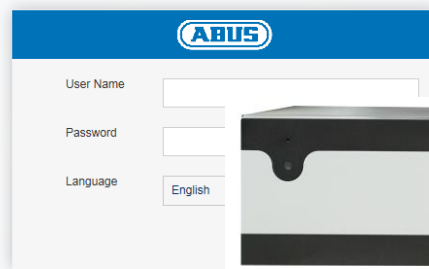


ABUS embedded NVR



The image shows a screenshot of the ABUS web interface login page. It features a blue header with the ABUS logo. Below the header, there are three input fields: 'User Name', 'Password', and 'Language'. The 'Language' field is set to 'English'. There is a 'Login' button to the right of the 'Password' field.



Web interface user manual

Date: 16.01.2017
Firmware: 3.4.6



This user manual contains important information on starting operation and using the device.

Make sure that this user manual is handed over when the product is given to other persons.

Keep this user manual to consult later.

You will find a list of contents with the corresponding page numbers in the contents.

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Important safety information

Explanation of symbols

The following symbols are used in this manual and on the device:

Symbol	Signal word	Meaning
	Warning	Indicates a risk of injury or health hazards.
	Warning	Indicates a risk of injury or health hazards caused by electrical voltage.
	Important	Indicates possible damage to the device/accessories.
	Note	Indicates important information.

The following annotations are used in the text:

	Meaning
1. ...	Required action to be carried out in a set order
2. ...	
• ...	List without a set order, given either in the text or warning notice
• ...	

Intended use

Only use the recorder for the purpose for which it was built and designed. Any other use is considered unintended!

This device may only be used for the following purpose(s):

- This recorder is used in combination with video signal sources (network cameras) and video output devices (TFT monitors) for property surveillance.



Note

Data storage is subject to national data privacy guidelines.

When carrying out the installation advise your customers of the existence of these guidelines.

General

Before using this recorder for the first time, please read the following instructions carefully and observe all warning information, even if you are familiar with the use of such recorders.



Warning

All guarantee claims are invalid in the event of damage caused by non-compliance with this user manual.

We cannot be held liable for resulting damage.



Warning

In the event of personal or material damage caused by improper operation or non-compliance with the safety information, we cannot be held liable.

All guarantee claims are void in such cases.

Retain this manual for future reference.

If you sell or pass on the recorder to third parties, you must include these instructions with the device.

Power supply



Warning

Prevent data loss:

The recorder should only ever be used with a device that is constantly connected to an uninterruptible power supply (UPS) with surge protection.



Warning

Modifications to the device invalidate the guarantee.

Installation

- Observe all safety and operating instructions before installing the device for the first time.
- Only open the housing to install the hard disk drive.
- Only install the software on devices that are expressly suitable for the intended purpose. Otherwise, damage to the device can occur.



Note

Compatible devices:

- NVR10010
- NVR10020
- NVR10030
- NVR10040



Warning

If in doubt, have the device installed by a specialist technician rather than carrying it out yourself.

Please read the entire user manual carefully before putting the product into operation, and pay attention to all operating instructions and safety information.

All company names and product descriptions are trademarks of the corresponding owner. All rights reserved.

If you have any questions, please contact your specialist installation contractor or specialist dealer.



Disclaimer

This user manual has been produced with the greatest of care. Should you identify any omissions or inaccuracies, please contact us at the address shown on the back of the manual. ABUS Security-Center GmbH does not accept any liability for technical and typographical errors, and reserves the right to make changes to the product and user manuals at any time and without prior warning. ABUS Security-Center GmbH is not liable or responsible for direct or indirect damage resulting from the equipment, performance and use of this product. No guarantee is made for the contents of this document.

Children

- Keep electrical devices out of reach of children. Never allow children to use electrical devices unsupervised. Children may not always properly identify possible hazards. Small parts may be fatal if swallowed.
- Keep packaging film away from children. There is a risk of suffocation.
- This device is not intended for children. If used incorrectly, parts under spring tension may fly out and cause injury to children (e.g. to eyes).

Keep electrical devices out of reach of children. Never allow children to use electrical devices unsupervised.

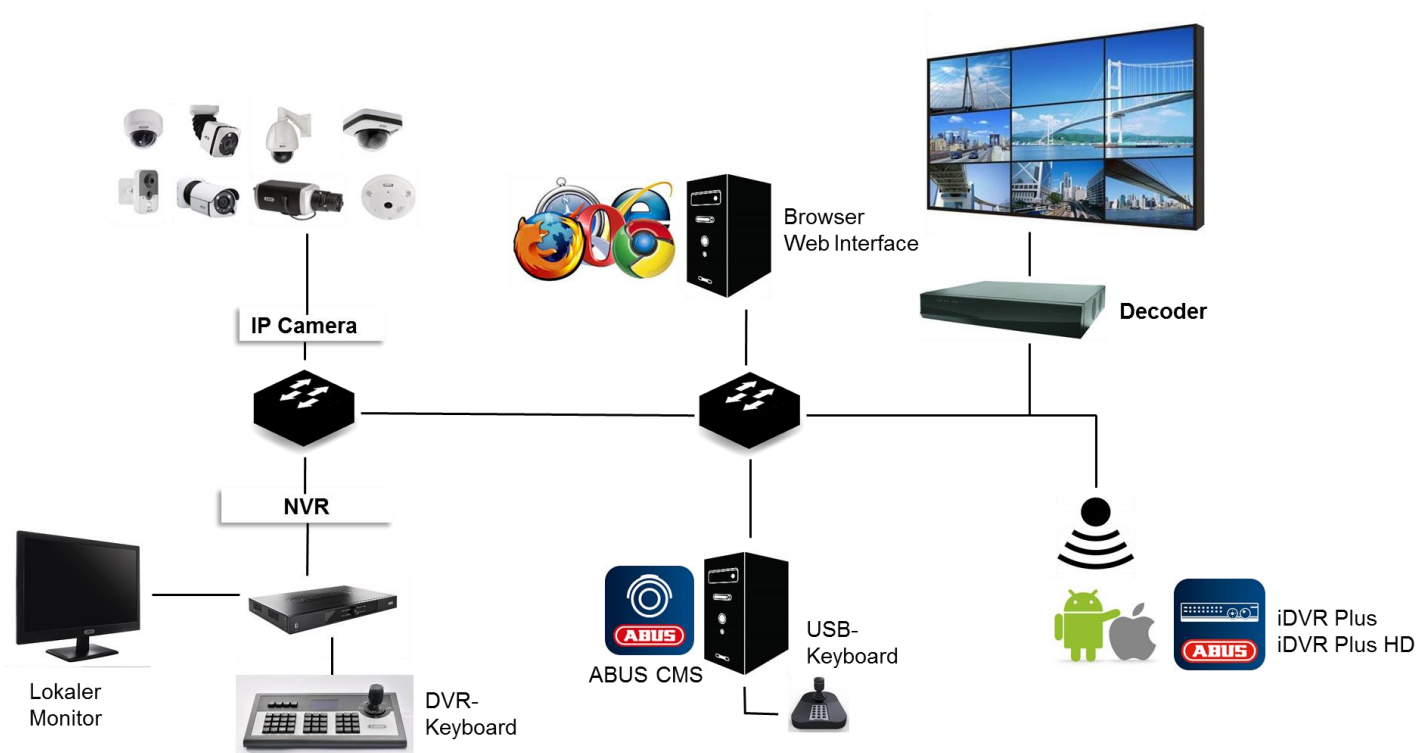
EU Directives

This device complies with the requirements of the EU Low Voltage Directive (2014/35/EU), the EMC Directive (2014/30/EU) and the RoHS Directive (2011/65/EU). The declaration of conformity can be obtained from:

ABUS Security-Center GmbH & Co. KG
Linker Kreuthweg 5
86444 Affing
GERMANY

To ensure this condition is maintained and that safe operation is guaranteed, it is your obligation to observe this user manual.

Compatibility



General

This manual describes the use of the ABUS embedded recorder via the integrated web server. Information on compatible cameras and other components can be found either in the basic manual (local interface) or on the ABUS website.

When you first try to access the server on your browser (on Windows), you will be prompted to install a plug-in in order to use the web server. You will need administrator rights on your PC to do this. Access to the live images and recordings is only possible with the plug-in installed.



Note

If you access the recorder web server using Safari on MacOS, you will need to obtain the required plug-in from the ABUS homepage (<http://www.abus.com>). Search for the recorder item number on the homepage and download the plug-in from the item card in the "Downloads" area.

Compatible recorders

Device type	Item number
NVR	NVR10010, NVR10020, NVR10030, NVR10040

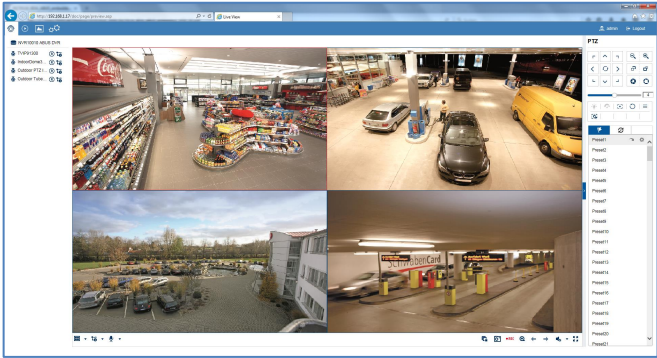
Compatible browsers

OS	Browser	Version
Windows	Internet Explorer	11 or higher
Windows	Firefox	49 or higher
MacOS	Safari	10 or higher

Due to strict guidelines, the following browsers do not support the plug-in and are therefore not compatible:

- Chrome (Google)
- Edge (Microsoft)

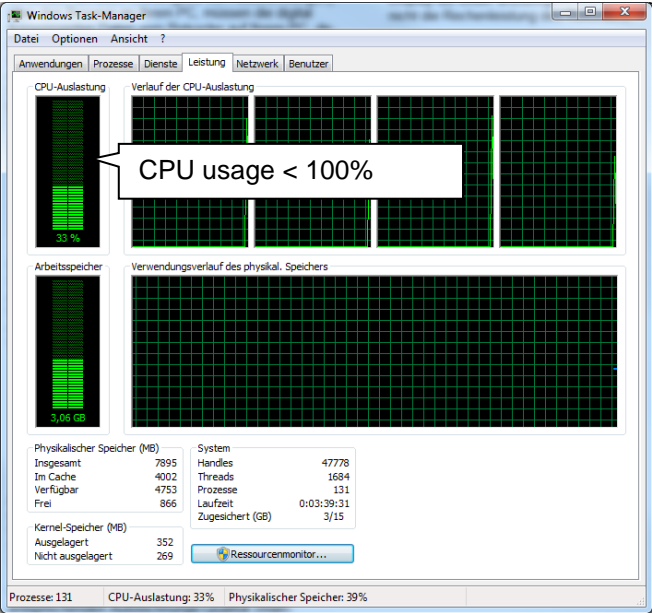
Image display performance



To display network camera video streams (both live images and playback of recordings) on your PC via the browser, the digitally compressed data must be transmitted from the recorder to your PC and then "decrypted". This process will take up a different amount of processing power on your PC depending on the camera resolution. The higher the resolution and bit rate of the individual camera stream, the greater the required processing power for the decryption process.

Warning

Check your PC's CPU usage when displaying live streams or playing back recorded data using the Task Manager (on Windows).



If the number of camera streams to be displayed exceeds the decoding power of the PC, the CPU usage will reach 100% and operation will be slow. Should this occur, reduce the number of cameras to be displayed at the same time in live cast or playback view.

The recorder web interface provides the option of displaying a sub-stream (generally 720p or smaller) for

individual cameras in the live image to facilitate this. This approach reduces the bandwidth and requires less processing power for decryption on the PC.

Outdoor Mini D...

Outdoor PTZ I...

Outdoor Tube...

Select sub-stream

In playback view, the cameras are played back in the corresponding quality of the recording (main stream).

Depending on the application and camera type, this may mean that not all cameras can be displayed at once. Split the cameras into different views to work around this limitation.

System requirements

Use up-to-date PC hardware (no older than two years) in order to ensure the smooth operation of the software in combination with cameras and the recorder. The requirements for your PC system increase with the number of camera channels, as well as with the related video resolution and bit rate of the cameras. The camera display (resolution, bit rate and number of channels) strongly depends on the software functions used (live image display, playback, time of analysis). The following table provides a starting point and reference for the PC configuration actually required:

Minimum requirement:

Operating system (32-bit/64-bit)	Windows 7, Windows 8, Windows 8.1, Windows 10
CPU	Intel Pentium 4 3 Ghz or higher
RAM	1 GB or higher
VGA	256 MB or higher

Note

Use a 64-bit operating system with 4 GB or higher, if possible, in order to achieve optimal performance. The following table provides the performance data for using and selecting a suitable CPU.

Performance table

CPU	i7-4470k 3.5 Ghz	E3-1230 3.3 Ghz	I5-4590 3.0 Ghz	FX-8350 4.0 Ghz	I3-2100 3.1 Ghz
OS	Win7	Win7	Win7	Win7	Win8
CIF@512Kbit	64	64	64	64	47
VGA@1.25MBit	51	44	30	27	18
4CIF@1.5Mbit	59	55	37	33	23
WD1@2Mbit	41	33	24	20	16
720p@2Mbit	28	24	17	15	11
1080p@2Mbit	13	10	8	7	5
QXGA@4Mbit	11	8	7	6	4

The figures indicate the maximum amount of live camera images which can be displayed simultaneously in the web browser. The live images are transmitted via the network as video streams. For this reason, ensure that your network is sufficiently equipped to handle this.



Note

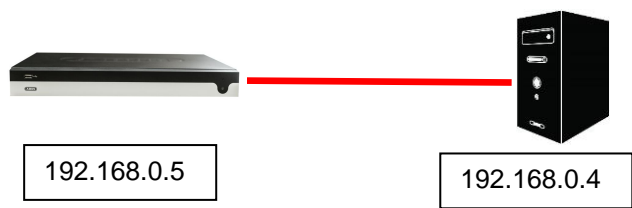
The values given here were calculated under optimal conditions (no background processes, virus scans, etc.) Performance on your PC system may vary depending on additional software installed and background applications.

Introduction

General information

This manual describes the use of the ABUS embedded recorder via the web interface using a web browser on a remote PC on the network.

For this purpose the recorder must already be integrated in your network in order to facilitate access via a PC. In simple cases, both the PC and the recorder are located on the same local network.



Note Ensure that the recorder is connected directly to your CCTV network (switch) via a network cable. For optimal performance do not use a Wi-Fi connection between the recorder and the CCTV network.

Internal access (LAN)

The recorder is accessed by typing the IP address in the navigation bar of the browser.

The following describes several different options for how to determine the current IP address of your recorder in order to access it via the local network.

Local interface

Menu

Settings >

Playback >

VCA Search >

Export >

Maintenance >

GeneralCamerasHDD

DVR ModelNVR10040

Firmware VersionV3.4.6, Build 161207

Network In/Out295Mbps / 256Mbps

LAN #1LAN #2

IP Address192.168.0.25IP address

MAC Address8c:11:cb:09:3d:34

DHCPYes

Port

HTTP80

DVR8000

RTSP554

Exit

Open the overview menu on the recorder's local interface and note the IP address.

ABUS IP installer

Full-text search

ID	Name	IP-Adresse	Typ	Firmware
15	TVVR65000	192.168.0.11	TVVR65000	V5.4.14build 1...
16	TVVR36000	192.168.0.5780	TVVR36000	V2.3.7build 1...
17	TVVR39000	192.168.1.580	TVVR39000	V5.0.10build 1...
18	IPCA65500	192.168.1.980	IPCA65500	V5.3.15build 1...
19	IPCA33500	192.168.0.448010	IPCA33500	V5.3.15build 1...
20	IPCA65500 (2)	192.168.0.4680	IPCA65500	V5.3.15build 1...
21	IPCS82500	192.168.0.4080	IPCS82500	V5.4.11build 1...
22	IPCA53000	192.168.0.3419018	IPCA53000	V5.3.15build 1...
23	IPCA33500 (2)	192.168.0.1980	IPCA33500	V5.3.15build 1...
24	TVVR41500	192.168.2.10480	TVVR41500	V5.0.4build 1...
25	TVVR30004	192.168.0.9580	TVVR30004	V2.2.11build 1...
26	TVVR15000	192.168.2.11280	TVVR15000	V5.0.4build 1...
27	IPCB71500	192.168.0.8480	IPCB71500	V5.3.3build 1...
28	TVVR15500	192.168.2.19180	TVVR15500	V5.1.9build 1...
29	TVVR21550	192.168.0.2280	TVVR21550	V5.2.2build 1...
30	TVVR21550 (2)	192.168.0.4280	TVVR21550	V5.2.2build 1...

Install the ABUS IP installer (Windows) on your PC and start the program. The program searches your local network for ABUS network products.

NVR

ID	Name	IP-Adresse	Typ	Firmware
1	NVR10010	192.168.0.4580		
2	NVR10010 (2)	192.168.0.4580		
3	NVR10040	192.168.0.2680		

Double-click on search result

Use the full-text search to filter result lists with lots of entries by specific item numbers. Then double-click on the list entry for your product to directly open the recorder web interface.

Windows UPnP search

Network

Double-click on recorder icon

Open the network search using the "network" icon in the Windows File Explorer. All devices on your network that were detected via UPnP are displayed here. Since the recorder supports this network service, you can open the web interface directly by double-clicking on the icon with the item number in the label field (e.g. NVR10040).

External access (internet)

The recorder can also be accessed externally by typing the IP address in the browser's navigation bar. Since the recorder is generally not accessible directly from the internet, you must set up port forwarding on your router. Accordingly, the router IP address must be entered as the IP address in the navigation bar when accessing the recorder via the internet (IPv4). Additional settings are required for IPv6, which are described in detail below.

The network services on the recorder do not have to be adapted for access to the web interface on the local network. For external access, you may have to adjust the default settings of the ports in order to enable access.

The following points are important for remote access:

- Notes on using IPv6
- Setting up port forwarding on your router
- Required ports for remote access to the web interface: HTTP(S) and RTSP
- Free DDNS service from ABUS: ABUS server
- Access to DS Lite connections

Using IPv6

Modern internet providers switch what is known as "Dual-Stack" internet access to the customer's landline connection. This means that the router provides access to the internet via both the IPv4 protocol and IPv6. The ABUS embedded recorder supports both protocols as standard. Since IP communication for remote connections takes place between two end points, both subscribers (recorder and receiving point) must use the same communication protocol in order to successfully establish a connection. The IPv6 protocol is not currently widely available, so pure IPv6 communication is not practical for the moment, especially if the receiving point (e.g. the web browser on a laptop) is mobile and may switch between IPv4 and IPv6 networks.



Note

As of 2016/2017: IPv6 is currently undergoing global "roll-out". This means that increasingly more providers are allowing for IPv6 access to the internet. Check your internet connection, both on the recorder and on the intended receiving points, to take potential limitations and instructions for the operation of the recorder into account ahead of time.

We provide the following tips and instructions for setting up external access to the ABUS embedded recorder, which take both protocols into account.

Dual-Stack and Dual-Stack Lite (DS Lite)

As part of the global roll-out of IPv6, the IANA stipulated that internet providers which use IPv6 must also allow their customers to access the internet via IPv4, in order to be able to access internet servers/services that are only available on the IPv4 network. Since the global IPv4 address pool has already been used up, internet providers that do not have enough IPv4 addresses use an alternative technology known as "Dual-Stack Lite".



Note

Internet connections with "Dual-Stack Lite" have significant limitations when using IPv4. If possible, use a provider that employs actual Dual-Stack technology or ask your provider whether your Dual-Stack Lite access can be changed to a real Dual-Stack connection.

Based on the fact that IPv6 is not available everywhere, we recommend establishing your remote connection via IPv4 (even with Dual-Stack connections). This particularly applies to mobile networks, which are still in the process of completely switching to IPv6 on end devices, with a few exceptions (as of 2016/2017).

Setting up port forwarding (IPv4)

In order for the recorder (web interface) to be accessible via the internet, the network service ports of the recorder must be able to be accessed externally using port forwarding on the router. Set up 1:1 port forwarding on the router, which opens the HTTP(S) port of the recorder as well as the RTSP port on the WAN connection of the router.

Setup differs depending on your router's model. Refer to the router manufacturer's instructions to find out how to set up port forwarding on your router.

The rule should be structured according to the following scheme (example):

External HTTP port (on the router): 80
 External HTTPS port (on the router): 443
 External RTSP port (on the router): 554

Forward to target address:
 192.168.0.5 (local IP address of your recorder)

Introduction

Internal HTTP port (on the recorder): 80
Internal HTTPS port (on the recorder): 443
Internal RTSP port (on the recorder): 554

Your router's IP address, which is displayed on the WAN interface, is used as the external IP address.

To open the recorder's web interface via remote connection, enter the following URL in the navigation bar of the browser:

<http://external-router-IP:80>
<https://external-router-IP:443>

The externally forwarded RTSP port is automatically used by the web interface and does not have to be specified again.



Note

We recommend changing the default ports for port forwarding in order to avoid an overlap with other services (for example, port 443 is likely to be the same port used by the web interface of the router for external access). This also makes it easier to set up forwarding for other devices later.

Setting up the ABUS server (IPv4)

Internet providers generally disconnect the internet connection of the router for a few seconds every day. During this process, the router is assigned a new IP address. This means that for remote access to the web interface of the recorder, the new valid IP address of the router (WAN interface) has to be used.

In order to avoid having to check this address on a daily basis, ABUS offers a free DDNS service: the ABUS server. With this service, the router's external IP address is assigned a host name on the server, which is matched with the current IP and port information on a regular basis.

Access to the recorder web interface then takes place via the ABUS server host name:

<http://meinrekorder.u21783.abus-server.com:1500>

Go to <https://www.abus-server.com> to register for free and set up your recorder.

The ABUS server only supports IPv4 addresses.

Instructions on how to set up your recorder for the ABUS server are stored in the downloads area for the recorder on <http://www.abus.com>.

DDNS for IPv6 (IPv6)

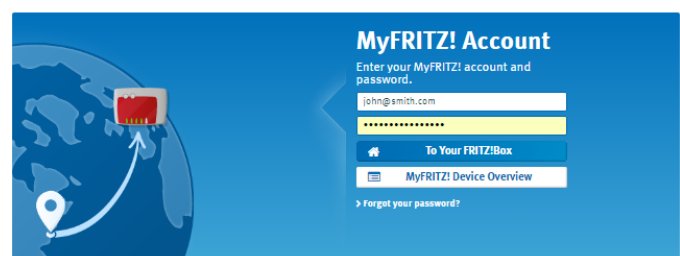
The supported DDNS providers for the ABUS embedded recorder currently only allow for IPv4 DDNS synchronisation. Another service is currently required to run DDNS synchronisation for IPv6. Because, unlike with IPv4, every device (recorder) with IPv6 receives a unique global IP address, the current IPv6 address of the recorder must be transmitted to the DDNS provider when using DDNS for IPv6.

You can do this via your router, for example, if your router supports this type of service.

AVM/Fritzbox/MyFritz recommendation:

MyFRITZ! – Access to Your FRITZ!Box at All Times

With MyFRITZ! you can reach your FRITZ!Box from the Internet securely at any time. This lets you access private data like images, music and documents easily and securely from anywhere in the world. MyFRITZ! also notifies you about calls and voice messages, and lets you use all of your other FRITZ!Box functions when you're on the go.



The "MyFritz" service can detect all global IPv6 addresses of connected devices and provide them via the MyFritz service as a DDNS host name.



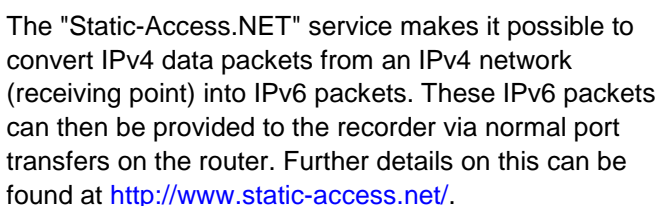
Note

Network service ports (HTTP(S) and RTSP) must be opened to use the web interface on the recorder with IPv6 as well.

Access to DS Lite connections (IPv6)

Many internet providers use DS Lite to switch their customers' connections to IPv6 access. With DS Lite your router does not have full IPv4 access to the internet. The IPv4 address that is assigned to the router is segmented by what is known as a "CGN" (Carrier Grade NAT). This means that an additional NAT is directly connected by the provider for IPv4. As a result, NAT configuration (port forwarding) for IPv4 is no longer possible on the local router and therefore incoming IPv4 queries are discarded directly at the provider end (CGN). It is then no longer possible to access your local devices externally via IPv4.

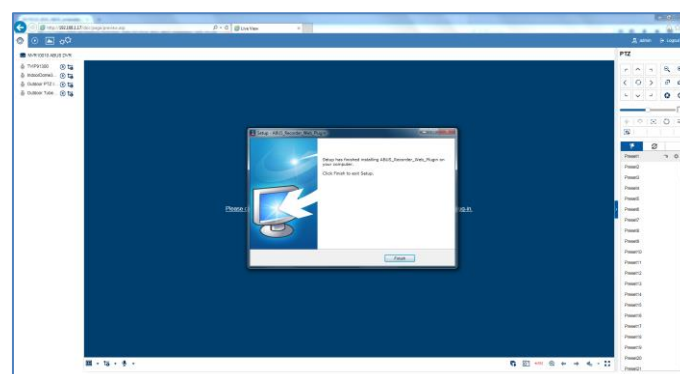
It is highly likely, however, that remote access to your recorder's web interface will take place on an IPv4 network (receiving point). Additional services must be used to allow external access in such cases.



The screenshot shows a web browser window with the address bar displaying 'https://192.168.1.100/ab11fs.php'. The main content area is a light blue page with a central login form. The form has a blue header with the text 'AB11FS' in white. Below the header, there are three input fields: 'User Name', 'Password', and 'Login ID'. To the right of the 'Login ID' field is a blue button with the text 'Login' in white. The browser's address bar also shows a search bar with the text 'www'.

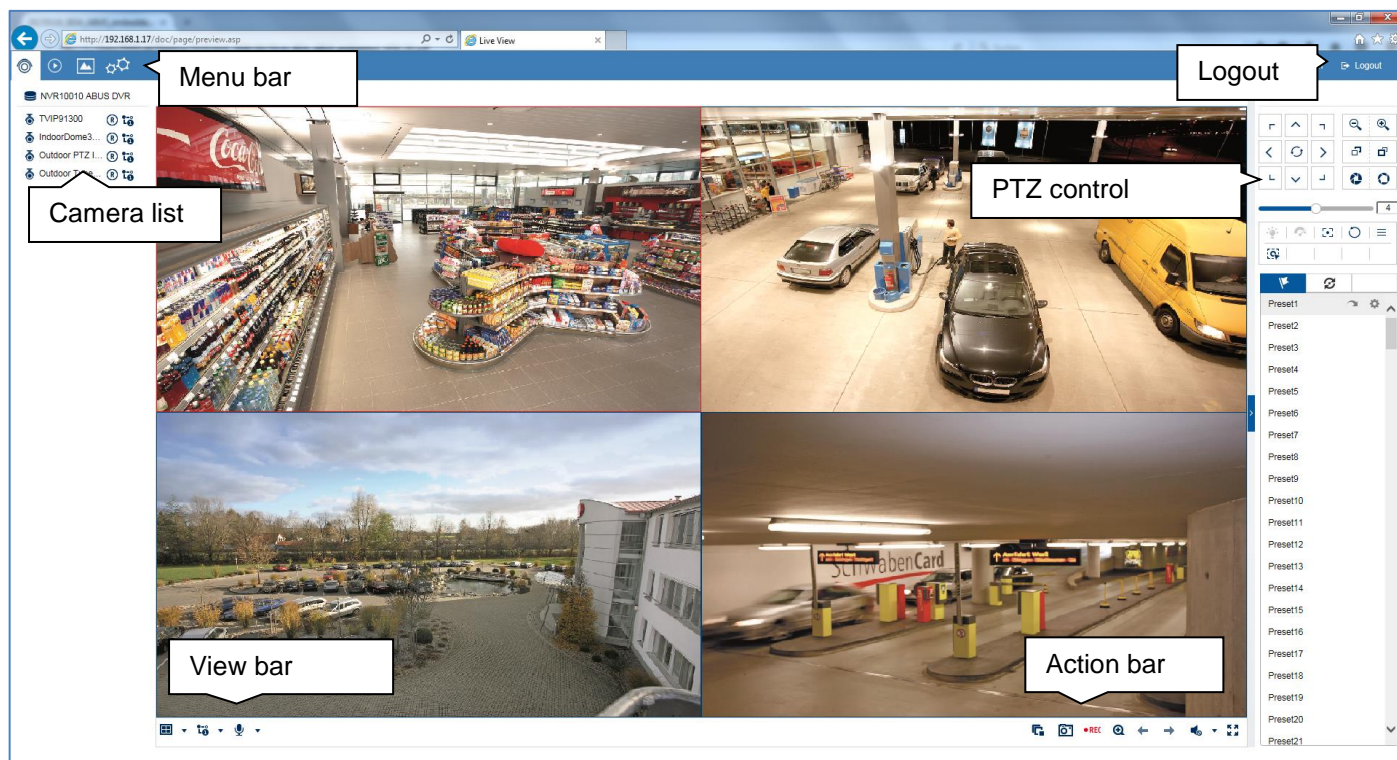
[illegible]

your PC and must first be downloaded and installed before you can proceed.



Note The plug-in contains the video decryption software for displaying live streams on your web browser. Subsequent firmware updates may mean that the plug-in also needs to be updated on your PC in future. The web interface may then prompt you to re-install the plug-in.

Live cast



General information on live image

Live cast starts automatically once you have logged into the web interface. The live image function provides the option of displaying live images and executing camera commands for all cameras connected to the recorder. This is the core function of the recorder, in addition to playback.

Double-clicking an image displays the selected camera image in full screen or switches back to the original view.

Live image function areas

The live cast view is divided into the following function areas:

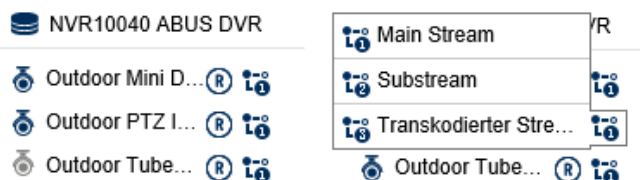
Parameter	Description
Menu bar	Global display of the configuration and control menus
Camera list	Select from the connected cameras for live cast
Action bar	Control camera commands and carry out actions for the selected camera (red frame)
View bar	Configure multi-view and streaming options
PTZ control	Control menu for PT(Z) cameras

Using the menu bar

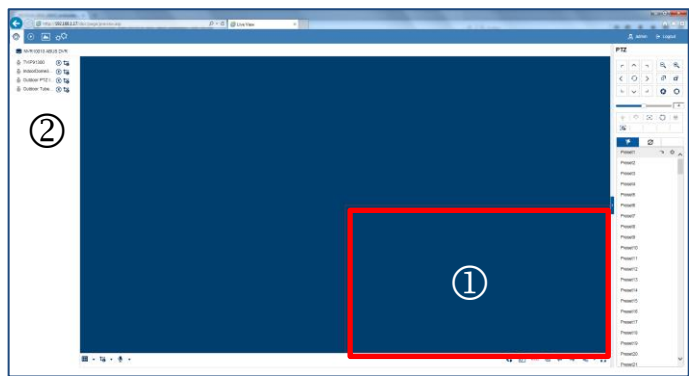
The following options are available:

Parameter	Description
	Activates the live image view (live cast)
	Changes to playback view
	Changes to snapshot view
	Changes to system settings

Using the camera list







The camera list contains all cameras connected to the recorder. Double-clicking a camera name displays the corresponding camera in the live image.



To display the camera at a specific position in the live image (multi-view), proceed as follows:

1. Select the position in the live cast (red frame).
2. Double-click the desired camera in the camera list.
3. The camera is displayed at the desired position.

The following functions/status displays are available in the camera list:

Parameter	Description
	Displays the recorder name
	Live cast display for camera is active (blue) or deactivated (grey)
	Create a manual data export (video clip)
	Manually select the video stream of the desired camera. Hover the mouse cursor over the symbol to select the desired stream. The configuration for main/sub/transcoded streams can be adjusted in the settings under "Audio & video" in the "Stream type" section.

The default setting for manual stream selection is "1". This means that the high-resolution "main stream" of the camera is displayed. This is the best option in most cases. It is only practical to adjust the manual stream selection if there is a risk of a performance bottleneck during transmission:

- If you wish to display lots of cameras at the same time (nine or more), the processing power of your PC may not be sufficient to decode all video streams. Change the setting to sub-stream "2".
- If you are accessing the web interface via the internet and wish to display multiple cameras at the same time, the upload of the receiving point must be of a sufficient size. At the same time, the download on the receiver side must also provide sufficient bandwidth. Change the setting to sub-

stream "2" if one of the two sides does not have enough bandwidth.

- If you are intentionally accessing the recorder via the internet with very low bandwidth, you can activate transcoded stream "3" to request an image transfer with very low resolution and bit rate (e.g. QCIF/64 Kbit). The selected video stream is then scaled down by the recorder.



Using the action bar



No.	Meaning of the symbol
(1)	Stop all active camera live streams. Start all camera live streams at the same time.
(2)	Create a snapshot of the selected camera (red frame)
(3)	Create a manual data export (video clip)
(4)	Activate the e-PTZ function (depends on camera)
(5)	Previous live cast view (function depends on selected view 1x1, 2x2, 3x3, etc.)
(6)	Next live cast view (function depends on selected view 1x1, 2x2, 3x3, etc.)
(7)	Activate audio for selected camera (red frame) and adjust the volume
(8)	Activate full-screen mode (exit with ESC)

Using the view bar



No.	Meaning of the symbol
(1)	 Configure the live cast panel distribution (number of cameras which can be displayed at the same time).
(2)	 Select the live cast stream type to be used for all cameras simultaneously.

Select the audio output of the recorder for two-way audio control via the web interface.

(3)

This function is only available if a microphone and speaker are connected to your PC while you have the live cast open.

1 = RCA audio output 1
2 = RCA audio output 2

Parameter	Description
PTZ control	Move the camera in the desired direction using the buttons. Manually adjust the zoom , focus and iris . The button activates the horizontal scan.
Special commands	Open the camera menu (if available) 3D zoom (zoom in/out to a drawn screen) Centring mode
Speed	Speed at which the cameras are manually moved to positions
Preset	Navigate to tab to carry out preset positions. Up to 256 present positions can be accessed/stored from here (depending on the camera model). <div> Preset1 <p>a) Move the camera to the desired position.</p> <p>b) Select a list entry and press . The current camera position is assigned to the selected preset.</p> <p>c) Press to access a stored preset. The camera then moves to the previously stored position.</p> </div>
Patrol	Navigate to tab to carry out patrols. Up to four patrols can be accessed/stored from here. <div> Patrouillen... <p>a) Start a patrol with . The patrol remains active until another PTZ command is sent to the camera or the patrol is stopped manually with .</p> <p>b) Program a patrol with . Enter the preset positions, speed and hold time.</p> <p>c) Delete the content of a patrol with .</p> </div>

PTZ control menu

PTZ control

Special

Presets

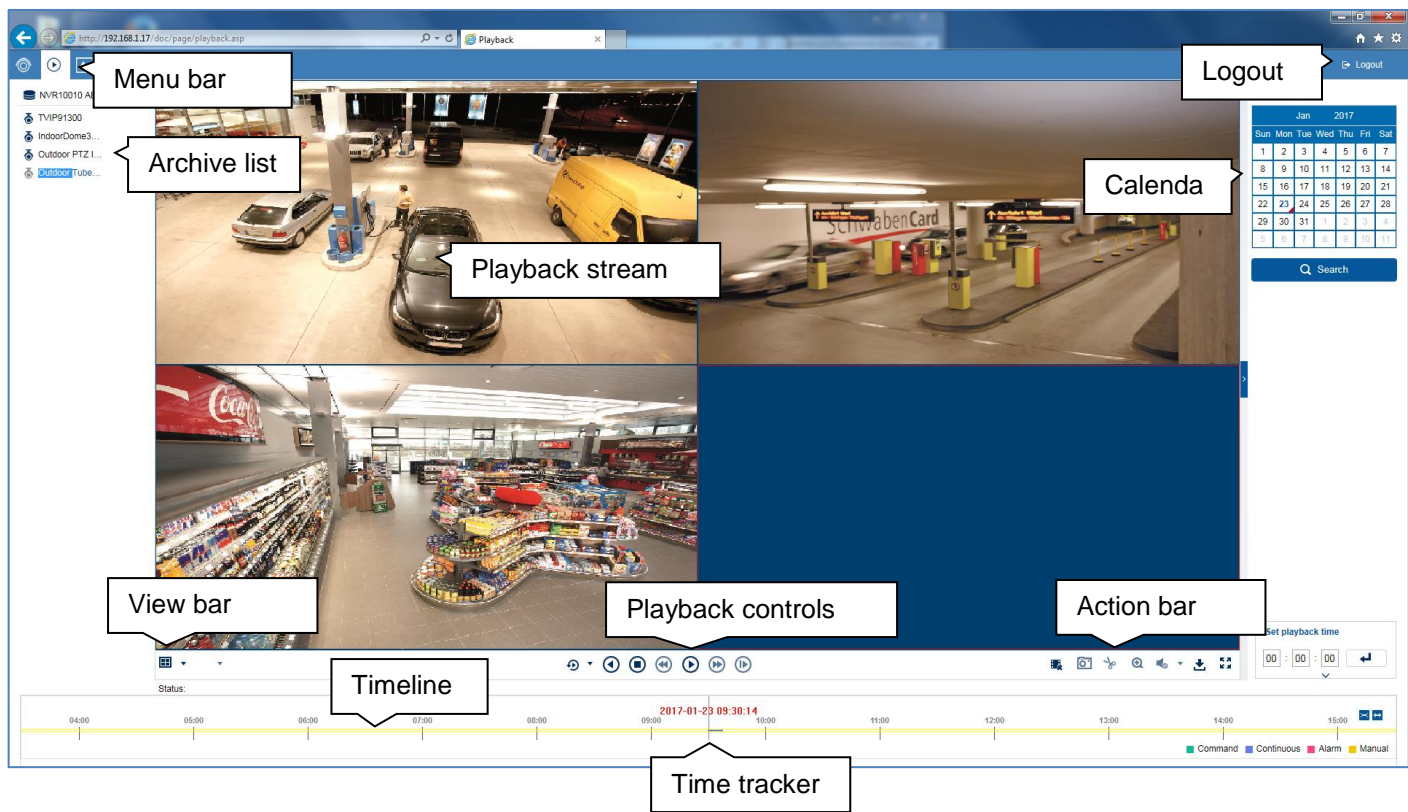
Patrols

Preset2

Preset3

The actions of all buttons in the PTZ control menu, plus presets/patrols, are always applied to the camera currently selected (red frame). Depending on the camera model, not all functions may be available.

Playback view



General information on playback

Playback allows recorded video data from cameras on the recorder to be played. The data is played in the quality at which it was recorded as configured in the network camera settings.



Note

Adjust the camera quality settings in the menu under "Settings → Audio & video" accordingly. Generally the "main stream" of the camera on the recorder is recorded.


Double-clicking an image displays the selected camera image in full screen or switches back to the original view.

Playback function areas


The playback view is divided into the following function areas:

Parameter	Description
Menu bar	Global display of the configuration and control menus
Archive list	Select from the recorded cameras for playback on the web interface
View bar	Configure multi-view options
Timeline	Display the recorded data in the time stream and select the playback time (time tracker)
Playback controls	Control playback for the selected camera archive
Action bar	Control camera commands and carry out actions for the selected camera (red frame)
Calendar	Select the playback date

Using the archive list

 NVR10040 ABUS DVR

 Outdoor Mini D...

 Outdoor PTZ I...

 Outdoor Tube...

The archive list contains the recordings of all cameras connected to the recorder. Double-clicking an archive name displays the corresponding camera archive in the playback view and plays it directly.

To display the camera archive at a specific position on the screen (multi-view), proceed as follows:

1. Select the position in the playback view (red frame).
2. Double-click the desired camera archive in the archive list.
3. The image is displayed at the desired position.

Using the view bar



Configure the playback panel distribution (number of camera archives which can be displayed at the same time).











Note

The more camera archives playing at the same time, the more data that is transferred via the network. Since the data is generally always recorded in the best possible quality, this may result in a large upload for a remote connection.

Using the playback controls



The playback controls are the core element of playback. The basic functions for playing recorded data are provided here.

Action	Meaning of the symbol
	Reverse play
	Forward play
	Stop
	Go forward in slow-motion (8x → 1x)
	Fast forward (1x → 8x)
	Pause
	Single frame play
	<p>Activate transcoded playback. Set the resolution, bit rate and frame rate here.</p> <p>Resolution <input type="text" value="Auto"/></p> <p>Bitrate <input type="text" value="2048K"/></p> <p>Frame Rate <input type="text" value="Full Frame Rate"/></p> <p>When this function is activated, the recorder scales down the recorded video material in real time to suit a lower resolution/bit rate/frame rate. Click the icon again to stop transcoded playback for the selected camera.</p>

Using the action bar



(1) (2) (3) (4) (5) (6) (7)

No.	Meaning of the symbol
(1)	Stop all active playback
(2)	Create a snapshot of the selected camera (red frame)
(3)	<p>Create a manual data export (video clip)</p> <p>First, click the symbol to set the start time for the export. Click again to set the end time. A video clip file is then exported to your PC. The length of the clip is based on the duration of the played data.</p>

Playback view

(4)	Activate the e-PTZ function (depends on camera)
(5)	Activate audio for selected camera (red frame) and adjust the volume
(6)	Download the recorded data from the recorder
(7)	Activate full-screen mode for the active camera (red frame – exit with ESC)

Export functions

If snapshots or video clips are created from running playback, this data is stored in the user-specified directory on your PC. You can manually change this path in the web interface settings.

The default path for exported files is:

C:\Users\[USERNAME]\Web

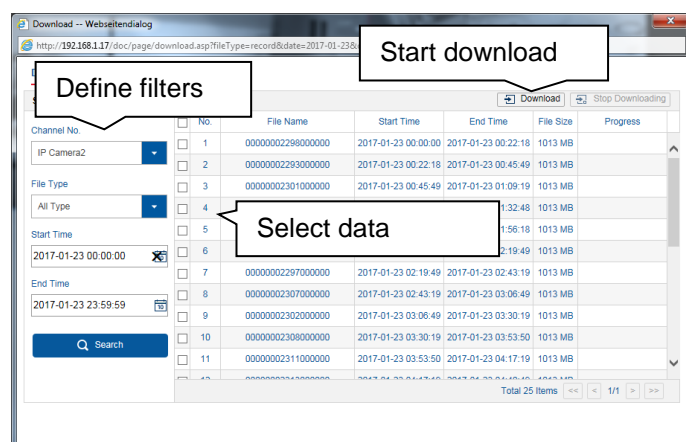
[USERNAME] is the name of the Windows user under which the web interface is run.



Note

You can freely change the settings for the export path under "Settings → Local".

Download

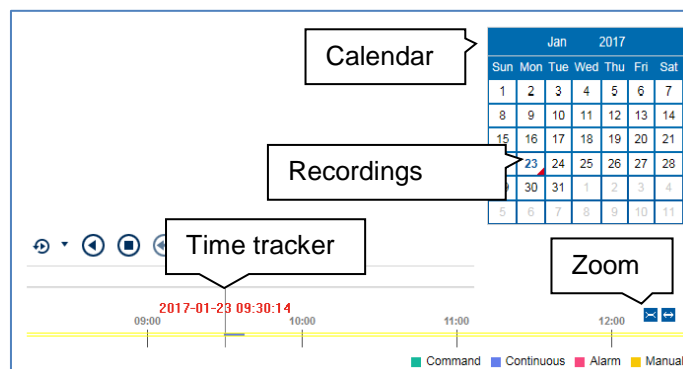


A new window opens when the download function is activated on the action bar. You can download the stored video data from the recorder hard disk drive directly to your PC from here. Select one or more files and click the "Download" button to start the data transfer.

Under the default setting, continuous recordings are stored in 1 GB blocks on the recorder. If the scene you wish to access is in one of these blocks, the entire file must be downloaded. Event recordings are stored in smaller blocks (corresponding to the duration of the event in question).

Using the timeline and calendar

The most important control element on the timeline is the **time tracker**. The time tracker indicates the current time of playback. Move the timeline with the mouse using the drag and drop function to change the playback time.



The recordings are displayed as coloured bars on the timeline. The colour coding is explained below:

Colour	Meaning
	Continuous recording
	Event recording (motion, alarm input, VCA)
	Command (not currently in use)
	Manual recording

The default setting for the timeline display is 24 hours. This means that recordings for the entire day are displayed. The timeline can be made smaller or larger using the button, in order to play back targeted time ranges in the current day.

The days are selected using the **calendar**. The colour coding for calendar days is explained below:

Colour	Meaning
	Currently selected day (blue text). The current day has at least one recording (red corner).
	Day is not selected (black text), but does have at least one recording (red corner).
	Day is not selected and has no recordings.

Image export

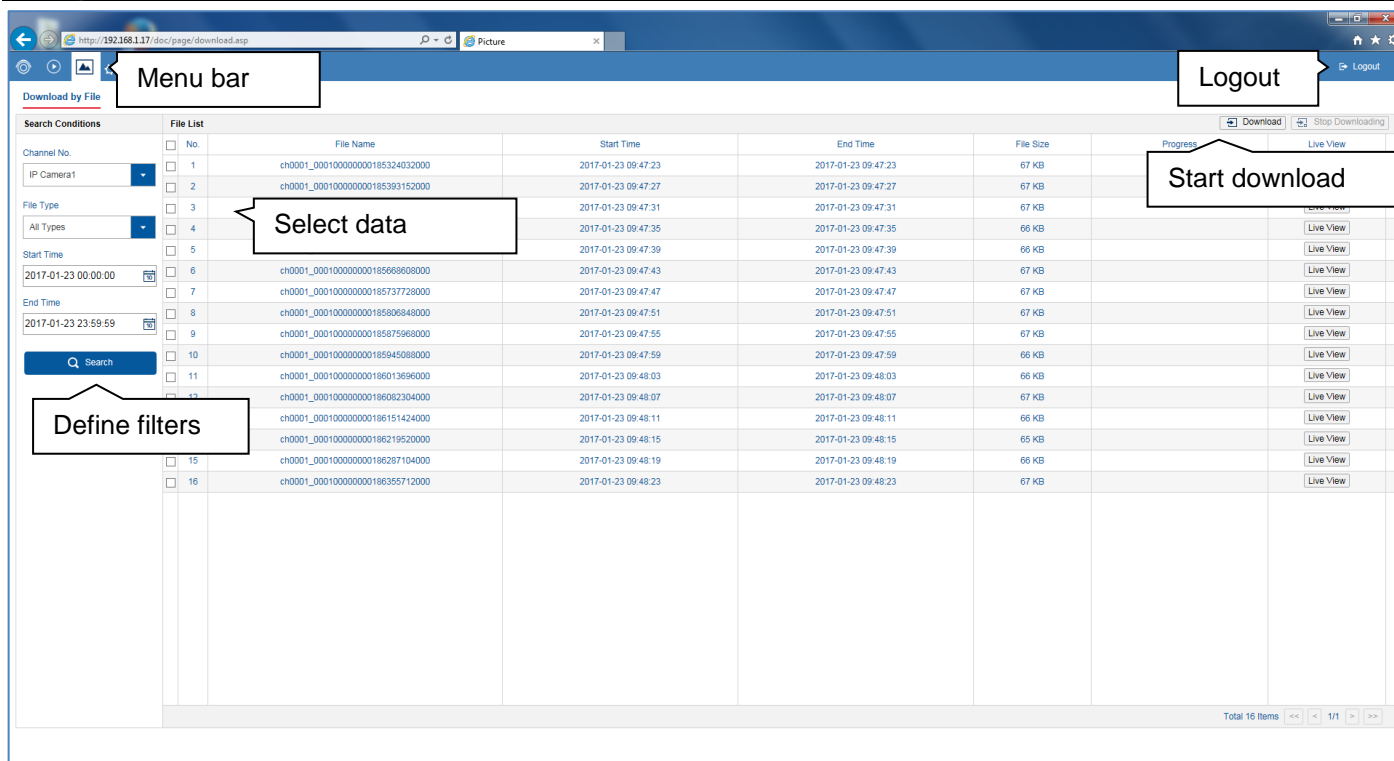
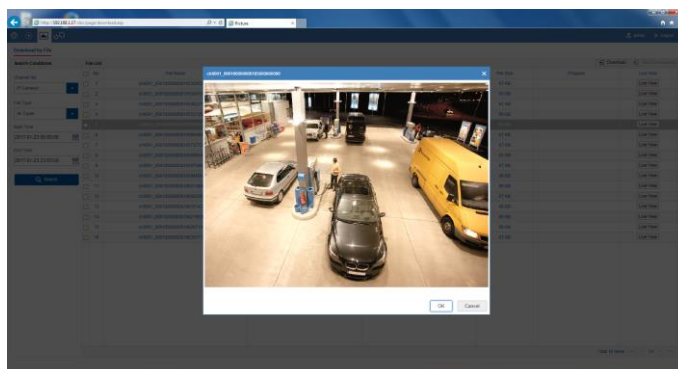


Image export

You can download the stored snapshot data from the recorder hard disk drive directly to your PC from here. Select one or more files and click the "Download" button to start the data transfer.

There are several filter options available to narrow down the result list of image files:

- Channel number (camera selection)
- File type (event selection)
- Start time
- End time



Click on the "Live cast" button to display a preview of the snapshot file.

The default path for exported files is:

C:\Users\[USERNAME]\Web

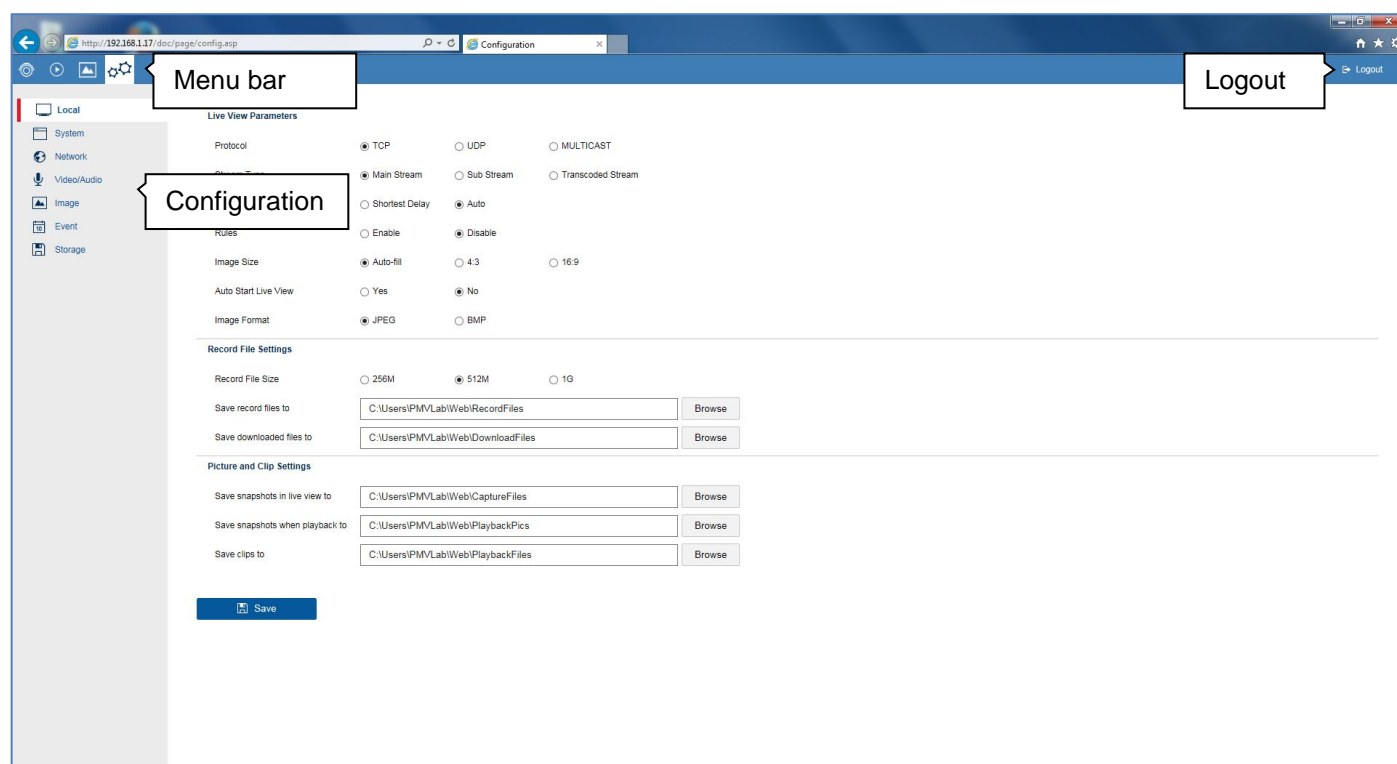
[USERNAME] is the name of the Windows user under which the web interface is run.



Note

You can freely change the settings for the export path under "Settings → Local".

Settings



General settings

The recorder system is configured in the "Settings" menu. The settings dialogues are divided into the following areas:

Menu	Description
Local	Configure local (PC-linked) browser settings
System	Display system information, firmware update, camera and user management
Network	Configure TCP/IP and email settings
Audio & video	Configure camera stream for resolution, bit rate and audio
Image	Menu for configuring OSD parameters and basic image settings (brightness etc.)
Event	Configure camera event settings (motion, VCA, I/O, etc.)
Storage	Menu for configuring recording parameters (time schedules)

i Note

Some of the functions described in this manual may not be available for your recorder (e.g. monitor outputs), depending on the model.

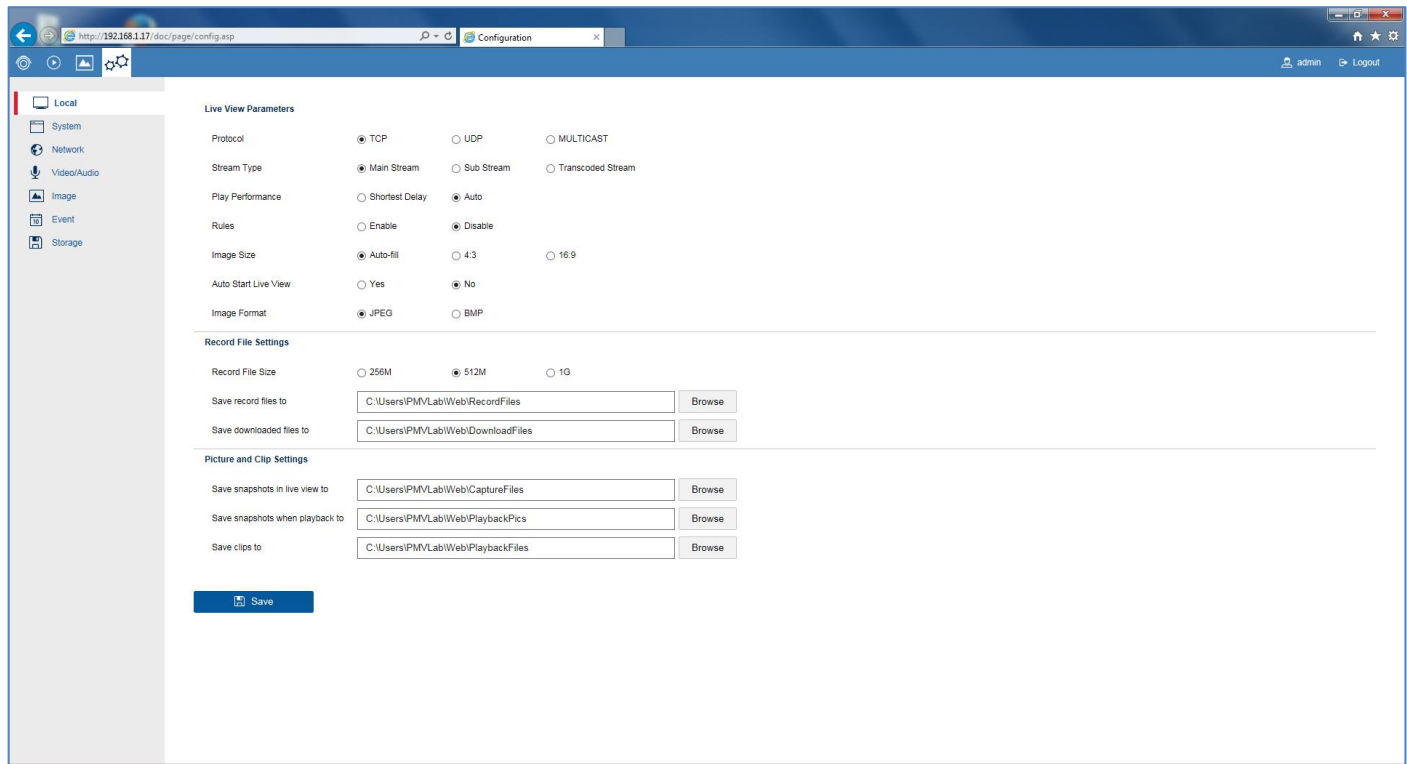
New functions may be added or additional parameters may be added to settings through subsequent firmware updates.

You can find the valid firmware version number to which these instructions refer on the cover sheet of the manual.

i Note


The settings for network, audio & video, image, event and storage are already described in the basic manual (for the local interface) and are therefore not explained here.

Setting: Local



General information on local settings

You can configure the local settings for the browser plug-in on your PC in this menu.

**Note**




The settings provided under "Local" are defined separately for each PC user. If you access the web interface from multiple PC systems, the settings must be defined here for each PC user.

Image size	The setting can force a specific image format for the live cast. Fixed formats (4:3/16:9) may generate horizontal or vertical edges in the image depending on the signal source and on how the live cast display is split (2x2, 3x3, etc.).
Remember live cast	When existing live cast, the current display (image panel distribution and positioning of the cameras) is saved. When live cast is opened again, the saved display is restored.
Image format	Export format for snapshots




Live cast parameters

Parameter	Description
Protocol	Select the transfer protocol. TCP offers the fastest transfer.
Stream type	Define the preset for live stream configuration here. The preset is always used as the default setting for live image display.
Play performance	Define the play performance. Auto is the recommended setting.
Rules	Activates/deactivates the display of visual VCA rules in the live image and playback.

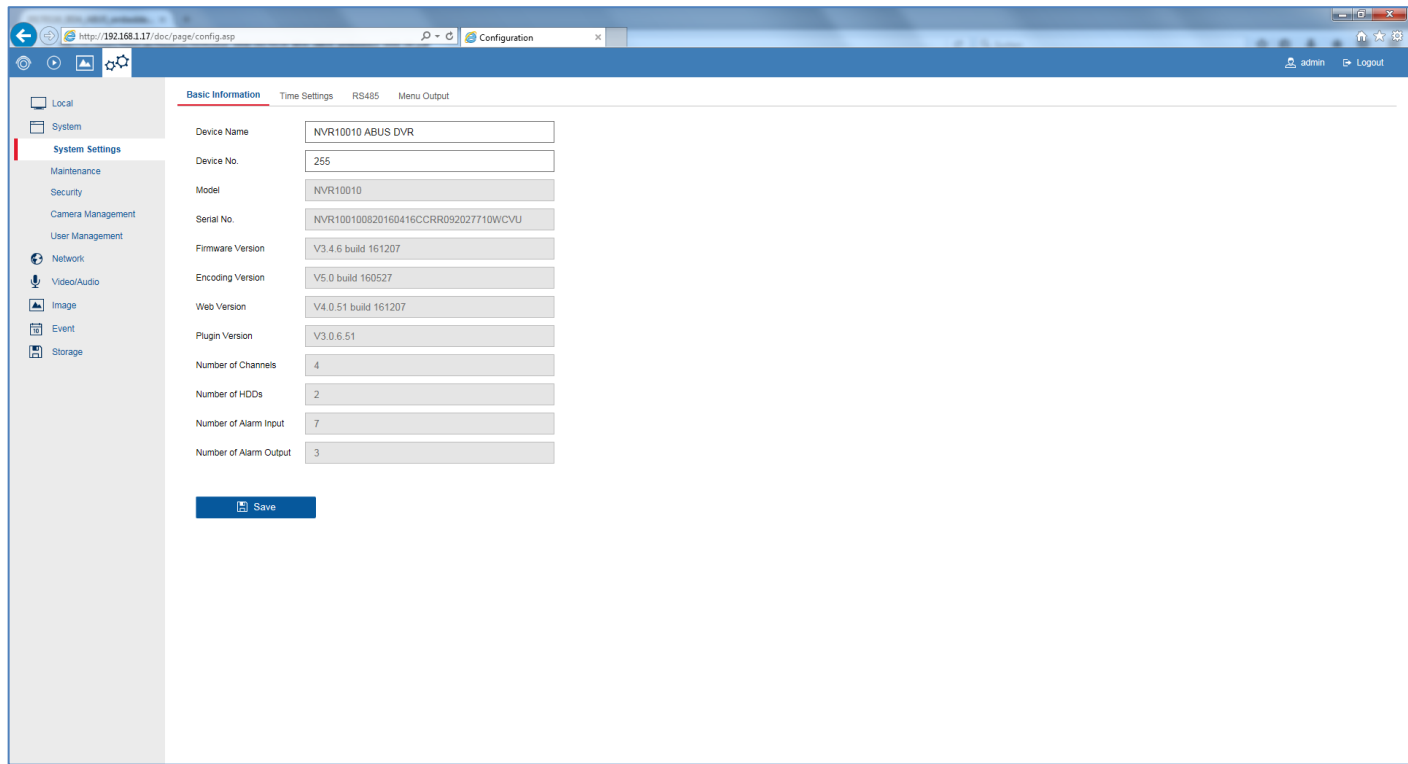
Record file settings

Parameter	Description
File size	Maximum file size for recordings Action:  REC
Save recordings to	Path for storing recordings Action:  REC
Save downloaded files to	Path for storing file downloads Action: 

Image/clip settings

Parameter	Description
Save snapshots in live cast to	Path for storing snapshots from live cast Action: 
Save snapshots during playback to	Path for storing recordings Action: 
Save clips to	Path for storing file downloads Action: 

Setting: System



General information on system

General system information can be displayed in this menu, and firmware updates can be carried out. The system management also contains the camera and user management.

System settings

Overview

Parameter	Description
Device name	Change the device name here.
No.	Change the device ID here. This ID is used for control via the TVAC26000 keypad.
Further information	Display the model IDs and firmware versions.

Time settings

Parameter	Description
Time zone	Select the time zone in which the recorder is installed here. The time is

	changed by the GMT zone based on your selection.
NTP	Time synchronisation via the network using the NTP server. Important: The NTP time does not recognise time zones, so the time zone must be adjusted every time.
Server address	URL/host name of the NTP server
NTP port	Service port of the NTP server
Interval	Update interval for time synchronisation.
Manual time synchronisation	Manual time setting
Device time	Current time set on the recorder
Set time	Enter the desired time manually here.
Synchronisation with computer time	Synchronise the time with your PC time (set time of the operation system).
DST	Activate DST (Daylight Saving Time). DST is required for programming the summer/winter time setting. The setting is the same for all regions within Europe.

Start time	Enter the start time. Europe: last Sunday of March at 02:00
End time	Enter the end time. Europe: last Sunday of October at 03:00
DST bias	Relative deviation between the start and end time. Europe: 60 minutes

Start time	Set the start time
End time	Set the end time
Export	Export event report

Use the report function to get more information about the system if problems occur.

Output menu

Parameter	Description
VGA/HDMI resolution	Configure the resolution of the local video VGA/HDMI 1 output on the recorder here.
VGA2/HDMI2 resolution	Configure the resolution of the local video VGA/HDMI 2 output on the recorder here.

Maintenance

Upgrade and maintenance

Parameter	Description
Reboot	Carry out a manual restart.
Default	Reset the recorder back to its default factory settings.
Export	Export the device configuration and network camera lists (programmed cameras).
Import	Import the device configuration and network camera lists (programmed cameras).
Update	Perform a firmware update.

Protocol

Parameter	Description
Filter1	Select "All" or choose a targeted filter type. Different parameters for Filter2 are available depending on the selection.
Filter2	Detailed filter depending on the Filter1 selection

Camera management

Channel No.	IP Address	Channel No.	Manage	Port	Security	Status	Protocol	Connect
D01	192.168.0.12	1						
D02	192.168.6.15	1						
D03	192.168.0.14	1						
D04	192.168.0.83	1						

New network cameras can be added to the recorder in camera management, and the network configuration of existing cameras can be edited.

Add manually

Press the "Add" button to add a camera manually. You must know the required network parameters of the camera you wish to add.



Note

Use the ABUS IP installer to search for cameras on your network. You can determine the necessary parameters with this tool.

Describe the required parameters to successfully program a camera on the recorder.

IP Camera

IP Camera Address

Protocol

ABUS

Management Port

8000

User Name

admin

Password

Confirm

Transfer Protocol

Auto

OK

Cancel

Parameter	Description
Address	Enter the IP address of the network camera here. Example: 192.168.0.5
Management protocol	Select the device-specific camera protocol used to establish communication between the recorder and the camera. Here, you can select the software interface (API), which may differ depending on the manufacturer. For ABUS cameras, choose "ABUS".
Port	Specify the management port which is used to establish the connection between the camera and recorder. For ABUS cameras, use port 8000 or 80.
User name	Enter the user name for the administrator account for the camera.
Password	Enter the password for the administrator account for the camera.
Confirm	Re-enter the password.
Transfer protocol	Select the transfer protocol.

Quick add

The "quick add" function prompts the recorder to first attempt to detect all available cameras on the network, before automatically adding them.

i

Note

In order to add cameras with the "quick add" function, the selected cameras must use the factory settings for the network port and user name/password. If these parameters have already been changed on the camera, the camera can still be added, but the changed settings must be adapted later in the "Camera management" menu using the "Edit" button.

Quick Add

<input type="checkbox"/>	IP Address	Number of Channels	Protocol	Management Port	IPv4 Subnet Mask	Mac Address	Serial No.	Firmware Version
<input type="checkbox"/>	192.168.0.17	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.0.28	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.0.34	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.0.42	1	ABUS	80		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.0.77	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.1.3	1	ABUS	80		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.1.4	1	ABUS	80		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.1.48	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.2.103	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.2.105	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.2.112	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.2.114	1	ABUS	8000		00:00:00:00:00:00		
<input type="checkbox"/>	192.168.2.115	1	ABUS	8000		00:00:00:00:00:00		

OK

Cancel

Select one or more cameras in the "Quick add" dialogue using the button in the first column. When you confirm with "OK", the recorder attempts to add these cameras as described above.

Custom protocol

Custom Protocol

Custom Protocol

Custom Protocol 1

Protocol Name

Custom 1

Main Stream

Sub Stream

☒ Enable Stream

Protocol

RTSP

Transfer Protocol

Automatic

Port

554

Stream Path

OK

Cancel

You can create a custom RTSP profile here, which can then be assigned to a camera in the "Edit" menu.

**Note**

If you integrate a camera using RTSP, only the video image from the camera will be available on the recorder. Camera control functions (e.g. PTZ) and motion detection are not supported.

**Note**

If your camera supports several streams, we recommend using the high-quality stream for the "Main stream" setting and an alternative stream of a lower quality for the "Sub-stream" setting.

Parameter	Setting
Custom protocol	Select a value between 1 and 16. The settings will be saved here.
Protocol name	Select any name.
Stream type	All values below "Main stream" will be used for the main stream (live+recording). All values below "Sub-stream" will be used for the sub-stream (multi-view live).
Sub-stream	Enables the sub-stream.
Type	RTSP
Transfer protocol	Use the auto setting, provided that there are no special requirements.
Port	Enter the RTSP port
Path	Specify the RTSP streaming path on the network camera

**Note**

You can usually find information on the RTSP streaming path in the camera manual or on the manufacturer's website. Ask the manufacturer directly when required if there is not enough information on the path.

Managing users

No.	User Name	Level
1	admin	Administrator

In user management, you can add new users, delete users, and amend existing settings.

**Warning**

Change the default password when you first start working with the system to ensure safe operation.

Typical layout of an RTSP streaming path:

rtsp://192.168.0.1:554/video.h264

Parameter	Setting
Rtsp://	The protocol followed by "/"
192.168.0.1	IP address of the camera, separated by full stops
:554	Colon followed by the RTSP port for the network camera
/video.h264	"/" followed by the path and streaming parameter

Fault rectification

Before contacting the Service department, read the following information to determine the possible cause of any fault.

Fault	Cause	Solution
No power	Power cable not connected	Connect the power cable properly to the socket
	Power switch set to OFF	Set power switch to ON
	No power supplied from socket	If necessary, use another device at the socket
No picture	The screen is not set to receive	Set correct video input mode, until an image is received from the recorder
	Video cable is not connected properly	Connect the video cable properly
	The connected monitor is switched off	Switch on monitor
No sound	Audio cable is not connected properly	Connect the audio cable properly
	Devices connected via audio cable are not switched on	Check the power supply and power switch for the connected audio devices
	Audio connection cable is damaged	Replace cable
Hard disk drive not functioning	Connection cable is not connected properly	Connect the cable properly
	Hard disk drive faulty or incompatible with the system	Replace the hard disk drive with a recommended hard disk drive
USB connection not functioning	Device is not supported	Connect correct USB medium, USB 2.0
	USB Hub was used	Connect USB medium directly
Network access not possible.	Network cable connection loose	Insert network cable
	Network settings (DCHP, IP address, etc.) incorrect	Check and, if necessary, correct the network configuration
Recording is not possible	No HDD, or HDD not initialised	Install and initialise hard disk drive
Sudden switch-off	The internal temperature of the device is too high	Clean the device and/or remove any objects impeding ventilation

Disposal

Notes on EC directives for waste electrical and electronic equipment

For the protection of the environment, at the end of its useful lifespan, the device may not be disposed of in household waste. Disposal can be carried out at suitable national collection points. Obey local regulations when disposing of material.



Dispose of the device in accordance with EU Directive 2011/65/EU - WEEE (Waste Electrical and Electronic Equipment). If you have any questions, please contact the municipal authority responsible for disposal. Information on collection points for waste equipment can be obtained from the local or district authorities, local waste disposal companies or the dealer.

Notes on RoHS EU Directive

The device complies with the RoHS directive.

Compliance with the RoHS directive means that the product or component contains none of the following substances in higher concentrations than the highest concentrations in homogeneous materials, unless the substance is part of an application that is excluded from the RoHS Directive:

- 0.1% lead (by weight)
- Mercury
- Hexavalent chromium
- Polybrominated biphenyl (PBB) and polybrominated diphenyl ether
- 0.01% cadmium (by weight).

ABUS

Embedded NVR Recorder

Web interface user manual

Manufacturer
ABUS Security-Center GmbH & Co. KG
Linker Kreuthweg 5
86444 Affing (Germany)