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# 1. Spotter User Guide V9



**Next** 



# 2. Introduction

Mirasys Spotter is a modern, easy-to-use application for viewing live and recorded video and exporting video clips.

Mirasys Spotter can be used to create multi-monitor configurations with multiple independently operating device tabs and windows.

A spotter can also be used to connect to multiple different VMS Servers simultaneously.

Spotter supports camera tours, alarms, audio, and I/O feeds, text channels, the opening of video archives and clips, as well as layouts for storing and accessing desired configurations.

A spotter is expandable with various plug-ins like Agile Virtual Matrix (AVM) video matrix option (add-on).

This feature's availability depends on the VMS type you have purchased (Base, Pro or Enterprise). Only the Enterprise Plus version contains all features.



# 3. Installing Spotter

A spotter is installed with other applications when the standard VMS installer is used.

If a user wants to install only the Spotter client, he can use the dedicated Spotter-only installer.

A spotter is also available as a standalone executable file (SpotterPlayer.exe), which does not require installation.

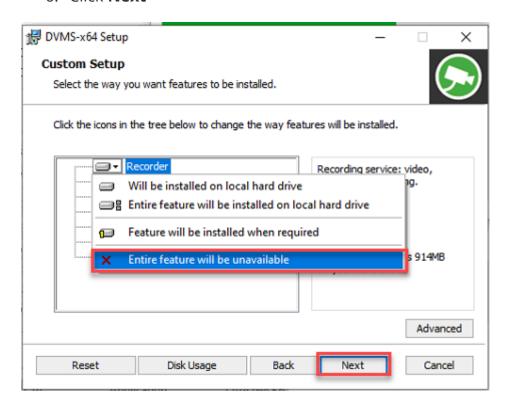
This version of Spotter can be used to review video clips, Storyboard clips and video archives.



# 3.1. Installing Spotter With VMS Installer package

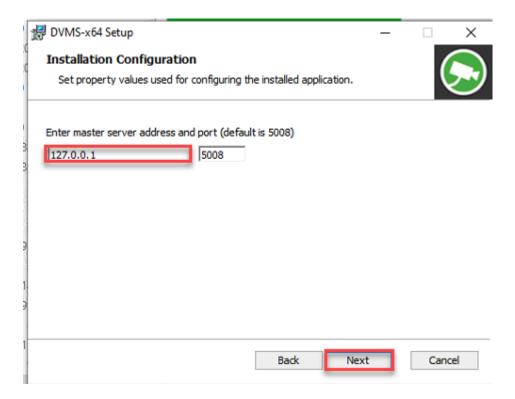
The spotter can also be installed as part of the standard VMS installation package.

- 1. Start the installation by clicking Complete installation package
- 2. Click **Install**
- 3. Click Next
- 4. Use the default destination folder and click **Next**
- 5. Set **Recorder** component to **Entire feature will be unavailable**
- 6. Click **Next**



7. Enter the master server address and click **Next** 





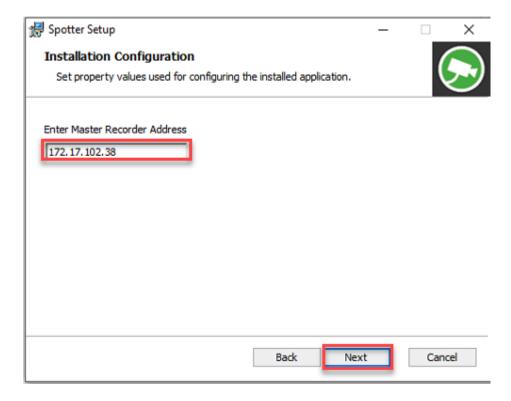
- 8. Click Install
- 9. Click Finish
- 10. Click **Close** to finalize the installation



# 3.2. Installing Spotter With Spotter-Only Installer

The Spotter-only installer installs only the Spotter application.

- 1. Click **Install**
- 2. Click Next
- 3. Use the default destination folder and click Next
- 4. Enter the master server address and click Next



- 5. Click **Install**
- 6. Click **Finish**
- 7. Click **Close** to finalize the installation



# 3.3. Using Spotter From Outside A Firewall

The recommended way to use Spotter from external networks or through a public Internet connection is to establish a VPN connection to the company intranet.

This way, the Spotter application outside the firewall can use the intranet IP address of the Master Server and video recording VMS Servers (slaves).

It is also possible to use the VMS system without a VPN.

In this case, the user should connect to the Master Server with the outside IP address and port combination.



# 4. Starting Spotter and Logging In



A spotter is started by double-clicking the Spotter icon on the desktop.

It is also possible to start Spotter automatically when the computer boots up.

See more from <u>Installing Spotter With VMS Installer package</u>

It is possible to create shortcuts that control to which Master Server Spotter connects.

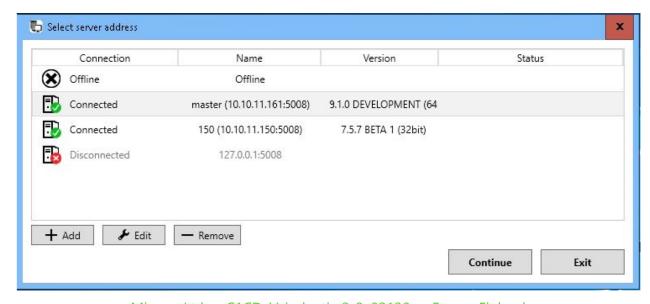
The application launcher dialogue for site selection can be accessed by pressing the "Delete" button on the initial dialogue when the spotter is launched as administrator.



The site selection list contains the list of all the master servers that have been configured.

More servers can be added or the details of existing servers edited with the add and edit options.

Users can choose a server and press "Continue" to log in to that server.





If the site selection screen is not accessed during Spotter startup, the system will log in to the last server used.

It is possible to log in to different versions and servers that are 32-bit or 64-bit versions.

The settings and other site-specific information and resources for different servers are stored separately.

After choosing a server and continuing, the login screen is shown (unless the user has selected automatic login for this server).



The user can enter here his/her username and password and then press "Continue" to log in.

It is possible to have multiple Spotter windows logged in to different servers simultaneously.

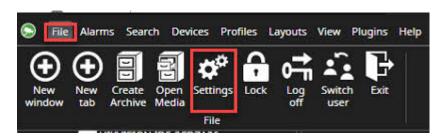
After logging in to one server, the user can re-start Spotter from the desktop icon, enter the site selection dialogue and select another site.

All site-specific operations such as layout saving only affect the Spotter settings to which the user is logged.

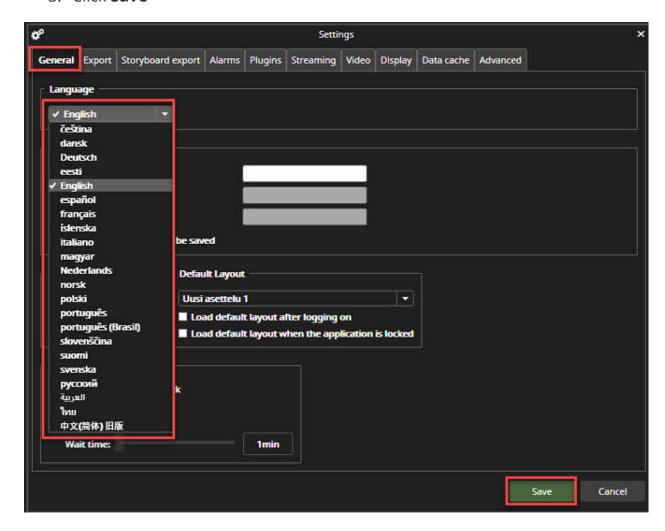


# 5. Changing the Spotter language

1. Click File\Settings



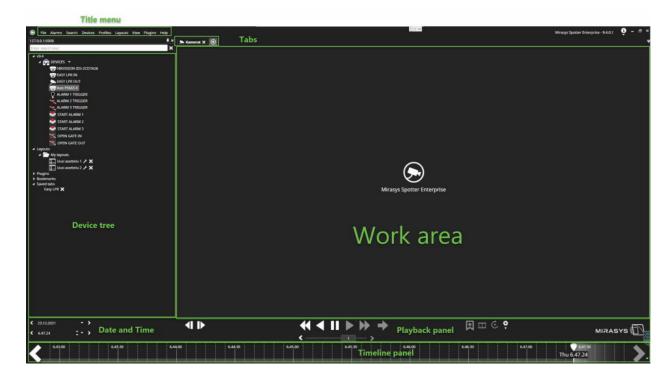
- 2. Select a correct language from the drop-down list
- 3. Click Save





# 6. Spotter UI

Here you can see an overview of the different Spotter user interface components.





# 6.1. Title Menu

# **File**

# Various functions can be accessed from the File menu.

#### **New Window**

New Windows opens independent Spotter Window, which can be dragged for example to another monitor.

#### New tab

A new tab creat a new device tab in the work area.

#### **Create Archive**

See more from **Create Archive** 

### **Open Media**

The opening created archive or media clip

#### Settings

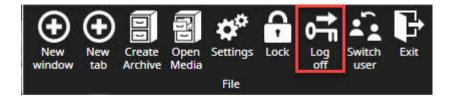
See more from **Settings** 

#### Lock

The user can manually lock and log off Spotter from the File menu.

#### Log off

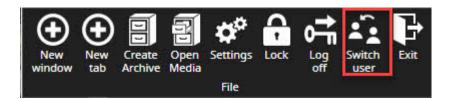
Using Log off, users can end the Spotter session and go back to the login screen.



#### Switch user

Switch user option allows change logged users without logoff.

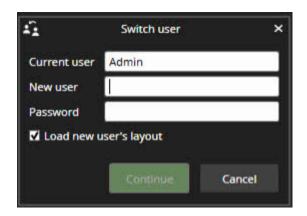




When the **Switch user** is selected, the current user is shown.

- 1. Enter a new username and password
- 2. Click Continue

#### As default new user's layout is loaded



#### **Exit**

• With the Exit, the user can close the Spotter application

## **Alarms**

See more from <u>Alarm Management</u>

## Search

See more from **Search Tools** 

# **Devices**

### **Input devices**

You can use any DirectX compatible joystick as a control device.

A joystick can be fully configured, and each button can be assigned a customizable function.



Before a joystick can be taken into use, it needs to be configured, first in Windows, then in Spotter.

To calibrate a joystick in Windows, open the Control Panel and find "Set up USB game controllers" under "Devices and printers".

Follow the instructions on calibrating the joystick.

After calibration, start Spotter and open the "Input devices" option in the Devices menu.



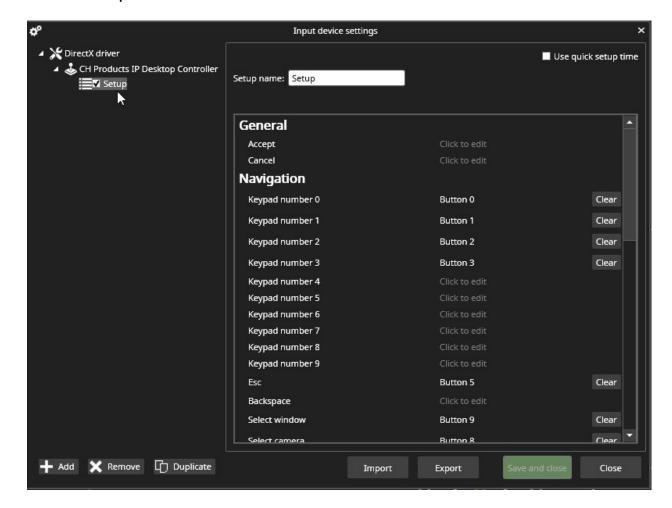
If the "Setup" line item is not visible, add it using the "+ Add" button.

Now you can configure the joystick buttons and motion axis and map them to Spotter actions.

Any button combination can be used, so multiple button presses can be used to do different things compared to single button presses.

The option "Use quick setup time" disables the "configuration timer" that runs from 0 to 100% when pressing a button.





## **Profiles**

Profiles contain all profiles, which has been added to the user group

# **Layouts**

### **View**

### View-tab contains view options for:

- Zoom
- Edit Custom grids
- Playback
- Timeline
- Device tree
- Description
- Alarms
- Storyboard



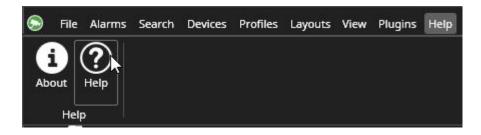
- Tabs
- Auto Hide

# **Plugins**

See more from **Plugins** 

# Help

Spotter contains built-in help. The help is accessible from the Help menu or by pressing the F1 key.



Help contains information on new features and valuable things like keyboard shortcuts and links to view training videos.



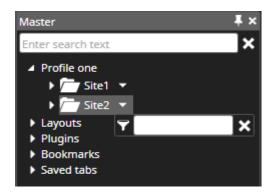
# 6.2. Device Tree

The Device tree title shows the name of the Master Server that Spotter is connected to.

Below is a search field that can be used to filter the tree contents.

Any text entered in the area can be removed with the "X" control or by pressing the Esckey.

This also clears all profile folder searches.



The Device tree contains five different types of content that can be opened to the work area.

## **Profile**

The currently selected profile, which includes the cameras and other devices, is the first item.

The shape can be changed from the title menu.

Each profile folder can be searched independently using profile folder search.

## Layouts

Contain all the available layouts for the current user if configured.

# **Plugins**

Contains all plugins, which are enabled in the master server license

-

## **Bookmarks**

Contains all specific user saved and shared bookmarks



#### Saved tabs

Contains all tabs, which the user has saved.

### **Device states**

When the device is in another state, for example, no signal, connecting, and connection, there is an icon on top of the device symbol.



### **Alarms**

If a device is used as a trigger or an alarm action in an active alarm, it has a yellow highlight colour.

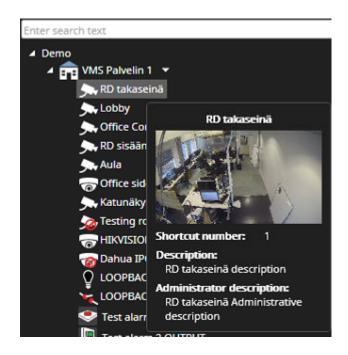
The colours for active and ended alarms can be adjusted in the **Alarm Visualization Settings** 

Alarms can also be assigned a custom colour that can be specified for each alarm separately.

# **Device name and descriptions**

The name and description are visible in the device tooltip—unique icons for the System Manager Profile Settings devices.





#### **Frequently Used Keyboard Shortcuts:**

| Shortcut   | Description  |
|------------|--|
| Ctrl+Alt+D | Cycle between the different device tree view modes |

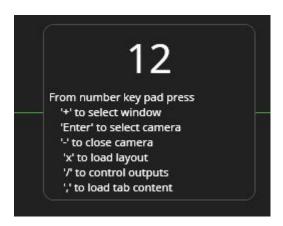


# 6.3. Device Numbering

The shortcut numbers for cameras are assigned via the system manager at the profile level.

The configured keyboard shortcuts can be accessed anywhere in Spotter by using the numeric keypad.

The entered numbers show up in a popup dialogue.



The dialogue can be positioned anywhere in the Spotter window, and it will remember the set location.

When the following Numpad keys follow the numbers:

- Enter: The camera is opened.
- Double-Enter: The camera is opened and maximized, and if a PTZ camera, the PTZ control is assumed.
- "+": Spotter window is selected.
- "-": the camera is closed.
- "/": layout is loaded.
- ",": saved tab is loaded.

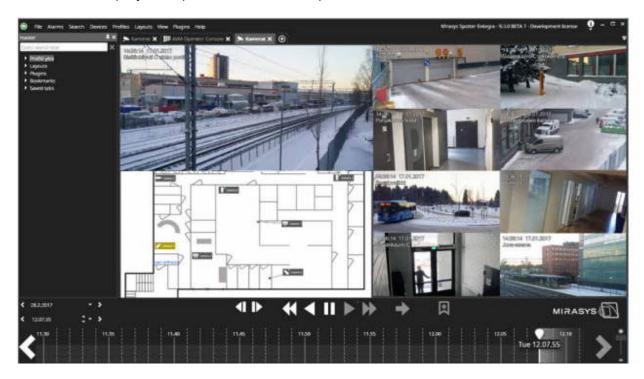
The device numbering settings can be exported and imported to another PC. The import works only if the same profile is active.



# 6.4. Work Area

The work area is the region of the Spotter window where the content of the devices can be viewed.

When cameras and other devices are added to the work area, they automatically open the stream to the playback position or the live position of the work area.





# 6.5. Playback panel



With the playback buttons, the user can choose the direction and speed of the playback.

With each mouse click, the speed can be increased (**left click**) or decreased (**right-click**).

The speed is indicated with a small number on the button.



Very low speeds 1fps, 0.1x, 1/8x, 1/4x and 1/2x are accessible only with the slider or by clicking with mouse right button on the playback button to reduce the speed.



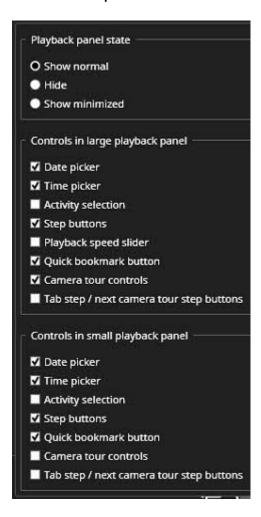
If the user wants to go to real-time mode, there is a "Go to current time" button.

## Playback panel controls

Using the small arrow to the right of the playback panel, the user can configure which controls are displayed in the two available view modes for the playback panel.







### Playback panel state

- Show normal
- Hide
- Show minimized

## **Controls in large playback panel**

- Date picker
- Time picker
- Activity selection
- Step buttons
- Playback speed slider
- Quick bookmark button
- Camera tour controls
- Tab step / next camera tour step buttons

### **Controls in small playback panel**



- Date picker
- Time picker
- Activity selection
- Step buttons
- Quick bookmark button
- Camera tour controls
- Tab step / next camera tour step buttons

The only control that is not available in minor view mode is the Speed slider.

### **Date And Time Controls**



The date and time controls show the selected date and time.

The user can change the date by opening the calendar.



The buttons left and the date adds or subtract one day from the currently shown day.

It is also possible to click on the date box and enter the date manually.

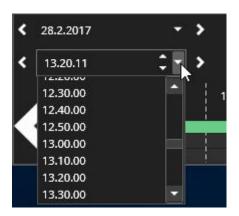
The buttons left and right of the time add or subtract one hour.

Like with the date selector, it is possible to click on the time box and manually enter the time box.





It is also possible to quickly set time with 10-minute accuracy using the pulldown menu.

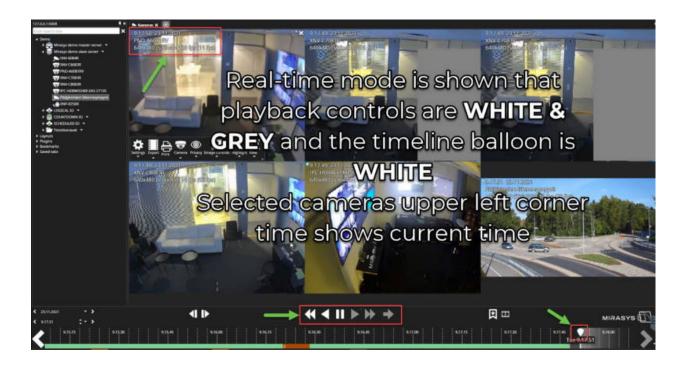


# **Frequently Used Keyboard Shortcuts:**

| Shortcut   | Description   |
|------------|---|
| Ctrl+Right | Set playback time +30 seconds.  |
| Ctrl+Left  | Set playback time -30 seconds. If in real-time mode, switch to playback mode first, and set 1x speed. |
| Ctrl+Space | Pause playback.   |
| Ctrl+Enter | Go to real-time.  |
| Ctrl+Alt+C | Cycle between different view modes.   |



# 7. Real-time mode





# 7.1. Opening single camera or device

# **Opening single camera or device**

- Double click camera from device tree
- Drag camera from device tree to the work area



# 7.2. Opening device group

# **Opening device group**

- Double click device group from device tree
- Drag device group from device tree to the work area



The camera name and timestamp are shown on the top left corner of the camera.

The visibility and colour of the name and the timestamp can be controlled from **Spotter\File\Settings\Display** or the **Camera toolbar\Settings\Display** 

The camera recording indicator is a small blue dot next to the timestamp.

It is displayed when the camera is recording.

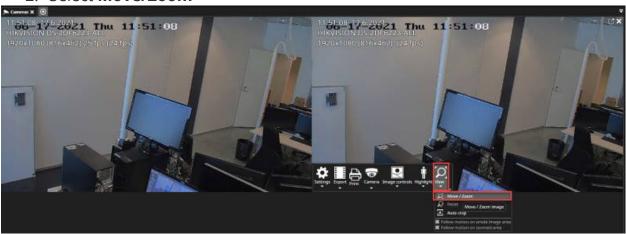


# 7.3. Virtual Cameras

- 1. Open camera to the real-time view
- 2. Open camera toolbar
- 3. Select Camera
- 4. Select Duplicate



- 1. Open View
- 2. Select Move/Zoom



Mouse wheel movements will make the virtual camera rectangle larger or smaller. The size can also be adjusted by dragging the edge of the rectangle with mouse and left-click.

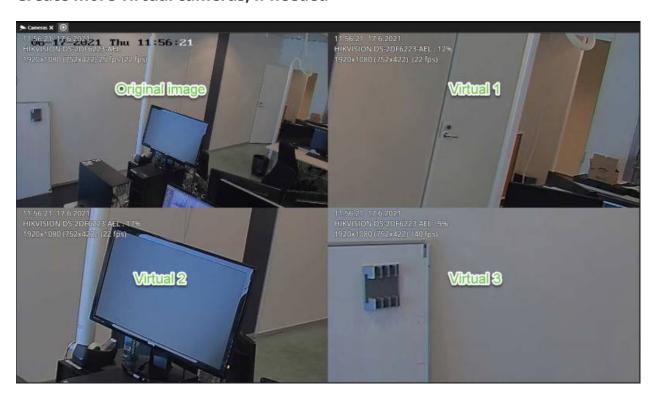


The size will also change from the keyboard "page up" and "page down" buttons.

- 1. Draw zoomed area
- 2. Click **OK**



#### Create more virtual cameras, if needed



#### **Frequently Used Keyboard Shortcuts:**



**NOTE:** Only when in virtual camera editing mode.

| Shortcut    | Description                                   |
|-------------|---|
| Arrow left  | Moves the red box to the left.                |
| Arrow right | Moves the red box to the right.               |
| Arrow up    | Moves the red box up.                         |
| Arrow down  | Moves the red box down.                       |
| Page Up     | It makes the box more significant (zoom out). |
| Page Down   | It makes the box smaller (zoom in).           |



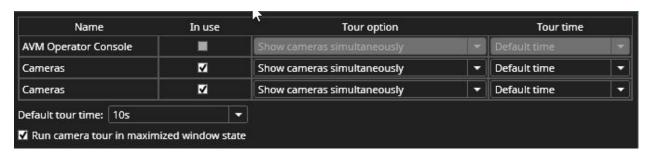
#### 7.4. Camera Tour Controls

Camera tour controls can be configured to be seen in both standard and large view mode playback panels.



Control is enabled when there is more than one tab open in Spotter.

Settings are opened from the "Cogwheel" icon. There is a row for each tab. Particular tabs like plugin tabs have disabled functionalities and are by default disabled.



After each tab, there is an option to enable or disable the tab. All tabs can be added to a tour if desired.

There are two options for the Tour. The user can either show cameras simultaneously or show cameras one by one.

If devices are shown one by one, it is possible to have a tour with just one tab.

The tour time can be selected at the last row individually, or the user can set a default time and define it at the lower-left corner.

There is also an option to run the camera tour in maximized window state on the lower-left corner. This checkbox is selected by default.



When the tour is running, it is indicated with a rotating orange arrow. The Camera borders are also highlighted in orange.



There is also a counter underneath the controls that counts the time set for each tour step.

The user can also select the forward and backward arrows to move between tour steps.

The tour is stopped if the user selects another operation in Spotter. For example, the image or clip export stops the tour.

Note: A camera tour can also be operated in the Agile Video Matrix (AVM) with the AVM Operator Console. In AVM, the counter is not displayed.

#### **Frequently Used Keyboard Shortcuts:**

| Shortcut      | Description                                     |
|---------------|---|
| F12           | The toggle camera tour starts and pauses state. |
| Ctrl +<br>F12 | Steps to next camera tour view.                 |



#### 7.5. Full-Screen Mode

A single camera can be maximized to cover the whole work area with the maximize control or double-clicking it.

The whole work area of a Spotter window can be made to be full screen by pressing the F11 key or double-clicking the tab control.

The second press of the F11 key (or the Esc key or mouse right double click) will return to the original window size.

#### **Frequently Used Keyboard Shortcuts:**

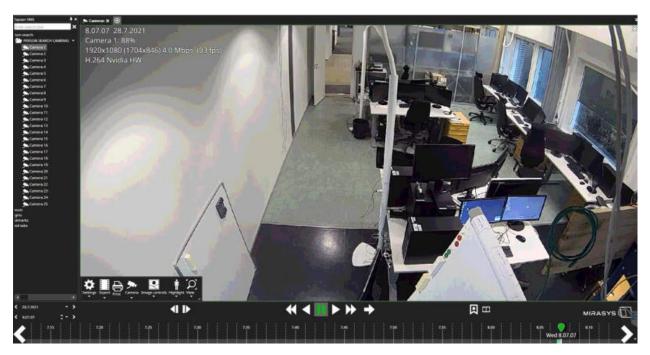
| Shortcut   | Description   |
|------------|---|
| F11        | Maximize the current tab to full-screen size.                       |
| F11 or Esc | Restore maximized tab to average size (when no camera is selected). |



## 7.5.1. A single camera on the device tab

A single-camera can be maximized to cover the whole work area with the mouse **RIGHT** double-clicking it.

The second mouse **RIGHT** double-click returns the original size.







## 7.5.2. Multiple cameras on the device tab

## A single-camera full-screen

A single-camera can be maximized to cover the whole work area with the mouse **LEFT** double-clicking it.

The second mouse **LEFT** double-click returns a single camera to the original size.

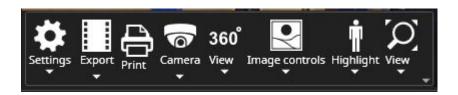
#### **Device tab full-screen**

A whole device tab can be maximized to cover the whole work area with the mouse **RIGHT** double-clicking it.

The second mouse **RIGHT** double-click returns the device tab to the original size.



#### 7.6. Camera Toolbar



The camera toolbar is displayed when the mouse is moved over a camera or if a camera is selected with other means.

If the mouse is not moved for some time, the camera toolbar disappears automatically.

## The camera toolbar can contain the following items:

- Settings
- Export
- Print
- Camera
  - Dome control, duplicate modes
- 360 camera de-warping
- Two-way audio
- Image controls
- Highlight
- View or virtual zoom

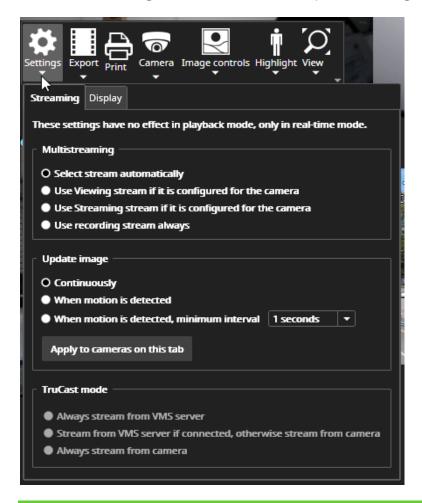


## 7.6.1. Camera Settings

All the camera-specific settings are saved to layouts when a user saves a layout.

See the <u>Layouts</u> of this guide for further information.

The camera settings contain the camera-specific settings for:



# **Streaming**

#### Multistreaming

- Spotter chooses the recording stream automatically (default)
- Use Viewing stream if it is configured for the camera
- Use Streaming stream if it is configured for the camera
- Use recording streams always

#### **Update image**



- Continuously, which draws all images from the camera even when there is no motion detected
- When motion is detected(image is updated only when VMS has detected motion)
- When motion is detected, minimum interval(min. 1 second and max 60 seconds).

Below the image update settings is a button to update the current image update settings for all cameras on this tab.

When a new camera is opened to the work area, the image update settings default to the setting defined in **Spotter\File\Settings\Streaming**.

#### The TruCast

- Always from the VMS server
- Stream from VMS server if connected, otherwise, stream from the camera
- Continuously stream from the camera

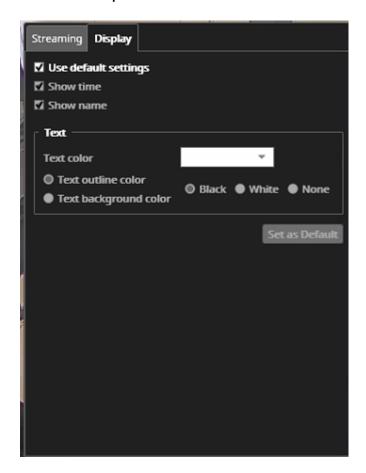
The TruCast settings are remembered for the camera, so even if the camera is closed, the next time it is opened, it will be using the same TruCast settings last time.

## **Display**

The display settings control if the name and timestamp are shown on top of the camera and the colour used for the text and the text outline.

If the user finds a nice colour that he prefers, he can set a new global default for all cameras.







## 7.6.2. Export

See more from the **Export image** 

See more from Add to video export

See more from Add to storyboard

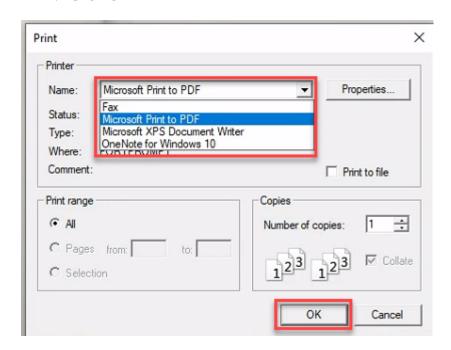


## 7.6.3. Print

- 1. Open camera toolbar
- 2. Click Print



- 1. Select the printer
- 2. Click OK





## 7.6.4. Two-Way Audio

## **Two-Way Audio**

If the camera has two-way audio configured, the menu item becomes active.

Two-way audio can be in three different modes.



In the closed mode, the audio channels are not open.

In the listening mode, the user will hear audio from the camera and any potential audio going to the camera from any other VMS client. The audio channel from the current user is not open.

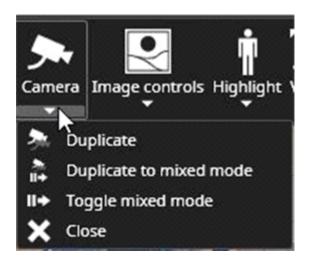
In the talk mode, the user can hear the audio from the camera, and the audio channel from the current user is open, so the audio is broadcasted to the camera.

The toolbar icon has red (to camera) and green (from camera) volume indicators, which show if there is the audio going to or coming from the camera.

The channel volumes can be adjusted from the sliders.



#### 7.6.5. Camera



# **Duplicate**

See more information from Virtual Cameras

# **Duplicate to mixed mode**

The Mixed Playback Mode allows users to review playback on specific cameras while monitoring real-time situations in other cameras and doing this while staying in the same Spotter tab.

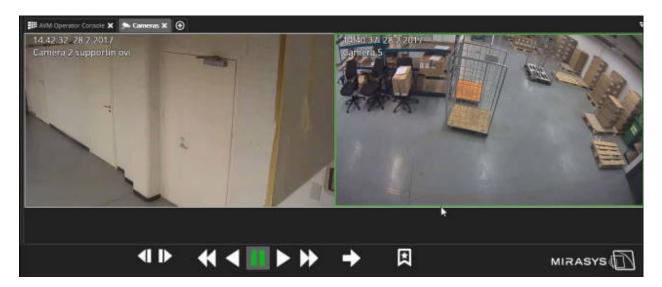
The mode is accessed by pressing the Ctrl key and then selecting cameras currently open on the Spotter screen with a mouse left-click.

The selected cameras will then be highlighted with a thick green border.

The user can select multiple cameras by keeping the Ctrl key pressed and continuing to select other cameras.

The selection is cancelled by clicking somewhere without keeping the Ctrl key pressed.





When some number of cameras are highlighted like this, they are in mixed playback mode.

Other cameras that are not selected are always in real-time.

The cameras in mixed playback can now be controlled with the time slider balloon, the playback controls, or a joystick jog-wheel.

# Toggle mixed mode

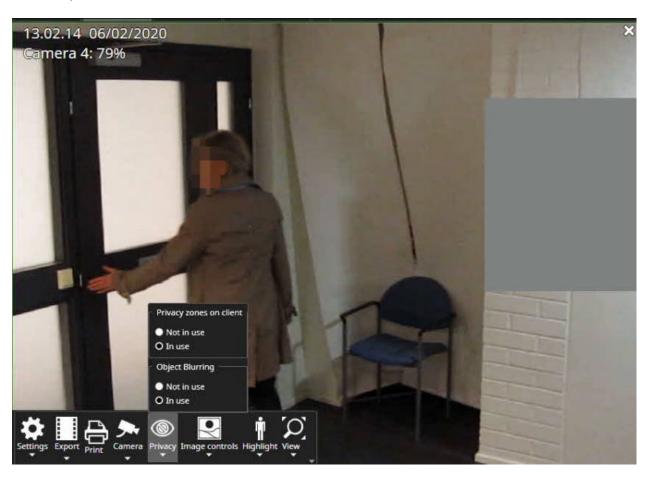




## 7.6.6. Privacy

## **Privacy**

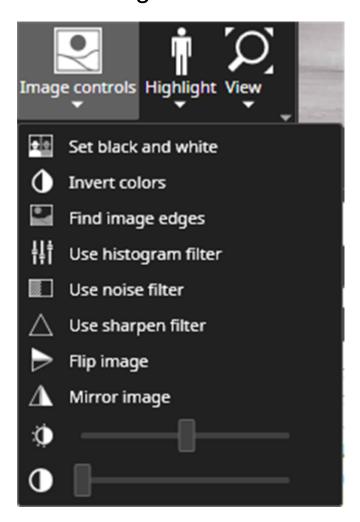
If you have been assigned sufficient permissions, you will also access the "Privacy" menu. In here, you may be given access to turn on/off the privacy zones (if you have sufficient permissions to do this and the functionality has been enabled for the specific cameras).



Examples of facial blurring- and privacy masks that could be disabled from the privacy menu.



## 7.6.7. Image Controls

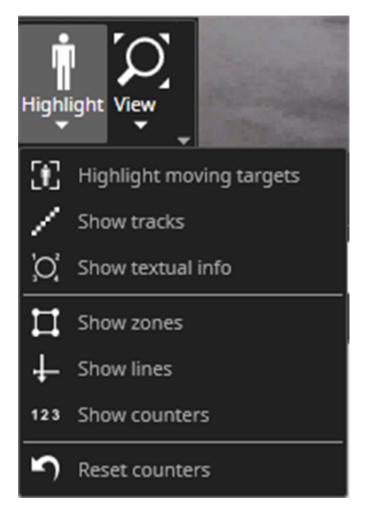


The Image Control plugin has various options to adjust the camera image:

- Option to turn the image into a black and white image
- Invert colours filter
- Edge highlight filter
- Histogram filter (a form of contrast optimization filter)
- Noise reduction filter
- Image sharpening filter
- Image flip (flips the image along the horizontal axis)
- Image mirror (mirrors the image along the vertical axis)
- Brightness adjustment slider
- Contrast adjustment slider



## 7.6.8. Highlight



The VCA highlight menu is enabled if the VMS license has VCA channels, and the VCA is enabled for this camera in System Manager. The menu offers the possibility to:

- Highlight moving objects such as cars and walking persons
- Show the track that the object has taken on the camera screen
- Show textual info shows textual info related to the tracked object
- Show VCA zones and lines after they have been configured using the VCA configurator
- Show a client-only VCA event counter
- Reset all counters on a camera screen

The client-only VCA counters are local to the Spotter application and not integrated into the Mirasys Reporting+ application.

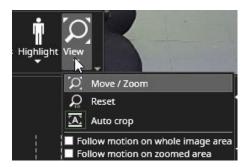
They are meant for short term reporting and can be reset by clicking on the counter on the camera screen.





## 7.6.9. View

# Move / zoom



Read more about **Move / Zoom** from <u>Virtual Cameras</u>

## Reset

#### Reset to the full image



# **Auto crop**

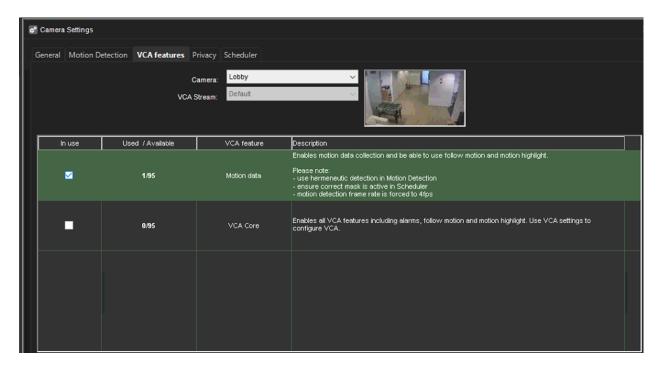
Enables Auto image cropping to the image





# Follow motion on the whole image area

Before **Follow motion on the whole image area** can be used, VCA feature **Motion data** must be enabled from the **VCA features** tab.



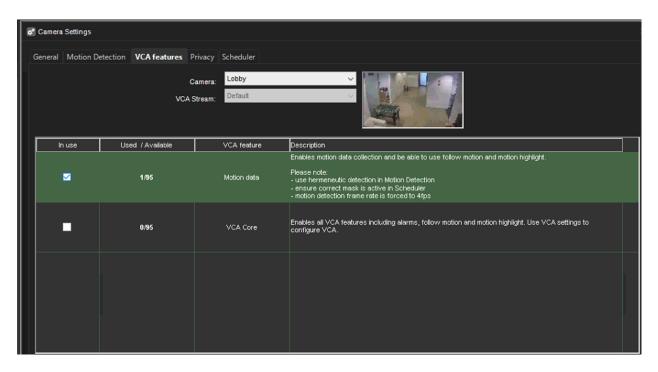


When Follow motion on the whole image area is enabled, then Spotter automatically follows motion in the camera area.



## Follow motion on the zoomed area

Before **Follow motion on the zoomed area** can be used, VCA feature **Motion data** must be enabled from the **VCA features** tab.



When Follow motion on the zoomed area is enabled, then Spotter automatically follows motion in that area of the image, which has been set to the zoomed state.



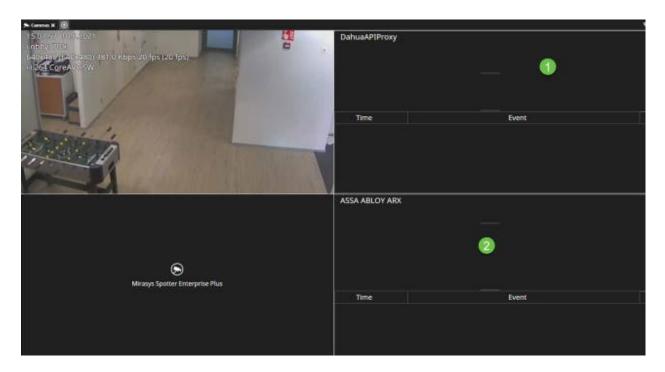




## 7.7. Text channels

When the text channel is opened, the below information is shown:

- Text channel name
- Time of the event
- Event name





#### 7.8. Audio channels

Audio channels have a little blue note symbol indicating that the channel is open.

The channel opens automatically if it is added to the component panel.

Audio channels have a similar pull-down control as outputs to control mute, unmute and volume.



All component panel components, inputs, outputs and audios can be closed from the individual component close controls.



The whole component panel can be closed from the component panel close control.

When the devices are on the grid cell, they can be closed via the usual way with the top right corner "X" control.

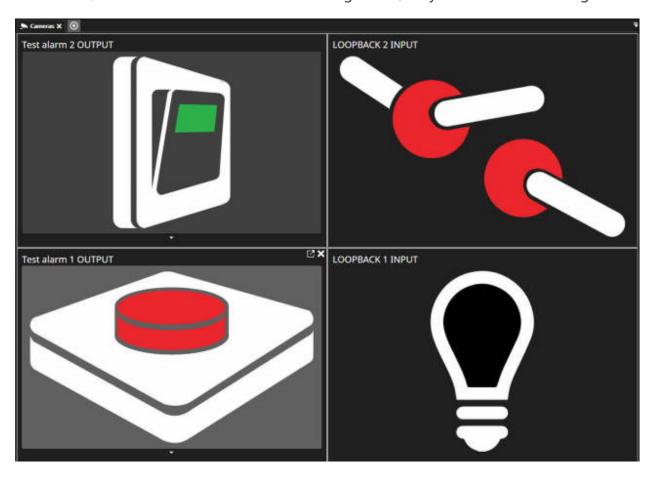




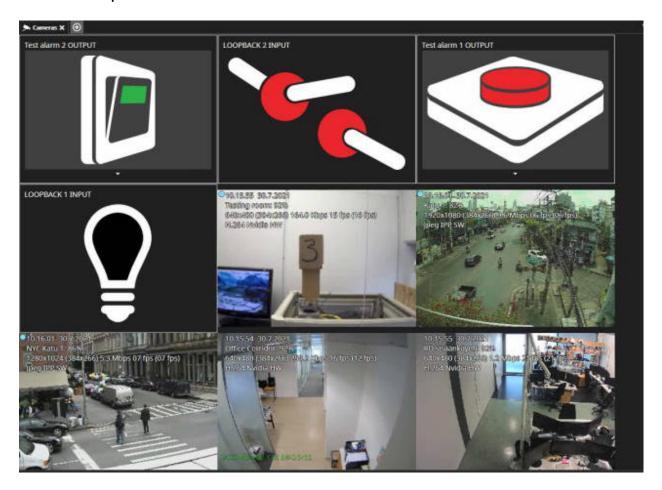
## 7.9. Digital I/O

The component panel width can be adjusted, and it can also be collapsed only to show the I/O control.

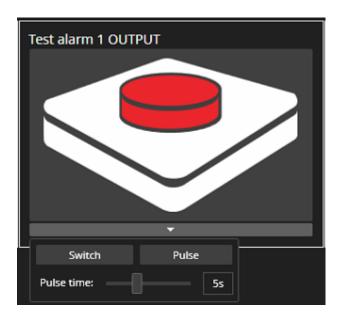
When the I/O devices are added to the camera grid cell, they take over the entire grid cell.







Outputs have a small pull-down menu that allows control of state switch, pulse and pulse duration.



Please note that output states can also be toggled from the device tree by clicking on the output control.



The default action of the outputs is defined in the System Manager – Profiles section.



# 8. Playback mode

When the playback mode is used, Spotter shows always latest recorded time from those cameras, which the user has selected to the view





## 8.1. Start instant playback

- 1. Select camera or cameras from the device tree(double-click or drag to the work area)
- 2. Click the **Play backwards** button
- 3. Change playback speed with the mouse button



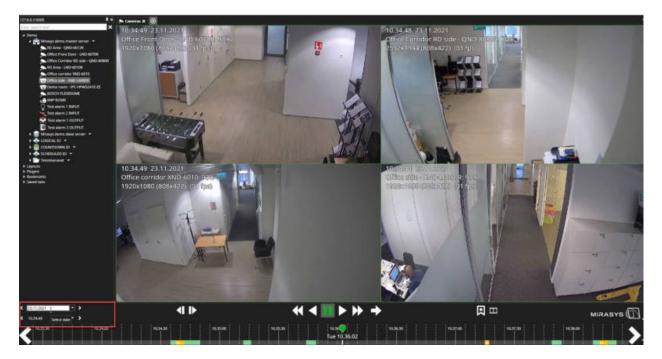






## 8.2. Playback selected time

- 1. Select camera or cameras from the device tree(double-click or drag to the work area)
- 2. Use **Select date** or **Select time** to go to the needed time
- 3. Use the playback controls for the playback





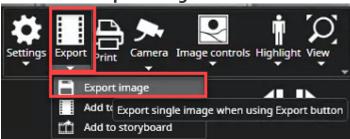
# 9. Export



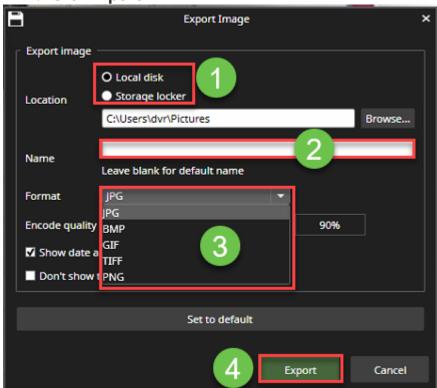


## 9.1. Export image

- 1. Move the mouse cursor top of the image
- 2. Click **Export**
- 3. Select Export image



- 1. Select the location
- 2. Set name
- 3. Select the format
- 4. Click Export



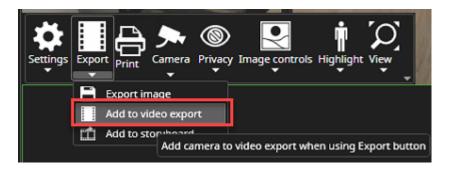


## 9.2. Add to video export

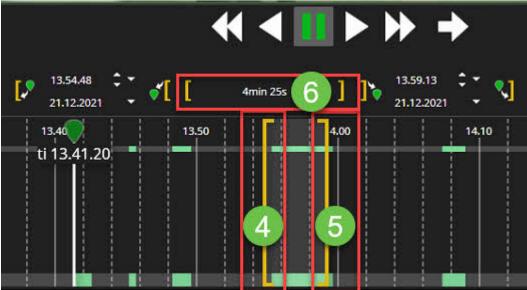
# The user can create a media clip with the Spotter, which contains max. 8 cameras

All devices, which are selected to **Add to the video export** area will be added to the media clip

- 1. Open camera toolbar from needed camera
- 2. Click **Export**
- 3. Select Add to video export



- 4. Set media clip starting point using left yellow bar
- 5. Set media clip endpoint using left yellow bar
- 6. The Middle area shows the total length of the media clip

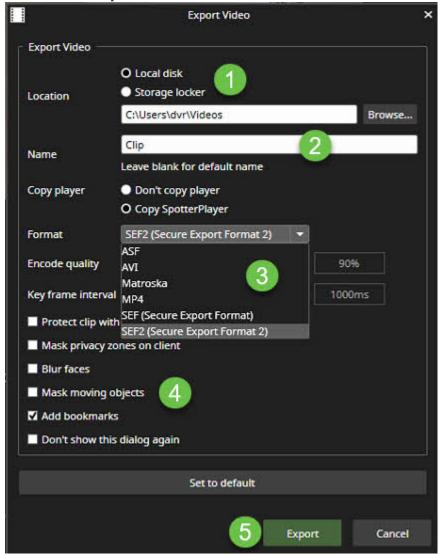


7. Select Start to video export



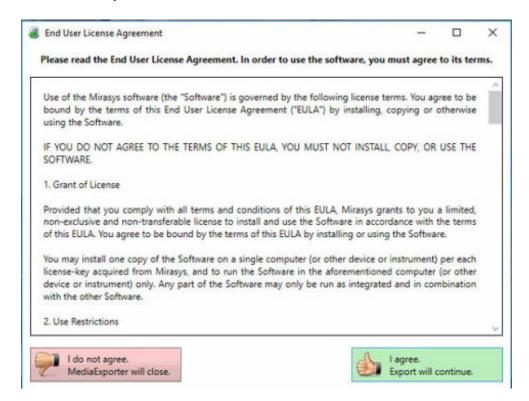


- 1. Select the location
- 2. Set name
- 3. Select Format
- 4. Enable all other needed options
- 5. Click **Export**

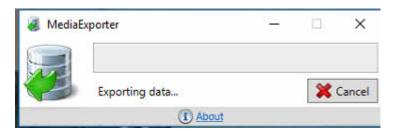


7. Click I agree. Export will continue

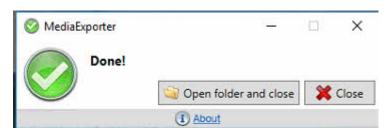




MediaExporter show exporting data process

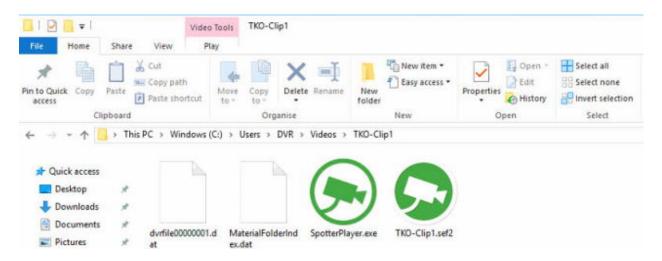


When MediaExporter has finalized the video export, the user can access the location folder by clicking **Open folder and close** 



The folder contains all necessary files and SpotterPlayer.exe





## **Supported export formats**

- ASF
- AVI
- Matroska
- MP4
- SEF and SEF2

The fastest export file format is **SEF** (**Secure Export Format**). It can be viewed with **Spotter** or **SpotterPlayer**.

- SEF video with subtitles audio, text data
- SEF2 video with subtitles audio, text data
- ASF- video with subtitles audio, text data
- AVI video, audio
- MP4 (new in version 9.x) video, audio

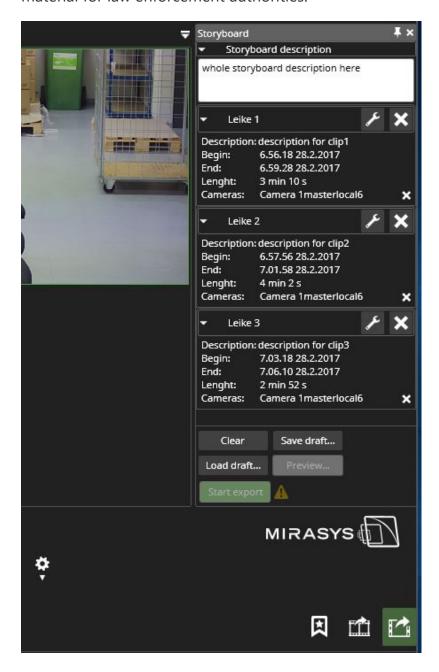
#### Using the **SEF2** enables:

- Protecting the video material with the password,
- Software side privacy zones in the export,
- Blur faces(The blurring needs to be enabled for the camera to be included in the export.)
- Mask moving objects(The blurring needs to be enabled for the camera to be included in the export.)



## 9.3. Add to storyboard

An essential feature of any video management system is creating authentic video export material for law enforcement authorities.



With Storyboard, it is possible to create a movie-like video export that makes it extremely easy for the recipient of the clip to view and understand instantly and accurately the chain of events.



Storyboards can be viewed with the regular Spotter client application or the separate, standalone SpotterPlayer executable that is now exported as the default player for exported video.

Storyboard allows, for example, the following:

- I am creating a movie-like viewing experience from surveillance video material.
- Maintains complete material authenticity.
- View material in the Storyboard in sequential playback mode or an all-cameras real-time mode.
- Add clarifying comments and descriptions to activities.
- Viewer for control of displaying of comments as subtitles.
- Playback in continuous replay mode.
- Save drafts and share the Storyboard with other system users.

In addition to these, powerful features in the Spotter time slider make editing export clips very easy. These are explained in the section.

A single Storyboard can contain a maximum of 63 camera streams.

## **Adding Clips to Storyboard**

A storyboard is constructed from individual clips.

These clips can contain up to 8 cameras, but for the most "movie like" experience, it is preferable to use a single camera per clip.

The recommended way to start storyboard creation is to find the camera and event that will be the first clip in the storyboard and adjust the first clip export start and end times usually with the export mode activity panel.

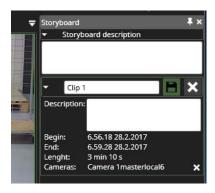


After this, add the clip to the storyboard with the "Add clip to storyboard" button.





This adds the clip as the first clip.



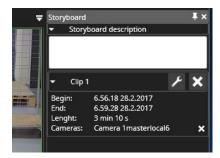
The clip is still in edit mode (white text boxes and the "Save" icon).

The clip name or description can be edited. Any change in the clip start or end times or camera content is still reflected in the clip contents.

If no editing is needed, press the "Save" button.



Now the clip is saved (texts change to non-white), and the following clip can be added to the storyboard.



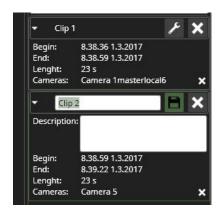
The most convenient way to add the following clip is to find the camera, open it to the work area, and drag it below the first clip in the storyboard.



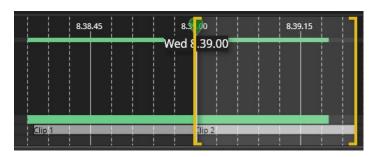


This will set the next clip start time to match the end time of the previous clip and copy the clip duration.

The clip opens in edit mode, and the start and end times can be fine-tuned.



The clips are highlighted in the activity panel. Note that it is all right if the clips overlap.



This same process can be repeated to add more clips to the storyboard. When it becomes difficult to drop a new camera to the list, the recommended way is to drop the new camera to the scroll bar.

This will add the camera as the last clip. If a camera is dropped on top of an existing clip in the storyboard list, it will be added to that clip as an extra camera.

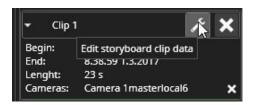


There are other ways to add content to the storyboard:

- With the camera toolbar export control.
- By dragging and dropping from different search result screens and the device tree.
- With a right-click option from the alarm list.

#### **Editing Clips In Storyboard**

Clips appear in the storyboard, always in time order, ordered by the clip's start time. A clip can be opened for editing later by pressing the "Edit" button.



When a clip is opened for editing:

- Any other clips in edit mode are automatically saved.
- The name and description are editable and change to white to indicate this.
- The export time slider is populated with the devices from the clip.
- The start and end times are editable and can be adjusted.
- Devices can be added to the export time slider, and saving the clip will add them to the storyboard.

If someone has created a bookmark for the clip time that is not already in the clip, editing the clip and saving the clip will add the bookmark to the storyboard.

If the start time is adjusted so that it is now earlier than before and before another clip, the clips are rearranged in the storyboard list automatically.

The start and end times of the clips can overlap. The start time of a later clip can be earlier than the end time of the previous clip.

The user has several options for playback, but in the default setting, the clips are played sequentially, the first one to the end before the next one starts, even if the clip times overlap.

The overlapping times are indicated in the time slider by a slight difference in the colour of the clips where they overlap.



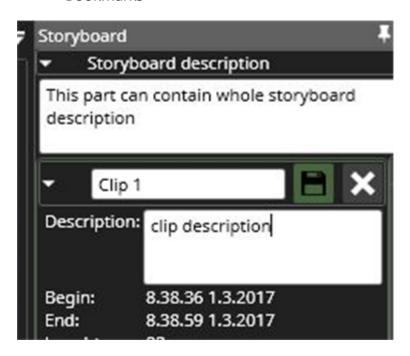


Please note that if the storyboard is long, the clips can be minimized with the click of the clip title.

#### **Descriptions And Comments**

The storyboard has several types of descriptions:

- Whole storyboard description
- Individual clip descriptions
- Bookmarks



The descriptions are shown to viewers of the storyboard as subtitles.

The timing of showing the descriptions is based on the start time of the clip or bookmark.

Description texts are also exported in HTML text format to the target folder for further use for the target audience.

#### **Preview**

During the construction of a storyboard, it is possible to preview the storyboard by pressing the "Preview" button.

This opens a new Spotter window where the draft storyboard can be previewed.



After previewing, it is recommended to close the window and make any desired adjustments to the storyboard in the original Spotter window.



Preview opens in a unique Spotter window, first to full screen, but the window can also be resized.

#### **Drafts And Sharing**

It is possible to save storyboard drafts by pressing the "Save draft..." button.

This will open a dialogue where the user can enter a name for the draft storyboard.

If there are many users interested in draft storyboards, it is recommended to save the storyboard to a shared location, such as a network drive.

Then the draft storyboards can be opened by anyone who has access to the same profile used to generate the storyboard draft. The location can be defined in settings.

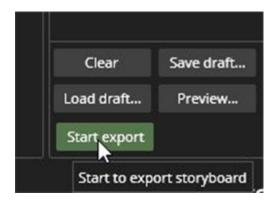
The "Load draft" button can be used to load a draft storyboard. Please note that closing the Spotter window or exiting Spotter will clear any unfinished and unsaved storyboard contents.

## **Settings**

Settings for the storyboard are described in Storyboard Settings.

## **Exporting Storyboards**





When the storyboard is ready to be exported, the user can press the "Start Export" button. This will open a dialogue where the location and name can be adjusted.

If no information is given, a default location and default name will be used. Please note that large storyboards can take some time to export.

It is also possible to export the individual video clips from the time slider button.

The SpotterPlayer application will also be exported to the target folder if it is not already there.

In addition to the media, the HTML text attachment with a summary and details of the storyboard is also exported to the target folder.

## **Viewing Storyboards**

A storyboard can be viewed with Spotter or with the SpotterPlayer.

Media can be opened by pressing the F4 key or by "Open media" from the File menu or by double-clicking the storyboard file in the file system.

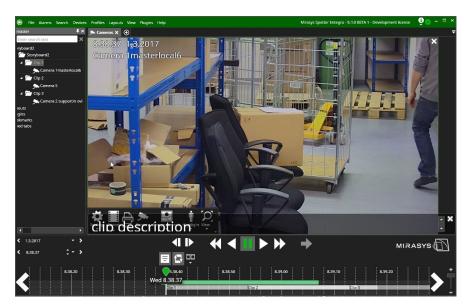


Then the storyboard can be opened from the file selection dialogue



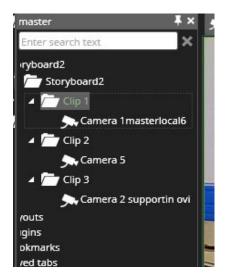


Media opens in "Media view" mode with a green window title.



The clip will default open with the comment subtitles on and the player in "Repeat" mode. The individual clips are seen in the device tree area.





The repeat and subtitle settings and the playtime settings can be changed from the buttons next to the playback controls.



#### **Other Viewing Modes**



The sequential mode is the default playback mode. It plays the clips in time order, ordered by the start time of the clip.

It plays each clip entirely before moving to the next so that the time can jump backwards in this mode.

The user can switch the playback mode at any time. If he switches to "Playback all" mode, all cameras in the storyboard are opened.

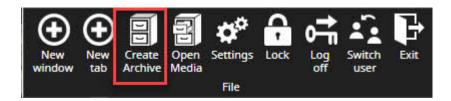
Note that when the user starts to play in this mode, the time does not jump backwards when clips overlap, but the storyboard is played in real-time.



In the manual mode, no camera is opened or closed automatically, and the user can choose which camera to open from the device tree.



## 9.4. Create Archive



The archive is a tool for material backup and copying a larger amount of the material from multiple cameras.

Archived material can be opened with the Spotter or SpotterPlayer

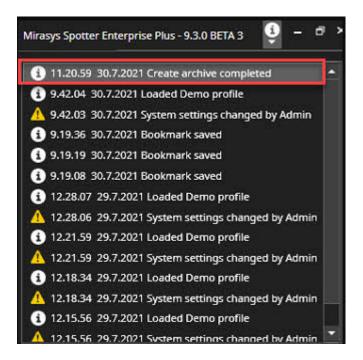
Archive creation is only allowed if the archiving feature is enabled in the license.

- 1. Set name of the archive
- 2. Set password protection, if needed
- 3. Set the location
- 4. Set length of the archive
- 5. Select archived components
- 6. Click Create



When the archive is done, you will see a notification in the UI upper right corner.

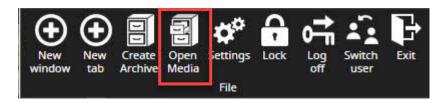




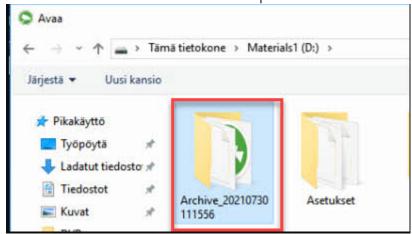


## 9.5. Open Media

Archives or video clips are opened by the F4 key or the File menu "Open Media" option.



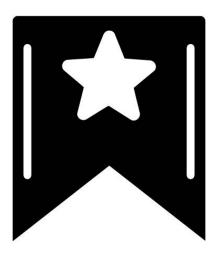
- 1. Click Open Media
- 2. Browse the location of the clip or archive



3. Select archive file or clip(**SEF**)



# 10. Bookmarks



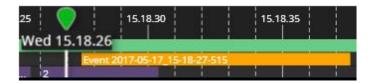


## 10.1. Creating a bookmark

A bookmark can be created quickly by pressing the **Create fast bookmark** button or with the keyboard combination Ctrl+Alt+B.



This will create a 10-second-long bookmark to the position of the playback indicator with the content that was open on the tab where the button was pressed.



A second way to create a bookmark is to take the content to the export mode activity panel and then click on the "**Start to set bookmark**" button.

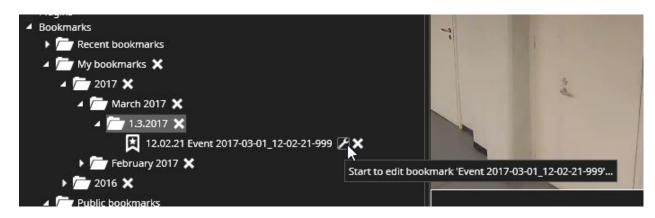




## 10.2. Editing a bookmark

The bookmark can be later edited if desired.

- 1. Open Bookmarks from the device tree
- 2. Select needed bookmark and click **Start to edit bookmark** icon



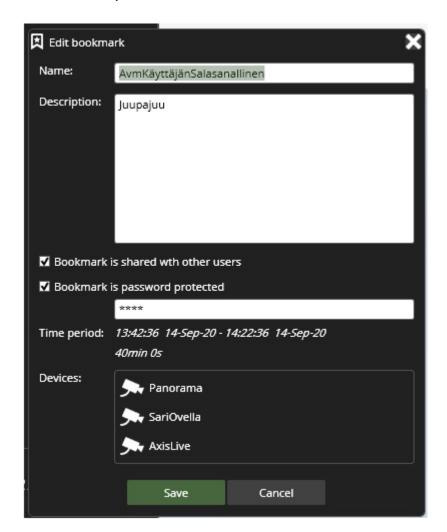
The bookmark editing view is a separate dialogue.

You can edit values:

- Name
- Description
- Bookmark is shared with other users
- Bookmark is password protected

When you have finalized the modification, please click Save

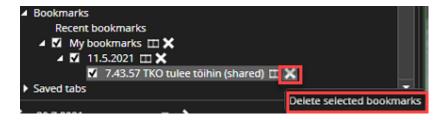






## 10.3. Deleting a bookmark

Bookmarks can be deleted one by one or by folder with the "X" control in the device tree.



The bookmark menu will show which bookmarks have been shared with other users.



## 10.4. Bookmarks in the timeline panel

If so configured, bookmarks are displayed on the timeline panel and can be accessed also from there with a right mouse click.



Also, if other users have shared bookmarks, the user who did the sharing is shown in parenthesis after the bookmark title.



## 11. Search Tools

# The search tab contains multiple search tools:

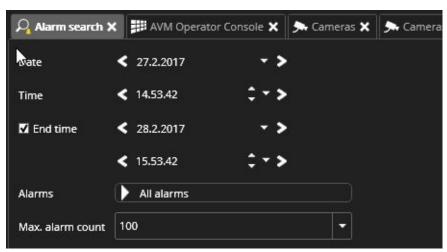
- Alarm Search
- Motion search
- Person search
- Text data search
- Thumbnail search
- Watchdog Event Search



## 11.1. Alarm Search

Alarm Search can be opened from the "Search" menu.





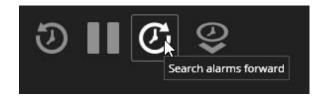
The alarm search tab is a separate tab plugin. There are options to set the alarm search start time with Date and Time selections on the right side of the alarm search tab.

Below the Time Settings, there is an alarm pull-down list. It contains all alarms that are included in the selected profile.

The user can search for one alarm or several alarms. There is also an option to search for all alarms.

On the right side of the alarm search tab, there are buttons to start the actual search. There is a search backwards and search forward button with a clock icon.

The search goes backwards or forwards from the set time. Next to the search backwards and forward buttons, another button searches for the most recent alarms.





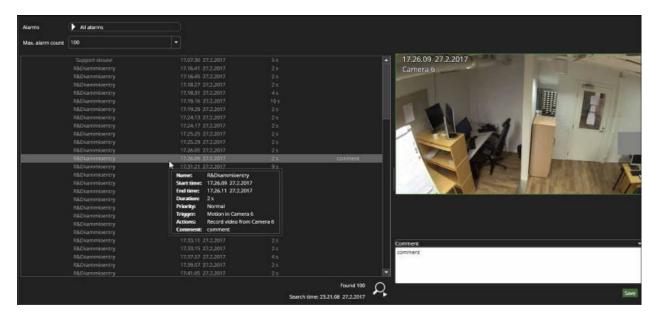
When a search is running, the pause button between the search backwards and search forward becomes active, and the user can stop or pause the search.

After alarm search time and date searches are changed, the last found item becomes the new time.

This way, the user can repeat the exact search further if necessary.

Alarm results are displayed in a list that shows the alarm name, alarm start time, duration and comment.

The user can sort the list by clicking on the title fields.



Selecting a single alarm shows detailed information of the alarm in a tooltip.

When an alarm is selected, the cameras and other devices mapped to it are displayed in the alarm preview field to the right of the result list.

The playback controls can be used to review results. Each click will refresh the contents on the right.

The tooltip shows the name, start time, end time, duration, priority, trigger, action and alarm description and alarm acknowledgements if these are set to alarm and the comment.

Double-clicking on an alarm occurs in the list, opens up the alarm in the alarm view tab.

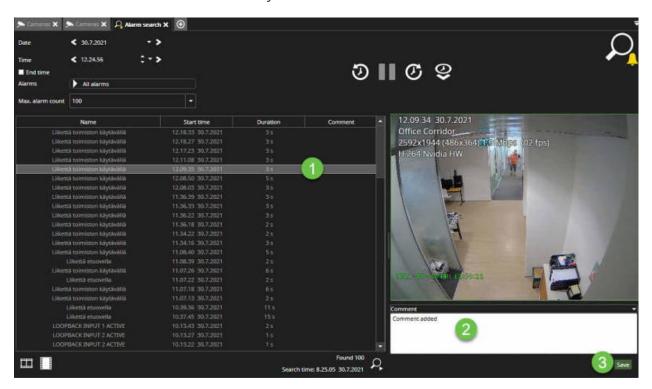


## 11.1.1. Commenting alarms

Comments can be added to alarms in the alarm search view.

- 1. Select alarm from the list
- 2. Click with the mouse in the comment field below the preview area, write the comment, and press "Save".
- 3. Click Save

Another way to add a comment is to start writing the comment after selecting the result list's alarm. In this case, the Enter key will save the comment.



The comment is displayed on a single line in the result list and a separate Comment field below the alarm component preview area.

This way, it is possible to use the Enter key to enter newline characters.

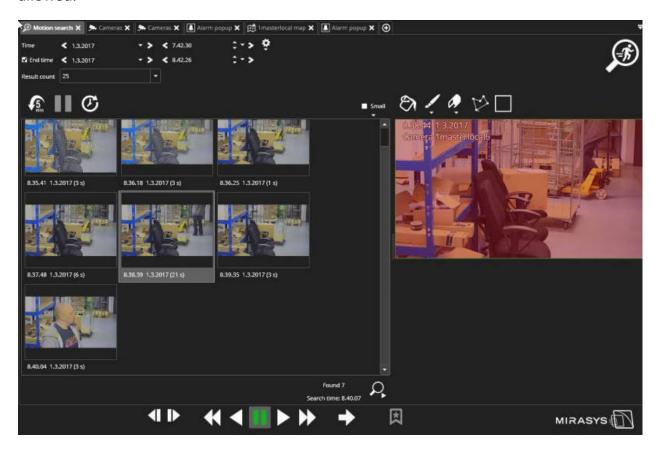


## 11.2. Motion Search



With the Spotter Motion Search plugin, the user can open a new tab and select Motion search.

A camera can be selected by double-clicking a camera in the device tree or by dragging and dropping it to the Motion search tab. Motion search works only if camera playback is allowed.

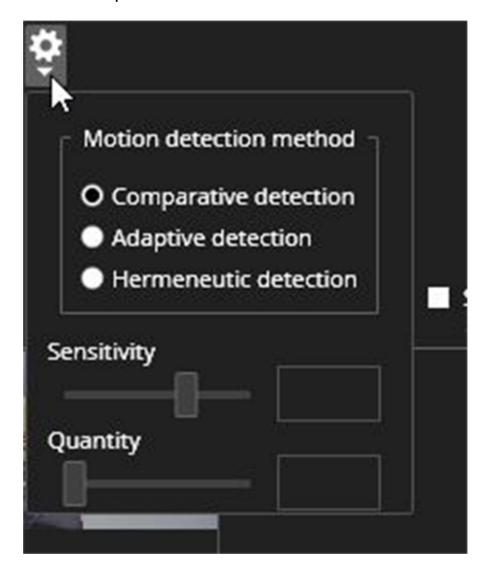


The search results can be clicked, and the camera area on the right will be updated to show the image.

The playback controls can be then used to review the event. It is possible to play all results in sequence. The playback will jump to the following result at the end of the previous one.

The search settings can be adjusted with the "Settings" button.





| Comparative detection: | For stable indoor conditions   |
|------------------------|--|
| Adaptive detection:    | For outdoor conditions with changing light levels  |
| Hermeneutic detection: | A sophisticated method for environments with image "noise" (such as heavy weather). Requires more system resources than other methods. |

If the user wants to search for more results, there is a "Search more" button in the lower right corner. Search continues from the time of the last found item.

Mirasys Ltd - C1CD, Vaisalantie 2-8, 02130 - Espoo, Finland





## 11.3. Person search

• Requires license



#### There are three modes

- 1. Playback mode: all persons are detected (this is the default mode)
- 2. Person search mode: the selected person is searched from played videos
- 3. All persons search mode: search all persons, try to display the same person only once

#### **Thumbnails**

Found persons are shown in a thumbnail list. There are separate lists for all persons and selected person search results.

- Thumbnail mouse click (or Enter key) shows the thumbnail location in the video
- Thumbnail mouse double click opens the thumbnail video playback in the new tab



## 11.4. Text data search

- 1. Select channel for the search
- 2. Select the search start date
- 3. Select the search start time
- 4. Select the search end time, if needed
- 5. Select result count(default 50)
- 6. Select searched event
- 7. Add text event search criteria, if needed
- 8. Start text search
- 9. From the lower right corner can be found the total amount of searched events





## 11.5. Thumbnail Search

A Thumbnail search gives the user a quick way to inspect camera material visually.

It is mainly meant for scenarios where some visual change in the camera view can be noticed, and the user wants quickly to find the time when this change has happened.

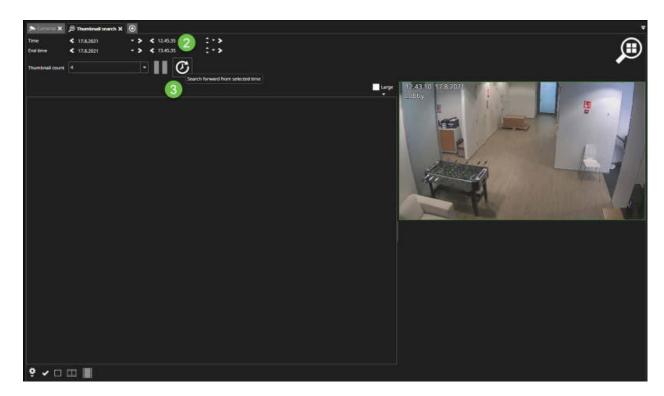
When the Thumbnail search is started, it fetches thumbnails from stored video and displays them on the results view.

## **Using Thumbnail search**

1. Open Thumbnail search



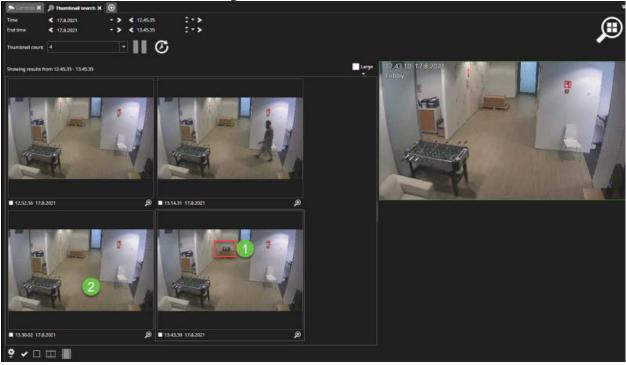
- 2. Select camera from the device tree
- 3. The set time period for the search
- 4. Click Search forward from the selected time



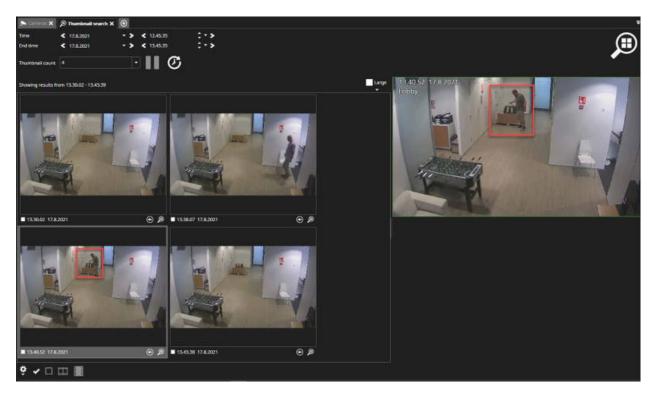


1. When you find change from the image

2. Please could click the image after that



- 1. Thumbnail search shows time just before the change
- 2. You can start playback and use normal playback controls.





# 12. Layouts Management

Layouts contain all content settings of Spotter and are helpful when the user has perfected a monitoring view and wants to save it for future use.

Layouts contain, for example, the following:

- Spotter window location and size (full-screen or regular)
- View component visibility settings
- Virtual camera settings
- Toolbar option settings such as image showing, 360 camera settings, VCA visualization settings and image control settings
- Camera tour settings
- Playback position, i.e., date and time
- Tab names and order
- Plugin specific settings, for example, Agile Virtual Matrix (AVM) settings and content

## **Frequently Used Keyboard Shortcuts:**

| Shortcut  | Description  |
|-----------|--|
| Ctrl+L    | Open layout menu (layout<br>name selection can be<br>changed with arrow keys,<br>Esc closes menu without<br>selecting layout). |
| Ctrl+ M   | Takes the user to new layout saving.   |
| Ctrl+Up   | Load previous layout (same order as in the layout menu).   |
| Ctrl+Down | Load following layout<br>(same order as in the<br>layout menu).  |





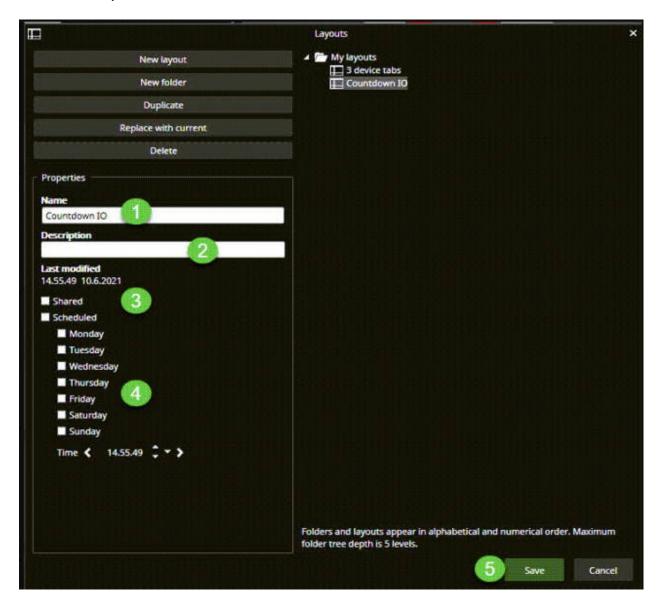
# 12.1. Saving the layout

- 1. Open all needed components to the work area
- 2. Click Layouts
- 3. Select New layout



- 1. Enter the name of the layout
- 2. Enter the description, if needed
- 3. Set sharing options, if needed
- 4. Set schedule options, if necessary
- 5. Click Save

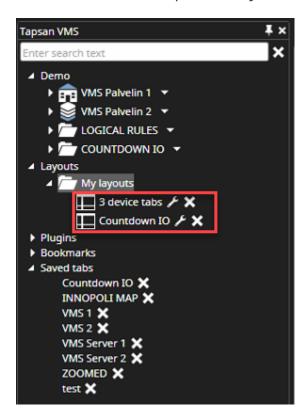






# 12.2. Opening the layout

- 1. Open Layouts from the device tree
- 2. Double-click top of the layout name





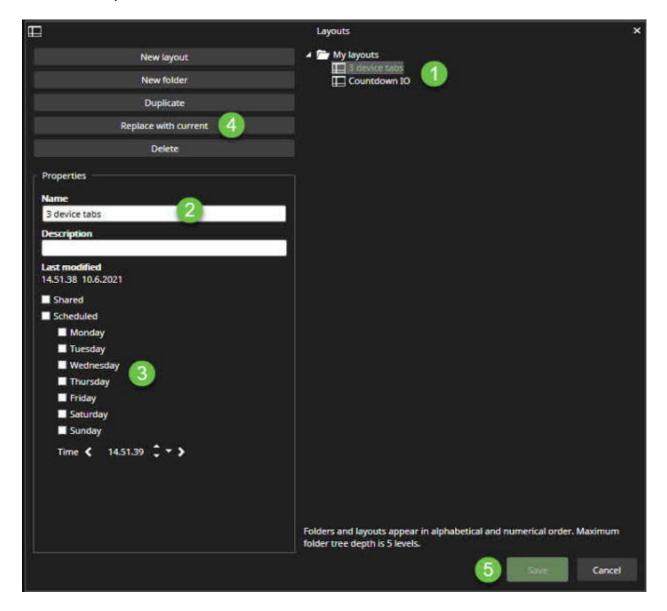
# 12.3. Editing the layout

- 1. Select needed devices into the Spotter working area
- 2. Go to the **Layouts**
- 3. Select Edit layouts



- 1. Select the layout from the list
- 2. Modify the name, if needed
- 3. Set schedule settings, if needed
- 4. Click Replace with current
- 5. Click Save

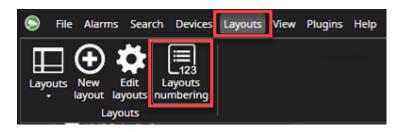




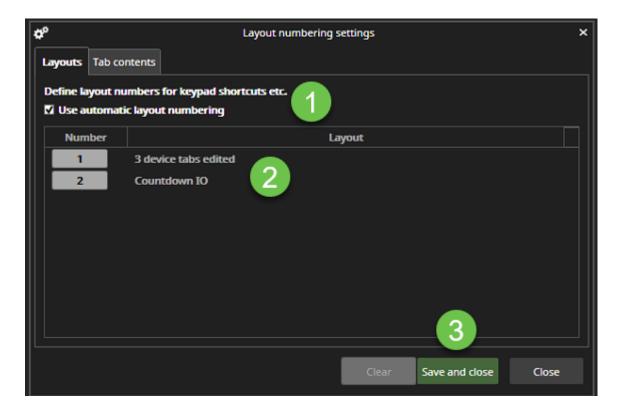


# 12.4. Layout numbering

- 1. Open Layouts
- 2. Select Layouts numbering



- 1. Set Use automatic layout numbering, if needed or disable to use manual numbering
- 2. Set manual numbering for the layouts
- 3. Click Save and Close





# 13. Device Tabs Management

Only streams of cameras that are on the open tab are sent to the Spotter.

Cameras on the "hidden" tabs are not using network bandwidth to the Spotter but will resume instantly when the tab is activated.

Tabs can be reordered by dragging them to a different position.

They can also be dragged outside the Spotter window to move the content to a new, automatically created window.

If the Ctrl key is pressed when dragging, a copy is made instead of moving.

#### **Frequently Used Keyboard Shortcuts:**

| Shortcut       | Description   |
|----------------|---|
| Ctrl+Shift+T   | Open tab menu.  |
| Ctrl+Shift+W   | Close current tab.  |
| Ctrl+Tab       | Select the next tab. If the currently selected tab is the last, select the first tab in the window. The addition (+) tab is not selected.         |
| Ctrl+Shift+Tab | Select the previous tab. If the currently selected tab is the first tab, select the last tab in the window. The addition (+) tab is not selected. |
| Ctrl+Alt+V     | Hide/show tab controls.   |

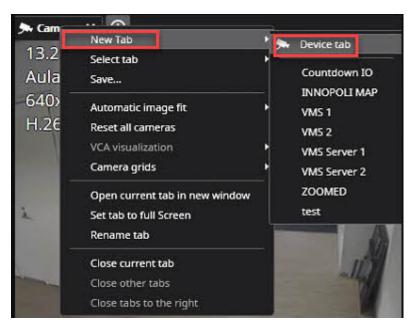


## 13.1. Add new device tab

The work area can have multiple device tabs.

New tabs are created by clicking the "New tab" control or from the File menu.





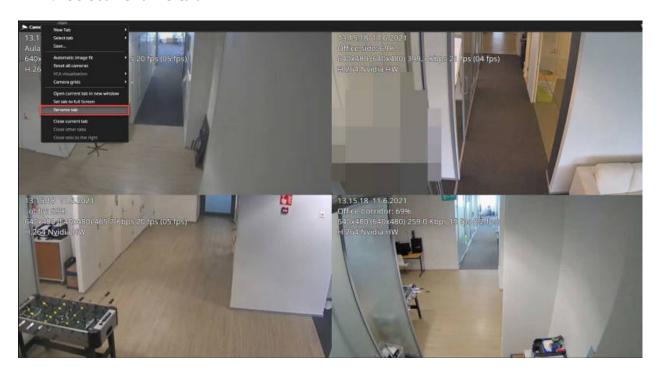




# 13.2. Renaming the device tab

The tab menu can be accessed with right-click

- 1. Right-click top of the device tab name
- 2. Select Rename tab



Enter the name of the tab and press enter

After the renaming of the device tab, the user can easily organize needed cameras to correct the device tab.



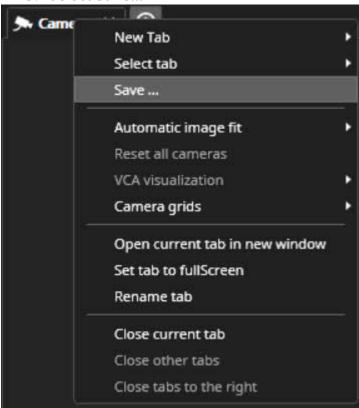


# 13.3. Saving the device tab

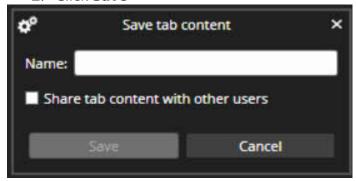
### Saving the device tab

Device tab saving gives the user fast access to needed devices from the device tree

- 1. Open needed cameras to the device tab
- 2. Right-click top of the device tab name
- 3. Select Save...



- 1. Enter the name of the save tab
- 2. Click Save







# 13.4. Opening the saved device tab

### Opening the saved device tab

- 1. Open the Saved tabs from the device tree
- 2. Double-click correct saved tab name



After the loading of the saved tab, Spotter shows all devices, which were opened during the saving. If the device tab was renamed, that name is also shown.





# 13.5. Deleting the saved device tab

- 1. Open the Saved tabs from the device tree
- 2. Click **X** from that saved tab, which is needed to delete
- 3. Confirm delete

```
■ Saved tabs

4 cameras ★

Countdown IO ★

INNOPOLI MAP ★

VMS 1 ★

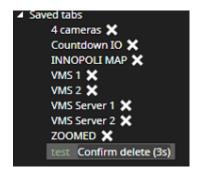
VMS 2 ★

VMS Server 1 ★

VMS Server 2 ★

ZOOMED ★

test ★
```





# 13.6. Automatic image fit

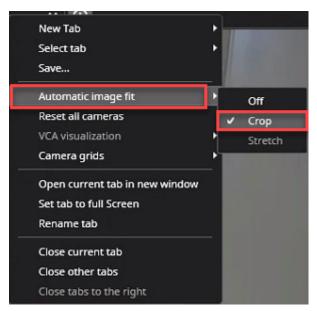
The default image fit setting can be adjusted in the tab menu and **Automatic image fit**.

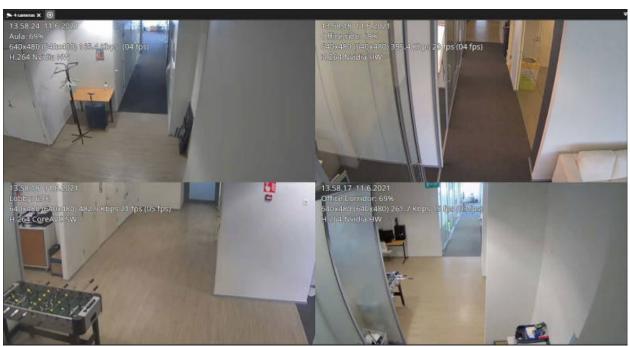
The default option for new device tabs is "Crop".

The setting can be changed to "Off" or "Stretch".

The **Stretch** option is not available for the automatic grid.

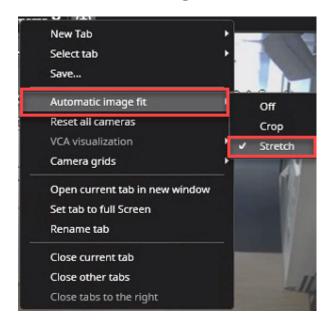
#### **Automatic image fit: Crop**

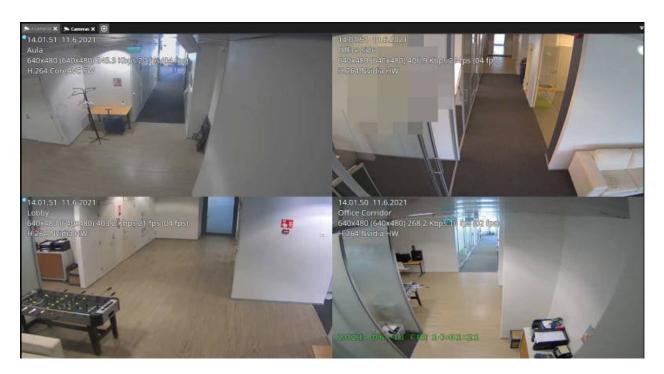






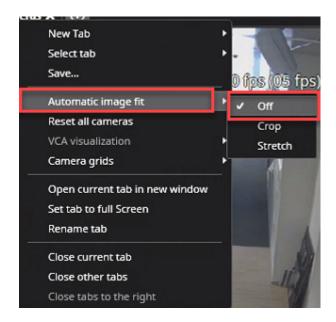
## The automatic image fit: Stretch:





The automatic image fit: OFF







Automatic cropping will crop the image to fit the current aspect ratio of the work area. This works best in automatic view mode if there are 4 or 9 cameras on the screen.

In static grid mode, the auto-cropping makes cameras fit the aspect ratio of the fixed grid cell.

This option is only available for fixed or custom grids.

#### **Frequently Used Keyboard Shortcuts:**

| Shortcut | Description |
|----------|-------------|
|----------|-------------|



| Ctrl+Shift+S | Sets the auto stretch on and off for the current tab. |
|--------------|---|
| Ctrl+Shift+C | Sets the auto crop on and off for the current tab.    |



## 13.7. Camera Grids

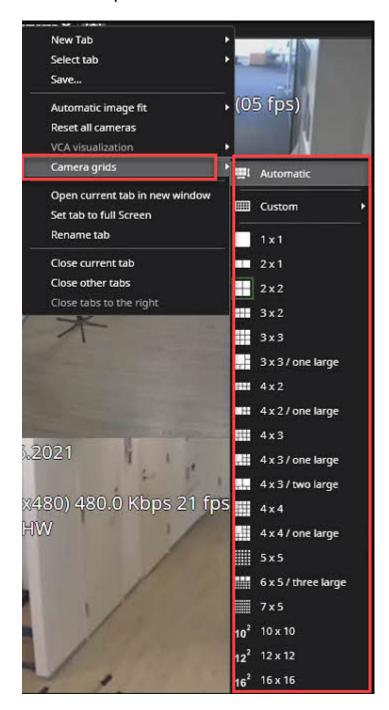
The default view mode of the work area is automatic.

Cameras appear all using the same size in this mode, and the position and size change automatically as more cameras are added.

There are also fixed grids available, where some cameras can be more significant than others, and cameras stick to the fixed view mode grid and do not move around like in automatic mode.

The fixed grids are available from the tab menu

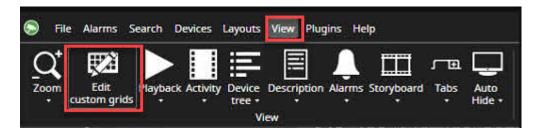




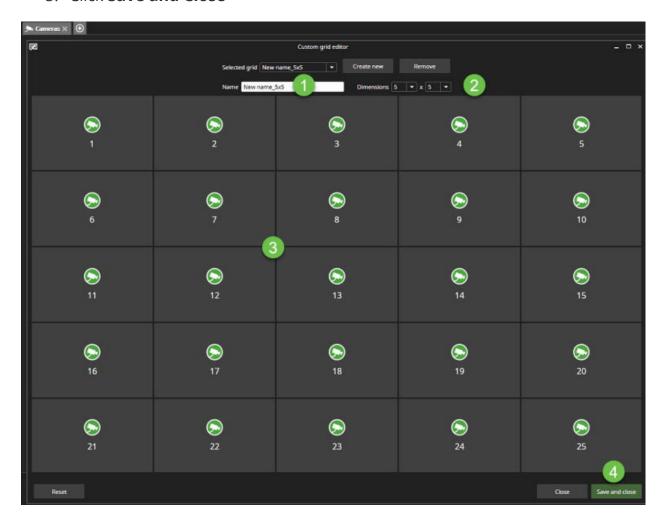
## **Custom camera grids**

- 1. Click View
- 2. Open **Edit custom grids**





- 1. Enter the name of the camera grid
- 2. Set dimensions
- 3.
- 4. Set the needed amount of the windows and their size
- 5. Click Save and Close

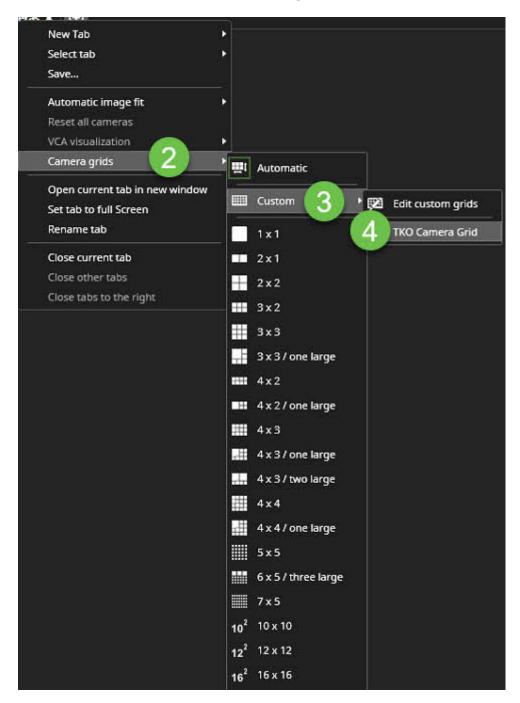


## Using custom camera grids

- 1. Right-click top of the device tab name
- 2. Open Camera grids
- 3. Select **Custom**

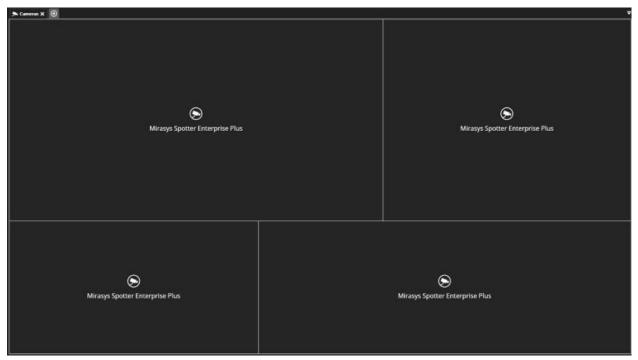


4. Select needed custom camera grid name



After the loading, the user can see a custom grid view



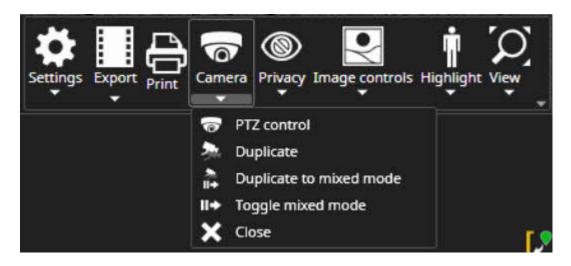




# 14. PTZ Control and Management

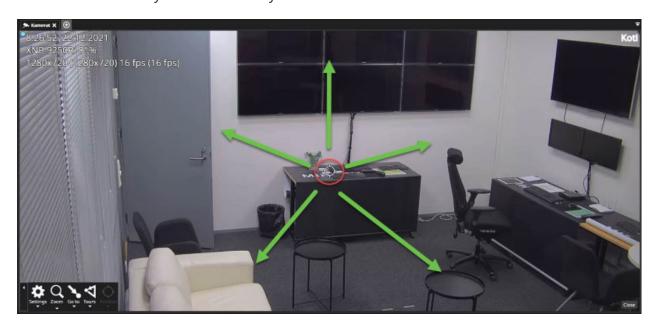
# **Enabling PTZ Control**

- 1. Open needed camera to the real-time view
- 2. Open camera toolbar
- 3. Click Camera and select PTZ control



# **Controlling PTZ camera**

PTZ camera can be controlled with the mouse left button and dragging in the needed direction or with keyboard arrow keys.



## **Settings**





The PTZ settings menu contains iris and focuses slider controls and editing the camera home position.

The home position can be selected from the currently saved presets or tours.

It is also possible to define how long the camera takes until it returns to the home position and if the switch to the home position is made only if it is not in some other tour or preset position.

### Zoom



The zoom settings menu allows controlling the camera zoom. The camera zoom can also be controlled from the keyboard or the mouse wheel.

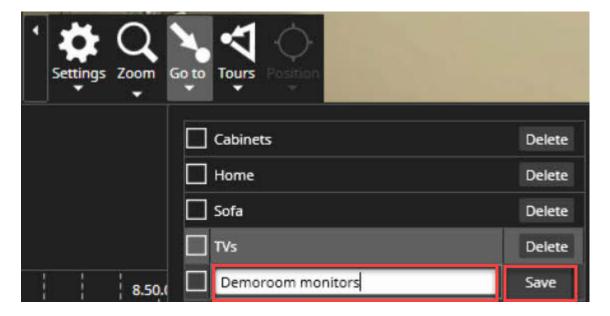
# **Creating a preset**

- 1. Open needed camera to the real-time view
- 2. Open camera toolbar
- 3. Click Camera and select PTZ control
- 4. Control PTZ camera to the needed position
- 5. Click **Go to** and select **Edit preset positions**





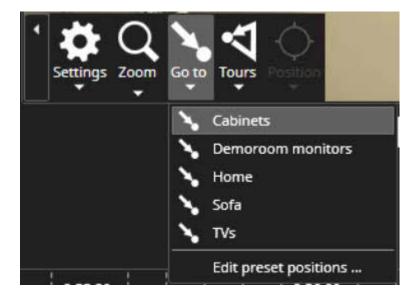
6. Enter the name of the preset and click **Save** 



# Using the presets

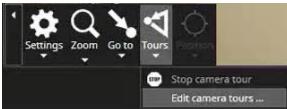
1. Click **Go to** and click mouse left button top of the needed preset





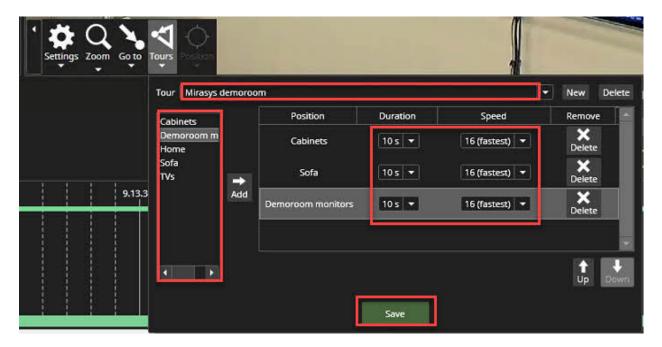
# **Creating a camera tours**

1. Click **Tours** and select **Edit camera tours** 



- 1. Set the name of the tour
- 2. Select presets for the tour
- 3. Set duration for each camera
- 4. Set transition speed between the presets
- 5. Click Save





# Using a camera tours

- 1. Open needed camera to the real-time view
- 2. Open camera toolbar
- 3. Click Camera and select PTZ control
- 4. Click **Tours a**nd activate the needed camera tour



# **Editing camera tours**

- 1. Open needed camera to the real-time view
- 2. Open camera toolbar
- 3. Click Camera and select PTZ control
- 4. Click **Tours a**nd select **Edit camera tours**
- 5. Select tour from the list
- 6. Do modifications and click Save

## **Deleting camera tours**

1. Open needed camera to the real-time view



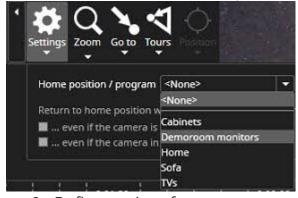
- 2. Open camera toolbar
- 3. Click Camera and select PTZ control
- 4. Click **Tours a**nd select **Edit camera tours**
- 5. Select tour from the list
- 6. Click **Delete**
- 7. Click **Save**

# **Setting up PTZ camera home position**

- 1. Open needed camera to the real-time view
- 2. Open camera toolbar
- 3. Click Camera and select PTZ control
- 4. Click **Edit home position**



5. Select the correct home position or program from the list



- 6. Define settings for:
  - a. Return to home position when the camera is not used in:
  - b. ...even if the camera is in a preset position
  - c. ...even if the camera in the program tour







# 15. Alarm Management

## The alarms tab contain below functions:

- Alarm list behaviour
- Alarm view
- Alarm popup
- Alarm search



## 15.1. Alarm List

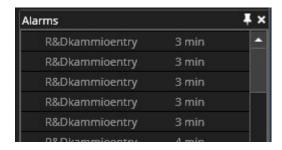
In Spotter, each Spotter window can have its alarm list.

## The alarm list visibility

The alarm list visibility is controlled from the **View** menu.



The alarm window shows the name and the priority of each alarm.



Behind the alarm name, there is a timer that shows how long ago the alarm was started.

The unit can be in seconds, minutes and hours.

# **Frequently Used Keyboard Shortcuts:**

| Shortcut | Description                            |
|----------|--|
| F5       | Focuses on the first alarm.            |
| Ctrl+F5  | Show/hide alarm window.                |
| Enter    | Opens the alarm in the alarm view tab. |



| Space      | Acknowledges the focused alarm. |
|------------|---------------------------------|
| Ctrl+Alt+A | Hide/show the alarm list.       |



# 15.1.1. Opening alarm from the alarm list

## **Opening alarm from the alarm list**

Double-click the alarm name

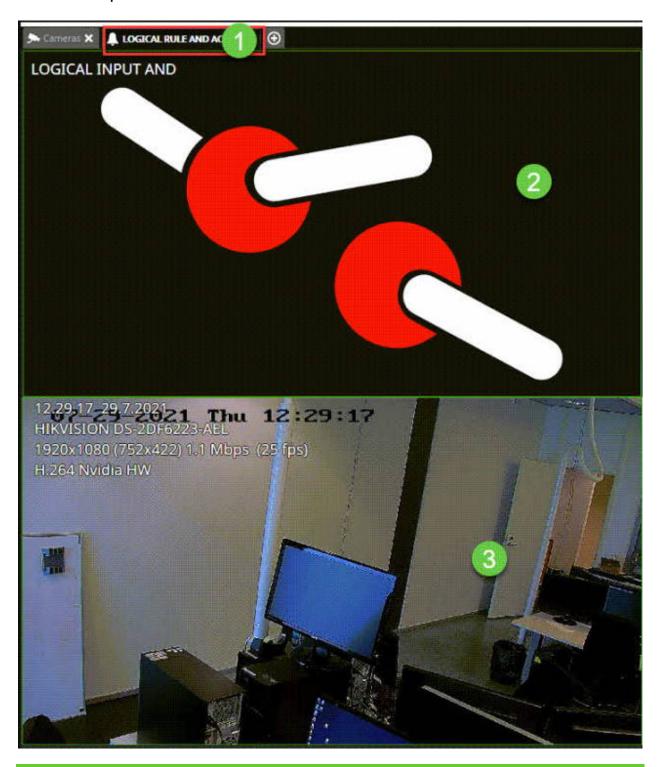
The spotter will open automatically Alarm view tab

The alarm view tab shows all components, which are related to the alarm(alarm trigger and actions) when the alarm is opened from the alarm list.



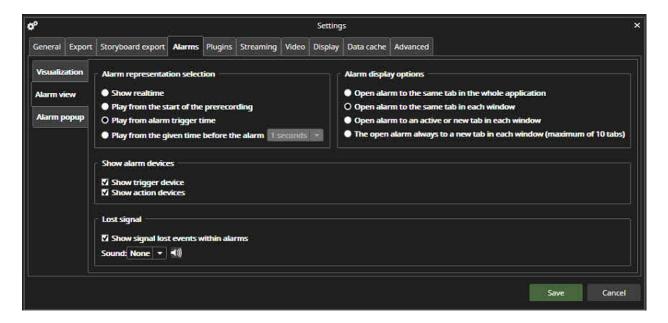
- 1. Name of the alarm
- 2. Trigger of the alarm
- 3. All action components of the alarm





Alarm view settings can be configured from Spotter\Settings\Alarms\Alarm view





## **Alarm representation selection**

The Alarm representation selection defines what time the alarm is being played when it is opened from the alarm list. The possibilities are:

- Show real-time
- Play from the start of the alarm pre-recording time
- Play from alarm trigger time (default option)
- Play from the given time before the alarm(1-60 seconds)

## Alarm display options

It is also possible to define how the alarm is opened. The possibilities are:

- Open alarm to the same tab in all whole application
- Open alarm to the same tab in each window
- Open alarm to an active or new tab in each window
- Open alarm always to a new tab in each window(maximum of 1 10 tabs)

## Lost signal

Show signal lost events within alarms





## 15.1.2. Alarm Export

Alarms are exported by dragging the alarm from the alarm list or the alarm view to the export area.

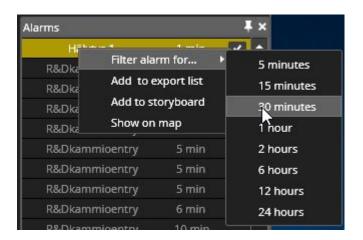
The alarm list also has an option in the single alarms right-click menu to add an alarm to the export area.



Alarm export contains pre-event and post-event recording times



## 15.1.3. Alarm Filtering



The alarm window also can filter alarms. Filtering can be done by selecting an alarm and opening the right-click menu.

The user can filter an alarm for 5, 15, or 30 minutes, or 1, 2, 6, 12 or 24 hours.

The alarm is removed from the standard alarm list during the filtering, and new occurrences are not shown.

The alarm sound and alarm pop-up are also disabled during filtering.

The maximum number of filtered alarms is 50.



The filtered alarms are moved to a filtered list underneath the alarm window. The filtered list can be in an open or closed state.

Each filtered alarm has a counter that shows how much longer the alarm remains filtered.

There is also a button to remove alarm filtering. Filtered alarms can be unfiltered at any time.

Although alarms are inactive in the filter window, they still show an alarm state.

If a filtered alarm is inactive, it is greyed out, and when it is active, it has a white font.

If there are no filtered alarms, the filtering window is not displayed underneath the alarm window.



The filtering window is displayed in all Spotter windows if it has also the alarms window open.

The alarm view can be opened for filtered alarms by a mouse double-click or drag and drop.



## 15.1.4. Acknowledge alarm



It is also possible to acknowledge alarms. For active alarms, there is an "**Acknowledge** alarm" button.

The button is visible for all alarms during their duration.

It is also possible to set this option active in the System Manager application's Alarm settings. In that case, the alarm is active until the user acknowledges it.

The maximum amount of alarms in the alarm window is 100.

If the limit is exceeded, then the oldest inactive alarm is removed.

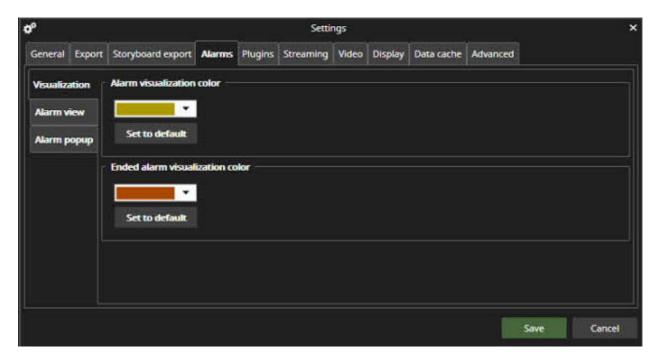
Underneath the alarm window, there is a pull-down window with options to show all alarms (default) or only active alarms.



## 15.2. Alarm visualization

# Alarm visualization settings can be configured from Spotter\Settings\Alarms\Alarm visualization

Alarm visualization allows a selection of the alarm highlight colour for active and ended alarms.





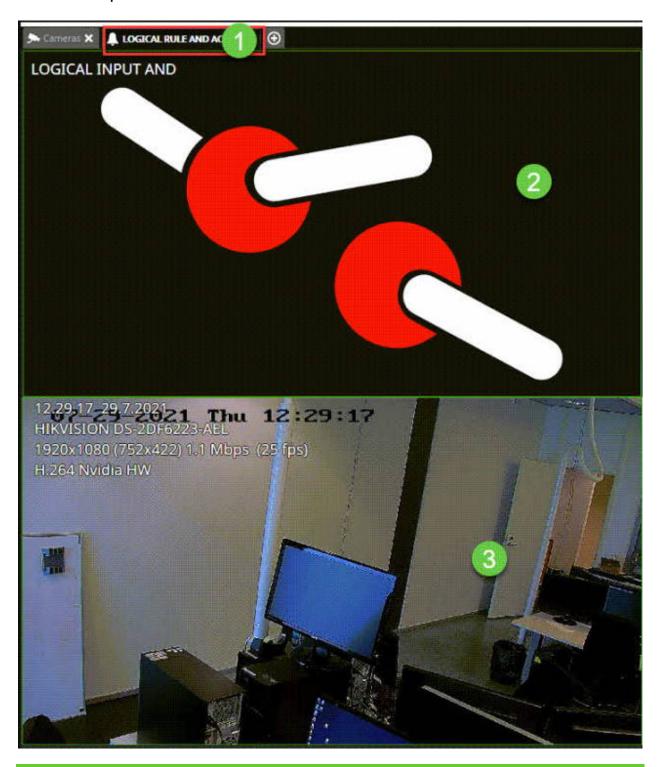
## 15.3. Alarm view

The alarm view tab shows all components, which are related to the alarm(alarm trigger and actions) when the alarm is opened from the alarm list.



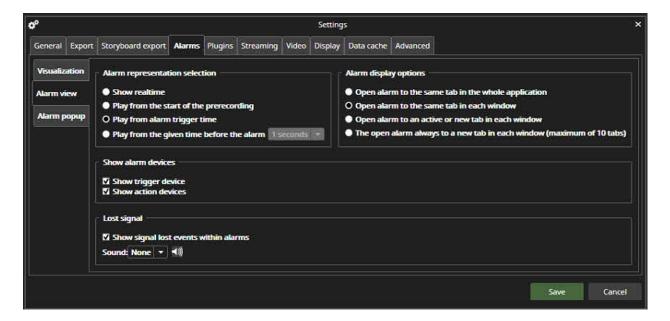
- 1. Name of the alarm
- 2. Trigger of the alarm
- 3. All action components of the alarm





Alarm view settings can be configured from Spotter\Settings\Alarms\Alarm view





## **Alarm representation selection**

The Alarm representation selection defines what time the alarm is being played when it is opened from the alarm list. The possibilities are:

- Show real-time
- Play from the start of the alarm pre-recording time
- Play from alarm trigger time (default option)
- Play from the given time before the alarm(1- 60 seconds)

#### Alarm display options

It is also possible to define how the alarm is opened. The possibilities are:

- Open alarm to the same tab in all whole application
- Open alarm to the same tab in each window
- Open alarm to an active or new tab in each window
- Open alarm always to a new tab in each window(maximum of 1 10 tabs)

#### Lost signal

Show signal lost events within alarms





## 15.4. Alarm popup



The alarm popup plugin can be used to alert a user when a new alarm is activated.

The popup window can be a new tab or placed in a camera grid cell.

The popup can be opened from the Alarms menu or the device tree.

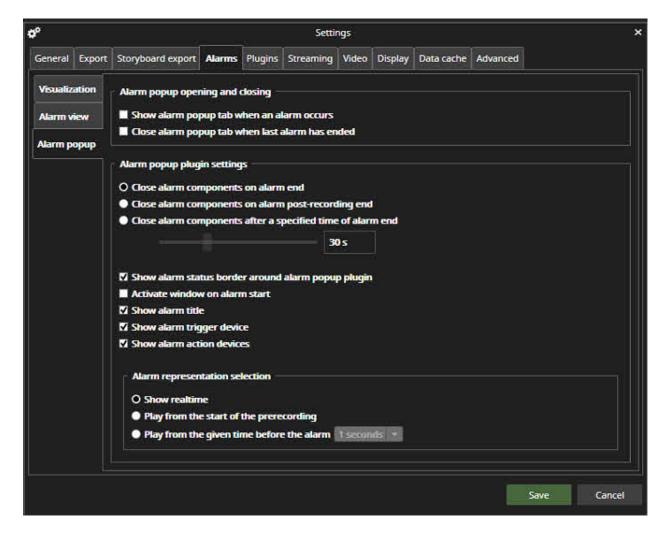


When the alarm popup tab is open, any new alarm components are automatically opened to it, and they remain there for as long as the alarm is active.

The popup is by default highlighted with yellow colour when an alarm is triggered.

Alarm popup settings can be configured from Spotter\Settings\Alarms\Alarm popup





Alarm popup settings define how the Alarm popup view opens and closes.

The default setting is that the Alarm popup is not opened and closed automatically if it is not open.

## Alarm popup opening and closing

If the user wants the Alarm popup not to open normally and only open when an alarm happens, he should select the first checkbox.

If the user wants the Alarm popup closed automatically after the last active alarm ends, he should check the second checkbox.

## Alarm popup plugin settings

The second part of the Alarm popup settings defines how long the alarm components are displayed in the popup tab. The possibilities are:



- Alarm components are closed when the alarm ends (default option)
- Close alarm components on alarm post-recording end
- Close alarm components after a specified time of alarm ended(5 seconds 30 minutes).
- Show alarm status border around alarm popup plugin
- Activate window on alarm start
- Show alarm title
- Show alarm trigger device
- Show alarm action devices

## **Alarm representation selection**

- Show real-time (default)
- Play from the start of the prerecording
- Play from the given time before the alarm(1-60 seconds)

System administrators can also define a custom colour for each alarm in the System Manager application.

There is no difference in the colouring between an ended alarm or an ongoing alarm for such alarms.

The custom colour is reflected in time slider grouped alarms only if all alarms in the group are of the same colour.

There are various settings for alarm popup behaviour. The standard settings for all popups are adjusted from Spotter Settings.

The filter settings for individual popup tabs are adjusted from the popup tab settings.

The user can define whether the tab is automatically opened if it is not open or whether the window containing the popup tab is brought to the foreground if it is already not in the foreground.

Also, the time of how long the alarm devices are visible can be controlled.

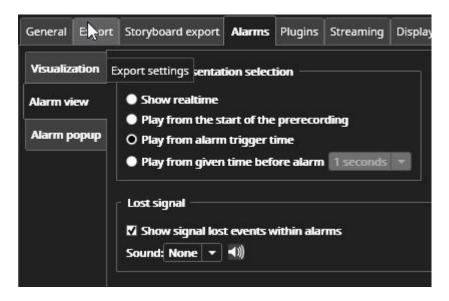


## 15.5. Signal Lost Alarms

It is also possible to show cameras that lose the video signal as alarms in the Spotter window.

This is achieved by activating the setting "Show signal lost events within alarms" in Spotter Settings' alarms tab.

In the same place, the user can choose from preformatted alarm sounds, which sound is played when the signal lost event occurs.



Signal lost events are shown in the alarm list if the "Show" configuration is set to show them.

By default, the signal lost alarms are not shown, so to get the feature working, the user needs to open the alarm list and select the signal lost from the configuration list.

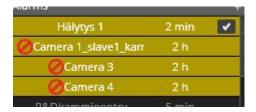


The setting is saved into layouts.

Even if the alarm list is hidden, if the "show" filter is configured to show the signal lost event, the sound file is played when the event happens.

If the alarm list is configured to show the signal lost as an alarm, it appears with the lost icon.





When the signal returns, the event is still visible, but now it is shown as ended (greyed out).

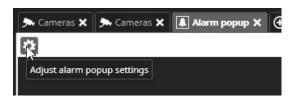
The tooltip shows further information.



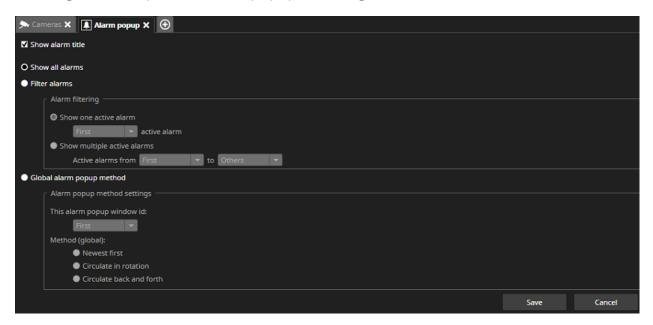
## 15.6. Showing the Alarm Name in Alarm Popup View

The alarm name can be controlled from both Spotter settings (system default) and alarm popup-specific settings.

When the user is "administrator" or has System Manager rights in the user group, he can see the Alarm Popup setting view.



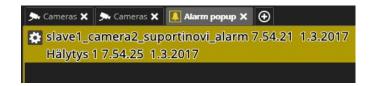
Clicking this will open the Alarm popup in setting view:



The visibility of the alarm title can be controlled here for this single instance of the Alarm popup.

When activated, it displays the alarm name with the popup.

If there are multiple active alarms, their names are listed on top of each other.





## 15.7. Use of Multiple Alarm Monitors

With the same Alarm popup settings as above, it is possible to configure the system to use multiple alarm monitors so that only a single alarm (or multiple if desired) is shown on each monitor.

The system can be configured, for example, to have four separate alarm monitors.

Then alarm monitor number 1 will show the oldest alarm, monitor 2 shows the second oldest alarm, and 3 shows the third oldest alarm.

Monitor 4 can, for example, be configured to show the rest of the alarms.



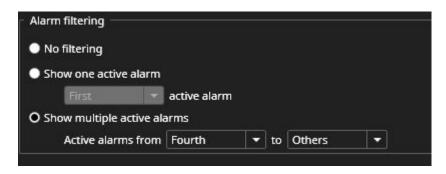
The configuration is done by defining which alarm the Alarm popup should show.

For configuring alarm monitor 1, the first active alarm should be selected in the filtering.



For the second and third, a new alarm popup should be opened and then the filtering adjusted accordingly.

For the 4th and additional alarms, the setting should be changed like this:



With these four-alarm popup windows open and configured, the layout should be now saved.

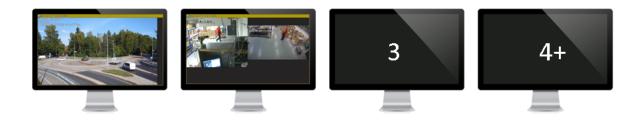


When there are no active alarms, the alarm monitors display a clarification number to know which monitor.

When there is only one alarm active, it is displayed on the first monitor.



If two alarms are active, the oldest is displayed on the first monitor, and the newer alarm opens on the second monitor.



The third alarm is on the third monitor.



When the oldest alarm ends, it will be closed from the first monitor (1).

The monitors will automatically refresh so that the alarm previously in monitor 2 is now in monitor 1, and so on.











If the alarm settings have been defined so that alarm components are kept open longer than the alarm duration, the move of alarms will happen only when the alarm components are closed.

In this case, the alarm colour in monitor one will change from the active alarm colour to the ended alarm colour.

The alarm popup filter setting is saved to layouts and saved tabs.

When using AVM, it is recommended to create a camera tab, open the alarm popup to the camera tab, configure the filter, and then save it with the appropriate name.

The tab can then be opened to AVM using the AVM Operator Console.

It is also possible to configure the multiple alarm monitors to show the Alarm popup and Profile map side by side by configuring the Profile map to use similar filtering settings as the alarm popup.



# 16. System Monitoring



#### 16.1. Camera Audit

Camera health audit is a plugin that allows the operators to ascertain that every camera of the system works appropriately – plus that the cameras have not been turned/tampered/blocked.

#### The main report page provides information on the

- 1. Name of the camera
- 2. Footage start time
- 3. Footage end time
- 4. Footage Days/Hours
- 5. Current status of the camera
- 6. 90 days image loss
- 7. Reference image
- 8. Current image
- 9. Audit status
- 10.Comments



## **Auditing the cameras**

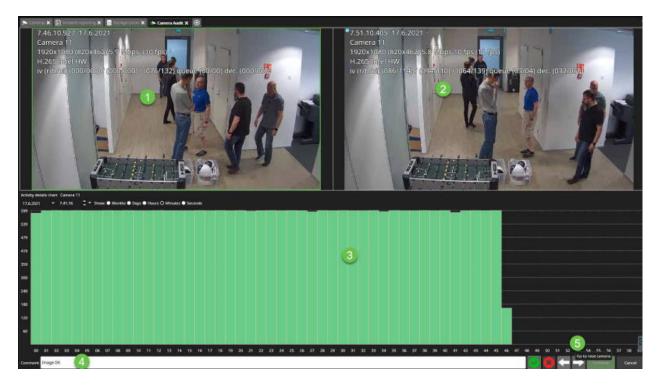
- 1. Select cameras by control- and shift-clicking
- 2. Click Audit selected cameras



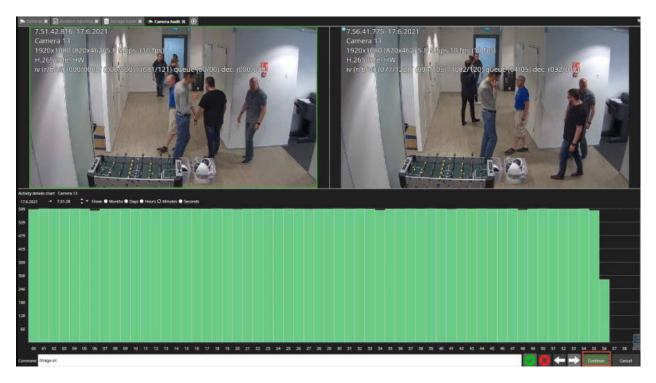
#### The camera audit view shows the following information:



- 1. Playback view from the camera
- 2. Real-time view from the camera
- 3. Amount of the frames received from the camera
- 4. You can add a comment to the camera audit report
- 5. Click Go to the next camera continue



1. Repeat the actions with all cameras and click **Continue** 





- 1. Enter the title of the camera audit
- 2. Type the description, if needed
- 3. Edit the comments, if needed
- 4. Click Save & Open PDF



From the PDF view, you can do the following actions:

- 1. See an overall view of the camera audit report
- 2. Add camera audit report to the daily log
- 3. Export camera audit





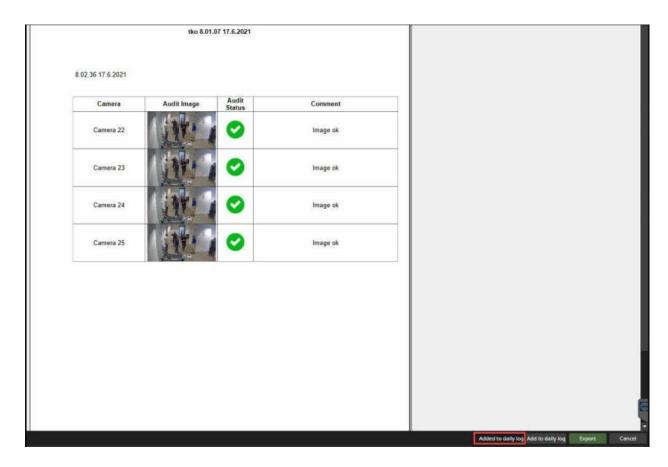
#### Add to the daily log

- 1. Click Add to the daily log
- 2. Set the name of the daily log
- 3. Select Attach to new daily log or attach to an existing daily log
- 4. Click **Save**





After the saving, you will see a message Added to the daily log

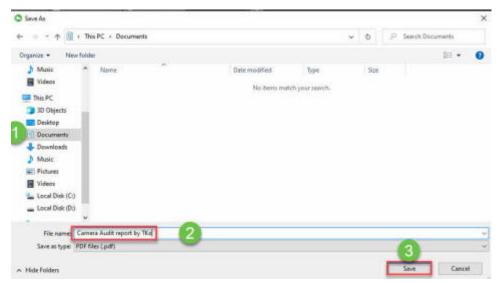


#### **Exporting the camera audit report**

Click Export

- 1. Select the location
- 2. Set name for the camera audit export
- 3. Click Save

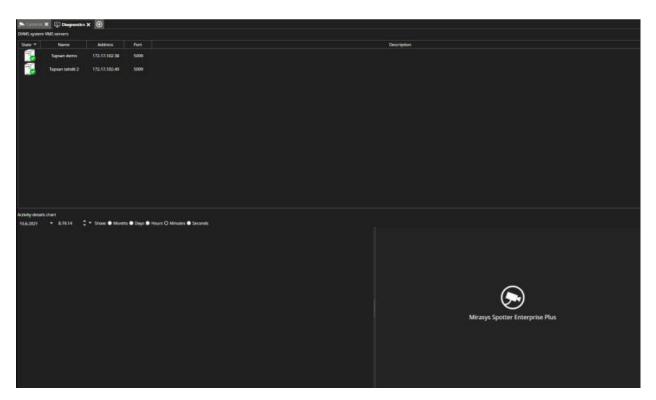






## 16.2. Diagnostic

Diagnostic shows the name, IP address and the status of the VMS servers, which are connected to the master server



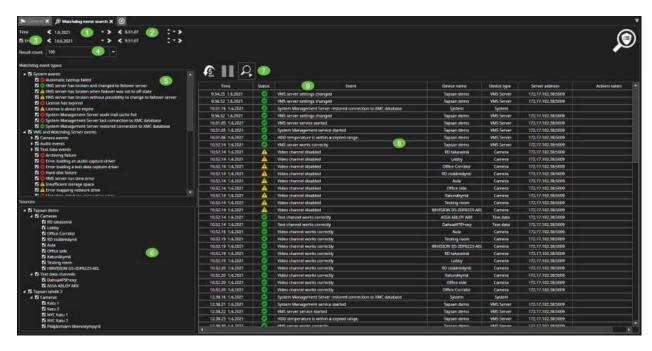


## 16.3. Watchdog Event Search

- 1. Click **Search**
- 2. Select Watchdog Event Search

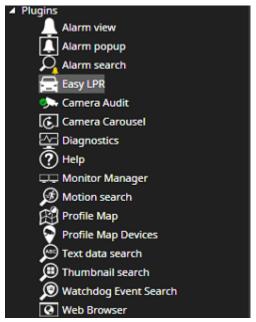


- 1. Select start date for the search
- 2. Select start time for the search
- 3. Set the search end time, if needed
- 4. Set the result count(Default 50)
- 5. Filter the Watchdog event types, if needed(Default all events are selected)
- 6. Filter the sources, if needed(Default all servers connected to the master are enabled)
- 7. Start search
- 8. All Watchdog Events are shown in the list
- 9. The user can sort out the found event using header columns





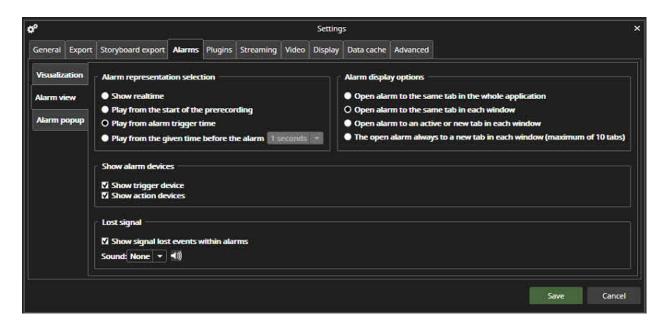
## 17. Plugins



**Previous Next** 



#### 17.1. Alarm View



## **Alarm representation selection**

The Alarm representation selection defines what time the alarm is being played when it is opened from the alarm list. The possibilities are:

- Show real-time
- Play from the start of the alarm pre-recording time
- Play from alarm trigger time (default option)
- Play from the given time before the alarm(1-60 seconds)

## **Alarm display options**

It is also possible to define how the alarm is opened. The possibilities are:

- Open alarm to the same tab in all whole application
- Open alarm to the same tab in each window
- Open alarm to an active or new tab in each window
- Open alarm always to a new tab in each window(maximum of 1 10 tabs)

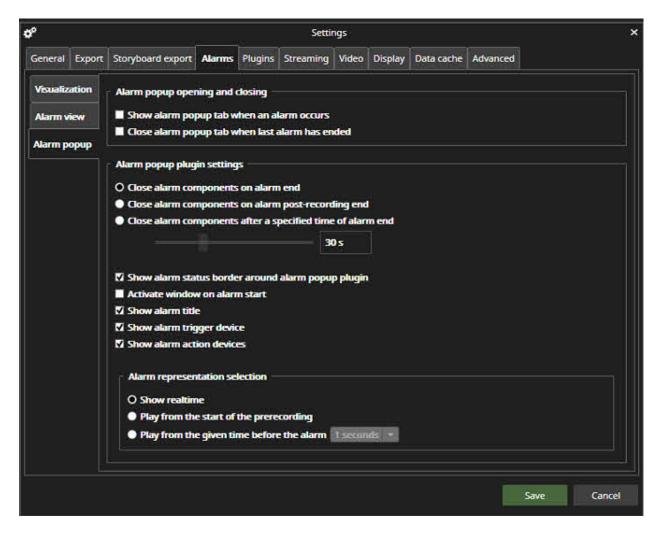
## Lost signal

Show signal lost events within alarms





## 17.2. Alarm Popup



Alarm popup settings define how the Alarm popup view opens and closes.

The default setting is that the Alarm popup is not opened and closed automatically if it is not open.

## Alarm popup opening and closing

If the user wants the Alarm popup not to open normally and only open when an alarm happens, he should select the first checkbox.

If the user wants the Alarm popup closed automatically after the last active alarm ends, he should check the second checkbox.

## Alarm popup plugin settings



The second part of the Alarm popup settings defines how long the alarm components are displayed in the popup tab. The possibilities are:

- Alarm components are closed when the alarm ends (default option)
- Close alarm components on alarm post-recording end
- Close alarm components after a specified time of alarm ended(5 seconds 30 minutes).
- Show alarm status border around alarm popup plugin
- Activate window on alarm start
- Show alarm title
- Show alarm trigger device
- Show alarm action devices

## **Alarm representation selection**

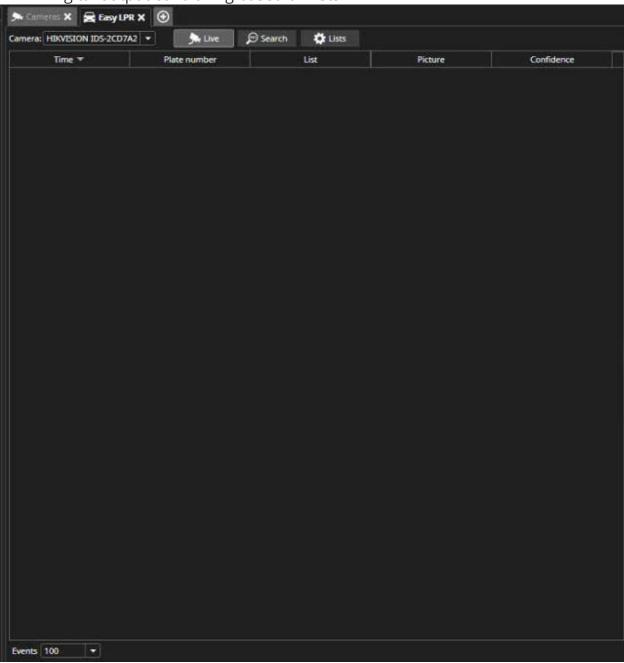
- Show real-time (default)
- Play from the start of the prerecording
- Play from the given time before the alarm(1-60 seconds)



## 17.3. Easy LPR

Easy LPR contains the following functionalities:

- Live monitoring from the 1 camera at the same time
- The search of the number plates
- Lists Management
- Digital output controlling based on lists







## 17.3.1. Live

The live tab shows the following information:

- 1. The selection of the LPR camera
- 2. Time of the plate detection
- 3. Plate number
- 4. Plate list
- 5. Picture of the plate number
- 6. Confidence of the plate reading
- 7. Live view from the LPR camera



When the plate information is clicked by the mouse, then the view changes to the playback mode

and show the recorded situation.



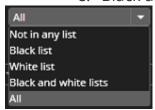




# 17.3.2. Search

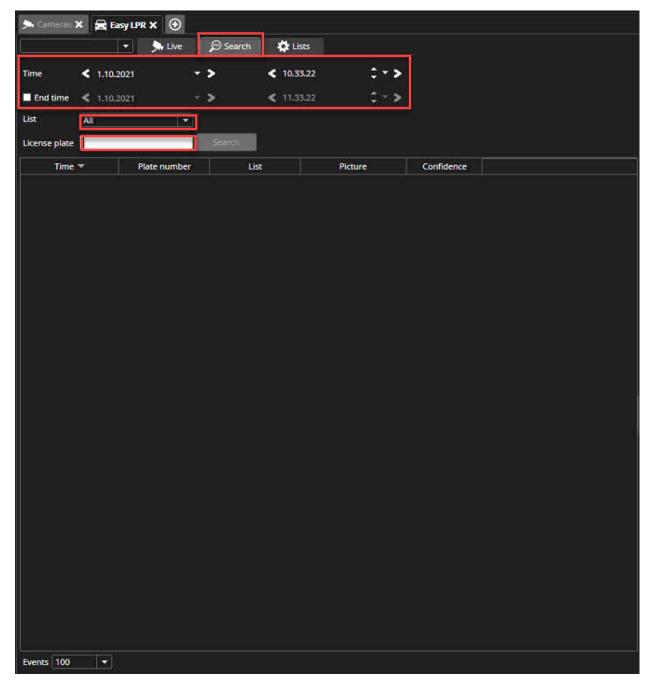
# **Searching License plates**

- 1. Open **Search** tab
- 2. Select LPR camera from the upper left corner
- 3. Select time and date
- 4. Enter **End time**, if needed
- 5. Select list for the search
  - a. All
  - b. Not in any list
  - c. Black list
  - d. White list
  - e. Black and white list



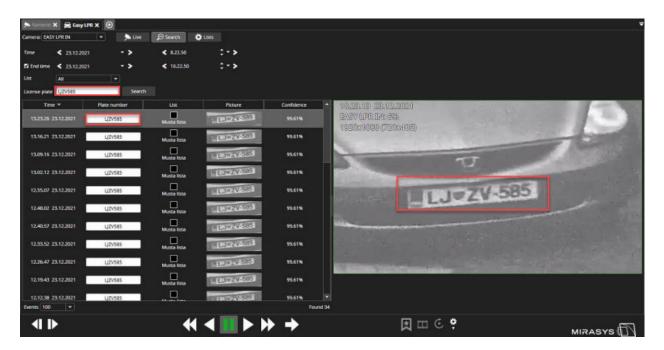
- 6. Enter license plate(partial information is also accepted)
- 7. Click **Search**





Search will show all results. The user can playback selected time and use all normal playback functions.







### 17.3.3. Lists

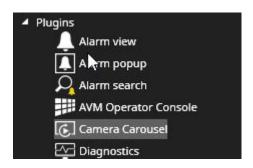
# With the Easy LPR Lists Management, the users can do the following actions:

- Add plate number
- Edit plate numbers
- Move plate numbers between the lists
- Export plate numbers from the Spotter to the PC(**CSV**)
- Import edited plate number lists to the Spotter
- Upload lists from the Spotter to the LPR cameras

# Please remember to upload lists to the cameras after any change.



# 17.4. Camera Carousel



The Camera Carousel plugin allows users to create a lightweight camera tour on a single Spotter tab camera cell.

# Camera grid tour settings

- 1. Open Camera Carousel
- 2. Drag needed cameras from the device tree to the camera carousel
- 3. Set switch time(from 5s to 30s)



Click Start tour



When the carousel is running, the camera grid cell is indicated with an orange border.





Mouse left-click opens toolbar with the options:

- Previous
- Pause
- Next
- Settings
- Edit

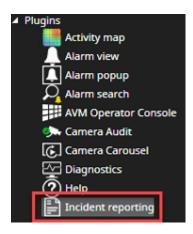




# 17.5. Incident Reporting

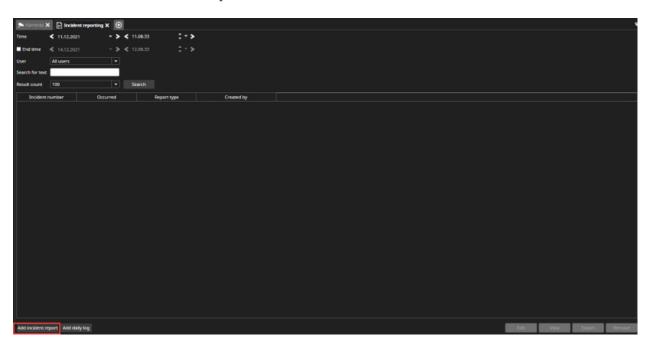
#### **Opening the Incident Report**

Open the Incident Reporting from the device tree



#### **Creating an Incident Report**

1. Click Add Incident Report



1. Select all necessary Incident Report details.

**Department** and **Incident location** fields are predefined by the administrator.

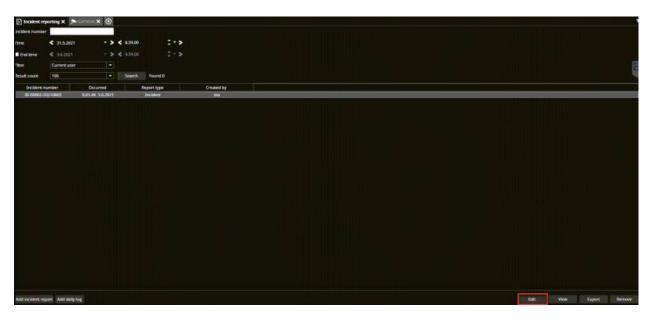




# **Adding evidence to the Incident Report**

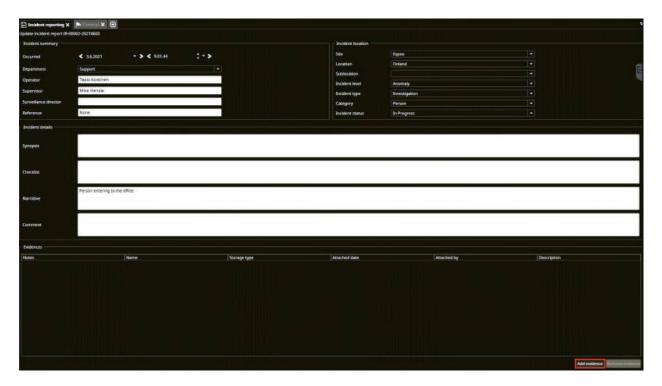
You can add images, video clips and camera audit reports as evidence.

1. Select the Incident Report from the list and click **Edit** 



Click **Add evidence** from the lower-left corner





- 1. Click **Search** and select the evidence from the list
- 2. Click Add



1. Click Save to finalize





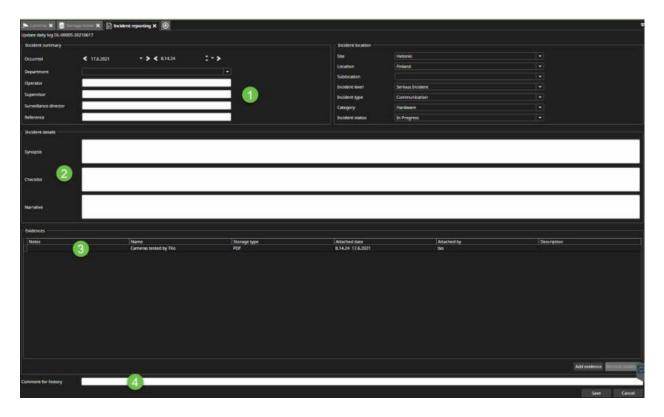
### **Editing the Incident Report**

You can edit any Incident Report, which you have access to later.

#### The editable fields:

- Incident summary
- Incident location
- Incident details
- Add notes to the evidence
- Comment to history





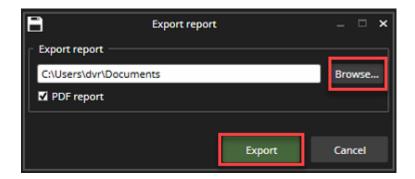
# **Exporting the Incident Report & Daily Log**

- 1. Select Incident Report or Daily Log from the list
- 2. Click **Export**



- 1. Select the location
- 2. Click **Export**







# 17.6. Monitor Manager

The Monitor manager plugin is like the AVM Operator Console but is designed for controlling monitors attached to the local PC.

It is mainly designed for use in situations where the attached monitors are out of sight.



The operation is exactly as in the AVM Operator Console.

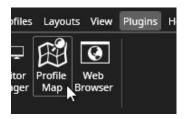
Note: to enable the monitor manager, you need to enable the AVM API in the Spotter settings:

Spotter > File > Settings > Advanced > Enable External AVM API

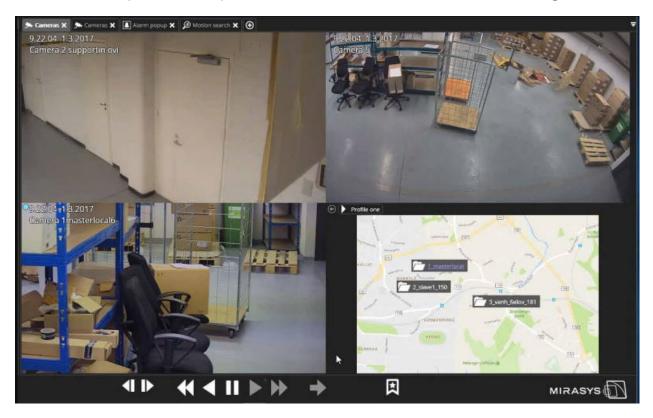
(You will have to be logged in as an administrator to enable this.)



# 17.7. Profile Maps



If the selected profile has a map defined, the Profile map plugin can show the map and its devices. The map can be a separate tab, or it can be embedded in a camera grid cell.



The map can include the following devices:

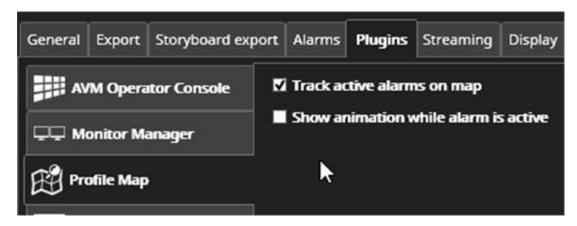
- Camera folders
- Cameras
- Audio
- Inputs
- Outputs
- Text data

The devices on the map show status information the same way as in the profile tree. Alarms of all priorities are highlighted. Double-clicking the device on a map opens it to a new tab.



If a map is open and the user double-clicks an item in the profile tree, it is highlighted. The device tree also has a "Show on map" option for each device in the right-click menu.

The Profile Maps plugin can react to an alarm by switching the view to show the map view where a trigger for the alarm. This setting is controlled from Profile Maps settings.



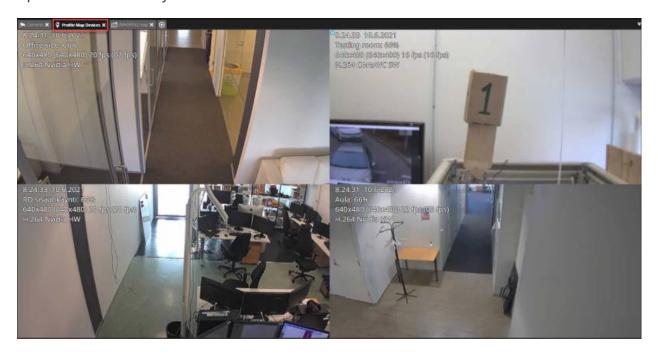
There is also a setting for turning the alarm "pulse" animation on or off.

Profile maps have the same kind of alarm filtering settings as the Alarm popup so that in the multiple alarm monitor case, it can be set to filter a certain number of active alarms for the map position reaction.



# 17.8. Profile Map Devices

When a customer opens the camera from the Profile Map, the Profile Map Devices tab is opened automatically and shows those cameras in real-time view.



Profile Map Devices default grid type is defined in the **Spotter settings\Plugins\Profile Map Devices** 



# 17.9. Storage Locker

#### **Opening the Storage Locker**

Open the Storage Locker from the device tree



Storage locker plugin can be used to

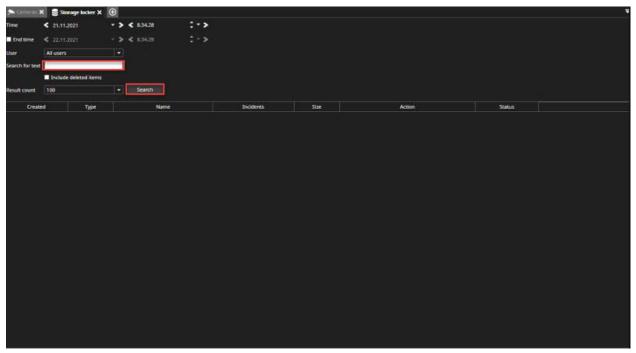
- Search stored items
- Open a selected picture, video clip or camera audit report PDF file for viewing
- Save selected picture, video clip or camera audit report PDF file to disk
- Delete selected storage locker item
- Edit selected item's name and description

#### **Searching the Storage Locker content**

Searches user-specified text from Name, Description and Incident numbers fields

1. Click Search





- 1. You can enter the Incident number, Name or Description
- 2. Start searching by clicking Search
- 3. Open: Open image, video clip or daily log
- 4. **Save:** Export content to the needed location
- 5. **Delete:** Delete the content
- 6. You can also change the name
- 7. Add a description
- 8. From the History area, you can see audit trail history
- 9. Click **Save** from the lower-left corner to finalize changes



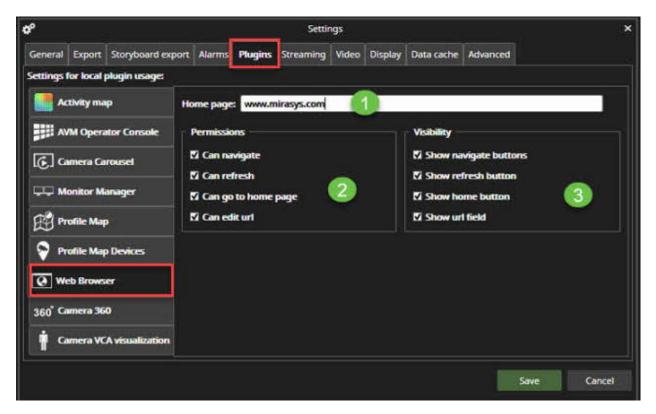




# 17.10. Web Browser

First, go to the **File\Settings\Plugins\Web Browser** 

- 1. Set the **Home page**
- 2. Set the permissions for the browser
- 3. Set the visibility settings
- 4. Click **Save** to finalize changes



- 1. Go to the Plugins folder
- 2. Open Web Browser plugin







# 18. 360 Cameras



# 18.1. 360 De-Warping

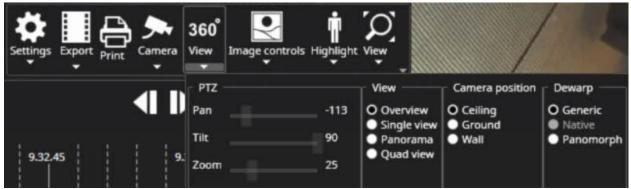
The 360 View toolbar control allows defining how a 360-camera image is de-warped (straightened) by the Spotter client.

The Plugin has controls to:

- Pan, Tilt and Zoom the de-warped image (available only for some de-warped modes and cameras)
- Select the de-warping mode
- Non-de-warped
- Single view
- Panorama (typically a double panorama, but some cameras only offer a single panorama view)
- Quad view (4 individual de-warped cameras that can be adjusted separately
- Camera mounting position control
- Lens selector

# Configuring 360 camera de-warping

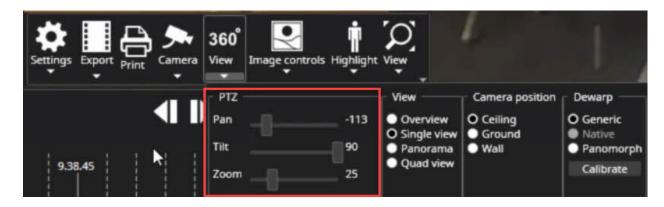
- 1. Open camera to the real-time view
- 2. Open camera toolbar
- 3. Select 360 View
- 4. Select Dewarp mode
- 5. Select Camera position(Ceiling, Ground or Wall)
- 6. Select View mode



# Single view

- 1. Select Single view mode
- 2. Adjust Pan, Tilt and Zoom

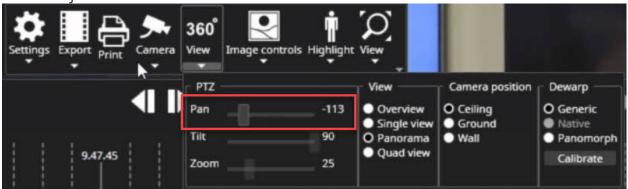




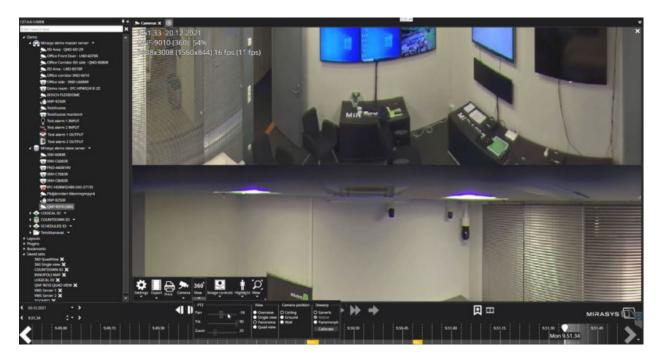


#### **Panorama**

- 1. Select Panorama mode
- 2. Adjust Pan

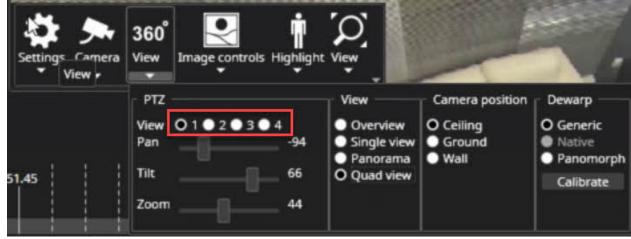






# Quad

- 1. Select Quad view mode
- 2. Select view 1
- 3. Adjust Pan, Tilt and Zoom
- 4. Repeat same actions to View 2, 3 and 4







**Previous Next** 



# 18.2. Direct Control of 360 Cameras

When 360 de-warping is in use, it is possible to click on top of the image and then move the mouse and use the mouse wheel to zoom.

This will act as an ultra-fast virtual PTZ. When clicking again with the mouse, the control is released and the changes saved.

The de-warp mode switches automatically to a single view when the camera is clicked.

Sample view of a panorama de-warped camera:





# 19. Keyboard Shortcuts

You can activate all devices and access most of the functions in Spotter with keyboard shortcuts (hotkeys).

When accessing devices, use the numeric keypad; the number row on top of the alphabetic keys cannot open devices.

#### **Windows**

| Shortcut    | Description               |
|-------------|---------------------------|
| Ctrl+N      | New window.               |
| Alt+F4      | Close the current window. |
| Ctrl+Alt+F4 | Exit Spotter.             |
| Ctrl+Alt+F5 | Log off Spotter           |
| Ctrl+Alt+L  | Lock Spotter              |

### **Alarms**

| Shortcut   | Description                           |
|------------|---------------------------------------|
| F5         | Focus on to first alarm.              |
| Enter      | Open the alarm in the alarm view tab. |
| Space      | Acknowledge focused alarm.            |
| Ctrl+Alt+A | Show/Hide Alarm list.                 |

# **Dialogues**

| Shortcut | Description |  |
|----------|-------------|--|
|----------|-------------|--|



| Enter | Same as clicking the OK button in a dialogue. If the |
|-------|--|
|       | focus is on another button when the Enter key is     |
|       | pressed, then the other button's action is executed. |

# **Show and Hide Components**

| Shortcut   | Description  |
|------------|--|
| F1         | Show Help window.  |
| ALT+F1     | Show About window.   |
| F2         | Reset layout: Set the main window to a normal state (not maximized). 100% zoom. Show profile window, time panel and time slider. The close export panel in the time slider. Focus is not in any component. |
| F3         | Show settings window.  |
| Ctrl + F3  | Show control device settings window.   |
| Shift + F3 | Show number mappings settings window.  |
| F4         | Opens the "Open media" dialogue.   |
| Ctrl+F5    | Show/hide alarm window.  |
| Ctrl+F6    | Show/hide profile window.  |
| Ctrl+F8    | Show/hide time panel.  |
| Ctrl+F10   | Show/hide ribbon (menu items).   |
| Ctrl+Alt+A | Show/Hide Alarm list.  |
| Ctrl+Alt+C | Cycle between Playback panel view modes.   |
| Ctrl+Alt+T | Cycle between Activity panel view modes.   |
| Ctrl+Alt+D | Show/Hide Device tree.   |
| Ctrl+Alt+V | Show/Hide Tabs.  |



# **Moving Focus**

| Shortcut     | Description  |
|--------------|--|
| Tab          | Move focus to the next element within the container component.   |
| Shift+Tab    | Move focus to the last element within the container component.   |
| F5           | Move focus to the first active alarm in the alarm list. If no active alarm, move focus to the first alarm in the list. If the alarm window is hidden, show it first. |
| F6           | Move focus to the first item in the profile tree. If the profile window is hidden, show it first.  |
| Alt + F6     | Move focus to the next device tree item.   |
| Alt+Shift+F6 | Move focus to the previous device tree item.   |
| F7           | Move focus to the first camera in the current tab.   |
| F8           | Move focus to the time panel. If the time panel is collapsed, open it first.   |
| F10          | Move focus to the first ribbon menu item. If the ribbon is closed, open it first.  |

# **Full-Screen Window**

The following shortcuts work in a full-screen window.

| Shortcut | Description  |
|----------|--|
| F1       | Open help plugin.                                  |
| F2       | Reset layout.                                      |
| F8       | Move focus to the time panel.                      |
| Ctrl+F8  | Show /hide time panel.                             |
| Tab      | Move focus to follow control (next camera in tab). |



| Shift+Tab            | Move focus to previous control (previous camera in tab).  |
|----------------------|---|
| Ctrl+P               | Print video image.  |
| Ctrl+S               | Save video image.   |
| Ctrl+Shift+D         | Duplicate video view.   |
| Ctrl+Tab             | Select the next tab. If the currently selected tab is the last, select the first tab in the window. The addition (+) tab is not selected.         |
| Ctrl+Shift+Tab       | Select the previous tab. If the currently selected tab is the first tab, select the last tab in the window. The addition (+) tab is not selected. |
| Ctrl+T               | Create a new camera tab. When a new camera is created, move focus to the first item in the device tree (to make it easier to add new cameras).    |
| Ctrl+Shift+W         | Close current tab.  |
| F11 or Esc           | Restore from full screen to normal state.   |
| Ctrl+D               | Date selection.   |
| Ctrl+G               | Time selection.   |
| Ctrl+E               | Activity selection.   |
| Ctrl+Right           | Set playback time +30 seconds.  |
| Ctrl+Left            | Set playback time -30 seconds.  |
| Ctrl+Shift+Right     | Set playback time +5 minutes.   |
| Ctrl+Shift+Left      | Set playback time -5 minutes.   |
| Ctrl+Alt+Shift+Left  | Set playback time -1 hour.  |
| Ctrl+Alt+Shift+Right | Set playback time +1 hour.  |
| Ctrl+Shift+Y         | Set playback time +1 day.   |
| Ctrl+Y               | Set playback time -1 day.   |
|                      |   |

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| Ctrl+Enter       | Set to the current time.  |
|------------------|---------------------------|
| Ctrl+Space       | Pause playback.           |
| Shift+Left       | Decrease playback speed.  |
| Shift+Right      | Increase playback speed.  |
| Ctrl+0 to Ctrl+9 | Camera selection.         |
| Ctrl+W           | Close selected camera.    |
| Alt+Enter        | Maximize selected camera. |

# **Tabs**

| Shortcut       | Description   |
|----------------|---|
| Ctrl+Tab       | Select the next tab. If the currently selected tab is the last, select the first tab in the window. The addition (+) tab is not selected.         |
| Ctrl+Shift+Tab | Select the previous tab. If the currently selected tab is the first tab, select the last tab in the window. The addition (+) tab is not selected. |
| Ctrl+T         | Create a new camera tab. When a new camera is created, move focus to the first item in the device tree (to make it easier to add new cameras).    |
| Ctrl+Shift+T   | Open tab menu.  |
| Ctrl+Shift+W   | Close current tab.  |
| F11            | Maximize the current tab to full-screen size.   |
| Esc            | Restore maximized tab to a standard size (when no camera is selected).  |
| Ctrl+Shift+C   | Automatic image cropping on / off.  |
| Ctrl+Shift+S   | Automatic image stretching on / off.  |
| Ctrl+Shift+R   | Reset all camera zooms to full zoom.  |



| Ctrl+Shift+B | Bounding box on / off. |
|--------------|------------------------|
| Ctrl+Shift+A | Tail on / off.         |
| Ctrl+Alt+V   | Show/Hide Tabs.        |

# **Profile Window**

| Shortcut  | Description  |
|---|--|
| Enter (when a camera is selected)                 | Add a camera to the tab.   |
| Enter (when a folder is selected)                 | Add all cameras in the selected tab and Expand the folder.   |
| Left (when the selected folder is expanded)       | Close the folder.  |
| Left (when a selected node is not expanded)       | Select parent folder.  |
| Proper (when the selected folder is not expanded) | Open the folder.   |
| Up and Down                                       | Move selection up or down. When a camera is active, the buttons for that camera are shown in the tab (that camera becomes selected). |

# **Playback Time And Speed**

| Shortcut | Description   |
|----------|---|
| Ctrl+D   | Open date selection panel. Select a date with arrow keys and accept selection with entering. Both Enter and Esc close date selection panel. |
| Ctrl+G   | Open time selection panel. Select time with arrow keys and accept selection with entering. When pressing a                                  |



|                                    | button, the panel stays open. Esc closes the time selection panel.  |
|------------------------------------|---|
| Ctrl+Right                         | Set playback time +30 seconds.  |
| Ctrl+Left                          | Set playback time -30 seconds. If in real-time mode, switch to playback mode first, and set 1x speed.   |
| Ctrl+Shift+Right                   | Set playback time +5 minutes.   |
| Ctrl+Shift+Left                    | Set playback time -5 minutes. If in real-time mode, switch to playback mode first, and set 1x speed.  |
| Ctrl+Alt+Shift+Left                | Set playback time -1 hour.  |
| Ctrl+Alt+Shift+Right               | Set playback time +1 hour.  |
| Ctrl+Shif+Y                        | Set playback time +1 day.   |
| Ctrl+Y                             | Set playback time -1 day.   |
| Ctrl+Enter                         | Go to real-time mode. No action is already in real-time mode.   |
| Ctrl+Space                         | Pause / play.   |
| Shift+Right                        | Increase playback/fast forward speed—no action in real-time mode.   |
| Shift+Left                         | Decrease playback/fast forward speed (when speed = 0, start to playback/fast rewind). If in real-time mode, switch to playback mode and start playback at 0.5x speed. |
| Ctrl+Alt+Right<br>OR<br>Ctrl+Alt+P | Display the next video frame in playback mode.  |
| Ctrl+Alt+Left                      | Display previous video frame in playback mode.  |



| OR                                      |  |
|---|--|
| Ctrl+Alt+O                              |  |
| Ctrl + Alt +[number key 10]             | Direct access to forwarding play speeds. |
| Ctrl + Alt + Shift +<br>[number key 10] | Direct access to backward play speeds.   |

# **Miscellaneous**

| Shortcut                    | Description  |
|-----------------------------|--|
| Ctrl+E                      | Open activity list. Use arrow keys + Enter to select an activity. Esc closes the activity list without selecting the activity. Tab closes the menu and sets focus to the next element. |
| Ctrl+L                      | Open layout menu (layout name selection can be changed with arrow keys, Esc closes menu without selecting layout).   |
| Ctrl+M                      | New layout.  |
| Ctrl+Up                     | Load previous layout (same order as in layout menu).   |
| Ctrl+Down                   | Load following layout (same order as in layout menu).  |
| Numpad number<br>+ numbad x | Load layout with this number (layout numbering configured under Layouts – Layout numbering)  |
| Ctrl + B                    | Open bookmarks folder in Spotter device tree.  |
| Ctrl + Alt + B              | Create a quick bookmark.   |
| Ctrl + Alt + M              | Create a quick storyboard clip   |

# **Camera Selection In a tab**

| Shortcut | Description |  |
|----------|-------------|--|
|----------|-------------|--|



| Ctrl+1 to<br>Ctrl+0 | Set focus to n:th camera in tab (0=10th). |
|---------------------|---|
| Tab                 | Next camera.                              |
| Shift+Tab           | Previous camera.                          |
| Esc                 | Remove camera selection.                  |

# **Export Time Controls**

| Shortcut     | Description   |
|--------------|---|
| Alt + I      | Zoom time slider to show export period ultimately.      |
| Alt + Y      | Moves playback position to current export start time.   |
| Alt + CTRL + | Sets current playback time to be the export start time. |
| Alt + U      | Moves playback position to current export end time.     |
| Alt + CTRL + | Sets current playback time to be the export start time. |

# **Camera Controls**

| Shortcut     | Description  |
|--------------|--|
| Ctrl+W       | Close current camera.  |
| Alt+Enter    | Maximize camera in tab.  |
| Double enter | Maximize/minimize camera in tab. (if the focus is on camera)                         |
| Esc          | Restore camera average size (when maximized). When in a standard size, remove focus. |
| Ctrl+P       | Print camera image.  |
| Ctrl+S       | Save (export) camera image.  |



| Ctrl+Shift+D             | Duplicate video view.                                    |
|--------------------------|--|
| Ctrl + Alt + Shift + D   | Duplicate the camera and move it to mixed playback mode. |
| Numpad number +<br>Enter | Add camera (device number).                              |
| Numpad number + plus     | Activate monitor/window (monitor number).                |
| Numpad number + minus    | Close the camera (device number).                        |

## **PTZ Camera Controls**

| Shortcut        | Description  |
|-----------------|--|
| Arrow keys      | Moving the camera left, right, up, down (also intermediate directions).                                |
| Page Up         | Zoom out.  |
| Page Down       | Zoom in.   |
| Home            | Full un-zoom.  |
| End             | Maximum zoom in.   |
| Double<br>enter | Maximize camera and assume PTZ control for selected camera number. (if the focus is on the PTZ camera) |
| Ctrl + H        | Home position / program  |

# **Camera Tour**

| Shortcut   | Description                                     |
|------------|---|
| F12        | The toggle camera tour starts and pauses state. |
| Ctrl + F12 | Steps to next camera tour view.                 |



| Ctrl+Shift+F12 | Steps to previous camera tour view. |
|----------------|-------------------------------------|
|----------------|-------------------------------------|

# **I/O Control**

| Shortcut   | Description   |
|------------|---|
| Arrow keys | Change focus between action button, content popup button and close button when focusing in the component panel. |
| Space      | Performs default action when the item is selected from the profile tree.  |

C



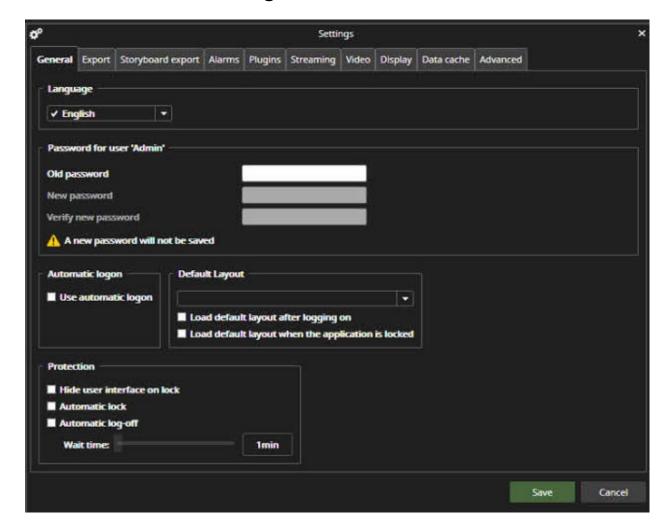
# 20. Settings

Various functions can be accessed from the **Settings** menu.

- General
- Export
- Storyboard export
- Alarms
- Plugins
- Streaming
- Video
- Display
- Data cache
- Advanced



# 20.1. General Settings



### Language

From the drop-down list, a user can change the language of the user interface.

### **Password**

Users can change their own password

# **Automatic logon**

When Use automatic login is enabled, the selected user has logged on automatically, when Spotter is started

## **Default layout**



The default layout can be selected in the General settings section.

The two options for the layout are:

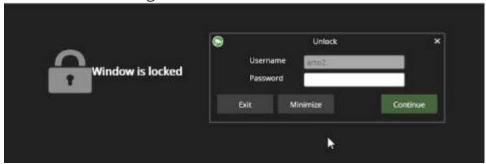
- 1. Load this layout immediately after the user has logged in
- 2. Load this layout immediately after the user is locked

This setting can be used to guarantee that a particular "general" view is always active when the workstation is not in use.

#### **Protection**

The protection settings control how the user interface is locked.

- Hide user interface on lock
- Automatic lock
- Automatic log-off

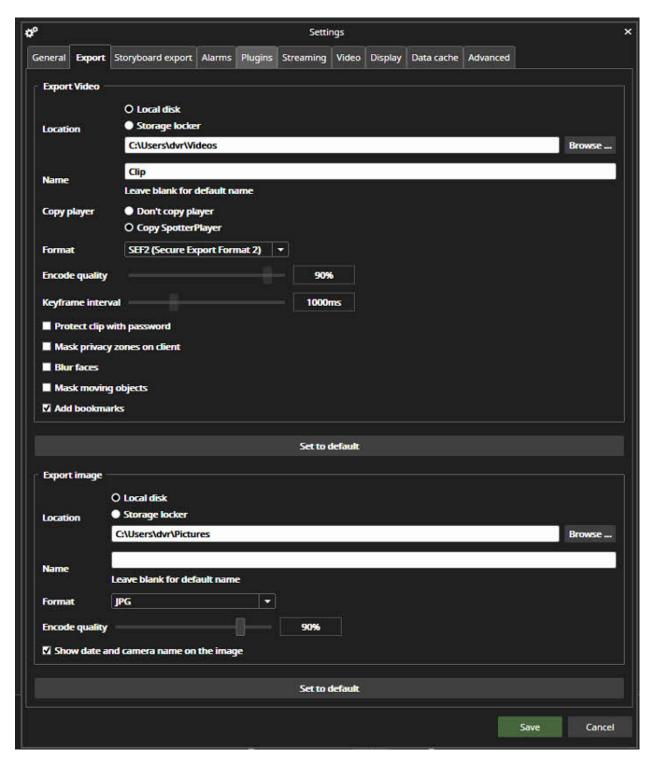


Turning on the "Hide user interface on lock" means that when the user interfaces lock automatically or manually lock the user interface, the whole interface turns grey, and no cameras can be seen.

If "Automatic logon" is checked, the user does not need to re-enter their credentials (username and password) when starting to use the application.



# 20.2. Export Settings



The data export screen has settings contains the following settings:

# **Export video**



- The exported video default location
- The exported video default name
- Spotter Player copy settings
- Default format
- Protect clip with password
- Mask privacy zones on client
- Blur faces
- Mask moving objects
- Add bookmarks

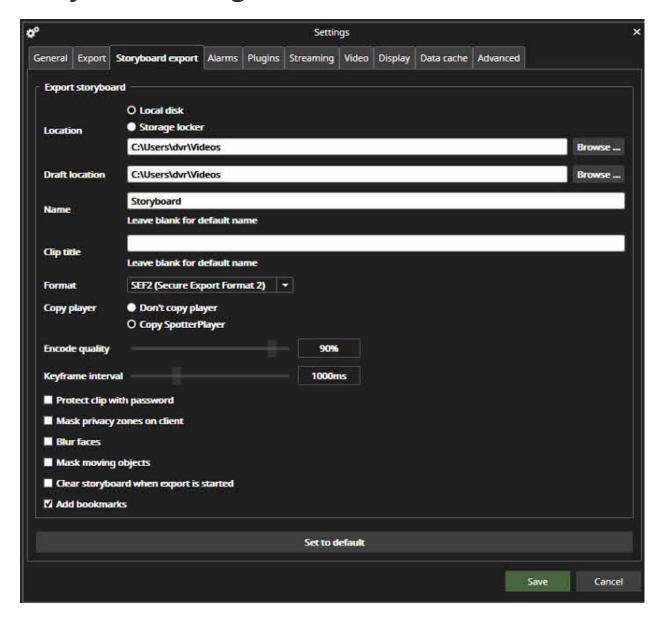
# **Export an image**

- The exported image default location
- The exported image default name
- Default format



# 20.3. Storyboard Settings

### **Storyboard Settings**



Storyboard settings contain the export target location and the target location for the draft storyboards.

The name of the storyboard and the clips can be defined here. If the names are left blank, a default name with a timestamp is used.



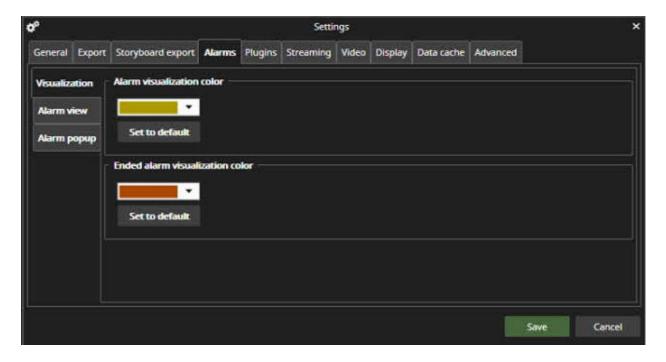
# 20.4. Alarm Settings

The alarm tab in settings is split for the Alarm visualization, Alarm view and Alarm popup sections.



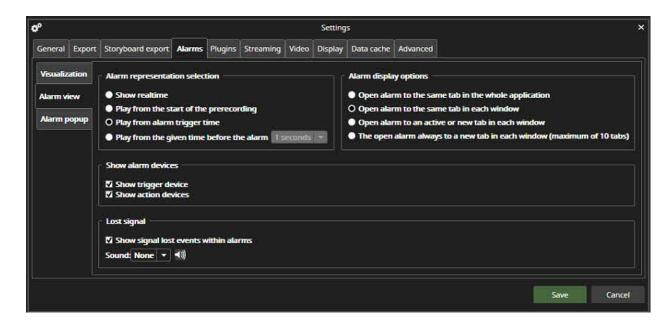
# 20.4.1. Alarm visualization settings

Alarm visualization allows a selection of the alarm highlight colour for active and ended alarms.





# 20.4.2. Alarm View settings



### **Alarm representation selection**

The Alarm representation selection defines what time the alarm is being played when it is opened from the alarm list. The possibilities are:

- Show real-time
- Play from the start of the alarm pre-recording time
- Play from alarm trigger time (default option)
- Play from the given time before the alarm(1-60 seconds)

### **Alarm display options**

It is also possible to define how the alarm is opened. The possibilities are:

- Open alarm to the same tab in all whole application
- Open alarm to the same tab in each window
- Open alarm to an active or new tab in each window
- Open alarm always to a new tab in each window(maximum of 1 10 tabs)

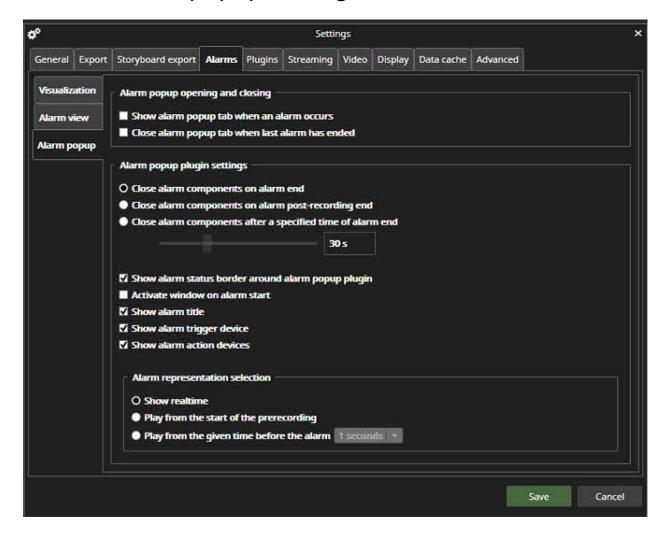
## Lost signal

Show signal lost events within alarms





# 20.4.3. Alarm popup settings



Alarm popup settings define how the Alarm popup view opens and closes.

The default setting is that the Alarm popup is not opened and closed automatically if it is not open.

### Alarm popup opening and closing

If the user wants the Alarm popup not to open normally and only open when an alarm happens, he should select the first checkbox.

If the user wants the Alarm popup closed automatically after the last active alarm ends, he should check the second checkbox.

## Alarm popup plugin settings



The second part of the Alarm popup settings defines how long the alarm components are displayed in the popup tab. The possibilities are:

- Alarm components are closed when the alarm ends (default option)
- Close alarm components on alarm post-recording end
- Close alarm components after a specified time of alarm ended(5 seconds 30 minutes).
- Show alarm status border around alarm popup plugin
- Activate window on alarm start
- Show alarm title
- Show alarm trigger device
- Show alarm action devices

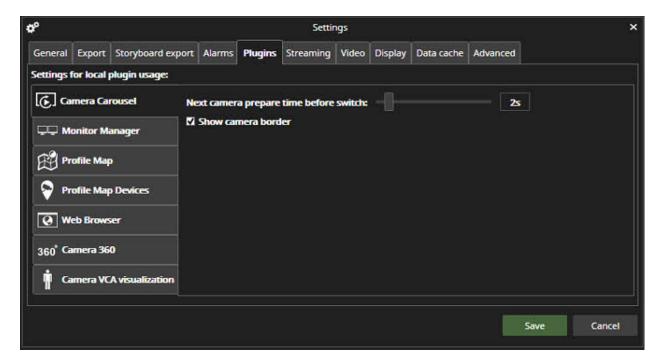
# **Alarm representation selection**

- Show real-time (default)
- Play from the start of the prerecording
- Play from the given time before the alarm(1-60 seconds)



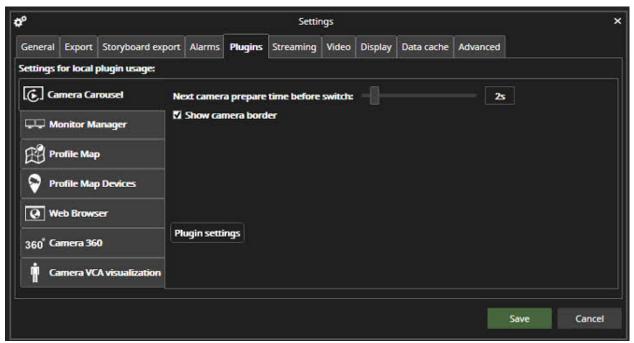
# 20.5. Plugin Specific Settings

This setting view contains all settings for the installed Spotter plugins not specified elsewhere. The settings visible here can be different based on what Spotter plugins are installed.





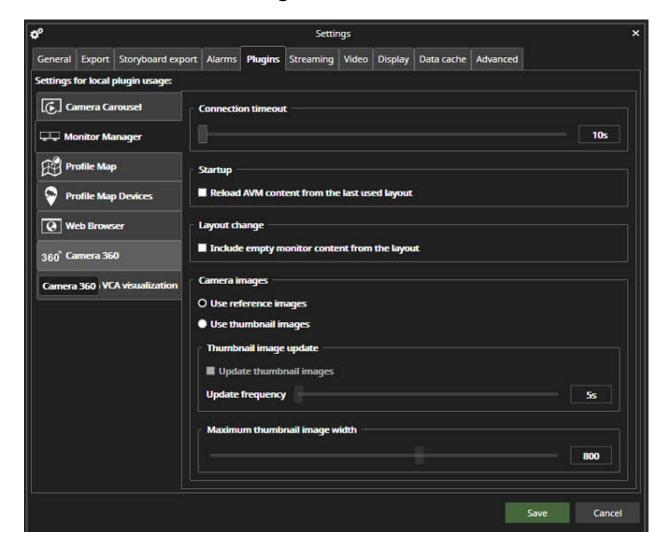
# 20.5.1. Camera Carousel



- Next camera prepare time before the switch
- Show camera border



# 20.5.2. Monitor Manager



#### **Connection timeout**

#### **Startup**

Reload AVM content from the last used layout

#### Layout change

Include empty monitor content from the layout

#### **Camera images**

- Use reference images
- Use thumbnail images



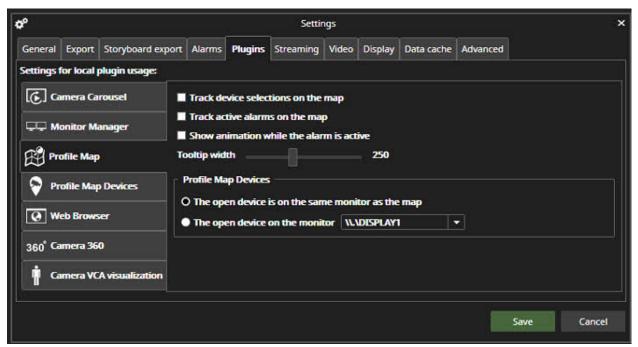
## Thumbnail images update

Update frequency

Maximum thumbnail image width



# 20.5.3. Profile Map



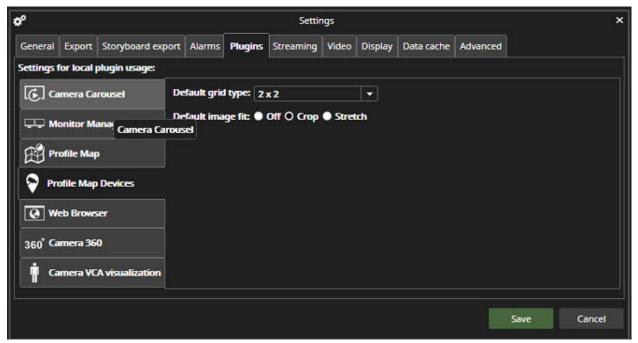
- Track device selections on the map
- Track active alarms on the map
- Show animation while the alarm is active

#### **Profile Map Devices**

- The open device is on the same monitor as the map
- The open device on the monitor:



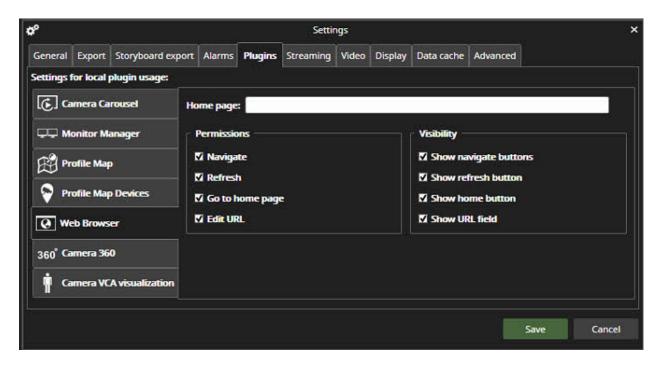
# 20.5.4. Profile Map Devices



- Default grid type
- Default image fit
  - o Off
  - o Crop
  - Stretch



### 20.5.5. Web Browser

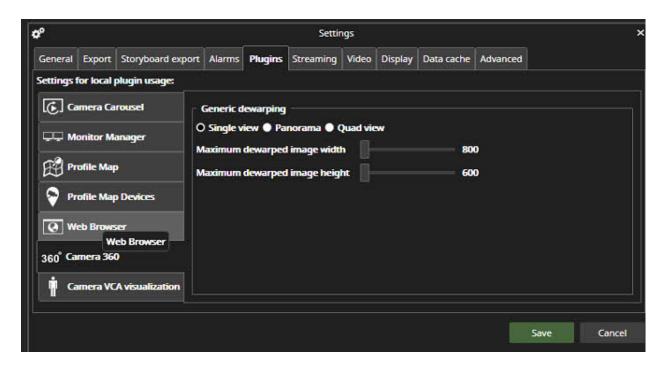


The Web Browser plugin has settings for

- It is setting the home page where the plugin will go when it is opened.
- Permissions and visibility of controls for controlling if the user can navigate, refresh, go back to the home page and edit the URL.
- It is selecting the version of Internet Explorer that is used.



### 20.5.6. Camera 360



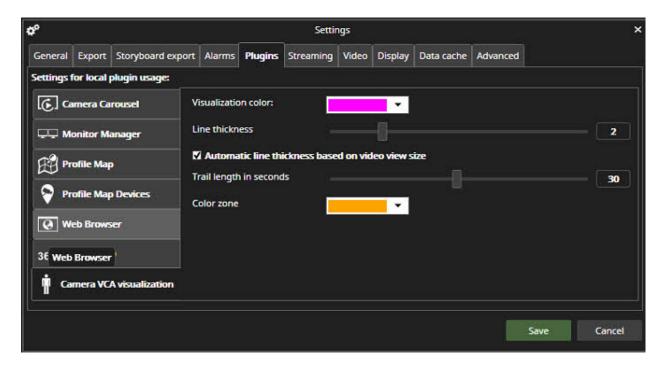
Camera 360 settings contain settings for:

## **Generic dewarping**

- Single view
- Panorama
- Quad view
- Maximum dewarped image width
- Maximum dewarped image height



# 20.5.7. Camera VCA visualization



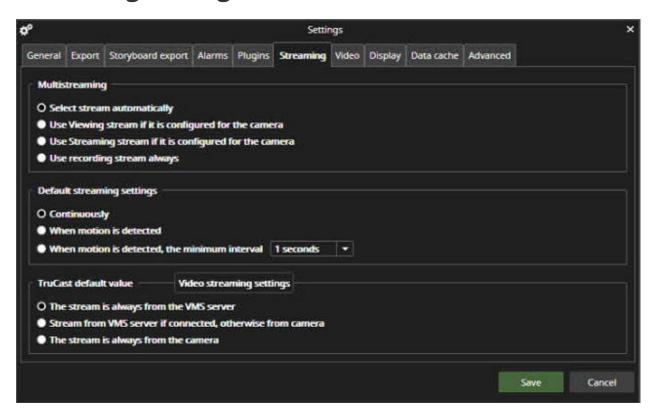
VCA visualization settings allow the user to change the colour of the VCA highlight and the movement trail, the movement trail length in seconds and the line thickness.

The VCA zone colour can be adjusted independently from the VCA highlight colour.



# 20.6. Streaming Settings

### **Streaming Settings**



The streaming settings allow changing the default values for three areas of streaming.

- Multistreaming: Which stream from the camera is used for live viewing.
- **Default streaming settings**: Does Spotter draw all images always, or only based on motion detection.
- **TruCast default value**: Whether the live view stream is directly from the camera (TruCast) or the VMS Server.

The **TruCast** and **Default streaming settings** can also be adjusted individually per camera from the camera toolbar menu.

These settings will override any settings up until now done for cameras.

-

However, after changing these settings, it is possible to customize individual cameras to use different settings, which are memorized per camera.

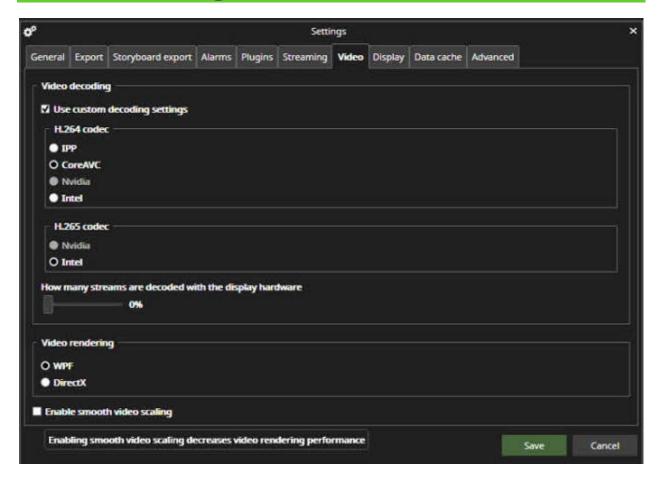


Setting "Select stream automatically" in the multi-streaming settings means that Spotter will choose the stream which resolution most closely matches the area that the camera has on the device grid.



# 20.7. Video settings

# **Video settings**



The video settings allow setting custom decoding and change rendering technologies to help improve performance depending on hardware.

# Video decoding

**Use custom decoding settings** allows you to select a specific decoding setting and decide what per cent of streams are decoded using GPU.

#### H.264 codec

- IPP: uses CPU
- CoreAVC: Can use CPU or Nvidia CUDA
- Nvidia: requires Nvidia GPU
- Intel: uses CPU; if processor chip has Intel Graphics inbuilt GPU, it can also use GPU

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#### H.265 codec

- Nvidia: based requires Nvidia GPU
- **Intel:** uses CPU; if the processor chip has Intel Graphics inbuilt GPU, it can also use GPU, slider affects how many cameras use CPU/GPU.

#### How many streams are decoded with the display hardware

defines that how percentages of cameras use CPU/GPU.

If decoding method Nvidia is chosen and the slider is set to, E.g. 50%, half of the cameras will be decoded using Nvidia and the other half will use CoreAVC if they are H.264 and Intel CPU if they are H.265

## Video rendering

Allows to change video rendering to WPF (default) or DirectX

## **Enable smooth video scaling**

It uses a different image drawing mechanism, and it will have a smoothening effect on video, especially if the framerate is high (over 20 fps).

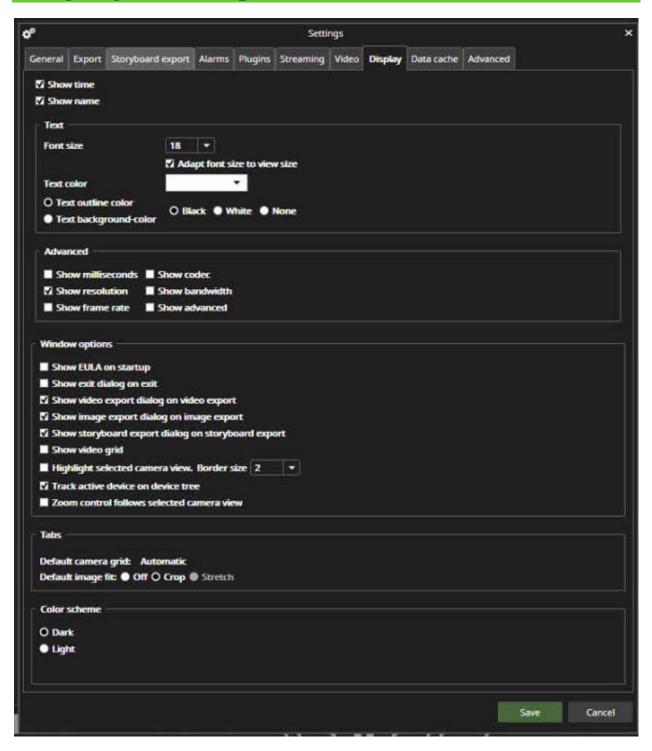
However, the smooth video scaling setting should not be used if the user has multiple Spotter windows open.

Smooth video scaling will make video image appearance better, but this setting increases the computer load slightly.



# 20.8. Display Settings

# **Display Settings**



The display settings control if the camera name and timestamp are shown on all the cameras.



#### **Text colour**

Also, the colour of the text and the outline can be adjusted separately.

The colour can be adjusted for individual cameras from the camera toolbar.

#### **Advanced**

It is also possible to activate the advanced information display such as codec, bandwidth used, framerate, and buffering status.

Activating the advanced display settings displays information on the video buffering performance.

This information is meaningful only if the video buffering (see advanced settings tab in Spotter settings) is set on and only for live video (not for playback).

## **Window options**

- Show EULA on startup
- Show exit dialogue on exit
- Show video export dialogue on video export
- Show storyboard export dialogue on storyboard export
- Show vide grid
- Highlight selected camera view Border size
- Track active device on device tree
- Zoom control follows selected camera view

#### **Tabs**

Tab settings control the default camera grid for new device tabs and the default image fit setting. "Crop" is set as default.

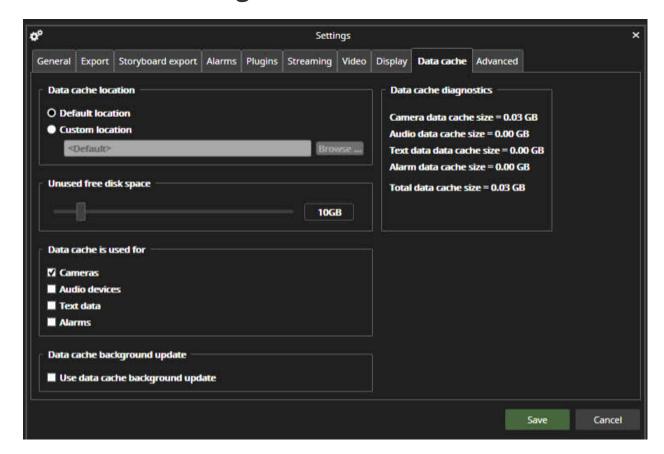
### **Color scheme**

The last setting controls whether the colour scheme is dark (default) or light. This setting is not available in all product variants



# 20.9. Data Cache Settings

### **Data Cache Settings**



Data cache speeds up camera and audio device activity data, text data, and alarm data retrieval when in use.

The system uses either C-drive or some other system hard disk for caching camera data.

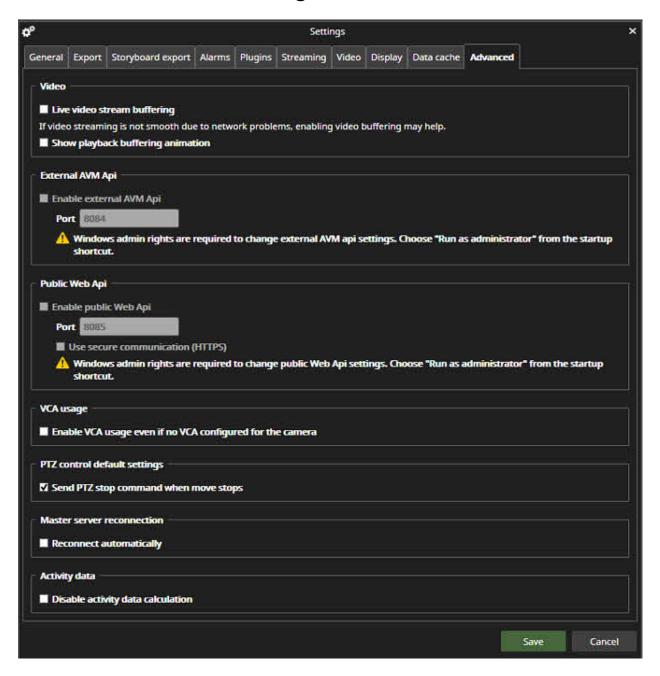
The camera activity bar (blue bar on the time slider) is updated faster with cached camera data. The cache is profiled specifically.

For larger systems, it is recommended to set up a separate hard disk to store the cache data.

The cached data can be controlled from the dialogue that defines what data is cached:



# 20.10. Advanced Settings



### **Video**

Using video buffering can help if the video stream appears choppy. Buffering will attempt to queue image frames dynamically to even out any time differences in arriving image frames.

The memory use is increased slightly, as is any possible delay with the video compared to real-time.



#### **External AVM API**

The AVM API (Application Programming Interface) must be activated in AVM Display Server use.

#### **Public Web API**

### **VCA** usage

### PTZ control default settings

#### Master server reconnection

The Master Server reconnection setting, if activated, will keep Spotter open also in case of loss of connection with the Master Server.

# **Activity data**

Disabling the activity data calculation will make the camera material bar disappear from the activity panel, reducing the system load slightly.

It can be disabled if the user has no intention to use the activity panel (for example, in the AVM Display Server case).

Spotter has advanced video buffering that smooths out the effect of bursts innetwork or an ill-behaving camera where the image frames are not arriving smoothly and regularly from the camera to Spotter.

Without the buffering on, Spotter draws the live images as fast as they arrive without regard for the frame rate or the image.

#### Frequently Used Keyboard Shortcuts:

| Shortcut | Description           |
|----------|-----------------------|
| F3       | Show settings window. |



# 21. About Screen

The Spotter About window contains information about the installed plugins and their licenses.

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