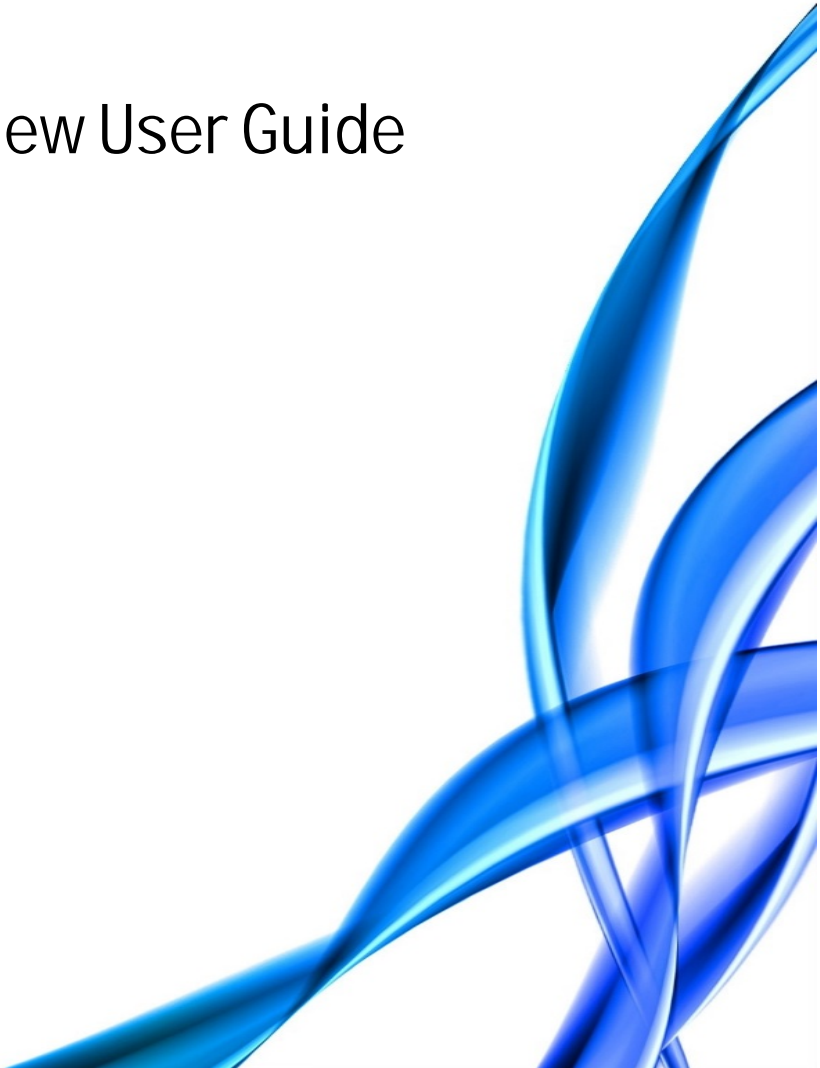


EasyView 7.5

EasyView User Guide



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# INTRODUCTION

Ernitec EasyView is a modern, easy-to-use application for viewing live and recorded video and exporting video clips. Ernitec EasyView can be used to create multi-monitor configurations with multiple independently operating device tabs and windows.

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

EasyView is expandable with various extensions or – so called – plug-ins and it can also be used to control the Agile Virtual Matrix (AVM) video matrix Enterprise option (add-on).

# NEW FEATURES

The following features are introduced in the 7.5 release:

- [Storyboard](#)
- [Custom camera grids](#)
- [Profile Maps](#) can react to alarms with switching of the view
- EasyView plugins can reside in a camera grid cell
- [A specified layout can be loaded from user lock or login](#)
- [Camera grid zero bezel border](#)
- [Fast bookmarking](#)
- The device description can be shown in the device tree
- Image stretch option for fixed and custom grids
- Cameras that are exported in clips or storyboards will now retain their 360 de-warping or virtual camera zoom settings

The following features were introduced in the 7.4 release:

- [Mixed playback mode](#)
- [Bookmarks support](#)
- [Joystick improvements](#)
- Built-in [Help](#)
- Offline support and also EasyView Is available as a standalone executable (the EasyViewPlayer.exe) for use as a media player application
- EasyView can be used to play exported video clips
- Multiple devices can be selected from the device tree
- The Text search plugin has been updated
- Linked devices are opened automatically
- It is possible to create a copy of a camera and send it immediately to mixed playback mode

# INSTALLING EASYVIEW

EasyView is installed with other applications when the normal VMS installer is used. If a user wants to install only the EasyView client, he can use the dedicated EasyView-only installer.

EasyView is also available as a standalone executable file (EasyViewPlayer.exe), which does not require any installation. This version of EasyView can be used to review video clips, Storyboard clips and video archives.

## INSTALLING EASYVIEW WITH EASYVIEW-ONLY INSTALLER

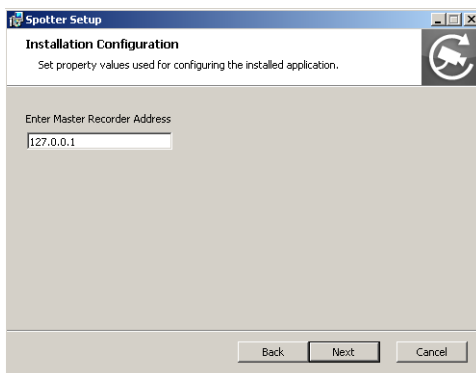
The EasyView-only installer installs only EasyView.. You can start the installer by



double-clicking it.

Pressing “Install” will start the installer. The first component to be installed is SlimDX. When the SlimDX installing is finished, press “Next”.

The installer will ask where it should place the installed files. If you do not want to change the default location, press “Next”.



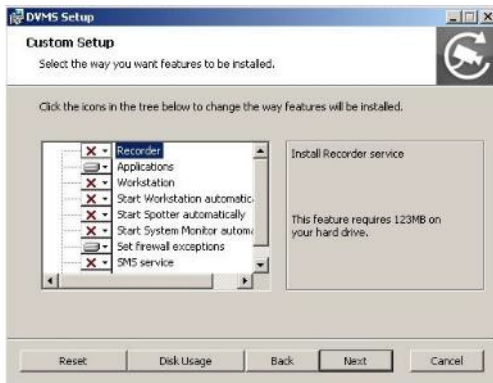


Next the installer will ask for the Master Server's IP address (if you only have one recording server, it is the recording server's IP address). Enter it to the dialog and press "Next". After this, press "Install" to install EasyView.

After the installation is finished, Press "Finish" to exit the installer.

## INSTALLING EASYVIEW WITH VMS INSTALLER

EasyView can also be installed as part of the normal VMS installation. This process is very similar to the one described in the EasyView-only installer, the main difference is that you have a selection screen where you can select if you install the Recorder service or not. If you are only installing the clients and not the Recorder service, you do not need a license. In this case, deselect the "Recorder" option and proceed with the installation.



By default the installer will install EasyView on all recorder installations. With the VMS installer it is also possible to choose the option that EasyView is started automatically.

See the Ernitec VMS Installation Guide for more details.

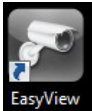
## USING EASYVIEW FROM OUTSIDE A FIREWALL

The recommended way to use EasyView from external networks or through a public Internet connection is to first establish VPN connection to the company intranet. This way, the EasyView outside the firewall can use the intranet IP address of the master and slave servers (nodes).

It is also possible to use DVMS system without a VPN. In this case, user should connect to the master server with the outside IP address and port combination. Please refer to your system administrator for more information.

# STARTING EASYVIEW AND LOGGING IN

EasyView is started by double-clicking the EasyView icon on the desktop.



It is also possible to start EasyView automatically when the computer boots up. See Installing EasyView with VMS installer.

When EasyView is started, it contacts the System Management server (SMServer, Master Server) and checks if it needs to download new plugins or a new version of EasyView. When a system is upgraded or new plugins have been added, it is important to exit the EasyView clients and start them again from the desktop shortcut so that this check can be made.

Next, the log in screen is displayed.

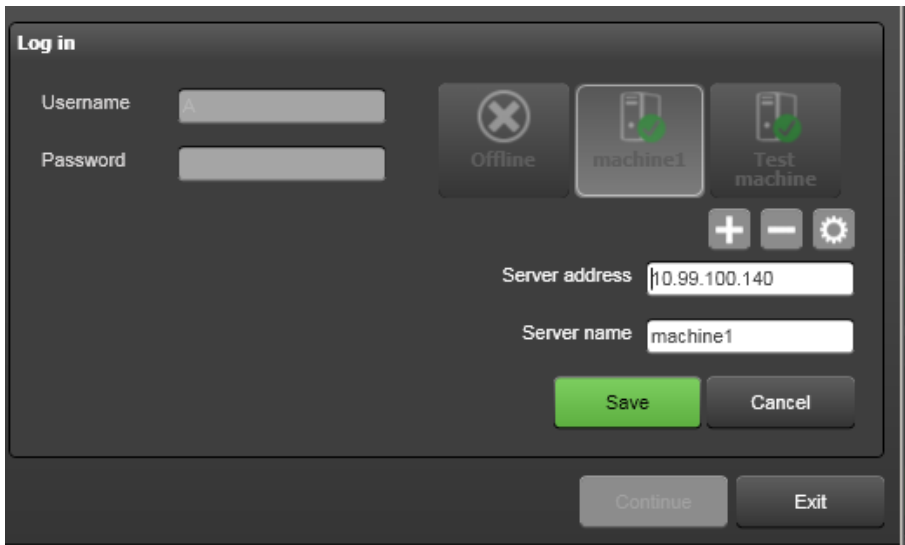


The user can enter here his username and password and press “Continue” to log in.

It is possible to configure EasyView to log in automatically, please see Settings.

It is also possible to use EasyView in offline mode. This mode is accessible by pressing the “offline” button in the EasyView login screen.

## ADDING A NEW MASTER SERVER ADDRESS



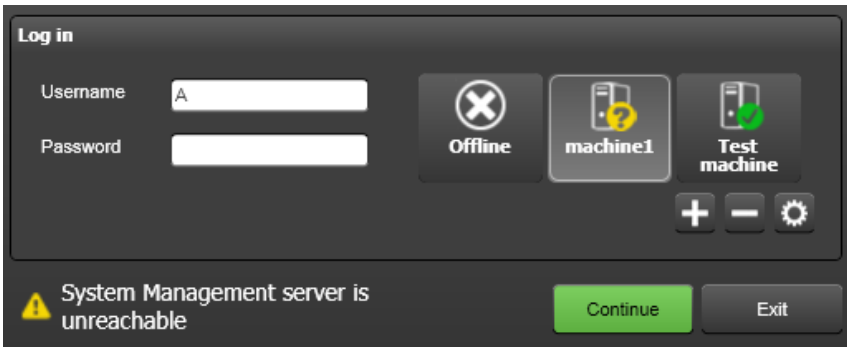
The IP address in the login screen is the one that was entered during the EasyView installation. If a user wants to edit the IP address or change the name of the server, he can select the Edit button.



A new Master Server (SMServer) address can be added with the “plus” button.

Servers can be removed with the “minus” button.

The icons on top of the server show if the connection to the servers is OK or if the server is not reachable (offline).



If you are connecting to an server of a different version to the EasyView instance that is currently installed, the icon will change to red to indicate that you should restart EasyView either by pressing the “Restart” button or by closing the login screen and starting EasyView again from desktop link to download a new EasyView version that is compatible with the selected server version.

## DNS AND DYNDNS USE

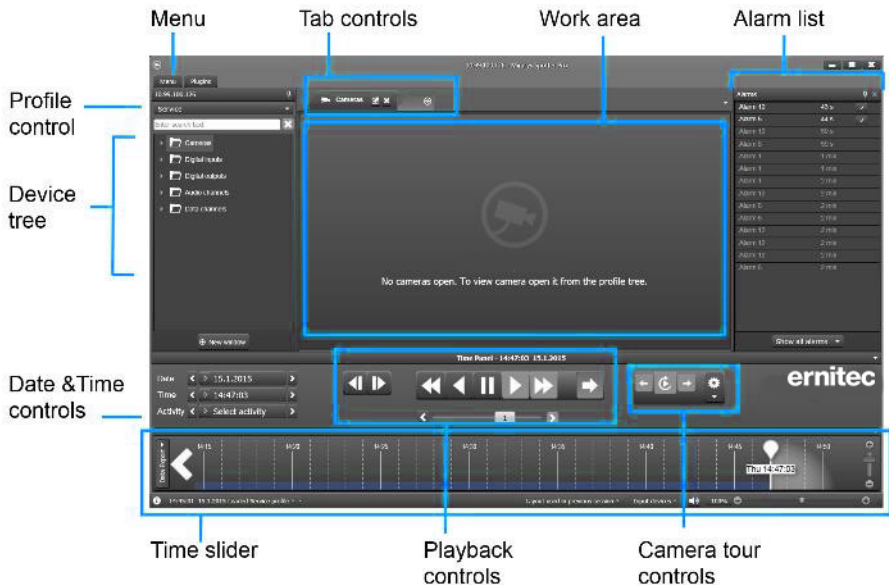
Ernitec VMS supports the usage of Dynamic Domain Name System (DNS) services (DynDNS, DDNS). Since there are many service providers for Dynamic DNS we suggest to review their installation and configuration documentation. In most cases

the router which is connected to the Internet Service Provider (ISP) has to be configured accordingly. Port forwarding for the VMS and the camera streaming ports have to be configured independent from the Dynamic DNS configuration. Some Dynamic DNS services provide a local client which can be installed on the VMS server to improve the Dynamic DNS performance.

Note: Most Dynamic DNS services require up to 48 hours updating time which might delay the connectivity. For testing we suggest using the current public IP address instead of the Dynamic DNS name. The public IP can be found by browsing on the VMS server to, e.g., <http://www.myip.net/>

# EASYVIEW USER INTERFACE COMPONENTS

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



## PROFILE CONTROL AND DEVICE TREE

The profile control is the topmost item in the device tree. It contains all profiles that were added to the specific user group in the System Manager application. A profile can contain cameras, I/O's, audio and text channels.



The default position for the device tree is on the left side of the EasyView window. The device tree can also be docked to the right side of the screen by drag and drop.

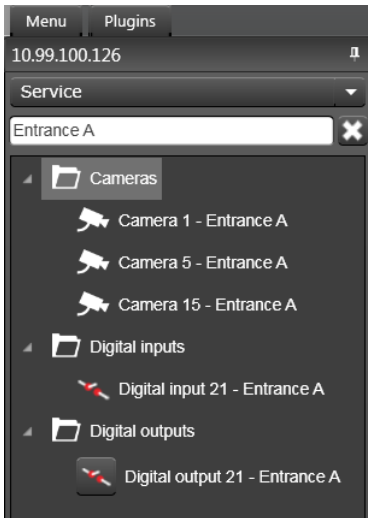
There is also a pin in the title bar of the device tree.

By default the device tree is always visible, but clicking on the pin changes the device tree to auto-hide mode. In this mode the device tree is hidden until the user accesses it, allowing for more room in the work area for cameras and other devices.

Below the dropdown profile control is a search window, if the user wants to search certain devices in the device tree.

EasyView uses the search text to show only those profile nodes (devices or folders) which' name contains the search text.





After entering text to the search field, the device tree list is filtered. The user can now interact with the filtered list with a mouse or by pressing the keyboard down arrow. Pressing down and up arrows moves focus to the filtered device list. It is possible to select an item with the Enter key. It is possible to move back to the search field by using arrow keys. ESC will clear the search field and return the full unfiltered device tree.

User can open one or more devices or a folder to the work area. A device is opened by drag and drop or by double-clicking on the device. Selecting a folder will open all the contents of the folder to the work area.

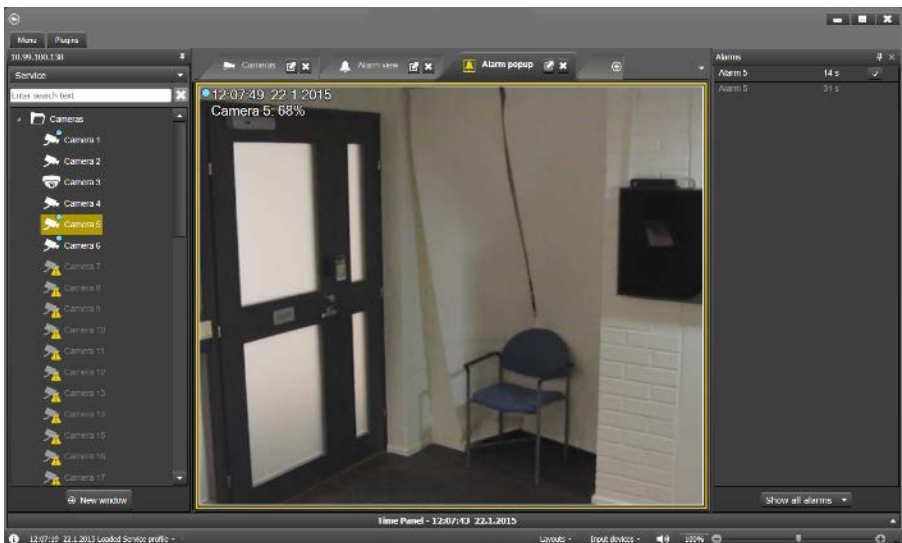
Selecting many devices is possible by pressing Shift or Ctrl keys when selecting the devices.

If devices are linked in the profile, all linked devices are opened when one of them is opened.

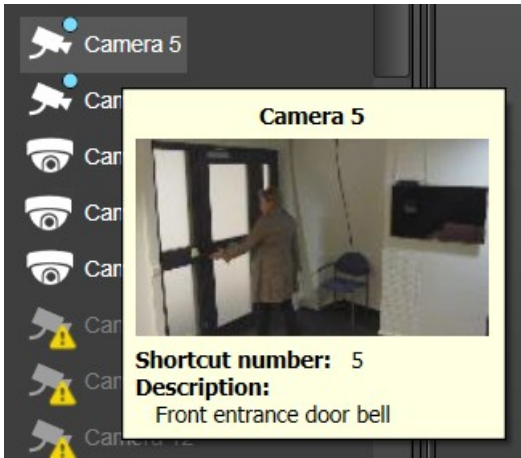
Cameras, audio devices and text channels are opening by default in real-time view, if not specified otherwise in the System Manager application's profile settings. Digital input and output (I/O) are opening in closed state. Digital output states can be changed from the device tree as well by pressing the button in the devicetree.

In addition to showing the device symbol, also device state is shown in the device tree. A device is indicated with a white icon if it's in normal state. When the device is

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



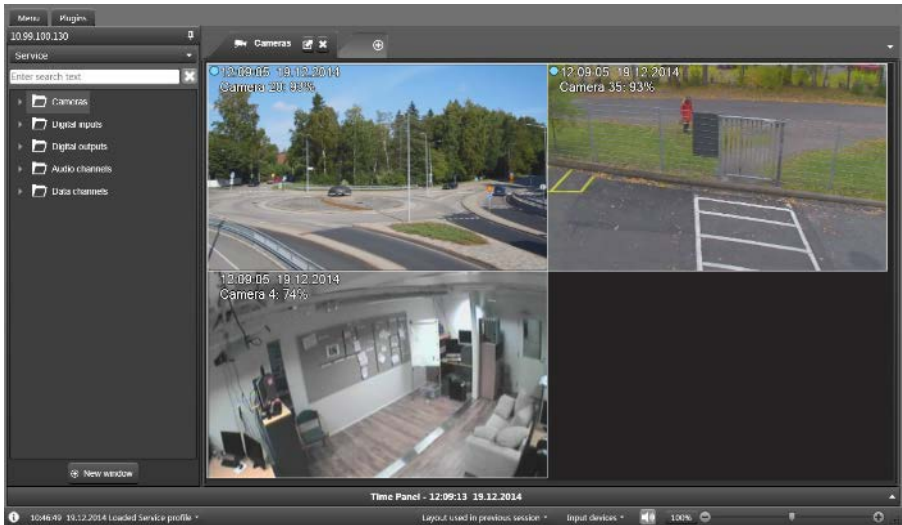
If a device is used as an alarm trigger or an alarm action, it has a yellow highlight color.



The user can change the device name in the System Manager application and give a device a description. The name and the description are visible in the device tooltip. The user can also define special icons for the devices in system Manager Profile Settings.

The device tree can also show the device description. To enable showing this feature, select "Description" in the EasyView menu.

# WORK AREA AND TABS



The work area is 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 live position of the work area.

## DEVICE TABS

The work area can have multiple device tabs. New tabs can be created by clicking the “New tab” control or from the tab pull down menu on the right side of the EasyView screen.

The tab pull down menu also offers possibility to jump to a tab if there are lot of tabs and some of them are not visible anymore.

Only cameras that are on the currently visible tab are streaming. Cameras that are on the “hidden” tabs are not streaming, but will resume streaming instantly when the tab is activated.

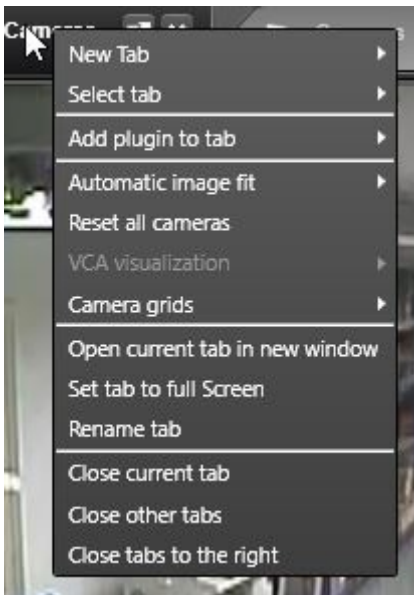
Tabs can be reordered by dragging them to a different position.

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

If the CTRL button is pressed when dragging, a copy is made instead of moving. The same applies for moving or copying cameras.

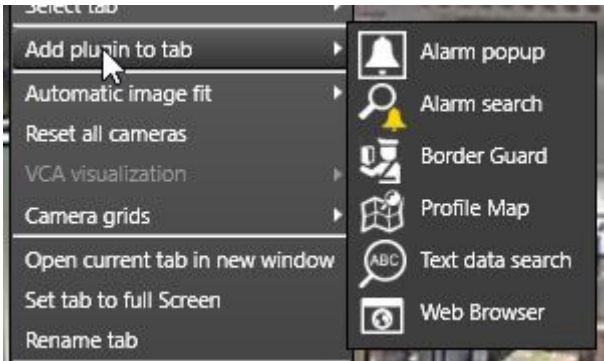


New plugin tabs can be opened also by hovering the mouse cursor on top of the “plus” button that creates new device tabs, and accessing the menu that appears.

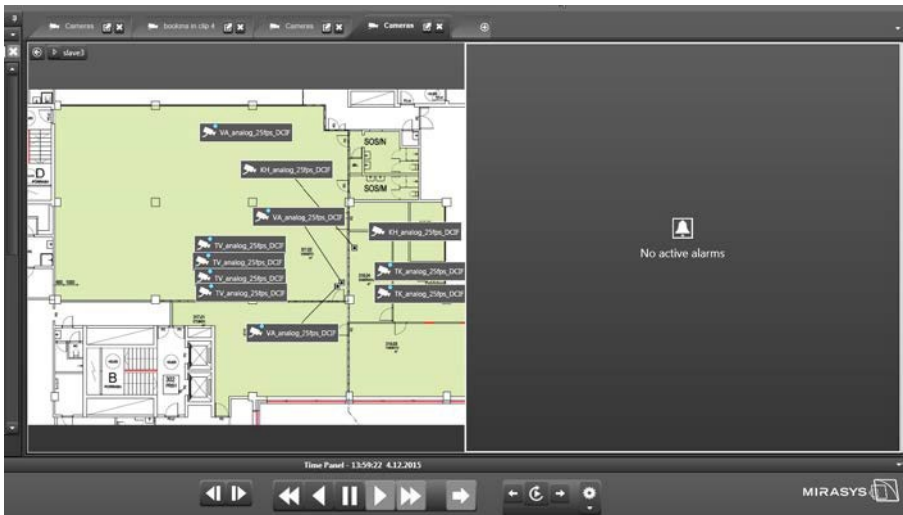


The tab menu can be accessed with a mouse right-click. It also offers the possibility to select a tab and create new tab, as well as change the name of the current tab and close a tab or several tabs. The automatic cropping and camera grid settings for all cameras on this tab can be controlled from here. Also the tab menu offers the possibility to reset the virtual zoom and VCA visualization settings for all cameras on the tab.

It is also possible to add a plugin to a tab.



This allows for example the Profile Map plugin and the Alarm Popup plugins to reside in separate cells on the same camera grid.



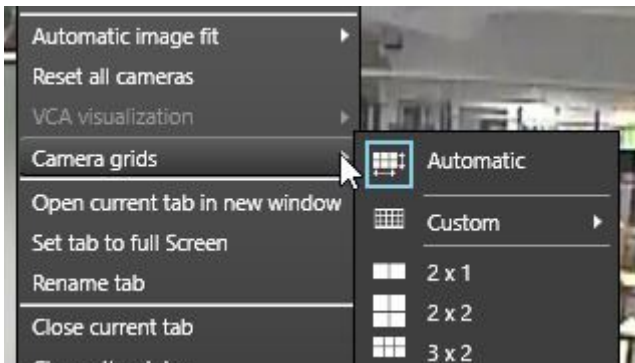
Any plugin can now be added to any grid cell, which gives lot of possibilities.

Tabs can be closed from the “x” control or from the tab menu. It is possible also to close all tabs to the right of the current one, or all tabs but the current one.

*Frequently Used Keyboard Shortcuts:*

Shortcut	Description
Ctrl+Shift+T	Open tab menu.
Ctrl+Shift+W	Close current tab.
Ctrl+Tab	Select next tab. If currently selected tab is last tab, select first tab in the window. Addition (+) tab is not selected.
Ctrl+Shift+Tab	Select previous tab. If currently selected tab is first tab, select last tab in the window. Addition (+) tab is not selected.

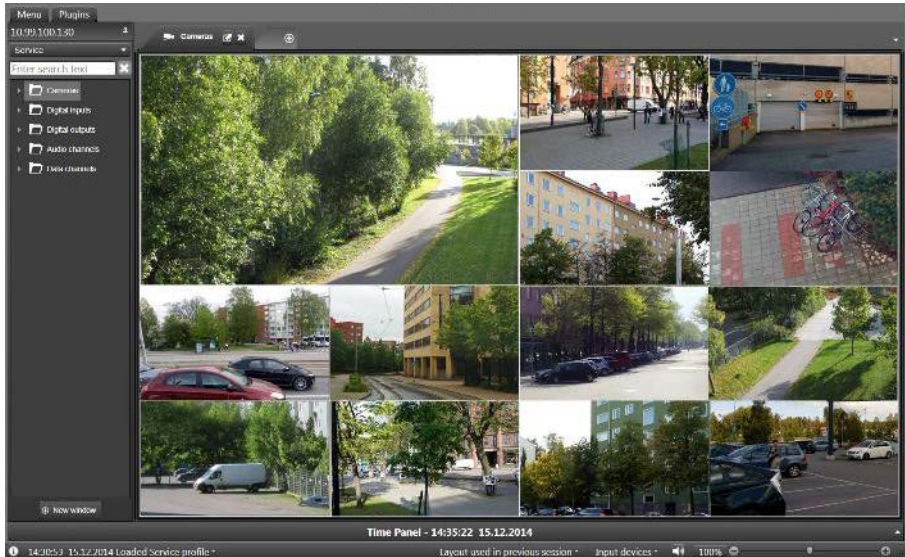
## CAMERA GRIDS



The default view mode of the work area is automatic. In this mode, cameras appear all using the same size, and the position and size changes automatically as more cameras are added.

There are also fixed grids available, where some cameras can be larger 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.



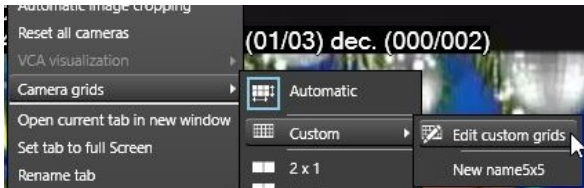
For example, a view mode 4 x 4 / one large will have one large camera cell and 12 smaller camera cells.

## CUSTOM CAMERA GRIDS

In addition to the pre-formatted fixed grids, it is now also possible for the user to create custom camera grids. To create a new custom grid, first right-click to show the tab menu, then select “Camera grids”, then “Custom” and then “Edit custom grids”. This opens the grid editor.



The grid editor is used to create new custom grids and edit custom grids that have already been saved before.



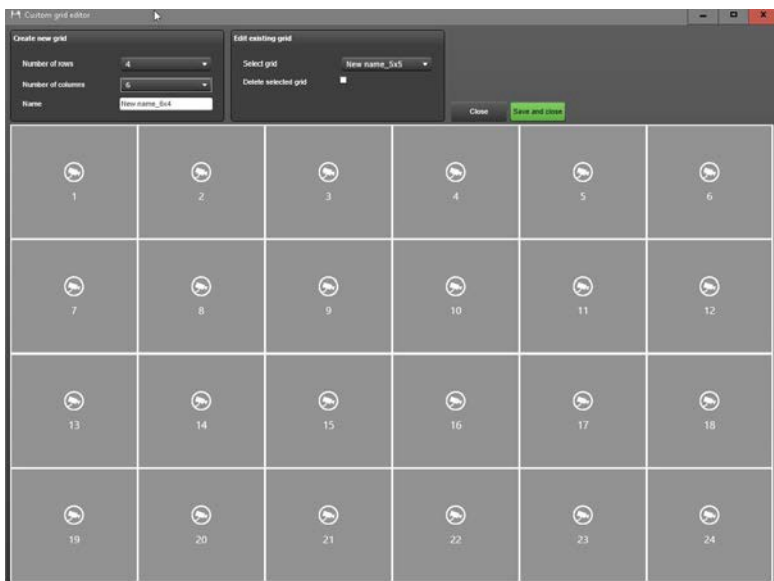
There are two sections:

- Creating new grids section:

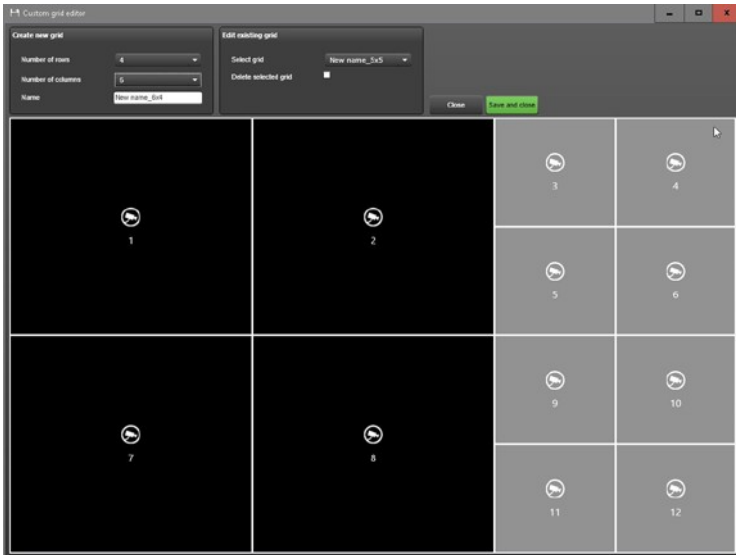
- Edit existing grids section

The grid editor opens by default in 5 x 5 mode. The number of rows and columns can be adjusted using the controls

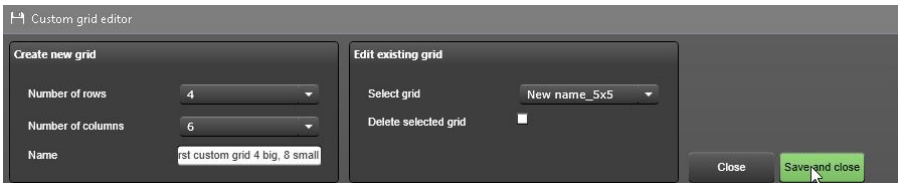
It is a good idea to design the layout on paper first. After the design is finished, user can create the starting grid size. The range for the starting grid size is 1-20. For example, a grid of 4 rows and 6 columns can be created like in following pictures



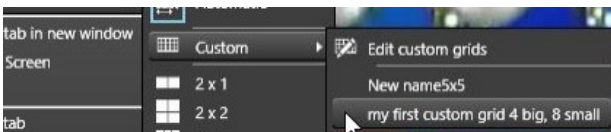
The base grid cells can now be merged with mouse and left button drag. For example, we can create 4 large camera areas like in the following picture.



Now if the remaining cells can be left the default size, the user can save the grid as it is by entering a name for the grid and pressing the save button.



Pressing save changes all the grid cells black. The grid is now useable and appears in the custom grid list.



Deleting an existing advanced view is possible by opening the grid editor, selecting the grid from the pull down menu, pressing “Delete” and then “Save”. If save is not pressed, the grid is not deleted.

Advanced grids are user-specific, and they cannot be shared as such. It is however possible to create a layout using the advanced grids and share the layout. Other users can then access the shared layout and use it.

Please note that when an advanced grid is saved into the layout, it is not deleted or changed, if some modifications are done to the grid later.

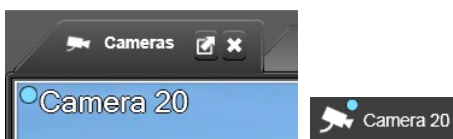
## CAMERA VIEW



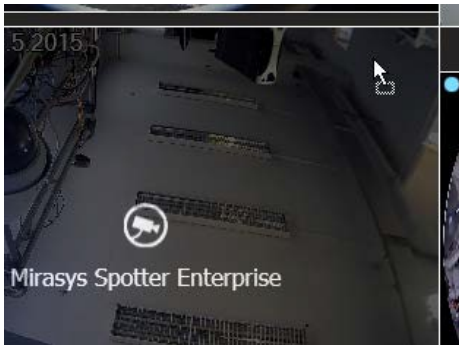
When the mouse cursor is placed on top of a camera on the work area, the camera toolbar, maximize and close buttons become visible. Cameras can be closed from the close button or maximized to fill the whole work area from the camera maximize button. The functionality of the camera toolbar is explained in the next chapter of this guide. When a camera is on the work area, it can also be maximized by double-clicking it. Double-clicking a maximized camera will make its size normal again.



The camera name and timestamp are shown on the top left corner of the camera. The visibility and color of name and timestamp can be controlled from EasyView Settings or the camera toolbar. There are various other information that can be configured to show in addition to the name and time, such as frame rate, codec, bandwidth, buffering queue size and content. These are used in system troubleshooting and can be controlled from the EasyView Settings.



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



Cameras can be dragged to different positions in the work area, simply by drag and drop with the mouse left button depressed. Similarly, a camera can be dragged to another tab or another EasyView window by dragging it on top of the other tab and releasing the mouse button. Further, a camera can be dragged outside the EasyView window and releasing the mouse button will open a new EasyView window. Again, holding CTRL while dragging will create a copy instead of moving the item.

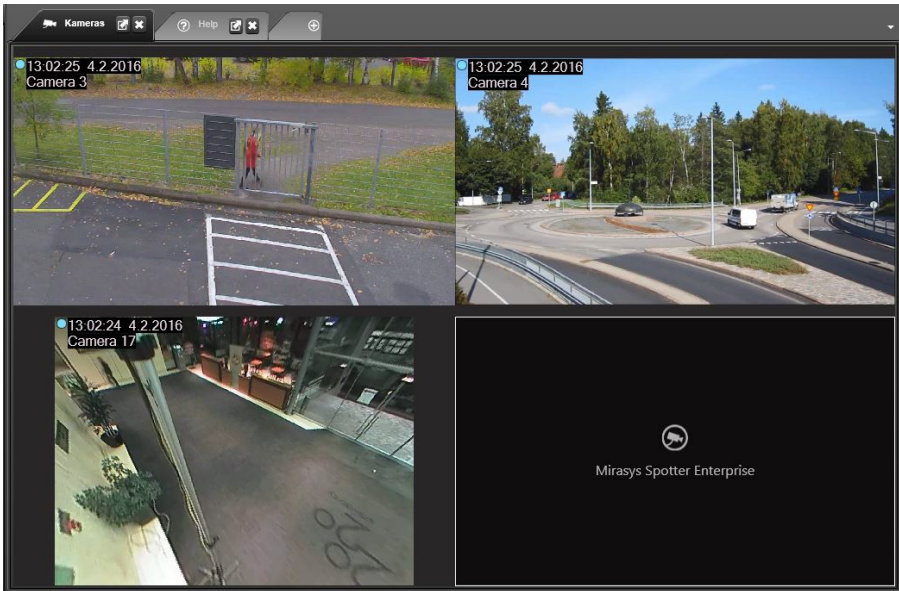
Note that it is better to depress CTRL button only after user has started to drag the object, because if CTRL is pressed first, the Mixed Playback Mode activates.

## **AUTOCROP, VIRTUAL ZOOM AND QUICK ZOOM**

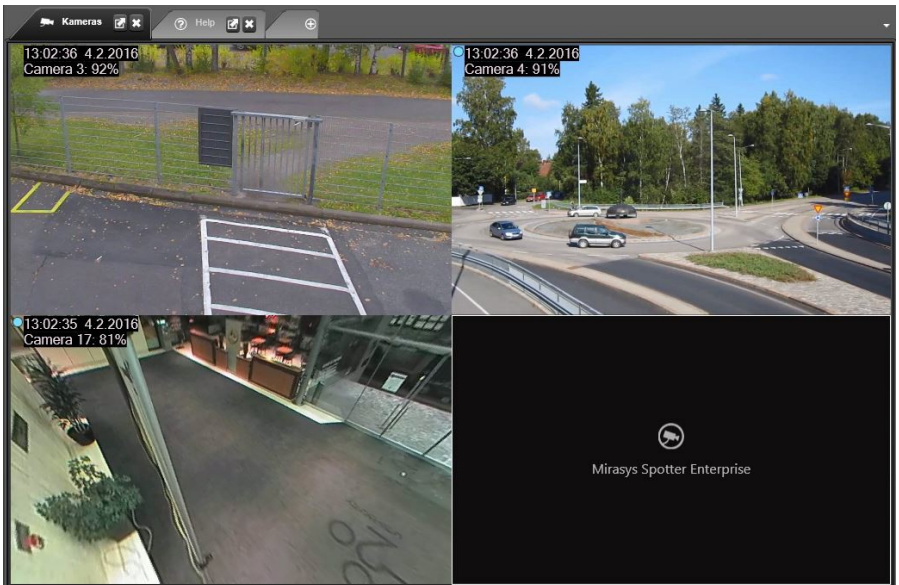
Cameras in the work area appear by default in the native image resolution and aspect ratio. This can be changed in various ways.

- Camera automatic cropping and stretching
- Virtual zoom
- Quick zoom

Automatic cropping off



Automatic cropping on.



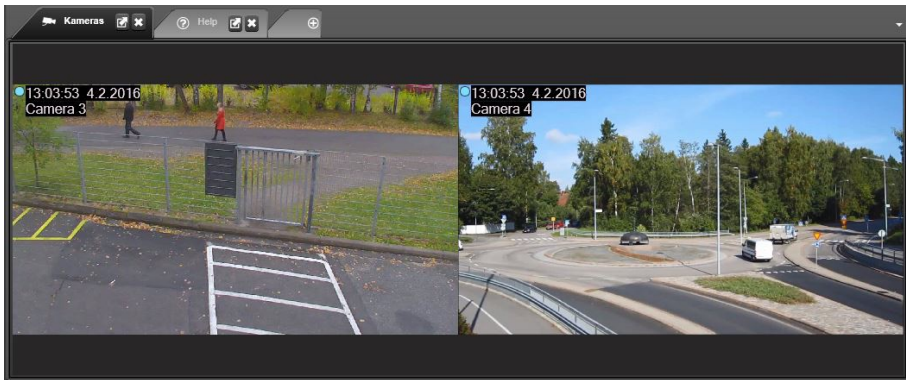
Automatic cropping will crop the image to fit the current aspect ratio of the work area. In automatic view mode this works best if there are for example 4 or 9 cameras on the screen. In fixed grid mode the auto cropping makes cameras fit the aspect ratio of the fixed grid cell.

There is also possibility to stretch the image to fit the grid cell. This option is only available for fixed or custom grids.

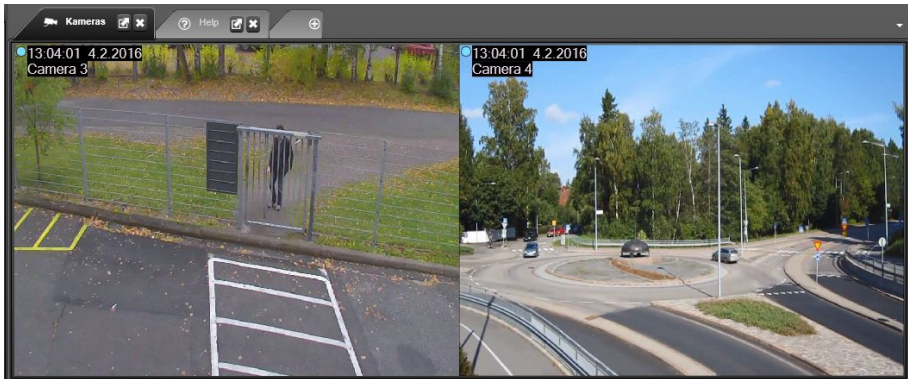


Image stretch option

not in use:



in use:



The stretch option is only available for the whole tab. Stretch and crop cannot be used at the same time, but a virtual camera cropped image can be stretched.

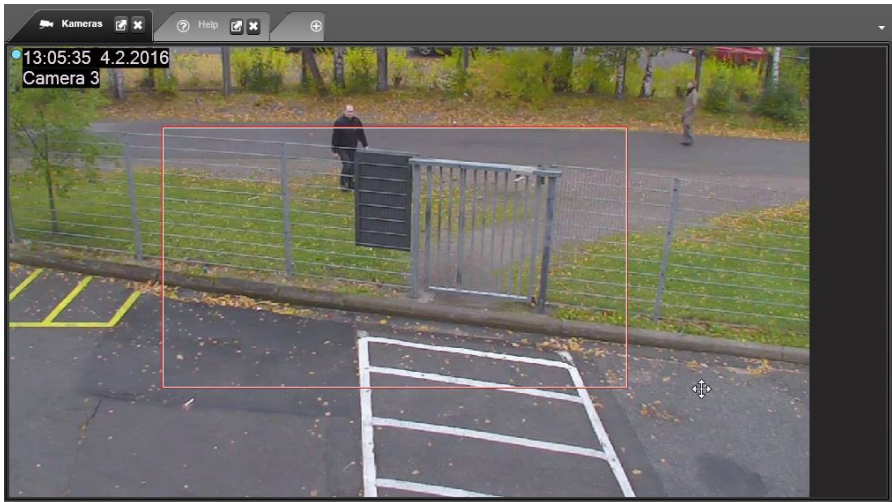
The virtual zoom can be used to change the camera aspect ratio to the PC monitor aspect ratio or any freely chosen aspect ratio. The usage of the virtual zoom is explained in the View menu and virtual cameras section of this guide.

Quick zoom is a handy way to digitally zoom into the image of any camera on the work area. Quick zoom is accessed by a right mouse click when the cursor is on top of the camera. By holding the right mouse button depressed and using the mouse wheel, the image can be zoomed.

The mouse cursor will change into a “4 point arrow” to indicate this mode.

Moving the mouse moves the zoomed area. Releasing the mouse button or taking the mouse cursor outside the camera area will stop the zoom. If the SHIFT key is kept pressed when the right mouse button is released, the quick zoom is frozen into a virtual zoom setting.



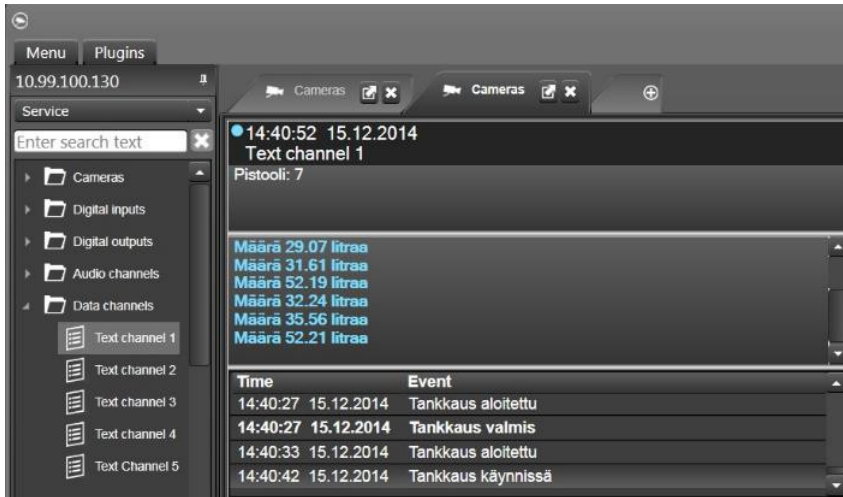


There is also another way to do virtual zoom. If the user holds the SHIFT key and then presses the left mouse button and drags the mouse over a camera, a red rectangle is drawn over the camera. Now when the mouse button is released, the camera will execute a virtual zoom into the selected area.

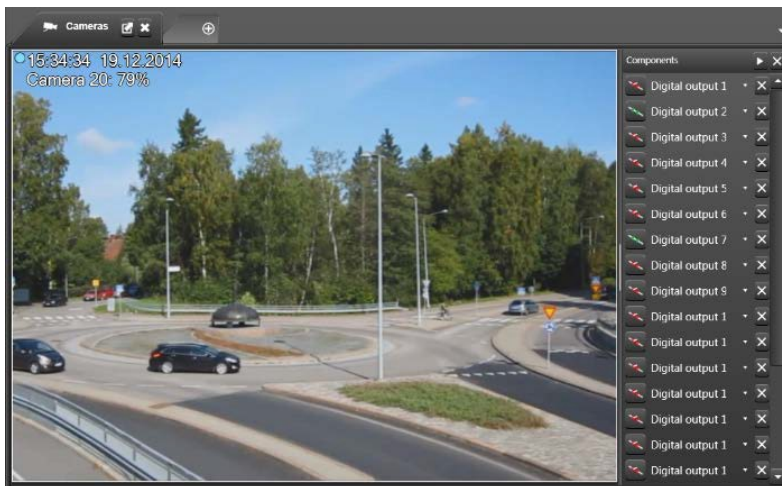
*Frequently Used Keyboard Shortcuts:*

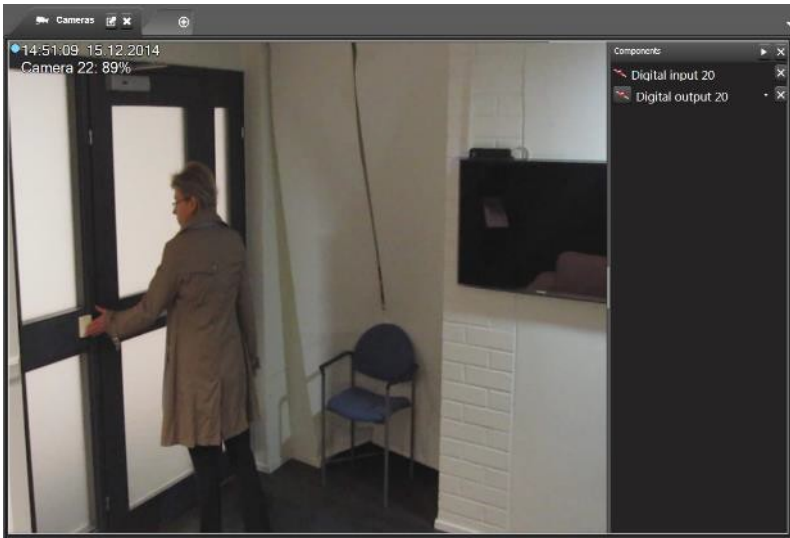
Shortcut	Description
Ctrl+Shift+S	Sets the auto stretch on and off for the current tab
Ctrl+Shift+C	Sets the auto crop on and off for the current tab

## OTHER TYPES OF DEVICES



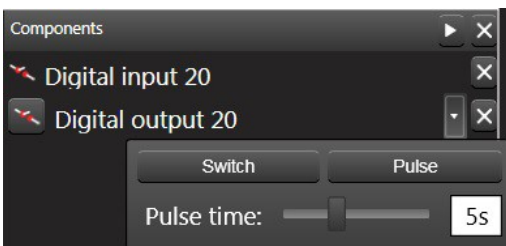
Text channels appear as a device in the work area with text content.





Inputs and Outputs (I/O's) and audio channels can be added either to the whole work area or they can be dragged and attached to individual cameras. They appear in a component panel on the right side of either the work area or the camera.

The component panel width can be adjusted and it can be also collapsed to only show the I/O control. When the component panel is shown, but the I/O name cannot fit it completely, the I/O name will rotate with a marquee effect on the panel, so that the complete name can be seen.



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

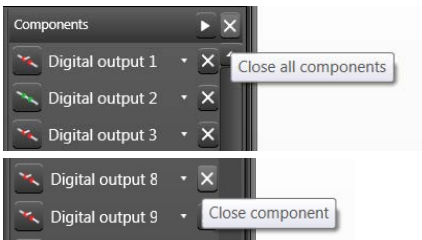
Please note that output states can also be toggled from the device tree by clicking on the output control.



Audio channels have a small 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.

Please note that system master volume can be controlled from the status bar in the bottom of the EasyView window.



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.

Two way audio has automatically a camera toolbar control. This shall be further described in the next chapter of this manual.

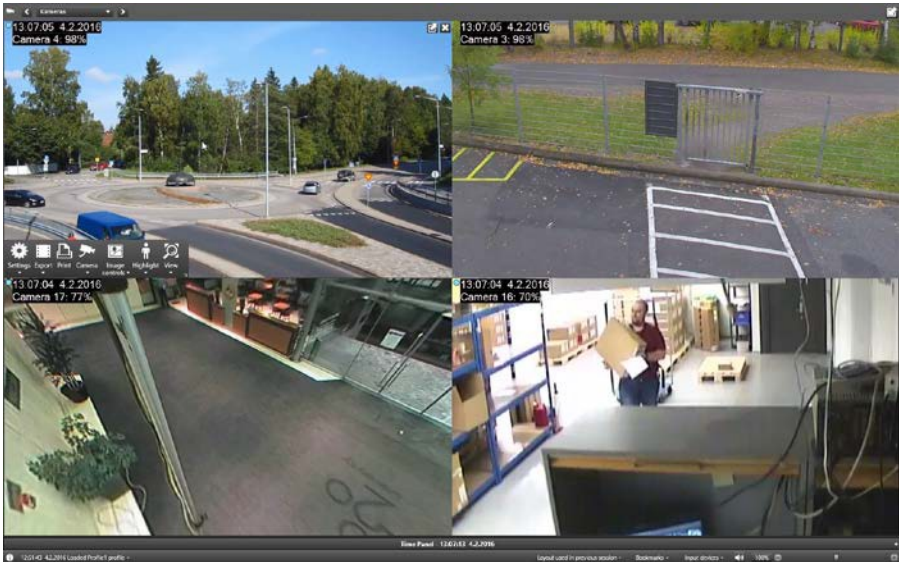
*Frequently Used Keyboard Shortcuts:*

Shortcut	Description
Ctrl+F9	Minimize / restore tab component panel (if it is open).

Shift+F9	Close tab component panel (if it is open).
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## FULL-SCREEN MODE

Similarly to a single camera, a tab can be maximized. Where maximizing a camera makes it occupy the work area, maximizing a tab will move that EasyView tab into full-screen mode.

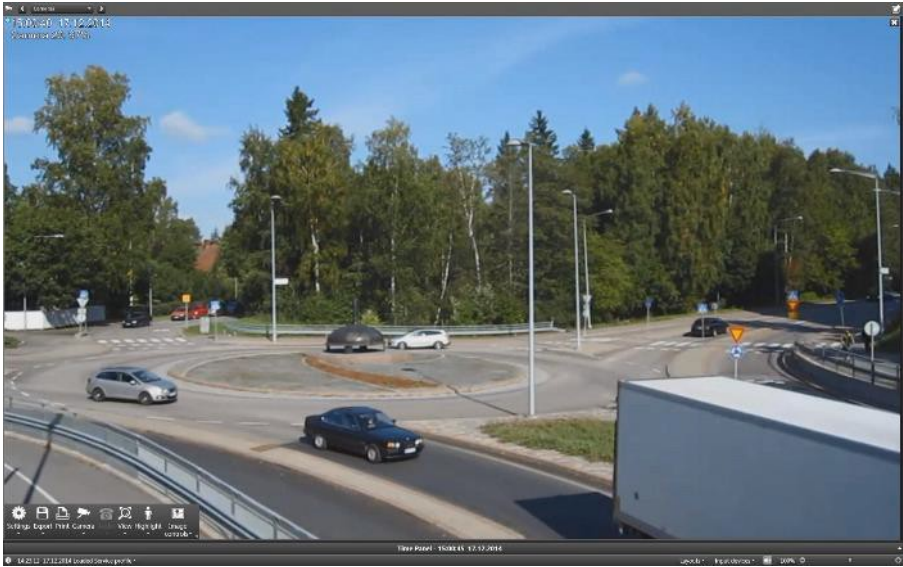


In full-screen mode, the work area spreads to cover the whole monitor area and device tree, the EasyView menu and time slider are hidden, although time slider can be still displayed if the user wants it visible. This view allows users to use the maximum screen real estate for monitoring cameras.

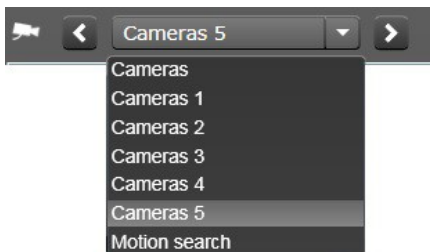


A tab can be maximized by double-clicking the tab or by pressing the tab maximize button. Pressing the ESC key will move from maximized mode to normal mode. The

normal mode can also be accessed by pressing the “restore to normal size” button in the top right corner of the full-screen view.

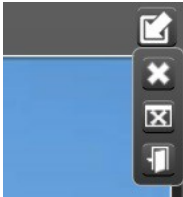


Full-screen view has some settings that control if the top and bottom info bars are shown or if they are hidden automatically sometime after the mouse stops moving. These settings are described more in detail in the Settings section of this guide.



The info bar at the top of the full-screen view has the tab name and controls to move to next and previous tabs.

Please note: if users want the tab name to be always visible, this can be achieved by unchecking the check box for “Hide components in full screen mode” in Settings.



In the Full-screen view, the right top icon has mouse over functionality offering a hidden menu that allows closing the current tab, closing the current window and exiting from the whole application.

The info bar at the bottom has the status messages, layout controls and input device and scaling controls same as normal EasyView window. Above this info bar is the minimized time slider that can be expanded to show the date and time, playback and camera tour controls.

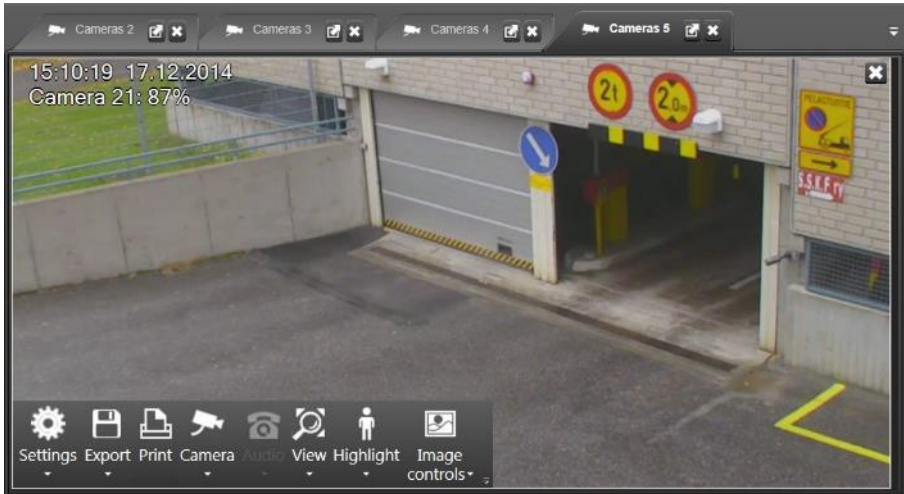
The EasyView full-screen window is a separate window from the normal window, so for this reason when EasyView full-screen is active, there are two windows displayed in the windows taskbar. When the user closes full-screen mode the full-screen EasyView window is closed.

*Frequently Used Keyboard Shortcuts:*

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



# 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.

- Camera settings control
- Export control
- Image print control
- Camera closing and duplication control
- Two way audio control
- View or virtual zoom control
- VCA highlight control
- Image Control plugin control
- 360 camera de-warping control
- Other toolbar plugins

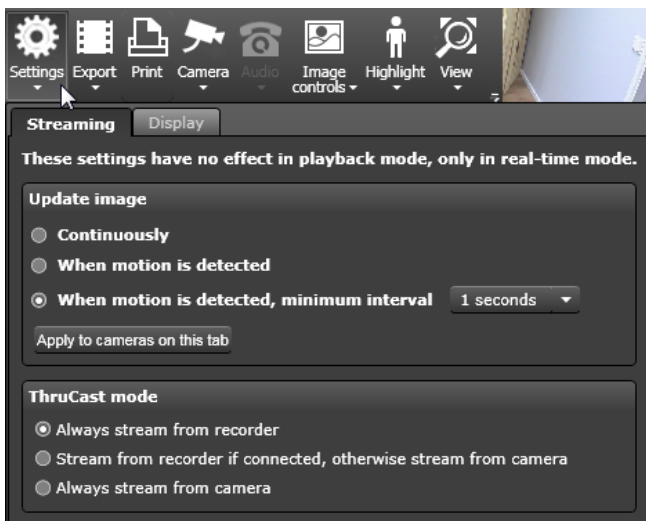


## CAMERA SETTINGS

All the camera specific settings are saved to layouts when a user saves a layout. This way it is easy to create specific settings for different use scenarios. See the Layouts section of this guide for further information.

The camera settings contains the camera specific settings for

- Image update
- ThruCast (direct camera streaming to EasyView)
- Camera name and timestamp display settings.



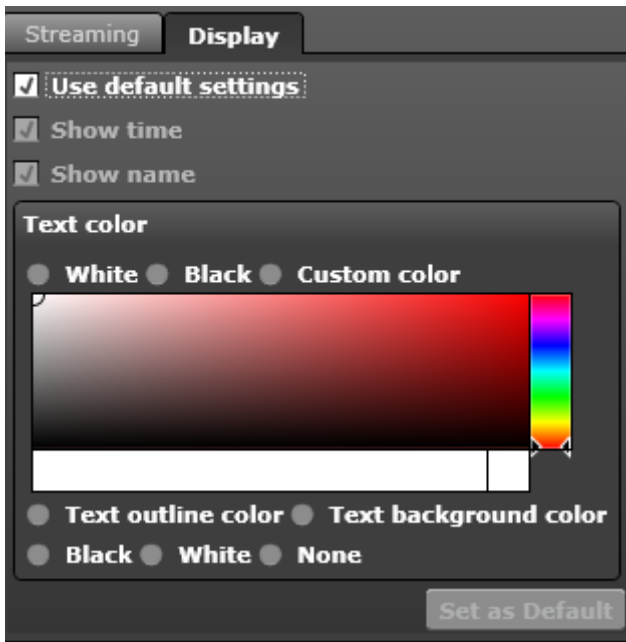
The image update settings control if the camera is drawing the image continuously, which draws all images from camera even when there is no motion detected, or only when motion is detected. There is a third option which refreshes the image once a second also when no motion is detected.

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

When a new camera is opened to the work area, the image update settings default to the setting that is defined in EasyView settings.

The ThruCast settings control if the stream is coming from the recording server or from the camera directly. The ThruCast settings are remembered for the camera, so

even if the camera is closed, next time it is opened, it will be using the same ThruCast settings that were used last time.

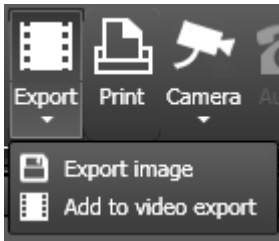


The display settings control if the name and timestamp is shown on top of the camera, and what color is used for the text and the text outline. If the user finds a nice color that he prefers, he can make the setting a new global default for all cameras.

It is now also possible to have a solid background (Text background color) for the text labels to increase the readability.

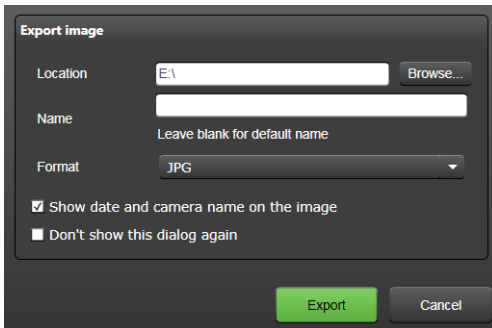
All these settings are for this camera only, but from EasyView settings it is possible to change the global settings for all cameras simultaneously.

## EXPORTING AND PRINTING



The exporting functionality allows to export a single image or add the camera to the video export area to export a video clip from one or multiple cameras.

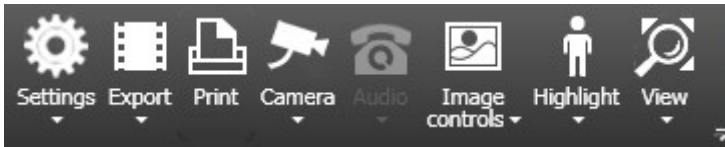
Default behavior of the button is that the camera is added to video export area.



When exporting a single image, the user can define the export location, image name and format. It is also possible to select whether the date and time are added to the image. If the user leaves the name field empty, the default name is the camera name.

When exporting a video clip, the camera is added to the data export area in the bottom left corner of EasyView. After this, the user can control the exact start and end time of the exported clip using the controls in time slider. More about this in the time slider section of this manual.

Note that the video export is also possible without using the toolbar button by dragging a camera to the data export area.



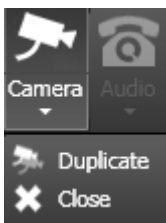
The print button will open a standard printing dialog window that can be used to print the current screenshot. The printed image will be the one that was on the screen when the toolbar print button was pressed.

*Frequently Used Keyboard Shortcuts:*

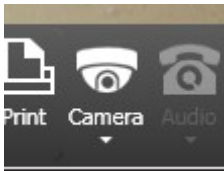
Shortcut	Description
Ctrl+P	Print camera image.
Ctrl+S	Save (export) camera image.

## CAMERA CONTROL AND PTZ CONTROL

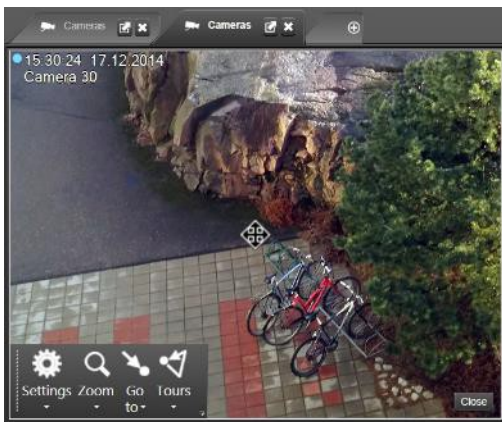
In non-PTZ cameras, the camera control can only be used to duplicate the camera and to close it.



In case of a PTZ (dome) camera, the main toolbar button changes to a “Dome” camera icon, and pressing this button assumes the PTZ control.



The close button in the bottom right corner closes the PTZ control, although it will also close automatically after a time which can be defined using the System Manager application.



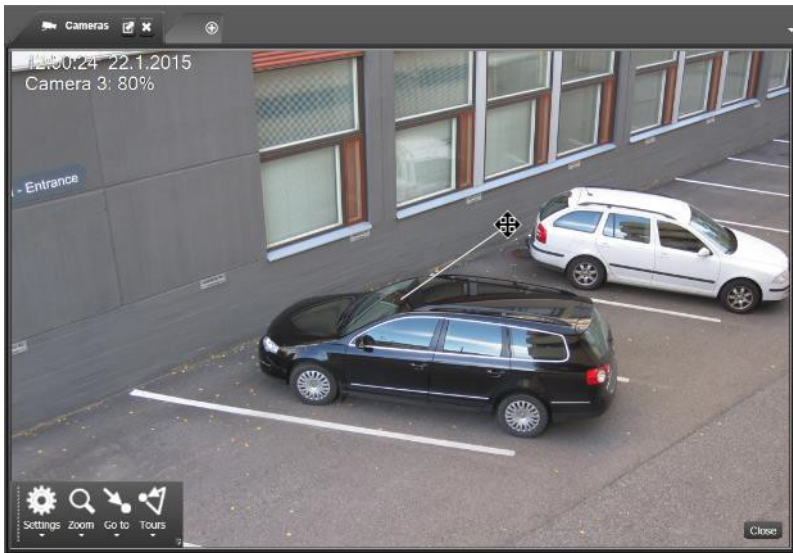
In PTZ control mode, the PTZ camera can be turned in various ways.

Using the keyboard arrow keys the PTZ camera turns in three speed steps. The first step lasts half a second and uses the slowest possible speed. The next step lasts 1 second and uses speed 8/16. The third step lasts 20 seconds and uses speed 12/16. After this step the camera turns with maximum possible speed.

These settings can be configured in the EasyView configuration file. Please contact Ernitec Customer Support for further assistance.

Using the mouse, the camera can be turned by placing the mouse cursor on the camera and clicking somewhere on the screen. With PTZ cameras that support point and turn, the mouse cursor changes to an “aiming point”.

These kind of cameras will turn to the exact place where the user clicks on the screen. Also, these kind of cameras support “painting” an area of the screen and the camera will actually turn and zoom to the painted area.



Not all cameras support the above feature. These cameras work differently, but the user can still point and click anywhere on the camera image. The 4-direction arrow in the center of the screen will jump to the position where the user clicked. The farther away from the center of the image the 4-direction arrow is, the faster the camera turns.

The third possibility is to use a DirectX compatible joystick to guide the camera. Please see the input devices part of this manual on how to use the joystick.

NOTE: The Pelco keyboard joystick is not supported in EasyView. The Axis T8310 series of joysticks are currently not supported.

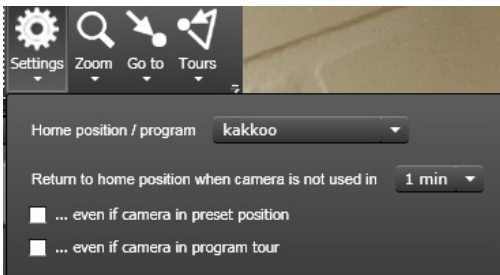
## PTZ CONTROL VIEW

In PTZ control mode the toolbar changes to show

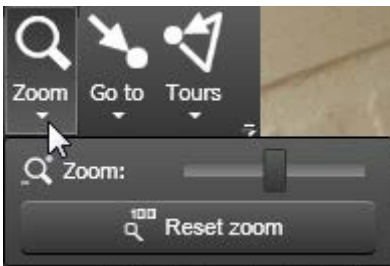
- PTZ settings
- Zoom settings
- Preset settings (Go to)
- PTZ camera tour settings (Tour)



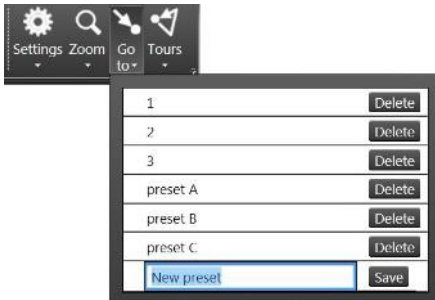
The PTZ settings menu contains iris and focus slider controls and the place to edit the camera home position. The home position can be selected from currently saved presets or tours.



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



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



The preset or “Go to” menu allows to use and manage presets. Selecting the “Edit preset position” will make it possible to save the current camera position as a preset. If the camera is already in an existing preset position, it is possible to rename the position. Please note that the current preset position name is displayed in the top right corner of the camera view when the PTZ control is active.

Selecting any preset position from the list will turn the camera to that preset position. Same applies to the PTZ camera tour editing mode, when a user is editing or creating a new PTZ tour, the camera will switch to show what the preset position is when it is being added to the new tour.

Deleting a preset is possible from the edit preset position menu.



The PTZ camera tour menu has a list of currently available PTZ camera tours. It is possible to stop the current tour by selecting the stop PTZ camera tour.



PTZ camera tours can be edited from the edit camera tours option.

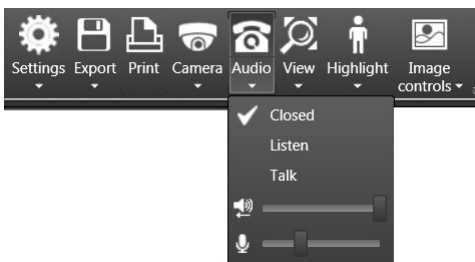
In the camera tour editing view, the tour to be edited can be selected from the pull down control at the top of the view.

The name of the tour can be changed by clicking the tour name and writing a new name. A new tour can be made by clicking the “new”-button. Tours can be deleted from the “delete” -button.

To add a new preset to the tour, select the preset from the list on the left and then press the arrow to add it to the tour. Adjust the position of the preset in the tour with the up and down arrows. The speed of movement to next position and the duration in the position can be adjusted from the controls.

The PTZ control settings can be adjusted from the System Manager application. Please see the System Administrator guide for this.

## 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

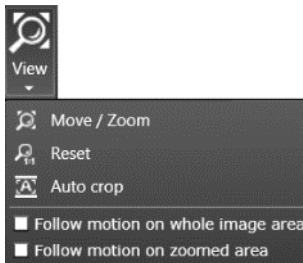
In the listen mode, the user will hear audio from the camera and any potential audio going to the camera from any other VMS client. The audio channel from current user is not open.

In the talk mode, the user can hear the audio from the camera and the audio channel from 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 audio going to or coming from the camera.

The channel volumes can be adjusted from the sliders.

## VIEW MENU AND VIRTUAL CAMERAS



The view toolbar menu can be used to create and manage virtual cameras from the current camera.

To create a new virtual camera, press “move/zoom”. A red rectangle will appear on the camera. This rectangle can be moved around by mouse drag and drop. The size of this rectangle can be adjusted in various ways.

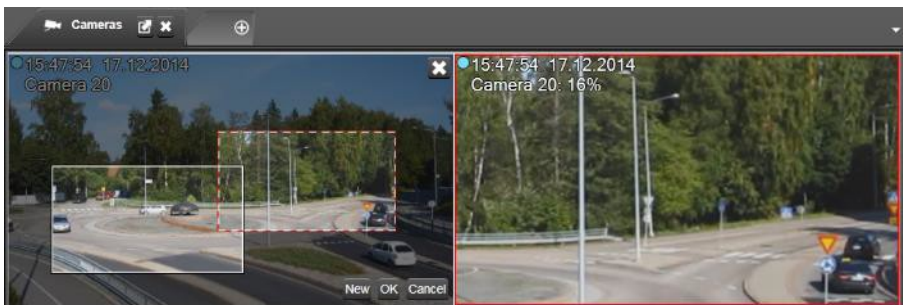
- Mouse wheel movements will make the virtual camera rectangle larger or smaller.
- The size can also be adjusted by dragging the edge of the rectangle with mouse and left click.
- The size will also change from keyboard “page up” and “page down” buttons.

The default aspect ratio of a new virtual camera rectangle is the monitor aspect ratio. The aspect ratio can be changed by

- Pressing the keyboard CTRL key when adjusting the size will make the rectangle aspect ratio match the current EasyView work area aspect ratio
- Pressing the keyboard SHIFT key when adjusting the size will make the aspect ratio freely sizeable.

When the user presses “OK” the virtual camera is saved. Pressing “Cancel” means no changes are saved.

Pressing “New” creates a new virtual camera. There are no specific limits on how many virtual cameras there can be, but the VMS license will limit the number of cameras on a EasyView tab.



When a second virtual camera is created, there are now two rectangles on the screen. The user can click the virtual camera window he wants to edit, and the border color will change to red. One of the virtual cameras is drawn with a solid line, and the others are with dotted line. The one with solid line is the same one where the camera rectangles are. The other cameras change the border color to red as the rectangle representing them is selected.

Please check also the Quick zoom part of this guide.

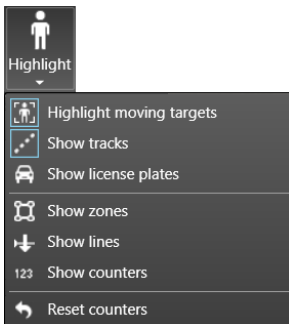
Please note that there is only one stream open even when there are multiple virtual cameras on the tab.

*Frequently Used Keyboard Shortcuts (NOTE: ONLY WHEN IN VIRTUAL CAMERA EDITING MODE):*

Shortcut	Description
Arrow left	Moves the red box to 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	Makes the box larger (zoom out).
Page down	Makes the box smaller (zoom in).

## VCA HIGHLIGHTS

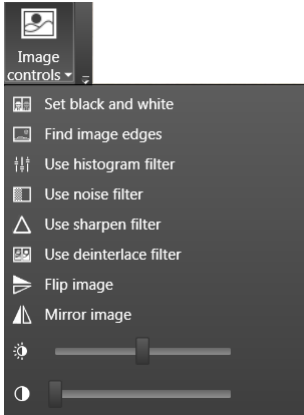


The VCA highlight menu is enabled if the VMS license has VCA channels, and the VCA is enabled for this camera in System Manager. The menu offers possibility to:

- Highlight moving objects such as cars and walking persons
- Show the track that the object has taken on the camera screen
- Highlight license number plates when the optional Ernitec ANPR+ application detects a number plate
- 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 application and not integrated to Ernitec Reporting application, they are meant for short term reporting and can be reset by clicking on the counter on the camera screen.

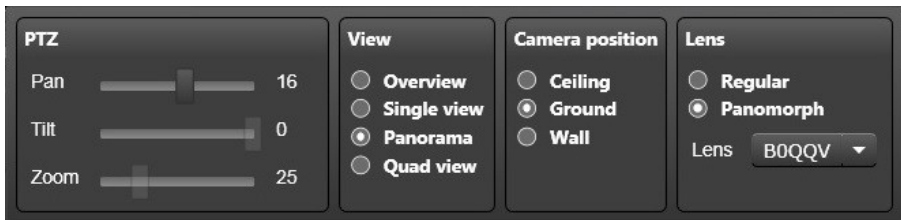
## IMAGE CONTROL PLUGIN



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

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

## 360 DE-WARPING PLUGIN



The 360 View toolbar control allows to define how a 360 camera image is de-warped (straightened) by the EasyView 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 single panorama)
- Quad view (4 individual de-warped cameras that can be adjusted separately)
- Camera mounting position control
- Lens selector

The de-warping plugin will attempt to choose the correct lens automatically, In case this fails for any reason, the lens selector control can be used.

The plugin will show a text notice if it notices that the lens is not supported.

The 360 toolbar option is shown after the “360 camera” option has been selected in the System Manager application.

360 dewarping plugin can be used with EasyView

Player. Sample view of a panorama dewarped

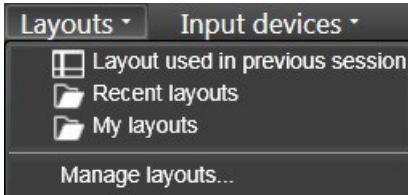
camera:



Sample view of Quad view dewarped camera with the dewarping tools open



# LAYOUTS



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

Layouts contain, for example, the following:

- EasyView window location and size (full-screen or normal)
- Device tree, component panels and alarm list width and visibility
- Time panel visibility
- 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.

Loading a layout is as simple as selecting it from the list.

It is also possible to define a tree-like structure for layouts. This allows users to effectively manage and use larger amount of layouts than before.

The layout pull-up menu has the last used layout from previous session at the top. Below this is a new list of recently used layouts. This list contains ten recently used layouts by the current user.

Below the recently used layout list are the saved layouts of the current user.

Last on the list are the shared layouts shared by other users of the system. The shared layouts are only visible if the current user has access to the same profile with which the layouts were saved. The user who has shared the layout is shown after the layout name.

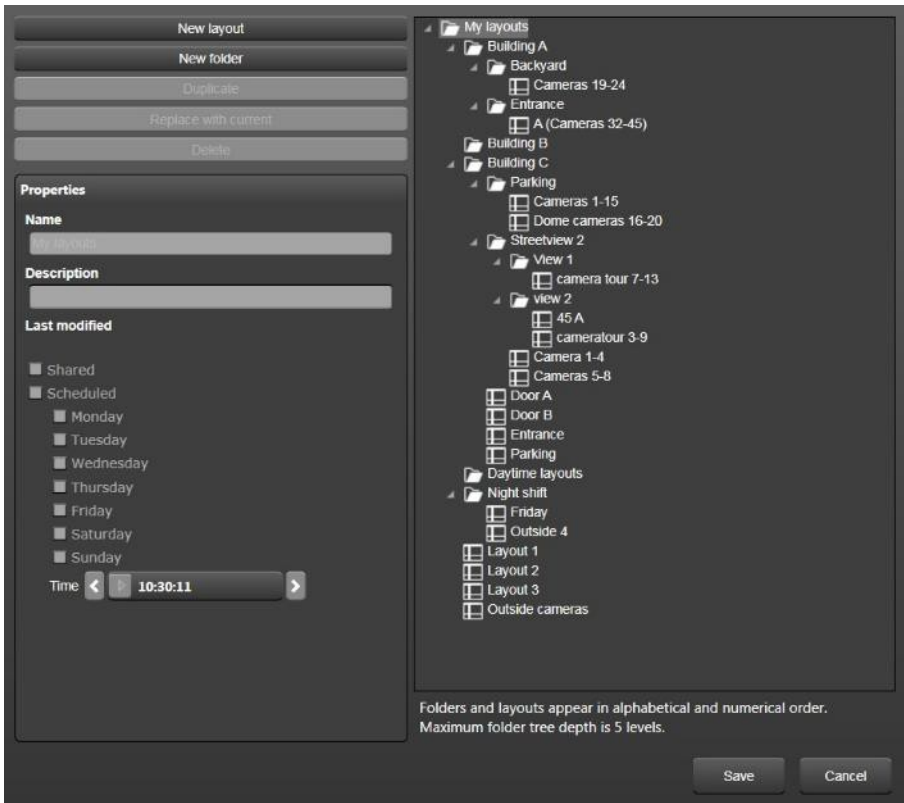


Any one of the folders can be opened and closed, and the layout menu remembers the state of the folders, so, for example, if the user prefers to use the recently used list always, he can leave it open, and close the other folders, and then every time when the user opens the layout menu, only the recently used folder is open.



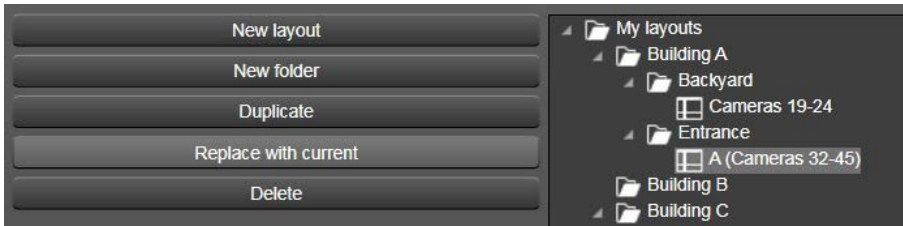
If the user positions the mouse on top of the layout, the tooltip will show the layout description text. This description text is useful because it can contain more characters (1024) than the layout name which can only be 50 characters long.

The user can create new layouts and manage the existing layouts by pressing the Manage layouts control. The same management view is now also accessible in the main EasyView menu.

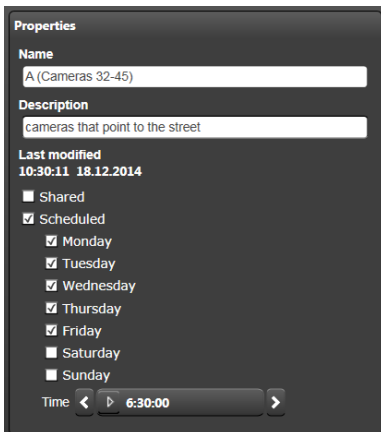


In the manage layouts view, the user can create layout folders and layouts. Pressing the layout folder button will create a folder and the new layout button will create a new layout. Pressing the button multiple times will create multiple folders and layouts. It is also possible to duplicate a layout to ease the editing of layouts.

Keyboard shortcut CTRL+M can be used to quickly take user to the new layout saving state.



If the user chooses an existing layout, also the delete option and “Replace with current”-option are highlighted. Choosing to replace will overwrite the stored layout with the current settings that the user has configured in EasyView.



The user can enter a name and description for the new layout in the boxes on the left. Below these boxes there are the options to share the layout to other users and to specify the scheduling of the layout loading.

For example, user may want that a specific layout is activated each weekday morning. Then he can select each of the desired days on the menu and then specify the time. Please note that the user has to be logged in to EasyView when the scheduled layout loading action is to happen.

This feature can be used for example to control Agile Virtual Matrix monitors on a site such as hospital, where the individual monitors do not have a user interface to control what is shown on them.

Sharing of layouts allows other users to use the same layout or create their own versions of it. When the “Shared” check box is selected, other users who have access to the currently active profile will see the layout in their “shared layouts” list.

When the user shares a layout, the full folder path is shared as well, so the other users see not only the layout, but also the folder path that leads to it.

Loading the layout will change to the profile that was used when the layout was saved.

Both the folders and the layouts in the folders appear in alphabetical and numerical order, it is not possible for user to order them differently. If the user wants to control the order of folders or layouts, we currently recommend naming them with a number prefix. This allows the user to control which order they are shown in, if the alphabetical ordering is not desirable.

Layouts can be dragged and dropped into different folders. This happens by pointing to a layout, pressing the left mouse button and then dragging the layout on top of a different folder name. Similarly, it is possible to drag and drop a folder inside a folder.

Please note:

- The maximum number of layouts is 1,000, as well as 1,000 folders. The layout tree can have a maximum of 5 levels under the top level.
- Layout and folder names must be valid file names, i.e., they cannot contain any characters not allowed in file names
- Layouts only work properly if they are used on the same kind of monitor and screen resolutions. So when you are sharing layouts, think about other users of the system who may have different size and amount of monitors and may be using different screen resolutions. For this reason it is recommended that some testing is carried out on the shared layouts and the layout sharing user right can be turned off for the more novice users

#### *Frequently Used Keyboard Shortcuts:*

<b>Shortcut</b>	<b>Description</b>
Ctrl+L	Open layout menu (layout name selection can be changed with arrow keys, Esc closes menu without selecting layout).

Ctrl+ M	Takes user to new layout saving
Ctrl+Up	Load previous layout (same order as in layout menu).
Ctrl+Down	Load next layout (same order as in layout menu).

# TIME SLIDER AND STATUS BAR

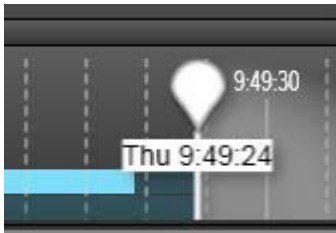
## ZOOM CONTROLS



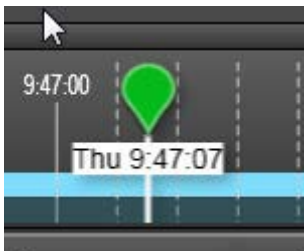
The very bottom right corner of EasyView has a slider which can be used to adjust font and User Interface (UI) control size.

## TIME SLIDER AND DATE/TIME CONTROLS

The EasyView time slider is located at the bottom of the window. It can be in visible or hidden state. The time slider is available in 2 modes, real-time and playback. If the time is in real-time, the playback indicator balloon is white.



If the playback is not in real-time, the indicator is green. The exact time is visible in the box in the indicator.



The real-time view can be enable by clicking on the “Now” button, or by dragging the slider all the way to the right (current time). It is also possible to go to current time from the date/time selector.

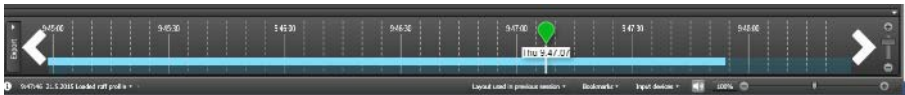
In real-time mode the right end of the time slider does not show an arrow and the future time is shown in gray. In real-time mode the play forward buttons are disabled. The real-time view is indicated with the white balloon selector.

When some cameras are open on the work area, the time slider shows a combined activity indication for the cameras with a light blue color. Using this information, the user can see which times have stored material from the currently selected cameras.

The time slider can be zoomed with the mouse wheel or with the time slider zoom control on the right side of the time slider. The time slider can be moved by right mouse clicking on top of it and dragging it to the right or left. Left clicking on the time slider will move the playback position.

The user can change to playback mode by clicking on the time slider with the mouse. Other methods to move from real-time to playback are to use play backwards button or change the playback position using the date or time controls.

In playback mode there is an arrow at both ends of the time slider and indication color for selector and frames around devices is green. Playback buttons are also indicated with a green highlight.



## EXPORT MODE TIME SLIDER

The export mode time slider playback position is not tied to the export start and end times, and there are buttons above the time slider for precise export time control.



In addition to this, there are icon buttons to add bookmark, start clip export, and the Storyboard.



Moving the playback position does not move the time handles, so it is easy to view the material. The user can use normal playback controls to view the clip without the clip start and end time changing.

There are various and very powerful ways to adjust the clip start and end times.

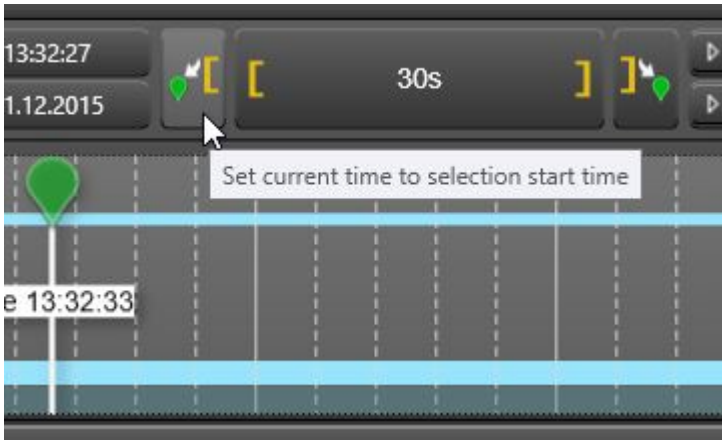
Clip handles can be dragged with mouse and left button selection. In this mode, the mouse cursor changes to a drag mode cursor when it is placed near the start or end time handle. Pressing the left button allows to move the handle.



Either the start or the end time handle can be used to “push” the other handle. For example, starting to drag the start handle towards the end handle, it can be used to push the end handle further into the future. When stopping the movement to the right and pulling the start handle back to left, the end handle is left to the place where it was “pushed” to.

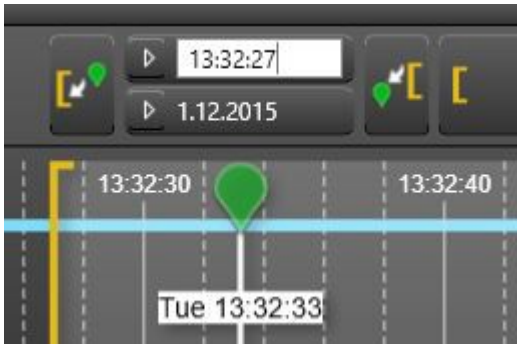
It is possible to change the start or end time to the playback position with the new “Set time to current position” –buttons. Pressing the button will set either the start or end time to the playback position.





It is possible to use a keyboard shortcut (or a ShufflePro controller programmed to use a keyboard shortcut) to set the start time (CTRL + ALT + Y) or the end time (CTRL + ALT + U) to the current playback position

It is possible to enter the start time using the time control



It is possible to mouse right-click on top of either the start or the end time handle, and then drag the export time to either earlier or later, while maintaining the set length.

It is possible to right mouse click on top of either start or end time handle and use mouse wheel to “zoom” the length of the export time, effectively moving the other end of the export time to either closer to the handle where the right click was made from (making the clip shorter – mouse wheel down), or farther away (making the clip longer – mouse wheel up)

The buttons at either end of the controls take the playback position to the already defined clip start or end time, they do not alter the clip start or end time.



The middle button shows the clip length and clicking it zooms the time slider so that the whole export clip is seen. Please note that the playback position is always remaining in the view, the time slider cannot be dragged or zoomed so that the green playback position disappears from view.

There is also a “Clear” button in the export camera area. This removes all cameras or devices from the export time slider.



Esc-key press closes the time slider if it is in export mode.

*Frequently Used Keyboard Shortcuts:*

Shortcut	Description
----------	-------------

F8	Move focus to time panel.
Ctrl+F8	Show/hide time panel.
Esc	Closes the export mode of time slider

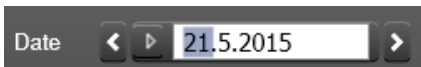
## DATE AND TIME CONTROLS

The date and time controls are located on the left side of the time panel above the time slider. This part of the user interface can be hidden independently from the time slider.



The date and time controls show the selected date and time. The user can change the date by opening calendar. If the user only selects a date, the time is untouched.

The buttons left and right of date add or subtract one day from the day.



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

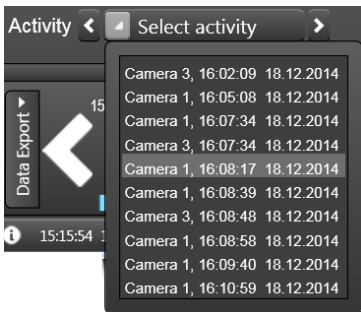


The time control is located underneath the date control. The user can change the time by opening the calendar and selecting Hours and Minutes. The buttons left and right of the time add or subtract one hour. Just like with the date selector, it is possible to click on the time box and enter the time manually.



Underneath Date and Time selectors there is a third option called “Activity”. This option shows the detection of motion for the cameras that are open in the work area.

Activities before and after selected times are shown. If the user selects the arrow button on the left, then motion detection activities before the given time are shown, and if the user selects the button on the right, then activities after the given time are shown. This way the user can move between detected activities in the cameras that are on the work area.



Activities are shown for one or many cameras. The user can, for example, view activities for many cameras and if one camera is double-clicked to full-screen, then only activities for that single camera are displayed.

*Frequently Used Keyboard Shortcuts:*

Shortcut	Description
Ctrl+D	Date selection.
Ctrl+G	Time selection.
Ctrl+E	Activity selection.
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.

# PLAYBACK CONTROLS



With the playback buttons the user can choose direction and speed of playback. The slider underneath buttons shows the playback speed. The speed can be 1x, 2x, 4x, 8x, 16x, 32x or 64x. The plus and minus before the number indicates, whether playback is backward or forward. The playback speed can be changed from the slider or by clicking several times on the play backward or forward buttons.

Right and left clicking on the play backward or forward buttons increase and decrease the playback speed respectively.

Please note that especially for the higher playback speeds, the actual playback speed might deviate from the nominal value depending on the PC performance.



The playback speed can also be changed with the mouse wheel on top of the playback speed slider. The slow speeds of 1fps, 0.1x, 1/8x and 1/2x are accessible only with the slider.

There are also the fast forward and backward buttons. These buttons have speeds 8x, 16x, 32x and 64x. In this mode some of the images are not shown, but slider speed is held.

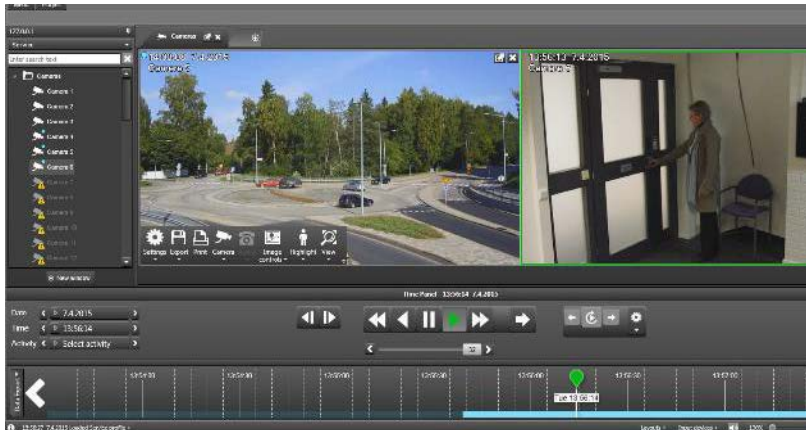
If the user want to go to real-time mode, there is a “Now” button, which lead to current time. On the left side of playback buttons there are also step forward and step backward buttons. With these buttons the user can go one frame forward or backward.

*Frequently Used Keyboard Shortcuts:*

<b>Shortcut</b>	<b>Description</b>
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.

# MIXED PLAYBACK MODE

The Mixed Playback Mode allows users to review playback on certain cameras while continuing to monitor real-time situation in other cameras, and do this all while staying in the same EasyView tab.



The mode is accessed by pressing CTRL button and then simply selecting cameras currently open on the EasyView screen with a mouse left click. The selected cameras will be then highlighted with a thick green border. The user can select multiple cameras by keeping the CTRL button pressed and continuing to select other cameras. The selection is cancelled by clicking somewhere without keeping the CTRL button 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 that are in mixed playback, can now be controlled with the time slider balloon, the playback controls, or for example the a joystick jogwheel.

A camera can be duplicated to mixed playback mode with keyboard shortcut Ctrl + Alt + Shift + D.



# CAMERA TOUR CONTROLS



The user can define camera tours for each EasyView window. There can be a tour for tabs or cameras inside a single tab. The tour controls are located on the Time Panel, on the right side of the playback controls. Control is enabled when there are more than one tab open in EasyView.

Settings is opened from the “cogwheel” icon. There is a row for each tab. Special tabs like plugin tabs have disabled functionalities and are by default disabled.



After each tab there is the 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 default time and define it at the lower left corner. On the lower left corner there is also an option to run the camera tour in maximized window state. 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 EasyView. For example, the image or clip export stops tour.

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

*Frequently Used Keyboard Shortcuts:*

<b>Shortcut</b>	<b>Description</b>
F12	Toggle camera tour start and pause state.
Ctrl + F12	Steps to next camera tour view.

# ALARMS

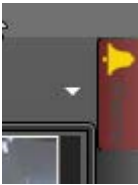
## ALARM LIST

In EasyView, each EasyView window can have its own alarm list.



The list can be docked to the left or to the right and it can be collapsed or closed.

If the alarm list is in collapsed state, there is an animation that indicates each new alarm



When the alarm list is open, there is no animation.

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

Alarms	
Alarm	40 s
Alarm	53 s
Alarm	57 s
Alarm	1 min
Alarm	1 min
Alarm	2 min

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.

Alarms	
Alarm	3 s
Alarm	Acknowledge alarm
Alarm	2 min
Alarm	2 min
Alarm	2 min
Alarm	2 min
Alarm	2 min
Alarm	3 min

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.

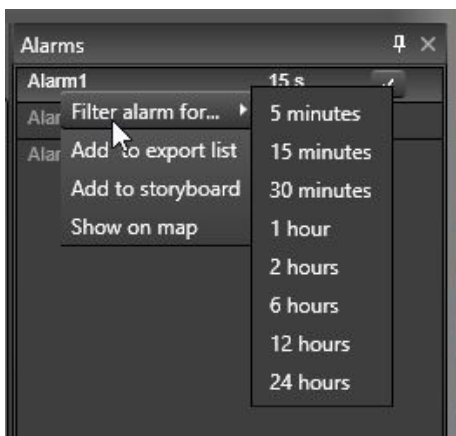
It is also possible to set this option active in the System Manager application's Alarm settings. In that case the alarm is active until the user acknowledges it.

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.

*Frequently Used Keyboard Shortcuts:*

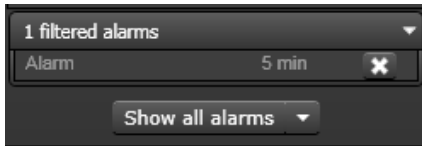
Shortcut	Description
F5	Focuses to first alarm.
Ctrl+F5	Show / hide alarm window.
Enter	Opens the alarm in alarm view tab.
Space	Acknowledges the focused alarm.

## ALARM FILTERING



The alarm window has also the possibility to 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. During the filtering the alarm is removed from the normal alarm list and new occurrences are not shown. The alarm sound and alarm pop-up are also disabled during filtering.

The maximum amount of filtered alarms is 50.



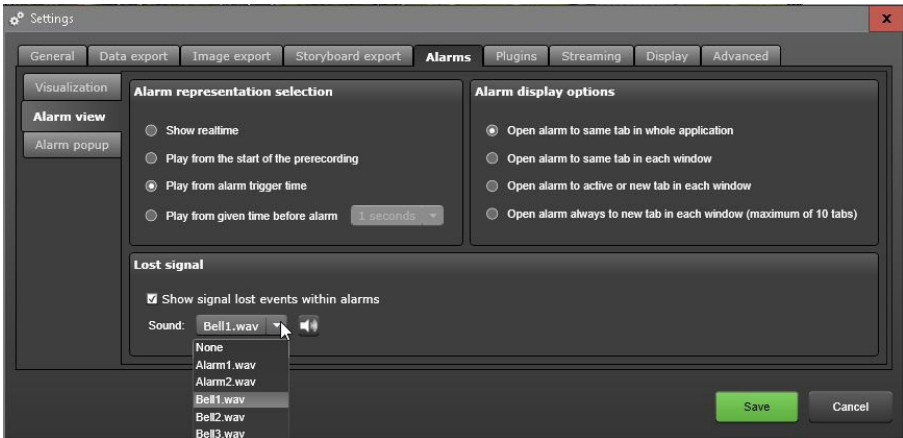
The filtered alarms are moved to a filtered list underneath the alarm window. The filtered list can be in open or closed state. Each filtered alarm has a counter that shows how much longer the alarm remains in the filtered state. There is also a button to remove alarm filtering. Filtered alarms can be unfiltered at any time. Although alarms are inactive in the filter window, they still show 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 EasyView windows, if it has also the alarms window open.

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

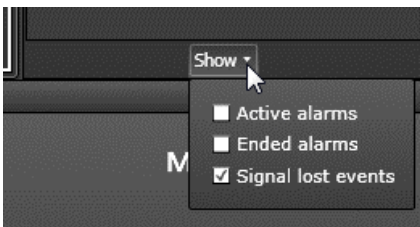
## **SIGNAL LOST ALARMS**

It is also possible to show cameras that lose signal as alarms in EasyView window.

This is achieved by activating the setting “Show signal lost events within alarms” in EasyView 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.



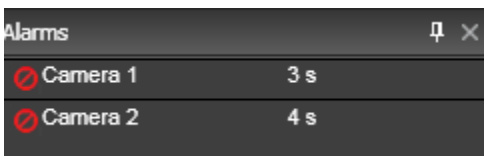
Signal lost events are shown in the alarm list, if the “Show” configuration is configured to show them. By default, the signal lost alarms are not shown, so to get the feature working, user has to open alarm list and select signal lost also from the configuration list.



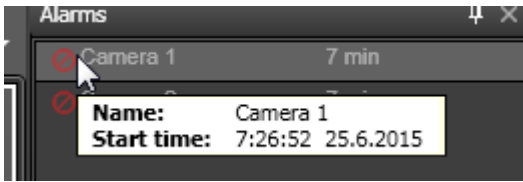
The setting is saved into layouts.

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.

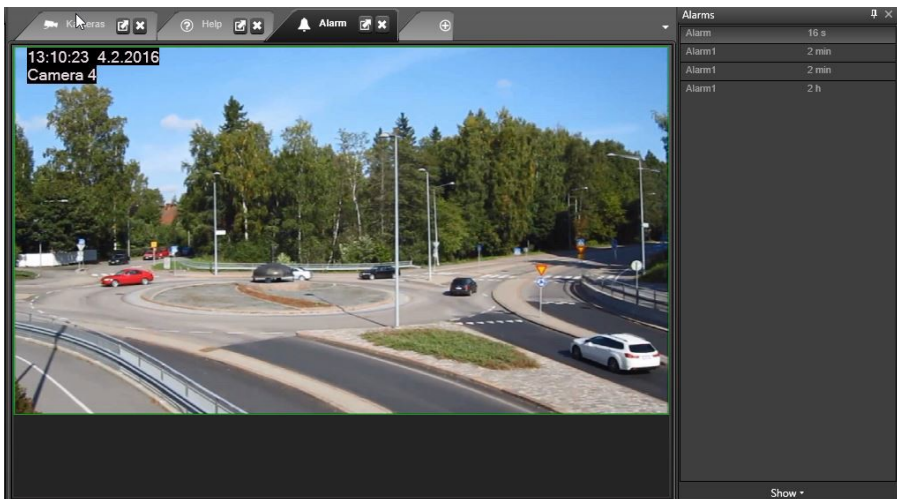
If the alarm list is configured to show signal lost as alarm, it appears with the signal lost icon.



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

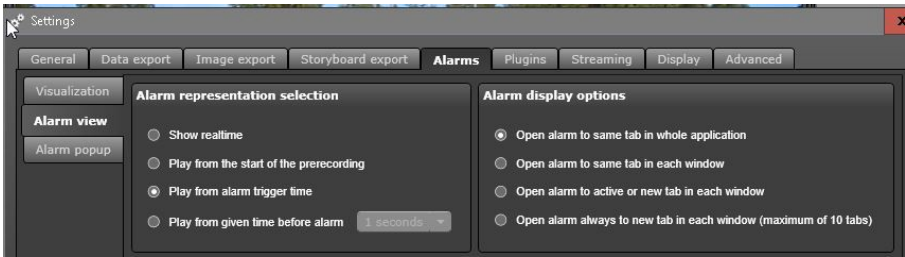


## ALARM VIEW TAB



Alarm trigger and action views can be opened to an alarm tab. The user can define in EasyView alarm settings, how an alarm is opened in a tab. It is possible to open all alarms in the same tab, so that an old alarm is always replaced with a new one in the same tab, or it is possible to make a new tab for each alarm (maximum amount of tabs is 50, so after the maximum has been reached, oldest ones are replaced with new alarms). There is also the possibility to set each alarm to appear in its own alarm tab in an own EasyView window or in all EasyView windows.

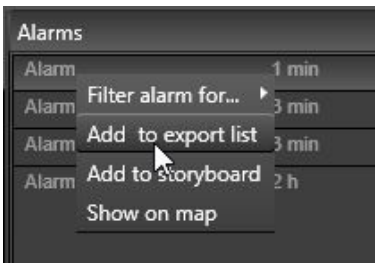




Alarm Settings also define, from what point the alarm is opened. It can be opened in real-time view or playback view. Playback start can be start of alarm or start of alarm prerecording. There is also a timer that can be set, so that the alarm opens specified seconds before the alarm trigger start time.

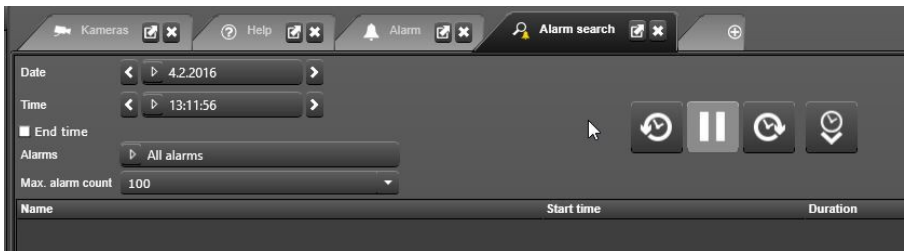
When an alarm is opened to the alarm view tab, the alarm name is visible in the tab and the tab is indicated with a special alarm icon, to differ from normal tabs. The tab icon is different when the alarm is active and when it is not active.

## ALARM EXPORT

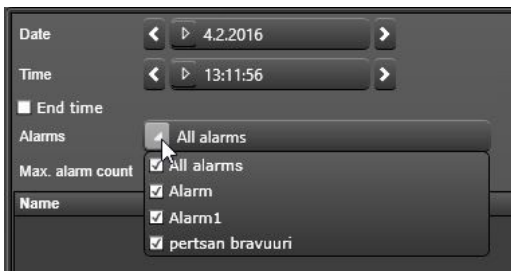


Alarms are exported by dragging the alarm from the alarm list or the alarm view to the export area. The alarm list has also an option in the single alarms right click menu to add an alarm to export area.

# ALARM SEARCH



The alarm search tab is a separate tab plugin. On the right side of the alarm search tab there are options to set the alarm search start time with Date and Time selections. Below the Time Settings there is an alarms 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.



Below the alarms dropdown there is an option to select a limitation for search results. The maximum alarm count can be 50, 100, 500, 1,000 or 5000.



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

goes backward or forward from the set time. Next to the search backward and forward buttons there is also another button that searches for most recent alarms.



When a search is running the pause button between the search backward and search forward becomes active and the user can stop or pause the search. After alarm search time and date searches are changed so that the last found item becomes the new time. This way the user can repeat the same search further if necessary.

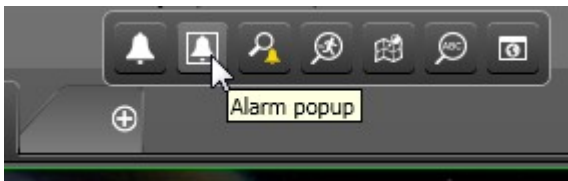
Alarm results are displayed in a list that shows the alarm name, alarm start time and duration. The user can sort the list by clicking on the title and sort by name, start time or duration. Selecting a single alarm shows detailed information of the alarm in a tooltip. The tooltip shows the name, start time, end time, duration, priority, trigger, action and alarm description and alarm acknowledgements if these are set to alarm. Double-clicking on an alarm occurrence in the list, opens up the alarm in the alarm view tab.

Name	Start time	Duration
Alarm 15	10:46:48 19.12.2014	27 s
Alarm 15	10:46:43 19.12.2014	3 s
Alarm 15	10:46:39 19.12.2014	3 s
Alarm 3	10:46:03 19.12.2014	31 s
Alarm 15		32 s
Alarm 15		0 s
Alarm 15		3 s
Alarm 3		2 s
Alarm 3		3 s
Alarm 15		2 s
Alarm 15		17 s
Alarm 15		24 s
Alarm 3	10:44:00 19.12.2014	2 s
Alarm 3	10:42:57 19.12.2014	2 s
Alarm 3	10:42:01 19.12.2014	2 s
Alarm 15	10:40:45 19.12.2014	3 s
Alarm 15	10:40:43 19.12.2014	2 s
Alarm 3	10:38:34 19.12.2014	2 s

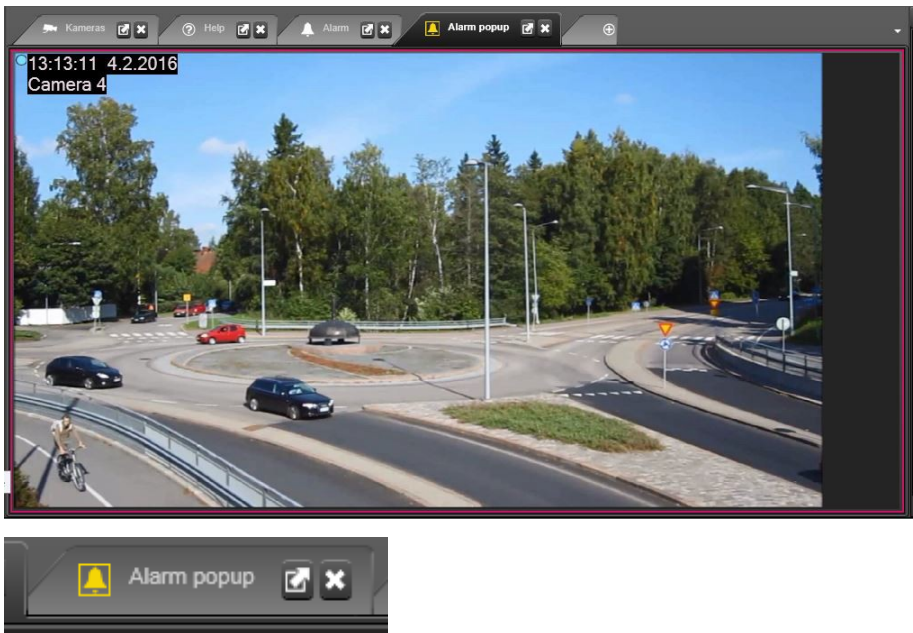
  

<b>Name:</b>	Alarm 3
<b>Description:</b>	Entrance area alarm
<b>Start time:</b>	10:46:03 19.12.2014
<b>End time:</b>	10:46:35 19.12.2014
<b>Duration:</b>	31 s
<b>Priority:</b>	Normal
<b>Trigger:</b>	Motion in Camera 3
<b>Actions:</b>	Record video from Camera 3

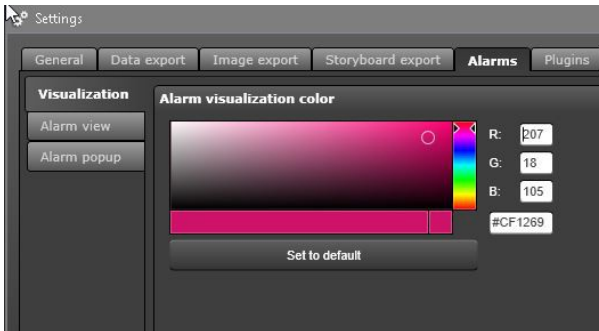
## ALARM POPUP



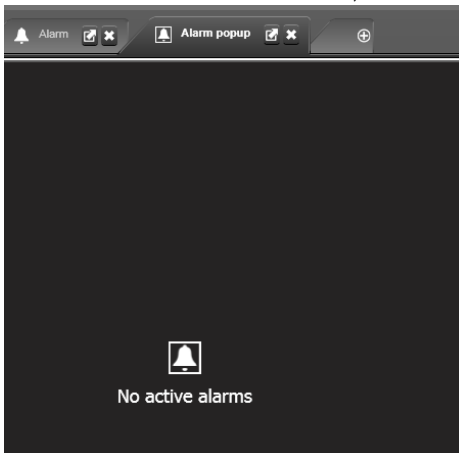
The alarm popup plugin can be used to alert a user when a new alarm is activated. The alarm popup is a new tab. It can be opened from the new tab menu.



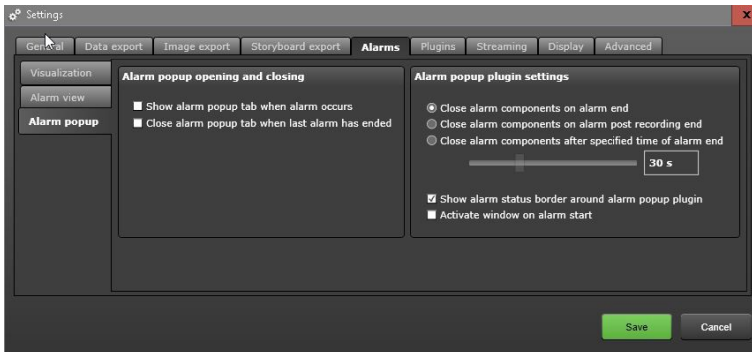
When the alarm popup tab is open, any new alarm components are automatically opened to it, and they remain there for as long as the alarm is active. The popup is by default highlighted with yellow color when an alarm comes. The alarm visualization color can be customized in alarm settings.



When there are no alarms active, there is a text displayed with “No active alarms”



There are various settings for alarm popup behavior. 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 not on the foreground. Also the time how long the alarm devices are visible can be controlled.

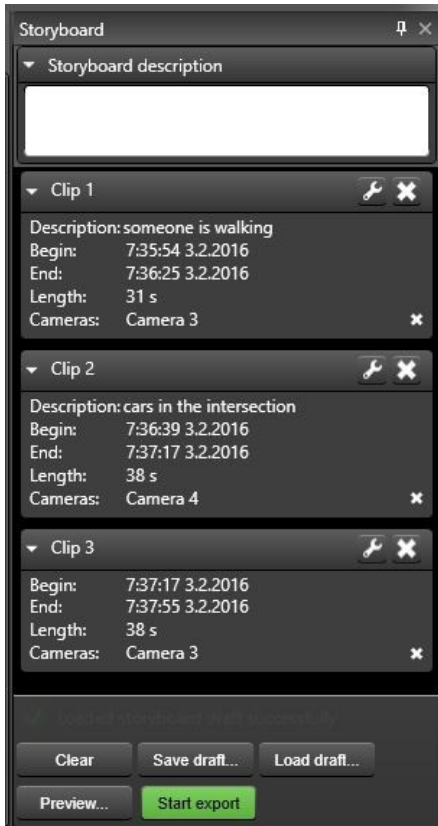


The recommended way to use the alarm popup is to use it to create on a separate monitor, an “alarm monitor” that can always have the alarm popup visible.

The Alarm popup can also be used in the Agile Video Matrix (AVM).

# STORYBOARD

An essential feature of any video management system is the ability to create authentic video export material for authorities such as the 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 EasyView client application or the separate, standalone EasyView Player executable that is also now exported as the default player for exported video.

Storyboard allows for example the following:

- Creating a movie-like viewing experience from surveillance video material
- Maintains complete material authenticity
- View material in the Storyboard in sequential playback mode or in 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
- Navigation inside the Storyboard with the powerful time slider
- Save drafts and share the Storyboard to other system users

In addition to these, powerful features in the EasyView time slider make editing export clips very easy. These are explained in the [Export Mode Time Slider](#) section.

Storyboard can contain maximum 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.

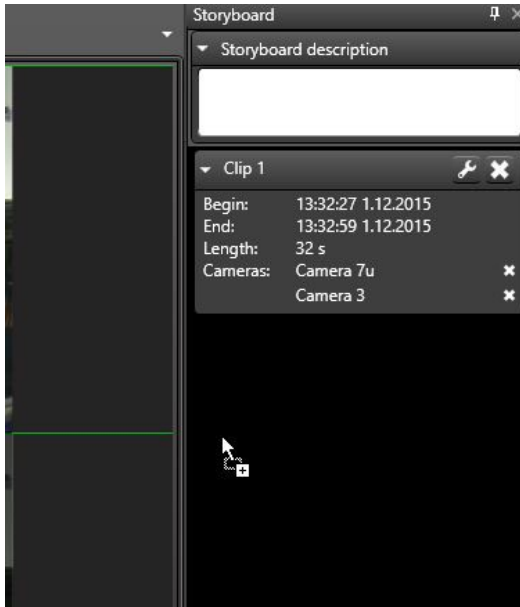
Clips can be added to a storyboard (and storyboard generation can be started) using various ways.

The camera toolbar has an export option “Add to storyboard” which directly opens the storyboard view and adds this camera there into a new clip.

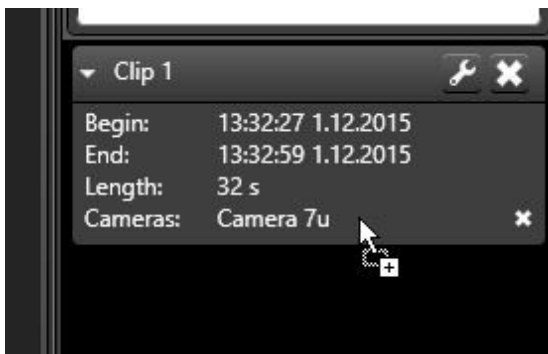




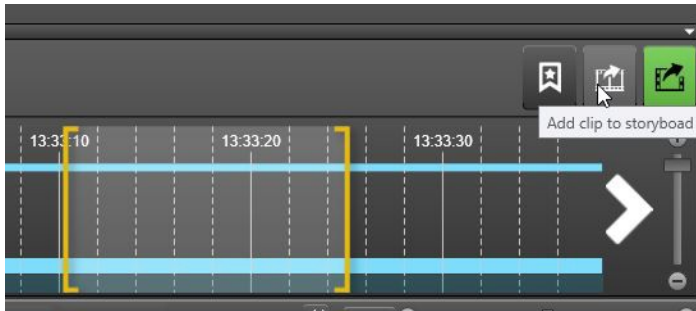
If the storyboard view is already open, a camera can be dragged into the empty black area to add another clip. This will assign the clip start time to be the same time as the previous clip end time, and copy the duration of the previous clip.



If the user wants to add a camera to an existing clip, the user can drag a camera from the device tab to on top of the existing clip.

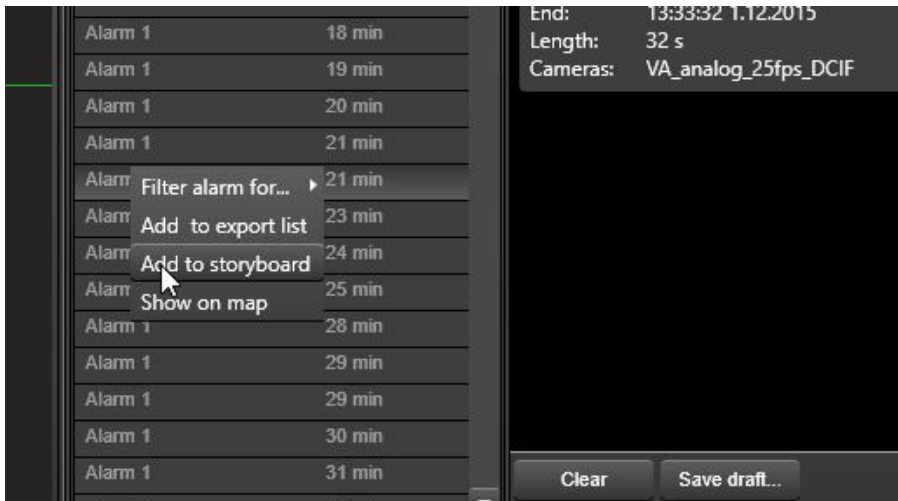


It is also possible to add a camera to the export time slider as when creating a normal clip, and then press the “Add to storyboard” button. This will create a new clip.

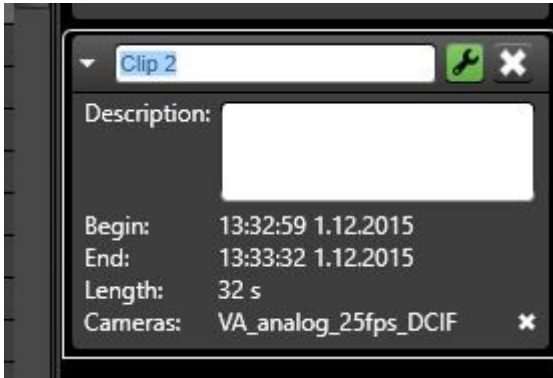


It is also possible to drag a camera to the storyboard directly from device tree, and also from motion search plugin

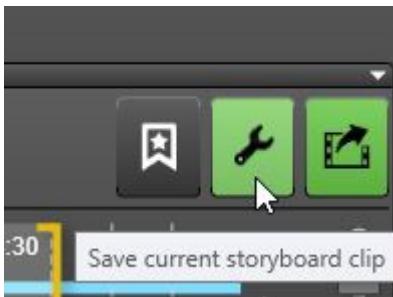
It is also possible to add devices attached to an alarm directly to the storyboard by selecting the alarm right click menu



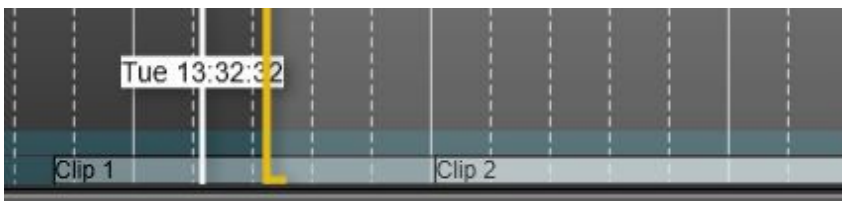
It should be noted that when a camera or clip is added to storyboard, it is next still in “edit mode”. This is evident by the text entry fields for clip name and description being white.



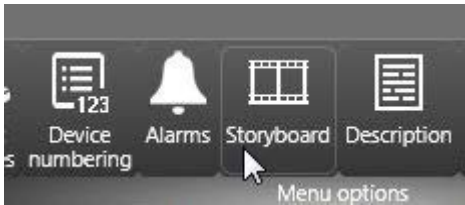
The recommended way is to enter a clip name and description and then save the clip by pressing the green “Edit” button. Please note that there is a second “Save” button in the export time slider – the “Add to storyboard” button changes to “Save” after adding the clip.



The created clips are shown in the time slider.

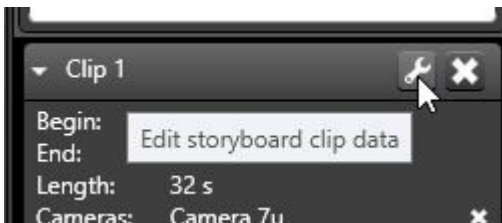


Please note that if the storyboard list is not open, the user can open it from EasyView menu.



## EDITING CLIPS IN STORYBOARD

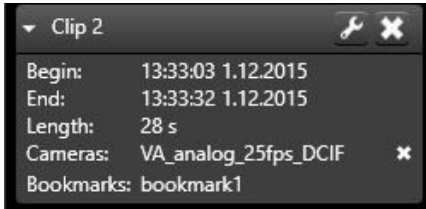
Clips appear in storyboard always in time order, ordered by the start time of the clip. A clip can be opened for editing later by pressing the “Edit” button.



When a clip is opened for editing,

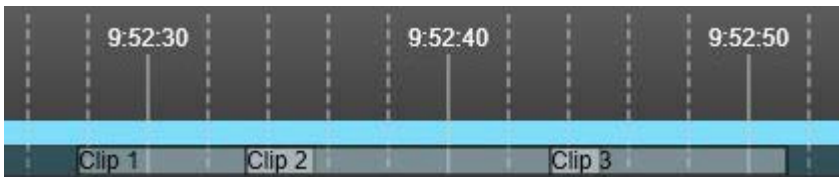
- The name and description are editable and change to white to indicate this
- The export time slider is populated with the devices from the clip
- The start and end times are editable and can be adjusted
- Devices can be added to the export time slider and saving the clip will add them to the storyboard

It should be also noted that 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.

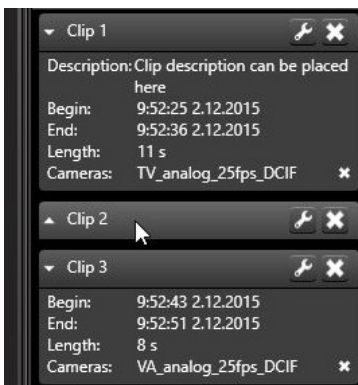


If the start time of a clip is adjusted so that it is now earlier than before and before another clip, the clips are rearranged in the storyboard list automatically.

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, 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 slight difference in the color of the clips where they overlap.



Please note that if the storyboard is long, the clips can be minimized.



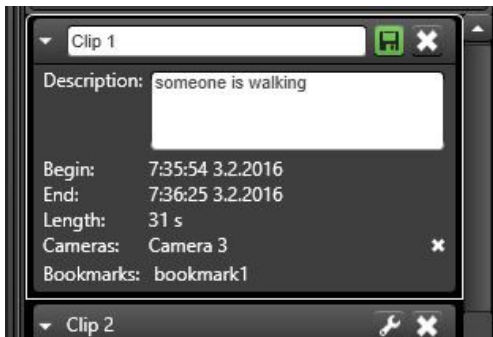
## DESCRIPTIONS AND COMMENTS

The storyboard has several types of descriptions

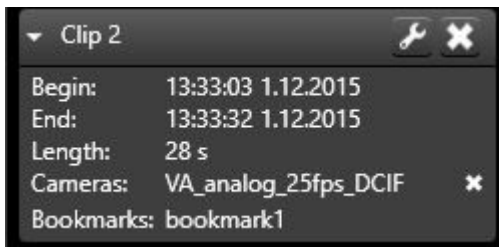
- Whole storyboard description



- Individual clip descriptions



- Bookmarks

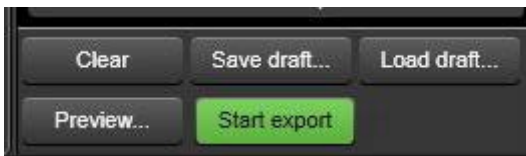


The descriptions are shown to viewers of the storyboard as subtitles. The timing of showing the descriptions is based on the start time of the clip or bookmark.

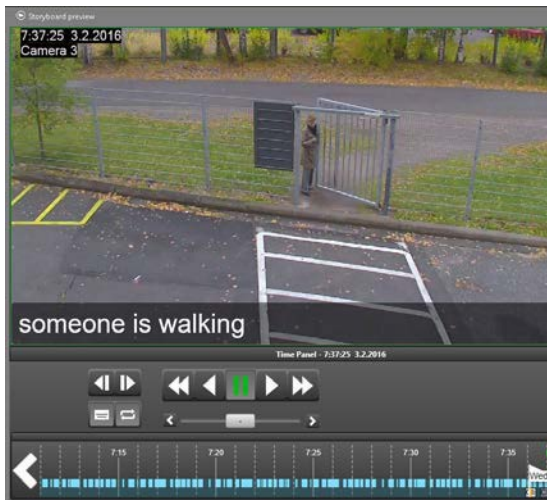
Description texts are also exported in text format to the target directory for further use for the target audience.

## PREVIEW

During the construction of the storyboard, it is possible to preview the storyboard by pressing the preview button. This opens a new EasyView 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 EasyView window.



Preview opens in a special EasyView 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.

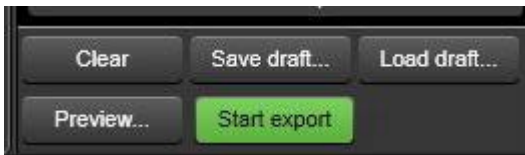
This will open a dialog where user can enter a name for the draft storyboard. If there are lot of users interested in draft storyboards, it is recommended to save the storyboard to a common location, such as a network drive. Then the draft storyboards can be opened by anyone who has access to the same profile that was 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 EasyView window or exiting EasyView will clear any unfinished and unsaved storyboard contents.

## SETTINGS

Settings for 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 dialog 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 of course also possible to export the individual video clips from the time slider button.

The EasyView Player application will be also exported to the target directory, if it is not already there.

In addition to the media, an HTML attachment with summary and details of the storyboard is also exported to the target directory.

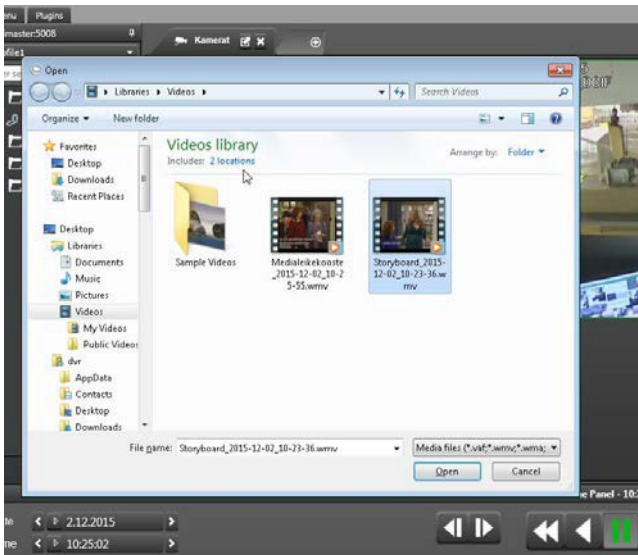


## VIEWING STORYBOARDS

A storyboard can be viewed with EasyView or with the EasyView Player. Media can be opened by pressing F4 key or by “Open media” from the EasyView menu.

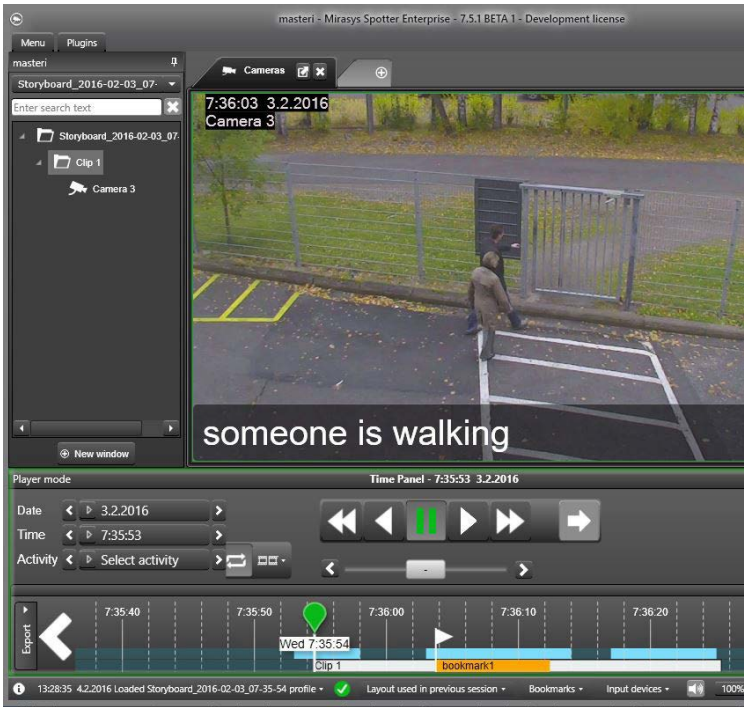


Then the storyboard can be opened from the file selection dialog

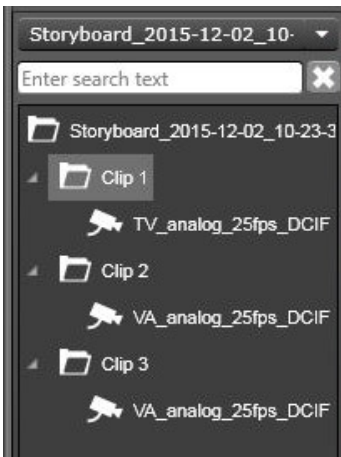


All media viewing will open a new EasyView window in “Media play mode”. This allows the original EasyView window to remain in the profile that was active before starting to view media.

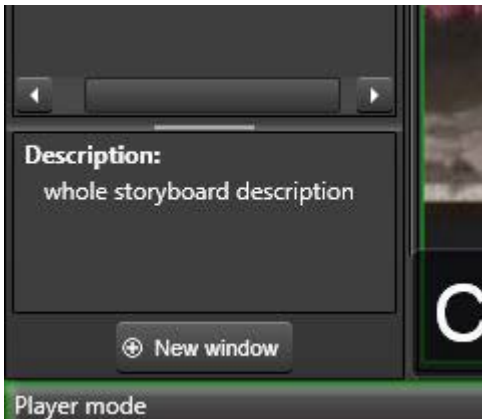
The media view window opens with the storyboard. Let's look at the different window components in more detail:



The device tree on the left has the storyboard clips in a tree-like structure.



The clip that is playing is always highlighted. It is also possible to display the descriptions of the whole storyboard and the selected clip by displaying the “Descriptions” box in the device tree.

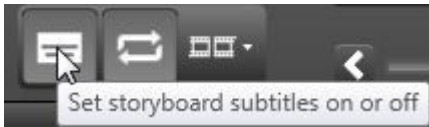


In the image above you can also see the green highlight around the time controls and the text “Player mode” that indicates the window is in media play mode.

There are further differences in the time controls in media play mode, some new playback options:



The first button is a toggle button for showing the clip and bookmark descriptions as subtitles on top of the video image.

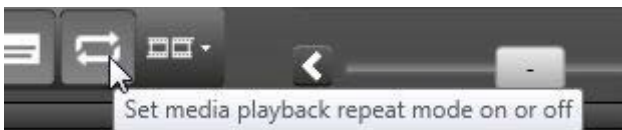


By default, this button is enabled and the subtitles are shown. (“Clip description can be placed here” sample text). The subtitle descriptions can be toggled on and off by pressing the subtitle button. The subtitles can also be closed from the “x” control in the right corner of the subtitle box.

If the description is long, the subtitle box will show 3 rows of text, after which the box is scrollable with scroll controls or mouse wheel.

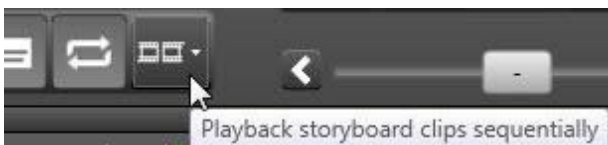


The second button is repeat. This button controls if the playback will return from the storyboard end to the beginning and loop indefinitely.



By default it is also on.

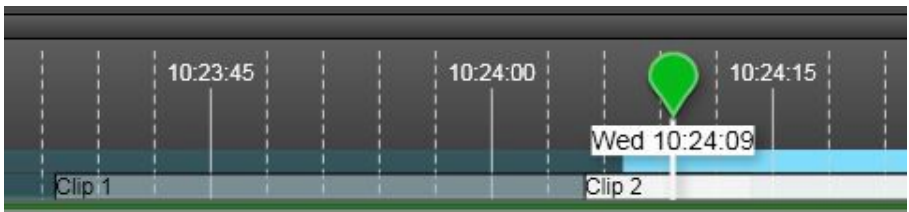
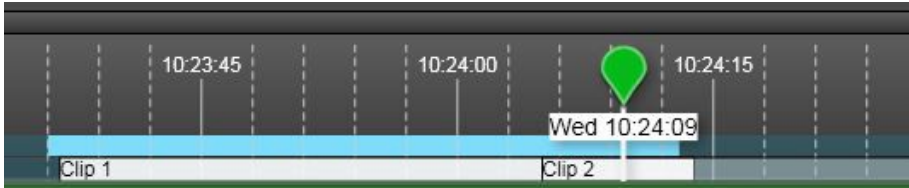
The last button is the storyboard play mode. It controls if the storyboard clips are played sequentially as described earlier, or in “all cameras” mode, where time progresses linearly and does not jump if clips overlap.



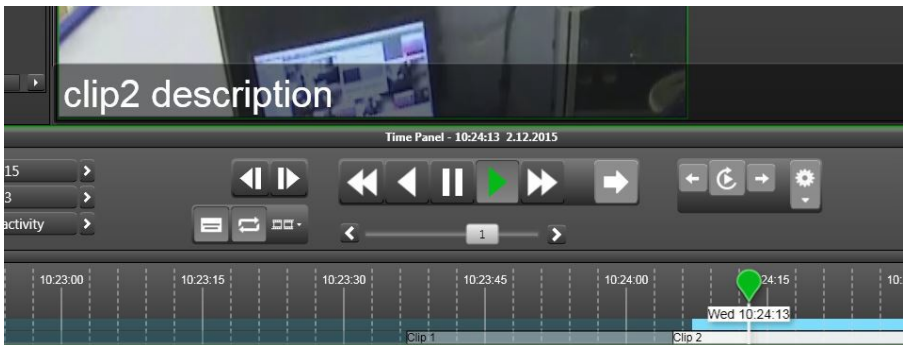
The storyboard clip opens with the playback position in the beginning of first clip, and playback state is paused. To view the storyboard, user can press play.

The normal playback controls for speed and direction apply.

Since the clips can overlap, the currently playing clip is highlighted in time slider with white color. Notice as one clip ends, the playback can jump backwards in sequential mode to the beginning of next clip.



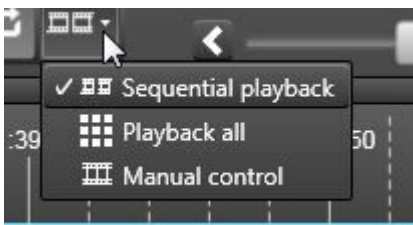
As the clip changes, the subtitle will now show the “Clip 2” description.



When playback progresses to a position where there is a bookmark, the bookmark description is shown in the subtitle comment box.



## 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 completely before moving to the next, so the time can jump backwards in this mode.

The user can switch the playback mode 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 backward when clips overlap, but the storyboard is played in real time.

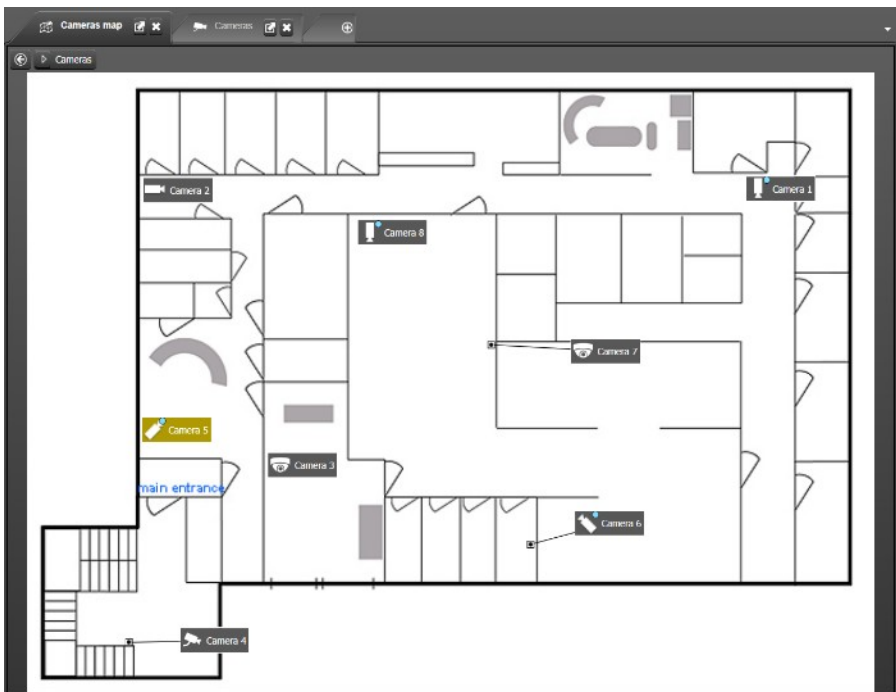
In the manual mode, no camera is opened or closed automatically, and the user can choose which camera to open from the device tree.

It is possible to view storyboards in full screen mode by using the tab maximize button.

# PROFILE MAPS

The System Manager application Profile Settings has the option to add maps to a profile. The profile and its sites can have a map image, and devices can be added to the map image. The Profile Map plugin shows the map image and its devices in the selected profile or site. The user can configure in the System Manager application whether devices have place-marks and whether the device name is shown or not.

The plugin is included in the installation and does not require a separate license.

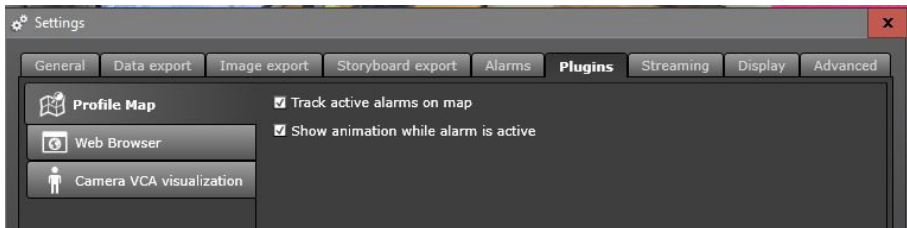


The profile map is selected by opening a new tab and selecting the tab and selecting the profile tab. If a map was configured in the System Manager application, then it is shown. Otherwise a default map image is shown. The user can double-click the folder and move further in map levels. Underneath the dropdown, there is also the possibility to select profile levels.

The map can include the following devices: 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 priority are highlighted in yellow in a profile map just like in the device tree. 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, then it is highlighted on the map. The device tree has also a “Show on map” option for each device in the right-click menu.

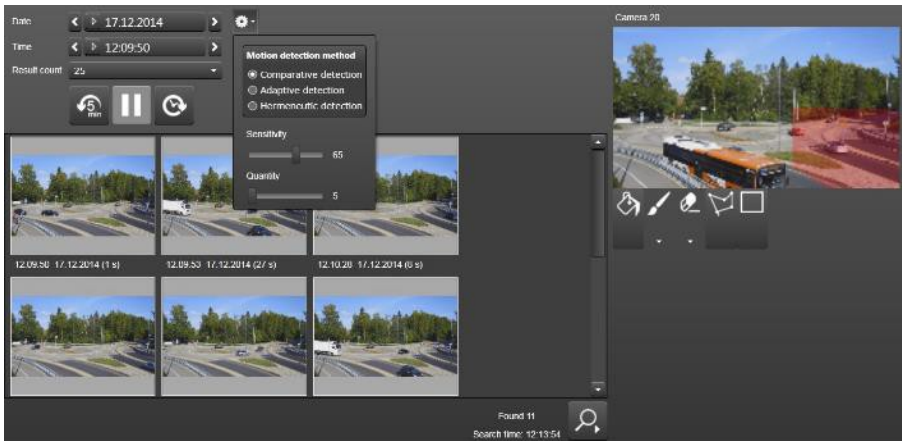
The Profile Maps plugin can react to an alarm by switching the view to show the map view where a trigger for the alarm has come from. This setting is controlled from Profile Maps settings.



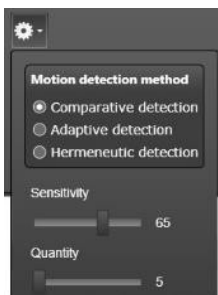
There is also a setting for turning the alarm “pulse” animation on or off.



# MOTION SEARCH

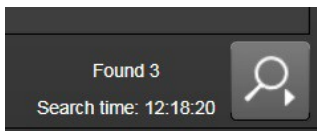


With the EasyView Motion Search plugin, the user can open a new tab and select motion search. A camera can be selected by double-clicking a camera in the device tree or by dragging and dropping it to the motion search tab. Motion search works only if camera playback is allowed. The user can select the start time of search and the result count from a dropdown. The result count can be 10, 25, 50 or 100. The cogwheel icon opens up more search options, and the user can select the motion detection method, sensitivity and quantity. The tooltips for the motion detection methods explain for what purposes different methods are meant.



<b>Comparative detection:</b>	For stable indoor conditions
<b>Adaptive detection:</b>	For outdoor conditions with changing light levels
<b>Hermeneutic detection:</b>	A sophisticated method for environments with image “noise” (such as heavy weather). Requires more system resources than other methods.

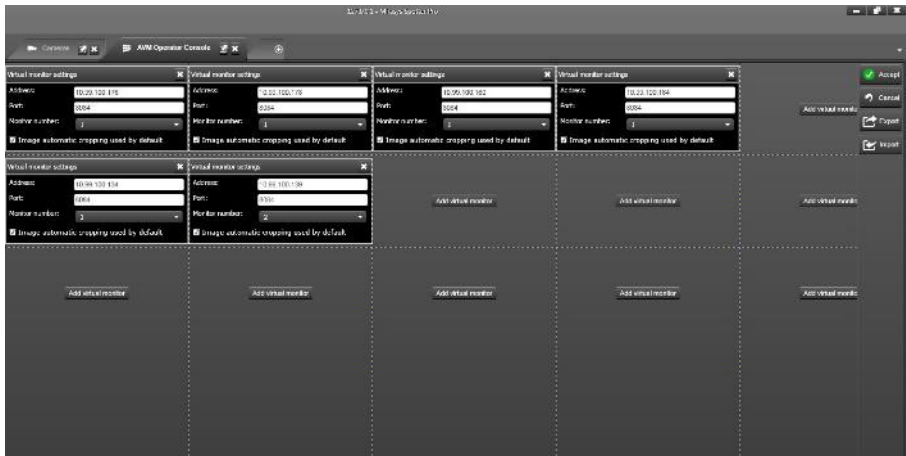
The search result is a list of thumbnails that have time information. Motions are combined, if they are close to each other. Double-clicking a search result opens the camera to a new tab and the playback time of the camera is set to the motion detection time.



If the user want to search for more results there is a “Search more” button on the lower right corner. Search continues from the time of the last found item.

# AGILE VIRTUAL MATRIX OPERATOR CONSOLE

Agile Virtual Matrix (AVM) is an effective, powerful and flexible way to control any size monitor array in a control room. The control is achieved without delays and with extremely high reliability.



The main control interface of the AVM is the Operator Console. The operator console shows a representation of the monitors in the AVM, and allows to control what content is shown on the monitor screens.

There can be multiple operator consoles (limited by the VMS Master Server license) connected to the same AVM Display Servers simultaneously, and they all are automatically synchronized.

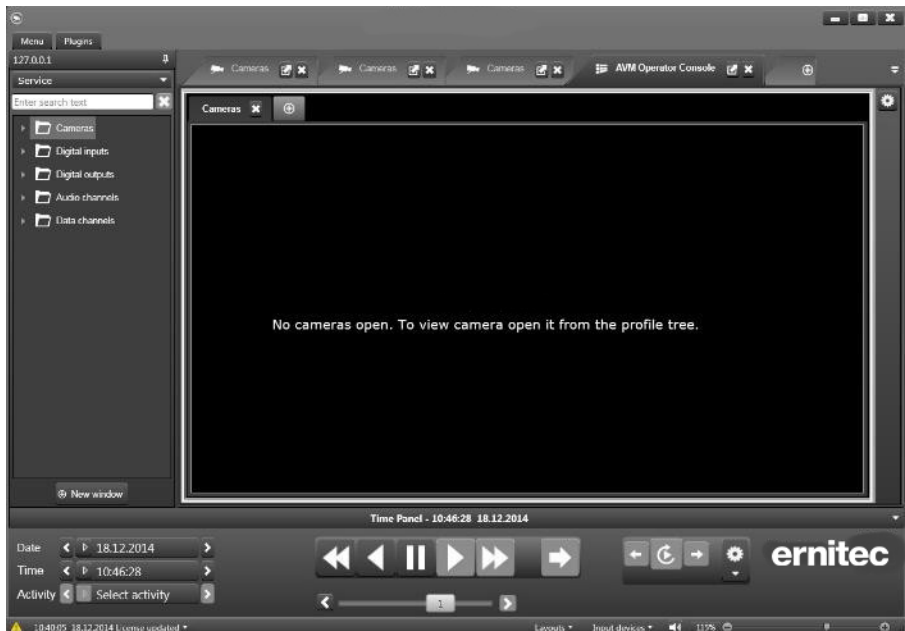
## AGILE VIRTUAL MATRIX CONFIGURATION

Please see the separate AVM Configuration Guide.

## AVM OPERATOR CONSOLE CONFIGURATION

The AVM operator console can be opened from the plugin menu. The IP address or computer name of the AVM Display Servers are added to the settings with the “Add virtual monitor” button. Typically this task is done at system configuration stage and does not need to be done many times.

After the monitor configuration is saved, the first layout containing the AVM monitors can be created. It is recommended to create a layout that has no content on the monitors and save it as a shared layout.



The Operator Console is a representation of the matrix' monitors content and has most of the normal EasyView functionality.

In the tab menu:

- Creating, closing, reordering, renaming, moving and copying tabs is possible.
- Control of auto crop and VCA highlight for whole tab is possible (from the tab menu)
- Control of EasyView fixed camera grids is possible

- Show/hide the alarm list is possible
- Opening any plugin is possible

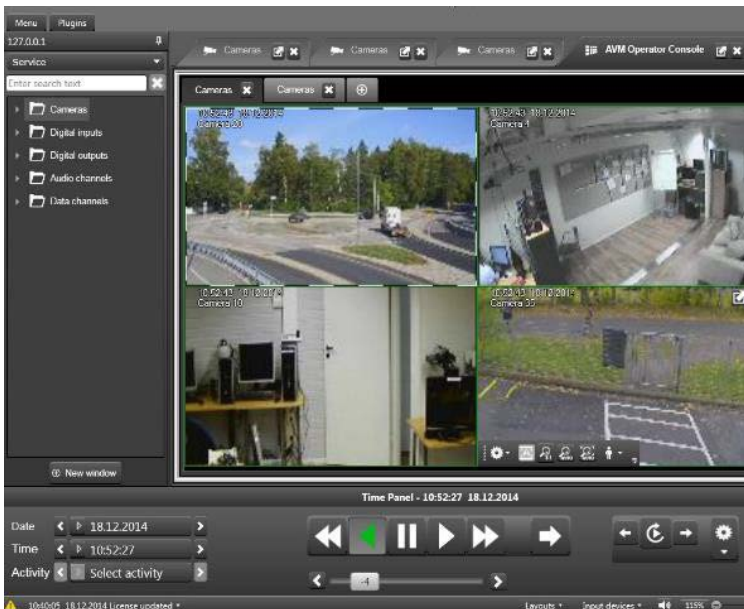


In the toolbar menu (for individual cameras):

- Control of image display settings, ThruCast settings and camera name and timestamp settings
- Control of individual auto crop settings
- Control of automatic virtual zoom settings

The selected AVM monitor in the operator console is shown with a solid white line. The same line is visible in the AVM Matrix monitors when the AVM operator console monitor representation is clicked with the mouse. This effect can be used by guards to direct the attention of other guards to a specific matrix monitor

The selected camera inside the operator console is highlighted with a dotted white-gray border.



The time slider is not shown with the Operator Console. This would load the communication interface too much. However, the time and date and playback controls can be used normally. The selected monitor cameras will change to the normal green “playback” border color when the user moves the playback position away from live / real-time position.

## **ADDING, MOVING AND COPYING CAMERAS IN AVM**

It is possible to move and copy cameras and tabs from the operator console to normal local EasyView and back. Similarly, it is possible to move and copy cameras and tabs from one AVM monitor to other. The playback time will synchronize when content is moved or copied. Moving happens simply by dragging and dropping the content to another location. Copying happens by keeping the CTRL key pressed when dragging a tab or a camera.

This feature can be used for fast copying of content from AVM monitors to local EasyView monitors, for example to be able to use the time slider and seek some interesting event. Then when the interesting event has been found in the local EasyView, the camera(s) with the playback position can be moved or copied back to a new AVM monitor tab so that it can be shared to everyone in the room watching the AVM monitors.

Cameras are added to the operator console monitor in the same way as to normal EasyView. The user first selects the console monitor and then cameras can be added to it with double-clicking the mouse, drag and drop, device numbering and numeric keypad or by navigating to the correct device in device tree and hitting the enter key.

Camera images in the operator console are not live camera images, they are reference images, so they are static.

## **USING NUMERIC KEYPAD FOR CAMERA AND MONITOR SELECTION IN AVM**

When an operator console is selected, the keyboard numeric keypad monitor selection applies to it, not to local EasyView windows or PC monitors. So writing “3” and “plus” selects the third AVM monitor, and not the third local monitor. To be able to select third local monitor, user has to move AVM operator console away from the foreground.

## **PTZ CONTROL IN AVM**

PTZ control via the operator console is also possible, using the joystick. Control with mouse or keyboard is not possible. It might be easier to control PTZ cameras via local EasyView, and have the camera visible on the wall monitor at the same time.

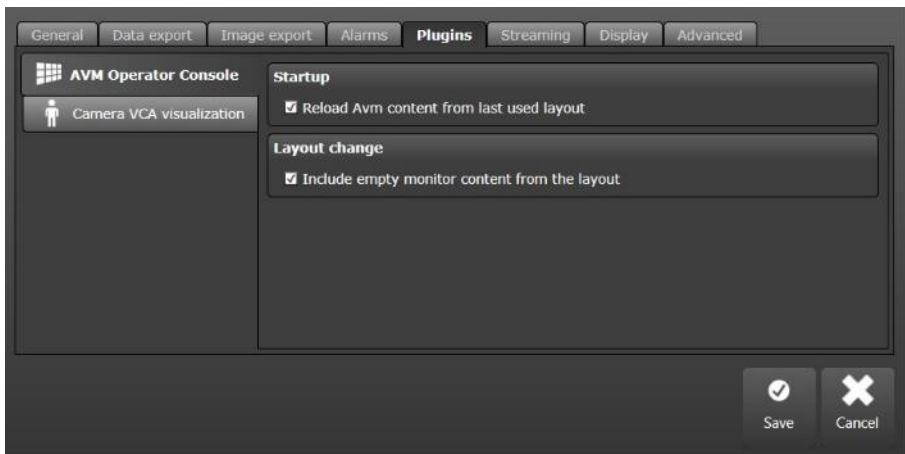
## CAMERA TOURS IN AVM

Camera tours work in the same way as normal EasyView camera tours. The user can select the AVM monitor from the operator console, and then choose the camera tour settings for this monitor. Pressing the camera tour “start/pause camera tour” button will start the tour. The camera outline will change to orange to indicate the running tour. The only difference to normal camera tour is that the check box that controls if the camera tour is running in normal screen or full-screen is not visible.

## LAYOUTS IN AVM

All the monitor settings, tabs, tab names, tab order, and cameras on the tabs, as well as playback time and camera tour settings are stored to layouts also when the AVM operator console is open. This is an easy way to update the whole AVM wall monitor content.

Combined to layout scheduling, this makes it possible to update AVM walls or individual monitors in a building automatically.



The AVM plugin has two settings that can be used to change how the system behaves when:

- Starting EasyView and connecting to the AVM Display servers and the wall monitors,
- Layout is loaded.

The default setting for startup behavior is that when an operator console connects to the AVM display servers, it shows the current content of the wall rather than replacing the content of the wall with the last used layout. This setting should be the most common setting.

If the users want to change this setting they can check the box “Reload AVM content from last used layout”.

When the checkbox is selected and the user opens EasyView, EasyView will open the same view that was active when user logged out from EasyView last time. If the AVM Operator Console was open with different content at that time, with this setting the Operator Console will now change the AVM monitor content.

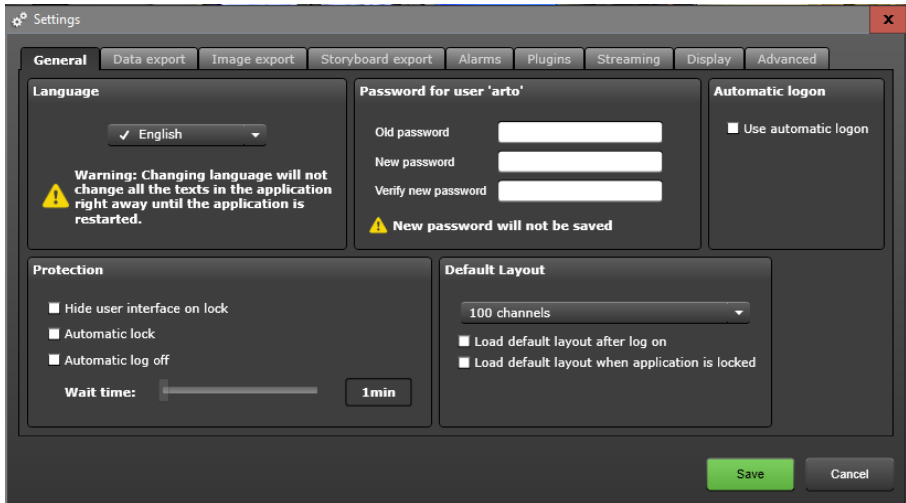
The second setting is for the behavior in a layout change. If a monitor in the AVM Operator Console does not have any content when the layout is saved, it is considered as an “empty monitor”. The default behavior with this case is that when this kind of layout is loaded, it does not replace content on the empty monitor.

This setting allows for example to save layouts which have all the monitors visible in the console, but only updates part of the wall. For example, if a wall consists of 8 monitors, then the users can create layouts which have 6 monitors empty, but content on 2 monitors only. Then they can save this layout and then they can load the layout, and only those 2 monitors change, and the rest of the wall remains as it is.



# SETTINGS

## GENERAL SETTINGS

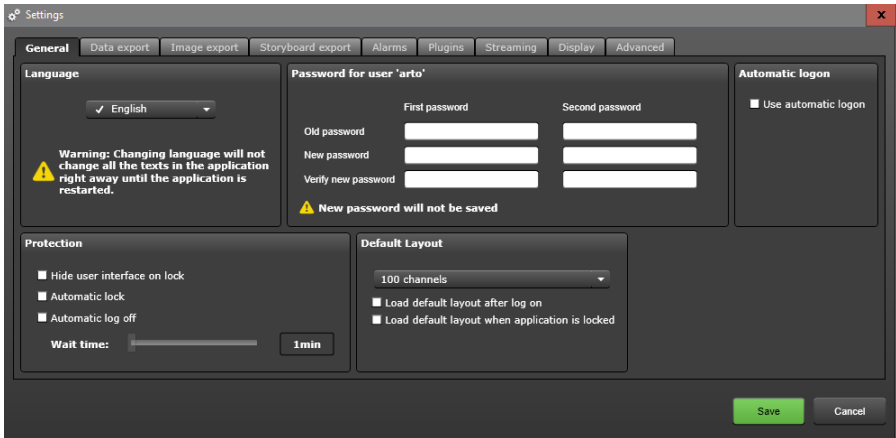


The first tab in the settings menu allows users to change their password and change the language of the user interface.

The protection settings control how the user interface is locked.

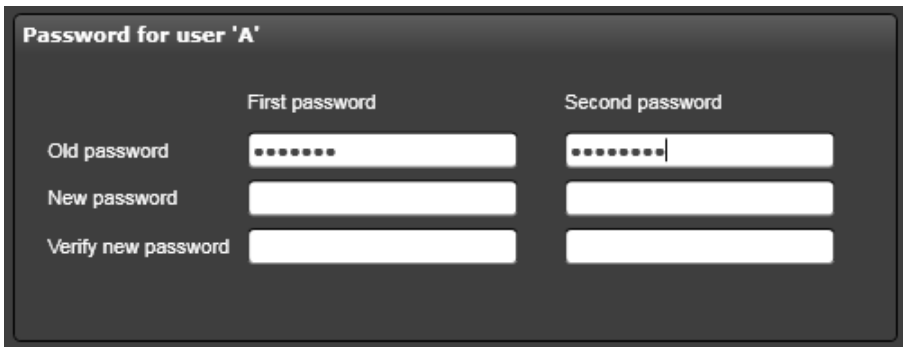
If the system is in “dual-password mode” (See the System Administrator Guide how to configure dual-password mode), then both the passwords can be changed in this view.

The settings looks like this in dual-password mode.

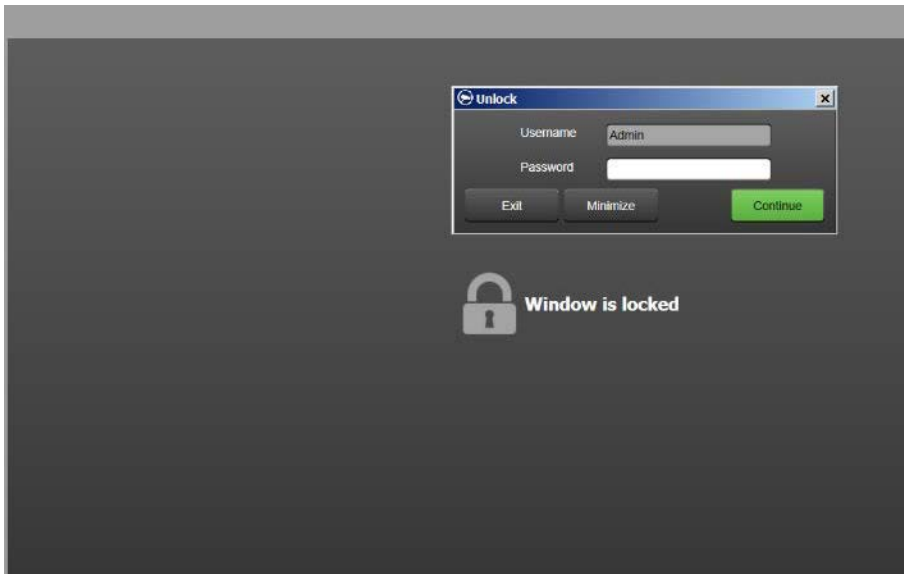


To change any password in dual-password mode, both the passwords must first be entered.

After this, the view looks like this



Now, users need to write in the new passwords they would like to use. If changing only one of the passwords, still the old second password has to be written two times more. (Otherwise the other password will be changed to an empty password.)



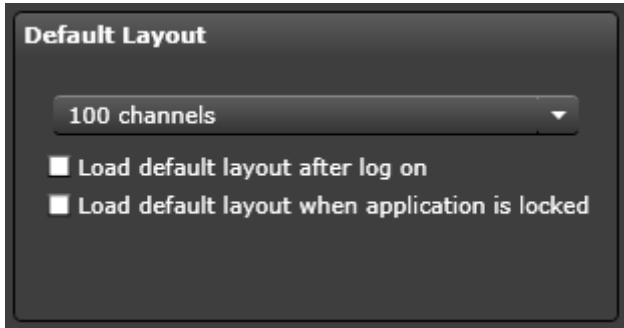
Turning “Hide user interface on lock” on means that when the interface locks automatically or the user manually locks the user interface, the whole interface turns grey and no cameras can be seen.

“Automatic lock” and “automatic log off” are options. Only one of these can be selected. When either one is selected, the slider below these settings becomes active. The slider controls how long time of inactivity is needed before the user interface locks automatically or the user is logged off. Any keyboard or mouse movement is considered an active user.

***TIP:*** *The automatic lock can be used for users who are considered too “junior” to have possibility to change the views. So the timer can be set for 1 minute and automatic lock can be made active. Then after login, the user interface will lock very quickly and the junior user cannot change anything but can still view the content on the screens.*

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

## DEFAULT LAYOUT

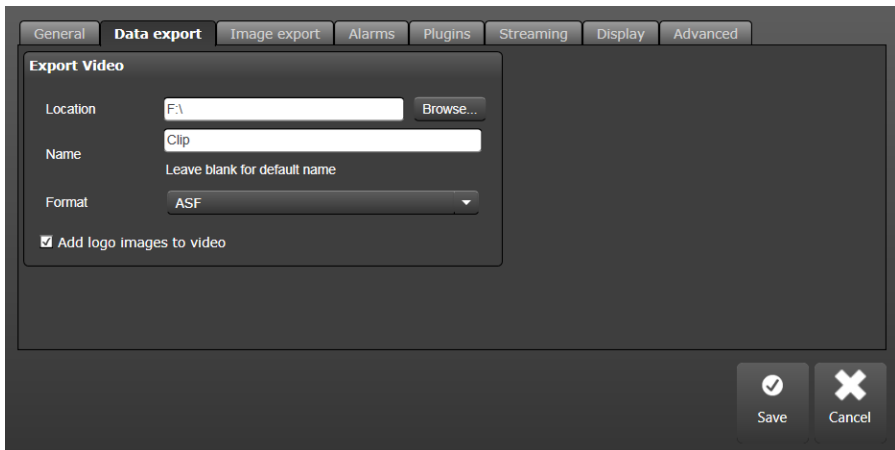


The default layout can be selected in General settings section. The two options for the layout are

1. load this layout immediately after user has logged in
2. load this layout immediately after user is locked

This setting can be used to guarantee that a certain “general monitor” view is always active when the workstation is not in use.

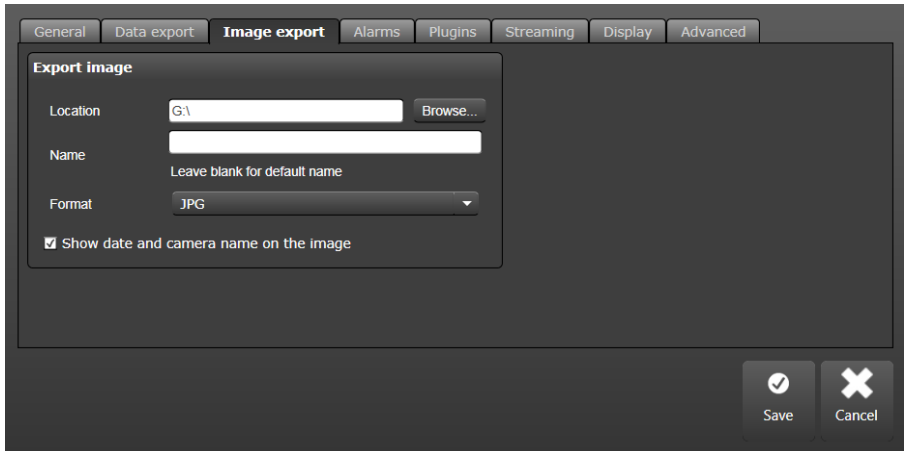
## DATA EXPORT SETTINGS



The data export screen has settings where the exported video clips are saved and how they are named.

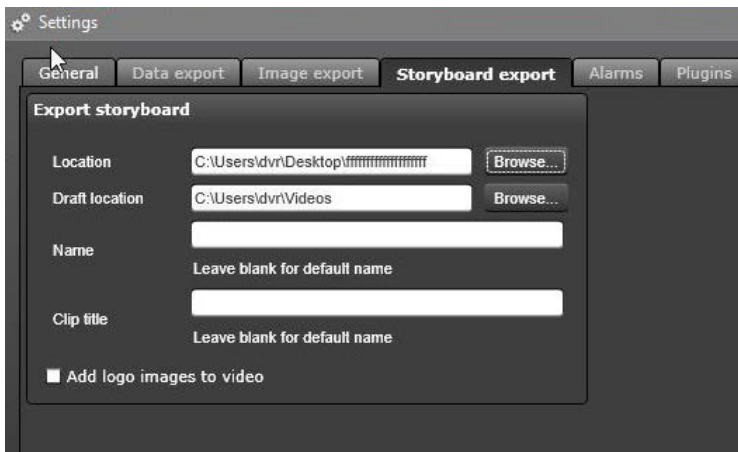
Also the format can be chosen here, and if logos are added to the clip when exporting.

## IMAGE EXPORT SETTINGS



Similarly, the image export screen has settings for the export image location and image name and format.

## STORYBOARD SETTINGS



Storyboard settings contain the export target location, and the target location for the draft storyboards. The name of storyboard and the clips can be defined here. If the names are left blank, a default name with a timestamp is used.

## ALARM SETTINGS

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

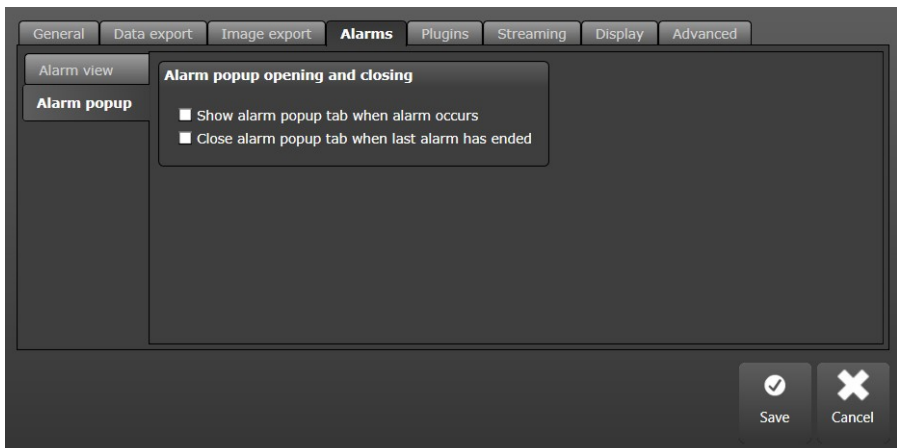
The alarm view section has also two parts.

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

- From real-time
- From start of the alarm pre-recording time
- From alarm trigger time (default option)
- From a freely selectable time (1- 60 seconds) before the alarm triggers

The second part is how the alarm is opened. The possibilities are:

- Each alarm opens to same tab in all of EasyView, in all windows
- Each alarm opens to same tab in single EasyView window
- Each alarm opens to active alarm tab
- Each alarm opens to a new tab. (allows to view multiple alarms simultaneously in own tabs)



The Alarm popup setting also consists of two parts.

The first part defines 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.

If the user wants that the alarm popup is not open normally, and only opens when an alarm happens, then he should select the first checkbox.

If the user wants that the alarm popup also is closed automatically after the last active alarm ends, then he should check the second checkbox.

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

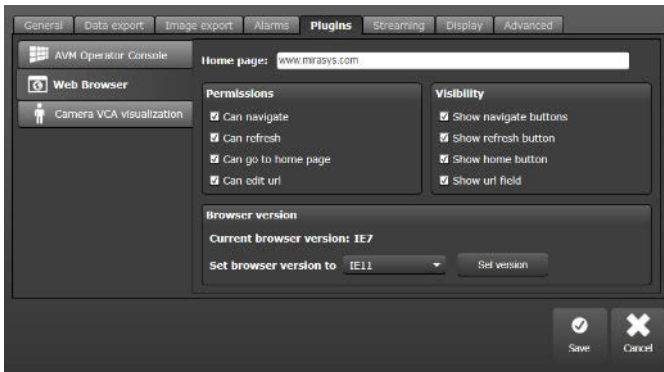
- Alarm components are closed when the alarm ends (default option)
- Alarm components are closed when post recording time ends
- Alarm components are closed after a specified time has passed after alarm end (5 seconds – 30 minutes)

Furthermore, it is possible to control if the alarm popup is highlighted with alarm status border, and if the window that has the alarm popup is brought to foreground if it is hidden.

## **PLUGIN SPECIFIC SETTINGS**

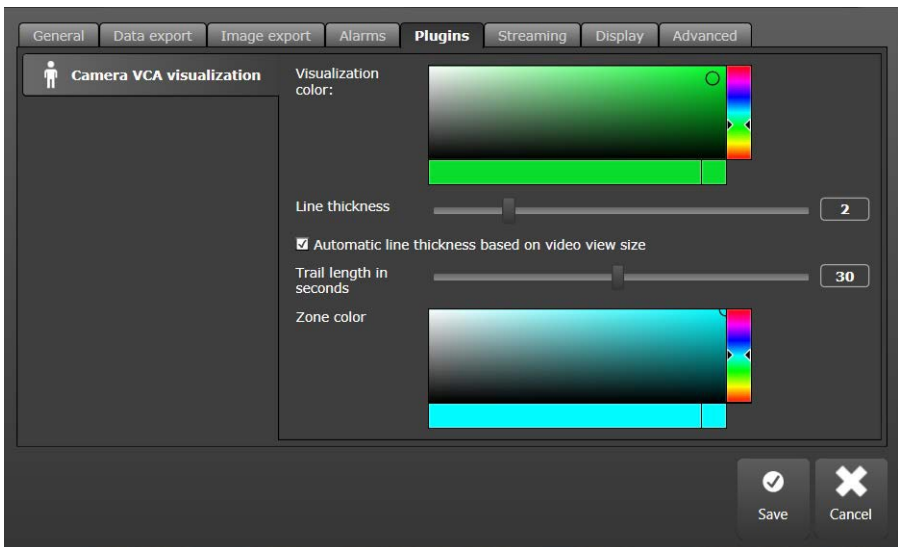
This setting view contains all settings for the installed EasyView plugins not specified elsewhere. The settings visible here can be different based on what EasyView plugins are installed.

The AVM Operator Console specific settings are explained elsewhere in this guide.



The Web browser plugin has settings for

- 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 home page and edit the URL
- Selecting the version of Internet Explorer that is used



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



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

## STREAMING SETTINGS

The screenshot shows the 'Streaming' tab selected in a settings menu. The window contains three sections of radio button options and a dropdown menu.

**Multistreaming**

- Use Viewing stream if it is configured for the camera
- Use Streaming stream if it is configured for the camera
- Use recording stream always

**ThruCast default value**

- Stream always from recorder
- Stream from recorder if connected, otherwise from camera
- Stream always from camera

**Default streaming settings**

- Continuously
- When motion is detected
- When motion is detected, minimum interval

At the bottom right, there are 'Save' and 'Cancel' buttons.

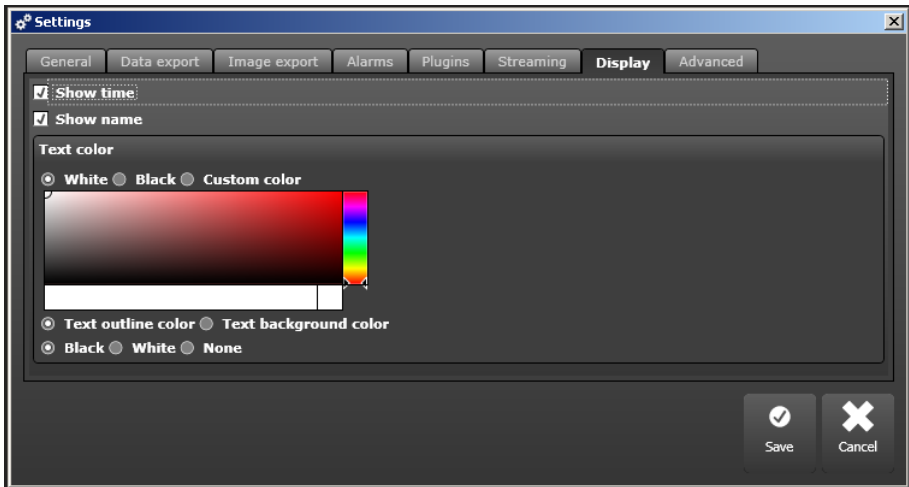
The streaming settings allow to change the default values for three areas of streaming.

- Which stream from camera is used for live viewing
- Does live viewing stream from direct from camera (ThruCast) or from the recorder
- Does EasyView draw all images always, or only based on detected motion

The ThruCast and default image drawing settings can also be adjusted individually per camera from the camera toolbar menu.

## DISPLAY SETTINGS

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



Also the color of the text and the outline can be adjusted separately.

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

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

## ADVANCED DISPLAY SETTINGS (QUEUE PERFORMANCE)

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 EasyView settings) is set on, and only for live video (not for playback).

This setting will display the fourth line in the image below.



The fields in the advanced information are as follows:

- Min and max interval for frames received from recorder (milliseconds)
- Min and max interval for reading frames from video buffer (ms)
- Min and max drawing interval for frames in user interface (ms)
- Amount of frames in video buffer queue (min/max for each second)
- Decompression time for frame (min/max) in milliseconds

For example, for a 15 fps stream, the frame interval should average 66.7 milliseconds (1000 divided by 15). If the received and buffered frame intervals start to differ by a large amount from this theoretical value, it is likely that the traffic is arriving in bursts.

Buffering will attempt to smooth this bursty traffic and it is normal in these situations to see queue to have more than 1 frame in it to smooth the live video.

If high decompression time is shown compared to the difference of frames, it is likely that video is too high resolution, framerate or bitrate for the displaying system. Contact your system administration to change camera settings.

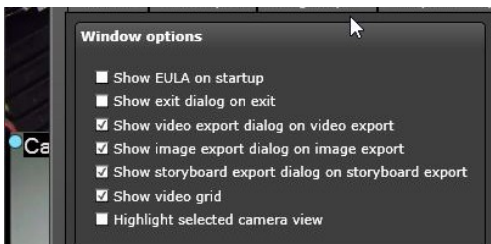
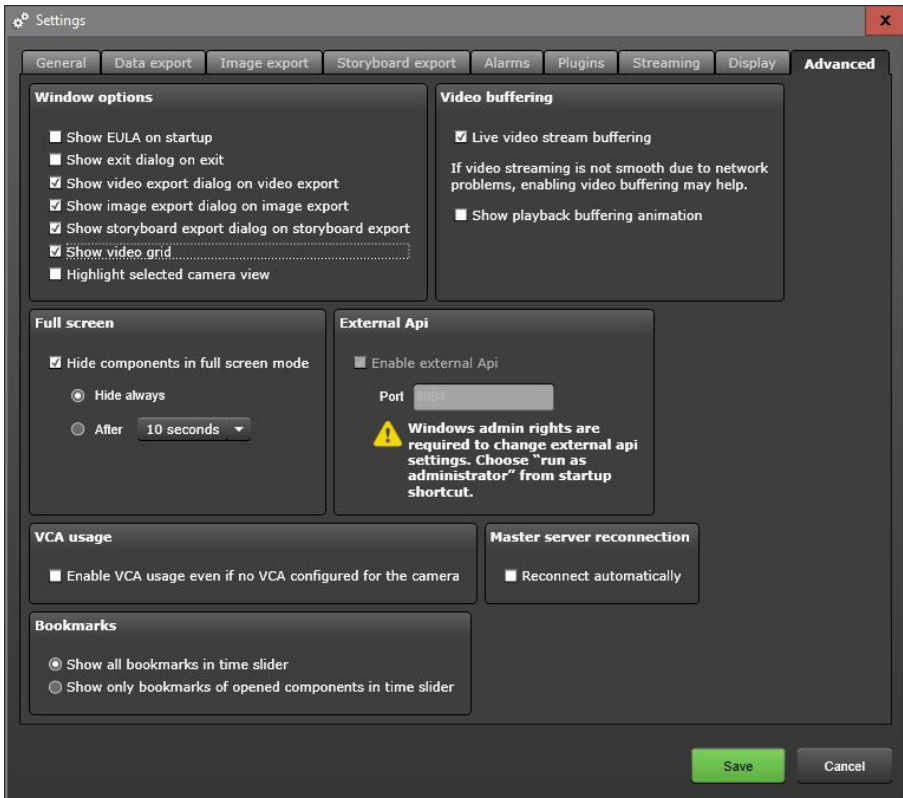
The display will start to show following colors if it detects that buffering cannot keep up with video.

- Yellow color: buffering is close to having to discard frames to keep up with live video. Some live video playback jerkiness can be observable
- Red color: buffering has to skip frames to be able to keep up with live video.

If red color is seen, contact your system administrator to investigate system performance.

## **ADVANCED SETTINGS**

The advanced settings contain more rarely used settings, but these settings are still not at all unimportant.



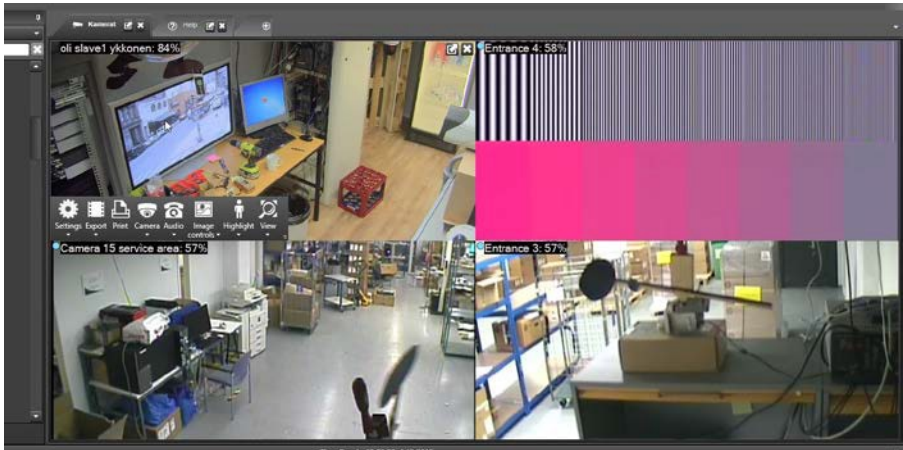
The first part contains information if different dialogs are shown

- End User License Agreement (EULA) dialog
- Exit confirmation dialog
- Video export dialog
- Image export dialog

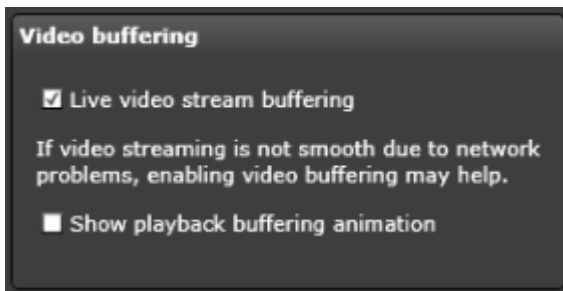
- Storyboard export dialog
- Show video grid

The final checkbox in the dialog list is the selected camera highlight. If checked, a dotted line highlight is shown in the local EasyView and AVM when a camera is selected either with a mouse click or with the device numbering method.

Activating the “Show video grid” option draws the traditional white border for the real-time EasyView device tab. In the default setting the camera grid is hidden.



The second part is video buffering.

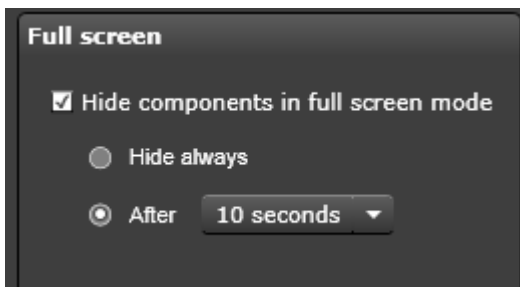


EasyView has advanced video buffering that smooths out the effect of a bursts in network or an ill-behaving camera where the image frames are not arriving smoothly and regularly from camera to EasyView. Without the buffering on, EasyView draws the live images as fast as they arrive, without any regard on the frame rate or the image

timestamp. If this setting (no buffering) leads to jumpy video in live view, users can turn on the buffering.

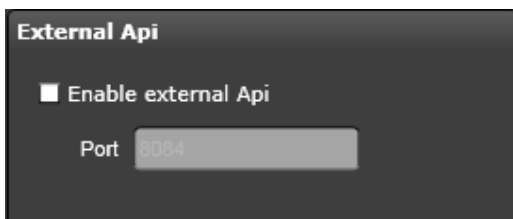
When buffering is on, the images are held in a queue if they arrive too quickly or in bursts. The queue is dynamically managed so that it is kept as small as possible to conserve memory and to keep the delays as low as possible. Images are then drawn from the queue on regular intervals based on the perceived frame rate, achieving very smooth video playback for live cameras even in extremely challenging network and camera conditions. Buffering is done for compressed images to reduce the memory consumption effect of buffering. Even so, please note that engaging the buffering will increase memory consumption and cause some delay to the video image.

The second option is used to control the “buffering..” animation that is shown in EasyView when playback position was changed enough that playback needed to buffer video material before actual playback commences.



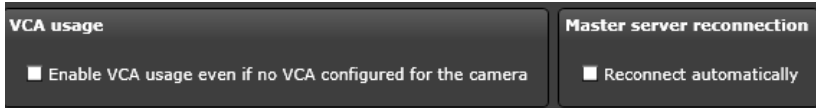
In the full-screen part of the advanced settings, user can define if the top and bottom bars of the EasyView full-screen window disappear after some time of no mouse movement. If the check box “Hide components in full screen mode” is checked, and the radio button selector is in the “10 seconds” position, the top and bottom bars disappear when the mouse has not moved for 10 seconds.

If the checkbox is left unchecked, then the top and bottom bar are always shown. It is also possible to hide the top and bottom bars always.



The external API (Application Programming Interface) is used for example by the Agile Virtual Matrix console to send commands to the display servers. This setting needs to be active when using AVM, and the port number needs to be same in the display servers and the AVM operator consoles.

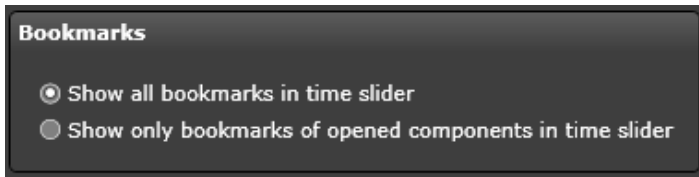
The activation of the external API needs to be done only once. It will require Windows local administrator rights.



The VCA usage checkbox is meant for scenarios where third party VCA is used. Usually this selection should not be activated.

If the Master Server reconnection –selection is selected, EasyView will not exit if the Master Server (SMServer service) connection is lost. In this case, EasyView will stay open and attempt reconnection to the Master periodically, initially with a few second intervals, but if the connection has not returned, the interval is lengthened to 1 minute intervals.

The default behavior (the “Master server reconnection” is unselected) is that EasyView will exit to login screen 30 seconds after the connection is lost.



The final setting in this setting tab is the bookmarks display. The default behavior is that all bookmarks are shown in time slider. It is possible to change this setting so that only the bookmarks are shown which relate to the open devices in the currently active tab.

*Frequently Used Keyboard Shortcuts:*

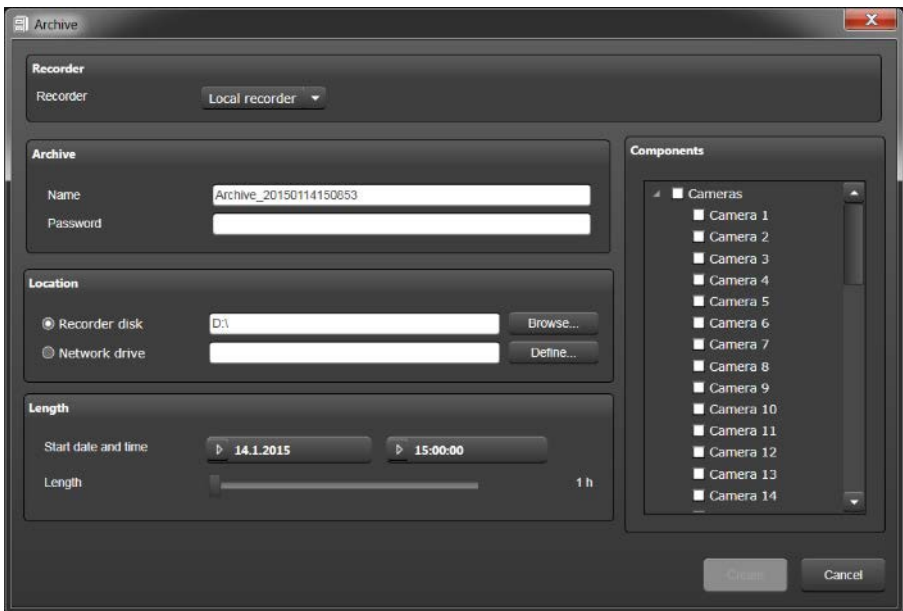
Shortcut	Description
F3	Show settings window

# ARCHIVES

## CREATE ARCHIVE ON LOCAL PC

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

Create an archive in EasyView by selecting the menu and create archive. The user has the possibility to select Recorder, Archive, Location, Length and Components.

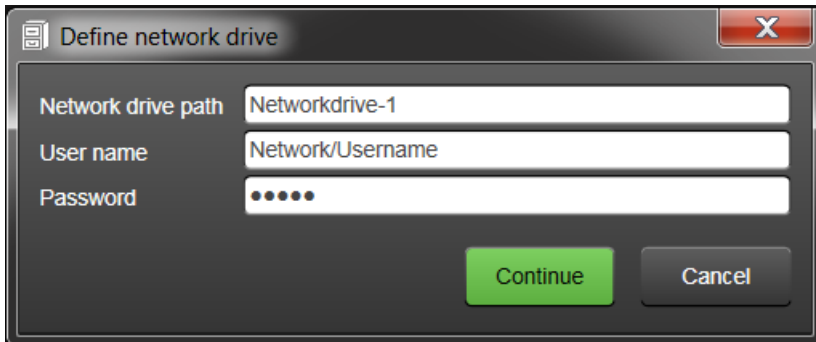


The default Recorder is Local Recorder. To select another recorder of the system, it needs to be included in the selected profile.

The default archive name is named so that it includes the current timestamp. Similar name generation is done for example when saving single images from EasyView. The user can set any name for the archive. If illegal characters are included in archive name, then EasyView warns user by displaying a red frame around the input text field, and an archive with illegal characters cannot be saved. The user can also protect an archive by setting a password for it.



The archive can be saved on hard disk or on a network drive. The browse button displays all available drives to the user. For the network drive the user need to define a username and password and provide the correct network path. The archive length can be from one hour to 7 days. The user select the start time and date and the length is selected by using the Length slider.

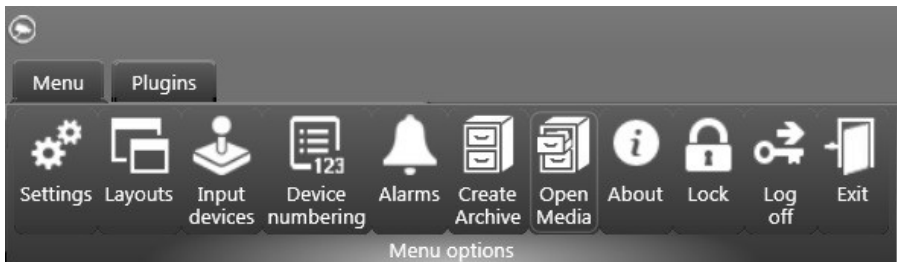


The component section displays all devices of the currently selected profile. Video, audio and text data can be stored to archive. The user can select which devices are saved to the archive. Video, audio and text data can be stored to the archive.

Device data can be added to archive only if export permission is granted to the device in profile settings. If the export right is denied, the device is greyed out. When all settings are done, the user export to the archive by selecting the “Create” button. The user starts archiving from EasyView (but archiving itself is done in the Recorder).

The archive creation process is displayed in the notification area with a progress bar that shows the process in percentages (%). The archive creation can also be aborted by selecting the cancel button. The notification area shows a message, when the archiving process is completed.

## OPEN ARCHIVE OR VIDEO CLIP IN EASYVIEW



Archive opening is allowed only if “Archive view” role is enabled for the user group.

The button to open archives (“Open media”) is visible in the toolbar only if archive opening is allowed.

To open an archive in EasyView select the menu, open media, browse for archive and open it. If an archive has a password, then the user must enter the correct password before the archive can be opened. An opened archive is opened so that the archive name is visible in the profile field. An archive can be selected just like EasyView profiles. Only one archive at a time can be open in one EasyView window. However, it is possible to open multiple EasyView windows, and each of them can have one archive open. Only playback is possible with the archive profile. The user can export archive material.

The same “Open media” button can also be used to open video clips in EasyView. The viewing of the video clips behave same way as archives.

## ARCHIVES IN LAYOUTS

Archives and video clips can also be saved to layouts. When a layout with an archive is opened, the password is asked first, if the archive has a password. The archive is opened, and added as a user profile to the profile selector.

# EASYVIEW PLAYER

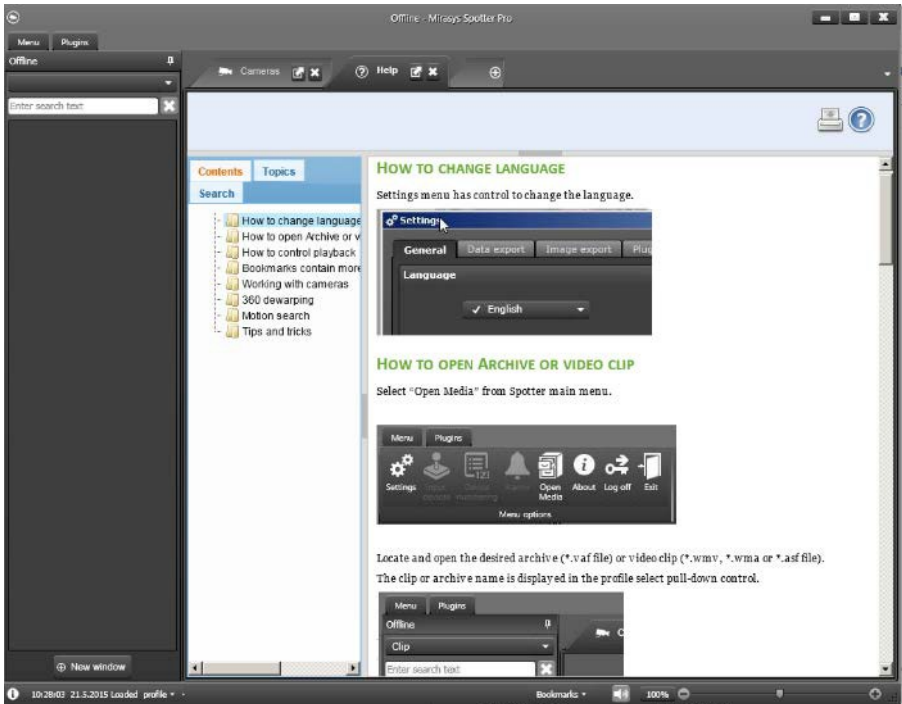


EasyView can be used to view video clips and archives. Ernitec has also made available an executable version of EasyView, the EasyView Player, that can be handed over to law enforcement or other authorities that would like to review video clips or archives as part of investigation on possible illegal activities.

Name	Date modified	Type	Size
Clip.wmv	11.5.2015 8:06	Windows Media Aud...	21 681 KB
Clip1.wmv	11.5.2015 14:03	Windows Media Aud...	34 096 KB
Clip2.wmv	11.5.2015 14:06	Windows Media Aud...	129 257 KB
Clip3.wmv	13.5.2015 10:43	Windows Media Aud...	188 560 KB
Clip4.wmv	20.5.2015 12:07	Windows Media Aud...	13 836 KB
SpotterPlayer7.4.0.exe	13.5.2015 14:42	Application	268 822 KB

When user exports files, the legacy Media Player is optionally copied to the target directory if it is not already there.

EasyView Player is included in the full Ernitec setup package. When handing over video evidence material to 3<sup>rd</sup> parties, the users should therefore remember to provide also EasyView Player with the material.



EasyView Player contains a redacted version of help that opens automatically, instructing the novice EasyView users how the basic features of EasyView can be used.

EasyView Player supports 360 image dewarping, motion search, text data search, and bookmarks.

Note please that you cannot use EasyView Player while the normal version of EasyView is running.

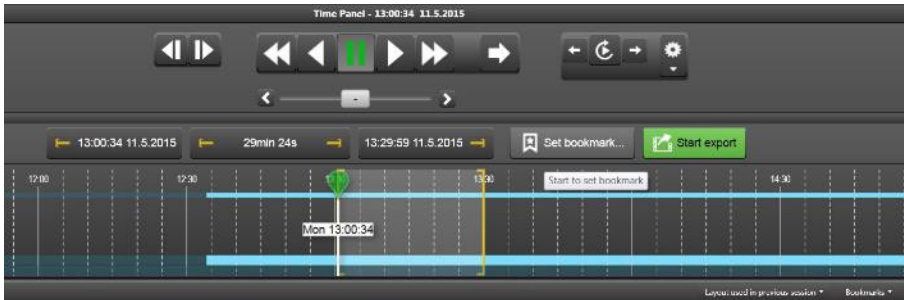
EasyView Player startup takes approximately 25 seconds.

EasyView Player is the default media player and it will be automatically exported to the target clip directory. It is also possible to use the EasyView Player to view storyboard clips.

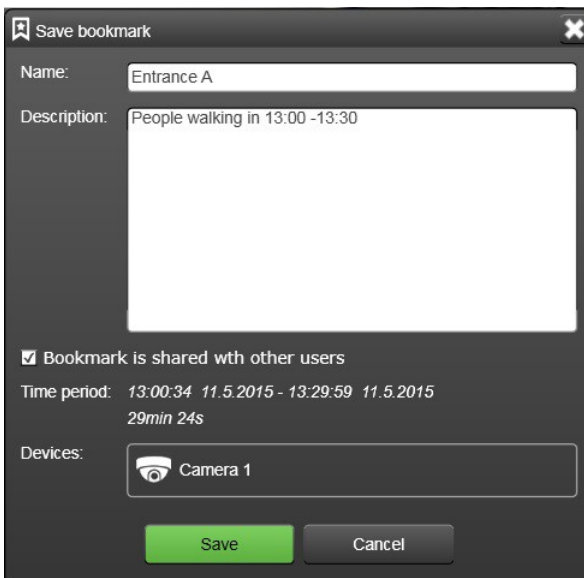
The cameras retain their 360 dewarp or virtual camera zoom settings when they are exported. Users can reset or change these settings upon time of viewing.

# BOOKMARKS

A bookmark is basically a comment to an event. It is created much the same way as an exported video clip.



The creating of bookmarks is started by adding cameras to the media export area. After adding all the desired cameras, user can fine tune the start and end time and then click on the “set bookmark” button. This will open a dialog where user can write the bookmark title and description.

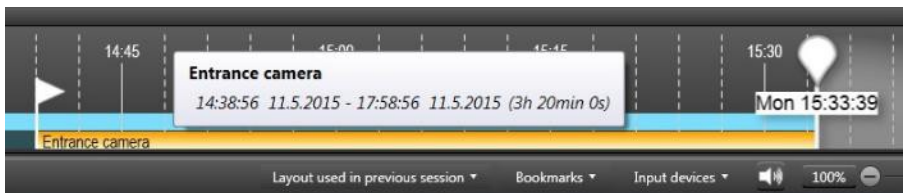


It is also possible to share bookmark to other users. Pressing save will save the bookmark.

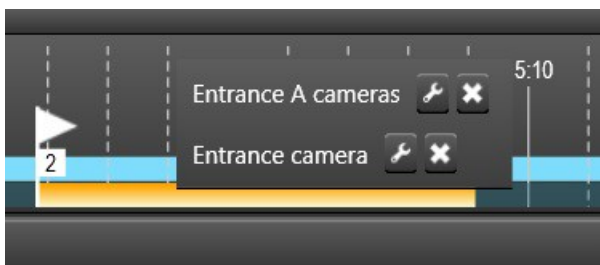
After closing the export view, the bookmark is displayed on the time slider with an orange bar, with the bookmark “flag” in the beginning of the bookmark.



The title is written on top of the orange bar. More information appears on the tooltip by taking mouse over the bookmark.



Clicking on the bookmark with left mouse button will zoom the time slider to the bookmark, and clicking with right button will open a menu where the bookmark can be opened directly.



If there are multiple bookmarks displayed very close to each other, then the bookmarks are grouped. This is indicated by an additional field in the flag with a number that tells how many bookmarks there are grouped together. The mouseover tooltip will show a list of these bookmarks and also the right click menu can be used to open each of them.

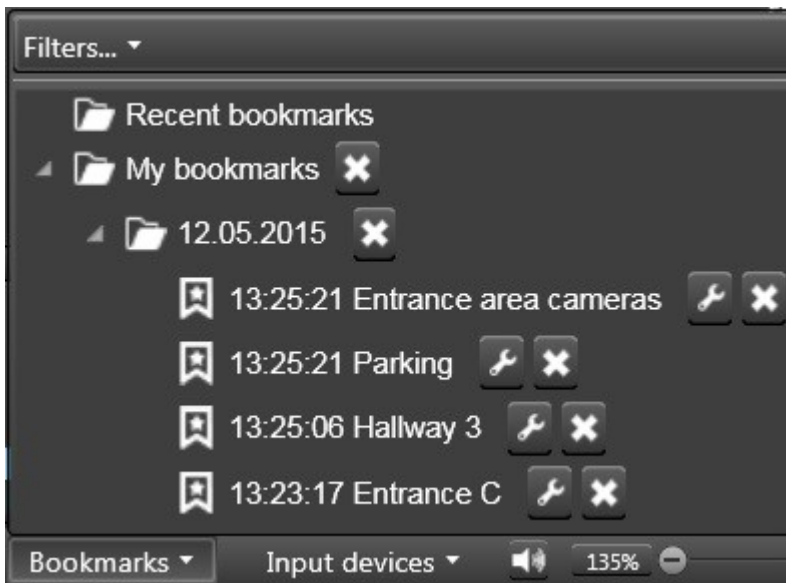
Bookmarks can be accessed, removed and edited from the bookmark menu. The menu is next to the layout menu in the status bar in the bottom of EasyView screen. In the menu, the bookmarks are automatically grouped to month and day folders. If user wants to delete old bookmarks, they can be removed individually or then a whole folder can be deleted.



The deleting has two steps to stop accidental deleting of the bookmarks.

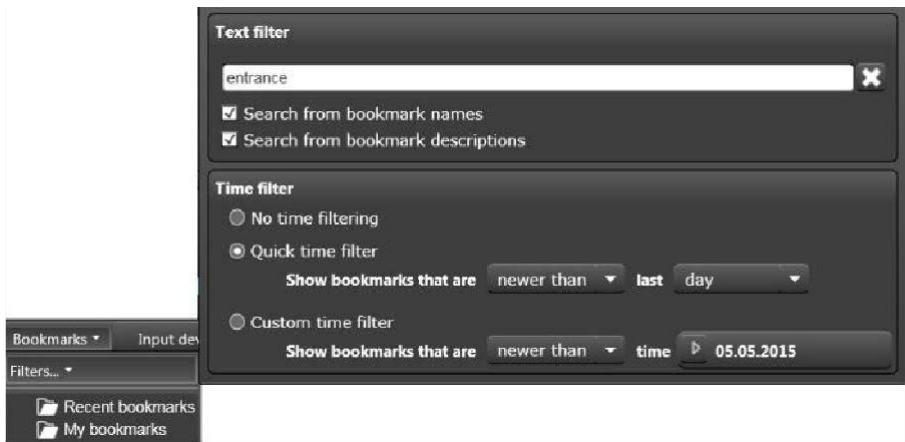
All the bookmark information can be edited from the edit view.

The bookmark menu will show which bookmarks have been shared to other users. Also, if other users have shared bookmarks, the user who did the sharing is shown in parenthesis after the bookmark title.



The bookmark menu can be filtered with time and a free text match field. For example, if the user always wants to see only the bookmarks from last week, he can

put this kind of filter on. Then old bookmarks are not shown. The text filter can be used for example to search for past bookmarks where a person has been appearing.



The bookmarks menu will have a highlight animation which highlights the button border slightly when a new bookmark is shared by other users in the system. Animation stops when the button is clicked once. The new and unseen bookmarks are highlighted in the list.

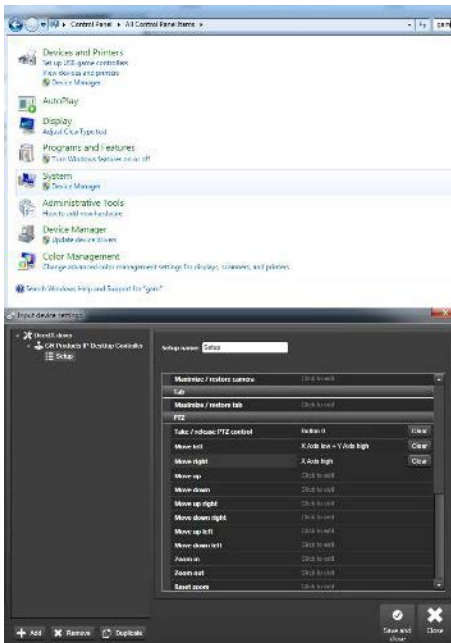
An Administrator user can define user roles for the bookmarks. Please see the System Administrator Guide for more information. Bookmarks are not supported in the legacy Media Player, only in EasyView.

## FAST BOOKMARKING

This is a keyboard shortcut combination CTRL + ALT + B. Pressing it will create a bookmark with a default name. This is useful if an urgent situation is happening, and user wants to just “mark the time” when this happened, and go back later to edit the bookmark description and name. Of course, it is possible to assign this keyboard shortcut to a separate and compatible joystick or jogwheel controller so that the bookmark is created with a single button press.



# JOYSTICKS AND OTHER 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.

## Configuring a joystick:

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

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 EasyView and find 'Input devices' on the lower edge of the screen. Select 'Edit input device settings', select the device you want to configure in the list, and click 'Add'. Configure the joystick controls. The configuration happens by selecting an action from the list and then keeping the Joystick button or direction pressed until the green bar reaches 100%.



For numbers, it is recommended to first configure zero, then 1, then 9. This way the remaining numbers 2...8 are configured automatically.

The Joystick has also additional features that can be controlled. The user can use a jogwheel to control the playback direction and speed. There is also a button that takes user back to real time instantly.

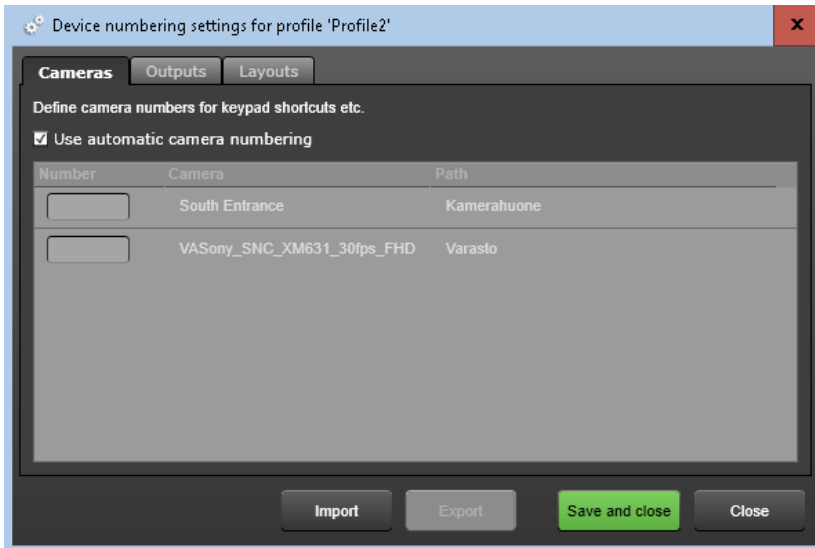
Also, it is possible to control the layouts from joystick buttons. User can enter a layout number and then press "select layout" button, and this will load the layout of the given number. The layout numbering can be customized in the [device numbering](#) menu.

In addition to these, it is also possible now to control the PTZ camera prepositions and tours with the same logic. User first assumes PTZ control, then enters PTZ preposition or tour number and then presses the assigned button for presets or tours. User of course needs to assign all of the buttons discussed here in the input device setting menu.

Joystick will when configured automatically find the number and axis for remaining "directions" when the user configures the turn directions, zoom axis, playback jogwheel axis and the numbers 0..9. This makes the configuration of a joystick faster.

Also, it is possible to import and export joystick settings to a file. This way, after the desired joystick button programming has been done for one monitor station, it is very fast to move the setting to other locations.

# DEVICE NUMBERING

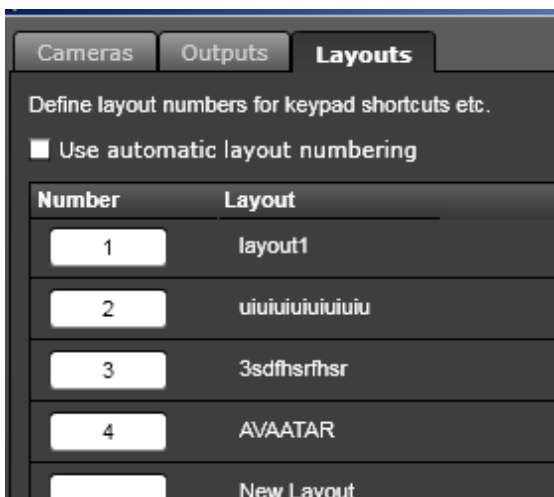
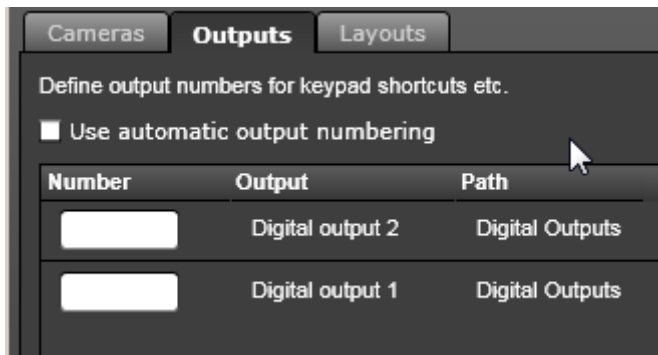


You can set new shortcut numbers for cameras by clicking “Device numbering” on the menu and de-selecting “Use automatic camera numbering”.

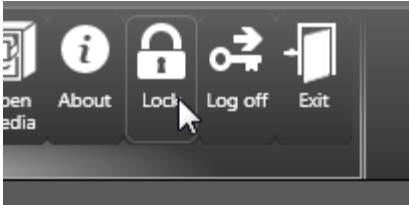
You can use the manually configured keyboard shortcuts anywhere in EasyView by using the numeric keypad (Note: The number row on top of the alphabetic keys cannot be used to open devices).

The number shortcut can be easily seen by taking the mouse on top of the device in the device tree. There is also layout and I/O numbering added in this menu. The user can choose the custom layout number or use the automatic one. The layout can be loaded from joystick “select layout” button or by pressing the numpad number and “x” key.

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



# LOCKING THE USER INTERFACE



The user can manually lock and log off EasyView from the menu bar. The user can define the inactivity time with a slider in the EasyView general settings and in the System Manager application's user setting. EasyView is locked or logged off automatically after specified time of user inactivity. Inactivity means that there is no mouse movement or keys pressed when a EasyView window is active.

When the user is logged off, EasyView will log off the user from VMS system, close all EasyView windows and shows the log on window.



When EasyView is locked, all EasyView windows are disabled. If the user has set the "Hide UI on lock", EasyView window components are hidden and the application locked text is shown. Otherwise the user can see the components normally in the EasyView window but cannot interact with them.

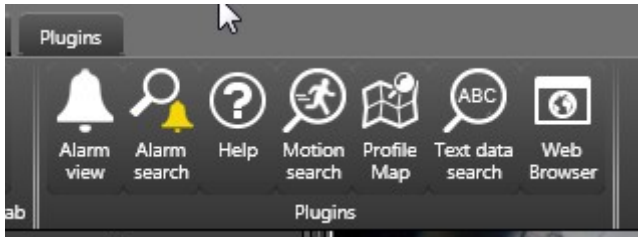
When EasyView is in a locked state, the unlock dialog is shown. The user has to enter the correct password to unlock EasyView. The user can minimize the unlock dialog.

When the unlock dialog is minimized, a lock image is shown. The lock image can be dragged to any position on any screen. On the top right corner of the minimized lock

image, there is a restore button that will show the unlock dialog again. Both the unlock dialog and the minimized unlock dialog remember their positions. When EasyView is locked and unlocked, information is added to the EasyView notification area (on the left of the EasyView window status bar).

# HELP

EasyView contains built-in help. The help is accessible from menu or by pressing F1 button. The help is currently locally installed on the client PC, and it is not context sensitive.



Help contains information on new features and also useful things like keyboard shortcuts and links to view training videos on the Internet.

Help can be searched with the search field.

# KEYBOARD SHORTCUTS

You can activate all devices and access most of the functions in EasyView with keyboard shortcuts. (When accessing devices, use the numeric keypad; the number row on top of the alphabetic keys cannot be used to open devices).

## WINDOWS

Shortcut	Description
Ctrl+N	New window.
Alt+F4	Close current window.
Ctrl+Alt+F4	Exit EasyView.

## ALARMS

Shortcut	Description
F5	Focus to first alarm.
Enter	Open the alarm in alarm view tab.
Space	Acknowledge focused alarm.

## DIALOGS

Shortcut	Description
Enter	Same as clicking OK-button in a dialog. If focus is on other button when Enter key is pressed, then the other button's action is executed instead.
Esc	Same as clicking Cancel-button in a dialog (or closing the dialog). If the data export view is open, Esc closes it



## SHOW / HIDE COMPONENTS

Shortcut	Description
F1	Show Help window.
CTRL-F1	Show About window
F2	Reset layout: Set main window to normal state (not maximized). 100% zoom. Show profile window, time panel and time slider. Close export panel in 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" dialog
Ctrl+F5	Show / hide alarm window.
Ctrl+F6	Show / hide profile window.
Ctrl+F8	Show / hide time panel.
Ctrl+F9	Minimize / restore tab component panel (if it is open).
Shift+F9	Close tab component panel (if it is open).
Ctrl+F10	Show / hide ribbon (menu items).

When a component is displayed, focus is set to the first item in the component (same functionality as with the shortcut key without Ctrl).

## MOVING FOCUS

Shortcut	Description
Tab	Move focus to next element within container component.

Shift+Tab	Move focus to previous element within container component.
F5	Move focus to first active alarm in alarm list. If no active alarm, move focus to first alarm in list. If alarm window is hidden, show it first.
F6	Move focus to first item in profile tree. If profile window is hidden, show it first.
F7	Move focus to first camera in current tab.
F8	Move focus to time panel. If time panel is collapsed, open it first.
F9	Move focus to tab component panel.
F10	Move focus to first ribbon menu item. If ribbon is closed, open it first.

## FULL SCREEN WINDOW

The following shortcuts work in full screen window.

Shortcut	Description
F2	Reset layout.
F8	Move focus to time panel.
Ctrl+F8	Show /hide time panel.
Tab	Move focus to next 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 next tab. If currently selected tab is last tab, select first tab in the window. Addition (+) tab is not selected.

Ctrl+Shift+Tab	Select previous tab. If currently selected tab is first tab, select last tab in the window. Addition (+) tab is not selected.
Ctrl+T	Create new camera tab. When new camera is created, move focus to first item in 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.
Ctrl+Enter	Set to 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 next tab. If currently selected tab is last tab, select first tab in the window. Addition (+) tab is not selected.
Ctrl+Shift+Tab	Select previous tab. If currently selected tab is first tab, select last tab in the window. Addition (+) tab is not selected.
Ctrl+T	Create new camera tab. When new camera is created, move focus to first item in device tree (to make it easier to add new cameras).
Ctrl+Shift+T	Open tab menu.
Ctrl+Shift+W	Close current tab.
F11	Maximize current tab to full screen size.
Esc	Restore maximized tab to normal 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.

## PROFILE WINDOW

Shortcut	Description
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Enter (when a camera is selected)	Add camera to tab.
Enter (when a folder is selected)	Add all cameras in the selected tab and Expand the folder.
Left (when selected folder is expanded)	Close the folder.
Left (when selected node is not expanded)	Select parent folder
Right (when 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 date with arrow keys and accept selection with Enter. Both Enter and Esc closes date selection panel.
Ctrl+G	Open time selection panel. Select time with arrow keys and accept selection with Enter. When pressing a button, the panel stays open. Esc closes 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 if 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 play back/fast rewind). If in real-time mode, switch to playback mode and start playback at 0.5x speed.
Ctrl+Alt+Right OR Ctrl+Alt+P	Display next video frame in playback mode.
Ctrl+Alt+Left OR Ctrl+Alt+O	Display previous video frame in playback mode.
Ctrl + Alt +[number key 1..0]	Direct access to forward play speeds
Ctrl + Alt + Shift + [number key 1..0]	Direct access to backward play speeds

**MISCELLANEOUS**

Shortcut	Description
Ctrl+E	Open activity list. Use arrow keys + Enter to select activity. Esc closes activity list without selecting activity. Tab closes menu and sets focus to 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 next layout (same order as in layout menu).
Numpad number + star	Load layout with this number (layout numbering in device numbering dialog)
Ctrl + B	Open bookmark menu
Ctrl + Alt + B	Create a quick bookmark

### **CAMERA SELECTION IN A TAB**

<b>Shortcut</b>	<b>Description</b>
Ctrl+1 to 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**

<b>Shortcut</b>	<b>Description</b>
Alt + I	Zoom time slider to show export time period completely
Alt + Y	Moves playback position to current export start time
Alt + CTRL + Y	Sets current playback time to be the export start time
Alt + U	Moves playback position to current export end time
Alt + CTRL + U	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.
Esc	Restore camera normal size (when maximized). When in normal 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 camera and move it to mixed playback mode
Numpad number + Enter	Add camera (device number)
Numpad number + plus	Activate monitor/window (monitor number)
Numpad number + minus	Close camera (device number)

**PTZ CAMERA CONTROL**

Shortcut	Description
Arrow buttons	Moving the camera left, right, up, down (also intermediate directions).
Page up	Zoom out.
Page down	Zoom in.
Home	Full unzoom.



End	Maximum zoom in.
Double enter	Maximise camera and assume PTZ controlfor selected camera number

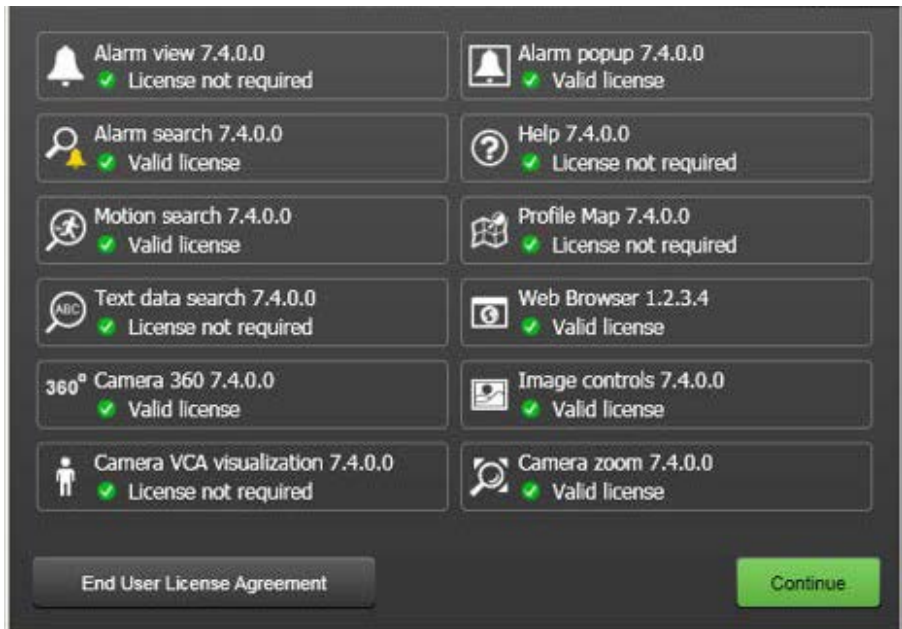
## I/O CONTROL

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

## CAMERA TOUR

Shortcut	Description
F12	Toggle camera tour start and pause state.
Ctrl + F12	Steps to next camera tour view.

# ABOUT SCREEN



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

# HOW-TO-VIDEOS

Several informative videos are available on how to use EasyView features.

NOTE: When viewing the videos in the windows help, you will get warning notices about JavaScript. You can click away these warnings and view the videos normally, or copy and paste the links to your normal web browser.

## GENERAL VIDEOS

This section holds introductory videos and videos about also non-EasyView features such as ANPR+ and Activity Map add-ons.

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*<http://vimeopro.com/Ernitec/general>*

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## VERSION 7.5 FEATURES

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*<http://vimeopro.com/Ernitec/Ernitec-75-release>*

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Contains videos about:

- Storyboard
- Other improvements

## VERSION 7.4 FEATURES

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*<http://vimeopro.com/Ernitec/Ernitec-74-release>*

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Contains videos about:

- Bookmarks

- Mixed playback mode
- EasyView Player
- Joystick improvements

## VERSION 7.3 FEATURES

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*<http://vimeopro.com/Ernitec/Ernitec-73-release>*

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Contains videos about:

- Introduction to EasyView
- Installation
- Using manual and automatic lock and logoff feature
- Using device numbering
- Using profile maps
- Using alarm filtering
- Using motion search
- Using privacy mask in EasyView
- Using archives in EasyView
- Using ThruCast

## FEATURES IN EARLIER VERSIONS

### VERSION 7.2 FEATURES

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*<http://vimeopro.com/Ernitec/Ernitec-72-release>*

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Contains videos about:

- Using Activity Map
- Using 360 de-warping
- Picture attachment in emails
- VCA changes in 7.2.x
- Using VCA visualization in 7.2.x

## VERSION 7.0 FEATURES

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*<http://vimeopro.com/Ernitec/Ernitec-70-release>*

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Contains videos about:

- Using Agile Virtual Matrix (AVM)
- Adding logos to exported clips
- Alarm list
- Alarm pop up
- Alarm search
- Alarm view tab
- Audio in EasyView
- Auto cropping
- Joystick use

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