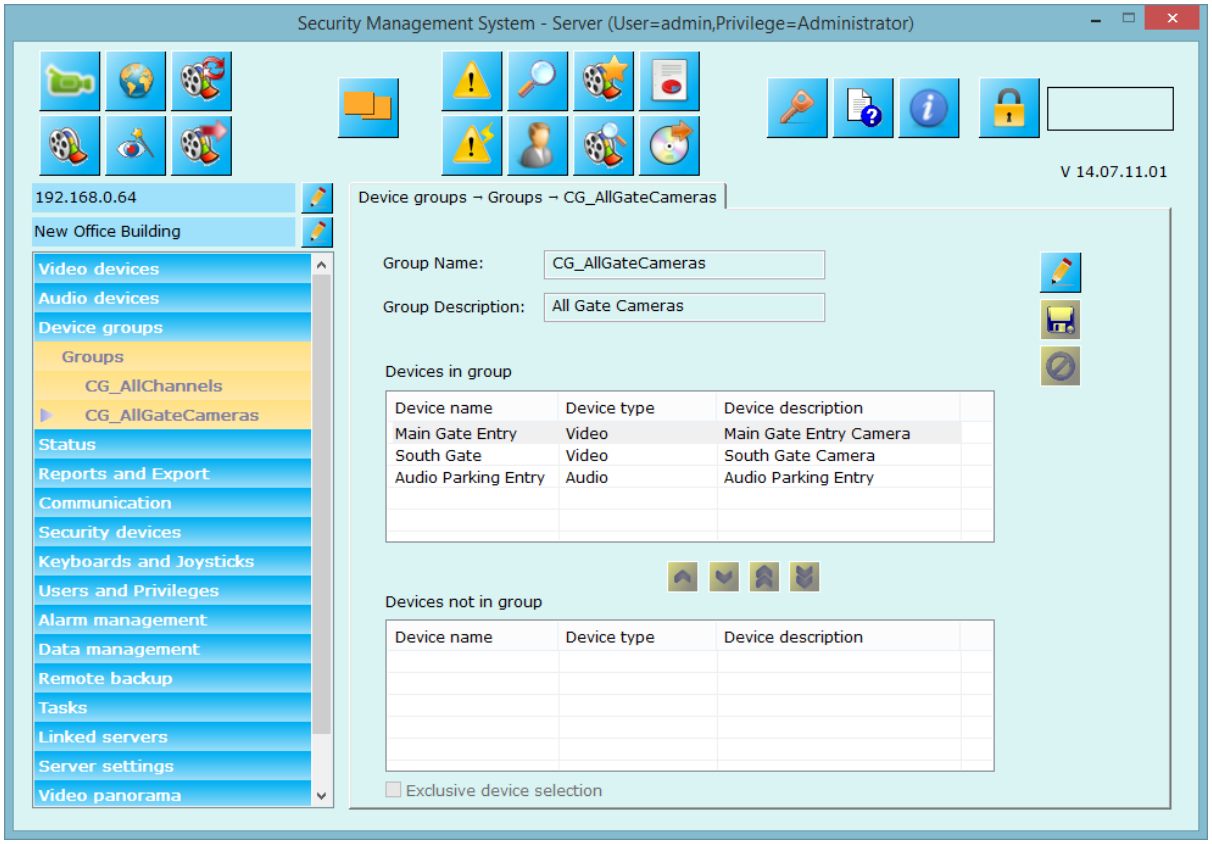


Figure – Group details link for ‘CG_AllGateCameras’ group.

2.4 Status

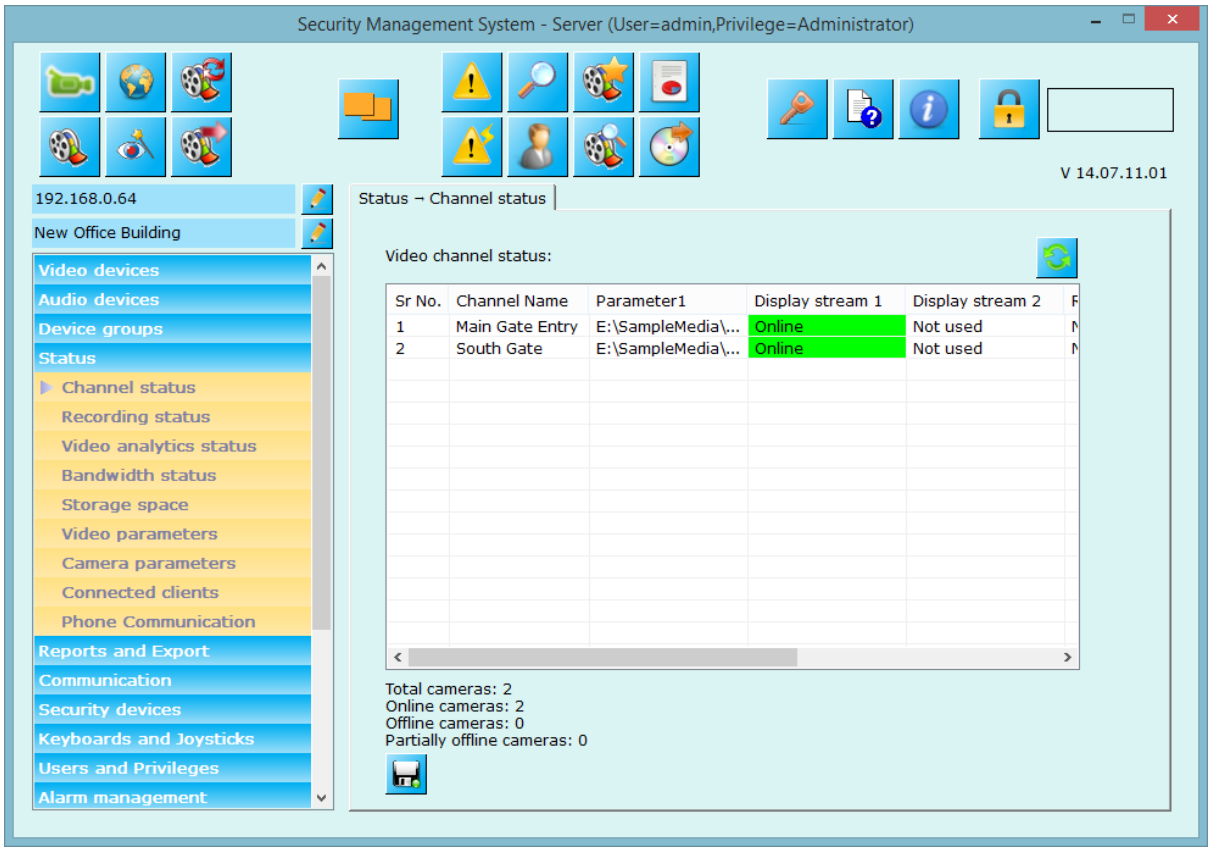
The status link gives category wise quick status of the entire system. It has sub links.

2.4.1 Channel status

This link displays status for all configured video channels with details on each stream used and its current status. Summary which includes total cameras, total online cameras and total offline cameras is displayed at the bottom of the page.

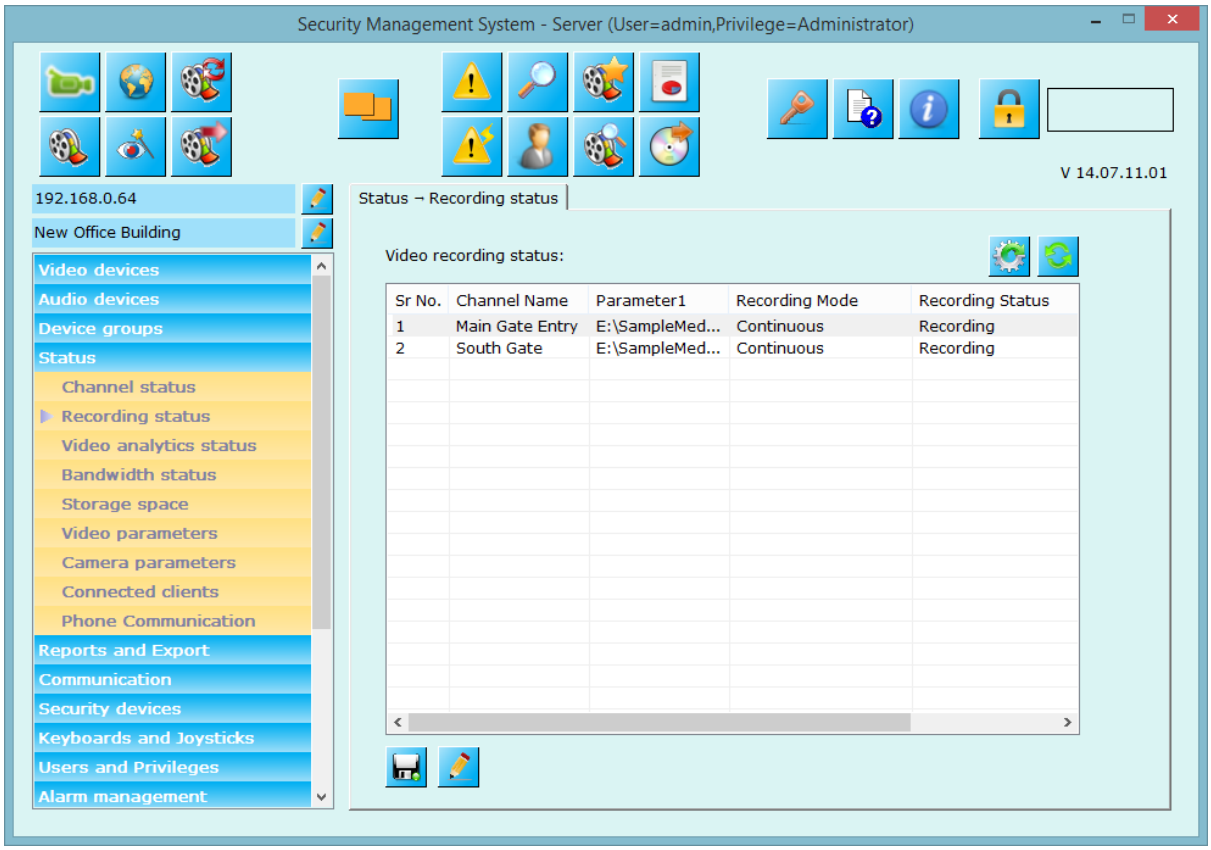
Use ‘Refresh’ button to get current channel status at any time.

Use ‘Save’ button to save channel status report to standard format like text, xml, or CSV format.



2.4.2 Recording status

This link displays recording mode used for all configured video channels in the system with recording drive used per video channel.



Use button to save this report to text, xml or CSV format.

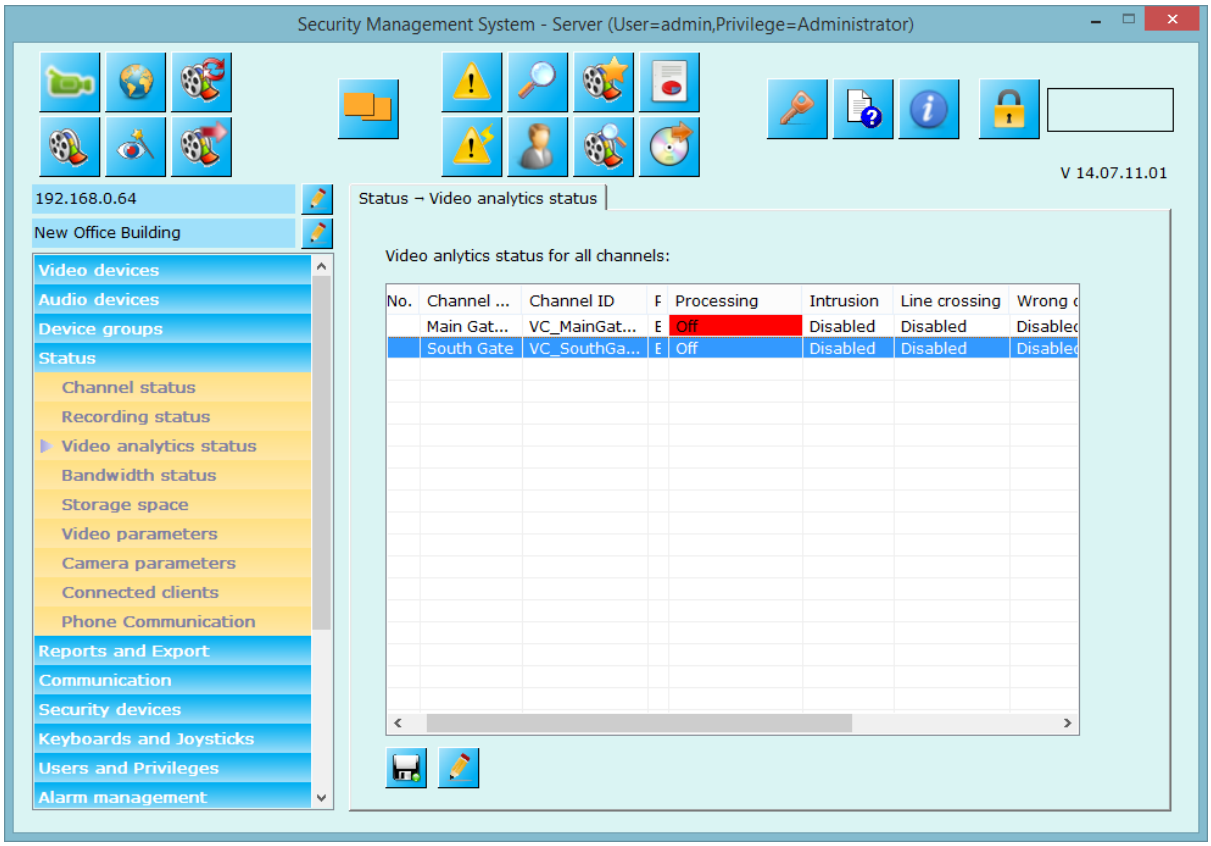
Use button to update recording plan for selected video channel.

Use button to reassign recording drives for all configured video channels in the system. The application intelligently re-assigns recording drives for all channels, to distribute the recording load. Please note that changing recording drive for a camera will result in loss of previously recorded data. Hence this button should be used carefully and is recommended to be used only during the initial configuration steps.

Use button to refresh the recording of all video channels.

2.4.3 Video analytics status

This link displays the list of currently configured video channels and their video analytics status – whether video analytics in ON/OFF, details regarding status of features like Intrusion status, Line Crossing status, Wrong direction movement status etc.

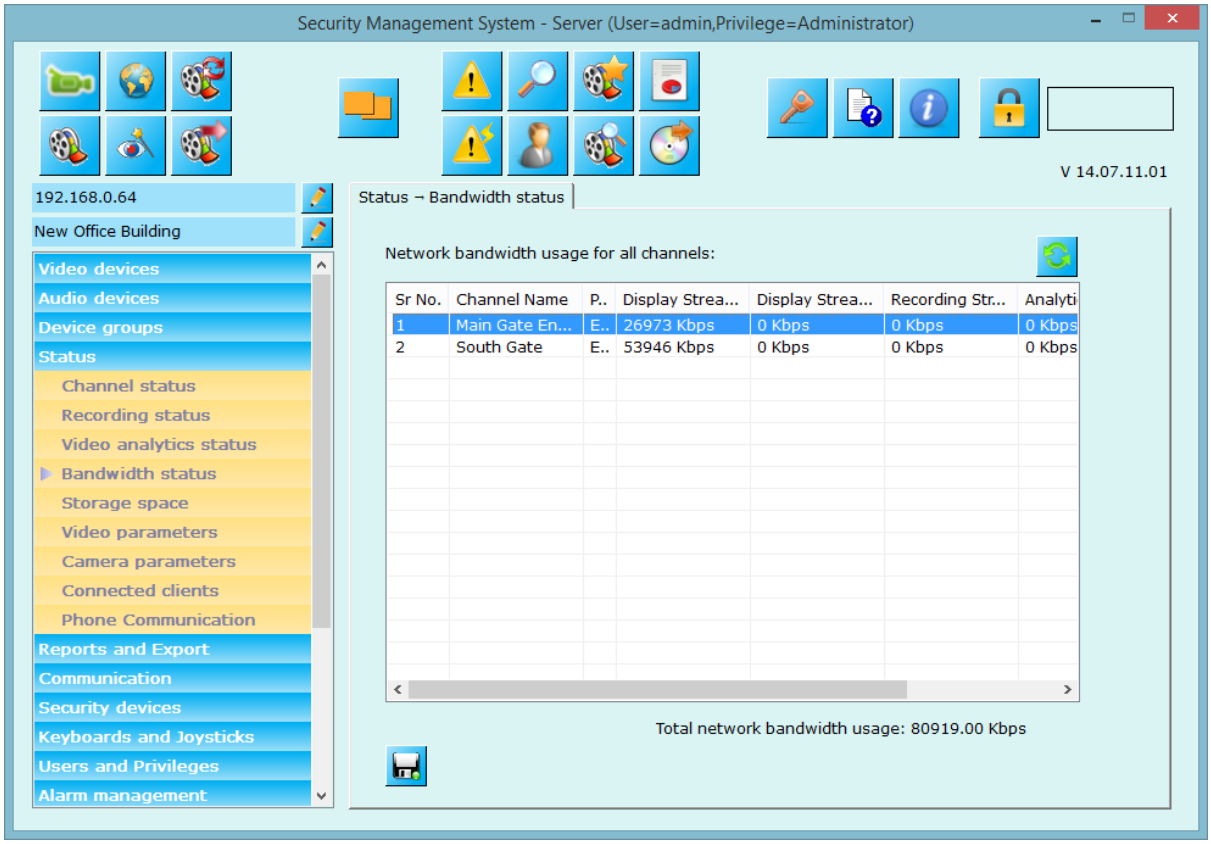


Use button to status report to standard format like text, xml or CSV.

Use button to edit video analytics for selected video channel. Details on how to configure video analytics are discussed above.

2.4.4 Bandwidth status

This link displays bandwidth consumed by each configured stream for all video configured video channels.



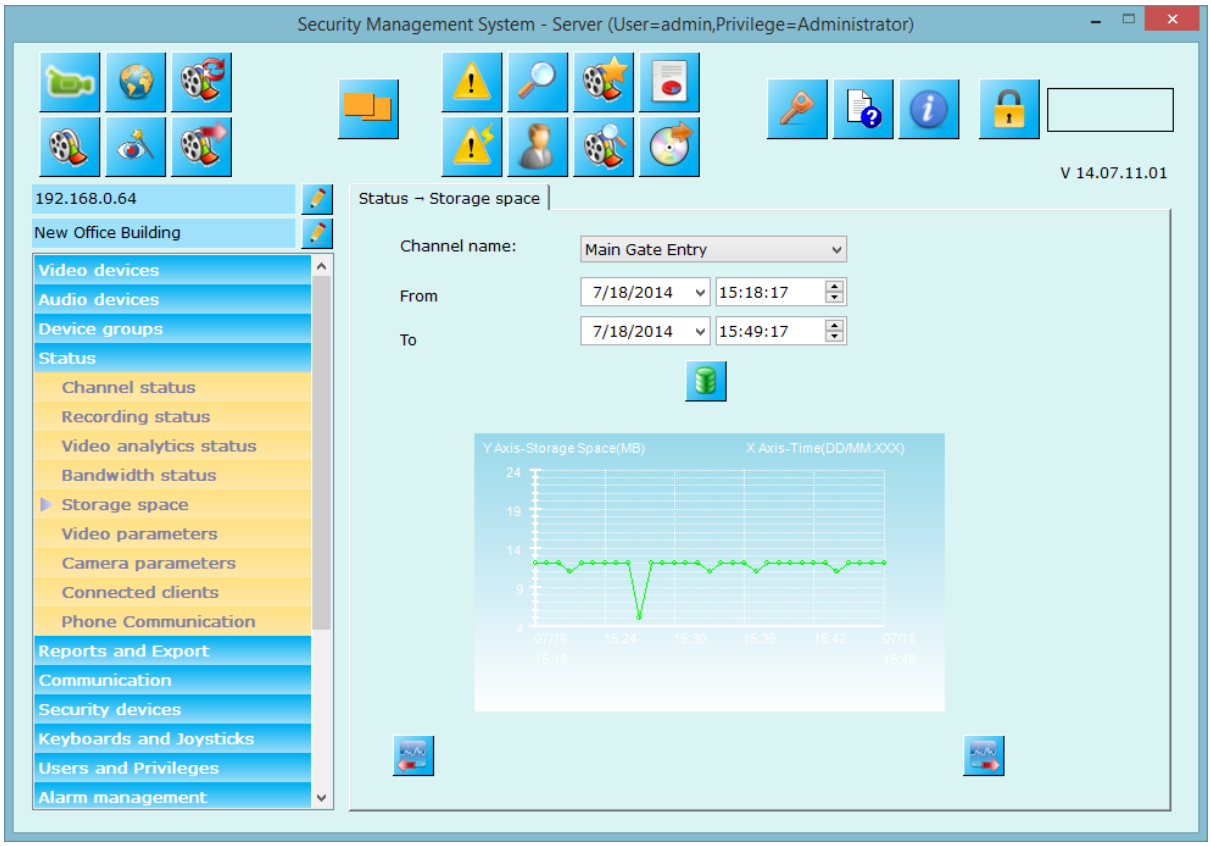
Use button to status report to standard format like text, xml or CSV.

Use ‘Refresh’ button to get current bandwidth status at any time.

2.4.5 Storage space

This link lets you to check storage space utilization for particular minute by particular video channel.

Select video channel of your interest, timestamp of your choice and click on 'View storage space utilization' button to know storage space used in mega-bytes (MB).



Use buuton to view storage space utilization for next slot in time.

Use buuton to view storage space utilization for previous slot in time.

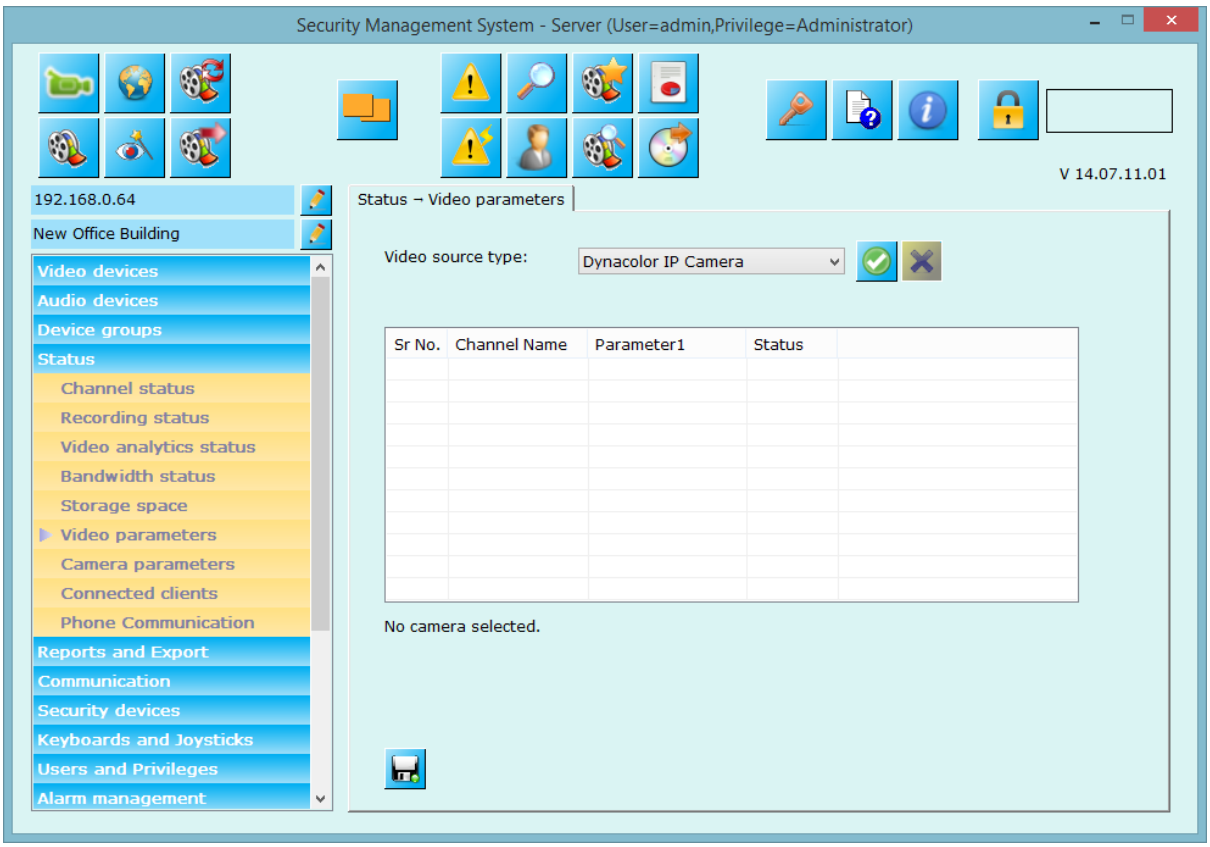
2.4.6 Video parameters

Select video source type from available options and click on ‘View button’ button to list video stream parameters for all cameras of selected type.
Parameter includes video resolutions, frame rates, bit rates, quality etc. for various stream inside the cameras.

The list adds more columns to show these settings.

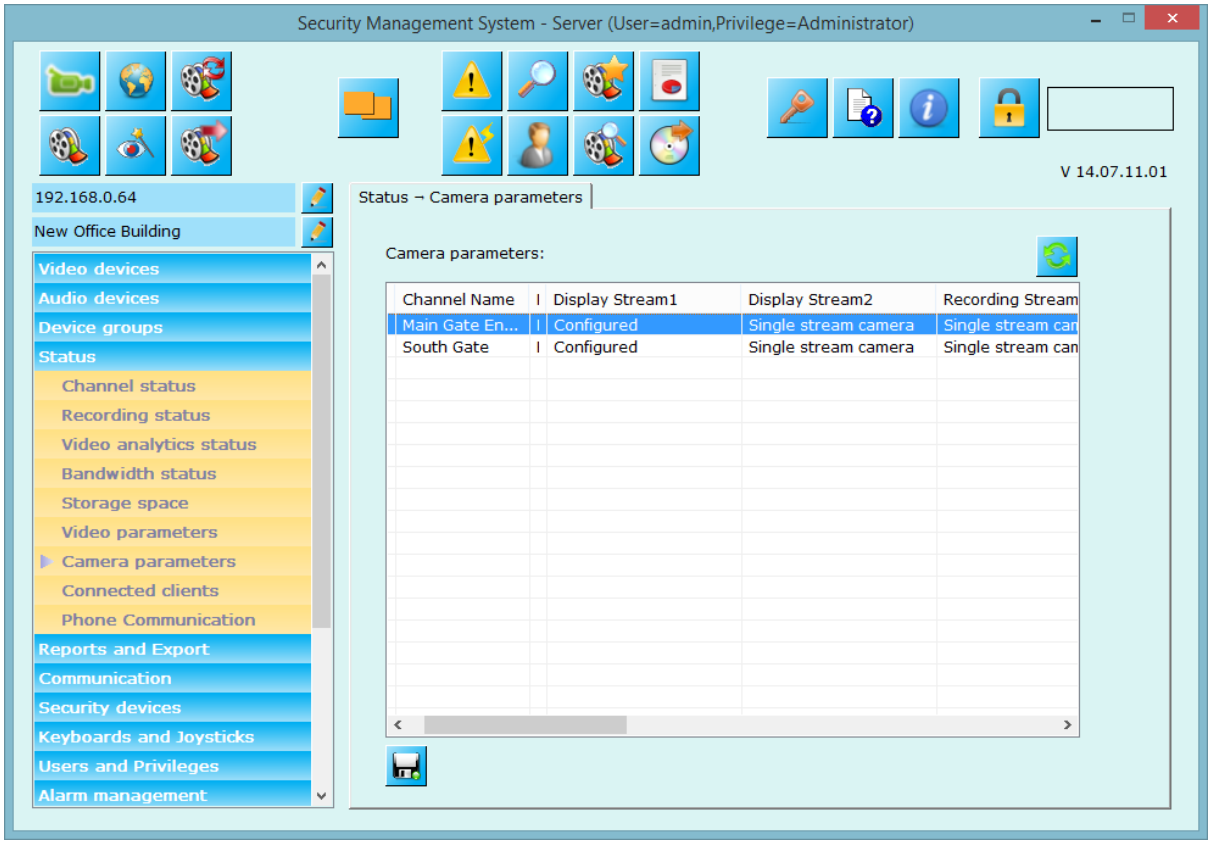
You can save this report to standard formats using ‘Save report’ button.

Use ‘Abort’ button - to abort viewing video channel parameters.



2.4.7 Camera Parameters

This link displays camera parameters for all cameras added in system. Parameters includes details of each stream, Y-Flip, Camera PTZ, Video analytics status, motion detection and audio settings etc.

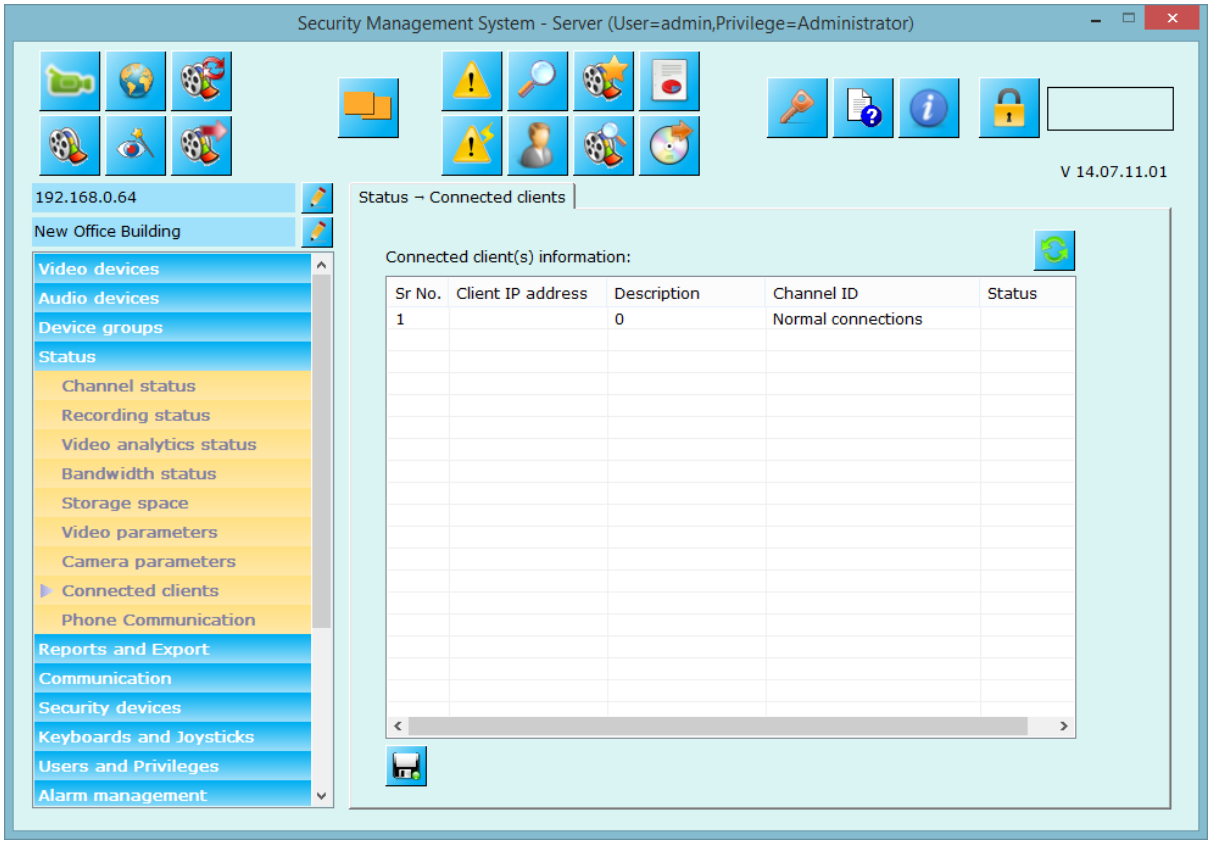


2.4.8 Connected clients

This link displays network connections done by client applications to this server. It lists connections in detail with client's IP address, description (reason for connection), channel ID used, and status of the connection.

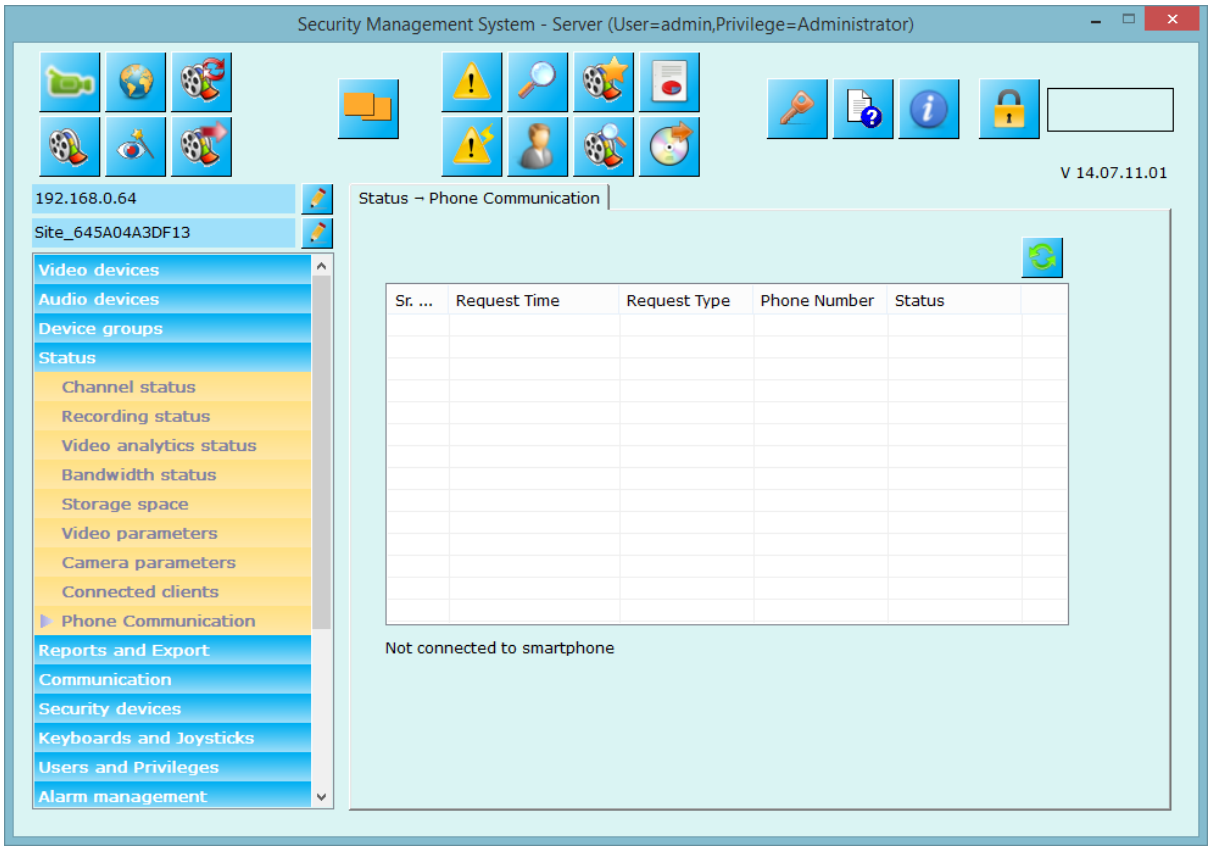
Use 'Save report' button to save the status.

Use 'Refresh' button to view current status at any given time.



2.4.9 Phone communication

This page displays phone communication status with android application, please refer to ‘Communication->Phone settings’ for more information.

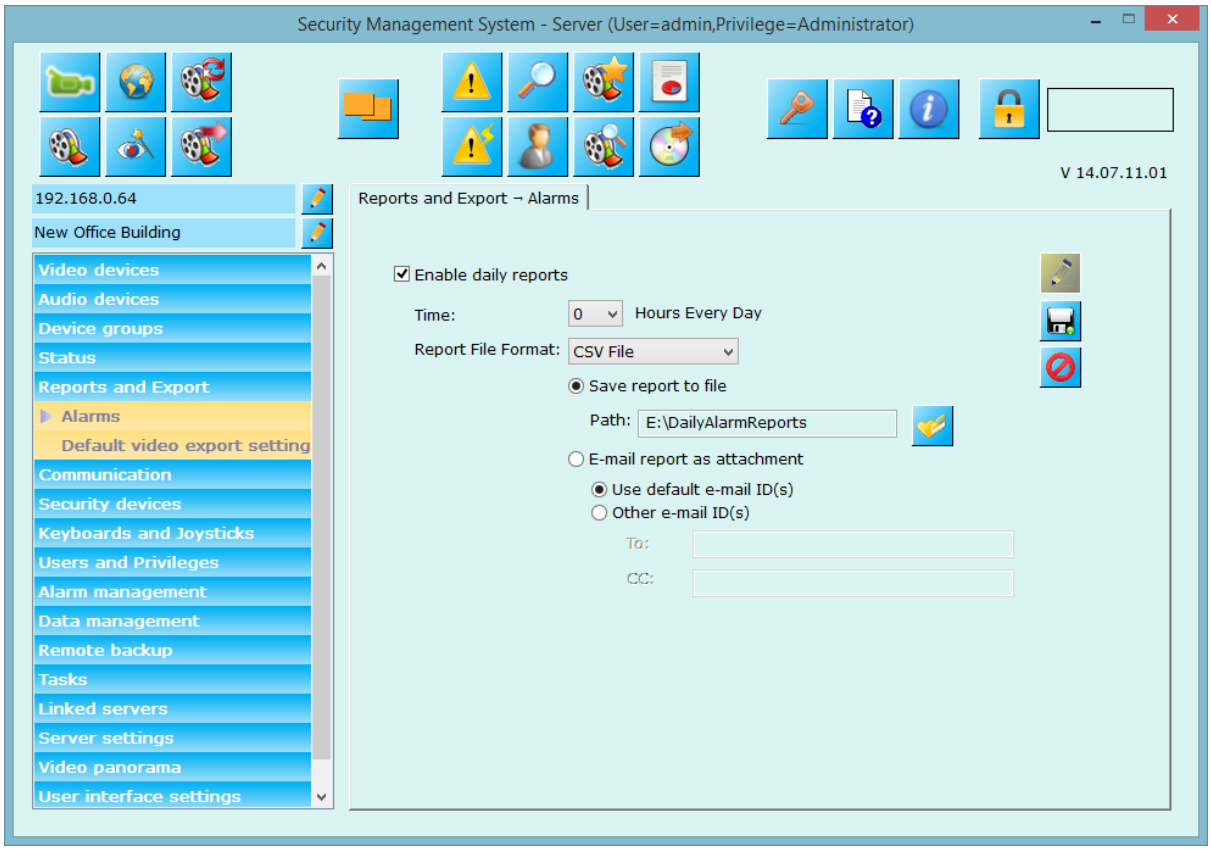


2.5 Reports and Export

Using this link you can configure alarm reports and default video export settings (used in case of exporting videos directly using right click options available on video window).

2.5.1 Alarms

Check ‘Enable daily reports’ option and configure time, report format, and option to save report to predefined storage path (local storage or network attached storage or any other storage media accessible to server computer) or email report as an attachment to default or other email IDs.



Please note: For sending email as an attachment, you **must** configure email settings from ‘Communication-> Email’ tab with correct user name, password, and other server settings. Also please confirm that ‘Test email’ button at ‘Communication->Email’ tab works and you get email delivered at configured address.

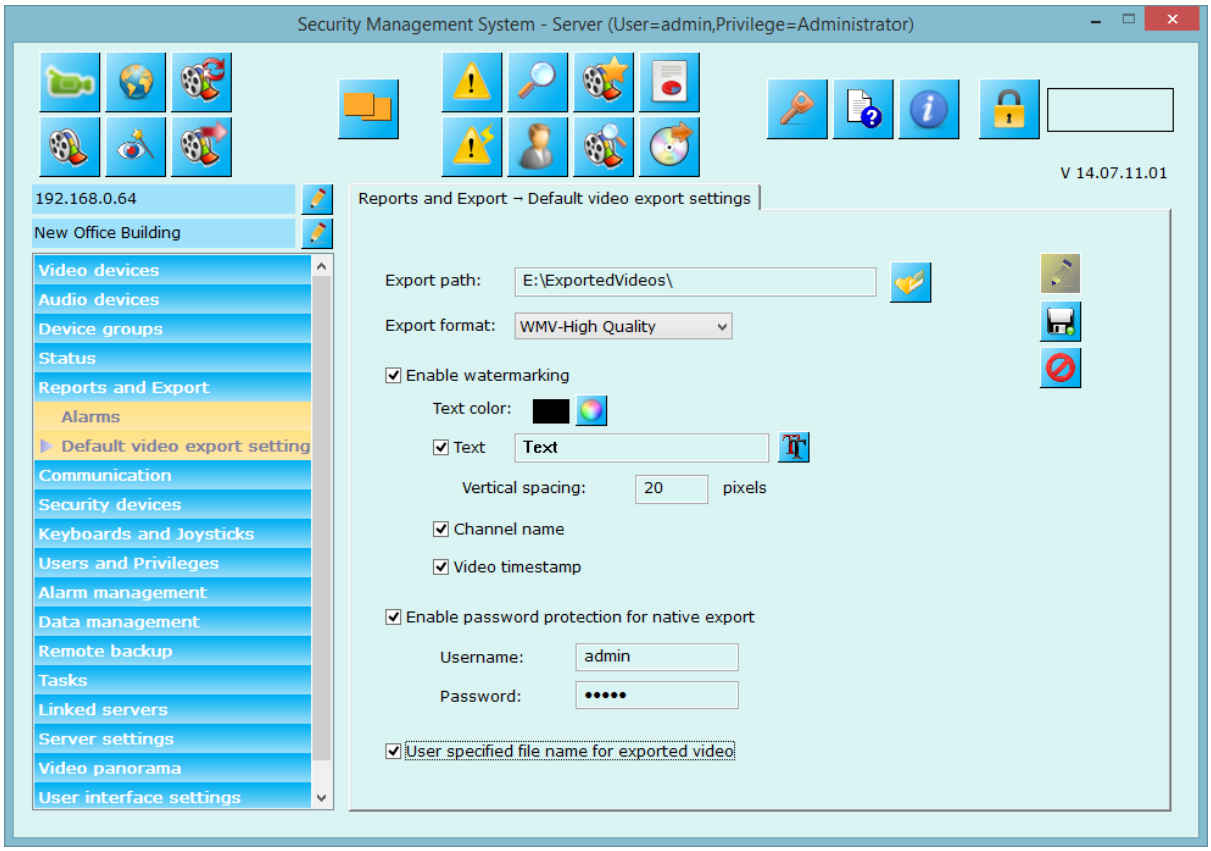
2.5.2 Default video export settings

Configure default settings for exporting videos. These settings will be used when user exports videos from right click video options (single video export or multiple video exports).

Configure export path, export format, watermarking option, watermarking color, text to be written on exported video, text font, channel name watermarking, and timestamp watermarking etc.

You can also enable password protection for exporting videos in native format.

You can also check 'Use specified file name for exported videos' to enable providing exported video file name instead of using default file name.

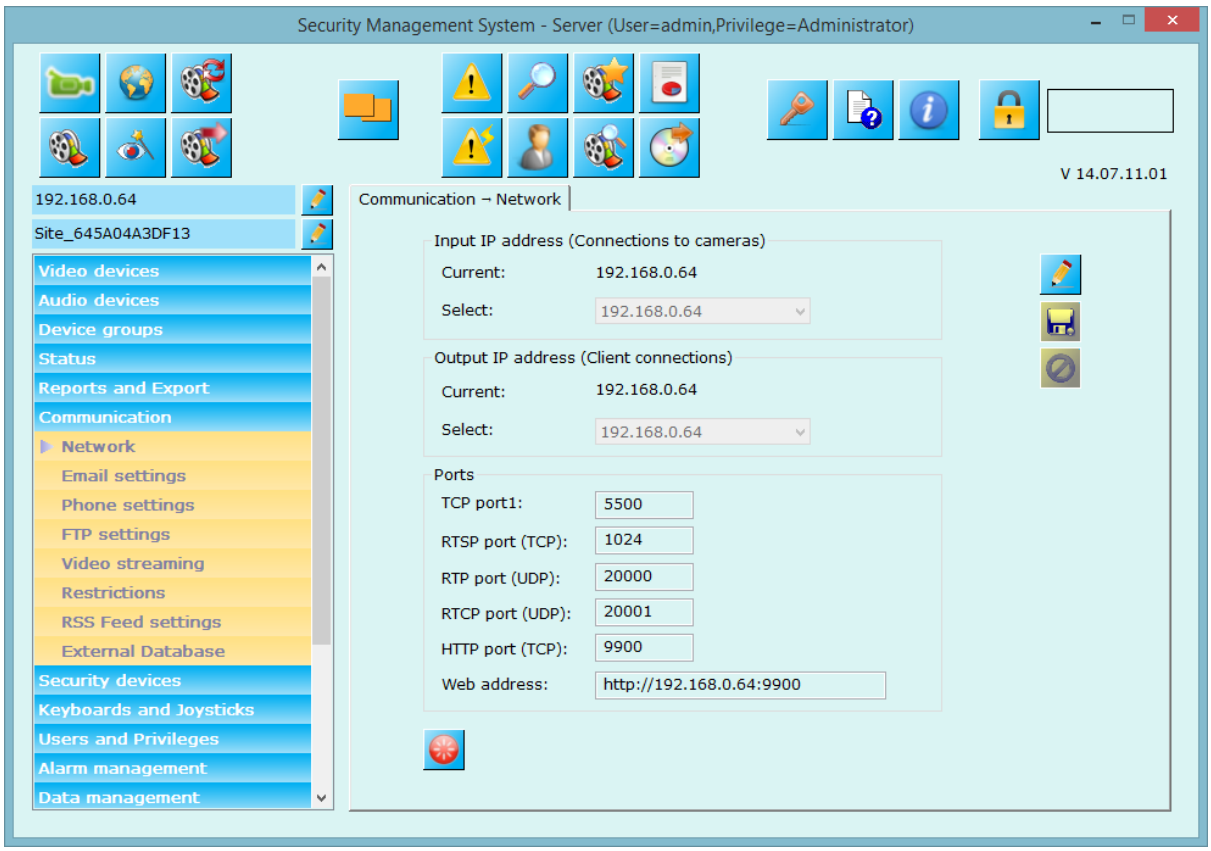


2.6 Communication

This link lets you to configure various communication parameters that server application will be using while communicating with other devices, software's etc.

2.6.1 Network

You can configure network parameters to be used by the server application.



Application can use two different IP addresses for communication purpose.

'Input IP address (Connections to cameras)' will be used for communication with the cameras.
'Output IP address (Client Connections)' will be used for communication with client applications.
These IP addresses can be same or different as per the requirement.

Ports listed in this page will be used by the application for communication. **Please make sure these ports are free and not already consumed by any other software or service running on the server computer.**

'Reset communication' button can be used in case you observe any issues while connecting client applications to this server. This may happen in rare cases where network is having stability issues. This button is to quickly rectify such error conditions.

Use ‘Web address’ if you wish to use web client. VLC plug-in is required to view videos using web clients to this application.

2.6.2 Email settings

From e-mail tab, you should configure the e-mail account settings that this application will use to send an e-mail when it learns particular alarm. E-mail settings includes SMTP server, valid e-mail account, security type (none, SSL, TLS), SMTP port number etc.

Click on “Edit” button to enable user controls.

Change parameters and click on “Save” button .

Above screenshot can be referred for setting up GMAIL account for sending emails from this server application. Please note that ‘Sender E-mail ID ‘and passwords should match to the account you are configuring (Gmail account in this example). Also default recipient Email ID and CC Email IDs should be valid Ids.

Settings for other SMTP severs may change. Please contact email server provider to get these details.

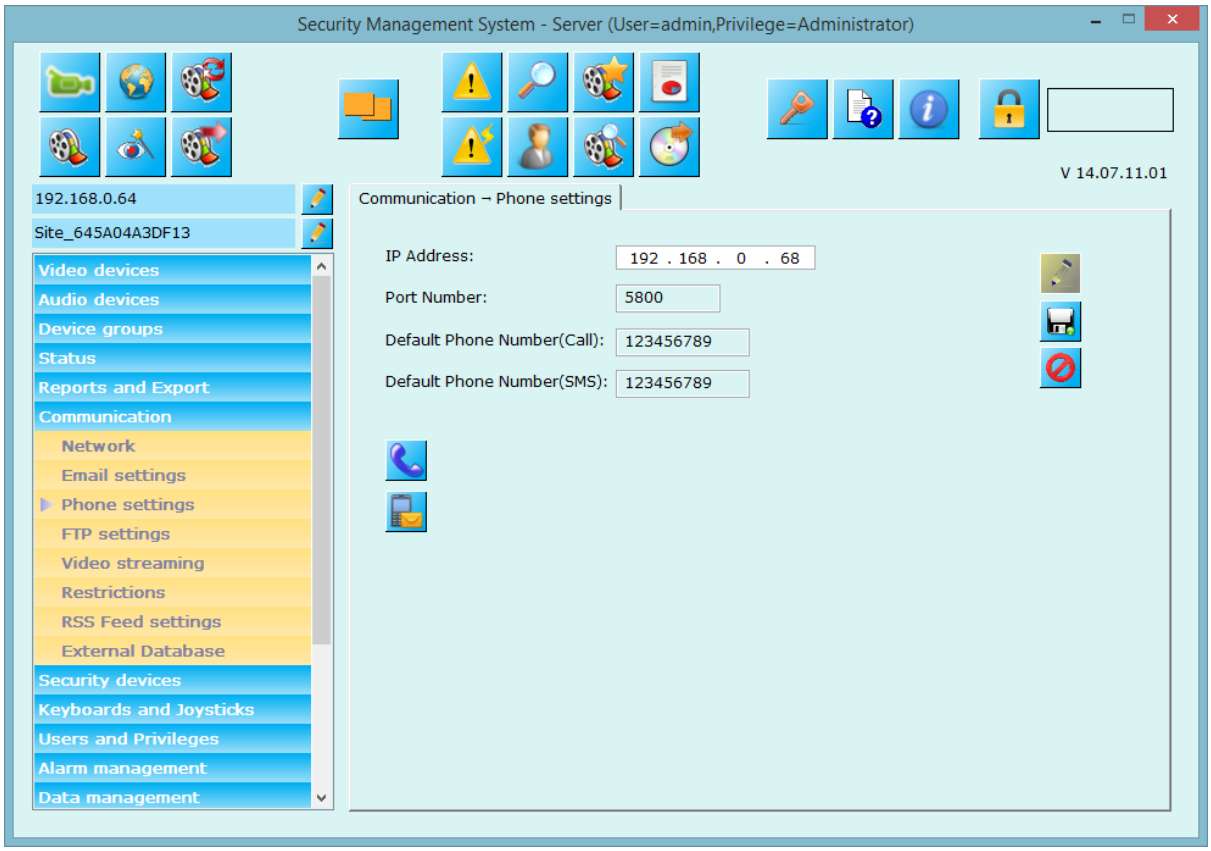
It is strongly recommended that you click ‘Send test Email’ button to check whether you get test email to configured default Email and CC ID. Check the recipients email box for confirmation.

2.6.3 Phone Settings

From phone settings tab, you should configure the phone communication settings that this application will use to make a call and SMS when it learns particular alarm. Phone communication settings includes IP Address, Port Number, Default Phone Number (Call), Default Phone Number (SMS) etc.

Click on “Edit” button to enable user controls.

Change parameters and click on “Save” button .



In order to use this application you need to install android based ‘Phone Network Gateway Application’ on your phone.

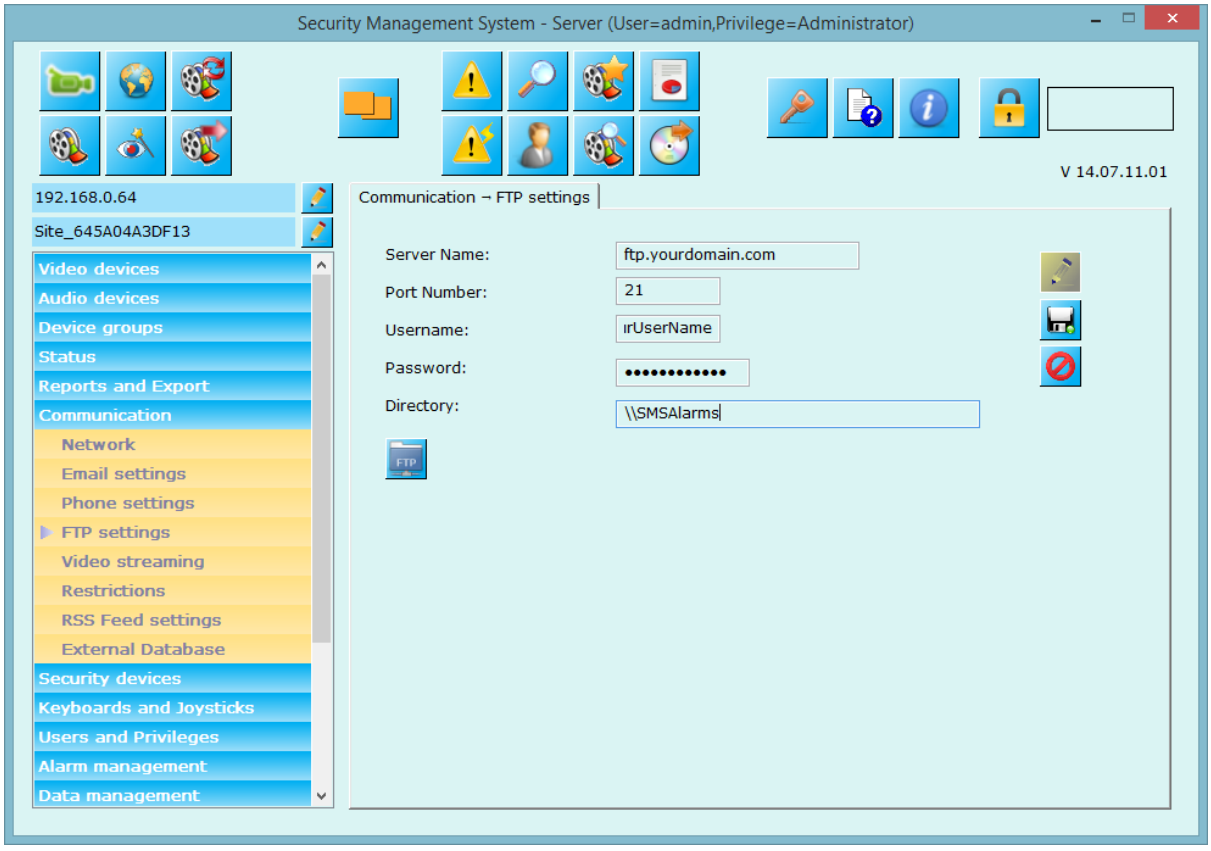
Please use ‘Test Call’ **and ‘Test SMS’** **to make sure that the configuration is correct and you are able to receive the phone call and SMS.**

2.6.4 FTP Settings

From FTP settings tab, you should configure the FTP communication settings that will be used by application to upload alarm details on give FTP server and directory. FTP settings includes Server Name, Port Number, Username, Password, Directory etc.

Click on “Edit” button to enable user controls.

Change parameters and click on “Save” button .



Please use ‘Test FTP Upload’ **button validated the settings.**

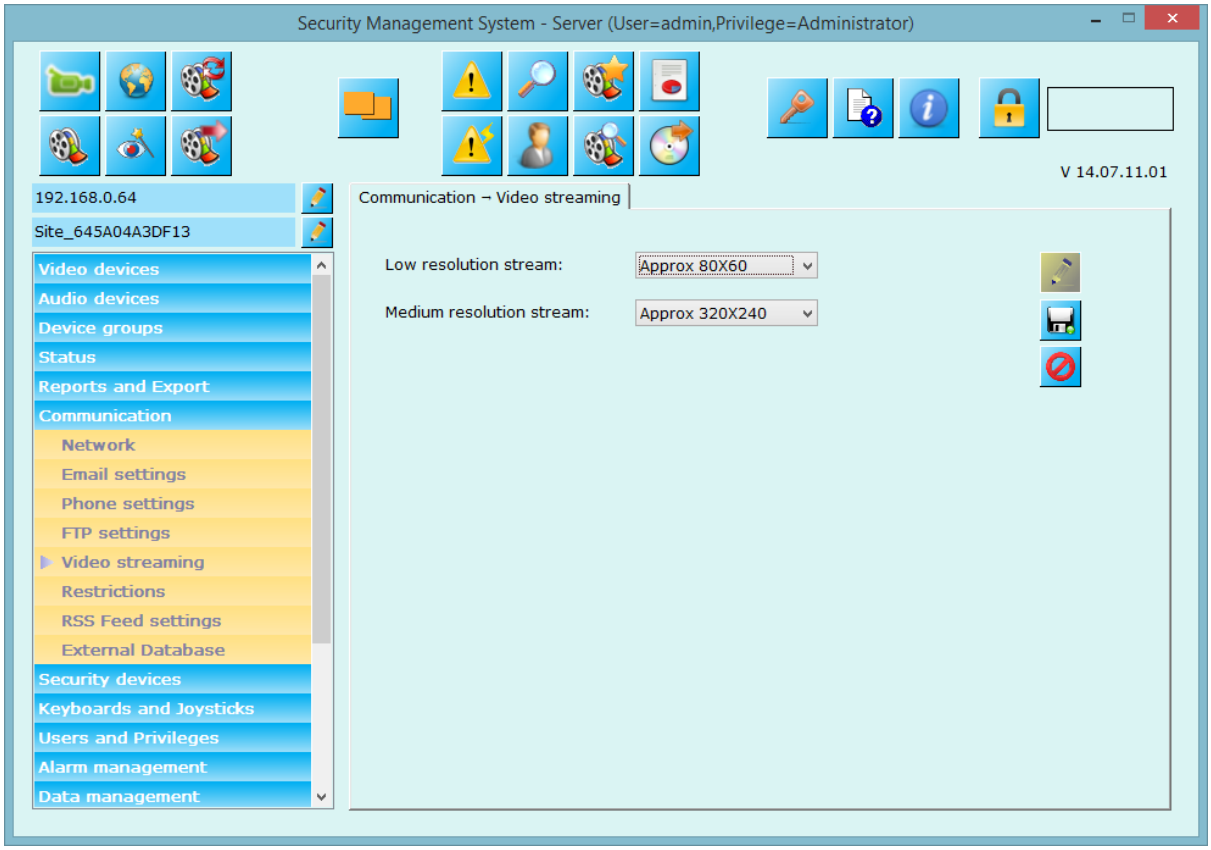
2.6.5 Video Streaming

You can configure video stream resolutions that this server application will use when streaming data to clients running on devices like mobile phones.

Please select values from the available options. These will be approximate values. Server application will adjust them as per video channel parameters while streaming data to client applications.

Click on “Edit” button to enable user controls.

Change parameters and click on “Save” button .

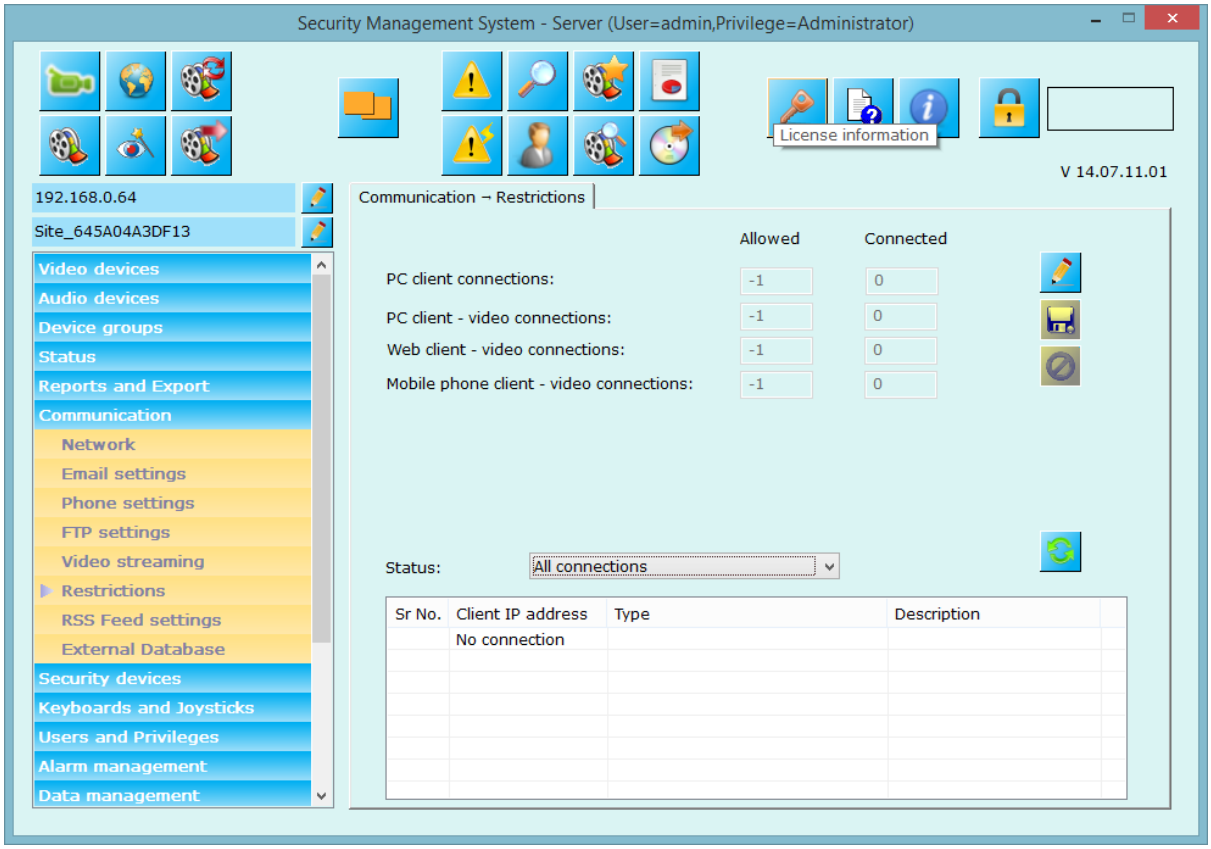


2.6.7 Restrictions

From this link, you can set the restrictions on number of client (PC, Web and mobile client) that can be connected to system simultaneously.

Click on “Edit” button to enable user controls.

Change parameters and click on “Save” button .

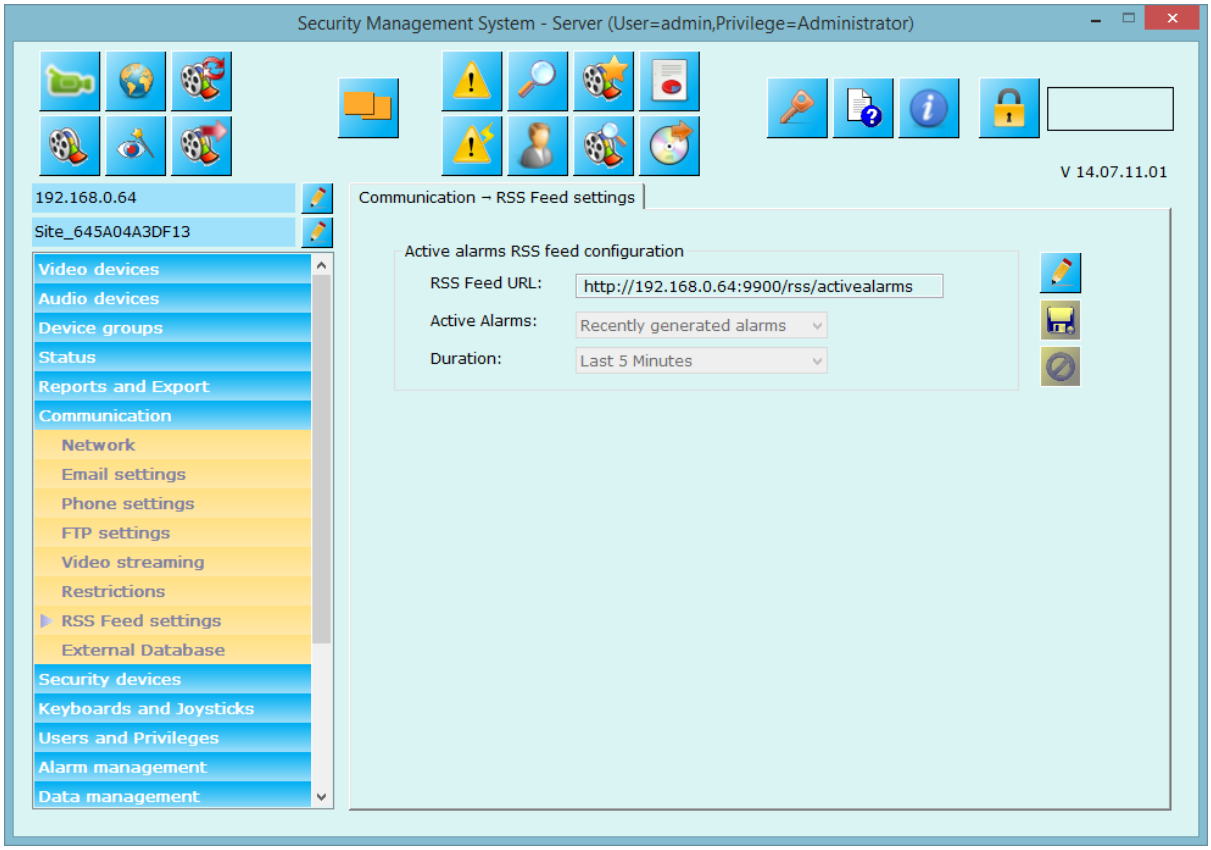


2.6.8 RSS Feed Settings

From this link you can view and change RSS feed settings for application. Application can publish all alarms to 'RSS Feed URL' displayed on settings page.

Click on "Edit" button to enable user controls.

Change parameters and click on "Save" button .



The 'Active alarms' can be defined from the same settings page. Options available for the 'Active Alarms' configuration are –
Recently generated alarms – selecting this option adds all 'recent' alarms to the RSS feed
Non-acknowledged alarms – selecting this option adds alarms available in the 'Security Management System' which are waiting for acknowledgement when the active alarms RSS feed is queries.

If 'Recently generated alarms' option is selected for 'Active alarms', it is possible to define 'Duration' which defines 'recent' interval. Several options are available for 'Duration' – from 'Last 5 minutes' to 'Last 7 days'.

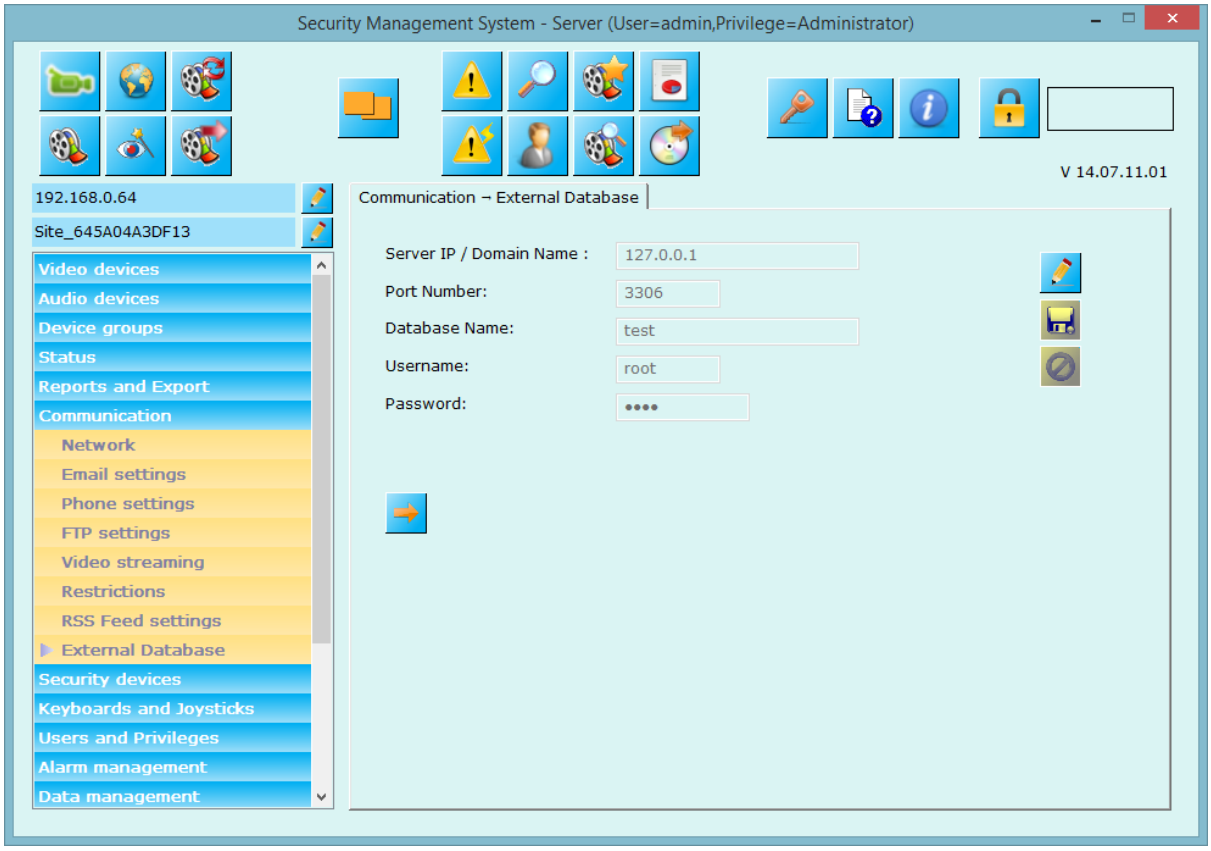
2.6.9 External Database

From this link you can change settings for external database connection for application. Application will use this settings to add ‘Object counting logs’ to external database.
Currently Security Management System supports MySQL database, as an external database.

External database connection settings includes server IP address or name, port number, database name, username and password

Click on “Edit” button to enable user controls.

Change parameters and click on “Save” button .

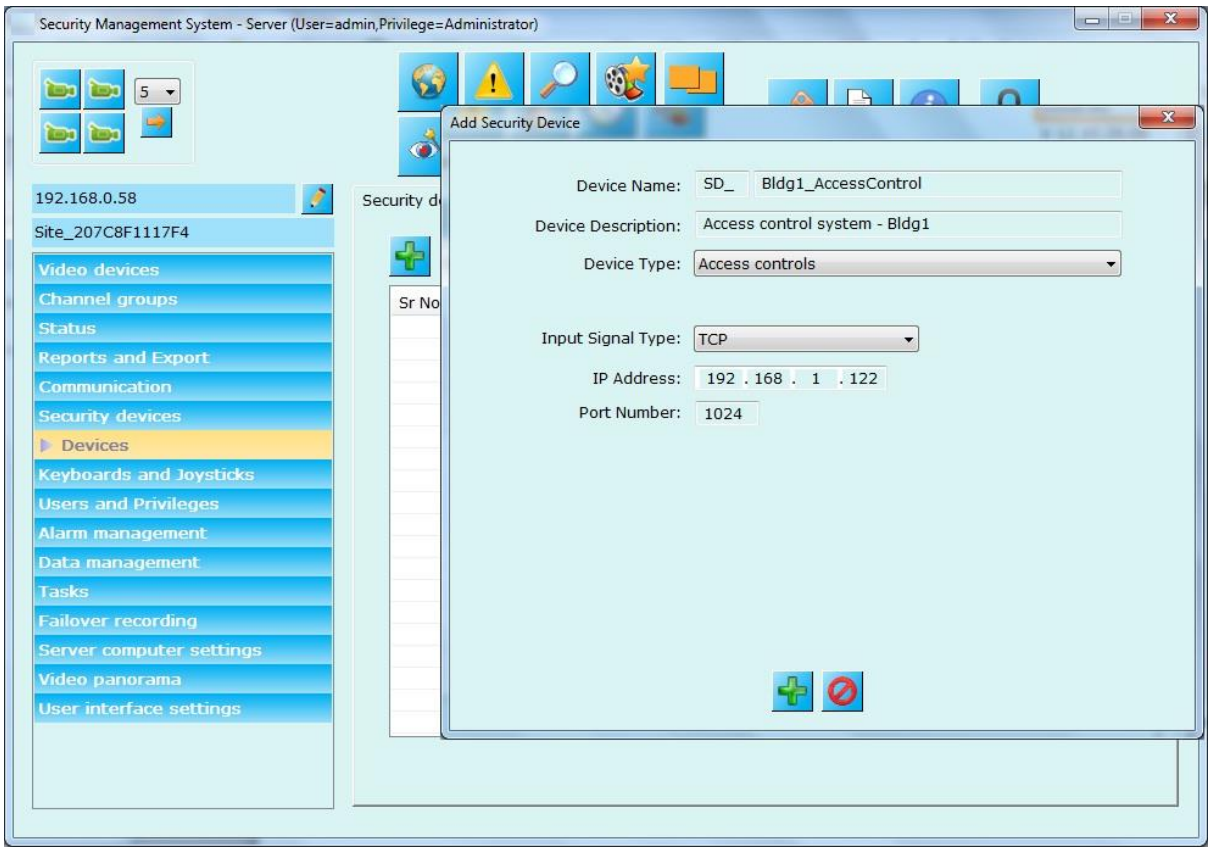


Please use ‘Test External Database Connection’ to test connection with database.

2.7 Security devices

2.7.1 Devices

This link displays the list of currently configured security devices. Also you can configure new security devices from this page.



The ‘Add device’ button can be used to configure a new security device.

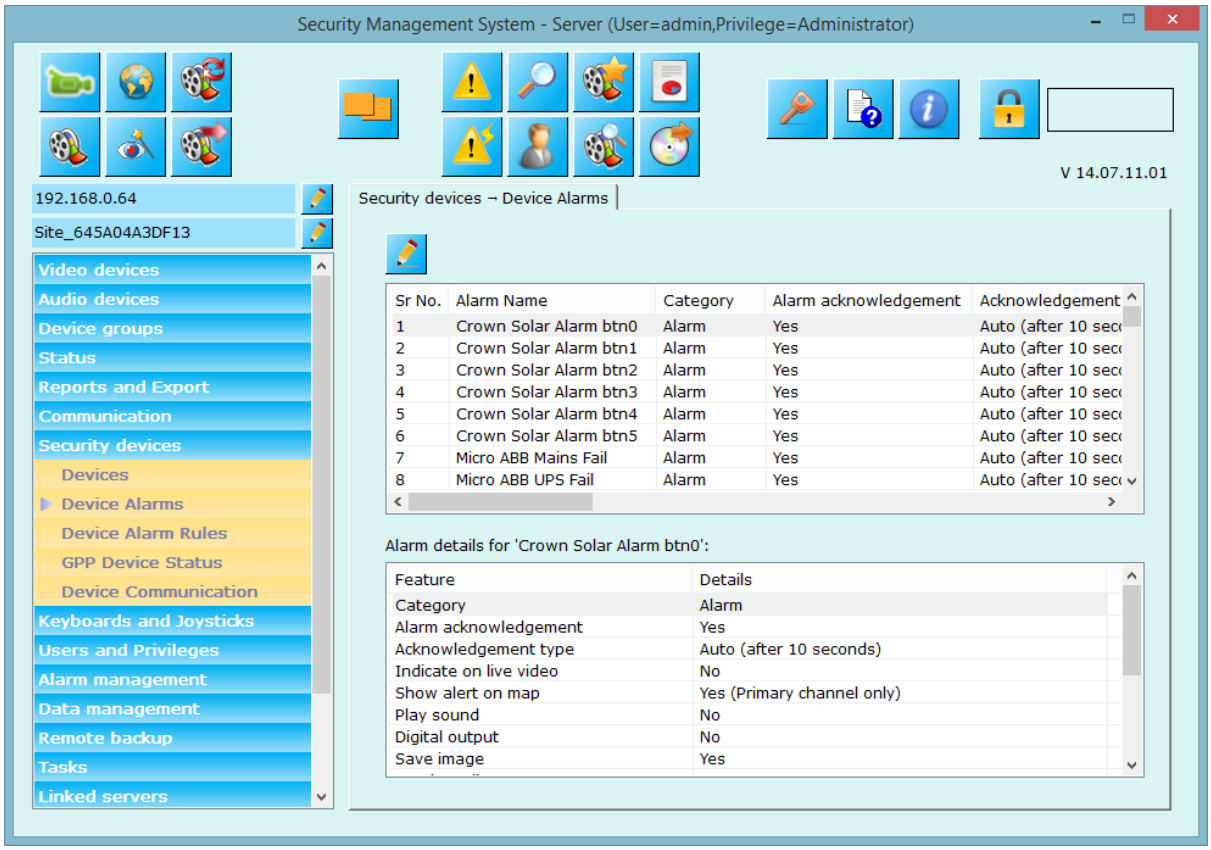
Any row from the list can be selected, and the corresponding device is treated as the currently selected device.

The ‘Remove’ button can be used to delete the currently selected device.

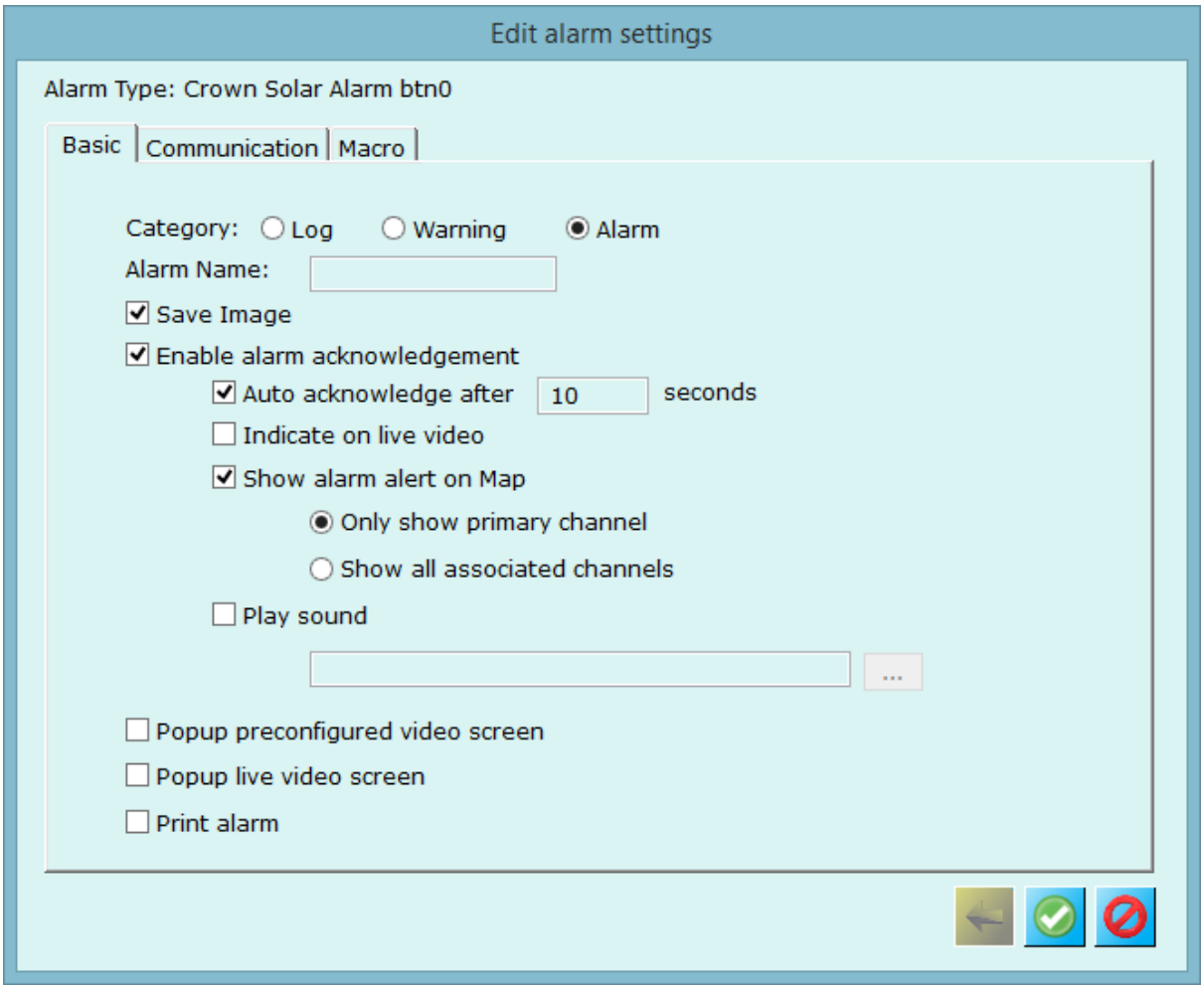
The ‘Detail’ button can be used to view the settings of the currently selected device.

2.7.2 Device Alarms

This page will display all the alarms that will be generated by security devices supported by 'Security Management System'.



Select any alarm name, its details will be shown in below list. To edit the alarm settings, click on edit button present on upper left of the window. This will pop up a dialog box where you can configure alarm settings. (See screenshot below)



In the **'Basic'** section, you can configure 'Alarm Name', 'Alarm Category', 'Save Image', 'Alarm Acknowledgement' and popup windows.

In **'Communication'** section, you can configure communication to other devices or software's like 'Send Email', 'Send SMS', 'Call Phone', 'Upload to FTP', 'RSS Feed' etc.

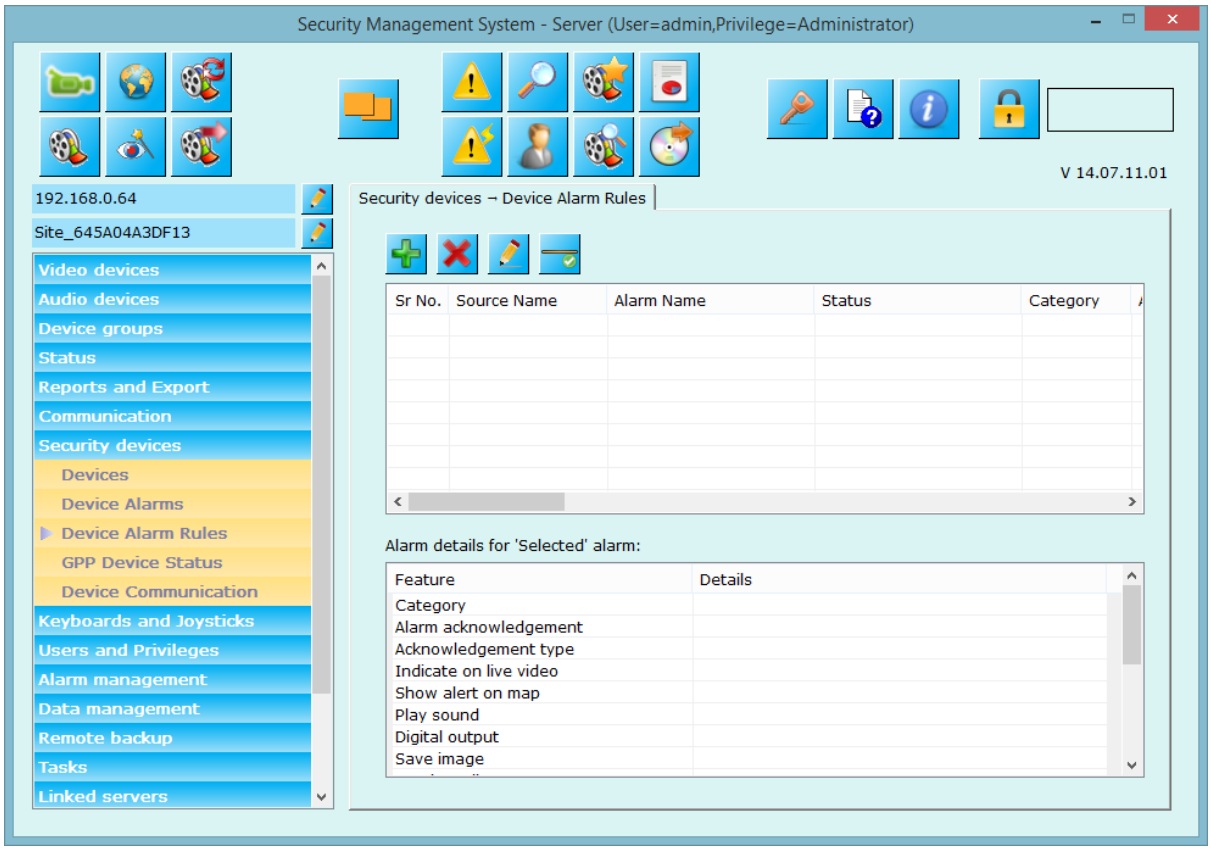
In **'Macro'** section, you can ask to execute the user defined macro whenever the alarm is generated.

Please refer to 'Alarm management' section for more details.

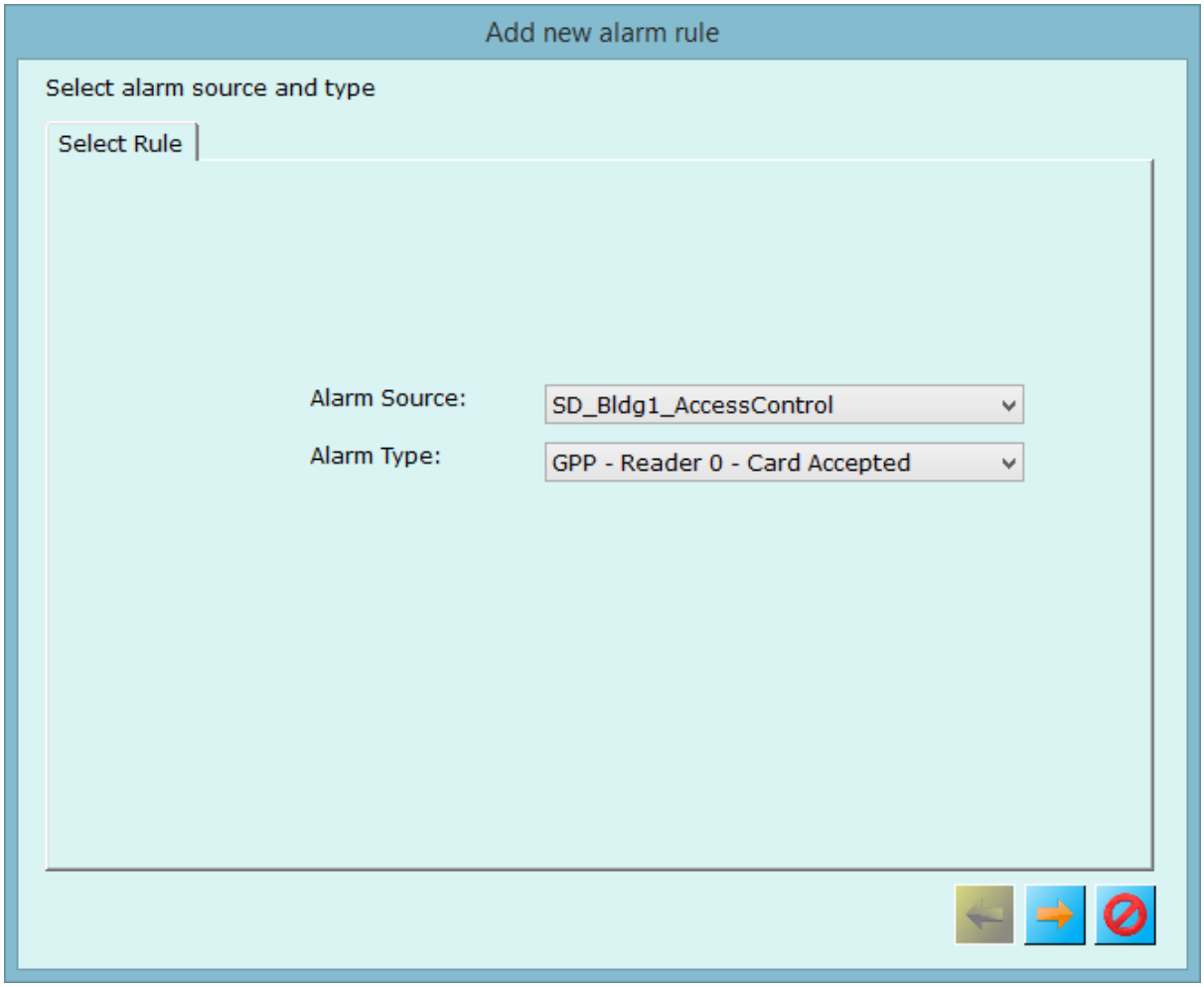
2.7.3 Device Alarms Rules

This page allows you to add specific alarm rules for all device alarms supported by ‘Security Management System’ application.

Alarm rule can be defined for specific alarm from specific alarm source.

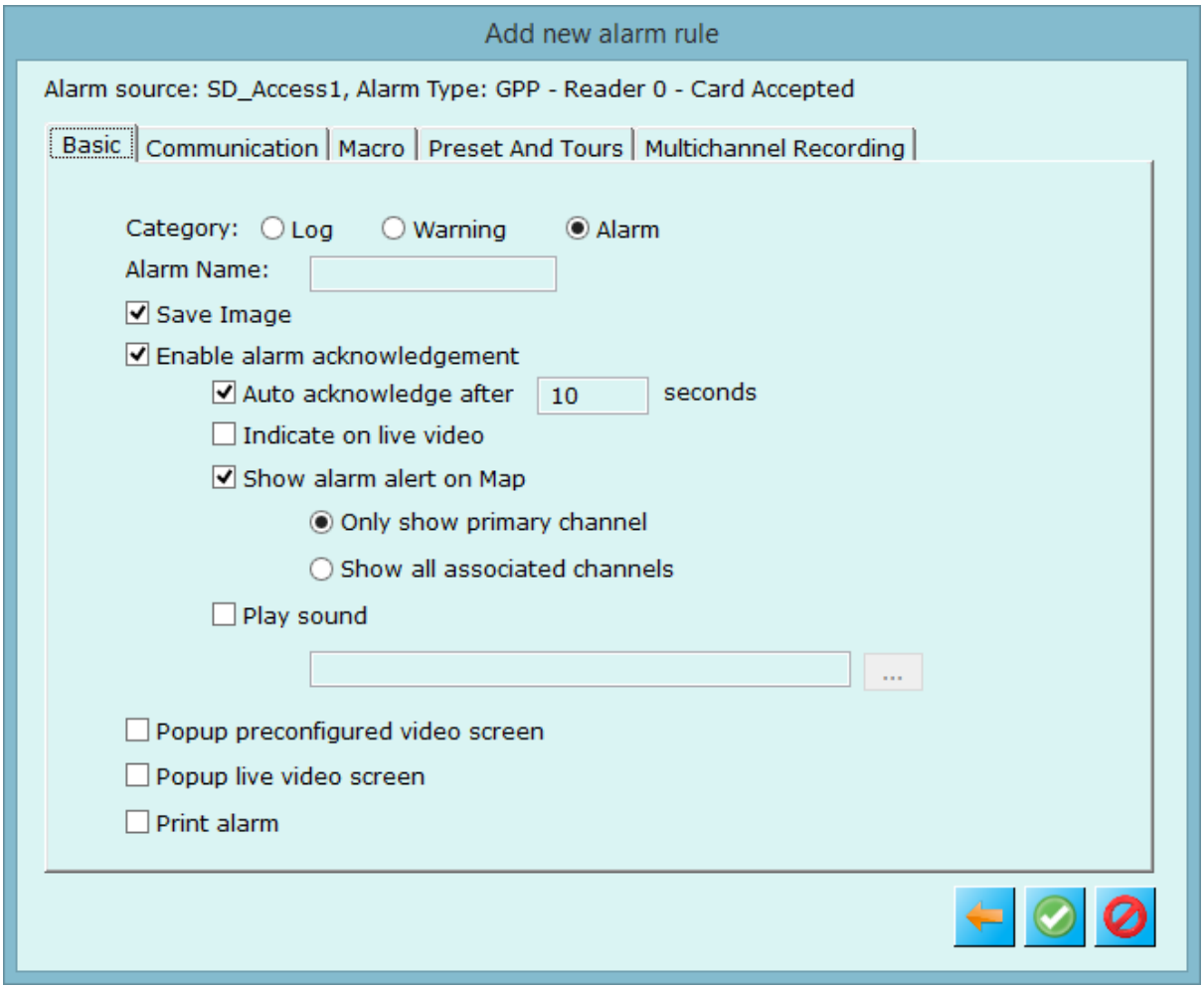


Please click on ‘Add new alarm rule’ button to create new alarm rule and follow the wizard.



Please select ‘Alarm Source’ and ‘Alarm Type’ for which you want define alarm rule and click on ‘Next’ to proceed with settings.

Next page will display alarm settings that you can define for this alarm rule.



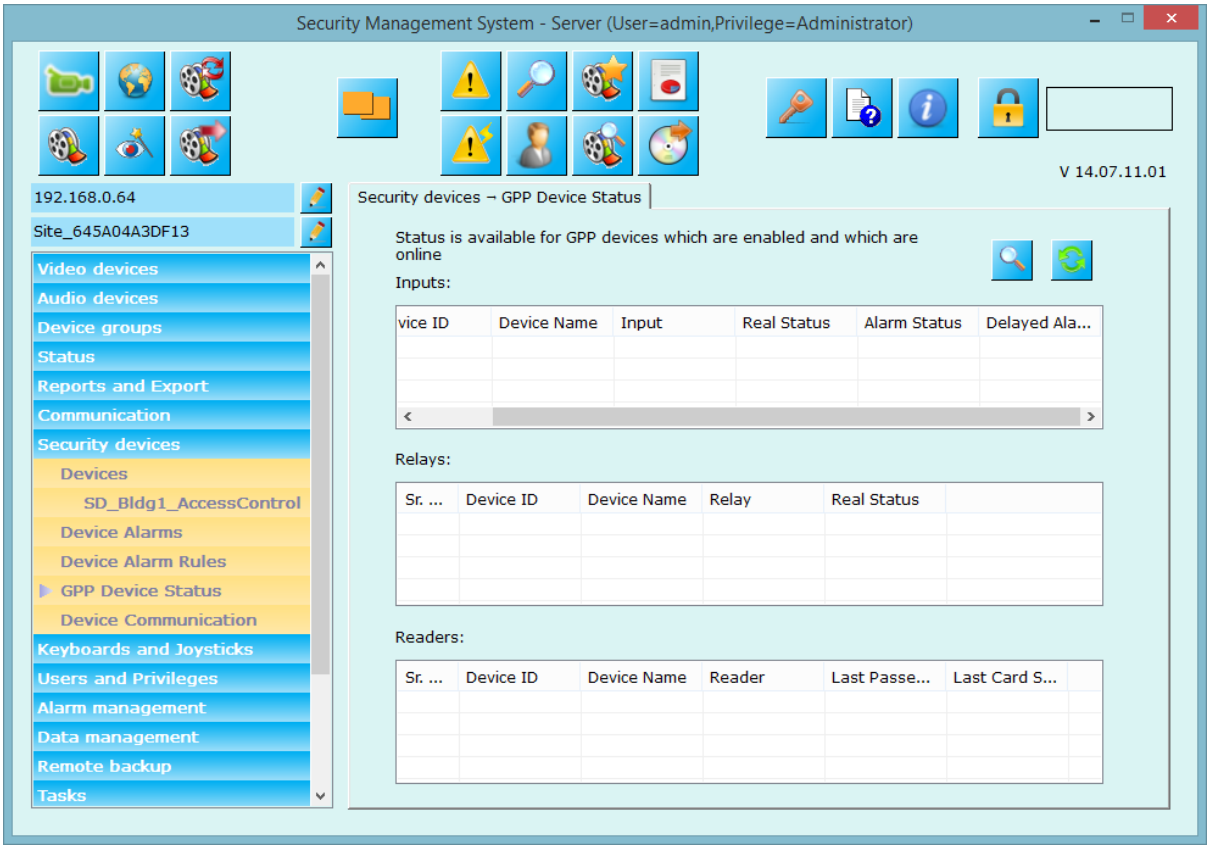
Configure ‘Basic’, ‘Communication’, ‘Macro’, ‘Preset’, and ‘Multichannel recording’ sections as your requirement.

As per the above screenshot, whenever alarm ‘GPP – Reader 0- Card Accepted’ is generated for the security device ‘SD_Access1’; Security Management System Server software will execute these configured alarm handlers.

In case there is no alarm rule is defined, Security Management System Server software will use alarm handlers from ‘Device Alarms’ section.

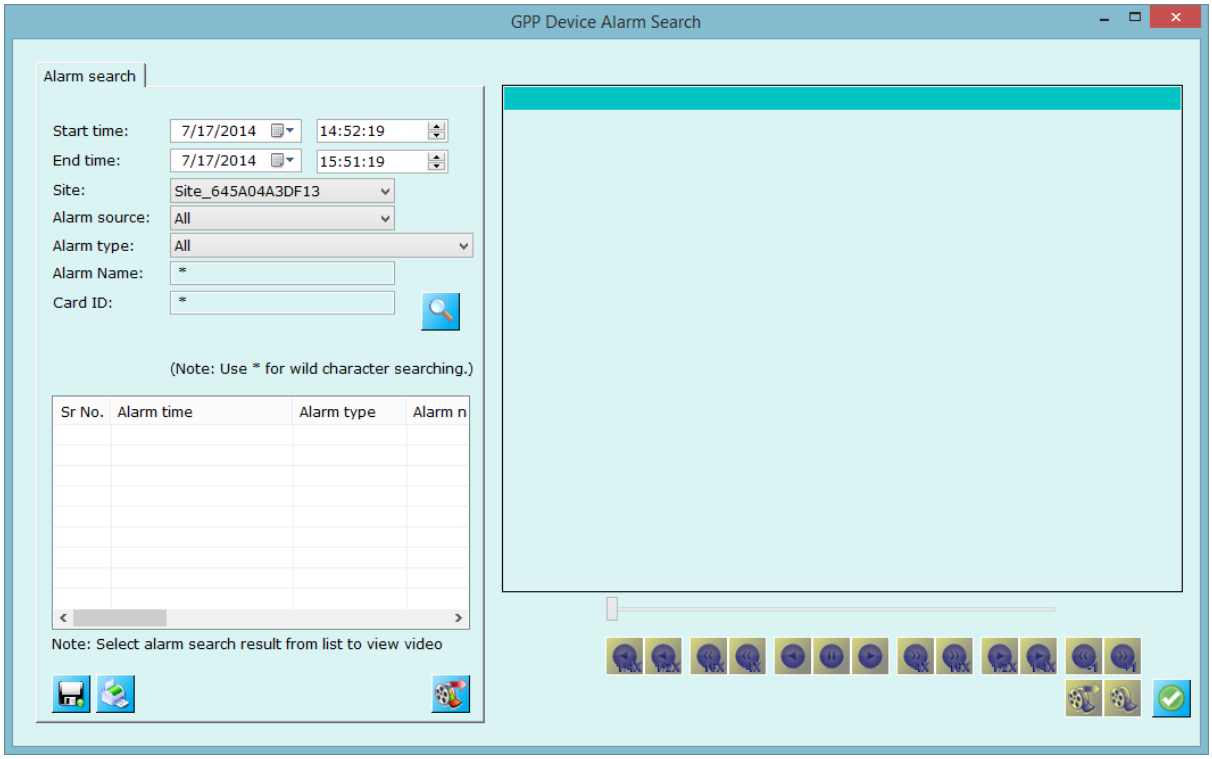
2.7.4 GPP Device Status

This page will display status for all ‘GPP Devices’ which are enabled and which are online.



Clicking on the ‘Refresh’ button will refresh the status to current values.

Clicking on the ‘Reports’ button will pop up ‘GPP Device Alarm Search’ dialog



'GPP Device Alarm Search' provides user interface for specifying query parameters –

a. Start time
b. End time
c. Site
d. Alarm source – a GPP device can be selected from the drop down
e. Alarm type
f. Alarm name – this provides wild card search based on 'alarm name'. * indicates 'all alarm names'
g. Card ID – this provides wild card search based on 'Card ID'. * indicates 'all cards'

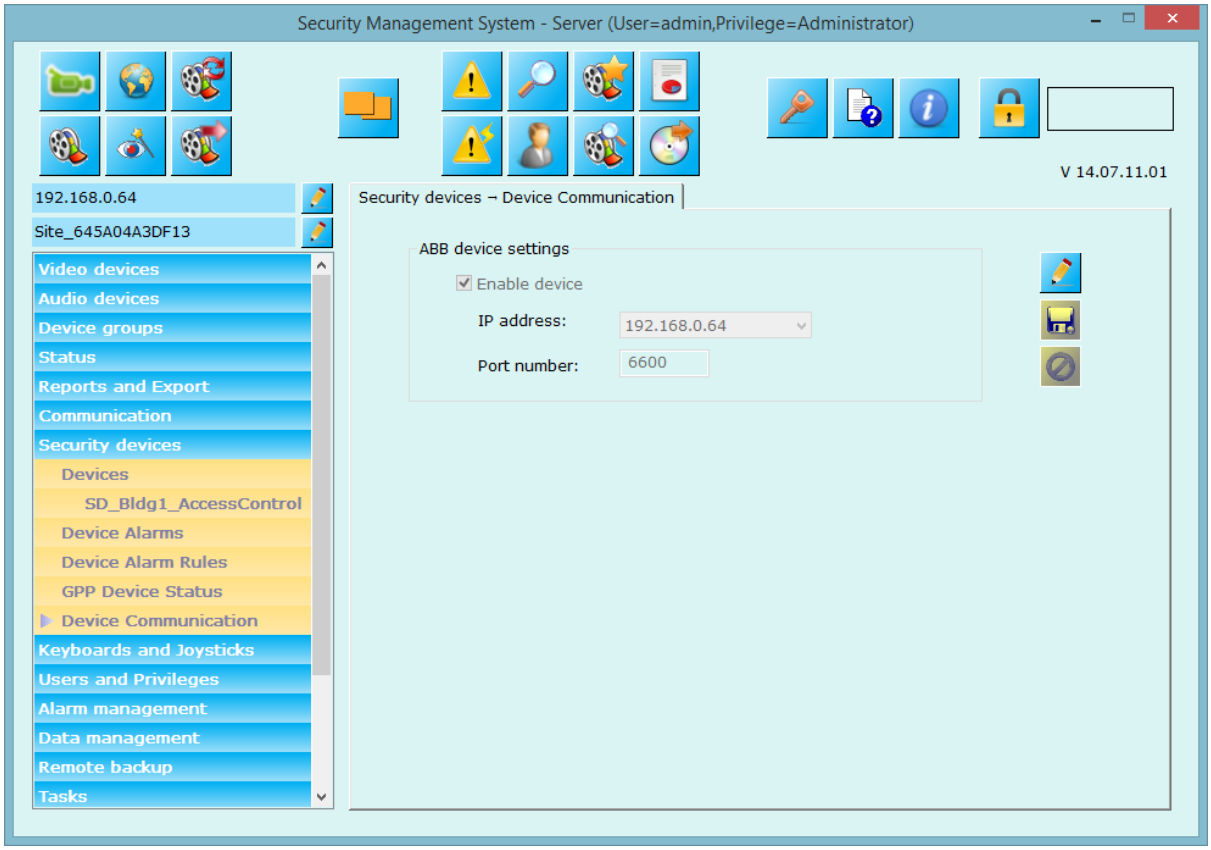
The search results are displayed in the list.
Clicking on any of the search results displays video associated with the alarm. Video can be viewed with video navigation controls available.

Following functionality is available from the 'GPP Device Alarm Search' dialog

a. Print report
b. Save report
c. Export video
d. View video in playback screen

2.7.4 Device Communication

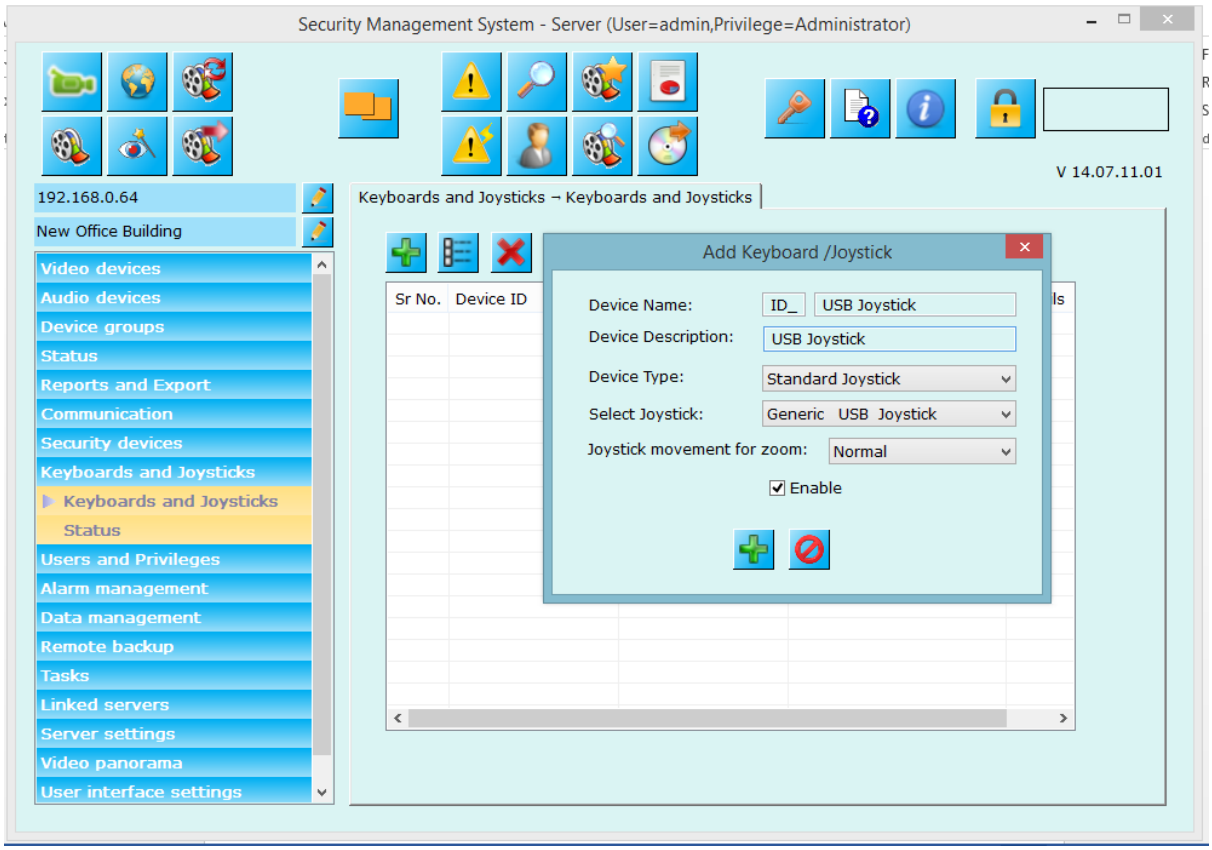
This page allows you to enable and define ‘ABB device settings’



2.7 Keyboards and Joysticks

This page lets you add standard USB or IP based CCTV keyboards or joysticks to the system.

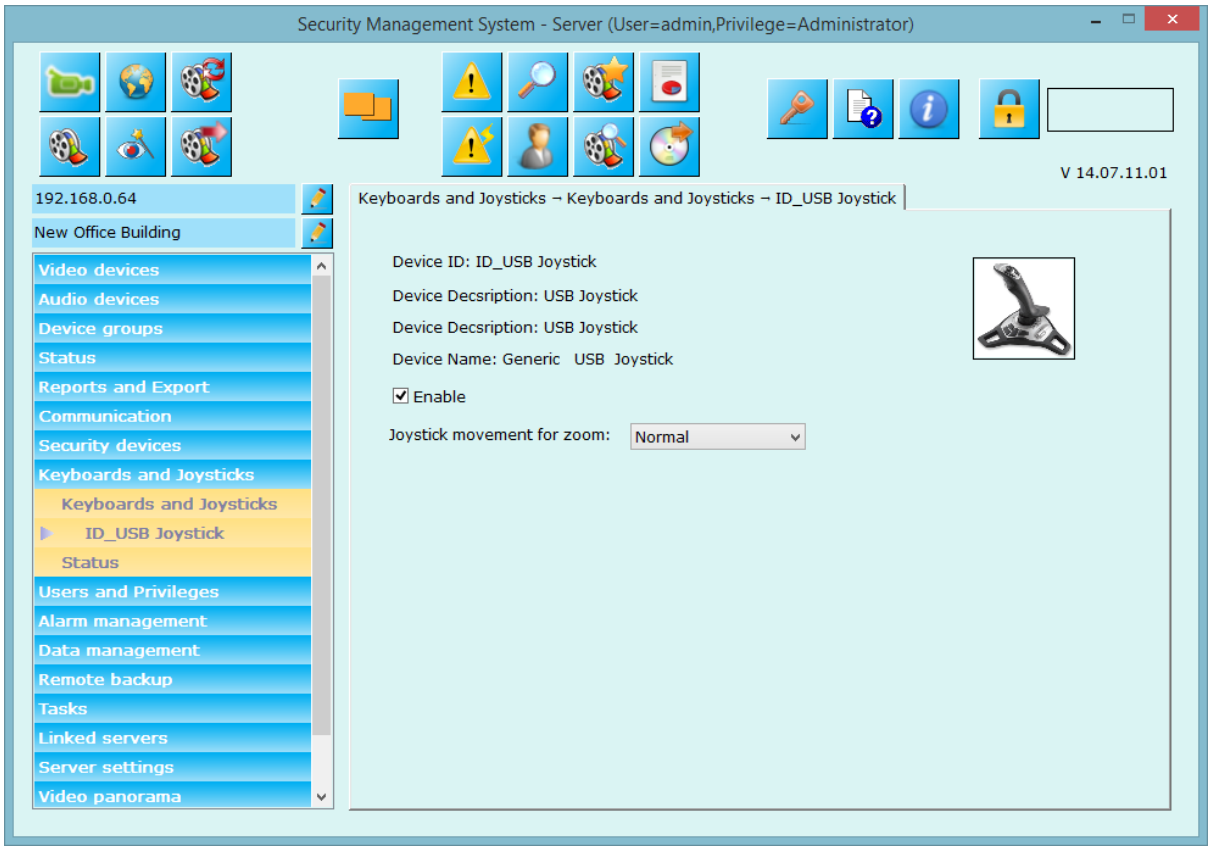
2.7.1 Configuring keyboard and joysticks



Click on ‘Add’ button , which will pop-up a dialog box where you can enter device name, device description (any string for identifying the device), select type from available options, and select joystick from listed options.
Click on ‘Enable’ to enabling joystick usage into the application.
Select joystick movement for zoom to be Normal or Opposite.

2.7.2 Keyboard and Joystick details

This page will list all the parameter for the joystick. You can enable/disable joystick from this page.

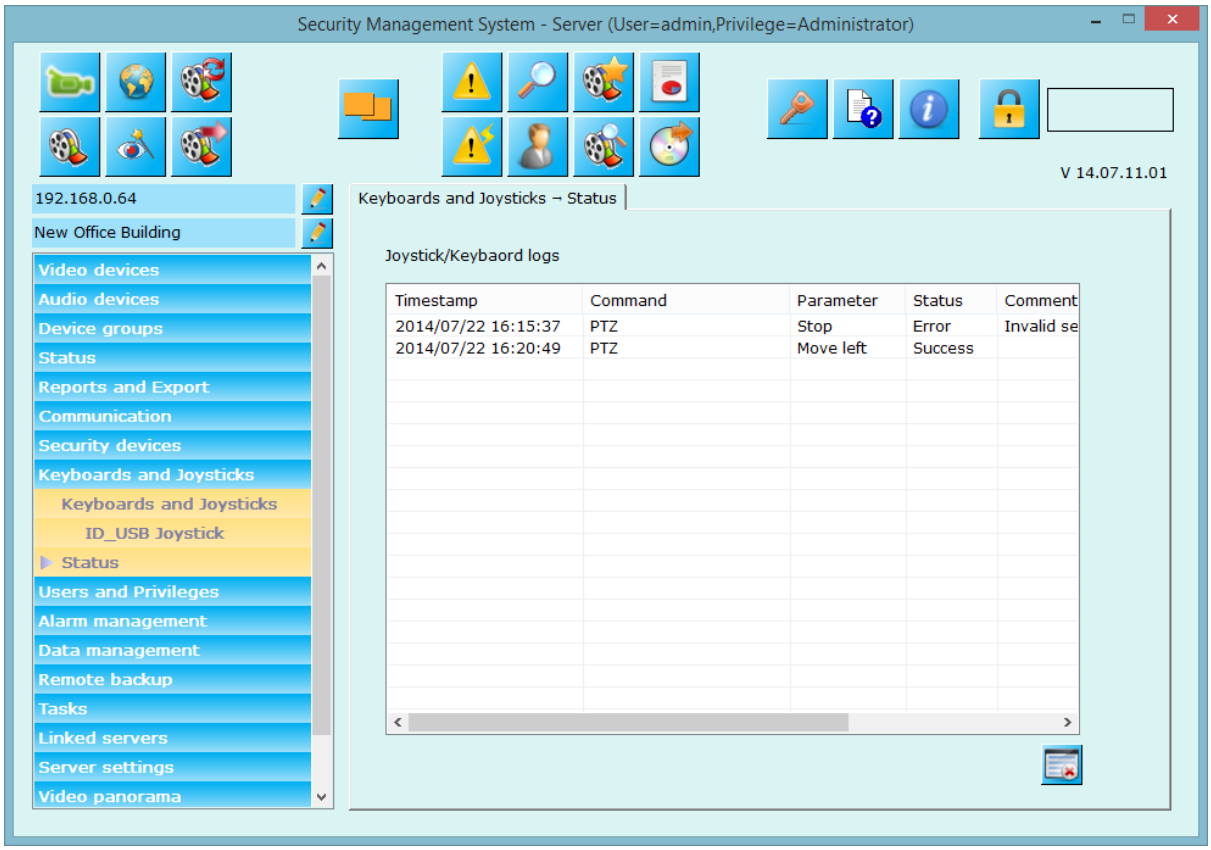


2.7.3 Keyboard and Joystick status

This page lists commands from all the CCTV keyboards and joysticks and shows their status report. CCTV Keyboards and joysticks can be used to select video screens (discussed later) and video channels from selected video screens, and also control selected video channel PTZ positions.

This status window is for logging purpose so that user can understand what commands are sent to the application and what their statuses are.

Click on 'Clear list' button to delete all the items from the status list.



The screenshot displays joystick logs.

The 'Command' field describes the type of operation performed by the joystick.

The 'Parameter' field mentions the operation performed from the joystick,

The 'Status' field mentions whether the command was successful or unsuccessful.

The 'Comment' field gives you description on why command was unsuccessful.

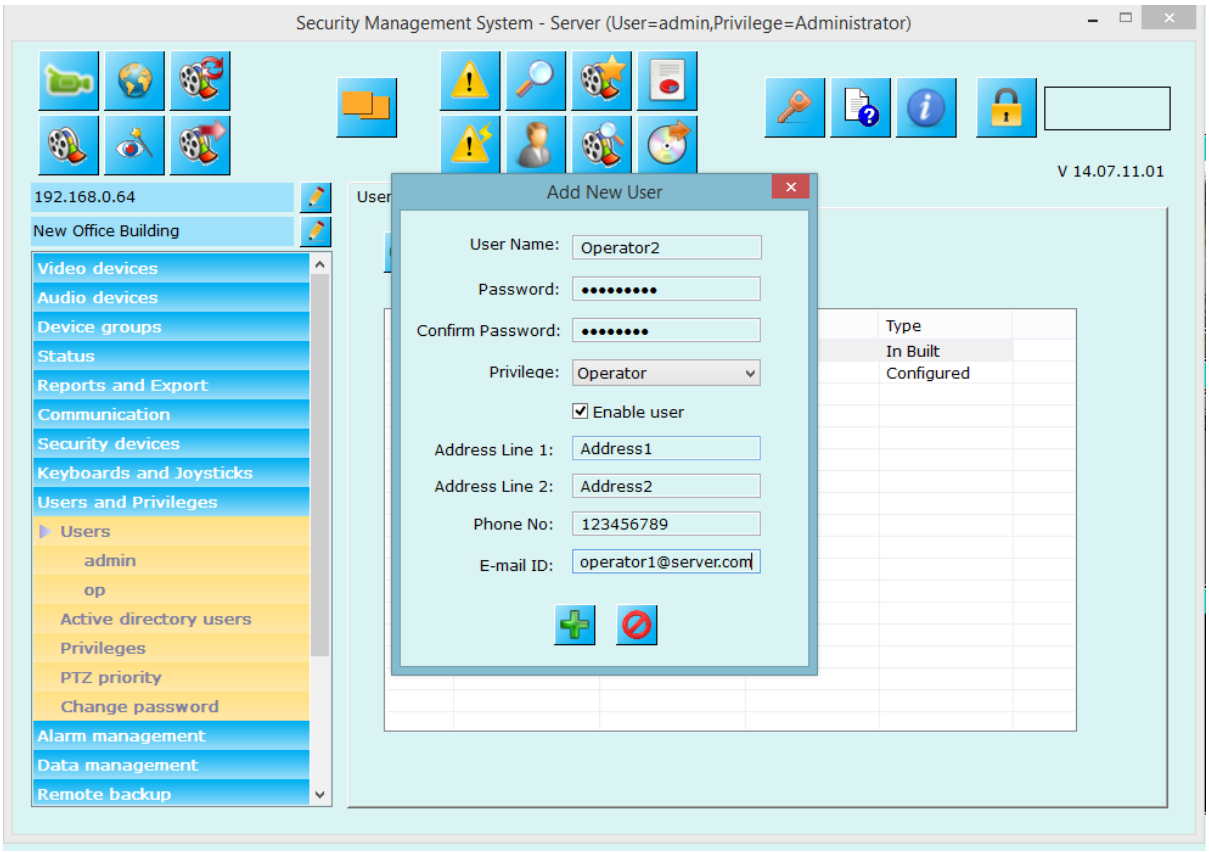
2.8 Users and Privileges

This section is used for administration tasks, defining users who can access the server software, their privileges, priorities while doing PTZ on cameras etc.

2.8.1 Users

This link displays all the configured users which can access this server software. You can add new user to the system, delete or disable already configured.

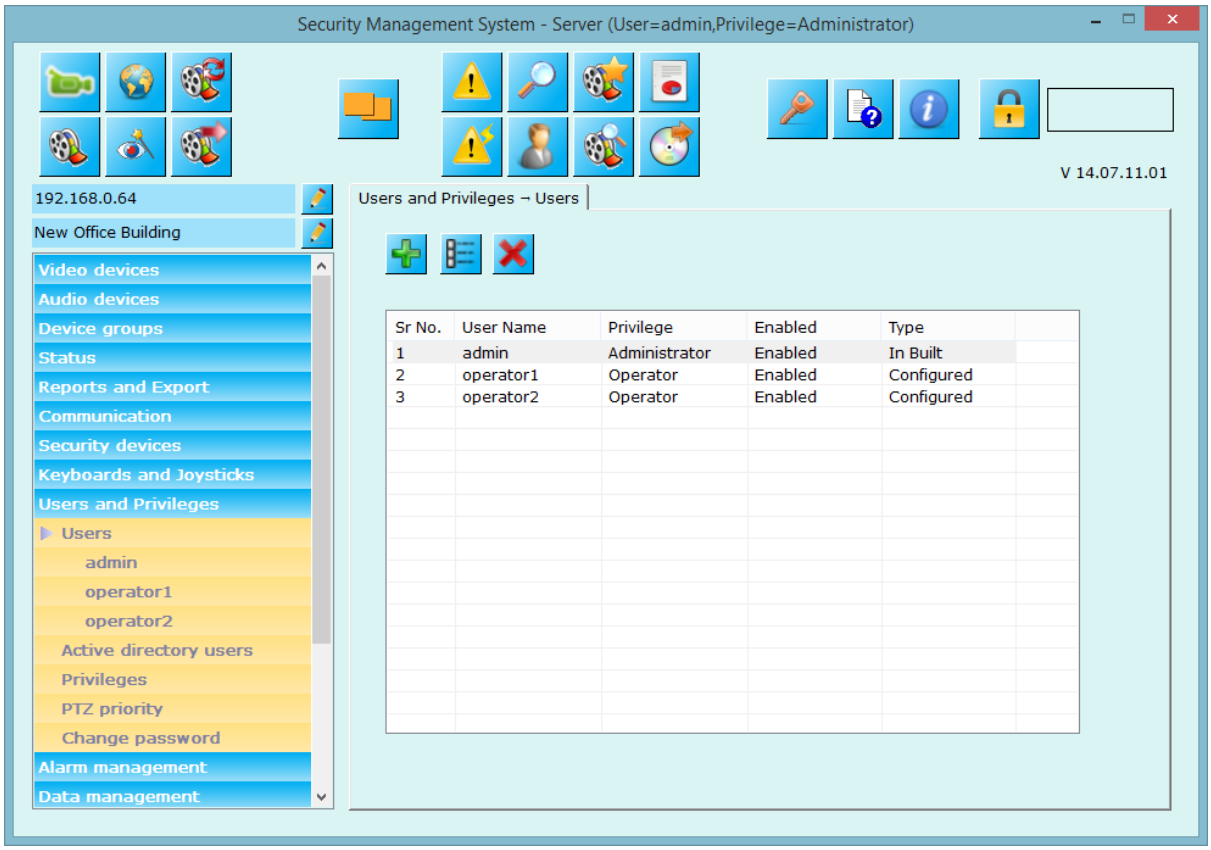
Click on ‘Add new user’ button to add new user. Provide details about user name, password, select privilege from available options, click on ‘Enable user’ to enable user access to the system, provide other optional details like address phone numbers and email address. Click on ‘Add’ to complete adding new user.



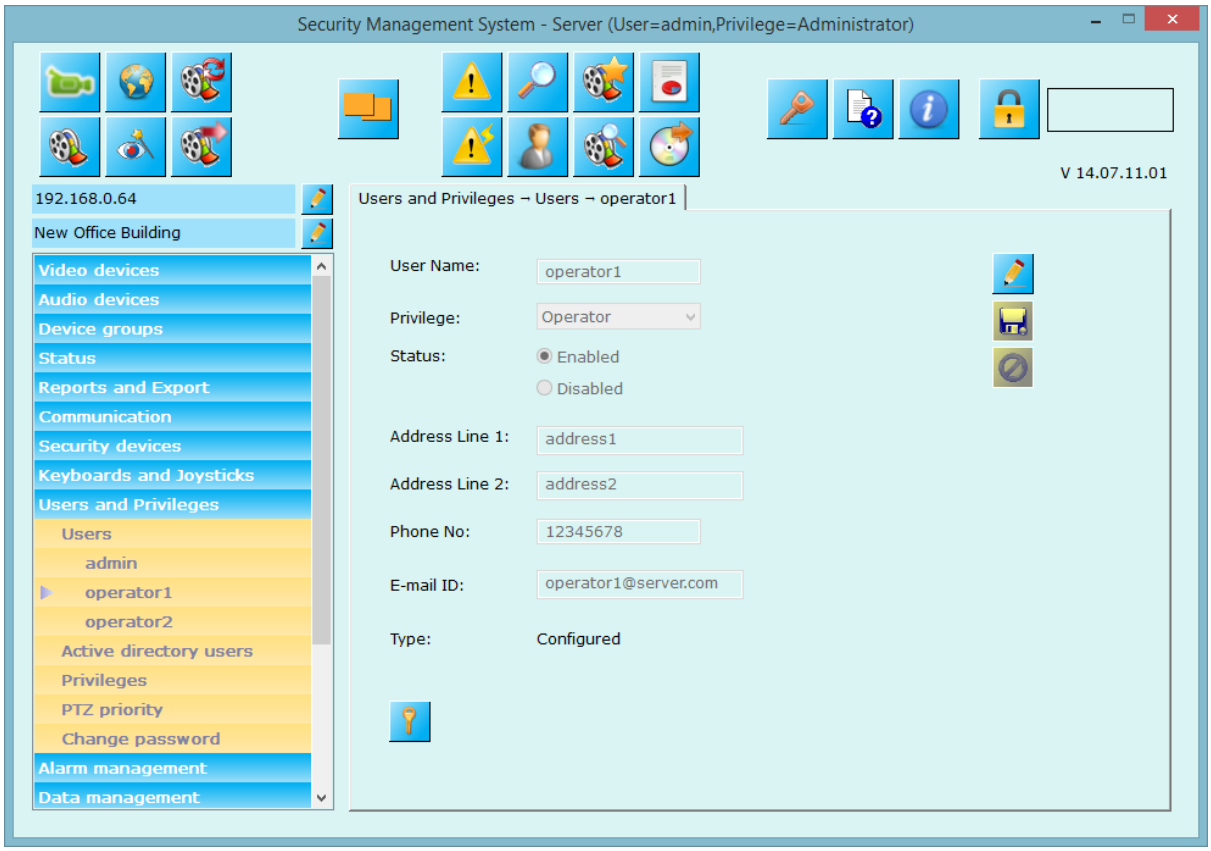
Select any user and click on ‘Details’ button to see and update user details. From details page (screen shot at below page), you can edit the details and change password for selected user.

Select any user from the list and click on ‘Remove’ button to remove it from the system.

Screenshot – User list



Screenshot – User details

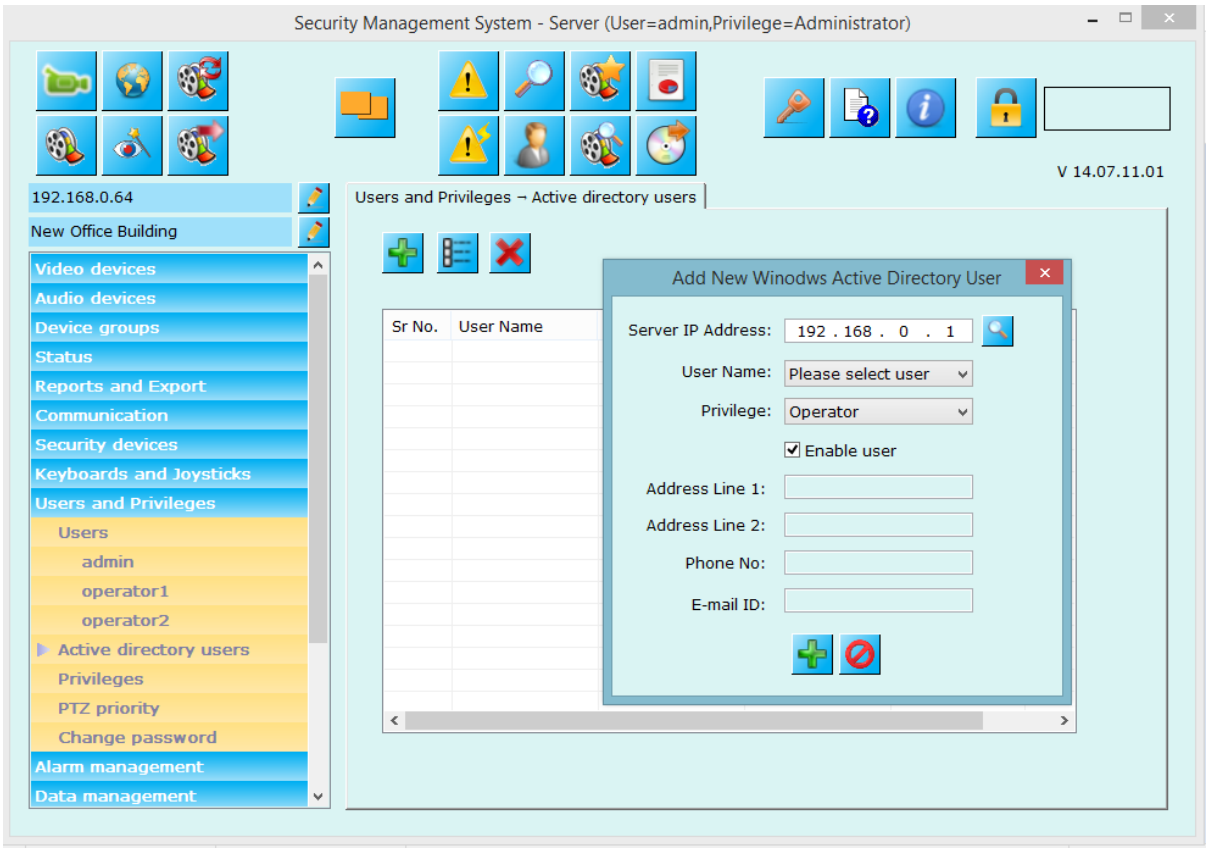


2.8.2 Active directory users

You can add Windows active directory users to the server software from this link.

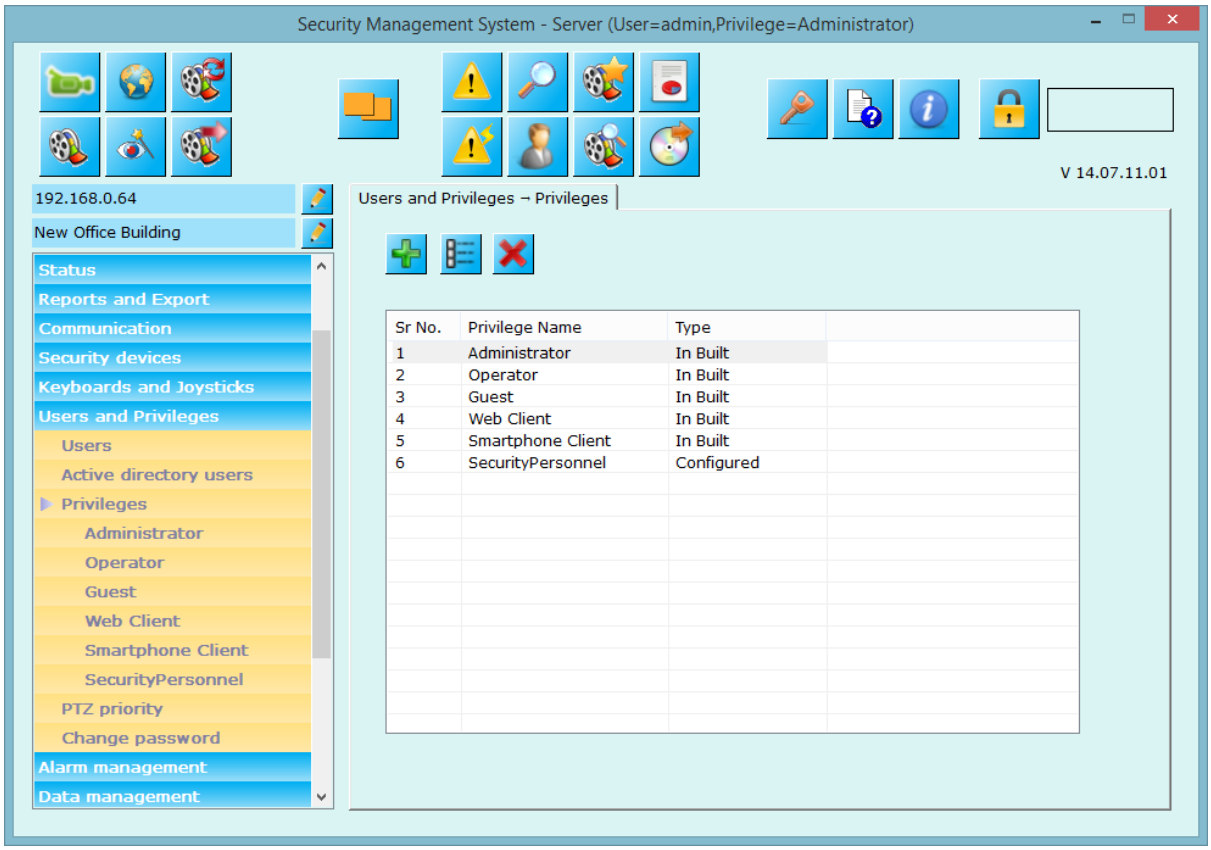
Click on ‘Add new user’ button to pop-up a dialog box where you can provide IP address of Windows Active Directory server and click on ‘Search’ button to fill up ‘User name’ option box with the Windows active directory users from the selected IP address.

Then you can add user just like normal user and do all other operations onto it like enabling/disabling user access to the software, privilege assignment, user details etc. as described above.



2.8.3 Privileges

This link displays the list of currently configured privileges.



The ‘Add New Privilege’ button can be used to configure a new privilege.

Any row from the list can be selected, and the corresponding privilege is treated as the currently selected privilege.

The ‘Delete’ button can be used to delete the currently selected privilege. It is not possible to delete an ‘In-built’ type privilege.

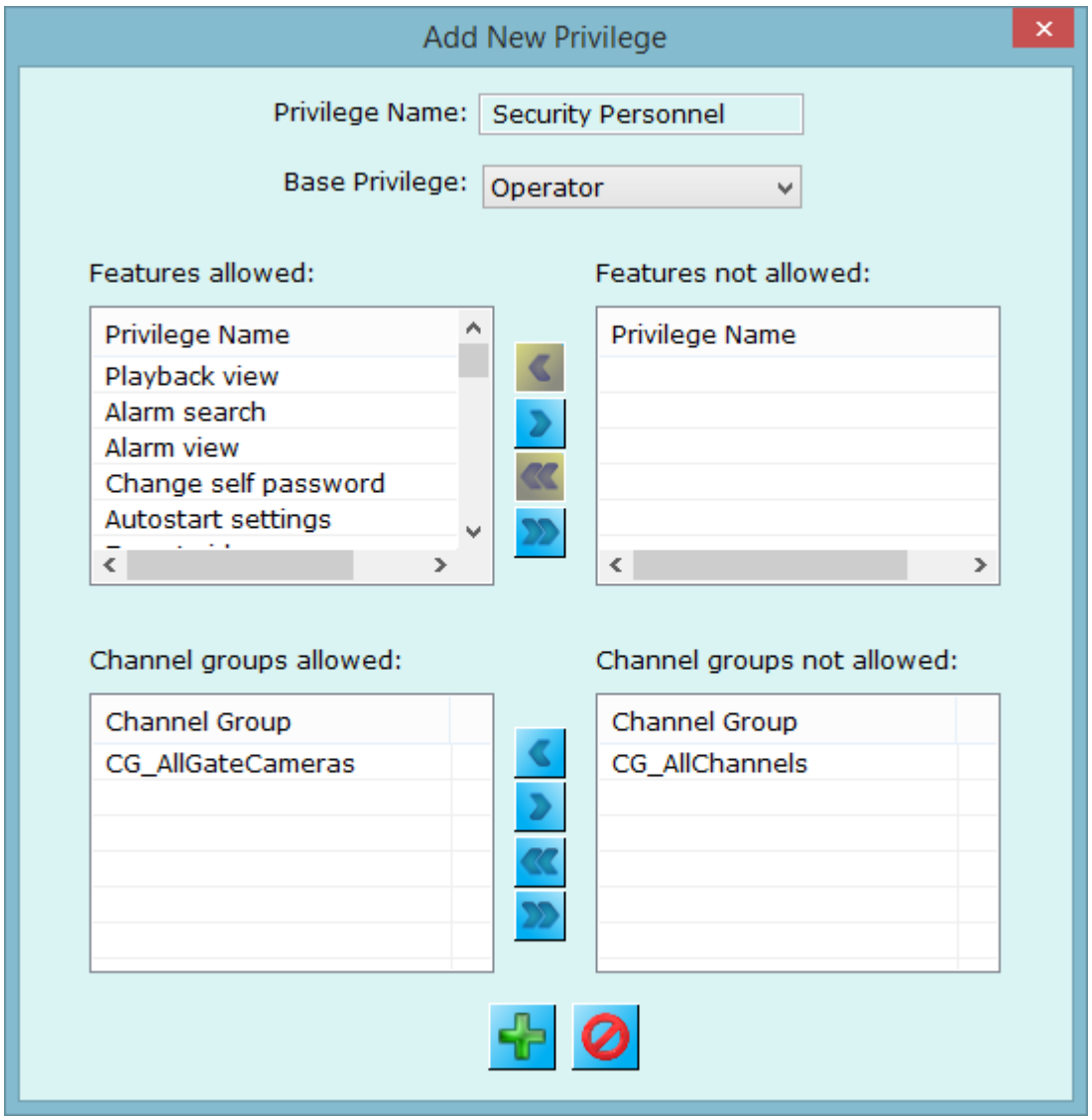
The ‘Details’ button can be used to view the settings of the currently selected privilege.

Add new privilege

Use button to add new privilege to the system. This will pop-up a dialog box where you can enter privilege name, and select 'Base privilege' from which it needs to be derived.

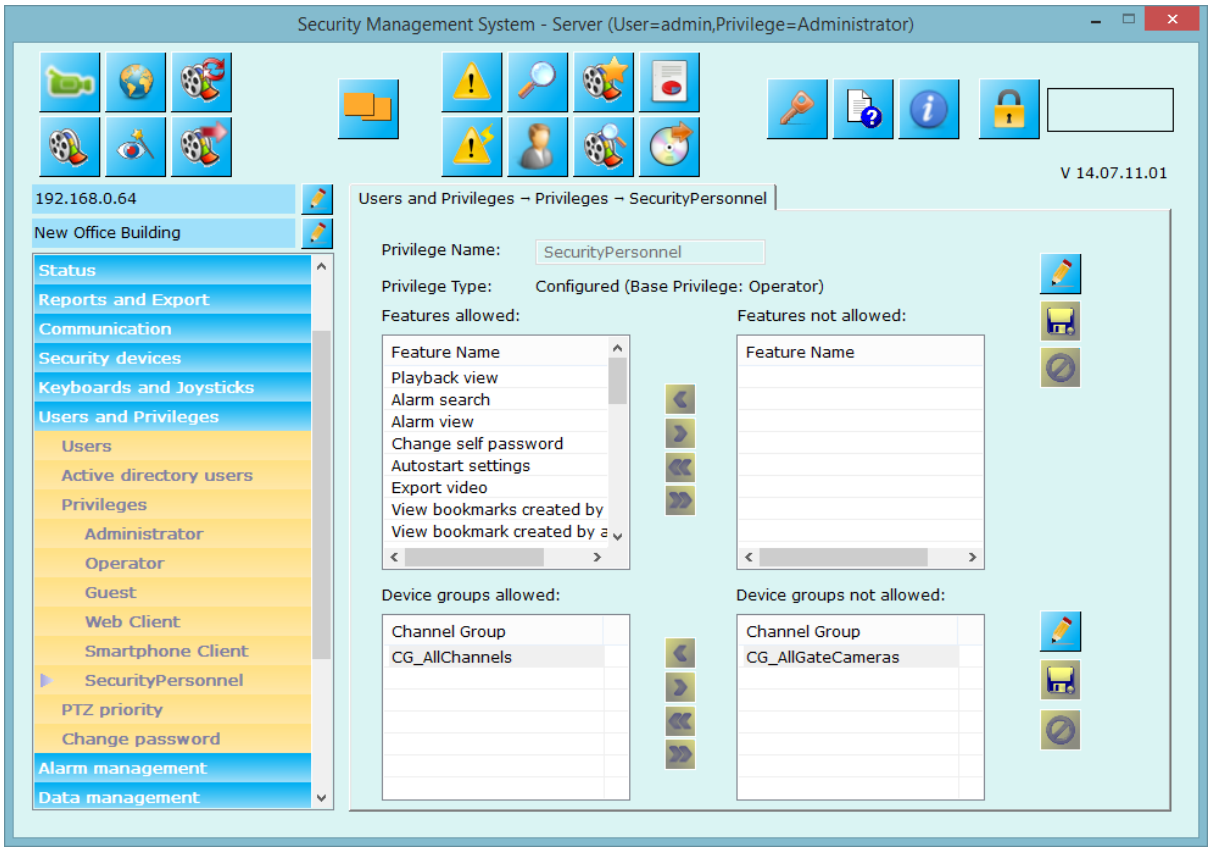
You can then enable/disable 'Functions' from the list to this privilege.
Please select 'Channel group' this privilege will have access to.

And finally click on button to add new privilege ('Security Personnel' in this example) to the system.



Privilege Details

The ‘Privileges’ link has sub-links, one for every privilege configured in the system. Clicking on any of these sub-links displays the privilege details page for that privilege.



The ‘Edit’ button can be clicked to start editing the privilege configurations. The ‘Edit’ button is enabled only for the ‘configured’ type privileges and not the ‘In-built’ type privileges.

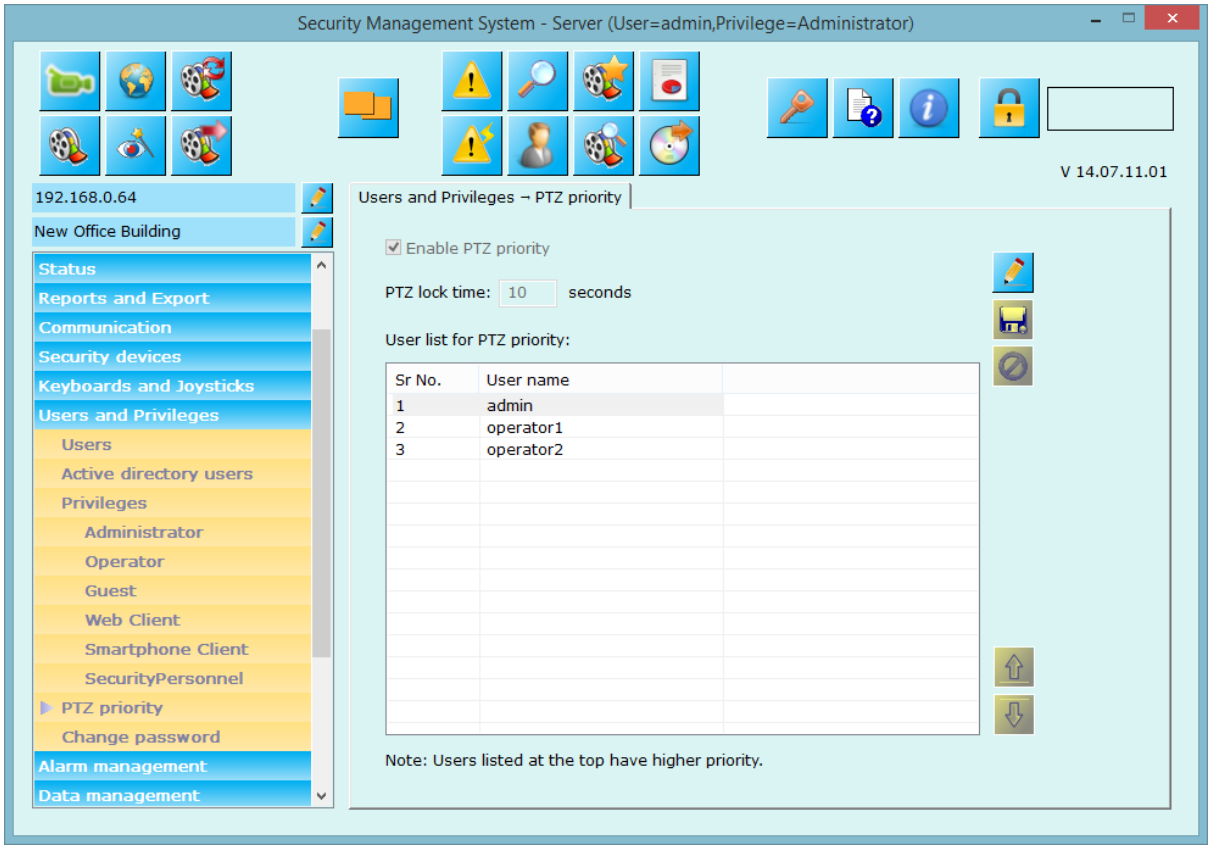
When in the ‘edit’ mode, it is possible to change the ‘Privilege Name’ and the authentication of functions for that privilege and also assign one or mode channel groups to new privilege. Users with this new privilege will only see and operate video channels assigned to their channel group.

Change ‘Channel groups allowed’ for this privilege from below section (shown at screenshot)

Clicking on ‘Save’ button saves the changes done to the privilege configurations. Clicking on the ‘Cancel’ button results in the ‘undo’ operation and configurations are reset to the previously saved settings.

2.8.4 PTZ Priority

It is possible to define PTZ priorities for the system. This lets better control PTZ cameras and some users can have high priority while doing PTZ for the cameras while other users can wait as per their priority.



Check the ‘Enable PTZ priority’ option and define ‘PTZ lock time’ in seconds.

All configured users of the system are listed in the list and users listed at the top are having high priority. Priority goes on decreasing as serial number (Sr. NO. in above screenshot) goes on increasing.

When a high priority user does PTZ, then PTZ functionality gets locked for ‘PTZ lock time’ seconds, all users having low priority than the user who does the last PTZ needs to wait for ‘PTZ lock time’ for doing PTZ on any configured cameras.

A high priority user can always invoke PTZ any time if PTZ locked by low priority user and PTZ will get locked for configured time for all users with low priority than current user who just did PTZ.

Select any user from the list and use , buttons to modify user priority.

Click on ‘Save’ button to save the changes.

Click on ‘Cancel’ button to discard current updates. User interface will show last saved settings.

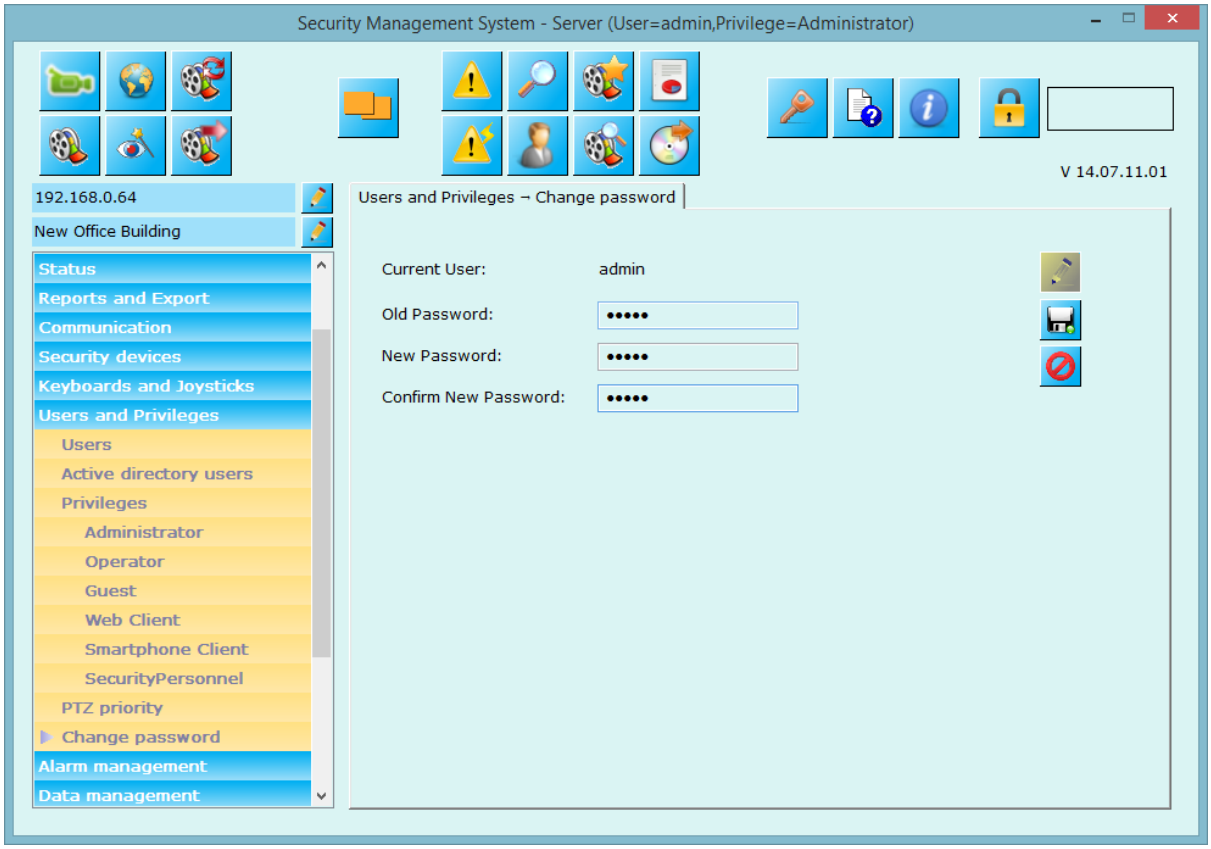
2.8.5 Change password

You can change password for currently logged user from this page.

Click on ‘Edit’ button to enable user interface.

Enter ‘Old password’, ‘New password’ and ‘confirm new password’

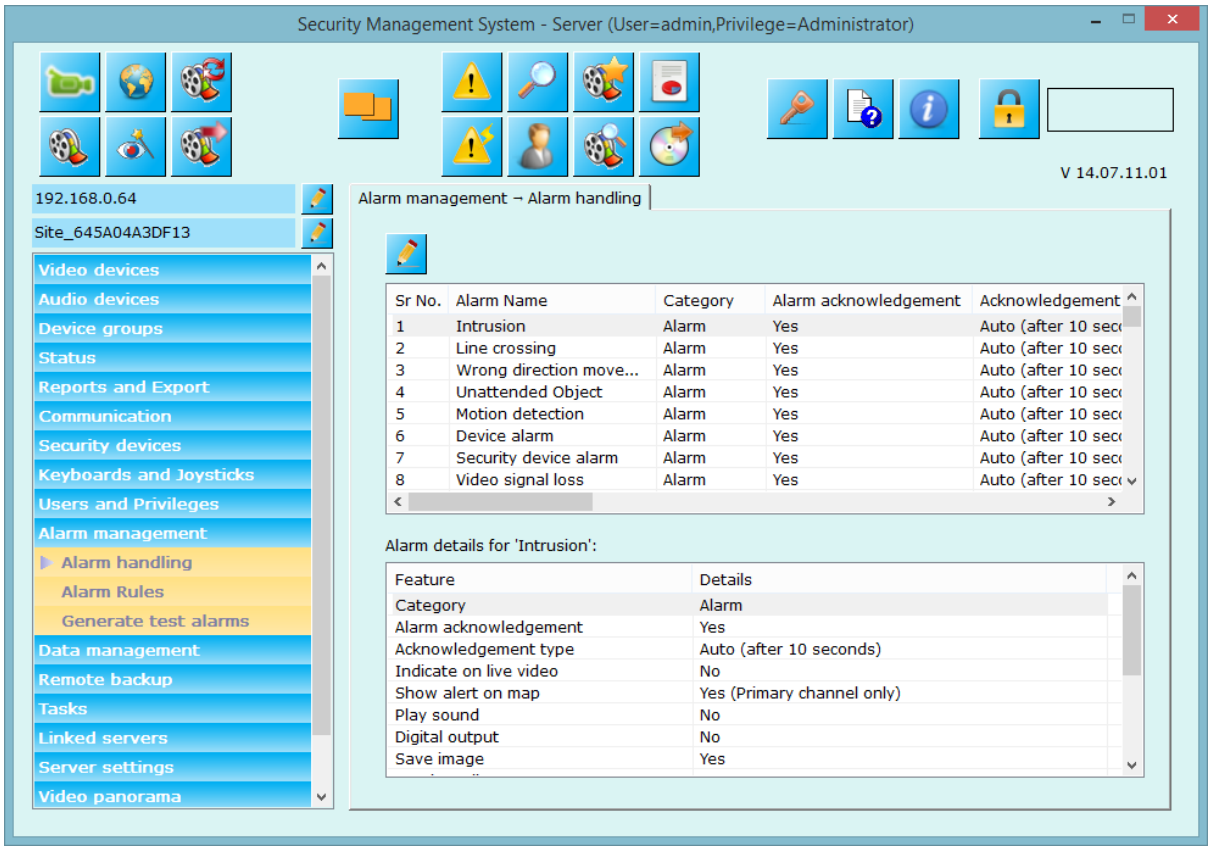
Click on ‘Save’ button to save changes.



2.9 Alarm management

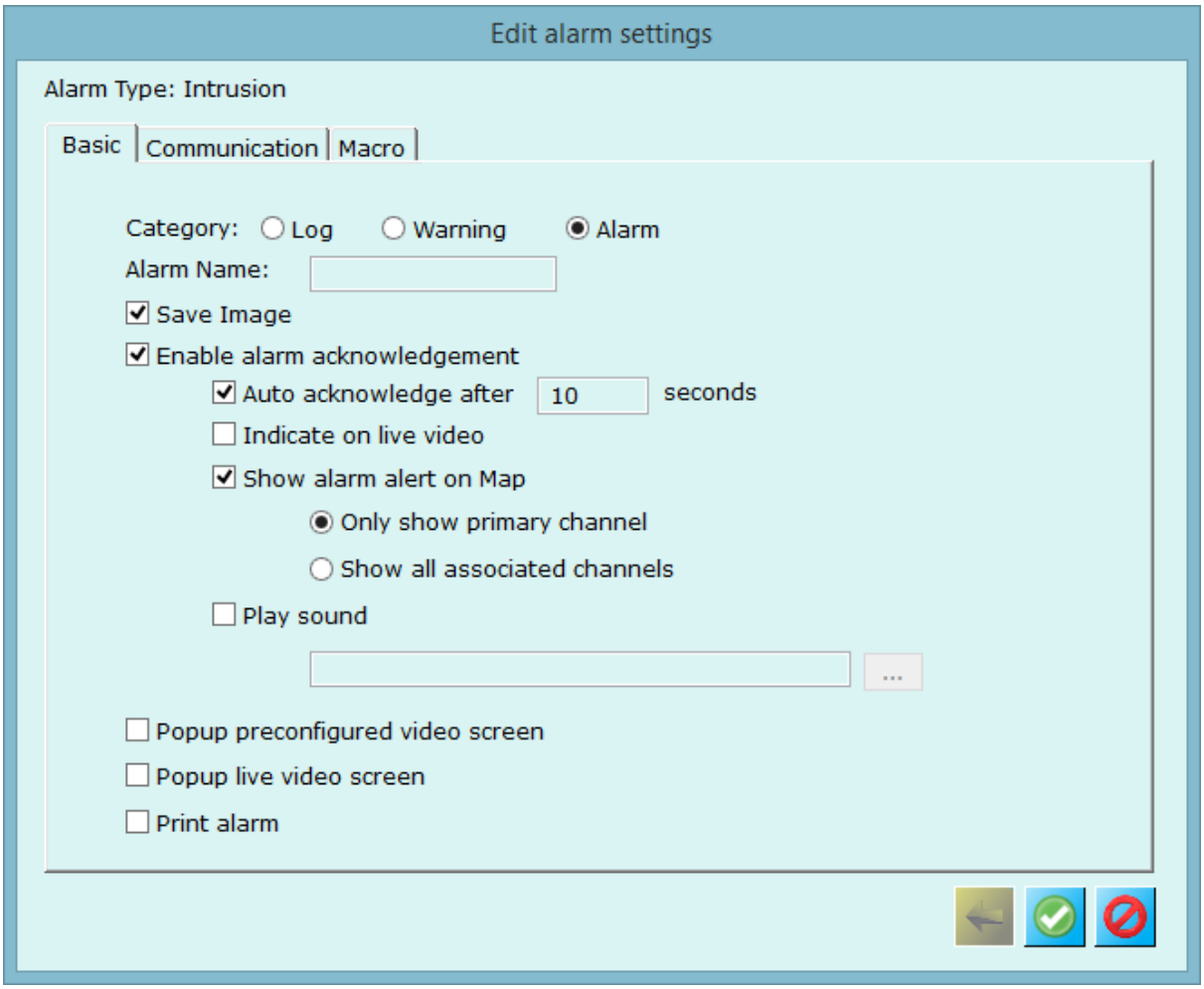
2.9.1 Alarm handling

Alarm handling link displays alarm settings for each alarm type and allows you to configure settings.



Select any alarm name, its details will be shown in below list.
Double click on any alarm from list to view its details.

To edit the alarm settings, click on edit button present on upper left of the window. This will pop up a dialog box where you can configure alarm settings. (See screenshot below)



In the **'Basic'** section, you can configure following alarm settings

a. Alarm Name:
You can specify different alarm names to the generated alarm.

b. Alarm Category:
Choose between 'Log', 'Warning', or 'Alarm'.

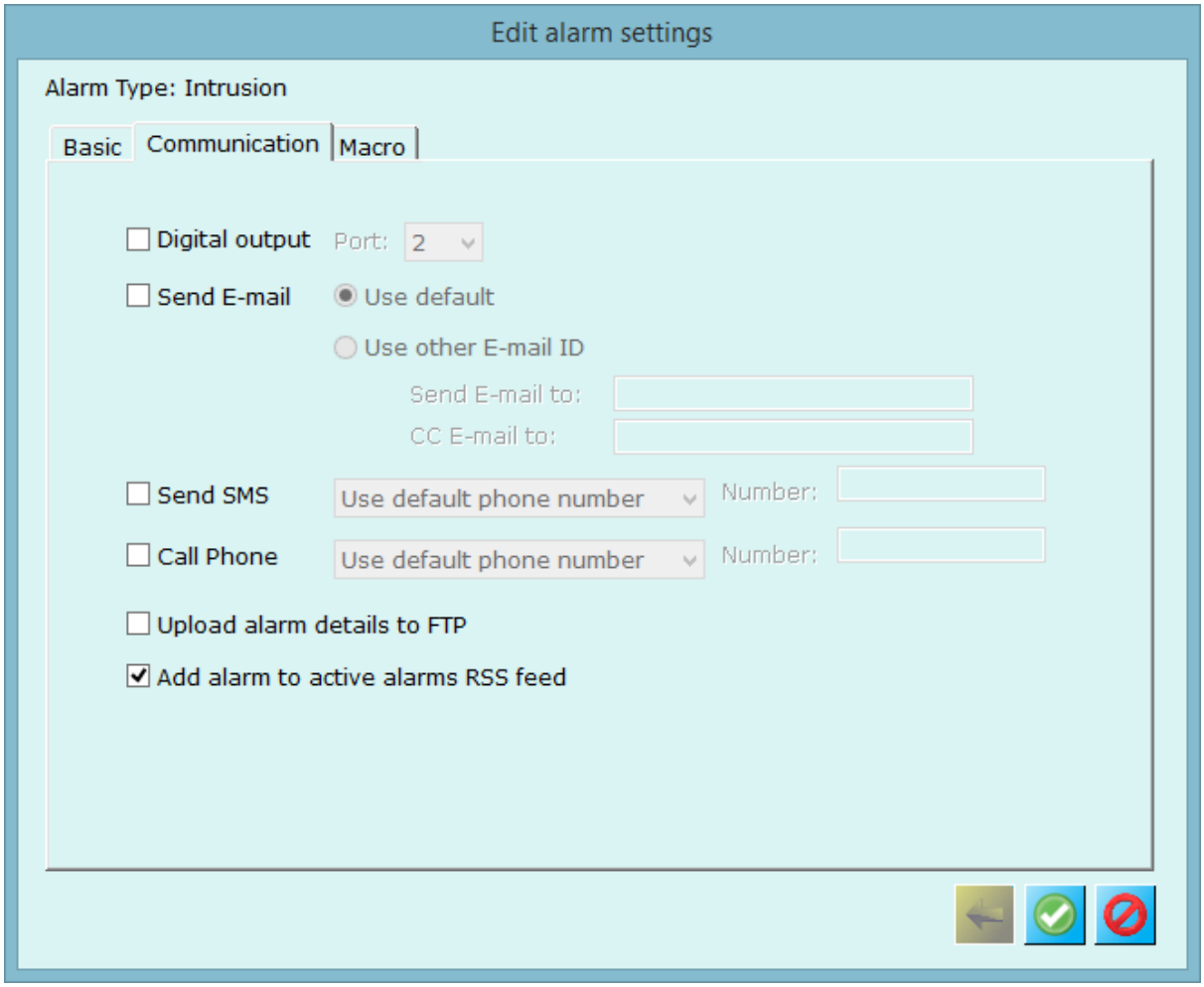
c. Save Image:
When checked will save alarm image.

d. Enable alarm acknowledgement:
If enabled you can specify whether alarm should be auto acknowledged or not, if yes then time after which it will be auto-acknowledged. If auto-acknowledgement is unchecked, operator should manually acknowledge the alarm.

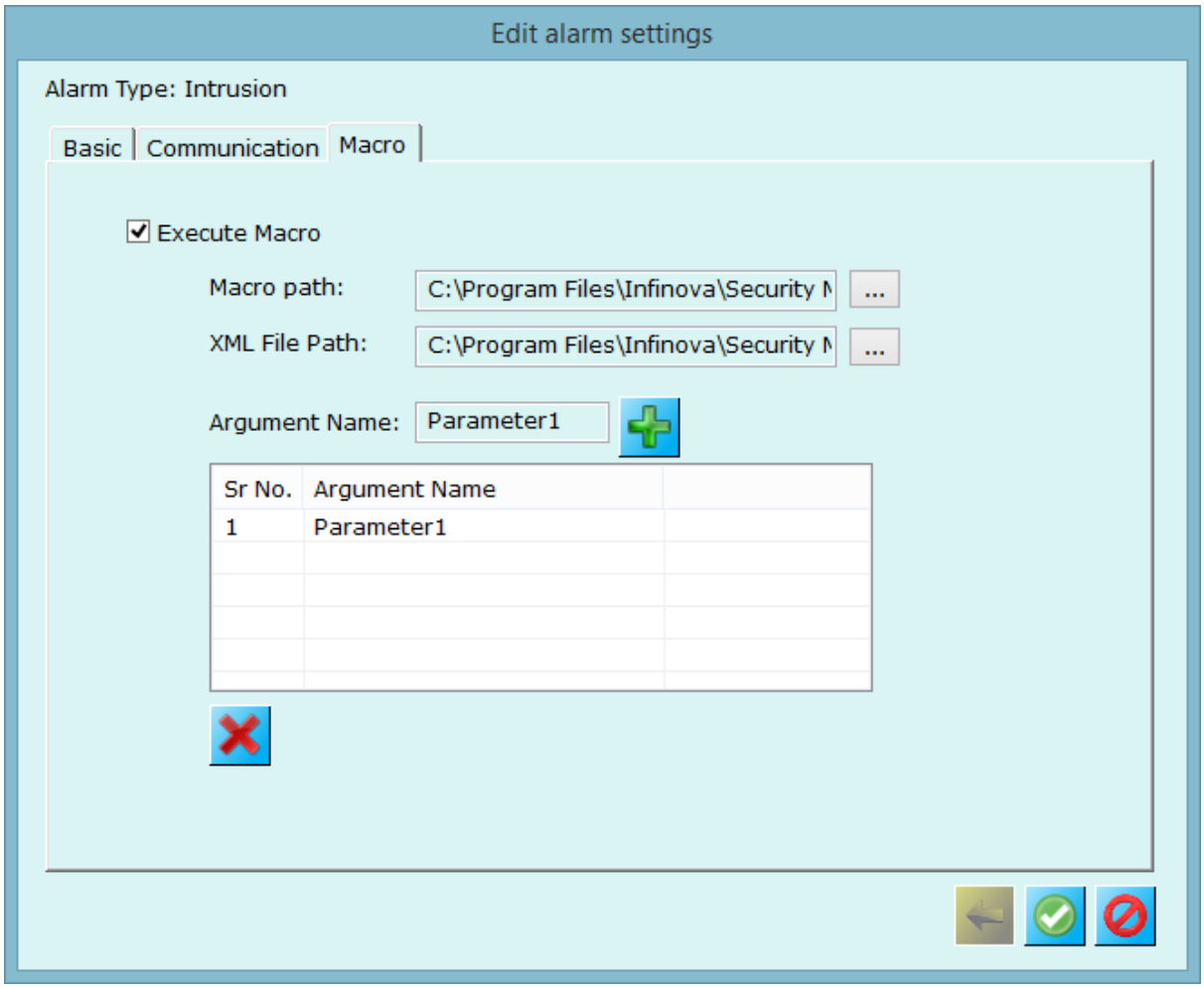
e. Popup windows:
You can enable popup of **preconfigured video screen** (separate screen where you can configure screen layout and video channels – for configuring please refer to 'User interface->Display settings' tab) and /or **live screen** (separate live screen displayed in 1x1 layout mode with current alarm video channel viewed, you can drag drop other video channels and change the layout as per your choice.)

f. Print alarm:
If enable application will print the alarm details to default printer.

In **'Communication'** section, you can configure communication to other devices or software like 'Send Email', 'Send SMS', 'Call Phone', 'Upload to FTP', 'RSS Feed' etc.

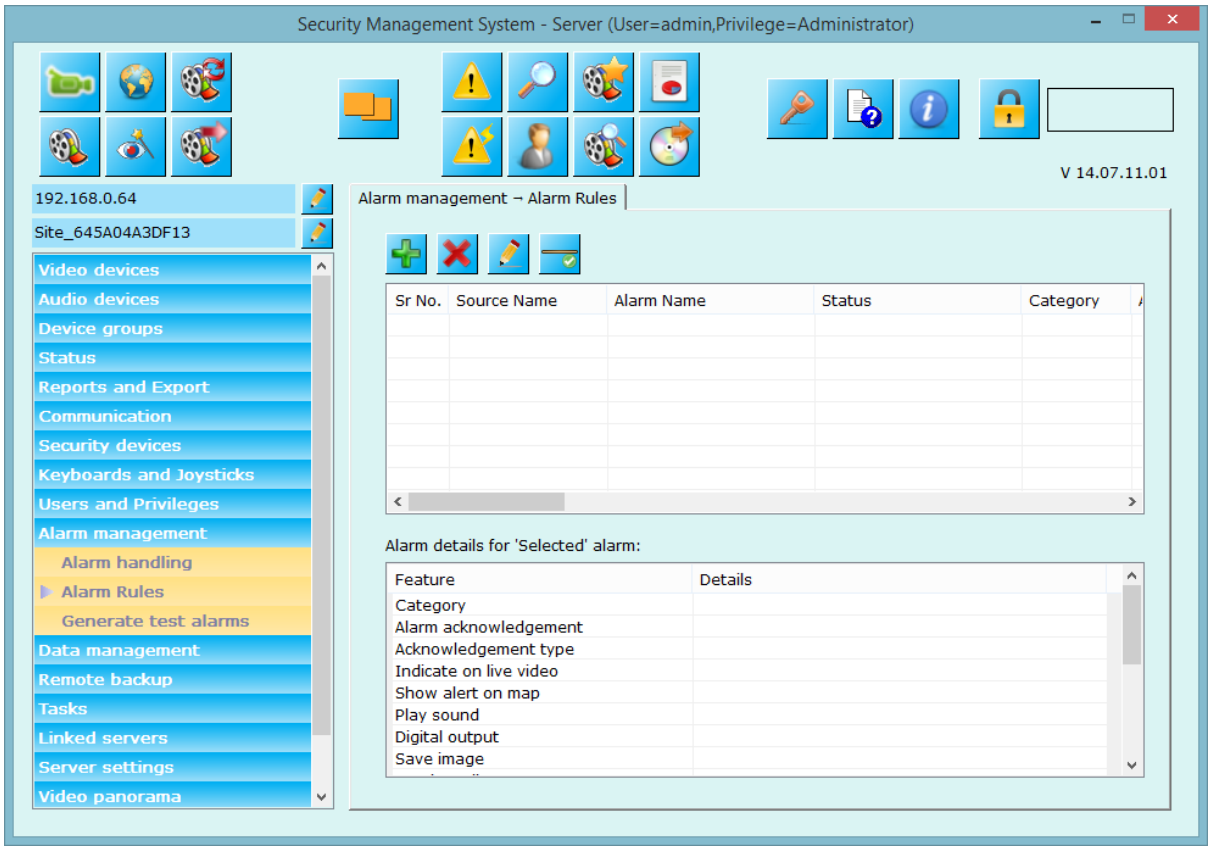


In **'Macro'** section, you can ask to execute the user defined macro whenever the alarm is generated.

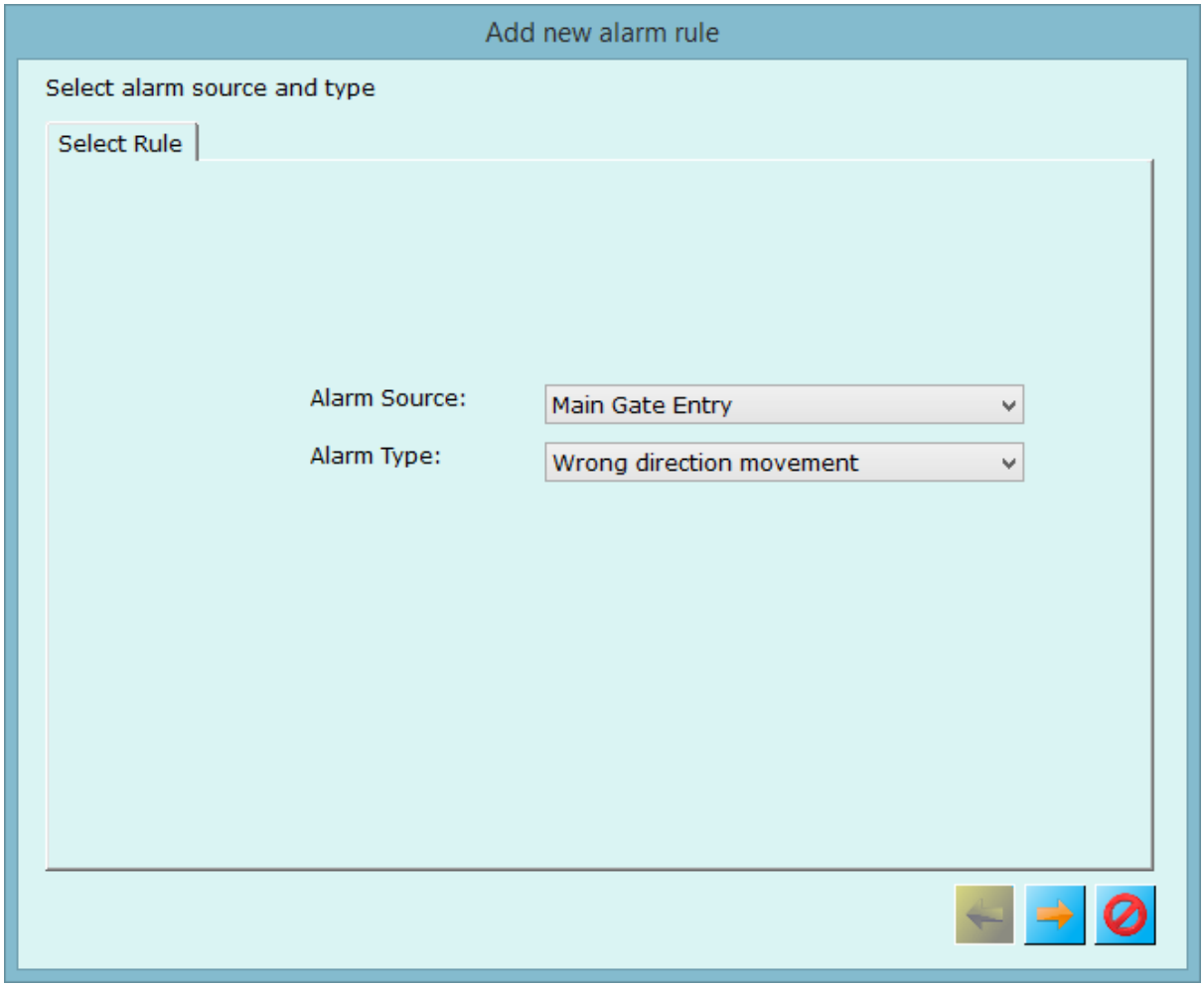


2.9.2 Alarm Rules

This page allows you to add specific alarm rules. Alarm rule can be defined for specific alarm from specific alarm source.

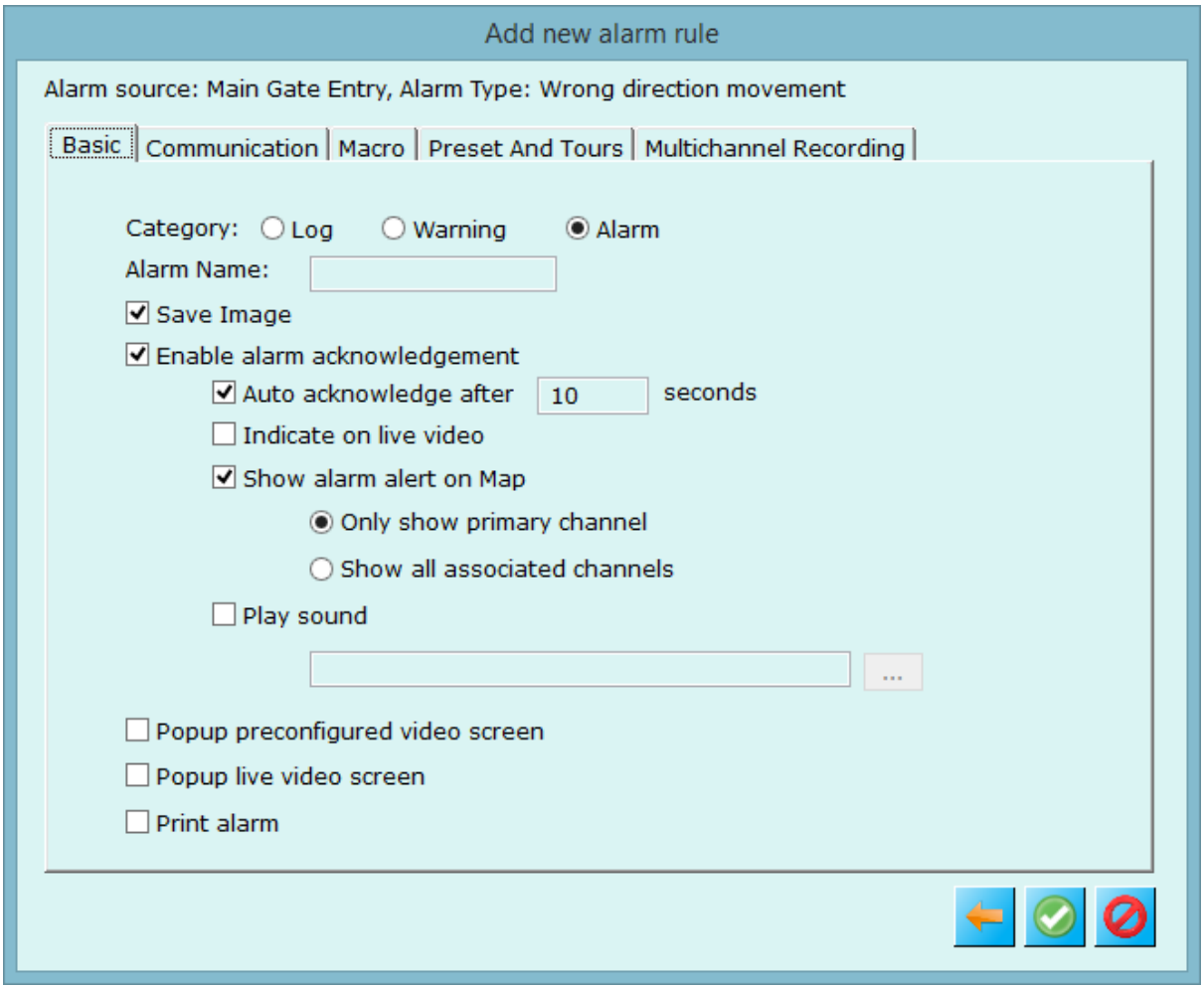


Please click on 'Add new alarm rule' button to create new alarm rule and follow the wizard.



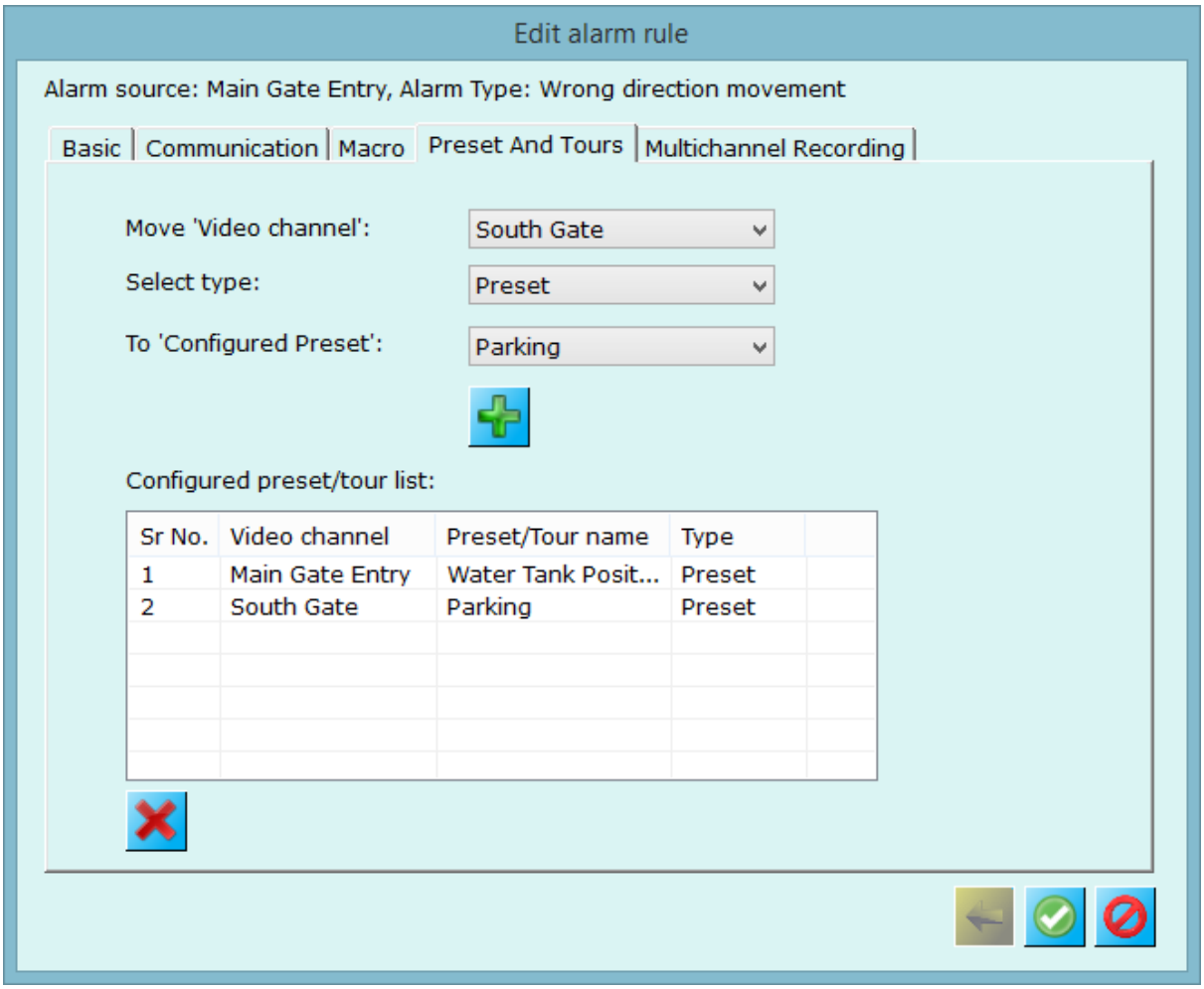
Please select ‘Alarm Source’ and ‘Alarm Type’ for which you want define alarm rule and click on ‘Next’ to proceed with settings.

Next page will display alarm settings that you can define for this alarm rule.



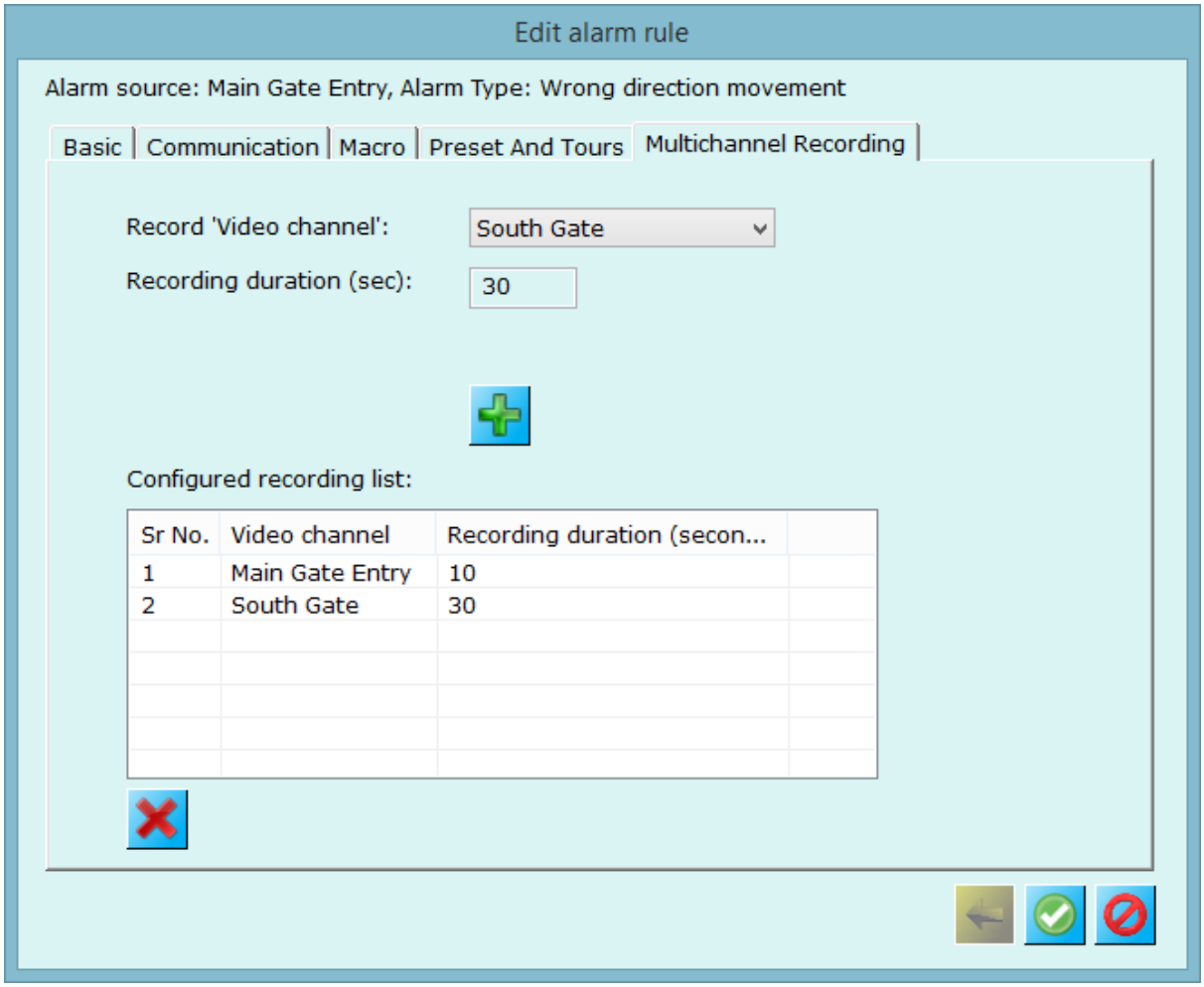
Configure ‘Basic’, ‘Communication’, ‘Macro’, ‘Preset’, and ‘Multichannel recording’ sections as your requirement.

For Alarm rule’s you can define ‘Preset and Tour’ and ‘Multichannel Recording’ settings.



This means when ‘Wrong direction movement’ alarm is generated from video source ‘Main Gate Entry’ then Main gate Entry camera will move to WaterTankPosition preset and South Gate camera to Parking preset.

Multichannel recording allows you to set recording for different channels when selected alarm is generated.

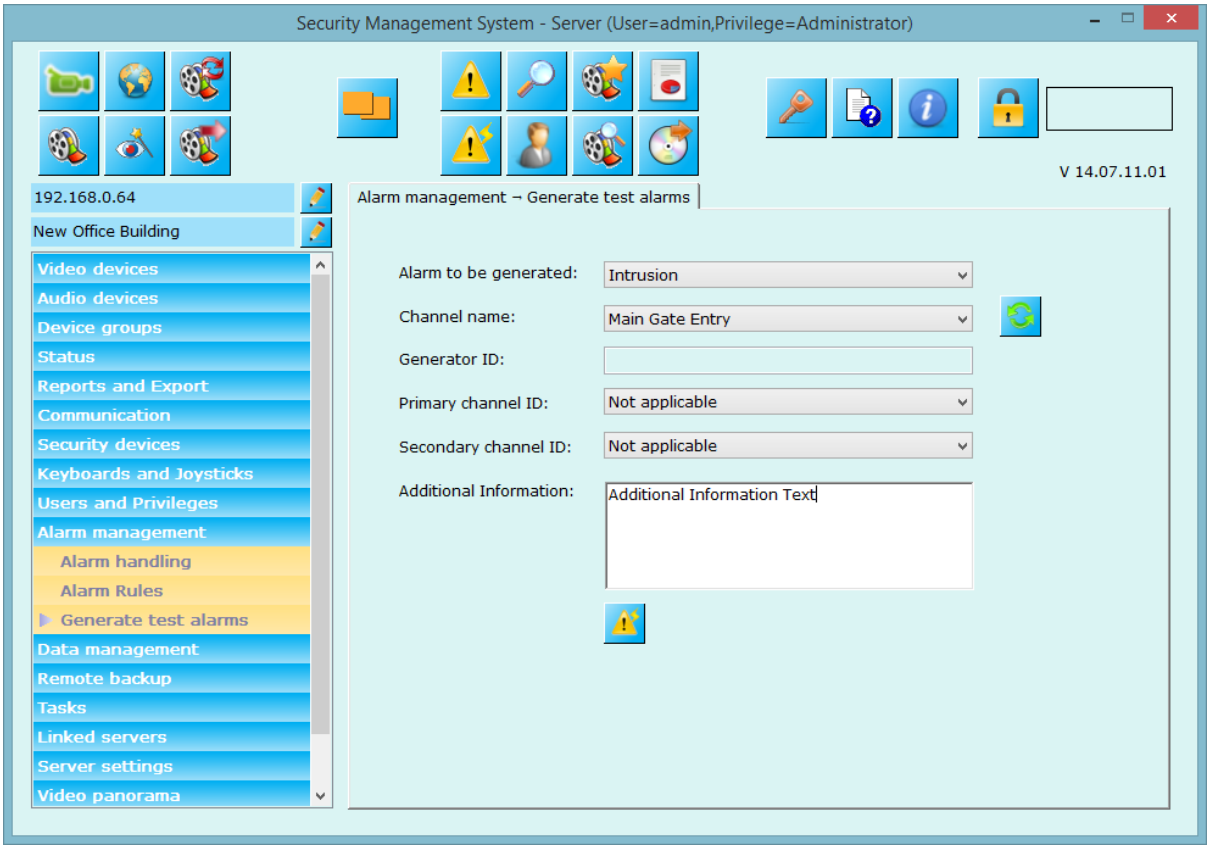


As per above screen shot whenever alarm 'Wrong direction movement' is generated for the security device 'Main Gate Entry', channels Main Gate Entry will performs recording for 10 seconds and South Gate for 30 seconds.

In case there is no alarm rule is defined, Security Management System Server software will use alarm handlers from 'Device Alarms' section.

2.9.2 Generate test alarm

Using this link, users can generate test alarms for video channel of their interest. This can be used for testing purpose of alarm handlers.



Select ‘Alarm to be generated’ from the available options.

Then select ‘Channel name’ (‘alarm source’ for the alarm to be generated).

Then specify ‘Generator ID’ (e.g. area/zone ID for alarm generated from video analytics module)

Select primary and secondary channel IDs – keep ‘Not applicable’ if not to be used. Type any additional information into text box provided.

Click on ‘Generate test alarm’ button to generate the alarm.

This generated alarm will work the same way as it has actually generated by the video source. All alarm handlers for this particular alarm will get executed.

2.10 Data management

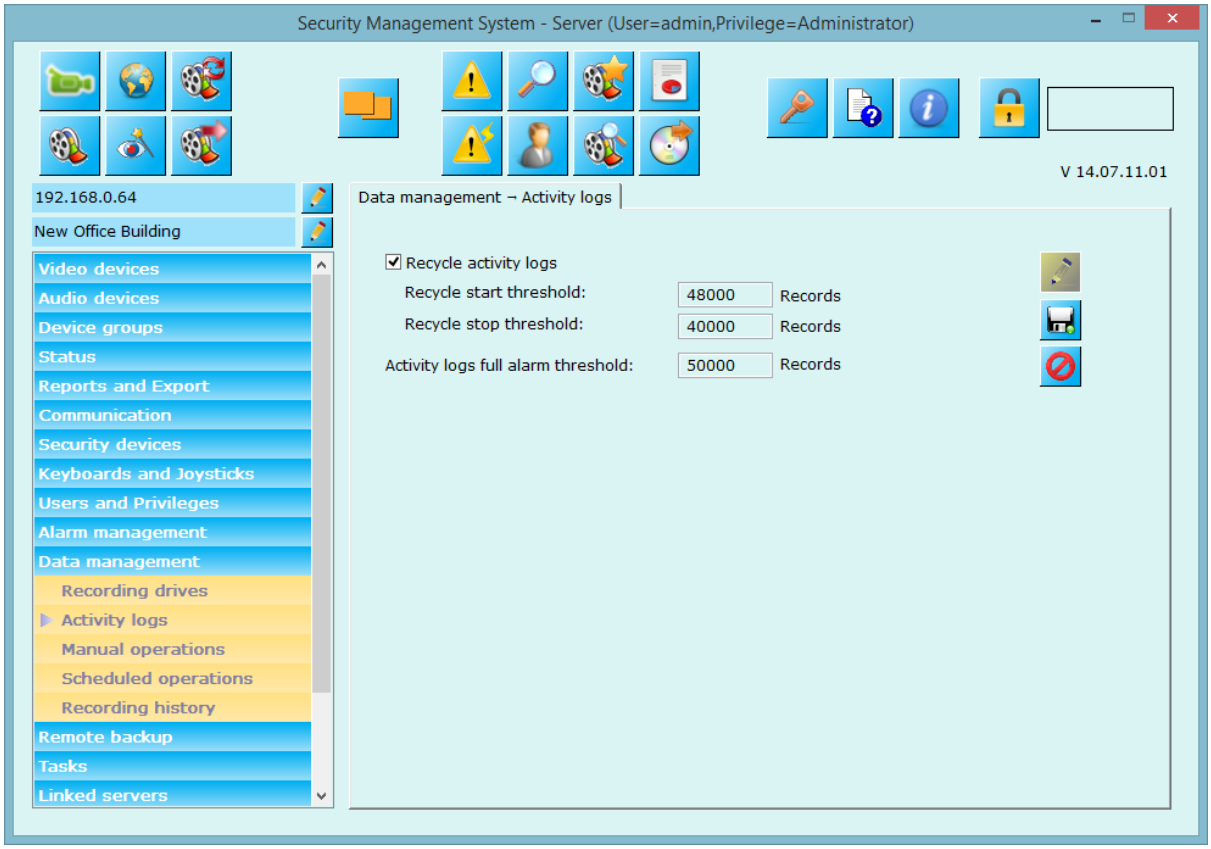
All data management activities can be configured from this section

2.10.1 Recording drives

This is already discussed in '**Quick setup wizard'** section above.
(Please refer 'Quick setup wizard - Recording drives')

2.10.2 Activity logs

Enable recycling of activity database from this section.
Specify recycle start and stop threshold in number of records unit.
Also configure threshold for 'Activity logs full' alarm.



Click on 'Save' button to save the settings.

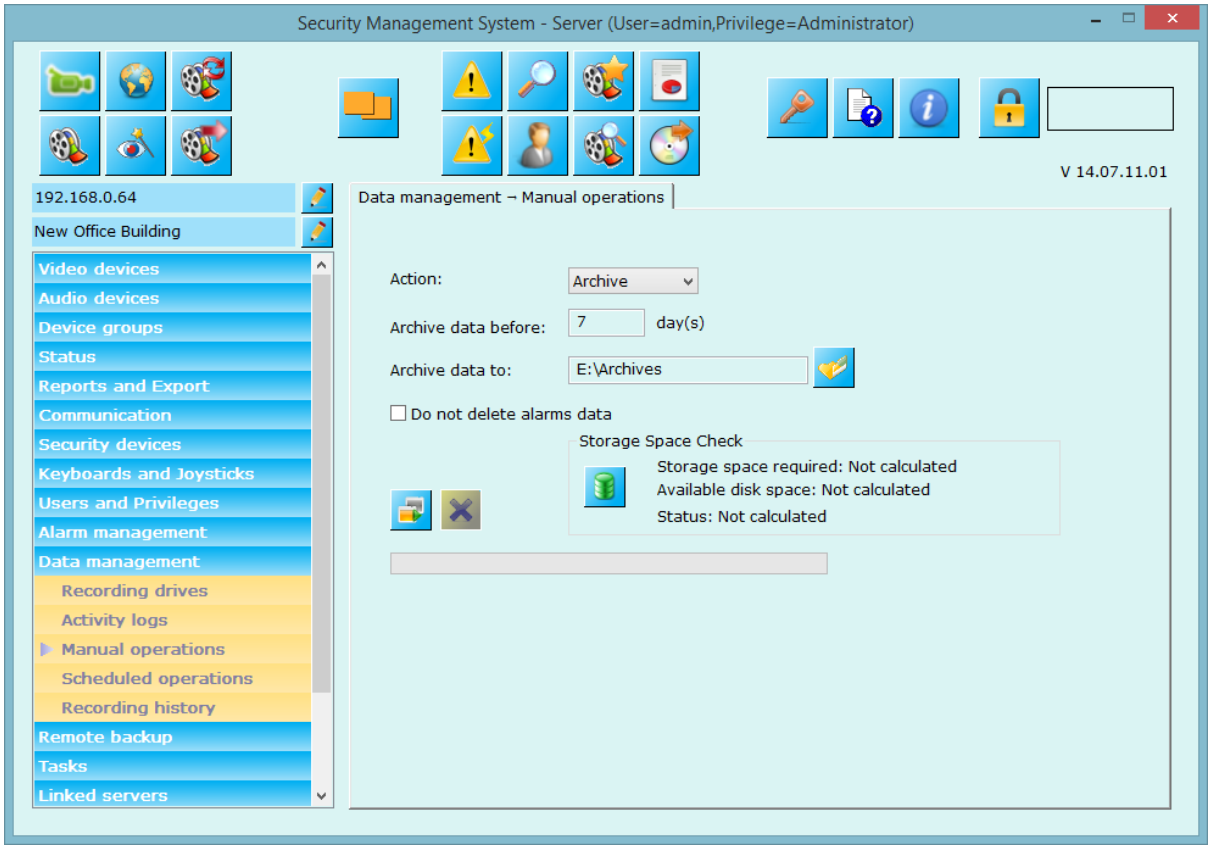
Click on 'Cancel' button to discard currently updated values. This will disable user interface and show the currently used settings.

2.10.3 Manual operations

Data recorded by the application can be manually archived or cleaned from this page.

Please note – both these options will remove online data and system will no longer have access to the data. You will be asked for confirmation before doing the operation.

2.10.3.1 Archive data



Please select '**Action**' from the options.
It can either be 'Archive' (which means move data) or 'Cleanup' (which means delete data permanently). Select 'Archive' option.

Configure 'Archive data before' - Data before these days would be archived.
Select path for archive ('Archive data to')

If you wish not to move/archive alarms data, then check 'Do not delete alarms data'.

'Storage Space Check' features can be used to check if there is sufficient space at the archive path you selected. Click on button to process this. This will tell you the space required for archiving data for configured number of days, the available disk space on the archive data path you have configured and the status for archiving the data.

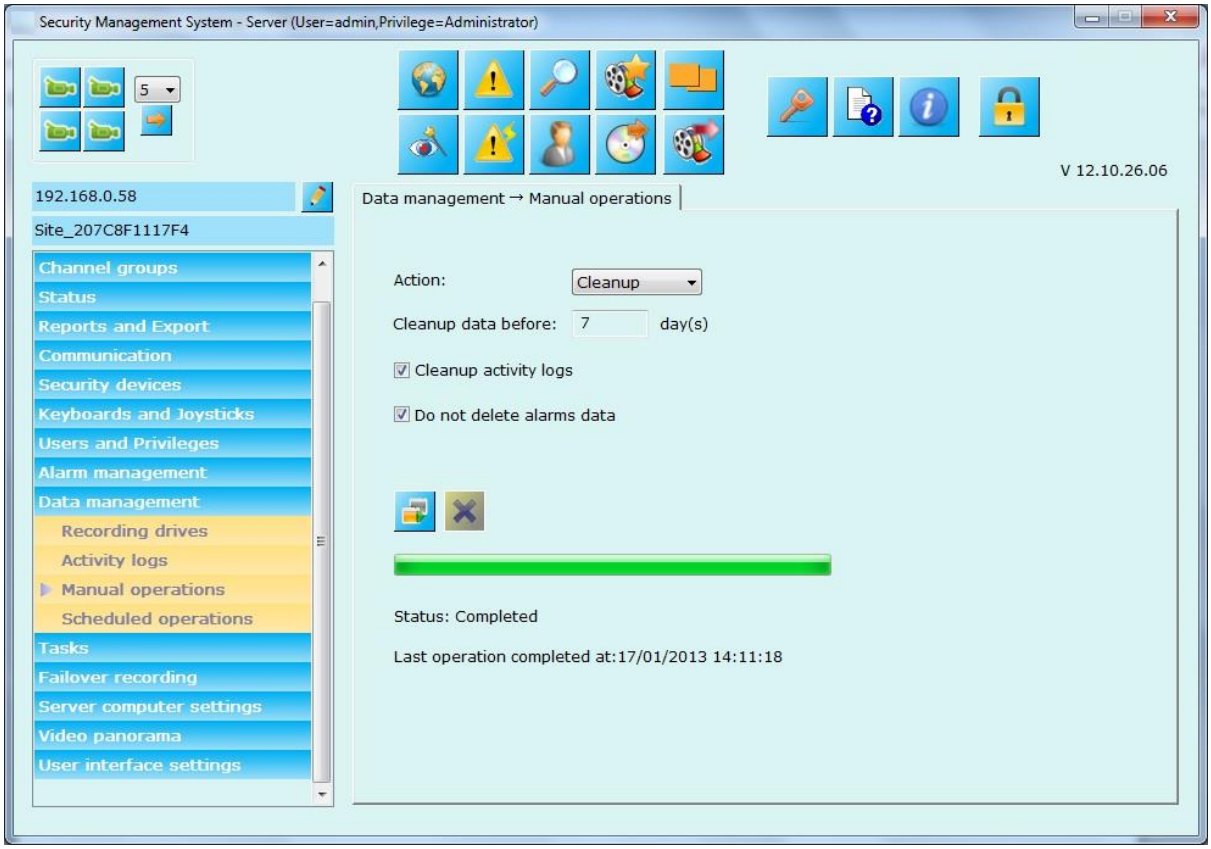
Click on button to start processing. Progress will be displayed below this button.

Use button any time after starting the process to abort the process.

Player application –
As this operation makes data offline to the system, **a player** application is given to play this data later when needed. This player application will also get copied the same path you choose to archive the data. You can execute the player application and it will start playing data automatically. You can navigate through the data using controls available on the player application.

2.10.3.2 Cleanup data

This removes data permanently from the system.



Please select ‘Action’ as ‘Cleanup’.
Configure cleanup data days (say X). This will delete the ‘X days before data’.
Check ‘Cleanup activity’ logs to clean up them.
Check ‘Do not delete alarms data’ to skip deleting alarms data while cleaning up data.

Click on button to start processing. Progress will be displayed below this button.

Use button any time after starting the process to abort the process.

2.10.4 Scheduled operations

Action for scheduled operation can ‘None’ or ‘Archive’ or ‘Cleanup’
Data archive or cleanup can be scheduled as per the requirement using this page.

2.10.4.1 None –

Select this option if you do not want to perform any scheduled action to the data.

2.10.4.2 Archive –

Select action as ‘Archive’.

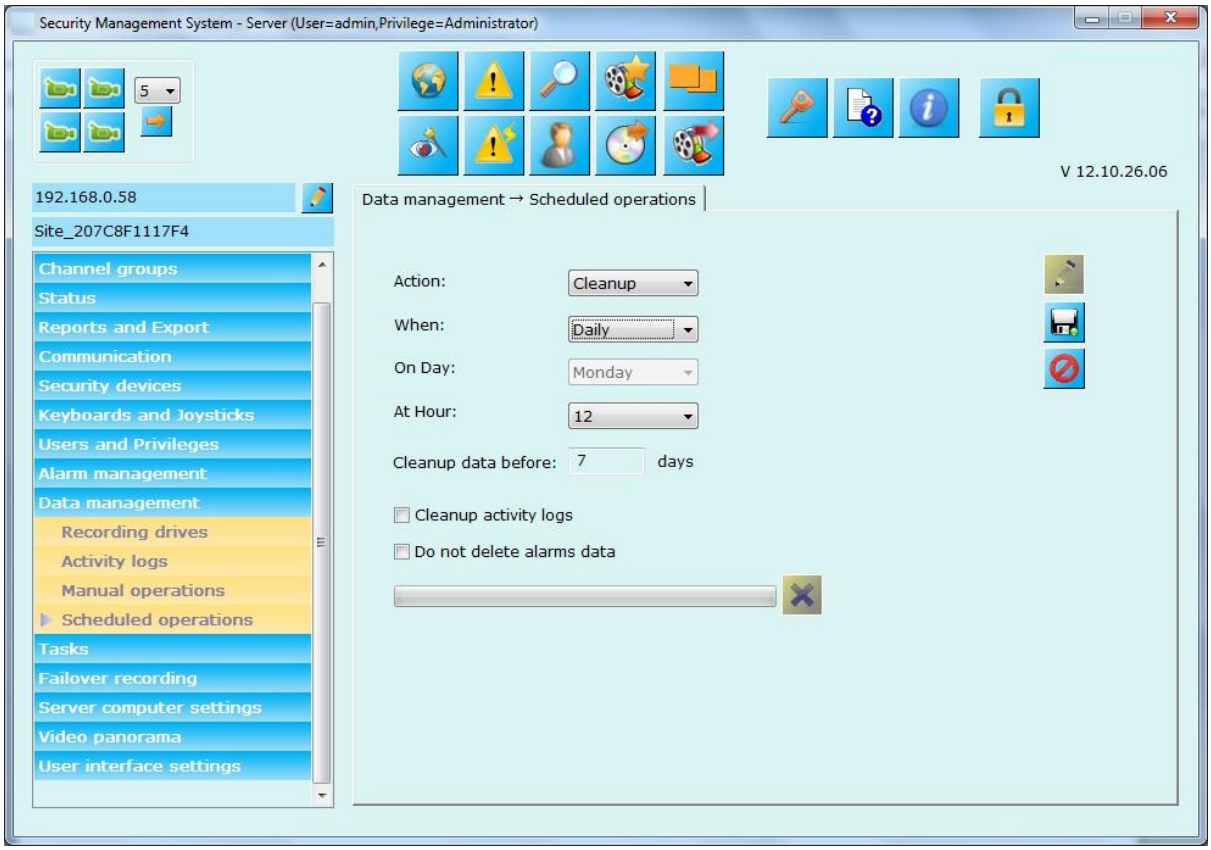
Configure when to perform this operation ‘Weekly, daily, or monthly’, chose the day for the operation when mode is not daily, and hour of the operation.

Configure ‘number of days before’ the data would be archived and the path to archive data.

Check ‘Do not delete alarms data’ if you wish not to move alarms data to archive path.

Application will display the status of the scheduled operation at this page.

2.10.4.3 Cleanup



Select action as ‘Cleanup’.

Configure when to perform this operation ‘Weekly, daily, or monthly’, chose the day for the operation when mode is not daily, and hour of the operation.

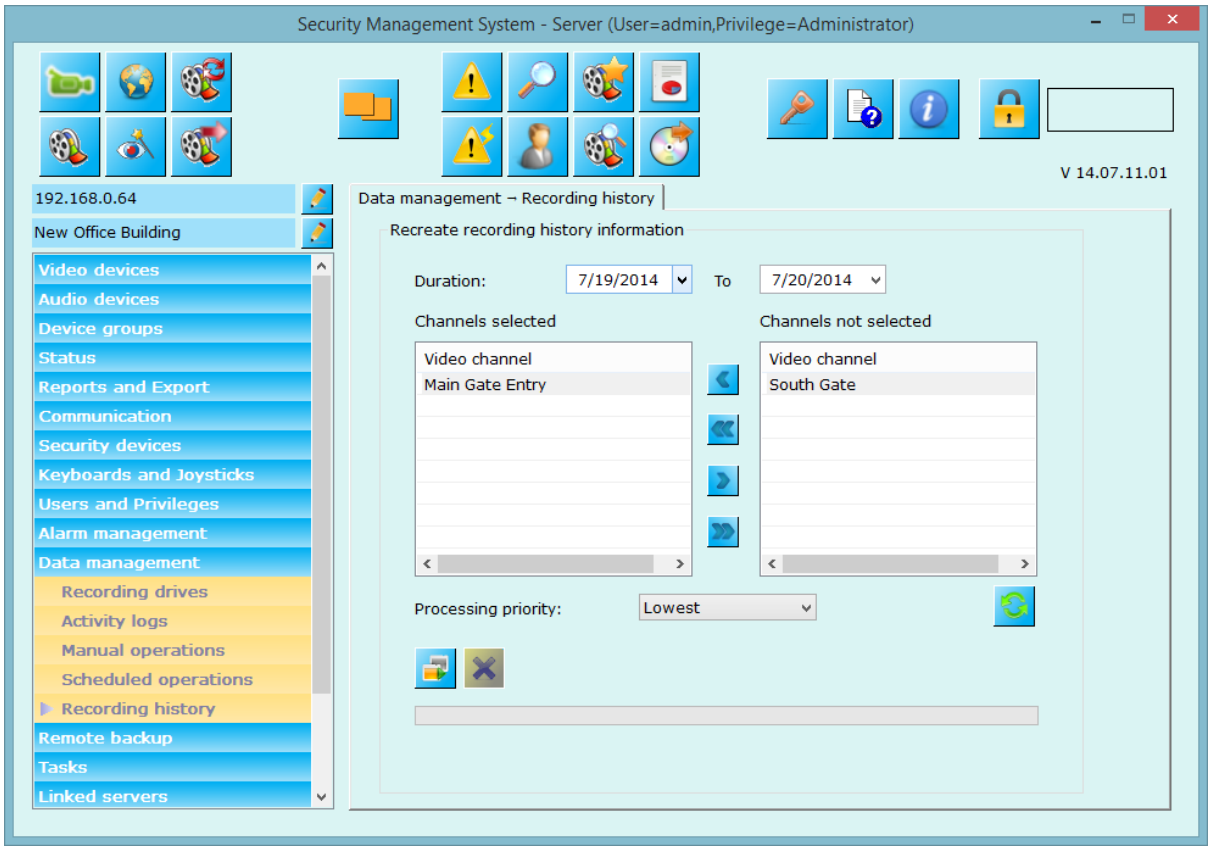
Configure ‘number of days before’ the data would be cleaned up.

Check ‘Do not delete alarms data’ if you wish not to delete alarms data.

Application will display the status of the scheduled operation at this page.

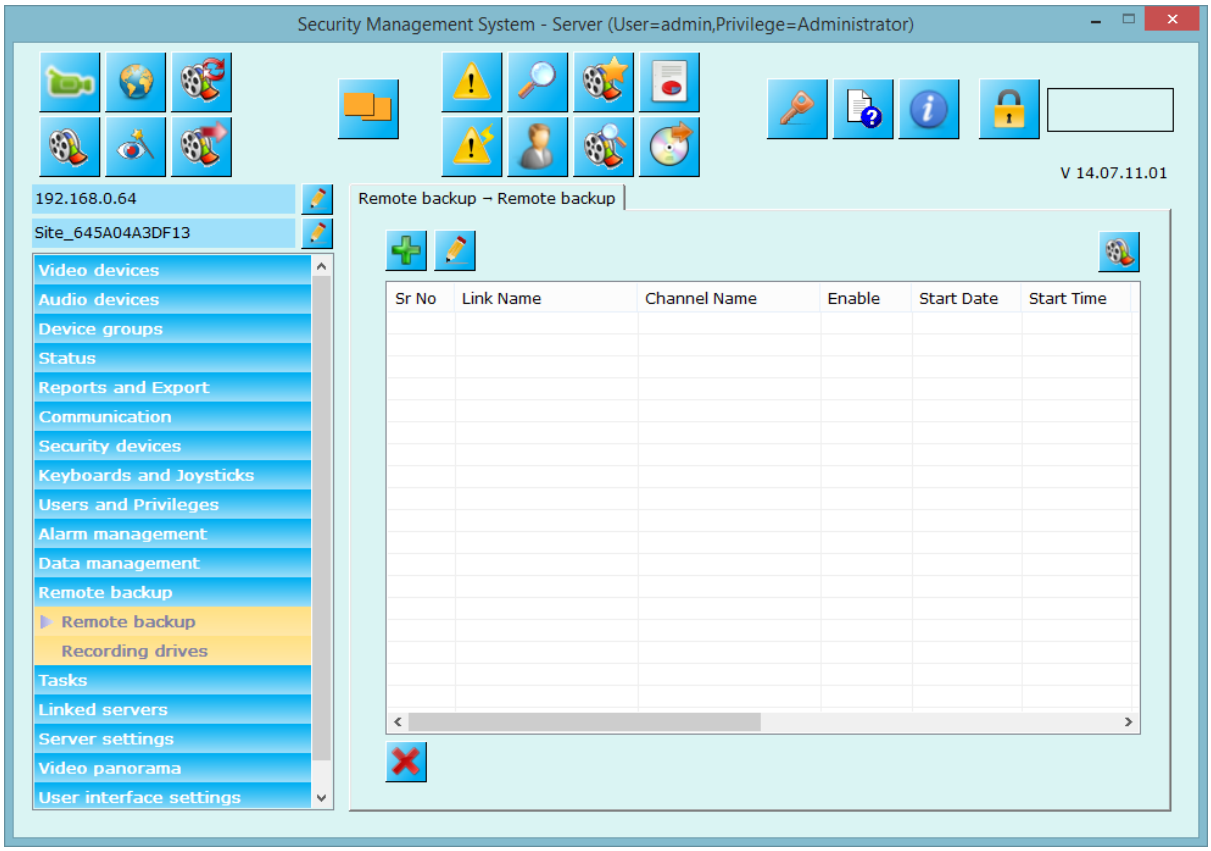
2.10.5 Recording History

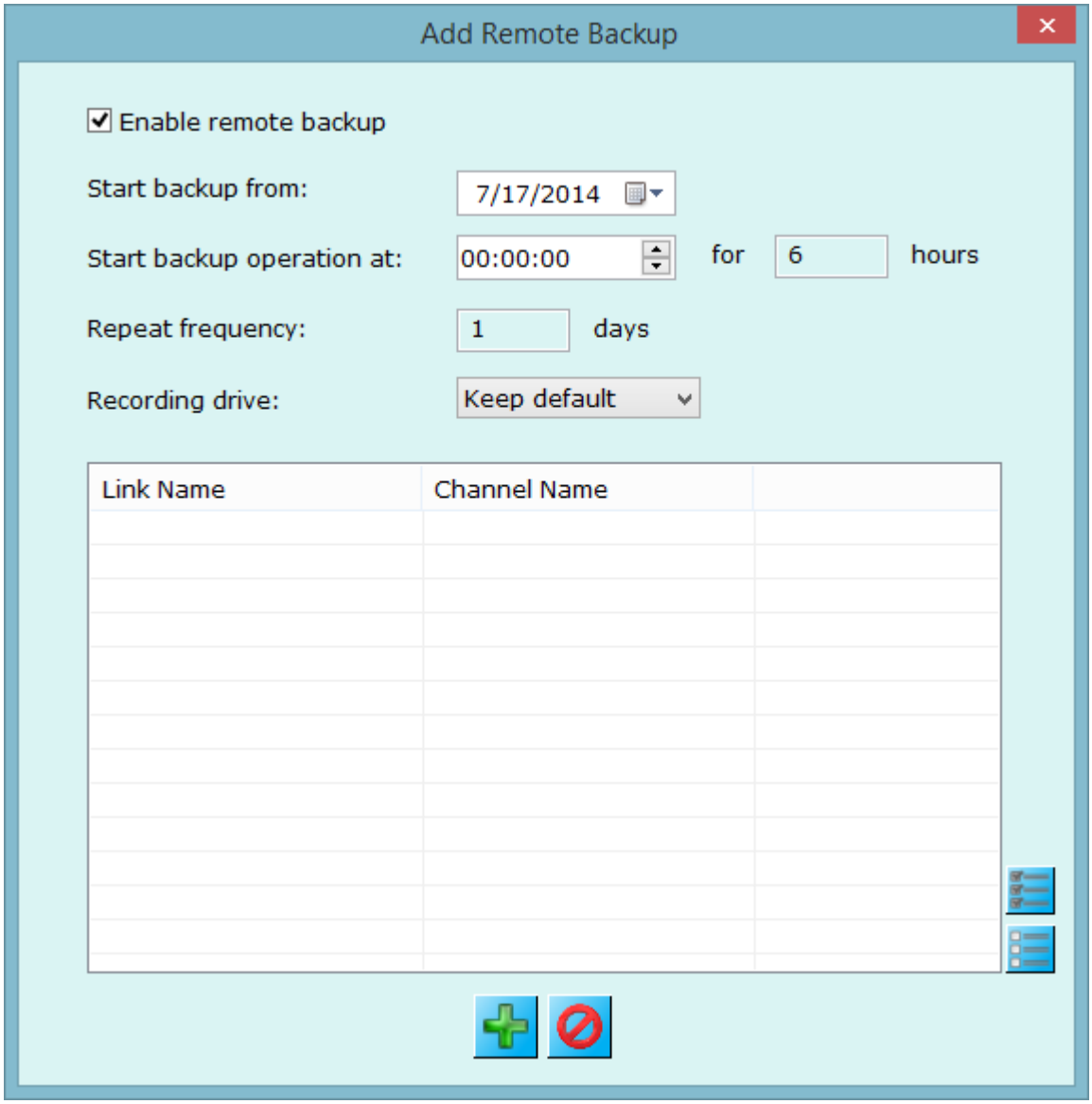
This page allows to you to recreate recording history information, which will be used by 'Video Search Screen' to display status of recording for every channel.



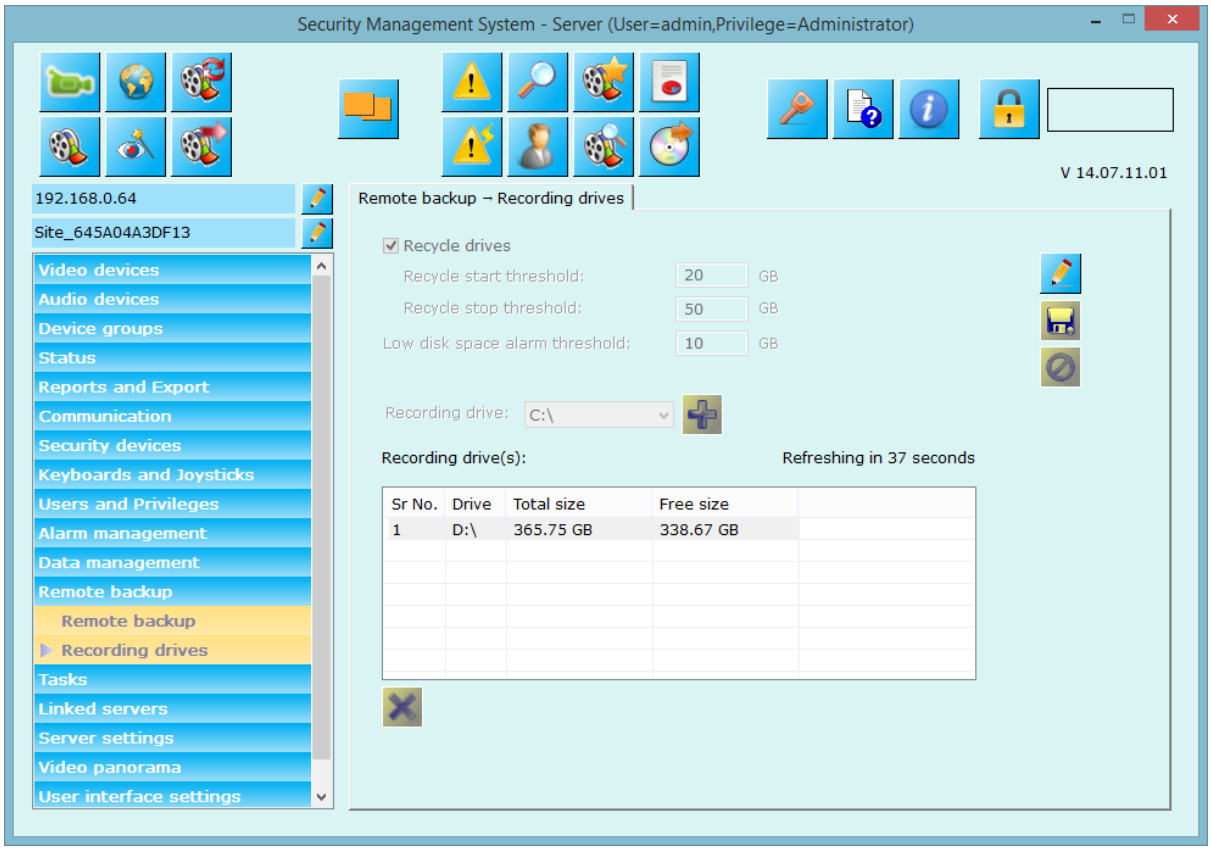
2.11 Remote Backup

2.11.1 Remote Backup




Add Remote Backup
Enable remote backup
Start backup from:
7/17/2014
Start backup operation at:
00:00:00
for
6
hours
Repeat frequency:
1
days
Recording drive:
Keep default
Link Name
Channel Name

2.11.2 Recording Drives



2.11 Tasks

Tasks can be scheduled from this page.

2.11.1 Surveillance tasks

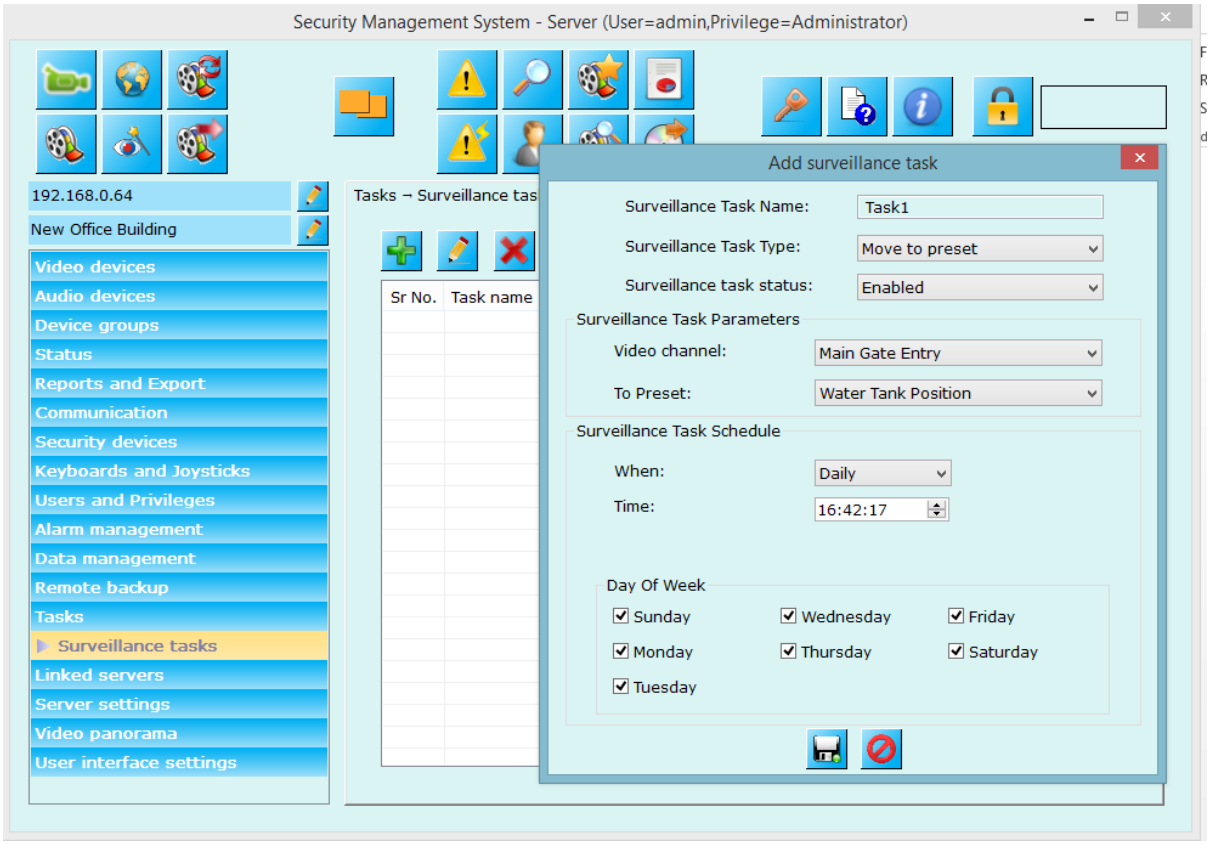
Click on button to add new surveillance task to pop-up a dialog box.

Enter task name, select type of task from available options, select task status (enable/disable task), and define task parameters and its schedule.

Task schedule can be daily or weekly. Please select day when schedule is weekly. Select hour at which this task should get executed.

For 'Daily' you can select multiple days of week for which you want to run this task. For 'Weekly' you can select a day when you want to schedule this task.

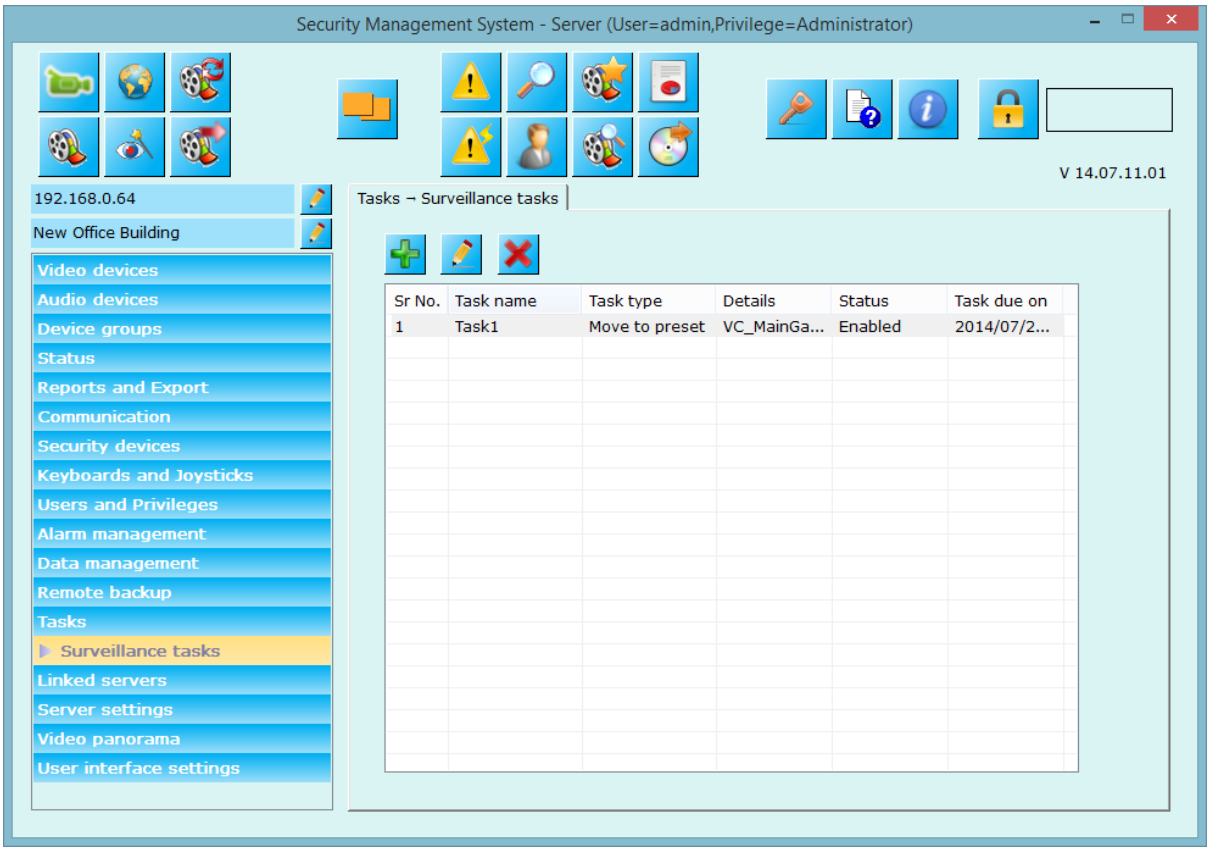
And finally click on button to save the task.



Select any row from the tasks list and click button to edit the task. Same dialog box will get popped up where you can edit the task type, task status, task parameter and its schedule.

Select any row from list of the tasks and click button to remove the task from the system.

The task list will show details about the configured tasks and their due time.



2.12 Linked Servers

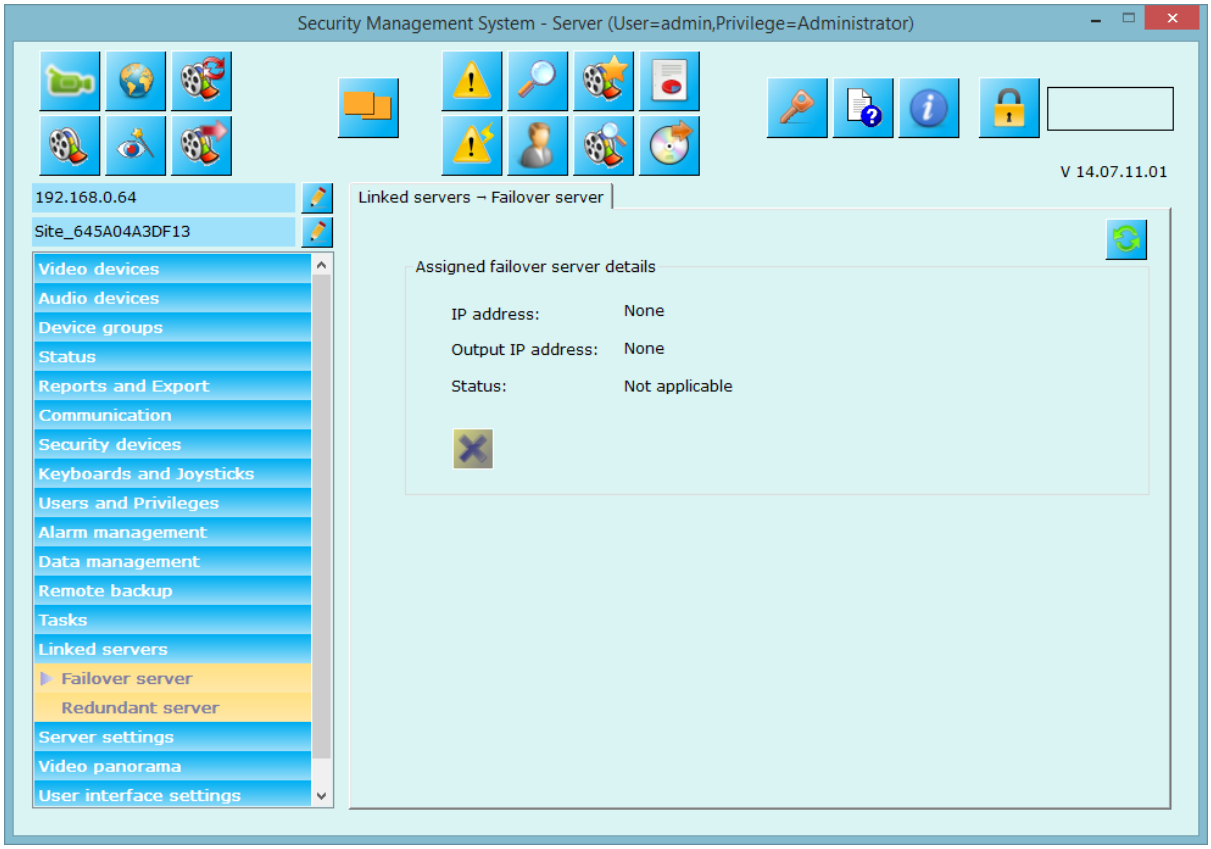
2.12.1 Failover Server

This page shows the details about 'assigned failover server' to this server application.

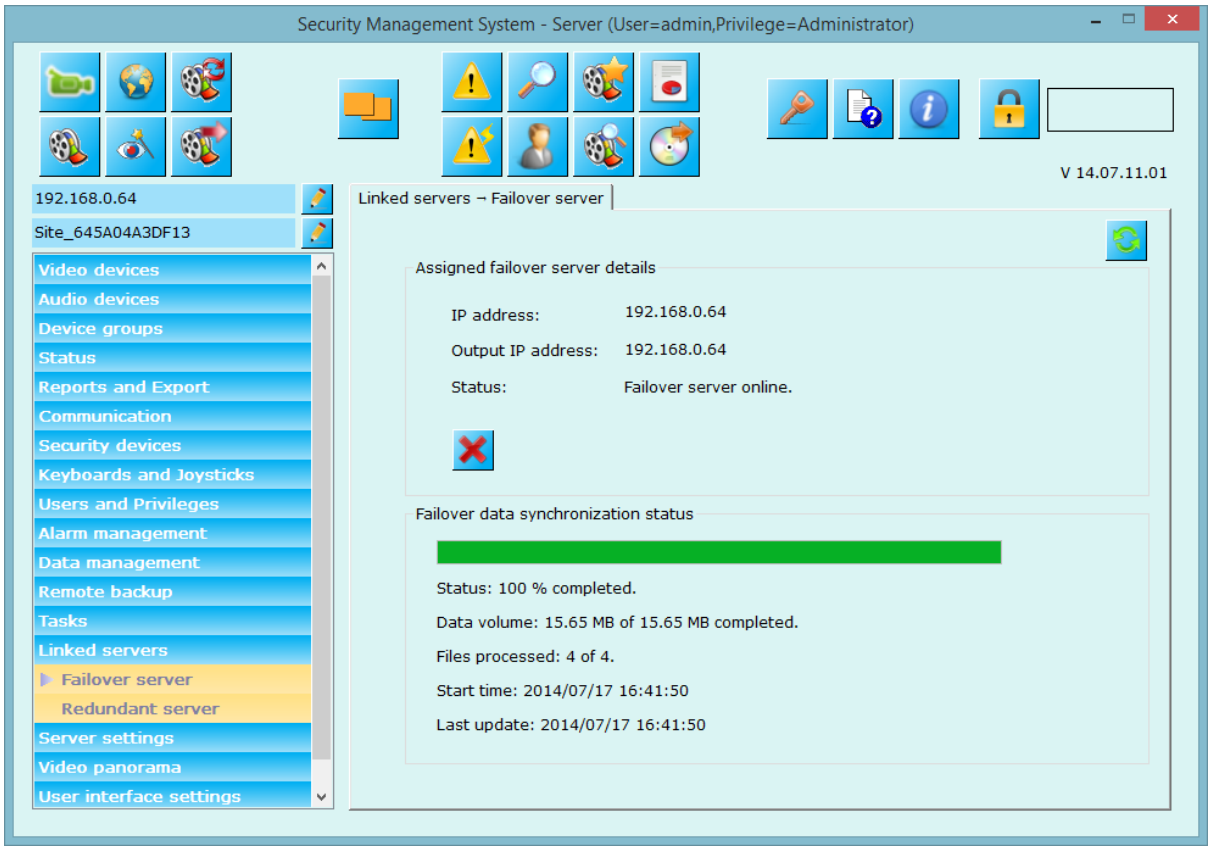
Failover server is a separate application which will monitor this server application (or may monitor multiple server applications simultaneously depending upon its configuration).
When any of the monitored servers get offline, failover server will immediately start processing offline server and it will record data on offline server's behalf and all the client application too will connect to the failover server to get live, playback and alarm data feeds.

'Failover server' can be assigned from 'Failover management server' application which will get installed automatically when server application is installed.
Please locate 'Failover management server' in the same installation path and follow guidelines to configure/assign failover server to server application.

Following screenshot shows no failover server is assigned to this server software.



Following screenshot shows details about failover server when failover server is assigned to this server software and is online.



This shows failover server with output IP address 192.168.0.64 is assigned to this server and failover server is currently online.

Use button to refresh failover server details.

Use button to remove assigned failover server.

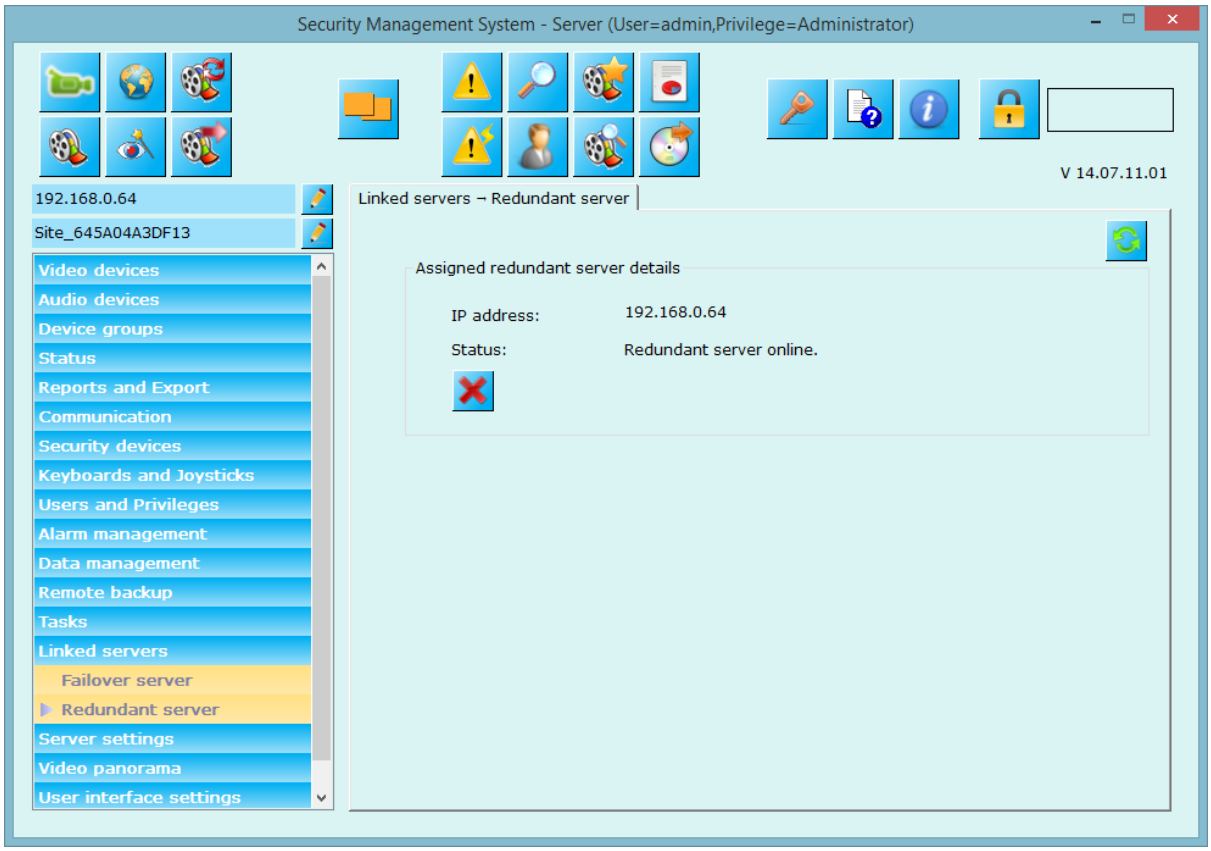
Failover ‘data synchronization status’ section shows details about data synchronized by the failover server. This happens when failover server has recorded data on main server’s behalf when main server is offline at some time and when main server (this server software) comes online.

2.12.2 Redundant Server

This page shows the details about ‘assigned redundant server’ to this server application.

As the name suggests, ‘Redundant Server’ application is used for ‘redundant processing’ doing exactly same processing as the main server.

Redundant server is used in requirements where a copy of recorded data is needed at another physical location other than the main server location.
So, in case there is any problem with the main server, data can be retrieved from the redundant server.

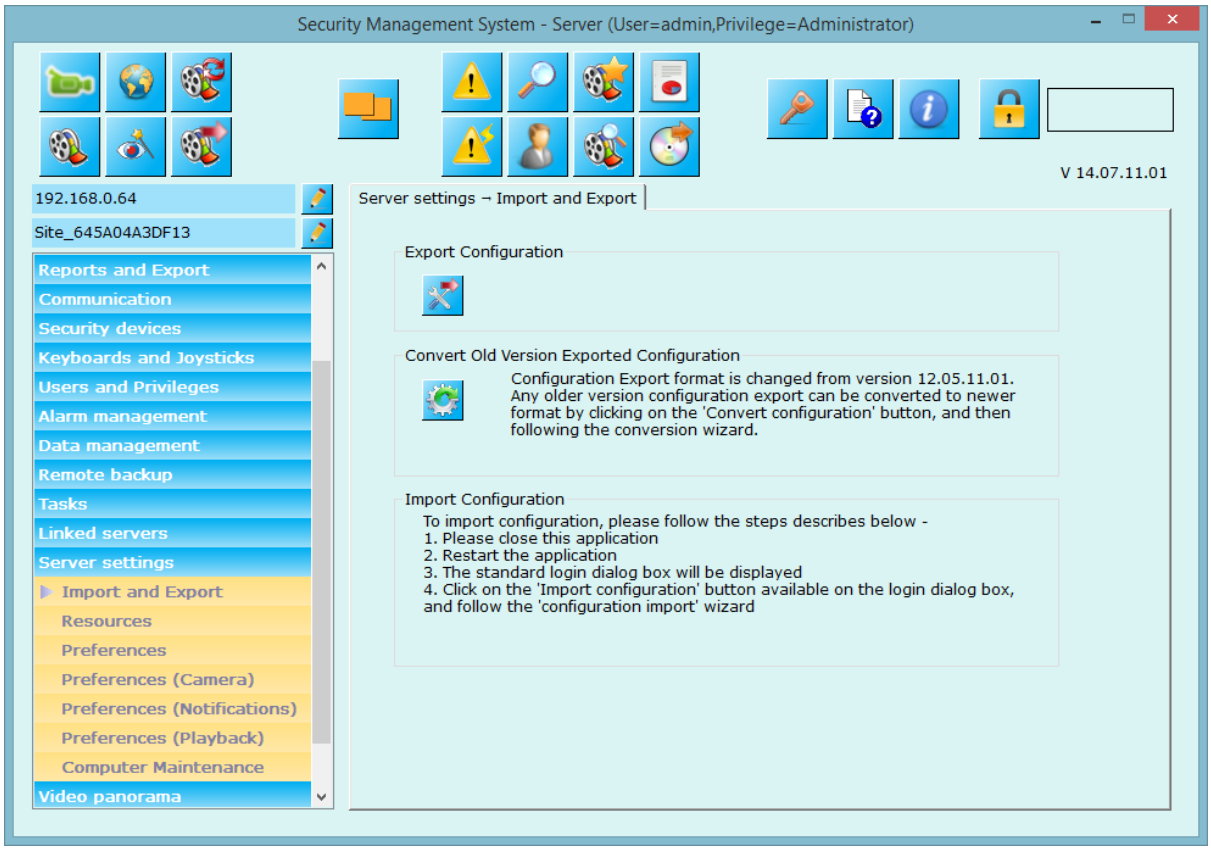


This shows redundant server with output IP address 192.168.0.64 is assigned to this server and failover server is currently online.

2.13 Server settings

2.13.1 Import and Export

Application settings can be exported from this menu.



Use button to export current settings to a file. Application creates a single file which includes all the current settings for the software which later can be imported (if needed) using the steps mentioned in the ‘Import configuration’ section.

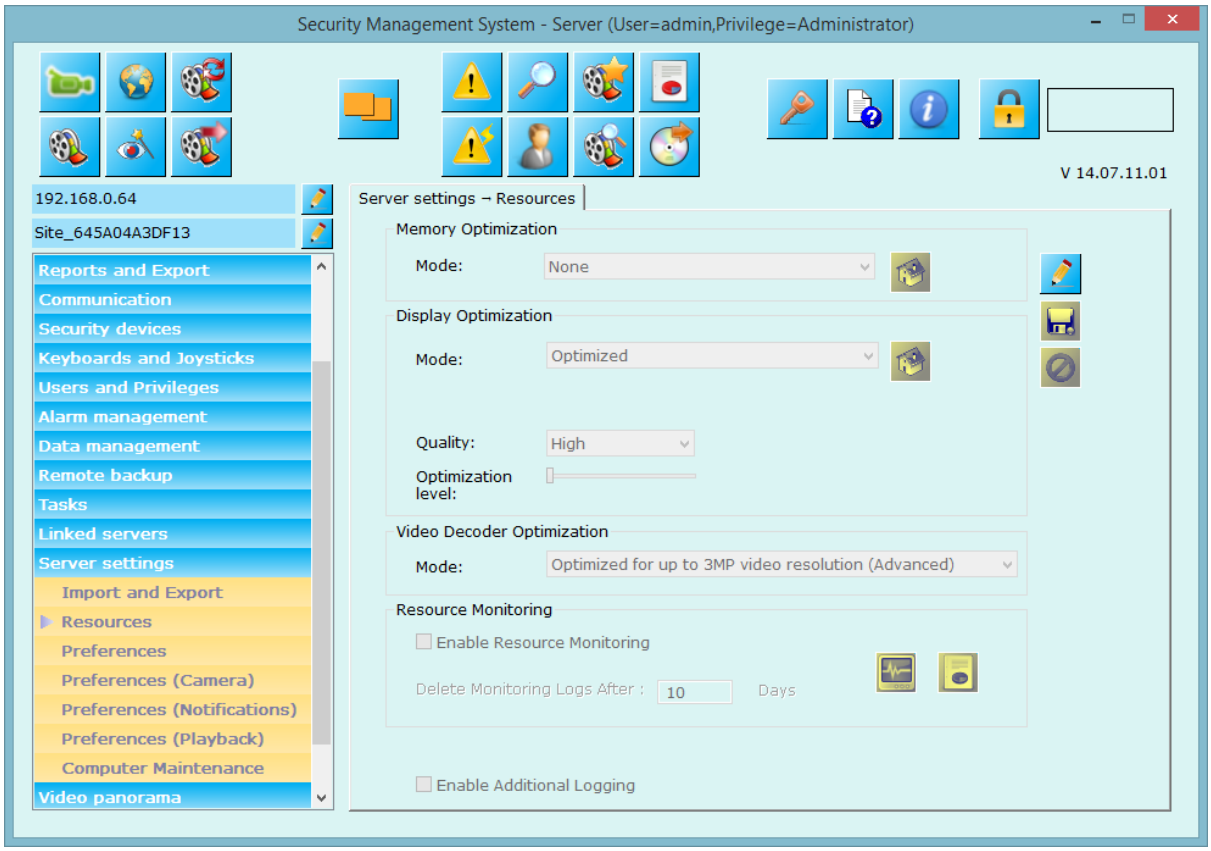
Use button to convert old exported settings to current format.

2.13.2 Resources

This page allows configuration of memory optimization, display optimization, video decoder optimization options which will be used by the application and to enable resource monitoring.

These are advanced settings and should be done by trained engineers. Memory optimization policy should be used based on the deployment environment.

It is advised not to change these settings if you are in doubt about the selection of one of the option.
'None' option is the default and is expected to work in most of the deployment situations.



2.13.3. Preferences

This page allows to define more system options.

Virtual Memory:

a. **Restart application when low on virtual memory –** when enabled the application's virtual memory is monitored and application is restarted when it reaches configured 'Minimum free virtual memory' limit.

b. **Notify low virtual memory:** when enable the application's virtual memory is monitored and application will generate notification when it reaches configured 'Minimum free virtual memory' limit.

System Configuration:

a. **Display system notification window:** When unchecked application will not display system notification window.
Enable minimize system notification window: When enable user can minimize the system notification window even if it is displaying notifications.

b. **Enable daily backup:** when enabled takes back up of server configurations every day at configured time. It is recommended to keep this setting enabled.

c. **Log client request:** when checked all client requests are logged to the database. It is recommended that you **should not enable/check** this option as it would be used internal purpose.

d. **Enable remote configuration:** When enable application allows to perform control settings from another software using SDK.

e. **Display application maintenance configuration:** When enable application will display configuration page for application maintenance under 'Server settings-> Application Maintenance'.

f. **Minimum video loss duration:** You can define minimum video loss duration in minutes (2-60 minutes) which will be used by video search screen to display video data availability status.

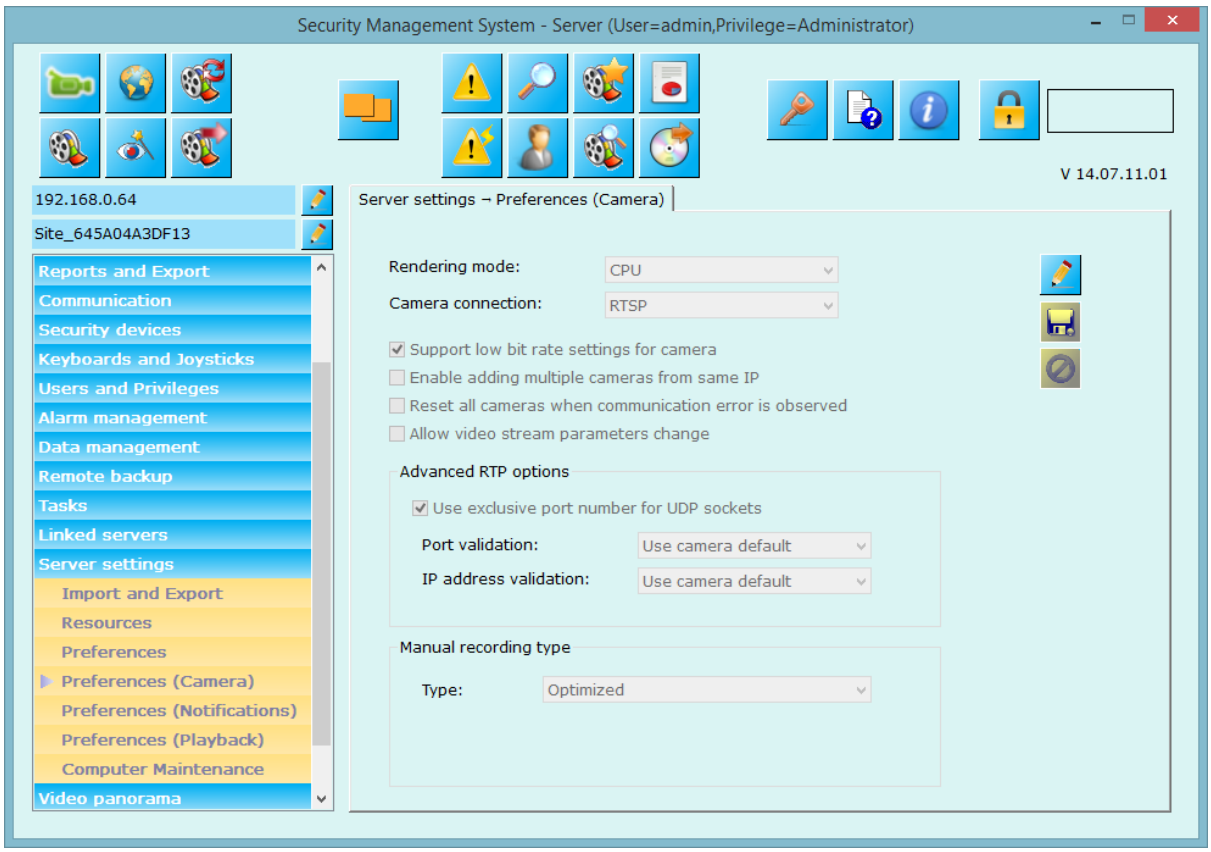
g. **Use different minimum video un-available interval for detailed time line:** If enabled video search screen will use this different threshold for minimum video loss duration for detailed time lines.

Processing Priorities:

These are advanced setting and is used while processing data like archiving data, cleanup of data, and exporting videos to client applications and analyzing video recording history.
These operations use network bandwidth, I/O resources etc. resources and affect computer performance and which in turn may affect the software performance for normal recording and playback operations, if any of the resources hit the utilization limit. The data processing priority can be lowered to free up more resources for the normal operations, in such cases. ***This is an advanced configuration and should be used only by trained engineers.***

2.13.4 Preferences (Camera)

This page allows you to define camera specific settings.



Rendering Mode:

Camera Connection: Camera connections will be made using this option.

Support low bit reate settings for camera: only a few camera models support very low bit rate settings like 48 kbps. Hence the low bitrate settings are not displayed by default in the user interface for changing camera streaming parameters. If any project requires low bit rate setting for camera streams, this option can be enabled. However, since it depends on the camera – whether it supports low bit rates or not, the low bit rate settings should be verified. This is an advanced configuration and should be used only by trained engineers.

Enable adding multiple cameras from same IP: When enabled application allow adding same camera more than once in system.

Reset all cameras camers when communication error is observerd:

Allow video stream parameters change: If enabled application will allow to change video parameters fro camera.

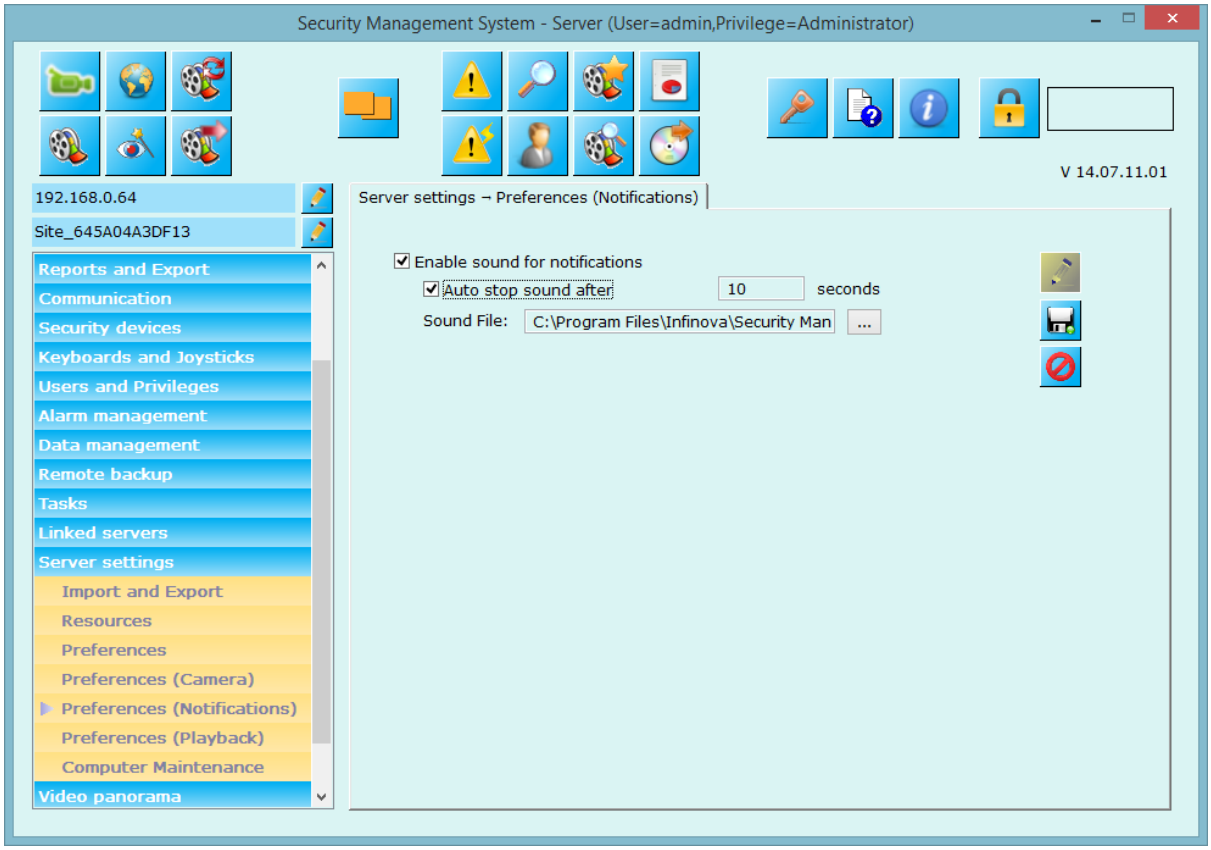
Advanced RTP Options:

a. **Use exclusive port number for UDP sockets:**
b. **Port validations:**
c. **IP address validations:**

Manual recording type:

2.13.5 Preferences (Notification)

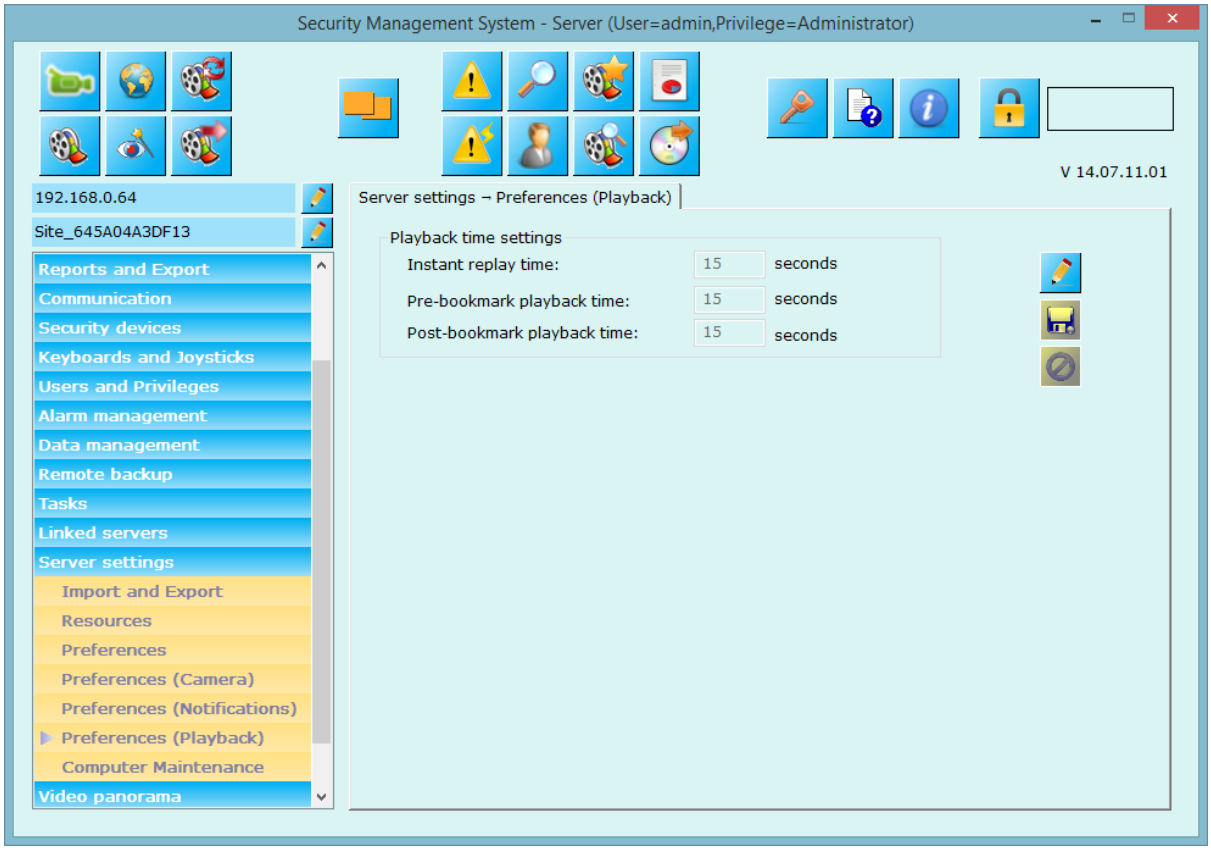
This page allows you to define settings for ‘System Notifications’ window.



Enable sound for notifications: When enabled application will start playing selected sound whenever there is new notification is generated in application.
Auto stop sound after: When enabled sound will stop playing automatically after configured seconds**.**

2.13.6 Preferences (Playback)

This page allows you to define playback time settings.

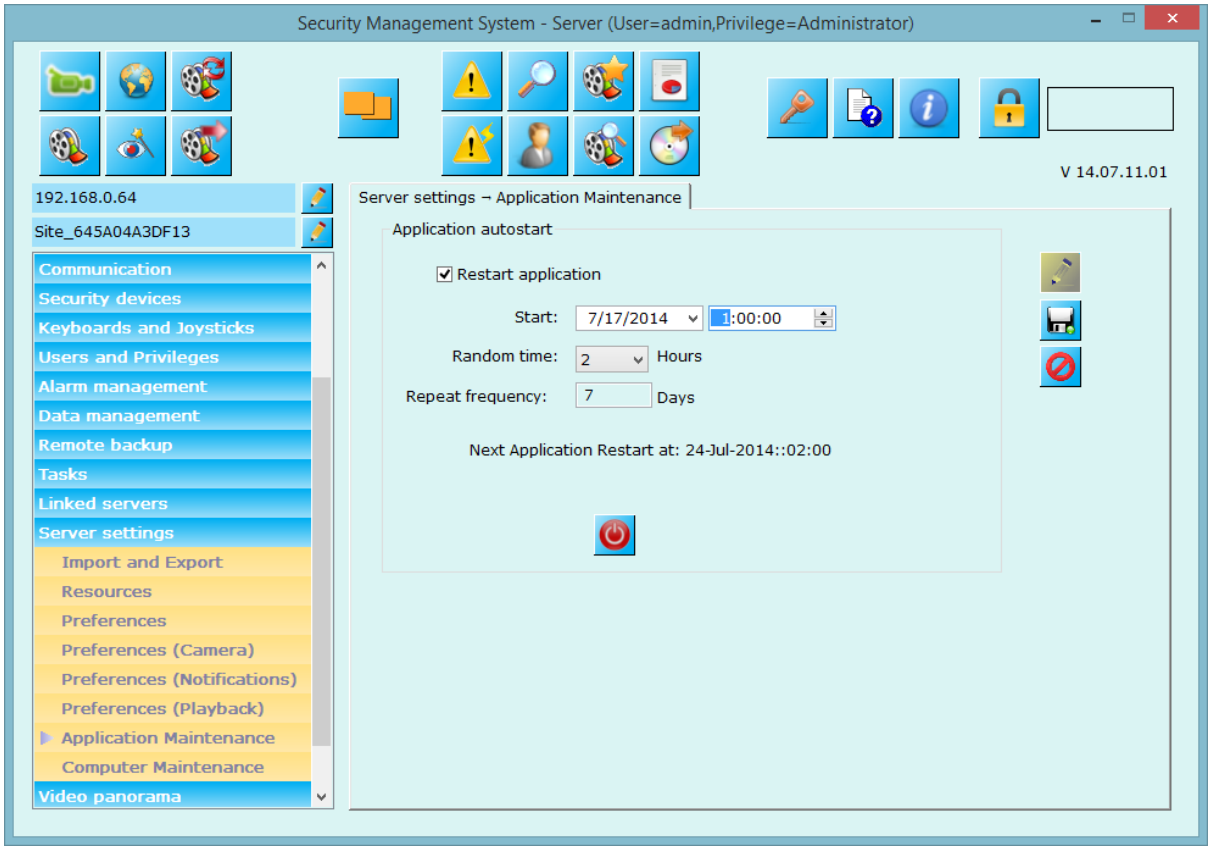


Instant replay time in seconds – used at live video screens to start playing video from this configured seconds back of live video.

Video bookmark playback time settings – you can configure pre and post playback time (in seconds) for bookmarking the video. You can bookmark video from live or playback screen (use right click option).

2.13.1 Application maintenance

From this tab, you can configure application restart details.



Check ‘Restart application’ option,

Provide start data and time from which application restart should work

Configured random time in hours (explained below) and

Repeat frequency in days (say x) means every x days at configured time.

Application will display ‘Next application restart time’ below.

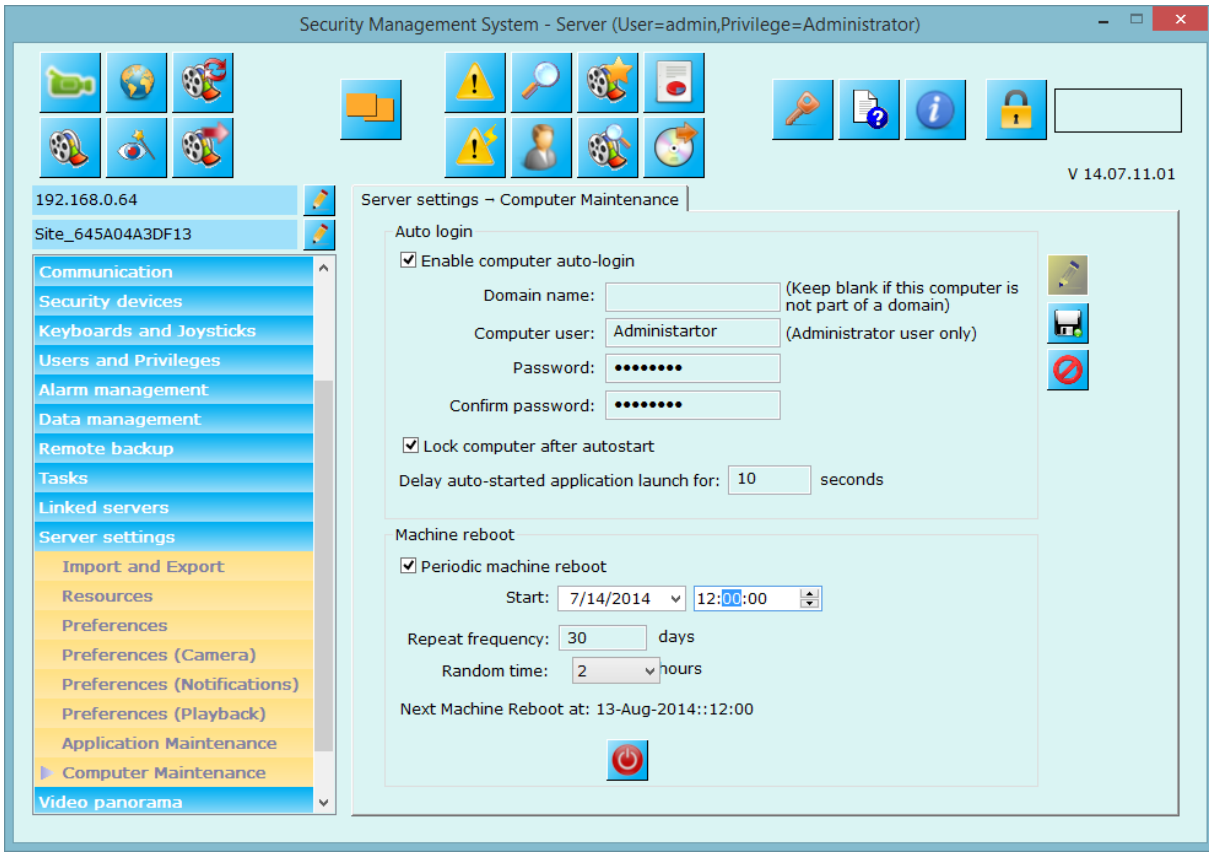
You can test application restart feature with button.

Random time:
For security reasons, application has added random time feature so that application will get restarted **any time after configured time** (01:00:00 as per above screenshot) **within configured random time.**

E.g. as per above screenshot, application will get on started on 24-July-2014 any time after 1:00:00 + 2 hours (random time). I.e. anytime from 01:00:00 to 03:00:00. **So application restart time is difficult to guess and system will be more secure.**

2.13.2 Computer maintenance

From this tab, you can configure auto-logging into computer when computer starts. Please configure 'Computer user' and password details' – that will be used to auto-login into the computer when computer restarts.



Check 'Lock computer after autostart' – to lock it after logging into the system. After computer restart, application launch can be delayed by configured seconds.

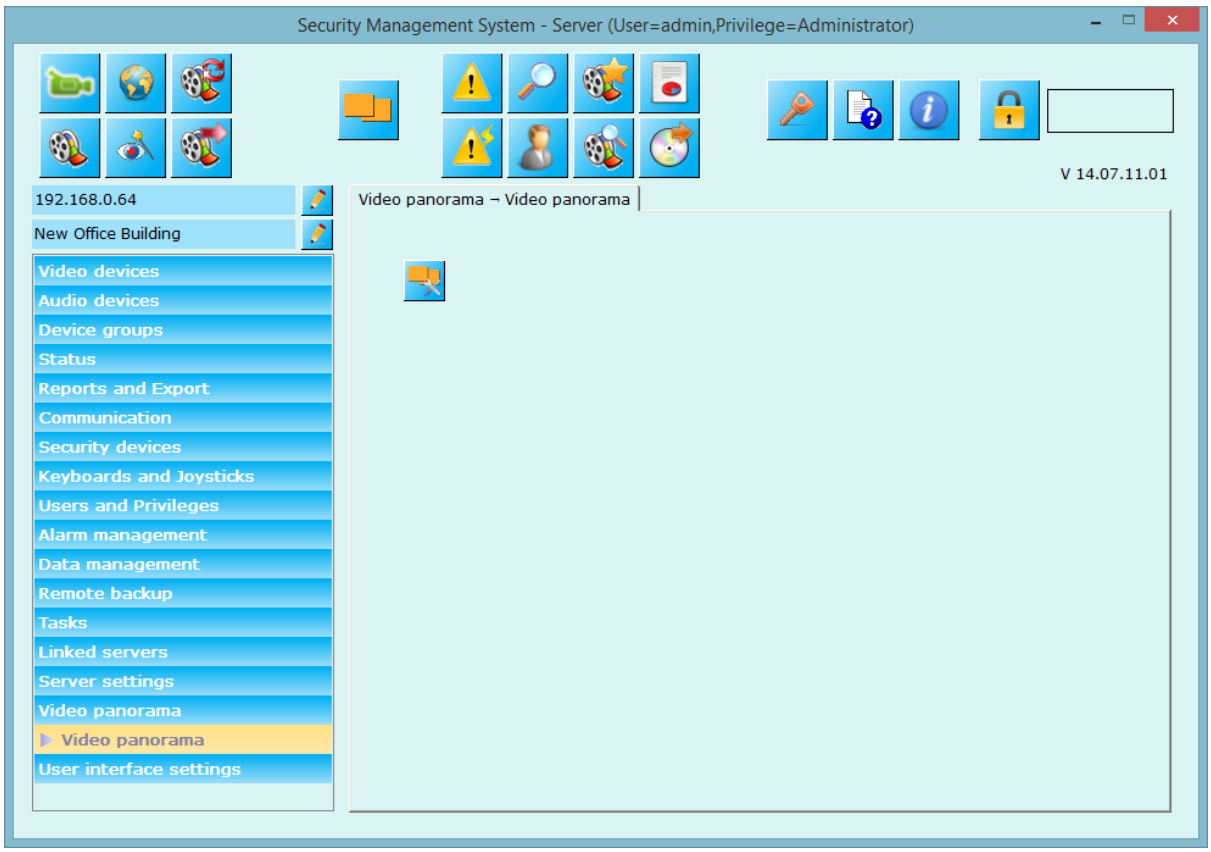
Periodic machine reboot can be configured by enabling it. Please specify the start date, time repeat frequency and random time in hours.

E.g. from above screenshot, periodic machine restart is enabled from 13-Aug-2014. Machine will get automatically any time after 12:00:00 within 2 hour (random time). Frequency of machine restart is set to 30 days so the operation will happen every 30 days.

Use button to test computer reboot any time.

2.14 Video panorama

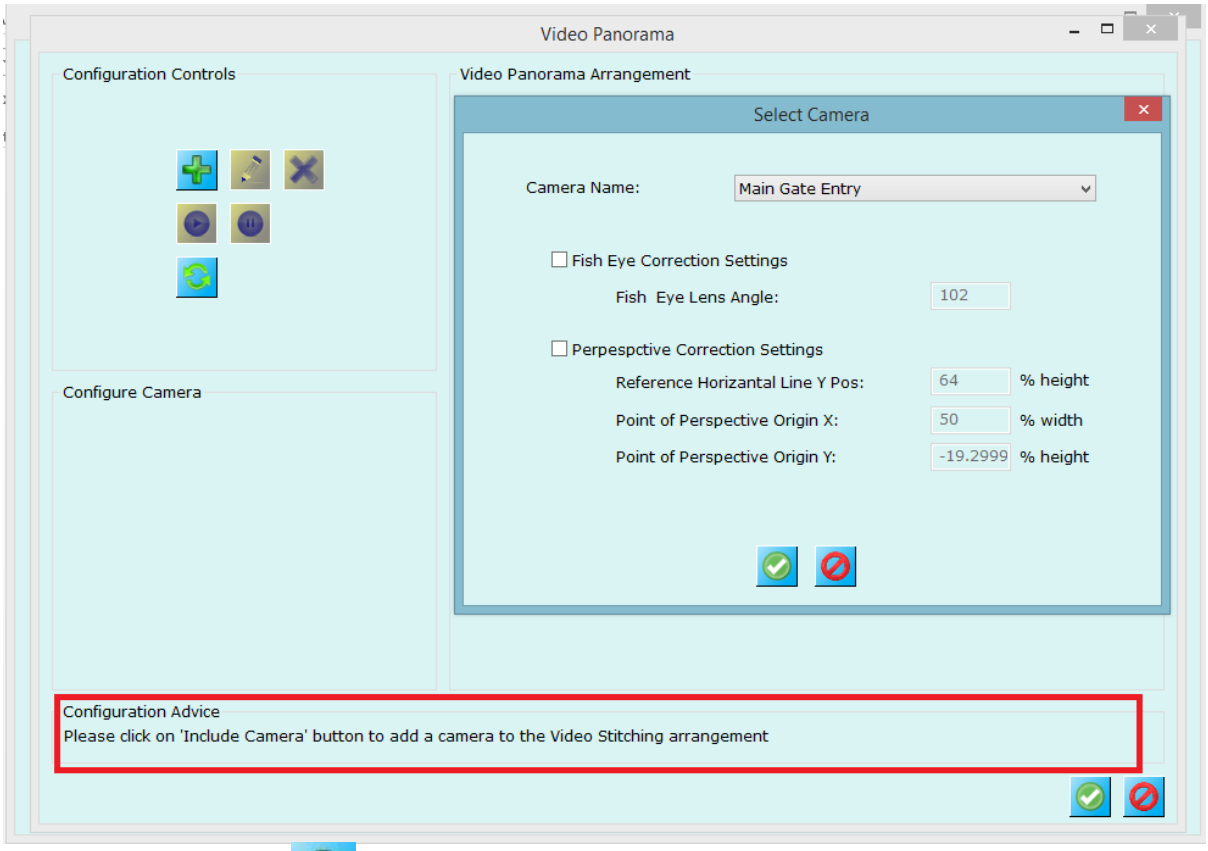
Video panorama settings can be done using this tab.



Click on ‘Configure panorama’ button to popup configuration dialog.

Please see configuration dialog and details at below page.

Video panorama configuration –



Click on ‘Add image’ button to popup camera selection dialog.

Select camera name and click on ‘Okay’ button.

This adds camera to video panorama.

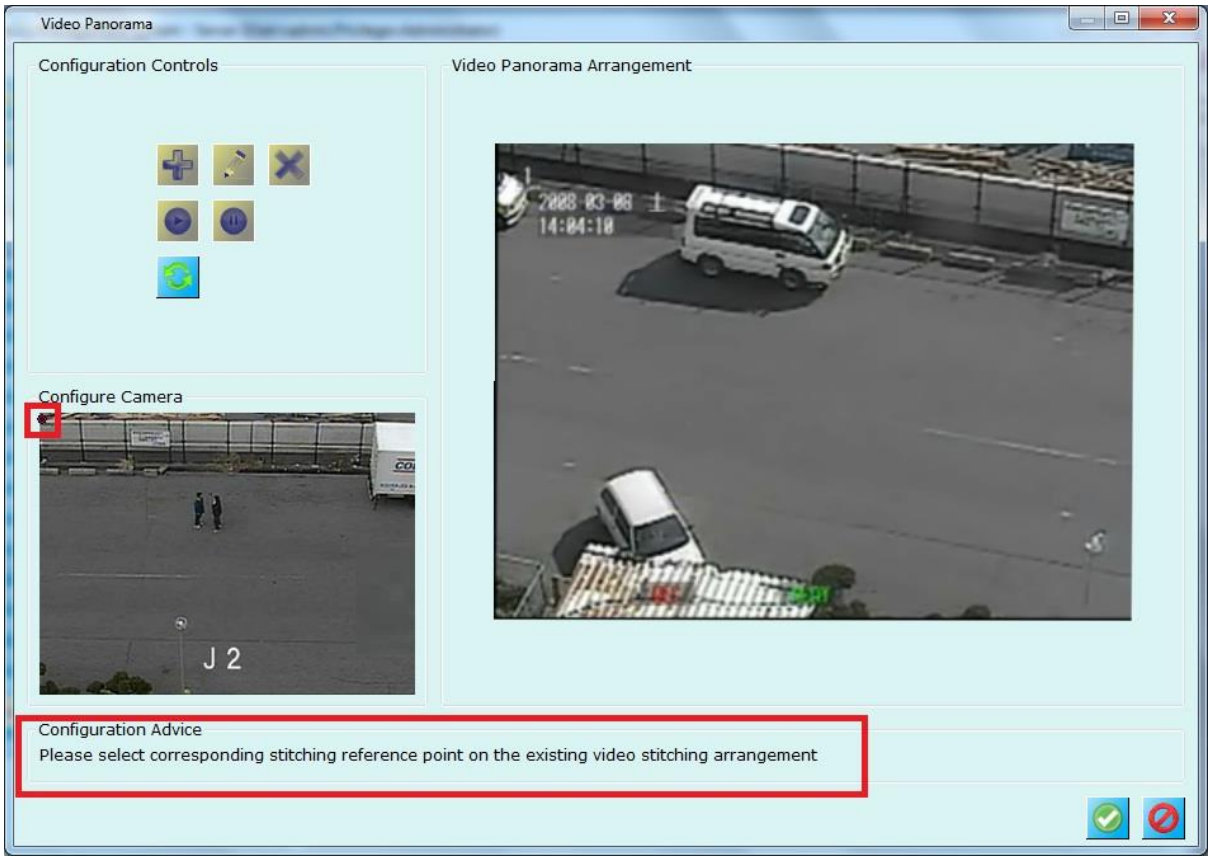
Again add one more camera using ‘Add image’ button to add second camera.

After adding two cameras, you need to select the common points from these cameras.

Please use ‘Configuration advice’ for the next step to do.

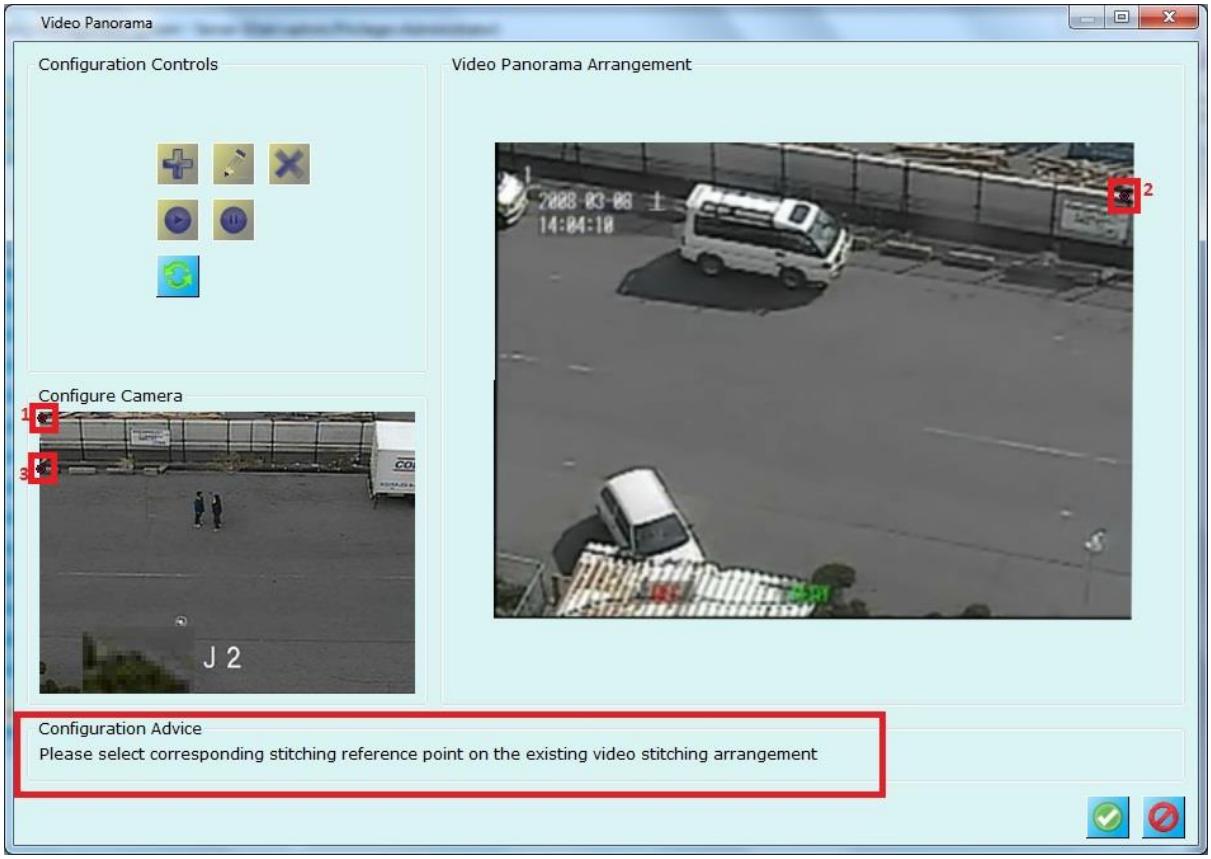
(Continued on next page…)

Following screenshot shows 2 cameras added to video panorama and first stitching point is selected to the ‘Configure Camera image and now dialog is waiting for stitching point selection. (See ‘Configuration advice’).



(Continued on next page…)

Following figure shows corresponding stitching reference point (for reference point **1**) is selected in 'Video Panorama Agreement' section (point marked **2** in the screenshot below). Then dialog asks to select second reference point in 'Configure camera' image (point **3** is selected in the screenshot below)



Now dialog is waiting for selection of corresponding stitching reference point on existing video stitching arrangement (mapping **3rd** point other image). Once you select this point (in **4th** point 'Video panorama arrangement'), the dialog will stich these two images as shown in figure below.

(Continued on next page…)

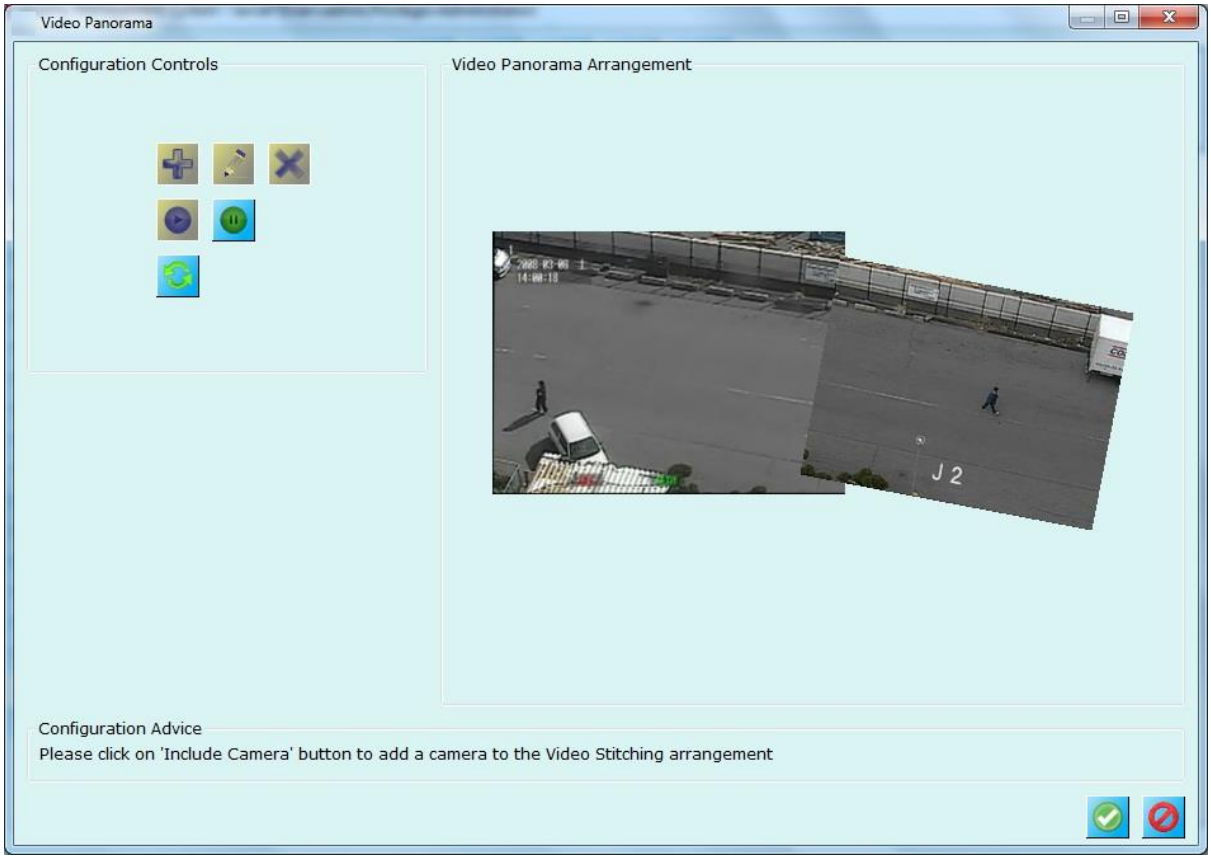


Figure shows video stitching is done with 2 cameras and video panorama is played using button.

To include more cameras, click on pause button and follow same process as described for two cameras stitching.

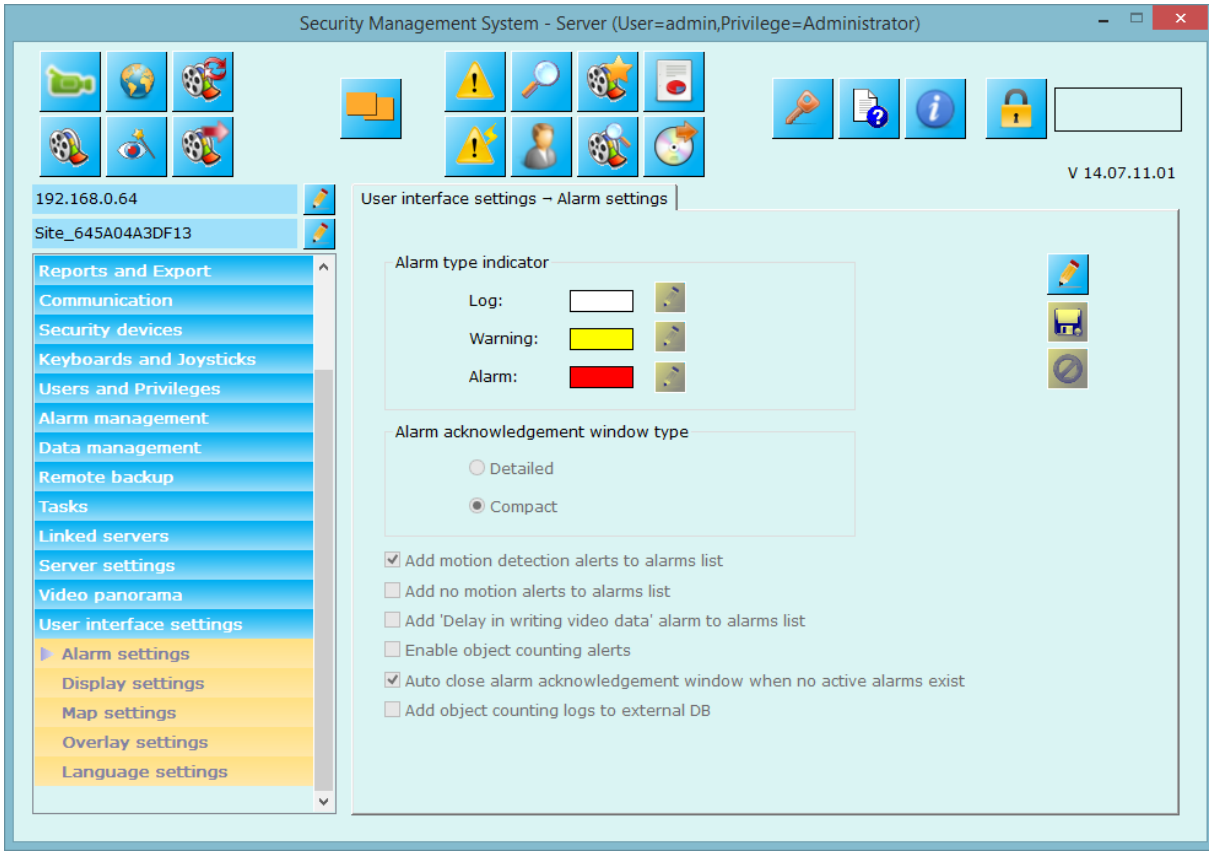
Please see 'Configuration Advice' always for expected next step to perform.

Once configuration is done, click on 'Okay' button to save the configuration. To play this configured panorama, use button present on main application toolbar.

2.15 User interface settings

This section lets you define parameters related to look and feel and easiness of using this Software.

2.15.1 Alarm settings



Configure alarm type indicator colors, above screen shows the defaults and currently used colors by the application.

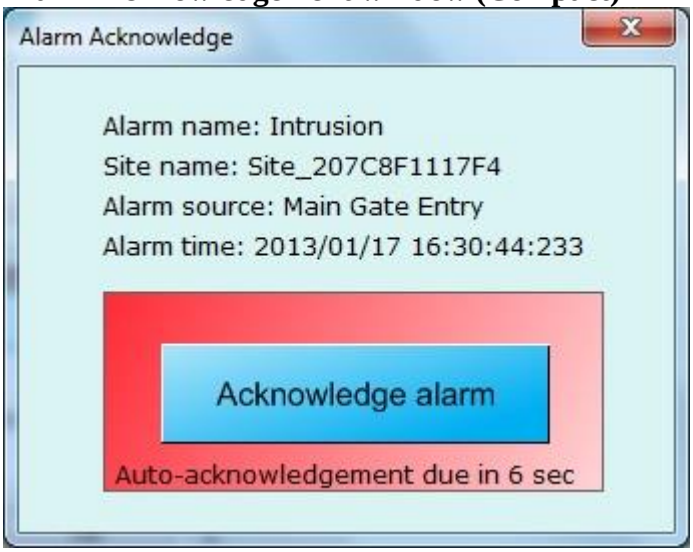
Alarm Acknowledgement window type can be ‘Compact’ which only shows alarm details with acknowledge button or ‘Detailed’ which shows alarm information with live video and alarm video with acknowledgement window.

Detailed window also has playback control options to control alarm playback. You can start separate playback screen from this detailed window and also export alarm video. Please see below page for ‘Compact’ and ‘Detailed’ alarm acknowledgement windows.

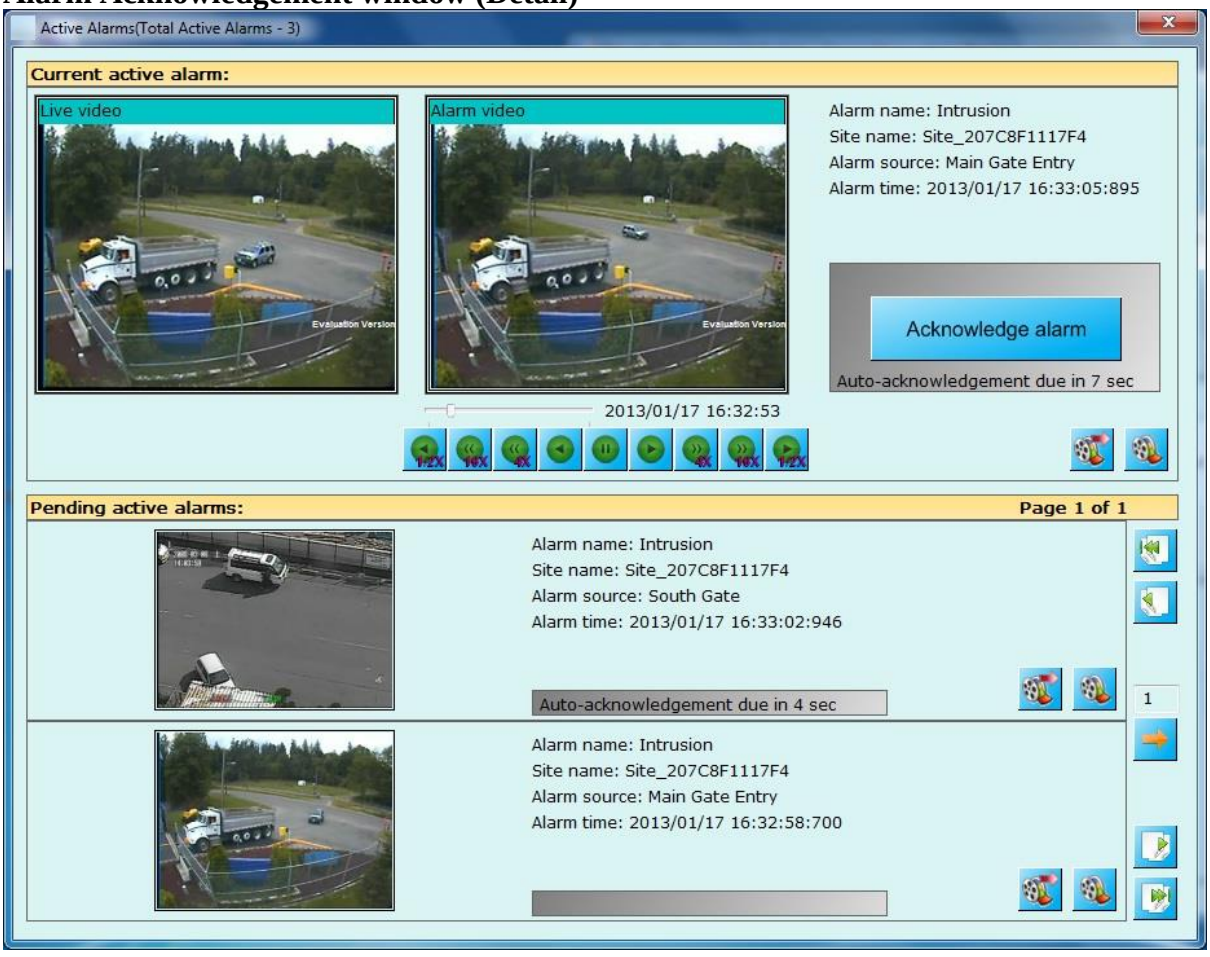
Check ‘Add motion detection alerts to alarms list’ to enable adding ‘Motion detection’ alarms to the alarms database. Un-checking the option does NOT disable motion detection and processing, but only disables adding the motion detection alarms to the database. Typically, there will be many ‘motion detection’ alarms generated in any video camera mounted in normal location for monitoring activities. Adding these

alarms to the alarms database may not be useful, since these are generated very frequently and the reports will not provide any good understanding of the situation. But at the same time motion detection needs to be ON when video recording is configured as ‘alarm based’

Alarm Acknowledgement window (Compact) –



Alarm Acknowledgement window (Detail) –



‘Add no motion alerts to alarm list’

Add ‘Delay in writing video data’ alarms to alarms list

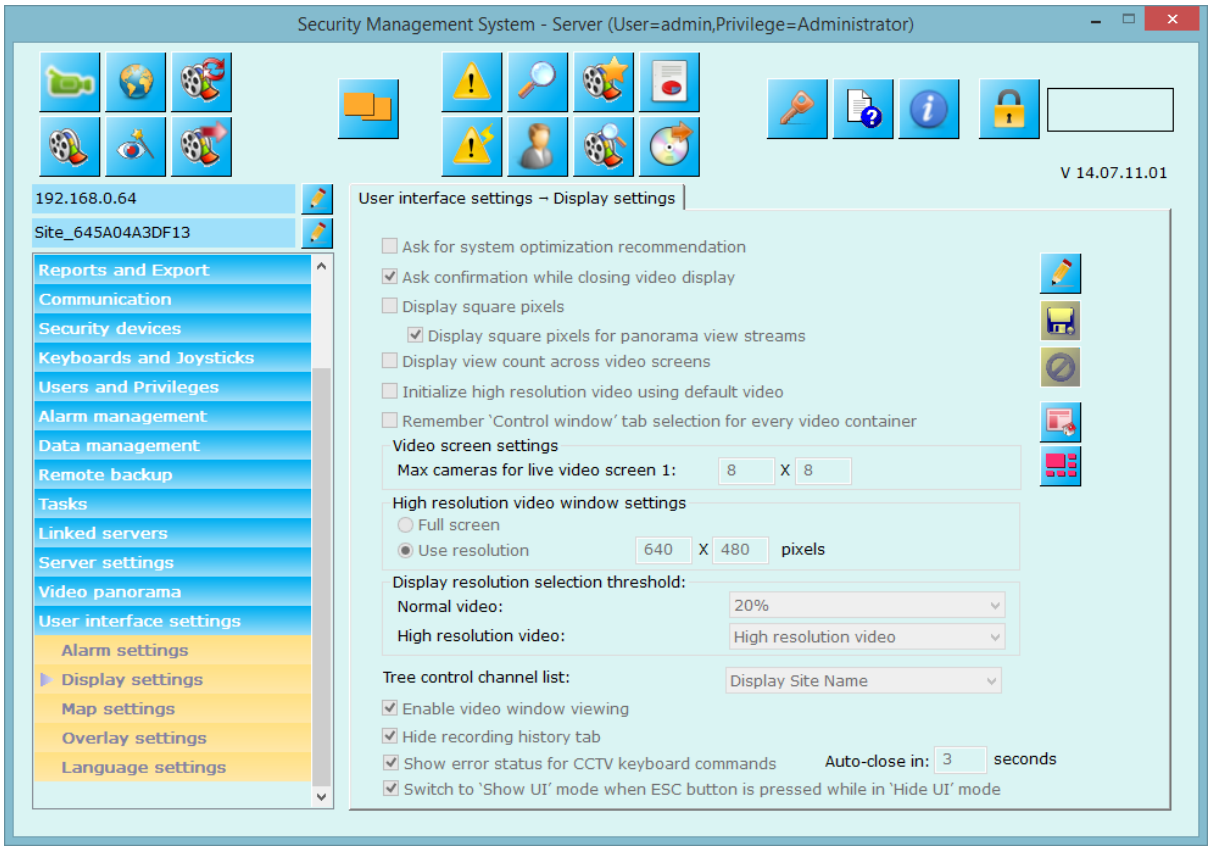
Enable object counting alerts enable to enable adding ‘Object counting’ alarms to the alarms database. Un-checking the option does NOT disable motion detection and processing, but only disables adding the motion detection alarms to the database. Application will continue display details of object counting on video.

Check ‘Auto close alarm acknowledgement window when no active alarm exist’ to auto close alarm acknowledgement window when there are no active alarms in system.

Check ‘Add object counting logs to external DB’ to add object counting logs to external MYSQL database.

2.15.2 Display settings

Configure video or application display related parameters from this user interface.



Ask system optimization recommendation -
It is advised or recommended only to setup the system at server machine and not use this system for viewing live video screens, playing back history data etc. For these features, user can connect client application from separate machines and use it. Server is expected to record the video channels, run analytics and more expensive operations. This way server can run with full resources and can support many video channels.

When checked 'System optimization recommendation', server application will ask for closing all the auxiliary windows (live, playback, search etc. – discussed later) after some time. You can turn ON/Off this feature using check box.

Ask confirmation while closing display – when checked application will ask for confirmation while closing any video display. You can turn it off if do not need this popup**.**

Display square pixels – when unchecked application displays video such that complete display area is covered by the video. The original aspect ratio of the video (video width: video height) is ignored during the display, in this case. This may result in stretching of the video horizontally or vertically. If this option is checked, application always displays video maintaining its original aspect ratio. The

application adds black color bands (horizontal or vertical) to fill up the difference between the aspect ratio of the video and the aspect ratio of the display area,

Display video count across video screens – when checked application displays total number of videos being displayed to all the video windows tree control information.

Video screen settings

Max cameras for live screen 1: you can define maximum cameras that live screen 1 can display using this edit box.

High resolution video window settings

You can configure high resolution window size or you can select 'Full screen' option so that high resolution window will occupy all screen area when it is being viewed.

High resolution window can be popped up/ displayed by double-clicking on any video or right clicking video and clicking 'Full screen' menu.

Display resolution selection threshold

When 2 separate display streams are selected for any channel, Security Management System chooses the best one to display video on any target video window. This helps in lowering the resource utilization considerably. E.g. displaying 1.3 megapixel (1280 X 1024 pixels) video in 320 X 240 pixels size display window is not useful, since it consumes resources for full 1.3 megapixel size but ultimately the output video is only 320 X 240 pixels. Hence displaying 320X 240 size video would always be beneficial, as the visible output video quality remains the same in both cases, but resources utilization is much lesser. Security management System uses this principle to select the best matching stream for display. 'Display resolution selection threshold' parameter is used during the decision making for using lower resolution stream or higher resolution stream.

You can define this settings for 'Normal video' and 'High Resolution' video separately.

Enable video window viewing

When enabled application will display buttons for live, playback, analytics and map view.

Video viewing is CPU intensive operation. Many of the server hardware's do not have graphics card installed on them. In this case, video display takes lot of CPU usage and may affect working of the 'Security Management System' server software.

Hence it is recommended not to configure any video viewing in the server software. By default video viewing is disabled in the server software (deployment version). However in this step, it is advisable to reconfirm that no video viewing is enabled in the server software.

Hide recording history tab

When enabled application will display recording history tab on live and playback video screens tab control.

Show error status for CCTV keyboard commands

When enabled application will display error message window when CCTV keyboard working encounters any problem. It will be auto closed after configured interval.

Switch to 'Show UI' mode when ESC button is pressed while in 'Hide UI' mode

When enabled, application will use ESC command to switch to 'Show UI' mode form 'Hide UI' mode for live and playback video screens.

Reset all window positions

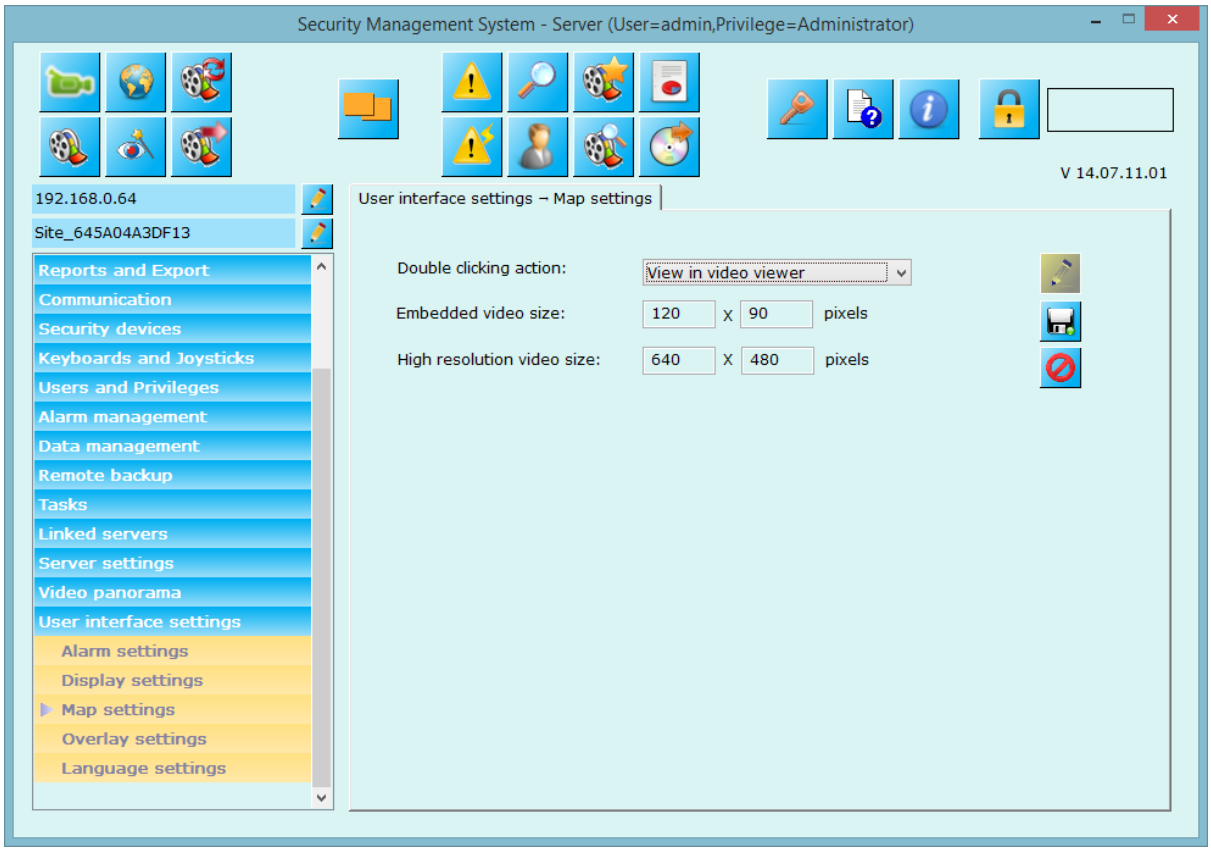
Use this button to reset all windows position.

Display preconfigured video screen

This button will popup video screen where you can configure window layout and videos. When the generated alarm is configured to popup pre-configured window, this window will be opened/popped up with the setting you do.

2.15.3 Map settings

This page allows you to configure map settings.

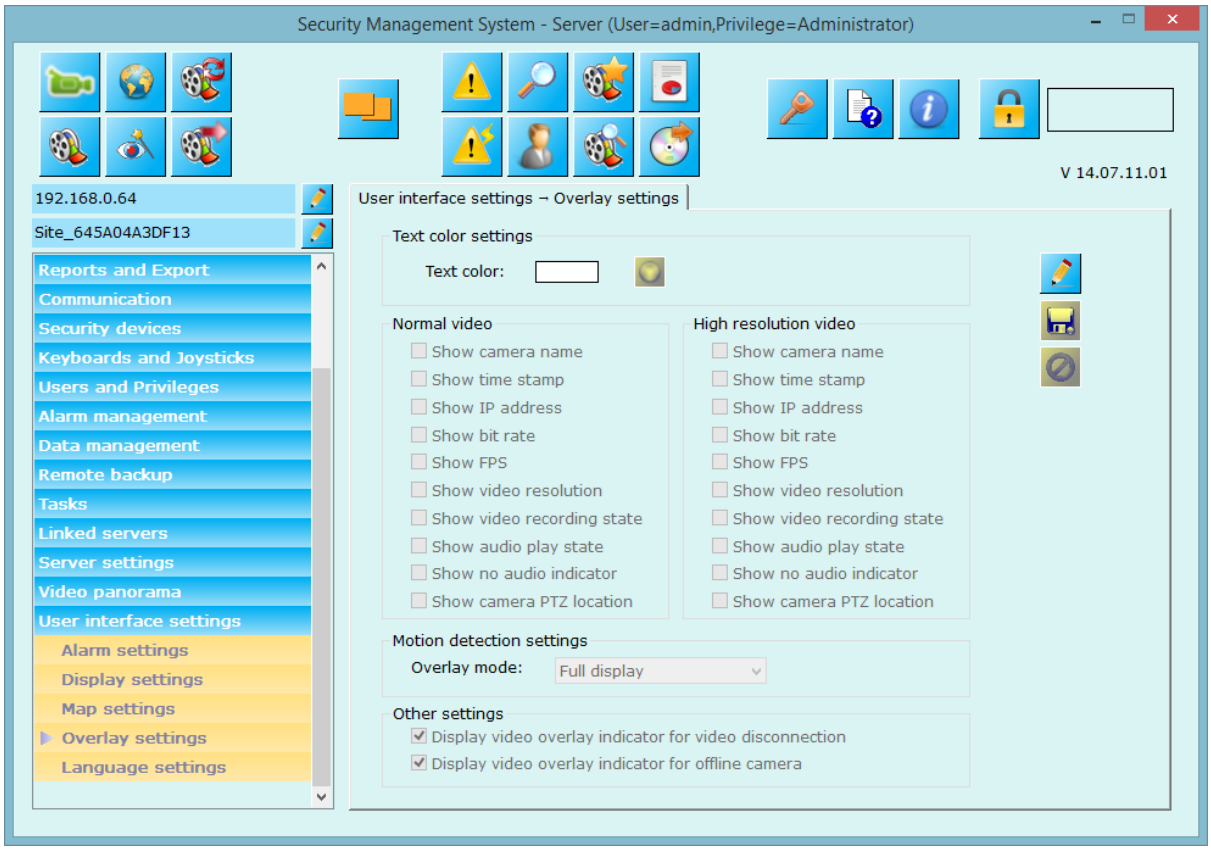


Double clicking action: This will define how video is displayed when user double clicks on any item in map window. Options includes View video embedded on map, view high resolution window or view in video viewer.

Embedded video size: This settings will be used to configure size of video embedded on map window. The size is defined in pixels.

High resolution video size: This settings will be used to configure the size of high resolution video window. The size is defined in pixels.

2.15.3 Overlay settings



You can configure overlay settings using this tab.

Text color – color used while displaying overlay texts.

Overlay – normal videos -

Show camera name, timestamp, IP address, bit rate, FPS (frame rate), video resolution, video recording state, audio play state, no audio indicator, and camera PTZ location can be enabled or disabled to overlay it on videos.

Overlay – high resolution videos -

Separate overlay settings can be configured for 'High resolution videos'

Motion detection overlay mode can be one of the

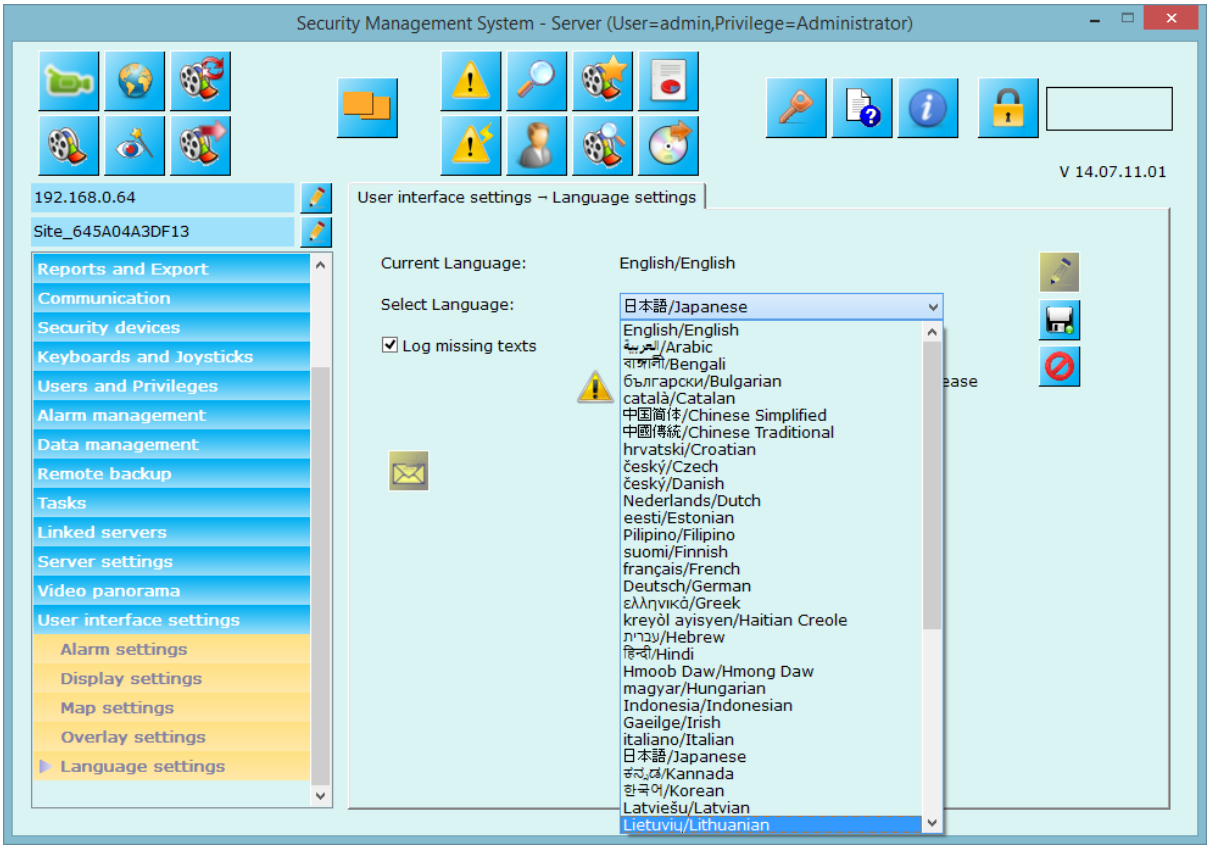
- 'No display' – no overlay will be done for motion area.
- 'Motion indicator only' – displays small rectangle at left bottom when there is motion in the scene.
- 'Motion grids only'- displays grid on the video where there is a motion.
- 'Full display' – displays both motion indicator and grids on video when there is motion in the scene

Other settings

- Display video overlay icon when there is video disconnection (displays cross mark)
- Display video overlay icon when there is server disconnection (displays cross mark in a circle).

2.15.4 Language settings

Application has built in support for various languages. You can choose your language from this section.

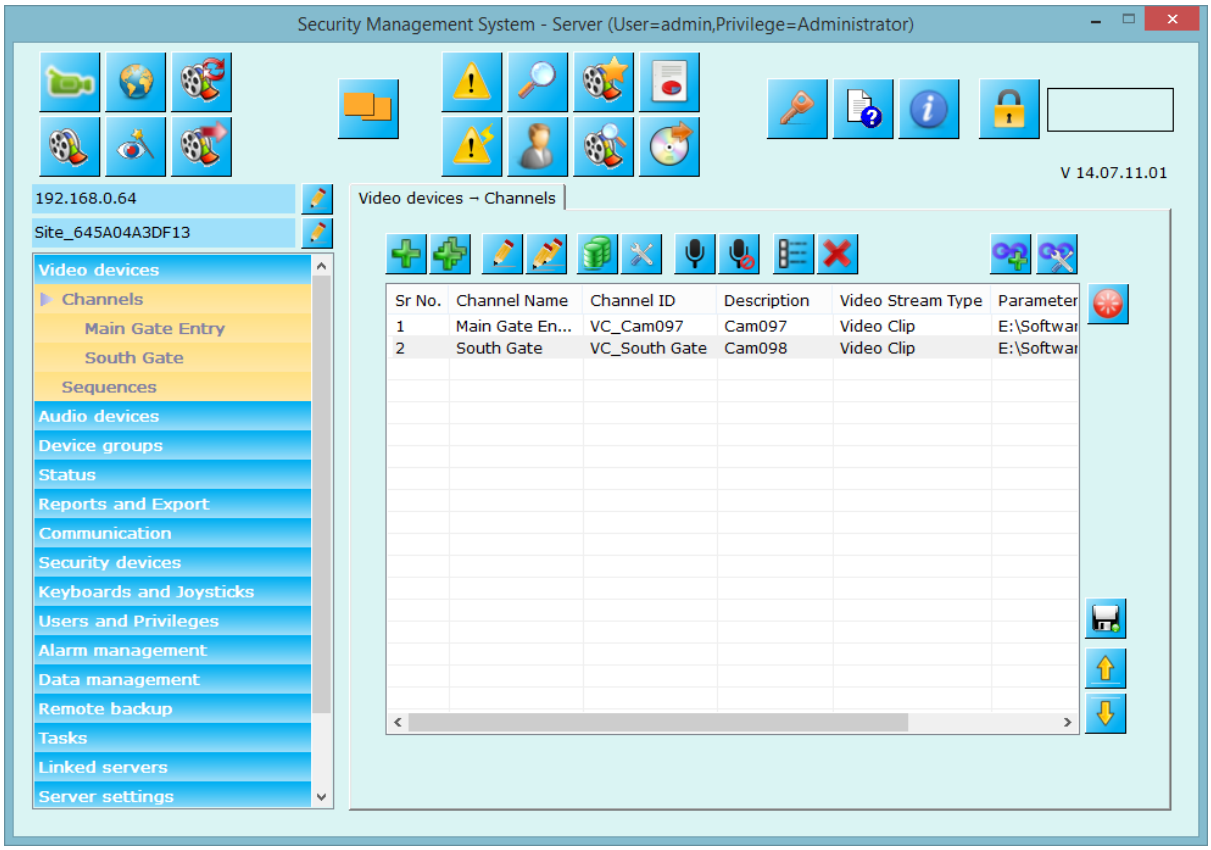


This tab shows current language used by the application.

To change select the language and click on to save the settings.
Please note that you need to restart the application to apply newly selected language. Such message is displayed below the ‘Select language’ option.

3. Views

The 'Security Management System Server' provides several viewing screens which can be viewed simultaneously. All the screens can be moved independently and hence can be viewed on different display devices / monitors connected to the computer.



3.1 Toolbar buttons

Live video screen – This screen can be used to view live video from cameras.

Playback video screen – This screen can be used to view recorded data from cameras. All cameras in this screen will display synchronous playback.

Non sync playback video screen – This screen can be used to view recorded data from each camera separately Playback for each camera can be managed separately in this screen.

Map screen – this displays the 2D map image and locations of cameras on the image. It is possible to view live video on the map image location. It is also possible to highlight any generated alarm directly on the map screen.

Analytics screen – shows analytics streams for all configured video channels.

Export video screen – allows you to export video in standard or native format.

Video panorama screen shows panoramic view for configured video channels.

Alarms screen, the list of alarms generated in current session of application.

Active alarms screen – list of shows all active alarms in the system.

Search screen – this can be used to search for alarms by time and channel ID. It can also be used to export any duration of recorded video to a standard format.

User logs screen – this can be used to search for user activity logs by time and user ID. It also shows the user activity logs for the current session.

Video bookmark search screen - used to search bookmarked videos.

Video search screen – Will be used to launch ‘Video search screen’ where you can analyze recorded data availability from cameras over the period of time using ‘Security Management System’.

Offline data viewer, a separate player application to view application’s offline data

License information - shows license information of the software

Help – pop-ups this file.

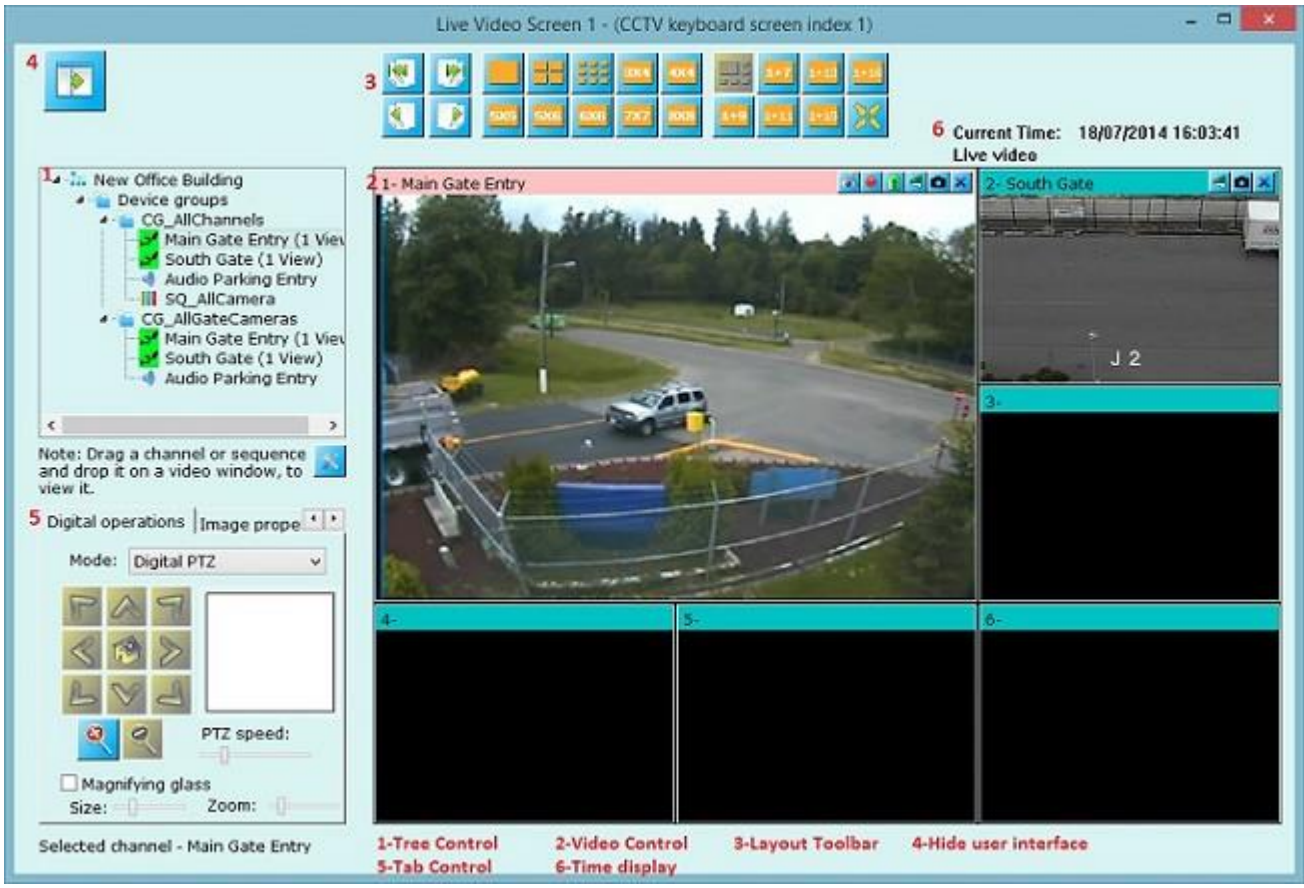
About – displays manufacture's name, company and copyright information

Lock server – closes all windows except main screen window and locks the system. To access the system again, you need to unlock it using the password of logged in account.

3.2 Live Video screen

Application provides one live video screen where you can view live feed from cameras

Click on button to open video screen.



Screen title bar will show screen number and CCTV keyboard index for opened video screen.

Details about each user interface control are below.

3.2.1 Tree control

Tree control displays a root node as ‘Site’ node. It shows site ID and below site id node, camera groups that are authorized for currently logged user are displayed. Camera group nodes have sub nodes to all the camera names that are present inside the camera group and camera sequences.

To view camera video or camera sequence video, user drags the camera name or camera sequence name and drop to the ‘Video control’ (refer 3.2.2 or refer point **2** from screenshot).

Alternatively you can also double click on camera name or camera sequence name from tree control to view the video into video control.

You can also right click on video container and click on ‘Assign video channel’ or ‘Assign video sequence’ to view videos.

3.2.2 Video control

Video control displays videos from camera or sequence of cameras. It has number of items (same sized or different size depending upon layout used) – called as ‘video containers’.

You can right click on the video container for options related to video container or video displayed inside video container.

Selected video channel or sequence is highlighted with RED colored title bar and you can apply features available on ‘Tab control’ (point **6** from screenshot above) on this selected video or sequence.

3.2.3 Layout toolbar

Using buttons available on layout toolbar, the ‘video control’ appearance can be changed. Figure above shows that video control currently is in 1+5 mode i.e.1 (first) video container is large sized and rest 5 are small-equal sized.

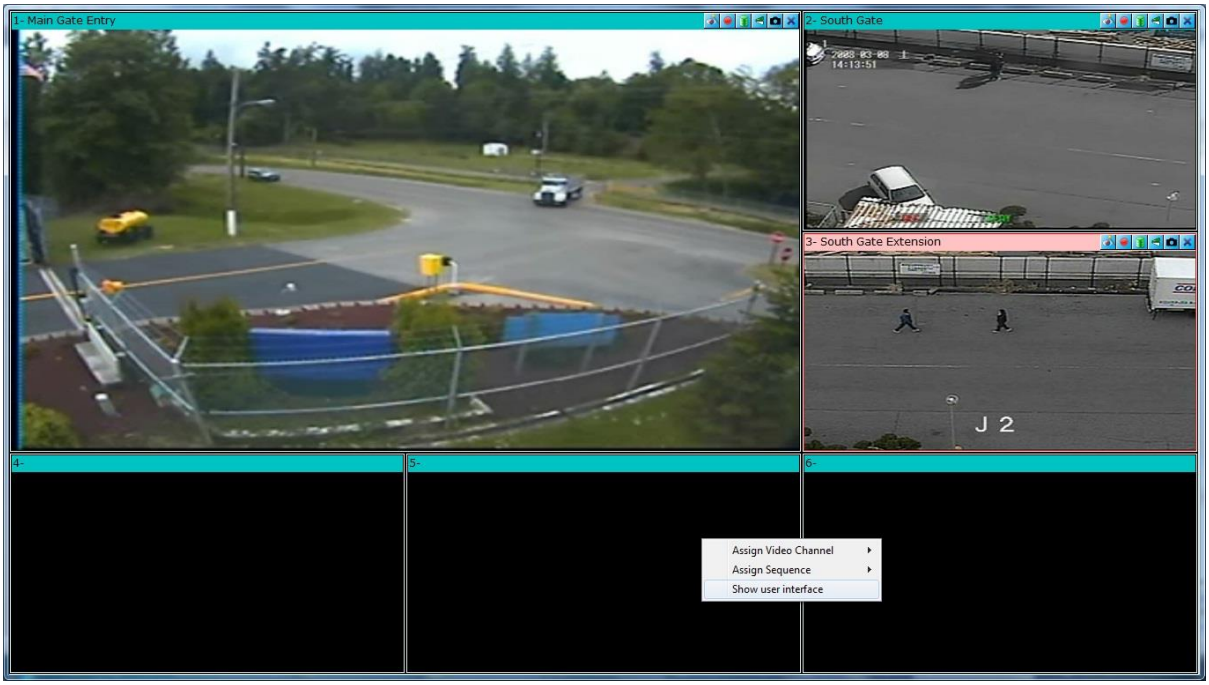
Other available modes are 1x1, 2x2, 3x3, 3x4, 4x4, 5x5, 5x6, 6x6, 7x7, 8x8, 1+7, 1+9, 1+11, 1+12, and 1+16.
Click on these buttons to apply layout modes.

Left hand side 4 buttons can be used to move to first page, last, previous page, next page within current used layout.

Button gets all the video displays linear with no vacant video windows in between.

3.2.4 Hide user interface

This button can be used to hide all configuration user interface controls from the screen to show only ‘Video control’ and the screen will look like



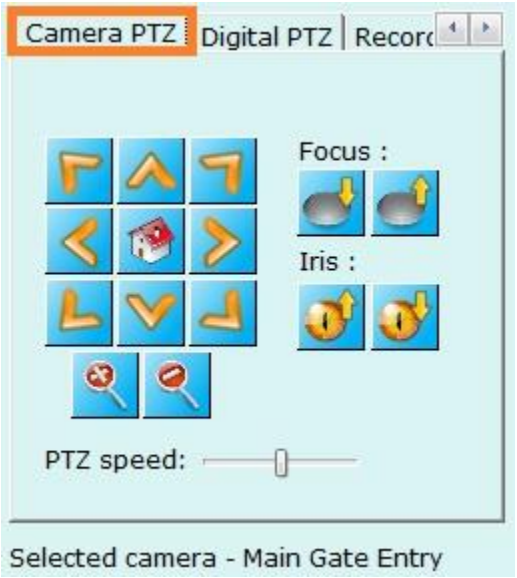
To show user interface controls, right click on any video container and click on ‘Show user interface’ menu.

Tab control

The tab control contains many features categorized into sub tabs. The features from the tab control will work on selected camera or camera/video sequence.
Name of currently selected camera/sequence is displayed below this tab control.
Also, selected camera/sequence is displayed in RED colored title bar in the 'Video control'

3.2.5 Tab - Camera PTZ

This tab shows camera PTZ controls when camera PTZ is supported by the camera and user has selected camera PTZ option from 'Video details page'



3.2.7 Tab - Digital PTZ

This tab works in one of the 3 available modes (Digital PTZ mode, Digital Auto tracker mode, or Vibration removal mode)

Digital PTZ mode-
The selected video display can be controlled using digital PTZ controls.

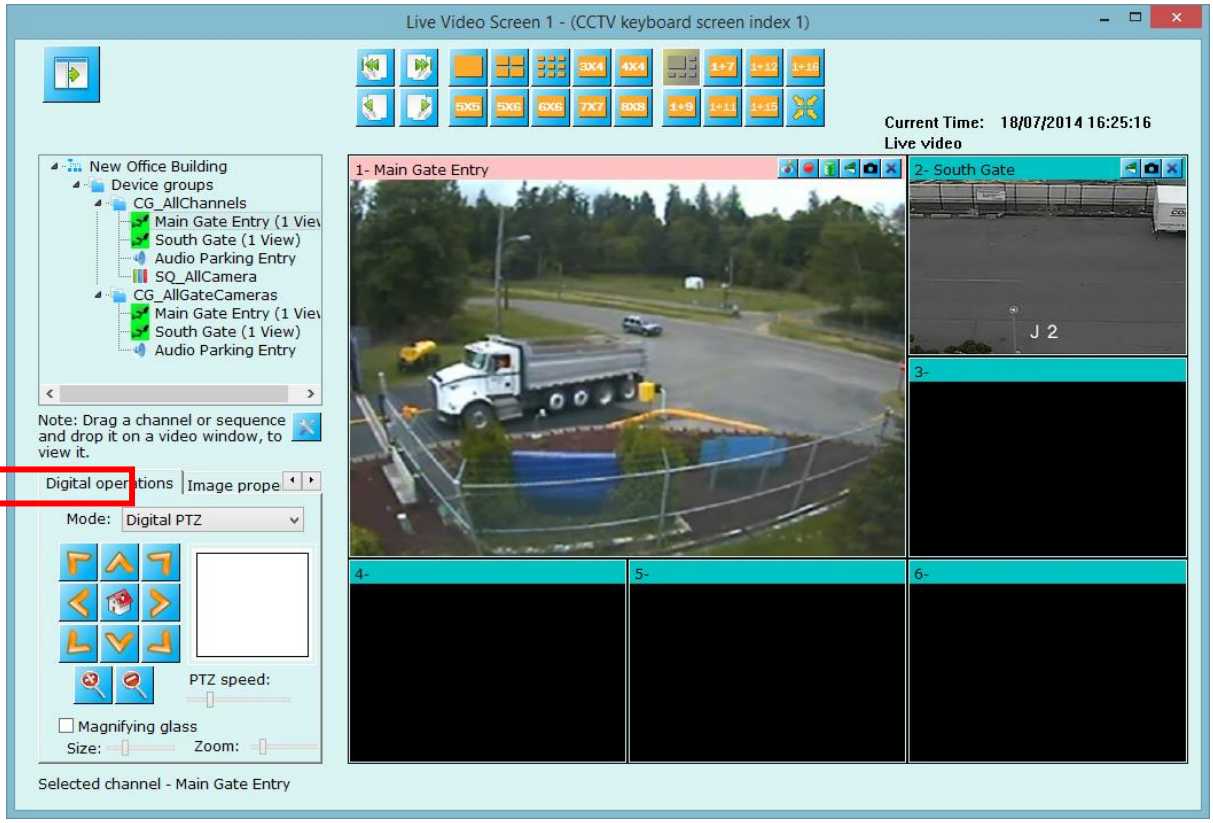
Use PTZ buttons from this tab to zoom, pan, and tilt the video. For different PTZ speeds, use 'PTZ speed' slider bar.

For PTZ using mouse move, drag and scroll, right click on video and use 'Display mode – Digital PTZ' menu.

PTZ area display indicator shows which part of video is being displayed on the screen.

Magnifying glass when enabled will magnify the area when mouse pointer is moved to the selected video display. Magnifying glass parameter (glass size and zoom) can be controlled using slider bars.

Screenshot below shows digital PTZ applied on ‘video container 1’ (1-Main Gate Entry), also applied magnifying glass is shown (see 2 in image). For comparison with normal video, see video from ‘video container 4’ (4- Main Gate Entry) which shows normal live video for same camera.



Digital auto tracker mode

From tab control, select operation mode to ‘Auto Tracker’. Enable auto-tracking with the checkbox present on the tab. This enables the digital auto tracking feature. The application detects the objects in the scene, selects the best object, tracks it and auto-tracks it such that the output display window is always focused on the target object.

This feature is specifically useful for mega-pixel cameras, where the operator would like to view the objects and track them automatically without needing any user interaction.

> Please note that, this feature is specific to a display window, hence it is possible to have 2 views of same camera – one with digital auto-tracking enabled and the other one as normal view of the camera.
> Enabling this feature has no effect on the recording or any other configurations done for the video channel, since it applies only to a specific display window and not the original video stream from the camera.

Figure below illustrates the auto tracking of a vehicle – where left hand side video display has auto-tracking enabled and right hand side display shows same video feed without any processing.

Use ‘Analytics settings’ button to change auto-tracking parameters.

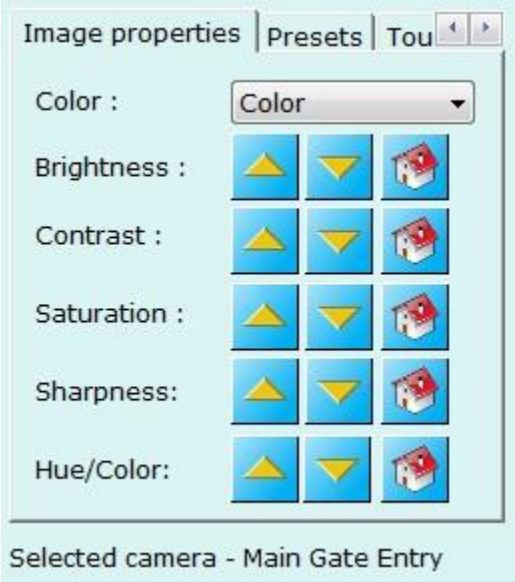
Vibration removal mode –

From tab control, select operation mode to ‘Vibration removal’. Enable vibration removal with the checkbox present on the tab. When enabled, vibrations in the video feed will be removed to have stable, vibration-free video view.

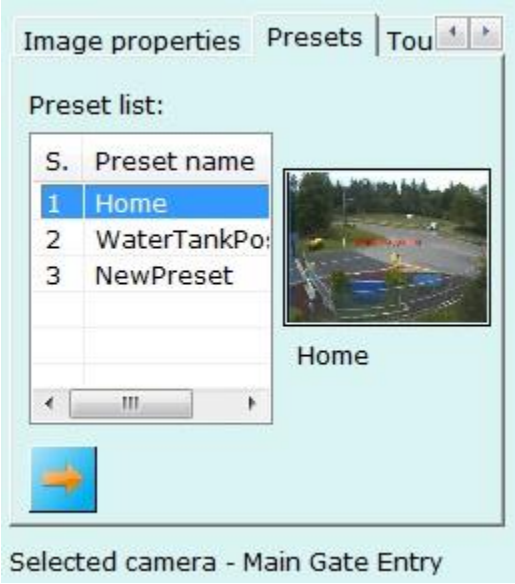
Please note that, this feature is specific to a display window, hence it is possible to have 2 views of same camera – one with vibration removal enabled and the other one as normal view of the camera.
Enabling this feature has no effect on the recording or any other configurations done for the video channel, since it applies only to a specific display window and not the original video stream from the camera.

3.2.8 Tab - Image properties

Image properties such as brightness, contrast, sharpness, color adjustments etc. for the selected camera can be controlled using this tab.
This feature is camera dependent.



3.2.9 Tab – Presets

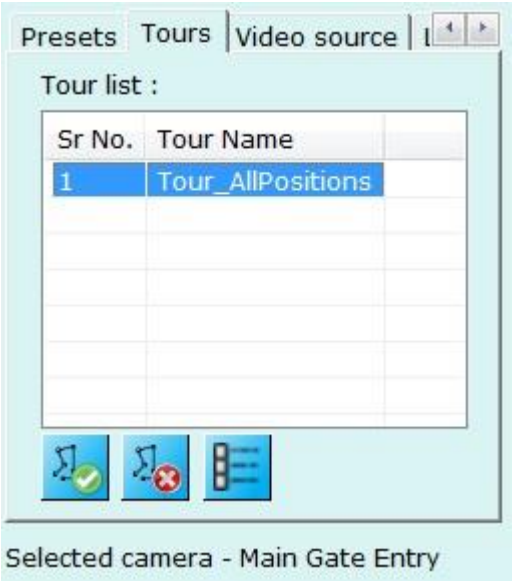


This tab lists configured presets for selected camera. Click on any preset name from the list to select it. Its snapshot image will be displayed at right hand side.

Click on button to go to selected preset. Command will be sent to the camera which will be moved to the selected preset position.

Note – to configure presets, please refer to 'Camera PTZ configuration'

3.2.10 Tab – Tours



This tab lists all configured tours for selected camera.

Select any tour from the list and click on button to start tour.

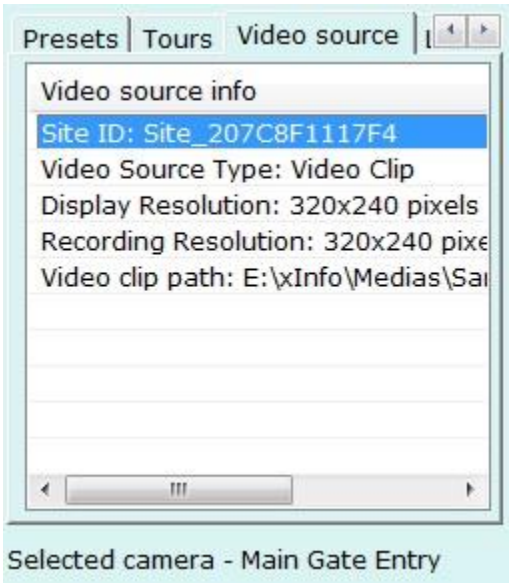
Click on to stop currently started tour.

Click on button to popup a dialog box which displays details about the selected tour. It lists all the presets used for the tour and their dwell time.

Note – to configure tours, please refer to 'Camera PTZ configuration'

3.2.11 Tab - Video source

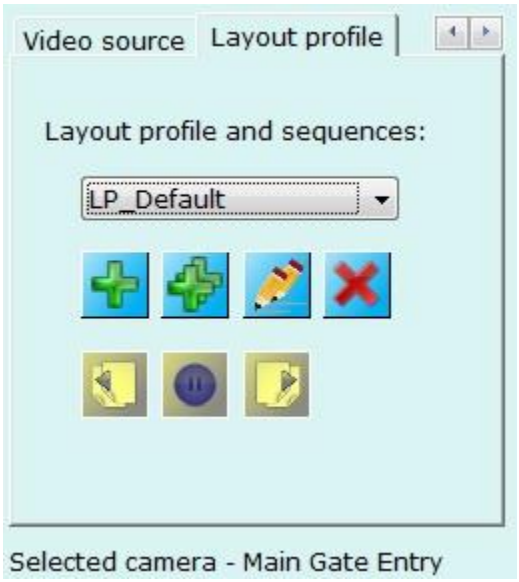
This tab shows connection details for the selected camera.



3.2.12 Tab - Layout profile and sequences

User can configure and save different layouts using this tab. By default application adds 'LP_Default' profile, which you can modify but cannot delete.

The combo box below displays configured layout sequences for opened screen. Changing combo box selection will switch layout to selected layout profile or sequence.

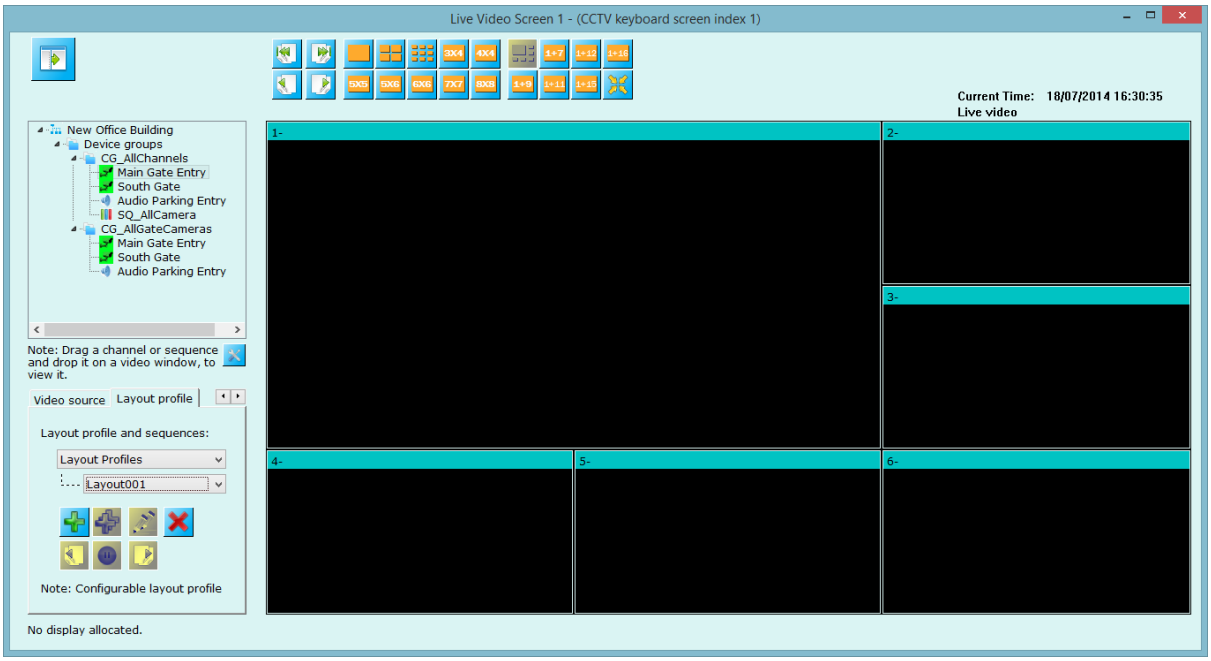


To add new layout profile, click on button. This pops up a dialog box.

Enter layout profile ID and click on ‘Add’ button to add new layout ‘LP_Layout001’ into the screen. The screen now will automatically switch to newly added layout (LP_Layout001 in this example). By default video control will be in 1+5 mode with no videos assigned to any video containers. (Please see screenshot below)

You can switch to any layout mode using ‘Layout toolbar’ buttons.
You can assign cameras or sequences to video containers, by right-clicking video container and following add menus or dragging cameras or sequences from tree control and dropping it on video containers.

Layout automatically gets saved.



(Screenshot – blank video containers when new layout (LP_Layout001) is added)

Use same steps to add more layout profiles.

Click on button to remove current layout. Screen will automatically switch to next layout from the list.

Layout sequences –

Layout sequences can be defined using button. Layout sequence consists of number of layouts with dwell time associated with each layout. Layout sequence displays each configured layout for configured dwell time (in seconds) and switch to next layout in the sequence. Layout sequence will keep switching until user switches screen to some other configured layout sequence.

User can pause layout sequence any time while it is being executed using button .

Once layout is paused, and buttons will get enabled so that user can use them to move to previous layout in a sequence or next layout in a sequence respectively.

Use , buttons to edit and close currently running layout respectively.

3.2.13 Time display

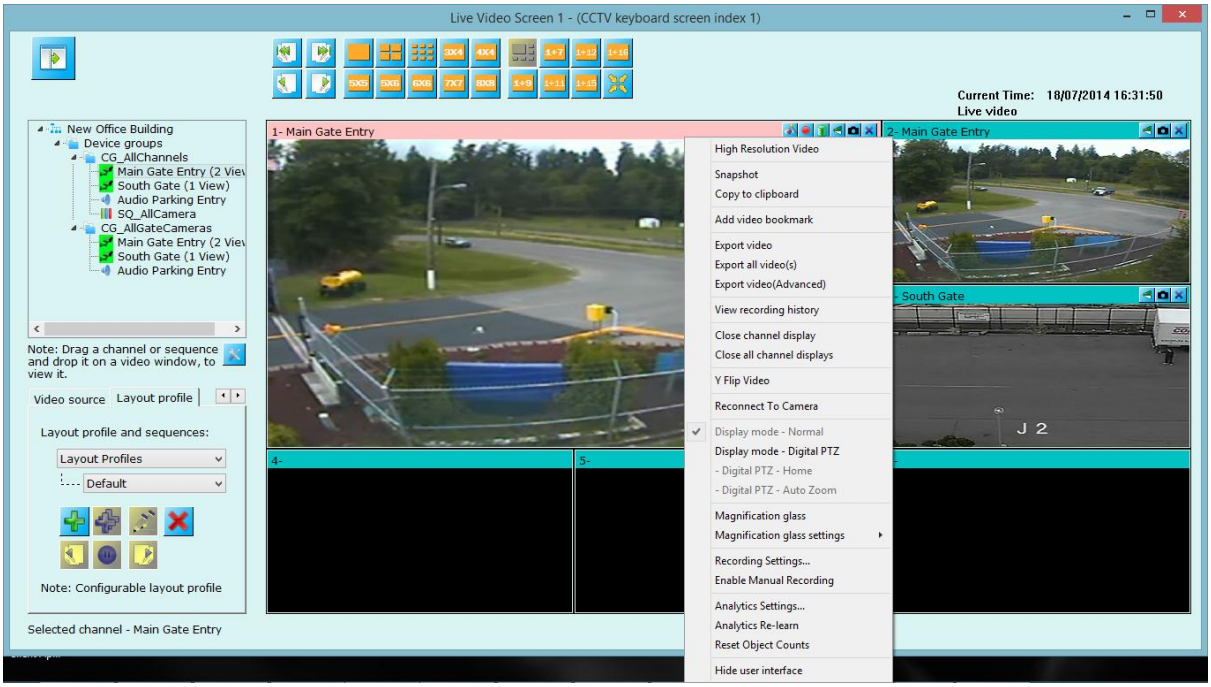
Screen displays current time continuously.

When application is in live view mode, then ‘Live view’ is displayed below the current time.

When application is in ‘Instant replay’ or ‘Playback mode’ then video time is displayed below the current time.

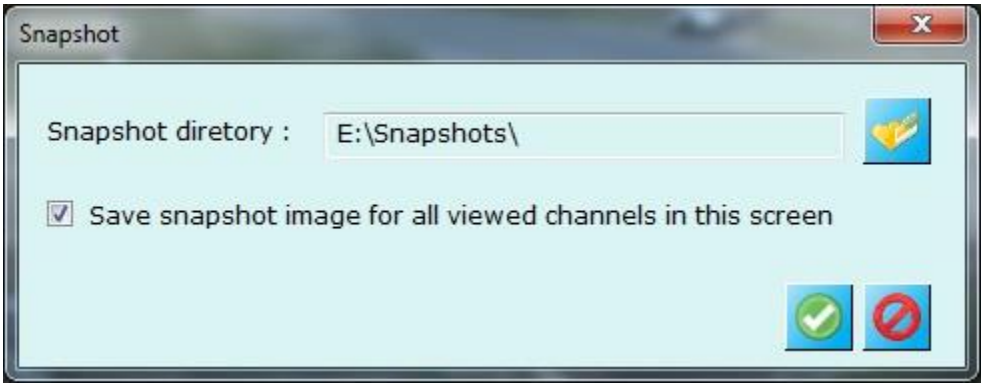
3.2.16 Right click options (Live video)

When screen is in live view mode, right click on any video container which displays the video for quick option.



High resolution video – opens separate window with selected camera displayed into it. The size of High resolution video window can be configured from ‘User interface->Display settings’ tab.

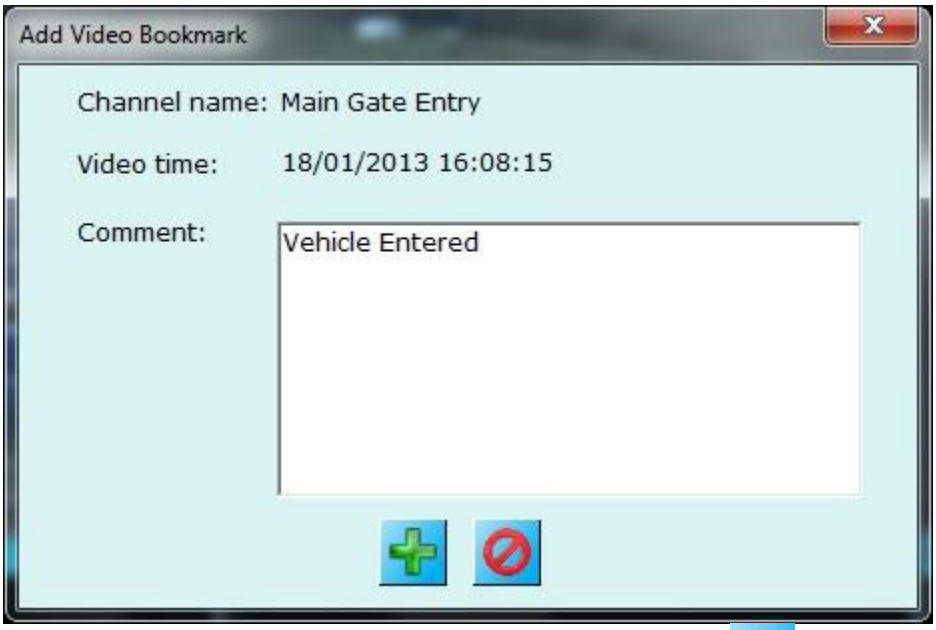
Snapshot – pops up a dialog to specify snapshot ask path **and** takes current snapshot of the video. There is an option to take snapshot for all the videos currently being viewed in this window.



Application displays a result dialog box which mentions success or failure for snapshot operation(s). If failed, it shows failed camera names and their reasons.

Copy clipboard- The video data will be copied to clipboard memory and can be directly pasted in other application like MS Paint.

Add video bookmark - pops up following dialog box.



It asks to add comment to the bookmark and clicking on button will save video bookmark with added comment and video time.

Later user can search bookmarked videos using 'Search video bookmark' screen for quicker access to specific important video time.

Export video – opens an export video dialog box starts exporting currently selected video channel using settings configured in 'Reports and Export-> Default video export settings' tab. User needs to stop video export manually as per their choice.

Export all videos – exports all video displays simultaneously using default video export settings. User needs to stop video export manually as per their choice.

Export video (Advanced) – Open export video screen and initializes parameters with currently selected video channel. User and change export parameters as per his need and start video export.

View Recording History – Open 'Video Search Tool' application which can be used to analyze the recorded data history for selected video channel.

Close channel display – asks user confirmation about closing video display (if enabled from 'User interface settings -> Display settings' tab) and closes the display if asked to.

Close all channel displays – closes all displays in current screen

Y flip video – flips video display in y-direction. I.e. make video display up-side down

Reconnect to camera – disconnects the camera and reconnect it again immediately.

Home – this menu will be visible when 'Camera PTZ' display mode is used (discusses later). Clicking on this menu will move camera to home position. Home position is defined as preset.

Camera control – this menu is visible if camera PTZ is available from the camera and is enabled by the application from 'Video channel details' page. This pops up a separate window containing playback control. This is additional dialog just for better user controlling the system. You can use this window to control the camera.

Display modes

Display mode – Normal – it is a mode which disables all mouse operations to control video stream. **Mouse cursor will be normal mouse pointer.**

Display mode – Digital PTZ – when enabled, you can do digital PTZ operations using mouse on the selected video container**. Mouse cursor is changed to standard 'hand' cursor.** Mouse scroll can be used for zooming in and out of the video; mouse click-and-drag can be used for panning and titling the video display.

Display mode – Camera PTZ – when enabled, you can control camera PTZ operations using mouse on selected video camera. **Mouse cursor is changed to blue colored arrows.** Use mouse scroll for zooming in and out of the camera; use direction arrows (cursor changes as per current mouse position inside video container) for panning and tilting the camera.

Camera PTZ speed – used while doing camera PTZ using 'Display mode - Camera PTZ' mode.

Magnification glass – can be enabled from this menu (functionality described earlier), when enabled parameters can be configured using **'Magnification glass details'** menu.

Recording setting – pops up recording setting dialog where you can update recording plan if needed. Recording plan is already described in 'Quick setup' section.

Enable manual recording – when enabled, application will start recording videos overriding current recording setting for the selected video until you disable it using same menu.

Analytics Settings – Pops up analytics settings dialog where you can update analytics settings for selected video channel.

Analytics Re-learn – Will reinitializes analytics settings for selected video channel.

Reset Object count – Will reset video analytics object count.

Hide User Interface - to hide all configuration user interface controls from the screen to show only 'Video control'.

3.2.17 Video toolbar

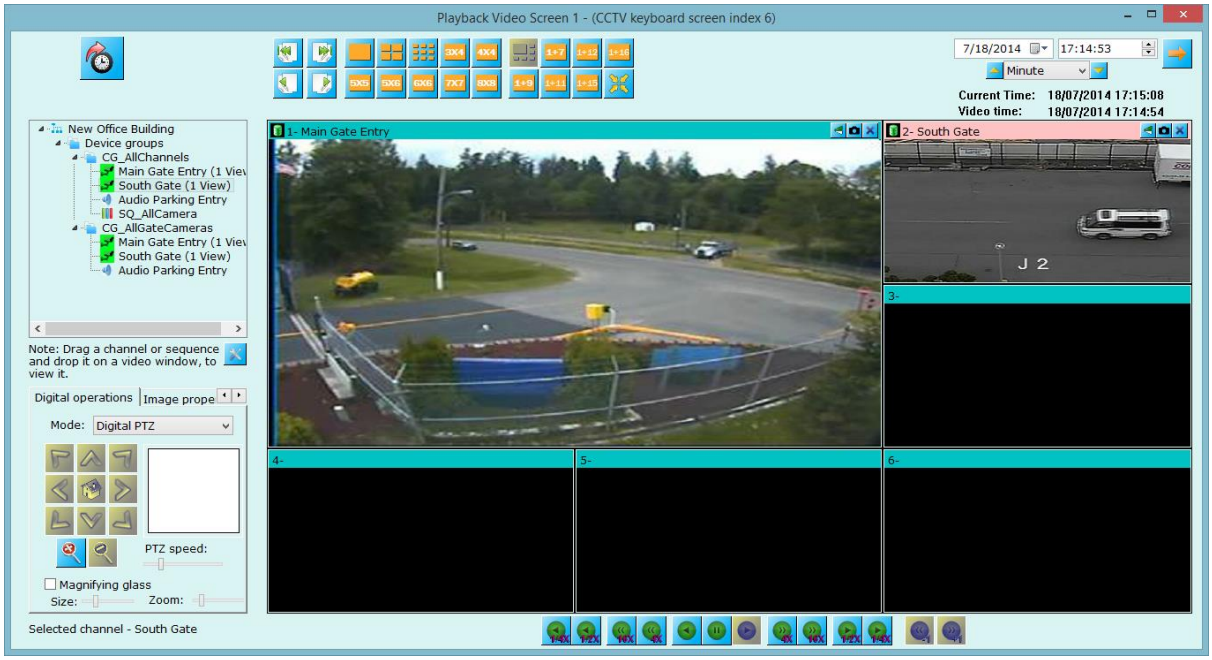
Video toolbar provides quick access buttons for accessing features.

- Close video display.
- Take snapshot
- Y flip video
- Recording settings
- Enable manual recording
- Analytics settings

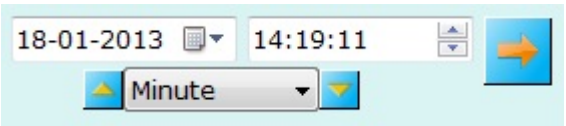
3.3 Playback Video Screen

Application provides one playback video screen where you can view recorded video from video channels.

Click on ‘Show playback video screen’ button to open playback video screen



Video playback time configuration controls



Configure playback date and time using these controls and click on to start playback from the configured time. Please note that all videos will start playback from configured time and will always display videos synchronously.

Buttons can be used to modify date and time by the selected options (Minute, Hour, or day).

Video playback control toolbar

These are playback speed controls, from live mode you can start playing videos with 1/2X (half speed) or (quarter speed), or take the screen to reverse playing mode with 1X, 4X, 16X, or half, quarter X modes.

Frame by frame playback buttons will be enabled when playback is paused. These buttons will enable frame-by-frame playback in forward or reverse direction. Each time you click one of the button, screen will show next or previous frame. This gives finer control over playback. Please note – these button will work on single video (selected video) only and while doing the operation it will ask you for the confirmation for switching layout to 1X1 mode with selected video container.

Right click on video container when screen is in playback mode to see playback quick menus.

Snapshot – snapshots current or all videos being displayed as per users' inputs.
Add video bookmark – *(already discussed in 'Right click options (Live video)' above)*
Y flip video – make video display upside down.
Export video – exports currently video from current 'Video time' until user stops it.
Export all video(s) – same as export but it exports all videos simultaneously.
Close display – Closes video display.

Instant Replay

When screen is displaying live videos, user can switch screen to 'Instant replay' mode by clicking on this button. All the videos will show replayed video. Time (in seconds) from how much history time the screen should start displaying replay video can be configured from 'Server settings -> Preference (Playback)).

Once screen is in 'Replay mode', you can use buttons from playback control toolbar to better navigate through replayed video.
(Playback control toolbar is discussed later)

Live view button –
(Not shown in screenshot as screenshot is of 'Live video' mode)
When screen is in 'Replay mode', this button will be displayed. Clicking on this button will take screen to live view mode to display live video feeds from all configured cameras.

3.4 Map screen

Map screen (button**)** helps to understand overall current status of the entire area under surveillance in a single screen.

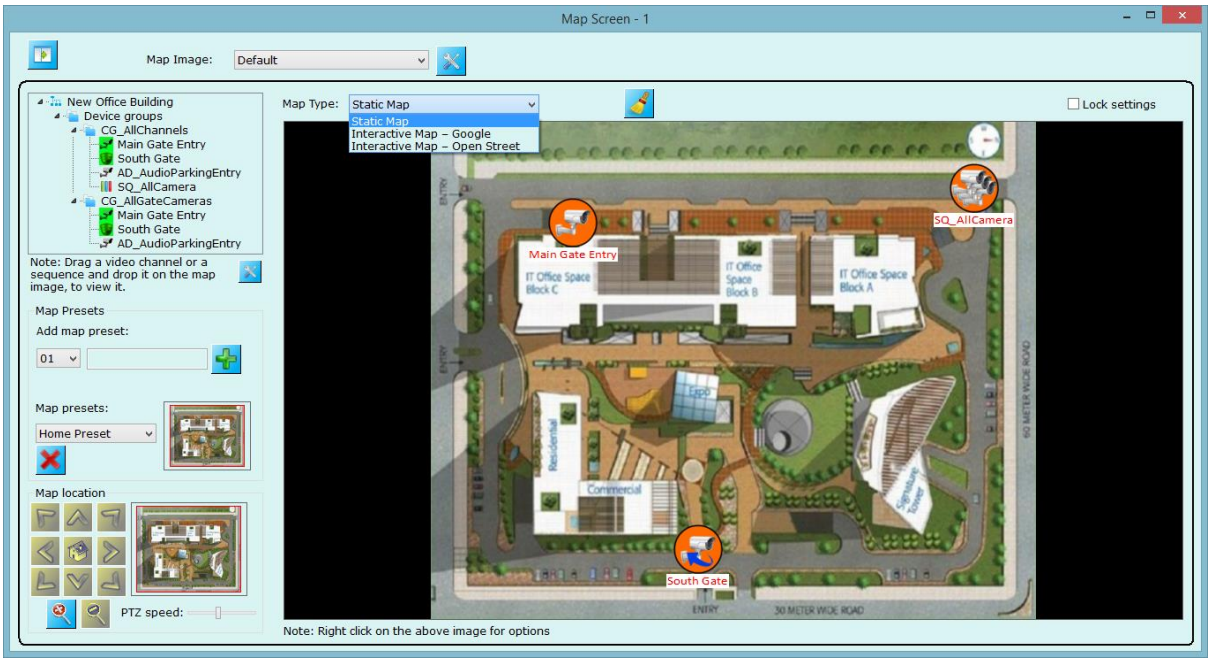
Application support different modes to map screen - static map, google map, and street map.

3.4.1 Static map (2D image)

This mode works with static 2D images (.bmp or .jpg).

Operators can load new map image by right clicking onto map image and selecting **'Change map image'** menu. User can select bmp or .jpg image and application will change map image to the selected one.

Video channels and/or sequences listed at top left tree control can be **drag-dropped** to the desired location inside the map image.



There are **two states** of the devices on the map – **compact state** which shows the position of the video device or sequence. The default indicators are as,

Will indicate static video channel position on map.

Will indicate PTZ video channel position on map.

Will indicate sequence position on map.

Will indicate security device position on map.

Will indicate ‘Quick access link’ position on map.

Will indicate ‘Quick access link zone’ on map.

Enlarged state – where map can show the actual live video from the device. User can toggle between these state by using right click option and select desired display mode (Video or Icon).

User can move the placed video devices/ sequences/security devices anytime using mouse to adjust their position in the map image.

To view ‘High resolution video’ for any video channel double click on video channel in map.

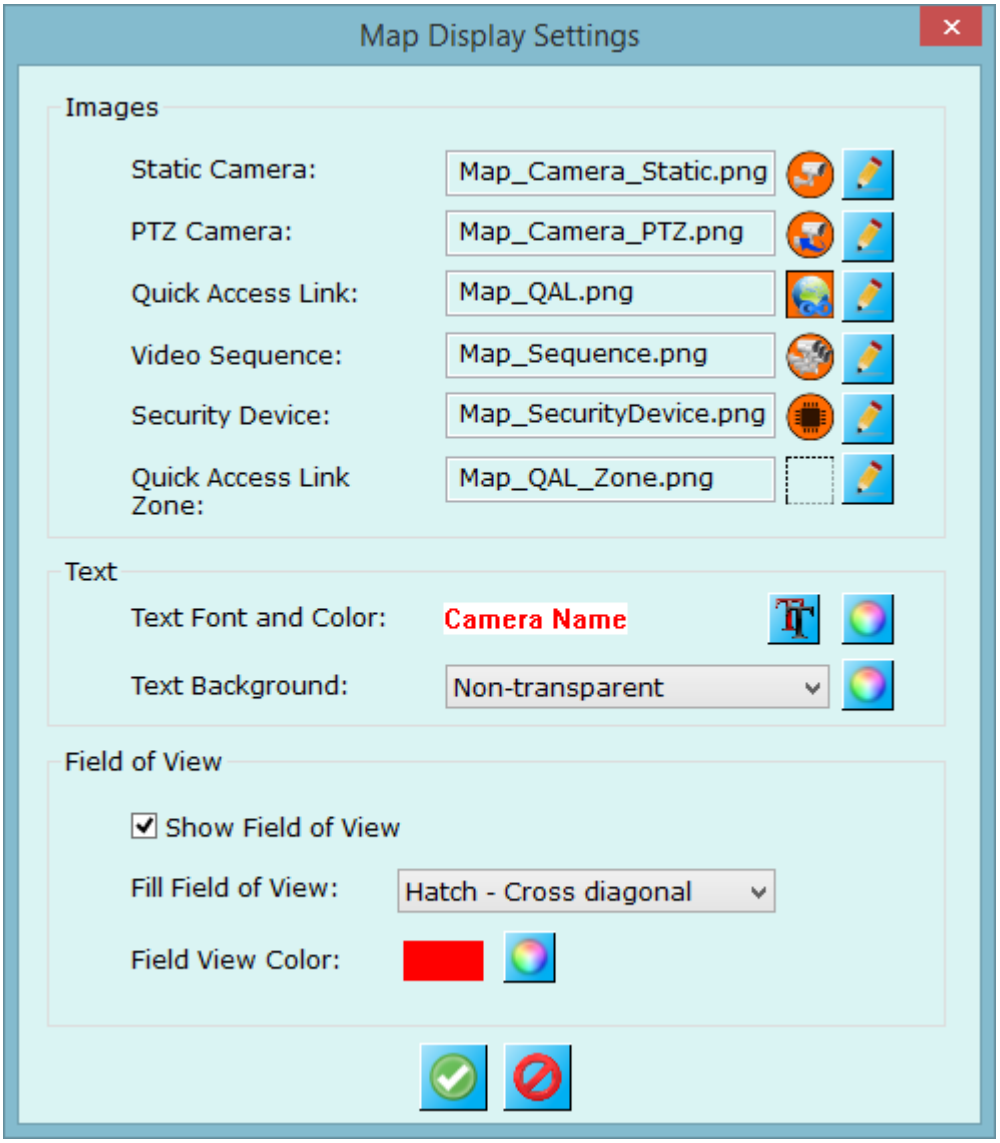
Right click on map you can see various option as follows,

Change map image – To change current map image with different map image.

Display Settings – This will popup dialog where you can configure various display settings for map screen. These settings includes selecting configuring icons for static camera, PTZ camera, Quick access link, Video Sequence, Security Device, Quick Access Link Zone.

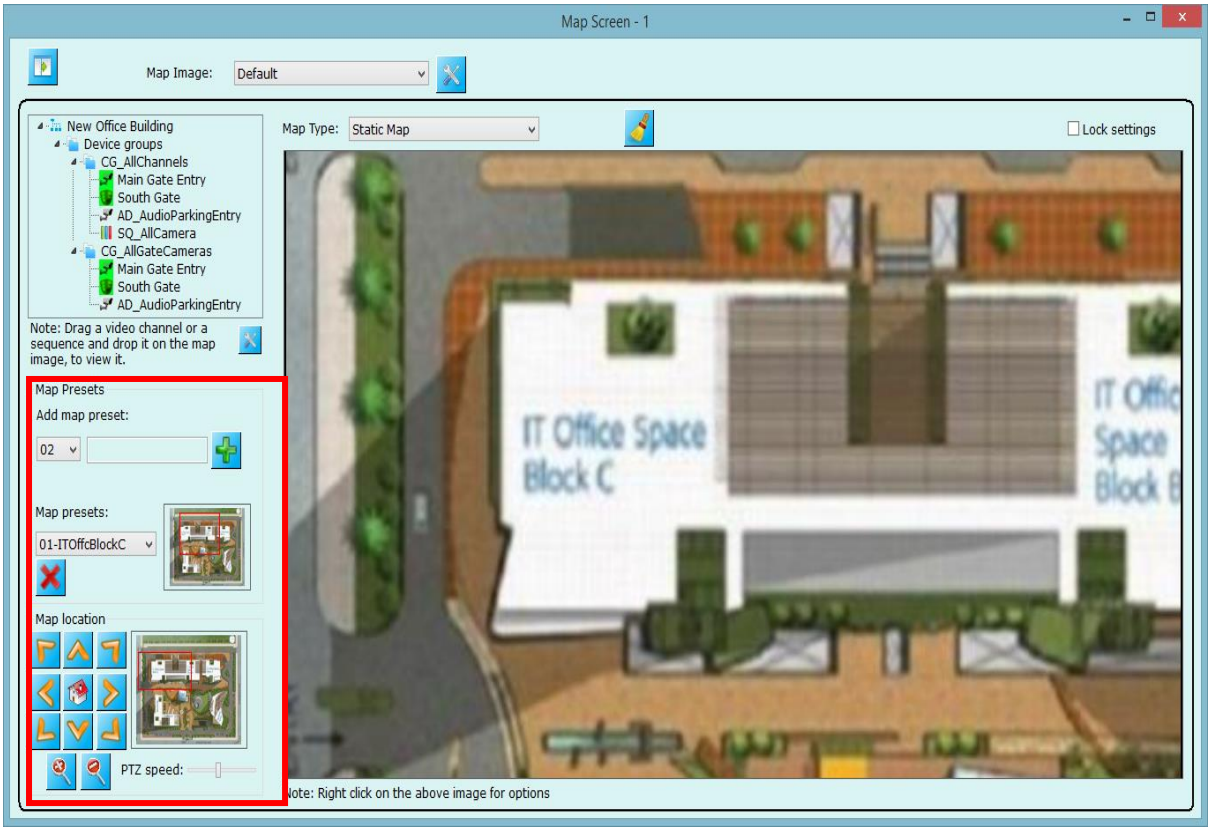
You can also configure the text font and background which displays the name of video device/sequence/quick access link on map. It is placed below the icon on map.

This dialog also allows you to configure ‘Field of View’ settings, these settings are described later in more detail.



Application can also show alarm alerts on map window – inside the display of video channel of the alarm video source. For this you need to configure “Show alert on Map” features for corresponding alarm from “Alarm management” (discussed earlier)

Map PTZ and presets



For better perspective, map window can also be panned, tilted, or zoomed with "Digital PTZ" tab available on left middle portion of the window.

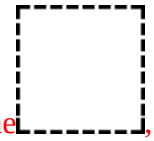
User can arrange map window screen with PTZ movements and can also save this at preset section. 10 presets are supported, which user can configure and set.

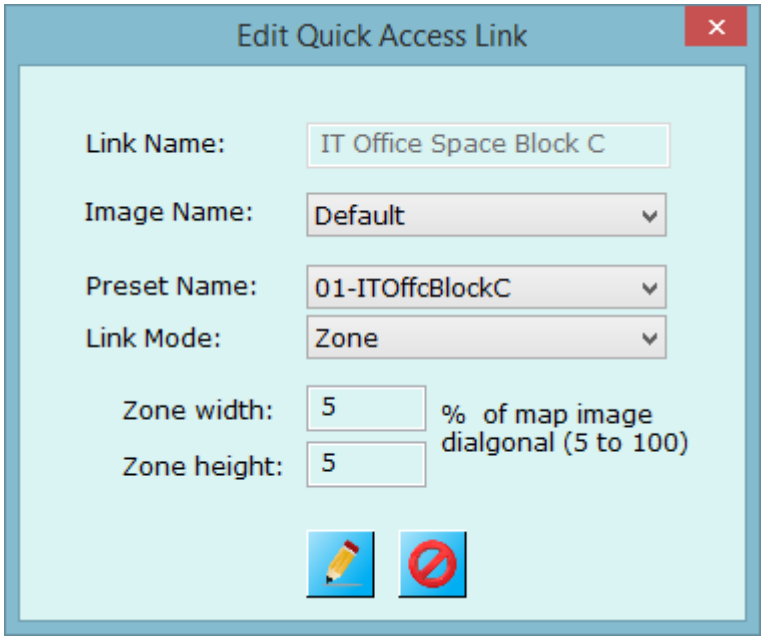
The list of user configured presets is shown at "Map preset list" section (bottom-left portion of the window). For directly switching to any preset, user needs to select desired preset from the list. Selected preset's snapshot is shown at right hand side of preset list.

Use button to delete selected preset from the list.

Quick Access Link

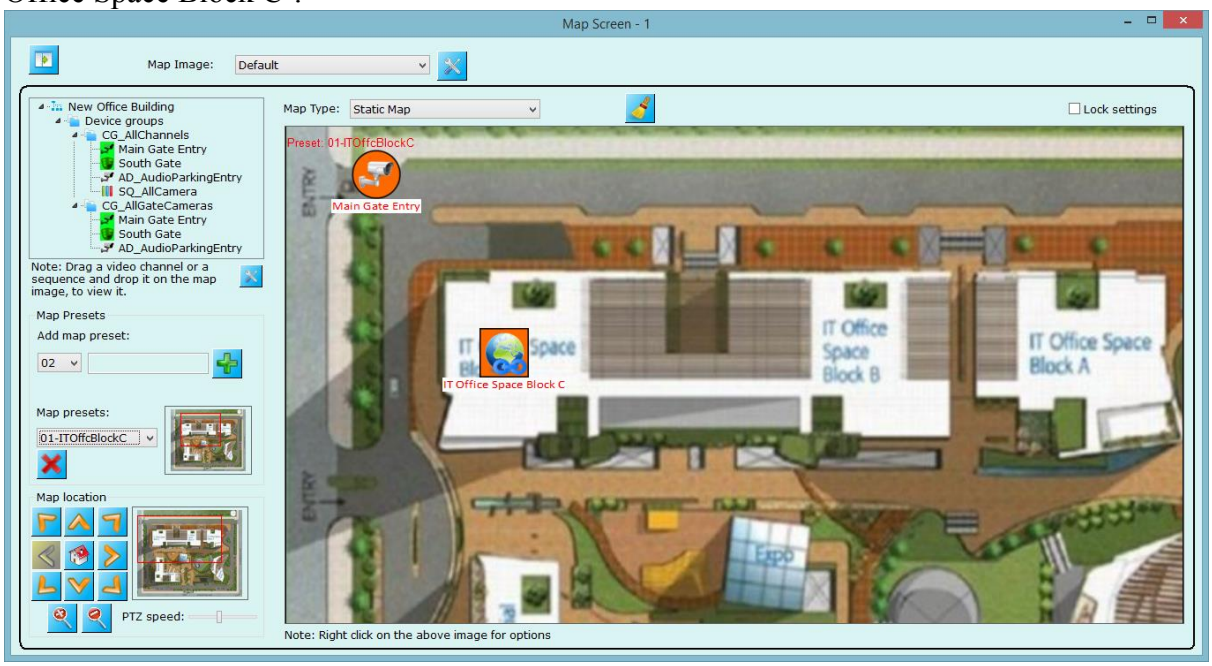
For better and fast access to map location's 'Quick access link' can also be defined on map.
To define 'Quick access link' right click on and select 'Set quick access link…' menu.
This will popup 'Add Quick Access Link' dialog. Provide link name, select map image on which you want to define quick access link, select preset name from list to which you want to set quick access link.

Quick access link can be displayed on map in two way icon and zone  , select link mode as per your configuration.



Following image displays quick access link 'IT Office Space Block C' on 'Default' map which accesses to preset '01-ITOffcBlockC' location in map.

To access ’01-ITOffcBlockC’ on map you need to double click quick access link ‘IT Office Space Block C’.



3.4.2 Interactive maps – Google

Change map type to ‘Interactive Map – Google’, application will access internet connection to connect to Google maps.

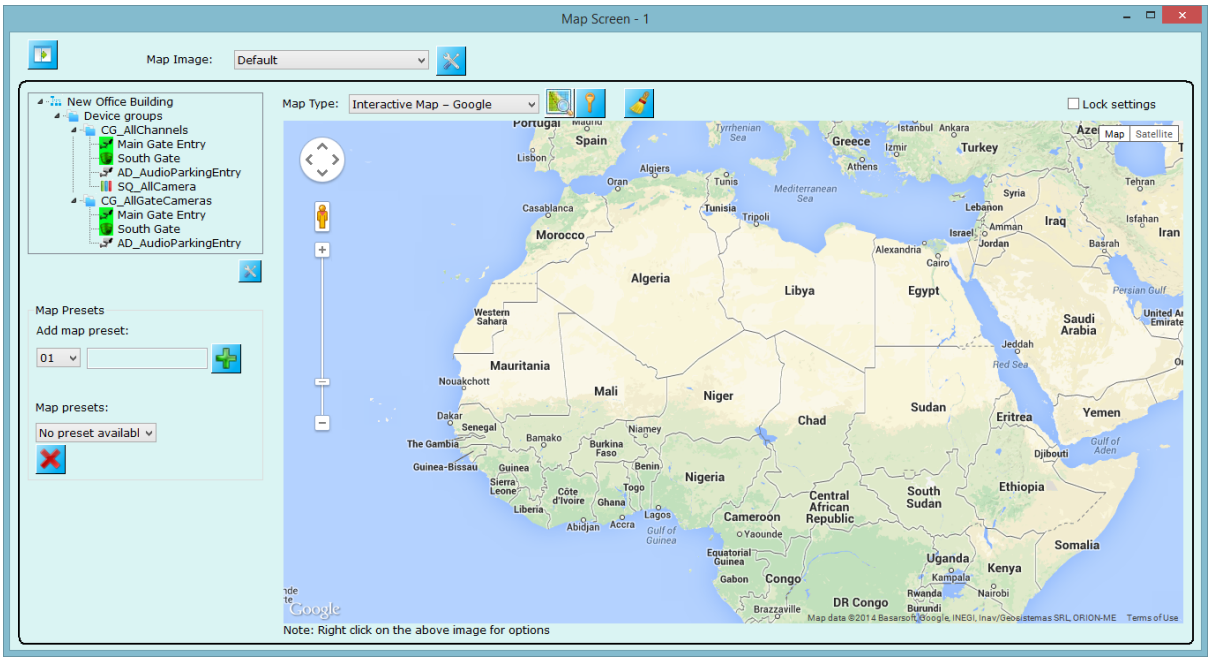
You can PTZ (pan, tilt or zoom) the map to go to required location.

For positioning cameras or sequences inside the map, please use right-click option on the required position and follow ‘Set video channel location’ or ‘Set video sequence location’ to place camera.

Separate 10 map presets can be configured for this type of maps.

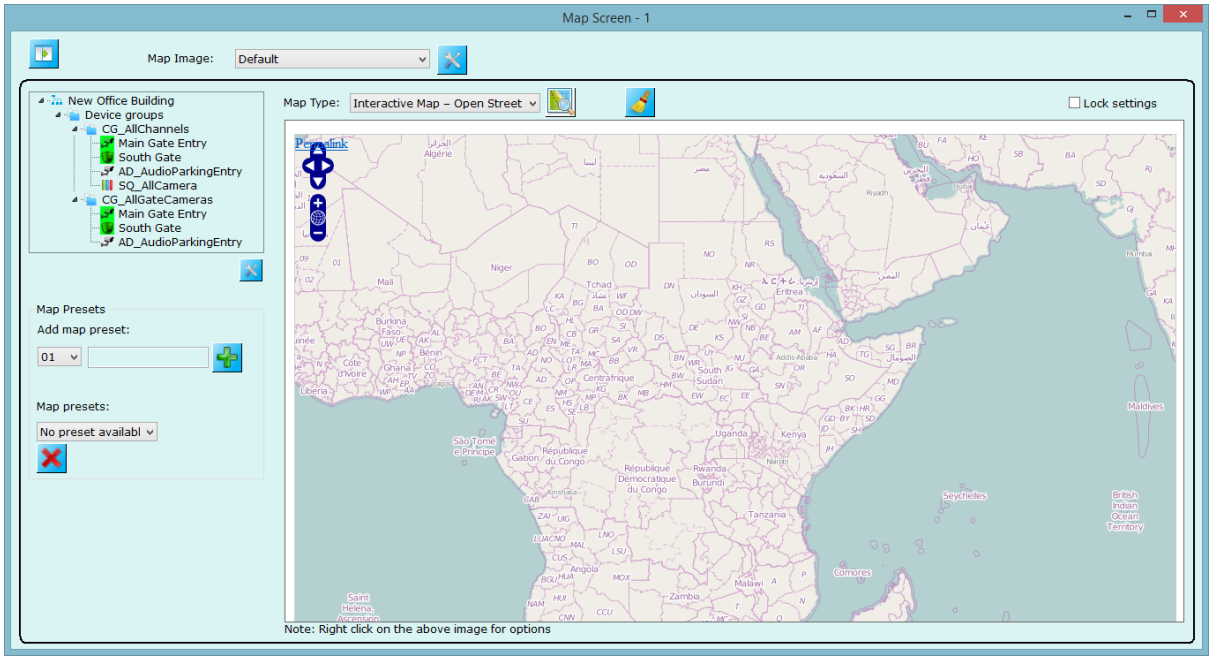
Select map preset from the ‘Map preset list’ and click to go to preset position.

For searching specific location, please click (Set map location button) to pop up a dialog box. Enter address or longitude and latitude details to go to required location.



3.4.3 Interactive maps – Open Street

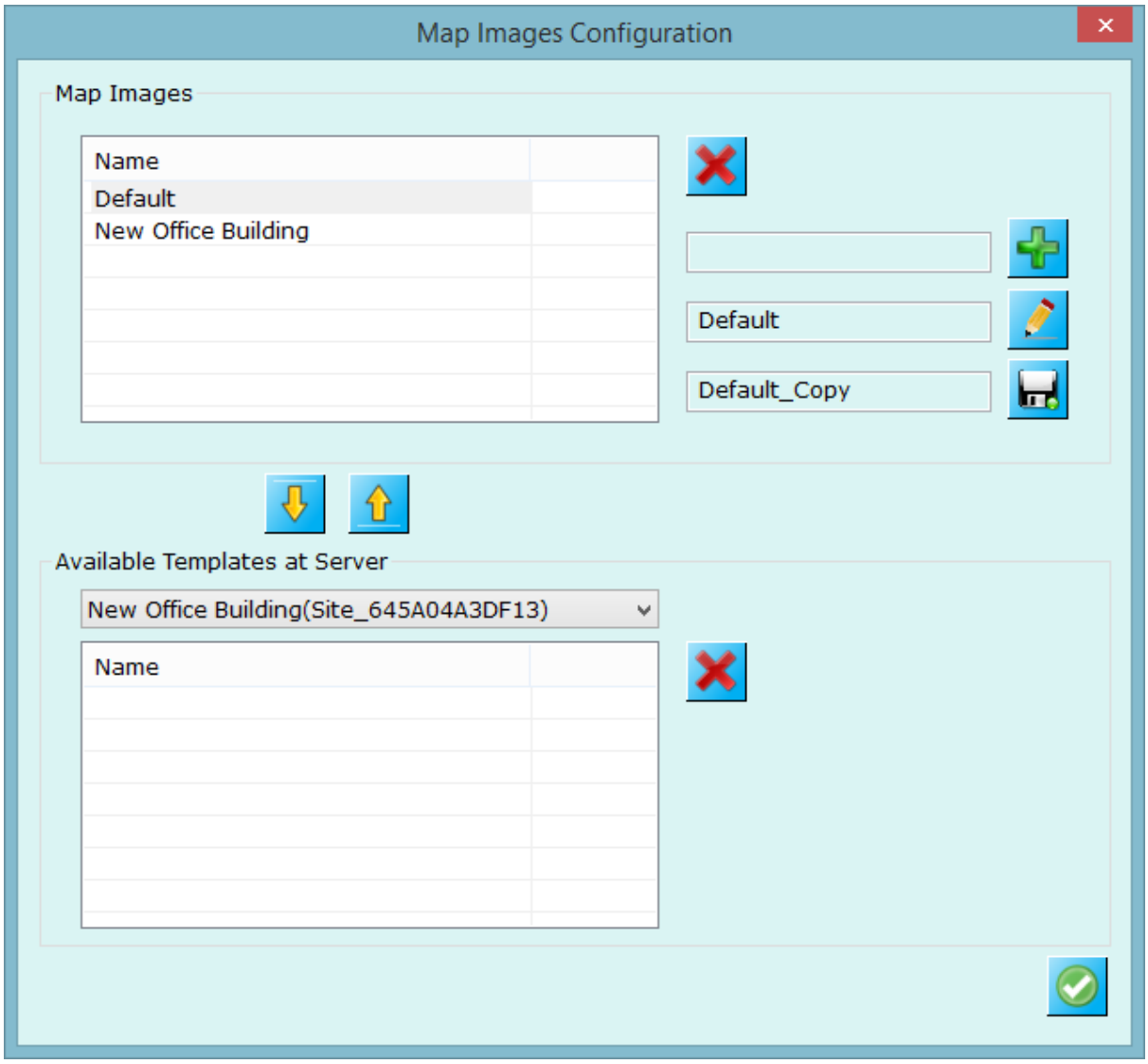
Change map type to ‘Interactive maps – Open Street’, the application will access internet connection to connect to ‘Open Street’ maps.



Usage of this type is same as ‘Interactive maps – Google’ as discussed above.

3.4.4 Map Configuration

Map screen allows to define multiple map configuration. To define new map configuration click on 'Map Image Configuration' button. This will popup 'Map Image Configuration' dialog as shown in image below.

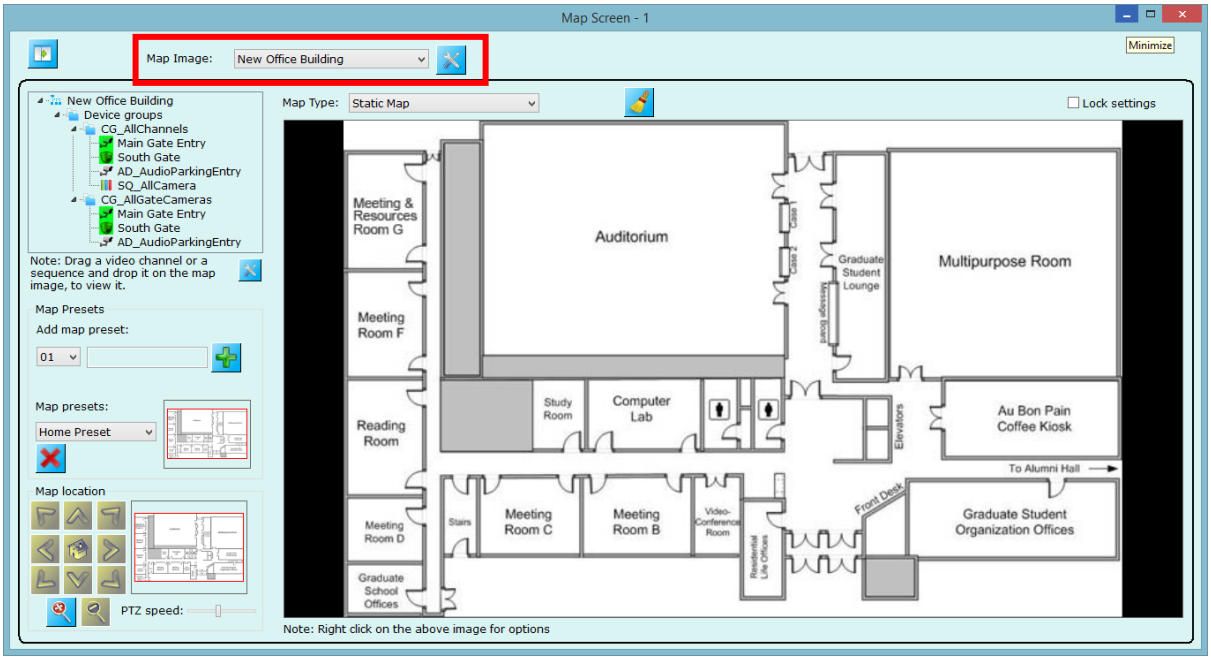


Use button add new configuration to map screen.

Use button to change name of currentky selected map configuration from list.

Use button to create of selected map configuration.

Following image displays 'New Office Building' configuration added to map screen. You can swicth between configurations isung list on top of the map screen.

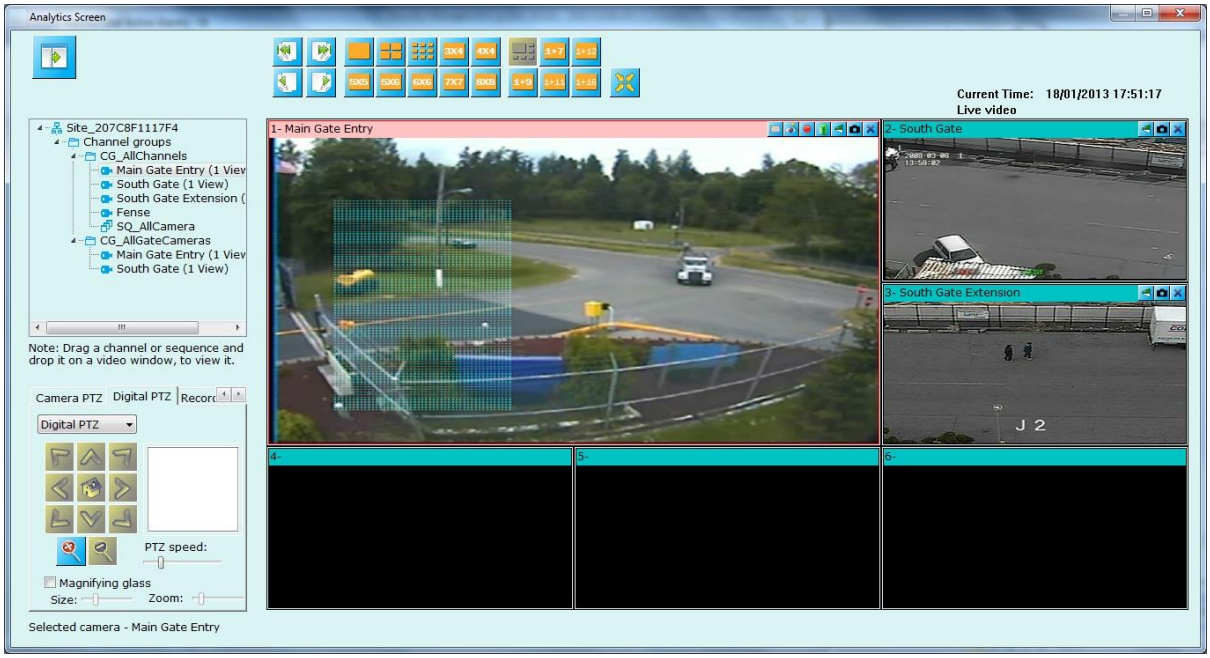


Map templates can be created from map configuration which client can download and use them.

3.5 Analytics screen

Analytics screen shows real time object detection, tracking and also areas defined for analytics for different detections on live video streams of all video channels configured in the system.

Video channels for which video analytics is OFF, this screen shows live video feed that is/will be used for video analytics purpose.



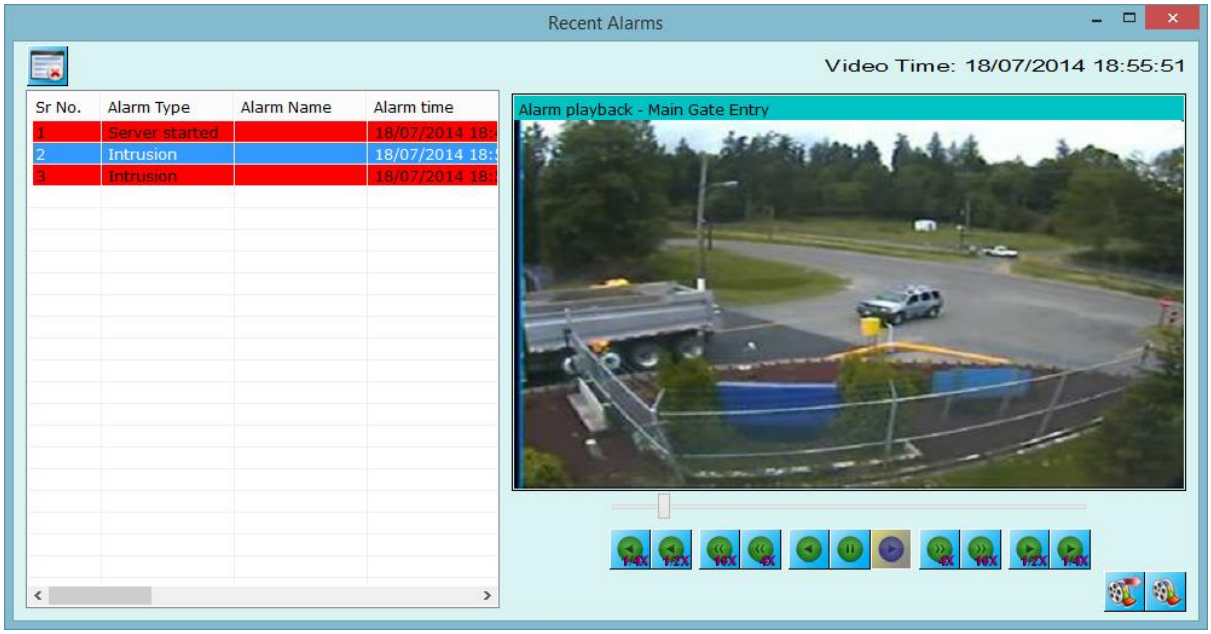
Use page navigation and layout controls for easy accessing video windows.

Hide user interface button - remove all the user interface controls and make video windows full screen. You can switch back to normal mode by right clicking on any video window to using menu “Show user controls” menu.

Toolbar buttons on each video window can be used for better controlling the video window.

3.6 Alarm screen

Alarm screen lists all the alarms that application has learnt in this session.



Click on any alarm from the list of alarms to start playback of clicked alarm on video right-hand-side window. You can use video navigation controls for better or easy time walk through.

Click on “Playback view” button to pop-up separate playback window which starts synchronized playback of all video channels that are configured in the system with the selected alarm’s time. Please note – this is a separate playback screen (different from those which are available on main window toolbar).

Click on “Export video” button - this will pop-up export video dialog box with start and end playback timestamps set with respect to currently selected alarm. User can export alarm video in standard format or native format. Native format player is also copied in the same folder of the export video to playback native exported data in case “Native format” is used for exporting.

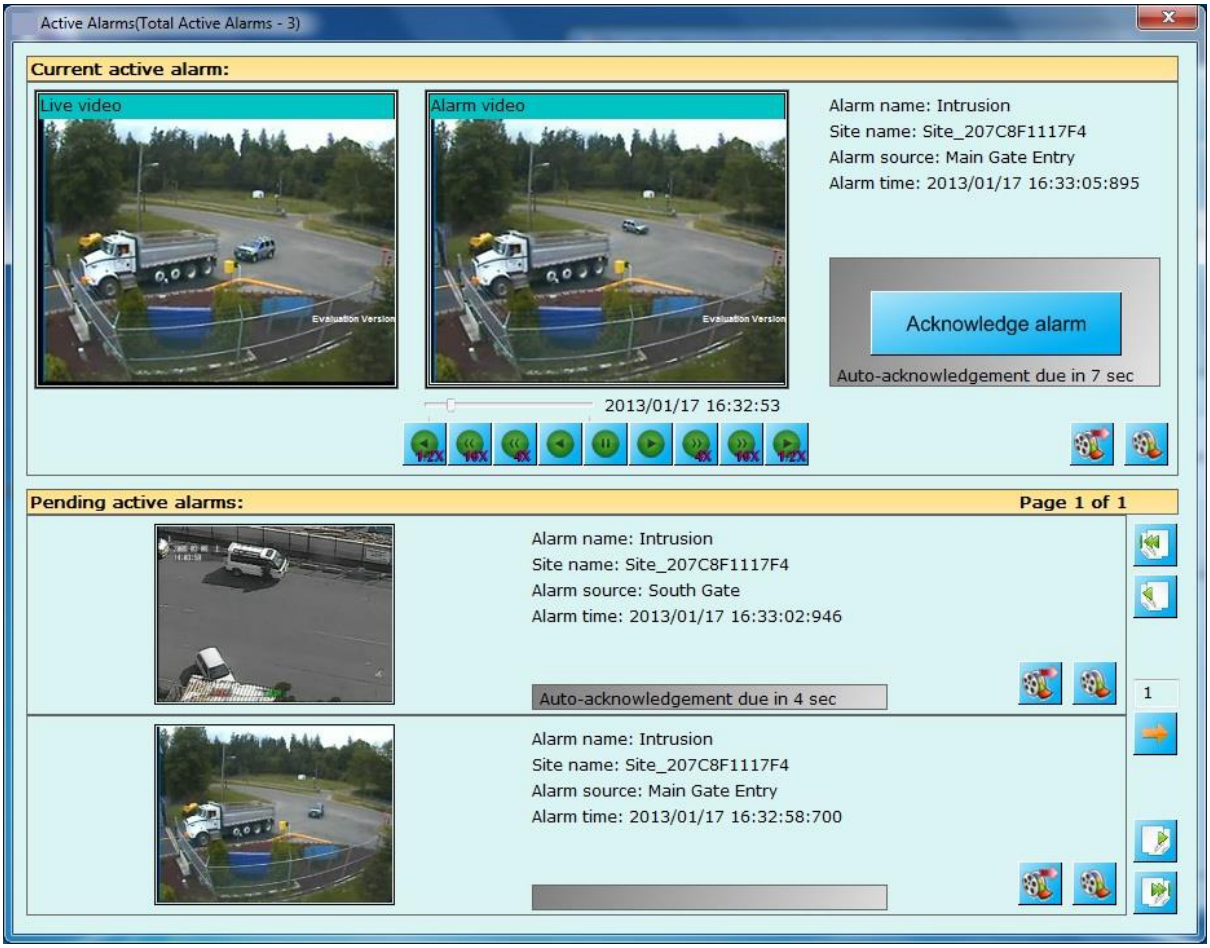
Click on ‘‘Clear alarm list’’ to delete all alarms from alarm list.

3.7 Active alarm screen

This screen shows all the active alarms that are currently present in the system. The window plays live video and alarm video for each active alarm in the list.

There are two sections in this window.
Current active alarm- for which system needs user's attention or input
Pending active alarms – all pending alarms stacked in queue, waiting for user's attention or input after current active alarm is processed.

For every alarm item in the list, user can pop up separate playback screen and export video for particular alarm in standard or native format. Please note – there is only one extra playback screen for all active alarms in the list.

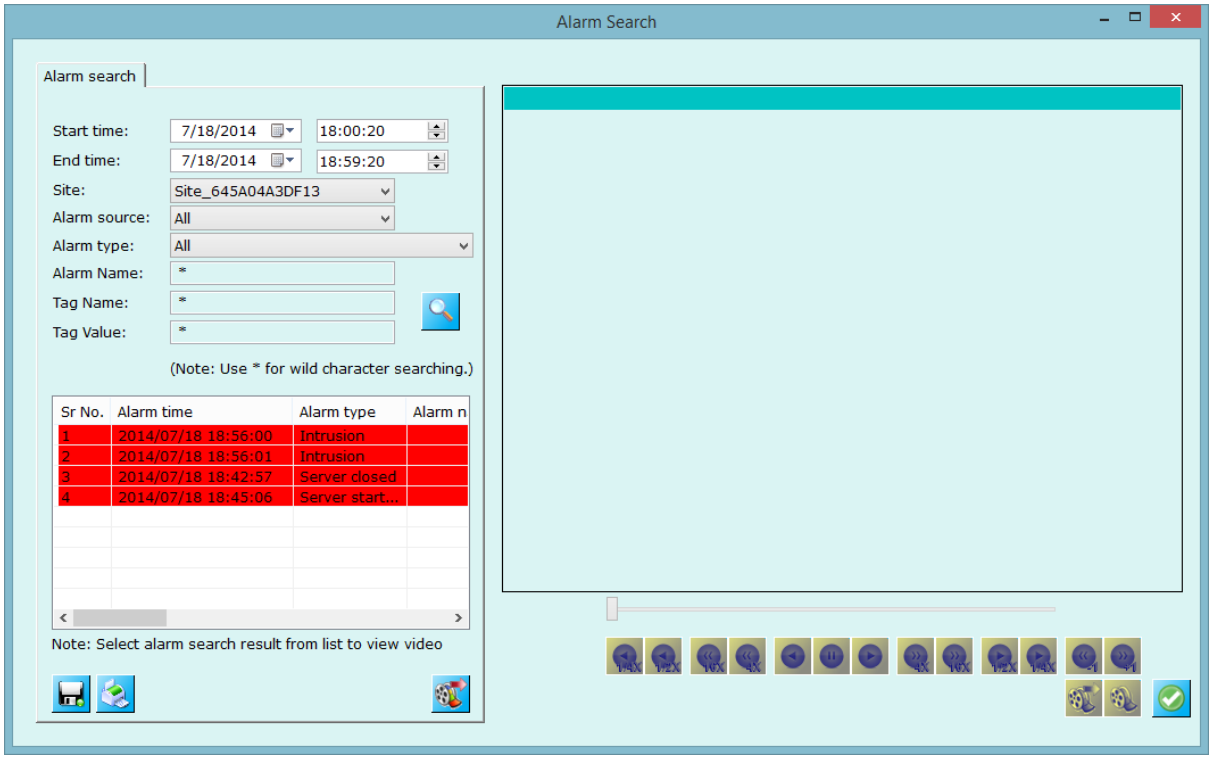


3.8 Alarm search screen

Search screen allows user to search the history alarms of the system. User can configure the time frame of the desired search, source of the alarm, type of the alarm, and alarm name (alarm name – can be a wide character string).

Click on button to search alarms meeting configured criteria.

Click on any alarm from the list and search window show corresponding video of the alarm at right portion of the window. You can control the speed of video stream display with the navigation buttons.



'Save search' saves the search results in standard format like XML or CSV or text file.

'Print' – prints the searched alarms list.

Use button present below in the list control to export all the alarms present inside the list.

'Export Video' button (below the alarm video – right hand side) will take you to the export tab (see image at below page) and can save the video which can be played back with the standard media players like Windows media player or VLC.

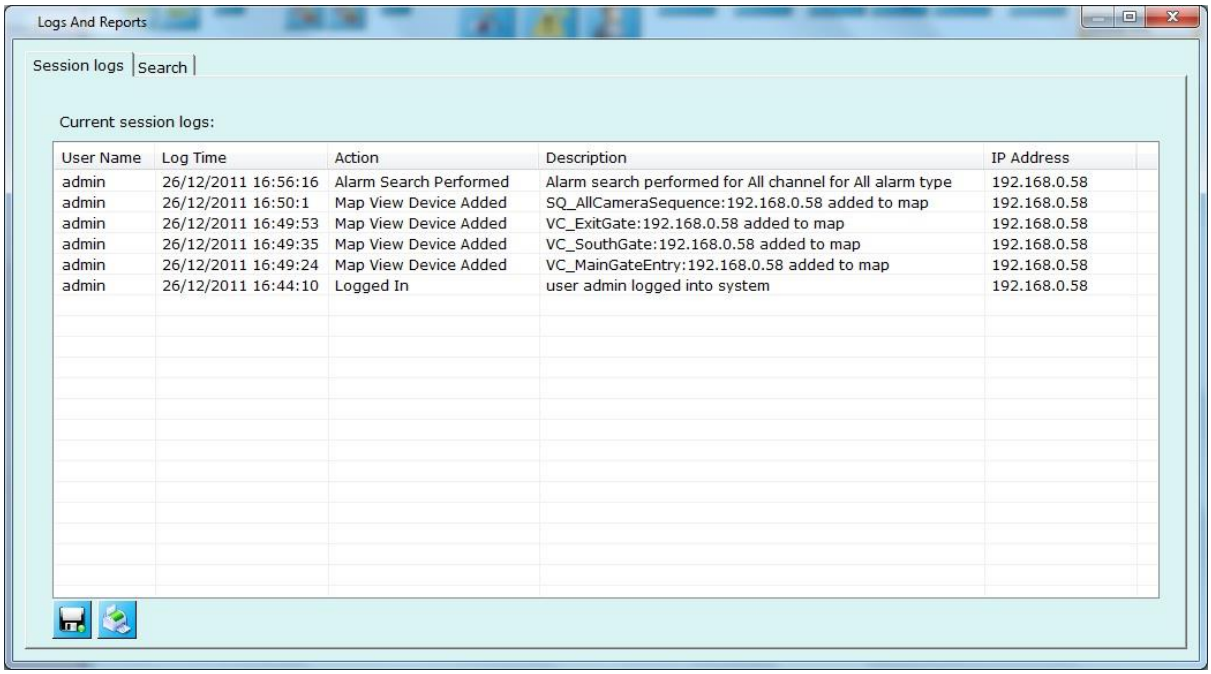
'Playback View' button will popup separate playback video screen to show alarm video. Here in this screen (separate playback view), user can also add other video channels to playback.

3.9 User logs screen

User activities in the current session can be seen from this window. This window has two tabs. ‘Session logs’ – which displays activities that happened from the application startup and ‘Search’ tab – where user can configure the search parameters and see the activities.

Each log includes user name, log time, action performed, its description and IP address of the machine from where the action is performed. So this way application lists all the activities that happened from local machine or remote machine.

3.9.1 Session logs

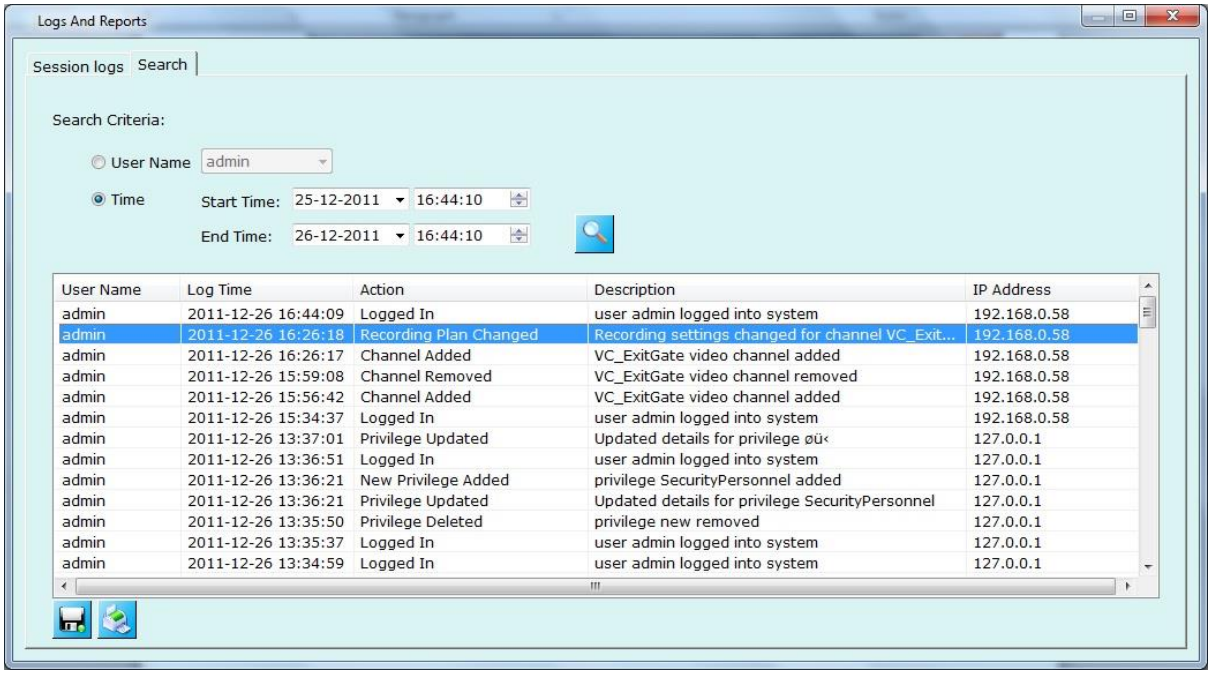


‘Save search’ saves the session logs in standard format like XML or CSV or text file.

‘Print’ – prints the session logs.

3.9.2 Search logs

User can anytime search for the activities that happened in some time frame or the activities performed by any user



User Name	Log Time	Action	Description	IP Address
admin	2011-12-26 16:44:09	Logged In	user admin logged into system	192.168.0.58
admin	2011-12-26 16:26:18	Recording Plan Changed	Recording settings changed for channel VC_Exit...	192.168.0.58
admin	2011-12-26 16:26:17	Channel Added	VC_ExitGate video channel added	192.168.0.58
admin	2011-12-26 15:59:08	Channel Removed	VC_ExitGate video channel removed	192.168.0.58
admin	2011-12-26 15:56:42	Channel Added	VC_ExitGate video channel added	192.168.0.58
admin	2011-12-26 15:34:37	Logged In	user admin logged into system	192.168.0.58
admin	2011-12-26 13:37:01	Privilege Updated	Updated details for privilege øü‹	127.0.0.1
admin	2011-12-26 13:36:51	Logged In	user admin logged into system	127.0.0.1
admin	2011-12-26 13:36:21	New Privilege Added	privilege SecurityPersonnel added	127.0.0.1
admin	2011-12-26 13:36:21	Privilege Updated	Updated details for privilege SecurityPersonnel	127.0.0.1
admin	2011-12-26 13:35:50	Privilege Deleted	privilege new removed	127.0.0.1
admin	2011-12-26 13:35:37	Logged In	user admin logged into system	127.0.0.1
admin	2011-12-26 13:34:59	Logged In	user admin logged into system	127.0.0.1

'Save search' saves the searched logs in standard format like XML or CSV or text file.

'Print' – prints the searched logs.

3.10 Search video bookmark screen

Video bookmarked added from video screens can be searched using this screen.

Enter start time and end time for the search.

Select site from the available options.

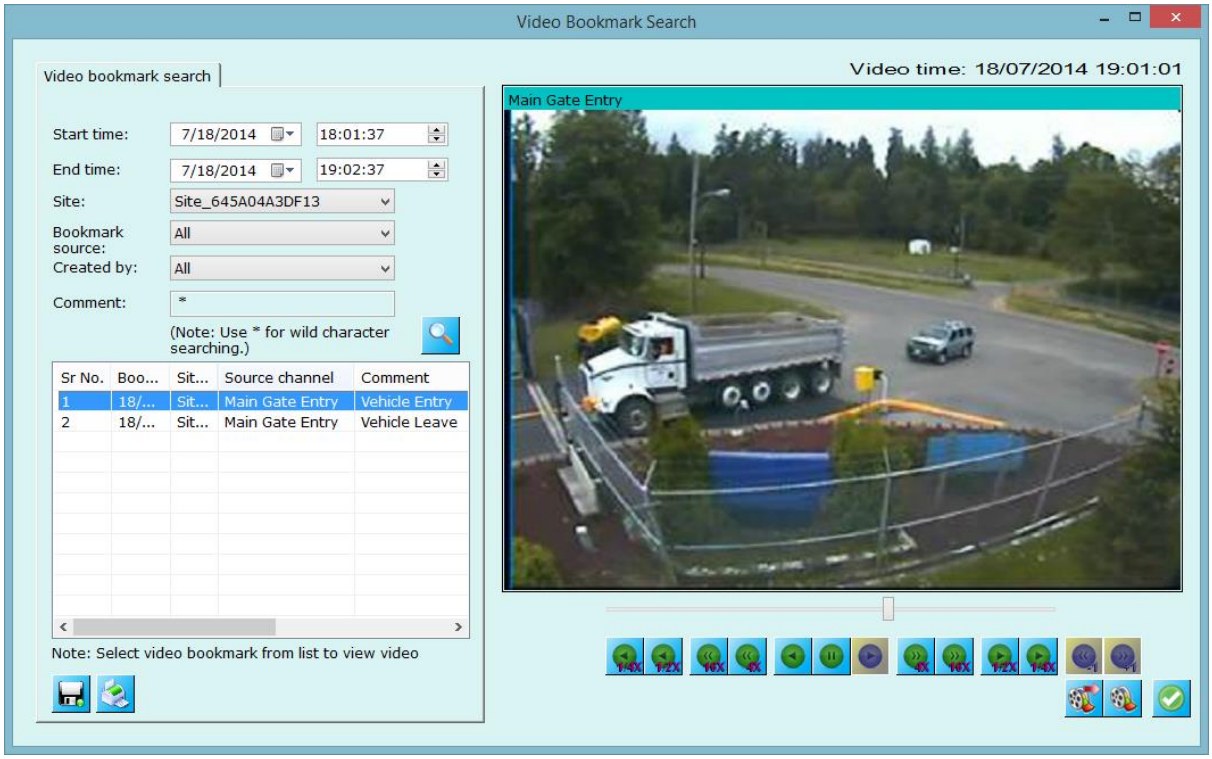
Select bookmark source (video camera name on which bookmark is created)

Select ‘Created by’ – user who created video bookmark

Add bookmark comment for which search is to be initiated. Wild card character search is supported so that you can use * to search.

Click on button to search bookmarks.

E.g. all bookmarks with comment starting from ‘Vehicle’ can be searching using ‘Vehicle*’ as comment. The application will show all bookmarks within configured start and end time and other parameters whose comment has ‘Vehicle’ as first word.
You can use * to search all the comments.



Click on any searched video bookmark from the list, corresponding video is played at right hand side control. You can do playback operation on this video. This video will be played in a loop until user pause it or select other video

Use buttons for exporting currently playing bookmark video or to open playback screen to play bookmark video.

Use buttons to save the searched report to standard format like text, csv or xml and to print the report respectively.

3.11 Offline data viewer

Offline data viewer opens ‘Native player’ application to playback the offline data. This player is present at the path where user had asked application to store offline data (archive data) or export data (in case of video export in native format)

Please note – Offline data – the same data that user has archived from ‘Data management -> Manual’ or ‘Scheduled’ tab.

Click on “Browse” button to browse to offline data viewer path.

Click on ‘Go’ button to start playback.

Click on ‘Cancel’ button to close this window.

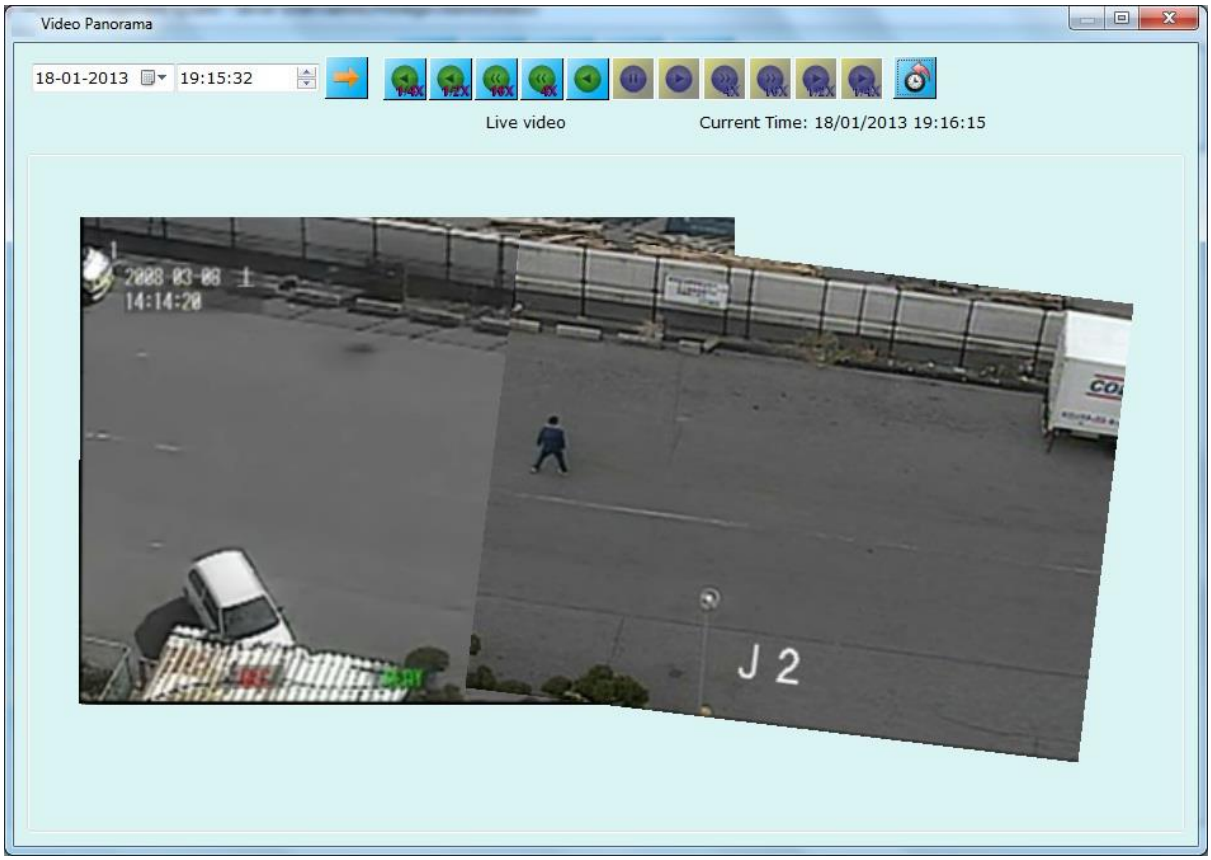
3.12 Video panorama screen

Once you have configured adding cameras to video panorama configuration and stitching them (*please refer **Video panorama section** on how to add cameras and stitch them for video panorama configuration),* this screen should be used to play panorama on **live feeds as well as playback feeds.**

Use playback control navigation buttons to manage playback speeds. Start playback from specified time by configuring start time and clicking button.

Use button to switch to instant replay mode so that screen will display video panorama for instant replayed videos.

Use button (*not shown in the screen as screen is playing live video)* for switching to live feed from playback feed.



3.13 Export screen

One or more cameras video exports can be initiated using this screen.

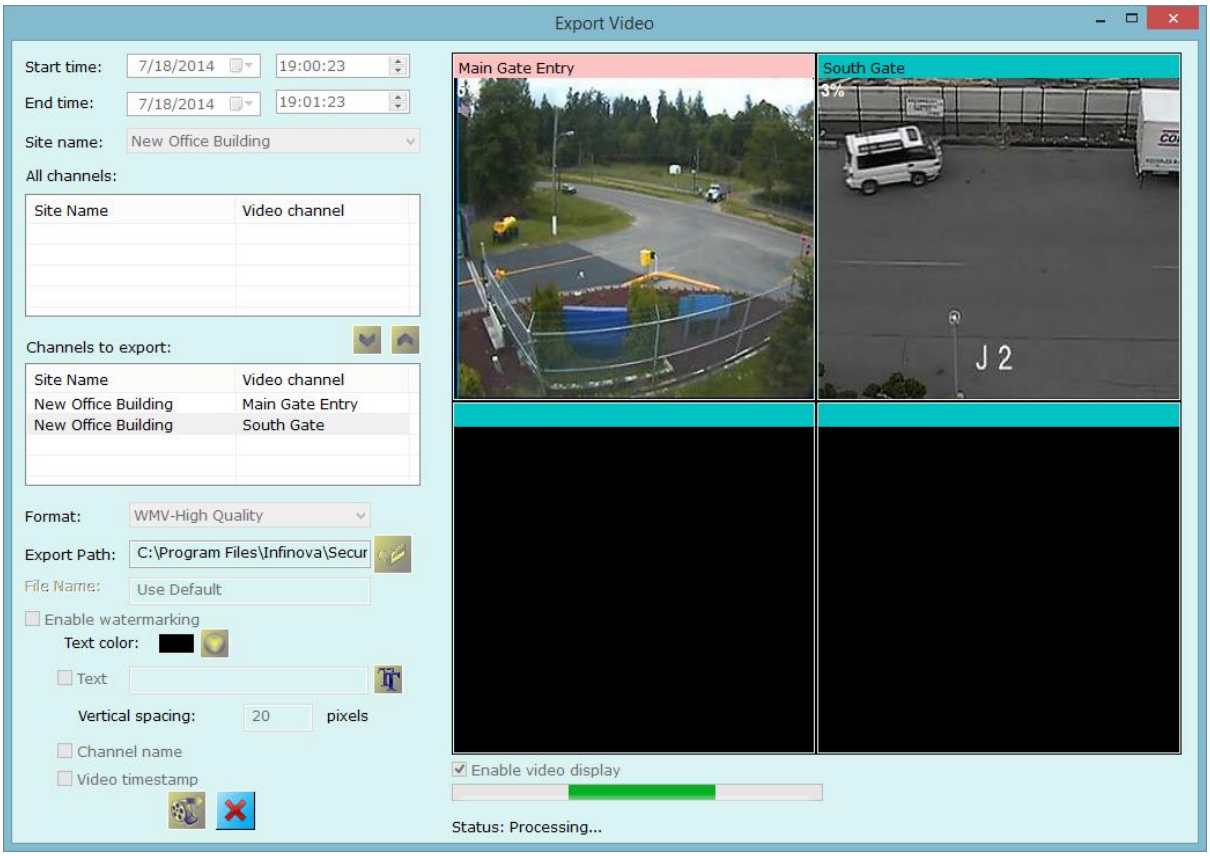
Configure start time and end time.

Channels can be selected from ‘All channels’ list and added to ‘Channels to export’ list using button. Channels from ‘Channels to export’ can be removed using button.

Select video export format – it can be one of WMV-High Quality, WMV- Standard quality, or native export.

Enable watermarking if needed. If enabled, configure color to be used for watermarking video, text to be used, channel name and timestamp watermarking on/off.

Click on button to start exporting selected channels.



‘WMV-High Quality’ – saves video at high quality. Size of the output file is larger.

‘WMV-Standard Quality’ – saves video at standard quality. Size of the output file is smaller.
‘Native format’ exports video in custom format which is used by the application for recording. A separate video player will be made available at the same path of the exported data to playback this native format video.

User defined text along with channel name and video timestamp can be embedded on exported video, enable ‘Enable Watermarking’ setting to embed text on exported video.

3.14 Object Counting Reports

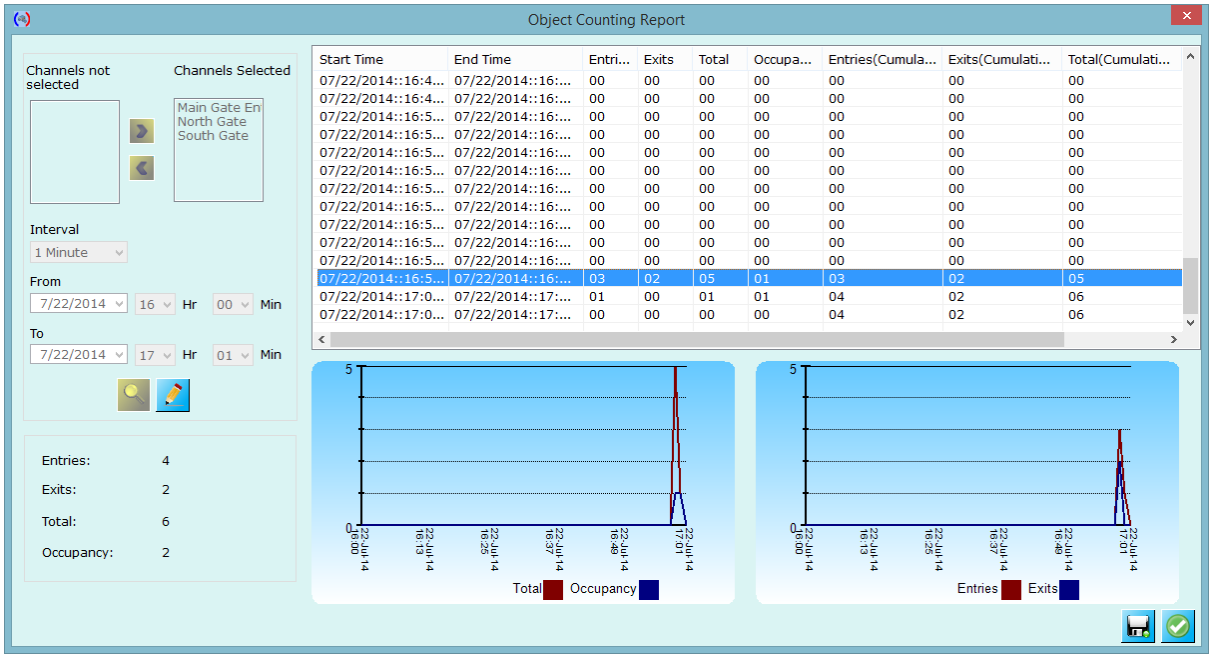
Object counting is one of the several video analytics features available in Security Management System's built-in video analytics module.

Object counting feature works as a real time people traffic measurement and analysis system for business intelligence solutions. It provides precise data on people entry and exit activities that allows users to make strategic decisions necessary to improve business performance.

This screen provides search ability for object counting logs.

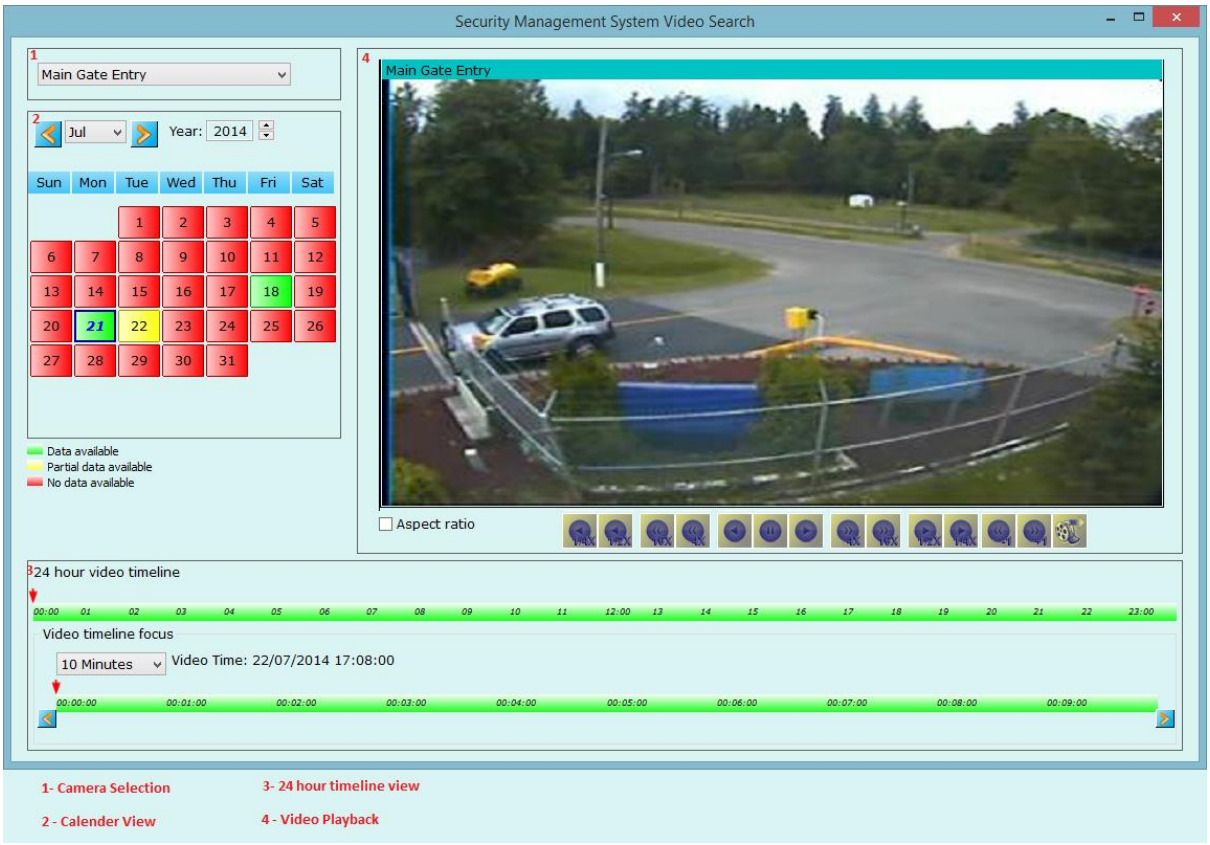
User can select desired channels to be search, interval to be searched.

Click on button to search object counting reports meeting configured criteria.



3.15 Video Search

‘Security Management System’ provides ability to analyze recorded data over the period of time for all video cameras configured in system also you can view playback for selected camera and export video data.



Camera Selection

You can select camera from dropdown list for which you want to analyze the recording history

Calendar View

Calendar view provides entire month recording history for selected channel and selected month.
Calendar view indicate recording history in following indicators,

Select on ‘Day’ in calendar to view details of selected day in 24 hour timeline.

Green status of day in calendar view indicates video recording is available for entire day.

Red status of day in calendar view indicates video recording is not available for entire day.

Use ‘Next Month’ and ‘Previous Month’ months to navigate to next and previous months.

24 Hour Timeline view

24 hour timeline view displays video recording data for selected day from calendar view.
‘Video timeline focus’ display minute details up to 10 and 30 minutes.

Click on timeline to view recorded data for selected time.

Video Playback View

You can view and export recorded data from playback view.

3.16 License Information

Shows license information of this application, contains license holder name, shows number of channels supported in this license, and allow you to update new license.

3.17 Help

- Help button popups this file.

3.18 About

- About box displays the product information.

3.19 Lock Server

Lock server – closes all windows except main screen window and locks the system. To access the system again, you need to unlock it using the password of logged in account.

End of the document.