



NetStation / NetStation Enterprise

Installation and operation manual
for software version 3.4.5.35 and above

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1 INTRODUCTION

We present to you the next version of NetStation system with many new functions and modules. Many of these changes are the effect of our cooperation with You and our Partners. Part of them are our ideas which extend capabilities of digital video recording. As we still kept the option for use of analogue cameras (through use of standalone DVR's of various manufacturers), we added lots of new integration features for control / visual presentation of other security systems such as burglar alarm, access control and fire detection. Manual colour marks explanation:

RED COLOUR - Important note / information. Please read carefully.

BLUE COLOUR - Link to website or specific part of manual.

1.1 ABOUT SOFTWARE

NetStation and NetStation Enterprise are a digital video recorder software designed for cooperation with CCTV cameras. It uses PC class computers which work under control of Microsoft Windows and Microsoft Windows Server operating systems. New NetStation system versions can record images up to 1024 cameras for each dongle, servicing almost unlimited amounts of alarm inputs and output switches. Moreover the system can be hybrid, that is one system can service both analogue and IP cameras – thanks to this it is possible to upgrade an existing installation and add IP cameras. Managing the video server through the network is possible. Program allows wide possibilities of motion detection settings, searching the motion in archives, servicing alarm events, analytics events and many more.

Differential image-compression method guarantees image recording longer than in other systems of that type without changing the image quality and storage space. Software for managing NetStation and NetStation Enterprise systems consists of three independent applications:

1. NetStation (Service Application Software - server)
2. CMS (Client Mobile Software - client)
3. CMS HUB (Centralizing Software - for easy management of large quantity of servers from one place and creating Alarm Centers)

The first application is a server: processes images from the cameras, manages user accounts (if CMS HUB is not used), events on the server side and controls the cameras. The second one is used as a client. We can connect to the server by a local network and do remote monitoring. Client application is also available on mobile devices (Android OS, iOS and Windows Phone) which allows access to camera images from any place in the world.

1.2 REQUIREMENTS

Below You can find minimum and recommended requirements for NetStation software as well as requirements for Video Content Analytics form VCA Technology Ltd.

NetStation / NetStation Enterprise		
SYSTEM REQUIREMENTS	MINIMUM	RECOMMENDED
Operating System	Windows 8.1 / 10 64-bit, Windows Server 2012 R2 / 2016 / 2019	Windows Server 2016 / 2019
Motherboard	Intel chipset based (ASUS,Gigabyte, Intel)	
Processor	5th generation Intel Core CPU	8th generation Intel Core CPU or higher, Intel Xeon Gen 2 or higher
MEMORY (without VCA)	8 GB	16 GB or higher
MEMORY (with VCA)	16 GB	32 GB
VIDEO CARD (without VCA or LPR)	motherboard with built in video output	motherboard with built in video output
VIDEO CARD (with VCA)	NVIDIA GTX1650 Super	NVIDIA RTX2070 Super

VCA TECHNOLOGY LTD	
Standard Analytics - Motion tracking and detection engine	
CPU Specification	Number of channels
Intel i3 (10th Generation)	1-16
Intel i5 (10th Generation)	17-32
Intel i7 (10th Generation)	33-64
Intel i9 (10th Generation)	65-85
Intel Xeon Silver or greater	85+

Note: Keep in mind that using VCA requires a minimum of 10th generation Intel Core CPU, Intel Xeon Silver or greater. All above information are just approx. and may vary depending on the camera's stream settings, integration complexity and amount of VCA channels required. If You are not sure if Your PC will be enough for Your project please contact our local distributor / integrator for help. The list of current distributors / integrators can be found on our webpage.

Additional requirements for Video Content Analytics:

VCA TECHNOLOGY LTD	
Deep Learning Filter (DLF) for accurate detection of people and vehicles	
GPU Specification	Number of channels
NVIDIA GTX1650 Super	1-64
NVIDIA GTX1660 Super	65-128
NVIDIA RTX2070 Super	129-256
NVIDIA RTX2080ti	256+

VCA TECHNOLOGY LTD	
Deep Learning People Tracker using Pose algorithms for accurate detection and tracking of people	
GPU Specification	Number of channels
NVIDIA GTX1650 Super	1-4
NVIDIA GTX1660 Super	5-8
NVIDIA RTX2070 Super	9-12
NVIDIA RTX2080ti	13-18

additional hardware requirements	Optimal camera configuration
128 GB free HDD space	H.264 codec
1 Gb Network Adapter	640x480 resolution
	frame rate 15 FPS

Note: VCA will accept higher resolutions and frame rates but they will increase the CPU overhead and result in a reduction in channel capacity without necessarily increasing accuracy.

2 SOFTWARE INSTALLATION AND FIRST STARTUP

Please close / disable all antivirus software and close all other software before proceeding. The system needs a USB dongle installed for proper work. Plug it into the USB port in Your computer. Remember to have it plugged permanently, if else the system will shut down or installation wizard will not show all available options based on the purchased license. If the dongle was detected and installed correctly it will glow solid light, which indicates it's proper functioning. All installation files can be found on our webpage WWW.ALNETSYSTEMS.COM in the DOWNLOAD section.

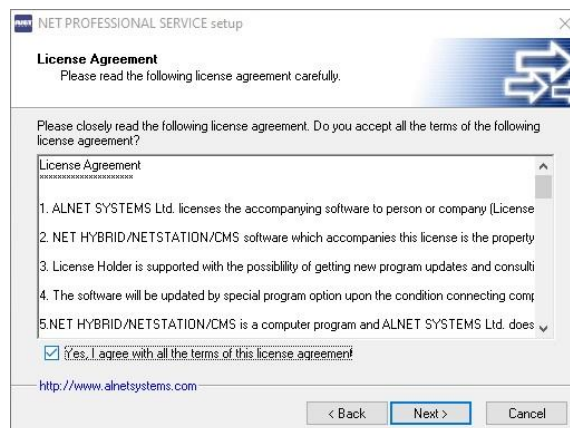
2.1 INSTALLATION PROCESS

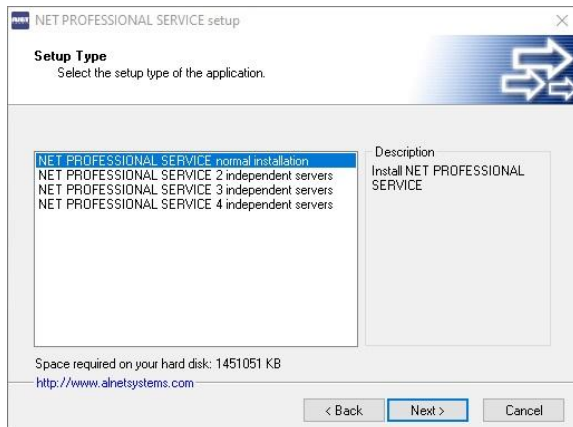
In most installations it is only required to agree to the license terms and click NEXT button till the installer does its job.



STEP 1 - After starting the installer click NEXT on the Welcoming screen

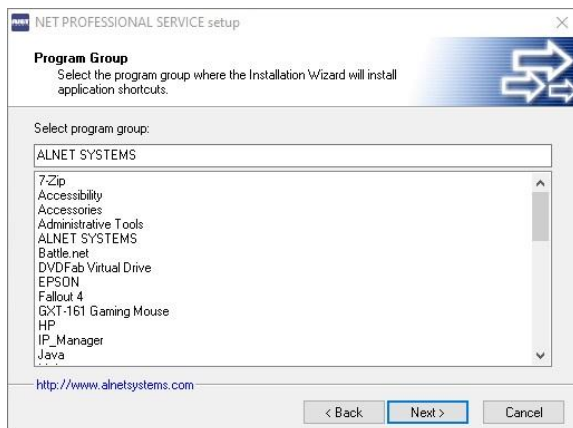
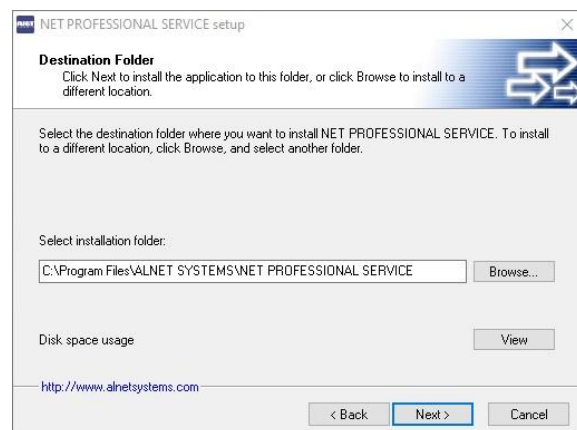
STEP 2 - Read the License Agreement and select the checkbox in order to be able to proceed with the installation. Click NEXT when ready.





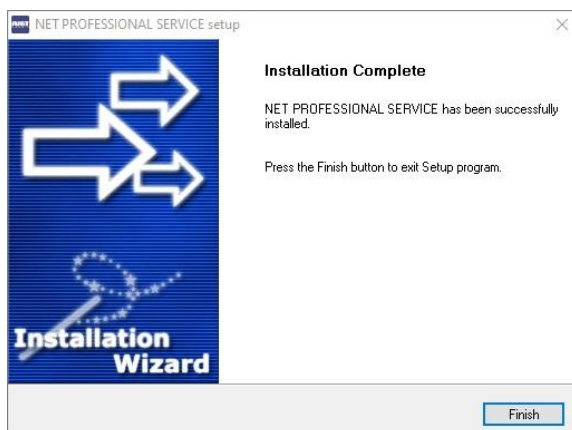
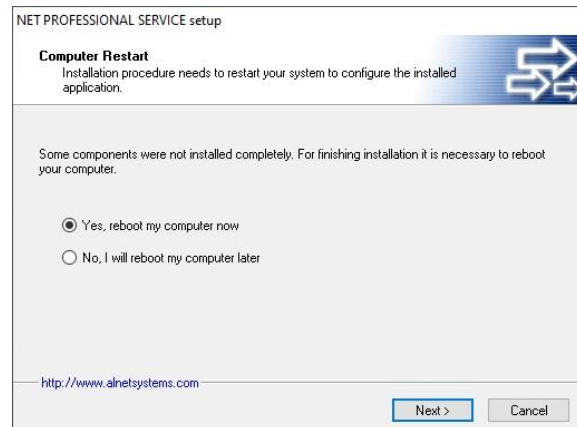
STEP 3 - Select the server amount You wish to install. The amount of servers is based on the number of dongles You will use in Your PC. Normal installation requires one dongle and is used in most cases. If You are not sure which installation to choose please contact Your seller for confirmation.

STEP 4 - Here You can select the destination folder where NetStation server software will be installed.



STEP 5 - Here You can choose / rename the Program Group for all shortcuts which will be created and used after pressing the START button on Windows taskbar.

STEP 6 and 7 - clicking NEXT on step 6 starts the installation process. After it finishes You need to reboot the operating system in order for changes to take effect. If You still have other programs or files that You wish to save You have option to Reboot the OS later after You finish Your necessary work.

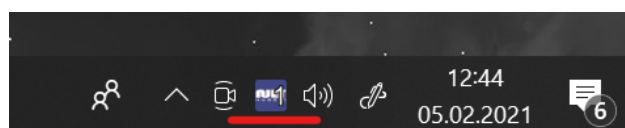


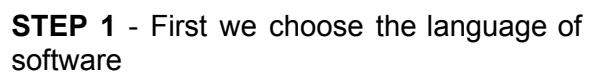
STEP 8 - Final step in installer. Depending on what You choose in step 7 either the operating system will restart or the installer will just finish and close

Note: If on STEP 7 You choose not to reboot the system, You can start the Server Applet in order to manually start the configuration process without the need of rebooting the whole machine. However we recommend restarting the operating system due to usage of SQL LocalDB instances. If You are an expert user in AlnetSystems products and You know what You are doing You can skip the reboot part. If not, choose reboot the operating system option and close everything before finishing the installer.

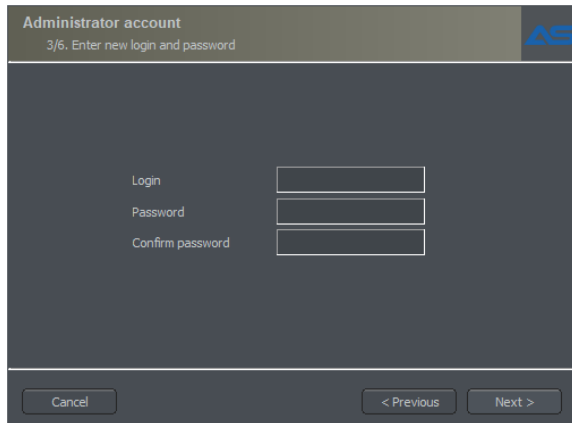
2.2 FIRST STARTUP

After the operating system restarts, the NetStation server service will turn on automatically. If that happens, right click the NS icon next to the windows clock on the system tray and select "Stop VideoDR-S 1 service".





Symbols explanation: dd –day, mm –month, yyyy –year
Supported monitor formast: 4:3-normal and 16:9
-widescreen



Administrator account
3/6. Enter new login and password

Login

Password

Confirm password

Cancel < Previous Next >

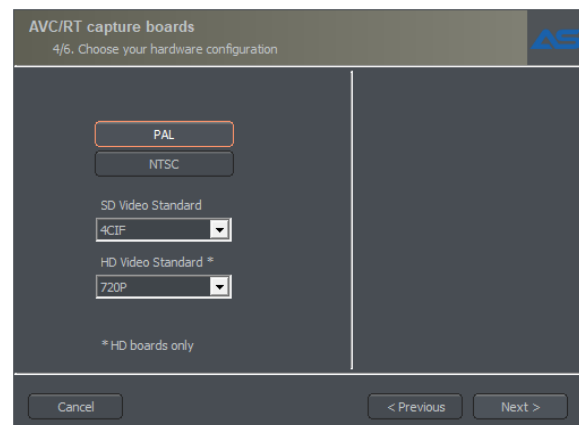
STEP 3 - Here we input the first administrator login and password.

Keep in mind that there is no predefined administrator login and password in NetStation software. Therefore there is no option of “reset to default” of those data.

Keep this information stored properly because there is no way of retrieving them after they are saved.

STEP 4 - capture cards configuration. They are not supported under the service server version so You can just click next to skip this window.

NOTE: This window is due to be removed. If it is not showing it means You have a later version of software which this manual does not include.



AVC/RT capture boards
4/6. Choose your hardware configuration

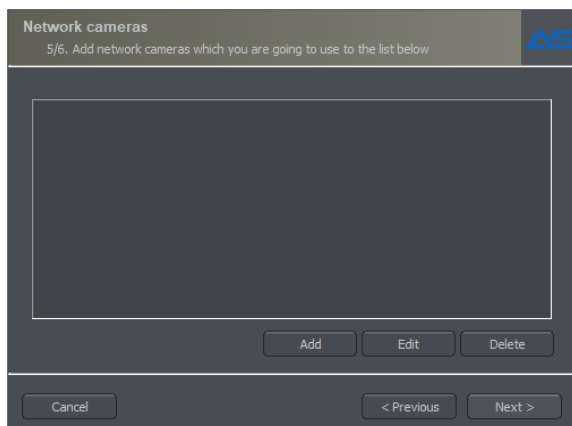
PAL
NTSC

SD Video Standard
4CIF

HD Video Standard *
720P

* HD boards only

Cancel < Previous Next >



Network cameras
5/6. Add network cameras which you are going to use to the list below

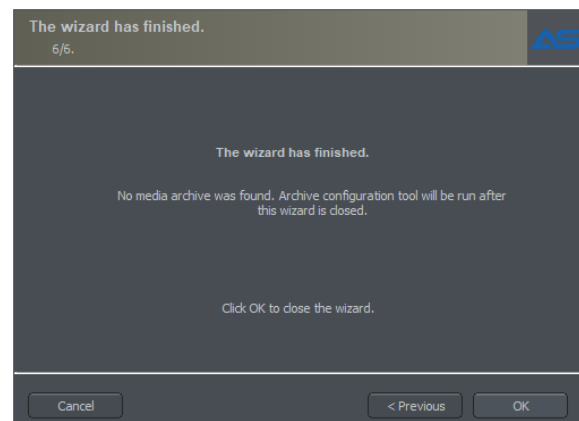
Add Edit Delete

Cancel < Previous Next >

STEP 5 - this panel allows to add network cameras (IP cameras) to the system. In the main window there are positions defined by You. When starting NetStation for the first time they are blank. To add a network camera click the “**Add**” button. System will display an additional window. Click NEXT when You add all required cameras.

Go to the **ADDING CAMERAS** section for detailed description on adding network devices.

STEP 6 - This is the final step. Clicking OK button will end the first stage (camera configuration) and the system will proceed to creating video archives.



The wizard has finished.
6/6.

The wizard has finished.

No media archive was found. Archive configuration tool will be run after this wizard is closed.

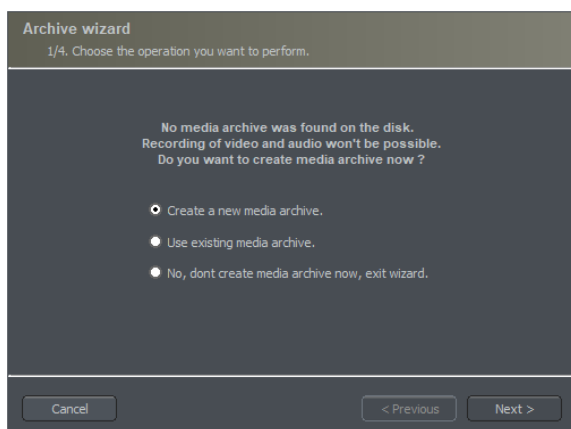
Click OK to close the wizard.

Cancel < Previous OK

Note: After closing the wizard all additional changes in WIZARD, ARCHIVE SETTINGS or APPLICATION SETTINGS will require to input administrator login and password that was specified in the **STEP 3 of the first wizard launch**.

2.3 ARCHIVE CREATION

For the proper work of the system it is necessary to configure the disk archive, that is to point the disk space which will be used for storing the camera image and sound. The more space will be used, the more archive recordings will be stored. Disk archive is created in the second stage of configuration wizard - after the camera configuration is completed.



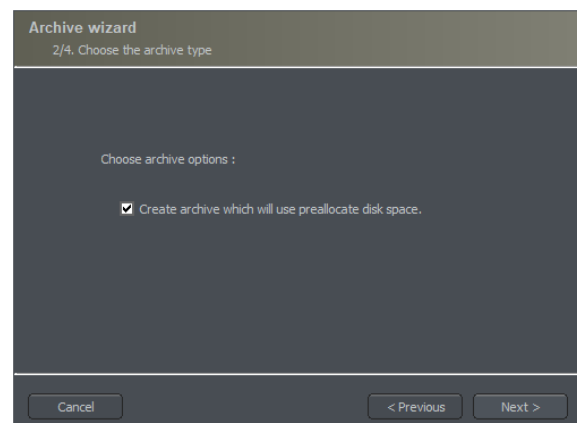
STEP 1 - First window of archive creator offers 3 choose options

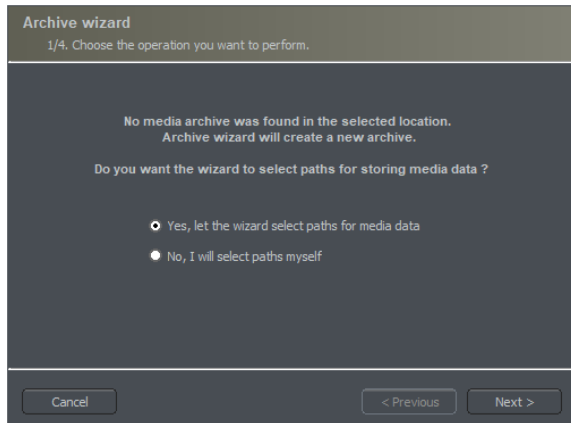
1. Create a new media archive - creates new disk archive
2. Use existing media archive - configuration of the existing archive
3. No, don't create media archive now, exit wizard - closing wizard, without creating disk archive

NOTE: In case of using the third option, recording will not be possible. Later configuration and editing of archives will be available from the "Run archive settings" function in the VDRSApplet.

STEP 2 - Here You must define what type of archives will be created. By marking "Create archive which will use preallocate disk space" You will create a disk archive, with size defined by the user. Otherwise, archives will be built increasingly, which means that it will increase its size during data recording, until it fills the whole disk space of the selected partition.

NOTE: Default value is "Create archive which will use preallocate disk space"





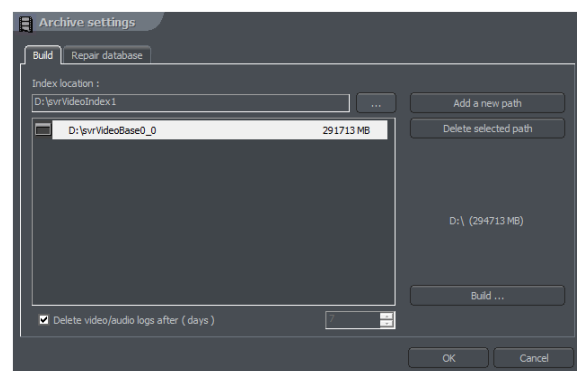
STEP 3 - At this point software will suggest whether You like the wizard to create the paths for recording or do You want to set them by Yourself. After clicking NEXT You will be prompted to confirm again whether You wish to create a preallocated disk archive or not. After clicking NEXT You will be informed that the wizard finished assigning paths and will get back to ARCHIVE SETTINGS window.

NOTE: Use wizard paths if You are not experienced user.

STEP 4 - If everything went fine You should see the Index file path in the small bar at the top of the window and archive recordings paths in the big screen at the center. Clicking OK will start the archive creation process.

At this point please pay attention to the information shown in the dialog boxes and proceed accordingly.

NOTE: If this is the first time of archive creation on the selected HDD's then You can use a fast allocation method. If the HDD were already used and formatted then it is recommended to do a full allocation of archive files.

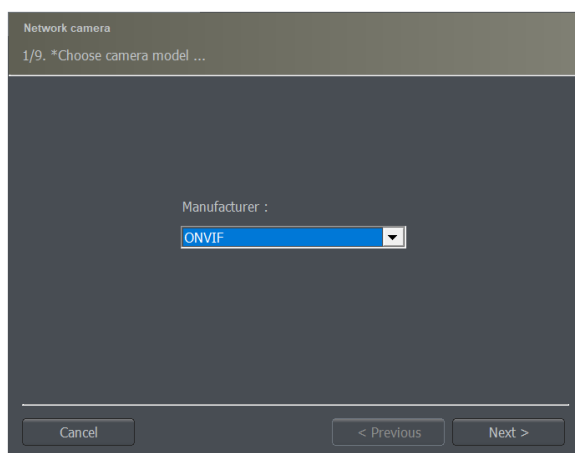


When archive wizards finish all windows will be closed and You can move to the final part of configuration, setting up camera streams and motion detection recording using **APPLICATION SETTINGS**.

NOTE: If You do not wish to set any additional options such as camera streams setup, motion detection masks, prebuffer alarms, etc. there is just a quick step You need to do before starting service. Go to **APPLICATION SETTINGS** and after logging in with administrator privileges turn on recording by clicking the “record button” in the top left corner of the application window. After that You can close the software and start the service from VDRS Applet.

2.4 ADDING CAMERAS

Below You can see the example of adding an ONVIF IP camera to NetStation server software. Same steps apply to any IP camera manufacturer.



STEP 1 - choose IP camera manufacturer

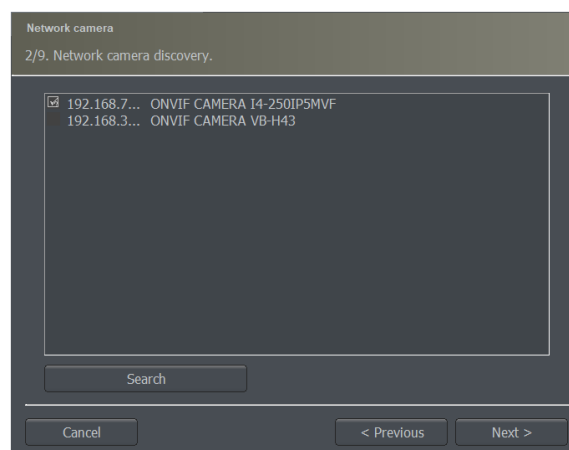
STEP 2 - Click search in order to discover connected ONVIF compliant IP devices automatically, or click NEXT to add camera manually.

After search finishes select the camera You wish to add and click NEXT

NOTE: Devices already added to the server are marked with a checkbox on the left side of the IP address.

Search function automatically detects available network devices via broadcasting function. Search option might not be available for all IP devices connected to Your LAN.

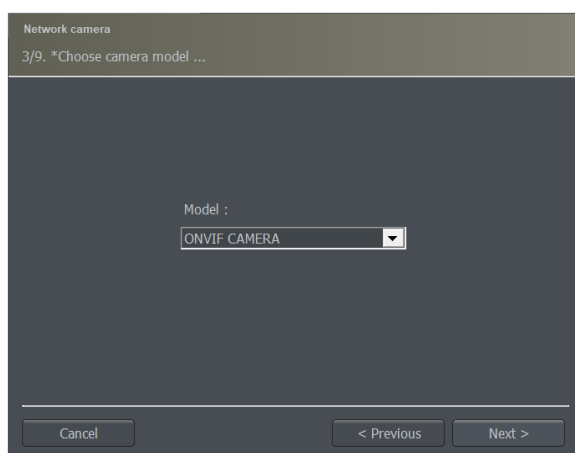
Search function result depends on factors such as camera manufacturer, camera settings and / or network infrastructure devices configuration like routers or firewalls.



STEP 3 - Select model of the device You wish to add.

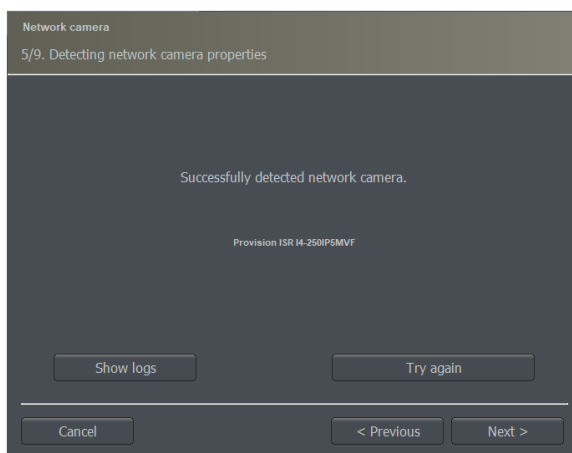
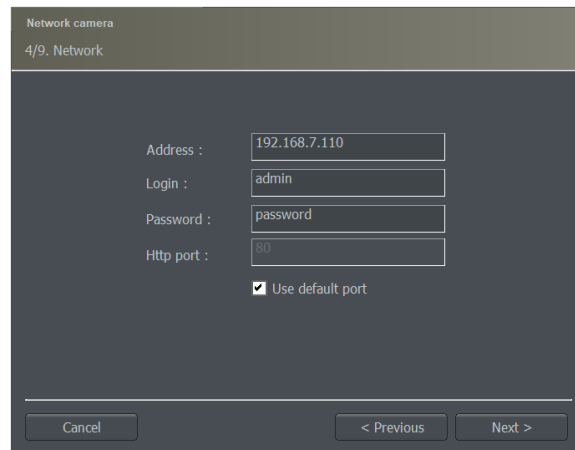
NOTE: Both ONVIF PROFILE-T and PROFILE-S standards are supported.

Supported camera models list and manufacturers list may vary depending on the software version.



STEP 4 - Type in IP address of the network camera, login and password. Also You can change the default port for HTTP communication if it differs from default value.

NOTE: When adding devices through the Search option the IP address will be placed in automatically. Additionally the default device login and password might be placed for specific manufacturers. Ensure You change those values accordingly to the settings of the device.

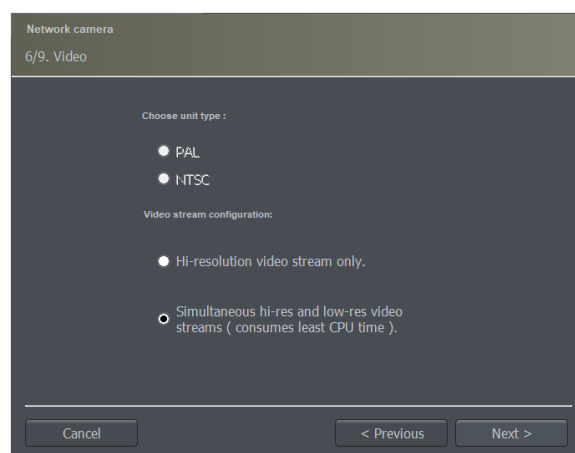


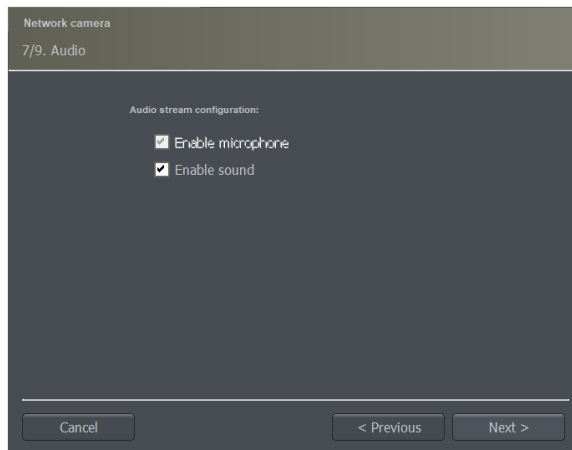
STEP 5 - Here You can see the result if the device was added correctly or not.

After successful detection of the device click NEXT.

STEP 6 - At this step user can choose whether he requires to operate on one stream (mostly used for older type of IP cameras) or two streams (common option for modern IP cameras)

NOTE: Default value is Hi-resolution stream only.

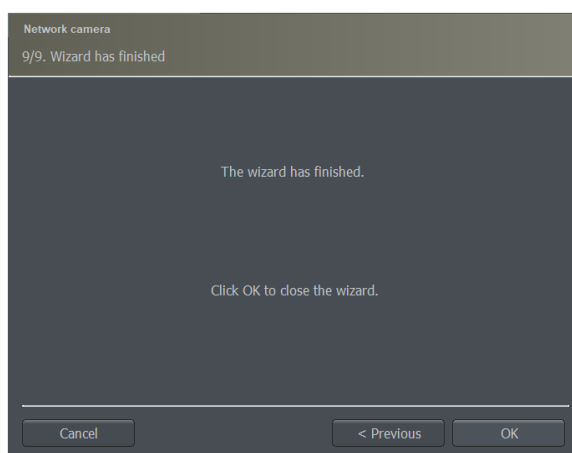
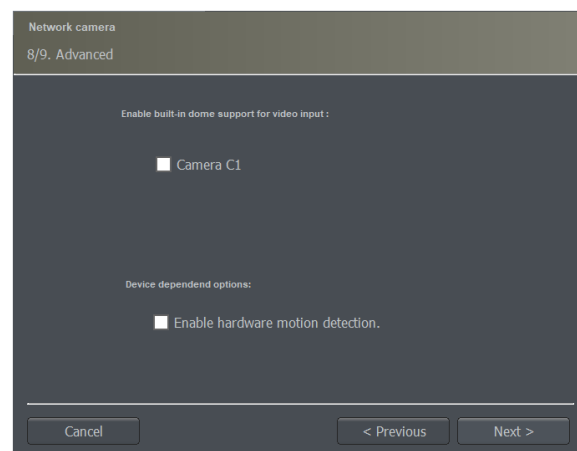




STEP 7 - Choose the audio options for the connected device.

STEP 8 - Enabling dome support option is required for proper work of all PTZ IP cameras added to the server as well for IP cameras with MOTO-ZOOM option.

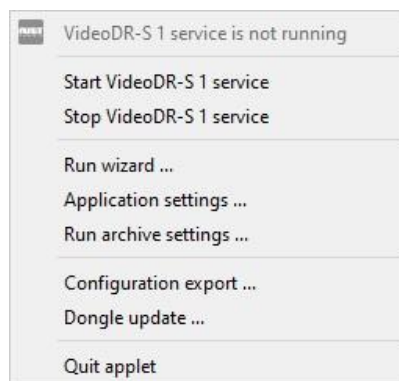
NOTE: Enabling hardware motion detection disables the software build-in feature. If this option is turned on we will wait for motion detection information FROM CAMERA and it requires to set the motion maskas and sensitivity in the device itself. Otherwise the motion detection recording option will not work.



STEP 9 - Final step approving all information placed in the wizard is correct. Click OK to finish adding this device.

3 MANAGING SERVICE SERVER SOFTWARE

The NetStation service server version introduces the VDRS applet in the system tray (context menu after right clicking the icon) and the VDR-S-1 service in the task manager (if the server OS environment does not operate with VDRSApplet turned on). All startup, shutdown and configuration operations are performed with these 2 tools.



VDRSApplet menu preview

3.1 SERVICE STATUS, STARTING AND STOPPING

There are three icons showing the current status of the NetStation server software on the system tray:



NetStation server service started



NetStation server service stopped



NetStation server service busy (starting / stopping)

Starting and Stopping of NetStation server service can be done via corresponding buttons.

3.2 RUN WIZARD

This option allows the user to run the wizard at any time in order to add, modify or delete IP cameras / devices that are added to the NetStation server software. It is required for service to be stopped for proper operation.

The wizard menus are described in the [FIRST STARTUP](#) and [ADDING CAMERAS](#) sections of this manual.

3.3 APPLICATION SETTING

Application settings is a place where additional configurations can be made for optimising the server software and enabling / modifying core features of NetStation server service. It is a simpler version of traditional NetStation Instance server software but with some options removed or simplified. Due to the nature of the service software during normal operation mode application settings GUI is not available, therefore most common options can be modified via CMS 4 client software without need of stopping the server service which allows for uninterrupted archive recording.



Application settings main window preview

Beside the possibility for camera live preview, there are also available:

- upper menu - **PROGRAM**, **TOOLS**, **CONFIGURATION** and **ABOUT**
- left side menu - recording button, PTZ steering panel, live camera layout changer
- right side menu - Error information (if there are any), archive storage information, currently logged in user and remote users count

NOTE: One of the most notable thing in the server service version is the lack of archive preview from the Application Settings GUI. You can combine server and CMS 4 client software in one machine making it a complete All-In-One server / client solution. We recommend however to use this ONLY if You really cannot have separate machines for serve and client software. Running both of those applications at the same time generates twice CPU consumption and may lead to unstable work on the used machine. Please take care while choosing the CPU for such installations.

3.3.1 PROGRAM

Main basic software options can be found here. Minimize, Log out and Exit.

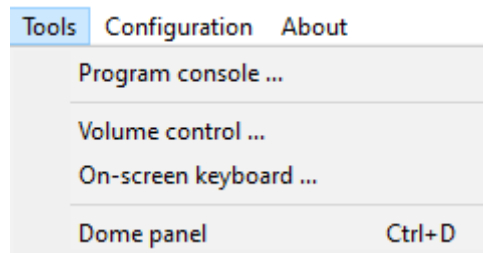
Program	Tools	Configuration
Minimize		Ctrl+M
Log out ...		Ctrl+L
Exit		Ctrl+X

NOTE: Additional Program shortcuts are also available (but not listed).

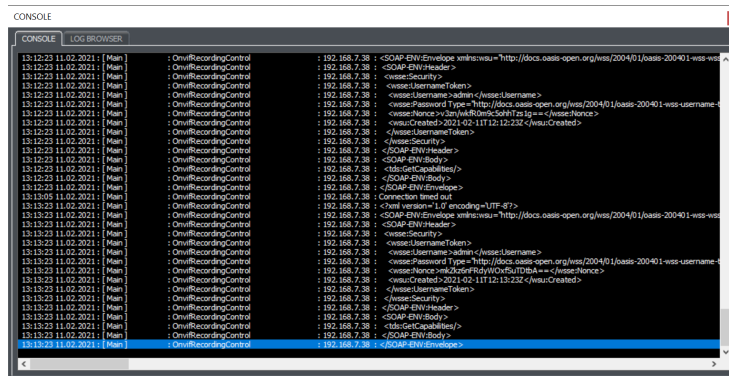
- Ctrl+P - disables FullScreen mode (user can scale the window to his desire)
- Ctrl+U - Display / hide the menu bar
- Ctrl+N - Enables FullScreen mode (the window will scale to the resolution of the monitor it is currently displayed on)

3.3.2 TOOLS

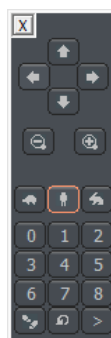
Additional tools that could help in troubleshooting and managing PTZ cameras.



Program console is a function that shows all the operations made by the server software and also display advanced logs for cameras when they are set in DEBUG MODE. Useful tool for troubleshooting or LPR adjustments.



Dome panel displays an on-screen window which allows for PTZ control.



NOTE: Volume control and On-screen keyboard functions are no longer available in the service version of software. You can use windows built-in options for this.

3.3.3 CONFIGURATION

The software **BASIC** and **ADVANCED** options can be configured / modified from this menu.

BASIC options list:

1. **Scheduler**
2. **Events and actions**
3. **Add or remove hardware**
4. **Cameras**
5. **Sound**
6. **Network server 1**
7. **Network server 2**
8. **Archive storage**
9. **User accounts**
10. **Program settings**
11. **Database settings**
12. **SMTP settings**
13. **Advanced**
14. **Save configuration**

ADVANCED options list:

1. **Receive events from other DVRs**
2. **LPR settings**
3. **NumberOK LPR settings**
4. **Person database**

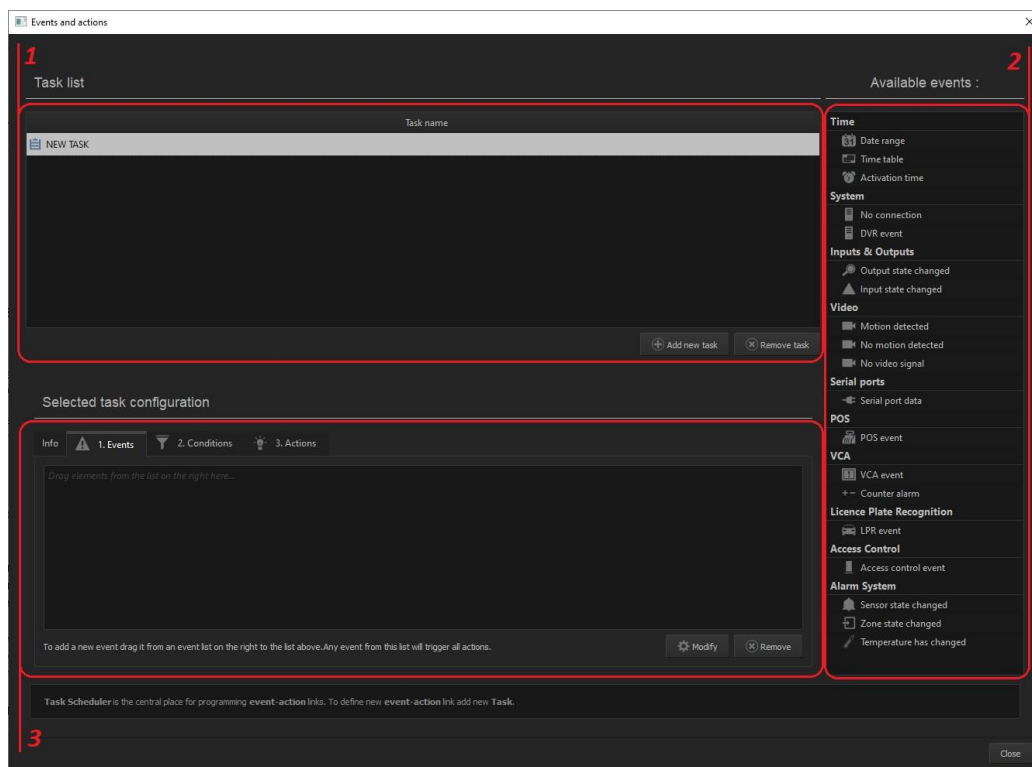
3.3.3.1 BASIC

Scheduler

This is a basic scheduler (also used in old server software versions). Most of its functions have been already moved to the new tool called **Events and Actions**. Regardless of that, it is still operational with basic features such as camera and audio schedule recording based on time and / or alarm input state and VCA event recording (only analytics RULES are available here). This function is due to be removed in later versions of NetStation software.

Events and actions

This is a more advanced scheduler. Beside the camera, sound and VCA rules recording, this tool also provides lots of additional options to choose from, in order to receive the wanted outcome. The main window is divided into 3 sections:



Highlighted sections preview

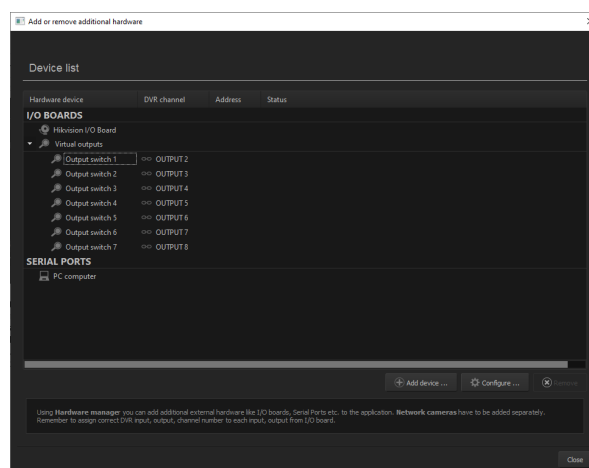
1. Task list, where You can see a list of all created events
2. Event, conditions or actions list, which contain a set of options You can choose from, allowing the user to create for ex. sophisticated alarm tripping system based on camera motion detection combined with alarm inputs or VCA events triggering.
3. Task configuration window where You drag and drop options from the right side list.

Users can place multiple events, additional conditions and actions into one Task, however if any of Events occur, and any additional condition is met, all actions will be executed for this Task. Each software (server, client and CMS HUB) has its own set of events and actions due to the nature of their usage. Therefore it is advised to double check where the Task is created.

NOTE: Cannot find the specific event on the main list? Check the **“DVR event”** from the events list. There are a lot of other additional events placed there.

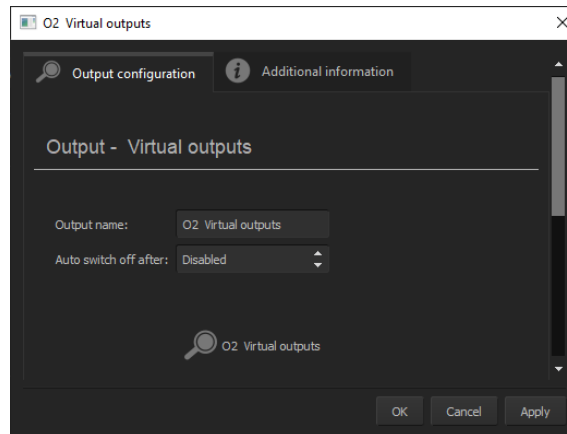
Add or remove hardware

Here user can add, remove or modify the config of additional hardware and IP devices added to the NetStation software.

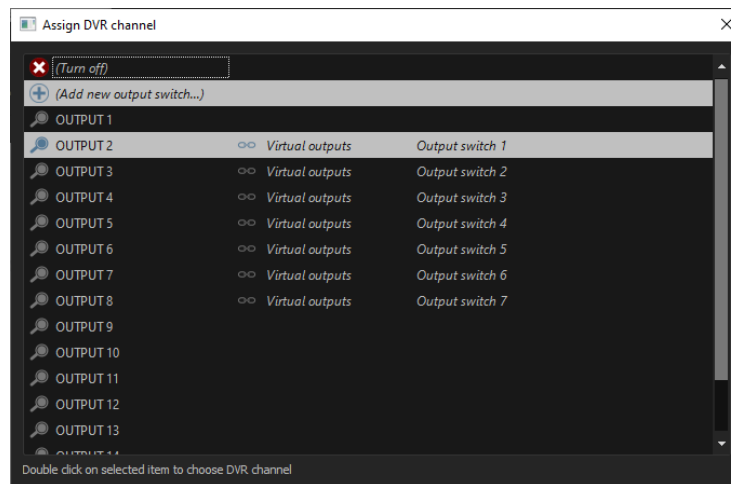


On the list You can see all I/O boards connected, virtual outputs (if any were created), serial ports, IP device additional hardware (like inputs/outputs, microphones, audio backchannels). Also, this is the place where users can add additional I/O IP devices such as ADVANTECH ADAM modules (the full list of supported IP devices can be found on WWW.ALNETSYSTEMS.COM in the supported I/O modules dropdown list), MODBUS modules and serial ports (for TCP server/client communication, POS sniffers, etc.)

Each item can be additionally configured, for example when user double clicks on the Output switch name, additional configuration window will show allowing to change the default output state, and name of the output switch



If the user clicks in the second column, another window will show. This allows for changing the assign of output of the device to the number specified in NetStation software. Also here is the place, where users can turn off unwanted / unused outputs.



NOTE: If You see the error information in the NetStation software, that Your missing I/O channels due to license limitations, often disabling unused outputs resolves this problem without need of purchasing additional I/O channels support.

NOTE 2: Inputs from ONVIF cameras are transferred as EVENTS. In order to use camera input please make sure You have Events option turned on in the CAMERA -> DEVICE tab

Cameras

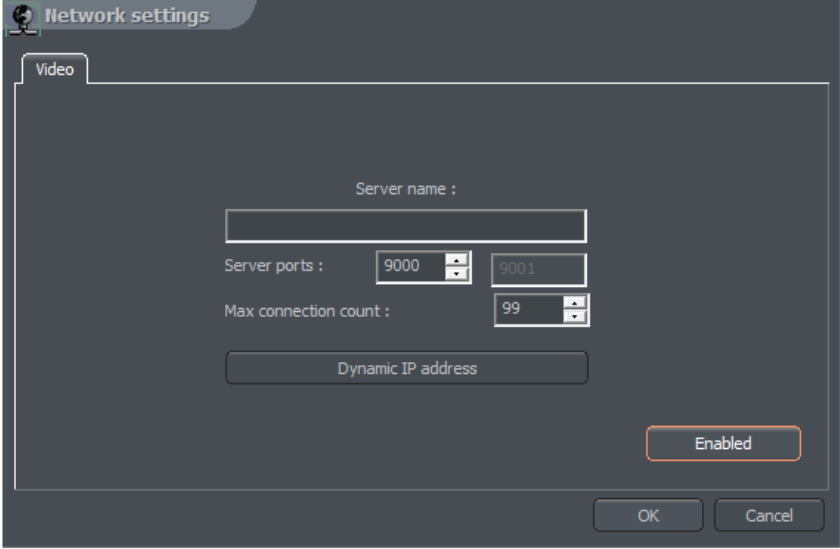
Sound

Sound settings is the place where users specify which audio channels are enabled, in what mode they are recording (Always or Noise only), codec selection (if the device supports such a feature) and alarm configuration based on noise duration with possibility to assign camera video to the specific audio alarm channel.

Network server 1

This function needs to be enabled so the Client softwares can connect with this NetStation software.

Here we need to specify Server name (which will be visible in CMS4 and CMS HUB software's dropdown lists), Server ports which are required for proper CLIENT <-> SERVER connections, Max. connection count and use of ALNETSYSTEMS DynDNS server (if there is a dynamic IP address on stie).



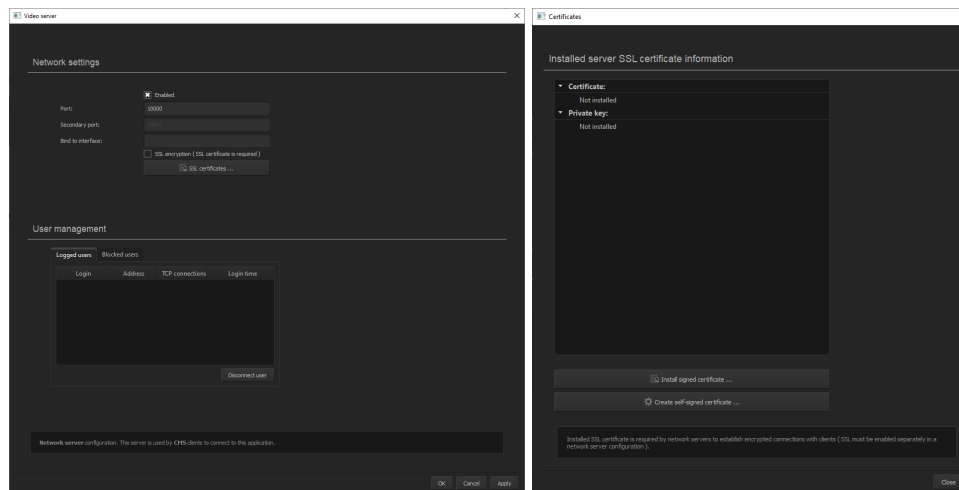
The default server ports are 9000 and 9001, and the default max connection count is 99.

Glowing **“Enabled”** button confirms that the NetStation software allows for CMS 4 client connections on designated ports.

NOTE: User specify only first communication port. The second always will be the following number.

Network server 2

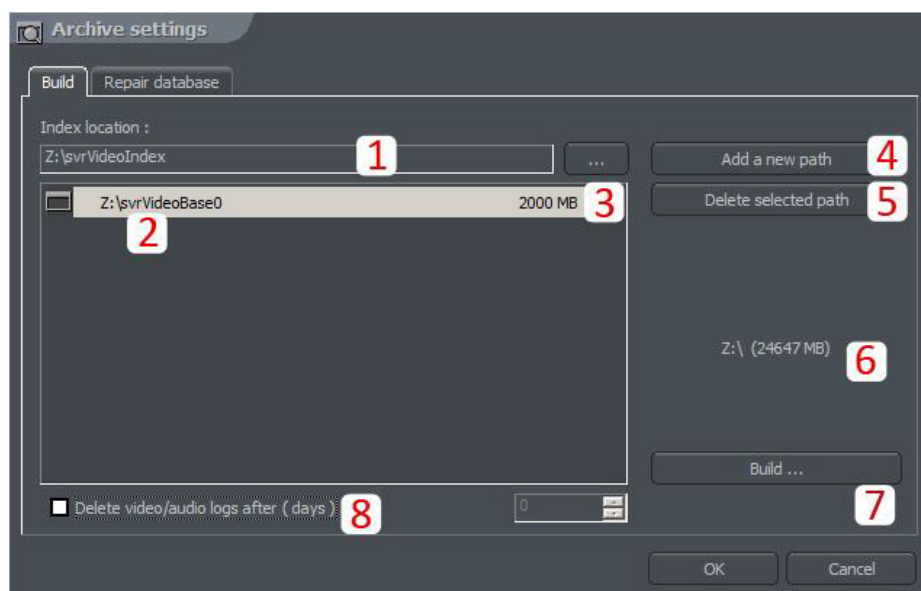
Network server 2 is a separate option for CMS 4 and CMS HUB softwares to connect with the NetStation server software. It allows for SSL certificate encryption connection methods, expanding the security of transferred data between client and server applications. It can be either an already acquired certificate with a private key, or users can create a self-signed certificate with a software built-in option.



Default ports for SSL connections are 10000 and 10001.

Archive storage

Archive storage is a quick access option which will launch the archive settings window. This allows user to add / remove archive storage form the NetStation server. When this option is selected there will be information displayed, regarding application shutdown. In case of serious changes, when recording is turned on, it is necessary to close the application.



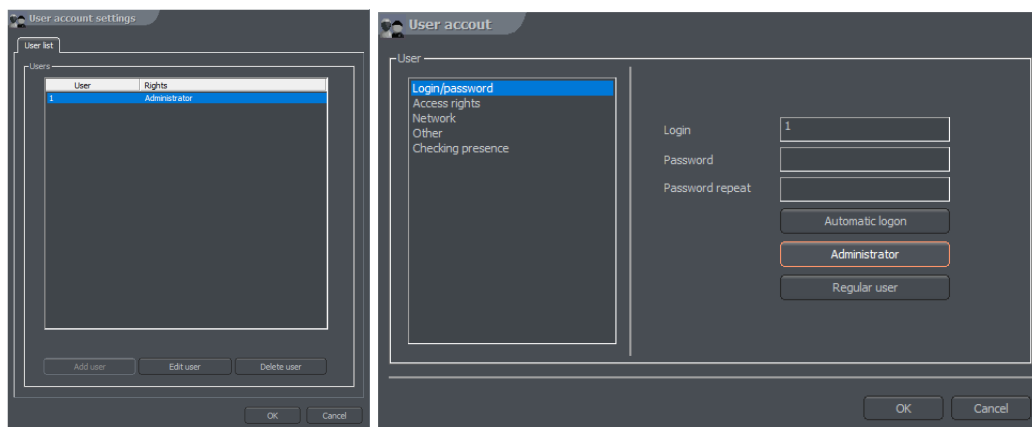
1. **Index folder path** - this folder contains information about stored archives - it must be defined in the first place.
2. **Archive folder path** - in defined folder archives will be stored. At the same time, configuration of multiple archive path's is possible.

3. **Size of disk archives** - defined size of archive folder - changing is possible after double-click on numerical value. This option is only available for storage's created with preallocated disk space. If the increasing archive was created, this will be blank.
4. **Adding path to archive** – allows to add another paths to disk archive
5. **Deleting archive path** – erases the selected disk archive path
6. Preview of available free space on selected disk partition
7. **Creating archive** – after defining index and / or archive paths use this option to create / expand archive for the recordings.
8. Turn on auto erasing of recordings older than defined number of days.

NOTE: Deleting archive path is a required step if one or more paths / HDDs are not present in the system due to delete / failure. Otherwise the recording will not be possible.

User accounts

NET PROFESSIONAL user account management module. Allows to create a complex hierarchy of rights (for example different rights for security managers and different for security workers), time restrictions for individual accounts. Also allows to assign selected cameras, inputs, outputs, sound channels and special rights to particular users.

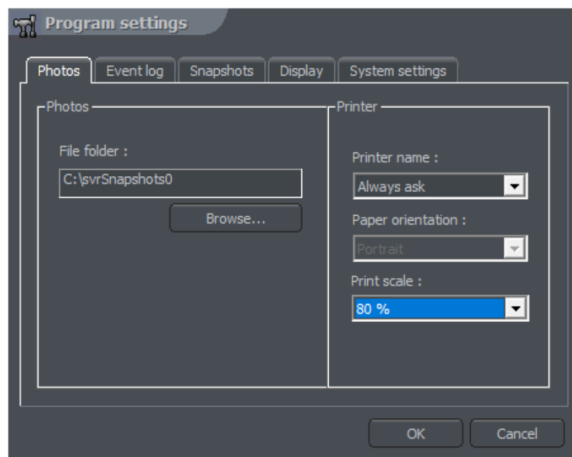


NOTE: User accounts can be also added / modified / deleted from CSM 4 client applications without need of stopping the NetStation service software and running Application settings mode.

NOTE 2: For CMS HUB connection only administrator user is required. All other user / group rights are configured on the CMS HUB side.

Program settings

Program settings allow the configuration of default paths for server software.



Photos

Default place on the disk where photos will be saved.

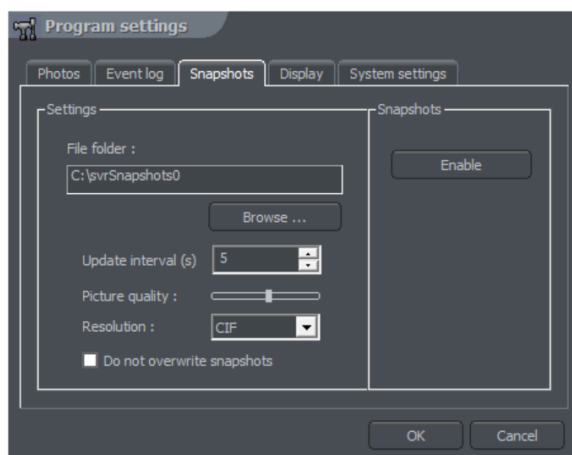
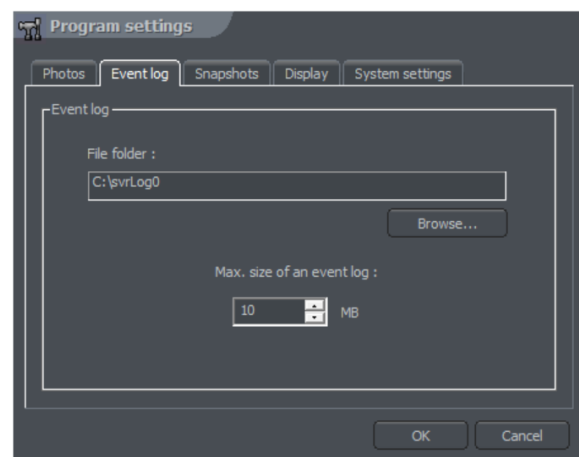
Printer

The choice of default printer. If Always ask is selected every time before printing the system will ask to choose the printer

Event log

Place on the disk where logs will be stored. There are a total of 4 log files created. Max. size specifies the summary size of all of the log files.

Example 10 MB = 4 * 2,5 MB files



Snapshots

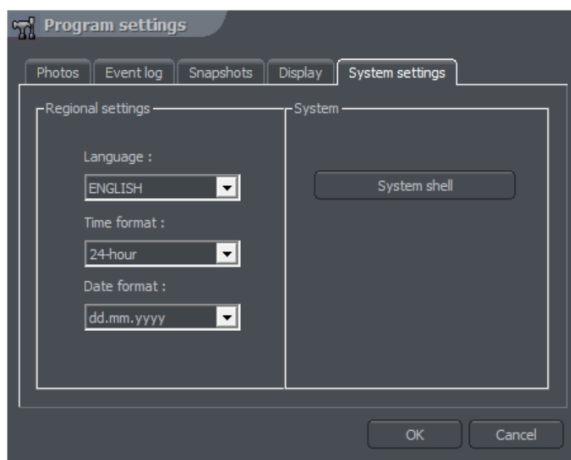
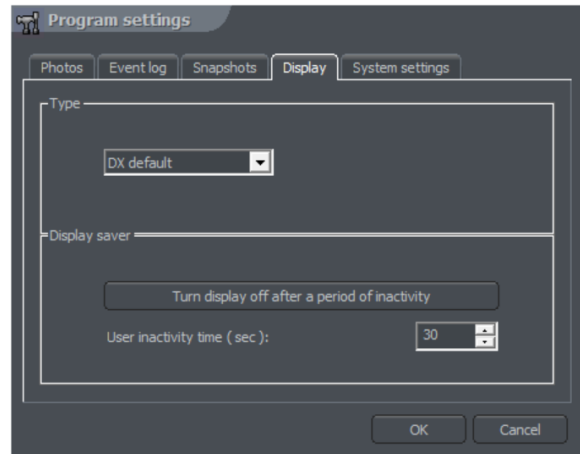
Here You can enable the Auto image screenshots.

Enable button must glow orange for this option to work.

Display

Method of image display. It differs depending on which graphic card is used and which display modes are supported.

Saves the CPU resources by disabling camera display in Application Settings mode (after the setted period of inactivity)



System settings

Basic system settings like language tiem and day format.

System Shell

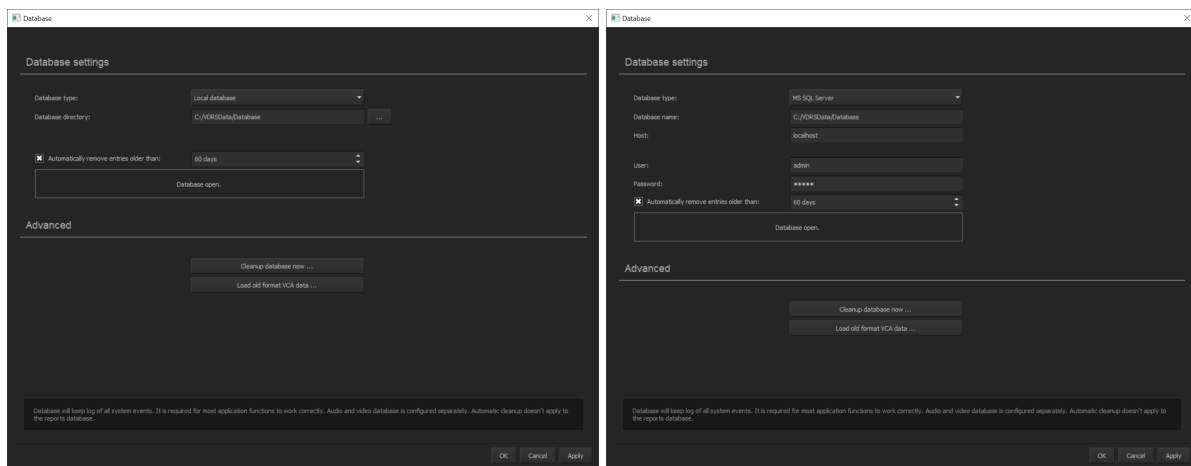
Enables VDRS to work as a system shell. It replaces the standard Windows interface and disables all the other applications, shortcuts, etc. Shutting down VDRS in System shell mode will cause shutting down Windows.

Database settings

Database is required for storing various server data for later usage. Almost all data generated during the work process can be found in the database. They include such info like, personal list for LPR and Access Control systems, events of all sorts, software data like date and time of users logging, failures, reports, counter values, POS data, etc.

As default the software utilizes a free Microsoft LocalDB instance which is limited to approx. 12 GB of space and only local access. For bigger installations or servers with lots of data requirements user can specify the MS SQL server access in order to store a bigger amount of data for a longer period of time.

If the database is not available the software will continue to work and signal that there is an error that needs to be sorted out. During the database downtime no events will be stored. It is recommended not to exceed 60 days of events stored with LocalDB due to the possibility to lock the database due to HDD size exceeding the limit.

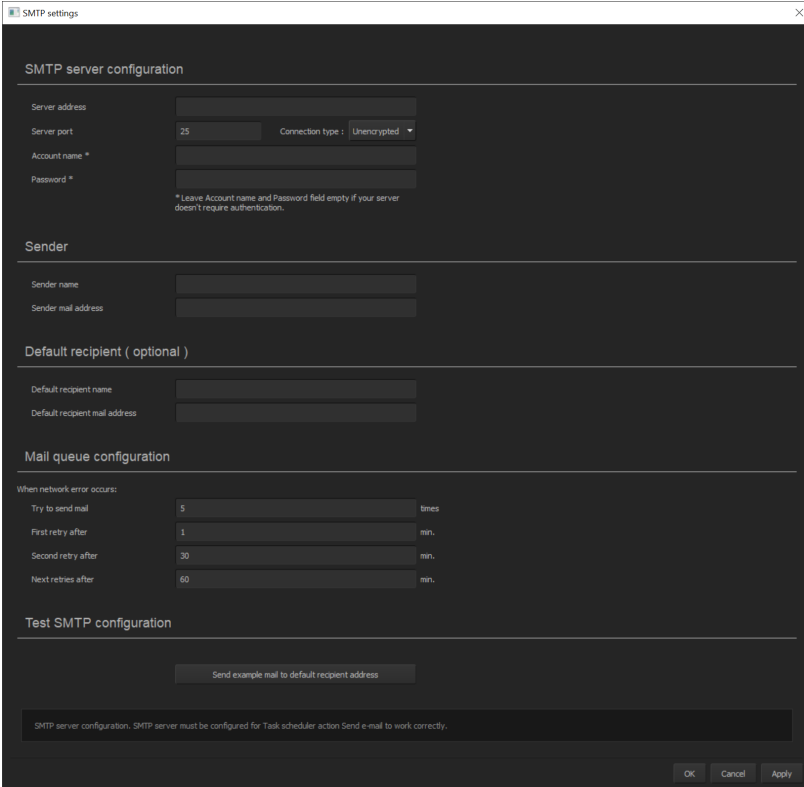


NOTE: Both LocalDB and MS SQL server are Microsoft products. In case of issues please refer to the corresponding manual for each of those products.

NOTE 2: MS SQL server is a relational database management system developed by Microsoft and requires a paid license which needs to be purchased separately.

SMTP settings

Configuring SMTP server allows for e-mail notification if the specified event requires such action. Additionally, there is an option to send email via servers that do not require authentication. In such cases, leave user and password fields blank.



The screenshot shows a window titled "SMTP settings" with a close button (X) in the top right corner. The window is divided into several sections:

- SMTP server configuration**
 - Server address: [text input]
 - Server port: 25 [text input] Connection type: Unencrypted [dropdown menu]
 - Account name *: [text input]
 - Password *: [text input]
 - * Leave Account name and Password field empty if your server doesn't require authentication.
- Sender**
 - Sender name: [text input]
 - Sender mail address: [text input]
- Default recipient (optional)**
 - Default recipient name: [text input]
 - Default recipient mail address: [text input]
- Mail queue configuration**
 - When network error occurs:
 - Try to send mail: 5 [text input] times
 - First retry after: 1 [text input] min.
 - Second retry after: 30 [text input] min.
 - Next retries after: 60 [text input] min.
- Test SMTP configuration**
 - Send example mail to default recipient address [button]

At the bottom, there is a status bar with the text: "SMTP server configuration. SMTP server must be configured for Task scheduler action Send e-mail to work correctly." and three buttons: "OK", "Cancel", and "Apply".

Advanced

Advanced options section has been described in a separate section of manual. Click [HERE](#) to check the available advanced options list or jump to the beginning of that section [HERE](#).

Save configuration

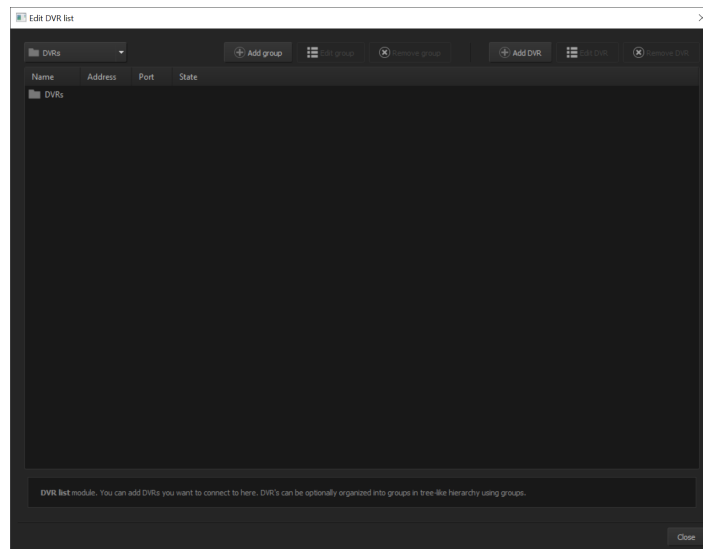
Saves all the changes made in the system. Every change in system configuration has to be saved! If the user will not save configuration and the power failure occurs, the system will get back to the last known save point.

3.3.3.2 ADVANCED

This section describes advanced configuration and integration features available in ALNET SYSTEMS NetStation software.

Receive events from other DVRs

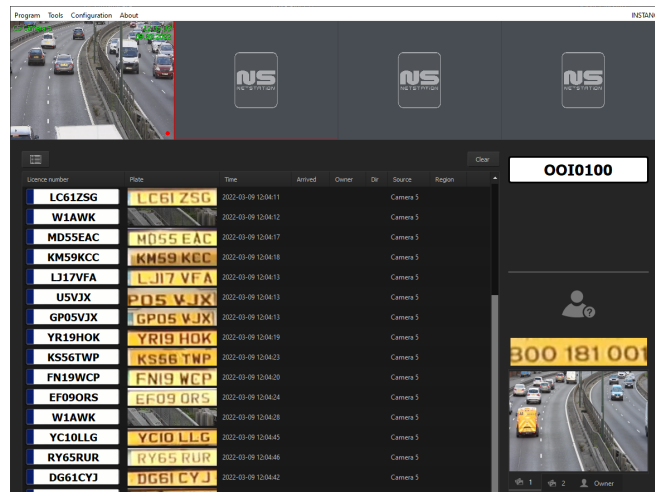
You can gather events from different servers into one place in order to create more advanced related actions based on several separate server events.



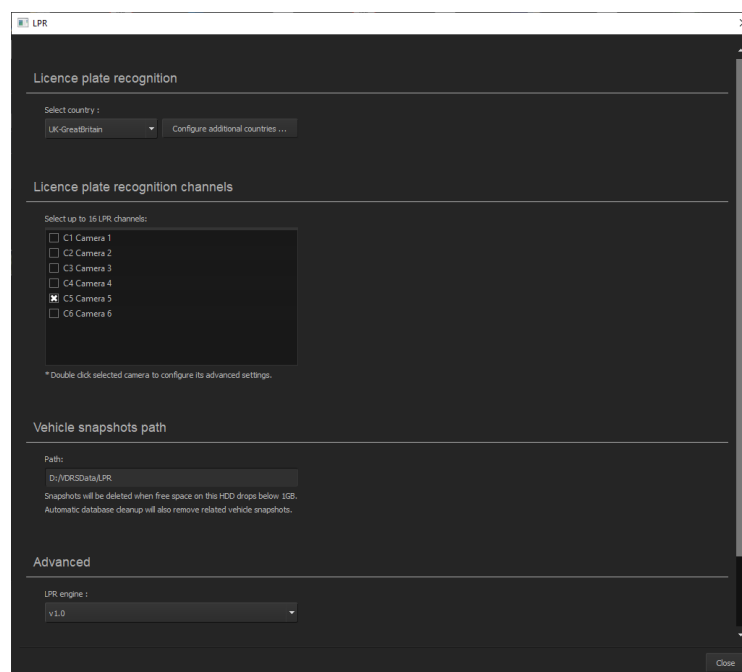
NOTE: This feature has been expanded and available in CMS HUB software with more advanced features.

LPR settings

LPR module allows for accurate plate recognition and simple access events to the facility (for ex. gate opening). When LPR is active the main window will allow for fast preview of recognised plate's which help troubleshoot during configuration of the module.

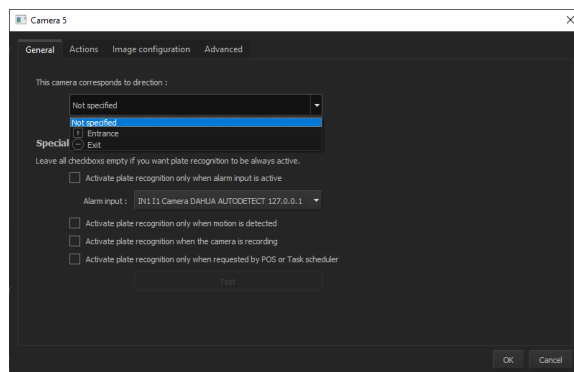


To start using LPR we need to do some basic configuration from the server side. Main configuration window options:



“Select country” - allows you to choose a pattern of license plates – unique for each country, select the one that you expect most of the cars will be coming from. Optional additional countries can be selected in “Configure additional countries...” option. Each additional country will slightly increase CPU usage.

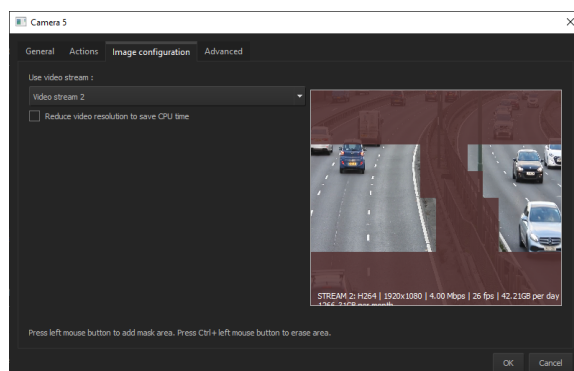
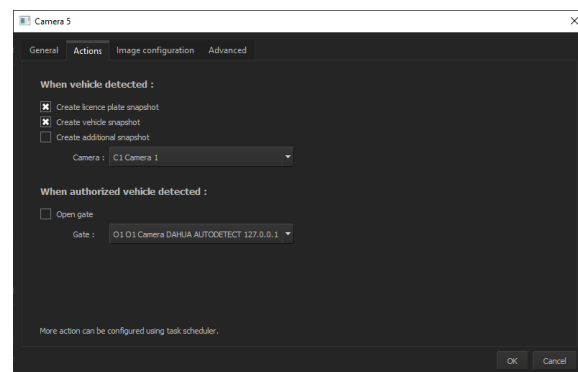
“License plate recognition channels” - place where you can choose on which cameras you want to have LPR option active. By double clicking on a camera you can configure its individual LPR settings.



“General” - LPR camera settings is a place where You can specify the car direction and recognition engine start rule.

“Actions” - here You can specify what is supposed to happen when the plate is read by the system. You can also set a simple automation rule to open the gate when an authorized vehicle has been read by LPR.

Authorizing the plate can be done in **person database** when **adding / editing person**.

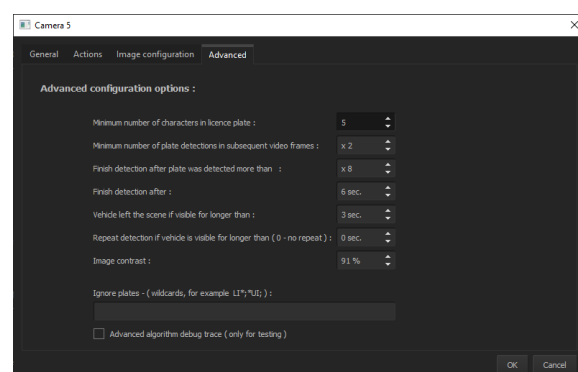


“Image configuration” - here You can switch between video streams You want to use for the LPR engine to read plates from. Keep in mind that the higher the stream resolution, the more CPU usage.

Also You can set the mask for areas You wish to EXCLUDE from plate detection.

“Advanced” - You can modify more advanced settings for better plate recognition based on the stream and scene You are watching.

Default values are suitable for 95% of installations and should not be changed unless You have a lot of false or inaccurate plate readings.



“**Vehicle snapshot path**” - here you can define a path, where you want vehicle snapshots to be saved.

“**LPR engine**” - this is advanced option that allows switching between LPR engine version:

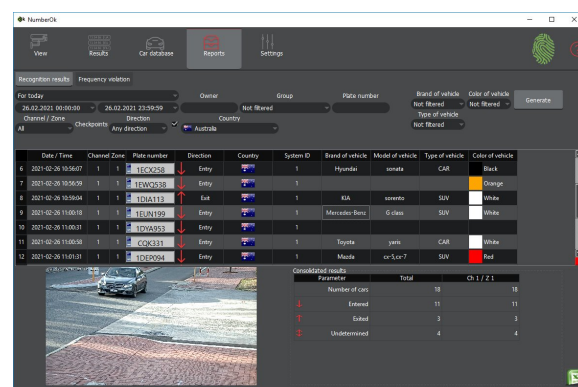
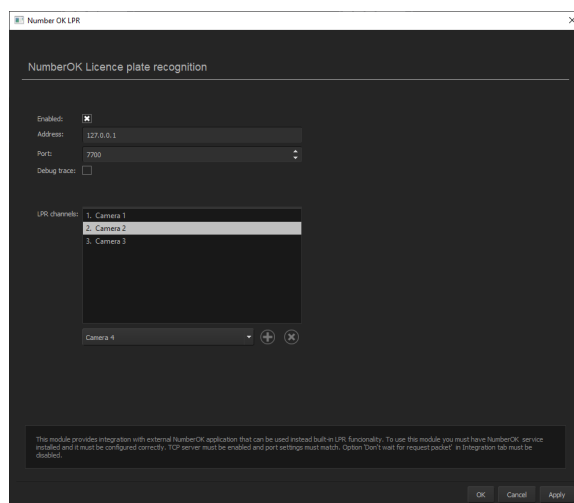
v.1.0 - engine that uses only CPU for plate recognition (has limited amount of country list)

v.2.0 - engine that uses CPU and CUDA cores for better and more accurate plate reading (has more country listed)

NOTE: For v.2.0 engine to be available the CPU must support AVX instructions and NVIDIA capture card with CUDA cores must be installed. Otherwise the v.2.0 engine option might not show at all on the engine list.

NumberOK LPR settings

NumberOK is a 3rd party plate recognition engine by FF Group. The company implements a range of unique, smart and cost-effective solutions built on vehicle plate, brand, model, color, type, direction detection recognition technology, “camera-to-camera” technology, etc. The solutions are based on deep Front Edge Recognition & Computation expertise, many years of experience in data science, huge accumulated datasets, own mathematical approaches and deep learning.

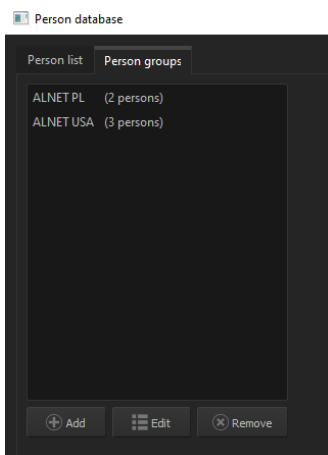


In order to use integration with NumberOK plate recognition software You need to specify the IP address of the PC the engine is installed on, the communication port (setted up on the NumberOK configuration side) and add cameras from NetStation that are also configured on the NumberOK side. Nothing else is required from the NetStation side.

NOTE: For how to setup NumberOK engine please check the NumberOK partner page:
<https://www.partners.number-ok.com/>

Person database

Person database stores information required by LPR and Access Control integration functions. You have two tabs available, **Person list** and **Person groups**.

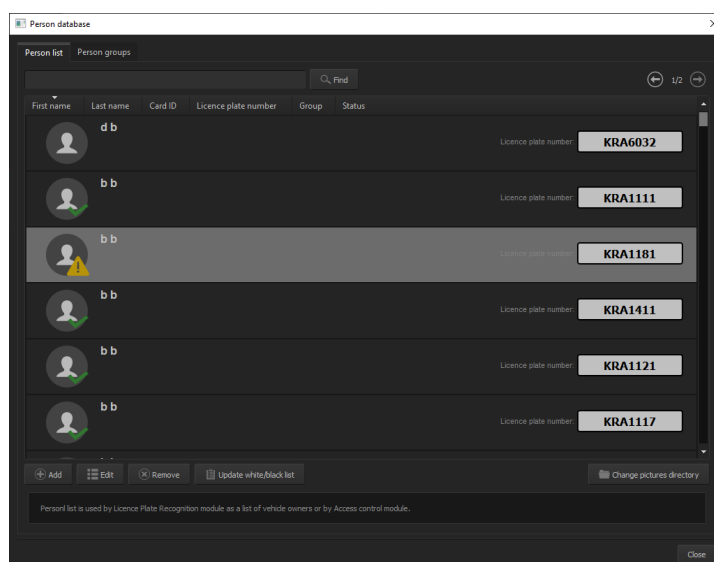


Person groups - is a place where You can set the names for Your users groups (for ex. You can type multiple companies or departments names for various purposes (for ex. task scheduler actions for whole group)

You can also quickly check how many people are assigned to each group.

NOTE: Person groups will be also imported from the 3rd party Access Control systems like ROGER or NEDAP automatically during “first start synchronization” of the person list.

Person list - allows You to add / edit / remove the person from the database. In order to add the person just click the “Add” button. In order to edit You can either click “Edit” or double-click the person You want to modify.



NOTE: Multiple person selection with “CTRL+click” and “SHIFT+click” shortcuts, as well as person search works ONLY for the currently visible list. Jumping to the next list set will deselect the person and / or will require clicking the “Find” button again.

Adding / editing person - person data window allows to specify additional info of the person, as well as picture import, adding additional description, assigning the group, adding card ID, changing license plate and selecting the Car status.

The last option is required for the LPR system to open the gate automatically if the [“Open gate” for authorized vehicles](#) has been selected.

Update white/black list - You can update Your person list with CSV file exported from 3rd party software or created by You.

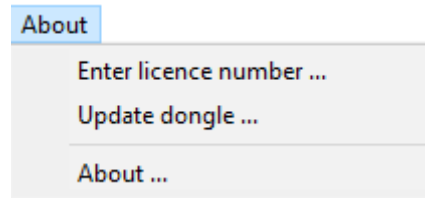
The CSV file should have 4 columns in order: Group name, First name, Last name, Plate number

You can also set the default plate status for the imported file.

NOTE: When importing CSV files the systems check only for PLATE NUMBER. If it finds it, it will change all other data for that plate. So it is possible to import the same person with multiple different plates, but the system will not import multiple people with the same plate. Instead it will save only information of the person from the LAST RECORD for this plate from the CSV file.

3.3.4 ABOUT

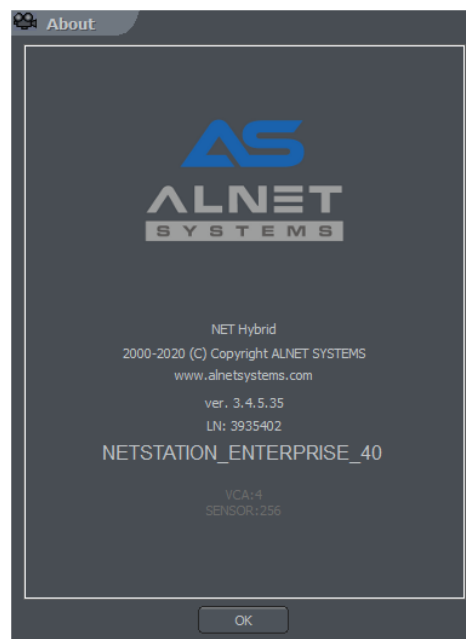
This menu contains overall software version information, dongle update tool and license number input option.



Enter license number shows the window where the user is required to place / change the current license. Make sure You type here the correct number of the currently used USB dongle.

Update dongle shows the same window as the **Dongle update** feature from **VDRS applet context menu**. It allows for license preview and / or update of the current license.

About shows information on the current software version, dongle number (the number user provided in Enter license number) and what is the dongle currently programmed for. The information from this window might be the first thing that ALNET SYSTEMS technical team will require You to provide in order to support Your request.



3.4 RUN ARCHIVE SETTINGS

Very important matter is to define a storage space for archives in the system. Many different parameters (such as codec type, image resolution, Key frames frequency, motion load, etc.) have influence on the archive size. Archive creation is one of the steps during the First startup of NetStation server software.

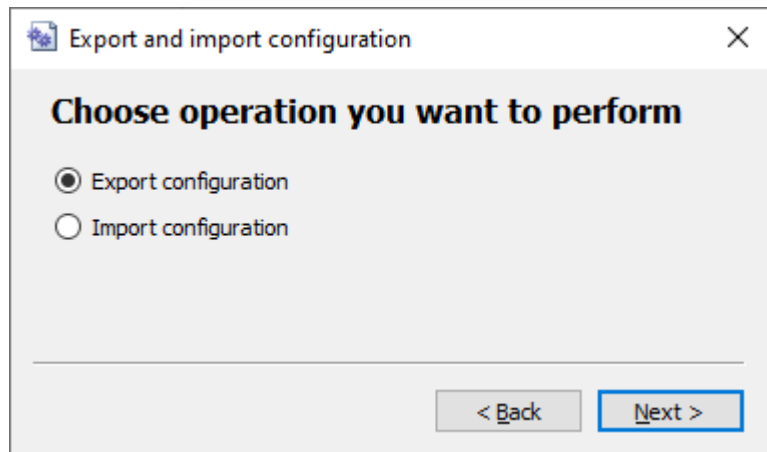
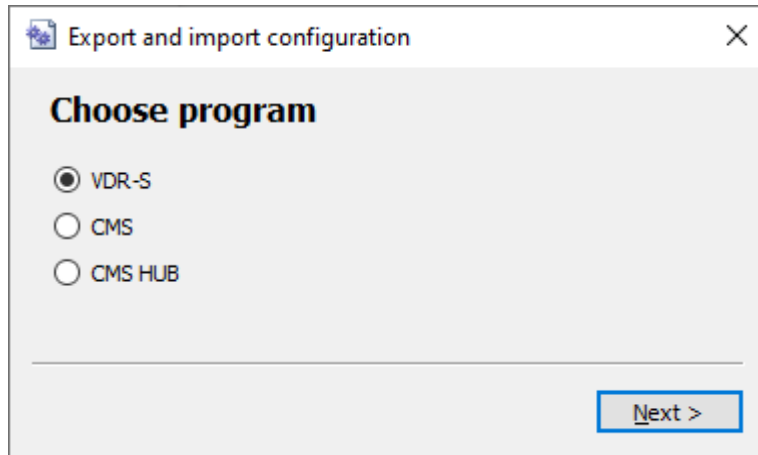
Due to the fact that during the project phase, users can only assume more or less the required archive size, this option can be accessed at any time from VDRS applet when service is stopped. It allows the user to modify or repair existing archive storage, or create a new one based on the user's needs.

Process of creating archive storage can be found in the [ARCHIVE CREATION](#) section of this manual.

NOTE: Manually created archive storage folder does not need to match the default “svrVideoBase” naming for proper work. It is however recommended to maintain the continuity of naming of the folders for easier management in future.

3.5 CONFIGURATION EXPORT

Configuration export is used to backup / restore ALNET SYSTEMS software products.



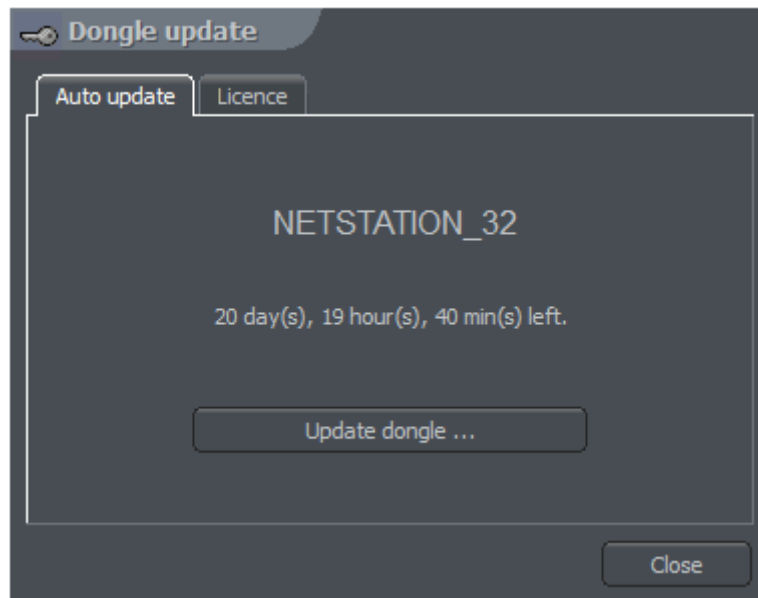
This tool allows the export and import of NetStation software (VDR-S), CMS 4 client application (CMS) and CMS HUB configuration to (and from) text file. It creates a copy of all the settings in order to restore the configuration after failure or operating system reinstallation. It is also possible to use the copy of settings in the other machine with the exact same software version.

NOTE: Exporting of CMS 4 and CMS HUB from VDRS applet **CONFIGURATION EXPORT** tool, requires those software to be installed on the same machine as NetStation. This function cannot export / import configuration files from or to remote sites with these applications.

3.6 DONGLE UPDATE

In order to change the currently owned license (for example from NetStation 8 to NetStation 16) it is required to update the security dongle. It can be done from two places:

- From the **About** menu choose the Dongle **update** option.
- From the system tray right click the VDRS Applet icon and select **Dongle Update ...**



Regardless of choice, right after the dongle update window shows up, the software will automatically try to connect via the Internet to update the dongle.

NOTE: Dongle update goes through port 13 000, so it needs to be opened in firewall rules if security policies block it. Failing to do so may result in dongle update server connection error and failure of acquiring new license.