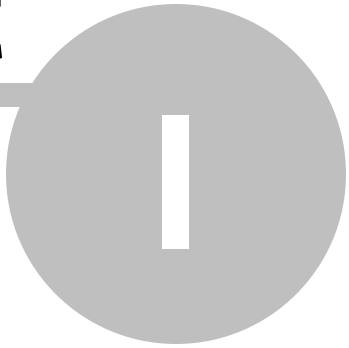
Digifort Release Notes

Version 7.2.0.0 Beta 2

Index

Part



1 Description

This file contains the history of all changes made to the system. Changes here shown are valid for the Enterprise edition that has all the features. Professional, Standard and Explorer editions may not have certain items described in this file.

Part

2 Version 7.2.0.0

Release date: XXXX

2.1 New features and improvements

This section contains information about the new system features and improvements.

2.1.1 New in Beta 2

New features of Beta 2

2.1.1.1 Support to IPv6

Added basic support to IPv6. It is now possible for the server to connect to cameras using IPv6 and clients accessing the server using IPv6 networks.

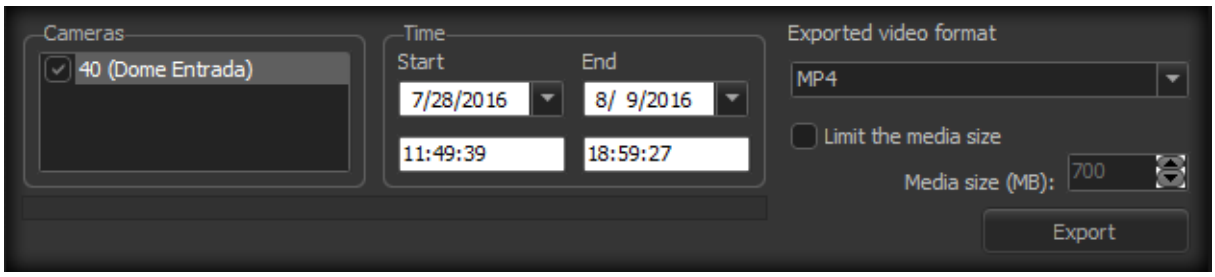
When using literal IPv6 addresses in the system, it has to be specified between square brackets ("[" e "]"). Example: [2001:db8:85a3:8d3:1319:8a2e:370]

The notation with brackets should be used both for server IP registration on the client as to the equipment register on the server. If the address is IPv4 literal or DNS, the address should not contain brackets.

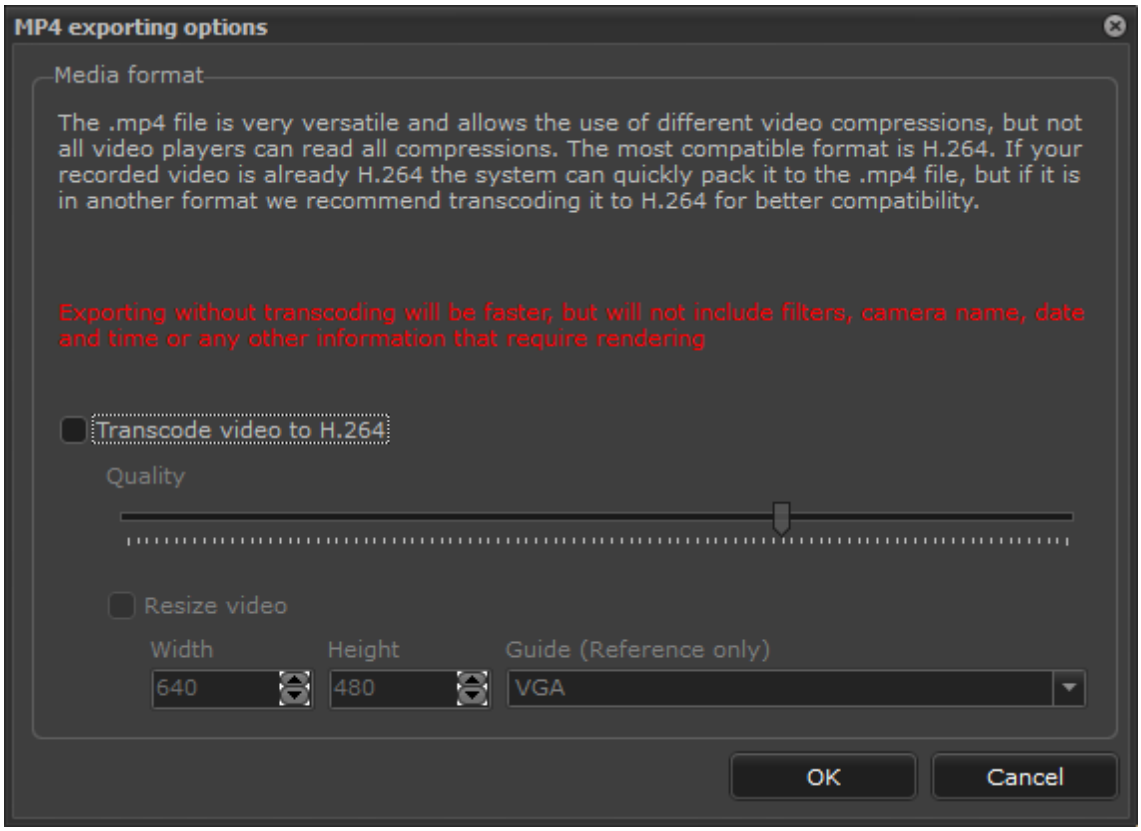
Some features such as IP filtering and Multicast are not yet available in IPv6 but support for them will be added in future releases.

2.1.1.2 Exporting in MP4

The media player now allows native exporting to .mp4 format as a great alternative to .avi exporting

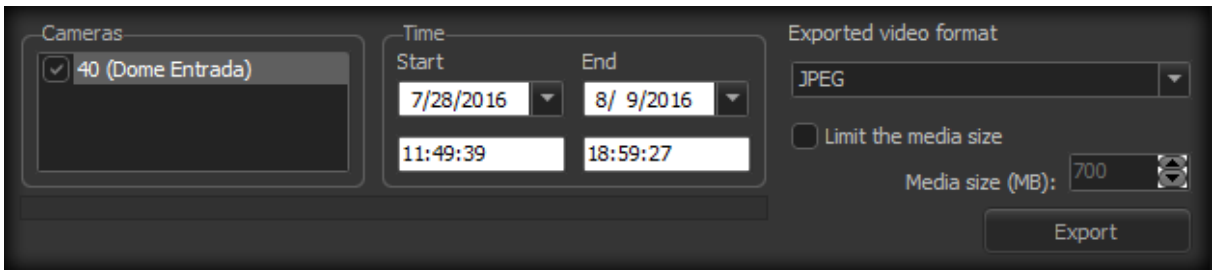


The .mp4 file format is extremely versatile and allows the encapsulation of multiple video and audio formats. The system can export video in .mp4 quickly without transcoding, packaging the original frames of video (audio will always be converted to AAC if it was recorded on another format) and providing an export without any modification of the original image data, but some formats may not be compatible with all video players (such as Windows Media Player which does not natively supports MJPEG and MPEG-4). In these cases the system allows the H.264 video transcoding (Along with AAC audio) to be compatible with most video players without the need to use special codecs, but the exporting is slower since the video is recoded.



2.1.1.3 Exporting in JPEG

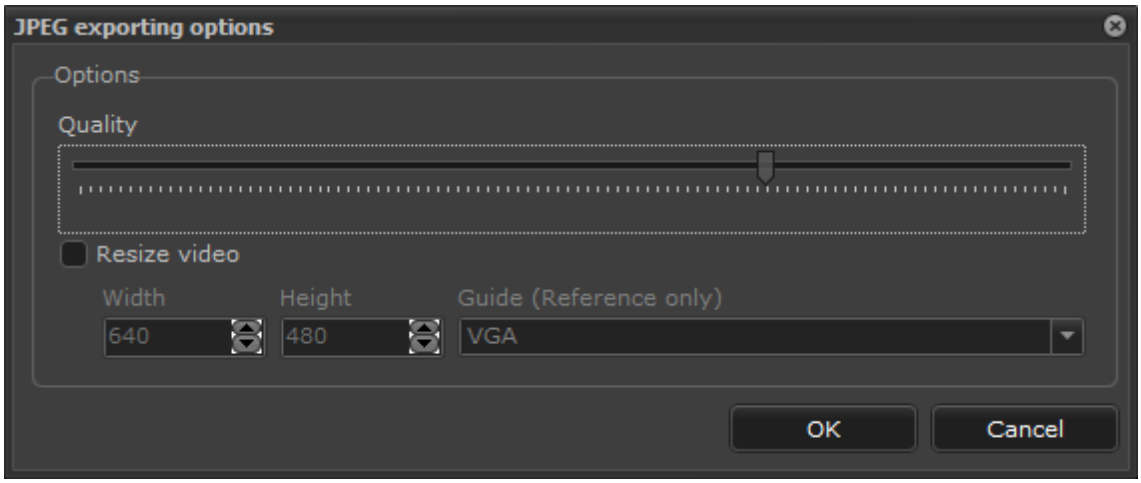
The media player now allows video export in JPEG images sequence.



In this export standard, all video frames are converted into individual JPEG images in the export folder, and can be used for example to create fast video time-lapse with any video editor since all video frames are available in separate files.

Each JPEG file will contain the original date and time of the recorded frame.

The system also allows the choice of JPEG compression quality and resize image during export



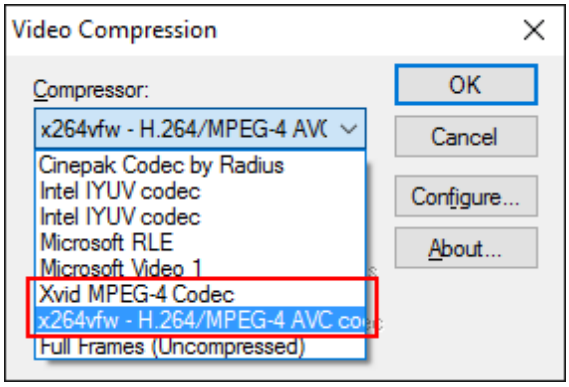
2.1.1.4 Codecs for AVI exporting

The system will now install by default 2 great codecs for using in video export:

- XviD MPEG-4
- x264

These codecs are widely used, compatible with almost all video players in the market and have excellent compression performance and quality.

The x264 codec will be selected by default when opening the export window in AVI



2.1.1.5 Turbo exporting

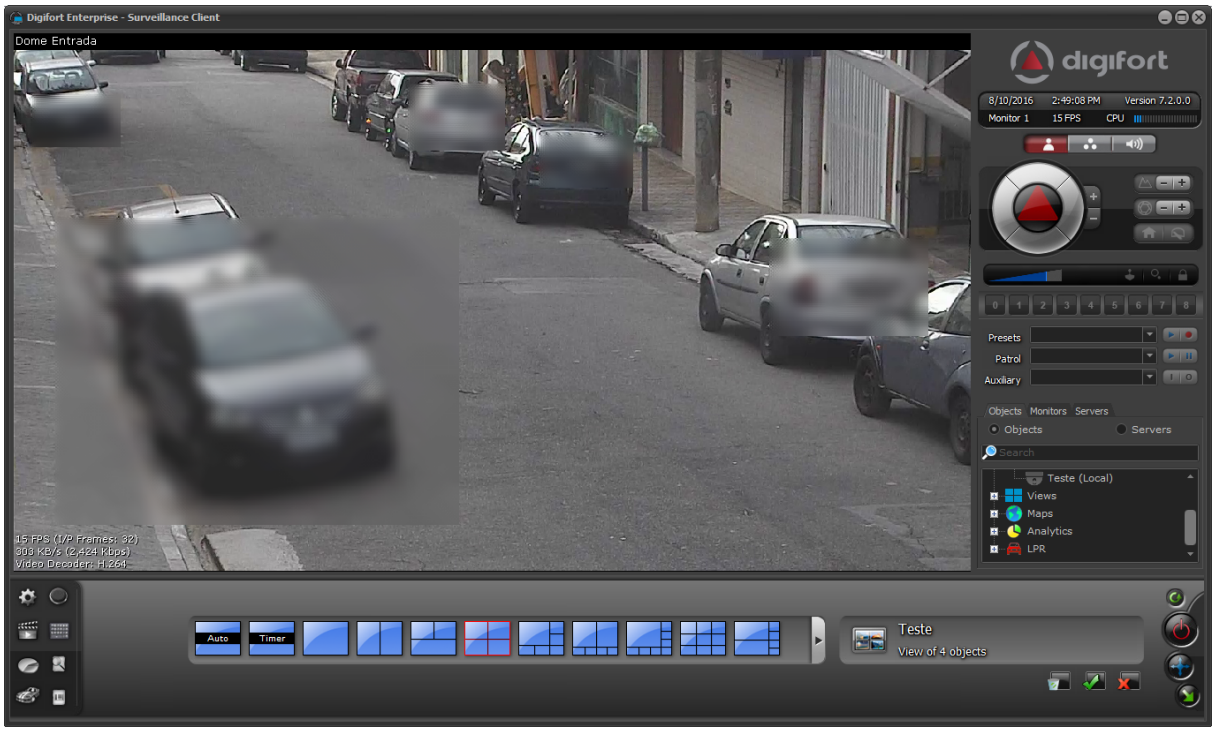
The export mode option "turbo" was removed and now will always be used by default, i.e., exporting will always be at the highest possible speed

2.1.1.6 New LPR engine

A new LPR engine (Neural Labs) was added to the system. This is an alternative to the Carmen engine and has excellent performance and quality recognition.

2.1.1.7 Privacy Mask with blur

The Privacy Mask feature now allows blurring areas of image option instead of a black rectangle covering the area.



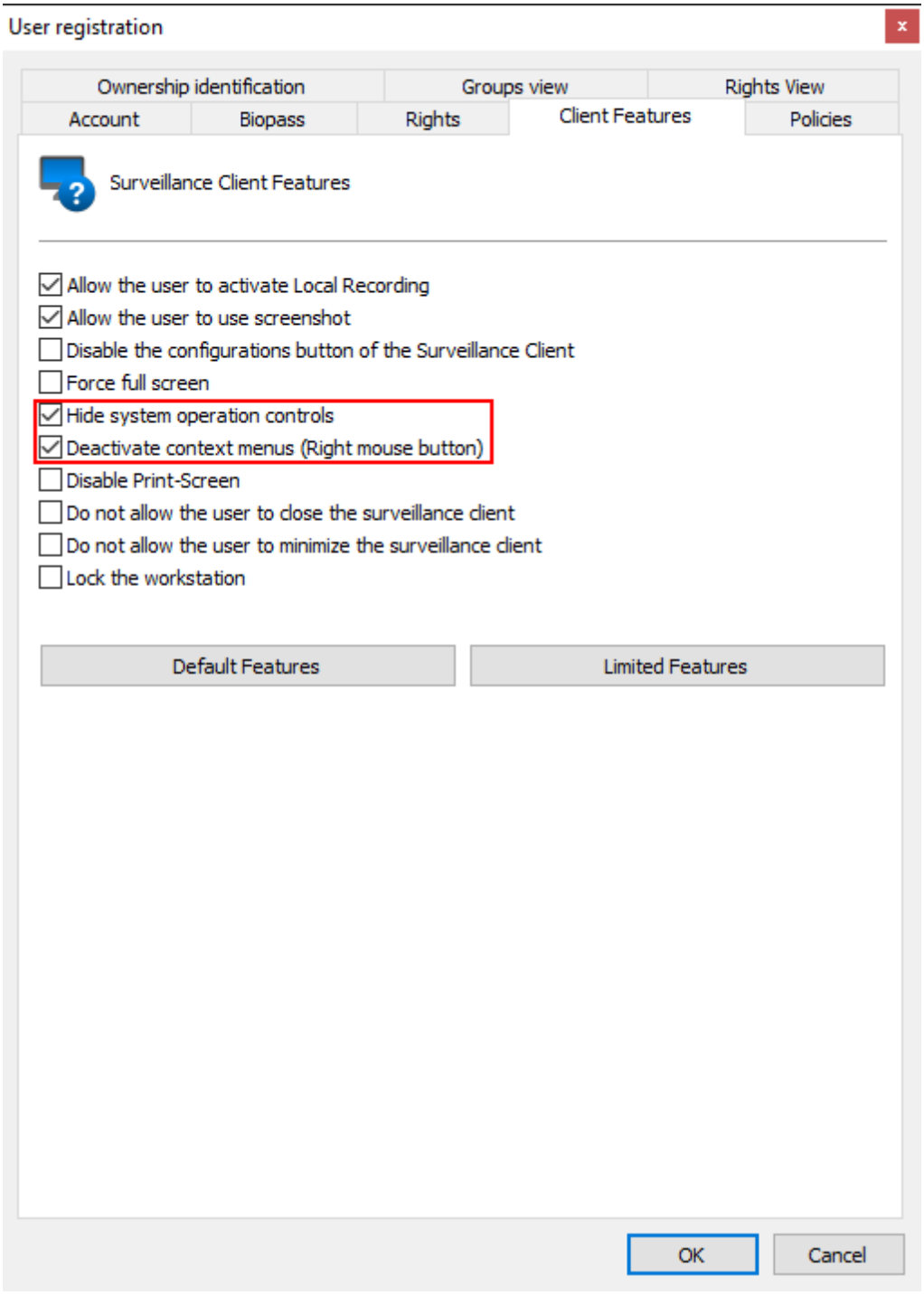
2.1.1.8 New Surveillance Client restrictions

Added two (2) new restrictions for Surveillance Client usage per user or group of users:

Hide system operating controls: This option will cause the Surveillance Client to operate in "full screen" mode, ie the camera view matrix will be expanded and the user will not have access to any operation control, getting restricted to the camera preview screen.

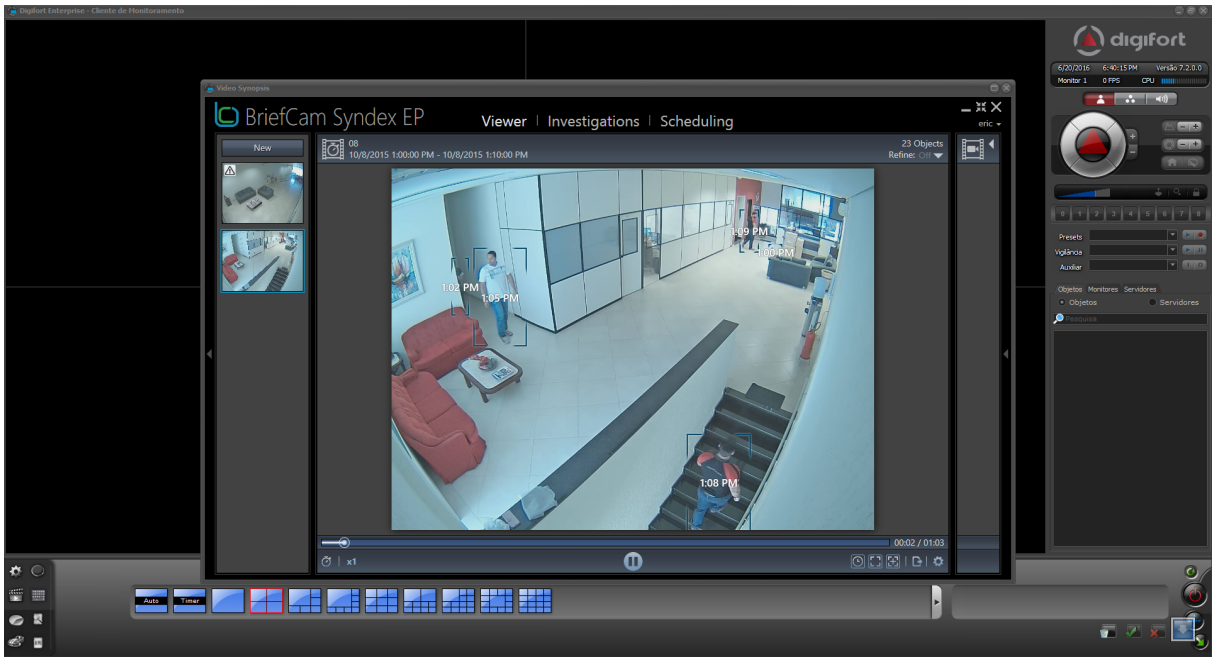
Disable context menus: This option will disable the use of menus accessible via the right mouse button, further blocking the operator access to the system.

Together, these two options can be used to completely block the operator access to any operation except viewing live cameras.



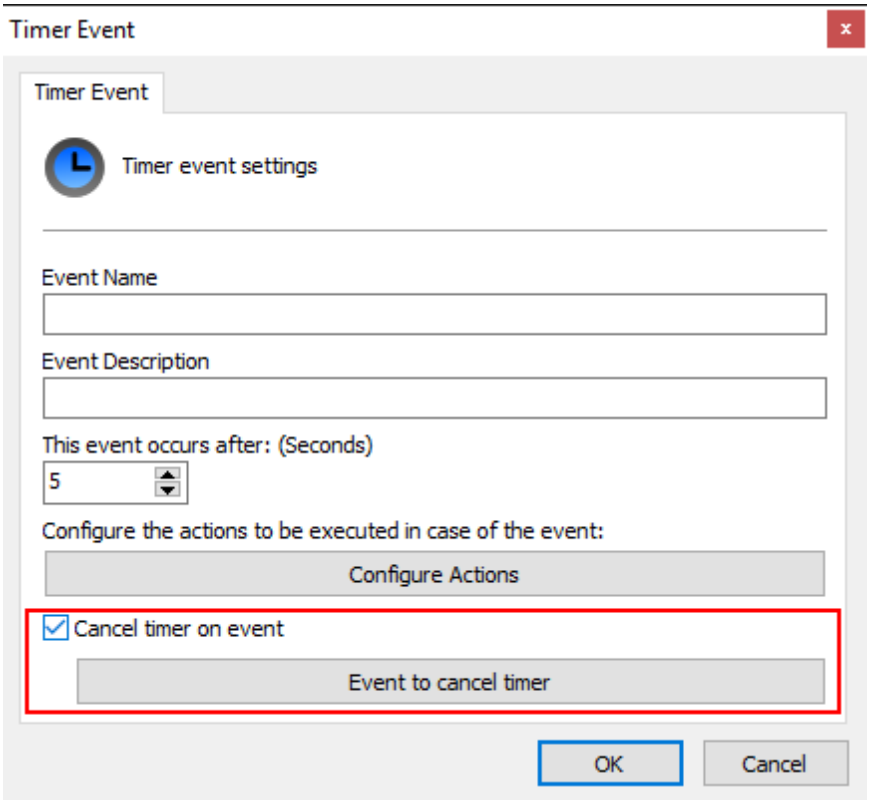
2.1.1.9 Integration with Video Synopsis module

Video Synopsis module will not run inside Surveillance Client, facilitating its operation.



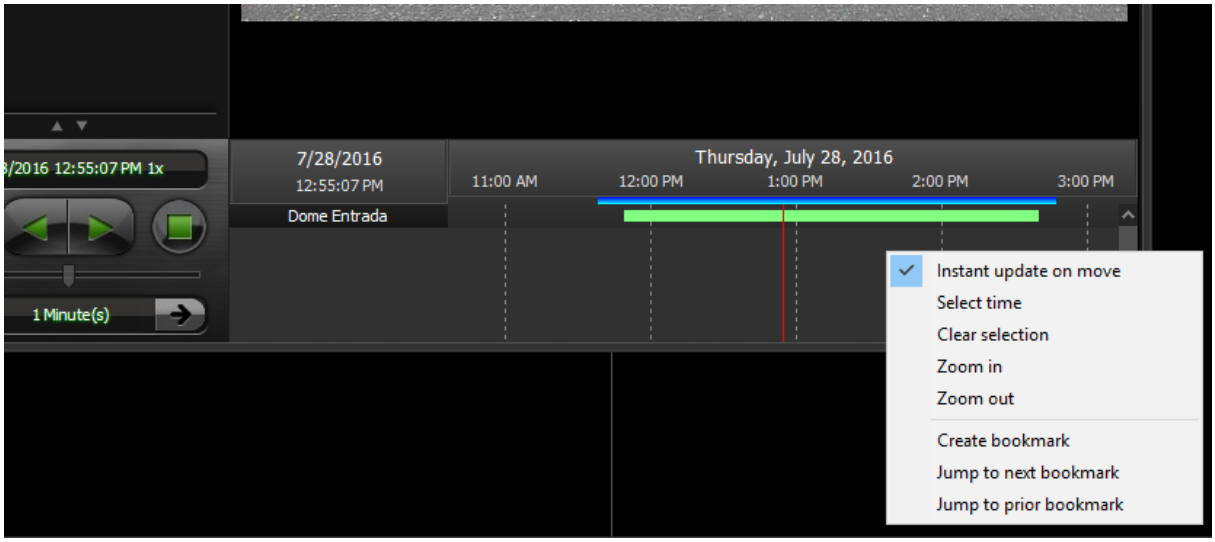
2.1.1.10 Event to cancel a timer

The timer event is now more flexible and can be canceled by another event before its trigger occurs, allowing such operations as "door open too long" to trigger an alarm if a door has been left open



2.1.1.11 Instant update on timeline move

By moving the timeline in media player, by default the image update will only occur 500ms after the user stops moving it. A new option for instant update was added, with this option the image will be updated instantly by moving the timeline, which allows a quick view of events that occurred at different times by just quickly dragging the timeline (For this feature to work properly the client must be on a high performance local network).



2.1.1.12 Surveillance Client operation buffer

Some operations on the Surveillance Client will generate a temporary buffer on the computer to speed up its performance.

Video playback for example will temporarily write to disk all the images received for quick access if the operator wishes to re-watch portions already downloaded, with this the client will not need to download the image again, saving server and network resources. After playback is complete, these temporary files will be deleted.

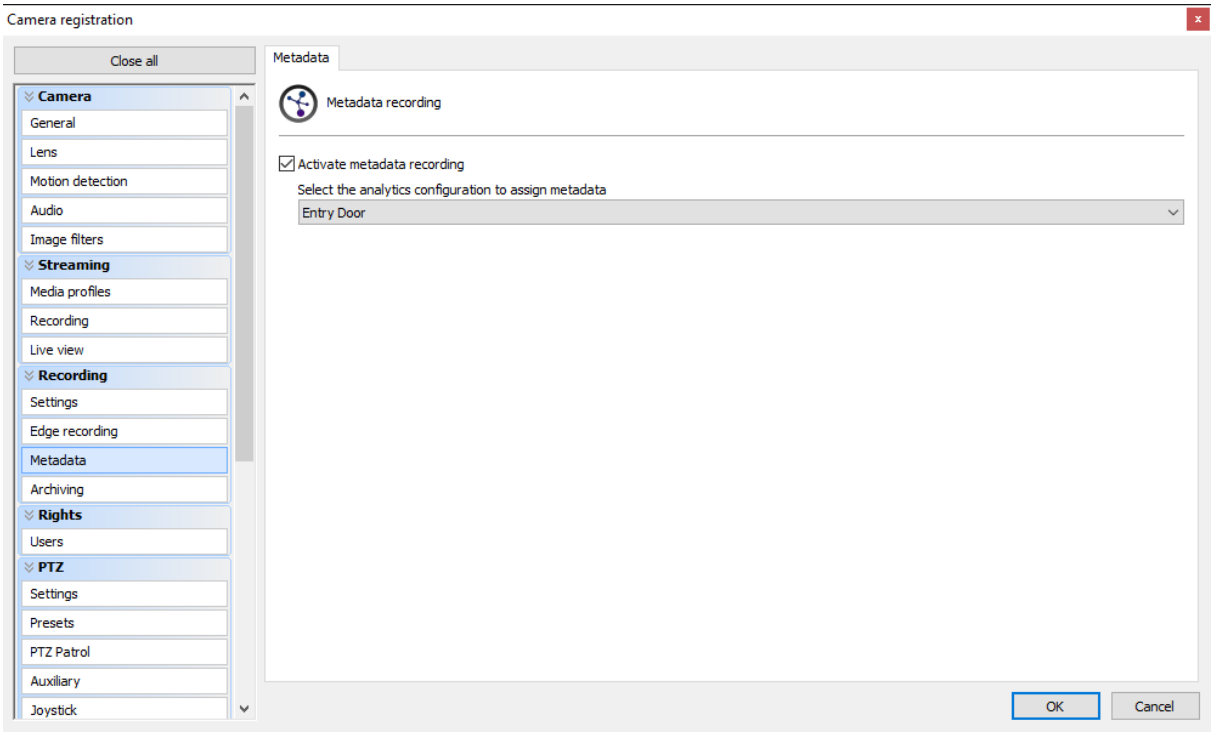
Downloaded maps are saved so it will not downloaded again in the future, saving time and bandwidth during the connection process with the server.

This feature was already available in the system in previous versions, but the buffer was written in the installation folder of Surveillance Client that by default is the Program Files and the system can not write to a subfolder unless running in Administrator Mode, rendering the feature useless. To improve this behavior the buffer will now be recorded to a temporary subfolder %TEMP%\Digifort allowing proper use by the system and improving its performance.

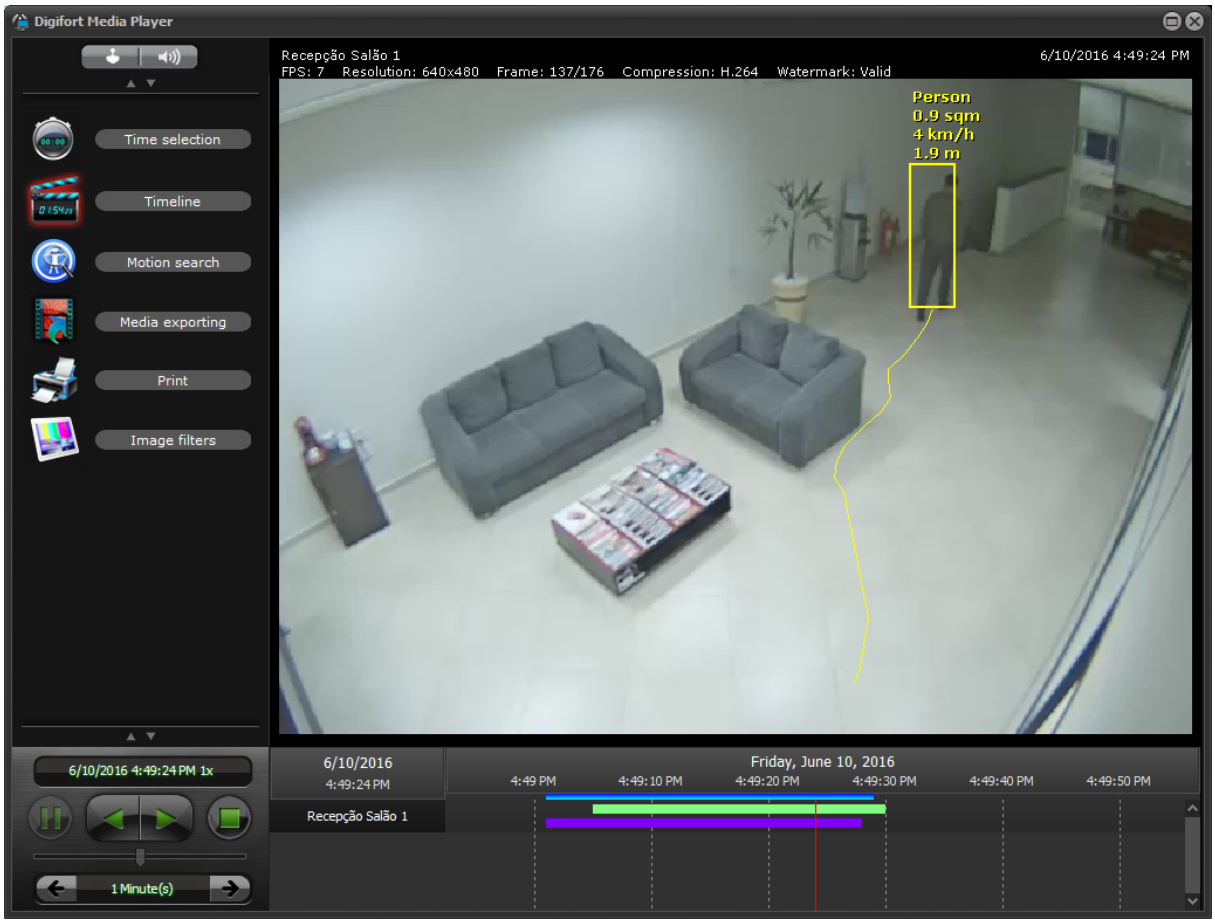
2.1.2 Metadata recording

The system now allows metadata recording and playback tied to camera images. At this moment only analytics metadata are supported, but different types of metadata are planned for future implementation.

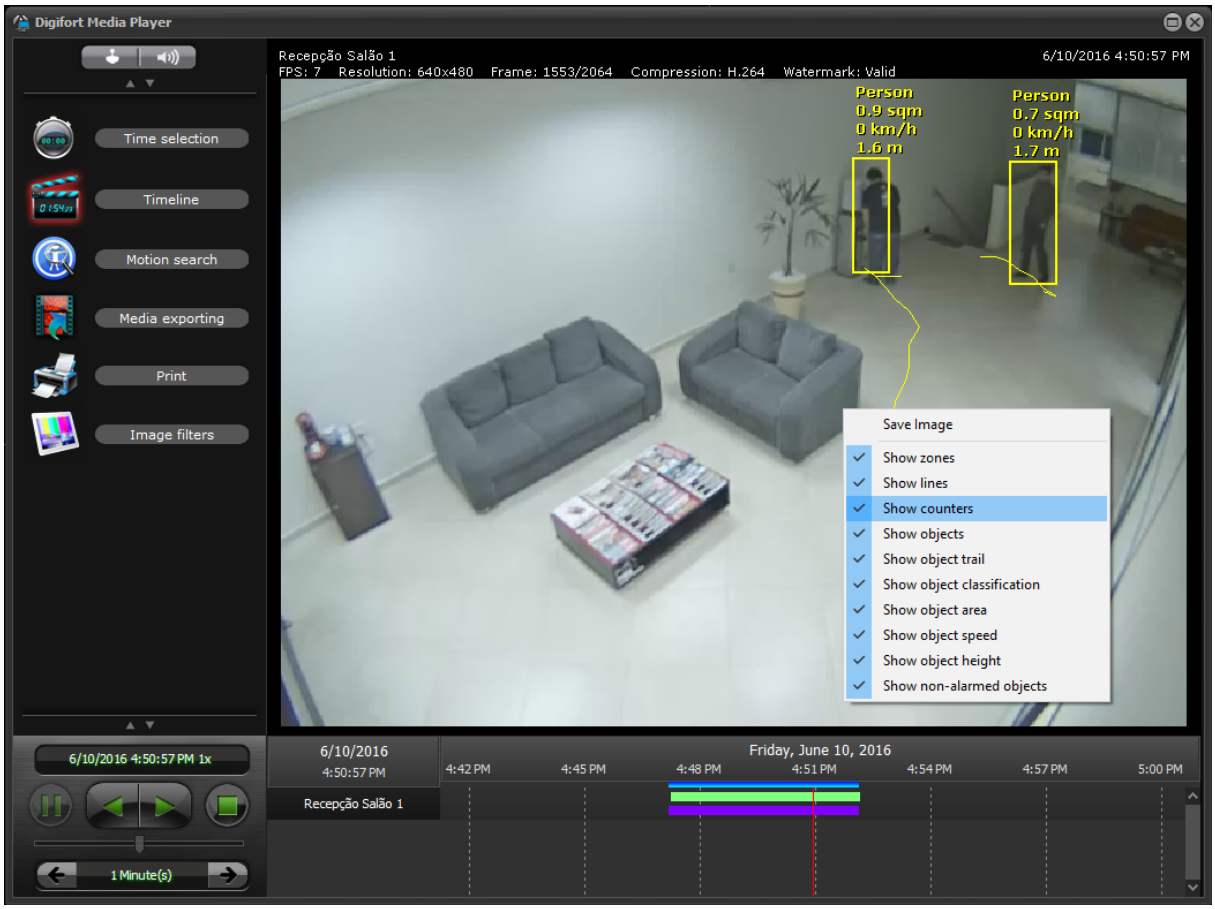
In Administration Client you can activate and deactivate the metadata recording and select its origin.



During media playback, all metadata associated to the camera will be rendered. A purple bar will be displayed in the timeline to show metadata recording track.



During media playback with metadata, the system allows the selection of which analytics metadata information will be displayed, such items can be disabled or enabled during playback.

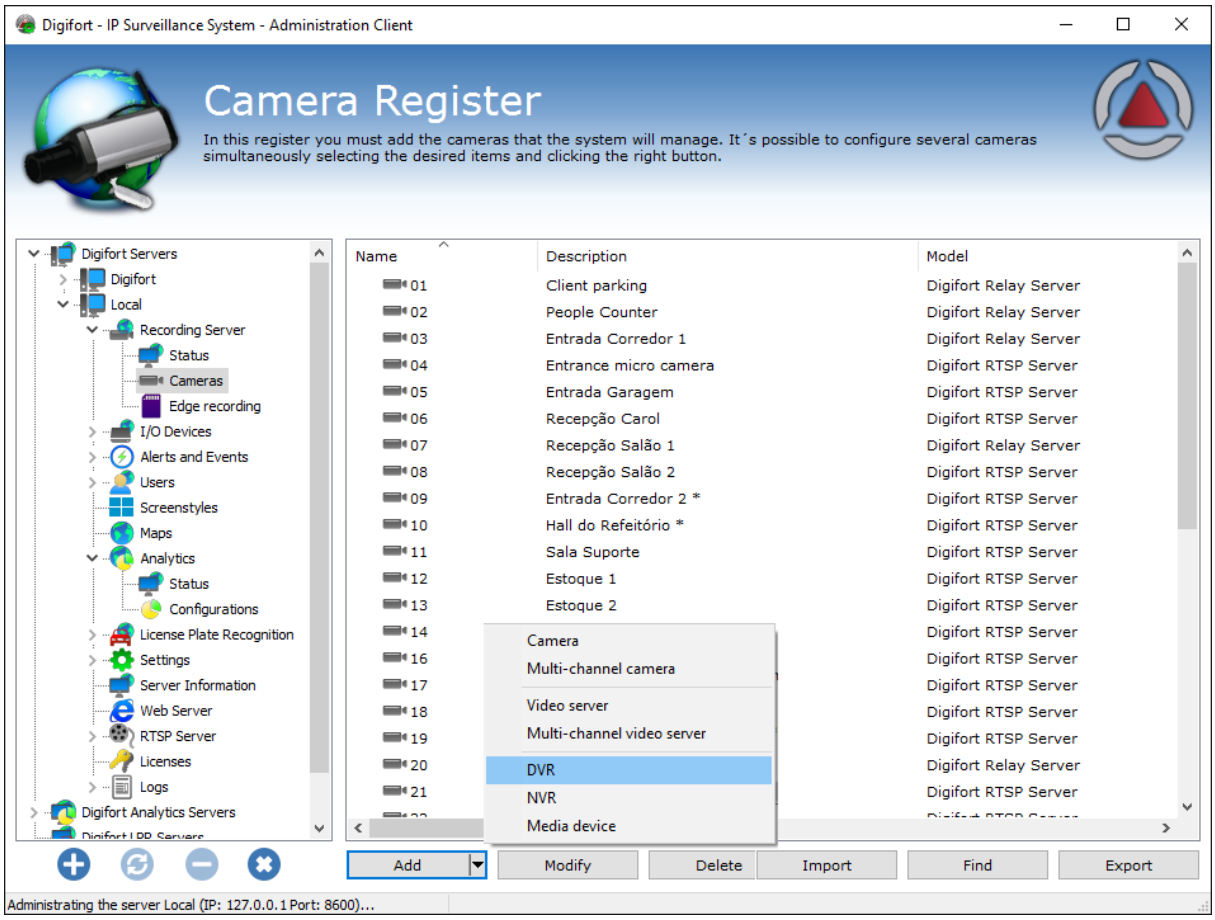


Metadata will also be included in exported media using native format.

If recording archiving is activated the metadata will also be archived, along with video and audio.

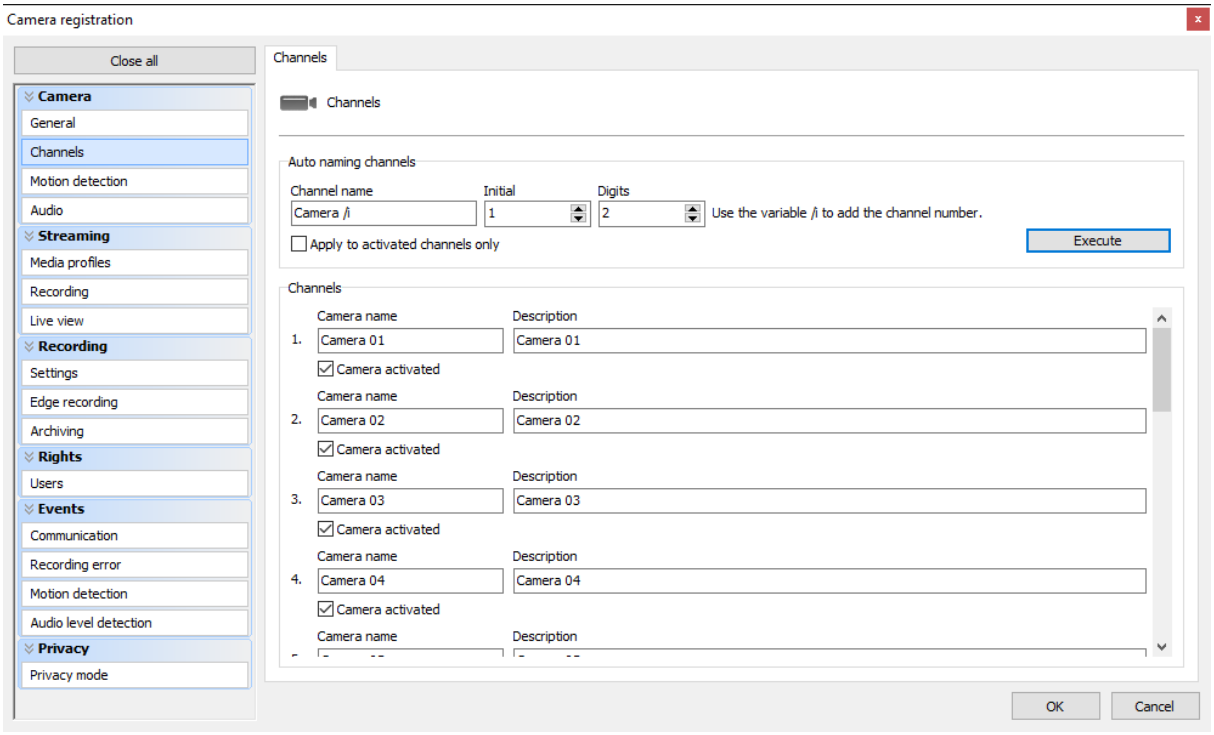
2.1.3 Easy registration of multi-channel devices

A new option to automatically register multiple channels of a multi-channel device such as DVR, NVR of multi-lenses camera was created.



A new option in the button to add new devices now allow the selection of multiple types of devices such as DVR, NVR and multi-channel cameras. When one of these options is selected, the system will filter the device database and will only display the devices matching the desired type in the screen to register the device as a way to ease the selection of device model.

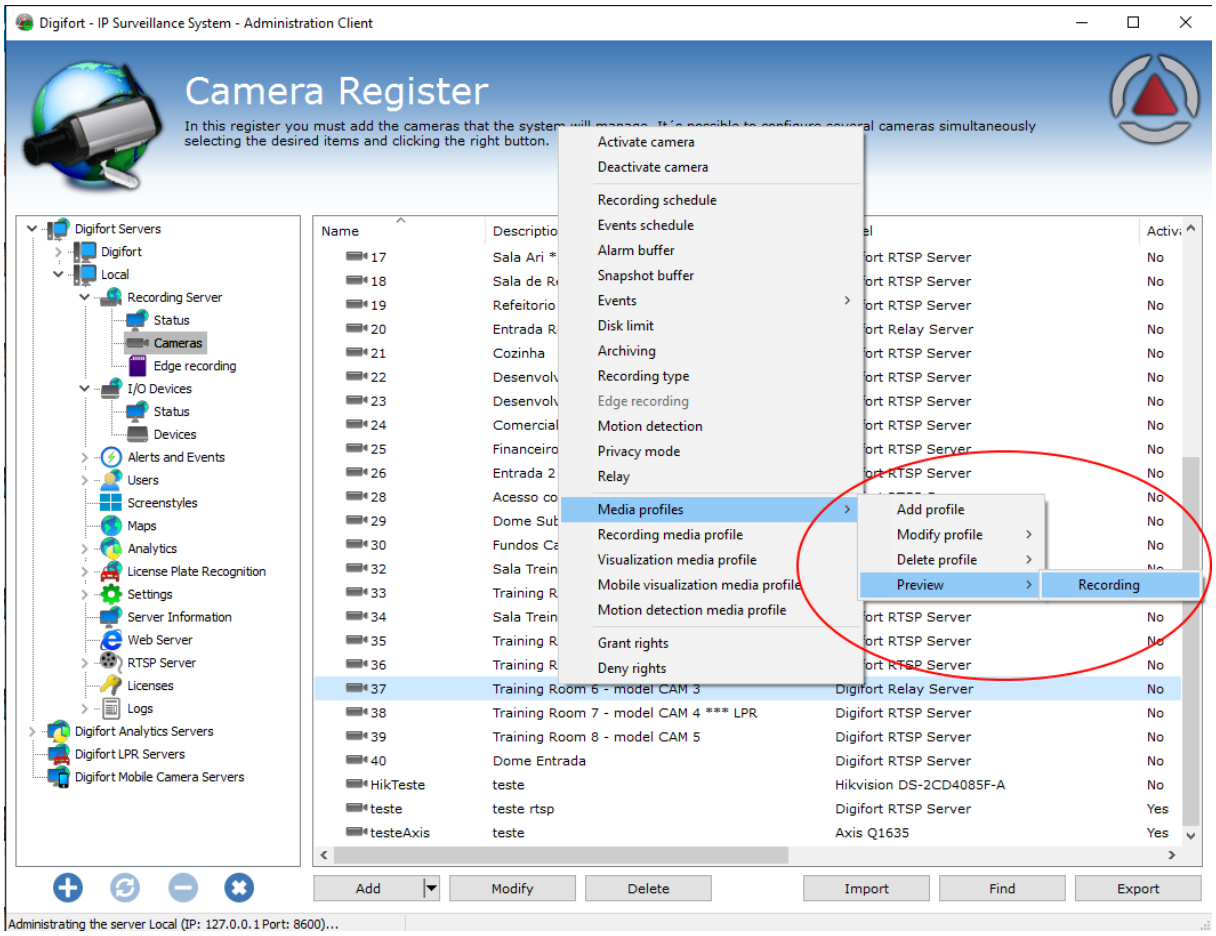
During the registering of a multi-channel device, some tabs will not be available (Tabs that are strict specific to each channel), e a new tab named "Channels" will be displayed to allow the individual naming of each device channel. An auto-naming tool is also provided in this screen, to help naming multiple channels.



All settings configured during the registration of multiple channels will be applied to all registered channels. Specific settings such as PTZ or I/O will have to be later adjusted to each registered channel.

2.1.4 Image preview on camera registration

In the camera registration screen it is now possible to preview the image of a media profile without opening camera registration, by using its context menu:



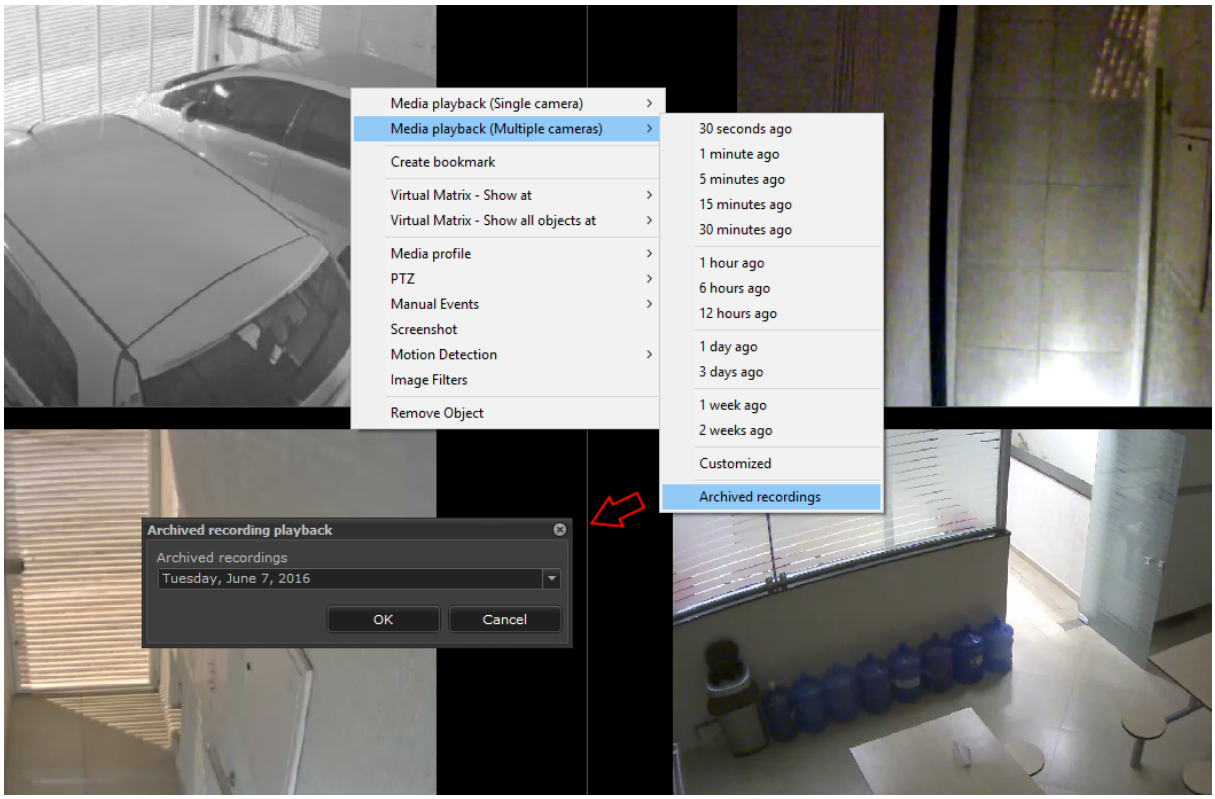
2.1.5 Playback of archived media

The system will now allow playback of archived footage through Surveillance Client.

Archived recordings are considered "Cold Storage" and are part of the archiving system, which can be configured to copy all recordings of previous day to another storage folder that can be located in a different storage device that usually has lower performance and lower cost.

Previously it was not possible to easily playback the archived recording, the user was required to manually select the archiving directory from Surveillance Client and the PC would have to have direct access to the archiving folder. With this new option, playback of archived media is now native to the Client.

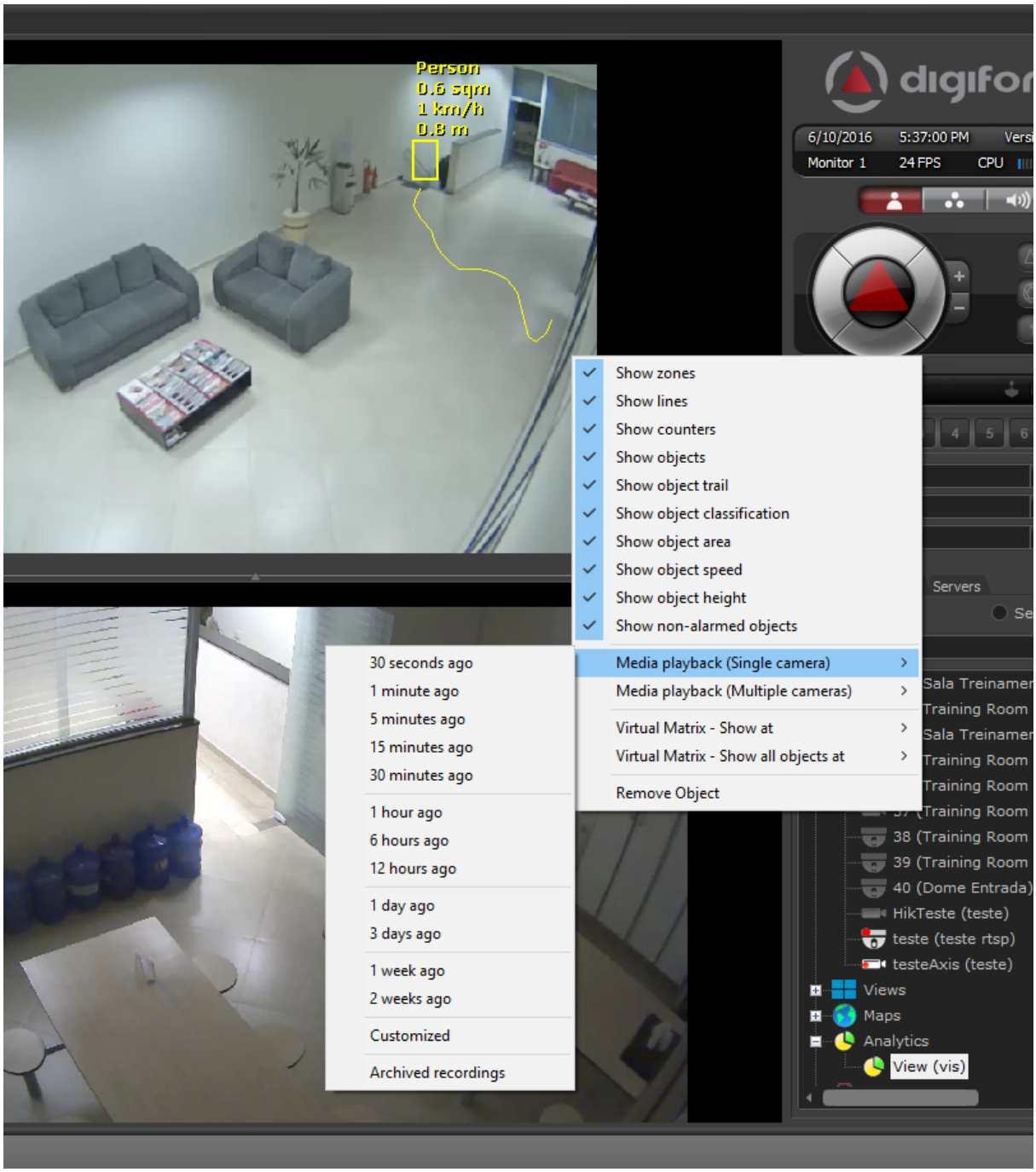
Due to the format of archived footage, it is only possible to playback 1 archived day per media session by selecting the available archived day through date picker screen:

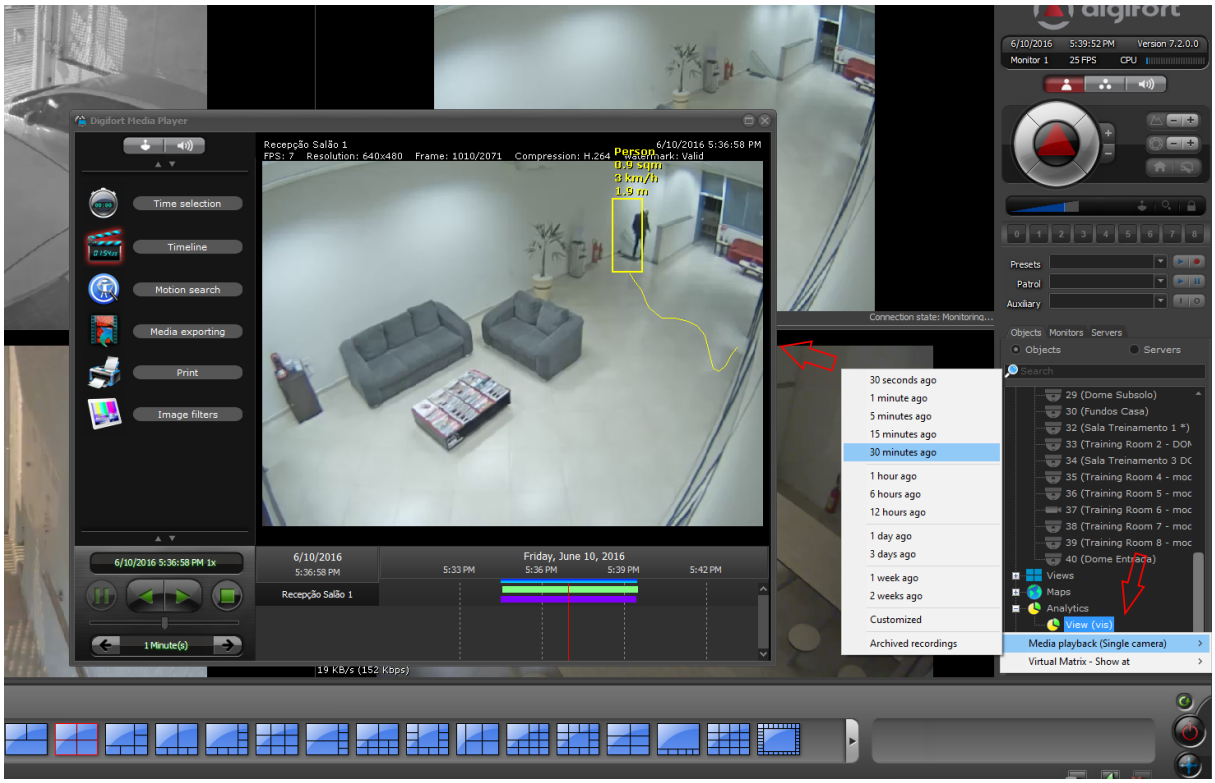


2.1.6 Playback of cameras from Analytics and LPR objects

In Surveillance Client it is now possible to playback video from cameras assigned to LPR or Analytics configurations by using the context menu with the right button of the mouse. In previous versions, only camera objects would offer the option for playback.

The camera assigned to the Analytics or LPR configuration will be played when selecting through these objects:

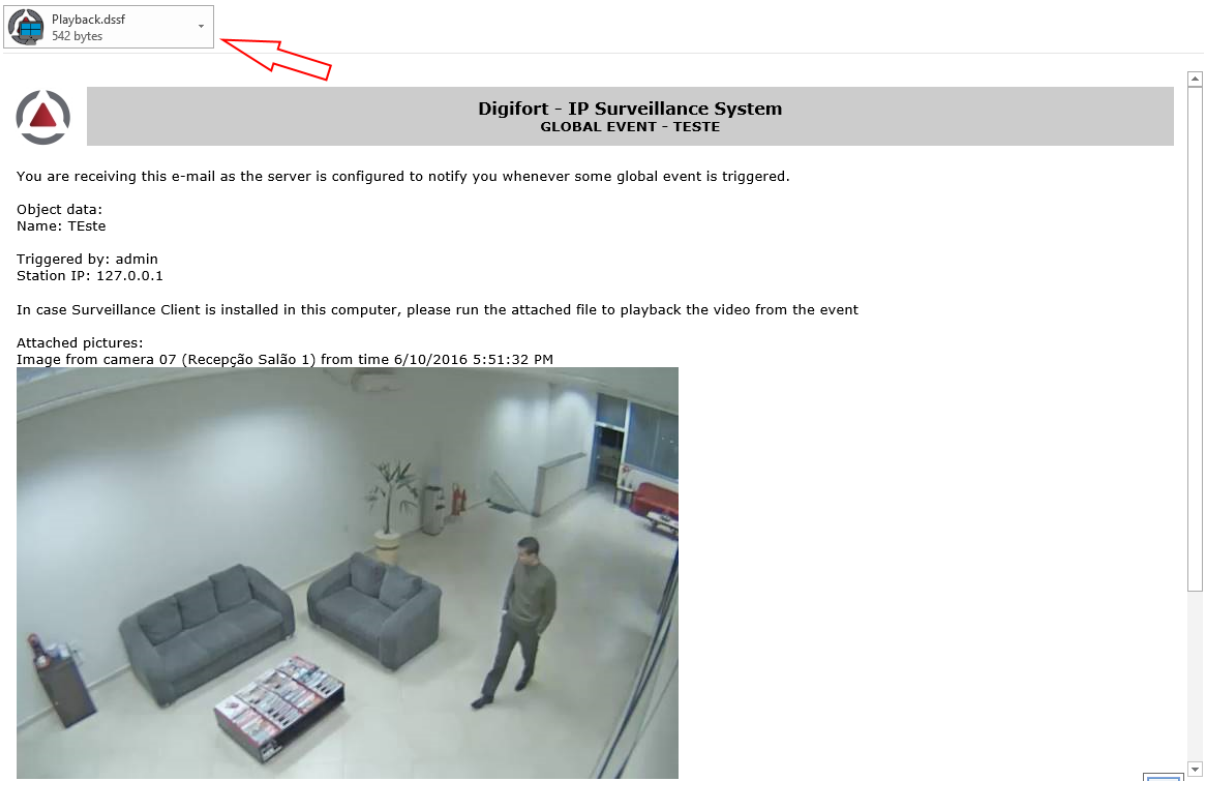


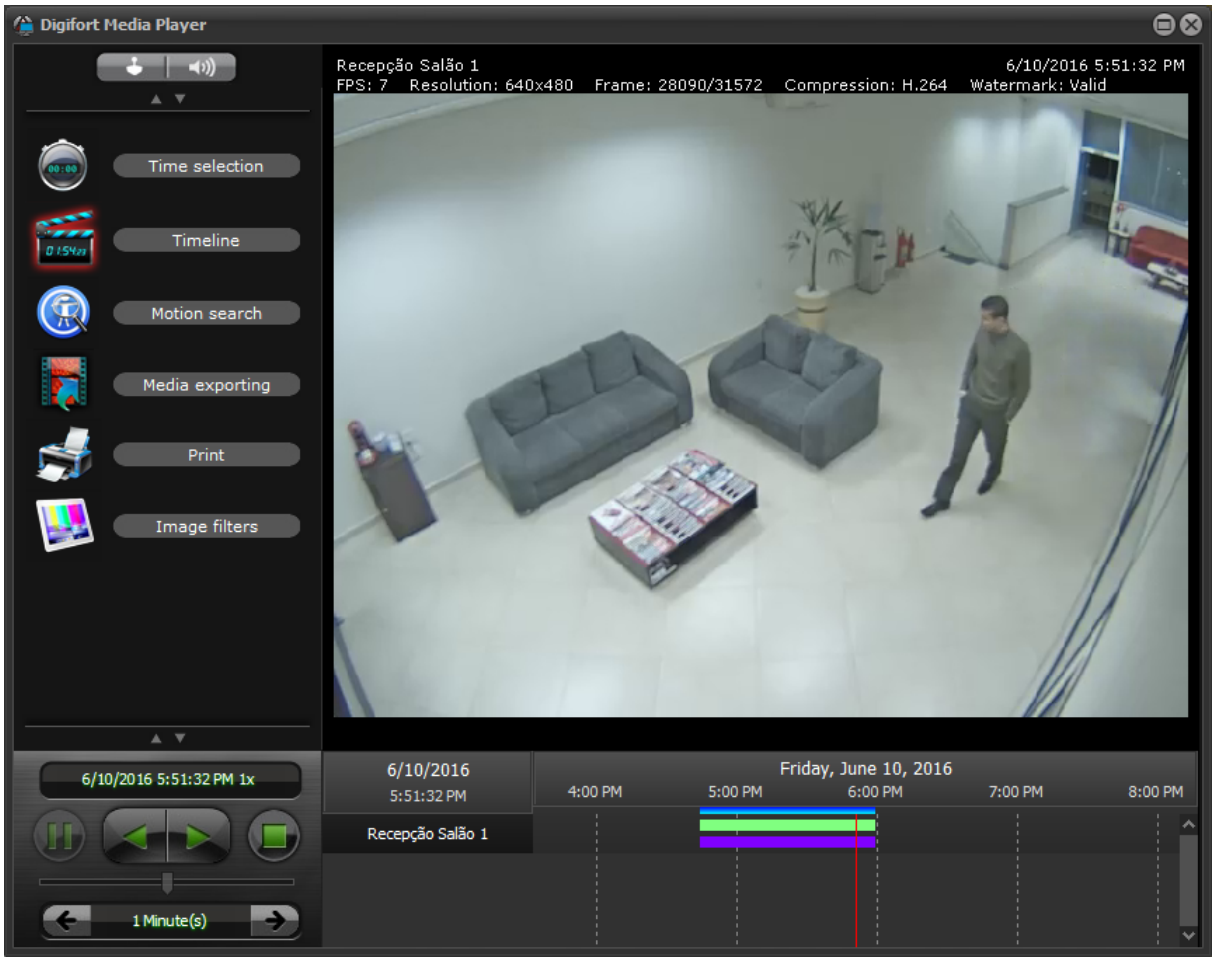


2.1.7 Alert e-mails with link to playback

The event action to send e-mails now allows attaching a script file that upon execution will open Surveillance Client and playback the video from cameras whose images were selected to be attached to the e-mail.

This feature will only work for the desktop version of Surveillance Client. In case the e-mail is open in a mobile device such as Apple or Android, the script file will not work.





2.1.8 Alert e-mails with embedded analytics metadata

The system now allows the user to select an Analytics Configuration to send camera images in the event action to send e-mails. When an Analytics Configuration is selected, the system will send the e-mail with the camera image embedded with analytics objects metadata. Check below an example of a real e-mail that was sent:

Digifort - IP Surveillance System
GLOBAL EVENT - TESTE

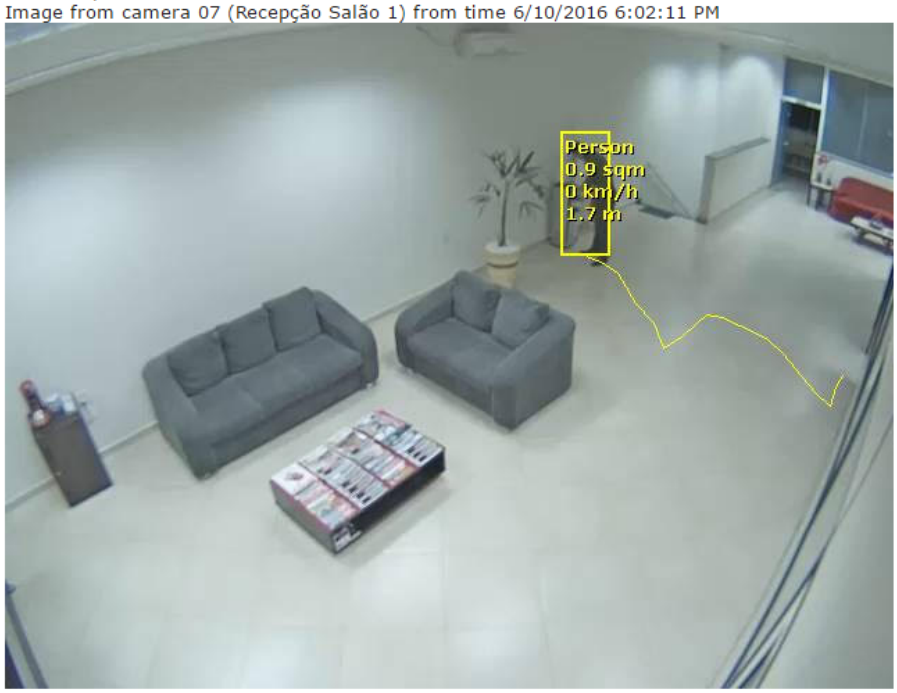
You are receiving this e-mail as the server is configured to notify you whenever some global event is triggered.

Object data:
Name: TEste

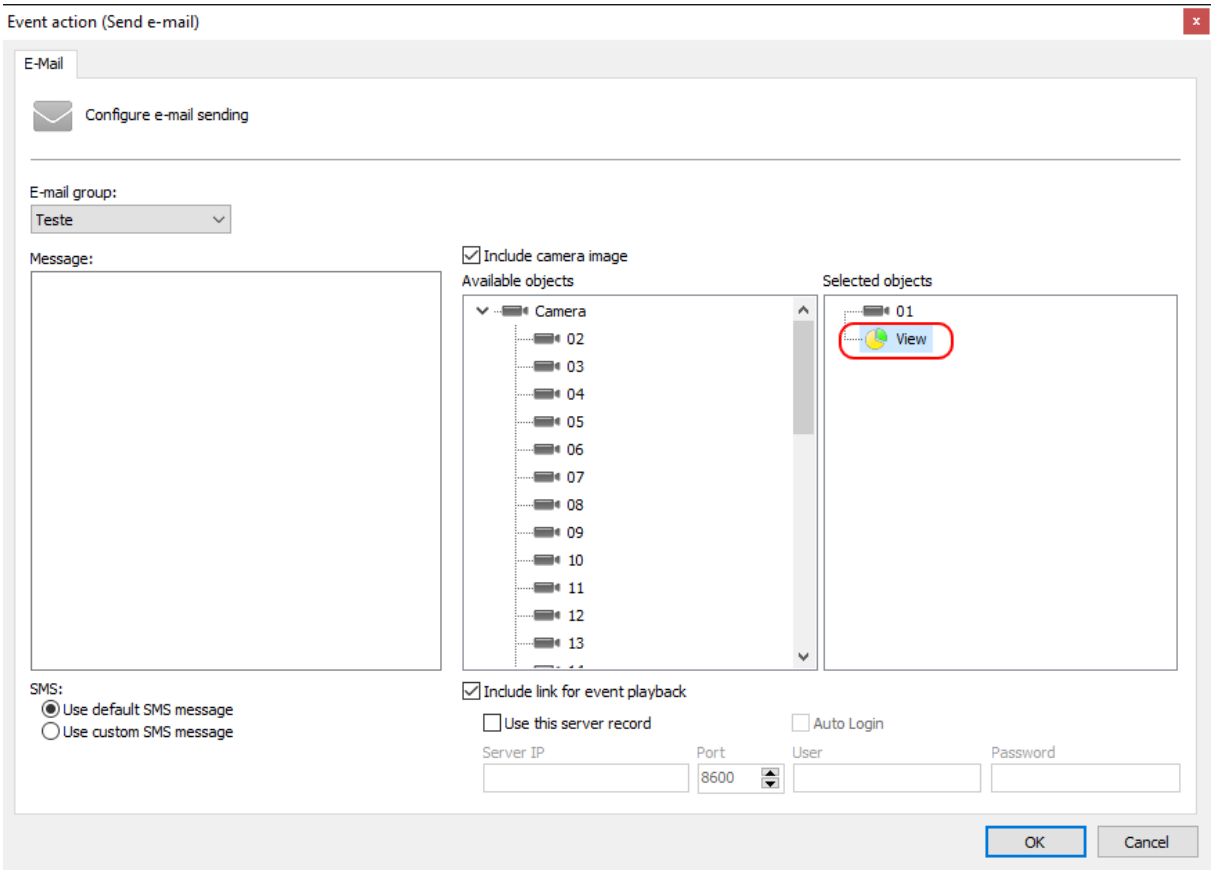
Triggered by: admin
Station IP: 127.0.0.1

In case Surveillance Client is installed in this computer, please run the attached file to playback the video from the event

Attached pictures:
Image from camera 07 (Recepção Salão 1) from time 6/10/2016 6:02:11 PM



The settings of sending alert e-mails now allows the selection of both cameras and analytics objects:



2.1.9 Experimental 64bit

It was included in this release the experimental 64bit version of the Server and Surveillance Client components that are the most critical in the system. The 64bit version will allow these components to use the entire available memory of the computer (Not restricted to 3.5GB as 32bits version), which should allow for better management of high-megapixel images.

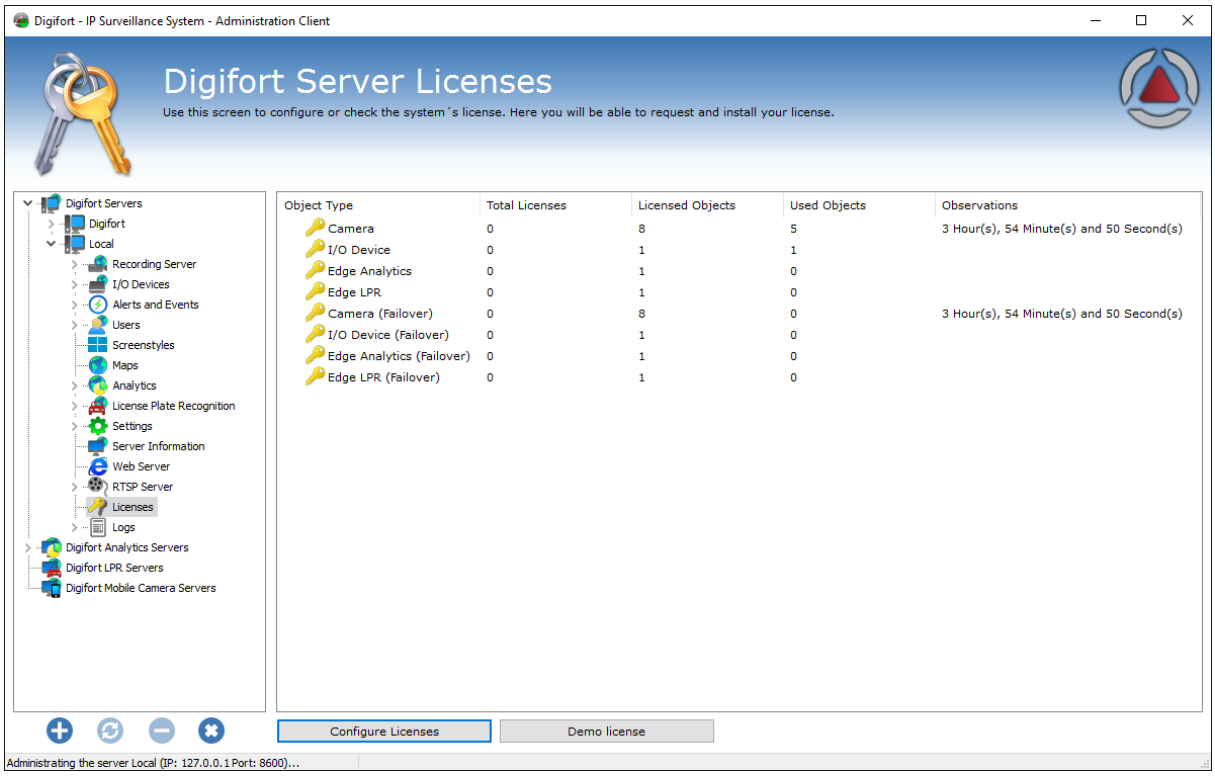
By default, the 64bit version will not be available in Start Menu or Desktop. To run the Surveillance Client in 64bits it is required to execute the file surveillance64.exe directly, and to execute the server it is required to rename the file server64.exe to server.exe (and rename old server.exe to server32.exe), thus allowing the service manager to start the server.

Some features are still not available in the 64bits version, such as:

- Biometric authentication
- Remote keyboard control using Insight (Surveillance Client)
- Locking of surveillance station
- Integration with Digifort Evidence
- Dewarping of 360 degree images

2.1.10 New licenses summary screen

A new licenses summary screen was developed to improve the visualization of available and used licenses per object type:



2.1.11 Verification of offline devices

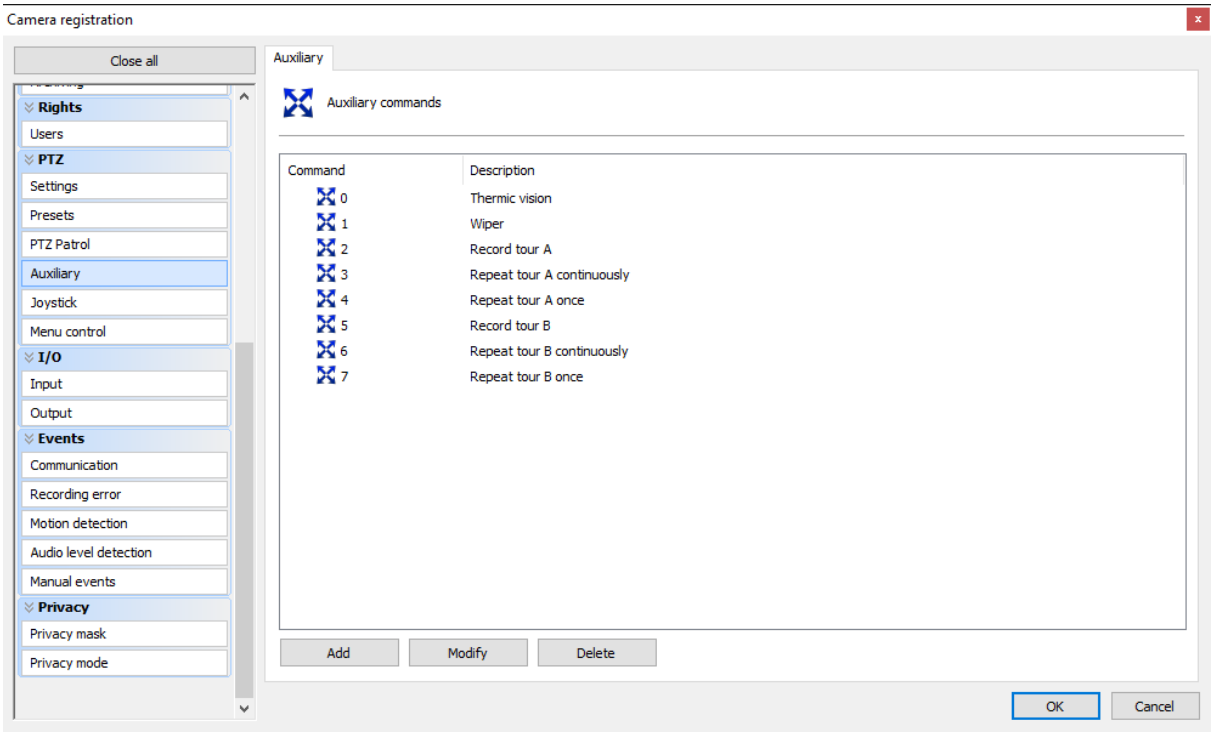
For cameras configured to not record or record upon events, the system was not able to check if it was working or not due to the fact that no connection was established to the device. A new verification routine was added for this specific scenario. In this new method, the system will check if the camera is working in an interval of 1 to 3 minutes, if the camera does not reply to the request, the system will consider that it is not working.

2.1.12 Audio recording on motion detection

The behavior of audio recording when camera is configured to record by motion detection was changed. Previously the system would record the audio track continuously, regardless of motion being detected or not, now the system will record audio only when motion is detected, keeping both audio and video tracks synchronized.

2.1.13 Pre-registered PTZ auxiliary

Some PTZ cameras provides auxiliary commands to access some specific functions. For this cameras the system will now provide a pre-registered list of auxiliary commands that are natively supported by the driver.



2.1.14 Improvements to RTSP Server

- A new internal media buffer was implemented in the RTSP Server to improve the transmission of media in connections slower than the original camera bitrate
- Transmission of MJPEG over RTSP now uses less server memory

2.1.15 Improvements to recording and timeline reading

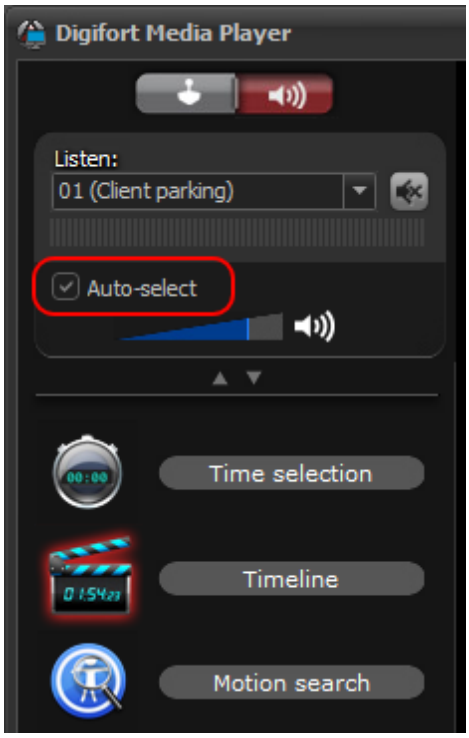
The reading of media recordings and timeline during a media playback was extremely optimized. A new data caching system was implemented which prevents multiple accesses to the disk, drastically increasing the recording reading performance, timeline loading time and significantly decreasing the workload of the storage HDs during the process of media playback.

During the tests of the new implementation, in a media playback of 16 cameras recording at 30 FPS with audio, the system would require about 2400 I/Os per second for data reading, now this value was reduced to 32 I/Os at each 20 to 30 seconds depending on the size of recorded data.

The playback process will no longer affect the performance of recordings (When using low-performance storage).

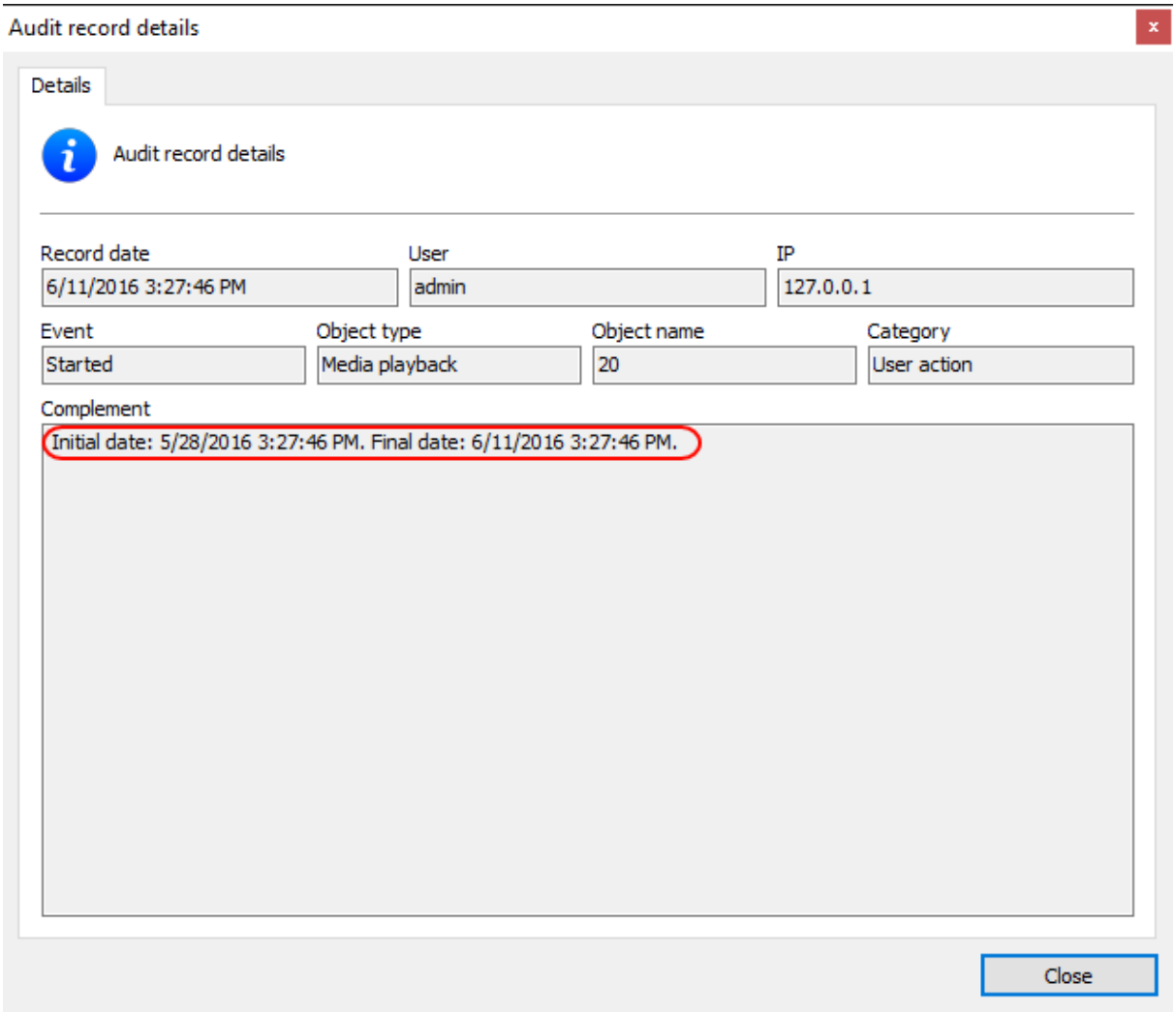
2.1.16 Better audio control in playback

As the control for live audio, now the audio control of media player also provides the option for "Auto-select"



2.1.17 Playback time in audit records

The record for media playback in system audit will now inform the initial and final date/time of the media session. With this information it is now possible to identify exactly the period of time of which an operator visualized the recordings.



2.1.18 Better management of server connections in Surveillance Client

The management of Digifort server connections in Surveillance client was improved.

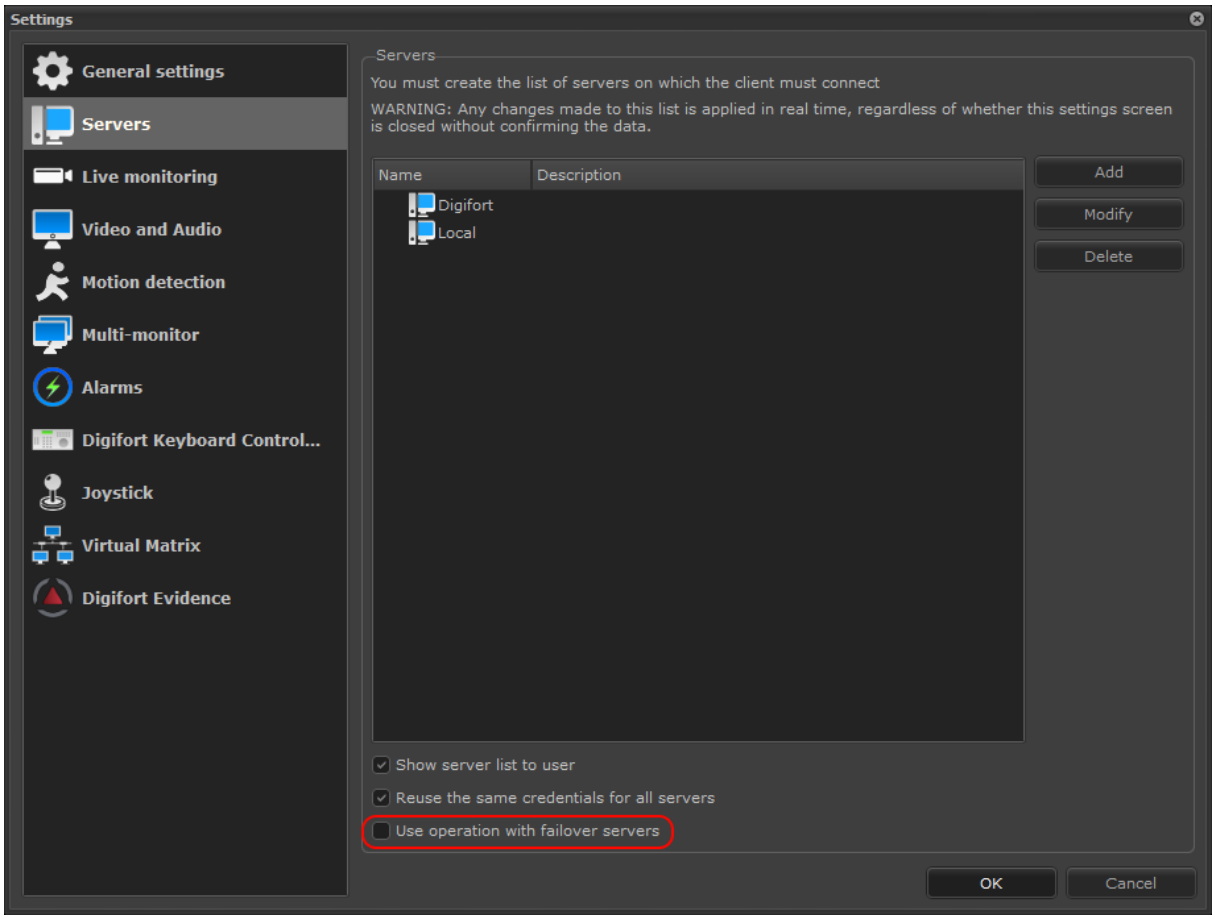
Previously, when a connection to the server was lost, the objects from this server was removed from Surveillance Client and a screen refresh was performance, causing a "flicker" to the user. This effect could be more evident in installations where the Surveillance Client would have to connect to multiple remote servers with bad internet connection.

Now, in case of communication failure, the system by default will no longer remove the objects of this server from the screen and will no longer refresh. When the connection is re-established, the objects on screen will be updated (only the objects of the affected server) and this will provide a much better experience to the operator.

2.1.19 Failover operation option

A new option to activate the operation with Failover servers was added to Surveillance Client. Activate this option in case Surveillance Client has to connect to a Failover server. This option will reactivate the old system behavior in case of communication failure to the server (usually due to server failure), the system will remove the objects of this server from the client so it can load the correlated objects from

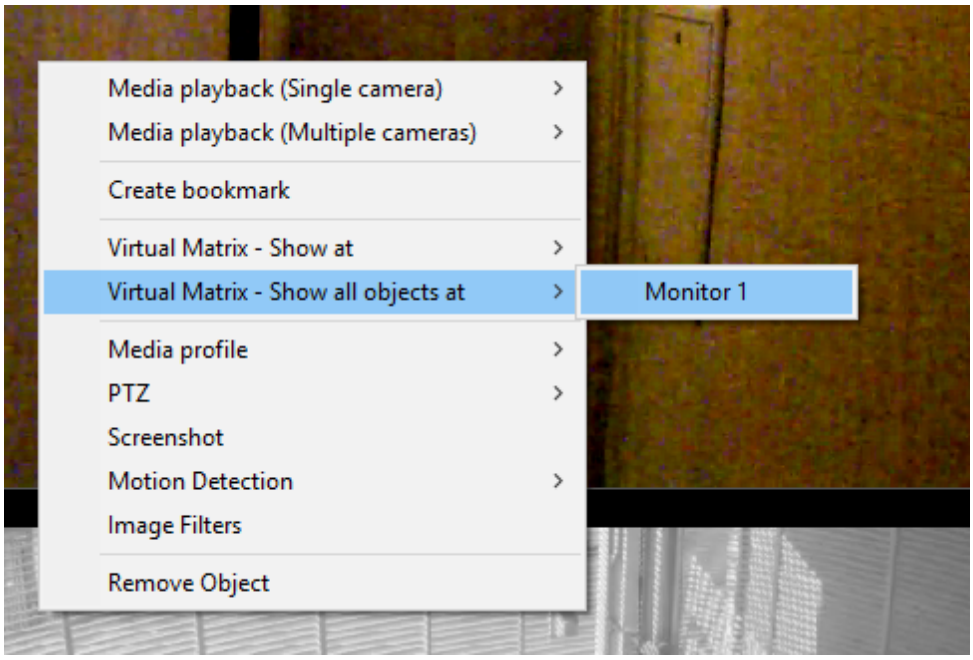
Failover server, assuring a smooth transition to the new server in case of system failure.



2.1.20 Send multiple objects to Virtual Matrix

This new option of Virtual Matrix allows sending all objects on the screen along with its configurations (Current media profile, zoom position, 360 lens position, image filter and motion detection).

This option is available only for current objects on screen. Upon clicking with the right button of the mouse on any object (or on an empty screen) the option to "Show all objects at" will be provided. The view should **not** be saved for this option to be used.

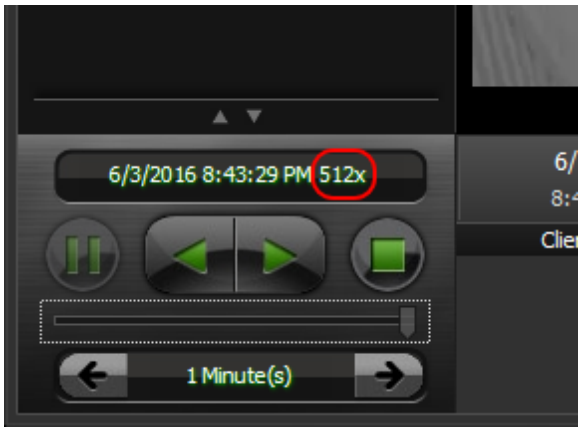


2.1.21 Media exporting with camera description

Upon exporting videos in native format, now the camera description will also be included (not only its name).

2.1.22 Improved accelerated playback

The accelerated media playback was greatly improved to allow a higher refresh rate of images. Previously the system would only show 2 frames per second in an accelerated playback. The playback experience should be much better for the user now.



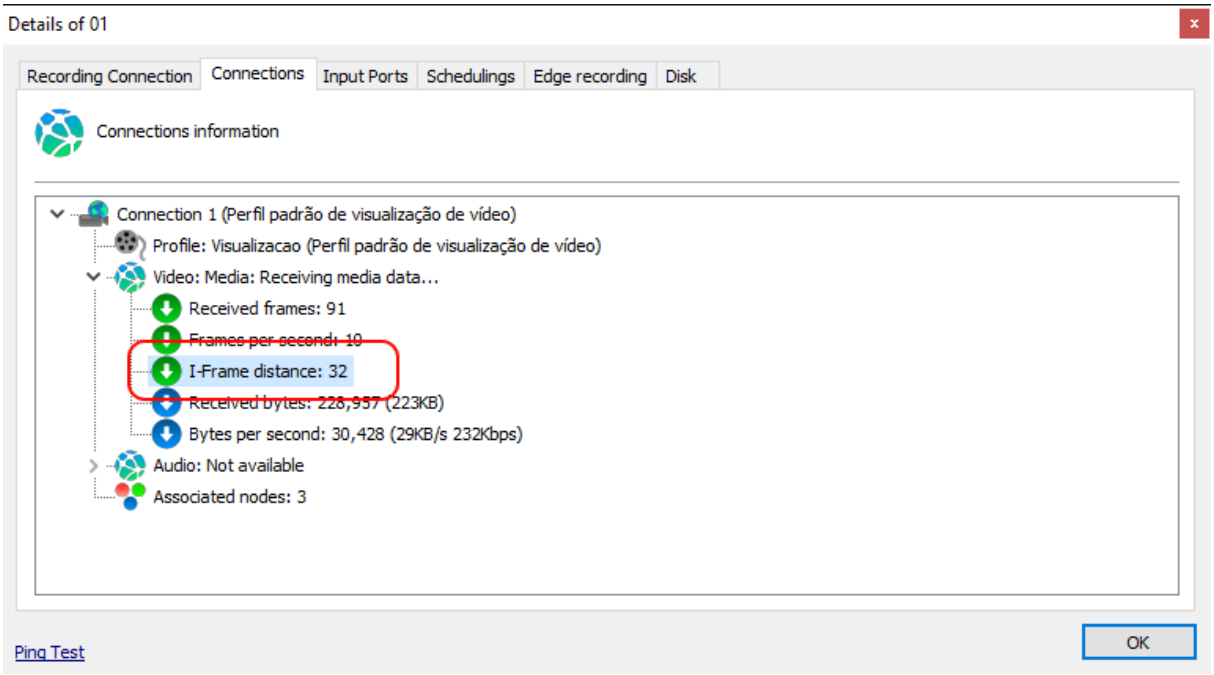
2.1.23 Recording error rearm time

To prevent the system to trigger multiple recording error events (In case of recording errors), the system was configured to trigger only 1 alert event per hour in case the error persists.

2.1.24 I-Frame distance information

The system will now inform the distance of I-Frames in H.264 and MPEG-4 videos. This information is extremely relevant because it directly affects the behavior of the cameras, as for example the delay time for an image to start displaying in the Surveillance Client.

This information will be available in Administration Client, under stream status:



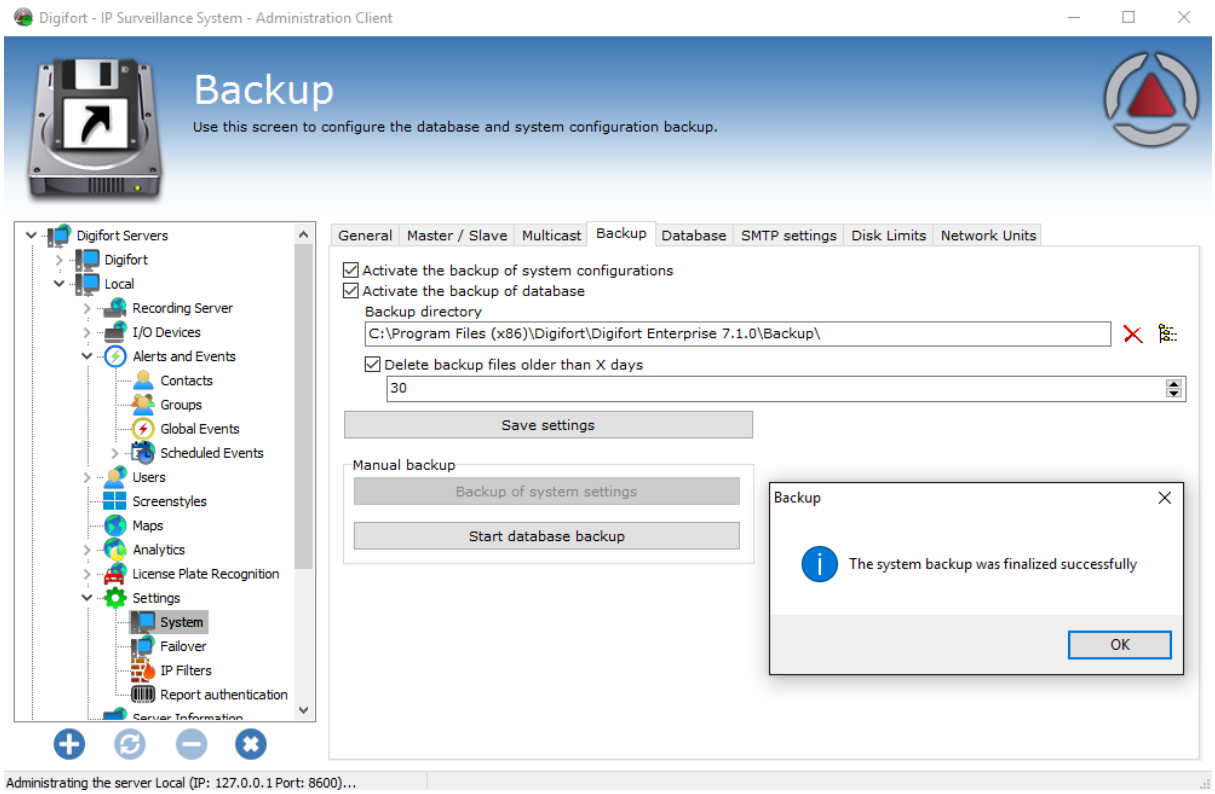
It will also be available in Surveillance Client, on all camera images:

2.1.25 Master / Slave Admin password

In the Master / Slave architecture, the password of admin user must be configured in all slave servers so they can properly connect to master server. Now upon modification of admin password in master server, it will be automatically changed in the settings of all slave servers, so no communication error will happen.

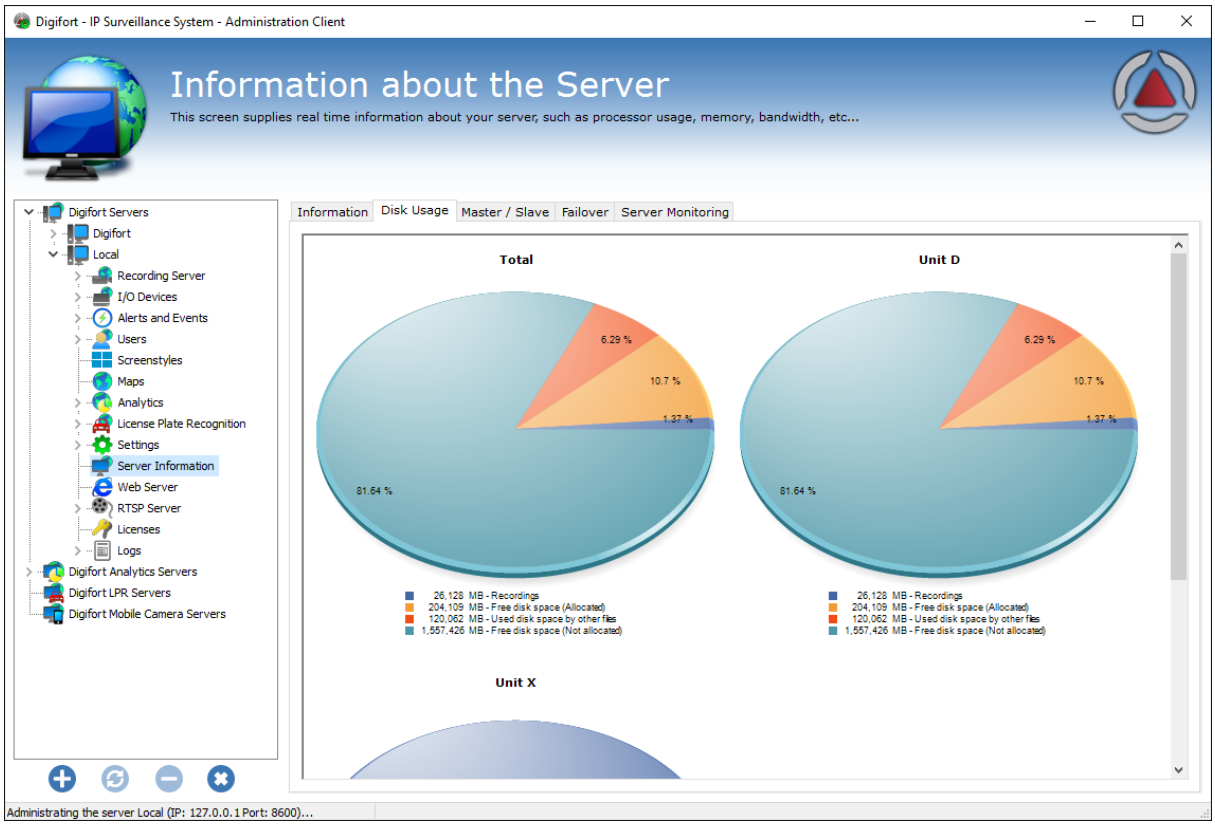
2.1.26 Backup finished message

The system will now show a message when the backup of system settings is finalized. Previously a message was displayed at the beginning of the process.



2.1.27 Organized disk charts

The disk usage charges are now sorted alphabetically.

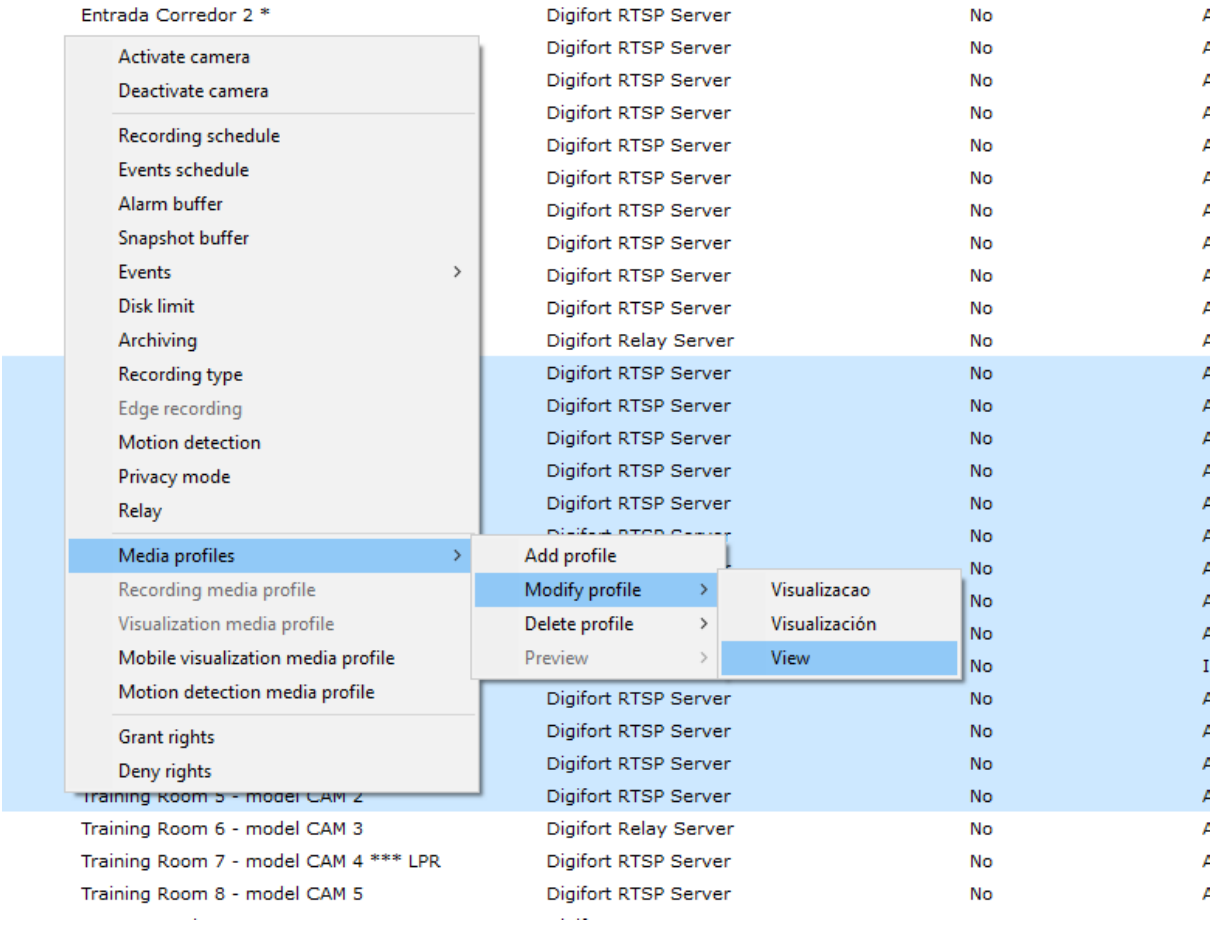


2.1.28 Better management of media profiles

The Administration Client now allows for a better management to add, modify or delete media profiles from multiple selected cameras simultaneously.

Previously it was only possible to modify or delete media profiles that were common to all selected cameras. Example: Camera 01 had profiles "Recoridng" and "Visualization" and Camera 02 has profiles "Recording" and "Internet", in this case, only the media profile "Recording" could be changed simultaneously for both cameras.

With the new improvements, any profile can be changes, new profiles can be added, and any profile can be deleted.

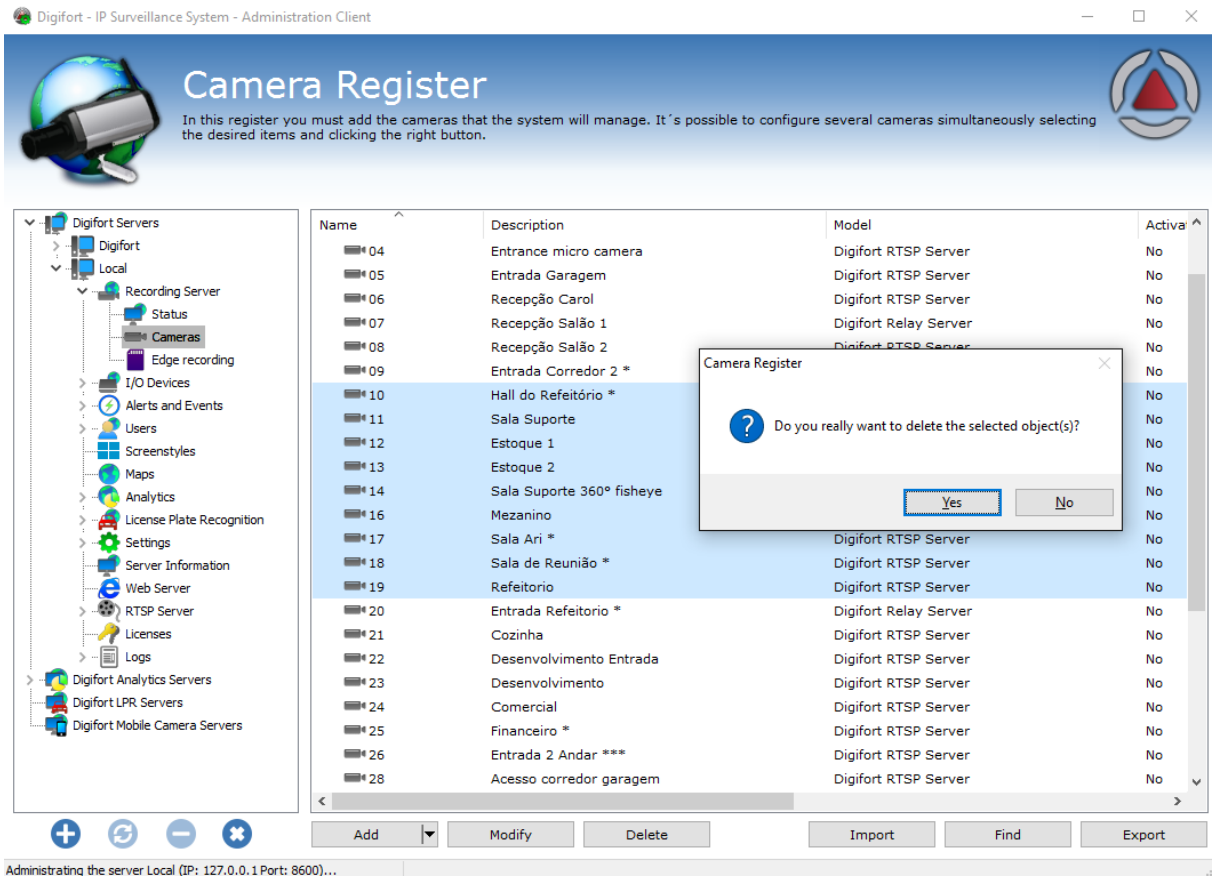


When a new profile is added, if it already exist in any selected camera, a warning message will be displayed and old profiles will be replaced by the new one.

When a profile is modified or deleted, only cameras containing those profiles will be modified, the rest of the selected cameras will remain unchanged.

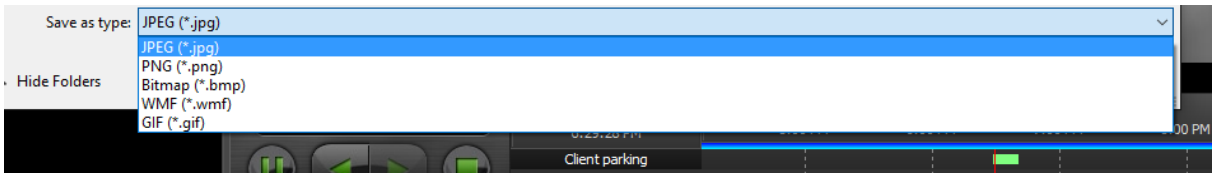
2.1.29 Possibility to delete multiple objects

The Administration Client now allows deleting multiple selected objects simultaneously from any list of objects in the system such as cameras, users, I/O devices, maps and others.



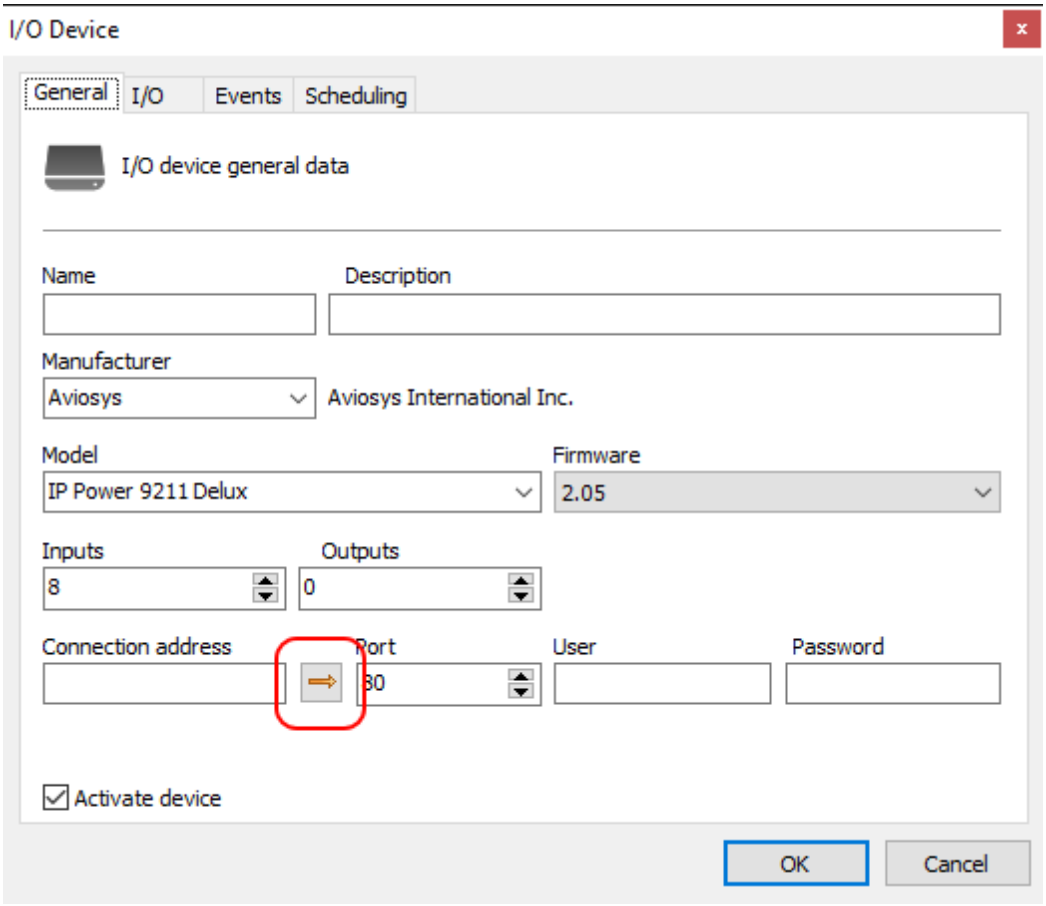
2.1.30 New snapshot formats

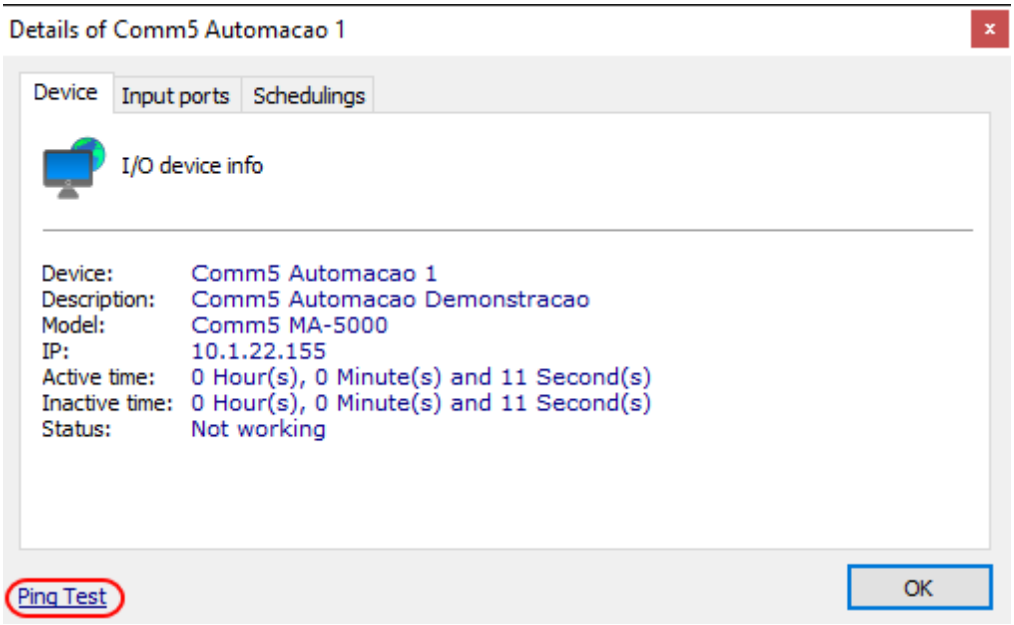
The Surveillance Client now supports additional formats to save snapshots: JPEG, PNG, Bitmap, WMF e GIF.



2.1.31 Ping test for I/O devices

The Administration Client now allows the execution of a ping test with I/O devices from registration and status screen.

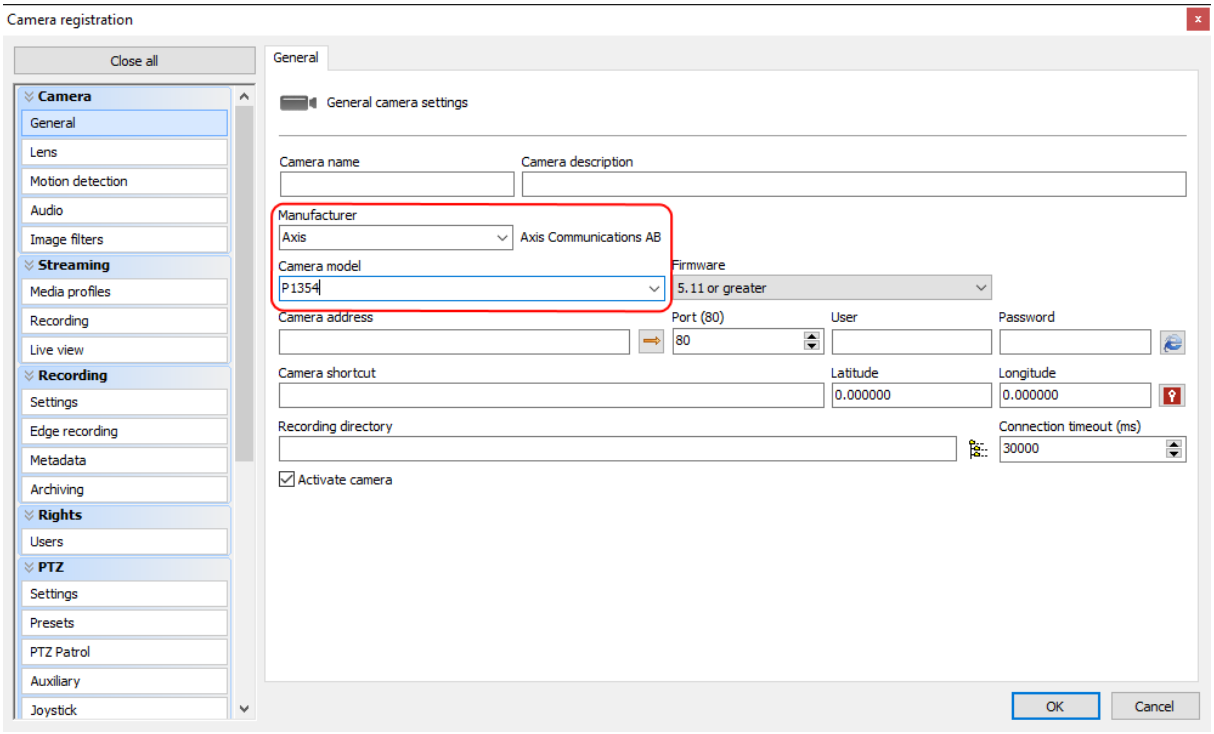


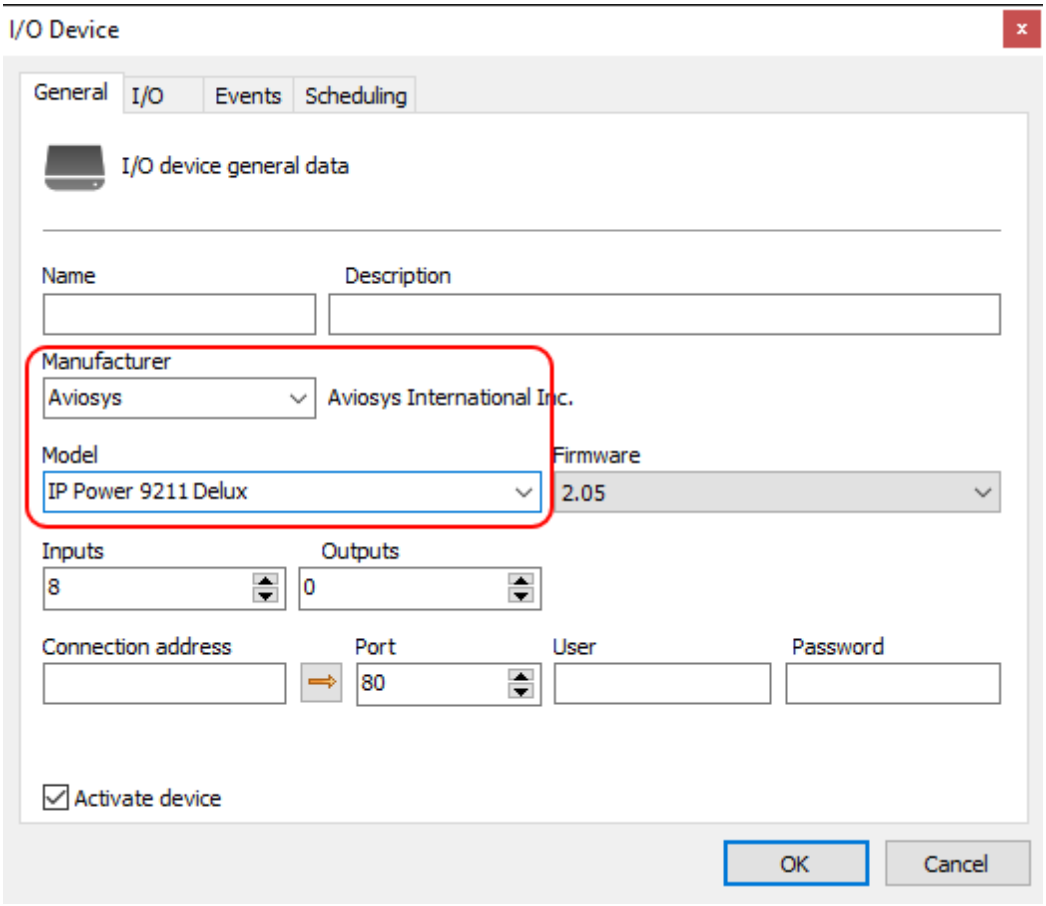


2.1.32 Open field to type device model name

The Administration Client now provides an open field for "Manufacturer" and "Device model". This will ease the registration of new devices allowing the user to type only part of the model name which will

cause a look-up and system will auto-complete the field with the matching closest device name. Additionally the manufacturer name was removed as prefix from the "Model" field to allow the typing of model device.



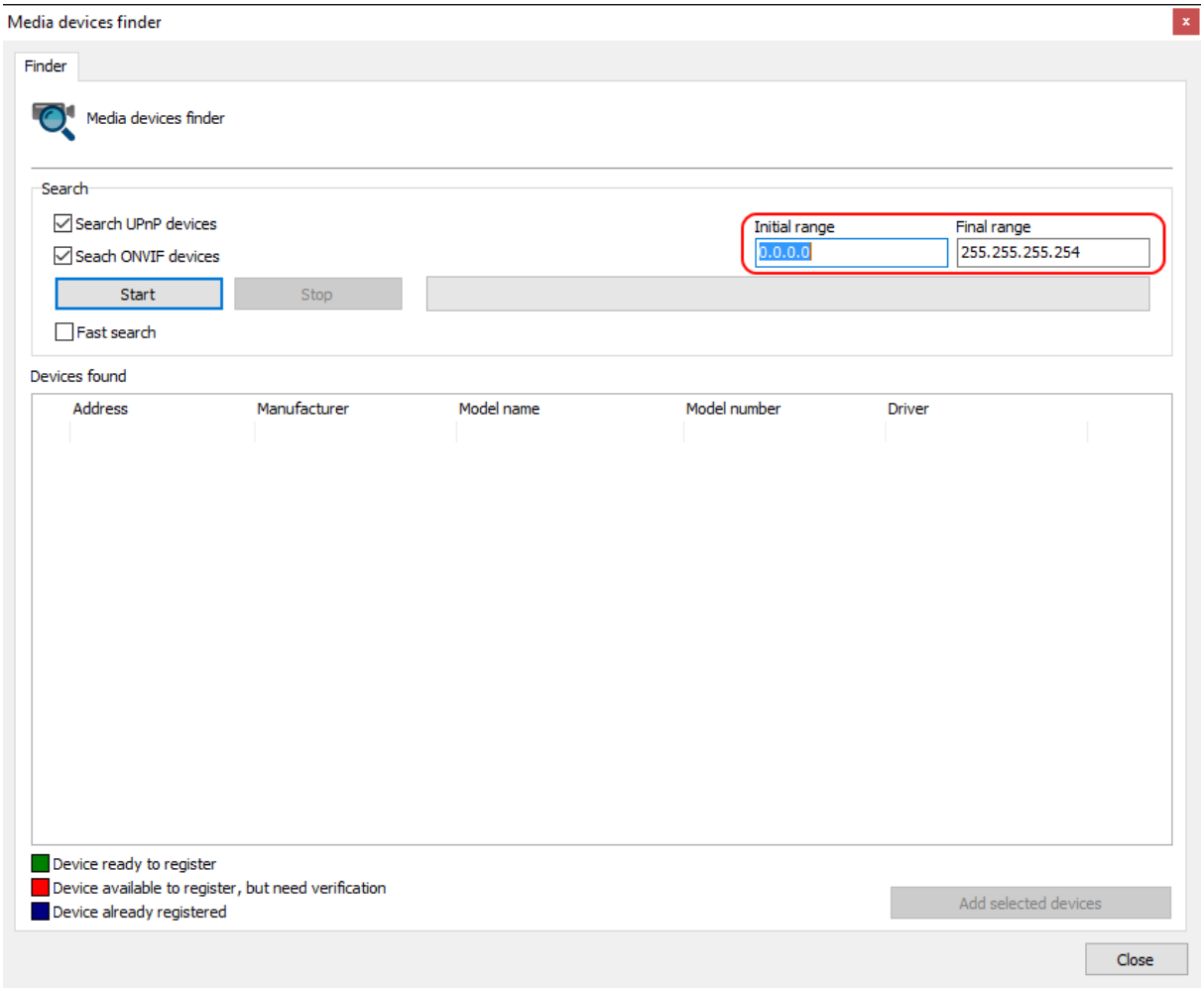


2.1.33 Edge recording download control

The system will now only start downloading edge recorded videos that are at least 10 minutes old. For example, if the server clock is 14:00 and a video from 13:30 to 14:00 should be downloaded from the camera, the system will only start its download at 14:10. This "delay" was introduced due to the fact that some cameras need extra time to "finalize" its current recordings.

2.1.34 Searching for devices with IP Range

The tool to search for network devices now allows the results to be filtered to a given range of IPs.



2.1.35 Better performance for objets list

The objects list in Surveillance Client was improved for better performance and behavior.

2.1.36 Configuration data in registry (64bit)

When the server is running in 64bit operating system, the system configuration data was stored inside a special compatibility key named Wow6432Node, now with the new 64bit version, the configuration data will be moved to the regular 64bit key in windows registry, both 32bits and 64bits version will access the same configuration data. This change also allows the system configuration backup to generate only 1 backup file, instead of generating a 32bit and 64bit versions of the backup as previously.

Warning: With this change, a system downgrade will not be possible because the settings will be moved to another registry key. Before updating to 7.2 backup your system settings using Administration Client, and in case a downgrade is required use the backup file to return the settings of the older version.

2.1.37 New audio codecs

The library for G.711 and G.726 was updated to provide better performance, compatibility and audio quality.

2.1.38 Improvements to database connection

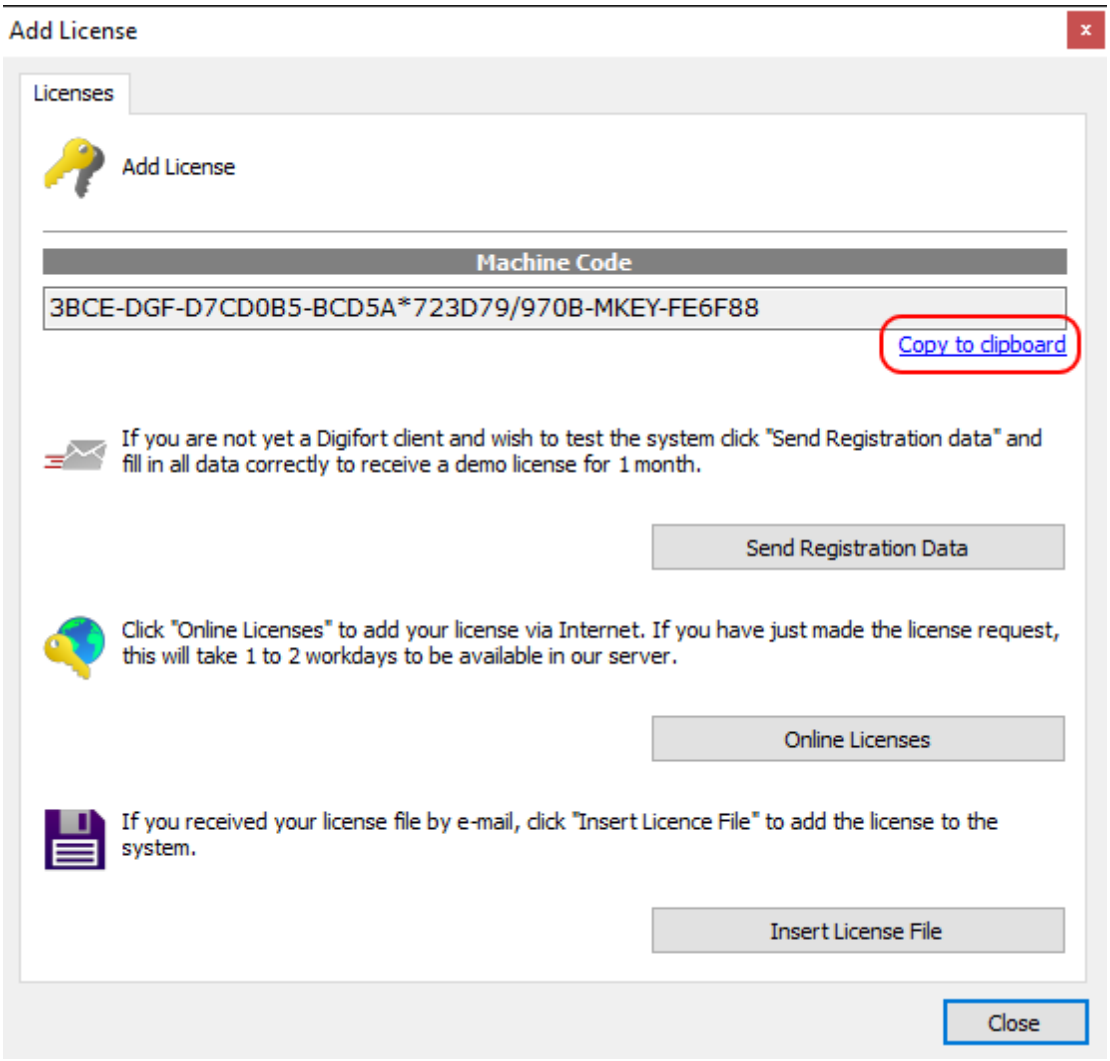
The connection with the system database was improved and should be more stable now. In case of any database communication error, the system will log an error and will send a message to Administration Client only. Surveillance Client will no longer receive any database error messages.

2.1.39 Playback with DGF-KB1000 keyboard improved

The playback controls with DGF-KB1000 were improved.

2.1.40 Copy machine code to the clipboard

A new option to copy the machine code to the clipboard was added to the licensing screen. Additionally the version and edition of the system is also copied.



2.1.41 Timeline zoom animation

The zoom operations on media player timeline will now display a transition animation to provide a more user-friendly interface.

2.1.42 Improvements to ONVIF driver

- Updated compatibility with protocol version 2.5
- Added support to continuous movement of PTZ cameras with implementation older than version 2.0
- Improved the stability and performance of the communication driver

2.1.43 Improvements to Axis PTZ driver

The PTZ driver of Axis video servers was improved to use a new method to transmit PTZ commands for analog cameras using plain TCP.

2.1.44 Digifort RTSP driver audio output

The communication driver "RTSP Digifort" that is used to create interconnection between Digifort servers now supports audio output.

2.1.45 Barco video wall integration improvements

Camera description will now be displayed as a decorator in Barco video wall and will also be displayed on side-bar.

Barco video wall integration now requires an integration license.

2.1.46 Quick Support

A new quick support tool was added to the release. This tool will allow the remote access from Digifort technicians to help customers with problems or optimizations in an easy, fast and secure way.

2.1.47 New features to Standard edition

The following pre-existent features in superior editions were added to Standard edition:

- Support to Edge Analytics (Executed in the camera)
- Support to Edge LPR (Executed in the camera)

2.2 Fixes

- Fixed a small issue in the management of connections that could cause memory access violation for invalid commands that were sent to the server
- The icons of I/O events (Alarm input) placed on a map would not "trigger" in case of an alarm
- The archiving system was sending 2 e-mails upon finish of the process if audio was being recorded along with video
- During media playback of multiple simultaneous cameras, the timeline of some cameras might not load
- Fixed a problem upon importing a list of license plates with empty lines or invalid characters like comma
- Fixed a problem in communication drivers of American Dynamics devices that could cause a failure in communication at each 1 hour and 10 minutes
- Fxied a problem in PTZ drivers of analog cameras that could cause the system to send repeated PTZ commands
- Fixed a profile in RTSP server that could cause decoding error for MJPEG video
- When minimizing a monitor of Surveillance Client it could not appear in System Tray in case multiple instances were open simultaneously in the same monitor when using manual mode
- Fixed an issue with memory management when closing Surveillance Client when a camera was still selected
- Fixed a thread leaking problem on media playback. This problem could create multiple "dead" threads

in the server.
- The search of LPR records with advanced AND and OR filters, when applied, was ignoring the date and time filter
- The server could randomly lose licenses due to an error when reading its MAC address
- The bookmark search was repeating the results of records from multiple cameras
- Texts on maps would not be properly displayed when the map object was initially loaded on screen
- Fixed a small problem in HTTP audio output drivers that could lead the system to send plain PCM audio instead of encoded.
- Fixed a multi-thread deadlock issue in the relay system that could cause a total crash of the server.
- Fixed small translation issues
- The system could not read the parameters of an URL without sub-paths. Example: http://10.1.1.1:8055?parameter1=value1
- Fixed a problem in media playback using DGF-KB1000 keyboard that would show an "Invalid time" message during the selection of time range
- Some objects in the map would be deactivated after update to version 7.1
- Under I/O device registration, after adding a new output action script it was required to close the registration screen and open it again so the action would be available for selection on events of the same device
- After minimizing the Surveillance Client, the list of views (from objects list) could vanish
- The saved position of panomorph or fisheye cameras in surveillance views was not being loaded when these views were loaded from inside a timer view
- Fixed a problem that could hang the media playback when playing backwards
- The archiving system would not delete some empty old folders
- Fixed a problem that could cause crash the server during load in case the I/O of a camera was activated and an event with action to send e-mail with images from the camera was triggered
- The status of I/O device ports in Administration Client was starting with 0 instead of 1
- In maps registration, a warning message will be displayed in case the server is not licensed. In some cases this alert message could be hidden behind the editor screen.
- Fixed a problem that was preventing the printing of any report from Surveillance Client in Standard and Explorer editions
- Fixed a problem in ONVIF communication driver that would keep a camera not working after a connection break
- Zoom commands for dewarped images of Vivotek fisheye camears was not working
- Digifort HTTPS server was not working due to SSLv3 authentication. The authentication method was changed to TLS1.2
- During the download of data from recognized license plates in LPR search in Surveillance Client, the screen was not being properly updated
- Fixed a problem in LG communication drivers that could cause a server crash in case multiple cameras using this driver were not working
- Old Pelco models were no long working in version 7.1
- The editor of audio groups in Surveillance Client was removing old items from the list when new items were being added
- When a camera was deleted from the system through Administration Client, this could cause a negative effect in Surveillance Client in case this camera was being watched, possibly causing the crash of the Surveillance Client
- Upon saving user groups in Administration Client, the maps with rights over the group were not being live-updated
- Fixed a problem with dewarping of Samsung fisheye cameras

2.2.1 FIxes for Beta 2

- Fixed an issue that could remove the privacy mask when close the camera in the privacy mask setting if the image was not yet displayed
- Fixed a problem that could corrupt unencrypted files after an encrypted exporting

- Fixed a problem of integration with Google Maps that could display script errors
- Fixed an issue with Verint communication drivers that was not doing the interlacing of 4CIF images
- Fixed an issue with positioning of multi-monitors when using full screen mode with multi-monitor in manual mode